

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No. [332472]
2. Name of Operator [373910]		9. API Well No. 30-025-49820
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory [98187]
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish 13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|---|---|
| 1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM. |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

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

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

NGMP Rec 03/03/2022

SL

(Continued on page 2)



Approval Date: 02/11/2022

KZ
03/04/2022

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: TR O / 270 FSL / 1965 FEL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.167461 / LONG: -103.319069 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 0 FSL / 380 FEL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.181229 / LONG: -103.31395 (TVD: 12123 feet, MD: 17300 feet)

PPP: SESE / 623 FSL / 380 FEL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.168426 / LONG: -103.31395 (TVD: 12123 feet, MD: 12660 feet)

BHL: TR A / 150 FNL / 380 FEL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.19533 / LONG: -103.313949 (TVD: 12123 feet, MD: 22448 feet)

BLM Point of Contact

Name: TENILLE ORTIZ

Title: Legal Instruments Examiner

Phone: (575) 234-2224

Email: tortiz@blm.gov

CONFIDENTIAL

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

CONFIDENTIAL

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-49820		² Pool Code 98187		³ Pool Name WC-025 G-09 S253502D;UPR WOLFCAMP	
⁴ Property Code 332472		⁵ Property Name FMM FED COM			⁶ Well Number 806H
⁷ OGRID No. 373910		⁸ Operator Name FRANKLIN MOUNTAIN ENERGY LLC			⁹ Elevation 3332.8'

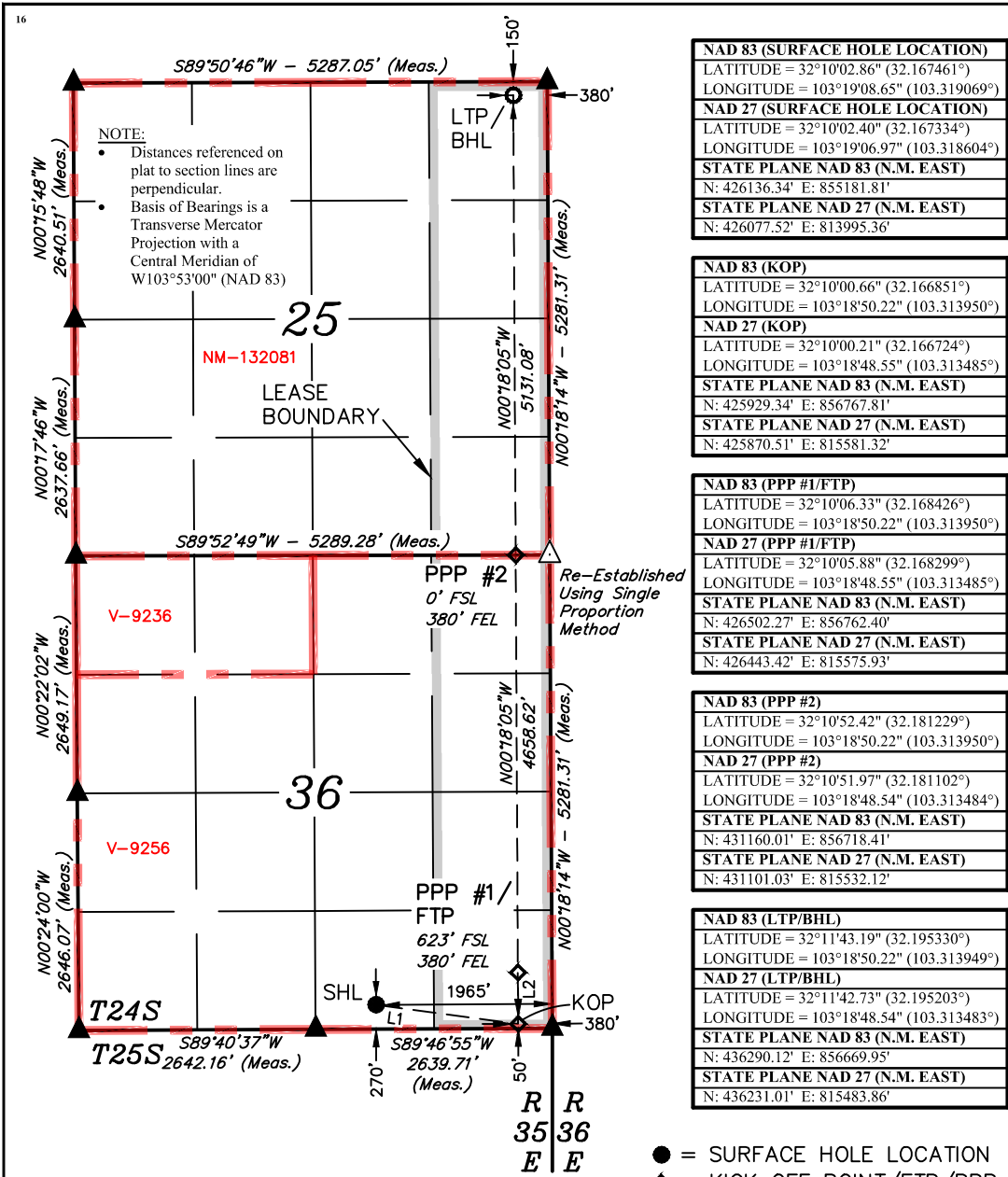
¹⁰ Surface Location

UL or lot no. O	Section 36	Township 24S	Range 35E	Lot Idn	Feet from the 270	North/South line SOUTH	Feet from the 1965	East/West line EAST	County LEA
--------------------	---------------	-----------------	--------------	---------	----------------------	---------------------------	-----------------------	------------------------	---------------

¹¹ Bottom Hole Location If Different From Surface

UL or lot no. A	Section 25	Township 24S	Range 35E	Lot Idn	Feet from the 150	North/South line NORTH	Feet from the 380	East/West line EAST	County LEA
¹² Dedicated Acres 640		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Shelly Albrecht* Date: 9/24/2021

Printed Name: Shelly Albrecht

E-mail Address: salbrecht@fmlc.com

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 31, 2021

Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE
NEW MEXICO
23782
09-23-21
PROFESSIONAL SURVEYOR

Certificate Number:

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

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Franklin Mountain Energy, LLC **OGRID:** 373910 **Date:** 02/ 24 / 2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See Attached Well List						

IV. Central Delivery Point Name: FMM CTB: (##) fAPP2203348319 [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See Attached Well List						

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

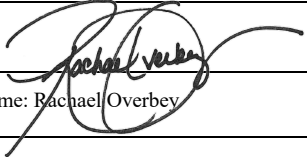
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Rachael Overbey
Title: Director Operations Planning & Regulatory
E-mail Address: roverbey@fmelle.com
Date: 2/24/2022
Phone: 720-414-7868
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

NATURAL GAS MANAGEMENT PLAN

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API 14 Digit	ULSTR	Surface Location FTG	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
FMM Fed Com 101H	TBD	M-36-24S-35E	345 FSL 1269 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 102H	TBD	M-36-24S-35E	345 FSL 1319 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 301H	TBD	M-36-24S-35E	345 FSL 1294 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 302H	TBD	N-36-24S-35E	345 FSL 1344 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 801H	TBD	M-36-24S-35E	270 FSL 1281 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 802H	TBD	M-36-24S-35E	270 FSL 1306 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 803H	TBD	N-36-24S-35E	270 FSL 1331 FWL	800 +/-	700 +/-	600 +/-
FMM Fed Com 103H	TBD	O-36-24S-35E	345 FSL 2027 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 104H	TBD	O-36-24S-35E	345 FSL 1977 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 303H	TBD	O-36-24S-35E	345 FSL 2002 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 304H	TBD	O-36-24S-35E	345 FSL 1952 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 804H	TBD	O-36-24S-35E	270 FSL 2015 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 805H	TBD	O-36-24S-35E	270 FSL 1990 FEL	800 +/-	700 +/-	600 +/-
FMM Fed Com 806H	TBD	O-36-24S-35E	270 FSL 1965 FEL	800 +/-	700 +/-	600 +/-

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API 14 Digit	Spud Date (Batch Drilling)	TD Reached Date	Completion Commencement Date	Initial Flowback Date	First Production Date
FMM Fed Com 101H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 102H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 301H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 302H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 801H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 802H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 803H	TBD	6/27/2022	7/31/2022	11/14/2022	12/31/2022	1/2/2023
FMM Fed Com 103H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 104H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 303H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 304H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 804H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 805H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023
FMM Fed Com 806H	TBD	7/25/2022	8/27/2022	12/1/2022	1/4/2023	1/7/2023



Natural Gas Management Plan

Items VI-VIII

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Data from surrounding wells is used to generate type curves which provides the basis for expected gas rates during initial production, peak production and then the natural decline.
- Separation equipment will be sized to provide adequate separation for peak production.
- Facility design includes multiple stages of separation to minimize gas waste. Wells flow through a high pressure 2-phase separator to remove bulk gas, liquid from the 2-phase separator is sent to a 3-phase separator where additional gas is separated. Gas from the 2 Phase and 3 Phase separators are then sent through a gas scrubber before being route to treatment and/or sales. As production declines the 2-phase separator may be removed.
- Industry standard sizing calculations are used for gas-liquid separation and liquid-liquid separation.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

- Drilling, completion and production setup is designed to minimize the waste of natural gas and to flare instead of vent.
- *Drilling Operations:*
 - Natural gas encountered will be flared instead of vented unless there is an equipment malfunction and/or to avoid risking safety or the environment.
 - Flares will be properly sized and placed at least 100' from the nearest surface hole on the pad.
- *Completions/Recompletions Operations:*
 - Flowback operations will not commence until connected to a properly sized gas gathering system.
 - During initial flowback wells are routed to the separation equipment as soon as technically feasible to minimize gas waste.
 - During separation flowback wells are routed to the separation equipment to minimize gas waste.
 - Gas sales is maximized. Gas will be flared instead of vented during an emergency or malfunction to avoid posing a risk to operations or personnel safety.
 - Flares are properly sized with a continuous pilot.
- *Production Operations:*
 - Gas sales will be maximized. Gas will be flared instead of vented during an emergency or malfunction to avoid posing a risk to operations or personnel safety.
 - After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- *Performance Standards:*
 - The facility will be designed to handle peak production rates and pressures.
 - All tanks will have automatic gauging equipment.
 - Flares will be designed to ensure proper combustion and will have continuous pilots. Flares will be located 100' from nearest surface hole on the pad and storage tanks.
 - Weekly AVOs will be performed, and any leaking thief hatches will be cleaned and properly re-sealed.



- **Measurement and Calibration:**
 - All volume that is flared and vented that is not measured will be estimated.
 - When metering is not practical due to low pressure/rate, all vented or flared volumes will be estimated.
 - Measurement will conform to industry standards. Measurement will not be bypassed except for purposes of inspection or calibration.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- Venting will be minimized during active and planned maintenance.
- Systems and equipment requiring maintenance will be isolated and blown down to sales and then flare before any remaining gas is vented in an effort to minimize waste and venting.
- Downhole maintenance will use best management practices to minimize vent.



FMM Fed Com 806H

1. Geologic name of surface location: Permian
2. Estimated tops of important geological markers:

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,333'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,058'	1,305'			Carbonates
Salado	1,799'	1,564'			Salt, Carbonate & Clastics
Base Salt	47'	3,316'			Shaley Carbonate & Shale
Capitan	-767'	4,130'			Carbonates
Lamar	-1,929'	5,292'			Carbonate & Clastics
Bell Canyon	-2,024'	5,387'			Sandstone - oil/gas/water
Cherry Canyon	-2,646'	6,009'			Sandstone - oil/gas/water
Brushy Canyon	-3,943'	7,306'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,030'	8,393'			Shale/Carbonates - oil/gas
Avalon	-5,093'	8,456'			Shale/Carbonates - oil/gas
Chert Zone	-5,368'	8,731'			Carbonate/Chert
First Bone Spring Sand	-6,391'	9,754'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,528'	9,891'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-6,964'	10,327'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,541'	10,904'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,025'	11,388'			Sandstone - oil/gas/water
Wolfcamp	-8,223'	11,586'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,365'	11,728'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,540'	11,903'			Overpressure Shale - Oil/Gas
HZ Target	-8,760'	12,123'			Overpressure Shale - Oil/Gas
Wolfcamp C	-8,823'	12,186'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400'	Fresh Water
Delaware Sands	5,387'	Oil
Bone Spring	9,754'	Oil
Wolfcamp	11,586'	Oil

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

4. Casing Program:

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

Casing string	Weight	Grade	Burst	Collapse	Tension	Conn	Length	API design factor			
								Burst	Collapse	Tension	Coupling
Surface 13 3/8"	54.5	J-55	2730	1130	853	BTC 909	1300	1.18	1.67	4.99	5.32
Intermediate 9 5/8"	40	HCL-80	7430	4230	916	BTC 1042	5330	1.74	1.70	2.92	3.33
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	11730	1.13	1.30	1.84	1.26
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606 TVD	22448 12123	1.32	1.38	1.18	0.98 1.60



7 5/8" casing will be set at 11,730' MD/11,529' TVD at 0° Inc. Stress calculations on 5 1/2" casing performed assuming 22,448' depth. Actual max vertical depth is 12,123'.

Cementing Program:

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

String Type	Hole Size	Casing Size	Setting Depth	Sacks	Type of cmt	Lead Yield ft ³ /sk	Water gal/sk	TOC ft	Sacks	Type of cmt	Tail Yield ft ³ /sk	Water gal/sk	TOC	Excess
Surf	17.5	13.375	1300	803	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal	1.747	9.06	0	330	Tail, 14.8 ppg, Class C,	1.349	6.51	1000	100%
Int1	12.25	9.625	5330	1568	0.125pps Poly-E-Flake					1% CaCl ₂ , 0.125pps Celo-Flake				
					Lead, 12.8 ppg, Class C 5% Salt,	1.79	9.74	0	154	Tail, 14.8 ppg, Class C,	1.33	6.37	5030	100%
					0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal					0.1% HR 800 .125 pps Poly-E-Flake				
Int2	8.75	7.625	11730	343	Lite Fill, 9.5 ppg, Class C 3lb/sk	2.13	5.97	4330	94	NeoCem 14.8 ppg, Class C	1.33	6.29	10730	50%
					Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake					0.25 pps Cello-Flake, 2% CaCl ₂				
Prod	6.75	5.5	22448	874	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	10730						20%

5. Minimum Specifications for Pressure Control:

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

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested to 1500 psi for 30 minutes.

Before drilling out of the second intermediate casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig. The second intermediate casing will be tested to .22 psi/ft, but not to exceed 70 percent of the minimum internal yield, as per Onshore Order # 2 for 30 minutes prior to drillout.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

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



6. Types and characteristics of the proposed mud system:

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

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,300'	Fresh - Gel	8.6-8.8	28-34	N/c
1,300' – 11,730'	Brine	8.8-10.2	28-34	N/c
11,730' – 22,448' Lateral	Oil Base	11.0-12.5	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11-12.5 ppg. In order to maintain hole stability, mud weights up to 13 ppg may be utilized.

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

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

7. Auxiliary well control and monitoring equipment:

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

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

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

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

8. Logging, testing and coring program:

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

Open-hole logs are not planned for this well.

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

The estimated bottom-hole temperature at 12,123' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,195 psig (based on 13 ppg MW). Hydrogen sulfate may be present in the area. All necessary precautions will be taken before drilling operations commence. See Hydrogen Sulfide Plan below:

10. Hydrogen Sulfide Plan:

A. All personnel shall receive proper awareness H₂S training.

B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.

C. Required Emergency Equipment

a. Well Control Equipment

i. Flare line 150' from wellhead to be ignited by auto ignition sparking system.

ii. Choke manifold with a remotely operated hydraulic choke.

iii. Mud/gas separator

b. Protective equipment for essential personnel

i. Breathing Apparatus

1. Rescue packs (SCBA) – 1 unit shall be placed at each briefing area, 2 shall be stored in a safety trailer on site.

2. Work/Escapes packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity



3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.
- ii. Auxiliary Rescue Equipment
 1. Stretcher
 2. Two OSHA full body harnesses
 3. 100 feet of 5/8 inches OSHA approved rope
 4. 1-20# class ABC fire extinguisher
- c. H2S Detection and Monitoring Equipment
 - i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
 1. Rig Floor
 2. Below Rig Floor / Near BOPs
 3. End of flow line or where well bore fluid is being discharged (near shakers)
 - ii. If H2S is encountered, measured values and formations will be provided to the BLM.
- d. Visual Warning Systems
 - i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - iii. Two windsocks will be placed in strategic locations, visible from all angles.
- e. Mud Program
 - i. The Mud program will be designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
- f. Metallurgy
 - i. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service at the anticipated operating pressures to prevent sour sulfide stress cracking.
- g. Communication
 - i. Communication will be via cell phones and walkie talkies on location.

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

11. Anticipated starting date and duration of operations:

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

**12. Disposal/environmental concerns:**

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

13. Wellhead:

A multi-bowl wellhead system will be utilized.

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

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

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

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

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

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

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

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

14. Additional variance requests**A. Casing.**

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

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

Released for Imaging: 3/7/2022 3:04:04 PM

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: FMM Fed Com
Well: FMM Fed Com 806H
Wellbore: OH
Design: Plan #2



Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.86°

Magnetic Field
Strength: 47462.2nT
Dip Angle: 59.88°
Date: 9/7/2021
Model: IGRF2020

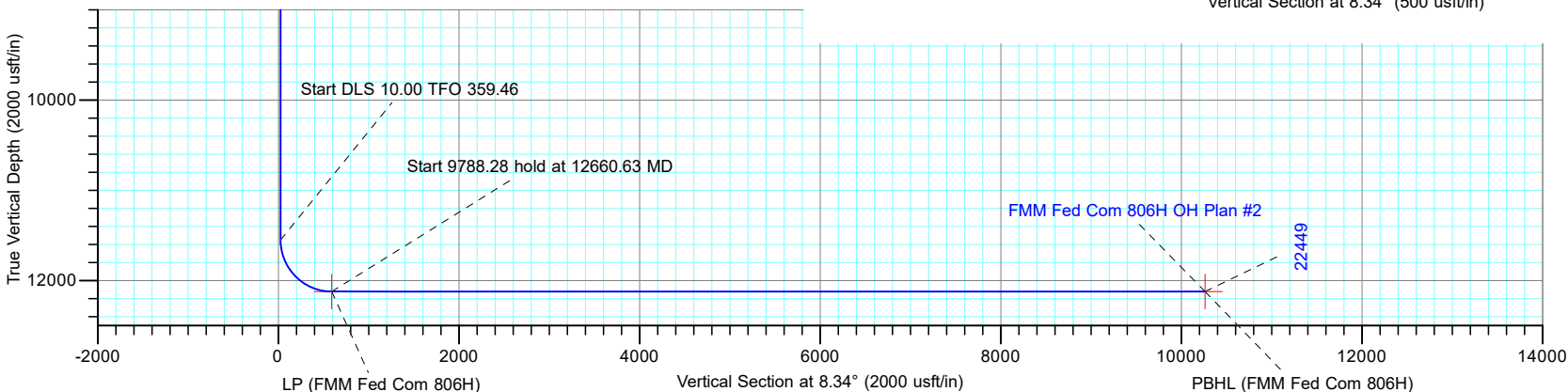
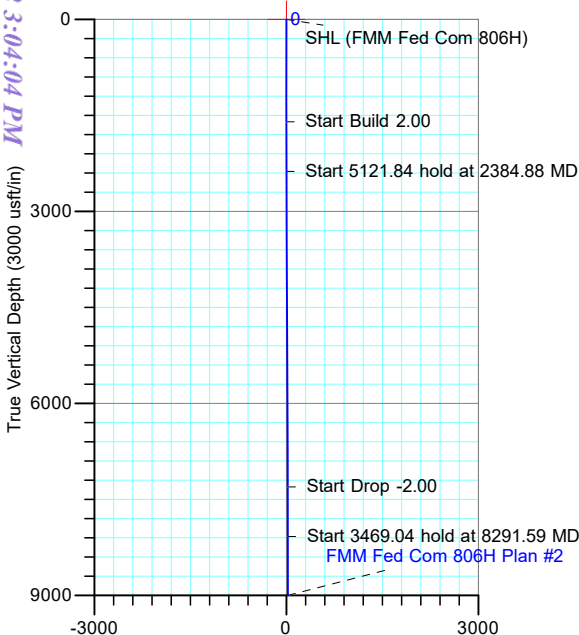
PROJECT DETAILS: Lea County, NM (NAD83)

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



Received by OCD: 3/3/2022 1:25:32 PM

3332.8' GE + 30' KB @ 3362.80usft

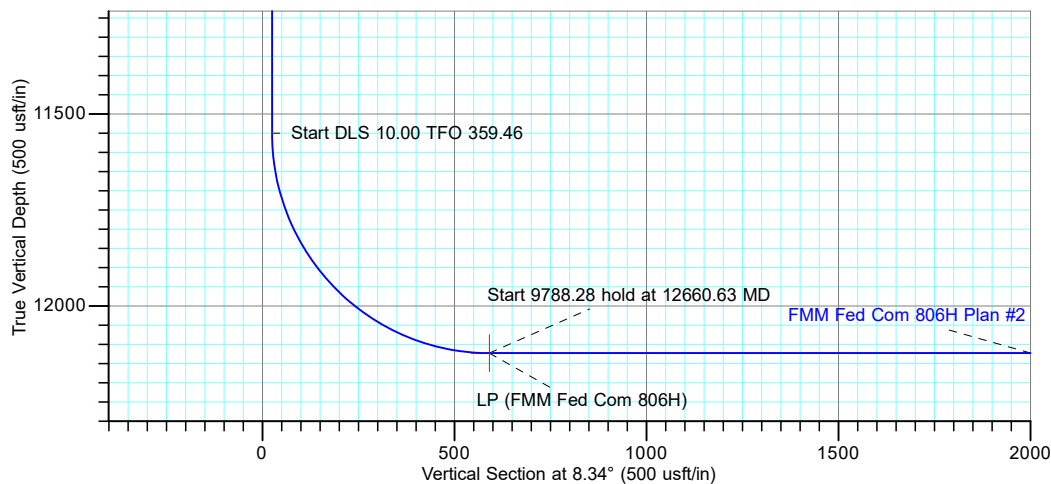


SECTION DETAILS

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	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
2384.88	15.70	97.44	2375.09	-13.83	105.95	2.00	97.44	1.68	Start 5121.84 hold at 2384.88 MD
7506.72	15.70	97.44	7305.91	-193.17	1480.05	0.00	0.00	23.49	Start Drop -2.00
8291.59	0.00	0.00	8081.00	-207.00	1586.00	2.00	180.00	25.18	Start 3469.04 hold at 8291.59 MD
11760.63	0.00	0.00	11550.04	-207.00	1586.00	0.00	0.00	25.18	Start DLS 10.00 TFO 359.46
12660.63	90.00	359.46	12123.00	365.93	1580.59	10.00	359.46	591.27	Start 9788.28 hold at 12660.63 MD
22448.92	90.00	359.46	12123.00	10153.78	1488.14	0.00	0.00	10262.25	TD at 22448.92

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (FMM Fed Com 806H)	12123.00	365.93	1580.59	32.168426	-103.313950
PBHL (FMM Fed Com 806H)	12123.00	10153.78	1488.14	32.195330	-103.313949
SHL (FMM Fed Com 806H)	0.00	0.00	0.00	32.167461	-103.319069



TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #2 (FMM Fed Com 806H/OH)
Created By: Dustin Ault
Date: 15:05, September 09 2021
Approved: _____ Date: _____

Page 18 of 24

Released to Imaging: 3/7/2022 3:04:04 PM

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: FMM Fed Com
Well: FMM Fed Com 806H
Wellbore: OH
Design: Plan #2

T

G

M

Azimuths to Grid North

True North: -0.54°

Magnetic North: 5.86°

Magnetic Field

Strength: 47462.2nT

Dip Angle: 59.88°

Date: 9/7/2021

Model: IGRF2020

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

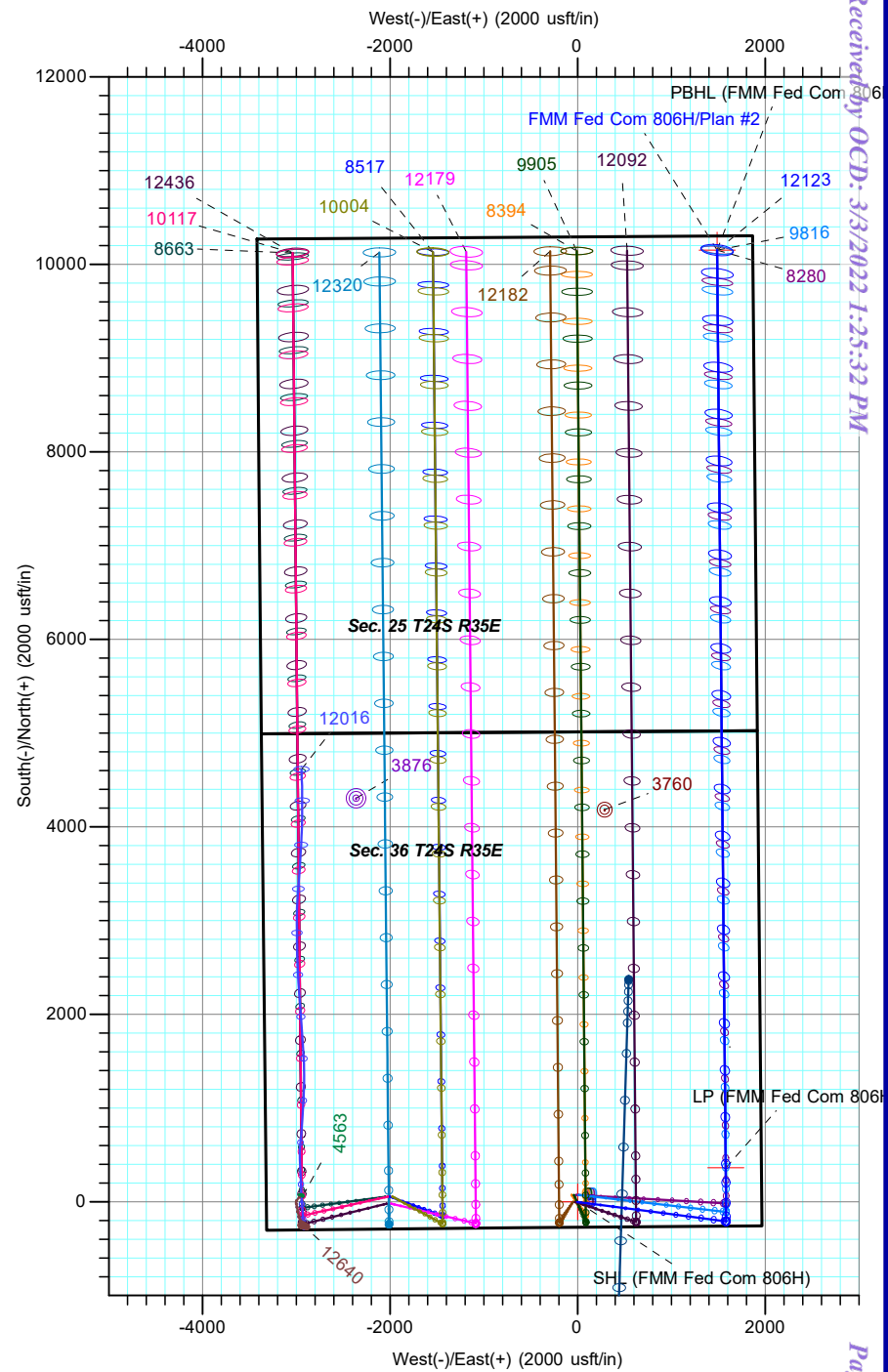
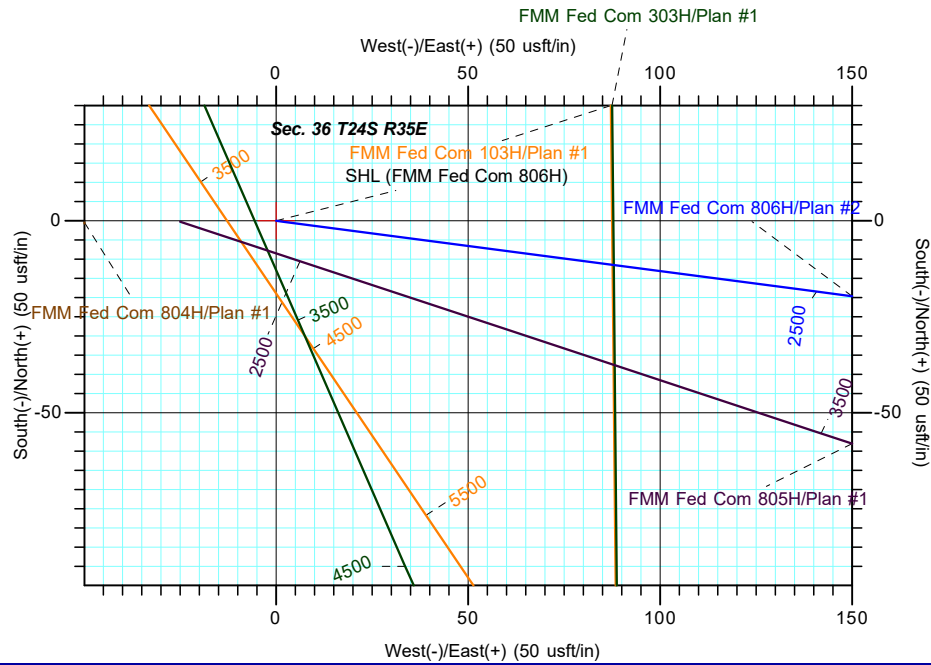


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (FMM Fed Com 806H)	12123.00	365.93	1580.59	426502.27	856762.40	32.168426	-103.313950
PBHL (FMM Fed Com 806H)	12123.00	10153.78	1488.14	436290.12	856669.95	32.195330	-103.313949
SHL (FMM Fed Com 806H)	0.00	0.00	0.00	426136.34	855181.81	32.167461	-103.319069

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	
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
2384.88	15.70	97.44	2375.09	-13.83	105.95	2.00	97.44	1.68	Start 5121.84 hold at 2384.88 MD
7506.72	15.70	97.44	7305.91	-193.17	1480.05	0.00	0.00	23.49	Start Drop -2.00
8291.59	0.00	0.00	8081.00	-207.00	1586.00	2.00	180.00	25.18	Start 3469.04 hold at 8291.59 MD
11760.63	0.00	0.00	11550.04	-207.00	1586.00	0.00	0.00	25.18	Start DLS 10.00 TFO 359.46
12660.63	90.00	359.46	12123.00	365.93	1580.59	10.00	359.46	591.27	Start 9788.28 hold at 12660.63 MD
22448.92	90.00	359.46	12123.00	10153.78	1488.14	0.00	0.00	10262.25	TD at 22448.92



TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #2 (FMM Fed Com 806H/OH)
Created By: Dustin Ault
Date: 15:05, September 09 2021
Approved: _____ Date: _____

Received by OCD: 3/3/2022 1:25:32 PM

Page 19 of 24



Franklin Mountain Energy

Lea County, NM (NAD83)

FMM Fed Com

FMM Fed Com 806H

OH

Plan: Plan #2

Standard Planning Report

09 September, 2021





Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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	FMM Fed Com				
Site Position:		Northing:	426,192.39 usft	Latitude:	32.167668
From:	Lat/Long	Easting:	853,132.79 usft	Longitude:	-103.325688
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.54

Well	FMM Fed Com 806H					
Well Position	+N/-S	-56.05 usft	Northing:	426,136.34 usft	Latitude:	32.167461
	+E/-W	2,049.02 usft	Easting:	855,181.81 usft	Longitude:	-103.319069
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,332.80 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	9/7/2021	6.40	59.88	47,462.21375230

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	8.34

Plan Survey Tool Program	Date	9/9/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,448.21 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	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,384.88	15.70	97.44	2,375.09	-13.83	105.95	2.00	2.00	0.00	97.44	
7,506.72	15.70	97.44	7,305.91	-193.17	1,480.05	0.00	0.00	0.00	0.00	
8,291.59	0.00	0.00	8,081.00	-207.00	1,586.00	2.00	-2.00	0.00	180.00	
11,760.63	0.00	0.00	11,550.04	-207.00	1,586.00	0.00	0.00	0.00	0.00	
12,660.63	90.00	359.46	12,123.00	365.93	1,580.59	10.00	10.00	-0.06	359.46	
22,448.92	90.00	359.46	12,123.00	10,153.78	1,488.14	0.00	0.00	0.00	0.00	PBHL (FMM Fed Corr)



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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 (FMM Fed Com 806H)									
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
Start Build 2.00									
1,700.00	2.00	97.44	1,699.98	-0.23	1.73	0.03	2.00	2.00	0.00
1,800.00	4.00	97.44	1,799.84	-0.90	6.92	0.11	2.00	2.00	0.00
1,900.00	6.00	97.44	1,899.45	-2.03	15.56	0.25	2.00	2.00	0.00
2,000.00	8.00	97.44	1,998.70	-3.61	27.65	0.44	2.00	2.00	0.00
2,100.00	10.00	97.44	2,097.47	-5.63	43.16	0.69	2.00	2.00	0.00
2,200.00	12.00	97.44	2,195.62	-8.10	62.08	0.99	2.00	2.00	0.00
2,300.00	14.00	97.44	2,293.06	-11.01	84.38	1.34	2.00	2.00	0.00
2,384.88	15.70	97.44	2,375.09	-13.83	105.95	1.68	2.00	2.00	0.00
Start 5121.84 hold at 2384.88 MD									
2,400.00	15.70	97.44	2,389.65	-14.36	110.01	1.75	0.00	0.00	0.00
2,500.00	15.70	97.44	2,485.92	-17.86	136.83	2.17	0.00	0.00	0.00
2,600.00	15.70	97.44	2,582.19	-21.36	163.66	2.60	0.00	0.00	0.00
2,700.00	15.70	97.44	2,678.46	-24.86	190.49	3.02	0.00	0.00	0.00
2,800.00	15.70	97.44	2,774.74	-28.36	217.32	3.45	0.00	0.00	0.00
2,900.00	15.70	97.44	2,871.01	-31.87	244.15	3.88	0.00	0.00	0.00
3,000.00	15.70	97.44	2,967.28	-35.37	270.98	4.30	0.00	0.00	0.00
3,100.00	15.70	97.44	3,063.55	-38.87	297.80	4.73	0.00	0.00	0.00
3,200.00	15.70	97.44	3,159.82	-42.37	324.63	5.15	0.00	0.00	0.00
3,300.00	15.70	97.44	3,256.09	-45.87	351.46	5.58	0.00	0.00	0.00
3,400.00	15.70	97.44	3,352.36	-49.37	378.29	6.00	0.00	0.00	0.00
3,500.00	15.70	97.44	3,448.63	-52.87	405.12	6.43	0.00	0.00	0.00
3,600.00	15.70	97.44	3,544.90	-56.38	431.95	6.86	0.00	0.00	0.00
3,700.00	15.70	97.44	3,641.17	-59.88	458.77	7.28	0.00	0.00	0.00
3,800.00	15.70	97.44	3,737.44	-63.38	485.60	7.71	0.00	0.00	0.00
3,900.00	15.70	97.44	3,833.71	-66.88	512.43	8.13	0.00	0.00	0.00
4,000.00	15.70	97.44	3,929.98	-70.38	539.26	8.56	0.00	0.00	0.00
4,100.00	15.70	97.44	4,026.25	-73.88	566.09	8.99	0.00	0.00	0.00
4,200.00	15.70	97.44	4,122.52	-77.39	592.92	9.41	0.00	0.00	0.00
4,300.00	15.70	97.44	4,218.79	-80.89	619.74	9.84	0.00	0.00	0.00
4,400.00	15.70	97.44	4,315.06	-84.39	646.57	10.26	0.00	0.00	0.00
4,500.00	15.70	97.44	4,411.33	-87.89	673.40	10.69	0.00	0.00	0.00
4,600.00	15.70	97.44	4,507.60	-91.39	700.23	11.12	0.00	0.00	0.00
4,700.00	15.70	97.44	4,603.87	-94.89	727.06	11.54	0.00	0.00	0.00
4,800.00	15.70	97.44	4,700.14	-98.39	753.89	11.97	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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)
4,900.00	15.70	97.44	4,796.41	-101.90	780.71	12.39	0.00	0.00	0.00
5,000.00	15.70	97.44	4,892.68	-105.40	807.54	12.82	0.00	0.00	0.00
5,100.00	15.70	97.44	4,988.95	-108.90	834.37	13.24	0.00	0.00	0.00
5,200.00	15.70	97.44	5,085.22	-112.40	861.20	13.67	0.00	0.00	0.00
5,300.00	15.70	97.44	5,181.49	-115.90	888.03	14.10	0.00	0.00	0.00
5,400.00	15.70	97.44	5,277.76	-119.40	914.86	14.52	0.00	0.00	0.00
5,500.00	15.70	97.44	5,374.03	-122.91	941.68	14.95	0.00	0.00	0.00
5,600.00	15.70	97.44	5,470.31	-126.41	968.51	15.37	0.00	0.00	0.00
5,700.00	15.70	97.44	5,566.58	-129.91	995.34	15.80	0.00	0.00	0.00
5,800.00	15.70	97.44	5,662.85	-133.41	1,022.17	16.23	0.00	0.00	0.00
5,900.00	15.70	97.44	5,759.12	-136.91	1,049.00	16.65	0.00	0.00	0.00
6,000.00	15.70	97.44	5,855.39	-140.41	1,075.83	17.08	0.00	0.00	0.00
6,100.00	15.70	97.44	5,951.66	-143.92	1,102.65	17.50	0.00	0.00	0.00
6,200.00	15.70	97.44	6,047.93	-147.42	1,129.48	17.93	0.00	0.00	0.00
6,300.00	15.70	97.44	6,144.20	-150.92	1,156.31	18.35	0.00	0.00	0.00
6,400.00	15.70	97.44	6,240.47	-154.42	1,183.14	18.78	0.00	0.00	0.00
6,500.00	15.70	97.44	6,336.74	-157.92	1,209.97	19.21	0.00	0.00	0.00
6,600.00	15.70	97.44	6,433.01	-161.42	1,236.80	19.63	0.00	0.00	0.00
6,700.00	15.70	97.44	6,529.28	-164.92	1,263.62	20.06	0.00	0.00	0.00
6,800.00	15.70	97.44	6,625.55	-168.43	1,290.45	20.48	0.00	0.00	0.00
6,900.00	15.70	97.44	6,721.82	-171.93	1,317.28	20.91	0.00	0.00	0.00
7,000.00	15.70	97.44	6,818.09	-175.43	1,344.11	21.34	0.00	0.00	0.00
7,100.00	15.70	97.44	6,914.36	-178.93	1,370.94	21.76	0.00	0.00	0.00
7,200.00	15.70	97.44	7,010.63	-182.43	1,397.77	22.19	0.00	0.00	0.00
7,300.00	15.70	97.44	7,106.90	-185.93	1,424.59	22.61	0.00	0.00	0.00
7,400.00	15.70	97.44	7,203.17	-189.44	1,451.42	23.04	0.00	0.00	0.00
7,506.72	15.70	97.44	7,305.91	-193.17	1,480.05	23.49	0.00	0.00	0.00
Start Drop -2.00									
7,600.00	13.83	97.44	7,396.11	-196.25	1,503.62	23.87	2.00	-2.00	0.00
7,700.00	11.83	97.44	7,493.60	-199.12	1,525.65	24.22	2.00	-2.00	0.00
7,800.00	9.83	97.44	7,591.82	-201.55	1,544.28	24.51	2.00	-2.00	0.00
7,900.00	7.83	97.44	7,690.63	-203.54	1,559.50	24.75	2.00	-2.00	0.00
8,000.00	5.83	97.44	7,789.91	-205.08	1,571.30	24.94	2.00	-2.00	0.00
8,100.00	3.83	97.44	7,889.55	-206.17	1,579.65	25.07	2.00	-2.00	0.00
8,200.00	1.83	97.44	7,989.42	-206.81	1,584.55	25.15	2.00	-2.00	0.00
8,291.59	0.00	0.00	8,081.00	-207.00	1,586.00	25.18	2.00	-2.00	0.00
Start 3469.04 hold at 8291.59 MD									
8,300.00	0.00	0.00	8,089.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,400.00	0.00	0.00	8,189.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,500.00	0.00	0.00	8,289.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,600.00	0.00	0.00	8,389.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,700.00	0.00	0.00	8,489.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,800.00	0.00	0.00	8,589.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
8,900.00	0.00	0.00	8,689.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,000.00	0.00	0.00	8,789.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,100.00	0.00	0.00	8,889.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,200.00	0.00	0.00	8,989.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,300.00	0.00	0.00	9,089.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,400.00	0.00	0.00	9,189.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,500.00	0.00	0.00	9,289.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,600.00	0.00	0.00	9,389.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,700.00	0.00	0.00	9,489.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,800.00	0.00	0.00	9,589.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
9,900.00	0.00	0.00	9,689.41	-207.00	1,586.00	25.18	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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	9,789.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,100.00	0.00	0.00	9,889.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,200.00	0.00	0.00	9,989.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,300.00	0.00	0.00	10,089.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,400.00	0.00	0.00	10,189.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,500.00	0.00	0.00	10,289.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,600.00	0.00	0.00	10,389.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,700.00	0.00	0.00	10,489.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,800.00	0.00	0.00	10,589.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
10,900.00	0.00	0.00	10,689.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,000.00	0.00	0.00	10,789.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,100.00	0.00	0.00	10,889.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,200.00	0.00	0.00	10,989.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,300.00	0.00	0.00	11,089.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,400.00	0.00	0.00	11,189.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,500.00	0.00	0.00	11,289.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,600.00	0.00	0.00	11,389.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,700.00	0.00	0.00	11,489.41	-207.00	1,586.00	25.18	0.00	0.00	0.00
11,760.63	0.00	0.00	11,550.04	-207.00	1,586.00	25.18	0.00	0.00	0.00
Start DLS 10.00 TFO 359.46									
11,800.00	3.94	359.46	11,589.38	-205.65	1,585.99	26.51	10.00	10.00	0.00
11,850.00	8.94	359.46	11,639.05	-200.04	1,585.93	32.05	10.00	10.00	0.00
11,900.00	13.94	359.46	11,688.04	-190.13	1,585.84	41.84	10.00	10.00	0.00
11,950.00	18.94	359.46	11,735.98	-175.99	1,585.71	55.81	10.00	10.00	0.00
12,000.00	23.94	359.46	11,782.51	-157.72	1,585.53	73.86	10.00	10.00	0.00
12,050.00	28.94	359.46	11,827.26	-135.47	1,585.32	95.85	10.00	10.00	0.00
12,100.00	33.94	359.46	11,869.91	-109.40	1,585.08	121.61	10.00	10.00	0.00
12,150.00	38.94	359.46	11,910.12	-79.72	1,584.80	150.94	10.00	10.00	0.00
12,200.00	43.94	359.46	11,947.60	-46.64	1,584.49	183.62	10.00	10.00	0.00
12,250.00	48.94	359.46	11,982.04	-10.42	1,584.14	219.41	10.00	10.00	0.00
12,300.00	53.94	359.46	12,013.20	28.66	1,583.77	258.02	10.00	10.00	0.00
12,350.00	58.94	359.46	12,040.84	70.31	1,583.38	299.17	10.00	10.00	0.00
12,400.00	63.94	359.46	12,064.73	114.21	1,582.97	342.55	10.00	10.00	0.00
12,450.00	68.94	359.46	12,084.72	160.02	1,582.53	387.82	10.00	10.00	0.00
12,500.00	73.94	359.46	12,100.63	207.40	1,582.09	434.63	10.00	10.00	0.00
12,550.00	78.94	359.46	12,112.35	255.99	1,581.63	482.64	10.00	10.00	0.00
12,600.00	83.94	359.46	12,119.79	305.42	1,581.16	531.47	10.00	10.00	0.00
12,650.00	88.94	359.46	12,122.90	355.30	1,580.69	580.76	10.00	10.00	0.00
12,660.63	90.00	359.46	12,123.00	365.93	1,580.59	591.26	10.00	10.00	0.00
Start 9788.28 hold at 12660.63 MD - LP (FMM Fed Com 806H)									
12,700.00	90.00	359.46	12,123.00	405.30	1,580.22	630.16	0.00	0.00	0.00
12,800.00	90.00	359.46	12,123.00	505.29	1,579.27	728.97	0.00	0.00	0.00
12,900.00	90.00	359.46	12,123.00	605.29	1,578.33	827.77	0.00	0.00	0.00
13,000.00	90.00	359.46	12,123.00	705.29	1,577.38	926.57	0.00	0.00	0.00
13,100.00	90.00	359.46	12,123.00	805.28	1,576.44	1,025.37	0.00	0.00	0.00
13,200.00	90.00	359.46	12,123.00	905.28	1,575.49	1,124.17	0.00	0.00	0.00
13,300.00	90.00	359.46	12,123.00	1,005.27	1,574.55	1,222.97	0.00	0.00	0.00
13,400.00	90.00	359.46	12,123.00	1,105.27	1,573.61	1,321.78	0.00	0.00	0.00
13,500.00	90.00	359.46	12,123.00	1,205.26	1,572.66	1,420.58	0.00	0.00	0.00
13,600.00	90.00	359.46	12,123.00	1,305.26	1,571.72	1,519.38	0.00	0.00	0.00
13,700.00	90.00	359.46	12,123.00	1,405.25	1,570.77	1,618.18	0.00	0.00	0.00
13,800.00	90.00	359.46	12,123.00	1,505.25	1,569.83	1,716.98	0.00	0.00	0.00
13,900.00	90.00	359.46	12,123.00	1,605.25	1,568.88	1,815.78	0.00	0.00	0.00
14,000.00	90.00	359.46	12,123.00	1,705.24	1,567.94	1,914.59	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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	90.00	359.46	12,123.00	1,805.24	1,566.99	2,013.39	0.00	0.00	0.00
14,200.00	90.00	359.46	12,123.00	1,905.23	1,566.05	2,112.19	0.00	0.00	0.00
14,300.00	90.00	359.46	12,123.00	2,005.23	1,565.11	2,210.99	0.00	0.00	0.00
14,400.00	90.00	359.46	12,123.00	2,105.22	1,564.16	2,309.79	0.00	0.00	0.00
14,500.00	90.00	359.46	12,123.00	2,205.22	1,563.22	2,408.59	0.00	0.00	0.00
14,600.00	90.00	359.46	12,123.00	2,305.21	1,562.27	2,507.40	0.00	0.00	0.00
14,700.00	90.00	359.46	12,123.00	2,405.21	1,561.33	2,606.20	0.00	0.00	0.00
14,800.00	90.00	359.46	12,123.00	2,505.21	1,560.38	2,705.00	0.00	0.00	0.00
14,900.00	90.00	359.46	12,123.00	2,605.20	1,559.44	2,803.80	0.00	0.00	0.00
15,000.00	90.00	359.46	12,123.00	2,705.20	1,558.49	2,902.60	0.00	0.00	0.00
15,100.00	90.00	359.46	12,123.00	2,805.19	1,557.55	3,001.40	0.00	0.00	0.00
15,200.00	90.00	359.46	12,123.00	2,905.19	1,556.60	3,100.20	0.00	0.00	0.00
15,300.00	90.00	359.46	12,123.00	3,005.18	1,555.66	3,199.01	0.00	0.00	0.00
15,400.00	90.00	359.46	12,123.00	3,105.18	1,554.72	3,297.81	0.00	0.00	0.00
15,500.00	90.00	359.46	12,123.00	3,205.17	1,553.77	3,396.61	0.00	0.00	0.00
15,600.00	90.00	359.46	12,123.00	3,305.17	1,552.83	3,495.41	0.00	0.00	0.00
15,700.00	90.00	359.46	12,123.00	3,405.17	1,551.88	3,594.21	0.00	0.00	0.00
15,800.00	90.00	359.46	12,123.00	3,505.16	1,550.94	3,693.01	0.00	0.00	0.00
15,900.00	90.00	359.46	12,123.00	3,605.16	1,549.99	3,791.82	0.00	0.00	0.00
16,000.00	90.00	359.46	12,123.00	3,705.15	1,549.05	3,890.62	0.00	0.00	0.00
16,100.00	90.00	359.46	12,123.00	3,805.15	1,548.10	3,989.42	0.00	0.00	0.00
16,200.00	90.00	359.46	12,123.00	3,905.14	1,547.16	4,088.22	0.00	0.00	0.00
16,300.00	90.00	359.46	12,123.00	4,005.14	1,546.22	4,187.02	0.00	0.00	0.00
16,400.00	90.00	359.46	12,123.00	4,105.13	1,545.27	4,285.82	0.00	0.00	0.00
16,500.00	90.00	359.46	12,123.00	4,205.13	1,544.33	4,384.63	0.00	0.00	0.00
16,600.00	90.00	359.46	12,123.00	4,305.13	1,543.38	4,483.43	0.00	0.00	0.00
16,700.00	90.00	359.46	12,123.00	4,405.12	1,542.44	4,582.23	0.00	0.00	0.00
16,800.00	90.00	359.46	12,123.00	4,505.12	1,541.49	4,681.03	0.00	0.00	0.00
16,900.00	90.00	359.46	12,123.00	4,605.11	1,540.55	4,779.83	0.00	0.00	0.00
17,000.00	90.00	359.46	12,123.00	4,705.11	1,539.60	4,878.63	0.00	0.00	0.00
17,100.00	90.00	359.46	12,123.00	4,805.10	1,538.66	4,977.44	0.00	0.00	0.00
17,200.00	90.00	359.46	12,123.00	4,905.10	1,537.72	5,076.24	0.00	0.00	0.00
17,300.00	90.00	359.46	12,123.00	5,005.09	1,536.77	5,175.04	0.00	0.00	0.00
17,400.00	90.00	359.46	12,123.00	5,105.09	1,535.83	5,273.84	0.00	0.00	0.00
17,500.00	90.00	359.46	12,123.00	5,205.09	1,534.88	5,372.64	0.00	0.00	0.00
17,600.00	90.00	359.46	12,123.00	5,305.08	1,533.94	5,471.44	0.00	0.00	0.00
17,700.00	90.00	359.46	12,123.00	5,405.08	1,532.99	5,570.25	0.00	0.00	0.00
17,800.00	90.00	359.46	12,123.00	5,505.07	1,532.05	5,669.05	0.00	0.00	0.00
17,900.00	90.00	359.46	12,123.00	5,605.07	1,531.10	5,767.85	0.00	0.00	0.00
18,000.00	90.00	359.46	12,123.00	5,705.06	1,530.16	5,866.65	0.00	0.00	0.00
18,100.00	90.00	359.46	12,123.00	5,805.06	1,529.21	5,965.45	0.00	0.00	0.00
18,200.00	90.00	359.46	12,123.00	5,905.05	1,528.27	6,064.25	0.00	0.00	0.00
18,300.00	90.00	359.46	12,123.00	6,005.05	1,527.33	6,163.06	0.00	0.00	0.00
18,400.00	90.00	359.46	12,123.00	6,105.05	1,526.38	6,261.86	0.00	0.00	0.00
18,500.00	90.00	359.46	12,123.00	6,205.04	1,525.44	6,360.66	0.00	0.00	0.00
18,600.00	90.00	359.46	12,123.00	6,305.04	1,524.49	6,459.46	0.00	0.00	0.00
18,700.00	90.00	359.46	12,123.00	6,405.03	1,523.55	6,558.26	0.00	0.00	0.00
18,800.00	90.00	359.46	12,123.00	6,505.03	1,522.60	6,657.06	0.00	0.00	0.00
18,900.00	90.00	359.46	12,123.00	6,605.02	1,521.66	6,755.87	0.00	0.00	0.00
19,000.00	90.00	359.46	12,123.00	6,705.02	1,520.71	6,854.67	0.00	0.00	0.00
19,100.00	90.00	359.46	12,123.00	6,805.01	1,519.77	6,953.47	0.00	0.00	0.00
19,200.00	90.00	359.46	12,123.00	6,905.01	1,518.83	7,052.27	0.00	0.00	0.00
19,300.00	90.00	359.46	12,123.00	7,005.01	1,517.88	7,151.07	0.00	0.00	0.00
19,400.00	90.00	359.46	12,123.00	7,105.00	1,516.94	7,249.87	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	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	90.00	359.46	12,123.00	7,205.00	1,515.99	7,348.68	0.00	0.00	0.00	
19,600.00	90.00	359.46	12,123.00	7,304.99	1,515.05	7,447.48	0.00	0.00	0.00	
19,700.00	90.00	359.46	12,123.00	7,404.99	1,514.10	7,546.28	0.00	0.00	0.00	
19,800.00	90.00	359.46	12,123.00	7,504.98	1,513.16	7,645.08	0.00	0.00	0.00	
19,900.00	90.00	359.46	12,123.00	7,604.98	1,512.21	7,743.88	0.00	0.00	0.00	
20,000.00	90.00	359.46	12,123.00	7,704.97	1,511.27	7,842.68	0.00	0.00	0.00	
20,100.00	90.00	359.46	12,123.00	7,804.97	1,510.33	7,941.48	0.00	0.00	0.00	
20,200.00	90.00	359.46	12,123.00	7,904.96	1,509.38	8,040.29	0.00	0.00	0.00	
20,300.00	90.00	359.46	12,123.00	8,004.96	1,508.44	8,139.09	0.00	0.00	0.00	
20,400.00	90.00	359.46	12,123.00	8,104.96	1,507.49	8,237.89	0.00	0.00	0.00	
20,500.00	90.00	359.46	12,123.00	8,204.95	1,506.55	8,336.69	0.00	0.00	0.00	
20,600.00	90.00	359.46	12,123.00	8,304.95	1,505.60	8,435.49	0.00	0.00	0.00	
20,700.00	90.00	359.46	12,123.00	8,404.94	1,504.66	8,534.29	0.00	0.00	0.00	
20,800.00	90.00	359.46	12,123.00	8,504.94	1,503.71	8,633.10	0.00	0.00	0.00	
20,900.00	90.00	359.46	12,123.00	8,604.93	1,502.77	8,731.90	0.00	0.00	0.00	
21,000.00	90.00	359.46	12,123.00	8,704.93	1,501.82	8,830.70	0.00	0.00	0.00	
21,100.00	90.00	359.46	12,123.00	8,804.92	1,500.88	8,929.50	0.00	0.00	0.00	
21,200.00	90.00	359.46	12,123.00	8,904.92	1,499.94	9,028.30	0.00	0.00	0.00	
21,300.00	90.00	359.46	12,123.00	9,004.92	1,498.99	9,127.10	0.00	0.00	0.00	
21,400.00	90.00	359.46	12,123.00	9,104.91	1,498.05	9,225.91	0.00	0.00	0.00	
21,500.00	90.00	359.46	12,123.00	9,204.91	1,497.10	9,324.71	0.00	0.00	0.00	
21,600.00	90.00	359.46	12,123.00	9,304.90	1,496.16	9,423.51	0.00	0.00	0.00	
21,700.00	90.00	359.46	12,123.00	9,404.90	1,495.21	9,522.31	0.00	0.00	0.00	
21,800.00	90.00	359.46	12,123.00	9,504.89	1,494.27	9,621.11	0.00	0.00	0.00	
21,900.00	90.00	359.46	12,123.00	9,604.89	1,493.32	9,719.91	0.00	0.00	0.00	
22,000.00	90.00	359.46	12,123.00	9,704.88	1,492.38	9,818.72	0.00	0.00	0.00	
22,100.00	90.00	359.46	12,123.00	9,804.88	1,491.44	9,917.52	0.00	0.00	0.00	
22,200.00	90.00	359.46	12,123.00	9,904.88	1,490.49	10,016.32	0.00	0.00	0.00	
22,300.00	90.00	359.46	12,123.00	10,004.87	1,489.55	10,115.12	0.00	0.00	0.00	
22,400.00	90.00	359.46	12,123.00	10,104.87	1,488.60	10,213.92	0.00	0.00	0.00	
22,448.92	90.00	359.46	12,123.00	10,153.78	1,488.14	10,262.25	0.00	0.00	0.00	
TD at 22448.92 - PBHL (FMM Fed Com 806H)										

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SHL (FMM Fed Com 806H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	426,136.34	855,181.81	32.167461	-103.319069	
PBHL (FMM Fed Com 806H) - plan hits target center - Point	0.00	0.00	12,123.00	10,153.78	1,488.14	436,290.12	856,669.95	32.195330	-103.313949	
LP (FMM Fed Com 806H) - plan hits target center - Point	0.00	0.00	12,123.00	365.93	1,580.59	426,502.27	856,762.40	32.168426	-103.313950	



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Company:	Franklin Mountain Energy	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Project:	Lea County, NM (NAD83)	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site:	FMM Fed Com	North Reference:	Grid
Well:	FMM Fed Com 806H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,600.00	1,600.00	0.00	0.00	Start Build 2.00
2,384.88	2,375.09	-13.83	105.95	Start 5121.84 hold at 2384.88 MD
7,506.72	7,305.91	-193.17	1,480.05	Start Drop -2.00
8,291.59	8,081.00	-207.00	1,586.00	Start 3469.04 hold at 8291.59 MD
11,760.63	11,550.04	-207.00	1,586.00	Start DLS 10.00 TFO 359.46
12,660.63	12,123.00	365.93	1,580.59	Start 9788.28 hold at 12660.63 MD
22,448.92	12,123.00	10,153.78	1,488.14	TD at 22448.92



Franklin Mountain Energy

Lea County, NM (NAD83)

FMM Fed Com

FMM Fed Com 806H

OH

Plan #2

Anticollision Report

09 September, 2021





Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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
Depth Range:	Unlimited
Results Limited by:	Maximum ellipse separation of 1,000.00 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Combined Separation
Casing Method:	Not applied

Survey Tool Program	Date	9/9/2021
From (usft)	To (usft)	Survey (Wellbore)
0.00	22,448.21	Plan #2 (OH)
		Tool Name
		OWSG (Rev2) MWD
		Description
		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						
FMM Fed Com						
Amoco State #001 (Offset) - OH - OH	1,157.00	1,287.73	4,193.60	4,159.48	122.914	CC
Amoco State #001 (Offset) - OH - OH	2,200.00	2,210.59	4,198.89	4,153.72	92.976	ES
Amoco State #001 (Offset) - OH - OH	3,900.00	3,775.00	4,258.08	4,176.97	52.498	SF
Blue Bay WCA State Com #001C (Offset Plan) - OH - PI	12,100.00	14,160.66	1,115.82	1,043.63	15.457	SF
Blue Bay WCA State Com #001C (Offset Plan) - OH - PI	14,288.71	12,100.00	1,055.85	988.70	15.725	CC, ES
FMM Fed Com 101H - OH - Plan #1	1,600.00	1,555.00	2,049.79	2,042.12	267.298	CC, ES
FMM Fed Com 101H - OH - Plan #1	9,500.00	8,700.00	4,600.11	4,554.75	101.399	SF
FMM Fed Com 102H - OH - Plan #1	1,600.00	1,556.90	2,000.00	1,992.33	260.645	CC, ES
FMM Fed Com 102H - OH - Plan #1	22,448.92	18,538.91	4,709.65	4,534.70	26.919	SF
FMM Fed Com 103H - OH - Plan #1	1,600.00	1,600.50	97.62	89.83	12.542	CC, ES
FMM Fed Com 103H - OH - Plan #1	1,800.00	1,800.34	102.89	94.11	11.722	SF
FMM Fed Com 104H - OH - Plan #2	1,600.66	1,600.86	76.03	68.24	9.765	CC
FMM Fed Com 104H - OH - Plan #2	1,800.00	1,801.41	76.51	67.75	8.732	ES
FMM Fed Com 104H - OH - Plan #2	7,905.96	7,932.07	190.14	135.78	3.498	SF
FMM Fed Com 301H - OH - Plan #1	1,600.00	1,555.80	2,025.05	2,017.38	264.003	CC, ES
FMM Fed Com 301H - OH - Plan #1	22,448.92	20,171.40	4,951.07	4,724.95	21.895	SF
FMM Fed Com 302H - OH - Plan #1	1,600.00	1,557.50	1,974.95	1,967.28	257.330	CC, ES
FMM Fed Com 302H - OH - Plan #1	22,448.92	20,109.26	3,697.37	3,491.28	17.941	SF
FMM Fed Com 303H - OH - Plan #1	1,600.00	1,600.70	83.84	76.06	10.772	CC, ES
FMM Fed Com 303H - OH - Plan #1	1,900.00	1,902.59	92.30	83.04	9.963	SF
FMM Fed Com 304H - OH - Plan #2	1,316.43	1,317.13	76.03	69.68	11.980	CC
FMM Fed Com 304H - OH - Plan #2	9,408.17	9,398.64	100.10	40.61	1.683	ES, SF
FMM Fed Com 801H - OH - Plan #1	1,600.00	1,556.10	2,036.03	2,028.36	265.409	CC, ES
FMM Fed Com 801H - OH - Plan #1	22,448.92	22,582.12	4,537.38	4,292.50	18.529	SF
FMM Fed Com 802H - OH - Plan #1	1,600.00	1,556.40	2,010.96	2,003.29	262.116	CC, ES
FMM Fed Com 802H - OH - Plan #1	22,448.92	22,399.29	3,606.02	3,360.72	14.700	SF
FMM Fed Com 803H - OH - Plan #1	1,600.00	1,557.00	1,985.90	1,978.22	258.798	CC, ES
FMM Fed Com 803H - OH - Plan #1	22,448.92	22,335.03	2,675.32	2,430.15	10.912	SF
FMM Fed Com 804H - OH - Plan #1	1,600.00	1,599.30	49.99	42.21	6.426	CC, ES
FMM Fed Com 804H - OH - Plan #1	1,700.00	1,699.28	51.72	43.44	6.247	SF
FMM Fed Com 805H - OH - Plan #1	1,600.00	1,600.10	24.99	17.21	3.211	CC, ES, SF
Pre-Ongard Well #001 (Offset) - OH - OH	1,141.34	1,195.78	4,911.44	4,885.80	191.571	CC
Pre-Ongard Well #001 (Offset) - OH - OH	1,700.00	1,698.05	4,912.74	4,869.68	114.107	ES
Pre-Ongard Well #001 (Offset) - OH - OH	2,500.00	2,484.29	4,994.39	4,930.58	78.267	SF
Proxy WCA State Com #001H (Offset) - OH - OH	100.00	33.90	2,939.56	2,939.43	10,000.000	CC
Proxy WCA State Com #001H (Offset) - OH - OH	200.00	125.03	2,939.83	2,939.30	5,611.291	ES
Proxy WCA State Com #001H (Offset) - OH - OH	4,900.00	4,501.00	3,721.55	3,698.43	160.950	SF

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



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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

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						
FMM Fed Com						
Proxy WCA State Com #001H (Offset) - ST01 - ST01	100.00	33.90	2,939.56	2,939.43	10,000.000	CC
Proxy WCA State Com #001H (Offset) - ST01 - ST01	200.00	125.03	2,939.83	2,939.30	5,611.291	ES
Proxy WCA State Com #001H (Offset) - ST01 - ST01	12,600.00	11,788.15	4,556.42	4,501.46	82.901	SF
Proxy WCA State Com #001H (Offset) - ST02 - ST02	100.00	33.90	2,939.56	2,939.43	10,000.000	CC
Proxy WCA State Com #001H (Offset) - ST02 - ST02	200.00	125.03	2,939.83	2,939.30	5,611.291	ES
Proxy WCA State Com #001H (Offset) - ST02 - ST02	17,700.00	16,762.00	4,546.23	4,421.51	36.452	SF

Offset Design

FMM Fed Com - Amoco State #001 (Offset) - OH - OH

Offset Site Error: 0.00 usft

Survey Program: 635-INC-ONLY

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	Warning	
0.00	0.00	14.20	14.20	0.00	0.23	3.95	4,184.67	288.63	4,194.61					
100.00	100.00	114.20	114.20	0.13	1.83	3.95	4,184.67	288.63	4,194.61	4,192.78	1.83	2,291.891		
200.00	200.00	214.20	214.20	0.48	3.42	3.95	4,184.67	288.63	4,194.61	4,191.15	3.46	1,212.747		
300.00	300.00	314.20	314.20	0.84	5.02	3.95	4,184.67	288.63	4,194.61	4,189.52	5.09	823.483		
400.00	400.00	414.20	414.20	1.20	6.62	3.95	4,184.67	288.63	4,194.61	4,187.88	6.73	623.229		
500.00	500.00	514.20	514.20	1.56	8.22	3.95	4,184.67	288.63	4,194.61	4,186.24	8.37	501.275		
600.00	600.00	614.20	614.20	1.92	9.82	3.95	4,184.67	288.63	4,194.61	4,184.60	10.01	419.223		
700.00	700.00	714.36	714.20	2.28	13.04	3.95	4,184.67	288.63	4,194.61	4,181.37	13.24	316.865		
800.00	800.00	814.36	814.20	2.63	16.68	3.95	4,184.67	288.63	4,194.61	4,177.72	16.89	248.401		
900.00	900.00	918.14	917.93	2.99	20.46	3.94	4,187.32	288.63	4,197.26	4,176.58	20.67	203.022		
1,000.00	1,000.00	1,061.90	1,061.65	3.35	25.69	3.94	4,186.44	288.63	4,196.65	4,170.74	25.90	162.009		
1,100.00	1,100.00	1,205.73	1,205.41	3.71	30.92	3.95	4,184.06	288.63	4,195.00	4,163.86	31.14	134.731		
1,157.00	1,157.00	1,287.73	1,287.36	3.91	33.90	3.95	4,182.04	288.63	4,193.60	4,159.48	34.12	122.914	CC	
1,200.00	1,200.00	1,214.95	1,214.20	4.07	30.81	3.95	4,184.67	288.63	4,194.61	4,163.53	31.08	134.981		
1,300.00	1,300.00	1,314.96	1,314.20	4.43	32.12	3.95	4,184.67	288.63	4,194.61	4,162.19	32.42	129.371		
1,400.00	1,400.00	1,414.96	1,414.20	4.79	33.07	3.95	4,184.67	288.63	4,194.61	4,161.20	33.41	125.541		
1,500.00	1,500.00	1,514.96	1,514.20	5.14	34.51	3.95	4,184.67	288.63	4,194.61	4,159.72	34.89	120.234		
1,600.00	1,600.00	1,614.96	1,614.20	5.50	35.94	3.95	4,184.67	288.63	4,194.61	4,158.25	36.36	115.354		
1,700.00	1,699.98	1,714.94	1,714.18	5.85	37.38	-93.51	4,184.67	288.63	4,194.72	4,156.88	37.84	110.862		
1,800.00	1,799.84	1,814.80	1,814.04	6.19	38.82	-93.58	4,184.67	288.63	4,195.04	4,155.73	39.31	106.719		
1,900.00	1,899.45	1,914.42	1,913.65	6.54	40.25	-93.68	4,184.67	288.63	4,195.59	4,154.82	40.78	102.887		
2,000.00	1,998.70	2,013.67	2,012.90	6.89	41.68	-93.83	4,184.67	288.63	4,196.40	4,154.15	42.24	99.336		
2,100.00	2,097.47	2,112.43	2,111.67	7.26	43.10	-94.02	4,184.67	288.63	4,197.48	4,153.78	43.71	96.040		
2,200.00	2,195.62	2,210.59	2,209.82	7.64	44.51	-94.25	4,184.67	288.63	4,198.89	4,153.72	45.16	92.976	ES	
2,300.00	2,293.06	2,308.02	2,307.26	8.04	45.91	-94.51	4,184.67	288.63	4,200.65	4,154.04	46.61	90.124		
2,384.88	2,375.09	2,390.06	2,389.29	8.39	47.09	-94.76	4,184.67	288.63	4,202.47	4,154.63	47.83	87.856		
2,400.00	2,389.65	2,404.62	2,403.85	8.46	47.30	-94.81	4,184.67	288.63	4,202.82	4,154.77	48.05	87.466		
2,500.00	2,485.92	2,500.89	2,500.12	8.90	48.69	-95.17	4,184.67	288.63	4,205.27	4,155.78	49.49	84.969		
2,600.00	2,582.19	2,597.17	2,596.39	9.36	50.31	-95.52	4,184.67	288.63	4,207.88	4,156.71	51.17	82.233		
2,700.00	2,678.46	2,693.44	2,692.66	9.83	52.18	-95.87	4,184.67	288.63	4,210.67	4,157.58	53.09	79.305		
2,800.00	2,774.74	2,789.71	2,788.94	10.31	54.05	-96.23	4,184.67	288.63	4,213.63	4,158.61	55.02	76.582		
2,900.00	2,871.01	2,890.36	2,889.58	10.80	56.01	-96.60	4,185.23	288.63	4,217.34	4,160.30	57.03	73.945		
3,000.00	2,967.28	2,993.55	2,992.77	11.29	58.01	-96.97	4,185.04	288.63	4,220.46	4,161.36	59.10	71.417		
3,100.00	3,063.55	3,096.76	3,095.97	11.80	60.02	-97.35	4,184.68	288.63	4,223.60	4,162.44	61.16	69.059		
3,200.00	3,159.82	3,174.84	3,174.02	12.31	62.24	-97.63	4,184.67	288.63	4,227.19	4,163.75	63.44	66.636		
3,300.00	3,256.09	3,271.11	3,270.29	12.83	65.01	-97.98	4,184.67	288.63	4,231.01	4,164.75	66.26	63.855		
3,400.00	3,352.36	3,367.38	3,366.56	13.35	67.79	-98.33	4,184.67	288.63	4,234.99	4,165.91	69.08	61.303		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 FMM Fed Com - Amoco State #001 (Offset) - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 635-INC-ONLY													Offset Well Error: 0.00 usft
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
3,500.00	3,448.63	3,463.66	3,462.83	13.88	70.57	-98.68	4,184.67	288.63	4,239.14	4,167.24	71.91	58.953	
3,600.00	3,544.90	3,559.93	3,559.10	14.41	73.34	-99.03	4,184.67	288.63	4,243.46	4,168.73	74.73	56.782	
3,700.00	3,641.17	3,656.20	3,655.37	14.94	76.12	-99.38	4,184.67	288.63	4,247.95	4,170.40	77.56	54.772	
3,800.00	3,737.44	3,752.47	3,751.64	15.48	78.89	-99.72	4,184.67	288.63	4,252.61	4,172.23	80.38	52.904	
3,900.00	3,833.71	3,775.00	3,773.73	16.02	79.54	-99.80	4,184.67	288.63	4,258.08	4,176.97	81.11	52.498 SF	
4,000.00	3,929.98	3,775.00	3,773.73	16.56	79.54	-99.80	4,184.67	288.63	4,265.83	4,184.67	81.16	52.559	
4,100.00	4,026.25	3,775.00	3,773.73	17.10	79.54	-99.80	4,184.67	288.63	4,275.91	4,194.73	81.18	52.673	
4,200.00	4,122.52	3,775.00	3,773.73	17.65	79.54	-99.80	4,184.67	288.63	4,288.29	4,207.13	81.16	52.838	
4,300.00	4,218.79	3,775.00	3,773.73	18.20	79.54	-99.80	4,184.67	288.63	4,302.97	4,221.86	81.10	53.055	
4,400.00	4,315.06	3,775.00	3,773.73	18.75	79.54	-99.80	4,184.67	288.63	4,319.91	4,238.90	81.01	53.326	
4,500.00	4,411.33	3,775.00	3,773.73	19.30	79.54	-99.80	4,184.67	288.63	4,339.08	4,258.20	80.88	53.649	
4,600.00	4,507.60	3,775.00	3,773.73	19.85	79.54	-99.80	4,184.67	288.63	4,360.47	4,279.75	80.72	54.022	
4,700.00	4,603.87	3,775.00	3,773.73	20.41	79.54	-99.80	4,184.67	288.63	4,384.04	4,303.51	80.52	54.444	
4,800.00	4,700.14	3,775.00	3,773.73	20.96	79.54	-99.80	4,184.67	288.63	4,409.74	4,329.44	80.30	54.915	
4,900.00	4,796.41	3,775.00	3,773.73	21.52	79.54	-99.80	4,184.67	288.63	4,437.56	4,357.51	80.05	55.435	
5,000.00	4,892.68	3,775.00	3,773.73	22.08	79.54	-99.80	4,184.67	288.63	4,467.43	4,387.66	79.77	56.002	
5,100.00	4,988.95	3,775.00	3,773.73	22.64	79.54	-99.80	4,184.67	288.63	4,499.34	4,419.87	79.47	56.616	
5,200.00	5,085.22	3,775.00	3,773.73	23.20	79.54	-99.80	4,184.67	288.63	4,533.22	4,454.08	79.15	57.277	
5,300.00	5,181.49	3,775.00	3,773.73	23.76	79.54	-99.80	4,184.67	288.63	4,569.04	4,490.25	78.80	57.983	
5,400.00	5,277.76	3,775.00	3,773.73	24.32	79.54	-99.80	4,184.67	288.63	4,606.76	4,528.33	78.43	58.735	
5,500.00	5,374.03	3,775.00	3,773.73	24.88	79.54	-99.80	4,184.67	288.63	4,646.32	4,568.27	78.05	59.531	
5,600.00	5,470.31	3,775.00	3,773.73	25.44	79.54	-99.80	4,184.67	288.63	4,687.68	4,610.03	77.65	60.371	
5,700.00	5,566.58	3,775.00	3,773.73	26.01	79.54	-99.80	4,184.67	288.63	4,730.80	4,653.57	77.23	61.256	
5,800.00	5,662.85	3,775.00	3,773.73	26.57	79.54	-99.80	4,184.67	288.63	4,775.61	4,698.82	76.80	62.184	
5,900.00	5,759.12	3,775.00	3,773.73	27.13	79.54	-99.80	4,184.67	288.63	4,822.09	4,745.74	76.35	63.154	
6,000.00	5,855.39	3,775.00	3,773.73	27.70	79.54	-99.80	4,184.67	288.63	4,870.18	4,794.28	75.90	64.164	
6,100.00	5,951.66	3,775.00	3,773.73	28.26	79.54	-99.80	4,184.67	288.63	4,919.83	4,844.39	75.44	65.214	
6,200.00	6,047.93	3,775.00	3,773.73	28.83	79.54	-99.80	4,184.67	288.63	4,970.99	4,896.02	74.97	66.304	

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
0.00	0.00	10.20	10.20	0.00	0.01	12.95	2,374.43	545.97	2,436.39					
100.00	100.00	110.20	110.20	0.13	0.17	12.95	2,374.43	545.97	2,436.39	2,436.18	0.21	N/A		
200.00	200.00	210.20	210.20	0.48	0.53	12.95	2,374.43	545.97	2,436.39	2,435.68	0.72	3,396.596		
300.00	300.00	310.20	310.20	0.84	0.89	12.95	2,374.43	545.97	2,436.39	2,435.17	1.22	1,990.582		
400.00	400.00	410.20	410.20	1.20	1.25	12.95	2,374.43	545.97	2,436.39	2,434.66	1.73	1,407.676		
500.00	500.00	510.20	510.20	1.56	1.60	12.95	2,374.43	545.97	2,436.39	2,434.16	2.24	1,088.804		
600.00	600.00	610.20	610.20	1.92	1.96	12.95	2,374.43	545.97	2,436.39	2,433.65	2.74	887.707		
700.00	700.00	710.20	710.20	2.28	2.32	12.95	2,374.43	545.97	2,436.39	2,433.14	3.25	749.310		
800.00	800.00	810.20	810.20	2.63	2.68	12.95	2,374.43	545.97	2,436.39	2,432.63	3.76	648.244		
900.00	900.00	910.20	910.20	2.99	3.04	12.95	2,374.43	545.97	2,436.39	2,432.13	4.27	571.200		
1,000.00	1,000.00	1,010.20	1,010.20	3.35	3.40	12.95	2,374.43	545.97	2,436.39	2,431.62	4.77	510.525		
1,100.00	1,100.00	1,110.20	1,110.20	3.71	3.76	12.95	2,374.43	545.97	2,436.39	2,431.11	5.28	461.501		
1,200.00	1,200.00	1,210.20	1,210.20	4.07	4.11	12.95	2,374.43	545.97	2,436.39	2,430.61	5.79	421.068		
1,300.00	1,300.00	1,310.20	1,310.20	4.43	4.47	12.95	2,374.43	545.97	2,436.39	2,430.10	6.29	387.149		
1,400.00	1,400.00	1,410.20	1,410.20	4.79	4.83	12.95	2,374.43	545.97	2,436.39	2,429.59	6.80	358.287		
1,500.00	1,500.00	1,510.20	1,510.20	5.14	5.19	12.95	2,374.43	545.97	2,436.39	2,429.09	7.31	333.429		
1,600.00	1,600.00	1,610.20	1,610.20	5.50	5.55	12.95	2,374.43	545.97	2,436.39	2,428.58	7.81	311.798		
1,700.00	1,699.98	1,710.18	1,710.18	5.85	5.91	-84.53	2,374.43	545.97	2,436.23	2,427.91	8.31	293.023		
1,800.00	1,799.84	1,810.04	1,810.04	6.19	6.26	-84.66	2,374.43	545.97	2,435.73	2,426.92	8.81	276.505		
1,900.00	1,899.45	1,909.65	1,909.65	6.54	6.62	-84.88	2,374.43	545.97	2,434.94	2,425.63	9.31	261.629		
2,000.00	1,998.70	2,008.90	2,008.90	6.89	6.98	-85.19	2,374.43	545.97	2,433.87	2,424.06	9.81	248.130		
2,100.00	2,097.47	2,107.67	2,107.67	7.26	7.33	-85.58	2,374.43	545.97	2,432.60	2,422.28	10.32	235.784		
2,200.00	2,195.62	2,205.82	2,205.82	7.64	7.68	-86.04	2,374.43	545.97	2,431.18	2,420.34	10.83	224.405		
2,300.00	2,293.06	2,303.26	2,303.26	8.04	8.03	-86.59	2,374.43	545.97	2,429.69	2,418.33	11.36	213.839		
2,384.88	2,375.09	2,385.29	2,385.29	8.39	8.33	-87.11	2,374.43	545.97	2,428.46	2,416.64	11.82	205.416		
2,400.00	2,389.65	2,399.85	2,399.85	8.46	8.38	-87.20	2,374.43	545.97	2,428.25	2,416.34	11.91	203.965		
2,500.00	2,485.92	2,496.12	2,496.12	8.90	8.72	-87.82	2,374.43	545.97	2,427.02	2,414.56	12.46	194.750		
2,600.00	2,582.19	2,592.39	2,592.39	9.36	9.07	-88.43	2,374.43	545.97	2,426.10	2,413.07	13.03	186.190		
2,700.00	2,678.46	2,688.66	2,688.66	9.83	9.41	-89.05	2,374.43	545.97	2,425.49	2,411.88	13.61	178.244		
2,800.00	2,774.74	2,784.94	2,784.94	10.31	9.76	-89.66	2,374.43	545.97	2,425.17	2,410.97	14.19	170.866		
2,855.14	2,827.82	2,838.02	2,838.02	10.58	9.95	-90.00	2,374.43	545.97	2,425.12	2,410.60	14.52	167.016		
2,900.00	2,871.01	2,881.21	2,881.21	10.80	10.10	-90.28	2,374.43	545.97	2,425.15	2,410.37	14.79	164.013		
3,000.00	2,967.28	2,977.48	2,977.48	11.29	10.45	-90.89	2,374.43	545.97	2,425.44	2,410.05	15.39	157.644		
3,100.00	3,063.55	3,073.75	3,073.75	11.80	10.79	-91.51	2,374.43	545.97	2,426.03	2,410.04	15.99	151.719		
3,200.00	3,159.82	3,170.02	3,170.02	12.31	11.14	-92.12	2,374.43	545.97	2,426.92	2,410.32	16.60	146.202		
3,300.00	3,256.09	3,266.29	3,266.29	12.83	11.48	-92.74	2,374.43	545.97	2,428.11	2,410.89	17.21	141.060		
3,400.00	3,352.36	3,362.56	3,362.56	13.35	11.83	-93.35	2,374.43	545.97	2,429.60	2,411.77	17.83	136.262		
3,500.00	3,448.63	3,458.83	3,458.83	13.88	12.17	-93.96	2,374.43	545.97	2,431.39	2,412.94	18.45	131.779		
3,600.00	3,544.90	3,555.10	3,555.10	14.41	12.52	-94.57	2,374.43	545.97	2,433.48	2,414.41	19.07	127.586		
3,700.00	3,641.17	3,651.37	3,651.37	14.94	12.87	-95.18	2,374.43	545.97	2,435.87	2,416.17	19.70	123.659		
3,800.00	3,737.44	3,747.64	3,747.64	15.48	13.21	-95.79	2,374.43	545.97	2,438.56	2,418.23	20.33	119.978		
3,900.00	3,833.71	3,843.91	3,843.91	16.02	13.56	-96.40	2,374.43	545.97	2,441.54	2,420.59	20.95	116.523		
4,000.00	3,929.98	3,940.18	3,940.18	16.56	13.90	-97.01	2,374.43	545.97	2,444.82	2,423.24	21.58	113.277		
4,100.00	4,026.25	4,036.45	4,036.45	17.10	14.25	-97.62	2,374.43	545.97	2,448.40	2,426.19	22.21	110.223		
4,200.00	4,122.52	4,132.72	4,132.72	17.65	14.59	-98.22	2,374.43	545.97	2,452.27	2,429.42	22.84	107.347		
4,300.00	4,218.79	4,228.99	4,228.99	18.20	14.94	-98.82	2,374.43	545.97	2,456.43	2,432.95	23.48	104.637		
4,400.00	4,315.06	4,325.26	4,325.26	18.75	15.28	-99.42	2,374.43	545.97	2,460.88	2,436.77	24.11	102.080		
4,500.00	4,411.33	4,421.53	4,421.53	19.30	15.63	-100.02	2,374.43	545.97	2,465.62	2,440.88	24.74	99.665		
4,600.00	4,507.60	4,517.80	4,517.80	19.85	15.97	-100.61	2,374.43	545.97	2,470.64	2,445.27	25.37	97.382		
4,700.00	4,603.87	4,614.07	4,614.07	20.41	16.32	-101.21	2,374.43	545.97	2,475.96	2,449.95	26.00	95.222		
4,800.00	4,700.14	4,710.34	4,710.34	20.96	16.66	-101.80	2,374.43	545.97	2,481.55	2,454.92	26.63	93.177		
4,900.00	4,796.41	4,806.61	4,806.61	21.52	17.01	-102.39	2,374.43	545.97	2,487.43	2,460.17	27.26	91.240		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
5,000.00	4,892.68	4,902.88	4,902.88	22.08	17.35	-102.97	2,374.43	545.97	2,493.59	2,465.69	27.89	89.402		
5,100.00	4,988.95	4,999.15	4,999.15	22.64	17.70	-103.56	2,374.43	545.97	2,500.02	2,471.50	28.52	87.657		
5,200.00	5,085.22	5,095.42	5,095.42	23.20	18.04	-104.14	2,374.43	545.97	2,506.73	2,477.58	29.15	86.001		
5,300.00	5,181.49	5,191.69	5,191.69	23.76	18.39	-104.71	2,374.43	545.97	2,513.72	2,483.94	29.77	84.426		
5,400.00	5,277.76	5,287.96	5,287.96	24.32	18.73	-105.29	2,374.43	545.97	2,520.97	2,490.57	30.40	82.929		
5,500.00	5,374.03	5,384.23	5,384.23	24.88	19.08	-105.86	2,374.43	545.97	2,528.49	2,497.47	31.02	81.504		
5,600.00	5,470.31	5,480.51	5,480.51	25.44	19.42	-106.43	2,374.43	545.97	2,536.28	2,504.64	31.65	80.147		
5,700.00	5,566.58	5,576.78	5,576.78	26.01	19.77	-106.99	2,374.43	545.97	2,544.34	2,512.07	32.27	78.854		
5,800.00	5,662.85	5,673.05	5,673.05	26.57	20.11	-107.55	2,374.43	545.97	2,552.65	2,519.77	32.89	77.621		
5,900.00	5,759.12	5,769.32	5,769.32	27.13	20.46	-108.11	2,374.43	545.97	2,561.23	2,527.72	33.50	76.445		
6,000.00	5,855.39	5,865.59	5,865.59	27.70	20.80	-108.66	2,374.43	545.97	2,570.06	2,535.94	34.12	75.323		
6,100.00	5,951.66	5,961.86	5,961.86	28.26	21.15	-109.21	2,374.43	545.97	2,579.14	2,544.41	34.73	74.252		
6,200.00	6,047.93	6,058.13	6,058.13	28.83	21.49	-109.76	2,374.43	545.97	2,588.48	2,553.13	35.35	73.229		
6,300.00	6,144.20	6,154.40	6,154.40	29.40	21.84	-110.30	2,374.43	545.97	2,598.06	2,562.10	35.96	72.251		
6,400.00	6,240.47	6,250.67	6,250.67	29.96	22.18	-110.84	2,374.43	545.97	2,607.89	2,571.32	36.57	71.316		
6,500.00	6,336.74	6,346.94	6,346.94	30.53	22.53	-111.38	2,374.43	545.97	2,617.96	2,580.78	37.18	70.421		
6,600.00	6,433.01	6,443.21	6,443.21	31.10	22.87	-111.91	2,374.43	545.97	2,628.27	2,590.49	37.78	69.565		
6,700.00	6,529.28	6,539.48	6,539.48	31.67	23.22	-112.44	2,374.43	545.97	2,638.82	2,600.43	38.39	68.746		
6,800.00	6,625.55	6,635.75	6,635.75	32.23	23.56	-112.96	2,374.43	545.97	2,649.60	2,610.61	38.99	67.961		
6,900.00	6,721.82	6,732.02	6,732.02	32.80	23.91	-113.48	2,374.43	545.97	2,660.61	2,621.03	39.59	67.209		
7,000.00	6,818.09	6,828.29	6,828.29	33.37	24.25	-114.00	2,374.43	545.97	2,671.86	2,631.67	40.18	66.489		
7,100.00	6,914.36	6,924.56	6,924.56	33.94	24.60	-114.51	2,374.43	545.97	2,683.32	2,642.54	40.78	65.798		
7,200.00	7,010.63	7,020.83	7,020.83	34.51	24.94	-115.02	2,374.43	545.97	2,695.02	2,653.64	41.38	65.136		
7,300.00	7,106.90	7,117.10	7,117.10	35.08	25.29	-115.52	2,374.43	545.97	2,706.93	2,664.96	41.97	64.500		
7,400.00	7,203.17	7,213.37	7,213.37	35.65	25.63	-116.02	2,374.43	545.97	2,719.05	2,676.50	42.56	63.891		
7,506.72	7,305.91	7,316.11	7,316.11	36.26	26.00	-116.55	2,374.43	545.97	2,732.23	2,689.05	43.18	63.268		
7,600.00	7,396.11	7,406.31	7,406.31	36.77	26.33	-117.18	2,374.43	545.97	2,743.26	2,699.54	43.72	62.742		
7,700.00	7,493.60	7,503.80	7,503.80	37.28	26.67	-117.77	2,374.43	545.97	2,753.71	2,709.44	44.28	62.191		
7,800.00	7,591.82	7,602.02	7,602.02	37.75	27.03	-118.26	2,374.43	545.97	2,762.67	2,717.85	44.81	61.649		
7,900.00	7,690.63	7,700.83	7,700.83	38.18	27.38	-118.67	2,374.43	545.97	2,770.05	2,724.73	45.33	61.113		
8,000.00	7,789.91	7,800.11	7,800.11	38.57	27.74	-118.99	2,374.43	545.97	2,775.82	2,730.00	45.82	60.579		
8,100.00	7,889.55	7,899.75	7,899.75	38.92	28.09	-119.21	2,374.43	545.97	2,779.93	2,733.63	46.30	60.045		
8,200.00	7,989.42	7,999.62	7,999.62	39.23	28.45	-119.34	2,374.43	545.97	2,782.35	2,735.59	46.75	59.510		
8,291.59	8,081.00	8,091.20	8,091.20	39.47	28.78	-21.94	2,374.43	545.97	2,783.06	2,735.91	47.16	59.018		
8,300.00	8,089.41	8,099.61	8,099.61	39.50	28.81	-21.94	2,374.43	545.97	2,783.06	2,735.87	47.19	58.973		
8,400.00	8,189.41	8,199.61	8,199.61	39.75	29.17	-21.94	2,374.43	545.97	2,783.06	2,735.44	47.62	58.441		
8,500.00	8,289.41	8,299.61	8,299.61	40.01	29.53	-21.94	2,374.43	545.97	2,783.06	2,735.01	48.05	57.916		
8,600.00	8,389.41	8,399.61	8,399.61	40.26	29.89	-21.94	2,374.43	545.97	2,783.06	2,734.58	48.49	57.399		
8,700.00	8,489.41	8,499.61	8,499.61	40.52	30.24	-21.94	2,374.43	545.97	2,783.06	2,734.14	48.92	56.889		
8,800.00	8,589.41	8,599.61	8,599.61	40.78	30.60	-21.94	2,374.43	545.97	2,783.06	2,733.71	49.36	56.387		
8,900.00	8,689.41	8,699.61	8,699.61	41.04	30.96	-21.94	2,374.43	545.97	2,783.06	2,733.27	49.79	55.892		
9,000.00	8,789.41	8,799.61	8,799.61	41.31	31.32	-21.94	2,374.43	545.97	2,783.06	2,732.83	50.23	55.404		
9,100.00	8,889.41	8,899.61	8,899.61	41.57	31.68	-21.94	2,374.43	545.97	2,783.06	2,732.39	50.67	54.923		
9,200.00	8,989.41	8,999.61	8,999.61	41.84	32.04	-21.94	2,374.43	545.97	2,783.06	2,731.95	51.11	54.449		
9,300.00	9,089.41	9,099.61	9,099.61	42.11	32.40	-21.94	2,374.43	545.97	2,783.06	2,731.51	51.56	53.982		
9,400.00	9,189.41	9,199.61	9,199.61	42.37	32.75	-21.94	2,374.43	545.97	2,783.06	2,731.07	52.00	53.522		
9,500.00	9,289.41	9,299.61	9,299.61	42.64	33.11	-21.94	2,374.43	545.97	2,783.06	2,730.62	52.44	53.068		
9,600.00	9,389.41	14,258.18	11,915.00	42.92	59.08	-88.23	-172.46	467.33	2,753.15	2,708.32	44.83	61.409		
9,700.00	9,489.41	14,258.18	11,915.00	43.19	59.08	-88.23	-172.46	467.33	2,662.10	2,616.66	45.43	58.594		
9,800.00	9,589.41	14,258.18	11,915.00	43.46	59.08	-88.23	-172.46	467.33	2,571.71	2,525.63	46.07	55.819		
9,900.00	9,689.41	14,258.18	11,915.00	43.74	59.08	-88.23	-172.46	467.33	2,482.05	2,435.30	46.76	53.086		
10,000.00	9,789.41	14,258.18	11,915.00	44.01	59.08	-88.23	-172.46	467.33	2,393.22	2,345.74	47.49	50.396		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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													FMM Fed Com - Blue Bay WCA State Com #001C (Offset Plan) - OH - Plan #1		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				
10,100.00	9,889.41	14,258.18	11,915.00	44.29	59.08	-88.23	-172.46	467.33	2,305.31	2,257.03	48.28	47.754				
10,200.00	9,989.41	14,258.18	11,915.00	44.57	59.08	-88.23	-172.46	467.33	2,218.41	2,169.29	49.12	45.162				
10,300.00	10,089.41	14,258.18	11,915.00	44.85	59.08	-88.23	-172.46	467.33	2,132.67	2,082.64	50.03	42.627				
10,400.00	10,189.41	14,258.18	11,915.00	45.13	59.08	-88.23	-172.46	467.33	2,048.22	1,997.21	51.01	40.155				
10,500.00	10,289.41	14,258.18	11,915.00	45.41	59.08	-88.23	-172.46	467.33	1,965.23	1,913.17	52.06	37.750				
10,600.00	10,389.41	14,258.18	11,915.00	45.70	59.08	-88.23	-172.46	467.33	1,883.89	1,830.70	53.19	35.419				
10,700.00	10,489.41	14,258.18	11,915.00	45.98	59.08	-88.23	-172.46	467.33	1,804.43	1,750.02	54.40	33.167				
10,800.00	10,589.41	14,258.18	11,915.00	46.27	59.08	-88.23	-172.46	467.33	1,727.10	1,671.39	55.71	31.003				
10,900.00	10,689.41	14,258.18	11,915.00	46.55	59.08	-88.23	-172.46	467.33	1,652.21	1,595.11	57.10	28.934				
11,000.00	10,789.41	14,258.18	11,915.00	46.84	59.08	-88.23	-172.46	467.33	1,580.10	1,521.52	58.59	26.970				
11,100.00	10,889.41	14,258.18	11,915.00	47.13	59.08	-88.23	-172.46	467.33	1,511.17	1,451.02	60.15	25.122				
11,200.00	10,989.41	14,258.18	11,915.00	47.42	59.08	-88.23	-172.46	467.33	1,445.88	1,384.09	61.79	23.399				
11,300.00	11,089.41	14,258.18	11,915.00	47.71	59.08	-88.23	-172.46	467.33	1,384.73	1,321.25	63.49	21.811				
11,400.00	11,189.41	14,258.18	11,915.00	48.00	59.08	-88.23	-172.46	467.33	1,328.31	1,263.11	65.20	20.372				
11,500.00	11,289.41	14,258.18	11,915.00	48.29	59.08	-88.23	-172.46	467.33	1,277.24	1,210.33	66.90	19.091				
11,600.00	11,389.41	14,258.18	11,915.00	48.58	59.08	-88.23	-172.46	467.33	1,232.17	1,163.64	68.53	17.980				
11,700.00	11,489.41	14,258.18	11,915.00	48.88	59.08	-88.23	-172.46	467.33	1,193.81	1,123.79	70.02	17.050				
11,760.63	11,550.04	14,258.18	11,915.00	49.05	59.08	-88.23	-172.46	467.33	1,174.09	1,103.26	70.82	16.578				
11,800.00	11,589.38	14,256.83	11,915.00	49.17	59.07	-88.80	-171.11	467.37	1,162.75	1,091.47	71.28	16.312				
11,850.00	11,639.05	14,251.23	11,915.00	49.31	59.00	-89.83	-165.51	467.54	1,150.05	1,078.30	71.76	16.027				
11,900.00	11,688.04	14,241.33	11,915.00	49.44	58.89	-90.43	-155.61	467.85	1,139.34	1,067.23	72.10	15.801				
11,950.00	11,735.98	14,227.19	11,915.00	49.57	58.73	-90.62	-141.49	468.28	1,130.63	1,058.31	72.32	15.634				
12,000.00	11,782.51	14,208.94	11,915.00	49.68	58.52	-90.43	-123.24	468.85	1,123.89	1,051.49	72.40	15.524				
12,050.00	11,827.26	14,186.70	11,915.00	49.79	58.27	-89.90	-101.02	469.53	1,119.01	1,046.66	72.35	15.466				
12,100.00	11,869.91	14,160.66	11,915.00	49.88	57.98	-89.08	-74.98	470.34	1,115.82	1,043.63	72.19	15.457 SF				
12,150.00	11,910.12	14,130.99	11,915.00	49.96	57.64	-88.03	-45.33	471.25	1,114.09	1,042.17	71.92	15.490				
12,200.00	11,947.60	14,097.94	11,915.00	50.03	57.27	-86.81	-12.30	472.27	1,113.57	1,042.00	71.56	15.561				
12,200.74	11,948.13	14,097.43	11,915.00	50.03	57.27	-86.79	-11.78	472.29	1,113.57	1,042.01	71.56	15.562				
12,250.00	11,982.04	14,061.75	11,915.00	50.09	56.88	-85.49	23.88	473.39	1,113.96	1,042.82	71.14	15.658				
12,300.00	12,013.20	14,022.70	11,915.00	50.14	56.45	-84.13	62.91	474.59	1,114.99	1,044.32	70.67	15.777				
12,350.00	12,040.84	13,981.08	11,915.00	50.18	56.00	-82.82	104.51	475.88	1,116.35	1,046.17	70.17	15.908				
12,400.00	12,064.73	13,937.22	11,915.00	50.21	55.53	-81.60	148.35	477.23	1,117.76	1,048.09	69.67	16.045				
12,450.00	12,084.72	13,891.44	11,915.00	50.23	55.04	-80.54	194.11	478.65	1,118.97	1,049.81	69.16	16.179				
12,500.00	12,100.63	13,844.09	11,915.00	50.25	54.55	-79.69	241.43	480.11	1,119.76	1,051.08	68.68	16.303				
12,550.00	12,112.35	13,795.54	11,915.00	50.27	54.04	-79.08	289.96	481.61	1,119.94	1,051.71	68.23	16.413				
12,600.00	12,119.79	13,746.15	11,915.00	50.30	53.55	-78.74	339.32	483.13	1,119.39	1,051.56	67.83	16.502				
12,650.00	12,122.90	13,696.31	11,915.00	50.33	53.04	-78.70	389.15	484.67	1,118.02	1,050.54	67.48	16.569				
12,660.63	12,123.00	13,685.69	11,915.00	50.33	52.94	-78.73	399.76	485.00	1,117.62	1,050.21	67.41	16.579				
12,700.00	12,123.00	13,646.35	11,915.00	50.37	52.56	-78.72	439.08	486.21	1,116.06	1,048.89	67.17	16.615				
12,800.00	12,123.00	13,546.43	11,915.00	50.47	51.60	-78.68	538.95	489.29	1,112.11	1,045.50	66.62	16.694				
12,900.00	12,123.00	13,446.51	11,915.00	50.63	50.68	-78.64	638.82	492.38	1,108.16	1,042.03	66.13	16.756				
13,000.00	12,123.00	13,346.59	11,915.00	50.83	49.79	-78.59	738.69	495.46	1,104.21	1,038.48	65.73	16.800				
13,100.00	12,123.00	13,246.67	11,915.00	51.08	48.94	-78.55	838.57	498.55	1,100.26	1,034.86	65.40	16.824				
13,200.00	12,123.00	13,146.76	11,915.00	51.39	48.14	-78.51	938.44	501.63	1,096.31	1,031.16	65.15	16.828				
13,300.00	12,123.00	13,046.84	11,915.00	51.76	47.38	-78.47	1,038.31	504.71	1,092.36	1,027.38	64.98	16.812				
13,400.00	12,123.00	12,946.92	11,915.00	52.19	46.66	-78.43	1,138.18	507.80	1,088.41	1,023.53	64.88	16.775				
13,500.00	12,123.00	12,847.00	11,915.00	52.68	45.99	-78.38	1,238.05	510.88	1,084.46	1,019.59	64.87	16.716				
13,600.00	12,123.00	12,747.08	11,915.00	53.23	45.37	-78.34	1,337.92	513.97	1,080.51	1,015.57	64.94	16.638				
13,700.00	12,123.00	12,647.16	11,915.00	53.84	44.80	-78.30	1,437.79	517.05	1,076.57	1,011.48	65.09	16.539				
13,800.00	12,123.00	12,547.24	11,915.00	54.50	44.29	-78.25	1,537.66	520.13	1,072.62	1,007.30	65.32	16.421				
13,900.00	12,123.00	12,447.32	11,915.00	55.21	43.83	-78.21	1,637.53	523.22	1,068.68	1,003.05	65.63	16.284				
14,000.00	12,123.00	12,347.41	11,915.00	55.97	43.43	-78.17	1,737.41	526.30	1,064.73	998.72	66.01	16.129				

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
14,100.00	12,123.00	12,247.49	11,915.01	56.78	43.09	-78.12	1,837.28	529.38	1,060.79	994.31	66.47	15.958		
14,200.00	12,123.00	12,160.14	11,914.22	57.63	42.83	-78.04	1,924.57	532.08	1,057.08	990.16	66.92	15.797		
14,288.71	12,123.00	12,100.00	11,907.00	58.42	42.67	-77.63	1,984.20	533.92	1,055.85	988.70	67.15	15.725 CC, ES		
14,300.00	12,123.00	12,092.79	11,905.63	58.52	42.65	-77.55	1,991.28	534.14	1,055.87	988.71	67.16	15.721		
14,400.00	12,123.00	12,025.00	11,887.61	59.45	42.46	-76.57	2,056.54	536.16	1,058.06	990.80	67.25	15.732		
14,500.00	12,123.00	11,975.00	11,868.48	60.41	42.33	-75.54	2,102.69	537.58	1,064.20	997.01	67.18	15.840		
14,600.00	12,123.00	11,918.44	11,841.16	61.41	42.17	-74.09	2,152.15	539.11	1,074.98	1,008.00	66.98	16.050		
14,700.00	12,123.00	11,875.00	11,816.31	62.43	42.06	-72.79	2,187.75	540.21	1,091.05	1,024.37	66.68	16.362		
14,800.00	12,123.00	11,832.62	11,789.05	63.49	41.94	-71.39	2,220.17	541.21	1,112.83	1,046.53	66.30	16.785		
14,900.00	12,123.00	11,800.00	11,766.18	64.57	41.85	-70.23	2,243.40	541.92	1,140.59	1,074.67	65.92	17.304		
15,000.00	12,123.00	11,775.00	11,747.60	65.68	41.79	-69.30	2,260.11	542.44	1,174.37	1,108.81	65.56	17.913		
15,100.00	12,123.00	11,741.92	11,721.72	66.81	41.69	-68.02	2,280.70	543.08	1,213.90	1,148.77	65.13	18.638		
15,200.00	12,123.00	11,725.00	11,707.95	67.96	41.65	-67.35	2,290.52	543.38	1,259.08	1,194.23	64.84	19.417		
15,300.00	12,123.00	11,700.00	11,686.98	69.14	41.58	-66.34	2,304.13	543.80	1,309.37	1,244.86	64.51	20.298		
15,400.00	12,123.00	11,675.00	11,665.33	70.33	41.51	-65.32	2,316.62	544.19	1,364.51	1,300.33	64.19	21.259		
15,500.00	12,123.00	11,666.33	11,657.68	71.54	41.48	-64.96	2,320.68	544.31	1,423.89	1,359.85	64.04	22.236		
15,600.00	12,123.00	11,650.00	11,643.06	72.78	41.43	-64.28	2,327.96	544.54	1,487.22	1,423.38	63.84	23.295		
15,700.00	12,123.00	11,640.27	11,634.23	74.02	41.41	-63.87	2,332.06	544.66	1,554.03	1,490.31	63.73	24.386		
15,800.00	12,123.00	11,625.00	11,620.22	75.29	41.36	-63.23	2,338.12	544.85	1,623.99	1,560.40	63.59	25.540		
15,900.00	12,123.00	11,625.00	11,620.22	76.57	41.36	-63.23	2,338.12	544.85	1,696.72	1,633.14	63.57	26.690		
16,000.00	12,123.00	11,610.25	11,606.51	77.86	41.32	-62.62	2,343.55	545.02	1,771.85	1,708.38	63.47	27.917		
16,100.00	12,123.00	11,600.00	11,596.88	79.17	41.29	-62.19	2,347.07	545.13	1,849.21	1,785.80	63.41	29.163		
16,200.00	12,123.00	11,600.00	11,596.88	80.49	41.29	-62.19	2,347.07	545.13	1,928.55	1,865.13	63.42	30.409		
16,300.00	12,123.00	11,587.72	11,585.26	81.82	41.25	-61.67	2,351.02	545.25	2,009.55	1,946.18	63.37	31.711		
16,400.00	12,123.00	11,575.00	11,573.11	83.17	41.21	-61.14	2,354.79	545.36	2,092.18	2,028.85	63.33	33.037		
16,500.00	12,123.00	11,575.00	11,573.11	84.52	41.21	-61.14	2,354.79	545.36	2,176.09	2,112.74	63.36	34.347		
16,600.00	12,123.00	11,575.00	11,573.11	85.89	41.21	-61.14	2,354.79	545.36	2,261.32	2,197.93	63.39	35.676		
16,700.00	12,123.00	11,575.00	11,573.11	87.26	41.21	-61.14	2,354.79	545.36	2,347.70	2,284.29	63.41	37.023		
16,800.00	12,123.00	11,560.65	11,559.29	88.65	41.17	-60.55	2,358.65	545.48	2,434.89	2,371.50	63.39	38.412		
16,900.00	12,123.00	11,550.00	11,548.96	90.04	41.14	-60.10	2,361.26	545.56	2,523.14	2,459.75	63.39	39.806		
17,000.00	12,123.00	11,550.00	11,548.96	91.45	41.14	-60.10	2,361.26	545.56	2,612.10	2,548.68	63.42	41.186		
17,100.00	12,123.00	11,550.00	11,548.96	92.86	41.14	-60.10	2,361.26	545.56	2,701.84	2,638.38	63.46	42.575		
17,200.00	12,123.00	11,550.00	11,548.96	94.28	41.14	-60.10	2,361.26	545.56	2,792.28	2,728.78	63.50	43.973		
17,300.00	12,123.00	11,550.00	11,548.96	95.71	41.14	-60.10	2,361.26	545.56	2,883.35	2,819.81	63.54	45.378		
17,400.00	12,123.00	11,538.60	11,537.85	97.14	41.10	-59.63	2,363.78	545.64	2,974.84	2,911.29	63.55	46.810		
17,500.00	12,123.00	11,525.00	11,524.51	98.58	41.06	-59.07	2,366.45	545.72	3,067.05	3,003.49	63.56	48.254		
17,600.00	12,123.00	11,525.00	11,524.51	100.03	41.06	-59.07	2,366.45	545.72	3,159.53	3,095.92	63.61	49.674		
17,700.00	12,123.00	11,525.00	11,524.51	101.48	41.06	-59.07	2,366.45	545.72	3,252.45	3,188.80	63.65	51.098		
17,800.00	12,123.00	11,525.00	11,524.51	102.94	41.06	-59.07	2,366.45	545.72	3,345.79	3,282.09	63.70	52.528		
17,900.00	12,123.00	11,525.00	11,524.51	104.41	41.06	-59.07	2,366.45	545.72	3,439.50	3,375.76	63.74	53.961		
18,000.00	12,123.00	11,525.00	11,524.51	105.88	41.06	-59.07	2,366.45	545.72	3,533.55	3,469.76	63.79	55.397		
18,100.00	12,123.00	11,525.00	11,524.51	107.36	41.06	-59.07	2,366.45	545.72	3,627.92	3,564.09	63.83	56.836		
18,200.00	12,123.00	11,525.00	11,524.51	108.84	41.06	-59.07	2,366.45	545.72	3,722.58	3,658.71	63.88	58.276		
18,300.00	12,123.00	11,525.00	11,524.51	110.32	41.06	-59.07	2,366.45	545.72	3,817.52	3,753.59	63.93	59.717		
18,400.00	12,123.00	11,525.00	11,524.51	111.81	41.06	-59.07	2,366.45	545.72	3,912.71	3,848.73	63.97	61.160		
18,500.00	12,123.00	11,513.49	11,513.17	113.31	41.02	-58.60	2,368.41	545.79	4,007.98	3,943.98	64.01	62.619		
18,600.00	12,123.00	11,511.81	11,511.51	114.81	41.02	-58.53	2,368.67	545.79	4,103.58	4,039.52	64.05	64.065		
18,700.00	12,123.00	11,500.00	11,499.82	116.31	40.98	-58.05	2,370.35	545.85	4,199.49	4,135.40	64.09	65.527		
18,800.00	12,123.00	11,500.00	11,499.82	117.82	40.98	-58.05	2,370.35	545.85	4,295.43	4,231.29	64.14	66.970		
18,900.00	12,123.00	11,500.00	11,499.82	119.33	40.98	-58.05	2,370.35	545.85	4,391.56	4,327.37	64.19	68.414		
19,000.00	12,123.00	11,500.00	11,499.82	120.85	40.98	-58.05	2,370.35	545.85	4,487.86	4,423.61	64.24	69.858		
19,100.00	12,123.00	11,500.00	11,499.82	122.37	40.98	-58.05	2,370.35	545.85	4,584.31	4,520.02	64.30	71.301		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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
FMM Fed Com - Blue Bay WCA State Com #001C (Offset Plan) - OH - Plan #1												Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													
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
19,200.00	12,123.00	11,500.00	11,499.82	123.89	40.98	-58.05	2,370.35	545.85	4,680.91	4,616.57	64.35	72.744	
19,300.00	12,123.00	11,500.00	11,499.82	125.41	40.98	-58.05	2,370.35	545.85	4,777.66	4,713.26	64.40	74.185	
19,400.00	12,123.00	11,500.00	11,499.82	126.94	40.98	-58.05	2,370.35	545.85	4,874.53	4,810.08	64.46	75.626	
19,500.00	12,123.00	11,500.00	11,499.82	128.48	40.98	-58.05	2,370.35	545.85	4,971.53	4,907.02	64.51	77.065	

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
0.00	0.00	0.00	0.00	0.00	0.00	-88.43	56.05	-2,049.02	2,050.28					
100.00	100.00	55.00	55.00	0.13	0.07	-88.43	56.05	-2,049.02	2,049.79	2,049.65	0.14	N/A		
200.00	200.00	155.00	155.00	0.48	0.32	-88.43	56.05	-2,049.02	2,049.79	2,049.21	0.58	3,524.279		
300.00	300.00	255.00	255.00	0.84	0.68	-88.43	56.05	-2,049.02	2,049.79	2,048.71	1.08	1,892.168		
400.00	400.00	355.00	355.00	1.20	1.04	-88.43	56.05	-2,049.02	2,049.79	2,048.20	1.59	1,290.526		
500.00	500.00	455.00	455.00	1.56	1.40	-88.43	56.05	-2,049.02	2,049.79	2,047.70	2.09	978.747		
600.00	600.00	555.00	555.00	1.92	1.76	-88.43	56.05	-2,049.02	2,049.79	2,047.19	2.60	788.184		
700.00	700.00	655.00	655.00	2.28	2.11	-88.43	56.05	-2,049.02	2,049.79	2,046.68	3.11	659.691		
800.00	800.00	755.00	755.00	2.63	2.47	-88.43	56.05	-2,049.02	2,049.79	2,046.18	3.61	567.203		
900.00	900.00	855.00	855.00	2.99	2.83	-88.43	56.05	-2,049.02	2,049.79	2,045.67	4.12	497.450		
1,000.00	1,000.00	955.00	955.00	3.35	3.19	-88.43	56.05	-2,049.02	2,049.79	2,045.16	4.63	442.970		
1,100.00	1,100.00	1,055.00	1,055.00	3.71	3.55	-88.43	56.05	-2,049.02	2,049.79	2,044.66	5.13	399.243		
1,200.00	1,200.00	1,155.00	1,155.00	4.07	3.91	-88.43	56.05	-2,049.02	2,049.79	2,044.15	5.64	363.371		
1,300.00	1,300.00	1,255.00	1,255.00	4.43	4.27	-88.43	56.05	-2,049.02	2,049.79	2,043.64	6.15	333.413		
1,400.00	1,400.00	1,355.00	1,355.00	4.79	4.62	-88.43	56.05	-2,049.02	2,049.79	2,043.14	6.65	308.018		
1,500.00	1,500.00	1,455.00	1,455.00	5.14	4.98	-88.43	56.05	-2,049.02	2,049.79	2,042.63	7.16	286.217		
1,600.00	1,600.00	1,555.00	1,555.00	5.50	5.34	-88.43	56.05	-2,049.02	2,049.79	2,042.12	7.67	267.298 CC, ES		
1,700.00	1,699.98	1,654.98	1,654.98	5.85	5.70	174.13	56.05	-2,049.02	2,051.53	2,043.36	8.17	251.161		
1,800.00	1,799.84	1,754.84	1,754.84	6.19	6.06	174.14	56.05	-2,049.02	2,056.73	2,048.07	8.66	237.445		
1,900.00	1,899.45	1,835.50	1,835.50	6.54	6.34	174.14	56.03	-2,049.19	2,065.65	2,056.55	9.11	226.836		
2,000.00	1,998.70	1,900.00	1,899.99	6.89	6.57	174.13	55.87	-2,050.32	2,079.51	2,070.00	9.51	218.721		
2,100.00	2,097.47	1,963.77	1,963.72	7.26	6.79	174.10	55.58	-2,052.50	2,098.43	2,088.53	9.90	211.926		
2,200.00	2,195.62	2,026.61	2,026.47	7.64	7.00	174.07	55.15	-2,055.68	2,122.34	2,112.05	10.29	206.222		
2,300.00	2,293.06	2,100.00	2,099.69	8.04	7.25	174.04	54.47	-2,060.69	2,151.19	2,140.49	10.71	200.915		
2,384.88	2,375.09	2,139.64	2,139.19	8.39	7.39	173.99	54.03	-2,063.98	2,179.36	2,168.36	11.00	198.144		
2,400.00	2,389.65	2,148.69	2,148.20	8.46	7.42	173.99	53.92	-2,064.78	2,184.71	2,173.65	11.06	197.580		
2,500.00	2,485.92	2,200.00	2,199.27	8.90	7.60	174.01	53.25	-2,069.76	2,220.93	2,209.52	11.40	194.755		
2,600.00	2,582.19	2,266.81	2,266.65	9.36	7.84	174.03	52.23	-2,077.26	2,258.51	2,246.72	11.79	191.509		
2,700.00	2,678.46	2,324.79	2,323.14	9.83	8.05	174.04	51.23	-2,084.69	2,297.51	2,285.35	12.16	188.986		
2,800.00	2,774.74	2,400.00	2,397.54	10.31	8.32	174.05	49.75	-2,095.63	2,337.99	2,325.41	12.57	185.960		
2,900.00	2,871.01	2,438.52	2,435.55	10.80	8.46	174.05	48.92	-2,101.79	2,379.58	2,366.71	12.87	184.843		
3,000.00	2,967.28	2,496.07	2,492.23	11.29	8.68	174.05	47.58	-2,111.70	2,422.59	2,409.36	13.23	183.090		
3,100.00	3,063.55	2,586.07	2,580.75	11.80	9.02	174.04	45.41	-2,127.75	2,466.19	2,452.49	13.70	180.050		
3,200.00	3,159.82	2,676.06	2,669.28	12.31	9.37	174.04	43.24	-2,143.81	2,509.78	2,495.62	14.17	177.171		
3,300.00	3,256.09	2,766.06	2,757.81	12.83	9.73	174.04	41.07	-2,159.86	2,553.38	2,538.74	14.64	174.444		
3,400.00	3,352.36	2,856.06	2,846.33	13.35	10.09	174.03	38.90	-2,175.91	2,596.98	2,581.87	15.11	171.858		
3,500.00	3,448.63	2,946.05	2,934.86	13.88	10.45	174.03	36.73	-2,191.97	2,640.57	2,624.98	15.59	169.405		
3,600.00	3,544.90	3,036.05	3,023.39	14.41	10.82	174.02	34.56	-2,208.02	2,684.17	2,668.10	16.07	167.075		
3,700.00	3,641.17	3,126.05	3,111.91	14.94	11.19	174.02	32.39	-2,224.07	2,727.76	2,711.22	16.55	164.860		
3,800.00	3,737.44	3,216.04	3,200.44	15.48	11.57	174.02	30.22	-2,240.13	2,771.36	2,754.33	17.03	162.754		
3,900.00	3,833.71	3,306.04	3,288.96	16.02	11.94	174.01	28.05	-2,256.18	2,814.96	2,797.44	17.51	160.748		
4,000.00	3,929.98	3,396.04	3,377.49	16.56	12.32	174.01	25.89	-2,272.24	2,858.55	2,840.55	18.00	158.837		
4,100.00	4,026.25	3,486.03	3,466.02	17.10	12.71	174.01	23.72	-2,288.29	2,902.15	2,883.66	18.48	157.013		
4,200.00	4,122.52	3,576.03	3,554.54	17.65	13.09	174.01	21.55	-2,304.34	2,945.74	2,926.77	18.97	155.272		
4,300.00	4,218.79	3,666.03	3,643.07	18.20	13.48	174.00	19.38	-2,320.40	2,989.34	2,969.88	19.46	153.609		
4,400.00	4,315.06	3,756.02	3,731.60	18.75	13.87	174.00	17.21	-2,336.45	3,032.93	3,012.98	19.95	152.019		
4,500.00	4,411.33	3,846.02	3,820.12	19.30	14.26	174.00	15.04	-2,352.50	3,076.53	3,056.09	20.44	150.497		
4,600.00	4,507.60	3,936.02	3,908.65	19.85	14.65	173.99	12.87	-2,368.56	3,120.13	3,099.19	20.93	149.040		
4,700.00	4,603.87	4,026.01	3,997.18	20.41	15.04	173.99	10.70	-2,384.61	3,163.72	3,142.29	21.43	147.643		
4,800.00	4,700.14	4,116.01	4,085.70	20.96	15.43	173.99	8.53	-2,400.67	3,207.32	3,185.40	21.92	146.302		
4,900.00	4,796.41	4,206.01	4,174.23	21.52	15.83	173.99	6.36	-2,416.72	3,250.91	3,228.50	22.42	145.016		
5,000.00	4,892.68	4,296.00	4,262.76	22.08	16.22	173.99	4.19	-2,432.77	3,294.51	3,271.60	22.91	143.780		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
5,100.00	4,988.95	4,386.00	4,351.28	22.64	16.62	173.98	2.02	-2,448.83	3,338.11	3,314.69	23.41	142.591		
5,200.00	5,085.22	4,476.00	4,439.81	23.20	17.02	173.98	-0.15	-2,464.88	3,381.70	3,357.79	23.91	141.448		
5,300.00	5,181.49	4,565.99	4,528.34	23.76	17.42	173.98	-2.32	-2,480.93	3,425.30	3,400.89	24.41	140.347		
5,400.00	5,277.76	4,655.99	4,616.86	24.32	17.82	173.98	-4.49	-2,496.99	3,468.89	3,443.99	24.90	139.286		
5,500.00	5,374.03	4,745.99	4,705.39	24.88	18.22	173.97	-6.66	-2,513.04	3,512.49	3,487.08	25.40	138.264		
5,600.00	5,470.31	4,835.98	4,793.92	25.44	18.62	173.97	-8.83	-2,529.10	3,556.08	3,530.18	25.90	137.278		
5,700.00	5,566.58	4,925.98	4,882.44	26.01	19.02	173.97	-10.99	-2,545.15	3,599.68	3,573.28	26.40	136.326		
5,800.00	5,662.85	5,015.98	4,970.97	26.57	19.43	173.97	-13.16	-2,561.20	3,643.28	3,616.37	26.91	135.407		
5,900.00	5,759.12	5,105.97	5,059.50	27.13	19.83	173.97	-15.33	-2,577.26	3,686.87	3,659.46	27.41	134.519		
6,000.00	5,855.39	5,195.97	5,148.02	27.70	20.23	173.96	-17.50	-2,593.31	3,730.47	3,702.56	27.91	133.660		
6,100.00	5,951.66	5,285.97	5,236.55	28.26	20.64	173.96	-19.67	-2,609.36	3,774.06	3,745.65	28.41	132.829		
6,200.00	6,047.93	5,375.96	5,325.08	28.83	21.04	173.96	-21.84	-2,625.42	3,817.66	3,788.74	28.92	132.025		
6,300.00	6,144.20	5,465.96	5,413.60	29.40	21.45	173.96	-24.01	-2,641.47	3,861.26	3,831.84	29.42	131.246		
6,400.00	6,240.47	5,555.96	5,502.13	29.96	21.85	173.96	-26.18	-2,657.53	3,904.85	3,874.93	29.92	130.492		
6,500.00	6,336.74	5,645.95	5,590.66	30.53	22.26	173.96	-28.35	-2,673.58	3,948.45	3,918.02	30.43	129.760		
6,600.00	6,433.01	5,735.95	5,679.18	31.10	22.66	173.95	-30.52	-2,689.63	3,992.04	3,961.11	30.93	129.051		
6,700.00	6,529.28	5,825.95	5,767.71	31.67	23.07	173.95	-32.69	-2,705.69	4,035.64	4,004.20	31.44	128.363		
6,800.00	6,625.55	5,915.94	5,856.24	32.23	23.48	173.95	-34.86	-2,721.74	4,079.24	4,047.29	31.95	127.695		
6,900.00	6,721.82	6,005.94	5,944.76	32.80	23.89	173.95	-37.03	-2,737.79	4,122.83	4,090.38	32.45	127.046		
7,000.00	6,818.09	6,095.94	6,033.29	33.37	24.29	173.95	-39.20	-2,753.85	4,166.43	4,133.47	32.96	126.415		
7,100.00	6,914.36	6,185.93	6,121.82	33.94	24.70	173.95	-41.37	-2,769.90	4,210.02	4,176.56	33.47	125.802		
7,200.00	7,010.63	6,275.93	6,210.34	34.51	25.11	173.95	-43.54	-2,785.96	4,253.62	4,219.65	33.97	125.206		
7,300.00	7,106.90	6,365.92	6,298.87	35.08	25.52	173.94	-45.71	-2,802.01	4,297.21	4,262.73	34.48	124.626		
7,400.00	7,203.17	6,455.92	6,387.40	35.65	25.93	173.94	-47.88	-2,818.06	4,340.81	4,305.82	34.99	124.062		
7,506.72	7,305.91	6,551.96	6,481.87	36.26	26.37	173.94	-50.19	-2,835.20	4,387.33	4,351.80	35.53	123.476		
7,600.00	7,396.11	6,636.56	6,565.08	36.77	26.75	174.03	-52.23	-2,850.29	4,426.64	4,390.63	36.01	122.940		
7,700.00	7,493.60	7,526.13	7,448.60	37.28	30.20	174.18	-63.95	-2,937.02	4,464.72	4,425.44	39.28	113.668		
7,800.00	7,591.82	7,624.34	7,546.82	37.75	30.50	174.24	-63.95	-2,937.02	4,483.41	4,443.64	39.78	112.713		
7,900.00	7,690.63	7,723.15	7,645.63	38.18	30.80	174.29	-63.95	-2,937.02	4,498.69	4,458.42	40.27	111.708		
8,000.00	7,789.91	7,822.44	7,744.91	38.57	31.11	174.33	-63.95	-2,937.02	4,510.53	4,469.77	40.76	110.657		
8,100.00	7,889.55	7,922.08	7,844.55	38.92	31.41	174.35	-63.95	-2,937.02	4,518.91	4,477.67	41.25	109.562		
8,200.00	7,989.42	8,021.95	7,944.42	39.23	31.72	174.37	-63.95	-2,937.02	4,523.83	4,482.11	41.72	108.427		
8,291.59	8,081.00	8,113.53	8,036.00	39.47	32.00	-88.19	-63.95	-2,937.02	4,525.29	4,483.14	42.15	107.364		
8,300.00	8,089.41	8,121.93	8,044.41	39.50	32.03	-88.19	-63.95	-2,937.02	4,525.29	4,483.10	42.19	107.265		
8,400.00	8,189.41	8,200.00	8,122.24	39.75	32.27	-88.12	-58.73	-2,937.08	4,525.56	4,482.98	42.58	106.282		
8,500.00	8,289.41	8,269.37	8,190.25	40.01	32.47	-87.95	-45.25	-2,937.21	4,526.42	4,483.49	42.94	105.416		
8,600.00	8,389.41	8,337.31	8,254.79	40.26	32.65	-87.69	-24.18	-2,937.42	4,528.00	4,484.72	43.28	104.615		
8,700.00	8,489.41	8,400.00	8,311.76	40.52	32.80	-87.36	1.91	-2,937.68	4,530.44	4,486.84	43.60	103.903		
8,800.00	8,589.41	8,450.00	8,354.94	40.78	32.92	-87.04	27.09	-2,937.93	4,533.94	4,490.06	43.88	103.318		
8,900.00	8,689.41	8,500.00	8,395.76	41.04	33.02	-86.67	55.93	-2,938.22	4,538.67	4,494.51	44.16	102.788		
9,000.00	8,789.41	8,550.00	8,433.92	41.31	33.11	-86.27	88.22	-2,938.54	4,544.78	4,500.36	44.42	102.316		
9,100.00	8,889.41	8,586.66	8,460.02	41.57	33.17	-85.94	113.94	-2,938.79	4,552.42	4,507.77	44.64	101.974		
9,200.00	8,989.41	8,620.21	8,482.43	41.84	33.23	-85.63	138.90	-2,939.04	4,561.70	4,516.85	44.85	101.709		
9,300.00	9,089.41	8,650.00	8,501.08	42.11	33.27	-85.34	162.14	-2,939.27	4,572.70	4,527.66	45.04	101.523		
9,400.00	9,189.41	8,675.65	8,516.14	42.37	33.31	-85.08	182.89	-2,939.48	4,585.49	4,540.28	45.21	101.423		
9,500.00	9,289.41	8,700.00	8,529.57	42.64	33.34	-84.82	203.20	-2,939.68	4,600.11	4,554.75	45.37	101.399 SF		
9,600.00	9,389.41	8,719.01	8,539.45	42.92	33.37	-84.62	219.44	-2,939.84	4,616.61	4,571.11	45.50	101.465		
9,700.00	9,489.41	8,750.00	8,554.38	43.19	33.41	-84.28	246.59	-2,940.11	4,635.04	4,589.39	45.65	101.531		
9,800.00	9,589.41	8,750.00	8,554.38	43.46	33.41	-84.28	246.59	-2,940.11	4,655.28	4,609.56	45.71	101.838		
9,900.00	9,689.41	8,768.11	8,562.42	43.74	33.44	-84.07	262.82	-2,940.27	4,677.46	4,631.64	45.81	102.101		
10,000.00	9,789.41	8,781.33	8,567.96	44.01	33.46	-83.92	274.82	-2,940.39	4,701.53	4,655.65	45.89	102.460		
10,100.00	9,889.41	8,800.00	8,575.31	44.29	33.49	-83.71	291.98	-2,940.56	4,727.51	4,681.55	45.97	102.848		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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
FMM Fed Com - FMM Fed Com 101H - OH - Plan #1												Offset Well Error:	0.00 usft
Survey Program: 0-OWSG (Rev2) MWD													
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
10,200.00	9,989.41	8,800.00	8,575.31	44.57	33.49	-83.71	291.98	-2,940.56	4,755.33	4,709.35	45.98	103.414	
10,300.00	10,089.41	8,800.00	8,575.31	44.85	33.49	-83.71	291.98	-2,940.56	4,785.08	4,739.09	45.99	104.043	
10,400.00	10,189.41	8,823.32	8,583.70	45.13	33.52	-83.44	313.73	-2,940.78	4,816.50	4,770.44	46.06	104.571	
10,500.00	10,289.41	8,850.00	8,592.21	45.41	33.56	-83.12	339.02	-2,941.03	4,849.94	4,803.81	46.13	105.140	
10,600.00	10,389.41	8,850.00	8,592.21	45.70	33.56	-83.12	339.02	-2,941.03	4,884.91	4,838.80	46.12	105.927	
10,700.00	10,489.41	8,850.00	8,592.21	45.98	33.56	-83.12	339.02	-2,941.03	4,921.67	4,875.57	46.10	106.768	
10,800.00	10,589.41	8,850.00	8,592.21	46.27	33.56	-83.12	339.02	-2,941.03	4,960.17	4,914.09	46.07	107.659	

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
0.00	0.00	0.00	0.00	0.00	0.00	-88.38	56.52	-1,999.20	2,000.47					
100.00	100.00	56.90	56.90	0.13	0.07	-88.38	56.52	-1,999.20	2,000.00	1,999.86	0.14	N/A		
200.00	200.00	156.90	156.90	0.48	0.33	-88.38	56.52	-1,999.20	2,000.00	1,999.42	0.59	3,416.324		
300.00	300.00	256.90	256.90	0.84	0.69	-88.38	56.52	-1,999.20	2,000.00	1,998.91	1.09	1,838.917		
400.00	400.00	356.90	356.90	1.20	1.05	-88.38	56.52	-1,999.20	2,000.00	1,998.41	1.59	1,255.649		
500.00	500.00	456.90	456.90	1.56	1.40	-88.38	56.52	-1,999.20	2,000.00	1,997.90	2.10	952.903		
600.00	600.00	556.90	556.90	1.92	1.76	-88.38	56.52	-1,999.20	2,000.00	1,997.40	2.61	767.680		
700.00	700.00	656.90	656.90	2.28	2.12	-88.38	56.52	-1,999.20	2,000.00	1,996.89	3.11	642.708		
800.00	800.00	756.90	756.90	2.63	2.48	-88.38	56.52	-1,999.20	2,000.00	1,996.38	3.62	552.712		
900.00	900.00	856.90	856.90	2.99	2.84	-88.38	56.52	-1,999.20	2,000.00	1,995.88	4.13	484.817		
1,000.00	1,000.00	956.90	956.90	3.35	3.20	-88.38	56.52	-1,999.20	2,000.00	1,995.37	4.63	431.773		
1,100.00	1,100.00	1,056.90	1,056.90	3.71	3.56	-88.38	56.52	-1,999.20	2,000.00	1,994.86	5.14	389.189		
1,200.00	1,200.00	1,156.90	1,156.90	4.07	3.91	-88.38	56.52	-1,999.20	2,000.00	1,994.36	5.65	354.249		
1,300.00	1,300.00	1,256.90	1,256.90	4.43	4.27	-88.38	56.52	-1,999.20	2,000.00	1,993.85	6.15	325.065		
1,400.00	1,400.00	1,356.90	1,356.90	4.79	4.63	-88.38	56.52	-1,999.20	2,000.00	1,993.34	6.66	300.323		
1,500.00	1,500.00	1,456.90	1,456.90	5.14	4.99	-88.38	56.52	-1,999.20	2,000.00	1,992.84	7.17	279.081		
1,600.00	1,600.00	1,556.90	1,556.90	5.50	5.35	-88.38	56.52	-1,999.20	2,000.00	1,992.33	7.67	260.645 CC, ES		
1,700.00	1,699.98	1,656.88	1,656.88	5.85	5.71	174.18	56.52	-1,999.20	2,001.74	1,993.56	8.17	244.923		
1,800.00	1,799.84	1,756.74	1,756.74	6.19	6.06	174.19	56.52	-1,999.20	2,006.94	1,998.28	8.67	231.570		
1,900.00	1,899.45	1,856.35	1,856.35	6.54	6.42	174.20	56.52	-1,999.20	2,015.62	2,006.45	9.16	220.015		
2,000.00	1,998.70	1,956.60	1,956.60	6.89	6.78	174.21	56.52	-1,999.20	2,027.74	2,018.08	9.66	210.000		
2,100.00	2,097.47	2,110.24	2,110.23	7.26	7.32	174.23	55.96	-1,997.71	2,042.56	2,032.28	10.28	198.716		
2,200.00	2,195.62	2,311.77	2,311.42	7.64	8.00	174.21	52.10	-1,987.28	2,056.39	2,045.40	10.99	187.167		
2,300.00	2,293.06	2,490.21	2,488.87	8.04	8.62	174.13	45.62	-1,969.82	2,068.82	2,057.18	11.64	177.745		
2,384.88	2,375.09	2,574.22	2,572.26	8.39	8.92	174.08	42.06	-1,960.22	2,080.84	2,068.78	12.06	172.606		
2,400.00	2,389.65	2,589.16	2,587.08	8.46	8.97	174.08	41.43	-1,958.51	2,083.20	2,071.07	12.13	171.734		
2,500.00	2,485.92	2,687.92	2,685.11	8.90	9.33	174.04	37.24	-1,947.22	2,098.82	2,086.20	12.62	166.278		
2,600.00	2,582.19	2,786.69	2,783.15	9.36	9.69	174.01	33.06	-1,935.94	2,114.44	2,101.32	13.12	161.175		
2,700.00	2,678.46	2,885.46	2,881.18	9.83	10.05	173.99	28.87	-1,924.65	2,130.06	2,116.44	13.62	156.399		
2,800.00	2,774.74	2,984.22	2,979.21	10.31	10.42	173.96	24.69	-1,913.36	2,145.67	2,131.55	14.12	151.922		
2,900.00	2,871.01	3,082.99	3,077.24	10.80	10.78	173.93	20.51	-1,902.08	2,161.29	2,146.66	14.63	147.721		
3,000.00	2,967.28	3,181.76	3,175.27	11.29	11.15	173.90	16.32	-1,890.79	2,176.91	2,161.77	15.14	143.775		
3,100.00	3,063.55	3,280.52	3,273.30	11.80	11.53	173.87	12.14	-1,879.51	2,192.54	2,176.88	15.65	140.062		
3,200.00	3,159.82	3,379.29	3,371.33	12.31	11.90	173.84	7.95	-1,868.22	2,208.16	2,191.99	16.17	136.564		
3,300.00	3,256.09	3,478.06	3,469.36	12.83	12.28	173.82	3.77	-1,856.93	2,223.78	2,207.09	16.69	133.265		
3,400.00	3,352.36	3,576.83	3,567.39	13.35	12.66	173.79	-0.42	-1,845.65	2,239.40	2,222.20	17.21	130.149		
3,500.00	3,448.63	3,675.59	3,665.42	13.88	13.04	173.76	-4.60	-1,834.36	2,255.02	2,237.30	17.73	127.203		
3,600.00	3,544.90	3,774.36	3,763.45	14.41	13.42	173.74	-8.79	-1,823.07	2,270.65	2,252.40	18.25	124.414		
3,700.00	3,641.17	3,873.13	3,861.48	14.94	13.80	173.71	-12.97	-1,811.79	2,286.27	2,267.50	18.78	121.771		
3,800.00	3,737.44	3,971.89	3,959.51	15.48	14.19	173.69	-17.16	-1,800.50	2,301.90	2,282.59	19.30	119.262		
3,900.00	3,833.71	4,070.66	4,057.54	16.02	14.57	173.66	-21.34	-1,789.22	2,317.52	2,297.69	19.83	116.879		
4,000.00	3,929.98	4,169.43	4,155.57	16.56	14.96	173.64	-25.53	-1,777.93	2,333.15	2,312.79	20.36	114.612		
4,100.00	4,026.25	4,268.19	4,253.60	17.10	15.34	173.61	-29.71	-1,766.64	2,348.77	2,327.88	20.89	112.455		
4,200.00	4,122.52	4,366.96	4,351.63	17.65	15.73	173.59	-33.89	-1,755.36	2,364.40	2,342.98	21.42	110.398		
4,300.00	4,218.79	4,465.73	4,449.66	18.20	16.12	173.56	-38.08	-1,744.07	2,380.02	2,358.07	21.95	108.436		
4,400.00	4,315.06	4,564.49	4,547.70	18.75	16.51	173.54	-42.26	-1,732.78	2,395.65	2,373.17	22.48	106.563		
4,500.00	4,411.33	4,663.26	4,645.73	19.30	16.90	173.52	-46.45	-1,721.50	2,411.28	2,388.26	23.01	104.773		
4,600.00	4,507.60	4,762.03	4,743.76	19.85	17.29	173.50	-50.63	-1,710.21	2,426.90	2,403.36	23.55	103.060		
4,700.00	4,603.87	4,860.79	4,841.79	20.41	17.68	173.47	-54.82	-1,698.93	2,442.53	2,418.45	24.08	101.420		
4,800.00	4,700.14	4,959.56	4,939.82	20.96	18.07	173.45	-59.00	-1,687.64	2,458.16	2,433.54	24.62	99.848		
4,900.00	4,796.41	5,058.33	5,037.85	21.52	18.47	173.43	-63.19	-1,676.35	2,473.79	2,448.63	25.16	98.341		
5,000.00	4,892.68	5,157.09	5,135.88	22.08	18.86	173.41	-67.37	-1,665.07	2,489.42	2,463.73	25.69	96.895		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 FMM Fed Com - FMM Fed Com 102H - OH - Plan #1													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		
5,100.00	4,988.95	5,255.86	5,233.91	22.64	19.25	173.39	-71.56	-1,653.78	2,505.05	2,478.82	26.23	95.505		
5,200.00	5,085.22	5,354.63	5,331.94	23.20	19.65	173.36	-75.74	-1,642.49	2,520.68	2,493.91	26.77	94.169		
5,300.00	5,181.49	5,453.39	5,429.97	23.76	20.04	173.34	-79.92	-1,631.21	2,536.31	2,509.00	27.31	92.885		
5,400.00	5,277.76	5,552.16	5,528.00	24.32	20.43	173.32	-84.11	-1,619.92	2,551.94	2,524.09	27.84	91.648		
5,500.00	5,374.03	5,650.93	5,626.03	24.88	20.83	173.30	-88.29	-1,608.63	2,567.57	2,539.18	28.38	90.457		
5,600.00	5,470.31	5,749.69	5,724.06	25.44	21.22	173.28	-92.48	-1,597.35	2,583.20	2,554.27	28.92	89.309		
5,700.00	5,566.58	5,848.46	5,822.09	26.01	21.62	173.26	-96.66	-1,586.06	2,598.83	2,569.37	29.46	88.201		
5,800.00	5,662.85	5,947.23	5,920.12	26.57	22.02	173.24	-100.85	-1,574.78	2,614.46	2,584.46	30.01	87.133		
5,900.00	5,759.12	6,046.00	6,018.15	27.13	22.41	173.22	-105.03	-1,563.49	2,630.09	2,599.55	30.55	86.101		
6,000.00	5,855.39	6,144.76	6,116.18	27.70	22.81	173.21	-109.22	-1,552.20	2,645.73	2,614.64	31.09	85.104		
6,100.00	5,951.66	6,243.53	6,214.21	28.26	23.21	173.19	-113.40	-1,540.92	2,661.36	2,629.73	31.63	84.140		
6,200.00	6,047.93	6,342.30	6,312.25	28.83	23.60	173.17	-117.59	-1,529.63	2,676.99	2,644.82	32.17	83.208		
6,300.00	6,144.20	6,441.06	6,410.28	29.40	24.00	173.15	-121.77	-1,518.34	2,692.62	2,659.91	32.71	82.306		
6,400.00	6,240.47	6,539.83	6,508.31	29.96	24.40	173.13	-125.96	-1,507.06	2,708.26	2,675.00	33.26	81.433		
6,500.00	6,336.74	6,638.60	6,606.34	30.53	24.79	173.11	-130.14	-1,495.77	2,723.89	2,690.09	33.80	80.587		
6,600.00	6,433.01	6,737.36	6,704.37	31.10	25.19	173.09	-134.32	-1,484.49	2,739.52	2,705.18	34.34	79.767		
6,700.00	6,529.28	6,836.13	6,802.40	31.67	25.59	173.08	-138.51	-1,473.20	2,755.16	2,720.27	34.89	78.972		
6,800.00	6,625.55	6,908.75	6,874.48	32.23	25.88	173.06	-141.59	-1,464.90	2,770.91	2,735.56	35.35	78.375		
6,900.00	6,721.82	7,000.00	6,965.17	32.80	26.24	173.06	-145.08	-1,455.49	2,787.66	2,751.78	35.87	77.706		
7,000.00	6,818.09	7,041.00	7,006.00	33.37	26.40	173.06	-146.40	-1,451.92	2,805.71	2,769.47	36.23	77.432		
7,100.00	6,914.36	7,100.00	7,064.81	33.94	26.63	173.06	-148.03	-1,447.51	2,825.25	2,788.61	36.64	77.104		
7,200.00	7,010.63	7,156.44	7,121.13	34.51	26.83	173.08	-149.30	-1,444.09	2,846.19	2,809.16	37.03	76.856		
7,300.00	7,106.90	7,200.00	7,164.63	35.08	26.99	173.09	-150.08	-1,441.98	2,868.57	2,831.20	37.37	76.761		
7,400.00	7,203.17	7,270.41	7,234.99	35.65	27.24	173.12	-150.98	-1,439.56	2,892.20	2,854.41	37.80	76.522		
7,506.72	7,305.91	7,330.56	7,295.13	36.26	27.45	173.15	-151.39	-1,438.45	2,918.98	2,880.79	38.19	76.439		
7,600.00	7,396.11	7,388.44	7,353.01	36.77	27.64	173.24	-151.48	-1,438.20	2,942.17	2,903.63	38.54	76.344		
7,700.00	7,493.60	7,485.94	7,450.50	37.28	27.95	173.34	-151.48	-1,438.20	2,964.23	2,925.19	39.04	75.924		
7,800.00	7,591.82	7,584.15	7,548.72	37.75	28.27	173.43	-151.48	-1,438.20	2,982.90	2,943.36	39.54	75.435		
7,900.00	7,690.63	7,682.96	7,647.53	38.18	28.60	173.50	-151.48	-1,438.20	2,998.16	2,958.12	40.04	74.880		
8,000.00	7,789.91	7,782.25	7,746.81	38.57	28.92	173.55	-151.48	-1,438.20	3,009.98	2,969.45	40.53	74.263		
8,100.00	7,889.55	7,881.89	7,846.45	38.92	29.25	173.59	-151.48	-1,438.20	3,018.35	2,977.33	41.02	73.587		
8,200.00	7,989.42	7,975.81	7,940.34	39.23	29.55	173.63	-150.13	-1,438.22	3,023.30	2,981.83	41.47	72.903		
8,291.59	8,081.00	8,053.83	8,017.58	39.47	29.79	-88.72	-139.51	-1,438.32	3,025.14	2,983.32	41.82	72.331		
8,300.00	8,089.41	8,060.82	8,024.42	39.50	29.81	-88.69	-138.04	-1,438.34	3,025.20	2,983.35	41.85	72.281		
8,400.00	8,189.41	8,140.67	8,100.94	39.75	30.03	-88.27	-115.48	-1,438.56	3,026.29	2,984.11	42.18	71.742		
8,500.00	8,289.41	8,213.06	8,167.01	40.01	30.20	-87.71	-86.02	-1,438.86	3,028.32	2,985.85	42.46	71.316		
8,600.00	8,389.41	8,277.01	8,221.88	40.26	30.33	-87.09	-53.23	-1,439.19	3,031.65	2,988.95	42.70	71.004		
8,700.00	8,489.41	8,332.61	8,266.36	40.52	30.42	-86.46	-19.92	-1,439.52	3,036.64	2,993.75	42.89	70.805		
8,800.00	8,589.41	8,380.53	8,301.95	40.78	30.49	-85.86	12.14	-1,439.84	3,043.59	3,000.56	43.04	70.721		
8,900.00	8,689.41	8,421.71	8,330.32	41.04	30.54	-85.30	41.99	-1,440.14	3,052.77	3,009.62	43.14	70.759		
9,000.00	8,789.41	8,450.00	8,348.52	41.31	30.58	-84.89	63.64	-1,440.36	3,064.37	3,021.18	43.19	70.956		
9,100.00	8,889.41	8,500.00	8,378.01	41.57	30.62	-84.13	104.00	-1,440.77	3,078.53	3,035.24	43.28	71.124		
9,200.00	8,989.41	8,514.25	8,385.75	41.84	30.63	-83.91	115.96	-1,440.89	3,095.25	3,052.01	43.24	71.585		
9,300.00	9,089.41	8,550.00	8,403.86	42.11	30.66	-83.33	146.77	-1,441.20	3,114.77	3,071.53	43.25	72.024		
9,400.00	9,189.41	8,550.00	8,403.86	42.37	30.66	-83.33	146.77	-1,441.20	3,136.92	3,093.82	43.11	72.774		
9,500.00	9,289.41	8,575.55	8,415.61	42.64	30.67	-82.91	169.46	-1,441.42	3,161.82	3,118.78	43.04	73.463		
9,600.00	9,389.41	8,600.00	8,425.89	42.92	30.69	-82.50	191.64	-1,441.65	3,189.47	3,146.52	42.95	74.262		
9,700.00	9,489.41	8,600.00	8,425.89	43.19	30.69	-82.50	191.64	-1,441.65	3,219.75	3,177.00	42.75	75.312		
9,800.00	9,589.41	8,618.25	8,432.94	43.46	30.70	-82.19	208.47	-1,441.81	3,252.67	3,210.06	42.61	76.339		
9,900.00	9,689.41	8,629.67	8,437.08	43.74	30.71	-81.99	219.11	-1,441.92	3,288.18	3,245.75	42.43	77.500		
10,000.00	9,789.41	8,650.00	8,443.92	44.01	30.73	-81.64	238.26	-1,442.11	3,326.25	3,283.97	42.28	78.679		
10,100.00	9,889.41	8,650.00	8,443.92	44.29	30.73	-81.64	238.26	-1,442.11	3,366.66	3,324.63	42.04	80.089		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
10,200.00	9,989.41	8,650.00	8,443.92	44.57	30.73	-81.64	238.26	-1,442.11	3,409.53	3,367.74	41.79	81.582		
10,300.00	10,089.41	8,650.00	8,443.92	44.85	30.73	-81.64	238.26	-1,442.11	3,454.76	3,413.21	41.55	83.156		
10,400.00	10,189.41	8,672.95	8,450.82	45.13	30.75	-81.23	260.14	-1,442.33	3,501.96	3,460.57	41.39	84.619		
10,500.00	10,289.41	8,679.57	8,452.65	45.41	30.75	-81.11	266.50	-1,442.40	3,551.42	3,510.26	41.16	86.275		
10,600.00	10,389.41	8,700.00	8,457.82	45.70	30.78	-80.75	286.27	-1,442.59	3,603.07	3,562.07	41.00	87.887		
10,700.00	10,489.41	8,700.00	8,457.82	45.98	30.78	-80.75	286.27	-1,442.59	3,656.47	3,615.71	40.76	89.707		
10,800.00	10,589.41	8,700.00	8,457.82	46.27	30.78	-80.75	286.27	-1,442.59	3,711.80	3,671.27	40.53	91.581		
10,900.00	10,689.41	8,700.00	8,457.82	46.55	30.78	-80.75	286.27	-1,442.59	3,768.98	3,728.67	40.31	93.502		
11,000.00	10,789.41	8,700.00	8,457.82	46.84	30.78	-80.75	286.27	-1,442.59	3,827.91	3,787.81	40.10	95.464		
11,100.00	10,889.41	8,700.00	8,457.82	47.13	30.78	-80.75	286.27	-1,442.59	3,888.52	3,848.62	39.90	97.462		
11,200.00	10,989.41	8,700.00	8,457.82	47.42	30.78	-80.75	286.27	-1,442.59	3,950.73	3,911.02	39.71	99.491		
11,300.00	11,089.41	8,700.00	8,457.82	47.71	30.78	-80.75	286.27	-1,442.59	4,014.47	3,974.94	39.53	101.544		
11,400.00	11,189.41	8,721.72	8,462.54	48.00	30.81	-80.36	307.46	-1,442.81	4,079.33	4,039.89	39.44	103.424		
11,500.00	11,289.41	8,725.06	8,463.20	48.29	30.81	-80.30	310.74	-1,442.84	4,145.80	4,106.49	39.30	105.478		
11,600.00	11,389.41	8,728.22	8,463.80	48.58	30.82	-80.24	313.84	-1,442.87	4,213.57	4,174.39	39.18	107.543		
11,700.00	11,489.41	8,750.00	8,467.48	48.88	30.86	-79.85	335.30	-1,443.09	4,282.86	4,243.73	39.13	109.463		
11,760.63	11,550.04	8,750.00	8,467.48	49.05	30.86	-79.85	335.30	-1,443.09	4,325.25	4,286.18	39.06	110.732		
11,800.00	11,589.38	8,750.00	8,467.48	49.17	30.86	-75.54	335.30	-1,443.09	4,352.80	4,313.78	39.02	111.556		
11,850.00	11,639.05	8,750.00	8,467.48	49.31	30.86	-70.97	335.30	-1,443.09	4,387.35	4,348.39	38.96	112.598		
11,900.00	11,688.04	8,750.00	8,467.48	49.44	30.86	-66.69	335.30	-1,443.09	4,421.16	4,382.26	38.91	113.629		
11,950.00	11,735.98	8,750.00	8,467.48	49.57	30.86	-62.75	335.30	-1,443.09	4,454.01	4,415.16	38.85	114.642		
12,000.00	11,782.51	8,750.00	8,467.48	49.68	30.86	-59.18	335.30	-1,443.09	4,485.65	4,446.86	38.79	115.631		
12,050.00	11,827.26	8,750.00	8,467.48	49.79	30.86	-55.97	335.30	-1,443.09	4,515.89	4,477.16	38.73	116.591		
12,100.00	11,869.91	8,750.00	8,467.48	49.88	30.86	-53.13	335.30	-1,443.09	4,544.51	4,505.84	38.67	117.514		
12,150.00	11,910.12	8,750.00	8,467.48	49.96	30.86	-50.63	335.30	-1,443.09	4,571.34	4,532.73	38.61	118.393		
12,200.00	11,947.60	8,750.00	8,467.48	50.03	30.86	-48.44	335.30	-1,443.09	4,596.21	4,557.65	38.55	119.221		
12,250.00	11,982.04	8,750.00	8,467.48	50.09	30.86	-46.56	335.30	-1,443.09	4,618.95	4,580.45	38.49	119.990		
12,300.00	12,013.20	8,777.11	8,470.93	50.14	30.93	-44.83	362.19	-1,443.36	4,638.86	4,600.35	38.50	120.478		
12,350.00	12,040.84	8,800.00	8,472.84	50.18	30.99	-43.41	385.00	-1,443.58	4,656.87	4,618.37	38.50	120.948		
12,400.00	12,064.73	8,800.00	8,472.84	50.21	30.99	-42.33	385.00	-1,443.58	4,671.97	4,633.51	38.46	121.487		
12,450.00	12,084.72	8,800.00	8,472.84	50.23	30.99	-41.47	385.00	-1,443.58	4,684.46	4,646.04	38.42	121.934		
12,500.00	12,100.63	8,800.00	8,472.84	50.25	30.99	-40.81	385.00	-1,443.58	4,694.28	4,655.89	38.39	122.280		
12,550.00	12,112.35	8,800.00	8,472.84	50.27	30.99	-40.35	385.00	-1,443.58	4,701.35	4,662.98	38.37	122.519		
12,600.00	12,119.79	8,816.40	8,473.65	50.30	31.04	-40.06	401.37	-1,443.75	4,705.45	4,667.05	38.40	122.546		
12,650.00	12,122.90	8,836.47	8,474.00	50.33	31.11	-39.97	421.44	-1,443.95	4,706.87	4,668.43	38.44	122.450		
12,660.63	12,123.00	8,836.47	8,474.00	50.33	31.11	-39.98	421.44	-1,443.95	4,706.74	4,668.30	38.44	122.437		
12,700.00	12,123.00	8,836.47	8,474.00	50.37	31.11	-39.98	421.44	-1,443.95	4,706.20	4,667.75	38.46	122.370		
12,744.70	12,123.00	8,836.47	8,474.00	50.41	31.11	-39.98	421.44	-1,443.95	4,705.99	4,667.50	38.49	122.263		
12,800.00	12,123.00	8,889.99	8,474.00	50.47	31.31	-39.98	474.96	-1,444.49	4,706.01	4,667.39	38.62	121.861		
12,900.00	12,123.00	8,989.99	8,474.00	50.63	31.76	-39.98	574.96	-1,445.49	4,706.05	4,667.13	38.92	120.919		
13,000.00	12,123.00	9,089.99	8,474.00	50.83	32.29	-39.98	674.95	-1,446.49	4,706.09	4,666.80	39.29	119.770		
13,100.00	12,123.00	9,189.99	8,474.00	51.08	32.90	-39.98	774.95	-1,447.50	4,706.13	4,666.39	39.74	118.431		
13,200.00	12,123.00	9,289.99	8,474.00	51.39	33.57	-39.99	874.94	-1,448.50	4,706.16	4,665.91	40.25	116.922		
13,300.00	12,123.00	9,389.99	8,474.00	51.76	34.31	-39.99	974.94	-1,449.50	4,706.20	4,665.37	40.83	115.264		
13,400.00	12,123.00	9,489.99	8,474.00	52.19	35.11	-39.99	1,074.93	-1,450.51	4,706.24	4,664.77	41.47	113.478		
13,500.00	12,123.00	9,589.99	8,474.00	52.68	35.97	-39.99	1,174.93	-1,451.51	4,706.28	4,664.10	42.18	111.587		
13,600.00	12,123.00	9,689.99	8,474.00	53.23	36.88	-39.99	1,274.92	-1,452.51	4,706.31	4,663.38	42.94	109.611		
13,700.00	12,123.00	9,789.99	8,474.00	53.84	37.84	-39.99	1,374.92	-1,453.52	4,706.35	4,662.60	43.75	107.570		
13,800.00	12,123.00	9,889.99	8,474.00	54.50	38.85	-39.99	1,474.91	-1,454.52	4,706.39	4,661.77	44.62	105.485		
13,900.00	12,123.00	9,989.99	8,474.00	55.21	39.89	-39.99	1,574.91	-1,455.52	4,706.43	4,660.90	45.53	103.373		
14,000.00	12,123.00	10,089.99	8,474.00	55.97	40.98	-39.99	1,674.90	-1,456.52	4,706.47	4,659.98	46.49	101.242		
14,100.00	12,123.00	10,189.99	8,474.00	56.78	42.10	-39.99	1,774.90	-1,457.53	4,706.50	4,659.01	47.49	99.106		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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													FMM Fed Com - FMM Fed Com 102H - OH - Plan #1		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		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
							+N/-S (usft)	+E/-W (usft)								
19,400.00	12,123.00	15,489.99	8,474.00	126.94	120.47	-40.02	7,074.63	-1,510.69	4,708.50	4,583.54	124.96	37.680				
19,500.00	12,123.00	15,589.99	8,474.00	128.48	122.07	-40.02	7,174.62	-1,511.70	4,708.54	4,581.95	126.58	37.197				
19,600.00	12,123.00	15,689.99	8,474.00	130.01	123.67	-40.02	7,274.62	-1,512.70	4,708.58	4,580.37	128.21	36.726				
19,700.00	12,123.00	15,789.99	8,474.00	131.55	125.27	-40.02	7,374.61	-1,513.70	4,708.61	4,578.78	129.84	36.266				
19,800.00	12,123.00	15,889.99	8,474.00	133.09	126.88	-40.02	7,474.61	-1,514.71	4,708.65	4,577.19	131.46	35.817				
19,900.00	12,123.00	15,989.99	8,474.00	134.63	128.48	-40.02	7,574.60	-1,515.71	4,708.69	4,575.59	133.10	35.378				
20,000.00	12,123.00	16,089.99	8,474.00	136.18	130.09	-40.02	7,674.60	-1,516.71	4,708.73	4,574.00	134.73	34.950				
20,100.00	12,123.00	16,189.99	8,474.00	137.72	131.69	-40.02	7,774.59	-1,517.71	4,708.76	4,572.40	136.36	34.531				
20,200.00	12,123.00	16,289.99	8,474.00	139.27	133.30	-40.02	7,874.59	-1,518.72	4,708.80	4,570.80	138.00	34.122				
20,300.00	12,123.00	16,389.99	8,474.00	140.83	134.91	-40.02	7,974.58	-1,519.72	4,708.84	4,569.20	139.64	33.722				
20,400.00	12,123.00	16,489.99	8,474.00	142.38	136.52	-40.02	8,074.58	-1,520.72	4,708.88	4,567.60	141.28	33.331				
20,500.00	12,123.00	16,589.99	8,474.00	143.94	138.13	-40.03	8,174.57	-1,521.73	4,708.92	4,566.00	142.92	32.949				
20,600.00	12,123.00	16,689.99	8,474.00	145.50	139.74	-40.03	8,274.57	-1,522.73	4,708.95	4,564.40	144.56	32.575				
20,700.00	12,123.00	16,789.99	8,474.00	147.06	141.35	-40.03	8,374.56	-1,523.73	4,708.99	4,562.80	146.20	32.210				
20,800.00	12,123.00	16,889.99	8,474.00	148.62	142.97	-40.03	8,474.56	-1,524.74	4,709.03	4,561.19	147.84	31.853				
20,900.00	12,123.00	16,989.99	8,474.00	150.19	144.58	-40.03	8,574.55	-1,525.74	4,709.07	4,559.58	149.48	31.502				
21,000.00	12,123.00	17,089.99	8,474.00	151.76	146.20	-40.03	8,674.55	-1,526.74	4,709.10	4,557.97	151.13	31.159				
21,100.00	12,123.00	17,189.99	8,474.00	153.32	147.81	-40.03	8,774.54	-1,527.75	4,709.14	4,556.37	152.77	30.824				
21,200.00	12,123.00	17,289.99	8,474.00	154.90	149.43	-40.03	8,874.54	-1,528.75	4,709.18	4,554.76	154.42	30.496				
21,300.00	12,123.00	17,389.99	8,474.00	156.47	151.05	-40.03	8,974.53	-1,529.75	4,709.22	4,553.15	156.06	30.175				
21,400.00	12,123.00	17,489.99	8,474.00	158.04	152.67	-40.03	9,074.53	-1,530.76	4,709.25	4,551.54	157.71	29.860				
21,500.00	12,123.00	17,589.99	8,474.00	159.62	154.28	-40.03	9,174.52	-1,531.76	4,709.29	4,549.93	159.36	29.551				
21,600.00	12,123.00	17,689.99	8,474.00	161.19	155.90	-40.03	9,274.52	-1,532.76	4,709.33	4,548.32	161.01	29.249				
21,700.00	12,123.00	17,789.99	8,474.00	162.77	157.53	-40.03	9,374.51	-1,533.76	4,709.37	4,546.71	162.66	28.952				
21,800.00	12,123.00	17,889.99	8,474.00	164.35	159.15	-40.03	9,474.51	-1,534.77	4,709.41	4,545.09	164.31	28.661				
21,900.00	12,123.00	17,989.99	8,474.00	165.93	160.77	-40.03	9,574.50	-1,535.77	4,709.44	4,543.48	165.96	28.376				
22,000.00	12,123.00	18,089.99	8,474.00	167.52	162.39	-40.03	9,674.50	-1,536.77	4,709.48	4,541.86	167.62	28.097				
22,100.00	12,123.00	18,189.99	8,474.00	169.10	164.01	-40.03	9,774.49	-1,537.78	4,709.52	4,540.25	169.27	27.822				
22,200.00	12,123.00	18,289.99	8,474.00	170.69	165.64	-40.03	9,874.49	-1,538.78	4,709.56	4,538.63	170.93	27.553				
22,300.00	12,123.00	18,389.99	8,474.00	172.27	167.26	-40.04	9,974.48	-1,539.78	4,709.59	4,537.01	172.58	27.289				
22,400.00	12,123.00	18,489.99	8,474.00	173.86	168.89	-40.04	10,074.48	-1,540.79	4,709.63	4,535.40	174.23	27.031				
22,448.92	12,123.00	18,538.91	8,474.00	174.61	169.68	-40.04	10,123.39	-1,541.28	4,709.65	4,534.70	174.95	26.919 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
0.00	0.00	0.50	0.50	0.00	0.00	-40.26	74.49	-63.09	97.62					
100.00	100.00	100.50	100.50	0.13	0.13	-40.26	74.49	-63.09	97.62	97.44	0.18	546.243		
200.00	200.00	200.50	200.50	0.48	0.49	-40.26	74.49	-63.09	97.62	96.93	0.69	142.370		
300.00	300.00	300.50	300.50	0.84	0.84	-40.26	74.49	-63.09	97.62	96.42	1.19	81.851		
400.00	400.00	400.50	400.50	1.20	1.20	-40.26	74.49	-63.09	97.62	95.92	1.70	57.436		
500.00	500.00	500.50	500.50	1.56	1.56	-40.26	74.49	-63.09	97.62	95.41	2.21	44.240		
600.00	600.00	600.50	600.50	1.92	1.92	-40.26	74.49	-63.09	97.62	94.90	2.71	35.975		
700.00	700.00	700.50	700.50	2.28	2.28	-40.26	74.49	-63.09	97.62	94.40	3.22	30.312		
800.00	800.00	800.50	800.50	2.63	2.64	-40.26	74.49	-63.09	97.62	93.89	3.73	26.189		
900.00	900.00	900.50	900.50	2.99	3.00	-40.26	74.49	-63.09	97.62	93.38	4.23	23.054		
1,000.00	1,000.00	1,000.50	1,000.50	3.35	3.35	-40.26	74.49	-63.09	97.62	92.88	4.74	20.589		
1,100.00	1,100.00	1,100.50	1,100.50	3.71	3.71	-40.26	74.49	-63.09	97.62	92.37	5.25	18.600		
1,200.00	1,200.00	1,200.50	1,200.50	4.07	4.07	-40.26	74.49	-63.09	97.62	91.86	5.76	16.962		
1,300.00	1,300.00	1,300.50	1,300.50	4.43	4.43	-40.26	74.49	-63.09	97.62	91.35	6.26	15.588		
1,400.00	1,400.00	1,400.50	1,400.50	4.79	4.79	-40.26	74.49	-63.09	97.62	90.85	6.77	14.421		
1,500.00	1,500.00	1,500.50	1,500.50	5.14	5.15	-40.26	74.49	-63.09	97.62	90.34	7.28	13.416		
1,600.00	1,600.00	1,600.50	1,600.50	5.50	5.50	-40.26	74.49	-63.09	97.62	89.83	7.78	12.542 CC, ES		
1,700.00	1,699.98	1,700.48	1,700.48	5.85	5.86	-138.36	74.49	-63.09	98.91	90.63	8.28	11.942		
1,800.00	1,799.84	1,800.34	1,800.34	6.19	6.22	-140.25	74.49	-63.09	102.89	94.11	8.78	11.722 SF		
1,900.00	1,899.45	1,899.95	1,899.95	6.54	6.58	-143.07	74.49	-63.09	109.73	100.46	9.27	11.834		
2,000.00	1,998.70	2,001.66	2,001.65	6.89	6.93	-146.66	73.77	-62.60	118.90	109.14	9.76	12.177		
2,100.00	2,097.47	2,103.89	2,103.82	7.26	7.26	-150.90	70.82	-60.61	129.03	118.79	10.24	12.600		
2,200.00	2,195.62	2,203.09	2,202.88	7.64	7.59	-155.27	66.55	-57.72	141.32	130.60	10.72	13.185		
2,300.00	2,293.06	2,301.16	2,300.83	8.04	7.92	-159.33	62.29	-54.85	157.52	146.32	11.20	14.067		
2,384.88	2,375.09	2,383.84	2,383.39	8.39	8.20	-162.42	58.71	-52.43	174.37	162.77	11.60	15.026		
2,400.00	2,389.65	2,398.53	2,398.05	8.46	8.25	-162.95	58.07	-52.00	177.63	165.95	11.68	15.210		
2,500.00	2,485.92	2,495.60	2,495.00	8.90	8.58	-166.01	53.86	-49.15	199.52	187.36	12.16	16.412		
2,600.00	2,582.19	2,592.68	2,591.94	9.36	8.91	-168.46	49.65	-46.31	221.85	209.21	12.64	17.553		
2,700.00	2,678.46	2,689.76	2,688.88	9.83	9.24	-170.47	45.44	-43.46	244.49	231.37	13.12	18.629		
2,800.00	2,774.74	2,786.83	2,785.83	10.31	9.58	-172.13	41.23	-40.62	267.37	253.76	13.61	19.641		
2,900.00	2,871.01	2,883.91	2,882.77	10.80	9.92	-173.53	37.02	-37.77	290.43	276.33	14.10	20.592		
3,000.00	2,967.28	2,980.99	2,979.71	11.29	10.26	-174.73	32.80	-34.93	313.64	299.04	14.60	21.484		
3,100.00	3,063.55	3,078.06	3,076.66	11.80	10.60	-175.76	28.59	-32.08	336.95	321.86	15.10	22.321		
3,200.00	3,159.82	3,175.14	3,173.60	12.31	10.94	-176.66	24.38	-29.24	360.36	344.76	15.60	23.107		
3,300.00	3,256.09	3,272.21	3,270.54	12.83	11.28	-177.45	20.17	-26.40	383.84	367.74	16.10	23.845		
3,400.00	3,352.36	3,369.29	3,367.49	13.35	11.62	-178.15	15.96	-23.55	407.38	390.78	16.60	24.539		
3,500.00	3,448.63	3,466.37	3,464.43	13.88	11.97	-178.77	11.75	-20.71	430.97	413.86	17.11	25.193		
3,600.00	3,544.90	3,563.44	3,561.37	14.41	12.31	-179.33	7.54	-17.86	454.61	436.99	17.61	25.808		
3,700.00	3,641.17	3,660.52	3,658.32	14.94	12.66	-179.83	3.33	-15.02	478.28	460.15	18.12	26.389		
3,800.00	3,737.44	3,757.60	3,755.26	15.48	13.00	-179.71	-0.88	-12.17	501.98	483.35	18.64	26.937		
3,900.00	3,833.71	3,854.67	3,852.20	16.02	13.35	-179.30	-5.09	-9.33	525.71	506.56	19.15	27.456		
4,000.00	3,929.98	3,951.75	3,949.15	16.56	13.70	-178.92	-9.30	-6.48	549.47	529.80	19.66	27.946		
4,100.00	4,026.25	4,048.83	4,046.09	17.10	14.05	-178.57	-13.52	-3.64	573.24	553.06	20.18	28.411		
4,200.00	4,122.52	4,145.90	4,143.03	17.65	14.40	-178.25	-17.73	-0.79	597.03	576.34	20.69	28.852		
4,300.00	4,218.79	4,242.98	4,239.98	18.20	14.74	-177.96	-21.94	2.05	620.84	599.63	21.21	29.271		
4,400.00	4,315.06	4,340.06	4,336.92	18.75	15.09	-177.68	-26.15	4.90	644.67	622.94	21.73	29.669		
4,500.00	4,411.33	4,437.13	4,433.86	19.30	15.44	-177.43	-30.36	7.74	668.50	646.26	22.25	30.048		
4,600.00	4,507.60	4,534.21	4,530.81	19.85	15.79	-177.19	-34.57	10.59	692.35	669.58	22.77	30.409		
4,700.00	4,603.87	4,631.28	4,627.75	20.41	16.14	-176.97	-38.78	13.43	716.21	692.92	23.29	30.753		
4,800.00	4,700.14	4,728.36	4,724.69	20.96	16.50	-176.77	-42.99	16.28	740.08	716.27	23.81	31.082		
4,900.00	4,796.41	4,825.44	4,821.64	21.52	16.85	-176.57	-47.20	19.12	763.96	739.62	24.33	31.396		
5,000.00	4,892.68	4,922.51	4,918.58	22.08	17.20	-176.39	-51.41	21.97	787.84	762.98	24.86	31.696		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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													FMM Fed Com - FMM Fed Com 103H - OH - Plan #1		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				
5,100.00	4,988.95	5,019.59	5,015.52	22.64	17.55	176.22	-55.62	24.81	811.73	786.35	25.38	31.983				
5,200.00	5,085.22	5,116.67	5,112.47	23.20	17.90	176.06	-59.84	27.65	835.63	809.72	25.90	32.258				
5,300.00	5,181.49	5,213.74	5,209.41	23.76	18.26	175.91	-64.05	30.50	859.53	833.10	26.43	32.522				
5,400.00	5,277.76	5,310.82	5,306.35	24.32	18.61	175.76	-68.26	33.34	883.44	856.49	26.95	32.775				
5,500.00	5,374.03	5,407.90	5,403.30	24.88	18.96	175.63	-72.47	36.19	907.35	879.87	27.48	33.017				
5,600.00	5,470.31	5,504.97	5,500.24	25.44	19.31	175.50	-76.68	39.03	931.27	903.27	28.01	33.251				
5,700.00	5,566.58	5,602.05	5,597.18	26.01	19.67	175.37	-80.89	41.88	955.20	926.66	28.53	33.475				
5,800.00	5,662.85	5,699.13	5,694.13	26.57	20.02	175.26	-85.10	44.72	979.12	950.06	29.06	33.691				
5,900.00	5,759.12	5,796.20	5,791.07	27.13	20.37	175.15	-89.31	47.57	1,003.05	973.46	29.59	33.898				
6,000.00	5,855.39	5,893.28	5,888.01	27.70	20.73	175.04	-93.52	50.41	1,026.99	996.87	30.12	34.098				
6,100.00	5,951.66	5,990.35	5,984.96	28.26	21.08	174.94	-97.73	53.26	1,050.92	1,020.28	30.65	34.291				
6,200.00	6,047.93	6,087.43	6,081.90	28.83	21.44	174.84	-101.95	56.10	1,074.86	1,043.69	31.18	34.477				
6,300.00	6,144.20	6,184.51	6,178.84	29.40	21.79	174.75	-106.16	58.95	1,098.81	1,067.10	31.71	34.656				
6,400.00	6,240.47	6,281.58	6,275.79	29.96	22.14	174.66	-110.37	61.79	1,122.75	1,090.52	32.24	34.829				
6,500.00	6,336.74	6,378.66	6,372.73	30.53	22.50	174.58	-114.58	64.64	1,146.70	1,113.93	32.77	34.997				
6,600.00	6,433.01	6,475.74	6,469.67	31.10	22.85	174.49	-118.79	67.48	1,170.65	1,137.35	33.30	35.158				
6,700.00	6,529.28	6,572.81	6,566.62	31.67	23.21	174.42	-123.00	70.33	1,194.60	1,160.78	33.83	35.315				
6,800.00	6,625.55	6,669.89	6,663.56	32.23	23.56	174.34	-127.21	73.17	1,218.56	1,184.20	34.36	35.466				
6,900.00	6,721.82	6,766.97	6,760.50	32.80	23.92	174.27	-131.42	76.01	1,242.51	1,207.62	34.89	35.612				
7,000.00	6,818.09	6,864.04	6,857.45	33.37	24.27	174.20	-135.63	78.86	1,266.47	1,231.05	35.42	35.754				
7,100.00	6,914.36	6,961.12	6,954.39	33.94	24.63	174.13	-139.84	81.70	1,290.43	1,254.48	35.95	35.892				
7,200.00	7,010.63	7,058.20	7,051.33	34.51	24.98	174.07	-144.05	84.55	1,314.39	1,277.91	36.49	36.025				
7,300.00	7,106.90	7,147.07	7,140.10	35.08	25.31	174.02	-147.74	87.04	1,338.50	1,301.52	36.98	36.196				
7,400.00	7,203.17	7,227.30	7,220.28	35.65	25.59	174.03	-149.82	88.44	1,363.65	1,326.23	37.42	36.439				
7,506.72	7,305.91	7,313.43	7,306.41	36.26	25.89	174.10	-150.51	88.91	1,391.80	1,353.91	37.89	36.735				
7,600.00	7,396.11	7,403.63	7,396.61	36.77	26.19	174.25	-150.51	88.91	1,415.45	1,377.10	38.36	36.901				
7,700.00	7,493.60	7,501.13	7,494.10	37.28	26.52	174.38	-150.51	88.91	1,437.56	1,398.70	38.86	36.993				
7,800.00	7,591.82	7,599.34	7,592.32	37.75	26.85	174.49	-150.51	88.91	1,456.26	1,416.91	39.36	36.999				
7,900.00	7,690.63	7,698.15	7,691.13	38.18	27.18	174.58	-150.51	88.91	1,471.55	1,431.69	39.85	36.923				
8,000.00	7,789.91	7,797.43	7,790.41	38.57	27.52	174.64	-150.51	88.91	1,483.39	1,443.05	40.35	36.767				
8,100.00	7,889.55	7,889.34	7,882.21	38.92	27.82	174.81	-147.24	88.88	1,491.96	1,451.17	40.78	36.582				
8,200.00	7,989.42	7,975.13	7,966.50	39.23	28.08	175.43	-131.74	88.73	1,497.88	1,456.73	41.15	36.403				
8,291.59	8,081.00	8,050.00	8,037.47	39.47	28.29	-86.22	-108.06	88.51	1,501.40	1,459.98	41.42	36.249				
8,300.00	8,089.41	8,054.78	8,041.89	39.50	28.31	-86.15	-106.24	88.49	1,501.66	1,460.23	41.43	36.244				
8,400.00	8,189.41	8,126.23	8,105.94	39.75	28.49	-84.95	-74.66	88.19	1,505.99	1,464.35	41.63	36.174				
8,500.00	8,289.41	8,188.79	8,158.40	40.01	28.63	-83.66	-40.66	87.87	1,513.06	1,471.31	41.75	36.241				
8,600.00	8,389.41	8,250.00	8,205.86	40.26	28.77	-82.21	-2.05	87.50	1,523.60	1,481.79	41.82	36.435				
8,700.00	8,489.41	8,289.08	8,233.90	40.52	28.85	-81.19	25.16	87.25	1,538.09	1,496.38	41.71	36.877				
8,800.00	8,589.41	8,328.73	8,260.38	40.78	28.94	-80.10	54.66	86.97	1,556.97	1,515.43	41.54	37.482				
8,900.00	8,689.41	8,362.76	8,281.44	41.04	29.02	-79.11	81.39	86.71	1,580.47	1,539.19	41.27	38.293				
9,000.00	8,789.41	8,400.00	8,302.62	41.31	29.11	-77.99	112.01	86.42	1,608.71	1,567.73	40.98	39.259				
9,100.00	8,889.41	8,417.51	8,311.88	41.57	29.15	-77.45	126.87	86.28	1,641.57	1,601.08	40.49	40.541				
9,200.00	8,989.41	8,450.00	8,327.84	41.84	29.24	-76.43	155.16	86.01	1,679.12	1,639.05	40.08	41.896				
9,300.00	9,089.41	8,450.00	8,327.84	42.11	29.24	-76.43	155.16	86.01	1,721.01	1,681.61	39.39	43.687				
9,400.00	9,189.41	8,476.24	8,339.54	42.37	29.31	-75.58	178.64	85.79	1,767.05	1,728.15	38.90	45.428				
9,500.00	9,289.41	8,500.00	8,349.21	42.64	29.38	-74.81	200.35	85.59	1,817.17	1,778.79	38.38	47.346				
9,600.00	9,389.41	8,500.00	8,349.21	42.92	29.38	-74.81	200.35	85.59	1,870.89	1,833.20	37.69	49.637				
9,700.00	9,489.41	8,517.16	8,355.62	43.19	29.43	-74.25	216.26	85.44	1,928.07	1,890.92	37.15	51.896				
9,800.00	9,589.41	8,528.11	8,359.46	43.46	29.46	-73.89	226.52	85.34	1,988.45	1,951.86	36.59	54.341				
9,900.00	9,689.41	8,550.00	8,366.55	43.74	29.52	-73.16	247.22	85.14	2,051.87	2,015.73	36.14	56.774				
10,000.00	9,789.41	8,550.00	8,366.55	44.01	29.52	-73.16	247.22	85.14	2,117.74	2,082.18	35.57	59.540				
10,100.00	9,889.41	8,550.00	8,366.55	44.29	29.52	-73.16	247.22	85.14	2,186.21	2,151.17	35.04	62.396				

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
10,200.00	9,989.41	8,550.00	8,366.55	44.57	29.52	-73.16	247.22	85.14	2,257.03	2,222.48	34.55	65.324		
10,300.00	10,089.41	8,569.69	8,372.25	44.85	29.59	-72.51	266.06	84.96	2,329.65	2,295.41	34.24	68.038		
10,400.00	10,189.41	8,576.06	8,373.95	45.13	29.61	-72.30	272.20	84.91	2,404.29	2,370.41	33.88	70.964		
10,500.00	10,289.41	8,600.00	8,379.75	45.41	29.68	-71.50	295.43	84.68	2,480.95	2,447.28	33.67	73.690		
10,600.00	10,389.41	8,600.00	8,379.75	45.70	29.68	-71.50	295.43	84.68	2,558.74	2,525.39	33.35	76.732		
10,700.00	10,489.41	8,600.00	8,379.75	45.98	29.68	-71.50	295.43	84.68	2,638.02	2,604.96	33.07	79.777		
10,800.00	10,589.41	8,600.00	8,379.75	46.27	29.68	-71.50	295.43	84.68	2,718.68	2,685.85	32.83	82.810		
10,900.00	10,689.41	8,600.00	8,379.75	46.55	29.68	-71.50	295.43	84.68	2,800.58	2,767.95	32.63	85.833		
11,000.00	10,789.41	8,600.00	8,379.75	46.84	29.68	-71.50	295.43	84.68	2,883.62	2,851.16	32.46	88.829		
11,100.00	10,889.41	8,600.00	8,379.75	47.13	29.68	-71.50	295.43	84.68	2,967.71	2,935.38	32.33	91.791		
11,200.00	10,989.41	8,600.00	8,379.75	47.42	29.68	-71.50	295.43	84.68	3,052.76	3,020.52	32.23	94.708		
11,300.00	11,089.41	8,600.00	8,379.75	47.71	29.68	-71.50	295.43	84.68	3,138.69	3,106.52	32.17	97.576		
11,400.00	11,189.41	8,600.00	8,379.75	48.00	29.68	-71.50	295.43	84.68	3,225.43	3,193.30	32.13	100.390		
11,500.00	11,289.41	8,622.95	8,384.38	48.29	29.76	-70.73	317.90	84.47	3,312.43	3,280.22	32.21	102.829		
11,600.00	11,389.41	8,625.83	8,384.90	48.58	29.77	-70.64	320.74	84.45	3,400.48	3,368.24	32.23	105.498		
11,700.00	11,489.41	8,628.56	8,385.38	48.88	29.78	-70.54	323.42	84.42	3,489.15	3,456.88	32.27	108.107		
11,760.63	11,550.04	8,650.00	8,388.69	49.05	29.85	-69.83	344.61	84.22	3,543.57	3,511.19	32.39	109.409		
11,800.00	11,589.38	8,650.00	8,388.69	49.17	29.85	-62.38	344.61	84.22	3,578.51	3,546.10	32.41	110.424		
11,850.00	11,639.05	8,650.00	8,388.69	49.31	29.85	-54.77	344.61	84.22	3,622.14	3,589.71	32.43	111.705		
11,900.00	11,688.04	8,650.00	8,388.69	49.44	29.85	-48.42	344.61	84.22	3,664.67	3,632.23	32.44	112.969		
11,950.00	11,735.98	8,650.00	8,388.69	49.57	29.85	-43.22	344.61	84.22	3,705.83	3,673.38	32.45	114.208		
12,000.00	11,782.51	8,650.00	8,388.69	49.68	29.85	-38.98	344.61	84.22	3,745.35	3,712.90	32.45	115.415		
12,050.00	11,827.26	8,650.00	8,388.69	49.79	29.85	-35.52	344.61	84.22	3,782.99	3,750.54	32.45	116.582		
12,100.00	11,869.91	8,650.00	8,388.69	49.88	29.85	-32.69	344.61	84.22	3,818.52	3,786.08	32.44	117.701		
12,150.00	11,910.12	8,650.00	8,388.69	49.96	29.85	-30.36	344.61	84.22	3,851.73	3,819.30	32.43	118.763		
12,200.00	11,947.60	8,650.00	8,388.69	50.03	29.85	-28.45	344.61	84.22	3,882.43	3,850.01	32.42	119.759		
12,250.00	11,982.04	8,650.00	8,388.69	50.09	29.85	-26.88	344.61	84.22	3,910.45	3,878.04	32.40	120.679		
12,300.00	12,013.20	8,672.49	8,391.30	50.14	29.93	-25.51	366.94	84.01	3,935.16	3,902.71	32.45	121.282		
12,350.00	12,040.84	8,700.00	8,393.31	50.18	30.03	-24.40	394.37	83.75	3,957.52	3,925.03	32.50	121.782		
12,400.00	12,064.73	8,700.00	8,393.31	50.21	30.03	-23.58	394.37	83.75	3,976.07	3,943.60	32.48	122.425		
12,450.00	12,084.72	8,700.00	8,393.31	50.23	30.03	-22.95	394.37	83.75	3,991.42	3,958.96	32.46	122.953		
12,500.00	12,100.63	8,700.00	8,393.31	50.25	30.03	-22.47	394.37	83.75	4,003.48	3,971.03	32.46	123.354		
12,550.00	12,112.35	8,700.00	8,393.31	50.27	30.03	-22.13	394.37	83.75	4,012.20	3,979.75	32.46	123.621		
12,600.00	12,119.79	8,700.00	8,393.31	50.30	30.03	-21.93	394.37	83.75	4,017.53	3,985.06	32.47	123.745		
12,650.00	12,122.90	8,728.06	8,394.00	50.33	30.14	-21.86	422.42	83.48	4,019.27	3,986.74	32.53	123.556		
12,660.63	12,123.00	8,728.06	8,394.00	50.33	30.14	-21.86	422.42	83.48	4,019.17	3,986.63	32.54	123.533		
12,700.00	12,123.00	8,728.06	8,394.00	50.37	30.14	-21.86	422.42	83.48	4,018.67	3,986.11	32.56	123.425		
12,732.84	12,123.00	8,729.60	8,394.00	50.39	30.14	-21.86	423.96	83.47	4,018.54	3,985.95	32.59	123.298		
12,800.00	12,123.00	8,796.76	8,394.00	50.47	30.42	-21.86	491.12	82.83	4,018.55	3,985.80	32.75	122.713		
12,900.00	12,123.00	8,896.76	8,394.00	50.63	30.89	-21.86	591.11	81.88	4,018.55	3,985.52	33.03	121.671		
13,000.00	12,123.00	8,996.76	8,394.00	50.83	31.45	-21.86	691.11	80.94	4,018.55	3,985.19	33.36	120.459		
13,100.00	12,123.00	9,096.76	8,394.00	51.08	32.08	-21.86	791.10	79.99	4,018.55	3,984.81	33.74	119.094		
13,200.00	12,123.00	9,196.76	8,394.00	51.39	32.78	-21.86	891.10	79.04	4,018.55	3,984.38	34.17	117.592		
13,300.00	12,123.00	9,296.76	8,394.00	51.76	33.55	-21.86	991.10	78.09	4,018.55	3,983.90	34.65	115.970		
13,400.00	12,123.00	9,396.76	8,394.00	52.19	34.38	-21.86	1,091.09	77.15	4,018.55	3,983.38	35.17	114.247		
13,500.00	12,123.00	9,496.76	8,394.00	52.68	35.27	-21.86	1,191.09	76.20	4,018.55	3,982.81	35.74	112.439		
13,600.00	12,123.00	9,596.76	8,394.00	53.23	36.21	-21.86	1,291.08	75.25	4,018.55	3,982.21	36.35	110.563		
13,700.00	12,123.00	9,696.76	8,394.00	53.84	37.21	-21.86	1,391.08	74.30	4,018.56	3,981.56	36.99	108.635		
13,800.00	12,123.00	9,796.76	8,394.00	54.50	38.24	-21.86	1,491.07	73.36	4,018.56	3,980.88	37.67	106.668		
13,900.00	12,123.00	9,896.76	8,394.00	55.21	39.32	-21.86	1,591.07	72.41	4,018.56	3,980.17	38.39	104.675		
14,000.00	12,123.00	9,996.76	8,394.00	55.97	40.44	-21.86	1,691.06	71.46	4,018.56	3,979.42	39.14	102.669		
14,100.00	12,123.00	10,096.76	8,394.00	56.78	41.59	-21.86	1,791.06	70.51	4,018.56	3,978.64	39.92	100.660		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	15,396.76	8,394.00	126.94	120.65	-21.87	7,090.82	20.30	4,018.62	3,918.79	99.83	40.257		
19,500.00	12,123.00	15,496.76	8,394.00	128.48	122.26	-21.87	7,190.82	19.36	4,018.62	3,917.54	101.08	39.756		
19,600.00	12,123.00	15,596.76	8,394.00	130.01	123.86	-21.87	7,290.81	18.41	4,018.62	3,916.27	102.34	39.265		
19,700.00	12,123.00	15,696.76	8,394.00	131.55	125.47	-21.87	7,390.81	17.46	4,018.62	3,915.01	103.61	38.786		
19,800.00	12,123.00	15,796.76	8,394.00	133.09	127.07	-21.87	7,490.80	16.51	4,018.62	3,913.75	104.87	38.319		
19,900.00	12,123.00	15,896.76	8,394.00	134.63	128.68	-21.87	7,590.80	15.57	4,018.62	3,912.49	106.14	37.863		
20,000.00	12,123.00	15,996.76	8,394.00	136.18	130.29	-21.87	7,690.79	14.62	4,018.62	3,911.22	107.40	37.417		
20,100.00	12,123.00	16,096.76	8,394.00	137.72	131.90	-21.87	7,790.79	13.67	4,018.62	3,909.96	108.67	36.980		
20,200.00	12,123.00	16,196.76	8,394.00	139.27	133.51	-21.87	7,890.79	12.72	4,018.63	3,908.69	109.94	36.554		
20,300.00	12,123.00	16,296.76	8,394.00	140.83	135.12	-21.87	7,990.78	11.78	4,018.63	3,907.42	111.21	36.136		
20,400.00	12,123.00	16,396.76	8,394.00	142.38	136.74	-21.87	8,090.78	10.83	4,018.63	3,906.15	112.48	35.727		
20,500.00	12,123.00	16,496.76	8,394.00	143.94	138.35	-21.87	8,190.77	9.88	4,018.63	3,904.88	113.75	35.328		
20,600.00	12,123.00	16,596.76	8,394.00	145.50	139.97	-21.87	8,290.77	8.93	4,018.63	3,903.60	115.03	34.936		
20,700.00	12,123.00	16,696.76	8,394.00	147.06	141.58	-21.87	8,390.76	7.99	4,018.63	3,902.33	116.30	34.554		
20,800.00	12,123.00	16,796.76	8,394.00	148.62	143.20	-21.87	8,490.76	7.04	4,018.63	3,901.06	117.58	34.179		
20,900.00	12,123.00	16,896.76	8,394.00	150.19	144.82	-21.87	8,590.75	6.09	4,018.63	3,899.78	118.85	33.813		
21,000.00	12,123.00	16,996.76	8,394.00	151.76	146.44	-21.87	8,690.75	5.14	4,018.63	3,898.51	120.13	33.454		
21,100.00	12,123.00	17,096.76	8,394.00	153.32	148.05	-21.87	8,790.75	4.20	4,018.64	3,897.23	121.40	33.102		
21,200.00	12,123.00	17,196.76	8,394.00	154.90	149.67	-21.87	8,890.74	3.25	4,018.64	3,895.96	122.68	32.757		
21,300.00	12,123.00	17,296.76	8,394.00	156.47	151.29	-21.87	8,990.74	2.30	4,018.64	3,894.68	123.96	32.419		
21,400.00	12,123.00	17,396.76	8,394.00	158.04	152.92	-21.87	9,090.73	1.35	4,018.64	3,893.40	125.24	32.088		
21,500.00	12,123.00	17,496.76	8,394.00	159.62	154.54	-21.87	9,190.73	0.41	4,018.64	3,892.12	126.52	31.763		
21,600.00	12,123.00	17,596.76	8,394.00	161.19	156.16	-21.87	9,290.72	-0.54	4,018.64	3,890.84	127.80	31.444		
21,700.00	12,123.00	17,696.76	8,394.00	162.77	157.78	-21.87	9,390.72	-1.49	4,018.64	3,889.56	129.08	31.132		
21,800.00	12,123.00	17,796.76	8,394.00	164.35	159.41	-21.87	9,490.71	-2.44	4,018.64	3,888.28	130.37	30.825		
21,900.00	12,123.00	17,896.76	8,394.00	165.93	161.03	-21.87	9,590.71	-3.38	4,018.64	3,886.99	131.65	30.525		
22,000.00	12,123.00	17,996.76	8,394.00	167.52	162.66	-21.87	9,690.71	-4.33	4,018.65	3,885.71	132.93	30.230		
22,100.00	12,123.00	18,096.76	8,394.00	169.10	164.28	-21.87	9,790.70	-5.28	4,018.65	3,884.43	134.22	29.942		
22,200.00	12,123.00	18,196.76	8,394.00	170.69	165.91	-21.87	9,890.70	-6.22	4,018.65	3,883.15	135.50	29.658		
22,300.00	12,123.00	18,296.76	8,394.00	172.27	167.53	-21.87	9,990.69	-7.17	4,018.65	3,881.87	136.78	29.380		
22,400.00	12,123.00	18,396.76	8,394.00	173.86	169.16	-21.87	10,090.69	-8.12	4,018.65	3,880.58	138.07	29.106		
22,448.92	12,123.00	18,445.68	8,394.00	174.61	169.96	-21.87	10,139.60	-8.58	4,018.65	3,880.06	138.59	28.997		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 FMM Fed Com - FMM Fed Com 104H - 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		
0.00	0.00	0.20	0.20	0.00	0.00	-9.91	74.89	-13.09	76.03					
100.00	100.00	100.20	100.20	0.13	0.13	-9.91	74.89	-13.09	76.03	75.85	0.18	427.247		
200.00	200.00	200.20	200.20	0.48	0.48	-9.91	74.89	-13.09	76.03	75.34	0.68	111.003		
300.00	300.00	300.20	300.20	0.84	0.84	-9.91	74.89	-13.09	76.03	74.83	1.19	63.788		
400.00	400.00	400.20	400.20	1.20	1.20	-9.91	74.89	-13.09	76.03	74.33	1.70	44.752		
500.00	500.00	500.20	500.20	1.56	1.56	-9.91	74.89	-13.09	76.03	73.82	2.21	34.467		
600.00	600.00	600.20	600.20	1.92	1.92	-9.91	74.89	-13.09	76.03	73.31	2.71	28.026		
700.00	700.00	700.20	700.20	2.28	2.28	-9.91	74.89	-13.09	76.03	72.81	3.22	23.613		
800.00	800.00	800.20	800.20	2.63	2.64	-9.91	74.89	-13.09	76.03	72.30	3.73	20.401		
900.00	900.00	900.20	900.20	2.99	2.99	-9.91	74.89	-13.09	76.03	71.79	4.23	17.958		
1,000.00	1,000.00	1,000.20	1,000.20	3.35	3.35	-9.91	74.89	-13.09	76.03	71.28	4.74	16.037		
1,100.00	1,100.00	1,100.20	1,100.20	3.71	3.71	-9.91	74.89	-13.09	76.03	70.78	5.25	14.488		
1,200.00	1,200.00	1,200.20	1,200.20	4.07	4.07	-9.91	74.89	-13.09	76.03	70.27	5.75	13.212		
1,300.00	1,300.00	1,300.20	1,300.20	4.43	4.43	-9.91	74.89	-13.09	76.03	69.76	6.26	12.142		
1,400.00	1,400.00	1,400.20	1,400.20	4.79	4.79	-9.91	74.89	-13.09	76.03	69.26	6.77	11.232		
1,500.00	1,500.00	1,500.20	1,500.20	5.14	5.14	-9.91	74.89	-13.09	76.03	68.75	7.28	10.450		
1,600.00	1,600.00	1,600.20	1,600.20	5.50	5.50	-9.91	74.89	-13.09	76.03	68.24	7.78	9.769		
1,600.66	1,600.66	1,600.86	1,600.86	5.50	5.51	-107.35	74.89	-13.09	76.03	68.24	7.79	9.765 CC		
1,700.00	1,699.98	1,700.81	1,700.79	5.85	5.85	-107.31	74.79	-11.32	76.15	67.87	8.28	9.199		
1,800.00	1,799.84	1,801.41	1,801.25	6.19	6.20	-107.20	74.49	-6.02	76.51	67.75	8.76	8.732 ES		
1,900.00	1,899.45	1,902.01	1,901.45	6.54	6.55	-107.02	74.00	2.79	77.11	67.86	9.25	8.334		
2,000.00	1,998.70	2,002.61	2,001.28	6.89	6.91	-106.77	73.30	15.11	77.96	68.21	9.75	7.993		
2,100.00	2,097.47	2,103.20	2,100.61	7.26	7.28	-106.47	72.41	30.92	79.05	68.78	10.27	7.699		
2,200.00	2,195.62	2,203.78	2,199.32	7.64	7.66	-106.11	71.33	50.20	80.39	69.59	10.80	7.443		
2,300.00	2,293.06	2,304.34	2,297.27	8.04	8.06	-105.70	70.05	72.92	81.96	70.60	11.36	7.215		
2,384.88	2,375.09	2,389.69	2,379.73	8.39	8.42	-105.32	68.81	94.89	83.49	71.63	11.86	7.040		
2,400.00	2,389.65	2,404.90	2,394.35	8.46	8.49	-105.22	68.57	99.06	83.77	71.82	11.95	7.010		
2,500.00	2,485.92	2,505.29	2,490.32	8.90	8.94	-103.34	66.92	128.48	85.29	72.71	12.58	6.777		
2,600.00	2,582.19	2,605.20	2,585.48	9.36	9.42	-100.77	65.21	158.86	86.76	73.50	13.25	6.547		
2,700.00	2,678.46	2,705.12	2,680.65	9.83	9.91	-98.29	63.50	189.23	88.39	74.45	13.94	6.341		
2,800.00	2,774.74	2,805.03	2,775.82	10.31	10.41	-95.91	61.78	219.61	90.18	75.54	14.64	6.158		
2,900.00	2,871.01	2,904.95	2,870.99	10.80	10.93	-93.62	60.07	249.99	92.12	76.76	15.36	5.997		
3,000.00	2,967.28	3,004.86	2,966.16	11.29	11.46	-91.44	58.36	280.36	94.21	78.12	16.09	5.855		
3,100.00	3,063.55	3,104.78	3,061.33	11.80	12.00	-89.34	56.65	310.74	96.42	79.60	16.83	5.731		
3,200.00	3,159.82	3,204.69	3,156.50	12.31	12.55	-87.35	54.94	341.12	98.76	81.19	17.57	5.622		
3,300.00	3,256.09	3,304.61	3,251.67	12.83	13.11	-85.45	53.23	371.50	101.21	82.90	18.31	5.527		
3,400.00	3,352.36	3,404.52	3,346.84	13.35	13.67	-83.64	51.52	401.87	103.77	84.71	19.06	5.445		
3,500.00	3,448.63	3,504.44	3,442.01	13.88	14.23	-81.92	49.81	432.25	106.43	86.62	19.80	5.375		
3,600.00	3,544.90	3,604.35	3,537.18	14.41	14.80	-80.29	48.10	462.63	109.17	88.63	20.55	5.314		
3,700.00	3,641.17	3,704.27	3,632.35	14.94	15.38	-78.73	46.39	493.01	112.01	90.72	21.29	5.261		
3,800.00	3,737.44	3,804.18	3,727.52	15.48	15.96	-77.26	44.68	523.38	114.92	92.89	22.03	5.216		
3,900.00	3,833.71	3,904.10	3,822.69	16.02	16.54	-75.85	42.96	553.76	117.90	95.13	22.77	5.178		
4,000.00	3,929.98	4,004.01	3,917.86	16.56	17.13	-74.52	41.25	584.14	120.95	97.45	23.50	5.146		
4,100.00	4,026.25	4,103.93	4,013.03	17.10	17.72	-73.25	39.54	614.51	124.06	99.83	24.23	5.119		
4,200.00	4,122.52	4,203.84	4,108.20	17.65	18.31	-72.05	37.83	644.89	127.23	102.27	24.96	5.097		
4,300.00	4,218.79	4,303.76	4,203.37	18.20	18.90	-70.91	36.12	675.27	130.45	104.77	25.69	5.079		
4,400.00	4,315.06	4,403.67	4,298.54	18.75	19.50	-69.82	34.41	705.65	133.73	107.32	26.41	5.064		
4,500.00	4,411.33	4,503.59	4,393.71	19.30	20.10	-68.78	32.70	736.02	137.04	109.92	27.13	5.052		
4,600.00	4,507.60	4,603.50	4,488.88	19.85	20.70	-67.79	30.99	766.40	140.41	112.57	27.84	5.043		
4,700.00	4,603.87	4,703.42	4,584.05	20.41	21.30	-66.85	29.28	796.78	143.81	115.25	28.55	5.037		
4,800.00	4,700.14	4,803.33	4,679.22	20.96	21.90	-65.95	27.57	827.16	147.24	117.98	29.26	5.032		
4,900.00	4,796.41	4,903.25	4,774.39	21.52	22.50	-65.10	25.86	857.53	150.72	120.75	29.97	5.029		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
5,000.00	4,892.68	5,003.16	4,869.56	22.08	23.11	-64.28	24.15	887.91	154.22	123.55	30.67	5.028		
5,100.00	4,988.95	5,103.08	4,964.73	22.64	23.72	-63.50	22.43	918.29	157.76	126.38	31.37	5.028		
5,200.00	5,085.22	5,202.99	5,059.90	23.20	24.32	-62.75	20.72	948.66	161.32	129.25	32.07	5.030		
5,300.00	5,181.49	5,302.91	5,155.07	23.76	24.93	-62.04	19.01	979.04	164.91	132.14	32.77	5.033		
5,400.00	5,277.76	5,402.82	5,250.24	24.32	25.54	-61.35	17.30	1,009.42	168.52	135.06	33.46	5.036		
5,500.00	5,374.03	5,502.74	5,345.41	24.88	26.15	-60.70	15.59	1,039.80	172.16	138.00	34.15	5.041		
5,600.00	5,470.31	5,602.65	5,440.58	25.44	26.76	-60.07	13.88	1,070.17	175.82	140.97	34.85	5.046		
5,700.00	5,566.58	5,702.56	5,535.75	26.01	27.37	-59.47	12.17	1,100.55	179.49	143.96	35.53	5.051		
5,800.00	5,662.85	5,802.48	5,630.92	26.57	27.98	-58.89	10.46	1,130.93	183.19	146.97	36.22	5.058		
5,900.00	5,759.12	5,902.39	5,726.09	27.13	28.60	-58.33	8.75	1,161.31	186.91	150.00	36.91	5.064		
6,000.00	5,855.39	6,002.31	5,821.26	27.70	29.21	-57.80	7.04	1,191.68	190.64	153.05	37.59	5.071		
6,100.00	5,951.66	6,102.22	5,916.43	28.26	29.83	-57.29	5.33	1,222.06	194.39	156.11	38.27	5.079		
6,200.00	6,047.93	6,202.14	6,011.60	28.83	30.44	-56.79	3.61	1,252.44	198.15	159.19	38.96	5.086		
6,300.00	6,144.20	6,302.05	6,106.77	29.40	31.05	-56.32	1.90	1,282.81	201.93	162.29	39.64	5.094		
6,400.00	6,240.47	6,401.97	6,201.94	29.96	31.67	-55.86	0.19	1,313.19	205.72	165.40	40.32	5.103		
6,500.00	6,336.74	6,501.88	6,297.11	30.53	32.29	-55.42	-1.52	1,343.57	209.52	168.52	40.99	5.111		
6,600.00	6,433.01	6,601.80	6,392.27	31.10	32.90	-54.99	-3.23	1,373.95	213.33	171.66	41.67	5.119		
6,700.00	6,529.28	6,701.71	6,487.44	31.67	33.52	-54.58	-4.94	1,404.32	217.16	174.81	42.35	5.128		
6,800.00	6,625.55	6,801.63	6,582.61	32.23	34.14	-54.19	-6.65	1,434.70	221.00	177.97	43.02	5.137		
6,900.00	6,721.82	6,904.35	6,680.62	32.80	34.76	-53.90	-8.38	1,465.42	224.52	180.77	43.75	5.132		
7,000.00	6,818.09	7,009.65	6,782.05	33.37	35.36	-54.27	-9.97	1,493.63	225.94	181.35	44.59	5.067		
7,100.00	6,914.36	7,114.80	6,884.31	33.94	35.91	-55.40	-11.35	1,518.07	225.05	179.53	45.52	4.944		
7,200.00	7,010.63	7,219.52	6,986.96	34.51	36.41	-57.32	-12.51	1,538.67	222.03	175.48	46.55	4.770		
7,300.00	7,106.90	7,323.52	7,089.60	35.08	36.86	-60.09	-13.45	1,555.41	217.19	169.49	47.69	4.554		
7,400.00	7,203.17	7,426.55	7,191.81	35.65	37.26	-63.82	-14.18	1,568.31	210.98	162.02	48.96	4.310		
7,506.72	7,305.91	7,535.14	7,299.97	36.26	37.64	-68.98	-14.72	1,577.93	203.63	153.21	50.42	4.039		
7,600.00	7,396.11	7,629.06	7,393.75	36.77	37.92	-74.08	-15.00	1,582.94	197.86	146.19	51.67	3.829		
7,700.00	7,493.60	7,729.03	7,493.70	37.28	38.19	-79.80	-15.11	1,584.90	193.32	140.49	52.83	3.659		
7,800.00	7,591.82	7,827.35	7,592.02	37.75	38.44	-85.21	-15.11	1,584.91	190.82	137.11	53.71	3.553		
7,900.00	7,690.63	7,926.16	7,690.83	38.18	38.68	-89.76	-15.11	1,584.91	190.14	135.81	54.32	3.500		
7,905.96	7,696.53	7,932.07	7,696.73	38.20	38.69	-90.00	-15.11	1,584.91	190.14	135.78	54.35	3.498 SF		
8,000.00	7,789.91	8,000.00	7,764.57	38.57	38.86	-92.62	-12.21	1,584.88	195.02	140.84	54.18	3.600		
8,100.00	7,889.55	8,076.88	7,840.31	38.92	39.04	-95.10	0.60	1,584.76	212.67	159.38	53.29	3.991		
8,200.00	7,989.42	8,150.00	7,910.15	39.23	39.20	-96.80	22.10	1,584.56	242.31	190.38	51.93	4.666		
8,291.59	8,081.00	8,200.00	7,956.07	39.47	39.30	-0.38	41.84	1,584.37	278.53	229.14	49.39	5.640		
8,300.00	8,089.41	8,200.00	7,956.07	39.50	39.30	-0.38	41.84	1,584.37	282.41	233.66	48.75	5.793		
8,400.00	8,189.41	8,264.87	8,012.77	39.75	39.42	-0.39	73.27	1,584.07	331.40	284.07	47.34	7.001		
8,500.00	8,289.41	8,315.33	8,054.21	40.01	39.50	-0.41	102.04	1,583.80	388.49	343.27	45.22	8.591		
8,600.00	8,389.41	8,350.00	8,081.14	40.26	39.56	-0.42	123.87	1,583.59	452.37	409.86	42.51	10.642		
8,700.00	8,489.41	8,400.00	8,117.54	40.52	39.63	-0.43	158.12	1,583.26	521.31	479.84	41.47	12.572		
8,800.00	8,589.41	8,433.25	8,140.03	40.78	39.67	-0.44	182.60	1,583.03	594.91	555.16	39.75	14.967		
8,900.00	8,689.41	8,450.00	8,150.81	41.04	39.69	-0.44	195.42	1,582.91	672.50	634.91	37.58	17.894		
9,000.00	8,789.41	8,500.00	8,180.71	41.31	39.75	-0.45	235.47	1,582.53	752.70	715.21	37.49	20.079		
9,100.00	8,889.41	8,500.00	8,180.71	41.57	39.75	-0.45	235.47	1,582.53	835.66	800.34	35.32	23.660		
9,200.00	8,989.41	8,534.28	8,199.14	41.84	39.79	-0.46	264.38	1,582.25	920.35	885.42	34.93	26.349		
9,300.00	9,089.41	8,550.00	8,207.00	42.11	39.80	-0.46	277.98	1,582.12	1,007.08	973.08	34.00	29.619		
9,400.00	9,189.41	8,569.49	8,216.23	42.37	39.82	-0.46	295.14	1,581.96	1,095.28	1,061.89	33.39	32.804		
9,500.00	9,289.41	8,600.00	8,229.49	42.64	39.85	-0.47	322.62	1,581.70	1,185.06	1,151.82	33.24	35.650		
9,600.00	9,389.41	8,600.00	8,229.49	42.92	39.85	-0.47	322.62	1,581.70	1,275.30	1,242.97	32.33	39.451		
9,700.00	9,489.41	8,600.00	8,229.49	43.19	39.85	-0.47	322.62	1,581.70	1,366.90	1,335.31	31.59	43.269		
9,800.00	9,589.41	8,621.27	8,237.86	43.46	39.87	-0.47	342.17	1,581.51	1,459.05	1,427.57	31.48	46.347		
9,900.00	9,689.41	8,631.42	8,241.60	43.74	39.89	-0.47	351.61	1,581.42	1,552.03	1,520.84	31.19	49.767		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
10,000.00	9,789.41	8,650.00	8,248.00	44.01	39.91	-0.47	369.05	1,581.25	1,645.72	1,614.60	31.13	52.872		
10,100.00	9,889.41	8,650.00	8,248.00	44.29	39.91	-0.47	369.05	1,581.25	1,739.75	1,708.98	30.77	56.539		
10,200.00	9,989.41	8,650.00	8,248.00	44.57	39.91	-0.47	369.05	1,581.25	1,834.41	1,803.91	30.49	60.159		
10,300.00	10,089.41	8,650.00	8,248.00	44.85	39.91	-0.47	369.05	1,581.25	1,929.60	1,899.32	30.28	63.720		
10,400.00	10,189.41	8,671.14	8,254.60	45.13	39.93	-0.47	389.13	1,581.06	2,024.76	1,994.32	30.44	66.522		
10,500.00	10,289.41	8,677.41	8,256.41	45.41	39.93	-0.48	395.13	1,581.01	2,120.49	2,090.09	30.40	69.748		
10,600.00	10,389.41	8,700.00	8,262.40	45.70	39.96	-0.48	416.91	1,580.80	2,216.83	2,186.21	30.61	72.417		
10,700.00	10,489.41	8,700.00	8,262.40	45.98	39.96	-0.48	416.91	1,580.80	2,312.95	2,282.41	30.55	75.715		
10,800.00	10,589.41	8,700.00	8,262.40	46.27	39.96	-0.48	416.91	1,580.80	2,409.40	2,378.88	30.52	78.936		
10,900.00	10,689.41	8,700.00	8,262.40	46.55	39.96	-0.48	416.91	1,580.80	2,506.12	2,475.59	30.53	82.085		
11,000.00	10,789.41	8,700.00	8,262.40	46.84	39.96	-0.48	416.91	1,580.80	2,603.09	2,572.52	30.57	85.161		
11,100.00	10,889.41	8,700.00	8,262.40	47.13	39.96	-0.48	416.91	1,580.80	2,700.28	2,669.66	30.63	88.171		
11,200.00	10,989.41	8,700.00	8,262.40	47.42	39.96	-0.48	416.91	1,580.80	2,797.67	2,766.96	30.71	91.106		
11,300.00	11,089.41	8,700.00	8,262.40	47.71	39.96	-0.48	416.91	1,580.80	2,895.24	2,864.43	30.81	93.964		
11,400.00	11,189.41	8,700.00	8,262.40	48.00	39.96	-0.48	416.91	1,580.80	2,992.97	2,962.03	30.94	96.746		
11,500.00	11,289.41	8,721.86	8,267.37	48.29	39.98	-0.48	438.20	1,580.60	3,090.35	3,059.09	31.25	98.885		
11,600.00	11,389.41	8,725.05	8,268.03	48.58	39.99	-0.48	441.31	1,580.57	3,188.20	3,156.77	31.43	101.452		
11,700.00	11,489.41	8,728.06	8,268.63	48.88	39.99	-0.48	444.27	1,580.54	3,286.16	3,254.55	31.61	103.954		
11,760.63	11,550.04	8,750.00	8,272.57	49.05	40.02	-0.48	465.85	1,580.33	3,346.03	3,314.15	31.88	104.972		
11,800.00	11,589.38	8,750.00	8,272.57	49.17	40.02	0.04	465.85	1,580.33	3,384.30	3,352.37	31.94	105.971		
11,850.00	11,639.05	8,750.00	8,272.57	49.31	40.02	0.03	465.85	1,580.33	3,431.91	3,399.91	32.00	107.260		
11,900.00	11,688.04	8,750.00	8,272.57	49.44	40.02	0.03	465.85	1,580.33	3,478.10	3,446.06	32.04	108.558		
11,950.00	11,735.98	8,750.00	8,272.57	49.57	40.02	0.02	465.85	1,580.33	3,522.58	3,490.52	32.07	109.857		
12,000.00	11,782.51	8,750.00	8,272.57	49.68	40.02	0.02	465.85	1,580.33	3,565.10	3,533.02	32.08	111.141		
12,050.00	11,827.26	8,750.00	8,272.57	49.79	40.02	0.02	465.85	1,580.33	3,605.40	3,573.32	32.08	112.391		
12,100.00	11,869.91	8,750.00	8,272.57	49.88	40.02	0.02	465.85	1,580.33	3,643.25	3,611.18	32.07	113.608		
12,150.00	11,910.12	8,750.00	8,272.57	49.96	40.02	0.01	465.85	1,580.33	3,678.44	3,646.39	32.05	114.770		
12,200.00	11,947.60	8,750.00	8,272.57	50.03	40.02	0.01	465.85	1,580.33	3,710.79	3,678.76	32.03	115.864		
12,250.00	11,982.04	8,750.00	8,272.57	50.09	40.02	0.01	465.85	1,580.33	3,740.13	3,708.12	32.00	116.873		
12,300.00	12,013.20	8,772.32	8,275.72	50.14	40.04	0.01	487.94	1,580.12	3,765.80	3,733.71	32.09	117.364		
12,350.00	12,040.84	8,778.20	8,276.41	50.18	40.05	0.01	493.78	1,580.07	3,788.37	3,756.30	32.08	118.105		
12,400.00	12,064.73	8,800.00	8,278.43	50.21	40.08	0.01	515.49	1,579.86	3,807.71	3,775.56	32.15	118.431		
12,450.00	12,084.72	8,800.00	8,278.43	50.23	40.08	0.01	515.49	1,579.86	3,823.05	3,790.93	32.12	119.019		
12,500.00	12,100.63	8,800.00	8,278.43	50.25	40.08	0.01	515.49	1,579.86	3,834.79	3,802.69	32.10	119.459		
12,550.00	12,112.35	8,800.00	8,278.43	50.27	40.08	0.01	515.49	1,579.86	3,842.89	3,810.80	32.09	119.741		
12,600.00	12,119.79	8,800.00	8,278.43	50.30	40.08	0.01	515.49	1,579.86	3,847.30	3,815.21	32.10	119.870		
12,650.00	12,122.90	8,800.00	8,278.43	50.33	40.08	0.01	515.49	1,579.86	3,848.00	3,815.89	32.11	119.836		
12,660.63	12,123.00	8,800.00	8,278.43	50.33	40.08	0.01	515.49	1,579.86	3,847.67	3,815.56	32.11	119.814		
12,700.00	12,123.00	8,822.60	8,279.66	50.37	40.12	0.01	538.05	1,579.65	3,845.83	3,813.63	32.20	119.435		
12,800.00	12,123.00	8,842.38	8,280.00	50.47	40.15	0.01	557.82	1,579.46	3,843.56	3,811.20	32.36	118.783		
12,900.00	12,123.00	8,889.86	8,280.00	50.63	40.23	0.01	605.30	1,579.01	3,843.20	3,810.57	32.63	117.767		
12,920.71	12,123.00	8,910.56	8,280.00	50.66	40.27	0.01	626.01	1,578.81	3,843.20	3,810.48	32.72	117.469		
13,000.00	12,123.00	8,989.86	8,280.00	50.83	40.45	0.01	705.29	1,578.05	3,843.20	3,810.16	33.04	116.327		
13,100.00	12,123.00	9,089.86	8,280.00	51.08	40.72	0.01	805.29	1,577.10	3,843.20	3,809.73	33.47	114.815		
13,200.00	12,123.00	9,189.86	8,280.00	51.39	41.06	0.01	905.28	1,576.15	3,843.20	3,809.26	33.94	113.239		
13,300.00	12,123.00	9,289.86	8,280.00	51.76	41.47	0.01	1,005.28	1,575.20	3,843.20	3,808.77	34.43	111.610		
13,400.00	12,123.00	9,389.86	8,280.00	52.19	41.94	0.01	1,105.28	1,574.25	3,843.20	3,808.24	34.96	109.938		
13,500.00	12,123.00	9,489.86	8,280.00	52.68	42.49	0.01	1,205.27	1,573.30	3,843.20	3,807.69	35.51	108.233		
13,600.00	12,123.00	9,589.86	8,280.00	53.23	43.10	0.01	1,305.27	1,572.34	3,843.20	3,807.12	36.09	106.504		
13,700.00	12,123.00	9,689.86	8,280.00	53.84	43.78	0.01	1,405.26	1,571.39	3,843.20	3,806.51	36.69	104.759		
13,800.00	12,123.00	9,789.86	8,280.00	54.50	44.52	0.01	1,505.26	1,570.44	3,843.20	3,805.89	37.31	103.006		
13,900.00	12,123.00	9,889.86	8,280.00	55.21	45.32	0.01	1,605.25	1,569.49	3,843.20	3,805.24	37.96	101.251		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 FMM Fed Com - FMM Fed Com 104H - 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		
19,200.00	12,123.00	15,189.86	8,280.00	123.89	118.65	0.00	6,905.01	1,519.06	3,843.20	3,756.33	86.87	44.240		
19,300.00	12,123.00	15,289.86	8,280.00	125.41	120.22	0.00	7,005.01	1,518.10	3,843.20	3,755.29	87.91	43.717		
19,400.00	12,123.00	15,389.86	8,280.00	126.94	121.79	0.00	7,105.00	1,517.15	3,843.20	3,754.25	88.95	43.205		
19,500.00	12,123.00	15,489.86	8,280.00	128.48	123.37	0.00	7,205.00	1,516.20	3,843.20	3,753.20	90.00	42.704		
19,600.00	12,123.00	15,589.86	8,280.00	130.01	124.95	0.00	7,304.99	1,515.25	3,843.20	3,752.16	91.04	42.214		
19,700.00	12,123.00	15,689.86	8,280.00	131.55	126.53	0.00	7,404.99	1,514.30	3,843.20	3,751.11	92.09	41.735		
19,800.00	12,123.00	15,789.86	8,280.00	133.09	128.11	0.00	7,504.99	1,513.35	3,843.20	3,750.07	93.13	41.265		
19,900.00	12,123.00	15,889.86	8,280.00	134.63	129.69	0.00	7,604.98	1,512.40	3,843.20	3,749.02	94.18	40.806		
20,000.00	12,123.00	15,989.86	8,280.00	136.18	131.28	0.00	7,704.98	1,511.44	3,843.20	3,747.97	95.23	40.355		
20,100.00	12,123.00	16,089.86	8,280.00	137.72	132.86	0.00	7,804.97	1,510.49	3,843.20	3,746.91	96.29	39.915		
20,200.00	12,123.00	16,189.86	8,280.00	139.27	134.45	0.00	7,904.97	1,509.54	3,843.20	3,745.86	97.34	39.483		
20,300.00	12,123.00	16,289.86	8,280.00	140.83	136.04	0.00	8,004.96	1,508.59	3,843.20	3,744.81	98.39	39.060		
20,400.00	12,123.00	16,389.86	8,280.00	142.38	137.63	0.00	8,104.96	1,507.64	3,843.20	3,743.75	99.45	38.645		
20,500.00	12,123.00	16,489.86	8,280.00	143.94	139.23	0.00	8,204.95	1,506.69	3,843.20	3,742.69	100.51	38.239		
20,600.00	12,123.00	16,589.86	8,280.00	145.50	140.82	0.00	8,304.95	1,505.73	3,843.20	3,741.64	101.56	37.840		
20,700.00	12,123.00	16,689.86	8,280.00	147.06	142.42	0.00	8,404.94	1,504.78	3,843.20	3,740.58	102.62	37.450		
20,800.00	12,123.00	16,789.86	8,280.00	148.62	144.01	0.00	8,504.94	1,503.83	3,843.20	3,739.52	103.68	37.067		
20,900.00	12,123.00	16,889.86	8,280.00	150.19	145.61	0.00	8,604.94	1,502.88	3,843.20	3,738.46	104.74	36.692		
21,000.00	12,123.00	16,989.86	8,280.00	151.76	147.21	0.00	8,704.93	1,501.93	3,843.20	3,737.39	105.81	36.323		
21,100.00	12,123.00	17,089.86	8,280.00	153.32	148.81	0.00	8,804.93	1,500.98	3,843.20	3,736.33	106.87	35.962		
21,200.00	12,123.00	17,189.86	8,280.00	154.90	150.41	0.00	8,904.92	1,500.02	3,843.20	3,735.27	107.93	35.608		
21,300.00	12,123.00	17,289.86	8,280.00	156.47	152.01	0.00	9,004.92	1,499.07	3,843.20	3,734.20	109.00	35.260		
21,400.00	12,123.00	17,389.86	8,280.00	158.04	153.62	0.00	9,104.91	1,498.12	3,843.20	3,733.14	110.06	34.918		
21,500.00	12,123.00	17,489.86	8,280.00	159.62	155.22	0.00	9,204.91	1,497.17	3,843.20	3,732.07	111.13	34.583		
21,600.00	12,123.00	17,589.86	8,280.00	161.19	156.83	0.00	9,304.90	1,496.22	3,843.20	3,731.00	112.20	34.254		
21,700.00	12,123.00	17,689.86	8,280.00	162.77	158.43	0.00	9,404.90	1,495.27	3,843.20	3,729.93	113.27	33.931		
21,800.00	12,123.00	17,789.86	8,280.00	164.35	160.04	0.00	9,504.89	1,494.32	3,843.20	3,728.87	114.33	33.614		
21,900.00	12,123.00	17,889.86	8,280.00	165.93	161.65	0.00	9,604.89	1,493.36	3,843.20	3,727.80	115.40	33.302		
22,000.00	12,123.00	17,989.86	8,280.00	167.52	163.26	0.00	9,704.89	1,492.41	3,843.20	3,726.73	116.47	32.996		
22,100.00	12,123.00	18,089.86	8,280.00	169.10	164.87	0.00	9,804.88	1,491.46	3,843.20	3,725.65	117.55	32.695		
22,200.00	12,123.00	18,189.86	8,280.00	170.69	166.48	0.00	9,904.88	1,490.51	3,843.20	3,724.58	118.62	32.400		
22,300.00	12,123.00	18,289.86	8,280.00	172.27	168.09	0.00	10,004.87	1,489.56	3,843.20	3,723.51	119.69	32.109		
22,400.00	12,123.00	18,389.86	8,280.00	173.86	169.70	0.00	10,104.87	1,488.61	3,843.20	3,722.44	120.76	31.824		
22,433.09	12,123.00	18,422.94	8,280.00	174.37	170.24	0.00	10,137.95	1,488.29	3,843.20	3,722.17	121.03	31.753		
22,448.92	12,123.00	18,438.77	8,280.00	174.61	170.49	0.00	10,153.78	1,488.14	3,843.20	3,722.04	121.16	31.719		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
0.00	0.00	0.00	0.00	0.00	0.00	-88.41	56.28	-2,024.27	2,025.53					
100.00	100.00	55.80	55.80	0.13	0.07	-88.41	56.28	-2,024.27	2,025.05	2,024.91	0.14	N/A		
200.00	200.00	155.80	155.80	0.48	0.33	-88.41	56.28	-2,024.27	2,025.05	2,024.47	0.58	3,472.217		
300.00	300.00	255.80	255.80	0.84	0.68	-88.41	56.28	-2,024.27	2,025.05	2,023.97	1.09	1,866.221		
400.00	400.00	355.80	355.80	1.20	1.04	-88.41	56.28	-2,024.27	2,025.05	2,023.46	1.59	1,273.444		
500.00	500.00	455.80	455.80	1.56	1.40	-88.41	56.28	-2,024.27	2,025.05	2,022.95	2.10	966.051		
600.00	600.00	555.80	555.80	1.92	1.76	-88.41	56.28	-2,024.27	2,025.05	2,022.45	2.60	778.091		
700.00	700.00	655.80	655.80	2.28	2.12	-88.41	56.28	-2,024.27	2,025.05	2,021.94	3.11	651.320		
800.00	800.00	755.80	755.80	2.63	2.48	-88.41	56.28	-2,024.27	2,025.05	2,021.43	3.62	560.053		
900.00	900.00	855.80	855.80	2.99	2.83	-88.41	56.28	-2,024.27	2,025.05	2,020.93	4.12	491.212		
1,000.00	1,000.00	955.80	955.80	3.35	3.19	-88.41	56.28	-2,024.27	2,025.05	2,020.42	4.63	437.437		
1,100.00	1,100.00	1,055.80	1,055.80	3.71	3.55	-88.41	56.28	-2,024.27	2,025.05	2,019.91	5.14	394.272		
1,200.00	1,200.00	1,155.80	1,155.80	4.07	3.91	-88.41	56.28	-2,024.27	2,025.05	2,019.41	5.64	358.859		
1,300.00	1,300.00	1,255.80	1,255.80	4.43	4.27	-88.41	56.28	-2,024.27	2,025.05	2,018.90	6.15	329.283		
1,400.00	1,400.00	1,355.80	1,355.80	4.79	4.63	-88.41	56.28	-2,024.27	2,025.05	2,018.39	6.66	304.210		
1,500.00	1,500.00	1,455.80	1,455.80	5.14	4.99	-88.41	56.28	-2,024.27	2,025.05	2,017.89	7.16	282.684		
1,600.00	1,600.00	1,555.80	1,555.80	5.50	5.34	-88.41	56.28	-2,024.27	2,025.05	2,017.38	7.67	264.003 CC, ES		
1,700.00	1,699.98	1,655.78	1,655.78	5.85	5.70	174.16	56.28	-2,024.27	2,026.79	2,018.62	8.17	248.071		
1,800.00	1,799.84	1,755.64	1,755.64	6.19	6.06	174.16	56.28	-2,024.27	2,031.99	2,023.33	8.66	234.534		
1,900.00	1,899.45	1,855.25	1,855.25	6.54	6.42	174.17	56.28	-2,024.27	2,040.66	2,031.50	9.16	222.816		
2,000.00	1,998.70	1,954.50	1,954.50	6.89	6.77	174.18	56.28	-2,024.27	2,052.79	2,043.13	9.65	212.654		
2,100.00	2,097.47	2,034.93	2,034.93	7.26	7.06	174.18	56.25	-2,024.42	2,068.59	2,058.49	10.10	204.847		
2,200.00	2,195.62	2,100.00	2,099.99	7.64	7.28	174.17	56.00	-2,025.55	2,089.24	2,078.74	10.50	198.960		
2,300.00	2,293.06	2,162.02	2,161.97	8.04	7.49	174.14	55.53	-2,027.62	2,114.84	2,103.95	10.89	194.212		
2,384.88	2,375.09	2,200.00	2,199.91	8.39	7.62	174.10	55.14	-2,029.38	2,140.45	2,129.27	11.18	191.470		
2,400.00	2,389.65	2,223.86	2,223.73	8.46	7.71	174.11	54.86	-2,030.67	2,145.25	2,133.97	11.28	190.237		
2,500.00	2,485.92	2,300.00	2,299.69	8.90	7.97	174.13	53.72	-2,035.76	2,178.41	2,166.71	11.70	186.268		
2,600.00	2,582.19	2,345.10	2,344.63	9.36	8.12	174.14	52.90	-2,039.47	2,212.85	2,200.82	12.03	183.956		
2,700.00	2,678.46	2,400.00	2,399.27	9.83	8.31	174.14	51.73	-2,044.69	2,248.81	2,236.42	12.39	181.541		
2,800.00	2,774.74	2,463.61	2,462.47	10.31	8.54	174.14	50.18	-2,051.70	2,286.15	2,273.38	12.77	179.029		
2,900.00	2,871.01	2,521.80	2,520.17	10.80	8.74	174.14	48.55	-2,059.00	2,324.86	2,311.73	13.13	177.001		
3,000.00	2,967.28	2,579.25	2,577.04	11.29	8.95	174.12	46.76	-2,067.06	2,364.93	2,351.43	13.50	175.234		
3,100.00	3,063.55	2,635.97	2,633.04	11.80	9.16	174.11	44.80	-2,075.83	2,406.32	2,392.46	13.85	173.706		
3,200.00	3,159.82	2,700.00	2,696.09	12.31	9.40	174.08	42.38	-2,086.70	2,449.02	2,434.79	14.23	172.072		
3,300.00	3,256.09	2,747.14	2,742.38	12.83	9.57	174.06	40.46	-2,095.37	2,492.96	2,478.41	14.55	171.297		
3,400.00	3,352.36	2,827.83	2,821.49	13.35	9.89	174.01	36.99	-2,110.93	2,537.81	2,522.82	14.99	169.297		
3,500.00	3,448.63	2,917.17	2,909.06	13.88	10.24	173.97	33.15	-2,128.18	2,582.71	2,567.25	15.46	167.056		
3,600.00	3,544.90	3,006.51	2,996.63	14.41	10.59	173.92	29.31	-2,145.44	2,627.61	2,611.68	15.93	164.920		
3,700.00	3,641.17	3,095.84	3,084.20	14.94	10.96	173.88	25.47	-2,162.69	2,672.51	2,656.10	16.41	162.883		
3,800.00	3,737.44	3,185.18	3,171.77	15.48	11.32	173.84	21.63	-2,179.94	2,717.41	2,700.52	16.88	160.938		
3,900.00	3,833.71	3,274.51	3,259.34	16.02	11.69	173.80	17.79	-2,197.20	2,762.31	2,744.94	17.36	159.081		
4,000.00	3,929.98	3,363.85	3,346.91	16.56	12.07	173.76	13.95	-2,214.45	2,807.21	2,789.36	17.85	157.308		
4,100.00	4,026.25	3,453.19	3,434.48	17.10	12.45	173.72	10.11	-2,231.71	2,852.11	2,833.78	18.33	155.612		
4,200.00	4,122.52	3,542.52	3,522.05	17.65	12.83	173.68	6.27	-2,248.96	2,897.02	2,878.20	18.81	153.990		
4,300.00	4,218.79	3,631.86	3,609.62	18.20	13.22	173.65	2.43	-2,266.21	2,941.92	2,922.62	19.30	152.437		
4,400.00	4,315.06	3,721.19	3,697.19	18.75	13.61	173.61	-1.41	-2,283.47	2,986.83	2,967.04	19.79	150.950		
4,500.00	4,411.33	3,810.53	3,784.76	19.30	14.00	173.58	-5.25	-2,300.72	3,031.73	3,011.46	20.28	149.524		
4,600.00	4,507.60	3,899.87	3,872.33	19.85	14.39	173.55	-9.09	-2,317.98	3,076.64	3,055.87	20.77	148.157		
4,700.00	4,603.87	3,989.20	3,959.89	20.41	14.78	173.51	-12.94	-2,335.23	3,121.55	3,100.29	21.26	146.844		
4,800.00	4,700.14	4,078.54	4,047.46	20.96	15.18	173.48	-16.78	-2,352.49	3,166.46	3,144.71	21.75	145.583		
4,900.00	4,796.41	4,167.87	4,135.03	21.52	15.58	173.45	-20.62	-2,369.74	3,211.37	3,189.12	22.24	144.371		
5,000.00	4,892.68	4,257.21	4,222.60	22.08	15.98	173.42	-24.46	-2,386.99	3,256.28	3,233.54	22.74	143.205		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
5,100.00	4,988.95	4,346.55	4,310.17	22.64	16.38	173.40	-28.30	-2,404.25	3,301.19	3,277.95	23.23	142.083		
5,200.00	5,085.22	4,435.88	4,397.74	23.20	16.79	173.37	-32.14	-2,421.50	3,346.10	3,322.37	23.73	141.003		
5,300.00	5,181.49	4,525.22	4,485.31	23.76	17.19	173.34	-35.98	-2,438.76	3,391.01	3,366.78	24.23	139.963		
5,400.00	5,277.76	4,614.55	4,572.88	24.32	17.60	173.32	-39.82	-2,456.01	3,435.92	3,411.20	24.73	138.959		
5,500.00	5,374.03	4,703.89	4,660.45	24.88	18.01	173.29	-43.66	-2,473.26	3,480.84	3,455.61	25.23	137.991		
5,600.00	5,470.31	4,793.23	4,748.02	25.44	18.42	173.27	-47.50	-2,490.52	3,525.75	3,500.03	25.72	137.057		
5,700.00	5,566.58	4,882.56	4,835.59	26.01	18.83	173.24	-51.34	-2,507.77	3,570.66	3,544.44	26.23	136.154		
5,800.00	5,662.85	4,971.90	4,923.16	26.57	19.24	173.22	-55.18	-2,525.03	3,615.58	3,588.85	26.73	135.282		
5,900.00	5,759.12	5,061.23	5,010.73	27.13	19.65	173.19	-59.02	-2,542.28	3,660.49	3,633.27	27.23	134.439		
6,000.00	5,855.39	5,150.57	5,098.30	27.70	20.06	173.17	-62.86	-2,559.53	3,705.41	3,677.68	27.73	133.623		
6,100.00	5,951.66	5,239.91	5,185.87	28.26	20.47	173.15	-66.70	-2,576.79	3,750.33	3,722.09	28.23	132.833		
6,200.00	6,047.93	5,329.24	5,273.44	28.83	20.89	173.13	-70.54	-2,594.04	3,795.24	3,766.51	28.74	132.069		
6,300.00	6,144.20	5,418.58	5,361.01	29.40	21.30	173.11	-74.38	-2,611.30	3,840.16	3,810.92	29.24	131.328		
6,400.00	6,240.47	5,507.91	5,448.58	29.96	21.72	173.09	-78.22	-2,628.55	3,885.08	3,855.33	29.75	130.610		
6,500.00	6,336.74	5,597.25	5,536.15	30.53	22.14	173.07	-82.07	-2,645.81	3,929.99	3,899.74	30.25	129.913		
6,600.00	6,433.01	5,686.59	5,623.72	31.10	22.55	173.05	-85.91	-2,663.06	3,974.91	3,944.16	30.76	129.238		
6,700.00	6,529.28	5,775.92	5,711.29	31.67	22.97	173.03	-89.75	-2,680.31	4,019.83	3,988.57	31.26	128.582		
6,800.00	6,625.55	5,865.26	5,798.86	32.23	23.39	173.01	-93.59	-2,697.57	4,064.75	4,032.98	31.77	127.945		
6,900.00	6,721.82	5,954.59	5,886.43	32.80	23.80	172.99	-97.43	-2,714.82	4,109.67	4,077.39	32.28	127.326		
7,000.00	6,818.09	6,043.93	5,974.00	33.37	24.22	172.97	-101.27	-2,732.08	4,154.59	4,121.80	32.78	126.724		
7,100.00	6,914.36	6,133.27	6,061.57	33.94	24.64	172.96	-105.11	-2,749.33	4,199.51	4,166.22	33.29	126.139		
7,200.00	7,010.63	6,222.60	6,149.14	34.51	25.06	172.94	-108.95	-2,766.58	4,244.43	4,210.63	33.80	125.570		
7,300.00	7,106.90	6,311.94	6,236.71	35.08	25.48	172.92	-112.79	-2,783.84	4,289.35	4,255.04	34.31	125.016		
7,400.00	7,203.17	6,401.27	6,324.28	35.65	25.90	172.91	-116.63	-2,801.09	4,334.27	4,299.45	34.82	124.477		
7,506.72	7,305.91	6,496.61	6,417.73	36.26	26.35	172.89	-120.73	-2,819.51	4,382.21	4,346.84	35.36	123.918		
7,600.00	7,396.11	6,580.61	6,500.07	36.77	26.75	172.98	-124.34	-2,835.73	4,422.76	4,386.92	35.84	123.404		
7,700.00	7,493.60	7,537.71	7,449.40	37.28	30.52	173.09	-146.72	-2,936.27	4,462.22	4,422.83	39.40	113.266		
7,800.00	7,591.82	7,635.92	7,547.62	37.75	30.82	173.17	-146.72	-2,936.27	4,480.88	4,440.99	39.89	112.322		
7,900.00	7,690.63	7,734.73	7,646.43	38.18	31.12	173.23	-146.72	-2,936.27	4,496.13	4,455.74	40.39	111.327		
8,000.00	7,789.91	7,834.02	7,745.71	38.57	31.42	173.27	-146.72	-2,936.27	4,507.94	4,467.07	40.87	110.287		
8,100.00	7,889.55	7,933.66	7,845.35	38.92	31.72	173.30	-146.72	-2,936.27	4,516.31	4,474.95	41.36	109.203		
8,200.00	7,989.42	8,033.53	7,945.22	39.23	32.03	173.32	-146.72	-2,936.27	4,521.22	4,479.38	41.83	108.079		
8,291.59	8,081.00	8,125.11	8,036.80	39.47	32.31	-89.24	-146.72	-2,936.27	4,522.67	4,480.41	42.26	107.026		
8,300.00	8,089.41	8,133.52	8,045.21	39.50	32.33	-89.24	-146.72	-2,936.27	4,522.67	4,480.37	42.30	106.929		
8,400.00	8,189.41	8,233.52	8,145.21	39.75	32.64	-89.24	-146.72	-2,936.27	4,522.67	4,479.92	42.75	105.786		
8,500.00	8,289.41	8,333.52	8,245.21	40.01	32.95	-89.24	-146.72	-2,936.27	4,522.67	4,479.46	43.21	104.665		
8,600.00	8,389.41	8,433.52	8,345.21	40.26	33.26	-89.24	-146.72	-2,936.27	4,522.67	4,479.00	43.67	103.564		
8,700.00	8,489.41	8,533.52	8,445.21	40.52	33.57	-89.24	-146.72	-2,936.27	4,522.67	4,478.54	44.13	102.484		
8,800.00	8,589.41	8,633.52	8,545.21	40.78	33.88	-89.24	-146.72	-2,936.27	4,522.67	4,478.08	44.59	101.424		
8,900.00	8,689.41	8,733.52	8,645.21	41.04	34.19	-89.24	-146.72	-2,936.27	4,522.67	4,477.62	45.05	100.384		
9,000.00	8,789.41	8,833.52	8,745.21	41.31	34.50	-89.24	-146.72	-2,936.27	4,522.67	4,477.15	45.52	99.362		
9,100.00	8,889.41	8,933.52	8,845.21	41.57	34.82	-89.24	-146.72	-2,936.27	4,522.67	4,476.69	45.98	98.359		
9,200.00	8,989.41	9,033.52	8,945.21	41.84	35.13	-89.24	-146.72	-2,936.27	4,522.67	4,476.22	46.45	97.375		
9,300.00	9,089.41	9,133.52	9,045.21	42.11	35.45	-89.24	-146.72	-2,936.27	4,522.67	4,475.76	46.91	96.408		
9,400.00	9,189.41	9,233.52	9,145.21	42.37	35.76	-89.24	-146.72	-2,936.27	4,522.67	4,475.29	47.38	95.458		
9,500.00	9,289.41	9,333.52	9,245.21	42.64	36.08	-89.24	-146.72	-2,936.27	4,522.67	4,474.82	47.85	94.525		
9,600.00	9,389.41	9,433.52	9,345.21	42.92	36.40	-89.24	-146.72	-2,936.27	4,522.67	4,474.36	48.31	93.609		
9,700.00	9,489.41	9,533.52	9,445.21	43.19	36.72	-89.24	-146.72	-2,936.27	4,522.67	4,473.89	48.78	92.709		
9,709.50	9,498.91	9,543.02	9,454.71	43.21	36.75	-89.24	-146.72	-2,936.27	4,522.67	4,473.84	48.83	92.624		
9,800.00	9,589.41	9,626.45	9,538.12	43.46	37.01	-89.22	-145.45	-2,936.28	4,522.70	4,473.47	49.23	91.865		
9,900.00	9,689.41	9,709.17	9,619.97	43.74	37.26	-89.08	-134.03	-2,936.39	4,523.05	4,473.41	49.64	91.118		
10,000.00	9,789.41	9,787.10	9,694.83	44.01	37.47	-88.80	-112.59	-2,936.61	4,523.87	4,473.85	50.02	90.444		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
10,100.00	9,889.41	9,858.09	9,759.93	44.29	37.65	-88.45	-84.39	-2,936.89	4,525.35	4,474.99	50.37	89.850		
10,200.00	9,989.41	9,921.16	9,814.45	44.57	37.78	-88.05	-52.75	-2,937.20	4,527.72	4,477.04	50.68	89.336		
10,300.00	10,089.41	9,976.29	9,859.01	44.85	37.88	-87.64	-20.33	-2,937.52	4,531.20	4,480.23	50.97	88.900		
10,400.00	10,189.41	10,024.05	9,894.95	45.13	37.95	-87.24	11.11	-2,937.84	4,536.00	4,484.77	51.23	88.539		
10,500.00	10,289.41	10,065.29	9,923.78	45.41	38.01	-86.87	40.58	-2,938.13	4,542.29	4,490.82	51.47	88.251		
10,600.00	10,389.41	10,100.00	9,946.35	45.70	38.05	-86.54	66.94	-2,938.39	4,550.19	4,498.51	51.68	88.039		
10,700.00	10,489.41	10,131.74	9,965.56	45.98	38.09	-86.22	92.20	-2,938.64	4,559.82	4,507.94	51.88	87.891		
10,800.00	10,589.41	10,150.00	9,975.97	46.27	38.11	-86.03	107.20	-2,938.79	4,571.27	4,519.23	52.04	87.847		
10,900.00	10,689.41	10,182.00	9,993.03	46.55	38.13	-85.69	134.27	-2,939.06	4,584.54	4,532.33	52.21	87.809		
11,000.00	10,789.41	10,200.00	10,001.96	46.84	38.15	-85.49	149.90	-2,939.22	4,599.72	4,547.37	52.34	87.877		
11,100.00	10,889.41	10,220.79	10,011.65	47.13	38.17	-85.26	168.29	-2,939.40	4,616.81	4,564.34	52.47	87.993		
11,200.00	10,989.41	10,250.00	10,024.13	47.42	38.19	-84.93	194.69	-2,939.66	4,635.88	4,583.27	52.60	88.131		
11,300.00	11,089.41	10,250.00	10,024.13	47.71	38.19	-84.93	194.69	-2,939.66	4,656.78	4,604.12	52.66	88.434		
11,400.00	11,189.41	10,250.00	10,024.13	48.00	38.19	-84.93	194.69	-2,939.66	4,679.72	4,627.02	52.70	88.797		
11,500.00	11,289.41	10,275.98	10,034.09	48.29	38.21	-84.63	218.68	-2,939.90	4,704.44	4,651.65	52.80	89.107		
11,600.00	11,389.41	10,300.00	10,042.32	48.58	38.23	-84.34	241.25	-2,940.12	4,731.20	4,678.33	52.87	89.485		
11,700.00	11,489.41	10,300.00	10,042.32	48.88	38.23	-84.34	241.25	-2,940.12	4,759.71	4,706.83	52.88	90.005		
11,760.63	11,550.04	10,300.00	10,042.32	49.05	38.23	-84.34	241.25	-2,940.12	4,777.93	4,725.05	52.89	90.345		
11,800.00	11,589.38	10,300.00	10,042.32	49.17	38.23	-82.55	241.25	-2,940.12	4,789.99	4,737.10	52.88	90.575		
11,850.00	11,639.05	10,300.00	10,042.32	49.31	38.23	-80.96	241.25	-2,940.12	4,805.24	4,752.36	52.88	90.872		
11,900.00	11,688.04	10,300.00	10,042.32	49.44	38.23	-79.40	241.25	-2,940.12	4,820.30	4,767.43	52.87	91.173		
11,950.00	11,735.98	10,323.84	10,049.54	49.57	38.25	-77.66	263.96	-2,940.35	4,834.84	4,781.93	52.92	91.368		
12,000.00	11,782.51	10,350.00	10,056.38	49.68	38.28	-75.97	289.21	-2,940.60	4,849.18	4,796.22	52.96	91.560		
12,050.00	11,827.26	10,350.00	10,056.38	49.79	38.28	-74.61	289.21	-2,940.60	4,862.70	4,809.75	52.94	91.846		
12,100.00	11,869.91	10,350.00	10,056.38	49.88	38.28	-73.33	289.21	-2,940.60	4,875.57	4,822.65	52.92	92.124		
12,150.00	11,910.12	10,350.00	10,056.38	49.96	38.28	-72.13	289.21	-2,940.60	4,887.72	4,834.82	52.90	92.390		
12,200.00	11,947.60	10,350.00	10,056.38	50.03	38.28	-71.03	289.21	-2,940.60	4,899.05	4,846.17	52.88	92.640		
12,250.00	11,982.04	10,376.60	10,062.13	50.09	38.30	-69.88	315.17	-2,940.86	4,909.17	4,856.24	52.93	92.748		
12,300.00	12,013.20	10,400.00	10,066.20	50.14	38.33	-68.89	338.22	-2,941.09	4,918.42	4,865.45	52.97	92.851		
12,350.00	12,040.84	10,400.00	10,066.20	50.18	38.33	-68.14	338.22	-2,941.09	4,926.38	4,873.41	52.96	93.017		
12,400.00	12,064.73	10,400.00	10,066.20	50.21	38.33	-67.50	338.22	-2,941.09	4,933.22	4,880.26	52.96	93.152		
12,450.00	12,084.72	10,400.00	10,066.20	50.23	38.33	-66.97	338.22	-2,941.09	4,938.91	4,885.95	52.96	93.253		
12,500.00	12,100.63	10,429.44	10,069.97	50.25	38.37	-66.51	367.41	-2,941.38	4,943.01	4,889.96	53.05	93.181		
12,550.00	12,112.35	10,450.00	10,071.72	50.27	38.40	-66.22	387.89	-2,941.58	4,945.97	4,892.85	53.12	93.112		
12,600.00	12,119.79	10,450.00	10,071.72	50.30	38.40	-66.08	387.89	-2,941.58	4,947.48	4,894.32	53.15	93.080		
12,650.00	12,122.90	10,450.00	10,071.72	50.33	38.40	-66.05	387.89	-2,941.58	4,947.73	4,894.53	53.20	93.006		
12,660.63	12,123.00	10,464.98	10,072.52	50.33	38.42	-66.07	402.85	-2,941.73	4,947.51	4,894.27	53.24	92.921		
12,700.00	12,123.00	10,488.35	10,073.00	50.37	38.46	-66.08	426.21	-2,941.96	4,947.10	4,893.76	53.34	92.742		
12,763.62	12,123.00	10,488.35	10,073.00	50.43	38.46	-66.08	426.21	-2,941.96	4,946.69	4,893.26	53.43	92.579		
12,800.00	12,123.00	10,522.49	10,073.00	50.47	38.52	-66.08	460.35	-2,942.30	4,946.71	4,893.14	53.57	92.347		
12,900.00	12,123.00	10,622.49	10,073.00	50.63	38.76	-66.08	560.34	-2,943.30	4,946.75	4,892.74	54.01	91.584		
13,000.00	12,123.00	10,722.49	10,073.00	50.83	39.09	-66.08	660.34	-2,944.29	4,946.80	4,892.25	54.54	90.695		
13,100.00	12,123.00	10,822.49	10,073.00	51.08	39.51	-66.08	760.33	-2,945.28	4,946.84	4,891.69	55.15	89.690		
13,200.00	12,123.00	10,922.49	10,073.00	51.39	40.01	-66.08	860.33	-2,946.28	4,946.89	4,891.04	55.84	88.583		
13,300.00	12,123.00	11,022.49	10,073.00	51.76	40.58	-66.08	960.32	-2,947.27	4,946.93	4,890.32	56.61	87.386		
13,400.00	12,123.00	11,122.49	10,073.00	52.19	41.21	-66.08	1,060.32	-2,948.27	4,946.98	4,889.53	57.45	86.112		
13,500.00	12,123.00	11,222.49	10,073.00	52.68	41.91	-66.08	1,160.31	-2,949.26	4,947.02	4,888.67	58.36	84.774		
13,600.00	12,123.00	11,322.49	10,073.00	53.23	42.67	-66.08	1,260.31	-2,950.25	4,947.07	4,887.74	59.33	83.383		
13,700.00	12,123.00	11,422.49	10,073.00	53.84	43.48	-66.08	1,360.30	-2,951.25	4,947.11	4,886.75	60.37	81.952		
13,800.00	12,123.00	11,522.49	10,073.00	54.50	44.33	-66.08	1,460.30	-2,952.24	4,947.16	4,885.70	61.46	80.490		
13,900.00	12,123.00	11,622.49	10,073.00	55.21	45.23	-66.08	1,560.29	-2,953.24	4,947.20	4,884.59	62.62	79.008		
14,000.00	12,123.00	11,722.49	10,073.00	55.97	46.18	-66.08	1,660.29	-2,954.23	4,947.25	4,883.43	63.82	77.515		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 FMM Fed Com - FMM Fed Com 301H - OH - Plan #1													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		
14,100.00	12,123.00	11,822.49	10,073.00	56.78	47.16	-66.08	1,760.28	-2,955.22	4,947.29	4,882.21	65.08	76.018		
14,200.00	12,123.00	11,922.49	10,073.00	57.63	48.19	-66.08	1,860.28	-2,956.22	4,947.34	4,880.95	66.39	74.523		
14,300.00	12,123.00	12,022.49	10,073.00	58.52	49.24	-66.08	1,960.27	-2,957.21	4,947.38	4,879.65	67.74	73.038		
14,400.00	12,123.00	12,122.49	10,073.00	59.45	50.33	-66.08	2,060.27	-2,958.21	4,947.43	4,878.30	69.13	71.567		
14,500.00	12,123.00	12,222.49	10,073.00	60.41	51.45	-66.08	2,160.26	-2,959.20	4,947.48	4,876.91	70.56	70.115		
14,600.00	12,123.00	12,322.49	10,073.00	61.41	52.59	-66.08	2,260.26	-2,960.19	4,947.52	4,875.49	72.03	68.684		
14,700.00	12,123.00	12,422.49	10,073.00	62.43	53.77	-66.08	2,360.25	-2,961.19	4,947.57	4,874.03	73.54	67.279		
14,800.00	12,123.00	12,522.49	10,073.00	63.49	54.96	-66.08	2,460.25	-2,962.18	4,947.61	4,872.53	75.08	65.900		
14,900.00	12,123.00	12,622.49	10,073.00	64.57	56.18	-66.08	2,560.24	-2,963.18	4,947.66	4,871.01	76.65	64.551		
15,000.00	12,123.00	12,722.49	10,073.00	65.68	57.43	-66.08	2,660.24	-2,964.17	4,947.70	4,869.46	78.25	63.233		
15,100.00	12,123.00	12,822.49	10,073.00	66.81	58.69	-66.08	2,760.23	-2,965.16	4,947.75	4,867.87	79.87	61.946		
15,200.00	12,123.00	12,922.49	10,073.00	67.96	59.97	-66.08	2,860.23	-2,966.16	4,947.79	4,866.27	81.52	60.691		
15,300.00	12,123.00	13,022.49	10,073.00	69.14	61.27	-66.08	2,960.22	-2,967.15	4,947.84	4,864.64	83.20	59.468		
15,400.00	12,123.00	13,122.49	10,073.00	70.33	62.58	-66.08	3,060.22	-2,968.15	4,947.88	4,862.98	84.90	58.278		
15,500.00	12,123.00	13,222.49	10,073.00	71.54	63.91	-66.08	3,160.21	-2,969.14	4,947.93	4,861.31	86.62	57.121		
15,600.00	12,123.00	13,322.49	10,073.00	72.78	65.26	-66.09	3,260.21	-2,970.13	4,947.97	4,859.61	88.36	55.996		
15,700.00	12,123.00	13,422.49	10,073.00	74.02	66.62	-66.09	3,360.20	-2,971.13	4,948.02	4,857.90	90.12	54.903		
15,800.00	12,123.00	13,522.49	10,073.00	75.29	67.99	-66.09	3,460.20	-2,972.12	4,948.06	4,856.16	91.90	53.841		
15,900.00	12,123.00	13,622.49	10,073.00	76.57	69.37	-66.09	3,560.19	-2,973.12	4,948.11	4,854.41	93.70	52.810		
16,000.00	12,123.00	13,722.49	10,073.00	77.86	70.77	-66.09	3,660.19	-2,974.11	4,948.15	4,852.65	95.51	51.810		
16,100.00	12,123.00	13,822.49	10,073.00	79.17	72.18	-66.09	3,760.18	-2,975.10	4,948.20	4,850.87	97.33	50.839		
16,200.00	12,123.00	13,922.49	10,073.00	80.49	73.59	-66.09	3,860.18	-2,976.10	4,948.24	4,849.08	99.17	49.897		
16,300.00	12,123.00	14,022.49	10,073.00	81.82	75.02	-66.09	3,960.17	-2,977.09	4,948.29	4,847.27	101.02	48.982		
16,400.00	12,123.00	14,122.49	10,073.00	83.17	76.45	-66.09	4,060.17	-2,978.09	4,948.34	4,845.45	102.89	48.095		
16,500.00	12,123.00	14,222.49	10,073.00	84.52	77.90	-66.09	4,160.16	-2,979.08	4,948.38	4,843.62	104.76	47.234		
16,600.00	12,123.00	14,322.49	10,073.00	85.89	79.35	-66.09	4,260.16	-2,980.08	4,948.43	4,841.77	106.65	46.398		
16,700.00	12,123.00	14,422.49	10,073.00	87.26	80.81	-66.09	4,360.15	-2,981.07	4,948.47	4,839.92	108.55	45.587		
16,800.00	12,123.00	14,522.49	10,073.00	88.65	82.28	-66.09	4,460.15	-2,982.06	4,948.52	4,838.06	110.46	44.799		
16,900.00	12,123.00	14,622.49	10,073.00	90.04	83.75	-66.09	4,560.15	-2,983.06	4,948.56	4,836.18	112.38	44.034		
17,000.00	12,123.00	14,722.49	10,073.00	91.45	85.23	-66.09	4,660.14	-2,984.05	4,948.61	4,834.30	114.31	43.291		
17,100.00	12,123.00	14,822.49	10,073.00	92.86	86.72	-66.09	4,760.14	-2,985.05	4,948.65	4,832.41	116.25	42.570		
17,200.00	12,123.00	14,922.49	10,073.00	94.28	88.21	-66.09	4,860.13	-2,986.04	4,948.70	4,830.50	118.19	41.869		
17,300.00	12,123.00	15,022.49	10,073.00	95.71	89.71	-66.09	4,960.13	-2,987.03	4,948.74	4,828.59	120.15	41.189		
17,400.00	12,123.00	15,122.49	10,073.00	97.14	91.21	-66.09	5,060.12	-2,988.03	4,948.79	4,826.68	122.11	40.527		
17,500.00	12,123.00	15,222.49	10,073.00	98.58	92.72	-66.09	5,160.12	-2,989.02	4,948.83	4,824.75	124.08	39.884		
17,600.00	12,123.00	15,322.49	10,073.00	100.03	94.23	-66.09	5,260.11	-2,990.02	4,948.88	4,822.83	126.05	39.260		
17,700.00	12,123.00	15,422.49	10,073.00	101.48	95.75	-66.09	5,360.11	-2,991.01	4,948.92	4,820.89	128.03	38.653		
17,800.00	12,123.00	15,522.49	10,073.00	102.94	97.27	-66.09	5,460.10	-2,992.00	4,948.97	4,818.95	130.02	38.063		
17,900.00	12,123.00	15,622.49	10,073.00	104.41	98.80	-66.09	5,560.10	-2,993.00	4,949.01	4,817.00	132.01	37.488		
18,000.00	12,123.00	15,722.49	10,073.00	105.88	100.33	-66.09	5,660.09	-2,993.99	4,949.06	4,815.05	134.01	36.929		
18,100.00	12,123.00	15,822.49	10,073.00	107.36	101.87	-66.09	5,760.09	-2,994.99	4,949.11	4,813.09	136.02	36.385		
18,200.00	12,123.00	15,922.49	10,073.00	108.84	103.40	-66.09	5,860.08	-2,995.98	4,949.15	4,811.12	138.03	35.856		
18,300.00	12,123.00	16,022.49	10,073.00	110.32	104.94	-66.09	5,960.08	-2,996.97	4,949.20	4,809.15	140.04	35.341		
18,400.00	12,123.00	16,122.49	10,073.00	111.81	106.49	-66.09	6,060.07	-2,997.97	4,949.24	4,807.18	142.06	34.839		
18,500.00	12,123.00	16,222.49	10,073.00	113.31	108.04	-66.09	6,160.07	-2,998.96	4,949.29	4,805.20	144.08	34.350		
18,600.00	12,123.00	16,322.49	10,073.00	114.81	109.59	-66.09	6,260.06	-2,999.96	4,949.33	4,803.22	146.11	33.874		
18,700.00	12,123.00	16,422.49	10,073.00	116.31	111.14	-66.09	6,360.06	-3,000.95	4,949.38	4,801.24	148.14	33.410		
18,800.00	12,123.00	16,522.49	10,073.00	117.82	112.70	-66.09	6,460.05	-3,001.94	4,949.42	4,799.24	150.18	32.957		
18,900.00	12,123.00	16,622.49	10,073.00	119.33	114.26	-66.09	6,560.05	-3,002.94	4,949.47	4,797.25	152.22	32.516		
19,000.00	12,123.00	16,722.49	10,073.00	120.85	115.82	-66.09	6,660.04	-3,003.93	4,949.51	4,795.25	154.26	32.085		
19,100.00	12,123.00	16,822.49	10,073.00	122.37	117.38	-66.09	6,760.04	-3,004.93	4,949.56	4,793.25	156.31	31.665		
19,200.00	12,123.00	16,922.49	10,073.00	123.89	118.95	-66.09	6,860.03	-3,005.92	4,949.60	4,791.24	158.36	31.256		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,300.00	12,123.00	17,022.49	10,073.00	125.41	120.52	-66.09	6,960.03	-3,006.91	4,949.65	4,789.24	160.41	30.856		
19,400.00	12,123.00	17,122.49	10,073.00	126.94	122.09	-66.09	7,060.02	-3,007.91	4,949.69	4,787.22	162.47	30.465		
19,500.00	12,123.00	17,222.49	10,073.00	128.48	123.66	-66.09	7,160.02	-3,008.90	4,949.74	4,785.21	164.53	30.084		
19,600.00	12,123.00	17,322.49	10,073.00	130.01	125.24	-66.09	7,260.01	-3,009.90	4,949.78	4,783.19	166.59	29.712		
19,700.00	12,123.00	17,422.49	10,073.00	131.55	126.82	-66.09	7,360.01	-3,010.89	4,949.83	4,781.17	168.66	29.348		
19,800.00	12,123.00	17,522.49	10,073.00	133.09	128.39	-66.09	7,460.00	-3,011.88	4,949.87	4,779.15	170.73	28.993		
19,900.00	12,123.00	17,622.49	10,073.00	134.63	129.98	-66.10	7,560.00	-3,012.88	4,949.92	4,777.13	172.79	28.646		
20,000.00	12,123.00	17,722.49	10,073.00	136.18	131.56	-66.10	7,659.99	-3,013.87	4,949.97	4,775.10	174.87	28.307		
20,100.00	12,123.00	17,822.49	10,073.00	137.72	133.14	-66.10	7,759.99	-3,014.87	4,950.01	4,773.07	176.94	27.976		
20,200.00	12,123.00	17,922.49	10,073.00	139.27	134.73	-66.10	7,859.98	-3,015.86	4,950.06	4,771.04	179.02	27.651		
20,300.00	12,123.00	18,022.49	10,073.00	140.83	136.32	-66.10	7,959.98	-3,016.85	4,950.10	4,769.01	181.10	27.334		
20,400.00	12,123.00	18,122.49	10,073.00	142.38	137.91	-66.10	8,059.97	-3,017.85	4,950.15	4,766.97	183.18	27.024		
20,500.00	12,123.00	18,222.49	10,073.00	143.94	139.50	-66.10	8,159.97	-3,018.84	4,950.19	4,764.93	185.26	26.720		
20,600.00	12,123.00	18,322.49	10,073.00	145.50	141.09	-66.10	8,259.96	-3,019.84	4,950.24	4,762.89	187.35	26.423		
20,700.00	12,123.00	18,422.49	10,073.00	147.06	142.68	-66.10	8,359.96	-3,020.83	4,950.28	4,760.85	189.43	26.132		
20,800.00	12,123.00	18,522.49	10,073.00	148.62	144.28	-66.10	8,459.95	-3,021.82	4,950.33	4,758.81	191.52	25.847		
20,900.00	12,123.00	18,622.49	10,073.00	150.19	145.87	-66.10	8,559.95	-3,022.82	4,950.37	4,756.76	193.61	25.568		
21,000.00	12,123.00	18,722.49	10,073.00	151.76	147.47	-66.10	8,659.94	-3,023.81	4,950.42	4,754.71	195.71	25.295		
21,100.00	12,123.00	18,822.49	10,073.00	153.32	149.07	-66.10	8,759.94	-3,024.81	4,950.46	4,752.66	197.80	25.028		
21,200.00	12,123.00	18,922.49	10,073.00	154.90	150.67	-66.10	8,859.93	-3,025.80	4,950.51	4,750.61	199.90	24.765		
21,300.00	12,123.00	19,022.49	10,073.00	156.47	152.27	-66.10	8,959.93	-3,026.79	4,950.55	4,748.56	201.99	24.508		
21,400.00	12,123.00	19,122.49	10,073.00	158.04	153.87	-66.10	9,059.92	-3,027.79	4,950.60	4,746.51	204.09	24.257		
21,500.00	12,123.00	19,222.49	10,073.00	159.62	155.47	-66.10	9,159.92	-3,028.78	4,950.64	4,744.45	206.19	24.010		
21,600.00	12,123.00	19,322.49	10,073.00	161.19	157.08	-66.10	9,259.91	-3,029.78	4,950.69	4,742.39	208.30	23.767		
21,700.00	12,123.00	19,422.49	10,073.00	162.77	158.68	-66.10	9,359.91	-3,030.77	4,950.74	4,740.33	210.40	23.530		
21,800.00	12,123.00	19,522.49	10,073.00	164.35	160.29	-66.10	9,459.90	-3,031.76	4,950.78	4,738.27	212.51	23.297		
21,900.00	12,123.00	19,622.49	10,073.00	165.93	161.89	-66.10	9,559.90	-3,032.76	4,950.83	4,736.21	214.61	23.069		
22,000.00	12,123.00	19,722.49	10,073.00	167.52	163.50	-66.10	9,659.89	-3,033.75	4,950.87	4,734.15	216.72	22.844		
22,100.00	12,123.00	19,822.49	10,073.00	169.10	165.11	-66.10	9,759.89	-3,034.75	4,950.92	4,732.09	218.83	22.625		
22,200.00	12,123.00	19,922.49	10,073.00	170.69	166.72	-66.10	9,859.88	-3,035.74	4,950.96	4,730.03	220.94	22.409		
22,300.00	12,123.00	20,022.49	10,073.00	172.27	168.33	-66.10	9,959.88	-3,036.73	4,951.01	4,727.96	223.05	22.197		
22,400.00	12,123.00	20,122.49	10,073.00	173.86	169.94	-66.10	10,059.87	-3,037.73	4,951.05	4,725.90	225.16	21.989		
22,448.92	12,123.00	20,171.40	10,073.00	174.61	170.73	-66.10	10,108.79	-3,038.21	4,951.07	4,724.95	226.12	21.895 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
5,100.00	4,988.95	5,241.76	5,219.07	22.64	19.20	172.23	-120.99	-1,645.62	2,494.96	2,468.69	26.27	94.988		
5,200.00	5,085.22	5,340.42	5,316.96	23.20	19.60	172.18	-126.83	-1,634.83	2,511.09	2,484.28	26.81	93.668		
5,300.00	5,181.49	5,439.09	5,414.86	23.76	19.99	172.12	-132.67	-1,624.04	2,527.23	2,499.88	27.35	92.397		
5,400.00	5,277.76	5,537.75	5,512.76	24.32	20.39	172.07	-138.50	-1,613.25	2,543.36	2,515.47	27.90	91.174		
5,500.00	5,374.03	5,636.42	5,610.66	24.88	20.78	172.02	-144.34	-1,602.46	2,559.50	2,531.06	28.44	89.997		
5,600.00	5,470.31	5,735.08	5,708.56	25.44	21.18	171.97	-150.18	-1,591.67	2,575.64	2,546.66	28.98	88.862		
5,700.00	5,566.58	5,833.75	5,806.46	26.01	21.58	171.92	-156.02	-1,580.88	2,591.78	2,562.25	29.53	87.767		
5,800.00	5,662.85	5,932.41	5,904.36	26.57	21.97	171.88	-161.86	-1,570.09	2,607.93	2,577.85	30.08	86.711		
5,900.00	5,759.12	6,031.08	6,002.26	27.13	22.37	171.83	-167.69	-1,559.30	2,624.07	2,593.45	30.62	85.691		
6,000.00	5,855.39	6,129.74	6,100.15	27.70	22.77	171.78	-173.53	-1,548.51	2,640.22	2,609.05	31.17	84.705		
6,100.00	5,951.66	6,228.40	6,198.05	28.26	23.17	171.73	-179.37	-1,537.72	2,656.37	2,624.65	31.72	83.753		
6,200.00	6,047.93	6,327.07	6,295.95	28.83	23.57	171.69	-185.21	-1,526.93	2,672.52	2,640.26	32.26	82.831		
6,300.00	6,144.20	6,425.73	6,393.85	29.40	23.96	171.64	-191.05	-1,516.14	2,688.67	2,655.86	32.81	81.940		
6,400.00	6,240.47	6,524.40	6,491.75	29.96	24.36	171.60	-196.88	-1,505.35	2,704.83	2,671.47	33.36	81.077		
6,500.00	6,336.74	6,623.06	6,589.65	30.53	24.76	171.55	-202.72	-1,494.56	2,720.98	2,687.07	33.91	80.241		
6,600.00	6,433.01	6,721.73	6,687.55	31.10	25.16	171.51	-208.56	-1,483.77	2,737.14	2,702.68	34.46	79.431		
6,700.00	6,529.28	6,820.39	6,785.45	31.67	25.56	171.47	-214.40	-1,472.98	2,753.30	2,718.29	35.01	78.645		
6,800.00	6,625.55	6,900.62	6,865.05	32.23	25.89	171.43	-219.14	-1,464.21	2,769.52	2,734.02	35.50	78.008		
6,900.00	6,721.82	6,972.20	6,936.16	32.80	26.17	171.41	-223.06	-1,456.97	2,786.58	2,750.61	35.97	77.477		
7,000.00	6,818.09	7,032.20	6,995.87	33.37	26.40	171.40	-225.86	-1,451.80	2,805.03	2,768.64	36.39	77.088		
7,100.00	6,914.36	7,100.00	7,063.44	33.94	26.66	171.40	-228.48	-1,446.96	2,824.83	2,788.01	36.83	76.707		
7,200.00	7,010.63	7,151.23	7,114.56	34.51	26.85	171.41	-230.08	-1,443.99	2,845.93	2,808.73	37.20	76.501		
7,300.00	7,106.90	7,200.00	7,163.26	35.08	27.03	171.42	-231.30	-1,441.74	2,868.39	2,830.84	37.56	76.372		
7,400.00	7,203.17	7,268.79	7,232.01	35.65	27.27	171.45	-232.52	-1,439.48	2,892.10	2,854.13	37.98	76.151		
7,506.72	7,305.91	7,330.85	7,294.06	36.26	27.48	171.49	-233.12	-1,438.38	2,918.87	2,880.49	38.38	76.058		
7,600.00	7,396.11	7,390.41	7,353.61	36.77	27.68	171.60	-233.25	-1,438.14	2,942.00	2,903.26	38.73	75.954		
7,700.00	7,493.60	7,487.90	7,451.10	37.28	27.99	171.73	-233.25	-1,438.14	2,963.98	2,924.75	39.23	75.546		
7,800.00	7,591.82	7,586.12	7,549.32	37.75	28.31	171.84	-233.25	-1,438.14	2,982.59	2,942.85	39.73	75.069		
7,900.00	7,690.63	7,684.93	7,648.13	38.18	28.63	171.92	-233.25	-1,438.14	2,997.79	2,957.56	40.23	74.525		
8,000.00	7,789.91	7,784.21	7,747.41	38.57	28.95	171.99	-233.25	-1,438.14	3,009.57	2,968.85	40.71	73.920		
8,100.00	7,889.55	7,883.85	7,847.05	38.92	29.28	172.03	-233.25	-1,438.14	3,017.91	2,976.71	41.20	73.256		
8,200.00	7,989.42	7,983.72	7,946.92	39.23	29.60	172.06	-233.25	-1,438.14	3,022.80	2,981.13	41.67	72.535		
8,291.59	8,081.00	8,075.30	8,038.50	39.47	29.90	-90.50	-233.25	-1,438.14	3,024.25	2,982.15	42.10	71.836		
8,300.00	8,089.41	8,083.71	8,046.91	39.50	29.93	-90.50	-233.25	-1,438.14	3,024.25	2,982.11	42.14	71.770		
8,400.00	8,189.41	8,183.71	8,146.91	39.75	30.26	-90.50	-233.25	-1,438.14	3,024.25	2,981.66	42.60	70.998		
8,500.00	8,289.41	8,283.71	8,246.91	40.01	30.58	-90.50	-233.25	-1,438.14	3,024.25	2,981.20	43.06	70.241		
8,600.00	8,389.41	8,383.71	8,346.91	40.26	30.91	-90.50	-233.25	-1,438.14	3,024.25	2,980.74	43.52	69.498		
8,700.00	8,489.41	8,483.71	8,446.91	40.52	31.24	-90.50	-233.25	-1,438.14	3,024.25	2,980.27	43.98	68.769		
8,800.00	8,589.41	8,583.71	8,546.91	40.78	31.57	-90.50	-233.25	-1,438.14	3,024.25	2,979.81	44.44	68.053		
8,900.00	8,689.41	8,683.71	8,646.91	41.04	31.90	-90.50	-233.25	-1,438.14	3,024.25	2,979.35	44.90	67.351		
9,000.00	8,789.41	8,783.71	8,746.91	41.31	32.23	-90.50	-233.25	-1,438.14	3,024.25	2,978.89	45.37	66.662		
9,100.00	8,889.41	8,883.71	8,846.91	41.57	32.56	-90.50	-233.25	-1,438.14	3,024.25	2,978.42	45.83	65.985		
9,200.00	8,989.41	8,983.71	8,946.91	41.84	32.90	-90.50	-233.25	-1,438.14	3,024.25	2,977.95	46.30	65.321		
9,300.00	9,089.41	9,083.71	9,046.91	42.11	33.23	-90.50	-233.25	-1,438.14	3,024.25	2,977.49	46.77	64.669		
9,400.00	9,189.41	9,183.71	9,146.91	42.37	33.56	-90.50	-233.25	-1,438.14	3,024.25	2,977.02	47.23	64.029		
9,500.00	9,289.41	9,283.71	9,246.91	42.64	33.90	-90.50	-233.25	-1,438.14	3,024.25	2,976.55	47.70	63.400		
9,600.00	9,389.41	9,383.71	9,346.91	42.92	34.23	-90.50	-233.25	-1,438.14	3,024.25	2,976.08	48.17	62.782		
9,608.11	9,397.52	9,391.82	9,355.02	42.94	34.26	-90.50	-233.25	-1,438.14	3,024.25	2,976.04	48.21	62.733		
9,700.00	9,489.41	9,483.11	9,446.21	43.19	34.56	-90.44	-230.29	-1,438.17	3,024.26	2,975.63	48.63	62.188		
9,800.00	9,589.41	9,578.83	9,540.18	43.46	34.84	-90.11	-212.68	-1,438.34	3,024.36	2,975.31	49.04	61.670		
9,900.00	9,689.41	9,666.54	9,622.63	43.74	35.07	-89.55	-183.02	-1,438.64	3,024.83	2,975.44	49.39	61.246		
10,000.00	9,789.41	9,743.72	9,690.71	44.01	35.23	-88.86	-146.79	-1,439.00	3,026.12	2,976.45	49.67	60.919		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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													FMM Fed Com - FMM Fed Com 302H - OH - Plan #1		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				
10,100.00	9,889.41	9,809.87	9,744.73	44.29	35.35	-88.14	-108.68	-1,439.38	3,028.70	2,978.79	49.90	60.690				
10,200.00	9,989.41	9,865.78	9,786.73	44.57	35.42	-87.44	-71.80	-1,439.75	3,033.00	2,982.91	50.09	60.556				
10,300.00	10,089.41	9,912.83	9,819.13	44.85	35.47	-86.80	-37.71	-1,440.09	3,039.36	2,989.14	50.22	60.517				
10,400.00	10,189.41	9,950.00	9,842.70	45.13	35.51	-86.26	-8.97	-1,440.37	3,048.06	2,997.75	50.31	60.587				
10,500.00	10,289.41	9,985.98	9,863.68	45.41	35.53	-85.71	20.25	-1,440.66	3,059.28	3,008.91	50.37	60.740				
10,600.00	10,389.41	10,014.54	9,879.01	45.70	35.54	-85.25	44.34	-1,440.90	3,073.15	3,022.77	50.38	61.001				
10,700.00	10,489.41	10,050.00	9,896.33	45.98	35.56	-84.67	75.27	-1,441.21	3,089.79	3,039.41	50.39	61.322				
10,800.00	10,589.41	10,050.00	9,896.33	46.27	35.56	-84.67	75.27	-1,441.21	3,109.17	3,058.90	50.27	61.855				
10,900.00	10,689.41	10,078.66	9,908.92	46.55	35.56	-84.19	101.02	-1,441.47	3,131.30	3,081.10	50.21	62.368				
11,000.00	10,789.41	10,100.00	9,917.45	46.84	35.57	-83.82	120.58	-1,441.66	3,156.27	3,106.17	50.10	62.995				
11,100.00	10,889.41	10,100.00	9,917.45	47.13	35.57	-83.82	120.58	-1,441.66	3,184.01	3,134.10	49.92	63.787				
11,200.00	10,989.41	10,121.78	9,925.39	47.42	35.57	-83.45	140.86	-1,441.86	3,214.41	3,164.64	49.78	64.573				
11,300.00	11,089.41	10,133.10	9,929.21	47.71	35.57	-83.25	151.51	-1,441.97	3,247.52	3,197.92	49.60	65.481				
11,400.00	11,189.41	10,150.00	9,934.53	48.00	35.57	-82.95	167.55	-1,442.13	3,283.25	3,233.83	49.42	66.442				
11,500.00	11,289.41	10,150.00	9,934.53	48.29	35.57	-82.95	167.55	-1,442.13	3,321.48	3,272.30	49.17	67.544				
11,600.00	11,389.41	10,150.00	9,934.53	48.58	35.57	-82.95	167.55	-1,442.13	3,362.24	3,313.32	48.93	68.719				
11,700.00	11,489.41	10,168.33	9,939.75	48.88	35.57	-82.62	185.12	-1,442.30	3,405.28	3,356.54	48.73	69.877				
11,760.63	11,550.04	10,172.60	9,940.89	49.05	35.57	-82.55	189.23	-1,442.35	3,432.53	3,383.94	48.59	70.640				
11,800.00	11,589.38	10,175.58	9,941.67	49.17	35.57	-79.96	192.11	-1,442.37	3,450.49	3,401.99	48.50	71.144				
11,850.00	11,639.05	10,180.15	9,942.83	49.31	35.57	-77.38	196.53	-1,442.42	3,473.18	3,424.80	48.38	71.784				
11,900.00	11,688.04	10,200.00	9,947.45	49.44	35.57	-74.64	215.83	-1,442.61	3,495.69	3,447.38	48.31	72.362				
11,950.00	11,735.98	10,200.00	9,947.45	49.57	35.57	-72.32	215.83	-1,442.61	3,517.51	3,469.33	48.18	73.014				
12,000.00	11,782.51	10,200.00	9,947.45	49.68	35.57	-70.10	215.83	-1,442.61	3,538.71	3,490.67	48.04	73.657				
12,050.00	11,827.26	10,200.00	9,947.45	49.79	35.57	-68.01	215.83	-1,442.61	3,559.15	3,511.23	47.91	74.284				
12,100.00	11,869.91	10,200.00	9,947.45	49.88	35.57	-66.06	215.83	-1,442.61	3,578.68	3,530.89	47.79	74.890				
12,150.00	11,910.12	10,222.08	9,951.81	49.96	35.57	-64.03	237.48	-1,442.83	3,596.87	3,549.15	47.72	75.373				
12,200.00	11,947.60	10,250.00	9,956.12	50.03	35.58	-62.16	265.06	-1,443.10	3,614.13	3,566.46	47.67	75.812				
12,250.00	11,982.04	10,250.00	9,956.12	50.09	35.58	-60.73	265.06	-1,443.10	3,629.61	3,582.05	47.56	76.313				
12,300.00	12,013.20	10,250.00	9,956.12	50.14	35.58	-59.46	265.06	-1,443.10	3,643.68	3,596.22	47.46	76.770				
12,350.00	12,040.84	10,250.00	9,956.12	50.18	35.58	-58.35	265.06	-1,443.10	3,656.25	3,608.88	47.37	77.177				
12,400.00	12,064.73	10,250.00	9,956.12	50.21	35.58	-57.39	265.06	-1,443.10	3,667.24	3,619.94	47.30	77.529				
12,450.00	12,084.72	10,279.65	9,959.22	50.23	35.61	-56.49	294.54	-1,443.39	3,676.03	3,628.73	47.30	77.712				
12,500.00	12,100.63	10,300.00	9,960.46	50.25	35.65	-55.83	314.85	-1,443.60	3,683.27	3,635.98	47.30	77.874				
12,550.00	12,112.35	10,300.00	9,960.46	50.27	35.65	-55.39	314.85	-1,443.60	3,688.49	3,641.22	47.27	78.024				
12,600.00	12,119.79	10,311.13	9,960.83	50.30	35.67	-55.10	325.97	-1,443.71	3,691.83	3,644.55	47.29	78.071				
12,650.00	12,122.90	10,324.84	9,961.00	50.33	35.71	-54.98	339.68	-1,443.84	3,693.22	3,645.90	47.32	78.040				
12,660.63	12,123.00	10,324.84	9,961.00	50.33	35.71	-54.98	339.68	-1,443.84	3,693.26	3,645.93	47.33	78.031				
12,662.95	12,123.00	10,324.84	9,961.00	50.34	35.71	-54.98	339.68	-1,443.84	3,693.26	3,645.93	47.33	78.028				
12,700.00	12,123.00	10,360.34	9,961.00	50.37	35.81	-54.98	375.18	-1,444.20	3,693.27	3,645.86	47.41	77.893				
12,800.00	12,123.00	10,460.34	9,961.00	50.47	36.17	-54.98	475.18	-1,445.19	3,693.32	3,645.62	47.70	77.434				
12,900.00	12,123.00	10,560.34	9,961.00	50.63	36.59	-54.98	575.17	-1,446.19	3,693.36	3,645.30	48.06	76.855				
13,000.00	12,123.00	10,660.34	9,961.00	50.83	37.08	-54.98	675.17	-1,447.18	3,693.40	3,644.90	48.50	76.157				
13,100.00	12,123.00	10,760.34	9,961.00	51.08	37.63	-54.98	775.16	-1,448.18	3,693.44	3,644.42	49.02	75.350				
13,200.00	12,123.00	10,860.34	9,961.00	51.39	38.25	-54.98	875.16	-1,449.18	3,693.48	3,643.87	49.61	74.447				
13,300.00	12,123.00	10,960.34	9,961.00	51.76	38.92	-54.98	975.15	-1,450.17	3,693.53	3,643.24	50.28	73.456				
13,400.00	12,123.00	11,060.34	9,961.00	52.19	39.64	-54.98	1,075.15	-1,451.17	3,693.57	3,642.54	51.02	72.389				
13,500.00	12,123.00	11,160.34	9,961.00	52.68	40.42	-54.98	1,175.14	-1,452.16	3,693.61	3,641.78	51.83	71.261				
13,600.00	12,123.00	11,260.34	9,961.00	53.23	41.24	-54.98	1,275.14	-1,453.16	3,693.65	3,640.95	52.71	70.081				
13,700.00	12,123.00	11,360.34	9,961.00	53.84	42.12	-54.98	1,375.13	-1,454.16	3,693.69	3,640.05	53.64	68.861				
13,800.00	12,123.00	11,460.34	9,961.00	54.50	43.04	-54.98	1,475.13	-1,455.15	3,693.74	3,639.10	54.63	67.611				
13,900.00	12,123.00	11,560.34	9,961.00	55.21	44.00	-54.98	1,575.12	-1,456.15	3,693.78	3,638.10	55.68	66.342				
14,000.00	12,123.00	11,660.34	9,961.00	55.97	45.00	-54.98	1,675.12	-1,457.14	3,693.82	3,637.04	56.78	65.060				

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,300.00	12,123.00	16,960.34	9,961.00	125.41	120.57	-55.01	6,974.85	-1,509.92	3,696.05	3,550.30	145.75	25.359		
19,400.00	12,123.00	17,060.34	9,961.00	126.94	122.15	-55.01	7,074.85	-1,510.92	3,696.09	3,548.45	147.64	25.034		
19,500.00	12,123.00	17,160.34	9,961.00	128.48	123.73	-55.01	7,174.84	-1,511.91	3,696.13	3,546.59	149.54	24.717		
19,600.00	12,123.00	17,260.34	9,961.00	130.01	125.32	-55.01	7,274.84	-1,512.91	3,696.18	3,544.74	151.44	24.407		
19,700.00	12,123.00	17,360.34	9,961.00	131.55	126.90	-55.01	7,374.83	-1,513.91	3,696.22	3,542.88	153.34	24.105		
19,800.00	12,123.00	17,460.34	9,961.00	133.09	128.49	-55.01	7,474.83	-1,514.90	3,696.26	3,541.02	155.24	23.810		
19,900.00	12,123.00	17,560.34	9,961.00	134.63	130.08	-55.01	7,574.82	-1,515.90	3,696.30	3,539.16	157.15	23.521		
20,000.00	12,123.00	17,660.34	9,961.00	136.18	131.67	-55.01	7,674.82	-1,516.89	3,696.34	3,537.29	159.05	23.240		
20,100.00	12,123.00	17,760.34	9,961.00	137.72	133.26	-55.01	7,774.81	-1,517.89	3,696.39	3,535.43	160.96	22.965		
20,200.00	12,123.00	17,860.34	9,961.00	139.27	134.85	-55.01	7,874.81	-1,518.88	3,696.43	3,533.56	162.86	22.696		
20,300.00	12,123.00	17,960.34	9,961.00	140.83	136.45	-55.01	7,974.80	-1,519.88	3,696.47	3,531.70	164.77	22.434		
20,400.00	12,123.00	18,060.34	9,961.00	142.38	138.04	-55.01	8,074.80	-1,520.88	3,696.51	3,529.83	166.69	22.177		
20,500.00	12,123.00	18,160.34	9,961.00	143.94	139.64	-55.01	8,174.79	-1,521.87	3,696.55	3,527.95	168.60	21.925		
20,600.00	12,123.00	18,260.34	9,961.00	145.50	141.24	-55.01	8,274.79	-1,522.87	3,696.60	3,526.08	170.52	21.679		
20,700.00	12,123.00	18,360.34	9,961.00	147.06	142.84	-55.02	8,374.78	-1,523.86	3,696.64	3,524.21	172.43	21.438		
20,800.00	12,123.00	18,460.34	9,961.00	148.62	144.44	-55.02	8,474.78	-1,524.86	3,696.68	3,522.33	174.35	21.202		
20,900.00	12,123.00	18,560.34	9,961.00	150.19	146.04	-55.02	8,574.77	-1,525.86	3,696.72	3,520.45	176.27	20.971		
21,000.00	12,123.00	18,660.34	9,961.00	151.76	147.64	-55.02	8,674.77	-1,526.85	3,696.76	3,518.57	178.20	20.745		
21,100.00	12,123.00	18,760.34	9,961.00	153.32	149.25	-55.02	8,774.76	-1,527.85	3,696.81	3,516.69	180.12	20.524		
21,200.00	12,123.00	18,860.34	9,961.00	154.90	150.85	-55.02	8,874.76	-1,528.84	3,696.85	3,514.80	182.05	20.307		
21,300.00	12,123.00	18,960.34	9,961.00	156.47	152.46	-55.02	8,974.75	-1,529.84	3,696.89	3,512.92	183.97	20.095		
21,400.00	12,123.00	19,060.34	9,961.00	158.04	154.07	-55.02	9,074.75	-1,530.83	3,696.93	3,511.03	185.90	19.886		
21,500.00	12,123.00	19,160.34	9,961.00	159.62	155.68	-55.02	9,174.74	-1,531.83	3,696.98	3,509.14	187.83	19.683		
21,600.00	12,123.00	19,260.34	9,961.00	161.19	157.28	-55.02	9,274.74	-1,532.83	3,697.02	3,507.26	189.76	19.483		
21,700.00	12,123.00	19,360.34	9,961.00	162.77	158.89	-55.02	9,374.73	-1,533.82	3,697.06	3,505.37	191.69	19.287		
21,800.00	12,123.00	19,460.34	9,961.00	164.35	160.51	-55.02	9,474.73	-1,534.82	3,697.10	3,503.49	193.62	19.095		
21,900.00	12,123.00	19,560.34	9,961.00	165.93	162.12	-55.02	9,574.72	-1,535.81	3,697.14	3,501.60	195.55	18.907		
22,000.00	12,123.00	19,660.34	9,961.00	167.52	163.73	-55.02	9,674.72	-1,536.81	3,697.19	3,499.71	197.48	18.722		
22,100.00	12,123.00	19,760.34	9,961.00	169.10	165.34	-55.02	9,774.71	-1,537.81	3,697.23	3,497.82	199.41	18.541		
22,200.00	12,123.00	19,860.34	9,961.00	170.69	166.96	-55.02	9,874.71	-1,538.80	3,697.27	3,495.92	201.35	18.363		
22,300.00	12,123.00	19,960.34	9,961.00	172.27	168.57	-55.02	9,974.70	-1,539.80	3,697.31	3,494.03	203.28	18.188		
22,400.00	12,123.00	20,060.34	9,961.00	173.86	170.19	-55.02	10,074.70	-1,540.79	3,697.35	3,492.14	205.22	18.017		
22,448.92	12,123.00	20,109.26	9,961.00	174.61	170.98	-55.02	10,123.61	-1,541.28	3,697.37	3,491.28	206.09	17.941 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,300.00	12,123.00	16,881.48	9,906.00	125.41	120.71	-34.01	6,990.78	21.36	2,675.44	2,559.60	115.84	23.096		
19,400.00	12,123.00	16,981.48	9,906.00	126.94	122.30	-34.01	7,090.77	20.41	2,675.44	2,558.13	117.31	22.807		
19,500.00	12,123.00	17,081.48	9,906.00	128.48	123.88	-34.01	7,190.77	19.45	2,675.45	2,556.66	118.78	22.524		
19,600.00	12,123.00	17,181.48	9,906.00	130.01	125.47	-34.01	7,290.76	18.50	2,675.45	2,555.19	120.26	22.248		
19,700.00	12,123.00	17,281.48	9,906.00	131.55	127.06	-34.01	7,390.76	17.55	2,675.45	2,553.72	121.73	21.978		
19,800.00	12,123.00	17,381.48	9,906.00	133.09	128.65	-34.01	7,490.75	16.60	2,675.46	2,552.25	123.21	21.714		
19,900.00	12,123.00	17,481.48	9,906.00	134.63	130.24	-34.01	7,590.75	15.65	2,675.46	2,550.77	124.69	21.456		
20,000.00	12,123.00	17,581.48	9,906.00	136.18	131.84	-34.01	7,690.74	14.70	2,675.47	2,549.29	126.17	21.205		
20,100.00	12,123.00	17,681.48	9,906.00	137.72	133.43	-34.01	7,790.74	13.75	2,675.47	2,547.82	127.65	20.959		
20,200.00	12,123.00	17,781.48	9,906.00	139.27	135.03	-34.01	7,890.74	12.80	2,675.47	2,546.33	129.14	20.718		
20,300.00	12,123.00	17,881.48	9,906.00	140.83	136.63	-34.01	7,990.73	11.85	2,675.48	2,544.85	130.62	20.483		
20,400.00	12,123.00	17,981.48	9,906.00	142.38	138.23	-34.01	8,090.73	10.90	2,675.48	2,543.37	132.11	20.253		
20,500.00	12,123.00	18,081.48	9,906.00	143.94	139.83	-34.01	8,190.72	9.95	2,675.48	2,541.89	133.59	20.027		
20,600.00	12,123.00	18,181.48	9,906.00	145.50	141.43	-34.01	8,290.72	9.00	2,675.49	2,540.41	135.08	19.807		
20,700.00	12,123.00	18,281.48	9,906.00	147.06	143.03	-34.01	8,390.71	8.05	2,675.49	2,538.92	136.57	19.591		
20,800.00	12,123.00	18,381.48	9,906.00	148.62	144.63	-34.01	8,490.71	7.09	2,675.49	2,537.44	138.06	19.379		
20,900.00	12,123.00	18,481.48	9,906.00	150.19	146.24	-34.01	8,590.70	6.14	2,675.50	2,535.95	139.55	19.172		
21,000.00	12,123.00	18,581.48	9,906.00	151.76	147.85	-34.01	8,690.70	5.19	2,675.50	2,534.46	141.04	18.970		
21,100.00	12,123.00	18,681.48	9,906.00	153.32	149.45	-34.02	8,790.70	4.24	2,675.50	2,532.97	142.53	18.771		
21,200.00	12,123.00	18,781.48	9,906.00	154.90	151.06	-34.02	8,890.69	3.29	2,675.51	2,531.48	144.02	18.577		
21,300.00	12,123.00	18,881.48	9,906.00	156.47	152.67	-34.02	8,990.69	2.34	2,675.51	2,529.99	145.52	18.386		
21,400.00	12,123.00	18,981.48	9,906.00	158.04	154.28	-34.02	9,090.68	1.39	2,675.51	2,528.51	147.01	18.200		
21,500.00	12,123.00	19,081.48	9,906.00	159.62	155.89	-34.02	9,190.68	0.44	2,675.52	2,527.02	148.50	18.017		
21,600.00	12,123.00	19,181.48	9,906.00	161.19	157.50	-34.02	9,290.67	-0.51	2,675.52	2,525.52	150.00	17.837		
21,700.00	12,123.00	19,281.48	9,906.00	162.77	159.11	-34.02	9,390.67	-1.46	2,675.52	2,524.03	151.49	17.661		
21,800.00	12,123.00	19,381.48	9,906.00	164.35	160.73	-34.02	9,490.66	-2.41	2,675.53	2,522.54	152.99	17.488		
21,900.00	12,123.00	19,481.48	9,906.00	165.93	162.34	-34.02	9,590.66	-3.36	2,675.53	2,521.04	154.49	17.319		
22,000.00	12,123.00	19,581.48	9,906.00	167.52	163.96	-34.02	9,690.65	-4.31	2,675.54	2,519.55	155.98	17.153		
22,100.00	12,123.00	19,681.48	9,906.00	169.10	165.57	-34.02	9,790.65	-5.27	2,675.54	2,518.06	157.48	16.990		
22,200.00	12,123.00	19,781.48	9,906.00	170.69	167.19	-34.02	9,890.65	-6.22	2,675.54	2,516.56	158.98	16.829		
22,300.00	12,123.00	19,881.48	9,906.00	172.27	168.81	-34.02	9,990.64	-7.17	2,675.55	2,515.07	160.48	16.672		
22,400.00	12,123.00	19,981.48	9,906.00	173.86	170.42	-34.02	10,090.64	-8.12	2,675.55	2,513.58	161.97	16.518		
22,448.92	12,123.00	20,030.40	9,906.00	174.61	171.21	-34.02	10,139.55	-8.58	2,675.55	2,512.94	162.61	16.454		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,100.00	12,123.00	16,683.67	9,817.00	122.37	118.73	0.00	6,805.01	1,519.72	2,306.70	2,219.96	86.74	26.593		
19,200.00	12,123.00	16,783.67	9,817.00	123.89	120.28	0.00	6,905.01	1,518.78	2,306.70	2,218.93	87.77	26.281		
19,300.00	12,123.00	16,883.67	9,817.00	125.41	121.84	0.00	7,005.01	1,517.83	2,306.70	2,217.90	88.80	25.976		
19,400.00	12,123.00	16,983.67	9,817.00	126.94	123.39	0.00	7,105.00	1,516.89	2,306.70	2,216.87	89.83	25.677		
19,500.00	12,123.00	17,083.67	9,817.00	128.48	124.95	0.00	7,205.00	1,515.95	2,306.70	2,215.83	90.87	25.385		
19,600.00	12,123.00	17,183.67	9,817.00	130.01	126.52	0.00	7,304.99	1,515.00	2,306.70	2,214.79	91.91	25.099		
19,700.00	12,123.00	17,283.67	9,817.00	131.55	128.08	0.00	7,404.99	1,514.06	2,306.70	2,213.76	92.94	24.818		
19,800.00	12,123.00	17,383.67	9,817.00	133.09	129.65	0.00	7,504.98	1,513.12	2,306.70	2,212.72	93.98	24.544		
19,900.00	12,123.00	17,483.67	9,817.00	134.63	131.22	0.00	7,604.98	1,512.18	2,306.70	2,211.68	95.02	24.275		
20,000.00	12,123.00	17,583.67	9,817.00	136.18	132.79	0.00	7,704.97	1,511.23	2,306.70	2,210.63	96.07	24.011		
20,100.00	12,123.00	17,683.67	9,817.00	137.72	134.36	0.00	7,804.97	1,510.29	2,306.70	2,209.59	97.11	23.753		
20,200.00	12,123.00	17,783.67	9,817.00	139.27	135.93	0.00	7,904.97	1,509.35	2,306.70	2,208.54	98.16	23.500		
20,300.00	12,123.00	17,883.67	9,817.00	140.83	137.51	0.00	8,004.96	1,508.40	2,306.70	2,207.50	99.20	23.252		
20,400.00	12,123.00	17,983.67	9,817.00	142.38	139.09	0.00	8,104.96	1,507.46	2,306.70	2,206.45	100.25	23.009		
20,500.00	12,123.00	18,083.67	9,817.00	143.94	140.67	0.00	8,204.95	1,506.52	2,306.70	2,205.40	101.30	22.771		
20,600.00	12,123.00	18,183.67	9,817.00	145.50	142.25	0.00	8,304.95	1,505.57	2,306.70	2,204.35	102.35	22.537		
20,700.00	12,123.00	18,283.67	9,817.00	147.06	143.83	0.00	8,404.94	1,504.63	2,306.70	2,203.30	103.40	22.307		
20,800.00	12,123.00	18,383.67	9,817.00	148.62	145.42	0.00	8,504.94	1,503.69	2,306.70	2,202.24	104.46	22.083		
20,900.00	12,123.00	18,483.67	9,817.00	150.19	147.00	0.00	8,604.93	1,502.75	2,306.70	2,201.19	105.51	21.862		
21,000.00	12,123.00	18,583.67	9,817.00	151.76	148.59	0.00	8,704.93	1,501.80	2,306.70	2,200.13	106.57	21.645		
21,100.00	12,123.00	18,683.67	9,817.00	153.32	150.18	0.00	8,804.93	1,500.86	2,306.70	2,199.07	107.63	21.433		
21,200.00	12,123.00	18,783.67	9,817.00	154.90	151.77	0.00	8,904.92	1,499.92	2,306.70	2,198.02	108.68	21.224		
21,300.00	12,123.00	18,883.67	9,817.00	156.47	153.36	0.00	9,004.92	1,498.97	2,306.70	2,196.96	109.74	21.019		
21,400.00	12,123.00	18,983.67	9,817.00	158.04	154.96	0.00	9,104.91	1,498.03	2,306.70	2,195.90	110.80	20.818		
21,500.00	12,123.00	19,083.67	9,817.00	159.62	156.55	0.00	9,204.91	1,497.09	2,306.70	2,194.84	111.86	20.621		
21,600.00	12,123.00	19,183.67	9,817.00	161.19	158.14	0.00	9,304.90	1,496.15	2,306.70	2,193.78	112.92	20.427		
21,700.00	12,123.00	19,283.67	9,817.00	162.77	159.74	0.00	9,404.90	1,495.20	2,306.70	2,192.71	113.99	20.236		
21,800.00	12,123.00	19,383.67	9,817.00	164.35	161.34	0.00	9,504.89	1,494.26	2,306.70	2,191.65	115.05	20.049		
21,900.00	12,123.00	19,483.67	9,817.00	165.93	162.94	0.00	9,604.89	1,493.32	2,306.70	2,190.58	116.12	19.866		
22,000.00	12,123.00	19,583.67	9,817.00	167.52	164.54	0.00	9,704.89	1,492.37	2,306.70	2,189.52	117.18	19.685		
22,100.00	12,123.00	19,683.67	9,817.00	169.10	166.14	0.00	9,804.88	1,491.43	2,306.70	2,188.45	118.25	19.507		
22,200.00	12,123.00	19,783.67	9,817.00	170.69	167.74	0.00	9,904.88	1,490.49	2,306.70	2,187.39	119.31	19.333		
22,300.00	12,123.00	19,883.67	9,817.00	172.27	169.34	0.00	10,004.87	1,489.54	2,306.70	2,186.32	120.38	19.162		
22,400.00	12,123.00	19,983.67	9,817.00	173.86	170.95	0.00	10,104.87	1,488.60	2,306.70	2,185.25	121.45	18.993		
22,432.86	12,123.00	20,016.53	9,817.00	174.36	171.47	0.00	10,137.72	1,488.29	2,306.70	2,184.98	121.72	18.951		
22,448.92	12,123.00	20,032.59	9,817.00	174.61	171.73	0.00	10,153.78	1,488.14	2,306.70	2,184.85	121.85	18.931		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	19,533.20	12,392.00	126.94	125.73	-93.96	7,060.28	-3,008.08	4,536.05	4,358.99	177.06	25.618		
19,500.00	12,123.00	19,633.20	12,392.00	128.48	127.27	-93.96	7,160.27	-3,009.07	4,536.09	4,356.84	179.25	25.306		
19,600.00	12,123.00	19,733.20	12,392.00	130.01	128.82	-93.96	7,260.27	-3,010.06	4,536.13	4,354.70	181.44	25.001		
19,700.00	12,123.00	19,833.20	12,392.00	131.55	130.37	-93.96	7,360.26	-3,011.05	4,536.18	4,352.55	183.63	24.703		
19,800.00	12,123.00	19,933.20	12,392.00	133.09	131.92	-93.96	7,460.26	-3,012.04	4,536.22	4,350.39	185.83	24.411		
19,900.00	12,123.00	20,033.20	12,392.00	134.63	133.47	-93.96	7,560.25	-3,013.03	4,536.27	4,348.24	188.03	24.125		
20,000.00	12,123.00	20,133.20	12,392.00	136.18	135.03	-93.96	7,660.25	-3,014.01	4,536.31	4,346.08	190.23	23.846		
20,100.00	12,123.00	20,233.20	12,392.00	137.72	136.59	-93.96	7,760.24	-3,015.00	4,536.35	4,343.91	192.44	23.573		
20,200.00	12,123.00	20,333.20	12,392.00	139.27	138.15	-93.96	7,860.24	-3,015.99	4,536.40	4,341.75	194.65	23.306		
20,300.00	12,123.00	20,433.20	12,392.00	140.83	139.71	-93.96	7,960.23	-3,016.98	4,536.44	4,339.58	196.86	23.044		
20,400.00	12,123.00	20,533.20	12,392.00	142.38	141.27	-93.96	8,060.23	-3,017.97	4,536.48	4,337.41	199.08	22.788		
20,500.00	12,123.00	20,633.20	12,392.00	143.94	142.84	-93.96	8,160.22	-3,018.96	4,536.53	4,335.24	201.29	22.537		
20,600.00	12,123.00	20,733.20	12,392.00	145.50	144.41	-93.95	8,260.22	-3,019.94	4,536.57	4,333.06	203.51	22.291		
20,700.00	12,123.00	20,833.20	12,392.00	147.06	145.98	-93.95	8,360.21	-3,020.93	4,536.62	4,330.88	205.74	22.051		
20,800.00	12,123.00	20,933.20	12,392.00	148.62	147.55	-93.95	8,460.21	-3,021.92	4,536.66	4,328.70	207.96	21.815		
20,900.00	12,123.00	21,033.20	12,392.00	150.19	149.12	-93.95	8,560.20	-3,022.91	4,536.70	4,326.51	210.19	21.584		
21,000.00	12,123.00	21,133.20	12,392.00	151.76	150.70	-93.95	8,660.20	-3,023.90	4,536.75	4,324.33	212.42	21.358		
21,100.00	12,123.00	21,233.20	12,392.00	153.32	152.28	-93.95	8,760.19	-3,024.89	4,536.79	4,322.14	214.65	21.136		
21,200.00	12,123.00	21,333.20	12,392.00	154.90	153.85	-93.95	8,860.19	-3,025.87	4,536.83	4,319.95	216.88	20.918		
21,300.00	12,123.00	21,433.20	12,392.00	156.47	155.43	-93.95	8,960.18	-3,026.86	4,536.88	4,317.76	219.12	20.705		
21,400.00	12,123.00	21,533.20	12,392.00	158.04	157.02	-93.95	9,060.18	-3,027.85	4,536.92	4,315.56	221.36	20.496		
21,500.00	12,123.00	21,633.20	12,392.00	159.62	158.60	-93.95	9,160.17	-3,028.84	4,536.97	4,313.37	223.60	20.291		
21,600.00	12,123.00	21,733.20	12,392.00	161.19	160.18	-93.95	9,260.17	-3,029.83	4,537.01	4,311.17	225.84	20.090		
21,700.00	12,123.00	21,833.20	12,392.00	162.77	161.77	-93.95	9,360.16	-3,030.82	4,537.05	4,308.97	228.08	19.892		
21,800.00	12,123.00	21,933.20	12,392.00	164.35	163.36	-93.95	9,460.16	-3,031.80	4,537.10	4,306.77	230.33	19.698		
21,900.00	12,123.00	22,033.20	12,392.00	165.93	164.94	-93.95	9,560.15	-3,032.79	4,537.14	4,304.56	232.58	19.508		
22,000.00	12,123.00	22,133.20	12,392.00	167.52	166.53	-93.95	9,660.15	-3,033.78	4,537.18	4,302.36	234.82	19.322		
22,100.00	12,123.00	22,233.20	12,392.00	169.10	168.12	-93.95	9,760.15	-3,034.77	4,537.23	4,300.15	237.07	19.138		
22,200.00	12,123.00	22,333.20	12,392.00	170.69	169.72	-93.95	9,860.14	-3,035.76	4,537.27	4,297.94	239.33	18.958		
22,300.00	12,123.00	22,433.20	12,392.00	172.27	171.31	-93.95	9,960.14	-3,036.75	4,537.32	4,295.73	241.58	18.782		
22,400.00	12,123.00	22,533.20	12,392.00	173.86	172.90	-93.95	10,060.13	-3,037.73	4,537.36	4,293.52	243.84	18.608		
22,448.92	12,123.00	22,582.12	12,392.00	174.61	173.68	-93.95	10,109.04	-3,038.22	4,537.38	4,292.50	244.88	18.529 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	19,350.37	12,276.00	126.94	125.36	-93.13	7,069.39	-2,082.18	3,604.66	3,427.27	177.38	20.321		
19,500.00	12,123.00	19,450.37	12,276.00	128.48	126.91	-93.13	7,169.39	-2,083.17	3,604.70	3,425.13	179.57	20.074		
19,600.00	12,123.00	19,550.37	12,276.00	130.01	128.47	-93.13	7,269.38	-2,084.16	3,604.74	3,422.98	181.77	19.832		
19,700.00	12,123.00	19,650.37	12,276.00	131.55	130.03	-93.13	7,369.38	-2,085.15	3,604.79	3,420.82	183.96	19.595		
19,800.00	12,123.00	19,750.37	12,276.00	133.09	131.59	-93.13	7,469.37	-2,086.13	3,604.83	3,418.67	186.17	19.364		
19,900.00	12,123.00	19,850.37	12,276.00	134.63	133.15	-93.13	7,569.37	-2,087.12	3,604.88	3,416.51	188.37	19.137		
20,000.00	12,123.00	19,950.37	12,276.00	136.18	134.71	-93.13	7,669.36	-2,088.11	3,604.92	3,414.35	190.58	18.916		
20,100.00	12,123.00	20,050.37	12,276.00	137.72	136.28	-93.13	7,769.36	-2,089.10	3,604.97	3,412.18	192.79	18.699		
20,200.00	12,123.00	20,150.37	12,276.00	139.27	137.85	-93.13	7,869.35	-2,090.09	3,605.01	3,410.01	195.00	18.487		
20,300.00	12,123.00	20,250.37	12,276.00	140.83	139.42	-93.13	7,969.35	-2,091.08	3,605.06	3,407.84	197.22	18.280		
20,400.00	12,123.00	20,350.37	12,276.00	142.38	140.99	-93.13	8,069.35	-2,092.07	3,605.10	3,405.67	199.44	18.077		
20,500.00	12,123.00	20,450.37	12,276.00	143.94	142.57	-93.13	8,169.34	-2,093.06	3,605.15	3,403.49	201.66	17.878		
20,600.00	12,123.00	20,550.37	12,276.00	145.50	144.14	-93.13	8,269.34	-2,094.05	3,605.19	3,401.31	203.88	17.683		
20,700.00	12,123.00	20,650.37	12,276.00	147.06	145.72	-93.13	8,369.33	-2,095.04	3,605.24	3,399.13	206.11	17.492		
20,800.00	12,123.00	20,750.37	12,276.00	148.62	147.30	-93.13	8,469.33	-2,096.03	3,605.28	3,396.95	208.33	17.305		
20,900.00	12,123.00	20,850.37	12,276.00	150.19	148.88	-93.13	8,569.32	-2,097.02	3,605.33	3,394.76	210.57	17.122		
21,000.00	12,123.00	20,950.37	12,276.00	151.76	150.46	-93.13	8,669.32	-2,098.01	3,605.37	3,392.57	212.80	16.943		
21,100.00	12,123.00	21,050.37	12,276.00	153.32	152.05	-93.13	8,769.31	-2,098.99	3,605.42	3,390.38	215.03	16.767		
21,200.00	12,123.00	21,150.37	12,276.00	154.90	153.63	-93.13	8,869.31	-2,099.98	3,605.46	3,388.19	217.27	16.594		
21,300.00	12,123.00	21,250.37	12,276.00	156.47	155.22	-93.13	8,969.30	-2,100.97	3,605.50	3,385.99	219.51	16.425		
21,400.00	12,123.00	21,350.37	12,276.00	158.04	156.81	-93.13	9,069.30	-2,101.96	3,605.55	3,383.80	221.75	16.259		
21,500.00	12,123.00	21,450.37	12,276.00	159.62	158.40	-93.13	9,169.29	-2,102.95	3,605.59	3,381.60	224.00	16.097		
21,600.00	12,123.00	21,550.37	12,276.00	161.19	159.99	-93.13	9,269.29	-2,103.94	3,605.64	3,379.40	226.24	15.937		
21,700.00	12,123.00	21,650.37	12,276.00	162.77	161.58	-93.13	9,369.28	-2,104.93	3,605.68	3,377.20	228.49	15.781		
21,800.00	12,123.00	21,750.37	12,276.00	164.35	163.17	-93.13	9,469.28	-2,105.92	3,605.73	3,374.99	230.74	15.627		
21,900.00	12,123.00	21,850.37	12,276.00	165.93	164.77	-93.13	9,569.27	-2,106.91	3,605.77	3,372.79	232.99	15.476		
22,000.00	12,123.00	21,950.37	12,276.00	167.52	166.36	-93.13	9,669.27	-2,107.90	3,605.82	3,370.58	235.24	15.328		
22,100.00	12,123.00	22,050.37	12,276.00	169.10	167.96	-93.13	9,769.26	-2,108.89	3,605.86	3,368.37	237.49	15.183		
22,200.00	12,123.00	22,150.37	12,276.00	170.69	169.56	-93.13	9,869.26	-2,109.88	3,605.91	3,366.16	239.75	15.041		
22,300.00	12,123.00	22,250.37	12,276.00	172.27	171.16	-93.13	9,969.25	-2,110.87	3,605.95	3,363.95	242.00	14.900		
22,400.00	12,123.00	22,350.37	12,276.00	173.86	172.76	-93.13	10,069.25	-2,111.86	3,606.00	3,361.74	244.26	14.763		
22,448.92	12,123.00	22,399.29	12,276.00	174.61	173.54	-93.13	10,118.16	-2,112.34	3,606.02	3,360.72	245.30	14.700 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	19,286.11	12,136.00	126.94	125.54	-91.20	7,078.51	-1,156.24	2,673.90	2,496.73	177.17	15.092		
19,500.00	12,123.00	19,386.11	12,136.00	128.48	127.09	-91.20	7,178.50	-1,157.23	2,673.94	2,494.58	179.36	14.908		
19,600.00	12,123.00	19,486.11	12,136.00	130.01	128.64	-91.20	7,278.50	-1,158.23	2,673.99	2,492.43	181.56	14.728		
19,700.00	12,123.00	19,586.11	12,136.00	131.55	130.19	-91.20	7,378.49	-1,159.22	2,674.04	2,490.28	183.76	14.552		
19,800.00	12,123.00	19,686.11	12,136.00	133.09	131.75	-91.20	7,478.49	-1,160.21	2,674.08	2,488.12	185.96	14.380		
19,900.00	12,123.00	19,786.11	12,136.00	134.63	133.30	-91.20	7,578.48	-1,161.20	2,674.13	2,485.96	188.17	14.211		
20,000.00	12,123.00	19,886.11	12,136.00	136.18	134.86	-91.20	7,678.48	-1,162.19	2,674.18	2,483.80	190.38	14.047		
20,100.00	12,123.00	19,986.11	12,136.00	137.72	136.42	-91.20	7,778.47	-1,163.18	2,674.22	2,481.63	192.59	13.885		
20,200.00	12,123.00	20,086.11	12,136.00	139.27	137.99	-91.20	7,878.47	-1,164.17	2,674.27	2,479.46	194.81	13.728		
20,300.00	12,123.00	20,186.11	12,136.00	140.83	139.55	-91.20	7,978.46	-1,165.16	2,674.32	2,477.29	197.03	13.573		
20,400.00	12,123.00	20,286.11	12,136.00	142.38	141.12	-91.20	8,078.46	-1,166.15	2,674.36	2,475.12	199.25	13.422		
20,500.00	12,123.00	20,386.11	12,136.00	143.94	142.69	-91.20	8,178.45	-1,167.14	2,674.41	2,472.94	201.47	13.274		
20,600.00	12,123.00	20,486.11	12,136.00	145.50	144.26	-91.20	8,278.45	-1,168.14	2,674.46	2,470.76	203.70	13.130		
20,700.00	12,123.00	20,586.11	12,136.00	147.06	145.84	-91.20	8,378.44	-1,169.13	2,674.50	2,468.58	205.93	12.988		
20,800.00	12,123.00	20,686.11	12,136.00	148.62	147.41	-91.20	8,478.44	-1,170.12	2,674.55	2,466.39	208.16	12.849		
20,900.00	12,123.00	20,786.11	12,136.00	150.19	148.99	-91.20	8,578.43	-1,171.11	2,674.60	2,464.21	210.39	12.713		
21,000.00	12,123.00	20,886.11	12,136.00	151.76	150.57	-91.20	8,678.43	-1,172.10	2,674.64	2,462.02	212.63	12.579		
21,100.00	12,123.00	20,986.11	12,136.00	153.32	152.15	-91.20	8,778.42	-1,173.09	2,674.69	2,459.83	214.86	12.448		
21,200.00	12,123.00	21,086.11	12,136.00	154.90	153.73	-91.20	8,878.42	-1,174.08	2,674.74	2,457.63	217.10	12.320		
21,300.00	12,123.00	21,186.11	12,136.00	156.47	155.31	-91.20	8,978.41	-1,175.07	2,674.78	2,455.44	219.34	12.194		
21,400.00	12,123.00	21,286.11	12,136.00	158.04	156.90	-91.20	9,078.41	-1,176.06	2,674.83	2,453.24	221.59	12.071		
21,500.00	12,123.00	21,386.11	12,136.00	159.62	158.48	-91.20	9,178.40	-1,177.06	2,674.88	2,451.04	223.83	11.950		
21,600.00	12,123.00	21,486.11	12,136.00	161.19	160.07	-91.20	9,278.40	-1,178.05	2,674.92	2,448.84	226.08	11.832		
21,700.00	12,123.00	21,586.11	12,136.00	162.77	161.66	-91.20	9,378.39	-1,179.04	2,674.97	2,446.64	228.33	11.715		
21,800.00	12,123.00	21,686.11	12,136.00	164.35	163.25	-91.20	9,478.39	-1,180.03	2,675.02	2,444.43	230.58	11.601		
21,900.00	12,123.00	21,786.11	12,136.00	165.93	164.84	-91.20	9,578.38	-1,181.02	2,675.06	2,442.23	232.83	11.489		
22,000.00	12,123.00	21,886.11	12,136.00	167.52	166.43	-91.20	9,678.38	-1,182.01	2,675.11	2,440.02	235.09	11.379		
22,100.00	12,123.00	21,986.11	12,136.00	169.10	168.02	-91.20	9,778.37	-1,183.00	2,675.15	2,437.81	237.34	11.271		
22,200.00	12,123.00	22,086.11	12,136.00	170.69	169.62	-91.20	9,878.37	-1,183.99	2,675.20	2,435.60	239.60	11.165		
22,300.00	12,123.00	22,186.11	12,136.00	172.27	171.22	-91.20	9,978.36	-1,184.98	2,675.25	2,433.39	241.86	11.061		
22,400.00	12,123.00	22,286.11	12,136.00	173.86	172.81	-91.20	10,078.36	-1,185.98	2,675.29	2,431.17	244.12	10.959		
22,448.92	12,123.00	22,335.03	12,136.00	174.61	173.59	-91.20	10,127.27	-1,186.46	2,675.32	2,430.15	245.16	10.912 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	19,252.96	12,181.00	126.94	125.34	-91.89	7,088.24	-262.82	1,780.80	1,603.45	177.35	10.041		
19,500.00	12,123.00	19,352.96	12,181.00	128.48	126.90	-91.89	7,188.24	-263.76	1,780.80	1,601.25	179.54	9.918		
19,600.00	12,123.00	19,452.96	12,181.00	130.01	128.46	-91.89	7,288.23	-264.70	1,780.80	1,599.05	181.74	9.798		
19,700.00	12,123.00	19,552.96	12,181.00	131.55	130.02	-91.89	7,388.23	-265.64	1,780.79	1,596.85	183.94	9.681		
19,800.00	12,123.00	19,652.96	12,181.00	133.09	131.58	-91.89	7,488.22	-266.59	1,780.79	1,594.64	186.15	9.566		
19,900.00	12,123.00	19,752.96	12,181.00	134.63	133.15	-91.89	7,588.22	-267.53	1,780.79	1,592.43	188.36	9.454		
20,000.00	12,123.00	19,852.96	12,181.00	136.18	134.71	-91.89	7,688.22	-268.47	1,780.78	1,590.22	190.57	9.345		
20,100.00	12,123.00	19,952.96	12,181.00	137.72	136.28	-91.89	7,788.21	-269.41	1,780.78	1,588.00	192.78	9.237		
20,200.00	12,123.00	20,052.96	12,181.00	139.27	137.85	-91.89	7,888.21	-270.35	1,780.78	1,585.78	195.00	9.132		
20,300.00	12,123.00	20,152.96	12,181.00	140.83	139.43	-91.89	7,988.20	-271.29	1,780.78	1,583.56	197.22	9.030		
20,400.00	12,123.00	20,252.96	12,181.00	142.38	141.00	-91.89	8,088.20	-272.24	1,780.77	1,581.33	199.44	8.929		
20,500.00	12,123.00	20,352.96	12,181.00	143.94	142.58	-91.89	8,188.19	-273.18	1,780.77	1,579.11	201.66	8.830		
20,600.00	12,123.00	20,452.96	12,181.00	145.50	144.15	-91.89	8,288.19	-274.12	1,780.77	1,576.88	203.89	8.734		
20,700.00	12,123.00	20,552.96	12,181.00	147.06	145.73	-91.89	8,388.18	-275.06	1,780.76	1,574.64	206.12	8.639		
20,800.00	12,123.00	20,652.96	12,181.00	148.62	147.31	-91.89	8,488.18	-276.00	1,780.76	1,572.41	208.35	8.547		
20,900.00	12,123.00	20,752.96	12,181.00	150.19	148.90	-91.89	8,588.18	-276.94	1,780.76	1,570.17	210.59	8.456		
21,000.00	12,123.00	20,852.96	12,181.00	151.76	150.48	-91.89	8,688.17	-277.88	1,780.76	1,567.93	212.82	8.367		
21,100.00	12,123.00	20,952.96	12,181.00	153.32	152.07	-91.89	8,788.17	-278.83	1,780.75	1,565.69	215.06	8.280		
21,200.00	12,123.00	21,052.96	12,181.00	154.90	153.65	-91.89	8,888.16	-279.77	1,780.75	1,563.45	217.30	8.195		
21,300.00	12,123.00	21,152.96	12,181.00	156.47	155.24	-91.89	8,988.16	-280.71	1,780.75	1,561.20	219.54	8.111		
21,400.00	12,123.00	21,252.96	12,181.00	158.04	156.83	-91.89	9,088.15	-281.65	1,780.74	1,558.96	221.79	8.029		
21,500.00	12,123.00	21,352.96	12,181.00	159.62	158.42	-91.89	9,188.15	-282.59	1,780.74	1,556.71	224.03	7.949		
21,600.00	12,123.00	21,452.96	12,181.00	161.19	160.02	-91.89	9,288.14	-283.53	1,780.74	1,554.46	226.28	7.870		
21,700.00	12,123.00	21,552.96	12,181.00	162.77	161.61	-91.89	9,388.14	-284.48	1,780.74	1,552.20	228.53	7.792		
21,800.00	12,123.00	21,652.96	12,181.00	164.35	163.20	-91.89	9,488.14	-285.42	1,780.73	1,549.95	230.78	7.716		
21,900.00	12,123.00	21,752.96	12,181.00	165.93	164.80	-91.89	9,588.13	-286.36	1,780.73	1,547.69	233.04	7.641		
22,000.00	12,123.00	21,852.96	12,181.00	167.52	166.40	-91.89	9,688.13	-287.30	1,780.73	1,545.44	235.29	7.568		
22,100.00	12,123.00	21,952.96	12,181.00	169.10	168.00	-91.89	9,788.12	-288.24	1,780.72	1,543.18	237.55	7.496		
22,200.00	12,123.00	22,052.96	12,181.00	170.69	169.59	-91.89	9,888.12	-289.18	1,780.72	1,540.92	239.81	7.426		
22,300.00	12,123.00	22,152.96	12,181.00	172.27	171.19	-91.89	9,988.11	-290.13	1,780.72	1,538.65	242.07	7.356		
22,400.00	12,123.00	22,252.96	12,181.00	173.86	172.80	-91.89	10,088.11	-291.07	1,780.72	1,536.39	244.33	7.288		
22,448.92	12,123.00	22,301.88	12,181.00	174.61	173.58	-91.89	10,137.02	-291.53	1,780.71	1,535.35	245.37	7.257		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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		
19,400.00	12,123.00	19,204.54	12,092.00	126.94	125.25	-88.14	7,095.95	557.07	960.41	783.89	176.52	5.441		
19,500.00	12,123.00	19,304.54	12,092.00	128.48	126.80	-88.14	7,195.95	556.13	960.41	781.70	178.72	5.374		
19,600.00	12,123.00	19,404.54	12,092.00	130.01	128.36	-88.14	7,295.94	555.19	960.41	779.50	180.91	5.309		
19,700.00	12,123.00	19,504.54	12,092.00	131.55	129.91	-88.14	7,395.94	554.24	960.41	777.30	183.11	5.245		
19,800.00	12,123.00	19,604.54	12,092.00	133.09	131.47	-88.14	7,495.93	553.30	960.41	775.09	185.31	5.183		
19,900.00	12,123.00	19,704.54	12,092.00	134.63	133.03	-88.14	7,595.93	552.36	960.40	772.89	187.52	5.122		
20,000.00	12,123.00	19,804.54	12,092.00	136.18	134.60	-88.14	7,695.92	551.41	960.40	770.68	189.73	5.062		
20,100.00	12,123.00	19,904.54	12,092.00	137.72	136.16	-88.14	7,795.92	550.47	960.40	768.46	191.94	5.004		
20,200.00	12,123.00	20,004.54	12,092.00	139.27	137.73	-88.14	7,895.91	549.53	960.40	766.25	194.15	4.947		
20,300.00	12,123.00	20,104.54	12,092.00	140.83	139.30	-88.14	7,995.91	548.59	960.40	764.03	196.37	4.891		
20,400.00	12,123.00	20,204.54	12,092.00	142.38	140.87	-88.14	8,095.91	547.64	960.40	761.81	198.59	4.836		
20,500.00	12,123.00	20,304.54	12,092.00	143.94	142.45	-88.14	8,195.90	546.70	960.39	759.58	200.81	4.783		
20,600.00	12,123.00	20,404.54	12,092.00	145.50	144.02	-88.14	8,295.90	545.76	960.39	757.36	203.04	4.730		
20,700.00	12,123.00	20,504.54	12,092.00	147.06	145.60	-88.14	8,395.89	544.81	960.39	755.13	205.26	4.679		
20,800.00	12,123.00	20,604.54	12,092.00	148.62	147.18	-88.14	8,495.89	543.87	960.39	752.89	207.49	4.629		
20,900.00	12,123.00	20,704.54	12,092.00	150.19	148.76	-88.14	8,595.88	542.93	960.39	750.66	209.73	4.579		
21,000.00	12,123.00	20,804.54	12,092.00	151.76	150.34	-88.14	8,695.88	541.98	960.39	748.43	211.96	4.531		
21,100.00	12,123.00	20,904.54	12,092.00	153.32	151.92	-88.14	8,795.87	541.04	960.38	746.19	214.20	4.484		
21,200.00	12,123.00	21,004.54	12,092.00	154.90	153.50	-88.14	8,895.87	540.10	960.38	743.95	216.44	4.437		
21,300.00	12,123.00	21,104.54	12,092.00	156.47	155.09	-88.14	8,995.87	539.16	960.38	741.71	218.68	4.392		
21,400.00	12,123.00	21,204.54	12,092.00	158.04	156.68	-88.14	9,095.86	538.21	960.38	739.46	220.92	4.347		
21,500.00	12,123.00	21,304.54	12,092.00	159.62	158.27	-88.14	9,195.86	537.27	960.38	737.22	223.16	4.303		
21,600.00	12,123.00	21,404.54	12,092.00	161.19	159.86	-88.14	9,295.85	536.33	960.38	734.97	225.41	4.261		
21,700.00	12,123.00	21,504.54	12,092.00	162.77	161.45	-88.14	9,395.85	535.38	960.38	732.72	227.66	4.219		
21,800.00	12,123.00	21,604.54	12,092.00	164.35	163.04	-88.14	9,495.84	534.44	960.37	730.47	229.91	4.177		
21,900.00	12,123.00	21,704.54	12,092.00	165.93	164.63	-88.14	9,595.84	533.50	960.37	728.21	232.16	4.137		
22,000.00	12,123.00	21,804.54	12,092.00	167.52	166.23	-88.14	9,695.83	532.56	960.37	725.96	234.41	4.097		
22,100.00	12,123.00	21,904.54	12,092.00	169.10	167.82	-88.14	9,795.83	531.61	960.37	723.70	236.66	4.058		
22,200.00	12,123.00	22,004.54	12,092.00	170.69	169.42	-88.14	9,895.83	530.67	960.37	721.45	238.92	4.020		
22,300.00	12,123.00	22,104.54	12,092.00	172.27	171.02	-88.14	9,995.82	529.73	960.37	719.19	241.18	3.982		
22,400.00	12,123.00	22,204.54	12,092.00	173.86	172.62	-88.14	10,095.82	528.78	960.36	716.93	243.44	3.945		
22,448.92	12,123.00	22,253.45	12,092.00	174.61	173.40	-88.14	10,144.73	528.32	960.36	715.89	244.47	3.928		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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: 220-INC-ONLY													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		
0.00	0.00	0.00	0.00	0.00	0.00	-28.73	4,306.86	-2,361.32	4,911.71					
100.00	100.00	97.20	97.20	0.13	0.82	-28.73	4,306.86	-2,361.32	4,911.71	4,910.88	0.83	5,907.490		
200.00	200.00	197.20	197.20	0.48	1.67	-28.73	4,306.86	-2,361.32	4,911.71	4,909.97	1.74	2,828.815		
300.00	300.00	297.20	297.20	0.84	3.23	-28.73	4,306.86	-2,361.32	4,911.71	4,908.37	3.34	1,472.259		
400.00	400.00	406.89	406.89	1.20	5.17	-28.73	4,306.85	-2,361.32	4,911.71	4,906.40	5.31	925.152		
406.72	406.72	414.38	414.38	1.22	5.30	-28.73	4,306.84	-2,361.32	4,911.70	4,906.25	5.44	902.274		
500.00	500.00	497.20	497.20	1.56	6.91	-28.73	4,306.86	-2,361.32	4,911.71	4,904.63	7.08	693.660		
600.00	600.00	606.46	606.46	1.92	9.00	-28.73	4,306.86	-2,361.32	4,911.72	4,902.52	9.20	533.670		
610.52	610.52	618.04	618.04	1.96	9.22	-28.73	4,306.84	-2,361.32	4,911.70	4,902.27	9.43	520.928		
700.00	700.00	697.22	697.22	2.28	11.51	-28.73	4,306.86	-2,361.32	4,911.71	4,899.98	11.73	418.700		
800.00	800.00	797.22	797.20	2.63	14.28	-28.73	4,306.86	-2,361.32	4,911.71	4,897.18	14.52	338.161		
900.00	900.00	902.37	902.33	2.99	17.20	-28.73	4,308.29	-2,361.32	4,912.96	4,895.50	17.46	281.367		
1,000.00	1,000.00	1,023.93	1,023.88	3.35	20.58	-28.73	4,307.84	-2,361.32	4,912.64	4,891.79	20.85	235.641		
1,100.00	1,100.00	1,145.51	1,145.44	3.71	23.95	-28.74	4,306.78	-2,361.32	4,911.88	4,887.64	24.24	202.664		
1,141.34	1,141.34	1,195.78	1,195.70	3.86	25.35	-28.74	4,306.17	-2,361.32	4,911.44	4,885.80	25.64	191.571 CC		
1,200.00	1,200.00	1,197.56	1,197.20	4.07	25.81	-28.73	4,306.86	-2,361.32	4,911.71	4,885.58	26.13	187.965		
1,300.00	1,300.00	1,348.63	1,348.21	4.43	31.08	-28.73	4,308.13	-2,361.32	4,913.09	4,881.70	31.39	156.517		
1,400.00	1,400.00	1,397.66	1,397.20	4.79	32.79	-28.73	4,306.86	-2,361.32	4,911.71	4,878.57	33.13	148.238		
1,500.00	1,500.00	1,497.88	1,497.20	5.14	36.33	-28.73	4,306.86	-2,361.32	4,911.71	4,875.02	36.69	133.880		
1,600.00	1,600.00	1,598.00	1,597.20	5.50	39.65	-28.73	4,306.86	-2,361.32	4,911.71	4,871.68	40.03	122.714		
1,700.00	1,699.98	1,698.05	1,697.18	5.85	42.65	-126.17	4,306.86	-2,361.32	4,912.74	4,869.68	43.05	114.107 ES		
1,800.00	1,799.84	1,797.91	1,797.04	6.19	45.40	-126.17	4,306.86	-2,361.32	4,915.83	4,870.00	45.83	107.274		
1,900.00	1,899.45	1,960.91	1,960.00	6.54	49.89	-126.23	4,306.95	-2,361.32	4,921.47	4,871.16	50.32	97.809		
2,000.00	1,998.70	1,996.92	1,995.90	6.89	50.82	-126.16	4,306.86	-2,361.32	4,928.21	4,876.93	51.28	96.101		
2,100.00	2,097.47	2,095.68	2,094.67	7.26	53.31	-126.16	4,306.86	-2,361.32	4,937.52	4,883.72	53.80	91.778		
2,200.00	2,195.62	2,197.25	2,196.21	7.64	55.87	-126.15	4,308.53	-2,361.32	4,950.37	4,893.98	56.39	87.793		
2,300.00	2,293.06	2,336.79	2,335.73	8.04	59.39	-126.24	4,307.74	-2,361.32	4,963.38	4,903.45	59.92	82.828		
2,384.88	2,375.09	2,454.40	2,453.30	8.39	62.36	-126.33	4,306.02	-2,361.32	4,975.45	4,912.54	62.90	79.097		
2,400.00	2,389.65	2,475.28	2,474.17	8.46	62.88	-126.39	4,305.61	-2,361.32	4,977.67	4,914.24	63.43	78.472		
2,500.00	2,485.92	2,484.29	2,483.12	8.90	63.20	-126.40	4,306.86	-2,361.32	4,994.39	4,930.58	63.81	78.267 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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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: 236-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		
5,100.00	4,988.95	4,501.00	4,499.98	22.64	15.29	174.87	65.64	-2,929.71	3,792.15	3,768.65	23.51	161.330		
5,200.00	5,085.22	4,501.00	4,499.98	23.20	15.29	174.87	65.64	-2,929.71	3,830.88	3,807.21	23.68	161.785		
5,300.00	5,181.49	4,501.00	4,499.98	23.76	15.29	174.87	65.64	-2,929.71	3,871.81	3,847.97	23.84	162.404		
5,400.00	5,277.76	4,501.00	4,499.98	24.32	15.29	174.87	65.64	-2,929.71	3,914.87	3,890.87	23.99	163.178		
5,500.00	5,374.03	4,501.00	4,499.98	24.88	15.29	174.87	65.64	-2,929.71	3,959.98	3,935.85	24.13	164.097		
5,600.00	5,470.31	4,501.00	4,499.98	25.44	15.29	174.87	65.64	-2,929.71	4,007.08	3,982.81	24.26	165.154		
5,700.00	5,566.58	4,501.00	4,499.98	26.01	15.29	174.87	65.64	-2,929.71	4,056.10	4,031.71	24.38	166.339		
5,800.00	5,662.85	4,501.00	4,499.98	26.57	15.29	174.87	65.64	-2,929.71	4,106.96	4,082.47	24.50	167.645		
5,900.00	5,759.12	4,501.00	4,499.98	27.13	15.29	174.87	65.64	-2,929.71	4,159.62	4,135.01	24.60	169.071		
6,000.00	5,855.39	4,501.00	4,499.98	27.70	15.29	174.87	65.64	-2,929.71	4,213.98	4,189.28	24.70	170.604		
6,100.00	5,951.66	4,501.00	4,499.98	28.26	15.29	174.87	65.64	-2,929.71	4,270.00	4,245.21	24.79	172.230		
6,200.00	6,047.93	4,501.00	4,499.98	28.83	15.29	174.87	65.64	-2,929.71	4,327.60	4,302.72	24.88	173.952		
6,300.00	6,144.20	4,501.00	4,499.98	29.40	15.29	174.87	65.64	-2,929.71	4,386.73	4,361.77	24.96	175.763		
6,400.00	6,240.47	4,501.00	4,499.98	29.96	15.29	174.87	65.64	-2,929.71	4,447.32	4,422.28	25.03	177.651		
6,500.00	6,336.74	4,501.00	4,499.98	30.53	15.29	174.87	65.64	-2,929.71	4,509.31	4,484.21	25.11	179.611		
6,600.00	6,433.01	4,501.00	4,499.98	31.10	15.29	174.87	65.64	-2,929.71	4,572.65	4,547.48	25.17	181.636		
6,700.00	6,529.28	4,501.00	4,499.98	31.67	15.29	174.87	65.64	-2,929.71	4,637.28	4,612.04	25.24	183.720		
6,800.00	6,625.55	4,501.00	4,499.98	32.23	15.29	174.87	65.64	-2,929.71	4,703.15	4,677.85	25.30	185.859		
6,900.00	6,721.82	4,501.00	4,499.98	32.80	15.29	174.87	65.64	-2,929.71	4,770.21	4,744.84	25.37	188.045		
7,000.00	6,818.09	4,501.00	4,499.98	33.37	15.29	174.87	65.64	-2,929.71	4,838.40	4,812.97	25.43	190.275		
7,100.00	6,914.36	4,501.00	4,499.98	33.94	15.29	174.87	65.64	-2,929.71	4,907.68	4,882.20	25.49	192.542		
7,200.00	7,010.63	4,501.00	4,499.98	34.51	15.29	174.87	65.64	-2,929.71	4,978.01	4,952.46	25.55	194.841		

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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	FMM Fed Com - Proxy WCA State Com #001H (Offset) - ST01 - ST01											Offset Site Error:	0.00 usft
Survey Program:	236-OWSG (Rev2) MWD, 2833-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
14,200.00	12,123.00	11,790.69	11,768.24	57.63	33.37	-86.30	-246.26	-2,932.52	4,995.13	4,936.04	59.08	84.543	



Total Directional Services

Anticollision Report



Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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
FMM Fed Com - Proxy WCA State Com #001H (Offset) - ST02 - ST02												Offset Well Error:	0.00 usft
Survey Program: 236-OWSG (Rev2) MWD, 2833-OWSG (Rev2) MWD, 10215-OWSG (Rev2) MWD													
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
19,000.00	12,123.00	16,762.00	11,953.52	120.85	81.31	-88.64	4,615.71	-2,942.91	4,929.56	4,802.65	126.91	38.843	
19,100.00	12,123.00	16,762.00	11,953.52	122.37	81.31	-88.64	4,615.71	-2,942.91	4,971.92	4,845.09	126.83	39.203	



Total Directional Services

Anticollision Report

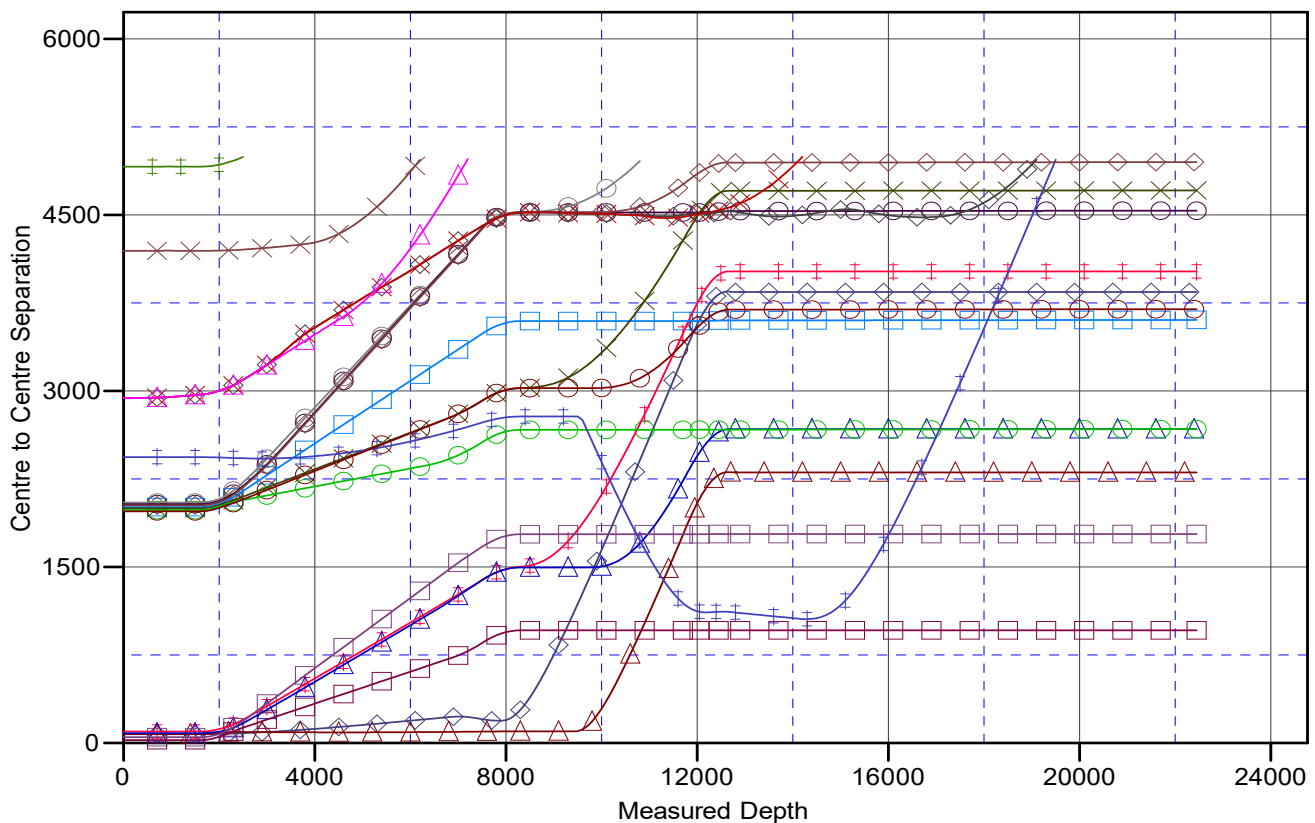


Company:	Franklin Mountain Energy	Local Co-ordinate Reference:	Well FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 3332.8' GE + 30' KB @ 3362.80usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -104.333334

Coordinates are relative to: FMM Fed Com 806H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.54°

Ladder Plot



LEGEND

FMM Fed Com 101H, OH, Plan #1 V0	FMM Fed Com 102H, OH, Plan #1 V0	FMM Fed Com 302H, OH, Plan #1 V0
FMM Fed Com 104H, OH, Plan #2 V0	FMM Fed Com 303H, OH, Plan #1 V0	FMM Fed Com 301H, OH, Plan #1 V0
Amoco State #001 (Offset), OH, OH V0	Pre-Ordard Well #001 (Offset), OH, OH V0	Proxy WCA State Com #001H (Offset), ST02, ST02 V0
FMM Fed Com 304H, OH, Plan #2 V0	FMM Fed Com 804H, OH, Plan #1 V0	Proxy WCA State Com #001H (Offset), ST01, ST01 V0
FMM Fed Com 103H, OH, Plan #1 V0	FMM Fed Com 803H, OH, Plan #1 V0	Proxy WCA State Com #001H (Offset), OH, OH V0
FMM Fed Com 801H, OH, Plan #1 V0	Blue Bay WCA State Com #001C (Offset Plan), OH, Plan #1 V0	
FMM Fed Com 802H, OH, Plan #1 V0	FMM Fed Com 805H, OH, Plan #1 V0	

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 FMM Fed Com 806H
Project:	Lea County, NM (NAD83)	TVD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Reference Site:	FMM Fed Com	MD Reference:	3332.8' GE + 30' KB @ 3362.80usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	FMM Fed Com 806H	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 3332.8' GE + 30' KB @ 3362.80usft

Coordinates are relative to: FMM Fed Com 806H

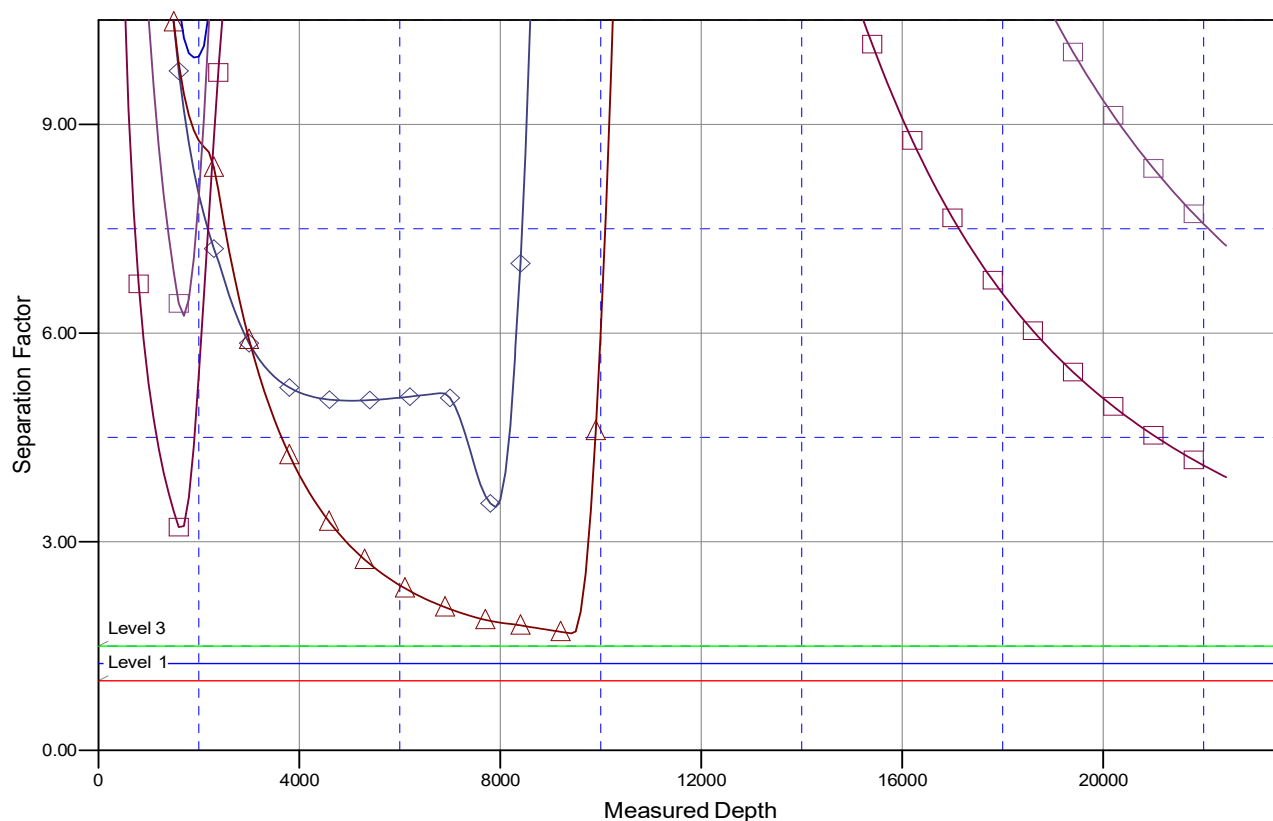
Offset Depths are relative to Offset Datum

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

Central Meridian is -104.333334

Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

FMM Fed Com 101H, OH, Plan #1 V0	FMM Fed Com 102H, OH, Plan #1 V0	FMM Fed Com 302H, OH, Plan #1 V0
FMM Fed Com 104H, OH, Plan #2 V0	FMM Fed Com 303H, OH, Plan #1 V0	FMM Fed Com 301H, OH, Plan #1 V0
Amoco State #001 (Offset), OH, OH V0	Pre-Organ Well #001 (Offset), OH, OH V0	Proxy WCA State Com #001H (Offset), ST02, ST02 V0
FMM Fed Com 304H, OH, Plan #2 V0	FMM Fed Com 804H, OH, Plan #1 V0	Proxy WCA State Com #001H (Offset), ST01, ST01 V0
FMM Fed Com 103H, OH, Plan #1 V0	FMM Fed Com 803H, OH, Plan #1 V0	Proxy WCA State Com #001H (Offset), OH, OH V0
FMM Fed Com 801H, OH, Plan #1 V0	Blue Bay WCA State Com #001C (Offset Plan), OH, Plan #1 V0	
FMM Fed Com 802H, OH, Plan #1 V0	FMM Fed Com 805H, OH, Plan #1 V0	

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

**PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Franklin Mountain Energy LLC
LEASE NO.:	NMNM132081
LOCATION:	Section 36, T.24 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico
Sundry ID:	N/A

WELL NAME & NO.:	FMM Fed Com 103H
SURFACE HOLE FOOTAGE:	345'/S & 2027'/E
BOTTOM HOLE FOOTAGE:	150'/N & 1877'/E

WELL NAME & NO.:	FMM Fed Com 104H
SURFACE HOLE FOOTAGE:	345'/S & 1977'/E
BOTTOM HOLE FOOTAGE:	150'/N & 380'/E

WELL NAME & NO.:	FMM Fed Com 303H
SURFACE HOLE FOOTAGE:	345'/S & 2002'/E
BOTTOM HOLE FOOTAGE:	150'/N & 1877'/E

WELL NAME & NO.:	FMM Fed Com 304H
SURFACE HOLE FOOTAGE:	345'/S & 1952'/E
BOTTOM HOLE FOOTAGE:	150'/N & 380'/E

WELL NAME & NO.:	FMM Fed Com 804H
SURFACE HOLE FOOTAGE:	270'/S & 2015'/E
BOTTOM HOLE FOOTAGE:	150'/N & 2160'/E

WELL NAME & NO.:	FMM Fed Com 805H
SURFACE HOLE FOOTAGE:	270'/S & 1990'/E
BOTTOM HOLE FOOTAGE:	150'/N & 1340'/E

WELL NAME & NO.:	FMM Fed Com 806H
SURFACE HOLE FOOTAGE:	270'/S & 1965'/E
BOTTOM HOLE FOOTAGE:	150'/N & 380'/E

COA

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1500 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

Option 1 (Single Stage):

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

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.
- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

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

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement might be required.
4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
Cement excess is less than 25%, more cement might be required.

C. PRESSURE CONTROL

1.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **5000 (5M) psi**.
- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

- a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

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

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

☒ Lea County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

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

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

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 86018

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 86018
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/7/2022
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	3/7/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	3/7/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2022