

Well Name: ELEVATE FED COM	Well Location: T24S / R35E / SEC 14 / NWNW / 32.224044 / -103.344078	County or Parish/State: LEA / NM
Well Number: 702H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM138888	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002548590	Well Status: Drilling Well	Operator: FRANKLIN MOUNTAIN ENERGY LLC

Notice of Intent

Sundry ID: 2728233

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 04/28/2023

Time Sundry Submitted: 10:09

Date proposed operation will begin: 05/01/2023

Procedure Description: Franklin Mountain Energy, LLC (FME), Operator, respectfully requests approval to make the following changes to the proposed drilling plan for the above referenced well: - Change surface set depth to 1350' - Change 1st Intermediate set depth to 5475'. - Drill pilot hole to 12990' then plug back and drill lateral - 2nd Intermediate Casing: FME would like approval to utilize 7.625 inch Liberty 558 29.7lb. HCP-110 and, - Production Casing: FME would like approval to utilize 5.5 inch Eagle 606 23lb. P-110 in the drilling of this bore. - Change cement volumes based on updated Geoprog, casing and casing set depths. Please see attached revised 14-point plan, directional plans, geo progs and data sheets.

NOI Attachments

Procedure Description

- Liberty_Connections_7.6250_29.7000_0.3750_P110_HC_DATA_SHEET_20230428100832.pdf
- Data_Sheet_5.500_inch_23.00__P110_USS_EAGLE_606_20230428100832.pdf
- Elevate_Federal_702H_ST1_Plan__3.1_20230428100800.pdf
- Elevate_Fed_Com_702H_GEOPROG_Final_20230428100800.pdf
- Elevate_Federal_702H_Pilot_Plan__3.1_20230428100800.pdf
- Elevate_Fed_Com_702H_GEOPROG_Pilot_hole_20230428100800.pdf
- 14_pt_plan_Elevate_Fed_Com_702H_20230428100800.pdf

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Conditions of Approval

Specialist Review

Elevate_Fed_Com_702H_Sundry_ID_2728233_20230505064548.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: RACHAEL OVERBEY	Signed on: APR 28, 2023 10:08 AM
Name: FRANKLIN MOUNTAIN ENERGY LLC	
Title: Director – Operations Planning and Regulatory	
Street Address: 44 COOK STREET, SUITE 1000	
City: Denver	State: CO
Phone: (720) 414-7868	
Email address: roverbey@fmellc.com	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: LONG VO	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5752345972	BLM POC Email Address: LVO@BLM.GOV
Disposition: Approved	Disposition Date: 05/05/2023
Signature: Long Vo	



Elevate Fed Com 702H

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)	3,395'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,177'	1,248'			Carbonates
Salado	1,744'	1,681'			Salt, Carbonate & Clastics
Base Salt	267'	3,158'			Shaley Carbonate & Shale
Potential Losses	-621'	4,046'			
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Avalon	-5,399'	8,824'			Shale/Carbonates - oil/gas
Chert zone	-5,620'	9,045'			Carbonates, chert
First Bone Spring Sand	-6,442'	9,867'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,592'	10,017'			Shale/Carbonates - oil/gas
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Wolfcamp	-8,476'	11,901'			Overpressure shale/sand- Oil/Gas
HZ Target	-8,504'	11,929'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,531'	11,956'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,731'	12,156'			Overpressure Shale - Oil/Gas
Pilot Hole Depth	-9,565'	12,990'			

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

Upper Permian Sands	0-400'	Fresh Water
Delaware Sands	5,445'	Oil
Avalon	8,824'	Oil
Bone Spring	9,867'	Oil
Wolfcamp	11,901'	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 1,350' 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	1,350	1.17	1.61	4.91	5.24
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5,475	1.71	1.65	2.87	3.27
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Liberty 558	11,300	1.17	1.35	1.90	1.28
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606	22,094 12,018	1.32	1.40	1.20	1.00 1.61

7-5/8" casing will be set at 11,300' MD / 11,257' TVD at 0° inclination. Stress calculations on 5-1/2" casing performed assuming 22,094' depth. Actual max vertical depth is 12,018'.

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		Lead					Tail					
		Size	Setting Depth	Sacks	Type of cmt	Yield ft ³ /sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Yield ft ³ /sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1,350	835	Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal, 0.125pps Poly-E-	1.747	9.06	0	335	Tail, 14.8 ppg, Class C, 1% CaCl ₂ , 0.125pps Celo-Flake	1.349	6.51	1,050	100%
Int1	12.25	9.625	5,475	1990	Lead, 12.8 ppg, Class C, 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	1.45	6.9	0	154	Tail, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.33	6.3	5,175	100%
Int2	8.75	7.625	11,300	73	Lite Fill, 9.5 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps IntegraSeal	5.1	27.2	4,475	381	IntegraCem 14.8 ppg, Class H, P50H; 0.15% ASA 301; 0.5% FL-66; 0.25% R-21	1.33	6.31	7,500	30%
Pilot Hole Plug 1	6.75	NA	13,032						154	15.6 ppg, Class H HSR, .2% A-7P, .3% ASA-301, .2% CD-32A, .4% FL-66	1.187	5.215	12,332	5%
Pilot Hole Plug 2	6.75	NA	12,332						154	15.6 ppg, Class H HSR, .2% A-7P, .3% ASA-301, .2% CD-32A, .4% FL-66	1.187	5.215	11,632	5%
Kickoff Plug	6.75	NA	11,632						131	17 ppg, Class H HSR, 1.5% CD-32A, .3% FL-66	0.995	3.693	11,132	5%
Prod	6.75	5.5	22,094						867	Tail, 14.5 ppg, Class H; 0.5% CFL-2; 0.275 C-20; 4% STE; 0.04% CSA-1000	1.36	6.37	10,300	20%



5. Minimum Specifications for Pressure Control:

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on bottom and 4 ½" x 7" variable pipe rams on top.

All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested for 30 minutes to 0.22 psi/ft or 1500 psi, whichever is greater, but not to exceed 70% of Internal yield.

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 5,000/250 psig. The intermediate casing will be for 30 minutes to 0.22 psi/ft or 1500 psi, whichever is greater, but not to exceed 70% of Internal yield prior to drill-out.

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 – 1,350'	Fresh - Gel	8.6-8.8	28-34	N/c
1,350' –11,300'	Brine	8.8-10.2	28-34	N/c
11,300' –22,094'	Oil Base	10.0-12.0	58-68	3 – 6
Lateral				

The highest mud weight needed to balance formation is expected to be 10-12.0 ppg. In order to maintain hole stability, mud weights up to 12.5 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary well control and monitoring equipment:

(A) A kelly cock will be kept in the drill string at all times.

(B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

(C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

(D) A wear bushing will be installed in the wellhead prior to drilling out of the surface casing.

8. Logging, testing and coring program:

GR–CCL–CNL will be run in cased hole during completions phase of operations.

Open-hole logs are not planned for this well.

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

The estimated bottom-hole temperature at 12,990' TVD (deepest point of the well) is 190°F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,444 psig (based on 12.5 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 100' from wellhead to be ignited by auto ignition sparking system.
 - ii. Choke manifold with a remotely operated hydraulic choke.
 - iii. Mud/gas separator.
 - b. Protective equipment for essential personnel
 - i. Breathing Apparatus
 - 1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.
 - 2. Work / Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
 - 3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
 - ii. Auxiliary Rescue Equipment
 - 1. Stretcher
 - 2. Two OSHA full body harnesses
 - 3. 100 feet of 5/8 inches OSHA approved rope
 - 4. 1-20# class ABC fire extinguisher
 - c. H₂S Detection and Monitoring Equipment
 - i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
 - 1. Rig Floor
 - 2. Below Rig Floor / Near BOPs
 - 3. End of flow line or where well bore fluid is being discharged (near shakers)
 - ii. If H₂S is encountered, measured values and formations will be provided to the BLM.
 - d. Visual Warning Systems
 - i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - iii. Two windsocks will be placed in strategic locations, visible from all angles.
 - e. Mud Program
 - i. The Mud program will be designed to minimize the volume of H₂S circulated to surface.
 - ii. 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. The drilling rig with walking/skidding capabilities will be used.

12. Disposal/environmental concerns:

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

13. Wellhead:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5,000 psi pressure test. This pressure test will be repeated at least every 30 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 5,000 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 1,500 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 waive the centralizer requirements for the 7-5/8" casing due to the tight clearance with 9-5/8" string.
2. Variance is requested to waive/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.



U. S. Steel Tubular Products

7/14/2020 11:41:19 AM

5.500" 23.00lbs/ft (0.415" Wall) P110 USS-EAGLE SFH®



MECHANICAL PROPERTIES	Pipe	USS-EAGLE SFH™	
Minimum Yield Strength	110,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	125,000	--	psi
DIMENSIONS	Pipe	USS-EAGLE SFH™	
Outside Diameter	5.500	5.830	in.
Wall Thickness	0.415	--	in.
Inside Diameter	4.670	4.585	in.
Standard Drift	4.545	4.545	in.
Alternate Drift	--	4.545	in.
Nominal Linear Weight, T&C	23.00	--	lbs/ft
Plain End Weight	22.56	--	lbs/ft
SECTION AREA	Pipe	USS-EAGLE SFH™	
Critical Area	6.630	5.507	sq. in.
Joint Efficiency	--	83.1	%
PERFORMANCE	Pipe	USS-EAGLE SFH™	
Minimum Collapse Pressure	14,540	14,540	psi
External Pressure Leak Resistance	--	9,130	psi
Minimum Internal Yield Pressure	14,520	14,520	psi
Minimum Pipe Body Yield Strength	729,000	--	lbs
Joint Strength	--	606,000	lbs
Compression Rating	--	606,000	lbs
Reference Length	--	17,900	ft
Maximum Uniaxial Bend Rating	--	76.2	deg/100 ft
MAKE-UP DATA	Pipe	USS-EAGLE SFH™	
Make-Up Loss	--	6.65	in.
Minimum Make-Up Torque	--	16,600	ft-lbs
Maximum Make-Up Torque	--	19,800	ft-lbs
Maximum Operating Torque	--	28,000	ft-lbs

Legal Notice

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U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

FRANKLIN MOUNTAIN ENERGY



Geologic Prognosis

Well Name	Elevate Fed Com 702H
Operator	Franklin Mountain Energy, LLC
Project Area	Mirror Unit
Well Type	10,000' Upper Wolfcamp Lateral
API	30025485900000
Permit Number	
Rig	

State	NM	County	Lea						
SHL	Township	24S/35E	Section	14	848'	FWL	271'	FNL	
BHL	Township	24S/35E	Section	23	1,276'	FWL	150'	FSL	
Surface Latitude	NAD 83		32.224044						
Surface Longitude	NAD 83		103.344078						
Bottom Hole Latitude	NAD 83		32.196167						
Bottom Hole Longitude	NAD 83		103.342732						
Ground Level	3,395'	Rig KB	30'	KB	3,425'				

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,395'	30'	30'	0	Sand/Gravels/unconsolidated
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Target interval is expected to have an average apparent dip of ~1.5 degrees down along the lateral based on the Wolfcamp B structure

Target window tolerance is set at +/- 15'

Target Line: 11929' KBTVD @ 0' VS w/ 89.5° inc.

Offset Log: Hefner 11 Com 1 (300253053100)

Revised: 1/13/2022

FME Geologist	Ellen Wilcox	ewilcox@fmellc.com
		Cell 585.880.1737
FME Geologist	Ben Kessel	bkessel@fmellc.com
	Office 720.414.7868	Cell 303.868.9946

Electric Logs		From	To
Open-Hole			
MWD/LWD			
	MWD GR	Int. 1 Csg. Point	TD
Mud Log:			
Start logging at drill out of surface casing			
Sampling:	10' samples in vertical and through curve, 30' samples in lateral		
Samples:	1 set dry samples at footage frequency noted above		
Mud Gas:	Continuous		
Daily Contact:	Email distribution of mud log/daily report at 7:30am and 4:30 pm CST		
Daily Mud Log Email Distribution List			
Final Mud Log Distribution			
	Ben Kessel (bkessel@fmellc.com)	email	
Cuttings/Samples Shipment Information			

FRANKLIN MOUNTAIN ENERGY



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Pilot hole

Offset Log: Hefner 11 Com 1 (300253053100)

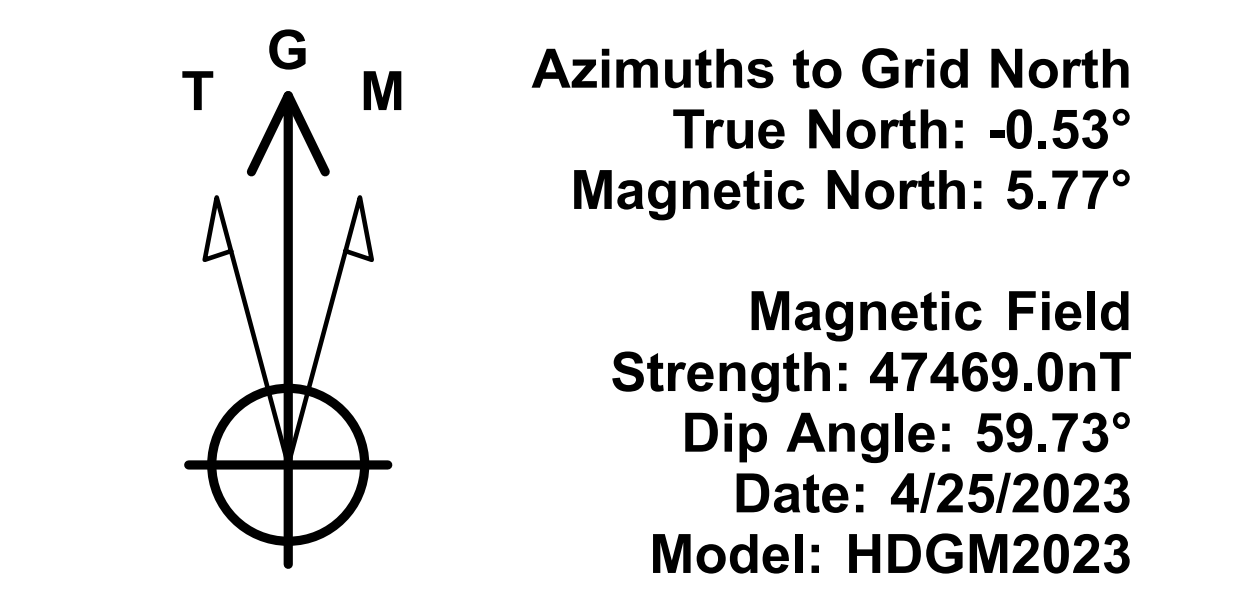
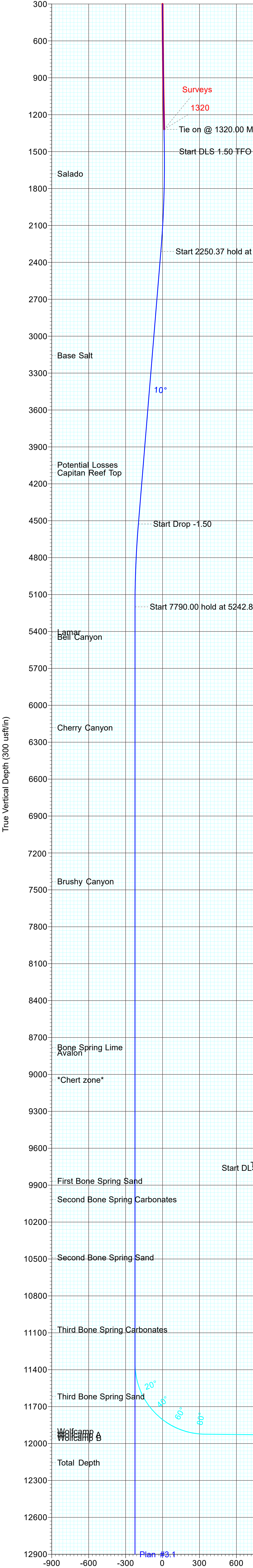
Revised: 3/23/2022

FME Geologist	Ellen Wilcox	ewilcox@fmc.com
		Cell 585.880.1737
FME Geologist	Ben Kessel	bkessel@fmc.com
	Office 720.414.7868	Cell 303.868.9946

Electric Logs		From	To
Open-Hole	Triple or Quad combo		
MWD/LWD	MWD GR	Int. 1 Csg. Point	TD
Mud Log:			
Start logging at drill out of surface casing			
Sampling:	10' samples in vertical and through curve, 30' samples in lateral		
Samples:	1 set dry samples at footage frequency noted above		
Mud Gas:	Continuous		
Daily Contact:	Email distribution of mud log/daily report at 7:30am and 4:30 pm CST		
Daily Mud Log Email Distribution List			
Final Mud Log Distribution			
	Ben Kessel (bkessel@fmellc.com)	email	
Cuttings/Samples Shipment Information			

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Elevate Federal
Well: Elevate Federal 702H
Wellbore: Pilot
Design: Plan #3.1
Rig:



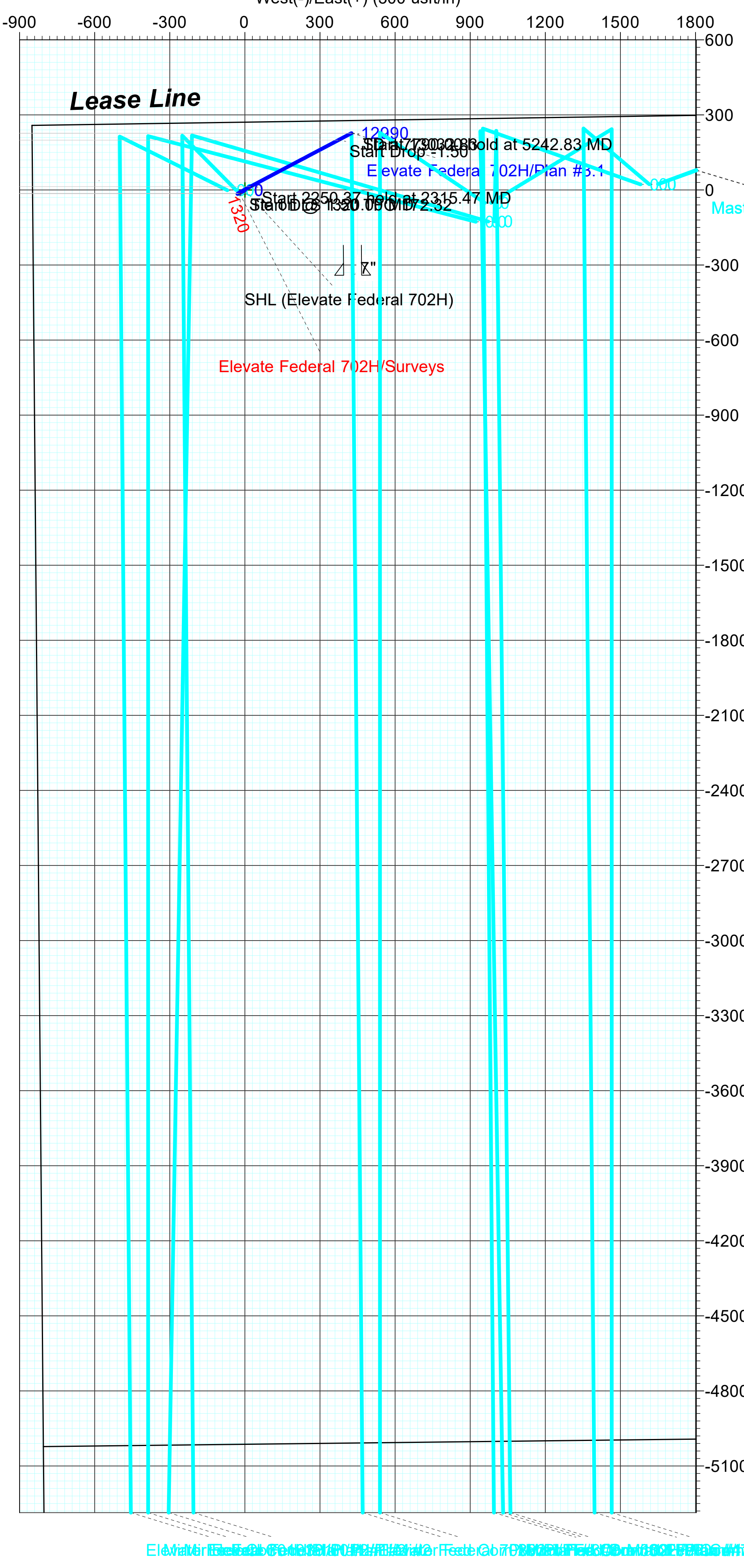
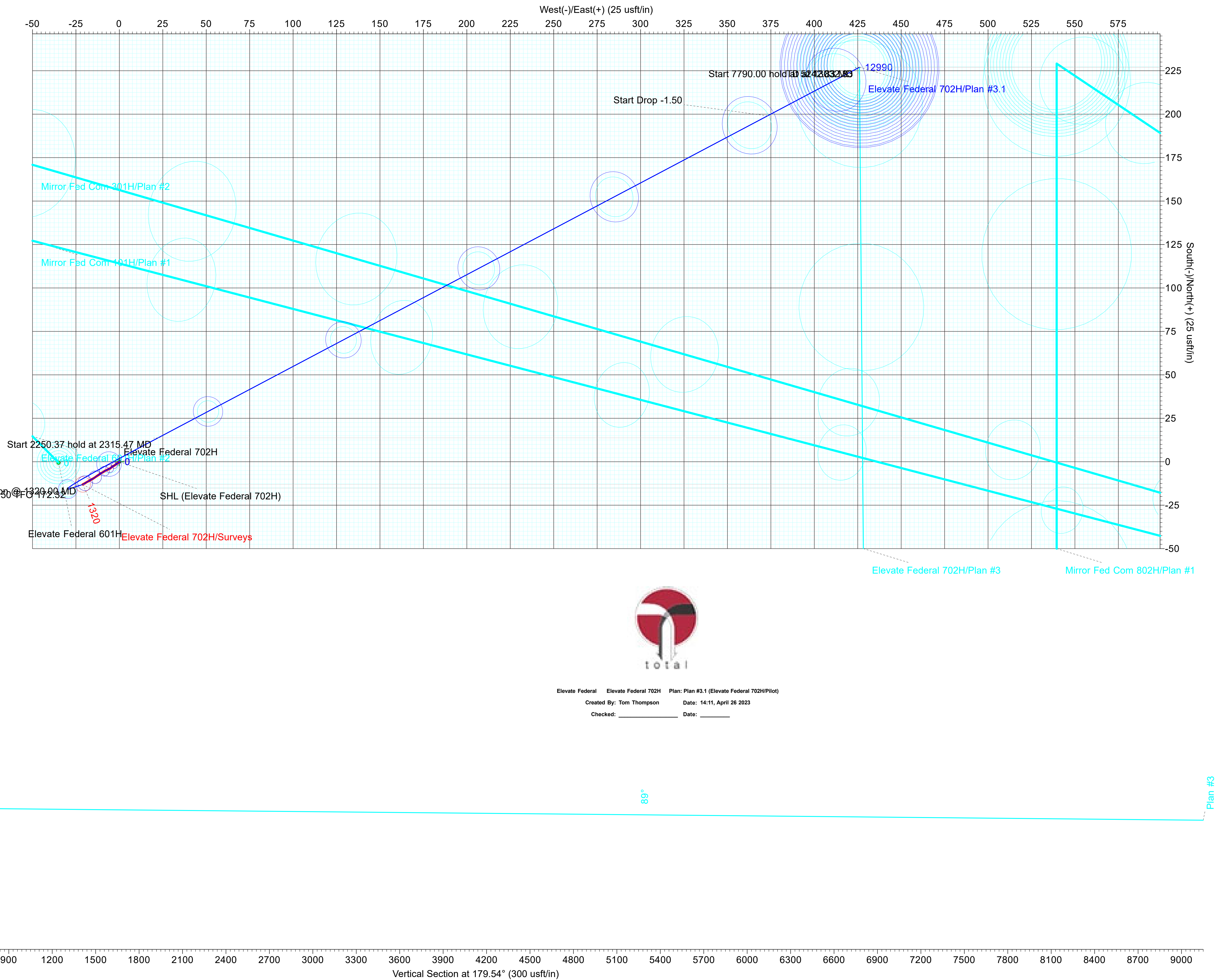
PROJECT DETAILS: Lea County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
Reference Datum: 3395.2' GE + 30' KB @ 3425.20usft

FORMATION TOP DETAILS for: Plan #3.1		
TVDPath	MDPath	Formation
30.00	30.00	Cenozoic Alluvium (surface)
1248.00	1248.29	Rustler
1681.00	1681.49	Salado
3158.00	3175.51	Base Salt
4046.00	4077.64	Potential Losses
4110.00	4142.66	Capitan Reef Top
5406.00	5448.83	Lamar
5445.00	5487.83	Bell Canyon
6182.00	6224.83	Cherry Canyon
7433.00	7475.83	Brushy Canyon
8781.00	8823.83	Bone Spring Lime
8824.00	8866.83	Avalon
9045.00	9087.83	*Chert zone*
9867.00	9909.83	First Bone Spring Sand
10017.00	10059.83	Second Bone Spring Carbonates
10489.00	10531.83	Second Bone Spring Sand
11074.00	11116.83	Third Bone Spring Carbonates
11618.00	11660.83	Third Bone Spring Sand
11901.00	11943.83	Wolfcamp
11929.00	11971.83	Wolfcamp A
11956.00	11998.83	Wolfcamp B
12156.00	12198.83	Total Depth

SHL						
RKB Elevation: 3395.2' GE + 30' KB @ 3425.20usft						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	446649.19	847253.58	32.2240436	-103.3440775	

SECTION DETAILS for: Plan #3.1										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	1320.00	2.10	251.40	1319.66	-13.05	-21.08	0.00	0.00	12.88	Tie on @ 1320.00 MD
2	1500.00	2.10	251.40	1499.54	-15.16	-27.33	0.00	0.00	14.94	Start DLS 1.50 TFO 172.32
3	2315.47	10.15	62.16	2311.44	13.76	22.26	1.50	172.32	-13.58	Start 2250.37 hold at 2315.47 MD
4	4565.84	10.15	62.16	4526.55	199.06	373.09	0.00	0.00	-196.05	Start Drop -1.50
5	5242.83	0.00	0.00	5200.00	227.00	426.00	1.50	180.00	-223.57	Start 7790.00 hold at 5242.83 MD
61	3032.83	0.00	0.00	12990.00	227.00	426.00	0.00	0.00	-223.57	TD at 13032.83

WELLBORE TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL (Elevate Federal 702H)	0.00	0.00	0.00	446649.19	847253.58	32.2240436	-103.3440775



Elevate Federal Elevate Federal 702H Plan: Plan #3.1 (Elevate Federal 702H/Pilot)
Created By: Tom Thompson Date: 14:11, April 26 2023
Checked: Date:

API# 30-025-48590

Franklin Mountain Energy

Lea County, NM (NAD83)

Elevate Federal

Elevate Federal 702H

271 FNL, 848 FWL Sec 14

Pilot

Plan: Plan #3.1



Standard Survey Report

26 April, 2023

Total Report Version 1.10

COMPASS 5000.16 Build 97



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Elevate Federal		
Site Position:		Northing:	446,648.66 usft
From:	Map	Easting:	847,218.59 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.2240430
		Longitude:	-103.3441907

Well	Elevate Federal 702H					
Well Position	+N/-S	0.00 usft	Northing:	446,649.19 usft	Latitude:	32.2240436
	+E/-W	0.00 usft	Easting:	847,253.58 usft	Longitude:	-103.3440775
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,395.20 usft
Grid Convergence:	0.53 °					

Wellbore	Pilot					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
	HDGM2023	4/25/2023	(°)	(°)	(nT)	
			6.30	59.73	47,469.00000000	

Design	Plan #3.1					
Audit Notes:						
Version:	Phase:	PLAN	Tie On Depth:	1,320.00		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction		
	(usft)	(usft)	(usft)	(°)		
	0.00	0.00	0.00	179.54		

Survey Tool Program	Date	4/26/2023			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
120.00	1,320.00	Surface (Pilot)	OWSG (Rev2) MWD	OWSG MWD - Standard	
1,320.00	13,032.83	Plan #3.1 (Pilot)	OWSG (Rev2) MWD	OWSG MWD - Standard	

Planned Survey													
Measured	INC	AZI	Vertical	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Section	Rate	Rate	Rate
(usft)			(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	446,649.19	847,253.58	32.2240436	-103.3440775	0.00	0.00	0.00	0.00
120.00	0.20	160.40	120.00	-0.20	0.07	446,648.99	847,253.65	32.2240431	-103.3440773	0.20	0.17	0.17	0.00
149.00	0.40	333.40	149.00	-0.15	0.04	446,649.04	847,253.62	32.2240432	-103.3440774	0.15	2.07	0.69	596.55
181.00	0.30	322.40	181.00	0.01	-0.06	446,649.20	847,253.52	32.2240436	-103.3440777	-0.01	0.38	-0.31	-34.38
208.00	0.20	102.40	208.00	0.06	-0.06	446,649.25	847,253.52	32.2240438	-103.3440777	-0.06	1.74	-0.37	518.52
238.00	0.40	148.40	238.00	-0.04	0.05	446,649.15	847,253.63	32.2240435	-103.3440774	0.04	0.99	0.67	153.33



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
267.00	0.40	249.40	267.00	-0.16	0.01	446,649.03	847,253.59	32.2240431	-103.3440775	0.16	2.13	0.00	348.28
302.00	0.10	230.40	302.00	-0.23	-0.13	446,648.96	847,253.45	32.2240430	-103.3440779	0.23	0.88	-0.86	-54.29
333.00	0.50	214.40	333.00	-0.36	-0.23	446,648.83	847,253.35	32.2240426	-103.3440783	0.35	1.31	1.29	-51.61
365.00	0.80	240.40	365.00	-0.58	-0.50	446,648.61	847,253.08	32.2240420	-103.3440791	0.58	1.29	0.94	81.25
396.00	1.00	240.40	395.99	-0.82	-0.92	446,648.37	847,252.66	32.2240414	-103.3440805	0.81	0.65	0.65	0.00
427.00	1.10	245.40	426.99	-1.08	-1.43	446,648.11	847,252.15	32.2240407	-103.3440822	1.07	0.44	0.32	16.13
459.00	0.80	226.40	458.98	-1.36	-1.87	446,647.83	847,251.71	32.2240399	-103.3440836	1.35	1.35	-0.94	-59.38
491.00	0.80	229.40	490.98	-1.66	-2.20	446,647.53	847,251.38	32.2240391	-103.3440847	1.64	0.13	0.00	9.38
522.00	0.70	232.40	521.98	-1.92	-2.52	446,647.27	847,251.06	32.2240384	-103.3440857	1.90	0.35	-0.32	9.68
553.00	1.10	238.40	552.97	-2.19	-2.92	446,647.00	847,250.66	32.2240377	-103.3440870	2.17	1.32	1.29	19.35
585.00	1.10	245.40	584.97	-2.48	-3.46	446,646.71	847,250.12	32.2240369	-103.3440888	2.45	0.42	0.00	21.88
616.00	1.20	238.40	615.96	-2.77	-4.01	446,646.42	847,249.57	32.2240361	-103.3440906	2.74	0.56	0.32	-22.58
648.00	1.20	228.40	647.95	-3.17	-4.54	446,646.02	847,249.04	32.2240350	-103.3440923	3.13	0.65	0.00	-31.25
679.00	1.30	223.40	678.95	-3.64	-5.03	446,645.55	847,248.55	32.2240337	-103.3440939	3.60	0.48	0.32	-16.13
711.00	1.00	258.40	710.94	-3.96	-5.55	446,645.23	847,248.03	32.2240329	-103.3440956	3.92	2.34	-0.94	109.38
742.00	0.90	246.40	741.94	-4.11	-6.04	446,645.08	847,247.54	32.2240324	-103.3440972	4.06	0.72	-0.32	-38.71
774.00	1.30	235.40	773.93	-4.42	-6.57	446,644.77	847,247.01	32.2240316	-103.3440989	4.37	1.41	1.25	-34.38
805.00	1.40	246.40	804.92	-4.77	-7.20	446,644.42	847,246.38	32.2240307	-103.3441009	4.71	0.89	0.32	35.48
836.00	1.40	248.40	835.91	-5.06	-7.90	446,644.13	847,245.68	32.2240299	-103.3441032	5.00	0.16	0.00	6.45
868.00	1.40	234.40	867.90	-5.43	-8.59	446,643.76	847,244.99	32.2240289	-103.3441054	5.36	1.07	0.00	-43.75
962.00	1.60	244.40	961.87	-6.67	-10.70	446,642.52	847,242.88	32.2240255	-103.3441123	6.58	0.35	0.21	10.64
993.00	1.70	225.40	992.86	-7.18	-11.42	446,642.01	847,242.16	32.2240242	-103.3441146	7.09	1.79	0.32	-61.29
1,025.00	1.80	241.40	1,024.84	-7.75	-12.20	446,641.44	847,241.38	32.2240226	-103.3441172	7.65	1.55	0.31	50.00
1,056.00	1.90	233.40	1,055.83	-8.29	-13.04	446,640.90	847,240.54	32.2240211	-103.3441199	8.19	0.89	0.32	-25.81
1,088.00	1.80	236.40	1,087.81	-8.89	-13.88	446,640.30	847,239.70	32.2240195	-103.3441227	8.77	0.43	-0.31	9.38
1,119.00	1.90	235.40	1,118.79	-9.45	-14.71	446,639.74	847,238.87	32.2240180	-103.3441254	9.33	0.34	0.32	-3.23
1,151.00	2.10	245.40	1,150.77	-9.99	-15.68	446,639.20	847,237.90	32.2240165	-103.3441285	9.87	1.25	0.63	31.25
1,182.00	2.30	236.40	1,181.75	-10.57	-16.72	446,638.62	847,236.86	32.2240150	-103.3441319	10.44	1.29	0.65	-29.03
1,213.00	2.00	243.40	1,212.73	-11.16	-17.72	446,638.03	847,235.86	32.2240134	-103.3441351	11.02	1.28	-0.97	22.58
1,276.00	2.20	236.40	1,275.69	-12.32	-19.71	446,636.87	847,233.87	32.2240102	-103.3441416	12.16	0.52	0.32	-11.11
1,307.00	1.90	243.40	1,306.67	-12.88	-20.66	446,636.31	847,232.92	32.2240087	-103.3441447	12.71	1.26	-0.97	22.58
1,320.00	2.10	251.40	1,319.66	-13.05	-21.08	446,636.14	847,232.50	32.2240083	-103.3441461	12.88	2.64	1.54	61.54
Tie on @ 1320.00 MD													
1,400.00	2.10	251.40	1,399.61	-13.99	-23.86	446,635.20	847,229.72	32.2240058	-103.3441551	13.80	0.00	0.00	0.00
1,500.00	2.10	251.40	1,499.54	-15.16	-27.33	446,634.03	847,226.25	32.2240026	-103.3441663	14.94	0.00	0.00	0.00
Start DLS 1.50 TFO 172.32													
1,600.00	0.65	269.49	1,599.51	-15.75	-29.63	446,633.44	847,223.95	32.2240011	-103.3441738	15.51	1.50	-1.45	18.09
1,681.49	0.70	40.09	1,681.00	-15.37	-29.77	446,633.82	847,223.81	32.2240021	-103.3441742	15.13	1.50	0.07	160.26



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Salado													
1,700.00	0.96	46.75	1,699.50	-15.18	-29.59	446,634.01	847,223.99	32.2240026	-103.3441736	14.94	1.50	1.41	35.94
1,800.00	2.44	57.11	1,799.46	-13.45	-27.19	446,635.74	847,226.39	32.2240073	-103.3441658	13.23	1.50	1.47	10.37
1,900.00	3.93	59.64	1,899.30	-10.56	-22.45	446,638.63	847,231.13	32.2240151	-103.3441504	10.38	1.50	1.49	2.52
2,000.00	5.43	60.77	1,998.96	-6.52	-15.37	446,642.67	847,238.21	32.2240261	-103.3441274	6.40	1.50	1.50	1.13
2,100.00	6.92	61.41	2,098.38	-1.33	-5.95	446,647.86	847,247.63	32.2240401	-103.3440968	1.28	1.50	1.50	0.64
2,200.00	8.42	61.83	2,197.48	5.01	5.80	446,654.20	847,259.38	32.2240572	-103.3440586	-4.97	1.50	1.50	0.42
2,300.00	9.92	62.12	2,296.20	12.50	19.88	446,661.69	847,273.46	32.2240775	-103.3440129	-12.34	1.50	1.50	0.29
2,315.47	10.15	62.16	2,311.44	13.76	22.26	446,662.95	847,275.84	32.2240809	-103.3440051	-13.58	1.50	1.50	0.24
Start 2250.37 hold at 2315.47 MD													
2,400.00	10.15	62.16	2,394.64	20.72	35.44	446,669.91	847,289.02	32.2240997	-103.3439623	-20.44	0.00	0.00	0.00
2,500.00	10.15	62.16	2,493.07	28.95	51.03	446,678.14	847,304.61	32.2241219	-103.3439117	-28.54	0.00	0.00	0.00
2,600.00	10.15	62.16	2,591.51	37.19	66.62	446,686.38	847,320.20	32.2241441	-103.3438610	-36.65	0.00	0.00	0.00
2,700.00	10.15	62.16	2,689.94	45.42	82.21	446,694.61	847,335.79	32.2241664	-103.3438104	-44.76	0.00	0.00	0.00
2,800.00	10.15	62.16	2,788.37	53.66	97.80	446,702.85	847,351.38	32.2241886	-103.3437597	-52.87	0.00	0.00	0.00
2,900.00	10.15	62.16	2,886.81	61.89	113.39	446,711.08	847,366.97	32.2242108	-103.3437090	-60.98	0.00	0.00	0.00
3,000.00	10.15	62.16	2,985.24	70.12	128.98	446,719.31	847,382.56	32.2242331	-103.3436584	-69.09	0.00	0.00	0.00
3,100.00	10.15	62.16	3,083.67	78.36	144.57	446,727.55	847,398.15	32.2242553	-103.3436077	-77.20	0.00	0.00	0.00
3,175.51	10.15	62.16	3,158.00	84.58	156.34	446,733.77	847,409.92	32.2242721	-103.3435695	-83.32	0.00	0.00	0.00
Base Salt													
3,200.00	10.15	62.16	3,182.11	86.59	160.16	446,735.78	847,413.74	32.2242775	-103.3435571	-85.30	0.00	0.00	0.00
3,300.00	10.15	62.16	3,280.54	94.83	175.75	446,744.02	847,429.33	32.2242998	-103.3435064	-93.41	0.00	0.00	0.00
3,400.00	10.15	62.16	3,378.98	103.06	191.34	446,752.25	847,444.92	32.2243220	-103.3434558	-101.52	0.00	0.00	0.00
3,500.00	10.15	62.16	3,477.41	111.29	206.93	446,760.48	847,460.51	32.2243443	-103.3434051	-109.63	0.00	0.00	0.00
3,600.00	10.15	62.16	3,575.84	119.53	222.52	446,768.72	847,476.10	32.2243665	-103.3433545	-117.74	0.00	0.00	0.00
3,700.00	10.15	62.16	3,674.28	127.76	238.11	446,776.95	847,491.69	32.2243887	-103.3433038	-125.85	0.00	0.00	0.00
3,800.00	10.15	62.16	3,772.71	136.00	253.70	446,785.19	847,507.28	32.2244110	-103.3432532	-133.96	0.00	0.00	0.00
3,900.00	10.15	62.16	3,871.14	144.23	269.29	446,793.42	847,522.87	32.2244332	-103.3432025	-142.06	0.00	0.00	0.00
4,000.00	10.15	62.16	3,969.58	152.46	284.88	446,801.65	847,538.46	32.2244554	-103.3431519	-150.17	0.00	0.00	0.00
4,077.64	10.15	62.16	4,046.00	158.86	296.98	446,808.05	847,550.56	32.2244727	-103.3431125	-156.47	0.00	0.00	0.00
Potential Losses													
4,100.00	10.15	62.16	4,068.01	160.70	300.47	446,809.89	847,554.05	32.2244777	-103.3431012	-158.28	0.00	0.00	0.00
4,142.66	10.15	62.16	4,110.00	164.21	307.12	446,813.40	847,560.70	32.2244872	-103.3430796	-161.74	0.00	0.00	0.00
Capitan Reef Top													
4,200.00	10.15	62.16	4,166.44	168.93	316.06	446,818.12	847,569.64	32.2244999	-103.3430506	-166.39	0.00	0.00	0.00
4,300.00	10.15	62.16	4,264.88	177.17	331.65	446,826.36	847,585.23	32.2245221	-103.3429999	-174.50	0.00	0.00	0.00
4,400.00	10.15	62.16	4,363.31	185.40	347.24	446,834.59	847,600.82	32.2245444	-103.3429493	-182.61	0.00	0.00	0.00
4,500.00	10.15	62.16	4,461.74	193.63	362.83	446,842.82	847,616.41	32.2245666	-103.3428986	-190.71	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,565.84	10.15	62.16	4,526.55	199.06	373.09	446,848.25	847,626.67	32.2245813	-103.3428653	-196.05	0.00	0.00	0.00
Start Drop -1.50													
4,600.00	9.64	62.16	4,560.20	201.80	378.28	446,850.99	847,631.86	32.2245887	-103.3428484	-198.75	1.50	-1.50	0.00
4,700.00	8.14	62.16	4,659.00	209.02	391.95	446,858.21	847,645.53	32.2246082	-103.3428040	-205.86	1.50	-1.50	0.00
4,800.00	6.64	62.16	4,758.16	215.03	403.33	446,864.22	847,656.91	32.2246244	-103.3427670	-211.78	1.50	-1.50	0.00
4,900.00	5.14	62.16	4,857.63	219.82	412.41	446,869.01	847,665.99	32.2246373	-103.3427375	-216.50	1.50	-1.50	0.00
5,000.00	3.64	62.16	4,957.34	223.40	419.18	446,872.59	847,672.76	32.2246470	-103.3427155	-220.02	1.50	-1.50	0.00
5,100.00	2.14	62.16	5,057.21	225.75	423.64	446,874.94	847,677.22	32.2246534	-103.3427010	-222.34	1.50	-1.50	0.00
5,200.00	0.64	62.16	5,157.17	226.89	425.79	446,876.08	847,679.37	32.2246564	-103.3426940	-223.46	1.50	-1.50	0.00
5,242.83	0.00	0.00	5,200.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	1.50	-1.50	0.00
Start 7790.00 hold at 5242.83 MD													
5,300.00	0.00	0.00	5,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,400.00	0.00	0.00	5,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,448.83	0.00	0.00	5,406.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Lamar													
5,487.83	0.00	0.00	5,445.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Bell Canyon													
5,500.00	0.00	0.00	5,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,600.00	0.00	0.00	5,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,700.00	0.00	0.00	5,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,800.00	0.00	0.00	5,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,900.00	0.00	0.00	5,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,000.00	0.00	0.00	5,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,100.00	0.00	0.00	6,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,200.00	0.00	0.00	6,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,224.83	0.00	0.00	6,182.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Cherry Canyon													
6,300.00	0.00	0.00	6,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,400.00	0.00	0.00	6,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,500.00	0.00	0.00	6,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,600.00	0.00	0.00	6,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,700.00	0.00	0.00	6,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,800.00	0.00	0.00	6,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,900.00	0.00	0.00	6,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,000.00	0.00	0.00	6,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,100.00	0.00	0.00	7,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,200.00	0.00	0.00	7,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,300.00	0.00	0.00	7,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,400.00	0.00	0.00	7,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,475.83	0.00	0.00	7,433.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Brushy Canyon													
7,500.00	0.00	0.00	7,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,800.00	0.00	0.00	7,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,100.00	0.00	0.00	8,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,700.00	0.00	0.00	8,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,800.00	0.00	0.00	8,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,823.83	0.00	0.00	8,781.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Bone Spring Lime													
8,866.83	0.00	0.00	8,824.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Avalon													
8,900.00	0.00	0.00	8,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,000.00	0.00	0.00	8,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,087.83	0.00	0.00	9,045.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Chert zone													
9,100.00	0.00	0.00	9,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,200.00	0.00	0.00	9,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,300.00	0.00	0.00	9,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,400.00	0.00	0.00	9,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,500.00	0.00	0.00	9,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,600.00	0.00	0.00	9,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,700.00	0.00	0.00	9,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,800.00	0.00	0.00	9,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,900.00	0.00	0.00	9,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,909.83	0.00	0.00	9,867.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
First Bone Spring Sand													
10,000.00	0.00	0.00	9,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,059.83	0.00	0.00	10,017.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Second Bone Spring Carbonates													



Total Directional Services, LLC

Survey Report



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Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
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Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,100.00	0.00	0.00	10,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,200.00	0.00	0.00	10,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,300.00	0.00	0.00	10,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,400.00	0.00	0.00	10,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,500.00	0.00	0.00	10,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,531.83	0.00	0.00	10,489.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Second Bone Spring Sand													
10,600.00	0.00	0.00	10,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,700.00	0.00	0.00	10,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,800.00	0.00	0.00	10,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,900.00	0.00	0.00	10,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,000.00	0.00	0.00	10,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,100.00	0.00	0.00	11,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,116.83	0.00	0.00	11,074.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Third Bone Spring Carbonates													
11,200.00	0.00	0.00	11,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,300.00	0.00	0.00	11,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,400.00	0.00	0.00	11,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,500.00	0.00	0.00	11,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,600.00	0.00	0.00	11,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,660.83	0.00	0.00	11,618.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Third Bone Spring Sand													
11,700.00	0.00	0.00	11,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,800.00	0.00	0.00	11,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,900.00	0.00	0.00	11,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,943.83	0.00	0.00	11,901.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Wolfcamp													
11,971.83	0.00	0.00	11,929.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Wolfcamp A													
11,998.83	0.00	0.00	11,956.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Wolfcamp B													
12,000.00	0.00	0.00	11,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,100.00	0.00	0.00	12,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,198.83	0.00	0.00	12,156.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Total Depth													
12,200.00	0.00	0.00	12,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,300.00	0.00	0.00	12,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,400.00	0.00	0.00	12,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,500.00	0.00	0.00	12,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,600.00	0.00	0.00	12,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,700.00	0.00	0.00	12,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,800.00	0.00	0.00	12,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
12,900.00	0.00	0.00	12,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
13,000.00	0.00	0.00	12,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
13,032.83	0.00	0.00	12,990.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00

TD at 13032.83

Design Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (Elevate Federal 70 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	446,649.19	847,253.58	32.2240436	-103.3440775

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
30.00	30.00	Cenozoic Alluvium (surface)			
1,248.29	1,248.00	Rustler			
1,681.49	1,681.00	Salado			
3,175.51	3,158.00	Base Salt			
4,077.64	4,046.00	Potential Losses			
4,142.66	4,110.00	Capitan Reef Top			
5,448.83	5,406.00	Lamar			
5,487.83	5,445.00	Bell Canyon			
6,224.83	6,182.00	Cherry Canyon			
7,475.83	7,433.00	Brushy Canyon			
8,823.83	8,781.00	Bone Spring Lime			
8,866.83	8,824.00	Avalon			
9,087.83	9,045.00	*Chert zone*			
9,909.83	9,867.00	First Bone Spring Sand			
10,059.83	10,017.00	Second Bone Spring Carbonates			
10,531.83	10,489.00	Second Bone Spring Sand			
11,116.83	11,074.00	Third Bone Spring Carbonates			
11,660.83	11,618.00	Third Bone Spring Sand			
11,943.83	11,901.00	Wolfcamp			
11,971.83	11,929.00	Wolfcamp A			
11,998.83	11,956.00	Wolfcamp B			
12,198.83	12,156.00	Total Depth			



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	Pilot	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Plan Annotations

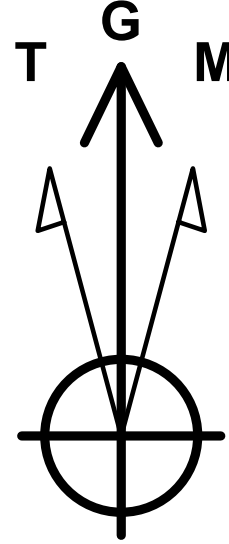
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1320	1320	-13	-21	Tie on @ 1320.00 MD
1500	1500	-15	-27	Start DLS 1.50 TFO 172.32
2315	2311	14	22	Start 2250.37 hold at 2315.47 MD
4566	4527	199	373	Start Drop -1.50
5243	5200	227	426	Start 7790.00 hold at 5242.83 MD
13,033	12,990	227	426	TD at 13032.83

Checked By: _____ Approved By: _____ Date: _____

Franklin Mountain Energy



Project: Lea County, NM (NAD83)
Site: Elevate Federal
Well: Elevate Federal 702H
Wellbore: ST#1
Design: Plan #3.1
Rig:



Azimuths to Grid North
True North: -0.53°
Magnetic North: 5.77°

Magnetic Field
Strength: 47469.0nT
Dip Angle: 59.73°
Date: 4/25/2023
Model: HDGM2023

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

Reference Datum: 3395.2' GE + 30' KB @ 3425.20usft

FORMATION TOP DETAILS for: Plan #3.1

TVDP	MD	Formation
30.00	30.00	Cenozoic Alluvium (surface)
1248.00	1248.29	Rustler
1681.00	1681.49	Salado
3158.00	3175.51	Base Salt
4046.00	4077.64	Potential Losses
4110.00	4142.66	Capitan Reef Top
5406.00	5448.83	Lamar
5445.00	5487.83	Bell Canyon
6182.00	6224.83	Cherry Canyon
7433.00	7475.83	Brushy Canyon
8781.00	8823.83	Bone Spring Lime
8824.00	8866.83	Avalon
9045.00	9087.83	*Chert zone*
9867.00	9909.83	First Bone Spring Sand
10017.00	10059.83	Second Bone Spring Carbonates
10489.00	10531.83	Second Bone Spring Sand
11074.00	11116.83	Third Bone Spring Carbonates
11618.00	11670.55	Third Bone Spring Sand
11901.00	12112.26	Wolfcamp
11929.00	12242.07	HZ Target
11956.00	15035.50	Wolfcamp A

SHL

RKB Elevation: 3395.2' GE + 30' KB @ 3425.20usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	446649.19	847253.58	32.2240436	-103.3440775	

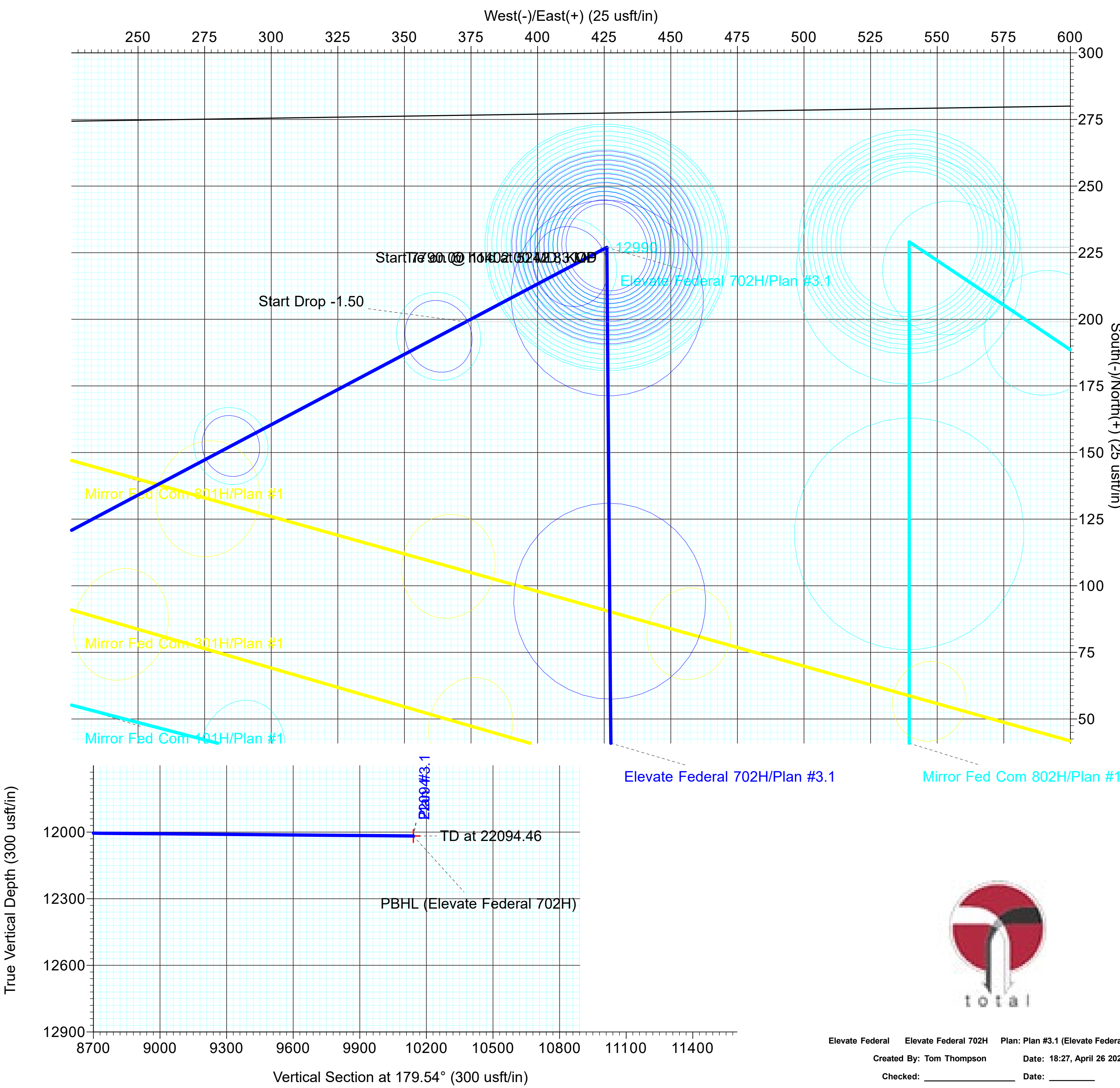
Target Line: 11929' KBTVD @ 0' VS w/ 89.5° inc.

SECTION DETAILS for: Plan #3.1

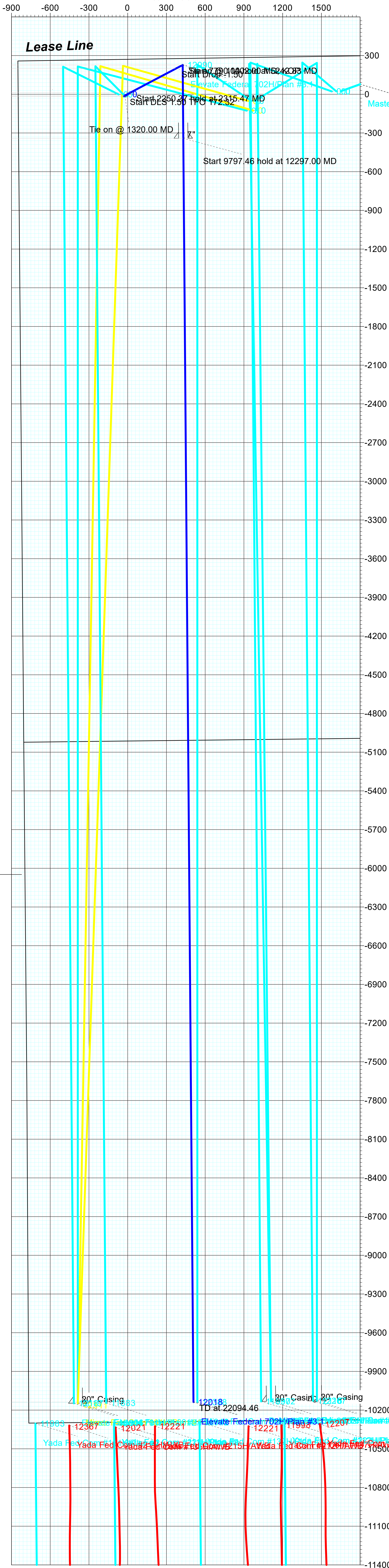
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	11402.00	0.00	0.00	11359.17	227.00	426.00	0.00	0.00	-223.57	Tie on @ 11402.00 MD; KOP
2	212297.00	89.50	179.54	11932.11	-340.94	430.58	10.00	179.54	344.39	Start 9797.46 hold at 12297.00 MD
3	22094.46	89.50	179.54	12017.58	-10137.71	509.53	0.00	0.00	10141.47	TD at 22094.46

WELLBORE TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL (Elevate Federal 702H)	0.00	0.00	0.00	446649.19	847253.58	32.2240436	-103.3440775
LP (Elevate Federal 702H)	11855.90	-337.63	430.55	446311.56	847684.13	32.2231047	-103.3426955
PBHL (Elevate Federal 702H)	12017.58	-10137.71	509.53	436511.48	847763.11	32.1961672	-103.3427321



Elevate Federal Elevate Federal 702H Plan: Plan #3.1 (Elevate Federal 702H/ST#1)
Created By: Tom Thompson Date: 18/27, April 26 2023
Checked: _____ Date: _____



API# 30-025-48590

Franklin Mountain Energy

Lea County, NM (NAD83)

Elevate Federal

Elevate Federal 702H

271 FNL, 848 FWL Sec 14

ST#1

Plan: Plan #3.1



Standard Survey Report

26 April, 2023

Total Report Version 1.10

COMPASS 5000.16 Build 97



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Project	Lea County, NM (NAD83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Elevate Federal				
Site Position:		Northing:	446,648.66 usft	Latitude:	32.2240430
From:	Map	Easting:	847,218.59 usft	Longitude:	-103.3441907
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Elevate Federal 702H					
Well Position	+N/-S	0.00 usft	Northing:	446,649.19 usft	Latitude:	32.2240436
	+E/-W	0.00 usft	Easting:	847,253.58 usft	Longitude:	-103.3440775
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,395.20 usft
Grid Convergence:		0.53 °				

Wellbore	ST#1					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength	
			(°)	(°)	(nT)	
	HDGM2023	4/25/2023	6.30	59.73	47,469.00000000	

Design	Plan #3.1					
Audit Notes:						
Version:	Phase:	PLAN	Tie On Depth:	11,402.00		
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction		
	(usft)	(usft)	(usft)	(°)		
	0.00	0.00	0.00	179.54		

Survey Tool Program	Date	4/26/2023			
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
120.00	1,320.00	Surface (Pilot)	OWSG (Rev2) MWD	OWSG MWD - Standard	
1,320.00	11,402.00	Plan #3.1 (Pilot)	OWSG (Rev2) MWD	OWSG MWD - Standard	
11,402.00	22,094.46	Plan #3.1 (ST#1)	OWSG (Rev2) MWD	OWSG MWD - Standard	

Planned Survey													
Measured	INC	AZI	Vertical	Local Coordinates		Map Coordinates		Geo Coordinates		Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Section	Rate	Rate	Rate
(usft)			(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(°)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	446,649.19	847,253.58	32.2240436	-103.3440775	0.00	0.00	0.00	0.00
120.00	0.20	160.40	120.00	-0.20	0.07	446,648.99	847,253.65	32.2240431	-103.3440773	0.20	0.17	0.17	0.00
149.00	0.40	333.40	149.00	-0.15	0.04	446,649.04	847,253.62	32.2240432	-103.3440774	0.15	2.07	0.69	596.55
181.00	0.30	322.40	181.00	0.01	-0.06	446,649.20	847,253.52	32.2240436	-103.3440777	-0.01	0.38	-0.31	-34.38
208.00	0.20	102.40	208.00	0.06	-0.06	446,649.25	847,253.52	32.2240438	-103.3440777	-0.06	1.74	-0.37	518.52



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
238.00	0.40	148.40	238.00	-0.04	0.05	446,649.15	847,253.63	32.2240435	-103.3440774	0.04	0.99	0.67	153.33
267.00	0.40	249.40	267.00	-0.16	0.01	446,649.03	847,253.59	32.2240431	-103.3440775	0.16	2.13	0.00	348.28
302.00	0.10	230.40	302.00	-0.23	-0.13	446,648.96	847,253.45	32.2240430	-103.3440779	0.23	0.88	-0.86	-54.29
333.00	0.50	214.40	333.00	-0.36	-0.23	446,648.83	847,253.35	32.2240426	-103.3440783	0.35	1.31	1.29	-51.61
365.00	0.80	240.40	365.00	-0.58	-0.50	446,648.61	847,253.08	32.2240420	-103.3440791	0.58	1.29	0.94	81.25
396.00	1.00	240.40	395.99	-0.82	-0.92	446,648.37	847,252.66	32.2240414	-103.3440805	0.81	0.65	0.65	0.00
427.00	1.10	245.40	426.99	-1.08	-1.43	446,648.11	847,252.15	32.2240407	-103.3440822	1.07	0.44	0.32	16.13
459.00	0.80	226.40	458.98	-1.36	-1.87	446,647.83	847,251.71	32.2240399	-103.3440836	1.35	1.35	-0.94	-59.38
491.00	0.80	229.40	490.98	-1.66	-2.20	446,647.53	847,251.38	32.2240391	-103.3440847	1.64	0.13	0.00	9.38
522.00	0.70	232.40	521.98	-1.92	-2.52	446,647.27	847,251.06	32.2240384	-103.3440857	1.90	0.35	-0.32	9.68
553.00	1.10	238.40	552.97	-2.19	-2.92	446,647.00	847,250.66	32.2240377	-103.3440870	2.17	1.32	1.29	19.35
585.00	1.10	245.40	584.97	-2.48	-3.46	446,646.71	847,250.12	32.2240369	-103.3440888	2.45	0.42	0.00	21.88
616.00	1.20	238.40	615.96	-2.77	-4.01	446,646.42	847,249.57	32.2240361	-103.3440906	2.74	0.56	0.32	-22.58
648.00	1.20	228.40	647.95	-3.17	-4.54	446,646.02	847,249.04	32.2240350	-103.3440923	3.13	0.65	0.00	-31.25
679.00	1.30	223.40	678.95	-3.64	-5.03	446,645.55	847,248.55	32.2240337	-103.3440939	3.60	0.48	0.32	-16.13
711.00	1.00	258.40	710.94	-3.96	-5.55	446,645.23	847,248.03	32.2240329	-103.3440956	3.92	2.34	-0.94	109.38
742.00	0.90	246.40	741.94	-4.11	-6.04	446,645.08	847,247.54	32.2240324	-103.3440972	4.06	0.72	-0.32	-38.71
774.00	1.30	235.40	773.93	-4.42	-6.57	446,644.77	847,247.01	32.2240316	-103.3440989	4.37	1.41	1.25	-34.38
805.00	1.40	246.40	804.92	-4.77	-7.20	446,644.42	847,246.38	32.2240307	-103.3441009	4.71	0.89	0.32	35.48
836.00	1.40	248.40	835.91	-5.06	-7.90	446,644.13	847,245.68	32.2240299	-103.3441032	5.00	0.16	0.00	6.45
868.00	1.40	234.40	867.90	-5.43	-8.59	446,643.76	847,244.99	32.2240289	-103.3441054	5.36	1.07	0.00	-43.75
962.00	1.60	244.40	961.87	-6.67	-10.70	446,642.52	847,242.88	32.2240255	-103.3441123	6.58	0.35	0.21	10.64
993.00	1.70	225.40	992.86	-7.18	-11.42	446,642.01	847,242.16	32.2240242	-103.3441146	7.09	1.79	0.32	-61.29
1,025.00	1.80	241.40	1,024.84	-7.75	-12.20	446,641.44	847,241.38	32.2240226	-103.3441172	7.65	1.55	0.31	50.00
1,056.00	1.90	233.40	1,055.83	-8.29	-13.04	446,640.90	847,240.54	32.2240211	-103.3441199	8.19	0.89	0.32	-25.81
1,088.00	1.80	236.40	1,087.81	-8.89	-13.88	446,640.30	847,239.70	32.2240195	-103.3441227	8.77	0.43	-0.31	9.38
1,119.00	1.90	235.40	1,118.79	-9.45	-14.71	446,639.74	847,238.87	32.2240180	-103.3441254	9.33	0.34	0.32	-3.23
1,151.00	2.10	245.40	1,150.77	-9.99	-15.68	446,639.20	847,237.90	32.2240165	-103.3441285	9.87	1.25	0.63	31.25
1,182.00	2.30	236.40	1,181.75	-10.57	-16.72	446,638.62	847,236.86	32.2240150	-103.3441319	10.44	1.29	0.65	-29.03
1,213.00	2.00	243.40	1,212.73	-11.16	-17.72	446,638.03	847,235.86	32.2240134	-103.3441351	11.02	1.28	-0.97	22.58
1,276.00	2.20	236.40	1,275.69	-12.32	-19.71	446,636.87	847,233.87	32.2240102	-103.3441416	12.16	0.52	0.32	-11.11
1,307.00	1.90	243.40	1,306.67	-12.88	-20.66	446,636.31	847,232.92	32.2240087	-103.3441447	12.71	1.26	-0.97	22.58
1,320.00	2.10	251.40	1,319.66	-13.05	-21.08	446,636.14	847,232.50	32.2240083	-103.3441461	12.88	2.64	1.54	61.54
1,400.00	2.10	251.40	1,399.61	-13.99	-23.86	446,635.20	847,229.72	32.2240058	-103.3441551	13.80	0.00	0.00	0.00
1,500.00	2.10	251.40	1,499.54	-15.16	-27.33	446,634.03	847,226.25	32.2240026	-103.3441663	14.94	0.00	0.00	0.00
1,600.00	0.65	269.49	1,599.51	-15.75	-29.63	446,633.44	847,223.95	32.2240011	-103.3441738	15.51	1.50	-1.45	18.09
1,700.00	0.96	46.75	1,699.50	-15.18	-29.59	446,634.01	847,223.99	32.2240026	-103.3441736	14.94	1.50	0.32	137.25
1,800.00	2.44	57.11	1,799.46	-13.45	-27.19	446,635.74	847,226.39	32.2240073	-103.3441658	13.23	1.50	1.47	10.37



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,900.00	3.93	59.64	1,899.30	-10.56	-22.45	446,638.63	847,231.13	32.2240151	-103.3441504	10.38	1.50	1.49	2.52
2,000.00	5.43	60.77	1,998.96	-6.52	-15.37	446,642.67	847,238.21	32.2240261	-103.3441274	6.40	1.50	1.50	1.13
2,100.00	6.92	61.41	2,098.38	-1.33	-5.95	446,647.86	847,247.63	32.2240401	-103.3440968	1.28	1.50	1.50	0.64
2,200.00	8.42	61.83	2,197.48	5.01	5.80	446,654.20	847,259.38	32.2240572	-103.3440586	-4.97	1.50	1.50	0.42
2,300.00	9.92	62.12	2,296.20	12.50	19.88	446,661.69	847,273.46	32.2240775	-103.3440129	-12.34	1.50	1.50	0.29
2,315.47	10.15	62.16	2,311.44	13.76	22.26	446,662.95	847,275.84	32.2240809	-103.3440051	-13.58	1.50	1.50	0.24
2,400.00	10.15	62.16	2,394.64	20.72	35.44	446,669.91	847,289.02	32.2240997	-103.3439623	-20.44	0.00	0.00	0.00
2,500.00	10.15	62.16	2,493.07	28.95	51.03	446,678.14	847,304.61	32.2241219	-103.3439117	-28.54	0.00	0.00	0.00
2,600.00	10.15	62.16	2,591.51	37.19	66.62	446,686.38	847,320.20	32.2241441	-103.3438610	-36.65	0.00	0.00	0.00
2,700.00	10.15	62.16	2,689.94	45.42	82.21	446,694.61	847,335.79	32.2241664	-103.3438104	-44.76	0.00	0.00	0.00
2,800.00	10.15	62.16	2,788.37	53.66	97.80	446,702.85	847,351.38	32.2241886	-103.3437597	-52.87	0.00	0.00	0.00
2,900.00	10.15	62.16	2,886.81	61.89	113.39	446,711.08	847,366.97	32.2242108	-103.3437090	-60.98	0.00	0.00	0.00
3,000.00	10.15	62.16	2,985.24	70.12	128.98	446,719.31	847,382.56	32.2242331	-103.3436584	-69.09	0.00	0.00	0.00
3,100.00	10.15	62.16	3,083.67	78.36	144.57	446,727.55	847,398.15	32.2242553	-103.3436077	-77.20	0.00	0.00	0.00
3,200.00	10.15	62.16	3,182.11	86.59	160.16	446,735.78	847,413.74	32.2242775	-103.3435571	-85.30	0.00	0.00	0.00
3,300.00	10.15	62.16	3,280.54	94.83	175.75	446,744.02	847,429.33	32.2242998	-103.3435064	-93.41	0.00	0.00	0.00
3,400.00	10.15	62.16	3,378.98	103.06	191.34	446,752.25	847,444.92	32.2243220	-103.3434558	-101.52	0.00	0.00	0.00
3,500.00	10.15	62.16	3,477.41	111.29	206.93	446,760.48	847,460.51	32.2243443	-103.3434051	-109.63	0.00	0.00	0.00
3,600.00	10.15	62.16	3,575.84	119.53	222.52	446,768.72	847,476.10	32.2243665	-103.3433545	-117.74	0.00	0.00	0.00
3,700.00	10.15	62.16	3,674.28	127.76	238.11	446,776.95	847,491.69	32.2243887	-103.3433038	-125.85	0.00	0.00	0.00
3,800.00	10.15	62.16	3,772.71	136.00	253.70	446,785.19	847,507.28	32.2244110	-103.3432532	-133.96	0.00	0.00	0.00
3,900.00	10.15	62.16	3,871.14	144.23	269.29	446,793.42	847,522.87	32.2244332	-103.3432025	-142.06	0.00	0.00	0.00
4,000.00	10.15	62.16	3,969.58	152.46	284.88	446,801.65	847,538.46	32.2244554	-103.3431519	-150.17	0.00	0.00	0.00
4,100.00	10.15	62.16	4,068.01	160.70	300.47	446,809.89	847,554.05	32.2244777	-103.3431012	-158.28	0.00	0.00	0.00
4,200.00	10.15	62.16	4,166.44	168.93	316.06	446,818.12	847,569.64	32.2244999	-103.3430506	-166.39	0.00	0.00	0.00
4,300.00	10.15	62.16	4,264.88	177.17	331.65	446,826.36	847,585.23	32.2245221	-103.3429999	-174.50	0.00	0.00	0.00
4,400.00	10.15	62.16	4,363.31	185.40	347.24	446,834.59	847,600.82	32.2245444	-103.3429493	-182.61	0.00	0.00	0.00
4,500.00	10.15	62.16	4,461.74	193.63	362.83	446,842.82	847,616.41	32.2245666	-103.3428986	-190.71	0.00	0.00	0.00
4,565.84	10.15	62.16	4,526.55	199.06	373.09	446,848.25	847,626.67	32.2245813	-103.3428653	-196.05	0.00	0.00	0.00
4,600.00	9.64	62.16	4,560.20	201.80	378.28	446,850.99	847,631.86	32.2245887	-103.3428484	-198.75	1.50	-1.50	0.00
4,700.00	8.14	62.16	4,659.00	209.02	391.95	446,858.21	847,645.53	32.2246082	-103.3428040	-205.86	1.50	-1.50	0.00
4,800.00	6.64	62.16	4,758.16	215.03	403.33	446,864.22	847,656.91	32.2246244	-103.3427670	-211.78	1.50	-1.50	0.00
4,900.00	5.14	62.16	4,857.63	219.82	412.41	446,869.01	847,665.99	32.2246373	-103.3427375	-216.50	1.50	-1.50	0.00
5,000.00	3.64	62.16	4,957.34	223.40	419.18	446,872.59	847,672.76	32.2246470	-103.3427155	-220.02	1.50	-1.50	0.00
5,100.00	2.14	62.16	5,057.21	225.75	423.64	446,874.94	847,677.22	32.2246534	-103.3427010	-222.34	1.50	-1.50	0.00
5,200.00	0.64	62.16	5,157.17	226.89	425.79	446,876.08	847,679.37	32.2246564	-103.3426940	-223.46	1.50	-1.50	0.00
5,242.83	0.00	0.00	5,200.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	1.50	-1.50	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.00	0.00	0.00	5,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,400.00	0.00	0.00	5,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,500.00	0.00	0.00	5,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,600.00	0.00	0.00	5,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,700.00	0.00	0.00	5,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,800.00	0.00	0.00	5,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
5,900.00	0.00	0.00	5,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,000.00	0.00	0.00	5,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,100.00	0.00	0.00	6,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,200.00	0.00	0.00	6,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,300.00	0.00	0.00	6,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,400.00	0.00	0.00	6,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,500.00	0.00	0.00	6,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,600.00	0.00	0.00	6,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,700.00	0.00	0.00	6,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,800.00	0.00	0.00	6,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
6,900.00	0.00	0.00	6,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,000.00	0.00	0.00	6,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,100.00	0.00	0.00	7,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,200.00	0.00	0.00	7,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,300.00	0.00	0.00	7,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,400.00	0.00	0.00	7,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,500.00	0.00	0.00	7,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,800.00	0.00	0.00	7,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,100.00	0.00	0.00	8,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,700.00	0.00	0.00	8,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,800.00	0.00	0.00	8,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
8,900.00	0.00	0.00	8,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,000.00	0.00	0.00	8,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,100.00	0.00	0.00	9,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,200.00	0.00	0.00	9,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,300.00	0.00	0.00	9,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,400.00	0.00	0.00	9,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,500.00	0.00	0.00	9,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,600.00	0.00	0.00	9,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,700.00	0.00	0.00	9,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,800.00	0.00	0.00	9,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,900.00	0.00	0.00	9,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
9,909.83	0.00	0.00	9,867.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
First Bone Spring Sand													
10,000.00	0.00	0.00	9,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,059.83	0.00	0.00	10,017.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Second Bone Spring Carbonates													
10,100.00	0.00	0.00	10,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,200.00	0.00	0.00	10,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,300.00	0.00	0.00	10,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,400.00	0.00	0.00	10,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,500.00	0.00	0.00	10,457.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,531.83	0.00	0.00	10,489.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Second Bone Spring Sand													
10,600.00	0.00	0.00	10,557.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,700.00	0.00	0.00	10,657.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,800.00	0.00	0.00	10,757.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
10,900.00	0.00	0.00	10,857.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,000.00	0.00	0.00	10,957.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,100.00	0.00	0.00	11,057.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,116.83	0.00	0.00	11,074.00	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Third Bone Spring Carbonates													
11,200.00	0.00	0.00	11,157.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,300.00	0.00	0.00	11,257.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,400.00	0.00	0.00	11,357.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
11,402.00	0.00	0.00	11,359.17	227.00	426.00	446,876.19	847,679.58	32.2246567	-103.3426933	-223.57	0.00	0.00	0.00
Tie on @ 11402.00 MD; KOP													
11,450.00	4.80	179.54	11,407.12	224.99	426.02	446,874.18	847,679.60	32.2246512	-103.3426934	-221.56	10.00	10.00	0.00
11,500.00	9.80	179.54	11,456.70	218.64	426.07	446,867.83	847,679.65	32.2246337	-103.3426934	-215.21	10.00	10.00	0.00
11,550.00	14.80	179.54	11,505.53	207.99	426.15	446,857.18	847,679.73	32.2246045	-103.3426934	-204.56	10.00	10.00	0.00
11,600.00	19.80	179.54	11,553.26	193.13	426.27	446,842.32	847,679.85	32.2245636	-103.3426935	-189.70	10.00	10.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,650.00	24.80	179.54	11,599.50	174.16	426.43	446,823.35	847,680.01	32.2245115	-103.3426935	-170.73	10.00	10.00	0.00
11,670.55	26.86	179.54	11,618.00	165.21	426.50	446,814.40	847,680.08	32.2244869	-103.3426936	-161.78	10.00	10.00	0.00
Third Bone Spring Sand													
11,700.00	29.80	179.54	11,643.92	151.24	426.61	446,800.43	847,680.19	32.2244485	-103.3426936	-147.81	10.00	10.00	0.00
11,750.00	34.80	179.54	11,686.17	124.53	426.83	446,773.72	847,680.41	32.2243751	-103.3426937	-121.10	10.00	10.00	0.00
11,800.00	39.80	179.54	11,725.93	94.24	427.07	446,743.43	847,680.65	32.2242918	-103.3426938	-90.81	10.00	10.00	0.00
11,850.00	44.80	179.54	11,762.90	60.60	427.34	446,709.79	847,680.92	32.2241993	-103.3426940	-57.17	10.00	10.00	0.00
11,900.00	49.80	179.54	11,796.80	23.87	427.64	446,673.06	847,681.22	32.2240984	-103.3426941	-20.43	10.00	10.00	0.00
11,950.00	54.80	179.54	11,827.36	-15.68	427.96	446,633.51	847,681.54	32.2239897	-103.3426943	19.11	10.00	10.00	0.00
12,000.00	59.80	179.54	11,854.37	-57.74	428.29	446,591.45	847,681.87	32.2238741	-103.3426944	61.18	10.00	10.00	0.00
12,050.00	64.80	179.54	11,877.60	-101.99	428.65	446,547.20	847,682.23	32.2237524	-103.3426946	105.43	10.00	10.00	0.00
12,100.00	69.80	179.54	11,896.89	-148.10	429.02	446,501.09	847,682.60	32.2236257	-103.3426948	151.54	10.00	10.00	0.00
12,112.26	71.03	179.54	11,901.00	-159.65	429.12	446,489.54	847,682.70	32.2235939	-103.3426948	163.09	10.00	10.00	0.00
Wolfcamp													
12,150.00	74.80	179.54	11,912.09	-195.72	429.41	446,453.47	847,682.99	32.2234948	-103.3426949	199.16	10.00	10.00	0.00
12,200.00	79.80	179.54	11,923.08	-244.48	429.80	446,404.71	847,683.38	32.2233608	-103.3426951	247.92	10.00	10.00	0.00
12,242.07	84.01	179.54	11,929.00	-286.12	430.14	446,363.07	847,683.72	32.2232463	-103.3426953	289.57	10.00	10.00	0.00
HZ Target													
12,250.00	84.80	179.54	11,929.77	-294.01	430.20	446,355.18	847,683.78	32.2232246	-103.3426953	297.46	10.00	10.00	0.00
12,297.00	89.50	179.54	11,932.11	-340.94	430.58	446,308.25	847,684.16	32.2230956	-103.3426955	344.39	10.00	10.00	0.00
Start 9797.46 hold at 12297.00 MD													
12,300.00	89.50	179.54	11,932.14	-343.94	430.60	446,305.25	847,684.18	32.2230874	-103.3426955	347.39	0.00	0.00	0.00
12,400.00	89.50	179.54	11,933.01	-443.93	431.41	446,205.26	847,684.99	32.2228125	-103.3426959	447.38	0.00	0.00	0.00
12,500.00	89.50	179.54	11,933.88	-543.93	432.21	446,105.26	847,685.79	32.2225377	-103.3426962	547.38	0.00	0.00	0.00
12,600.00	89.50	179.54	11,934.75	-643.92	433.02	446,005.27	847,686.60	32.2222628	-103.3426966	647.37	0.00	0.00	0.00
12,700.00	89.50	179.54	11,935.63	-743.91	433.82	445,905.28	847,687.40	32.2219880	-103.3426970	747.37	0.00	0.00	0.00
12,800.00	89.50	179.54	11,936.50	-843.90	434.63	445,805.29	847,688.21	32.2217131	-103.3426974	847.37	0.00	0.00	0.00
12,900.00	89.50	179.54	11,937.37	-943.90	435.44	445,705.29	847,689.02	32.2214383	-103.3426977	947.36	0.00	0.00	0.00
13,000.00	89.50	179.54	11,938.24	-1,043.89	436.24	445,605.30	847,689.82	32.2211634	-103.3426981	1,047.36	0.00	0.00	0.00
13,100.00	89.50	179.54	11,939.12	-1,143.88	437.05	445,505.31	847,690.63	32.2208886	-103.3426985	1,147.35	0.00	0.00	0.00
13,200.00	89.50	179.54	11,939.99	-1,243.88	437.85	445,405.31	847,691.43	32.2206137	-103.3426989	1,247.35	0.00	0.00	0.00
13,300.00	89.50	179.54	11,940.86	-1,343.87	438.66	445,305.32	847,692.24	32.2203389	-103.3426992	1,347.35	0.00	0.00	0.00
13,400.00	89.50	179.54	11,941.73	-1,443.86	439.47	445,205.33	847,693.05	32.2200640	-103.3426996	1,447.34	0.00	0.00	0.00
13,500.00	89.50	179.54	11,942.60	-1,543.85	440.27	445,105.34	847,693.85	32.2197892	-103.3427000	1,547.34	0.00	0.00	0.00
13,600.00	89.50	179.54	11,943.48	-1,643.85	441.08	445,005.34	847,694.66	32.2195143	-103.3427004	1,647.34	0.00	0.00	0.00
13,700.00	89.50	179.54	11,944.35	-1,743.84	441.88	444,905.35	847,695.46	32.2192395	-103.3427007	1,747.33	0.00	0.00	0.00
13,800.00	89.50	179.54	11,945.22	-1,843.83	442.69	444,805.36	847,696.27	32.2189646	-103.3427011	1,847.33	0.00	0.00	0.00
13,900.00	89.50	179.54	11,946.09	-1,943.83	443.49	444,705.36	847,697.07	32.2186898	-103.3427015	1,947.32	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.00	89.50	179.54	11,946.97	-2,043.82	444.30	444,605.37	847,697.88	32.2184149	-103.3427019	2,047.32	0.00	0.00	0.00
14,100.00	89.50	179.54	11,947.84	-2,143.81	445.11	444,505.38	847,698.69	32.2181401	-103.3427022	2,147.32	0.00	0.00	0.00
14,200.00	89.50	179.54	11,948.71	-2,243.81	445.91	444,405.38	847,699.49	32.2178652	-103.3427026	2,247.31	0.00	0.00	0.00
14,300.00	89.50	179.54	11,949.58	-2,343.80	446.72	444,305.39	847,700.30	32.2175904	-103.3427030	2,347.31	0.00	0.00	0.00
14,400.00	89.50	179.54	11,950.46	-2,443.79	447.52	444,205.40	847,701.10	32.2173155	-103.3427034	2,447.31	0.00	0.00	0.00
14,500.00	89.50	179.54	11,951.33	-2,543.78	448.33	444,105.41	847,701.91	32.2170407	-103.3427037	2,547.30	0.00	0.00	0.00
14,600.00	89.50	179.54	11,952.20	-2,643.78	449.14	444,005.41	847,702.72	32.2167658	-103.3427041	2,647.30	0.00	0.00	0.00
14,700.00	89.50	179.54	11,953.07	-2,743.77	449.94	443,905.42	847,703.52	32.2164910	-103.3427045	2,747.29	0.00	0.00	0.00
14,800.00	89.50	179.54	11,953.95	-2,843.76	450.75	443,805.43	847,704.33	32.2162161	-103.3427049	2,847.29	0.00	0.00	0.00
14,900.00	89.50	179.54	11,954.82	-2,943.76	451.55	443,705.43	847,705.13	32.2159413	-103.3427052	2,947.29	0.00	0.00	0.00
15,000.00	89.50	179.54	11,955.69	-3,043.75	452.36	443,605.44	847,705.94	32.2156664	-103.3427056	3,047.28	0.00	0.00	0.00
15,035.50	89.50	179.54	11,956.00	-3,079.24	452.65	443,569.95	847,706.23	32.2155688	-103.3427057	3,082.78	0.00	0.00	0.00
Wolfcamp A													
15,100.00	89.50	179.54	11,956.56	-3,143.74	453.17	443,505.45	847,706.75	32.2153916	-103.3427060	3,147.28	0.00	0.00	0.00
15,200.00	89.50	179.54	11,957.44	-3,243.73	453.97	443,405.46	847,707.55	32.2151167	-103.3427064	3,247.27	0.00	0.00	0.00
15,300.00	89.50	179.54	11,958.31	-3,343.73	454.78	443,305.46	847,708.36	32.2148419	-103.3427067	3,347.27	0.00	0.00	0.00
15,400.00	89.50	179.54	11,959.18	-3,443.72	455.58	443,205.47	847,709.16	32.2145670	-103.3427071	3,447.27	0.00	0.00	0.00
15,500.00	89.50	179.54	11,960.05	-3,543.71	456.39	443,105.48	847,709.97	32.2142922	-103.3427075	3,547.26	0.00	0.00	0.00
15,600.00	89.50	179.54	11,960.92	-3,643.71	457.19	443,005.48	847,710.77	32.2140173	-103.3427079	3,647.26	0.00	0.00	0.00
15,700.00	89.50	179.54	11,961.80	-3,743.70	458.00	442,905.49	847,711.58	32.2137425	-103.3427082	3,747.26	0.00	0.00	0.00
15,800.00	89.50	179.54	11,962.67	-3,843.69	458.81	442,805.50	847,712.39	32.2134676	-103.3427086	3,847.25	0.00	0.00	0.00
15,900.00	89.50	179.54	11,963.54	-3,943.69	459.61	442,705.50	847,713.19	32.2131928	-103.3427090	3,947.25	0.00	0.00	0.00
16,000.00	89.50	179.54	11,964.41	-4,043.68	460.42	442,605.51	847,714.00	32.2129179	-103.3427094	4,047.24	0.00	0.00	0.00
16,100.00	89.50	179.54	11,965.29	-4,143.67	461.22	442,505.52	847,714.80	32.2126431	-103.3427097	4,147.24	0.00	0.00	0.00
16,200.00	89.50	179.54	11,966.16	-4,243.66	462.03	442,405.53	847,715.61	32.2123682	-103.3427101	4,247.24	0.00	0.00	0.00
16,300.00	89.50	179.54	11,967.03	-4,343.66	462.84	442,305.53	847,716.42	32.2120933	-103.3427105	4,347.23	0.00	0.00	0.00
16,400.00	89.50	179.54	11,967.90	-4,443.65	463.64	442,205.54	847,717.22	32.2118185	-103.3427109	4,447.23	0.00	0.00	0.00
16,500.00	89.50	179.54	11,968.78	-4,543.64	464.45	442,105.55	847,718.03	32.2115436	-103.3427112	4,547.23	0.00	0.00	0.00
16,600.00	89.50	179.54	11,969.65	-4,643.64	465.25	442,005.55	847,718.83	32.2112688	-103.3427116	4,647.22	0.00	0.00	0.00
16,700.00	89.50	179.54	11,970.52	-4,743.63	466.06	441,905.56	847,719.64	32.2109939	-103.3427120	4,747.22	0.00	0.00	0.00
16,800.00	89.50	179.54	11,971.39	-4,843.62	466.86	441,805.57	847,720.44	32.2107191	-103.3427124	4,847.21	0.00	0.00	0.00
16,900.00	89.50	179.54	11,972.27	-4,943.61	467.67	441,705.58	847,721.25	32.2104442	-103.3427127	4,947.21	0.00	0.00	0.00
17,000.00	89.50	179.54	11,973.14	-5,043.61	468.48	441,605.58	847,722.06	32.2101694	-103.3427131	5,047.21	0.00	0.00	0.00
17,100.00	89.50	179.54	11,974.01	-5,143.60	469.28	441,505.59	847,722.86	32.2098945	-103.3427135	5,147.20	0.00	0.00	0.00
17,200.00	89.50	179.54	11,974.88	-5,243.59	470.09	441,405.60	847,723.67	32.2096197	-103.3427139	5,247.20	0.00	0.00	0.00
17,300.00	89.50	179.54	11,975.76	-5,343.59	470.89	441,305.60	847,724.47	32.2093448	-103.3427142	5,347.20	0.00	0.00	0.00
17,400.00	89.50	179.54	11,976.63	-5,443.58	471.70	441,205.61	847,725.28	32.2090700	-103.3427146	5,447.19	0.00	0.00	0.00
17,500.00	89.50	179.54	11,977.50	-5,543.57	472.51	441,105.62	847,726.09	32.2087951	-103.3427150	5,547.19	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,600.00	89.50	179.54	11,978.37	-5,643.57	473.31	441,005.62	847,726.89	32.2085203	-103.3427153	5,647.18	0.00	0.00	0.00
17,700.00	89.50	179.54	11,979.25	-5,743.56	474.12	440,905.63	847,727.70	32.2082454	-103.3427157	5,747.18	0.00	0.00	0.00
17,800.00	89.50	179.54	11,980.12	-5,843.55	474.92	440,805.64	847,728.50	32.2079706	-103.3427161	5,847.18	0.00	0.00	0.00
17,900.00	89.50	179.54	11,980.99	-5,943.54	475.73	440,705.65	847,729.31	32.2076957	-103.3427165	5,947.17	0.00	0.00	0.00
18,000.00	89.50	179.54	11,981.86	-6,043.54	476.53	440,605.65	847,730.11	32.2074209	-103.3427168	6,047.17	0.00	0.00	0.00
18,100.00	89.50	179.54	11,982.73	-6,143.53	477.34	440,505.66	847,730.92	32.2071460	-103.3427172	6,147.16	0.00	0.00	0.00
18,200.00	89.50	179.54	11,983.61	-6,243.52	478.15	440,405.67	847,731.73	32.2068712	-103.3427176	6,247.16	0.00	0.00	0.00
18,300.00	89.50	179.54	11,984.48	-6,343.52	478.95	440,305.67	847,732.53	32.2065963	-103.3427180	6,347.16	0.00	0.00	0.00
18,400.00	89.50	179.54	11,985.35	-6,443.51	479.76	440,205.68	847,733.34	32.2063215	-103.3427183	6,447.15	0.00	0.00	0.00
18,500.00	89.50	179.54	11,986.22	-6,543.50	480.56	440,105.69	847,734.14	32.2060466	-103.3427187	6,547.15	0.00	0.00	0.00
18,600.00	89.50	179.54	11,987.10	-6,643.50	481.37	440,005.70	847,734.95	32.2057718	-103.3427191	6,647.15	0.00	0.00	0.00
18,700.00	89.50	179.54	11,987.97	-6,743.49	482.18	439,905.70	847,735.76	32.2054969	-103.3427195	6,747.14	0.00	0.00	0.00
18,800.00	89.50	179.54	11,988.84	-6,843.48	482.98	439,805.71	847,736.56	32.2052221	-103.3427198	6,847.14	0.00	0.00	0.00
18,900.00	89.50	179.54	11,989.71	-6,943.47	483.79	439,705.72	847,737.37	32.2049472	-103.3427202	6,947.13	0.00	0.00	0.00
19,000.00	89.50	179.54	11,990.59	-7,043.47	484.59	439,605.72	847,738.17	32.2046724	-103.3427206	7,047.13	0.00	0.00	0.00
19,100.00	89.50	179.54	11,991.46	-7,143.46	485.40	439,505.73	847,738.98	32.2043975	-103.3427210	7,147.13	0.00	0.00	0.00
19,200.00	89.50	179.54	11,992.33	-7,243.45	486.20	439,405.74	847,739.78	32.2041227	-103.3427213	7,247.12	0.00	0.00	0.00
19,300.00	89.50	179.54	11,993.20	-7,343.45	487.01	439,305.74	847,740.59	32.2038478	-103.3427217	7,347.12	0.00	0.00	0.00
19,400.00	89.50	179.54	11,994.08	-7,443.44	487.82	439,205.75	847,741.40	32.2035730	-103.3427221	7,447.12	0.00	0.00	0.00
19,500.00	89.50	179.54	11,994.95	-7,543.43	488.62	439,105.76	847,742.20	32.2032981	-103.3427225	7,547.11	0.00	0.00	0.00
19,600.00	89.50	179.54	11,995.82	-7,643.42	489.43	439,005.77	847,743.01	32.2030233	-103.3427228	7,647.11	0.00	0.00	0.00
19,700.00	89.50	179.54	11,996.69	-7,743.42	490.23	438,905.77	847,743.81	32.2027484	-103.3427232	7,747.10	0.00	0.00	0.00
19,800.00	89.50	179.54	11,997.57	-7,843.41	491.04	438,805.78	847,744.62	32.2024736	-103.3427236	7,847.10	0.00	0.00	0.00
19,900.00	89.50	179.54	11,998.44	-7,943.40	491.85	438,705.79	847,745.43	32.2021987	-103.3427239	7,947.10	0.00	0.00	0.00
20,000.00	89.50	179.54	11,999.31	-8,043.40	492.65	438,605.79	847,746.23	32.2019239	-103.3427243	8,047.09	0.00	0.00	0.00
20,100.00	89.50	179.54	12,000.18	-8,143.39	493.46	438,505.80	847,747.04	32.2016490	-103.3427247	8,147.09	0.00	0.00	0.00
20,200.00	89.50	179.54	12,001.06	-8,243.38	494.26	438,405.81	847,747.84	32.2013741	-103.3427251	8,247.08	0.00	0.00	0.00
20,300.00	89.50	179.54	12,001.93	-8,343.38	495.07	438,305.82	847,748.65	32.2010993	-103.3427254	8,347.08	0.00	0.00	0.00
20,400.00	89.50	179.54	12,002.80	-8,443.37	495.88	438,205.82	847,749.46	32.2008244	-103.3427258	8,447.08	0.00	0.00	0.00
20,500.00	89.50	179.54	12,003.67	-8,543.36	496.68	438,105.83	847,750.26	32.2005496	-103.3427262	8,547.07	0.00	0.00	0.00
20,600.00	89.50	179.54	12,004.54	-8,643.35	497.49	438,005.84	847,751.07	32.2002747	-103.3427266	8,647.07	0.00	0.00	0.00
20,700.00	89.50	179.54	12,005.42	-8,743.35	498.29	437,905.84	847,751.87	32.1999999	-103.3427269	8,747.07	0.00	0.00	0.00
20,800.00	89.50	179.54	12,006.29	-8,843.34	499.10	437,805.85	847,752.68	32.1997250	-103.3427273	8,847.06	0.00	0.00	0.00
20,900.00	89.50	179.54	12,007.16	-8,943.33	499.90	437,705.86	847,753.48	32.1994502	-103.3427277	8,947.06	0.00	0.00	0.00
21,000.00	89.50	179.54	12,008.03	-9,043.33	500.71	437,605.86	847,754.29	32.1991753	-103.3427281	9,047.05	0.00	0.00	0.00
21,100.00	89.50	179.54	12,008.91	-9,143.32	501.52	437,505.87	847,755.10	32.1989005	-103.3427284	9,147.05	0.00	0.00	0.00
21,200.00	89.50	179.54	12,009.78	-9,243.31	502.32	437,405.88	847,755.90	32.1986256	-103.3427288	9,247.05	0.00	0.00	0.00
21,300.00	89.50	179.54	12,010.65	-9,343.30	503.13	437,305.89	847,756.71	32.1983508	-103.3427292	9,347.04	0.00	0.00	0.00



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Planned Survey

Measured Depth (usft)	INC (°)	AZI (°)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Map Coordinates Northing (usft)	Easting (usft)	Geo Coordinates Latitude (°)	Longitude (°)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,400.00	89.50	179.54	12,011.52	-9,443.30	503.93	437,205.89	847,757.51	32.1980759	-103.3427295	9,447.04	0.00	0.00	0.00
21,500.00	89.50	179.54	12,012.40	-9,543.29	504.74	437,105.90	847,758.32	32.1978011	-103.3427299	9,547.04	0.00	0.00	0.00
21,600.00	89.50	179.54	12,013.27	-9,643.28	505.55	437,005.91	847,759.13	32.1975262	-103.3427303	9,647.03	0.00	0.00	0.00
21,700.00	89.50	179.54	12,014.14	-9,743.28	506.35	436,905.91	847,759.93	32.1972514	-103.3427307	9,747.03	0.00	0.00	0.00
21,800.00	89.50	179.54	12,015.01	-9,843.27	507.16	436,805.92	847,760.74	32.1969765	-103.3427310	9,847.02	0.00	0.00	0.00
21,900.00	89.50	179.54	12,015.89	-9,943.26	507.96	436,705.93	847,761.54	32.1967017	-103.3427314	9,947.02	0.00	0.00	0.00
22,000.00	89.50	179.54	12,016.76	-10,043.26	508.77	436,605.93	847,762.35	32.1964268	-103.3427318	10,047.02	0.00	0.00	0.00
22,094.46	89.50	179.54	12,017.58	-10,137.71	509.53	436,511.48	847,763.11	32.1961672	-103.3427321	10,141.47	0.00	0.00	0.00
TD at 22094.46													

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
12,297.00	11,932.11	7"	7	7-1/2

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
30.00	30.00	Cenozoic Alluvium (surface)			
1,248.29	1,248.00	Rustler			
1,681.49	1,681.00	Salado			
3,175.51	3,158.00	Base Salt			
4,077.64	4,046.00	Potential Losses			
4,142.66	4,110.00	Capitan Reef Top			
5,448.83	5,406.00	Lamar			
5,487.83	5,445.00	Bell Canyon			
6,224.83	6,182.00	Cherry Canyon			
7,475.83	7,433.00	Brushy Canyon			
8,823.83	8,781.00	Bone Spring Lime			
8,866.83	8,824.00	Avalon			
9,087.83	9,045.00	*Chert zone*			
9,909.83	9,867.00	First Bone Spring Sand			
10,059.83	10,017.00	Second Bone Spring Carbonates			
10,531.83	10,489.00	Second Bone Spring Sand			
11,116.83	11,074.00	Third Bone Spring Carbonates			
11,670.55	11,618.00	Third Bone Spring Sand			
12,112.26	11,901.00	Wolfcamp			
12,242.07	11,929.00	HZ Target			
15,035.50	11,956.00	Wolfcamp A			



Total Directional Services, LLC

Survey Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Elevate Federal 702H
Project:	Lea County, NM (NAD83)	TVD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Site:	Elevate Federal	MD Reference:	3395.2' GE + 30' KB @ 3425.20usft
Well:	Elevate Federal 702H	North Reference:	Grid
Wellbore:	ST#1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #3.1	Database:	EDM 5000.1 Single User Db

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,402	11,359	227	426	Tie on @ 11402.00 MD; KOP
12,297	11,932	-341	431	Start 9797.46 hold at 12297.00 MD
22,094	12,018	-10,138	510	TD at 22094.46

Checked By: _____ Approved By: _____ Date: _____



U. S. Steel Tubular Products

7.625" 29.70lb/ft (0.375" Wall) P110 HC USS-LIBERTY FJM[®]

2/21/2022 2:17:25 PM



MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM [®]		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	140,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-LIBERTY FJM [®]		--
Outside Diameter	7.625	7.625	in.	--
Wall Thickness	0.375	--	in.	--
Inside Diameter	6.875	6.789	in.	--
Standard Drift	6.750	6.750	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	29.70	--	lb/ft	--
Plain End Weight	29.06	--	lb/ft	--
SECTION AREA	Pipe	USS-LIBERTY FJM [®]		--
Critical Area	8.541	5.074	sq. in.	--
Joint Efficiency	--	59.4	%	--
PERFORMANCE	Pipe	USS-LIBERTY FJM [®]		--
Minimum Collapse Pressure	6,700	6,700	psi	--
Minimum Internal Yield Pressure	9,460	9,460	psi	--
Minimum Pipe Body Yield Strength	940,000	--	lb	--
Joint Strength	--	558,000	lb	--
Compression Rating	--	558,000	lb	--
Reference Length	--	12,810	ft	--
Maximum Uniaxial Bend Rating	--	39.3	deg/100 ft	--
MAKE-UP DATA	Pipe	USS-LIBERTY FJM [®]		--
Make-Up Loss	--	3.92	in.	--
Minimum Make-Up Torque	--	10,800	ft-lb	--
Maximum Make-Up Torque	--	15,250	ft-lb	--

UNCONTROLLED

Notes

1.

Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
2.

Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3.

Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4.

USS-LIBERTY FJM[™] connections are optimized for each combination of OD and wall thickness and cannot be interchanged.
5.

Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
6.

Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.
7.

Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

Legal Notice

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U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

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 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 214777

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street, Suite 1000 Denver, CO 80206	OGRID: 373910
	Action Number: 214777
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	5/23/2023