

Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-025-46506
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. VB2117
7. Lease Name or Unit Agreement Name Parade State Com
8. Well Number 704H
9. OGRID Number 373910
10. Pool name or Wildcat 98187;UPR WOLFCAMP
4. Well Location Unit Letter _____ B : _____ 675 feet from the _____ N _____ line and _____ 2624 feet from the _____ E _____ line Section 2 Township 25S Range 35E NMPM County Lea
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3244

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator
Franklin Mountain Energy, LLC

3. Address of Operator
44 Cook St. Suite 1000, Denver CO 80206

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
 DOWNHOLE COMMINGLE ☐
 CLOSED-LOOP SYSTEM ☐
 OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
 COMMENCE DRILLING OPNS. ☐ P AND A ☐
 CASING/CEMENT JOB ☐
 OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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 1st Intermediate set depth to 5150'.
- Change cement volumes based on updated Geoprog, casing and Directional plan.
- Production Casing: FME would like approval to utilize 5.5 inch Eagle 606 23lb. P-110 in the drilling of this bore.
- WH: A multi-bowl wellhead system will be utilized while drilling; FME would like approval to use the attached multi-bowl Cactus WH running procedure.

Please see attached revised cement/casing plans, Plan #2, geo prog and data sheet.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE _____ TITLE Dir. Ops Planning and Regulatory DATE 2/25/2021

Type or print name Rachael Overbey E-mail address: roverbey@fmellc.com PHONE: 303-570-4057

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Conditions of Approval (if any):

Parade State 704H

Casing Program

Casing string	Weight	Grade	Burst	Collapse	Tension	Conn	Length	API design factor			
								Burst	Collapse	Tension	Coupling
Surface 13 3/8"	54.5	J-55	2730	1130	853	BTC 909	1300	1.18	1.67	4.99	5.32
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5150	1.78	1.76	2.99	3.41
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	12050	1.10	1.27	1.81	1.23
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606	22160	1.32	1.40	1.20	0.99

7 5/8" casing will be set just above Wolfcamp formation to allow safe drilling practices should MW increase be needed. The set point will be 12,050' MD/11,924' TVD at 53° Inc.

Safety factors calculated based on 22,172' TVD (well being vertical). The deepest TVD will be 12,133'.

Pararde State 704H

Cement volumes

String Type	Hole Size	Casing				Lead			Tail			Excess
		Size	Grade	Weight (lbs/ft)	Setting Depth	Sacks	Type of cmt	TOC of Lead	Sacks	Type of cmt	TOC of Tail	
Surf	17.5	13.375	J-55	54.5	1300	803	Extenda Cem, 13.5 ppg	0	330	HalCem TM, 14.8 ppg	1000	100%
Int1	12.25	9.625	HCL-80	40	5150	1439	Econocem TM, 12.9 ppg	0	154	HalCem TM, 14.8 ppg	5100	100%
Int2	8.5	7.625	HCP-110	29.7	12050	225	NeoCem, 9 ppg	4150	120	NeoCem 12.8 ppg	11050	50%
Prod	6.75	5.5	P-110	23	22160	424	SoluCem, 15 ppg	11050				20%

FRANKLIN MOUNTAIN ENERGY



Geologic Prognosis

Well Name	Parade State 704H
Operator	Franklin Mountain Energy, LLC
Project Area	Carnival Wells
Well Type	10,000' Wolfcamp Lateral
API	3002546506
Permit Number	
Rig	HP556

State	NM	County	Lea						
SHL	Township	25S/35E	Section	2	1,355'	FEL	321'	FNL	
BHL	Township	25S/35E	Section	11	1,690'	FEL	150'	FSL	
Surface Latitude	NAD 83		32.165838						
Surface Longitude	NAD 83		103.334162						
Bottom Hole Latitude	NAD 83		32.138036						
Bottom Hole Longitude	NAD 83		103.335216						
Ground Level	3,258'	Rig KB	30'	KB	3,288'				

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,258'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,555'	733'			Carbonates
Salado	2,388'	900'			Salt, Carbonate & Clastics
Base Salt	-293'	3,581'			Shaley Carbonate & Shale
Lamar	-1,764'	5,052'			Carbonate & Clastics
Bell Canyon	-2,005'	5,293'			Sandstone - oil/gas/water
Cherry Canyon	-2,794'	6,082'			Sandstone - oil/gas/water
Brushy Canyon	-4,152'	7,440'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,476'	8,764'			Shale/Carbonates - oil/gas
Avalon	-5,535'	8,823'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,649'	9,937'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,750'	10,038'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,165'	10,453'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,810'	11,098'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,400'	11,688'			Sandstone - oil/gas/water
Wolfcamp	-8,666'	11,954'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,706'	11,994'			Overpressure Shale - Oil/Gas
HZ Target	-8,777'	12,065'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,903'	12,191'			Overpressure Shale - Oil/Gas

Target interval is expected to have an average apparent dip of ~0.4 degrees down along the lateral based on the Wolfcamp A structure

Target window tolerance is set at +/- 10'

Target Line: 12067' KBTVD @ 0' VS w/ 89.62° inc.

Offset Log: Reno Com-1 (300252686700)

FME Geologist	Ben Kessel		bkessel@fmellc.com	
	Office	720.414.7868	Cell	303.868.9946
FME Engineer				
Electric Logs	From		To	
Open-Hole				
	n/a			
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: Parade State/Beauty Queen
Well: Parade State 704H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.07°

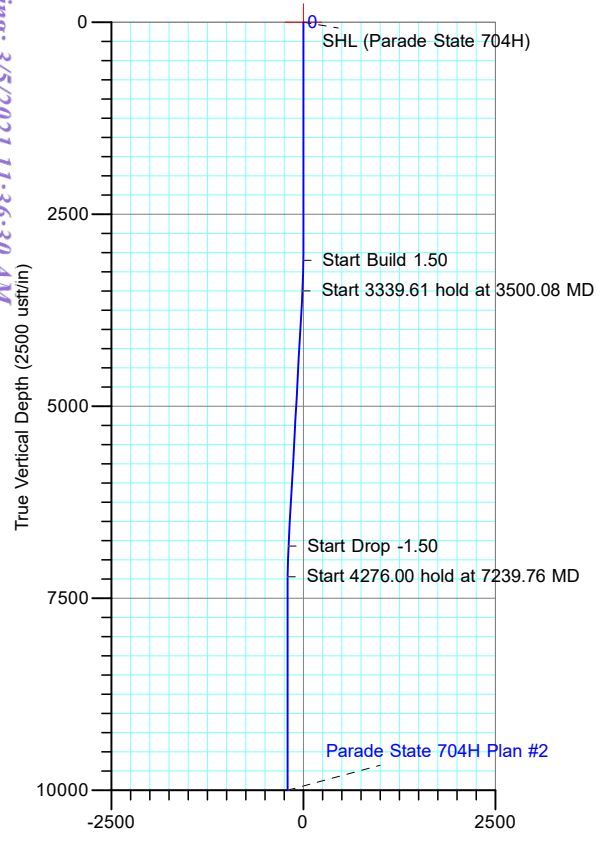
Magnetic Field
Strength: 47733.0nT
Dip Angle: 60.02°
Date: 8/8/2019
Model: IGRF2015

PROJECT DETAILS: Lea County, NM (NAD83)

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



3258.6' GE + 21' KB @ 3279.60usft

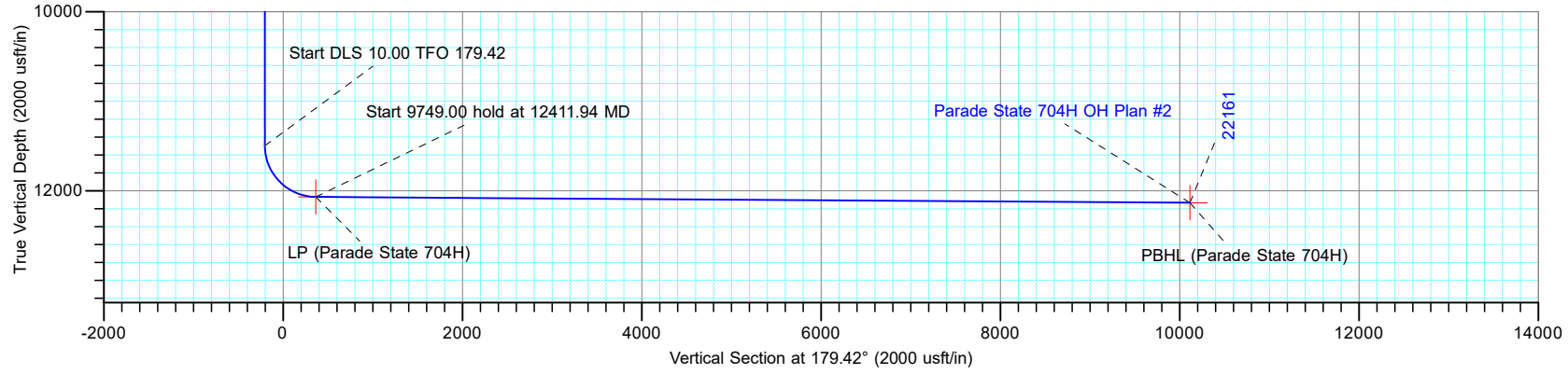
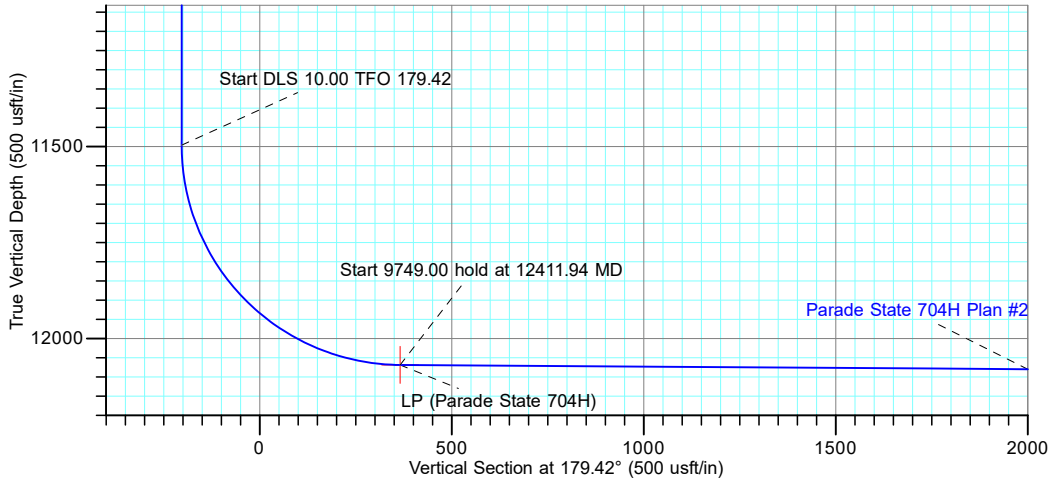


SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3500.08	6.00	300.76	3499.35	10.71	-17.99	1.50	300.76	-10.89	Start 3339.61 hold at 3500.08 MD
6839.68	6.00	300.76	6820.65	189.29	-318.01	0.00	0.00	-192.50	Start Drop -1.50
7239.76	0.00	0.00	7220.00	200.00	-336.00	1.50	180.00	-203.39	Start 4276.00 hold at 7239.76 MD
11515.76	0.00	0.00	11496.00	200.00	-336.00	0.00	0.00	-203.39	Start DLS 10.00 TFO 179.42
12411.94	89.62	179.42	12068.95	-369.10	-330.28	10.00	179.42	365.74	Start 9749.00 hold at 12411.94 MD
22160.93	89.62	179.42	12134.08	-10117.39	-232.38	0.00	0.00	10114.52	TD at 22160.93

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (704H)	12068.95	-369.10	-330.28	32.164832	-103.335241
PBHL (704H)	12134.08	-10117.39	-232.38	32.138036	-103.335216
SHL (704H)	0.00	0.00	0.00	32.165838	-103.334162



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

Plan: Plan #2 (Parade State 704H/OH)
Parade State/Beauty Queen
Created By: Dustin Ault
Date: 10:55, February 18 2021
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: Parade State/Beauty Queen
Well: Parade State 704H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.07°

Magnetic Field
Strength: 47733.0nT
Dip Angle: 60.02°
Date: 8/8/2019
Model: IGRF2015

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

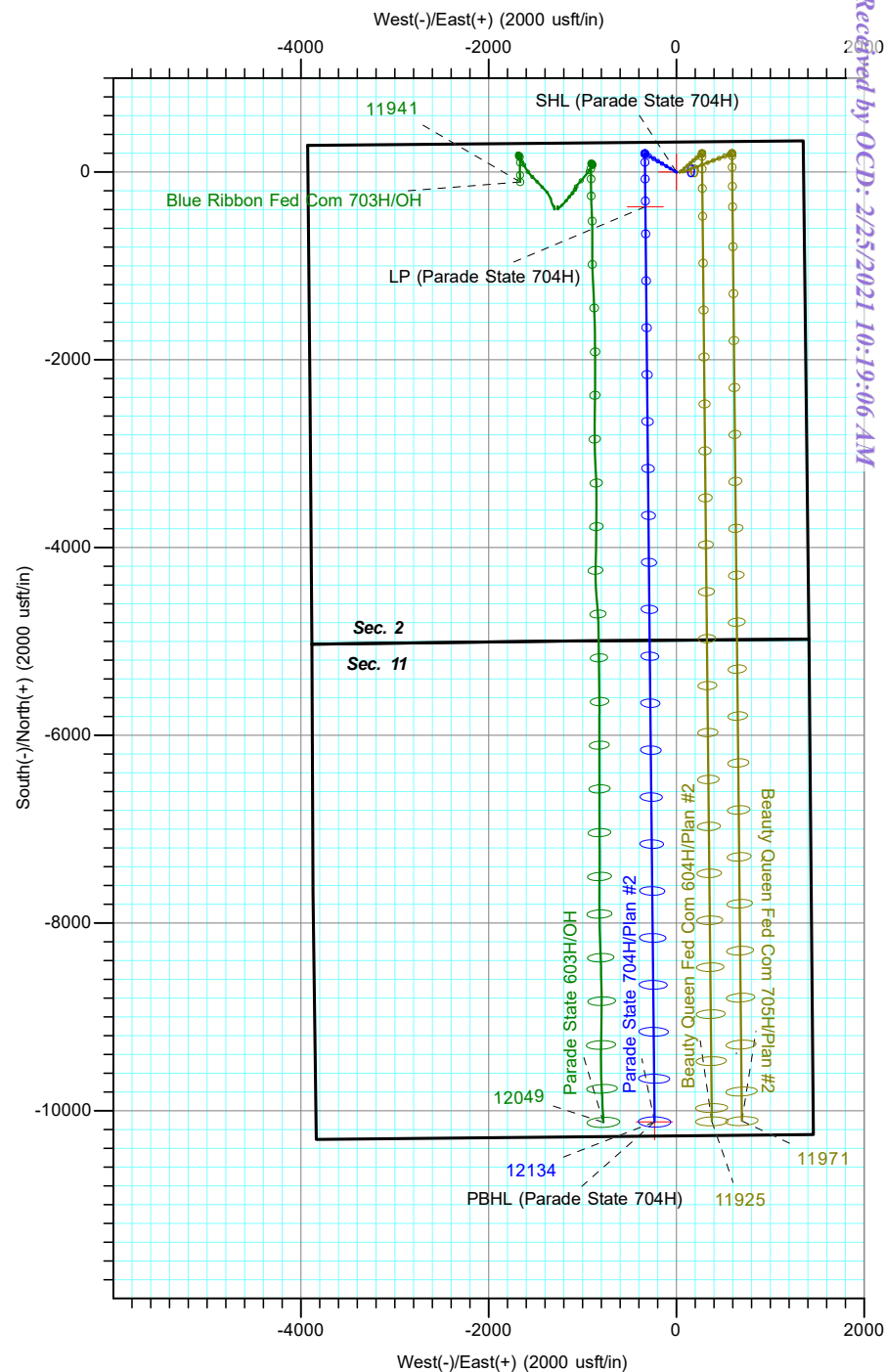
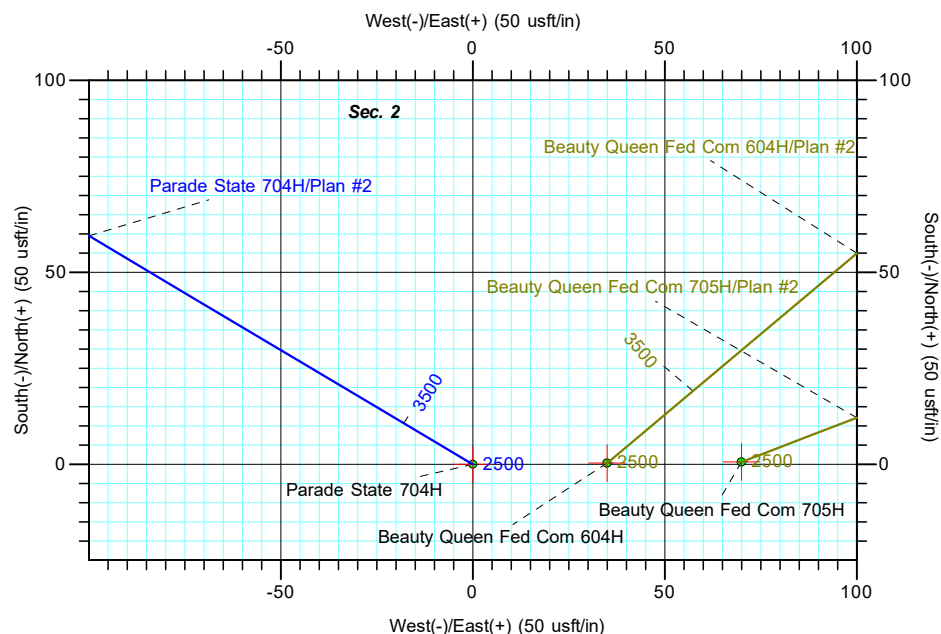


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (704H)	12068.95	-369.10	-330.28	425133.10	850186.33	32.164832	-103.335241
PBHL (704H)	12134.08	-10117.39	-232.38	415384.81	850284.23	32.138036	-103.335216
SHL (704H)	0.00	0.00	0.00	425502.20	850516.61	32.165838	-103.334162

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3500.08	6.00	300.76	3499.35	10.71	-17.99	1.50	300.76	-10.89	Start 3339.61 hold at 3500.08 MD
6839.68	6.00	300.76	6820.65	189.29	-318.01	0.00	0.00	-192.50	Start Drop -1.50
7239.76	0.00	0.00	7220.00	200.00	-336.00	1.50	180.00	-203.39	Start 4276.00 hold at 7239.76 MD
11515.76	0.00	0.00	11496.00	200.00	-336.00	0.00	0.00	-203.39	Start DLS 10.00 TFO 179.42
12411.94	89.62	179.42	12068.95	-369.10	-330.28	10.00	179.42	365.74	Start 9749.00 hold at 12411.94 MD
22160.93	89.62	179.42	12134.08	-10117.39	-232.38	0.00	0.00	10114.52	TD at 22160.93



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

Plan: Plan #2 (Parade State 704H/OH)
Parade State/Beauty Queen
Created By: Dustin Ault Date: 10:56, February 18 2020
Approved: _____ Date: _____



Franklin Mountain Energy

Lea County, NM (NAD83)
Parade State/Beauty Queen
Parade State 704H

OH

Plan: Plan #2

Standard Planning Report

18 February, 2021





Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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

Site	Parade State/Beauty Queen				
Site Position:		Northing:	425,502.20 usft	Latitude:	32.165838
From:	Map	Easting:	850,516.61 usft	Longitude:	-103.334163
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.53 °

Well	Parade State 704H					
Well Position	+N/-S	0.00 usft	Northing:	425,502.20 usft	Latitude:	32.165838
	+E/-W	0.00 usft	Easting:	850,516.61 usft	Longitude:	-103.334163
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,258.60 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/8/2019	6.61	60.02	47,733.01606934

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.42

Plan Survey Tool Program	Date	2/18/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,160.40 Plan #2 (OH)	OWSG (Rev2) MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.08	6.00	300.76	3,499.35	10.71	-17.99	1.50	1.50	0.00	300.76	
6,839.68	6.00	300.76	6,820.65	189.29	-318.01	0.00	0.00	0.00	0.00	
7,239.76	0.00	0.00	7,220.00	200.00	-336.00	1.50	-1.50	0.00	180.00	
11,515.76	0.00	0.00	11,496.00	200.00	-336.00	0.00	0.00	0.00	0.00	
12,411.94	89.62	179.42	12,068.95	-369.10	-330.28	10.00	10.00	20.02	179.42	
22,160.93	89.62	179.42	12,134.08	-10,117.39	-232.38	0.00	0.00	0.00	0.00	PBHL (Parade State 7



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (Parade State 704H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
3,200.00	1.50	300.76	3,199.99	0.67	-1.12	-0.68	1.50	1.50	0.00
3,300.00	3.00	300.76	3,299.91	2.68	-4.50	-2.72	1.50	1.50	0.00
3,400.00	4.50	300.76	3,399.69	6.02	-10.12	-6.12	1.50	1.50	0.00
3,500.08	6.00	300.76	3,499.35	10.71	-17.99	-10.89	1.50	1.50	0.00
Start 3339.61 hold at 3500.08 MD									
3,600.00	6.00	300.76	3,598.72	16.05	-26.96	-16.32	0.00	0.00	0.00
3,700.00	6.00	300.76	3,698.17	21.40	-35.95	-21.76	0.00	0.00	0.00
3,800.00	6.00	300.76	3,797.63	26.75	-44.93	-27.20	0.00	0.00	0.00
3,900.00	6.00	300.76	3,897.08	32.09	-53.92	-32.64	0.00	0.00	0.00
4,000.00	6.00	300.76	3,996.53	37.44	-62.90	-38.08	0.00	0.00	0.00
4,100.00	6.00	300.76	4,095.98	42.79	-71.88	-43.51	0.00	0.00	0.00
4,200.00	6.00	300.76	4,195.43	48.14	-80.87	-48.95	0.00	0.00	0.00
4,300.00	6.00	300.76	4,294.89	53.48	-89.85	-54.39	0.00	0.00	0.00
4,400.00	6.00	300.76	4,394.34	58.83	-98.84	-59.83	0.00	0.00	0.00
4,500.00	6.00	300.76	4,493.79	64.18	-107.82	-65.27	0.00	0.00	0.00
4,600.00	6.00	300.76	4,593.24	69.53	-116.80	-70.70	0.00	0.00	0.00
4,700.00	6.00	300.76	4,692.69	74.87	-125.79	-76.14	0.00	0.00	0.00
4,800.00	6.00	300.76	4,792.15	80.22	-134.77	-81.58	0.00	0.00	0.00
4,900.00	6.00	300.76	4,891.60	85.57	-143.75	-87.02	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,000.00	6.00	300.76	4,991.05	90.92	-152.74	-92.46	0.00	0.00	0.00
5,100.00	6.00	300.76	5,090.50	96.26	-161.72	-97.90	0.00	0.00	0.00
5,200.00	6.00	300.76	5,189.95	101.61	-170.71	-103.33	0.00	0.00	0.00
5,300.00	6.00	300.76	5,289.40	106.96	-179.69	-108.77	0.00	0.00	0.00
5,400.00	6.00	300.76	5,388.86	112.31	-188.67	-114.21	0.00	0.00	0.00
5,500.00	6.00	300.76	5,488.31	117.65	-197.66	-119.65	0.00	0.00	0.00
5,600.00	6.00	300.76	5,587.76	123.00	-206.64	-125.09	0.00	0.00	0.00
5,700.00	6.00	300.76	5,687.21	128.35	-215.62	-130.52	0.00	0.00	0.00
5,800.00	6.00	300.76	5,786.66	133.70	-224.61	-135.96	0.00	0.00	0.00
5,900.00	6.00	300.76	5,886.12	139.04	-233.59	-141.40	0.00	0.00	0.00
6,000.00	6.00	300.76	5,985.57	144.39	-242.58	-146.84	0.00	0.00	0.00
6,100.00	6.00	300.76	6,085.02	149.74	-251.56	-152.28	0.00	0.00	0.00
6,200.00	6.00	300.76	6,184.47	155.09	-260.54	-157.72	0.00	0.00	0.00
6,300.00	6.00	300.76	6,283.92	160.43	-269.53	-163.15	0.00	0.00	0.00
6,400.00	6.00	300.76	6,383.38	165.78	-278.51	-168.59	0.00	0.00	0.00
6,500.00	6.00	300.76	6,482.83	171.13	-287.50	-174.03	0.00	0.00	0.00
6,600.00	6.00	300.76	6,582.28	176.48	-296.48	-179.47	0.00	0.00	0.00
6,700.00	6.00	300.76	6,681.73	181.82	-305.46	-184.91	0.00	0.00	0.00
6,800.00	6.00	300.76	6,781.18	187.17	-314.45	-190.34	0.00	0.00	0.00
6,839.68	6.00	300.76	6,820.65	189.29	-318.01	-192.50	0.00	0.00	0.00
Start Drop -1.50									
6,900.00	5.10	300.76	6,880.68	192.28	-323.02	-195.54	1.50	-1.50	0.00
7,000.00	3.60	300.76	6,980.39	196.15	-329.54	-199.48	1.50	-1.50	0.00
7,100.00	2.10	300.76	7,080.27	198.69	-333.80	-202.06	1.50	-1.50	0.00
7,200.00	0.60	300.76	7,180.24	199.89	-335.82	-203.28	1.50	-1.50	0.00
7,239.76	0.00	0.00	7,220.00	200.00	-336.00	-203.39	1.50	-1.50	0.00
Start 4276.00 hold at 7239.76 MD									
7,300.00	0.00	0.00	7,280.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,400.00	0.00	0.00	7,380.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,500.00	0.00	0.00	7,480.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,600.00	0.00	0.00	7,580.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,700.00	0.00	0.00	7,680.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,800.00	0.00	0.00	7,780.24	200.00	-336.00	-203.39	0.00	0.00	0.00
7,900.00	0.00	0.00	7,880.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,000.00	0.00	0.00	7,980.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,100.00	0.00	0.00	8,080.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,200.00	0.00	0.00	8,180.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,300.00	0.00	0.00	8,280.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,400.00	0.00	0.00	8,380.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,500.00	0.00	0.00	8,480.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,600.00	0.00	0.00	8,580.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,700.00	0.00	0.00	8,680.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,800.00	0.00	0.00	8,780.24	200.00	-336.00	-203.39	0.00	0.00	0.00
8,900.00	0.00	0.00	8,880.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,000.00	0.00	0.00	8,980.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,100.00	0.00	0.00	9,080.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,200.00	0.00	0.00	9,180.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,300.00	0.00	0.00	9,280.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,400.00	0.00	0.00	9,380.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,500.00	0.00	0.00	9,480.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,600.00	0.00	0.00	9,580.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,700.00	0.00	0.00	9,680.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,800.00	0.00	0.00	9,780.24	200.00	-336.00	-203.39	0.00	0.00	0.00
9,900.00	0.00	0.00	9,880.24	200.00	-336.00	-203.39	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,000.00	0.00	0.00	9,980.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,100.00	0.00	0.00	10,080.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,200.00	0.00	0.00	10,180.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,300.00	0.00	0.00	10,280.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,400.00	0.00	0.00	10,380.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,480.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,580.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,700.00	0.00	0.00	10,680.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,800.00	0.00	0.00	10,780.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
10,900.00	0.00	0.00	10,880.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,000.00	0.00	0.00	10,980.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,100.00	0.00	0.00	11,080.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,200.00	0.00	0.00	11,180.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,300.00	0.00	0.00	11,280.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,400.00	0.00	0.00	11,380.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,500.00	0.00	0.00	11,480.24	200.00	-336.00	-203.39	0.00	0.00	0.00	
11,515.76	0.00	0.00	11,496.00	200.00	-336.00	-203.39	0.00	0.00	0.00	
Start DLS 10.00 TFO 179.42										
11,550.00	3.42	179.42	11,530.22	198.98	-335.99	-202.37	10.00	10.00	0.00	
11,600.00	8.42	179.42	11,579.93	193.82	-335.94	-197.21	10.00	10.00	0.00	
11,650.00	13.42	179.42	11,629.01	184.35	-335.84	-187.74	10.00	10.00	0.00	
11,700.00	18.42	179.42	11,677.08	170.64	-335.71	-174.02	10.00	10.00	0.00	
11,750.00	23.42	179.42	11,723.77	152.79	-335.53	-156.17	10.00	10.00	0.00	
11,800.00	28.42	179.42	11,768.72	130.94	-335.31	-134.32	10.00	10.00	0.00	
11,850.00	33.42	179.42	11,811.60	105.25	-335.05	-108.64	10.00	10.00	0.00	
11,900.00	38.42	179.42	11,852.08	75.93	-334.75	-79.31	10.00	10.00	0.00	
11,950.00	43.42	179.42	11,889.84	43.18	-334.43	-46.57	10.00	10.00	0.00	
12,000.00	48.42	179.42	11,924.61	7.28	-334.06	-10.66	10.00	10.00	0.00	
12,050.00	53.42	179.42	11,956.12	-31.52	-333.67	28.14	10.00	10.00	0.00	
12,100.00	58.42	179.42	11,984.13	-72.92	-333.26	69.55	10.00	10.00	0.00	
12,150.00	63.42	179.42	12,008.42	-116.61	-332.82	113.23	10.00	10.00	0.00	
12,200.00	68.42	179.42	12,028.81	-162.24	-332.36	158.87	10.00	10.00	0.00	
12,250.00	73.42	179.42	12,045.15	-209.48	-331.89	206.11	10.00	10.00	0.00	
12,300.00	78.42	179.42	12,057.30	-257.96	-331.40	254.59	10.00	10.00	0.00	
12,350.00	83.42	179.42	12,065.19	-307.31	-330.90	303.95	10.00	10.00	0.00	
12,400.00	88.42	179.42	12,068.74	-357.17	-330.40	353.80	10.00	10.00	0.00	
12,411.94	89.62	179.42	12,068.95	-369.10	-330.28	365.74	10.00	10.00	0.00	
Start 9749.00 hold at 12411.94 MD - LP (Parade State 704H)										
12,500.00	89.62	179.42	12,069.53	-457.16	-329.40	453.80	0.00	0.00	0.00	
12,600.00	89.62	179.42	12,070.20	-557.15	-328.40	553.80	0.00	0.00	0.00	
12,700.00	89.62	179.42	12,070.87	-657.14	-327.39	653.80	0.00	0.00	0.00	
12,800.00	89.62	179.42	12,071.54	-757.14	-326.39	753.79	0.00	0.00	0.00	
12,900.00	89.62	179.42	12,072.21	-857.13	-325.38	853.79	0.00	0.00	0.00	
13,000.00	89.62	179.42	12,072.87	-957.12	-324.38	953.79	0.00	0.00	0.00	
13,100.00	89.62	179.42	12,073.54	-1,057.11	-323.37	1,053.79	0.00	0.00	0.00	
13,200.00	89.62	179.42	12,074.21	-1,157.11	-322.37	1,153.79	0.00	0.00	0.00	
13,300.00	89.62	179.42	12,074.88	-1,257.10	-321.37	1,253.78	0.00	0.00	0.00	
13,400.00	89.62	179.42	12,075.55	-1,357.09	-320.36	1,353.78	0.00	0.00	0.00	
13,500.00	89.62	179.42	12,076.21	-1,457.09	-319.36	1,453.78	0.00	0.00	0.00	
13,600.00	89.62	179.42	12,076.88	-1,557.08	-318.35	1,553.78	0.00	0.00	0.00	
13,700.00	89.62	179.42	12,077.55	-1,657.07	-317.35	1,653.77	0.00	0.00	0.00	
13,800.00	89.62	179.42	12,078.22	-1,757.06	-316.34	1,753.77	0.00	0.00	0.00	
13,900.00	89.62	179.42	12,078.89	-1,857.06	-315.34	1,853.77	0.00	0.00	0.00	
14,000.00	89.62	179.42	12,079.56	-1,957.05	-314.34	1,953.77	0.00	0.00	0.00	



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,100.00	89.62	179.42	12,080.22	-2,057.04	-313.33	2,053.76	0.00	0.00	0.00
14,200.00	89.62	179.42	12,080.89	-2,157.03	-312.33	2,153.76	0.00	0.00	0.00
14,300.00	89.62	179.42	12,081.56	-2,257.03	-311.32	2,253.76	0.00	0.00	0.00
14,400.00	89.62	179.42	12,082.23	-2,357.02	-310.32	2,353.76	0.00	0.00	0.00
14,500.00	89.62	179.42	12,082.90	-2,457.01	-309.31	2,453.76	0.00	0.00	0.00
14,600.00	89.62	179.42	12,083.56	-2,557.01	-308.31	2,553.75	0.00	0.00	0.00
14,700.00	89.62	179.42	12,084.23	-2,657.00	-307.31	2,653.75	0.00	0.00	0.00
14,800.00	89.62	179.42	12,084.90	-2,756.99	-306.30	2,753.75	0.00	0.00	0.00
14,900.00	89.62	179.42	12,085.57	-2,856.98	-305.30	2,853.75	0.00	0.00	0.00
15,000.00	89.62	179.42	12,086.24	-2,956.98	-304.29	2,953.74	0.00	0.00	0.00
15,100.00	89.62	179.42	12,086.90	-3,056.97	-303.29	3,053.74	0.00	0.00	0.00
15,200.00	89.62	179.42	12,087.57	-3,156.96	-302.29	3,153.74	0.00	0.00	0.00
15,300.00	89.62	179.42	12,088.24	-3,256.95	-301.28	3,253.74	0.00	0.00	0.00
15,400.00	89.62	179.42	12,088.91	-3,356.95	-300.28	3,353.74	0.00	0.00	0.00
15,500.00	89.62	179.42	12,089.58	-3,456.94	-299.27	3,453.73	0.00	0.00	0.00
15,600.00	89.62	179.42	12,090.25	-3,556.93	-298.27	3,553.73	0.00	0.00	0.00
15,700.00	89.62	179.42	12,090.91	-3,656.93	-297.26	3,653.73	0.00	0.00	0.00
15,800.00	89.62	179.42	12,091.58	-3,756.92	-296.26	3,753.73	0.00	0.00	0.00
15,900.00	89.62	179.42	12,092.25	-3,856.91	-295.26	3,853.72	0.00	0.00	0.00
16,000.00	89.62	179.42	12,092.92	-3,956.90	-294.25	3,953.72	0.00	0.00	0.00
16,100.00	89.62	179.42	12,093.59	-4,056.90	-293.25	4,053.72	0.00	0.00	0.00
16,200.00	89.62	179.42	12,094.25	-4,156.89	-292.24	4,153.72	0.00	0.00	0.00
16,300.00	89.62	179.42	12,094.92	-4,256.88	-291.24	4,253.72	0.00	0.00	0.00
16,400.00	89.62	179.42	12,095.59	-4,356.87	-290.23	4,353.71	0.00	0.00	0.00
16,500.00	89.62	179.42	12,096.26	-4,456.87	-289.23	4,453.71	0.00	0.00	0.00
16,600.00	89.62	179.42	12,096.93	-4,556.86	-288.23	4,553.71	0.00	0.00	0.00
16,700.00	89.62	179.42	12,097.59	-4,656.85	-287.22	4,653.71	0.00	0.00	0.00
16,800.00	89.62	179.42	12,098.26	-4,756.85	-286.22	4,753.70	0.00	0.00	0.00
16,900.00	89.62	179.42	12,098.93	-4,856.84	-285.21	4,853.70	0.00	0.00	0.00
17,000.00	89.62	179.42	12,099.60	-4,956.83	-284.21	4,953.70	0.00	0.00	0.00
17,100.00	89.62	179.42	12,100.27	-5,056.82	-283.20	5,053.70	0.00	0.00	0.00
17,200.00	89.62	179.42	12,100.94	-5,156.82	-282.20	5,153.70	0.00	0.00	0.00
17,300.00	89.62	179.42	12,101.60	-5,256.81	-281.20	5,253.69	0.00	0.00	0.00
17,400.00	89.62	179.42	12,102.27	-5,356.80	-280.19	5,353.69	0.00	0.00	0.00
17,500.00	89.62	179.42	12,102.94	-5,456.79	-279.19	5,453.69	0.00	0.00	0.00
17,600.00	89.62	179.42	12,103.61	-5,556.79	-278.18	5,553.69	0.00	0.00	0.00
17,700.00	89.62	179.42	12,104.28	-5,656.78	-277.18	5,653.68	0.00	0.00	0.00
17,800.00	89.62	179.42	12,104.94	-5,756.77	-276.17	5,753.68	0.00	0.00	0.00
17,900.00	89.62	179.42	12,105.61	-5,856.77	-275.17	5,853.68	0.00	0.00	0.00
18,000.00	89.62	179.42	12,106.28	-5,956.76	-274.17	5,953.68	0.00	0.00	0.00
18,100.00	89.62	179.42	12,106.95	-6,056.75	-273.16	6,053.68	0.00	0.00	0.00
18,200.00	89.62	179.42	12,107.62	-6,156.74	-272.16	6,153.67	0.00	0.00	0.00
18,300.00	89.62	179.42	12,108.28	-6,256.74	-271.15	6,253.67	0.00	0.00	0.00
18,400.00	89.62	179.42	12,108.95	-6,356.73	-270.15	6,353.67	0.00	0.00	0.00
18,500.00	89.62	179.42	12,109.62	-6,456.72	-269.14	6,453.67	0.00	0.00	0.00
18,600.00	89.62	179.42	12,110.29	-6,556.71	-268.14	6,553.66	0.00	0.00	0.00
18,700.00	89.62	179.42	12,110.96	-6,656.71	-267.14	6,653.66	0.00	0.00	0.00
18,800.00	89.62	179.42	12,111.63	-6,756.70	-266.13	6,753.66	0.00	0.00	0.00
18,900.00	89.62	179.42	12,112.29	-6,856.69	-265.13	6,853.66	0.00	0.00	0.00
19,000.00	89.62	179.42	12,112.96	-6,956.69	-264.12	6,953.66	0.00	0.00	0.00
19,100.00	89.62	179.42	12,113.63	-7,056.68	-263.12	7,053.65	0.00	0.00	0.00
19,200.00	89.62	179.42	12,114.30	-7,156.67	-262.12	7,153.65	0.00	0.00	0.00
19,300.00	89.62	179.42	12,114.97	-7,256.66	-261.11	7,253.65	0.00	0.00	0.00
19,400.00	89.62	179.42	12,115.63	-7,356.66	-260.11	7,353.65	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
19,500.00	89.62	179.42	12,116.30	-7,456.65	-259.10	7,453.64	0.00	0.00	0.00	
19,600.00	89.62	179.42	12,116.97	-7,556.64	-258.10	7,553.64	0.00	0.00	0.00	
19,700.00	89.62	179.42	12,117.64	-7,656.63	-257.09	7,653.64	0.00	0.00	0.00	
19,800.00	89.62	179.42	12,118.31	-7,756.63	-256.09	7,753.64	0.00	0.00	0.00	
19,900.00	89.62	179.42	12,118.97	-7,856.62	-255.09	7,853.64	0.00	0.00	0.00	
20,000.00	89.62	179.42	12,119.64	-7,956.61	-254.08	7,953.63	0.00	0.00	0.00	
20,100.00	89.62	179.42	12,120.31	-8,056.61	-253.08	8,053.63	0.00	0.00	0.00	
20,200.00	89.62	179.42	12,120.98	-8,156.60	-252.07	8,153.63	0.00	0.00	0.00	
20,300.00	89.62	179.42	12,121.65	-8,256.59	-251.07	8,253.63	0.00	0.00	0.00	
20,400.00	89.62	179.42	12,122.32	-8,356.58	-250.06	8,353.62	0.00	0.00	0.00	
20,500.00	89.62	179.42	12,122.98	-8,456.58	-249.06	8,453.62	0.00	0.00	0.00	
20,600.00	89.62	179.42	12,123.65	-8,556.57	-248.06	8,553.62	0.00	0.00	0.00	
20,700.00	89.62	179.42	12,124.32	-8,656.56	-247.05	8,653.62	0.00	0.00	0.00	
20,800.00	89.62	179.42	12,124.99	-8,756.55	-246.05	8,753.62	0.00	0.00	0.00	
20,900.00	89.62	179.42	12,125.66	-8,856.55	-245.04	8,853.61	0.00	0.00	0.00	
21,000.00	89.62	179.42	12,126.32	-8,956.54	-244.04	8,953.61	0.00	0.00	0.00	
21,100.00	89.62	179.42	12,126.99	-9,056.53	-243.03	9,053.61	0.00	0.00	0.00	
21,200.00	89.62	179.42	12,127.66	-9,156.53	-242.03	9,153.61	0.00	0.00	0.00	
21,300.00	89.62	179.42	12,128.33	-9,256.52	-241.03	9,253.60	0.00	0.00	0.00	
21,400.00	89.62	179.42	12,129.00	-9,356.51	-240.02	9,353.60	0.00	0.00	0.00	
21,500.00	89.62	179.42	12,129.66	-9,456.50	-239.02	9,453.60	0.00	0.00	0.00	
21,600.00	89.62	179.42	12,130.33	-9,556.50	-238.01	9,553.60	0.00	0.00	0.00	
21,700.00	89.62	179.42	12,131.00	-9,656.49	-237.01	9,653.60	0.00	0.00	0.00	
21,800.00	89.62	179.42	12,131.67	-9,756.48	-236.00	9,753.59	0.00	0.00	0.00	
21,900.00	89.62	179.42	12,132.34	-9,856.47	-235.00	9,853.59	0.00	0.00	0.00	
22,000.00	89.62	179.42	12,133.01	-9,956.47	-234.00	9,953.59	0.00	0.00	0.00	
22,100.00	89.62	179.42	12,133.67	-10,056.46	-232.99	10,053.59	0.00	0.00	0.00	
22,160.93	89.62	179.42	12,134.08	-10,117.39	-232.38	10,114.52	0.00	0.00	0.00	
TD at 22160.93 - PBHL (Parade State 704H)										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (Parade State 704H) - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	425,502.20	850,516.61	32.165838	-103.334163
LP (Parade State 704H) - plan misses target center by 0.01usft at 12411.94usft MD (12068.95 TVD, -369.10 N, -330.28 E) - Point	0.00	0.00	12,068.95	-369.10	-330.28	425,133.10	850,186.33	32.164832	-103.335241
PBHL (Parade State 704H) - plan hits target center - Point	0.00	0.00	12,134.08	-10,117.39	-232.38	415,384.81	850,284.23	32.138036	-103.335217



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Parade State 704H
Company:	Franklin Mountain Energy	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Project:	Lea County, NM (NAD83)	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site:	Parade State/Beauty Queen	North Reference:	Grid
Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
3,100.00	3,100.00	0.00	0.00	Start Build 1.50	
3,500.08	3,499.35	10.71	-17.99	Start 3339.61 hold at 3500.08 MD	
6,839.68	6,820.65	189.29	-318.01	Start Drop -1.50	
7,239.76	7,220.00	200.00	-336.00	Start 4276.00 hold at 7239.76 MD	
11,515.76	11,496.00	200.00	-336.00	Start DLS 10.00 TFO 179.42	
12,411.94	12,068.95	-369.10	-330.28	Start 9749.00 hold at 12411.94 MD	
22,160.93	12,134.08	-10,117.39	-232.38	TD at 22160.93	



Franklin Mountain Energy

Lea County, NM (NAD83)
Parade State/Beauty Queen
Parade State 704H

OH
Plan #2

Anticollision Report

18 February, 2021





Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	Error Surface:	Combined Separation
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	2/18/2021		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	22,160.40	Plan #2 (OH)	OWSG (Rev2) MWD	OWSG MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Blue Ribbon/Parade State						
Blue Ribbon Fed Com 703H - OH - OH	4,253.77	4,157.00	1,328.88	1,310.16	70.960	CC
Blue Ribbon Fed Com 703H - OH - OH	12,093.23	12,085.00	1,330.96	1,273.99	23.362	ES
Blue Ribbon Fed Com 703H - OH - OH	12,150.00	12,085.00	1,332.07	1,275.03	23.352	SF
Parade State 603H - OH - OH	22,159.00	21,886.00	551.44	309.17	2.276	CC
Parade State 603H - OH - OH	22,160.93	21,886.00	551.45	309.15	2.276	ES, SF
Parade State/Beauty Queen						
Beauty Queen Fed Com 604H - OH - Plan #2	2,916.50	2,917.00	35.00	20.52	2.417	CC
Beauty Queen Fed Com 604H - OH - Plan #2	3,000.00	3,000.50	35.00	20.10	2.349	ES
Beauty Queen Fed Com 604H - OH - Plan #2	3,100.00	3,100.00	36.02	20.62	2.339	SF
Beauty Queen Fed Com 705H - OH - Plan #2	2,600.00	2,599.60	69.99	57.12	5.437	CC, ES
Beauty Queen Fed Com 705H - OH - Plan #2	22,160.93	22,014.57	944.08	703.04	3.917	SF

Offset Design	Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH												Offset Site Error:	0.00 usft
Survey Program:	64-MWD, 1327-OWSG (Rev2) MWD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor	Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-105.71	-365.39	-1,299.36	1,349.77					
100.00	100.00	100.74	100.74	0.14	0.19	-105.69	-365.01	-1,299.49	1,349.79	1,349.55	0.24	5,692.269		
117.04	117.04	112.64	112.64	0.20	0.23	-105.69	-365.04	-1,299.46	1,349.76	1,349.45	0.31	4,394.429		
200.00	200.00	191.13	191.12	0.50	0.51	-105.72	-365.79	-1,299.53	1,350.03	1,349.32	0.71	1,897.373		
300.00	300.00	288.20	288.19	0.86	0.85	-105.76	-366.77	-1,299.62	1,350.40	1,349.19	1.21	1,117.380		
400.00	400.00	388.68	388.65	1.22	1.21	-105.83	-368.55	-1,299.80	1,351.05	1,349.34	1.72	787.108		
500.00	500.00	484.45	484.39	1.58	1.56	-105.93	-371.05	-1,299.60	1,351.58	1,349.37	2.21	610.571		
600.00	600.00	581.15	581.05	1.93	1.90	-106.05	-373.94	-1,299.85	1,352.64	1,349.93	2.71	498.438		
700.00	700.00	689.12	688.97	2.29	2.29	-106.17	-376.97	-1,299.90	1,353.47	1,350.23	3.24	417.389		
800.00	800.00	783.03	782.84	2.65	2.63	-106.30	-380.02	-1,299.86	1,354.33	1,350.60	3.74	362.465		
900.00	900.00	887.01	886.77	3.01	3.01	-106.42	-383.04	-1,299.53	1,354.84	1,350.58	4.26	318.358		
1,000.00	1,000.00	993.00	992.71	3.37	3.39	-106.56	-386.31	-1,299.03	1,355.26	1,350.48	4.78	283.512		
1,100.00	1,100.00	1,084.58	1,084.24	3.73	3.73	-106.68	-389.20	-1,298.61	1,355.72	1,350.45	5.27	257.342		
1,200.00	1,200.00	1,194.23	1,193.87	4.08	4.12	-106.76	-391.06	-1,298.59	1,356.19	1,350.39	5.80	233.813		
1,300.00	1,300.00	1,283.61	1,283.25	4.44	4.44	-106.78	-391.72	-1,298.75	1,356.60	1,350.32	6.28	216.078		
1,385.60	1,385.60	1,381.58	1,381.22	4.75	4.54	-106.81	-392.29	-1,298.23	1,356.20	1,349.64	6.57	206.535		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 64-MWD, 1327-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
				(usft)	(usft)	(°)										
1,400.00	1,400.00	1,392.90	1,392.53	4.80	4.54	-106.82	-392.38	-1,298.21	1,356.22	1,349.61	6.61	205.320				
1,500.00	1,500.00	1,483.92	1,483.55	5.16	4.57	-106.85	-393.28	-1,298.64	1,356.94	1,350.05	6.89	196.874				
1,600.00	1,600.00	1,584.74	1,584.36	5.52	4.63	-106.87	-394.07	-1,299.34	1,357.83	1,350.63	7.20	188.460				
1,700.00	1,700.00	1,686.61	1,686.23	5.88	4.73	-106.90	-394.91	-1,299.89	1,358.59	1,351.05	7.54	180.199				
1,800.00	1,800.00	1,790.57	1,790.19	6.24	4.84	-106.92	-395.65	-1,300.27	1,359.15	1,351.25	7.89	172.165				
1,900.00	1,900.00	1,899.80	1,899.41	6.59	4.99	-106.94	-396.09	-1,300.20	1,359.20	1,350.93	8.27	164.358				
2,000.00	2,000.00	2,002.37	2,001.98	6.95	5.15	-106.95	-396.21	-1,299.75	1,358.81	1,350.16	8.65	157.045				
2,100.00	2,100.00	2,103.60	2,103.20	7.31	5.33	-106.95	-396.09	-1,299.26	1,358.31	1,349.27	9.04	150.174				
2,200.00	2,200.00	2,206.00	2,205.61	7.67	5.52	-106.95	-395.86	-1,298.62	1,357.65	1,348.21	9.45	143.681				
2,300.00	2,300.00	2,307.27	2,306.87	8.03	5.73	-106.94	-395.41	-1,297.92	1,356.86	1,347.00	9.86	137.592				
2,400.00	2,400.00	2,407.84	2,407.44	8.39	5.95	-106.93	-394.92	-1,297.18	1,356.01	1,345.73	10.28	131.890				
2,500.00	2,500.00	2,508.56	2,508.16	8.74	6.18	-106.91	-394.19	-1,296.45	1,355.11	1,344.40	10.71	126.543				
2,600.00	2,600.00	2,602.58	2,602.17	9.10	6.41	-106.88	-393.26	-1,295.93	1,354.30	1,343.16	11.13	121.652				
2,668.97	2,668.97	2,665.00	2,664.57	9.35	6.56	-106.81	-391.73	-1,296.25	1,354.15	1,342.73	11.42	118.545				
2,700.00	2,700.00	2,694.38	2,693.92	9.46	6.64	-106.76	-390.57	-1,296.62	1,354.17	1,342.61	11.56	117.182				
2,800.00	2,800.00	2,791.48	2,790.81	9.82	6.88	-106.50	-384.62	-1,298.69	1,354.45	1,342.46	11.99	112.960				
2,900.00	2,900.00	2,883.77	2,882.74	10.18	7.12	-106.15	-376.91	-1,301.45	1,354.99	1,342.57	12.42	109.075				
3,000.00	3,000.00	2,964.23	2,962.75	10.54	7.34	-105.80	-369.18	-1,304.94	1,356.55	1,343.72	12.84	105.663				
3,100.00	3,100.00	3,040.32	3,038.25	10.90	7.55	-105.42	-361.18	-1,309.86	1,359.96	1,346.71	13.25	102.660				
3,200.00	3,199.99	3,134.09	3,130.95	11.25	7.82	-45.61	-349.34	-1,317.55	1,363.70	1,350.01	13.69	99.616				
3,300.00	3,299.91	3,274.09	3,268.96	11.60	8.25	-44.80	-328.24	-1,327.87	1,364.38	1,350.15	14.23	95.875				
3,400.00	3,399.69	3,416.02	3,409.00	11.95	8.71	-44.15	-305.95	-1,333.68	1,359.90	1,345.12	14.78	92.003				
3,500.08	3,499.35	3,496.00	3,487.99	12.31	8.97	-43.90	-293.64	-1,335.97	1,352.69	1,337.46	15.22	88.872				
3,600.00	3,598.72	3,570.66	3,561.74	12.66	9.22	-43.64	-282.51	-1,339.27	1,346.24	1,330.59	15.65	86.021				
3,700.00	3,698.17	3,654.54	3,644.50	13.02	9.51	-43.32	-270.02	-1,344.86	1,341.87	1,325.77	16.10	83.341				
3,800.00	3,797.63	3,739.59	3,728.34	13.38	9.81	-42.99	-257.24	-1,351.26	1,338.41	1,321.86	16.56	80.837				
3,900.00	3,897.08	3,828.43	3,815.92	13.75	10.13	-42.65	-244.45	-1,358.88	1,336.15	1,319.12	17.02	78.485				
4,000.00	3,996.53	3,936.07	3,922.15	14.11	10.52	-42.28	-229.74	-1,368.14	1,334.14	1,316.60	17.54	76.049				
4,100.00	4,095.98	4,041.36	4,026.29	14.48	10.90	-41.96	-216.39	-1,376.09	1,331.32	1,313.26	18.06	73.726				
4,200.00	4,195.43	4,117.65	4,101.81	14.84	11.18	-41.77	-207.52	-1,382.14	1,329.14	1,310.64	18.50	71.856				
4,253.77	4,248.91	4,157.00	4,140.70	15.04	11.33	-41.65	-202.86	-1,385.97	1,328.88	1,310.16	18.73	70.960 CC				
4,300.00	4,294.89	4,189.46	4,172.73	15.21	11.45	-41.56	-198.97	-1,389.49	1,329.15	1,310.23	18.92	70.249				
4,400.00	4,394.34	4,270.95	4,252.99	15.58	11.76	-41.30	-189.02	-1,399.50	1,331.13	1,311.76	19.37	68.718				
4,500.00	4,493.79	4,385.80	4,366.21	15.95	12.20	-40.96	-175.50	-1,413.25	1,332.95	1,313.03	19.93	66.888				
4,600.00	4,593.24	4,488.80	4,467.90	16.32	12.59	-40.68	-163.84	-1,424.74	1,334.09	1,313.64	20.45	65.238				
4,700.00	4,692.69	4,589.97	4,567.66	16.70	12.99	-40.37	-151.52	-1,436.19	1,335.27	1,314.30	20.97	63.679				
4,800.00	4,792.15	4,693.12	4,669.36	17.07	13.39	-40.04	-138.63	-1,447.61	1,336.22	1,314.72	21.50	62.159				
4,900.00	4,891.60	4,796.75	4,771.75	17.45	13.80	-39.77	-127.07	-1,458.64	1,336.96	1,314.94	22.03	60.702				
5,000.00	4,991.05	4,883.98	4,857.96	17.82	14.14	-39.56	-117.61	-1,468.03	1,337.92	1,315.42	22.50	59.455				
5,100.00	5,090.50	4,974.24	4,946.88	18.20	14.51	-39.28	-106.59	-1,478.89	1,339.95	1,316.96	22.99	58.277				
5,200.00	5,189.95	5,076.88	5,047.88	18.58	14.93	-38.93	-93.48	-1,491.58	1,342.28	1,318.76	23.53	57.053				
5,300.00	5,289.40	5,191.69	5,161.11	18.95	15.39	-38.59	-79.82	-1,504.81	1,343.95	1,319.84	24.10	55.763				
5,400.00	5,388.86	5,301.73	5,269.95	19.33	15.83	-38.34	-68.25	-1,516.15	1,344.59	1,319.93	24.65	54.537				
5,500.00	5,488.31	5,401.58	5,368.82	19.71	16.22	-38.15	-58.36	-1,526.00	1,344.89	1,319.71	25.17	53.423				
5,600.00	5,587.76	5,498.78	5,465.08	20.09	16.61	-37.97	-49.07	-1,535.70	1,345.37	1,319.68	25.69	52.376				
5,700.00	5,687.21	5,600.07	5,565.26	20.47	17.01	-37.73	-38.11	-1,545.92	1,345.81	1,319.60	26.22	51.337				
5,800.00	5,786.66	5,694.92	5,658.94	20.85	17.40	-37.46	-26.98	-1,555.78	1,346.49	1,319.76	26.73	50.381				
5,900.00	5,886.12	5,795.54	5,758.28	21.23	17.82	-37.18	-15.20	-1,566.50	1,347.47	1,320.21	27.26	49.436				
6,000.00	5,985.57	5,904.23	5,865.55	21.62	18.27	-36.84	-1.57	-1,577.54	1,347.89	1,320.07	27.82	48.458				
6,100.00	6,085.02	6,026.21	5,985.97	22.00	18.77	-36.45	14.06	-1,589.02	1,347.65	1,319.24	28.42	47.423				
6,200.00	6,184.47	6,129.49	6,087.70	22.38	19.21	-36.02	29.77	-1,597.44	1,345.93	1,316.97	28.96	46.469				
6,300.00	6,283.92	6,220.86	6,177.62	22.76	19.60	-35.63	44.01	-1,605.24	1,344.65	1,315.17	29.48	45.617				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 64-MWD, 1327-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
6,400.00	6,383.38	6,314.51	6,269.69	23.15	20.00	-35.21	58.90	-1,613.79	1,344.00	1,314.00	30.00	44.804				
6,466.37	6,449.39	6,375.69	6,329.79	23.40	20.27	-34.92	68.71	-1,619.59	1,343.85	1,313.51	30.34	44.294				
6,500.00	6,482.83	6,406.40	6,359.95	23.53	20.40	-34.78	73.67	-1,622.60	1,343.89	1,313.38	30.51	44.045				
6,600.00	6,582.28	6,501.23	6,453.04	23.91	20.82	-34.34	89.02	-1,632.17	1,344.36	1,313.33	31.04	43.316				
6,700.00	6,681.73	6,598.33	6,548.34	24.30	21.24	-33.89	104.66	-1,642.20	1,345.16	1,313.59	31.57	42.611				
6,800.00	6,781.18	6,722.19	6,670.12	24.68	21.78	-33.35	123.94	-1,653.99	1,345.27	1,313.08	32.19	41.793				
6,839.68	6,820.65	6,762.61	6,709.94	24.84	21.96	-33.18	129.98	-1,657.44	1,344.94	1,312.54	32.41	41.504				
6,900.00	6,880.68	6,832.80	6,779.11	25.07	22.26	-32.88	140.41	-1,663.25	1,344.75	1,311.99	32.76	41.050				
6,976.41	6,956.85	6,929.13	6,874.33	25.35	22.66	-32.49	153.44	-1,669.70	1,344.42	1,311.20	33.22	40.470				
7,000.00	6,980.39	6,952.85	6,897.82	25.44	22.75	-32.40	156.37	-1,671.16	1,344.49	1,311.14	33.34	40.321				
7,100.00	7,080.27	7,058.75	7,002.88	25.80	23.17	-32.03	168.06	-1,677.46	1,345.98	1,312.11	33.88	39.731				
7,200.00	7,180.24	7,195.22	7,138.78	26.16	23.68	-31.65	178.77	-1,683.48	1,348.33	1,313.87	34.46	39.124				
7,239.76	7,220.00	7,236.75	7,180.23	26.30	23.83	-90.80	181.18	-1,684.69	1,349.28	1,314.62	34.66	38.929				
7,300.00	7,280.24	7,307.37	7,250.73	26.51	24.07	-90.65	184.80	-1,686.35	1,350.66	1,315.69	34.97	38.621				
7,400.00	7,380.24	7,423.28	7,366.58	26.85	24.46	-90.51	188.02	-1,687.73	1,351.81	1,316.33	35.48	38.101				
7,500.00	7,480.24	7,525.95	7,469.25	27.20	24.78	-90.48	188.62	-1,688.24	1,352.31	1,316.35	35.96	37.607				
7,600.00	7,580.24	7,624.00	7,567.30	27.55	25.09	-90.49	188.55	-1,688.78	1,352.86	1,316.43	36.43	37.137				
7,700.00	7,680.24	7,747.25	7,690.54	27.89	25.46	-90.48	188.70	-1,688.77	1,352.90	1,315.97	36.93	36.639				
7,800.00	7,780.24	7,848.73	7,792.02	28.24	25.77	-90.46	189.11	-1,687.62	1,351.76	1,314.36	37.40	36.146				
7,900.00	7,880.24	7,949.00	7,892.28	28.59	26.07	-90.46	189.26	-1,686.40	1,350.55	1,312.68	37.87	35.666				
8,000.00	7,980.24	8,049.07	7,992.34	28.94	26.38	-90.46	189.13	-1,685.19	1,349.34	1,311.00	38.34	35.198				
8,100.00	8,080.24	8,150.25	8,093.51	29.28	26.68	-90.48	188.74	-1,683.89	1,348.05	1,309.25	38.80	34.740				
8,200.00	8,180.24	8,250.44	8,193.69	29.63	26.98	-90.50	188.20	-1,682.59	1,346.76	1,307.48	39.27	34.292				
8,300.00	8,280.24	8,351.72	8,294.95	29.98	27.28	-90.54	187.29	-1,681.17	1,345.37	1,305.62	39.74	33.852				
8,400.00	8,380.24	8,451.57	8,394.79	30.33	27.58	-90.59	186.26	-1,679.74	1,343.95	1,303.74	40.21	33.422				
8,500.00	8,480.24	8,550.91	8,494.11	30.68	27.88	-90.64	184.97	-1,678.35	1,342.55	1,301.87	40.68	33.003				
8,600.00	8,580.24	8,645.93	8,589.12	31.03	28.16	-90.70	183.51	-1,677.14	1,341.31	1,300.17	41.14	32.600				
8,700.00	8,680.24	8,741.23	8,684.41	31.38	28.45	-90.76	182.14	-1,676.42	1,340.56	1,298.95	41.61	32.217				
8,800.00	8,780.24	8,838.64	8,781.81	31.73	28.74	-90.82	180.78	-1,675.84	1,339.99	1,297.92	42.08	31.845				
8,900.00	8,880.24	8,934.18	8,877.34	32.08	29.03	-90.87	179.62	-1,675.55	1,339.71	1,297.16	42.55	31.488				
8,930.78	8,911.02	8,963.47	8,906.62	32.19	29.12	-90.89	179.27	-1,675.53	1,339.69	1,297.00	42.69	31.381				
9,000.00	8,980.24	9,030.55	8,973.70	32.43	29.33	-90.92	178.45	-1,675.58	1,339.75	1,296.73	43.02	31.145				
9,100.00	9,080.24	9,127.48	9,070.62	32.78	29.63	-90.97	177.26	-1,675.82	1,340.02	1,296.53	43.49	30.815				
9,200.00	9,180.24	9,225.32	9,168.45	33.13	29.93	-91.03	175.95	-1,676.27	1,340.51	1,296.55	43.96	30.494				
9,300.00	9,280.24	9,327.44	9,270.56	33.48	30.25	-91.09	174.49	-1,676.77	1,341.02	1,296.58	44.44	30.177				
9,400.00	9,380.24	9,430.27	9,373.39	33.83	30.57	-91.13	173.50	-1,677.04	1,341.30	1,296.38	44.92	29.860				
9,500.00	9,480.24	9,524.59	9,467.70	34.18	30.88	-91.13	173.60	-1,677.36	1,341.65	1,296.25	45.40	29.555				
9,600.00	9,580.24	9,627.23	9,570.34	34.53	31.22	-91.10	174.30	-1,677.96	1,342.22	1,296.33	45.89	29.252				
9,700.00	9,680.24	9,728.42	9,671.52	34.88	31.56	-91.05	175.29	-1,678.34	1,342.57	1,296.20	46.37	28.950				
9,800.00	9,780.24	9,824.00	9,767.10	35.24	31.87	-91.02	176.18	-1,678.77	1,343.01	1,296.15	46.86	28.662				
9,900.00	9,880.24	9,908.56	9,851.65	35.59	32.16	-90.98	177.03	-1,679.78	1,344.19	1,296.87	47.32	28.406				
10,000.00	9,980.24	10,017.59	9,960.66	35.94	32.52	-90.96	177.36	-1,681.49	1,345.76	1,297.94	47.82	28.141				
10,100.00	10,080.24	10,125.16	10,068.22	36.29	32.86	-91.02	176.10	-1,682.40	1,346.64	1,298.32	48.31	27.873				
10,200.00	10,180.24	10,235.78	10,178.84	36.64	33.21	-91.06	174.97	-1,682.57	1,346.81	1,298.00	48.81	27.594				
10,300.00	10,280.24	10,347.50	10,290.55	37.00	33.57	-91.09	174.28	-1,681.85	1,346.17	1,296.87	49.30	27.305				
10,400.00	10,380.24	10,456.50	10,399.53	37.35	33.91	-91.14	173.28	-1,680.22	1,344.69	1,294.90	49.79	27.008				
10,500.00	10,480.24	10,550.53	10,493.54	37.70	34.21	-91.18	172.31	-1,678.63	1,343.03	1,292.76	50.26	26.719				
10,600.00	10,580.24	10,650.66	10,593.66	38.05	34.53	-91.21	171.75	-1,677.41	1,341.82	1,291.08	50.75	26.442				
10,700.00	10,680.24	10,759.83	10,702.82	38.40	34.88	-91.24	170.91	-1,675.60	1,340.19	1,288.95	51.24	26.157				
10,800.00	10,780.24	10,848.75	10,791.73	38.76	35.17	-91.25	170.71	-1,674.12	1,338.54	1,286.83	51.71	25.885				
10,867.96	10,848.19	10,900.82	10,843.79	39.00	35.34	-91.25	170.88	-1,673.78	1,338.10	1,286.07	52.02	25.722				
10,900.00	10,880.24	10,924.47	10,867.44	39.11	35.42	-91.24	171.00	-1,673.86	1,338.20	1,286.03	52.17	25.652				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 64-MWD, 1327-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
11,000.00	10,980.24	11,007.18	10,950.14	39.46	35.70	-91.21	171.64	-1,675.06	1,339.61	1,286.98	52.63	25.455				
11,100.00	11,080.24	11,172.91	11,115.82	39.82	36.26	-91.12	173.90	-1,674.79	1,339.64	1,286.44	53.20	25.182				
11,200.00	11,180.24	11,267.12	11,209.98	40.17	36.56	-91.14	173.35	-1,672.01	1,336.71	1,283.03	53.68	24.902				
11,300.00	11,280.24	11,352.38	11,295.18	40.52	36.83	-91.27	170.48	-1,670.33	1,334.79	1,280.64	54.15	24.651				
11,400.00	11,380.24	11,449.69	11,392.37	40.88	37.13	-91.46	165.97	-1,668.95	1,333.49	1,278.86	54.63	24.412				
11,500.00	11,480.24	11,537.70	11,480.14	41.23	37.40	-91.73	159.71	-1,668.10	1,332.72	1,277.63	55.09	24.192				
11,515.76	11,496.00	11,557.97	11,500.24	41.28	37.45	-91.84	157.18	-1,667.92	1,332.64	1,277.47	55.17	24.156				
11,550.00	11,530.22	11,594.41	11,536.20	41.40	37.56	88.55	151.28	-1,667.44	1,332.35	1,277.02	55.33	24.082				
11,600.00	11,579.93	11,644.03	11,584.59	41.55	37.68	88.35	140.37	-1,666.67	1,331.84	1,276.30	55.53	23.982				
11,650.00	11,629.01	11,686.04	11,624.89	41.70	37.79	88.23	128.58	-1,665.99	1,331.32	1,275.59	55.72	23.891				
11,700.00	11,677.08	11,725.77	11,662.46	41.84	37.88	88.16	115.65	-1,665.62	1,331.09	1,275.20	55.90	23.813				
11,750.00	11,723.77	11,771.85	11,705.07	41.98	37.97	88.12	98.13	-1,665.31	1,330.99	1,274.92	56.07	23.739				
11,800.00	11,768.72	11,805.00	11,734.87	42.10	38.03	88.11	83.63	-1,665.04	1,330.90	1,274.69	56.21	23.678				
11,804.39	11,772.57	11,816.51	11,745.01	42.11	38.05	88.11	78.19	-1,664.97	1,330.85	1,274.61	56.23	23.668				
11,850.00	11,811.60	11,841.26	11,766.39	42.21	38.10	88.09	65.72	-1,665.06	1,331.22	1,274.88	56.34	23.628				
11,900.00	11,852.08	11,874.36	11,793.98	42.30	38.15	88.05	47.45	-1,665.61	1,332.25	1,275.79	56.46	23.597				
11,950.00	11,889.84	11,971.00	11,867.15	42.39	38.25	88.05	-15.43	-1,666.26	1,333.25	1,276.60	56.65	23.535				
12,000.00	11,924.61	12,022.21	11,900.90	42.46	38.29	88.01	-53.88	-1,664.70	1,332.19	1,275.41	56.77	23.464				
12,050.00	11,956.12	12,065.98	11,926.52	42.53	38.32	87.99	-89.34	-1,663.67	1,331.49	1,274.60	56.89	23.404				
12,093.23	11,980.55	12,085.00	11,936.82	42.57	38.33	88.00	-105.33	-1,663.15	1,330.96	1,273.99	56.97	23.362 ES				
12,100.00	11,984.13	12,085.00	11,936.82	42.58	38.33	88.00	-105.33	-1,663.15	1,330.97	1,273.99	56.98	23.359				
12,150.00	12,008.42	12,085.00	11,936.82	42.63	38.33	87.89	-105.33	-1,663.15	1,332.07	1,275.03	57.04	23.352 SF				
12,200.00	12,028.81	12,085.00	11,936.82	42.69	38.33	87.61	-105.33	-1,663.15	1,334.88	1,277.77	57.10	23.376				
12,250.00	12,045.15	12,085.00	11,936.82	42.80	38.33	87.16	-105.33	-1,663.15	1,339.36	1,282.20	57.17	23.429				
12,300.00	12,057.30	12,085.00	11,936.82	42.92	38.33	86.54	-105.33	-1,663.15	1,345.48	1,288.25	57.24	23.508				
12,350.00	12,065.19	12,085.00	11,936.82	43.05	38.33	85.77	-105.33	-1,663.15	1,353.16	1,295.85	57.31	23.611				
12,400.00	12,068.74	12,085.00	11,936.82	43.18	38.33	84.84	-105.33	-1,663.15	1,362.31	1,304.91	57.40	23.735				
12,411.94	12,068.95	12,085.00	11,936.82	43.21	38.33	84.59	-105.33	-1,663.15	1,364.70	1,307.28	57.42	23.768				
12,500.00	12,069.53	12,085.00	11,936.82	43.46	38.33	84.59	-105.33	-1,663.15	1,385.33	1,327.73	57.59	24.053				
12,600.00	12,070.20	12,085.00	11,936.82	43.81	38.33	84.59	-105.33	-1,663.15	1,415.04	1,357.21	57.83	24.468				
12,700.00	12,070.87	12,085.00	11,936.82	44.21	38.33	84.59	-105.33	-1,663.15	1,451.05	1,392.95	58.10	24.976				
12,800.00	12,071.54	12,085.00	11,936.82	44.66	38.33	84.59	-105.33	-1,663.15	1,492.90	1,434.53	58.38	25.573				
12,900.00	12,072.21	12,085.00	11,936.82	45.17	38.33	84.59	-105.33	-1,663.15	1,540.12	1,481.46	58.67	26.253				
13,000.00	12,072.87	12,085.00	11,936.82	45.74	38.33	84.59	-105.33	-1,663.15	1,592.23	1,533.28	58.95	27.009				
13,100.00	12,073.54	12,085.00	11,936.82	46.35	38.33	84.59	-105.33	-1,663.15	1,648.76	1,589.53	59.23	27.837				
13,200.00	12,074.21	12,085.00	11,936.82	47.01	38.33	84.59	-105.33	-1,663.15	1,709.27	1,649.78	59.50	28.729				
13,300.00	12,074.88	12,085.00	11,936.82	47.72	38.33	84.59	-105.33	-1,663.15	1,773.36	1,713.62	59.75	29.681				
13,400.00	12,075.55	12,085.00	11,936.82	48.48	38.33	84.59	-105.33	-1,663.15	1,840.66	1,780.68	59.98	30.686				
13,500.00	12,076.21	12,085.00	11,936.82	49.28	38.33	84.59	-105.33	-1,663.15	1,910.82	1,850.62	60.20	31.740				
13,600.00	12,076.88	12,085.00	11,936.82	50.12	38.33	84.59	-105.33	-1,663.15	1,983.55	1,923.14	60.41	32.836				
13,700.00	12,077.55	12,085.00	11,936.82	51.00	38.33	84.59	-105.33	-1,663.15	2,058.56	1,997.96	60.60	33.971				
13,800.00	12,078.22	12,085.00	11,936.82	51.92	38.33	84.59	-105.33	-1,663.15	2,135.62	2,074.85	60.77	35.141				
13,900.00	12,078.89	12,085.00	11,936.82	52.88	38.33	84.59	-105.33	-1,663.15	2,214.52	2,153.58	60.93	36.344				
14,000.00	12,079.56	12,085.00	11,936.82	53.86	38.33	84.59	-105.33	-1,663.15	2,295.06	2,233.98	61.08	37.574				
14,100.00	12,080.22	12,085.00	11,936.82	54.88	38.33	84.59	-105.33	-1,663.15	2,377.08	2,315.86	61.22	38.829				
14,200.00	12,080.89	12,085.00	11,936.82	55.93	38.33	84.59	-105.33	-1,663.15	2,460.43	2,399.08	61.35	40.107				
14,300.00	12,081.56	12,085.00	11,936.82	57.01	38.33	84.59	-105.33	-1,663.15	2,544.98	2,483.52	61.46	41.406				
14,400.00	12,082.23	12,085.00	11,936.82	58.12	38.33	84.59	-105.33	-1,663.15	2,630.62	2,569.04	61.57	42.722				
14,500.00	12,082.90	12,085.00	11,936.82	59.25	38.33	84.59	-105.33	-1,663.15	2,717.23	2,655.56	61.68	44.055				
14,600.00	12,083.56	12,085.00	11,936.82	60.40	38.33	84.59	-105.33	-1,663.15	2,804.74	2,742.97	61.77	45.403				
14,700.00	12,084.23	12,085.00	11,936.82	61.58	38.33	84.59	-105.33	-1,663.15	2,893.06	2,831.19	61.86	46.764				
14,800.00	12,084.90	12,085.00	11,936.82	62.78	38.33	84.59	-105.33	-1,663.15	2,982.11	2,920.16	61.95	48.137				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 64-MWD, 1327-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
14,900.00	12,085.57	12,085.00	11,936.82	64.00	38.33	84.59	-105.33	-1,663.15	3,071.84	3,009.81	62.03	49.521				
15,000.00	12,086.24	12,085.00	11,936.82	65.23	38.33	84.59	-105.33	-1,663.15	3,162.18	3,100.08	62.11	50.915				
15,100.00	12,086.90	12,085.00	11,936.82	66.49	38.33	84.59	-105.33	-1,663.15	3,253.09	3,190.91	62.18	52.317				
15,200.00	12,087.57	12,085.00	11,936.82	67.76	38.33	84.59	-105.33	-1,663.15	3,344.52	3,282.27	62.25	53.727				
15,300.00	12,088.24	12,085.00	11,936.82	69.05	38.33	84.59	-105.33	-1,663.15	3,436.43	3,374.11	62.32	55.144				
15,400.00	12,088.91	12,085.00	11,936.82	70.36	38.33	84.59	-105.33	-1,663.15	3,528.78	3,466.39	62.38	56.567				
15,500.00	12,089.58	12,085.00	11,936.82	71.68	38.33	84.59	-105.33	-1,663.15	3,621.53	3,559.08	62.44	57.996				
15,600.00	12,090.25	12,085.00	11,936.82	73.01	38.33	84.59	-105.33	-1,663.15	3,714.66	3,652.15	62.50	59.430				
15,700.00	12,090.91	12,085.00	11,936.82	74.35	38.33	84.59	-105.33	-1,663.15	3,808.13	3,745.57	62.56	60.868				
15,800.00	12,091.58	12,085.00	11,936.82	75.71	38.33	84.59	-105.33	-1,663.15	3,901.94	3,839.31	62.62	62.310				
15,900.00	12,092.25	12,085.00	11,936.82	77.08	38.33	84.59	-105.33	-1,663.15	3,996.04	3,933.36	62.68	63.756				
16,000.00	12,092.92	12,085.00	11,936.82	78.46	38.33	84.59	-105.33	-1,663.15	4,090.42	4,027.69	62.73	65.206				
16,100.00	12,093.59	12,085.00	11,936.82	79.85	38.33	84.59	-105.33	-1,663.15	4,185.06	4,122.28	62.78	66.657				
16,200.00	12,094.25	12,085.00	11,936.82	81.25	38.33	84.59	-105.33	-1,663.15	4,279.95	4,217.11	62.84	68.112				
16,300.00	12,094.92	12,085.00	11,936.82	82.66	38.33	84.59	-105.33	-1,663.15	4,375.06	4,312.17	62.89	69.568				
16,400.00	12,095.59	12,085.00	11,936.82	84.08	38.33	84.59	-105.33	-1,663.15	4,470.39	4,407.45	62.94	71.025				
16,500.00	12,096.26	12,085.00	11,936.82	85.50	38.33	84.59	-105.33	-1,663.15	4,565.92	4,502.92	62.99	72.484				
16,600.00	12,096.93	12,085.00	11,936.82	86.94	38.33	84.59	-105.33	-1,663.15	4,661.63	4,598.59	63.04	73.945				
16,700.00	12,097.59	12,085.00	11,936.82	88.38	38.33	84.59	-105.33	-1,663.15	4,757.52	4,694.43	63.09	75.406				
16,800.00	12,098.26	12,085.00	11,936.82	89.83	38.33	84.59	-105.33	-1,663.15	4,853.58	4,790.44	63.14	76.867				
16,900.00	12,098.93	12,085.00	11,936.82	91.29	38.33	84.59	-105.33	-1,663.15	4,949.79	4,886.60	63.19	78.329				
17,000.00	12,099.60	12,085.00	11,936.82	92.75	38.33	84.59	-105.33	-1,663.15	5,046.15	4,982.91	63.24	79.791				
17,100.00	12,100.27	12,085.00	11,936.82	94.22	38.33	84.59	-105.33	-1,663.15	5,142.65	5,079.36	63.29	81.253				
17,200.00	12,100.94	12,085.00	11,936.82	95.70	38.33	84.59	-105.33	-1,663.15	5,239.28	5,175.94	63.34	82.714				
17,300.00	12,101.60	12,085.00	11,936.82	97.18	38.33	84.59	-105.33	-1,663.15	5,336.04	5,272.64	63.39	84.175				
17,400.00	12,102.27	12,085.00	11,936.82	98.66	38.33	84.59	-105.33	-1,663.15	5,432.91	5,369.47	63.44	85.636				
17,500.00	12,102.94	12,085.00	11,936.82	100.15	38.33	84.59	-105.33	-1,663.15	5,529.89	5,466.40	63.49	87.096				
17,600.00	12,103.61	12,085.00	11,936.82	101.65	38.33	84.59	-105.33	-1,663.15	5,626.98	5,563.44	63.54	88.555				
17,700.00	12,104.28	12,085.00	11,936.82	103.15	38.33	84.59	-105.33	-1,663.15	5,724.17	5,660.58	63.59	90.012				
17,800.00	12,104.94	12,085.00	11,936.82	104.66	38.33	84.59	-105.33	-1,663.15	5,821.45	5,757.81	63.64	91.469				
17,900.00	12,105.61	12,085.00	11,936.82	106.17	38.33	84.59	-105.33	-1,663.15	5,918.83	5,855.13	63.70	92.924				
18,000.00	12,106.28	12,085.00	11,936.82	107.68	38.33	84.59	-105.33	-1,663.15	6,016.29	5,952.54	63.75	94.378				
18,100.00	12,106.95	12,085.00	11,936.82	109.20	38.33	84.59	-105.33	-1,663.15	6,113.83	6,050.04	63.80	95.830				
18,200.00	12,107.62	12,085.00	11,936.82	110.73	38.33	84.59	-105.33	-1,663.15	6,211.46	6,147.60	63.85	97.281				
18,300.00	12,108.28	12,085.00	11,936.82	112.25	38.33	84.59	-105.33	-1,663.15	6,309.15	6,245.25	63.90	98.729				
18,400.00	12,108.95	12,085.00	11,936.82	113.78	38.33	84.59	-105.33	-1,663.15	6,406.92	6,342.96	63.96	100.176				
18,500.00	12,109.62	12,085.00	11,936.82	115.31	38.33	84.59	-105.33	-1,663.15	6,504.75	6,440.74	64.01	101.621				
18,600.00	12,110.29	12,085.00	11,936.82	116.85	38.33	84.59	-105.33	-1,663.15	6,602.65	6,538.59	64.06	103.064				
18,700.00	12,110.96	12,085.00	11,936.82	118.39	38.33	84.59	-105.33	-1,663.15	6,700.61	6,636.50	64.12	104.504				
18,800.00	12,111.63	12,085.00	11,936.82	119.93	38.33	84.59	-105.33	-1,663.15	6,798.64	6,734.46	64.17	105.943				
18,900.00	12,112.29	12,085.00	11,936.82	121.48	38.33	84.59	-105.33	-1,663.15	6,896.71	6,832.49	64.23	107.378				
19,000.00	12,112.96	12,085.00	11,936.82	123.03	38.33	84.59	-105.33	-1,663.15	6,994.85	6,930.56	64.28	108.812				
19,100.00	12,113.63	12,085.00	11,936.82	124.58	38.33	84.59	-105.33	-1,663.15	7,093.03	7,028.69	64.34	110.243				
19,200.00	12,114.30	12,085.00	11,936.82	126.13	38.33	84.59	-105.33	-1,663.15	7,191.26	7,126.87	64.40	111.671				
19,300.00	12,114.97	12,085.00	11,936.82	127.69	38.33	84.59	-105.33	-1,663.15	7,289.55	7,225.09	64.45	113.097				
19,400.00	12,115.63	12,085.00	11,936.82	129.25	38.33	84.59	-105.33	-1,663.15	7,387.88	7,323.36	64.51	114.519				
19,500.00	12,116.30	12,085.00	11,936.82	130.81	38.33	84.59	-105.33	-1,663.15	7,486.25	7,421.68	64.57	115.939				
19,600.00	12,116.97	12,085.00	11,936.82	132.37	38.33	84.59	-105.33	-1,663.15	7,584.66	7,520.04	64.63	117.357				
19,700.00	12,117.64	12,085.00	11,936.82	133.94	38.33	84.59	-105.33	-1,663.15	7,683.12	7,618.43	64.69	118.771				
19,800.00	12,118.31	12,085.00	11,936.82	135.50	38.33	84.59	-105.33	-1,663.15	7,781.62	7,716.87	64.75	120.182				
19,900.00	12,118.97	12,085.00	11,936.82	137.07	38.33	84.59	-105.33	-1,663.15	7,880.15	7,815.34	64.81	121.590				
20,000.00	12,119.64	12,085.00	11,936.82	138.64	38.33	84.59	-105.33	-1,663.15	7,978.72	7,913.85	64.87	122.995				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design											Blue Ribbon/Parade State - Blue Ribbon Fed Com 703H - OH - OH		Offset Site Error:		0.00 usft
Survey Program:											64-MWD, 1327-OWSG (Rev2) MWD		Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
20,100.00	12,120.31	12,085.00	11,936.82	140.22	38.33	84.59	-105.33	-1,663.15	8,077.33	8,012.39	64.93	124.397			
20,200.00	12,120.98	12,085.00	11,936.82	141.79	38.33	84.59	-105.33	-1,663.15	8,175.96	8,110.97	64.99	125.795			
20,300.00	12,121.65	12,085.00	11,936.82	143.37	38.33	84.59	-105.33	-1,663.15	8,274.64	8,209.58	65.06	127.190			
20,400.00	12,122.32	12,085.00	11,936.82	144.95	38.33	84.59	-105.33	-1,663.15	8,373.34	8,308.22	65.12	128.582			
20,500.00	12,122.98	12,085.00	11,936.82	146.53	38.33	84.59	-105.33	-1,663.15	8,472.07	8,406.89	65.18	129.970			
20,600.00	12,123.65	12,085.00	11,936.82	148.11	38.33	84.59	-105.33	-1,663.15	8,570.84	8,505.59	65.25	131.355			
20,700.00	12,124.32	12,085.00	11,936.82	149.69	38.33	84.59	-105.33	-1,663.15	8,669.63	8,604.31	65.31	132.737			
20,800.00	12,124.99	12,085.00	11,936.82	151.28	38.33	84.59	-105.33	-1,663.15	8,768.45	8,703.07	65.38	134.115			
20,900.00	12,125.66	12,085.00	11,936.82	152.86	38.33	84.59	-105.33	-1,663.15	8,867.29	8,801.85	65.45	135.489			
21,000.00	12,126.32	12,085.00	11,936.82	154.45	38.33	84.59	-105.33	-1,663.15	8,966.16	8,900.65	65.51	136.860			
21,100.00	12,126.99	12,085.00	11,936.82	156.04	38.33	84.59	-105.33	-1,663.15	9,065.06	8,999.48	65.58	138.227			
21,200.00	12,127.66	12,085.00	11,936.82	157.63	38.33	84.59	-105.33	-1,663.15	9,163.98	9,098.33	65.65	139.590			
21,300.00	12,128.33	12,085.00	11,936.82	159.22	38.33	84.59	-105.33	-1,663.15	9,262.92	9,197.20	65.72	140.949			
21,400.00	12,129.00	12,085.00	11,936.82	160.81	38.33	84.59	-105.33	-1,663.15	9,361.89	9,296.10	65.79	142.305			
21,500.00	12,129.66	12,085.00	11,936.82	162.41	38.33	84.59	-105.33	-1,663.15	9,460.87	9,395.02	65.86	143.657			
21,600.00	12,130.33	12,085.00	11,936.82	164.00	38.33	84.59	-105.33	-1,663.15	9,559.88	9,493.95	65.93	145.005			
21,700.00	12,131.00	12,085.00	11,936.82	165.60	38.33	84.59	-105.33	-1,663.15	9,658.91	9,592.91	66.00	146.349			
21,800.00	12,131.67	12,085.00	11,936.82	167.20	38.33	84.59	-105.33	-1,663.15	9,757.96	9,691.89	66.07	147.689			
21,900.00	12,132.34	12,085.00	11,936.82	168.79	38.33	84.59	-105.33	-1,663.15	9,857.03	9,790.88	66.14	149.025			
22,000.00	12,133.01	12,085.00	11,936.82	170.39	38.33	84.59	-105.33	-1,663.15	9,956.11	9,889.90	66.22	150.357			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Parade State 603H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 61-OWSG (Rev2) MWD, 21886-BLIND													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
							+N/-S (usft)	+E/-W (usft)								
0.00	0.00	0.00	0.00	0.00	0.00	-106.11	-365.08	-1,264.37	1,316.03							
100.00	100.00	97.83	97.83	0.14	0.19	-106.10	-364.88	-1,264.24	1,315.84	1,315.61	0.23	5,617.985				
200.00	200.00	194.87	194.86	0.50	0.53	-106.10	-364.87	-1,264.03	1,315.64	1,314.91	0.73	1,814.225				
204.98	204.98	199.39	199.38	0.52	0.54	-106.10	-364.87	-1,264.03	1,315.63	1,314.89	0.75	1,756.750				
300.00	300.00	297.43	297.43	0.86	0.88	-106.14	-365.68	-1,263.91	1,315.75	1,314.52	1.23	1,068.339				
336.59	336.59	331.07	331.06	0.99	1.00	-106.16	-366.10	-1,263.74	1,315.70	1,314.29	1.41	934.095				
400.00	400.00	384.30	384.29	1.22	1.19	-106.18	-366.70	-1,263.79	1,315.95	1,314.25	1.70	772.928				
500.00	500.00	482.38	482.36	1.58	1.54	-106.24	-368.32	-1,264.14	1,316.76	1,314.56	2.20	597.878				
600.00	600.00	596.59	596.54	1.93	1.95	-106.34	-370.64	-1,263.86	1,317.09	1,314.34	2.74	479.840				
629.42	629.42	623.88	623.82	2.04	2.05	-106.37	-371.23	-1,263.67	1,317.06	1,314.18	2.89	455.941				
700.00	700.00	687.59	687.52	2.29	2.27	-106.43	-372.56	-1,263.43	1,317.23	1,314.00	3.23	407.888				
800.00	800.00	782.54	782.43	2.65	2.62	-106.53	-374.98	-1,263.42	1,317.95	1,314.22	3.72	353.877				
900.00	900.00	891.58	891.44	3.01	3.01	-106.64	-377.57	-1,263.17	1,318.40	1,314.14	4.26	309.825				
1,000.00	1,000.00	996.52	996.37	3.37	3.39	-106.73	-379.56	-1,262.90	1,318.70	1,313.93	4.78	276.138				
1,046.05	1,046.05	1,040.54	1,040.38	3.53	3.54	-106.77	-380.46	-1,262.44	1,318.52	1,313.52	5.00	263.487				
1,100.00	1,100.00	1,093.20	1,093.02	3.73	3.73	-106.82	-381.61	-1,262.27	1,318.69	1,313.42	5.27	249.994				
1,200.00	1,200.00	1,190.94	1,190.74	4.08	4.09	-106.91	-383.61	-1,262.14	1,319.15	1,313.37	5.78	228.344				
1,300.00	1,300.00	1,282.86	1,282.65	4.44	4.42	-106.96	-384.98	-1,262.26	1,319.72	1,313.45	6.26	210.709				
1,400.00	1,400.00	1,386.98	1,386.76	4.80	4.79	-107.02	-386.47	-1,262.64	1,320.49	1,313.71	6.78	194.757				
1,500.00	1,500.00	1,487.79	1,487.56	5.16	5.15	-107.07	-387.72	-1,262.77	1,320.97	1,313.68	7.29	181.223				
1,600.00	1,600.00	1,587.08	1,586.84	5.52	5.51	-107.12	-388.91	-1,262.98	1,321.53	1,313.73	7.79	169.551				
1,700.00	1,700.00	1,688.67	1,688.43	5.88	5.87	-107.16	-390.08	-1,263.19	1,322.06	1,313.75	8.31	159.183				
1,800.00	1,800.00	1,791.53	1,791.28	6.24	6.24	-107.20	-391.08	-1,263.25	1,322.40	1,313.58	8.82	149.939				
1,900.00	1,900.00	1,891.46	1,891.21	6.59	6.60	-107.23	-391.87	-1,263.25	1,322.64	1,313.31	9.33	141.816				
2,000.00	2,000.00	1,997.58	1,997.32	6.95	6.97	-107.26	-392.43	-1,263.06	1,322.62	1,312.77	9.85	134.316				
2,100.00	2,100.00	2,097.28	2,097.02	7.31	7.33	-107.28	-392.72	-1,262.77	1,322.43	1,312.08	10.35	127.778				
2,200.00	2,200.00	2,198.71	2,198.45	7.67	7.68	-107.28	-392.72	-1,262.46	1,322.14	1,311.29	10.85	121.854				
2,300.00	2,300.00	2,297.72	2,297.47	8.03	8.01	-107.28	-392.65	-1,262.25	1,321.91	1,310.57	11.34	116.554				
2,400.00	2,400.00	2,401.21	2,400.95	8.39	8.36	-107.27	-392.26	-1,261.99	1,321.56	1,309.72	11.84	111.610				
2,500.00	2,500.00	2,501.71	2,501.44	8.74	8.70	-107.25	-391.61	-1,261.56	1,320.96	1,308.63	12.33	107.118				
2,600.00	2,600.00	2,599.56	2,599.30	9.10	9.02	-107.23	-391.11	-1,261.30	1,320.56	1,307.74	12.82	103.025				
2,700.00	2,700.00	2,736.13	2,735.84	9.46	9.49	-107.19	-389.67	-1,259.93	1,319.46	1,306.07	13.39	98.523				
2,800.00	2,800.00	2,950.40	2,949.17	9.82	10.22	-106.83	-376.88	-1,245.70	1,310.63	1,296.55	14.09	93.027				
2,900.00	2,900.00	3,053.51	3,051.36	10.18	10.57	-106.58	-367.91	-1,235.41	1,298.55	1,283.96	14.59	89.026				
3,000.00	3,000.00	3,153.16	3,150.13	10.54	10.92	-106.31	-358.73	-1,225.80	1,286.67	1,271.59	15.08	85.319				
3,100.00	3,100.00	3,272.18	3,267.91	10.90	11.34	-105.96	-347.06	-1,213.27	1,273.80	1,258.20	15.60	81.651				
3,200.00	3,199.99	3,375.19	3,369.67	11.25	11.71	-46.61	-336.43	-1,201.38	1,258.96	1,242.86	16.10	78.205				
3,300.00	3,299.91	3,460.55	3,454.01	11.60	12.03	-46.60	-327.05	-1,192.05	1,242.78	1,226.21	16.57	74.985				
3,400.00	3,399.69	3,539.68	3,532.32	11.95	12.32	-46.67	-318.58	-1,184.48	1,226.22	1,209.18	17.04	71.957				
3,500.08	3,499.35	3,619.35	3,611.30	12.31	12.61	-46.81	-310.26	-1,178.19	1,209.51	1,192.00	17.51	69.087				
3,600.00	3,598.72	3,708.10	3,699.38	12.66	12.94	-46.79	-301.11	-1,172.35	1,193.22	1,175.24	17.99	66.342				
3,700.00	3,698.17	3,811.97	3,802.50	13.02	13.32	-46.79	-290.93	-1,165.24	1,176.83	1,158.34	18.49	63.648				
3,800.00	3,797.63	3,908.75	3,898.66	13.38	13.68	-46.84	-282.43	-1,158.35	1,160.46	1,141.47	18.98	61.127				
3,900.00	3,897.08	4,006.86	3,996.20	13.75	14.04	-46.94	-274.59	-1,151.17	1,144.11	1,124.63	19.48	58.727				
4,000.00	3,996.53	4,106.27	4,095.05	14.11	14.41	-47.05	-266.93	-1,143.93	1,127.88	1,107.90	19.98	56.442				
4,100.00	4,095.98	4,205.17	4,193.33	14.48	14.78	-47.13	-258.61	-1,136.68	1,111.41	1,090.93	20.48	54.256				
4,200.00	4,195.43	4,302.04	4,289.61	14.84	15.14	-47.21	-250.43	-1,129.83	1,095.18	1,074.20	20.99	52.189				
4,300.00	4,294.89	4,402.30	4,389.26	15.21	15.52	-47.30	-242.03	-1,122.68	1,078.92	1,057.43	21.49	50.203				
4,400.00	4,394.34	4,497.12	4,483.51	15.58	15.88	-47.39	-234.15	-1,115.89	1,062.64	1,040.65	21.99	48.322				
4,500.00	4,493.79	4,591.05	4,576.94	15.95	16.23	-47.50	-226.85	-1,109.56	1,046.93	1,024.43	22.49	46.549				
4,600.00	4,593.24	4,691.19	4,676.57	16.32	16.61	-47.62	-219.11	-1,103.00	1,031.41	1,008.41	23.00	44.845				
4,700.00	4,692.69	4,789.04	4,773.85	16.70	16.98	-47.69	-210.68	-1,096.66	1,015.70	992.20	23.51	43.209				

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Total Directional Services

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Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Parade State 603H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 61-OWSG (Rev2) MWD, 21886-BLIND													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
4,800.00	4,792.15	4,879.27	4,863.56	17.07	17.32	-47.74	-202.68	-1,091.31	1,000.47	976.46	24.01	41.677				
4,900.00	4,891.60	4,970.16	4,954.04	17.45	17.66	-47.83	-195.46	-1,086.60	986.19	961.68	24.50	40.245				
5,000.00	4,991.05	5,061.58	5,045.12	17.82	18.00	-47.95	-188.95	-1,082.31	972.62	947.62	25.00	38.899				
5,100.00	5,090.50	5,152.40	5,135.66	18.20	18.33	-48.07	-182.59	-1,078.83	959.91	934.41	25.50	37.642				
5,200.00	5,189.95	5,246.27	5,229.26	18.58	18.68	-48.19	-176.17	-1,075.95	947.97	921.97	26.00	36.456				
5,300.00	5,289.40	5,342.05	5,324.80	18.95	19.03	-48.33	-169.90	-1,073.30	936.42	909.91	26.51	35.325				
5,400.00	5,388.86	5,435.91	5,418.46	19.33	19.37	-48.49	-164.23	-1,071.03	925.34	898.33	27.01	34.259				
5,500.00	5,488.31	5,548.62	5,530.92	19.71	19.78	-48.68	-157.27	-1,068.42	914.40	886.86	27.54	33.197				
5,600.00	5,587.76	5,690.92	5,672.40	20.09	20.32	-48.70	-143.75	-1,061.58	900.12	872.02	28.10	32.034				
5,700.00	5,687.21	5,859.18	5,838.18	20.47	21.00	-48.51	-121.40	-1,043.94	879.20	850.65	28.56	30.790				
5,800.00	5,786.66	5,976.54	5,952.80	20.85	21.49	-48.36	-103.88	-1,025.80	853.14	824.12	29.02	29.397				
5,900.00	5,886.12	6,075.04	6,048.57	21.23	21.92	-48.08	-87.07	-1,010.13	826.07	796.53	29.53	27.972				
6,000.00	5,985.57	6,175.66	6,146.07	21.62	22.36	-47.63	-67.83	-994.37	798.64	768.60	30.04	26.585				
6,100.00	6,085.02	6,278.18	6,245.09	22.00	22.83	-47.04	-46.98	-977.91	770.54	739.99	30.54	25.227				
6,200.00	6,184.47	6,380.27	6,343.35	22.38	23.30	-46.33	-25.06	-960.96	741.68	710.63	31.05	23.887				
6,300.00	6,283.92	6,471.46	6,430.91	22.76	23.72	-45.59	-4.77	-945.55	712.45	680.84	31.61	22.540				
6,400.00	6,383.38	6,552.69	6,509.04	23.15	24.10	-44.82	13.71	-933.23	684.84	652.63	32.22	21.257				
6,500.00	6,482.83	6,631.12	6,584.88	23.53	24.46	-44.05	30.90	-923.03	659.67	626.83	32.83	20.091				
6,600.00	6,582.28	6,709.00	6,660.86	23.91	24.80	-43.40	45.84	-914.84	637.59	604.15	33.44	19.069				
6,700.00	6,681.73	6,787.50	6,738.12	24.30	25.14	-42.93	58.08	-908.34	618.56	584.55	34.01	18.188				
6,800.00	6,781.18	6,870.85	6,820.69	24.68	25.47	-42.66	68.15	-903.01	602.17	567.62	34.55	17.428				
6,839.68	6,820.65	6,904.40	6,854.03	24.84	25.60	-42.60	71.49	-901.30	596.34	561.58	34.76	17.155				
6,900.00	6,880.68	6,956.21	6,905.60	25.07	25.80	-42.48	75.89	-899.10	588.51	553.43	35.07	16.780				
7,000.00	6,980.39	7,043.66	6,992.84	25.44	26.12	-42.34	81.34	-896.54	578.79	543.22	35.57	16.272				
7,100.00	7,080.27	7,131.69	7,080.79	25.80	26.43	-42.28	84.62	-895.30	573.00	536.95	36.05	15.895				
7,200.00	7,180.24	7,223.90	7,172.99	26.16	26.74	-42.24	86.31	-895.50	571.09	534.57	36.52	15.637				
7,220.67	7,200.90	7,244.10	7,193.19	26.23	26.81	-42.21	86.62	-895.63	571.04	534.42	36.62	15.593				
7,239.76	7,220.00	7,262.77	7,211.85	26.30	26.87	-101.42	86.90	-895.76	571.08	534.37	36.71	15.555				
7,300.00	7,280.24	7,322.94	7,272.02	26.51	27.07	-101.32	87.82	-896.24	571.37	534.36	37.01	15.439				
7,400.00	7,380.24	7,421.48	7,370.54	26.85	27.39	-101.16	89.28	-897.04	571.88	534.39	37.49	15.254				
7,500.00	7,480.24	7,519.09	7,468.15	27.20	27.71	-101.08	89.93	-898.12	572.83	534.86	37.97	15.088				
7,600.00	7,580.24	7,619.12	7,568.16	27.55	28.03	-101.00	90.49	-899.44	574.02	535.57	38.45	14.929				
7,700.00	7,680.24	7,720.31	7,669.35	27.89	28.36	-100.90	91.25	-900.64	575.05	536.11	38.94	14.768				
7,800.00	7,780.24	7,820.38	7,769.40	28.24	28.69	-100.81	92.01	-901.69	575.93	536.51	39.42	14.609				
7,900.00	7,880.24	7,919.29	7,868.30	28.59	29.01	-100.70	92.86	-902.85	576.92	537.02	39.91	14.457				
8,000.00	7,980.24	8,018.92	7,967.93	28.94	29.34	-100.62	93.50	-904.13	578.07	537.67	40.39	14.311				
8,100.00	8,080.24	8,119.51	8,068.51	29.28	29.66	-100.54	94.04	-905.37	579.18	538.30	40.88	14.168				
8,200.00	8,180.24	8,220.67	8,169.66	29.63	30.00	-100.48	94.50	-906.45	580.14	538.77	41.37	14.023				
8,300.00	8,280.24	8,321.76	8,270.75	29.98	30.33	-100.44	94.70	-907.26	580.90	539.04	41.86	13.878				
8,400.00	8,380.24	8,421.95	8,370.93	30.33	30.65	-100.42	94.81	-907.95	581.55	539.21	42.34	13.734				
8,500.00	8,480.24	8,524.40	8,473.38	30.68	30.99	-100.42	94.68	-908.52	582.13	539.29	42.84	13.590				
8,600.00	8,580.24	8,633.34	8,582.32	31.03	31.35	-100.50	94.05	-907.65	581.44	538.09	43.34	13.414				
8,700.00	8,680.24	8,736.17	8,685.12	31.38	31.69	-100.62	93.12	-905.77	579.80	535.96	43.84	13.226				
8,800.00	8,780.24	8,836.62	8,785.54	31.73	32.03	-100.77	92.00	-903.65	577.93	533.61	44.33	13.038				
8,900.00	8,880.24	8,935.66	8,884.55	32.08	32.36	-100.97	90.39	-901.48	576.09	531.29	44.81	12.856				
9,000.00	8,980.24	9,032.59	8,981.44	32.43	32.68	-101.19	88.46	-899.62	574.59	529.31	45.29	12.687				
9,100.00	9,080.24	9,128.52	9,077.33	32.78	32.99	-101.42	86.36	-898.39	573.76	528.00	45.76	12.538				
9,200.00	9,180.24	9,226.45	9,175.23	33.13	33.31	-101.69	83.83	-897.65	573.54	527.30	46.24	12.404				
9,240.20	9,220.44	9,266.07	9,214.84	33.27	33.44	-101.81	82.66	-897.38	573.51	527.08	46.43	12.352				
9,300.00	9,280.24	9,323.95	9,272.69	33.48	33.63	-101.99	80.86	-897.10	573.61	526.90	46.71	12.279				
9,400.00	9,380.24	9,424.49	9,373.18	33.83	33.95	-102.27	78.04	-896.90	574.00	526.81	47.20	12.162				
9,500.00	9,480.24	9,524.47	9,473.15	34.18	34.28	-102.41	76.63	-896.81	574.22	526.54	47.68	12.042				

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Total Directional Services

Anticollision Report



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Offset Design												Offset Site Error:	0.00 usft
Survey Program: 61-OWSG (Rev2) MWD, 21886-BLIND												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.00	9,580.24	9,631.84	9,580.53	34.53	34.64	-102.41	76.66	-896.51	573.95	525.75	48.20	11.909	
9,700.00	9,680.24	9,734.68	9,683.34	34.88	35.00	-102.27	78.36	-895.52	572.65	523.95	48.70	11.759	
9,800.00	9,780.24	9,835.21	9,783.85	35.24	35.35	-102.14	79.89	-894.15	571.00	521.80	49.20	11.606	
9,900.00	9,880.24	9,928.39	9,877.03	35.59	35.67	-102.13	80.19	-893.28	570.02	520.35	49.68	11.474	
9,979.26	9,959.50	10,005.27	9,953.90	35.87	35.92	-102.24	79.16	-892.90	569.86	519.80	50.06	11.384	
10,000.00	9,980.24	10,025.55	9,974.17	35.94	35.99	-102.29	78.68	-892.80	569.87	519.71	50.16	11.361	
10,100.00	10,080.24	10,124.40	10,072.99	36.29	36.31	-102.56	76.06	-892.46	570.10	519.46	50.64	11.258	
10,200.00	10,180.24	10,225.92	10,174.49	36.64	36.65	-102.68	74.81	-892.32	570.23	519.10	51.13	11.152	
10,300.00	10,280.24	10,326.20	10,274.75	37.00	36.99	-102.49	76.70	-892.74	570.23	518.60	51.63	11.044	
10,385.47	10,365.71	10,411.58	10,360.11	37.30	37.29	-102.27	78.83	-893.18	570.20	518.14	52.06	10.953	
10,400.00	10,380.24	10,425.91	10,374.43	37.35	37.34	-102.24	79.16	-893.25	570.20	518.08	52.13	10.938	
10,500.00	10,480.24	10,524.16	10,472.66	37.70	37.67	-102.02	81.22	-893.87	570.38	517.75	52.62	10.839	
10,600.00	10,580.24	10,622.50	10,570.98	38.05	38.01	-101.83	82.98	-894.77	570.90	517.79	53.11	10.749	
10,700.00	10,680.24	10,722.01	10,670.47	38.40	38.35	-101.70	84.08	-895.71	571.60	518.00	53.61	10.663	
10,800.00	10,780.24	10,820.23	10,768.68	38.76	38.68	-101.59	85.02	-896.72	572.42	518.33	54.09	10.582	
10,900.00	10,880.24	10,916.91	10,865.35	39.11	39.01	-101.45	86.12	-898.25	573.74	519.17	54.57	10.513	
11,000.00	10,980.24	11,016.42	10,964.83	39.46	39.34	-101.29	87.32	-900.28	575.51	520.44	55.07	10.451	
11,100.00	11,080.24	11,117.41	11,065.80	39.82	39.68	-101.13	88.59	-902.19	577.11	521.55	55.56	10.386	
11,200.00	11,180.24	11,216.04	11,164.40	40.17	40.01	-100.97	89.88	-904.05	578.72	522.66	56.05	10.324	
11,300.00	11,280.24	11,303.50	11,251.80	40.52	40.30	-101.08	88.31	-906.08	581.37	524.89	56.48	10.294	
11,400.00	11,380.24	11,385.42	11,332.92	40.88	40.55	-102.04	77.88	-908.55	586.91	530.09	56.82	10.328	
11,500.00	11,480.24	11,478.50	11,422.63	41.23	40.79	-104.35	53.28	-909.51	594.26	537.07	57.19	10.391	
11,515.76	11,496.00	11,490.87	11,434.39	41.28	40.82	-104.71	49.43	-909.62	595.69	538.47	57.22	10.410	
11,550.00	11,530.22	11,520.00	11,461.97	41.40	40.90	74.78	40.05	-910.01	598.90	541.59	57.31	10.450	
11,600.00	11,579.93	11,557.97	11,497.64	41.55	40.99	73.53	27.07	-910.73	603.39	546.01	57.38	10.516	
11,650.00	11,629.01	11,600.97	11,537.35	41.70	41.09	72.38	10.61	-911.49	607.43	549.96	57.47	10.569	
11,700.00	11,677.08	11,656.73	11,586.78	41.84	41.21	71.10	-15.13	-910.93	610.38	552.70	57.68	10.583	
11,750.00	11,723.77	11,690.04	11,615.04	41.98	41.27	70.33	-32.72	-909.77	612.22	554.58	57.63	10.623	
11,800.00	11,768.72	11,720.06	11,639.60	42.10	41.32	69.71	-49.96	-909.09	614.17	556.66	57.51	10.679	
11,850.00	11,811.60	11,755.00	11,667.00	42.21	41.37	69.14	-71.63	-908.94	616.41	558.97	57.44	10.732	
11,900.00	11,852.08	11,780.85	11,686.37	42.30	41.41	68.75	-88.75	-909.15	618.61	561.39	57.22	10.810	
11,950.00	11,889.84	11,823.82	11,716.79	42.39	41.46	68.36	-119.08	-909.46	620.51	563.27	57.24	10.841	
12,000.00	11,924.61	11,870.52	11,748.07	42.46	41.52	68.16	-153.74	-908.64	620.72	563.40	57.32	10.830	
12,050.00	11,956.12	11,905.39	11,770.30	42.53	41.56	68.22	-180.60	-908.16	620.27	563.00	57.27	10.831	
12,100.00	11,984.13	11,944.00	11,792.89	42.58	41.60	68.41	-211.89	-907.83	619.60	562.31	57.29	10.815	
12,150.00	12,008.42	11,970.79	11,806.98	42.63	41.62	68.63	-234.67	-907.63	618.63	561.43	57.20	10.815	
12,200.00	12,028.81	12,004.71	11,822.76	42.69	41.65	68.93	-264.69	-907.34	617.47	560.25	57.22	10.791	
12,250.00	12,045.15	12,039.00	11,836.41	42.80	41.68	69.29	-296.13	-906.91	615.98	558.69	57.29	10.752	
12,300.00	12,057.30	12,086.00	11,851.73	42.92	41.72	69.82	-340.53	-905.69	613.69	556.21	57.48	10.677	
12,350.00	12,065.19	12,133.00	11,863.30	43.05	41.77	70.47	-386.01	-903.36	610.27	552.60	57.67	10.582	
12,400.00	12,068.74	12,166.69	11,869.28	43.18	41.81	71.13	-419.10	-901.38	606.16	548.32	57.84	10.480	
12,411.94	12,068.95	12,174.98	11,870.48	43.21	41.82	71.31	-427.29	-900.92	605.15	547.27	57.89	10.454	
12,500.00	12,069.53	12,238.03	11,876.86	43.46	41.92	71.78	-489.94	-898.08	599.56	541.30	58.26	10.292	
12,600.00	12,070.20	12,323.06	11,880.21	43.81	42.11	72.00	-574.87	-895.88	596.95	538.28	58.67	10.175	
12,700.00	12,070.87	12,415.63	11,882.52	44.21	42.36	72.13	-667.40	-894.28	595.70	536.56	59.14	10.073	
12,742.28	12,071.15	12,454.42	11,883.80	44.40	42.49	72.23	-706.16	-894.11	595.60	536.22	59.37	10.032	
12,800.00	12,071.54	12,511.54	11,886.28	44.66	42.69	72.45	-763.23	-894.26	595.64	535.91	59.73	9.972	
12,900.00	12,072.21	12,607.97	11,891.63	45.17	43.08	72.93	-859.51	-895.13	596.02	535.58	60.44	9.862	
13,000.00	12,072.87	12,716.20	11,897.15	45.74	43.58	73.42	-967.59	-895.96	596.45	535.21	61.24	9.740	
13,100.00	12,073.54	12,840.20	11,904.17	46.35	44.24	73.95	-1,091.35	-893.09	593.78	531.63	62.15	9.554	
13,200.00	12,074.21	12,947.20	11,910.09	47.01	44.88	74.32	-1,198.05	-887.69	588.55	525.46	63.09	9.329	
13,300.00	12,074.88	13,044.89	11,915.82	47.72	45.52	74.68	-1,295.40	-881.97	582.49	518.41	64.08	9.091	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Blue Ribbon/Parade State - Parade State 603H - OH - OH		Offset Site Error:	0.00 usft
Survey Program: 61-OWSG (Rev2) MWD, 21886-BLIND													Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
13,400.00	12,075.55	13,131.19	11,919.05	48.48	46.12	74.86	-1,381.56	-878.12	578.33	513.27	65.06	8.889				
13,500.00	12,076.21	13,223.26	11,918.94	49.28	46.78	74.72	-1,473.56	-874.83	576.05	510.00	66.05	8.721				
13,600.00	12,076.88	13,322.84	11,916.43	50.12	47.55	74.35	-1,573.04	-871.37	574.51	507.45	67.06	8.567				
13,700.00	12,077.55	13,415.84	11,913.33	51.00	48.31	73.93	-1,665.92	-867.80	572.92	504.83	68.09	8.414				
13,709.99	12,077.62	13,423.57	11,913.08	51.09	48.38	73.89	-1,673.65	-867.62	572.90	504.71	68.19	8.401				
13,800.00	12,078.22	13,501.26	11,910.73	51.92	49.03	73.63	-1,751.29	-867.37	574.34	505.18	69.16	8.305				
13,900.00	12,078.89	13,609.04	11,907.84	52.88	49.99	73.30	-1,859.03	-866.59	575.54	505.19	70.35	8.181				
14,000.00	12,079.56	13,706.36	11,903.71	53.86	50.89	72.83	-1,956.25	-865.12	576.49	504.98	71.51	8.061				
14,100.00	12,080.22	13,799.84	11,897.61	54.88	51.79	72.18	-2,049.52	-863.84	578.32	505.68	72.64	7.961				
14,200.00	12,080.89	13,890.27	11,892.43	55.93	52.69	71.67	-2,139.80	-864.09	581.53	507.71	73.81	7.879				
14,300.00	12,081.56	13,987.92	11,885.70	57.01	53.68	71.06	-2,237.20	-865.59	586.35	511.33	75.02	7.816				
14,400.00	12,082.23	14,087.93	11,880.92	58.12	54.73	70.64	-2,337.09	-867.06	590.47	514.15	76.32	7.737				
14,500.00	12,082.90	14,194.24	11,875.13	59.25	55.87	70.14	-2,443.22	-868.79	595.04	517.38	77.66	7.662				
14,600.00	12,083.56	14,298.64	11,871.60	60.40	57.02	69.81	-2,547.56	-869.39	597.90	518.82	79.08	7.561				
14,700.00	12,084.23	14,386.63	11,867.42	61.58	58.01	69.44	-2,635.45	-870.09	601.50	521.11	80.39	7.482				
14,800.00	12,084.90	14,519.23	11,862.71	62.78	59.54	69.00	-2,767.94	-870.60	604.53	522.57	81.97	7.375				
14,801.43	12,084.91	14,521.35	11,862.70	62.79	59.56	69.00	-2,770.06	-870.55	604.52	522.53	81.99	7.373				
14,900.00	12,085.57	14,605.20	11,860.36	64.00	60.56	68.74	-2,853.87	-869.70	605.63	522.25	83.38	7.264				
15,000.00	12,086.24	14,699.40	11,856.16	65.23	61.69	68.34	-2,947.97	-869.46	608.18	523.40	84.78	7.173				
15,100.00	12,086.90	14,834.71	11,853.20	66.49	63.35	67.89	-3,083.13	-864.71	606.56	520.19	86.37	7.023				
15,200.00	12,087.57	14,937.86	11,851.25	67.76	64.65	67.48	-3,186.10	-858.87	603.21	515.37	87.84	6.867				
15,300.00	12,088.24	15,024.15	11,850.43	69.05	65.75	67.23	-3,272.28	-854.60	600.26	510.92	89.35	6.718				
15,333.78	12,088.47	15,050.76	11,850.32	69.49	66.08	67.20	-3,298.89	-853.99	600.00	510.14	89.86	6.677				
15,400.00	12,088.91	15,108.16	11,849.99	70.36	66.82	67.14	-3,356.27	-853.53	600.44	509.54	90.90	6.605				
15,500.00	12,089.58	15,204.00	11,848.32	71.68	68.05	66.97	-3,452.11	-853.63	602.39	509.89	92.49	6.513				
15,600.00	12,090.25	15,315.05	11,847.64	73.01	69.50	66.89	-3,563.15	-853.49	603.72	509.49	94.23	6.407				
15,651.25	12,090.59	15,367.24	11,847.78	73.70	70.19	66.86	-3,615.34	-852.76	603.61	508.51	95.10	6.347				
15,700.00	12,090.91	15,410.96	11,847.41	74.35	70.76	66.80	-3,659.05	-852.23	603.82	507.93	95.89	6.297				
15,800.00	12,091.58	15,509.10	11,846.44	75.71	72.07	66.68	-3,757.18	-851.81	604.99	507.43	97.56	6.201				
15,900.00	12,092.25	15,603.53	11,847.52	77.08	73.34	66.78	-3,851.60	-852.59	606.49	507.15	99.34	6.105				
16,000.00	12,092.92	15,696.58	11,847.61	78.46	74.60	66.83	-3,944.64	-854.10	609.13	508.04	101.09	6.026				
16,100.00	12,093.59	15,784.93	11,846.40	79.85	75.79	66.79	-4,032.95	-856.34	613.20	510.45	102.74	5.968				
16,200.00	12,094.25	15,898.58	11,844.06	81.25	77.35	66.68	-4,146.53	-859.41	617.74	513.13	104.61	5.905				
16,300.00	12,094.92	15,983.11	11,841.26	82.66	78.52	66.47	-4,231.00	-860.82	621.79	515.64	106.15	5.858				
16,400.00	12,095.59	16,134.51	11,836.71	84.08	80.65	66.01	-4,382.26	-859.33	623.43	515.43	108.00	5.772				
16,500.00	12,096.26	16,259.59	11,838.77	85.50	82.43	65.85	-4,507.06	-851.28	617.96	508.28	109.68	5.634				
16,600.00	12,096.93	16,358.62	11,839.82	86.94	83.86	65.60	-4,605.72	-842.83	610.92	499.60	111.33	5.488				
16,700.00	12,097.59	16,452.56	11,840.88	88.38	85.22	65.39	-4,699.37	-835.53	604.58	491.55	113.03	5.349				
16,800.00	12,098.26	16,530.01	11,841.53	89.83	86.34	65.26	-4,776.70	-831.31	600.49	485.68	114.81	5.230				
16,881.08	12,098.80	16,598.43	11,840.40	91.01	87.34	65.07	-4,845.07	-829.28	599.81	483.68	116.12	5.165				
16,900.00	12,098.93	16,615.37	11,839.82	91.29	87.58	65.00	-4,862.00	-828.82	599.84	483.43	116.41	5.153				
17,000.00	12,099.60	16,715.66	11,835.39	92.75	89.04	64.49	-4,962.15	-826.12	600.48	482.60	117.88	5.094				
17,100.00	12,100.27	16,808.30	11,832.97	94.22	90.40	64.20	-5,054.74	-824.40	601.15	481.69	119.45	5.032				
17,200.00	12,100.94	16,902.19	11,831.98	95.70	91.77	64.12	-5,148.62	-824.94	603.32	482.12	121.20	4.978				
17,300.00	12,101.60	17,010.09	11,830.78	97.18	93.35	64.02	-5,256.51	-825.49	605.47	482.42	123.05	4.921				
17,400.00	12,102.27	17,131.10	11,833.13	98.66	95.14	64.14	-5,377.48	-823.95	604.61	479.52	125.09	4.833				
17,500.00	12,102.94	17,228.40	11,835.29	100.15	96.59	64.23	-5,474.73	-821.91	602.95	475.91	127.04	4.746				
17,600.00	12,103.61	17,336.52	11,840.63	101.65	98.20	64.57	-5,582.69	-819.45	599.91	470.69	129.21	4.643				
17,700.00	12,104.28	17,422.37	11,844.74	103.15	99.49	64.85	-5,668.42	-818.14	597.71	466.37	131.35	4.551				
17,720.31	12,104.41	17,438.18	11,845.39	103.46	99.73	64.91	-5,684.22	-818.17	597.64	465.87	131.76	4.536				
17,800.00	12,104.94	17,510.84	11,848.27	104.66	100.82	65.21	-5,756.81	-819.64	598.66	465.15	133.51	4.484				
17,900.00	12,105.61	17,629.64	11,857.71	106.17	102.60	66.07	-5,875.21	-821.11	597.58	461.31	136.26	4.385				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 61-OWSG (Rev2) MWD, 21886-BLIND													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
18,000.00	12,106.28	17,732.16	11,866.67	107.68	104.15	66.85	-5,977.34	-821.41	595.53	456.64	138.89	4.288		
18,100.00	12,106.95	17,829.48	11,874.10	109.20	105.62	67.47	-6,074.38	-820.97	593.34	451.96	141.38	4.197		
18,200.00	12,107.62	17,922.75	11,878.90	110.73	107.04	67.86	-6,167.51	-820.50	592.10	448.43	143.67	4.121		
18,300.00	12,108.28	18,023.07	11,882.56	112.25	108.57	68.15	-6,267.77	-820.20	591.63	445.73	145.90	4.055		
18,400.00	12,108.95	18,121.07	11,887.78	113.78	110.06	68.61	-6,365.63	-820.39	591.03	442.75	148.28	3.986		
18,500.00	12,109.62	18,225.23	11,890.95	115.31	111.65	68.84	-6,469.72	-819.69	590.48	439.99	150.49	3.924		
18,600.00	12,110.29	18,321.34	11,893.56	116.85	113.12	69.02	-6,565.79	-818.70	589.73	437.10	152.63	3.864		
18,627.15	12,110.47	18,346.37	11,894.61	117.27	113.51	69.11	-6,590.80	-818.74	589.67	436.43	153.24	3.848		
18,700.00	12,110.96	18,413.21	11,896.51	118.39	114.53	69.27	-6,657.61	-818.99	590.05	435.24	154.81	3.811		
18,800.00	12,111.63	18,524.77	11,901.11	119.93	116.25	69.68	-6,769.05	-819.52	590.23	432.97	157.26	3.753		
18,900.00	12,112.29	18,634.07	11,910.28	121.48	117.93	70.47	-6,877.97	-819.08	588.13	428.12	160.00	3.676		
19,000.00	12,112.96	18,726.31	11,917.89	123.03	119.36	71.14	-6,969.89	-818.80	586.29	423.66	162.63	3.605		
19,100.00	12,113.63	18,824.40	11,923.40	124.58	120.88	71.63	-7,067.82	-819.06	585.90	420.80	165.10	3.549		
19,200.00	12,114.30	18,932.62	11,930.63	126.13	122.56	72.23	-7,175.79	-817.90	583.93	416.23	167.69	3.482		
19,300.00	12,114.97	19,020.86	11,934.28	127.69	123.93	72.51	-7,263.94	-816.66	582.53	412.57	169.97	3.427		
19,302.88	12,114.99	19,023.21	11,934.30	127.73	123.97	72.51	-7,266.29	-816.64	582.53	412.51	170.02	3.426		
19,400.00	12,115.63	19,107.59	11,933.19	129.25	125.28	72.37	-7,350.66	-816.50	583.85	412.06	171.79	3.399		
19,500.00	12,116.30	19,202.06	11,932.33	130.81	126.74	72.30	-7,445.12	-817.67	586.47	412.76	173.71	3.376		
19,600.00	12,116.97	19,306.24	11,930.60	132.37	128.35	72.16	-7,549.26	-819.49	589.82	414.09	175.73	3.356		
19,700.00	12,117.64	19,412.89	11,930.63	133.94	130.01	72.14	-7,655.91	-819.93	591.35	413.48	177.88	3.325		
19,800.00	12,118.31	19,523.85	11,933.91	135.50	131.74	72.41	-7,766.81	-820.22	591.87	411.57	180.29	3.283		
19,900.00	12,118.97	19,629.41	11,941.65	137.07	133.40	73.09	-7,872.09	-819.91	590.56	407.54	183.02	3.227		
20,000.00	12,119.64	19,737.64	11,950.95	138.64	135.10	73.90	-7,979.91	-819.19	588.63	402.79	185.84	3.167		
20,100.00	12,120.31	19,846.69	11,961.15	140.22	136.82	74.75	-8,088.45	-816.72	585.06	396.41	188.64	3.101		
20,200.00	12,120.98	19,948.05	11,969.91	141.79	138.42	75.46	-8,189.37	-813.26	580.66	389.31	191.36	3.034		
20,300.00	12,121.65	20,049.57	11,976.58	143.37	140.03	75.95	-8,290.56	-808.77	575.88	382.01	193.87	2.970		
20,400.00	12,122.32	20,141.10	11,982.11	144.95	141.48	76.37	-8,381.86	-805.31	571.89	375.45	196.44	2.911		
20,500.00	12,122.98	20,237.43	11,991.40	146.53	143.01	77.20	-8,477.72	-803.65	569.11	369.83	199.28	2.856		
20,600.00	12,123.65	20,346.19	12,003.10	148.11	144.73	78.25	-8,585.82	-801.28	565.79	363.59	202.20	2.798		
20,700.00	12,124.32	20,442.60	12,010.95	149.69	146.26	78.91	-8,681.83	-797.51	561.48	356.59	204.89	2.740		
20,800.00	12,124.99	20,532.50	12,018.27	151.28	147.69	79.58	-8,771.42	-796.14	559.51	351.92	207.59	2.695		
20,900.00	12,125.66	20,630.65	12,025.12	152.86	149.25	80.19	-8,869.31	-794.40	557.65	347.46	210.19	2.653		
20,945.90	12,125.96	20,670.01	12,027.83	153.59	149.87	80.44	-8,908.58	-794.19	557.38	346.05	211.33	2.638		
21,000.00	12,126.32	20,716.77	12,031.22	154.45	150.61	80.77	-8,955.21	-794.55	557.74	345.11	212.64	2.623		
21,100.00	12,126.99	20,809.89	12,038.90	156.04	152.08	81.54	-9,047.98	-796.99	560.13	344.95	215.18	2.603		
21,200.00	12,127.66	20,911.08	12,046.33	157.63	153.68	82.27	-9,148.87	-799.13	562.27	344.45	217.83	2.581		
21,300.00	12,128.33	21,007.98	12,053.34	159.22	155.21	82.96	-9,245.48	-801.96	565.32	344.99	220.33	2.566		
21,400.00	12,129.00	21,113.91	12,059.56	160.81	156.89	83.55	-9,351.20	-804.24	567.84	344.86	222.98	2.547		
21,500.00	12,129.66	21,228.65	12,066.68	162.41	158.71	84.21	-9,465.71	-804.91	568.87	343.15	225.71	2.520		
21,600.00	12,130.33	21,347.84	12,070.44	164.00	160.62	84.48	-9,584.78	-801.31	566.62	338.61	228.00	2.485		
21,700.00	12,131.00	21,450.76	12,069.46	165.60	162.27	84.27	-9,687.51	-795.43	562.07	331.97	230.10	2.443		
21,800.00	12,131.67	21,532.73	12,067.14	167.20	163.58	83.95	-9,769.37	-792.04	559.29	326.97	232.32	2.407		
21,900.00	12,132.34	21,632.63	12,062.62	168.79	165.18	83.40	-9,869.14	-789.37	558.21	323.92	234.28	2.383		
22,000.00	12,133.01	21,742.70	12,054.27	170.39	166.94	82.43	-9,978.77	-784.57	555.85	319.93	235.92	2.356		
22,100.00	12,133.67	21,843.74	12,046.57	171.99	169.59	81.51	-10,079.39	-779.45	552.98	314.74	238.24	2.321		
22,159.00	12,134.07	21,886.00	12,043.62	172.83	174.71	81.15	-10,121.49	-777.24	551.44	309.17	242.28	2.276 CC		
22,160.93	12,134.08	21,886.00	12,043.62	172.86	174.71	81.15	-10,121.49	-777.24	551.45	309.15	242.29	2.276 ES, SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Parade State/Beauty Queen - Beauty Queen Fed Com 604H - OH - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.50	0.50	0.00	0.00	89.49	0.31	35.00	35.00					
100.00	100.00	100.50	100.50	0.14	0.14	89.49	0.31	35.00	35.00	34.80	0.20	173.688		
200.00	200.00	200.50	200.50	0.50	0.50	89.49	0.31	35.00	35.00	34.29	0.71	49.404		
300.00	300.00	300.50	300.50	0.86	0.86	89.49	0.31	35.00	35.00	33.79	1.22	28.798		
400.00	400.00	400.50	400.50	1.22	1.22	89.49	0.31	35.00	35.00	33.28	1.72	20.322		
500.00	500.00	500.50	500.50	1.58	1.58	89.49	0.31	35.00	35.00	32.77	2.23	15.700		
600.00	600.00	600.50	600.50	1.93	1.94	89.49	0.31	35.00	35.00	32.27	2.74	12.792		
700.00	700.00	700.50	700.50	2.29	2.29	89.49	0.31	35.00	35.00	31.76	3.24	10.792		
800.00	800.00	800.50	800.50	2.65	2.65	89.49	0.31	35.00	35.00	31.25	3.75	9.333		
900.00	900.00	900.50	900.50	3.01	3.01	89.49	0.31	35.00	35.00	30.74	4.26	8.222		
1,000.00	1,000.00	1,000.50	1,000.50	3.37	3.37	89.49	0.31	35.00	35.00	30.24	4.76	7.347		
1,100.00	1,100.00	1,100.50	1,100.50	3.73	3.73	89.49	0.31	35.00	35.00	29.73	5.27	6.640		
1,200.00	1,200.00	1,200.50	1,200.50	4.08	4.09	89.49	0.31	35.00	35.00	29.22	5.78	6.058		
1,300.00	1,300.00	1,300.50	1,300.50	4.44	4.45	89.49	0.31	35.00	35.00	28.72	6.28	5.569		
1,400.00	1,400.00	1,400.50	1,400.50	4.80	4.80	89.49	0.31	35.00	35.00	28.21	6.79	5.153		
1,500.00	1,500.00	1,500.50	1,500.50	5.16	5.16	89.49	0.31	35.00	35.00	27.70	7.30	4.795		
1,600.00	1,600.00	1,600.50	1,600.50	5.52	5.52	89.49	0.31	35.00	35.00	27.20	7.81	4.484		
1,700.00	1,700.00	1,700.50	1,700.50	5.88	5.88	89.49	0.31	35.00	35.00	26.69	8.31	4.211		
1,800.00	1,800.00	1,800.50	1,800.50	6.24	6.24	89.49	0.31	35.00	35.00	26.18	8.82	3.969		
1,900.00	1,900.00	1,900.50	1,900.50	6.59	6.60	89.49	0.31	35.00	35.00	25.67	9.33	3.753		
2,000.00	2,000.00	2,000.50	2,000.50	6.95	6.95	89.49	0.31	35.00	35.00	25.17	9.83	3.559		
2,100.00	2,100.00	2,100.50	2,100.50	7.31	7.31	89.49	0.31	35.00	35.00	24.66	10.34	3.385		
2,200.00	2,200.00	2,200.50	2,200.50	7.67	7.67	89.49	0.31	35.00	35.00	24.15	10.85	3.227		
2,300.00	2,300.00	2,300.50	2,300.50	8.03	8.03	89.49	0.31	35.00	35.00	23.65	11.35	3.083		
2,400.00	2,400.00	2,400.50	2,400.50	8.39	8.39	89.49	0.31	35.00	35.00	23.14	11.86	2.951		
2,500.00	2,500.00	2,500.50	2,500.50	8.74	8.75	89.49	0.31	35.00	35.00	22.63	12.37	2.830		
2,600.00	2,600.00	2,600.50	2,600.50	9.10	9.11	89.49	0.31	35.00	35.00	22.13	12.88	2.718		
2,700.00	2,700.00	2,700.50	2,700.50	9.46	9.46	89.49	0.31	35.00	35.00	21.62	13.38	2.615		
2,800.00	2,800.00	2,800.50	2,800.50	9.82	9.82	89.49	0.31	35.00	35.00	21.11	13.89	2.520		
2,900.00	2,900.00	2,900.50	2,900.50	10.18	10.18	89.49	0.31	35.00	35.00	20.61	14.40	2.431		
2,916.50	2,916.50	2,917.00	2,917.00	10.24	10.24	89.49	0.31	35.00	35.00	20.52	14.48	2.417 CC		
3,000.00	3,000.00	3,000.50	3,000.50	10.54	10.54	89.49	0.31	35.00	35.00	20.10	14.90	2.349 ES		
3,100.00	3,100.00	3,100.00	3,099.99	10.90	10.89	88.17	1.15	36.00	36.02	20.62	15.40	2.339 SF		
3,200.00	3,199.99	3,198.88	3,198.79	11.25	11.24	144.95	3.64	38.96	40.23	24.35	15.88	2.533		
3,300.00	3,299.91	3,297.56	3,297.26	11.60	11.59	143.08	7.76	43.87	48.74	32.38	16.36	2.980		
3,400.00	3,399.69	3,396.40	3,395.74	11.95	11.94	142.18	13.20	50.34	61.04	44.20	16.84	3.625		
3,500.08	3,499.35	3,495.41	3,494.37	12.31	12.29	142.69	18.75	56.95	75.57	58.23	17.34	4.359		
3,600.00	3,598.72	3,594.11	3,592.69	12.66	12.65	143.63	24.29	63.54	91.11	73.28	17.83	5.110		
3,700.00	3,698.17	3,692.88	3,691.09	13.02	13.00	144.29	29.83	70.13	106.69	88.36	18.33	5.821		
3,800.00	3,797.63	3,791.65	3,789.49	13.38	13.36	144.79	35.37	76.73	122.27	103.45	18.82	6.496		
3,900.00	3,897.08	3,890.43	3,887.88	13.75	13.72	145.17	40.92	83.32	137.86	118.54	19.32	7.135		
4,000.00	3,996.53	3,989.20	3,986.28	14.11	14.07	145.47	46.46	89.92	153.46	133.64	19.82	7.743		
4,100.00	4,095.98	4,087.97	4,084.68	14.48	14.43	145.72	52.00	96.51	169.06	148.74	20.32	8.320		
4,200.00	4,195.43	4,186.75	4,183.07	14.84	14.79	145.93	57.54	103.10	184.66	163.84	20.82	8.869		
4,300.00	4,294.89	4,285.52	4,281.47	15.21	15.15	146.10	63.08	109.70	200.26	178.94	21.32	9.393		
4,400.00	4,394.34	4,384.29	4,379.87	15.58	15.52	146.25	68.62	116.29	215.87	194.05	21.82	9.892		
4,500.00	4,493.79	4,483.07	4,478.27	15.95	15.88	146.38	74.17	122.89	231.48	209.15	22.33	10.368		
4,600.00	4,493.24	4,481.84	4,476.66	16.32	16.24	146.50	79.71	129.48	247.09	224.26	22.83	10.823		
4,700.00	4,492.69	4,480.61	4,475.06	16.70	16.61	146.60	85.25	136.08	262.70	239.36	23.33	11.258		
4,800.00	4,492.15	4,479.39	4,473.46	17.07	16.97	146.68	90.79	142.67	278.30	254.47	23.84	11.674		
4,900.00	4,491.60	4,478.16	4,471.85	17.45	17.34	146.76	96.33	149.27	293.92	269.57	24.35	12.073		
5,000.00	4,491.05	4,476.93	4,470.25	17.82	17.70	146.83	101.87	155.86	309.53	284.67	24.85	12.455		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Parade State/Beauty Queen - Beauty Queen Fed Com 604H - OH - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,090.50	5,075.71	5,068.65	18.20	18.07	146.90	107.41	162.45	325.14	299.78	25.36	12.822		
5,200.00	5,189.95	5,174.48	5,167.04	18.58	18.43	146.96	112.96	169.05	340.75	314.88	25.87	13.174		
5,300.00	5,289.40	5,273.25	5,265.44	18.95	18.80	147.01	118.50	175.64	356.36	329.99	26.37	13.512		
5,400.00	5,388.86	5,372.03	5,363.84	19.33	19.17	147.06	124.04	182.24	371.97	345.09	26.88	13.838		
5,500.00	5,488.31	5,470.80	5,462.24	19.71	19.54	147.10	129.58	188.83	387.59	360.20	27.39	14.151		
5,600.00	5,587.76	5,569.57	5,560.63	20.09	19.90	147.14	135.12	195.43	403.20	375.30	27.90	14.452		
5,700.00	5,687.21	5,668.35	5,659.03	20.47	20.27	147.18	140.66	202.02	418.81	390.40	28.41	14.742		
5,800.00	5,786.66	5,767.12	5,757.43	20.85	20.64	147.22	146.21	208.62	434.42	405.50	28.92	15.022		
5,900.00	5,886.12	5,865.89	5,855.82	21.23	21.01	147.25	151.75	215.21	450.04	420.61	29.43	15.292		
6,000.00	5,985.57	5,964.67	5,954.22	21.62	21.38	147.28	157.29	221.80	465.65	435.71	29.94	15.553		
6,100.00	6,085.02	6,063.44	6,052.62	22.00	21.75	147.31	162.83	228.40	481.26	450.81	30.45	15.805		
6,200.00	6,184.47	6,162.21	6,151.01	22.38	22.12	147.34	168.37	234.99	496.88	465.92	30.96	16.048		
6,300.00	6,283.92	6,260.99	6,249.41	22.76	22.49	147.36	173.91	241.59	512.49	481.02	31.47	16.283		
6,400.00	6,383.38	6,359.76	6,347.81	23.15	22.86	147.39	179.45	248.18	528.10	496.12	31.99	16.511		
6,500.00	6,482.83	6,458.53	6,446.21	23.53	23.23	147.41	185.00	254.78	543.72	511.22	32.50	16.731		
6,600.00	6,582.28	6,557.31	6,544.60	23.91	23.60	147.43	190.54	261.37	559.33	526.32	33.01	16.945		
6,700.00	6,681.73	6,656.26	6,643.55	24.30	24.01	147.45	196.08	267.96	574.94	541.93	33.52	17.159		
6,800.00	6,781.18	6,755.71	6,743.00	24.68	24.42	147.48	201.62	274.55	590.55	557.54	34.03	17.373		
6,839.68	6,820.65	6,825.59	6,812.43	24.84	24.58	148.02	199.87	272.47	590.64	556.26	34.38	17.179		
6,900.00	6,880.68	6,893.82	6,880.66	25.07	24.82	148.36	200.31	273.00	596.08	561.36	34.71	17.172		
7,000.00	6,980.39	6,994.05	6,980.89	25.44	25.17	148.79	200.31	273.00	602.55	567.33	35.22	17.109		
7,100.00	7,080.27	7,093.92	7,080.77	25.80	25.52	149.07	200.31	273.00	606.81	571.08	35.72	16.987		
7,200.00	7,180.24	7,193.89	7,180.74	26.16	25.87	149.20	200.31	273.00	608.82	572.60	36.22	16.809		
7,239.76	7,220.00	7,233.66	7,220.50	26.30	26.01	89.97	200.31	273.00	609.00	572.58	36.42	16.722		
7,300.00	7,280.24	7,293.89	7,280.74	26.51	26.22	89.97	200.31	273.00	609.00	572.28	36.72	16.585		
7,400.00	7,380.24	7,393.89	7,380.74	26.85	26.58	89.97	200.31	273.00	609.00	571.78	37.22	16.363		
7,500.00	7,480.24	7,493.89	7,480.74	27.20	26.93	89.97	200.31	273.00	609.00	571.28	37.72	16.147		
7,600.00	7,580.24	7,593.89	7,580.74	27.55	27.28	89.97	200.31	273.00	609.00	570.79	38.21	15.937		
7,700.00	7,680.24	7,693.89	7,680.74	27.89	27.63	89.97	200.31	273.00	609.00	570.29	38.71	15.731		
7,800.00	7,780.24	7,793.89	7,780.74	28.24	27.98	89.97	200.31	273.00	609.00	569.79	39.21	15.531		
7,900.00	7,880.24	7,893.89	7,880.74	28.59	28.33	89.97	200.31	273.00	609.00	569.29	39.71	15.336		
8,000.00	7,980.24	7,993.89	7,980.74	28.94	28.68	89.97	200.31	273.00	609.00	568.79	40.21	15.146		
8,100.00	8,080.24	8,093.89	8,080.74	29.28	29.04	89.97	200.31	273.00	609.00	568.29	40.71	14.960		
8,200.00	8,180.24	8,193.89	8,180.74	29.63	29.39	89.97	200.31	273.00	609.00	567.79	41.21	14.778		
8,300.00	8,280.24	8,293.89	8,280.74	29.98	29.74	89.97	200.31	273.00	609.00	567.29	41.71	14.601		
8,400.00	8,380.24	8,393.89	8,380.74	30.33	30.09	89.97	200.31	273.00	609.00	566.79	42.21	14.428		
8,500.00	8,480.24	8,493.89	8,480.74	30.68	30.45	89.97	200.31	273.00	609.00	566.29	42.71	14.259		
8,600.00	8,580.24	8,593.89	8,580.74	31.03	30.80	89.97	200.31	273.00	609.00	565.79	43.21	14.094		
8,700.00	8,680.24	8,693.89	8,680.74	31.38	31.15	89.97	200.31	273.00	609.00	565.29	43.71	13.933		
8,800.00	8,780.24	8,793.89	8,780.74	31.73	31.50	89.97	200.31	273.00	609.00	564.79	44.21	13.775		
8,900.00	8,880.24	8,893.89	8,880.74	32.08	31.86	89.97	200.31	273.00	609.00	564.29	44.71	13.621		
9,000.00	8,980.24	8,993.89	8,980.74	32.43	32.21	89.97	200.31	273.00	609.00	563.79	45.21	13.470		
9,100.00	9,080.24	9,093.89	9,080.74	32.78	32.56	89.97	200.31	273.00	609.00	563.29	45.71	13.322		
9,200.00	9,180.24	9,193.89	9,180.74	33.13	32.92	89.97	200.31	273.00	609.00	562.79	46.21	13.178		
9,300.00	9,280.24	9,293.89	9,280.74	33.48	33.27	89.97	200.31	273.00	609.00	562.28	46.72	13.036		
9,400.00	9,380.24	9,393.89	9,380.74	33.83	33.62	89.97	200.31	273.00	609.00	561.78	47.22	12.898		
9,500.00	9,480.24	9,493.89	9,480.74	34.18	33.98	89.97	200.31	273.00	609.00	561.28	47.72	12.762		
9,600.00	9,580.24	9,593.89	9,580.74	34.53	34.33	89.97	200.31	273.00	609.00	560.78	48.22	12.630		
9,700.00	9,680.24	9,693.89	9,680.74	34.88	34.69	89.97	200.31	273.00	609.00	560.28	48.72	12.500		
9,800.00	9,780.24	9,793.89	9,780.74	35.24	35.04	89.97	200.31	273.00	609.00	559.78	49.22	12.372		
9,900.00	9,880.24	9,893.89	9,880.74	35.59	35.39	89.97	200.31	273.00	609.00	559.27	49.73	12.247		
10,000.00	9,980.24	9,993.89	9,980.74	35.94	35.75	89.97	200.31	273.00	609.00	558.77	50.23	12.125		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Parade State/Beauty Queen - Beauty Queen Fed Com 604H - OH - Plan #2		Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft		
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
10,100.00	10,080.24	10,093.89	10,080.74	36.29	36.10	89.97	200.31	273.00	609.00	558.27	50.73	12.005				
10,200.00	10,180.24	10,193.89	10,180.74	36.64	36.46	89.97	200.31	273.00	609.00	557.77	51.23	11.887				
10,300.00	10,280.24	10,293.89	10,280.74	37.00	36.81	89.97	200.31	273.00	609.00	557.27	51.73	11.772				
10,400.00	10,380.24	10,393.89	10,380.74	37.35	37.17	89.97	200.31	273.00	609.00	556.76	52.24	11.658				
10,500.00	10,480.24	10,493.89	10,480.74	37.70	37.52	89.97	200.31	273.00	609.00	556.26	52.74	11.547				
10,600.00	10,580.24	10,593.89	10,580.74	38.05	37.88	89.97	200.31	273.00	609.00	555.76	53.24	11.438				
10,700.00	10,680.24	10,693.89	10,680.74	38.40	38.23	89.97	200.31	273.00	609.00	555.26	53.74	11.331				
10,800.00	10,780.24	10,793.89	10,780.74	38.76	38.58	89.97	200.31	273.00	609.00	554.75	54.25	11.226				
10,900.00	10,880.24	10,893.89	10,880.74	39.11	38.94	89.97	200.31	273.00	609.00	554.25	54.75	11.123				
11,000.00	10,980.24	10,993.89	10,980.74	39.46	39.29	89.97	200.31	273.00	609.00	553.75	55.25	11.022				
11,100.00	11,080.24	11,093.89	11,080.74	39.82	39.65	89.97	200.31	273.00	609.00	553.24	55.76	10.923				
11,200.00	11,180.24	11,193.89	11,180.74	40.17	40.00	89.97	200.31	273.00	609.00	552.74	56.26	10.825				
11,300.00	11,280.24	11,293.89	11,280.74	40.52	40.36	89.97	200.31	273.00	609.00	552.24	56.76	10.729				
11,300.97	11,281.21	11,294.86	11,281.71	40.53	40.36	89.97	200.31	273.00	609.00	552.23	56.77	10.728				
11,400.00	11,380.24	11,392.25	11,378.73	40.88	40.68	90.62	193.40	273.07	609.11	551.87	57.24	10.642				
11,500.00	11,480.24	11,485.54	11,469.32	41.23	40.95	92.68	171.53	273.29	610.06	552.40	57.67	10.579				
11,515.76	11,496.00	11,500.00	11,482.99	41.28	40.99	93.12	166.83	273.34	610.39	552.66	57.73	10.573				
11,550.00	11,530.22	11,529.33	11,510.34	41.40	41.07	-85.31	156.25	273.45	611.27	553.42	57.85	10.566				
11,600.00	11,579.93	11,572.09	11,549.17	41.55	41.17	-83.86	138.35	273.63	612.88	554.88	58.00	10.567				
11,650.00	11,629.01	11,614.00	11,585.82	41.70	41.27	-82.46	118.04	273.83	614.83	556.70	58.12	10.578				
11,700.00	11,677.08	11,655.14	11,620.26	41.84	41.36	-81.12	95.55	274.06	617.04	558.82	58.22	10.599				
11,750.00	11,723.77	11,695.61	11,652.48	41.98	41.44	-79.84	71.08	274.31	619.46	561.18	58.27	10.630				
11,800.00	11,768.72	11,735.47	11,682.45	42.10	41.51	-78.63	44.81	274.58	622.02	563.71	58.30	10.669				
11,850.00	11,811.60	11,774.81	11,710.16	42.21	41.57	-77.50	16.91	274.86	624.65	566.35	58.30	10.714				
11,900.00	11,852.08	11,813.67	11,735.59	42.30	41.62	-76.45	-12.46	275.16	627.29	569.01	58.27	10.765				
11,950.00	11,889.84	11,850.00	11,757.52	42.39	41.67	-75.53	-41.42	275.45	629.88	571.67	58.21	10.821				
12,000.00	11,924.61	11,890.20	11,779.59	42.46	41.72	-74.62	-75.01	275.79	632.35	574.18	58.17	10.870				
12,050.00	11,956.12	11,927.98	11,798.14	42.53	41.80	-73.84	-107.91	276.12	634.67	576.56	58.11	10.921				
12,100.00	11,984.13	11,965.49	11,814.37	42.58	41.89	-73.16	-141.72	276.47	636.78	578.72	58.06	10.968				
12,150.00	12,008.42	12,000.00	11,827.32	42.63	41.98	-72.61	-173.70	276.79	638.64	580.64	58.00	11.011				
12,200.00	12,028.81	12,039.89	11,839.85	42.69	42.08	-72.11	-211.56	277.17	640.20	582.20	58.00	11.038				
12,250.00	12,045.15	12,076.86	11,849.09	42.80	42.17	-71.74	-247.34	277.54	641.46	583.45	58.01	11.058				
12,300.00	12,057.30	12,113.72	11,855.99	42.92	42.26	-71.48	-283.55	277.90	642.37	584.32	58.05	11.066				
12,350.00	12,065.19	12,150.00	11,860.49	43.05	42.36	-71.32	-319.54	278.27	642.92	584.79	58.13	11.061				
12,400.00	12,068.74	12,187.26	11,862.74	43.18	42.45	-71.26	-356.73	278.65	643.11	584.86	58.25	11.041				
12,411.94	12,068.95	12,199.49	11,862.95	43.21	42.49	-71.27	-368.95	278.77	643.11	584.82	58.29	11.034				
12,416.54	12,068.98	12,199.49	11,862.95	43.22	42.49	-71.27	-368.95	278.77	643.09	584.80	58.30	11.032				
12,500.00	12,069.53	12,282.85	11,863.48	43.46	42.73	-71.27	-452.31	279.61	643.11	584.50	58.61	10.973				
12,600.00	12,070.20	12,382.85	11,864.12	43.81	43.08	-71.26	-552.30	280.63	643.12	584.07	59.05	10.891				
12,700.00	12,070.87	12,482.85	11,864.76	44.21	43.48	-71.26	-652.29	281.64	643.14	583.57	59.58	10.795				
12,800.00	12,071.54	12,582.85	11,865.40	44.66	43.94	-71.26	-752.29	282.65	643.16	582.98	60.18	10.687				
12,900.00	12,072.21	12,682.85	11,866.04	45.17	44.45	-71.26	-852.28	283.67	643.18	582.32	60.86	10.568				
13,000.00	12,072.87	12,782.85	11,866.68	45.74	45.02	-71.25	-952.27	284.68	643.19	581.58	61.61	10.440				
13,100.00	12,073.54	12,882.85	11,867.32	46.35	45.64	-71.25	-1,052.27	285.69	643.21	580.78	62.44	10.302				
13,200.00	12,074.21	12,982.85	11,867.96	47.01	46.31	-71.25	-1,152.26	286.71	643.23	579.90	63.33	10.157				
13,300.00	12,074.88	13,082.85	11,868.60	47.72	47.03	-71.25	-1,252.25	287.72	643.25	578.96	64.28	10.006				
13,400.00	12,075.55	13,182.85	11,869.24	48.48	47.80	-71.25	-1,352.24	288.73	643.26	577.96	65.30	9.851				
13,500.00	12,076.21	13,282.85	11,869.88	49.28	48.61	-71.24	-1,452.24	289.75	643.28	576.90	66.38	9.691				
13,600.00	12,076.88	13,382.85	11,870.52	50.12	49.46	-71.24	-1,552.23	290.76	643.30	575.79	67.51	9.529				
13,700.00	12,077.55	13,482.85	11,871.16	51.00	50.35	-71.24	-1,652.22	291.77	643.32	574.62	68.70	9.364				
13,800.00	12,078.22	13,582.85	11,871.80	51.92	51.28	-71.24	-1,752.22	292.79	643.34	573.40	69.94	9.199				
13,900.00	12,078.89	13,682.85	11,872.44	52.88	52.25	-71.24	-1,852.21	293.80	643.35	572.13	71.22	9.033				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	12,079.56	13,782.85	11,873.08	53.86	53.25	-71.23	-1,952.20	294.81	643.37	570.81	72.56	8.867		
14,100.00	12,080.22	13,882.85	11,873.72	54.88	54.28	-71.23	-2,052.19	295.83	643.39	569.46	73.93	8.703		
14,200.00	12,080.89	13,982.85	11,874.36	55.93	55.34	-71.23	-2,152.19	296.84	643.41	568.06	75.35	8.539		
14,300.00	12,081.56	14,082.85	11,875.00	57.01	56.43	-71.23	-2,252.18	297.85	643.42	566.63	76.80	8.378		
14,400.00	12,082.23	14,182.85	11,875.64	58.12	57.54	-71.23	-2,352.17	298.87	643.44	565.15	78.29	8.219		
14,500.00	12,082.90	14,282.85	11,876.28	59.25	58.69	-71.22	-2,452.17	299.88	643.46	563.65	79.81	8.062		
14,600.00	12,083.56	14,382.85	11,876.92	60.40	59.85	-71.22	-2,552.16	300.89	643.48	562.11	81.37	7.908		
14,700.00	12,084.23	14,482.85	11,877.56	61.58	61.04	-71.22	-2,652.15	301.91	643.49	560.54	82.95	7.758		
14,800.00	12,084.90	14,582.85	11,878.20	62.78	62.25	-71.22	-2,752.14	302.92	643.51	558.95	84.56	7.610		
14,900.00	12,085.57	14,682.85	11,878.84	64.00	63.48	-71.22	-2,852.14	303.93	643.53	557.33	86.20	7.465		
15,000.00	12,086.24	14,782.85	11,879.48	65.23	64.73	-71.21	-2,952.13	304.95	643.55	555.68	87.87	7.324		
15,100.00	12,086.90	14,882.85	11,880.13	66.49	65.99	-71.21	-3,052.12	305.96	643.56	554.01	89.56	7.186		
15,200.00	12,087.57	14,982.85	11,880.77	67.76	67.27	-71.21	-3,152.11	306.97	643.58	552.31	91.27	7.051		
15,300.00	12,088.24	15,082.85	11,881.41	69.05	68.57	-71.21	-3,252.11	307.99	643.60	550.60	93.00	6.920		
15,400.00	12,088.91	15,182.85	11,882.05	70.36	69.89	-71.20	-3,352.10	309.00	643.62	548.86	94.75	6.793		
15,500.00	12,089.58	15,282.85	11,882.69	71.68	71.21	-71.20	-3,452.09	310.01	643.63	547.11	96.52	6.668		
15,600.00	12,090.25	15,382.85	11,883.33	73.01	72.56	-71.20	-3,552.09	311.03	643.65	545.34	98.31	6.547		
15,700.00	12,090.91	15,482.85	11,883.97	74.35	73.91	-71.20	-3,652.08	312.04	643.67	543.55	100.12	6.429		
15,800.00	12,091.58	15,582.85	11,884.61	75.71	75.27	-71.20	-3,752.07	313.05	643.69	541.75	101.94	6.314		
15,900.00	12,092.25	15,682.85	11,885.25	77.08	76.65	-71.19	-3,852.06	314.07	643.71	539.93	103.78	6.203		
16,000.00	12,092.92	15,782.85	11,885.89	78.46	78.04	-71.19	-3,952.06	315.08	643.72	538.10	105.63	6.094		
16,100.00	12,093.59	15,882.85	11,886.53	79.85	79.44	-71.19	-4,052.05	316.09	643.74	536.25	107.49	5.989		
16,200.00	12,094.25	15,982.85	11,887.17	81.25	80.85	-71.19	-4,152.04	317.11	643.76	534.39	109.36	5.886		
16,300.00	12,094.92	16,082.85	11,887.81	82.66	82.26	-71.19	-4,252.04	318.12	643.78	532.52	111.25	5.787		
16,400.00	12,095.59	16,182.85	11,888.45	84.08	83.69	-71.18	-4,352.03	319.13	643.79	530.64	113.15	5.690		
16,500.00	12,096.26	16,282.85	11,889.09	85.50	85.12	-71.18	-4,452.02	320.15	643.81	528.75	115.06	5.595		
16,600.00	12,096.93	16,382.85	11,889.73	86.94	86.56	-71.18	-4,552.01	321.16	643.83	526.85	116.98	5.504		
16,700.00	12,097.59	16,482.85	11,890.37	88.38	88.01	-71.18	-4,652.01	322.17	643.85	524.94	118.91	5.415		
16,800.00	12,098.26	16,582.85	11,891.01	89.83	89.47	-71.18	-4,752.00	323.19	643.86	523.02	120.85	5.328		
16,900.00	12,098.93	16,682.85	11,891.65	91.29	90.93	-71.17	-4,851.99	324.20	643.88	521.09	122.79	5.244		
17,000.00	12,099.60	16,782.85	11,892.29	92.75	92.40	-71.17	-4,951.99	325.21	643.90	519.15	124.75	5.162		
17,100.00	12,100.27	16,882.85	11,892.93	94.22	93.88	-71.17	-5,051.98	326.23	643.92	517.21	126.71	5.082		
17,200.00	12,100.94	16,982.85	11,893.57	95.70	95.36	-71.17	-5,151.97	327.24	643.93	515.26	128.68	5.004		
17,300.00	12,101.60	17,082.85	11,894.21	97.18	96.84	-71.16	-5,251.96	328.26	643.95	513.30	130.65	4.929		
17,400.00	12,102.27	17,182.85	11,894.85	98.66	98.34	-71.16	-5,351.96	329.27	643.97	511.33	132.64	4.855		
17,500.00	12,102.94	17,282.85	11,895.49	100.15	99.83	-71.16	-5,451.95	330.28	643.99	509.36	134.62	4.784		
17,600.00	12,103.61	17,382.85	11,896.13	101.65	101.33	-71.16	-5,551.94	331.30	644.00	507.39	136.62	4.714		
17,700.00	12,104.28	17,482.85	11,896.77	103.15	102.84	-71.16	-5,651.94	332.31	644.02	505.40	138.62	4.646		
17,800.00	12,104.94	17,582.85	11,897.41	104.66	104.35	-71.15	-5,751.93	333.32	644.04	503.42	140.62	4.580		
17,900.00	12,105.61	17,682.85	11,898.05	106.17	105.87	-71.15	-5,851.92	334.34	644.06	501.42	142.63	4.515		
18,000.00	12,106.28	17,782.85	11,898.69	107.68	107.39	-71.15	-5,951.91	335.35	644.08	499.43	144.65	4.453		
18,100.00	12,106.95	17,882.85	11,899.33	109.20	108.91	-71.15	-6,051.91	336.36	644.09	497.42	146.67	4.391		
18,200.00	12,107.62	17,982.85	11,899.97	110.73	110.44	-71.15	-6,151.90	337.38	644.11	495.42	148.69	4.332		
18,300.00	12,108.28	18,082.85	11,900.61	112.25	111.97	-71.14	-6,251.89	338.39	644.13	493.41	150.72	4.274		
18,400.00	12,108.95	18,182.85	11,901.25	113.78	113.50	-71.14	-6,351.89	339.40	644.15	491.39	152.75	4.217		
18,500.00	12,109.62	18,282.85	11,901.89	115.31	115.04	-71.14	-6,451.88	340.42	644.16	489.38	154.79	4.162		
18,600.00	12,110.29	18,382.85	11,902.53	116.85	116.58	-71.14	-6,551.87	341.43	644.18	487.35	156.83	4.108		
18,700.00	12,110.96	18,482.85	11,903.17	118.39	118.12	-71.14	-6,651.86	342.44	644.20	485.33	158.87	4.055		
18,800.00	12,111.63	18,582.85	11,903.81	119.93	119.67	-71.13	-6,751.86	343.46	644.22	483.30	160.91	4.003		
18,900.00	12,112.29	18,682.85	11,904.45	121.48	121.22	-71.13	-6,851.85	344.47	644.23	481.27	162.96	3.953		
19,000.00	12,112.96	18,782.85	11,905.09	123.03	122.77	-71.13	-6,951.84	345.48	644.25	479.24	165.01	3.904		
19,100.00	12,113.63	18,882.85	11,905.73	124.58	124.33	-71.13	-7,051.83	346.50	644.27	477.20	167.07	3.856		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Parade State/Beauty Queen - Beauty Queen Fed Com 604H - OH - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
19,200.00	12,114.30	18,982.85	11,906.37	126.13	125.88	-71.13	-7,151.83	347.51	644.29	475.16	169.12	3.810		
19,300.00	12,114.97	19,082.85	11,907.01	127.69	127.44	-71.12	-7,251.82	348.52	644.30	473.12	171.18	3.764		
19,400.00	12,115.63	19,182.85	11,907.65	129.25	129.00	-71.12	-7,351.81	349.54	644.32	471.08	173.24	3.719		
19,500.00	12,116.30	19,282.85	11,908.29	130.81	130.57	-71.12	-7,451.81	350.55	644.34	469.03	175.31	3.676		
19,600.00	12,116.97	19,382.85	11,908.93	132.37	132.14	-71.12	-7,551.80	351.56	644.36	466.99	177.37	3.633		
19,700.00	12,117.64	19,482.85	11,909.57	133.94	133.70	-71.11	-7,651.79	352.58	644.38	464.94	179.44	3.591		
19,800.00	12,118.31	19,582.85	11,910.21	135.50	135.27	-71.11	-7,751.78	353.59	644.39	462.89	181.51	3.550		
19,900.00	12,118.97	19,682.85	11,910.85	137.07	136.85	-71.11	-7,851.78	354.60	644.41	460.83	183.58	3.510		
20,000.00	12,119.64	19,782.85	11,911.49	138.64	138.42	-71.11	-7,951.77	355.62	644.43	458.78	185.65	3.471		
20,100.00	12,120.31	19,882.85	11,912.13	140.22	140.00	-71.11	-8,051.76	356.63	644.45	456.72	187.72	3.433		
20,200.00	12,120.98	19,982.85	11,912.78	141.79	141.58	-71.10	-8,151.76	357.64	644.46	454.67	189.80	3.396		
20,300.00	12,121.65	20,082.85	11,913.42	143.37	143.16	-71.10	-8,251.75	358.66	644.48	452.61	191.87	3.359		
20,400.00	12,122.32	20,182.85	11,914.06	144.95	144.74	-71.10	-8,351.74	359.67	644.50	450.55	193.95	3.323		
20,500.00	12,122.98	20,282.85	11,914.70	146.53	146.32	-71.10	-8,451.73	360.68	644.52	448.49	196.03	3.288		
20,600.00	12,123.65	20,382.85	11,915.34	148.11	147.90	-71.10	-8,551.73	361.70	644.53	446.43	198.11	3.253		
20,700.00	12,124.32	20,482.85	11,915.98	149.69	149.49	-71.09	-8,651.72	362.71	644.55	444.37	200.19	3.220		
20,800.00	12,124.99	20,582.85	11,916.62	151.28	151.08	-71.09	-8,751.71	363.72	644.57	442.30	202.27	3.187		
20,900.00	12,125.66	20,682.85	11,917.26	152.86	152.67	-71.09	-8,851.71	364.74	644.59	440.24	204.35	3.154		
21,000.00	12,126.32	20,782.85	11,917.90	154.45	154.26	-71.09	-8,951.70	365.75	644.60	438.17	206.43	3.123		
21,100.00	12,126.99	20,882.85	11,918.54	156.04	155.85	-71.09	-9,051.69	366.76	644.62	436.11	208.52	3.091		
21,200.00	12,127.66	20,982.85	11,919.18	157.63	157.44	-71.08	-9,151.68	367.78	644.64	434.04	210.60	3.061		
21,300.00	12,128.33	21,082.85	11,919.82	159.22	159.03	-71.08	-9,251.68	368.79	644.66	431.97	212.68	3.031		
21,400.00	12,129.00	21,182.85	11,920.46	160.81	160.63	-71.08	-9,351.67	369.80	644.68	429.91	214.77	3.002		
21,500.00	12,129.66	21,282.85	11,921.10	162.41	162.23	-71.08	-9,451.66	370.82	644.69	427.84	216.85	2.973		
21,600.00	12,130.33	21,382.85	11,921.74	164.00	163.82	-71.08	-9,551.66	371.83	644.71	425.77	218.94	2.945		
21,700.00	12,131.00	21,482.85	11,922.38	165.60	165.42	-71.07	-9,651.65	372.84	644.73	423.70	221.03	2.917		
21,800.00	12,131.67	21,582.85	11,923.02	167.20	167.02	-71.07	-9,751.64	373.86	644.75	421.63	223.11	2.890		
21,900.00	12,132.34	21,682.85	11,923.66	168.79	168.62	-71.07	-9,851.63	374.87	644.76	419.57	225.20	2.863		
22,000.00	12,133.01	21,782.85	11,924.30	170.39	170.22	-71.07	-9,951.63	375.88	644.78	417.50	227.29	2.837		
22,100.00	12,133.67	21,882.85	11,924.94	171.99	171.83	-71.06	-10,051.62	376.90	644.80	415.43	229.37	2.811		
22,103.48	12,133.70	21,886.33	11,924.96	172.04	171.88	-71.06	-10,055.10	376.93	644.80	415.36	229.44	2.810		
22,160.93	12,134.08	21,942.44	11,925.32	172.86	172.78	-71.06	-10,111.20	377.50	644.81	414.26	230.55	2.797		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.48	0.63	69.99	69.99				
100.00	100.00	99.60	99.60	0.14	0.14	89.48	0.63	69.99	69.99	69.79	0.20	350.231	
200.00	200.00	199.60	199.60	0.50	0.50	89.48	0.63	69.99	69.99	69.29	0.71	99.113	
300.00	300.00	299.60	299.60	0.86	0.86	89.48	0.63	69.99	69.99	68.78	1.21	57.695	
400.00	400.00	399.60	399.60	1.22	1.22	89.48	0.63	69.99	69.99	68.27	1.72	40.691	
500.00	500.00	499.60	499.60	1.58	1.57	89.48	0.63	69.99	69.99	67.77	2.23	31.428	
600.00	600.00	599.60	599.60	1.93	1.93	89.48	0.63	69.99	69.99	67.26	2.73	25.601	
700.00	700.00	699.60	699.60	2.29	2.29	89.48	0.63	69.99	69.99	66.75	3.24	21.596	
800.00	800.00	799.60	799.60	2.65	2.65	89.48	0.63	69.99	69.99	66.24	3.75	18.675	
900.00	900.00	899.60	899.60	3.01	3.01	89.48	0.63	69.99	69.99	65.74	4.25	16.450	
1,000.00	1,000.00	999.60	999.60	3.37	3.37	89.48	0.63	69.99	69.99	65.23	4.76	14.699	
1,100.00	1,100.00	1,099.60	1,099.60	3.73	3.72	89.48	0.63	69.99	69.99	64.72	5.27	13.284	
1,200.00	1,200.00	1,199.60	1,199.60	4.08	4.08	89.48	0.63	69.99	69.99	64.22	5.78	12.118	
1,300.00	1,300.00	1,299.60	1,299.60	4.44	4.44	89.48	0.63	69.99	69.99	63.71	6.28	11.141	
1,400.00	1,400.00	1,399.60	1,399.60	4.80	4.80	89.48	0.63	69.99	69.99	63.20	6.79	10.309	
1,500.00	1,500.00	1,499.60	1,499.60	5.16	5.16	89.48	0.63	69.99	69.99	62.70	7.30	9.593	
1,600.00	1,600.00	1,599.60	1,599.60	5.52	5.52	89.48	0.63	69.99	69.99	62.19	7.80	8.969	
1,700.00	1,700.00	1,699.60	1,699.60	5.88	5.88	89.48	0.63	69.99	69.99	61.68	8.31	8.422	
1,800.00	1,800.00	1,799.60	1,799.60	6.24	6.23	89.48	0.63	69.99	69.99	61.18	8.82	7.938	
1,900.00	1,900.00	1,899.60	1,899.60	6.59	6.59	89.48	0.63	69.99	69.99	60.67	9.32	7.506	
2,000.00	2,000.00	1,999.60	1,999.60	6.95	6.95	89.48	0.63	69.99	69.99	60.16	9.83	7.119	
2,100.00	2,100.00	2,099.60	2,099.60	7.31	7.31	89.48	0.63	69.99	69.99	59.65	10.34	6.770	
2,200.00	2,200.00	2,199.60	2,199.60	7.67	7.67	89.48	0.63	69.99	69.99	59.15	10.85	6.454	
2,300.00	2,300.00	2,299.60	2,299.60	8.03	8.03	89.48	0.63	69.99	69.99	58.64	11.35	6.166	
2,400.00	2,400.00	2,399.60	2,399.60	8.39	8.39	89.48	0.63	69.99	69.99	58.13	11.86	5.902	
2,500.00	2,500.00	2,499.60	2,499.60	8.74	8.74	89.48	0.63	69.99	69.99	57.63	12.37	5.660	
2,600.00	2,600.00	2,599.60	2,599.60	9.10	9.10	89.48	0.63	69.99	69.99	57.12	12.87	5.437 CC, ES	
2,700.00	2,700.00	2,697.90	2,697.89	9.46	9.45	89.13	1.08	71.16	71.19	57.82	13.37	5.326	
2,800.00	2,800.00	2,796.06	2,795.97	9.82	9.79	88.14	2.43	74.69	74.82	60.97	13.85	5.402	
2,900.00	2,900.00	2,893.96	2,893.67	10.18	10.13	86.68	4.67	80.55	80.90	66.58	14.32	5.649	
3,000.00	3,000.00	2,991.48	2,990.79	10.54	10.48	84.98	7.79	88.71	89.49	74.70	14.79	6.052	
3,100.00	3,100.00	3,088.48	3,087.15	10.90	10.82	83.23	11.77	99.12	100.59	85.36	15.24	6.602	
3,200.00	3,199.99	3,187.22	3,185.05	11.25	11.18	141.15	16.37	111.14	114.29	98.56	15.72	7.268	
3,300.00	3,299.91	3,285.97	3,282.95	11.60	11.54	140.80	20.97	123.18	130.04	113.82	16.22	8.019	
3,400.00	3,399.69	3,384.37	3,380.51	11.95	11.90	141.13	25.56	135.17	147.79	131.09	16.71	8.846	
3,500.08	3,499.35	3,482.43	3,477.74	12.31	12.26	141.90	30.13	147.12	167.60	150.40	17.20	9.745	
3,600.00	3,598.72	3,580.11	3,574.58	12.66	12.63	142.91	34.68	159.03	188.42	170.74	17.69	10.652	
3,700.00	3,698.17	3,677.87	3,671.50	13.02	12.99	143.71	39.24	170.94	209.31	191.13	18.18	11.512	
3,800.00	3,797.63	3,775.62	3,768.42	13.38	13.36	144.37	43.79	182.86	230.24	211.56	18.67	12.329	
3,900.00	3,897.08	3,873.38	3,865.34	13.75	13.73	144.92	48.35	194.77	251.18	232.01	19.17	13.104	
4,000.00	3,996.53	3,971.14	3,962.26	14.11	14.10	145.38	52.90	206.69	272.14	252.48	19.66	13.840	
4,100.00	4,095.98	4,068.89	4,059.18	14.48	14.48	145.78	57.46	218.60	293.12	272.96	20.16	14.540	
4,200.00	4,195.43	4,166.65	4,156.10	14.84	14.85	146.12	62.02	230.52	314.11	293.46	20.66	15.206	
4,300.00	4,294.89	4,264.40	4,253.02	15.21	15.23	146.42	66.57	242.43	335.11	313.96	21.16	15.840	
4,400.00	4,394.34	4,362.16	4,349.94	15.58	15.61	146.69	71.13	254.34	356.12	334.47	21.66	16.445	
4,500.00	4,493.79	4,459.92	4,446.86	15.95	15.99	146.92	75.68	266.26	377.14	354.98	22.16	17.023	
4,600.00	4,593.24	4,557.67	4,543.78	16.32	16.37	147.14	80.24	278.17	398.15	375.50	22.66	17.574	
4,700.00	4,692.69	4,655.43	4,640.70	16.70	16.75	147.30	84.80	290.09	419.18	396.02	23.16	18.101	
4,800.00	4,792.15	4,753.18	4,737.62	17.07	17.13	147.50	89.35	302.00	440.21	416.55	23.66	18.606	
4,900.00	4,891.60	4,850.94	4,834.54	17.45	17.52	147.65	93.91	313.92	461.24	437.08	24.16	19.089	
5,000.00	4,991.05	4,948.70	4,931.46	17.82	17.90	147.80	98.47	325.83	482.27	457.61	24.67	19.552	
5,100.00	5,090.50	5,046.45	5,028.38	18.20	18.29	147.93	103.02	337.75	503.31	478.14	25.17	19.996	

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Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Parade State/Beauty Queen - Beauty Queen Fed Com 705H - OH - Plan #2		Offset Site Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD															Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
5,200.00	5,189.95	5,144.21	5,125.30	18.58	18.67	148.05	107.58	349.66	524.35	498.68	25.67	20.423				
5,300.00	5,289.40	5,241.96	5,222.22	18.95	19.06	148.16	112.13	361.57	545.39	519.21	26.18	20.832				
5,400.00	5,388.86	5,339.72	5,319.14	19.33	19.45	148.26	116.69	373.49	566.44	539.75	26.69	21.226				
5,500.00	5,488.31	5,437.48	5,416.06	19.71	19.84	148.36	121.25	385.40	587.48	560.29	27.19	21.605				
5,600.00	5,587.76	5,535.23	5,512.98	20.09	20.23	148.44	125.80	397.32	608.53	580.83	27.70	21.970				
5,700.00	5,687.21	5,632.99	5,609.90	20.47	20.62	148.53	130.36	409.23	629.58	601.37	28.21	22.321				
5,800.00	5,786.66	5,730.74	5,706.82	20.85	21.01	148.60	134.92	421.15	650.62	621.91	28.71	22.659				
5,900.00	5,886.12	5,828.50	5,803.74	21.23	21.40	148.68	139.47	433.06	671.67	642.45	29.22	22.986				
6,000.00	5,985.57	5,926.26	5,900.66	21.62	21.79	148.75	144.03	444.98	692.73	663.00	29.73	23.301				
6,100.00	6,085.02	6,024.01	5,997.58	22.00	22.18	148.81	148.58	456.89	713.78	683.54	30.24	23.605				
6,200.00	6,184.47	6,121.77	6,094.51	22.38	22.57	148.87	153.14	468.80	734.83	704.08	30.75	23.899				
6,300.00	6,283.92	6,219.52	6,191.43	22.76	22.96	148.93	157.70	480.72	755.88	724.63	31.26	24.183				
6,400.00	6,383.38	6,317.28	6,288.35	23.15	23.36	148.98	162.25	492.63	776.94	745.17	31.77	24.458				
6,500.00	6,482.83	6,415.04	6,385.27	23.53	23.75	149.03	166.81	504.55	797.99	765.72	32.28	24.724				
6,600.00	6,582.28	6,512.79	6,482.19	23.91	24.14	149.08	171.36	516.46	819.05	786.26	32.79	24.981				
6,700.00	6,681.73	6,610.55	6,579.11	24.30	24.54	149.13	175.92	528.38	840.10	806.81	33.30	25.230				
6,800.00	6,781.18	6,708.30	6,676.03	24.68	24.93	149.17	180.48	540.29	861.16	827.35	33.81	25.472				
6,839.68	6,820.65	6,747.10	6,714.49	24.84	25.09	149.19	182.29	545.02	869.52	835.50	34.01	25.566				
6,900.00	6,880.68	6,806.14	6,773.03	25.07	25.33	149.29	185.04	552.22	881.82	847.50	34.32	25.695				
7,000.00	6,980.39	6,908.33	6,874.34	25.44	25.74	149.38	189.79	564.63	900.41	865.56	34.85	25.834				
7,100.00	7,080.27	7,035.44	7,000.69	25.80	26.24	149.38	194.75	577.61	914.85	879.34	35.52	25.758				
7,200.00	7,180.24	7,163.87	7,128.74	26.16	26.72	149.32	198.23	586.73	923.96	887.81	36.15	25.560				
7,239.76	7,220.00	7,215.17	7,179.97	26.30	26.91	90.05	199.20	589.24	926.09	889.70	36.39	25.448				
7,300.00	7,280.24	7,293.02	7,257.77	26.51	27.18	89.99	200.19	591.83	928.10	891.35	36.75	25.256				
7,400.00	7,380.24	7,415.10	7,379.84	26.85	27.60	89.96	200.63	592.99	928.99	891.69	37.30	24.908				
7,500.00	7,480.24	7,515.10	7,479.84	27.20	27.93	89.96	200.63	592.99	928.99	891.20	37.79	24.583				
7,600.00	7,580.24	7,615.10	7,579.84	27.55	28.27	89.96	200.63	592.99	928.99	890.71	38.28	24.266				
7,700.00	7,680.24	7,715.10	7,679.84	27.89	28.61	89.96	200.63	592.99	928.99	890.21	38.78	23.956				
7,800.00	7,780.24	7,815.10	7,779.84	28.24	28.94	89.96	200.63	592.99	928.99	889.72	39.27	23.655				
7,900.00	7,880.24	7,915.10	7,879.84	28.59	29.28	89.96	200.63	592.99	928.99	889.22	39.77	23.360				
8,000.00	7,980.24	8,015.10	7,979.84	28.94	29.62	89.96	200.63	592.99	928.99	888.73	40.26	23.073				
8,100.00	8,080.24	8,115.10	8,079.84	29.28	29.96	89.96	200.63	592.99	928.99	888.23	40.76	22.792				
8,200.00	8,180.24	8,215.10	8,179.84	29.63	30.30	89.96	200.63	592.99	928.99	887.74	41.25	22.518				
8,300.00	8,280.24	8,315.10	8,279.84	29.98	30.64	89.96	200.63	592.99	928.99	887.24	41.75	22.251				
8,400.00	8,380.24	8,415.10	8,379.84	30.33	30.98	89.96	200.63	592.99	928.99	886.74	42.25	21.989				
8,500.00	8,480.24	8,515.10	8,479.84	30.68	31.32	89.96	200.63	592.99	928.99	886.25	42.74	21.734				
8,600.00	8,580.24	8,615.10	8,579.84	31.03	31.66	89.96	200.63	592.99	928.99	885.75	43.24	21.484				
8,700.00	8,680.24	8,715.10	8,679.84	31.38	32.00	89.96	200.63	592.99	928.99	885.25	43.74	21.240				
8,800.00	8,780.24	8,815.10	8,779.84	31.73	32.34	89.96	200.63	592.99	928.99	884.76	44.24	21.001				
8,900.00	8,880.24	8,915.10	8,879.84	32.08	32.68	89.96	200.63	592.99	928.99	884.26	44.73	20.768				
9,000.00	8,980.24	9,015.10	8,979.84	32.43	33.02	89.96	200.63	592.99	928.99	883.76	45.23	20.539				
9,100.00	9,080.24	9,115.10	9,079.84	32.78	33.37	89.96	200.63	592.99	928.99	883.26	45.73	20.315				
9,200.00	9,180.24	9,215.10	9,179.84	33.13	33.71	89.96	200.63	592.99	928.99	882.76	46.23	20.096				
9,300.00	9,280.24	9,315.10	9,279.84	33.48	34.05	89.96	200.63	592.99	928.99	882.27	46.72	19.882				
9,400.00	9,380.24	9,415.10	9,379.84	33.83	34.40	89.96	200.63	592.99	928.99	881.77	47.22	19.672				
9,500.00	9,480.24	9,515.10	9,479.84	34.18	34.74	89.96	200.63	592.99	928.99	881.27	47.72	19.467				
9,600.00	9,580.24	9,615.10	9,579.84	34.53	35.08	89.96	200.63	592.99	928.99	880.77	48.22	19.265				
9,700.00	9,680.24	9,715.10	9,679.84	34.88	35.43	89.96	200.63	592.99	928.99	880.27	48.72	19.068				
9,800.00	9,780.24	9,815.10	9,779.84	35.24	35.77	89.96	200.63	592.99	928.99	879.77	49.22	18.875				
9,900.00	9,880.24	9,915.10	9,879.84	35.59	36.12	89.96	200.63	592.99	928.99	879.27	49.72	18.685				
10,000.00	9,980.24	10,015.10	9,979.84	35.94	36.46	89.96	200.63	592.99	928.99	878.77	50.22	18.499				
10,100.00	10,080.24	10,115.10	10,079.84	36.29	36.81	89.96	200.63	592.99	928.99	878.27	50.72	18.317				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Parade State/Beauty Queen - Beauty Queen Fed Com 705H - OH - Plan #2		Offset Site Error: 0.00 usft	
Survey Program: 0-OWSG (Rev2) MWD													Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
10,200.00	10,180.24	10,215.10	10,179.84	36.64	37.15	89.96	200.63	592.99	928.99	877.77	51.22	18.138				
10,300.00	10,280.24	10,315.10	10,279.84	37.00	37.50	89.96	200.63	592.99	928.99	877.27	51.72	17.963				
10,400.00	10,380.24	10,415.10	10,379.84	37.35	37.85	89.96	200.63	592.99	928.99	876.77	52.22	17.791				
10,500.00	10,480.24	10,515.10	10,479.84	37.70	38.19	89.96	200.63	592.99	928.99	876.27	52.72	17.622				
10,600.00	10,580.24	10,615.10	10,579.84	38.05	38.54	89.96	200.63	592.99	928.99	875.77	53.22	17.456				
10,700.00	10,680.24	10,715.10	10,679.84	38.40	38.89	89.96	200.63	592.99	928.99	875.27	53.72	17.294				
10,800.00	10,780.24	10,815.10	10,779.84	38.76	39.23	89.96	200.63	592.99	928.99	874.77	54.22	17.134				
10,900.00	10,880.24	10,915.10	10,879.84	39.11	39.58	89.96	200.63	592.99	928.99	874.27	54.72	16.977				
11,000.00	10,980.24	11,015.10	10,979.84	39.46	39.93	89.96	200.63	592.99	928.99	873.77	55.22	16.823				
11,100.00	11,080.24	11,115.10	11,079.84	39.82	40.28	89.96	200.63	592.99	928.99	873.27	55.72	16.672				
11,200.00	11,180.24	11,215.10	11,179.84	40.17	40.62	89.96	200.63	592.99	928.99	872.77	56.22	16.524				
11,300.00	11,280.24	11,315.10	11,279.84	40.52	40.97	89.96	200.63	592.99	928.99	872.27	56.72	16.378				
11,308.94	11,289.18	11,324.04	11,288.78	40.55	41.00	89.96	200.63	592.99	928.99	872.22	56.77	16.365				
11,400.00	11,380.24	11,414.49	11,379.21	40.88	41.31	90.03	199.48	593.00	929.00	871.78	57.22	16.236				
11,500.00	11,480.24	11,510.62	11,474.19	41.23	41.60	90.90	185.41	593.14	929.28	871.60	57.68	16.111				
11,515.76	11,496.00	11,525.24	11,488.38	41.28	41.64	91.12	181.88	593.18	929.38	871.64	57.75	16.094				
11,550.00	11,530.22	11,556.59	11,518.46	41.40	41.73	-87.79	173.10	593.27	929.69	871.79	57.89	16.058				
11,600.00	11,579.93	11,600.00	11,559.25	41.55	41.84	-87.08	158.26	593.42	930.26	872.17	58.09	16.015				
11,650.00	11,629.01	11,645.99	11,601.09	41.70	41.96	-86.34	139.21	593.61	930.96	872.69	58.27	15.976				
11,700.00	11,677.08	11,689.61	11,639.25	41.84	42.06	-85.66	118.10	593.83	931.77	873.33	58.44	15.945				
11,750.00	11,723.77	11,732.62	11,675.19	41.98	42.14	-85.01	94.51	594.07	932.66	874.07	58.59	15.918				
11,800.00	11,768.72	11,775.06	11,708.83	42.10	42.22	-84.39	68.64	594.33	933.62	874.89	58.73	15.897				
11,850.00	11,811.60	11,816.99	11,740.10	42.21	42.30	-83.81	40.71	594.61	934.60	875.75	58.85	15.881				
11,900.00	11,852.08	11,858.48	11,768.94	42.30	42.36	-83.27	10.90	594.91	935.60	876.64	58.96	15.868				
11,950.00	11,889.84	11,900.00	11,795.57	42.39	42.42	-82.77	-20.94	595.24	936.59	877.52	59.07	15.856				
12,000.00	11,924.61	11,940.32	11,819.15	42.46	42.47	-82.32	-53.63	595.57	937.53	878.36	59.16	15.846				
12,050.00	11,956.12	11,980.76	11,840.44	42.53	42.51	-81.93	-88.00	595.91	938.41	879.15	59.26	15.836				
12,100.00	11,984.13	12,020.94	11,859.14	42.58	42.56	-81.58	-123.55	596.27	939.21	879.86	59.36	15.824				
12,150.00	12,008.42	12,060.91	11,875.22	42.63	42.61	-81.28	-160.13	596.65	939.91	880.46	59.46	15.809				
12,200.00	12,028.81	12,100.00	11,888.45	42.69	42.66	-81.05	-196.91	597.02	940.50	880.94	59.56	15.791				
12,250.00	12,045.15	12,140.35	11,899.44	42.80	42.72	-80.86	-235.73	597.41	940.96	881.28	59.68	15.767				
12,300.00	12,057.30	12,179.91	11,907.54	42.92	42.80	-80.74	-274.44	597.80	941.28	881.47	59.81	15.739				
12,350.00	12,065.19	12,219.41	11,912.94	43.05	42.88	-80.67	-313.55	598.20	941.45	881.51	59.95	15.705				
12,400.00	12,068.74	12,258.88	11,915.63	43.18	42.97	-80.66	-352.92	598.60	941.48	881.38	60.10	15.666				
12,411.94	12,068.95	12,268.30	11,915.87	43.21	43.00	-80.67	-362.34	598.69	941.46	881.33	60.14	15.656				
12,420.20	12,069.00	12,275.05	11,915.95	43.23	43.01	-80.67	-369.09	598.76	941.46	881.29	60.16	15.648				
12,500.00	12,069.53	12,354.57	11,916.39	43.46	43.24	-80.66	-448.60	599.57	941.48	881.00	60.48	15.567				
12,600.00	12,070.20	12,454.57	11,916.95	43.81	43.58	-80.66	-548.59	600.58	941.51	880.56	60.94	15.449				
12,700.00	12,070.87	12,554.57	11,917.51	44.21	43.98	-80.65	-648.59	601.59	941.53	880.04	61.49	15.311				
12,800.00	12,071.54	12,654.57	11,918.07	44.66	44.44	-80.64	-748.58	602.61	941.56	879.44	62.12	15.156				
12,900.00	12,072.21	12,754.57	11,918.63	45.17	44.95	-80.64	-848.57	603.62	941.59	878.75	62.83	14.985				
13,000.00	12,072.87	12,854.57	11,919.19	45.74	45.51	-80.63	-948.57	604.63	941.61	877.99	63.62	14.801				
13,100.00	12,073.54	12,954.57	11,919.75	46.35	46.13	-80.62	-1,048.56	605.65	941.64	877.16	64.48	14.604				
13,200.00	12,074.21	13,054.57	11,920.31	47.01	46.80	-80.62	-1,148.55	606.66	941.66	876.26	65.41	14.397				
13,300.00	12,074.88	13,154.57	11,920.87	47.72	47.51	-80.61	-1,248.55	607.67	941.69	875.29	66.40	14.181				
13,400.00	12,075.55	13,254.57	11,921.43	48.48	48.27	-80.61	-1,348.54	608.69	941.72	874.25	67.47	13.958				
13,500.00	12,076.21	13,354.57	11,921.99	49.28	49.08	-80.60	-1,448.53	609.70	941.74	873.15	68.59	13.730				
13,600.00	12,076.88	13,454.57	11,922.55	50.12	49.92	-80.59	-1,548.53	610.71	941.77	872.00	69.77	13.498				
13,700.00	12,077.55	13,554.57	11,923.11	51.00	50.80	-80.59	-1,648.52	611.73	941.80	870.79	71.01	13.263				
13,800.00	12,078.22	13,654.57	11,923.67	51.92	51.73	-80.58	-1,748.51	612.74	941.82	869.53	72.30	13.027				
13,900.00	12,078.89	13,754.57	11,924.23	52.88	52.68	-80.57	-1,848.51	613.75	941.85	868.21	73.64	12.791				
14,000.00	12,079.56	13,854.57	11,924.79	53.86	53.68	-80.57	-1,948.50	614.77	941.88	866.85	75.02	12.555				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Parade State/Beauty Queen - Beauty Queen Fed Com 705H - OH - Plan #2													Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	12,080.22	13,954.57	11,925.35	54.88	54.70	-80.56	-2,048.49	615.78	941.90	865.45	76.45	12.320		
14,200.00	12,080.89	14,054.57	11,925.91	55.93	55.75	-80.55	-2,148.49	616.79	941.93	864.00	77.93	12.087		
14,300.00	12,081.56	14,154.57	11,926.47	57.01	56.83	-80.55	-2,248.48	617.81	941.96	862.51	79.44	11.857		
14,400.00	12,082.23	14,254.57	11,927.03	58.12	57.94	-80.54	-2,348.47	618.82	941.98	860.99	80.99	11.630		
14,500.00	12,082.90	14,354.57	11,927.59	59.25	59.08	-80.54	-2,448.47	619.83	942.01	859.43	82.58	11.407		
14,600.00	12,083.56	14,454.57	11,928.15	60.40	60.23	-80.53	-2,548.46	620.84	942.04	857.84	84.20	11.188		
14,700.00	12,084.23	14,554.57	11,928.71	61.58	61.42	-80.52	-2,648.45	621.86	942.06	856.21	85.85	10.974		
14,800.00	12,084.90	14,654.57	11,929.27	62.78	62.62	-80.52	-2,748.45	622.87	942.09	854.56	87.53	10.763		
14,900.00	12,085.57	14,754.57	11,929.83	64.00	63.84	-80.51	-2,848.44	623.88	942.12	852.88	89.24	10.557		
15,000.00	12,086.24	14,854.57	11,930.39	65.23	65.08	-80.50	-2,948.43	624.90	942.14	851.17	90.97	10.356		
15,100.00	12,086.90	14,954.57	11,930.95	66.49	66.34	-80.50	-3,048.43	625.91	942.17	849.44	92.73	10.160		
15,200.00	12,087.57	15,054.57	11,931.51	67.76	67.62	-80.49	-3,148.42	626.92	942.20	847.68	94.52	9.969		
15,300.00	12,088.24	15,154.57	11,932.07	69.05	68.91	-80.48	-3,248.41	627.94	942.22	845.90	96.32	9.782		
15,400.00	12,088.91	15,254.57	11,932.63	70.36	70.21	-80.48	-3,348.41	628.95	942.25	844.10	98.15	9.600		
15,500.00	12,089.58	15,354.57	11,933.19	71.68	71.54	-80.47	-3,448.40	629.96	942.28	842.28	100.00	9.423		
15,600.00	12,090.25	15,454.57	11,933.75	73.01	72.87	-80.46	-3,548.39	630.98	942.30	840.44	101.86	9.251		
15,700.00	12,090.91	15,554.57	11,934.31	74.35	74.22	-80.46	-3,648.39	631.99	942.33	838.58	103.74	9.083		
15,800.00	12,091.58	15,654.57	11,934.87	75.71	75.58	-80.45	-3,748.38	633.00	942.36	836.71	105.64	8.920		
15,900.00	12,092.25	15,754.57	11,935.43	77.08	76.95	-80.45	-3,848.37	634.02	942.38	834.82	107.56	8.762		
16,000.00	12,092.92	15,854.57	11,935.99	78.46	78.33	-80.44	-3,948.36	635.03	942.41	832.92	109.49	8.607		
16,100.00	12,093.59	15,954.57	11,936.55	79.85	79.73	-80.43	-4,048.36	636.04	942.44	831.00	111.43	8.457		
16,200.00	12,094.25	16,054.57	11,937.11	81.25	81.13	-80.43	-4,148.35	637.06	942.46	829.07	113.39	8.312		
16,300.00	12,094.92	16,154.57	11,937.67	82.66	82.54	-80.42	-4,248.34	638.07	942.49	827.13	115.36	8.170		
16,400.00	12,095.59	16,254.57	11,938.23	84.08	83.96	-80.41	-4,348.34	639.08	942.52	825.17	117.34	8.032		
16,500.00	12,096.26	16,354.57	11,938.79	85.50	85.39	-80.41	-4,448.33	640.09	942.54	823.20	119.34	7.898		
16,600.00	12,096.93	16,454.57	11,939.35	86.94	86.83	-80.40	-4,548.32	641.11	942.57	821.22	121.35	7.768		
16,700.00	12,097.59	16,554.57	11,939.91	88.38	88.27	-80.39	-4,648.32	642.12	942.60	819.24	123.36	7.641		
16,800.00	12,098.26	16,654.57	11,940.47	89.83	89.72	-80.39	-4,748.31	643.13	942.62	817.24	125.39	7.518		
16,900.00	12,098.93	16,754.57	11,941.03	91.29	91.18	-80.38	-4,848.30	644.15	942.65	815.23	127.42	7.398		
17,000.00	12,099.60	16,854.57	11,941.59	92.75	92.64	-80.38	-4,948.30	645.16	942.68	813.21	129.46	7.281		
17,100.00	12,100.27	16,954.57	11,942.15	94.22	94.12	-80.37	-5,048.29	646.17	942.70	811.19	131.52	7.168		
17,200.00	12,100.94	17,054.57	11,942.71	95.70	95.59	-80.36	-5,148.28	647.19	942.73	809.15	133.58	7.058		
17,300.00	12,101.60	17,154.57	11,943.27	97.18	97.08	-80.36	-5,248.28	648.20	942.76	807.11	135.64	6.950		
17,400.00	12,102.27	17,254.57	11,943.83	98.66	98.56	-80.35	-5,348.27	649.21	942.78	805.07	137.72	6.846		
17,500.00	12,102.94	17,354.57	11,944.39	100.15	100.06	-80.34	-5,448.26	650.23	942.81	803.01	139.80	6.744		
17,600.00	12,103.61	17,454.57	11,944.95	101.65	101.56	-80.34	-5,548.26	651.24	942.84	800.95	141.89	6.645		
17,700.00	12,104.28	17,554.57	11,945.51	103.15	103.06	-80.33	-5,648.25	652.25	942.87	798.88	143.99	6.548		
17,800.00	12,104.94	17,654.57	11,946.07	104.66	104.57	-80.32	-5,748.24	653.27	942.89	796.80	146.09	6.454		
17,900.00	12,105.61	17,754.57	11,946.63	106.17	106.08	-80.32	-5,848.24	654.28	942.92	794.72	148.19	6.363		
18,000.00	12,106.28	17,854.57	11,947.19	107.68	107.60	-80.31	-5,948.23	655.29	942.95	792.64	150.31	6.273		
18,100.00	12,106.95	17,954.57	11,947.75	109.20	109.12	-80.31	-6,048.22	656.31	942.97	790.55	152.43	6.186		
18,200.00	12,107.62	18,054.57	11,948.31	110.73	110.64	-80.30	-6,148.22	657.32	943.00	788.45	154.55	6.102		
18,300.00	12,108.28	18,154.57	11,948.87	112.25	112.17	-80.29	-6,248.21	658.33	943.03	786.35	156.68	6.019		
18,400.00	12,108.95	18,254.57	11,949.43	113.78	113.70	-80.29	-6,348.20	659.34	943.05	784.25	158.81	5.938		
18,500.00	12,109.62	18,354.56	11,949.99	115.31	115.23	-80.28	-6,448.20	660.36	943.08	782.14	160.95	5.860		
18,600.00	12,110.29	18,454.56	11,950.55	116.85	116.77	-80.27	-6,548.19	661.37	943.11	780.02	163.09	5.783		
18,700.00	12,110.96	18,554.56	11,951.11	118.39	118.31	-80.27	-6,648.18	662.38	943.14	777.90	165.23	5.708		
18,800.00	12,111.63	18,654.56	11,951.67	119.93	119.86	-80.26	-6,748.18	663.40	943.16	775.78	167.38	5.635		
18,900.00	12,112.29	18,754.56	11,952.23	121.48	121.40	-80.25	-6,848.17	664.41	943.19	773.65	169.54	5.563		
19,000.00	12,112.96	18,854.56	11,952.79	123.03	122.95	-80.25	-6,948.16	665.42	943.22	771.52	171.69	5.494		
19,100.00	12,113.63	18,954.56	11,953.35	124.58	124.50	-80.24	-7,048.16	666.44	943.24	769.39	173.85	5.425		
19,200.00	12,114.30	19,054.56	11,953.91	126.13	126.06	-80.24	-7,148.15	667.45	943.27	767.25	176.02	5.359		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design										Parade State/Beauty Queen - Beauty Queen Fed Com 705H - OH - Plan #2				Offset Site Error:		0.00 usft
Survey Program: 0-OWSG (Rev2) MWD														Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
19,300.00	12,114.97	19,154.56	11,954.47	127.69	127.62	-80.23	-7,248.14	668.46	943.30	765.11	178.18	5.294				
19,400.00	12,115.63	19,254.56	11,955.03	129.25	129.18	-80.22	-7,348.13	669.48	943.32	762.97	180.35	5.230				
19,500.00	12,116.30	19,354.56	11,955.59	130.81	130.74	-80.22	-7,448.13	670.49	943.35	760.83	182.53	5.168				
19,600.00	12,116.97	19,454.56	11,956.15	132.37	132.30	-80.21	-7,548.12	671.50	943.38	758.68	184.70	5.108				
19,700.00	12,117.64	19,554.56	11,956.71	133.94	133.87	-80.20	-7,648.11	672.52	943.41	756.53	186.88	5.048				
19,800.00	12,118.31	19,654.56	11,957.27	135.50	135.44	-80.20	-7,748.11	673.53	943.43	754.37	189.06	4.990				
19,900.00	12,118.97	19,754.56	11,957.83	137.07	137.01	-80.19	-7,848.10	674.54	943.46	752.21	191.25	4.933				
20,000.00	12,119.64	19,854.56	11,958.39	138.64	138.58	-80.18	-7,948.09	675.56	943.49	750.05	193.43	4.878				
20,100.00	12,120.31	19,954.56	11,958.95	140.22	140.15	-80.18	-8,048.09	676.57	943.52	747.89	195.62	4.823				
20,200.00	12,120.98	20,054.56	11,959.51	141.79	141.73	-80.17	-8,148.08	677.58	943.54	745.73	197.81	4.770				
20,300.00	12,121.65	20,154.56	11,960.07	143.37	143.31	-80.16	-8,248.07	678.60	943.57	743.57	200.00	4.718				
20,400.00	12,122.32	20,254.56	11,960.63	144.95	144.89	-80.16	-8,348.07	679.61	943.60	741.40	202.20	4.667				
20,500.00	12,122.98	20,354.56	11,961.19	146.53	146.47	-80.15	-8,448.06	680.62	943.62	739.23	204.40	4.617				
20,600.00	12,123.65	20,454.56	11,961.75	148.11	148.05	-80.15	-8,548.05	681.63	943.65	737.06	206.59	4.568				
20,700.00	12,124.32	20,554.56	11,962.31	149.69	149.63	-80.14	-8,648.05	682.65	943.68	734.88	208.80	4.520				
20,800.00	12,124.99	20,654.56	11,962.87	151.28	151.22	-80.13	-8,748.04	683.66	943.71	732.71	211.00	4.473				
20,900.00	12,125.66	20,754.56	11,963.43	152.86	152.81	-80.13	-8,848.03	684.67	943.73	730.53	213.20	4.426				
21,000.00	12,126.32	20,854.56	11,963.99	154.45	154.39	-80.12	-8,948.03	685.69	943.76	728.35	215.41	4.381				
21,100.00	12,126.99	20,954.56	11,964.55	156.04	155.98	-80.11	-9,048.02	686.70	943.79	726.17	217.62	4.337				
21,200.00	12,127.66	21,054.56	11,965.11	157.63	157.58	-80.11	-9,148.01	687.71	943.82	723.99	219.82	4.293				
21,300.00	12,128.33	21,154.56	11,965.67	159.22	159.17	-80.10	-9,248.01	688.73	943.84	721.81	222.03	4.251				
21,400.00	12,129.00	21,254.56	11,966.23	160.81	160.76	-80.09	-9,348.00	689.74	943.87	719.62	224.25	4.209				
21,500.00	12,129.66	21,354.56	11,966.79	162.41	162.36	-80.09	-9,447.99	690.75	943.90	717.44	226.46	4.168				
21,600.00	12,130.33	21,454.56	11,967.35	164.00	163.95	-80.08	-9,547.99	691.77	943.92	715.25	228.68	4.128				
21,700.00	12,131.00	21,554.56	11,967.91	165.60	165.55	-80.08	-9,647.98	692.78	943.95	713.06	230.89	4.088				
21,800.00	12,131.67	21,654.56	11,968.47	167.20	167.15	-80.07	-9,747.97	693.79	943.98	710.87	233.11	4.050				
21,900.00	12,132.34	21,754.56	11,969.03	168.79	168.75	-80.06	-9,847.97	694.81	944.01	708.68	235.33	4.011				
22,000.00	12,133.01	21,854.56	11,969.59	170.39	170.35	-80.06	-9,947.96	695.82	944.03	706.49	237.55	3.974				
22,100.00	12,133.67	21,954.56	11,970.15	171.99	171.95	-80.05	-10,047.95	696.83	944.06	704.30	239.77	3.937				
22,160.93	12,134.08	22,014.57	11,970.49	172.86	172.91	-80.05	-10,107.96	697.44	944.08	703.04	241.03	3.917 SF				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3258.6' GE + 21' KB @ 3279.60usft

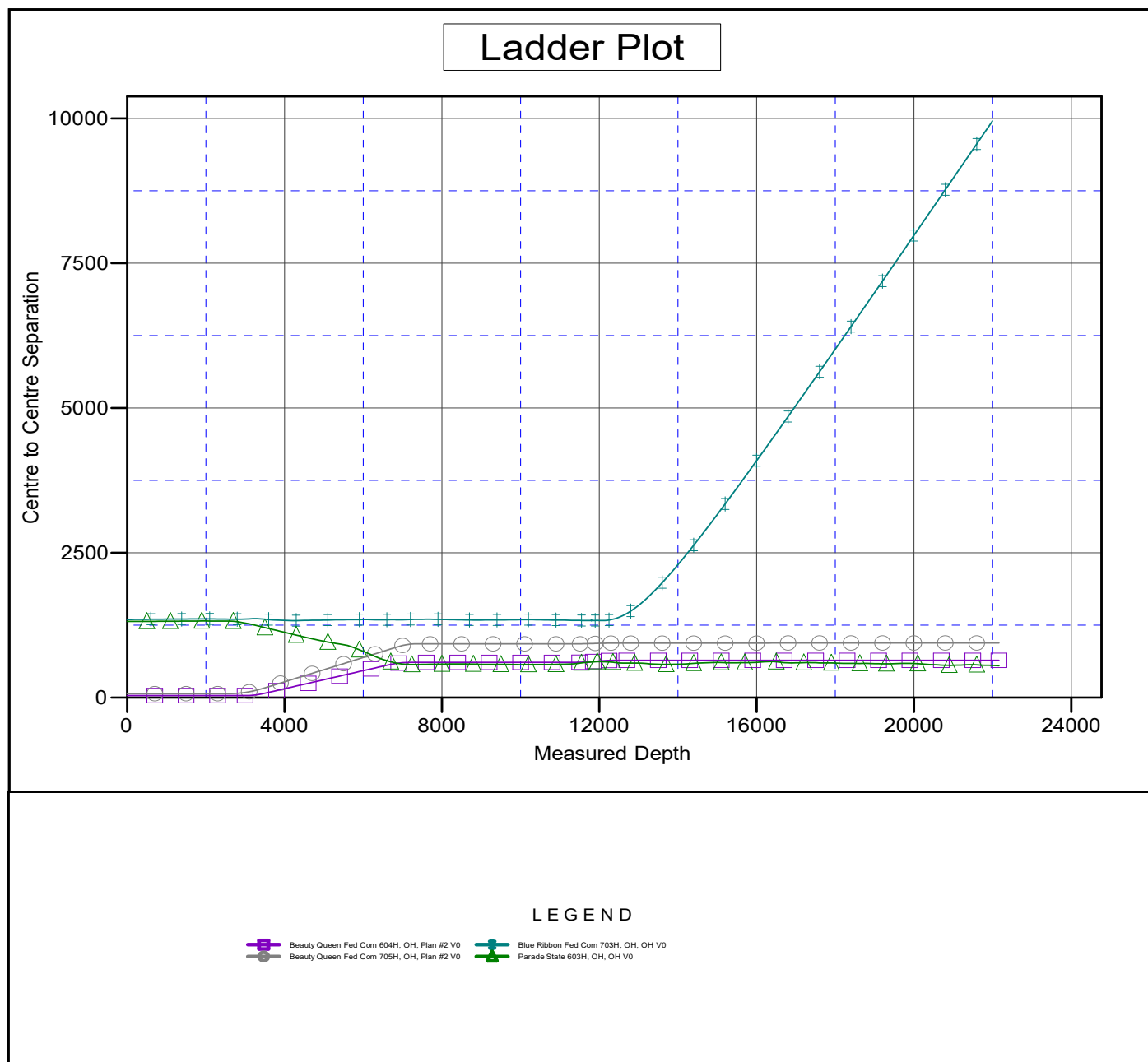
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

Coordinates are relative to: Parade State 704H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.53°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well Parade State 704H
Project:	Lea County, NM (NAD83)	TVD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Reference Site:	Parade State/Beauty Queen	MD Reference:	3258.6' GE + 21' KB @ 3279.60usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Parade State 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.15 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3258.6' GE + 21' KB @ 3279.60usft

Offset Depths are relative to Offset Datum

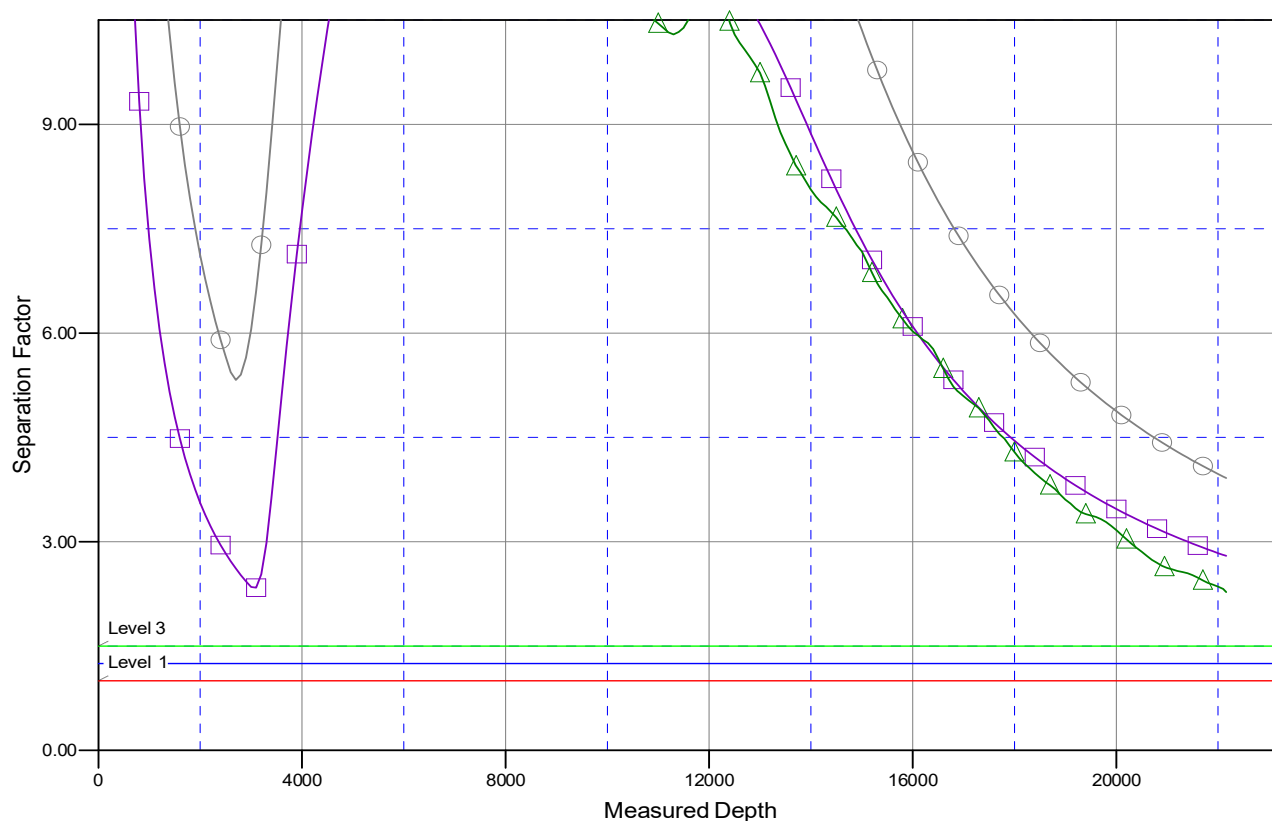
Central Meridian is -104.333334

Coordinates are relative to: Parade State 704H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.53°

Separation Factor Plot



LEGEND



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Parade State 704H

Abnormal Drilling Condition verification for BOP selection

Conditions:

- max TVD 12,133'
- max anticipated mud weight 13 ppg or 0.676 psi/ft
- partially evacuated hole gradient 0.22 psi/ft
- anticipated frac gradient 0.9 psi/ft

Maximum Anticipated Bottomhole Pressure – 8,201 psi

Maximum Anticipated Surface Pressure – 5,532 psi

Maximum Anticipated Surface Pressure based on FG @ 7 5/8" shoe – 8,250 psi

BOP and casing design are based on the lesser of the two MASP – 5,532 psi

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 18956

CONDITIONS OF APPROVAL

Operator: FRANKLIN MOUNTAIN ENERGY LLC Suite 1000 Denver, CO80206	44 Cook Street	OGRID: 373910	Action Number: 18956	Action Type: C-103A
OCD Reviewer pkautz	Condition None			