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

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

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

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. **30-025-49817**

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

KZ
03/04/2022

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 02/11/2022

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 wen, 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 directionany 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 02/11/2022

Additional Operator Remarks

Location of Well

0. SHL: TR N / 270 FSL / 1331 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.167462 / LONG: -103.325486 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 0 FSL / 2236 FWL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.181252 / LONG: -103.322587 (TVD: 12136 feet, MD: 17200 feet)

PPP: NENW / 0 FSL / 2235 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.177617 / LONG: -103.322584 (TVD: 12136 feet, MD: 15900 feet)

PPP: TR N / 623 FSL / 2232 FWL / TWSP: 24S / RANGE: 35E / SECTION: 36 / LAT: 32.168434 / LONG: -103.322579 (TVD: 12136 feet, MD: 12550 feet)

BHL: TR C / 150 FNL / 2232 FWL / TWSP: 24S / RANGE: 35E / SECTION: 25 / LAT: 32.195349 / LONG: -103.322595 (TVD: 12136 feet, MD: 22343 feet)

BLM Point of Contact

Name: TENILLE ORTIZ
Title: Legal Instruments Examiner
Phone: (575) 234-2224
Email: tortiz@blm.gov

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.

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	[2] Pool Code	[3] Pool Name
30-025-49817	98187	WC-025 G-09 S253502D;UPR WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
332472	FMM FED COM	803H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC	3289.8'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	24S	35E		270	SOUTH	1331	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	24S	35E		150	NORTH	2232	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640			

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.

[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°10'02.86" (32.167462°)
LONGITUDE = 103°19'31.75" (103.325486°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°10'02.41" (32.167336°)
LONGITUDE = 103°19'30.08" (103.325021°)
STATE PLANE NAD 83 (N.M. EAST)
N: 426118.07' E: 853195.87'
STATE PLANE NAD 27 (N.M. EAST)
N: 426059.27' E: 812009.46'

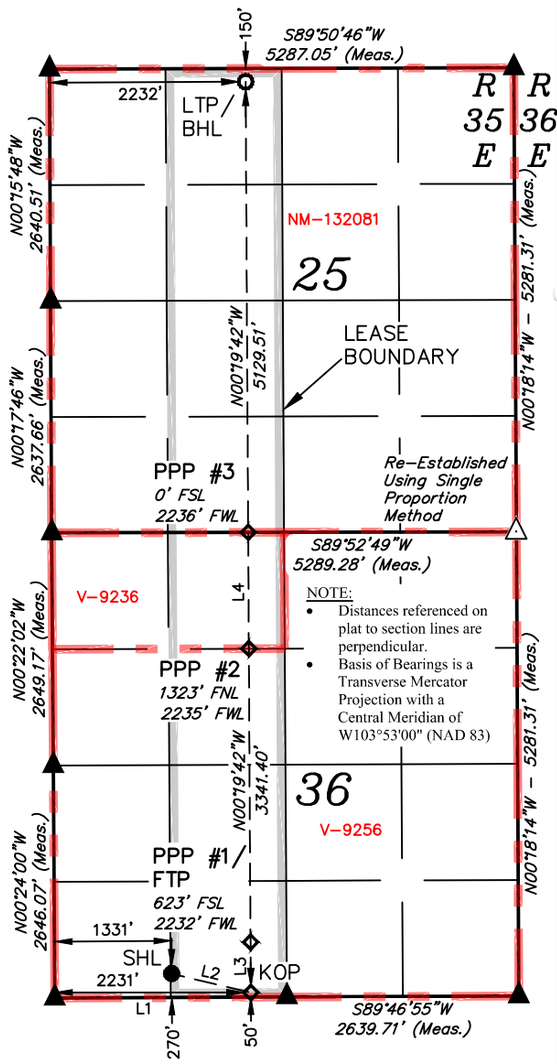
NAD 83 (KOP)
LATITUDE = 32°10'00.69" (32.166859°)
LONGITUDE = 103°19'21.28" (103.322578°)
NAD 27 (KOP)
LATITUDE = 32°10'00.24" (32.166732°)
LONGITUDE = 103°19'19.61" (103.322113°)
STATE PLANE NAD 83 (N.M. EAST)
N: 425907.03' E: 854098.00'
STATE PLANE NAD 27 (N.M. EAST)
N: 425848.23' E: 812911.56'

NAD 83 (PPP #1/FTP)
LATITUDE = 32°10'06.36" (32.168434°)
LONGITUDE = 103°19'21.28" (103.322579°)
NAD 27 (PPP #1/FTP)
LATITUDE = 32°10'05.91" (32.168307°)
LONGITUDE = 103°19'19.61" (103.322114°)
STATE PLANE NAD 83 (N.M. EAST)
N: 426479.96' E: 854092.32'
STATE PLANE NAD 27 (N.M. EAST)
N: 426421.14' E: 812905.90'

NAD 83 (PPP #2)
LATITUDE = 32°10'39.42" (32.177617°)
LONGITUDE = 103°19'21.30" (103.322584°)
NAD 27 (PPP #2)
LATITUDE = 32°10'38.96" (32.177490°)
LONGITUDE = 103°19'19.63" (103.322119°)
STATE PLANE NAD 83 (N.M. EAST)
N: 429820.71' E: 854059.20'
STATE PLANE NAD 27 (N.M. EAST)
N: 429761.80' E: 812872.92'

NAD 83 (PPP #3)
LATITUDE = 32°10'52.51" (32.181252°)
LONGITUDE = 103°19'21.31" (103.322587°)
NAD 27 (PPP #3)
LATITUDE = 32°10'52.05" (32.181125°)
LONGITUDE = 103°19'19.63" (103.322121°)
STATE PLANE NAD 83 (N.M. EAST)
N: 431143.24' E: 854046.09'
STATE PLANE NAD 27 (N.M. EAST)
N: 431084.29' E: 812859.86'

NAD 83 (LTP/BHL)
LATITUDE = 32°11'43.26" (32.195349°)
LONGITUDE = 103°19'21.34" (103.322595°)
NAD 27 (LTP/BHL)
LATITUDE = 32°11'42.80" (32.195222°)
LONGITUDE = 103°19'19.66" (103.322129°)
STATE PLANE NAD 83 (N.M. EAST)
N: 436271.75' E: 853995.25'
STATE PLANE NAD 27 (N.M. EAST)
N: 436212.66' E: 812809.22'



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°40'37"W	2642.16'
L2	S76°35'37"E	926.62'
L3	N00°19'42"W	573.04'
L4	N00°19'42"W	1322.78'

● = SURFACE HOLE LOCATION
◇ = KICK OFF POINT/FTP/PPP
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

2000' 1000' 0' 2000'

SCALE

DRAWN BY: T.L.L. 08-04-21
REV: 1 D.J.S. 09-22-21
(ADD TAKE POINTS & LEASE INFO.)

[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 9/23/2021 Date

Shelly Albrecht
Printed Name

salbrecht@fmellc.com
E-mail Address

[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
09-22-21
PROFESSIONAL SURVEYOR

Certificate Number:

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

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: (f#) 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

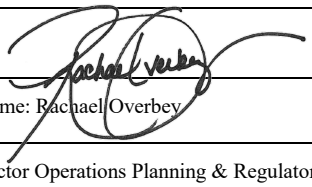
1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(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@fmellc.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

FRANKLIN MOUNTAIN ENERGY

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.

FRANKLIN MOUNTAIN ENERGY

FMM Fed Com 803H

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)	3,288'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,126'	1,192'			Carbonates
Salado	1,950'	1,368'			Salt, Carbonate & Clastics
Base Salt	106'	3,212'			Shaley Carbonate & Shale
Capitan	-1,204'	4,522'			Carbonates
Lamar	-1,839'	5,157'			Carbonate & Clastics
Bell Canyon	-1,984'	5,302'			Sandstone - oil/gas/water
Cherry Canyon	-2,698'	6,016'			Sandstone - oil/gas/water
Brushy Canyon	-4,017'	7,335'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,239'	8,557'			Shale/Carbonates - oil/gas
Avalon	-5,310'	8,628'			Shale/Carbonates - oil/gas
Chert Zone	-5,557'	8,875'			Carbonate/Chert
First Bone Spring Sand	-6,557'	9,875'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-6,694'	10,012'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,101'	10,419'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,666'	10,984'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,158'	11,476'			Sandstone - oil/gas/water
Wolfcamp	-8,381'	11,699'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,474'	11,792'			Overpressure Shale - Oil/Gas
Wolfcamp B	-8,658'	11,976'			Overpressure Shale - Oil/Gas
HZ Target	-8,818'	12,136'			Overpressure Shale - Oil/Gas
Wolfcamp C	-8,940'	12,258'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,302’	Oil
Bone Spring	9,875’	Oil
Wolfcamp	11,699’	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	5200	1.77	1.74	2.97	3.38
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	11600	1.14	1.32	1.86	1.27
Long string 5 1/2"	23	P-110	14520	14520	729	Eagle 606	22343	1.32	1.39	1.19	0.99
						TVD	12136				1.60

7 5/8"casing will be set at 11,600'MD/11,512' TVD at 0°Inc. Stress calculations on 5 ½" casing performed assuming 22,343' depth. Actual max vertical depth is 12,136'.

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	Lead Type of cmt	Lead Yield ft3/sk	Lead Water gal/sk	Lead TOC ft	Tail Sacks	Tail Type of cmt	Tail Yield ft3/sk	Tail Water gal/sk	Tail TOC	Excess
Surf	17.5	13.375	1300	803	Extenda Cem, 12.8 ppg Class C, 3lb/sk Kol-Seal 0.125pps Poly-E-Flake	1.747	9.06	0	330	Tail, 14.8 ppg, Class C, 1% CaCl2, 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5200	1523	Lead, 12.8 ppg, Class C 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	1.79	9.74	0	154	Tail, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.33	6.37	4900	100%
Int2	8.75	7.625	11600	343	Lite Fill, 9.5 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	2.13	5.97	4100	94	NeoCem 14.8 ppg, Class C 0.25 pps Cello-Flake, 2% CalCl2	1.33	6.29	10600	50%
Prod	6.75	5.5	22343	876	Tail, 14.5 ppg, Gas Migration Control	1.34	6.22	10600						20%

5. Minimum Specifications for Pressure Control:

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on bottom and 4 ½" x 7" variable pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.
Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 5,000/250 psig and the annular preventer to 5,000/250 psig. The surface casing will be tested 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.

FRANKLIN MOUNTAIN ENERGY

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' – 11,600'	Brine	8.8-10.2	28-34	N/c
11,600' – 22,343' 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 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 12,136' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 8,204 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/Escape packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
3. Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation.

ii. Auxiliary Rescue Equipment
1. Stretcher
2. Two OSHA full body harnesses
3. 100 feet of 5/8 inches OSHA approved rope
4. 1-20# class ABC fire extinguisher

c. H2S Detection and Monitoring Equipment
i. A stationary detector with three sensors will be placed in the doghouse if equipped, set to visually alarm at 10 ppm and audible at 14 ppm. The detector will be calibrated a minimum of every 30 days or as needed. The sensors will be placed in the following places:
1. Rig Floor
2. Below Rig Floor / Near BOPs
3. End of flow line or where well bore fluid is being discharged (near shakers)
ii. If H2S is encountered, measured values and formations will be provided to the BLM.

d. Visual Warning Systems
i. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
ii. A colored condition flag will be on display, reflecting the current condition at the site at the time.
iii. Two windsocks will be placed in strategic locations, visible from all angles.

e. Mud Program
i. The Mud program will be designed to minimize the volume of H2S circulated to surface. 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 ½" casing due to the tight clearance with 6 3/4" hole and 5 ½" casing due to tight clearances.

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: FMM Fed Com
Well: FMM Fed Com 803H
Wellbore: OH
Design: Plan #1

Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.87°

Magnetic Field
Strength: 47465.0nT
Dip Angle: 59.88°
Date: 8/27/2021
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

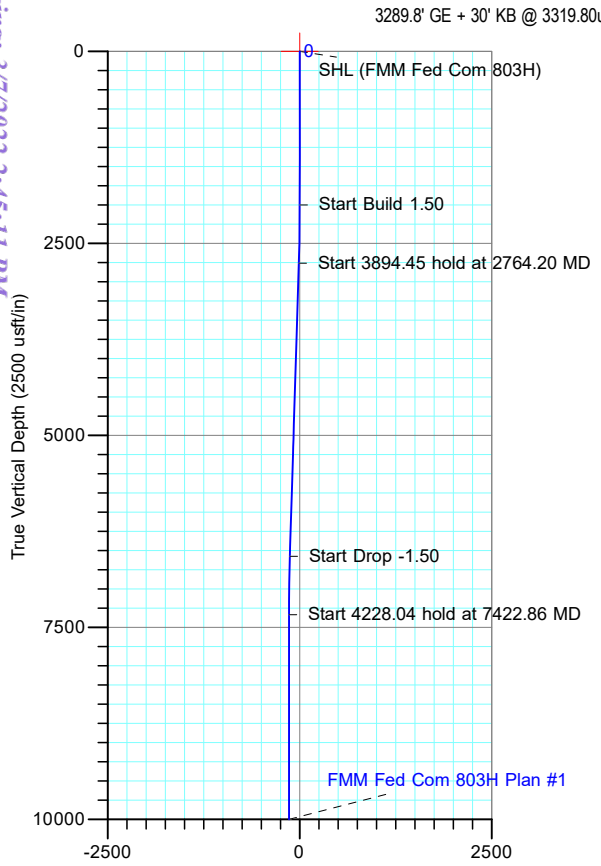
FRANKLIN MOUNTAIN ENERGY

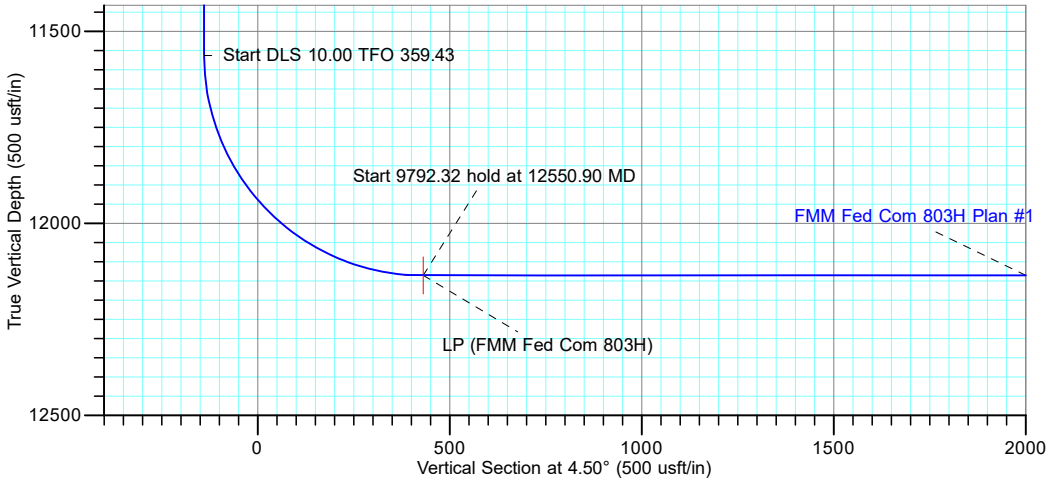
SECTION DETAILS

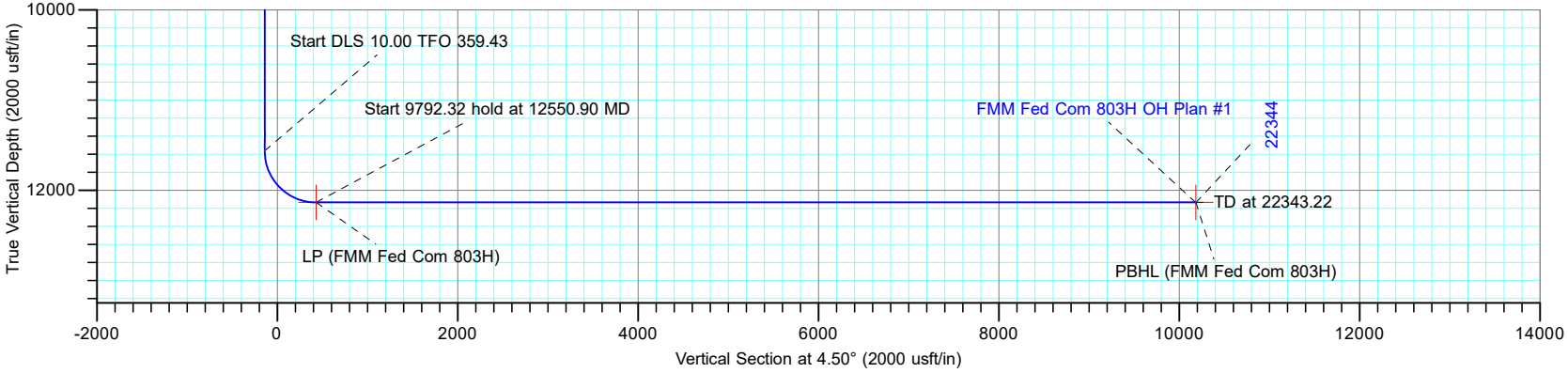
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2764.20	11.46	103.17	2759.11	-17.35	74.19	1.50	103.17	-11.48	Start 3894.45 hold at 2764.20 MD
6658.66	11.46	103.17	6575.89	-193.65	827.81	0.00	0.00	-128.09	Start Drop -1.50
7422.86	0.00	0.00	7335.00	-211.00	902.00	1.50	180.00	-139.57	Start 4228.04 hold at 7422.86 MD
11650.90	0.00	0.00	11563.04	-211.00	902.00	0.00	0.00	-139.57	Start DLS 10.00 TFO 359.43
12550.90	90.00	359.43	12136.00	361.93	896.32	10.00	359.43	431.15	Start 9792.32 hold at 12550.90 MD
22343.22	90.00	359.43	12136.00	10153.77	799.27	0.00	0.00	10185.18	TD at 22343.22

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (FMM Fed Com 803H)	12136.00	361.93	896.32	32.168434	-103.322579
PBHL (FMM Fed Com 803H)	12136.00	10153.77	799.27	32.195349	-103.322595
SHL (FMM Fed Com 803H)	0.00	0.00	0.00	32.167462	-103.325486







Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: FMM Fed Com
Well: FMM Fed Com 803H
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Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

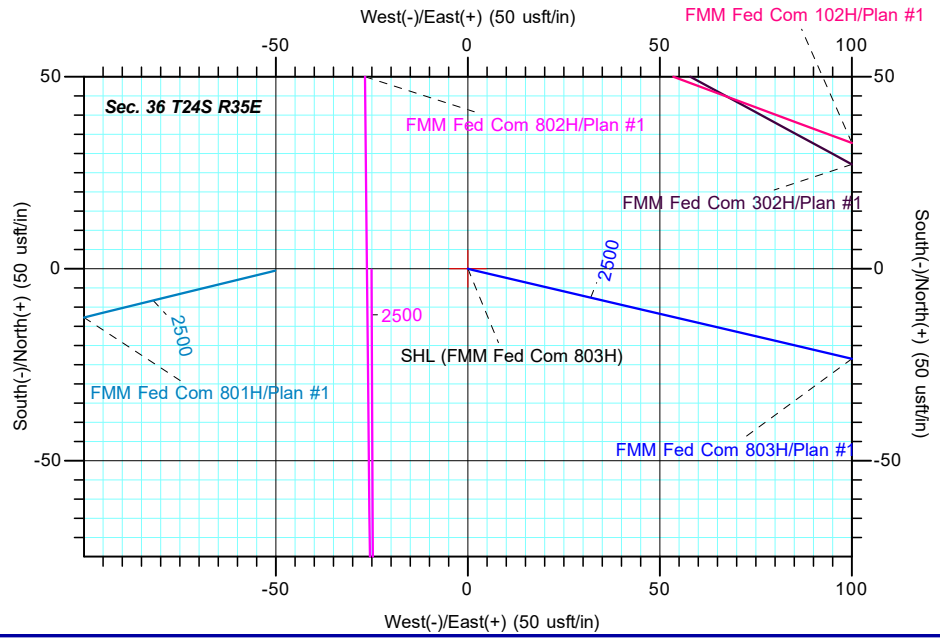
FRANKLIN MOUNTAIN ENERGY

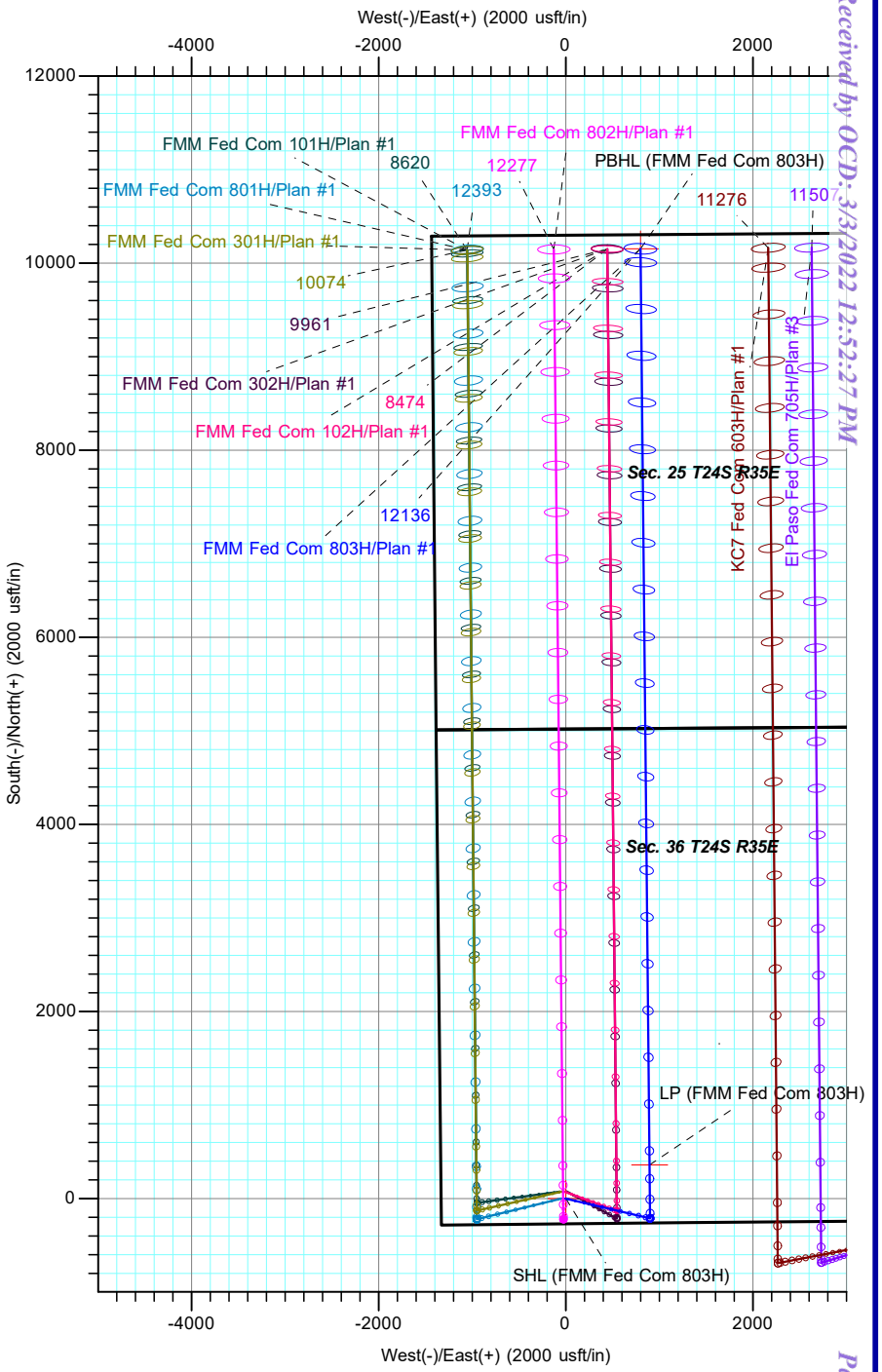
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (FMM Fed Com 803H)	12136.00	361.93	896.32	426479.96	854092.32	32.168434	-103.322579
PBHL (FMM Fed Com 803H)	12136.00	10153.77	799.27	436271.80	853995.27	32.195349	-103.322595
SHL (FMM Fed Com 803H)	0.00	0.00	0.00	426118.03	853196.00	32.167462	-103.325486

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	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
2764.20	11.46	103.17	2759.11	-17.35	74.19	1.50	103.17	-11.48	Start 3894.45 hold at 2764.20 MD
6658.66	11.46	103.17	6575.89	-193.65	827.81	0.00	0.00	-128.09	Start Drop -1.50
7422.86	0.00	0.00	7335.00	-211.00	902.00	1.50	180.00	-139.57	Start 4228.04 hold at 7422.86 MD
11650.90	0.00	0.00	11563.04	-211.00	902.00	0.00	0.00	-139.57	Start DLS 10.00 TFO 359.43
12550.90	90.00	359.43	12136.00	361.93	896.32	10.00	359.43	431.15	Start 9792.32 hold at 12550.90 MD
22343.22	90.00	359.43	12136.00	10153.77	799.27	0.00	0.00	10185.18	TD at 22343.22





TOTAL DIRECTIONAL SERVICES LLC

Plan: Plan #1 (FMM Fed Com 803H/OH)
FMM Fed Com
Created By: Dustin Ault Date: 15:29, August 27 202
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Lea County, NM (NAD83)
FMM Fed Com
FMM Fed Com 803H

OH

Plan: Plan #1

Standard Planning Report

27 August, 2021

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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 803H

Well Position	**+N/-S**	-74.36 usft	**Northing:**	426,118.03 usft	**Latitude:**	32.167462
	+E/-W	63.21 usft	**Easting:**	853,196.00 usft	**Longitude:**	-103.325486
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,289.80 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/27/2021	6.40	59.88	47,465.04158843

Design Plan #1

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	4.50

Plan Survey Tool Program **Date** 8/27/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	22,343.22	Plan #1 (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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,764.20	11.46	103.17	2,759.12	-17.35	74.19	1.50	1.50	0.00	103.17	
6,658.66	11.46	103.17	6,575.89	-193.65	827.81	0.00	0.00	0.00	0.00	
7,422.86	0.00	0.00	7,335.00	-211.00	902.00	1.50	-1.50	0.00	180.00	
11,650.90	0.00	0.00	11,563.04	-211.00	902.00	0.00	0.00	0.00	0.00	
12,550.90	90.00	359.43	12,136.00	361.93	896.32	10.00	10.00	-0.06	359.43	
22,343.22	90.00	359.43	12,136.00	10,153.77	799.27	0.00	0.00	0.00	0.00	PBHL (FMM Fed Com

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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 803H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
2,100.00	1.50	103.17	2,099.99	-0.30	1.27	-0.20	1.50	1.50	0.00
2,200.00	3.00	103.17	2,199.91	-1.19	5.10	-0.79	1.50	1.50	0.00
2,300.00	4.50	103.17	2,299.69	-2.68	11.47	-1.77	1.50	1.50	0.00
2,400.00	6.00	103.17	2,399.27	-4.77	20.37	-3.15	1.50	1.50	0.00
2,500.00	7.50	103.17	2,498.57	-7.44	31.82	-4.92	1.50	1.50	0.00
2,600.00	9.00	103.17	2,597.54	-10.71	45.79	-7.09	1.50	1.50	0.00
2,700.00	10.50	103.17	2,696.09	-14.57	62.28	-9.64	1.50	1.50	0.00
2,764.20	11.46	103.17	2,759.12	-17.35	74.19	-11.48	1.50	1.50	0.00
Start 3894.45 hold at 2764.20 MD									
2,800.00	11.46	103.17	2,794.20	-18.98	81.12	-12.55	0.00	0.00	0.00
2,900.00	11.46	103.17	2,892.20	-23.50	100.47	-15.55	0.00	0.00	0.00
3,000.00	11.46	103.17	2,990.21	-28.03	119.82	-18.54	0.00	0.00	0.00
3,100.00	11.46	103.17	3,088.21	-32.56	139.17	-21.53	0.00	0.00	0.00
3,200.00	11.46	103.17	3,186.22	-37.08	158.52	-24.53	0.00	0.00	0.00
3,300.00	11.46	103.17	3,284.22	-41.61	177.87	-27.52	0.00	0.00	0.00
3,400.00	11.46	103.17	3,382.23	-46.14	197.22	-30.52	0.00	0.00	0.00
3,500.00	11.46	103.17	3,480.24	-50.66	216.57	-33.51	0.00	0.00	0.00
3,600.00	11.46	103.17	3,578.24	-55.19	235.93	-36.51	0.00	0.00	0.00
3,700.00	11.46	103.17	3,676.25	-59.72	255.28	-39.50	0.00	0.00	0.00
3,800.00	11.46	103.17	3,774.25	-64.24	274.63	-42.49	0.00	0.00	0.00
3,900.00	11.46	103.17	3,872.26	-68.77	293.98	-45.49	0.00	0.00	0.00
4,000.00	11.46	103.17	3,970.26	-73.30	313.33	-48.48	0.00	0.00	0.00
4,100.00	11.46	103.17	4,068.27	-77.82	332.68	-51.48	0.00	0.00	0.00
4,200.00	11.46	103.17	4,166.27	-82.35	352.03	-54.47	0.00	0.00	0.00
4,300.00	11.46	103.17	4,264.28	-86.88	371.38	-57.47	0.00	0.00	0.00
4,400.00	11.46	103.17	4,362.28	-91.40	390.73	-60.46	0.00	0.00	0.00
4,500.00	11.46	103.17	4,460.29	-95.93	410.09	-63.45	0.00	0.00	0.00
4,600.00	11.46	103.17	4,558.29	-100.46	429.44	-66.45	0.00	0.00	0.00
4,700.00	11.46	103.17	4,656.30	-104.98	448.79	-69.44	0.00	0.00	0.00
4,800.00	11.46	103.17	4,754.30	-109.51	468.14	-72.44	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	11.46	103.17	4,852.31	-114.04	487.49	-75.43	0.00	0.00	0.00
5,000.00	11.46	103.17	4,950.31	-118.56	506.84	-78.43	0.00	0.00	0.00
5,100.00	11.46	103.17	5,048.32	-123.09	526.19	-81.42	0.00	0.00	0.00
5,200.00	11.46	103.17	5,146.33	-127.62	545.54	-84.41	0.00	0.00	0.00
5,300.00	11.46	103.17	5,244.33	-132.14	564.90	-87.41	0.00	0.00	0.00
5,400.00	11.46	103.17	5,342.34	-136.67	584.25	-90.40	0.00	0.00	0.00
5,500.00	11.46	103.17	5,440.34	-141.20	603.60	-93.40	0.00	0.00	0.00
5,600.00	11.46	103.17	5,538.35	-145.72	622.95	-96.39	0.00	0.00	0.00
5,700.00	11.46	103.17	5,636.35	-150.25	642.30	-99.39	0.00	0.00	0.00
5,800.00	11.46	103.17	5,734.36	-154.78	661.65	-102.38	0.00	0.00	0.00
5,900.00	11.46	103.17	5,832.36	-159.30	681.00	-105.37	0.00	0.00	0.00
6,000.00	11.46	103.17	5,930.37	-163.83	700.35	-108.37	0.00	0.00	0.00
6,100.00	11.46	103.17	6,028.37	-168.36	719.70	-111.36	0.00	0.00	0.00
6,200.00	11.46	103.17	6,126.38	-172.88	739.06	-114.36	0.00	0.00	0.00
6,300.00	11.46	103.17	6,224.38	-177.41	758.41	-117.35	0.00	0.00	0.00
6,400.00	11.46	103.17	6,322.39	-181.94	777.76	-120.35	0.00	0.00	0.00
6,500.00	11.46	103.17	6,420.39	-186.46	797.11	-123.34	0.00	0.00	0.00
6,600.00	11.46	103.17	6,518.40	-190.99	816.46	-126.33	0.00	0.00	0.00
6,658.66	11.46	103.17	6,575.89	-193.65	827.81	-128.09	0.00	0.00	0.00
Start Drop -1.50									
6,700.00	10.84	103.17	6,616.45	-195.47	835.60	-129.29	1.50	-1.50	0.00
6,800.00	9.34	103.17	6,714.90	-199.46	852.66	-131.94	1.50	-1.50	0.00
6,900.00	7.84	103.17	6,813.77	-202.86	867.21	-134.19	1.50	-1.50	0.00
7,000.00	6.34	103.17	6,913.01	-205.67	879.23	-136.05	1.50	-1.50	0.00
7,100.00	4.84	103.17	7,012.53	-207.89	888.72	-137.52	1.50	-1.50	0.00
7,200.00	3.34	103.17	7,112.27	-209.52	895.67	-138.59	1.50	-1.50	0.00
7,300.00	1.84	103.17	7,212.16	-210.55	900.08	-139.27	1.50	-1.50	0.00
7,400.00	0.34	103.17	7,312.14	-210.98	901.93	-139.56	1.50	-1.50	0.00
7,422.86	0.00	0.00	7,335.00	-211.00	902.00	-139.57	1.50	-1.50	0.00
Start 4228.04 hold at 7422.86 MD									
7,500.00	0.00	0.00	7,412.14	-211.00	902.00	-139.57	0.00	0.00	0.00
7,600.00	0.00	0.00	7,512.14	-211.00	902.00	-139.57	0.00	0.00	0.00
7,700.00	0.00	0.00	7,612.14	-211.00	902.00	-139.57	0.00	0.00	0.00
7,800.00	0.00	0.00	7,712.14	-211.00	902.00	-139.57	0.00	0.00	0.00
7,900.00	0.00	0.00	7,812.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,000.00	0.00	0.00	7,912.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,100.00	0.00	0.00	8,012.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,200.00	0.00	0.00	8,112.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,300.00	0.00	0.00	8,212.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,400.00	0.00	0.00	8,312.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,500.00	0.00	0.00	8,412.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,600.00	0.00	0.00	8,512.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,700.00	0.00	0.00	8,612.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,800.00	0.00	0.00	8,712.14	-211.00	902.00	-139.57	0.00	0.00	0.00
8,900.00	0.00	0.00	8,812.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,000.00	0.00	0.00	8,912.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,100.00	0.00	0.00	9,012.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,200.00	0.00	0.00	9,112.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,300.00	0.00	0.00	9,212.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,400.00	0.00	0.00	9,312.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,500.00	0.00	0.00	9,412.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,600.00	0.00	0.00	9,512.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,700.00	0.00	0.00	9,612.14	-211.00	902.00	-139.57	0.00	0.00	0.00
9,800.00	0.00	0.00	9,712.14	-211.00	902.00	-139.57	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
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Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
9,900.00	0.00	0.00	9,812.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,000.00	0.00	0.00	9,912.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,100.00	0.00	0.00	10,012.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,200.00	0.00	0.00	10,112.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,300.00	0.00	0.00	10,212.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,400.00	0.00	0.00	10,312.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,500.00	0.00	0.00	10,412.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,600.00	0.00	0.00	10,512.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,700.00	0.00	0.00	10,612.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,800.00	0.00	0.00	10,712.14	-211.00	902.00	-139.57	0.00	0.00	0.00
10,900.00	0.00	0.00	10,812.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,000.00	0.00	0.00	10,912.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,100.00	0.00	0.00	11,012.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,200.00	0.00	0.00	11,112.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,300.00	0.00	0.00	11,212.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,400.00	0.00	0.00	11,312.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,500.00	0.00	0.00	11,412.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,600.00	0.00	0.00	11,512.14	-211.00	902.00	-139.57	0.00	0.00	0.00
11,650.90	0.00	0.00	11,563.04	-211.00	902.00	-139.57	0.00	0.00	0.00
Start DLS 10.00 TFO 359.43									
11,700.00	4.91	359.43	11,612.08	-208.90	901.98	-137.48	10.00	10.00	0.00
11,750.00	9.91	359.43	11,661.65	-202.45	901.92	-131.05	10.00	10.00	0.00
11,800.00	14.91	359.43	11,710.46	-191.71	901.81	-120.35	10.00	10.00	0.00
11,850.00	19.91	359.43	11,758.16	-176.75	901.66	-105.46	10.00	10.00	0.00
11,900.00	24.91	359.43	11,804.37	-157.70	901.47	-86.48	10.00	10.00	0.00
11,950.00	29.91	359.43	11,848.74	-134.69	901.24	-63.55	10.00	10.00	0.00
12,000.00	34.91	359.43	11,890.94	-107.90	900.98	-36.87	10.00	10.00	0.00
12,050.00	39.91	359.43	11,930.64	-77.54	900.68	-6.62	10.00	10.00	0.00
12,100.00	44.91	359.43	11,967.55	-43.83	900.34	26.96	10.00	10.00	0.00
12,150.00	49.91	359.43	12,001.37	-7.03	899.98	63.61	10.00	10.00	0.00
12,200.00	54.91	359.43	12,031.86	32.58	899.59	103.07	10.00	10.00	0.00
12,250.00	59.91	359.43	12,058.79	74.69	899.17	145.01	10.00	10.00	0.00
12,300.00	64.91	359.43	12,081.94	118.99	898.73	189.14	10.00	10.00	0.00
12,350.00	69.91	359.43	12,101.14	165.13	898.27	235.11	10.00	10.00	0.00
12,400.00	74.91	359.43	12,116.24	212.78	897.80	282.57	10.00	10.00	0.00
12,450.00	79.91	359.43	12,127.14	261.56	897.32	331.16	10.00	10.00	0.00
12,500.00	84.91	359.43	12,133.74	311.10	896.83	380.52	10.00	10.00	0.00
12,550.90	90.00	359.43	12,136.00	361.93	896.32	431.15	10.00	10.00	0.00
Start 9792.32 hold at 12550.90 MD - LP (FMM Fed Com 803H)									
12,600.00	90.00	359.43	12,136.00	411.03	895.83	480.06	0.00	0.00	0.00
12,700.00	90.00	359.43	12,136.00	511.02	894.84	579.67	0.00	0.00	0.00
12,800.00	90.00	359.43	12,136.00	611.02	893.85	679.28	0.00	0.00	0.00
12,900.00	90.00	359.43	12,136.00	711.01	892.86	778.88	0.00	0.00	0.00
13,000.00	90.00	359.43	12,136.00	811.01	891.87	878.49	0.00	0.00	0.00
13,100.00	90.00	359.43	12,136.00	911.00	890.88	978.10	0.00	0.00	0.00
13,200.00	90.00	359.43	12,136.00	1,011.00	889.89	1,077.71	0.00	0.00	0.00
13,300.00	90.00	359.43	12,136.00	1,110.99	888.90	1,177.32	0.00	0.00	0.00
13,400.00	90.00	359.43	12,136.00	1,210.99	887.91	1,276.93	0.00	0.00	0.00
13,500.00	90.00	359.43	12,136.00	1,310.98	886.92	1,376.54	0.00	0.00	0.00
13,600.00	90.00	359.43	12,136.00	1,410.98	885.92	1,476.15	0.00	0.00	0.00
13,700.00	90.00	359.43	12,136.00	1,510.98	884.93	1,575.76	0.00	0.00	0.00
13,800.00	90.00	359.43	12,136.00	1,610.97	883.94	1,675.37	0.00	0.00	0.00
13,900.00	90.00	359.43	12,136.00	1,710.97	882.95	1,774.97	0.00	0.00	0.00
14,000.00	90.00	359.43	12,136.00	1,810.96	881.96	1,874.58	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	359.43	12,136.00	1,910.96	880.97	1,974.19	0.00	0.00	0.00
14,200.00	90.00	359.43	12,136.00	2,010.95	879.98	2,073.80	0.00	0.00	0.00
14,300.00	90.00	359.43	12,136.00	2,110.95	878.99	2,173.41	0.00	0.00	0.00
14,400.00	90.00	359.43	12,136.00	2,210.94	878.00	2,273.02	0.00	0.00	0.00
14,500.00	90.00	359.43	12,136.00	2,310.94	877.00	2,372.63	0.00	0.00	0.00
14,600.00	90.00	359.43	12,136.00	2,410.93	876.01	2,472.24	0.00	0.00	0.00
14,700.00	90.00	359.43	12,136.00	2,510.93	875.02	2,571.85	0.00	0.00	0.00
14,800.00	90.00	359.43	12,136.00	2,610.92	874.03	2,671.46	0.00	0.00	0.00
14,900.00	90.00	359.43	12,136.00	2,710.92	873.04	2,771.06	0.00	0.00	0.00
15,000.00	90.00	359.43	12,136.00	2,810.91	872.05	2,870.67	0.00	0.00	0.00
15,100.00	90.00	359.43	12,136.00	2,910.91	871.06	2,970.28	0.00	0.00	0.00
15,200.00	90.00	359.43	12,136.00	3,010.90	870.07	3,069.89	0.00	0.00	0.00
15,300.00	90.00	359.43	12,136.00	3,110.90	869.08	3,169.50	0.00	0.00	0.00
15,400.00	90.00	359.43	12,136.00	3,210.89	868.09	3,269.11	0.00	0.00	0.00
15,500.00	90.00	359.43	12,136.00	3,310.89	867.09	3,368.72	0.00	0.00	0.00
15,600.00	90.00	359.43	12,136.00	3,410.88	866.10	3,468.33	0.00	0.00	0.00
15,700.00	90.00	359.43	12,136.00	3,510.88	865.11	3,567.94	0.00	0.00	0.00
15,800.00	90.00	359.43	12,136.00	3,610.87	864.12	3,667.55	0.00	0.00	0.00
15,900.00	90.00	359.43	12,136.00	3,710.87	863.13	3,767.15	0.00	0.00	0.00
16,000.00	90.00	359.43	12,136.00	3,810.86	862.14	3,866.76	0.00	0.00	0.00
16,100.00	90.00	359.43	12,136.00	3,910.86	861.15	3,966.37	0.00	0.00	0.00
16,200.00	90.00	359.43	12,136.00	4,010.85	860.16	4,065.98	0.00	0.00	0.00
16,300.00	90.00	359.43	12,136.00	4,110.85	859.17	4,165.59	0.00	0.00	0.00
16,400.00	90.00	359.43	12,136.00	4,210.84	858.17	4,265.20	0.00	0.00	0.00
16,500.00	90.00	359.43	12,136.00	4,310.84	857.18	4,364.81	0.00	0.00	0.00
16,600.00	90.00	359.43	12,136.00	4,410.83	856.19	4,464.42	0.00	0.00	0.00
16,700.00	90.00	359.43	12,136.00	4,510.83	855.20	4,564.03	0.00	0.00	0.00
16,800.00	90.00	359.43	12,136.00	4,610.82	854.21	4,663.64	0.00	0.00	0.00
16,900.00	90.00	359.43	12,136.00	4,710.82	853.22	4,763.24	0.00	0.00	0.00
17,000.00	90.00	359.43	12,136.00	4,810.81	852.23	4,862.85	0.00	0.00	0.00
17,100.00	90.00	359.43	12,136.00	4,910.81	851.24	4,962.46	0.00	0.00	0.00
17,200.00	90.00	359.43	12,136.00	5,010.80	850.25	5,062.07	0.00	0.00	0.00
17,300.00	90.00	359.43	12,136.00	5,110.80	849.25	5,161.68	0.00	0.00	0.00
17,400.00	90.00	359.43	12,136.00	5,210.79	848.26	5,261.29	0.00	0.00	0.00
17,500.00	90.00	359.43	12,136.00	5,310.79	847.27	5,360.90	0.00	0.00	0.00
17,600.00	90.00	359.43	12,136.00	5,410.78	846.28	5,460.51	0.00	0.00	0.00
17,700.00	90.00	359.43	12,136.00	5,510.78	845.29	5,560.12	0.00	0.00	0.00
17,800.00	90.00	359.43	12,136.00	5,610.77	844.30	5,659.72	0.00	0.00	0.00
17,900.00	90.00	359.43	12,136.00	5,710.77	843.31	5,759.33	0.00	0.00	0.00
18,000.00	90.00	359.43	12,136.00	5,810.76	842.32	5,858.94	0.00	0.00	0.00
18,100.00	90.00	359.43	12,136.00	5,910.76	841.33	5,958.55	0.00	0.00	0.00
18,200.00	90.00	359.43	12,136.00	6,010.75	840.34	6,058.16	0.00	0.00	0.00
18,300.00	90.00	359.43	12,136.00	6,110.75	839.34	6,157.77	0.00	0.00	0.00
18,400.00	90.00	359.43	12,136.00	6,210.74	838.35	6,257.38	0.00	0.00	0.00
18,500.00	90.00	359.43	12,136.00	6,310.74	837.36	6,356.99	0.00	0.00	0.00
18,600.00	90.00	359.43	12,136.00	6,410.73	836.37	6,456.60	0.00	0.00	0.00
18,700.00	90.00	359.43	12,136.00	6,510.73	835.38	6,556.21	0.00	0.00	0.00
18,800.00	90.00	359.43	12,136.00	6,610.72	834.39	6,655.81	0.00	0.00	0.00
18,900.00	90.00	359.43	12,136.00	6,710.72	833.40	6,755.42	0.00	0.00	0.00
19,000.00	90.00	359.43	12,136.00	6,810.71	832.41	6,855.03	0.00	0.00	0.00
19,100.00	90.00	359.43	12,136.00	6,910.71	831.42	6,954.64	0.00	0.00	0.00
19,200.00	90.00	359.43	12,136.00	7,010.71	830.42	7,054.25	0.00	0.00	0.00
19,300.00	90.00	359.43	12,136.00	7,110.70	829.43	7,153.86	0.00	0.00	0.00
19,400.00	90.00	359.43	12,136.00	7,210.70	828.44	7,253.47	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	359.43	12,136.00	7,310.69	827.45	7,353.08	0.00	0.00	0.00
19,600.00	90.00	359.43	12,136.00	7,410.69	826.46	7,452.69	0.00	0.00	0.00
19,700.00	90.00	359.43	12,136.00	7,510.68	825.47	7,552.30	0.00	0.00	0.00
19,800.00	90.00	359.43	12,136.00	7,610.68	824.48	7,651.90	0.00	0.00	0.00
19,900.00	90.00	359.43	12,136.00	7,710.67	823.49	7,751.51	0.00	0.00	0.00
20,000.00	90.00	359.43	12,136.00	7,810.67	822.50	7,851.12	0.00	0.00	0.00
20,100.00	90.00	359.43	12,136.00	7,910.66	821.50	7,950.73	0.00	0.00	0.00
20,200.00	90.00	359.43	12,136.00	8,010.66	820.51	8,050.34	0.00	0.00	0.00
20,300.00	90.00	359.43	12,136.00	8,110.65	819.52	8,149.95	0.00	0.00	0.00
20,400.00	90.00	359.43	12,136.00	8,210.65	818.53	8,249.56	0.00	0.00	0.00
20,500.00	90.00	359.43	12,136.00	8,310.64	817.54	8,349.17	0.00	0.00	0.00
20,600.00	90.00	359.43	12,136.00	8,410.64	816.55	8,448.78	0.00	0.00	0.00
20,700.00	90.00	359.43	12,136.00	8,510.63	815.56	8,548.39	0.00	0.00	0.00
20,800.00	90.00	359.43	12,136.00	8,610.63	814.57	8,647.99	0.00	0.00	0.00
20,900.00	90.00	359.43	12,136.00	8,710.62	813.58	8,747.60	0.00	0.00	0.00
21,000.00	90.00	359.43	12,136.00	8,810.62	812.59	8,847.21	0.00	0.00	0.00
21,100.00	90.00	359.43	12,136.00	8,910.61	811.59	8,946.82	0.00	0.00	0.00
21,200.00	90.00	359.43	12,136.00	9,010.61	810.60	9,046.43	0.00	0.00	0.00
21,300.00	90.00	359.43	12,136.00	9,110.60	809.61	9,146.04	0.00	0.00	0.00
21,400.00	90.00	359.43	12,136.00	9,210.60	808.62	9,245.65	0.00	0.00	0.00
21,500.00	90.00	359.43	12,136.00	9,310.59	807.63	9,345.26	0.00	0.00	0.00
21,600.00	90.00	359.43	12,136.00	9,410.59	806.64	9,444.87	0.00	0.00	0.00
21,700.00	90.00	359.43	12,136.00	9,510.58	805.65	9,544.48	0.00	0.00	0.00
21,800.00	90.00	359.43	12,136.00	9,610.58	804.66	9,644.08	0.00	0.00	0.00
21,900.00	90.00	359.43	12,136.00	9,710.57	803.67	9,743.69	0.00	0.00	0.00
22,000.00	90.00	359.43	12,136.00	9,810.57	802.67	9,843.30	0.00	0.00	0.00
22,100.00	90.00	359.43	12,136.00	9,910.56	801.68	9,942.91	0.00	0.00	0.00
22,200.00	90.00	359.43	12,136.00	10,010.56	800.69	10,042.52	0.00	0.00	0.00
22,300.00	90.00	359.43	12,136.00	10,110.55	799.70	10,142.13	0.00	0.00	0.00
22,343.22	90.00	359.43	12,136.00	10,153.77	799.27	10,185.18	0.00	0.00	0.00
TD at 22343.22 - PBHL (FMM Fed Com 803H)									

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 80 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	426,118.03	853,196.00	32.167462	-103.325486
PBHL (FMM Fed Com 8 - plan hits target center - Point	0.00	0.00	12,136.00	10,153.77	799.27	436,271.80	853,995.27	32.195349	-103.322595
LP (FMM Fed Com 803H - plan hits target center - Point	0.00	0.00	12,136.00	361.93	896.32	426,479.96	854,092.32	32.168434	-103.322579

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Company:	Franklin Mountain Energy	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site:	FMM Fed Com	**North Reference:**	Grid
Well:	FMM Fed Com 803H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,000.00	2,000.00	0.00	0.00	Start Build 1.50
2,764.20	2,759.12	-17.35	74.19	Start 3894.45 hold at 2764.20 MD
6,658.66	6,575.89	-193.65	827.81	Start Drop -1.50
7,422.86	7,335.00	-211.00	902.00	Start 4228.04 hold at 7422.86 MD
11,650.90	11,563.04	-211.00	902.00	Start DLS 10.00 TFO 359.43
12,550.90	12,136.00	361.93	896.32	Start 9792.32 hold at 12550.90 MD
22,343.22	12,136.00	10,153.77	799.27	TD at 22343.22

FRANKLIN MOUNTAIN ENERGY

Franklin Mountain Energy

Lea County, NM (NAD83)
FMM Fed Com
FMM Fed Com 803H

OH
Plan #1

Anticollision Report

27 August, 2021

total

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Plan #1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	1,843.00 to 28,999.00usft	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.00 usft	**Error Surface:**	Combined Separation
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 8/27/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	22,343.22	Plan #1 (OH)	OWSG (Rev2) MWD	OWSG MWD - Standard

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
FMM Fed Com						
FMM Fed Com 101H - OH - Plan #1	1,843.00	1,840.44	97.71	88.71	10.852	CC, ES
FMM Fed Com 101H - OH - Plan #1	2,000.00	1,995.14	100.41	90.64	10.273	SF
FMM Fed Com 102H - OH - Plan #1	2,580.55	2,585.09	71.92	59.28	5.693	CC
FMM Fed Com 102H - OH - Plan #1	2,600.00	2,604.53	71.94	59.21	5.652	ES
FMM Fed Com 102H - OH - Plan #1	2,764.20	2,768.43	74.58	61.04	5.506	SF
FMM Fed Com 301H - OH - Plan #1	2,000.00	1,998.80	83.92	74.11	8.557	CC, ES
FMM Fed Com 301H - OH - Plan #1	2,100.00	2,098.19	85.12	74.82	8.267	SF
FMM Fed Com 302H - OH - Plan #1	2,819.59	2,822.44	61.21	47.37	4.423	CC
FMM Fed Com 302H - OH - Plan #1	2,900.00	2,902.55	61.60	47.37	4.327	ES
FMM Fed Com 302H - OH - Plan #1	3,000.00	3,002.18	63.15	48.42	4.288	SF
FMM Fed Com 801H - OH - Plan #1	2,000.00	1,999.10	50.13	40.32	5.112	CC, ES, SF
FMM Fed Com 802H - OH - Plan #1	2,000.00	1,999.40	25.07	15.26	2.556	CC, ES
FMM Fed Com 802H - OH - Plan #1	2,100.00	2,099.39	26.34	16.03	2.555	SF
KC7 Fed Com/El Paso Fed Com						
El Paso Fed Com 604H - OH - Plan #1	11,582.58	11,797.50	2,400.27	2,342.51	41.553	CC
El Paso Fed Com 604H - OH - Plan #1	22,343.71	22,142.11	2,574.24	2,335.66	10.789	ES, SF
El Paso Fed Com 705H - OH - Plan #3	11,897.05	12,169.78	1,824.30	1,764.84	30.685	CC
El Paso Fed Com 705H - OH - Plan #3	22,343.71	22,469.68	1,933.85	1,693.61	8.049	ES, SF
El Paso Fed Com 706H - OH - Plan #1	7,119.07	6,876.62	2,571.08	2,535.93	73.150	CC, ES
El Paso Fed Com 706H - OH - Plan #1	22,343.71	22,292.10	2,811.75	2,567.50	11.512	SF
KC7 Fed Com 603H - OH - Plan #1	11,665.60	11,944.52	1,361.26	1,302.64	23.220	CC, ES
KC7 Fed Com 603H - OH - Plan #1	22,343.22	22,288.71	1,614.15	1,395.11	7.369	SF

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,840.44	1,840.44	6.37	6.36	-40.47	74.33	-63.42	97.71	88.71	9.00	10.852	CC, ES
1,900.00	1,900.00	1,896.65	1,896.64	6.58	6.56	-40.97	74.19	-64.42	98.27	88.98	9.29	10.582	
2,000.00	2,000.00	1,995.14	1,995.05	6.94	6.89	-42.76	73.69	-68.15	100.41	90.64	9.77	10.273	SF
2,100.00	2,099.99	2,093.26	2,092.98	7.28	7.23	-149.08	72.85	-74.36	105.34	95.09	10.25	10.275	
2,200.00	2,199.91	2,190.63	2,189.95	7.62	7.57	-153.44	71.69	-82.99	114.60	103.88	10.72	10.693	
2,300.00	2,299.69	2,286.88	2,285.56	7.97	7.91	-158.28	70.21	-93.92	128.71	117.53	11.17	11.518	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,400.00	2,399.27	2,381.65	2,379.40	8.31	8.25	-162.98	68.44	-107.01	148.00	136.38	11.62	12.736	
2,500.00	2,498.57	2,474.62	2,471.12	8.66	8.60	-167.18	66.40	-122.09	172.60	160.54	12.05	14.318	
2,600.00	2,597.54	2,568.92	2,563.88	9.03	8.96	-170.76	64.13	-138.88	201.76	189.25	12.51	16.125	
2,700.00	2,696.09	2,663.01	2,656.44	9.40	9.32	-173.54	61.86	-155.66	234.01	221.03	12.98	18.031	
2,764.20	2,759.12	2,722.95	2,715.40	9.64	9.56	-174.99	60.42	-166.36	256.22	242.95	13.28	19.298	
2,800.00	2,794.20	2,756.26	2,748.17	9.78	9.69	-175.71	59.62	-172.30	268.95	255.51	13.44	20.005	
2,900.00	2,892.20	2,849.33	2,839.71	10.17	10.06	-177.41	57.37	-188.90	304.67	290.76	13.91	21.904	
3,000.00	2,990.21	2,942.39	2,931.25	10.57	10.44	-178.76	55.13	-205.50	340.57	326.20	14.38	23.687	
3,100.00	3,088.21	3,035.45	3,022.79	10.97	10.82	-179.85	52.89	-222.10	376.61	361.76	14.85	25.362	
3,200.00	3,186.22	3,128.51	3,114.34	11.38	11.20	179.25	50.64	-238.70	412.75	397.43	15.32	26.935	
3,300.00	3,284.22	3,221.57	3,205.88	11.80	11.59	178.49	48.40	-255.30	448.96	433.16	15.80	28.414	
3,400.00	3,382.23	3,314.63	3,297.42	12.22	11.98	177.85	46.16	-271.90	485.23	468.95	16.28	29.806	
3,500.00	3,480.24	3,407.70	3,388.96	12.65	12.37	177.29	43.91	-288.50	521.55	504.79	16.76	31.117	
3,600.00	3,578.24	3,500.76	3,480.50	13.08	12.77	176.81	41.67	-305.10	557.91	540.66	17.24	32.353	
3,700.00	3,676.25	3,593.82	3,572.04	13.51	13.17	176.39	39.43	-321.70	594.29	576.56	17.73	33.520	
3,800.00	3,774.25	3,686.88	3,663.59	13.95	13.57	176.01	37.18	-338.30	630.70	612.48	18.22	34.624	
3,900.00	3,872.26	3,779.94	3,755.13	14.39	13.97	175.68	34.94	-354.90	667.13	648.42	18.70	35.668	
4,000.00	3,970.26	3,873.01	3,846.67	14.83	14.37	175.38	32.70	-371.50	703.57	684.38	19.19	36.657	
4,100.00	4,068.27	3,966.07	3,938.21	15.28	14.78	175.11	30.45	-388.10	740.04	720.35	19.68	37.596	
4,200.00	4,166.27	4,059.13	4,029.75	15.73	15.18	174.86	28.21	-404.71	776.51	756.34	20.18	38.487	
4,300.00	4,264.28	4,152.19	4,121.29	16.18	15.59	174.64	25.97	-421.31	813.00	792.33	20.67	39.335	
4,400.00	4,362.28	4,245.25	4,212.84	16.63	16.00	174.44	23.72	-437.91	849.49	828.33	21.16	40.141	
4,500.00	4,460.29	4,338.31	4,304.38	17.08	16.41	174.25	21.48	-454.51	886.00	864.34	21.66	40.909	
4,600.00	4,558.29	4,431.38	4,395.92	17.54	16.82	174.08	19.24	-471.11	922.51	900.36	22.15	41.642	
4,700.00	4,656.30	4,524.44	4,487.46	18.00	17.23	173.92	16.99	-487.71	959.03	936.38	22.65	42.341	
4,800.00	4,754.30	4,617.50	4,579.00	18.45	17.65	173.77	14.75	-504.31	995.55	972.41	23.15	43.009	
4,900.00	4,852.31	4,710.56	4,670.54	18.91	18.06	173.64	12.51	-520.91	1,032.08	1,008.44	23.65	43.647	
5,000.00	4,950.31	4,803.62	4,762.09	19.37	18.48	173.51	10.26	-537.51	1,068.62	1,044.47	24.15	44.258	
5,100.00	5,048.32	4,896.68	4,853.63	19.83	18.89	173.39	8.02	-554.11	1,105.16	1,080.51	24.64	44.843	
5,200.00	5,146.33	4,989.75	4,945.17	20.30	19.31	173.28	5.78	-570.71	1,141.70	1,116.56	25.15	45.404	
5,300.00	5,244.33	5,082.81	5,036.71	20.76	19.72	173.17	3.53	-587.31	1,178.25	1,152.60	25.65	45.942	
5,400.00	5,342.34	5,175.87	5,128.25	21.23	20.14	173.08	1.29	-603.91	1,214.80	1,188.65	26.15	46.458	
5,500.00	5,440.34	5,268.93	5,219.79	21.69	20.56	172.98	-0.95	-620.51	1,251.35	1,224.70	26.65	46.954	
5,600.00	5,538.35	5,361.99	5,311.34	22.16	20.98	172.90	-3.20	-637.11	1,287.90	1,260.75	27.15	47.431	
5,700.00	5,636.35	5,455.05	5,402.88	22.62	21.40	172.81	-5.44	-653.71	1,324.46	1,296.81	27.66	47.890	
5,800.00	5,734.36	5,548.12	5,494.42	23.09	21.82	172.74	-7.68	-670.31	1,361.02	1,332.86	28.16	48.332	
5,900.00	5,832.36	5,641.18	5,585.96	23.56	22.24	172.66	-9.93	-686.91	1,397.58	1,368.92	28.66	48.757	
6,000.00	5,930.37	5,734.24	5,677.50	24.03	22.66	172.59	-12.17	-703.51	1,434.15	1,404.98	29.17	49.167	
6,100.00	6,028.37	5,827.30	5,769.04	24.50	23.08	172.53	-14.41	-720.11	1,470.71	1,441.04	29.67	49.562	
6,200.00	6,126.38	5,920.36	5,860.59	24.97	23.50	172.46	-16.66	-736.72	1,507.28	1,477.10	30.18	49.943	
6,300.00	6,224.38	6,013.42	5,952.13	25.44	23.92	172.40	-18.90	-753.32	1,543.85	1,513.16	30.69	50.311	
6,400.00	6,322.39	6,106.49	6,043.67	25.91	24.34	172.34	-21.14	-769.92	1,580.42	1,549.23	31.19	50.667	
6,500.00	6,420.39	6,199.55	6,135.21	26.38	24.76	172.29	-23.39	-786.52	1,616.99	1,585.29	31.70	51.011	
6,600.00	6,518.40	6,292.61	6,226.75	26.85	25.19	172.24	-25.63	-803.12	1,653.56	1,621.36	32.21	51.343	
6,658.66	6,575.89	6,347.20	6,280.45	27.13	25.43	172.21	-26.95	-812.85	1,675.02	1,642.51	32.50	51.532	
6,700.00	6,616.45	6,385.75	6,318.37	27.32	25.61	172.22	-27.87	-819.73	1,689.93	1,657.22	32.71	51.658	
6,800.00	6,714.90	6,479.65	6,410.73	27.78	26.04	172.23	-30.14	-836.48	1,724.29	1,691.07	33.22	51.902	
6,900.00	6,813.77	6,574.39	6,503.93	28.21	26.47	172.23	-32.42	-853.38	1,756.20	1,722.47	33.73	52.065	
7,000.00	6,913.01	6,669.93	6,597.91	28.61	26.90	172.21	-34.73	-870.42	1,785.65	1,751.41	34.24	52.150	
7,100.00	7,012.53	6,766.18	6,692.59	29.00	27.34	172.18	-37.05	-887.59	1,812.61	1,777.86	34.75	52.161	
7,200.00	7,112.27	6,939.70	6,863.85	29.36	28.10	172.08	-40.77	-915.13	1,835.26	1,799.60	35.66	51.468	
7,300.00	7,212.16	7,126.20	7,049.13	29.70	28.85	172.00	-43.60	-936.11	1,850.78	1,814.22	36.55	50.635	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,400.00	7,312.14	7,315.50	7,238.01	30.02	29.53	171.95	-45.24	-948.21	1,858.95	1,821.59	37.37	49.745	
7,422.86	7,335.00	7,358.98	7,281.47	30.09	29.68	-84.89	-45.44	-949.68	1,859.78	1,822.24	37.54	49.537	
7,500.00	7,412.14	7,487.67	7,410.14	30.32	30.08	-84.90	-45.64	-951.21	1,860.57	1,822.52	38.05	48.899	
7,600.00	7,512.14	7,587.67	7,510.14	30.63	30.39	-84.90	-45.64	-951.21	1,860.57	1,822.05	38.52	48.304	
7,700.00	7,612.14	7,687.67	7,610.14	30.93	30.69	-84.90	-45.64	-951.21	1,860.57	1,821.58	38.99	47.721	
7,800.00	7,712.14	7,787.67	7,710.14	31.23	31.00	-84.90	-45.64	-951.21	1,860.57	1,821.11	39.46	47.151	
7,900.00	7,812.14	7,887.67	7,810.14	31.54	31.31	-84.90	-45.64	-951.21	1,860.57	1,820.64	39.93	46.594	
8,000.00	7,912.14	7,987.67	7,910.14	31.84	31.61	-84.90	-45.64	-951.21	1,860.57	1,820.17	40.40	46.049	
8,100.00	8,012.14	8,087.67	8,010.14	32.15	31.92	-84.90	-45.64	-951.21	1,860.57	1,819.69	40.88	45.515	
8,105.47	8,017.61	8,093.14	8,015.61	32.17	31.94	-84.90	-45.64	-951.21	1,860.57	1,819.67	40.90	45.486	
8,200.00	8,112.14	8,171.74	8,094.15	32.46	32.18	-84.84	-43.53	-951.23	1,860.85	1,819.54	41.31	45.046	
8,300.00	8,212.14	8,250.00	8,171.43	32.76	32.41	-84.47	-31.53	-951.35	1,862.42	1,820.71	41.72	44.645	
8,400.00	8,312.14	8,315.63	8,234.47	33.07	32.59	-83.92	-13.42	-951.53	1,865.57	1,823.50	42.07	44.344	
8,500.00	8,412.14	8,380.12	8,294.01	33.39	32.76	-83.16	11.28	-951.78	1,870.66	1,828.26	42.40	44.121	
8,600.00	8,512.14	8,438.32	8,345.05	33.70	32.89	-82.32	39.18	-952.05	1,878.13	1,835.44	42.68	44.001	
8,700.00	8,612.14	8,490.07	8,387.86	34.01	33.00	-81.44	68.23	-952.34	1,888.38	1,845.46	42.92	44.003	
8,800.00	8,712.14	8,535.69	8,423.29	34.32	33.08	-80.57	96.95	-952.63	1,901.78	1,858.69	43.08	44.141	
8,900.00	8,812.14	8,575.71	8,452.40	34.64	33.15	-79.75	124.40	-952.90	1,918.63	1,875.44	43.19	44.424	
9,000.00	8,912.14	8,600.00	8,469.11	34.95	33.19	-79.23	142.02	-953.08	1,939.19	1,896.00	43.18	44.907	
9,100.00	9,012.14	8,650.00	8,501.08	35.27	33.27	-78.09	180.44	-953.46	1,963.44	1,920.20	43.24	45.403	
9,200.00	9,112.14	8,668.63	8,512.11	35.59	33.30	-77.64	195.45	-953.61	1,991.51	1,948.39	43.12	46.184	
9,300.00	9,212.14	8,700.00	8,529.57	35.90	33.34	-76.88	221.51	-953.87	2,023.48	1,980.47	43.01	47.043	
9,400.00	9,312.14	8,700.00	8,529.57	36.22	33.34	-76.88	221.51	-953.87	2,059.27	2,016.56	42.71	48.214	
9,500.00	9,412.14	8,732.55	8,546.15	36.54	33.39	-76.07	249.51	-954.15	2,098.53	2,055.98	42.55	49.322	
9,600.00	9,512.14	8,750.00	8,554.38	36.86	33.41	-75.62	264.90	-954.30	2,141.45	2,099.18	42.27	50.656	
9,700.00	9,612.14	8,750.00	8,554.38	37.18	33.41	-75.62	264.90	-954.30	2,187.91	2,146.02	41.89	52.232	
9,800.00	9,712.14	8,778.16	8,566.66	37.50	33.45	-74.89	290.24	-954.55	2,237.32	2,195.67	41.65	53.722	
9,900.00	9,812.14	8,800.00	8,575.31	37.83	33.49	-74.32	310.29	-954.75	2,289.99	2,248.63	41.36	55.367	
10,000.00	9,912.14	8,800.00	8,575.31	38.15	33.49	-74.32	310.29	-954.75	2,345.43	2,304.47	40.96	57.267	
10,100.00	10,012.14	8,800.00	8,575.31	38.47	33.49	-74.32	310.29	-954.75	2,403.75	2,363.19	40.56	59.270	
10,200.00	10,112.14	8,821.32	8,583.02	38.80	33.52	-73.75	330.16	-954.95	2,464.39	2,424.11	40.28	61.179	
10,300.00	10,212.14	8,829.91	8,585.91	39.12	33.53	-73.52	338.25	-955.03	2,527.52	2,487.57	39.95	63.268	
10,400.00	10,312.14	8,850.00	8,592.21	39.44	33.56	-72.99	357.33	-955.22	2,592.98	2,553.29	39.69	65.328	
10,500.00	10,412.14	8,850.00	8,592.21	39.77	33.56	-72.99	357.33	-955.22	2,660.29	2,620.94	39.35	67.610	
10,600.00	10,512.14	8,850.00	8,592.21	40.10	33.56	-72.99	357.33	-955.22	2,729.60	2,690.58	39.02	69.948	
10,700.00	10,612.14	8,850.00	8,592.21	40.42	33.56	-72.99	357.33	-955.22	2,800.77	2,762.05	38.72	72.332	
10,800.00	10,712.14	8,850.00	8,592.21	40.75	33.56	-72.99	357.33	-955.22	2,873.66	2,835.22	38.44	74.754	
10,900.00	10,812.14	8,850.00	8,592.21	41.08	33.56	-72.99	357.33	-955.22	2,948.13	2,909.95	38.19	77.203	
11,000.00	10,912.14	8,874.61	8,599.00	41.41	33.61	-72.32	380.98	-955.45	3,023.57	2,985.49	38.08	79.410	
11,100.00	11,012.14	8,879.39	8,600.20	41.74	33.61	-72.19	385.61	-955.50	3,100.65	3,062.76	37.89	81.834	
11,200.00	11,112.14	8,900.00	8,604.94	42.06	33.65	-71.64	405.66	-955.70	3,179.21	3,141.41	37.80	84.109	
11,300.00	11,212.14	8,900.00	8,604.94	42.39	33.65	-71.64	405.66	-955.70	3,258.59	3,220.95	37.64	86.580	
11,400.00	11,312.14	8,900.00	8,604.94	42.72	33.65	-71.64	405.66	-955.70	3,339.08	3,301.58	37.50	89.047	
11,500.00	11,412.14	8,900.00	8,604.94	43.06	33.65	-71.64	405.66	-955.70	3,420.60	3,383.21	37.38	91.504	
11,600.00	11,512.14	8,900.00	8,604.94	43.39	33.65	-71.64	405.66	-955.70	3,503.07	3,465.79	37.29	93.949	
11,650.90	11,563.04	8,900.00	8,604.94	43.56	33.65	-71.64	405.66	-955.70	3,545.40	3,508.15	37.25	95.186	
11,700.00	11,612.08	8,900.00	8,604.94	43.72	33.65	-64.38	405.66	-955.70	3,586.02	3,548.81	37.21	96.374	
11,750.00	11,661.65	8,900.00	8,604.94	43.87	33.65	-58.31	405.66	-955.70	3,626.54	3,589.37	37.17	97.573	
11,800.00	11,710.46	8,900.00	8,604.94	44.02	33.65	-53.03	405.66	-955.70	3,665.93	3,628.81	37.12	98.751	
11,850.00	11,758.16	8,900.00	8,604.94	44.16	33.65	-48.50	405.66	-955.70	3,703.94	3,666.87	37.08	99.902	
11,900.00	11,804.37	8,900.00	8,604.94	44.29	33.65	-44.65	405.66	-955.70	3,740.32	3,703.30	37.03	101.018	
11,950.00	11,848.74	8,900.00	8,604.94	44.41	33.65	-41.39	405.66	-955.70	3,774.85	3,737.88	36.97	102.093	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,000.00	11,890.94	8,926.06	8,609.89	44.51	33.70	-38.43	431.24	-955.95	3,806.71	3,769.69	37.02	102.833	
12,050.00	11,930.64	8,950.00	8,613.41	44.60	33.76	-35.99	454.92	-956.19	3,836.96	3,799.91	37.05	103.568	
12,100.00	11,967.55	8,950.00	8,613.41	44.68	33.76	-34.12	454.92	-956.19	3,864.23	3,827.24	36.99	104.463	
12,150.00	12,001.37	8,950.00	8,613.41	44.74	33.76	-32.56	454.92	-956.19	3,888.90	3,851.96	36.94	105.285	
12,200.00	12,031.86	8,950.00	8,613.41	44.80	33.76	-31.27	454.92	-956.19	3,910.81	3,873.93	36.89	106.026	
12,250.00	12,058.79	8,950.00	8,613.41	44.84	33.76	-30.22	454.92	-956.19	3,929.86	3,893.02	36.84	106.675	
12,300.00	12,081.94	8,950.00	8,613.41	44.87	33.76	-29.37	454.92	-956.19	3,945.93	3,909.13	36.80	107.226	
12,350.00	12,101.14	8,950.00	8,613.41	44.90	33.76	-28.72	454.92	-956.19	3,958.95	3,922.18	36.77	107.669	
12,400.00	12,116.24	8,975.79	8,616.09	44.92	33.82	-28.21	480.57	-956.44	3,968.25	3,931.43	36.82	107.764	
12,450.00	12,127.14	9,000.00	8,617.55	44.95	33.88	-27.88	504.73	-956.68	3,974.87	3,937.99	36.88	107.784	
12,500.00	12,133.74	9,000.00	8,617.55	44.99	33.88	-27.75	504.73	-956.68	3,977.75	3,940.87	36.88	107.861	
12,550.90	12,136.00	9,000.00	8,617.55	45.03	33.88	-27.77	504.73	-956.68	3,977.36	3,940.47	36.89	107.806	
12,600.00	12,136.00	9,000.00	8,617.55	45.10	33.88	-27.77	504.73	-956.68	3,975.67	3,938.75	36.92	107.676	
12,700.00	12,136.00	9,022.57	8,618.00	45.28	33.94	-27.77	527.29	-956.91	3,973.85	3,936.78	37.07	107.200	
12,735.28	12,136.00	9,023.17	8,618.00	45.36	33.94	-27.77	527.89	-956.91	3,973.70	3,936.58	37.12	107.050	
12,800.00	12,136.00	9,087.88	8,618.00	45.54	34.15	-27.77	592.60	-957.56	3,973.70	3,936.35	37.35	106.386	
12,900.00	12,136.00	9,187.88	8,618.00	45.88	34.54	-27.77	692.60	-958.55	3,973.71	3,935.95	37.76	105.242	
13,000.00	12,136.00	9,287.88	8,618.00	46.30	35.03	-27.77	792.59	-959.55	3,973.71	3,935.49	38.22	103.983	
13,100.00	12,136.00	9,387.88	8,618.00	46.78	35.60	-27.77	892.59	-960.54	3,973.71	3,934.99	38.72	102.621	
13,200.00	12,136.00	9,487.88	8,618.00	47.33	36.24	-27.77	992.58	-961.54	3,973.71	3,934.43	39.28	101.172	
13,300.00	12,136.00	9,587.88	8,618.00	47.94	36.96	-27.77	1,092.58	-962.53	3,973.71	3,933.83	39.88	99.648	
13,400.00	12,136.00	9,687.88	8,618.00	48.60	37.74	-27.77	1,192.57	-963.53	3,973.71	3,933.19	40.52	98.064	
13,500.00	12,136.00	9,787.88	8,618.00	49.31	38.58	-27.77	1,292.57	-964.52	3,973.72	3,932.51	41.21	96.431	
13,600.00	12,136.00	9,887.88	8,618.00	50.06	39.48	-27.77	1,392.56	-965.52	3,973.72	3,931.78	41.93	94.762	
13,700.00	12,136.00	9,987.88	8,618.00	50.86	40.42	-27.77	1,492.56	-966.51	3,973.72	3,931.02	42.70	93.068	
13,800.00	12,136.00	10,087.88	8,618.00	51.70	41.41	-27.77	1,592.55	-967.51	3,973.72	3,930.23	43.49	91.364	
13,900.00	12,136.00	10,187.88	8,618.00	52.58	42.44	-27.77	1,692.55	-968.50	3,973.72	3,929.40	44.32	89.652	
14,000.00	12,136.00	10,287.88	8,618.00	53.49	43.51	-27.77	1,792.54	-969.49	3,973.72	3,928.54	45.19	87.942	
14,100.00	12,136.00	10,387.88	8,618.00	54.44	44.62	-27.77	1,892.54	-970.49	3,973.73	3,927.65	46.08	86.239	
14,200.00	12,136.00	10,487.88	8,618.00	55.43	45.76	-27.77	1,992.53	-971.48	3,973.73	3,926.73	47.00	84.550	
14,300.00	12,136.00	10,587.88	8,618.00	56.44	46.93	-27.77	2,092.53	-972.48	3,973.73	3,925.78	47.95	82.880	
14,400.00	12,136.00	10,687.88	8,618.00	57.49	48.12	-27.77	2,192.52	-973.47	3,973.73	3,924.81	48.92	81.233	
14,500.00	12,136.00	10,787.88	8,618.00	58.56	49.35	-27.77	2,292.52	-974.47	3,973.73	3,923.82	49.91	79.611	
14,600.00	12,136.00	10,887.88	8,618.00	59.66	50.60	-27.77	2,392.51	-975.46	3,973.73	3,922.80	50.93	78.018	
14,700.00	12,136.00	10,987.88	8,618.00	60.78	51.87	-27.77	2,492.51	-976.46	3,973.74	3,921.76	51.97	76.458	
14,800.00	12,136.00	11,087.88	8,618.00	61.93	53.16	-27.77	2,592.50	-977.45	3,973.74	3,920.71	53.03	74.934	
14,900.00	12,136.00	11,187.88	8,618.00	63.10	54.47	-27.77	2,692.50	-978.45	3,973.74	3,919.63	54.11	73.443	
15,000.00	12,136.00	11,287.88	8,618.00	64.29	55.80	-27.77	2,792.49	-979.44	3,973.74	3,918.54	55.20	71.987	
15,100.00	12,136.00	11,387.88	8,618.00	65.50	57.15	-27.77	2,892.49	-980.44	3,973.74	3,917.43	56.31	70.571	
15,200.00	12,136.00	11,487.88	8,618.00	66.73	58.51	-27.77	2,992.48	-981.43	3,973.74	3,916.31	57.43	69.190	
15,300.00	12,136.00	11,587.88	8,618.00	67.98	59.89	-27.77	3,092.48	-982.43	3,973.75	3,915.18	58.57	67.846	
15,400.00	12,136.00	11,687.88	8,618.00	69.24	61.28	-27.77	3,192.48	-983.42	3,973.75	3,914.02	59.72	66.537	
15,500.00	12,136.00	11,787.88	8,618.00	70.52	62.68	-27.77	3,292.47	-984.41	3,973.75	3,912.86	60.89	65.263	
15,600.00	12,136.00	11,887.88	8,618.00	71.82	64.09	-27.77	3,392.47	-985.41	3,973.75	3,911.68	62.07	64.025	
15,700.00	12,136.00	11,987.88	8,618.00	73.13	65.52	-27.77	3,492.46	-986.40	3,973.75	3,910.50	63.26	62.821	
15,800.00	12,136.00	12,087.88	8,618.00	74.45	66.96	-27.77	3,592.46	-987.40	3,973.75	3,909.30	64.46	61.651	
15,900.00	12,136.00	12,187.88	8,618.00	75.78	68.40	-27.77	3,692.45	-988.39	3,973.76	3,908.09	65.67	60.516	
16,000.00	12,136.00	12,287.89	8,618.00	77.13	69.86	-27.77	3,792.45	-989.39	3,973.76	3,906.88	66.88	59.414	
16,100.00	12,136.00	12,387.89	8,618.00	78.49	71.32	-27.77	3,892.44	-990.38	3,973.76	3,905.65	68.11	58.345	
16,200.00	12,136.00	12,487.89	8,618.00	79.86	72.79	-27.77	3,992.44	-991.38	3,973.76	3,904.42	69.34	57.306	
16,300.00	12,136.00	12,587.89	8,618.00	81.24	74.27	-27.77	4,092.43	-992.37	3,973.76	3,903.18	70.59	56.297	
16,400.00	12,136.00	12,687.89	8,618.00	82.64	75.76	-27.77	4,192.43	-993.37	3,973.76	3,901.93	71.84	55.317	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,500.00	12,136.00	12,787.89	8,618.00	84.04	77.25	-27.77	4,292.42	-994.36	3,973.77	3,900.67	73.09	54.364	
16,600.00	12,136.00	12,887.89	8,618.00	85.45	78.75	-27.77	4,392.42	-995.36	3,973.77	3,899.41	74.36	53.439	
16,700.00	12,136.00	12,987.89	8,618.00	86.86	80.26	-27.77	4,492.41	-996.35	3,973.77	3,898.14	75.63	52.541	
16,800.00	12,136.00	13,087.89	8,618.00	88.29	81.77	-27.77	4,592.41	-997.35	3,973.77	3,896.86	76.91	51.668	
16,900.00	12,136.00	13,187.89	8,618.00	89.72	83.28	-27.77	4,692.40	-998.34	3,973.77	3,895.58	78.19	50.819	
17,000.00	12,136.00	13,287.89	8,618.00	91.17	84.81	-27.77	4,792.40	-999.33	3,973.77	3,894.29	79.48	49.994	
17,100.00	12,136.00	13,387.89	8,618.00	92.61	86.33	-27.77	4,892.39	-1,000.33	3,973.78	3,893.00	80.78	49.192	
17,200.00	12,136.00	13,487.89	8,618.00	94.07	87.86	-27.77	4,992.39	-1,001.32	3,973.78	3,891.70	82.08	48.415	
17,300.00	12,136.00	13,587.89	8,618.00	95.53	89.40	-27.77	5,092.38	-1,002.32	3,973.78	3,890.40	83.38	47.659	
17,400.00	12,136.00	13,687.89	8,618.00	97.00	90.94	-27.77	5,192.38	-1,003.31	3,973.78	3,889.09	84.69	46.923	
17,500.00	12,136.00	13,787.89	8,618.00	98.47	92.48	-27.77	5,292.37	-1,004.31	3,973.78	3,887.78	86.00	46.208	
17,600.00	12,136.00	13,887.89	8,618.00	99.95	94.03	-27.77	5,392.37	-1,005.30	3,973.78	3,886.47	87.31	45.511	
17,700.00	12,136.00	13,987.89	8,618.00	101.44	95.58	-27.77	5,492.36	-1,006.30	3,973.79	3,885.15	88.64	44.833	
17,800.00	12,136.00	14,087.89	8,618.00	102.92	97.13	-27.77	5,592.36	-1,007.29	3,973.79	3,883.83	89.96	44.173	
17,900.00	12,136.00	14,187.89	8,618.00	104.42	98.69	-27.77	5,692.35	-1,008.29	3,973.79	3,882.50	91.29	43.530	
18,000.00	12,136.00	14,287.89	8,618.00	105.92	100.25	-27.77	5,792.35	-1,009.28	3,973.79	3,881.17	92.62	42.906	
18,100.00	12,136.00	14,387.89	8,618.00	107.42	101.81	-27.77	5,892.34	-1,010.28	3,973.79	3,879.84	93.95	42.297	
18,200.00	12,136.00	14,487.89	8,618.00	108.93	103.38	-27.77	5,992.34	-1,011.27	3,973.79	3,878.51	95.29	41.704	
18,300.00	12,136.00	14,587.89	8,618.00	110.44	104.94	-27.77	6,092.33	-1,012.27	3,973.80	3,877.17	96.63	41.125	
18,400.00	12,136.00	14,687.89	8,618.00	111.96	106.52	-27.77	6,192.33	-1,013.26	3,973.80	3,875.83	97.97	40.563	
18,500.00	12,136.00	14,787.89	8,618.00	113.48	108.09	-27.77	6,292.32	-1,014.25	3,973.80	3,874.49	99.31	40.014	
18,600.00	12,136.00	14,887.89	8,618.00	115.00	109.66	-27.77	6,392.32	-1,015.25	3,973.80	3,873.15	100.66	39.479	
18,700.00	12,136.00	14,987.89	8,618.00	116.53	111.24	-27.77	6,492.31	-1,016.24	3,973.80	3,871.80	102.00	38.957	
18,800.00	12,136.00	15,087.89	8,618.00	118.06	112.82	-27.77	6,592.31	-1,017.24	3,973.80	3,870.45	103.36	38.448	
18,900.00	12,136.00	15,187.89	8,618.00	119.59	114.40	-27.77	6,692.30	-1,018.23	3,973.81	3,869.09	104.71	37.950	
19,000.00	12,136.00	15,287.89	8,618.00	121.13	115.99	-27.77	6,792.30	-1,019.23	3,973.81	3,867.74	106.07	37.465	
19,100.00	12,136.00	15,387.89	8,618.00	122.67	117.57	-27.77	6,892.29	-1,020.22	3,973.81	3,866.38	107.43	36.991	
19,200.00	12,136.00	15,487.89	8,618.00	124.21	119.16	-27.77	6,992.29	-1,021.22	3,973.81	3,865.03	108.78	36.530	
19,300.00	12,136.00	15,587.89	8,618.00	125.75	120.75	-27.77	7,092.28	-1,022.21	3,973.81	3,863.67	110.14	36.079	
19,400.00	12,136.00	15,687.89	8,618.00	127.30	122.34	-27.77	7,192.28	-1,023.21	3,973.81	3,862.31	111.51	35.638	
19,500.00	12,136.00	15,787.89	8,618.00	128.85	123.93	-27.77	7,292.27	-1,024.20	3,973.82	3,860.95	112.87	35.207	
19,600.00	12,136.00	15,887.89	8,618.00	130.41	125.53	-27.77	7,392.27	-1,025.20	3,973.82	3,859.58	114.24	34.786	
19,700.00	12,136.00	15,987.89	8,618.00	131.96	127.12	-27.77	7,492.26	-1,026.19	3,973.82	3,858.22	115.60	34.375	
19,800.00	12,136.00	16,087.89	8,618.00	133.52	128.72	-27.77	7,592.26	-1,027.19	3,973.82	3,856.85	116.97	33.972	
19,900.00	12,136.00	16,187.89	8,618.00	135.08	130.32	-27.77	7,692.25	-1,028.18	3,973.82	3,855.48	118.34	33.579	
20,000.00	12,136.00	16,287.89	8,618.00	136.64	131.92	-27.77	7,792.25	-1,029.17	3,973.82	3,854.11	119.72	33.194	
20,100.00	12,136.00	16,387.89	8,618.00	138.21	133.52	-27.77	7,892.24	-1,030.17	3,973.83	3,852.74	121.09	32.817	
20,200.00	12,136.00	16,487.89	8,618.00	139.77	135.12	-27.77	7,992.24	-1,031.16	3,973.83	3,851.36	122.47	32.449	
20,300.00	12,136.00	16,587.89	8,618.00	141.34	136.73	-27.77	8,092.23	-1,032.16	3,973.83	3,849.99	123.84	32.089	
20,400.00	12,136.00	16,687.89	8,618.00	142.91	138.33	-27.77	8,192.23	-1,033.15	3,973.83	3,848.62	125.21	31.736	
20,500.00	12,136.00	16,787.89	8,618.00	144.48	139.94	-27.77	8,292.22	-1,034.15	3,973.83	3,847.24	126.59	31.391	
20,600.00	12,136.00	16,887.89	8,618.00	146.06	141.54	-27.77	8,392.22	-1,035.14	3,973.83	3,845.87	127.97	31.053	
20,700.00	12,136.00	16,987.89	8,618.00	147.63	143.15	-27.77	8,492.21	-1,036.14	3,973.84	3,844.49	129.35	30.722	
20,800.00	12,136.00	17,087.89	8,618.00	149.21	144.76	-27.77	8,592.21	-1,037.13	3,973.84	3,843.11	130.73	30.397	
20,900.00	12,136.00	17,187.89	8,618.00	150.79	146.37	-27.77	8,692.20	-1,038.13	3,973.84	3,841.73	132.11	30.079	
21,000.00	12,136.00	17,287.89	8,618.00	152.37	147.98	-27.77	8,792.20	-1,039.12	3,973.84	3,840.35	133.49	29.768	
21,100.00	12,136.00	17,387.89	8,618.00	153.95	149.59	-27.77	8,892.19	-1,040.12	3,973.84	3,838.97	134.88	29.463	
21,200.00	12,136.00	17,487.89	8,618.00	155.53	151.20	-27.77	8,992.19	-1,041.11	3,973.84	3,837.58	136.26	29.164	
21,300.00	12,136.00	17,587.89	8,618.00	157.12	152.82	-27.77	9,092.18	-1,042.11	3,973.85	3,836.20	137.65	28.870	
21,400.00	12,136.00	17,687.89	8,618.00	158.70	154.43	-27.77	9,192.18	-1,043.10	3,973.85	3,834.82	139.03	28.582	
21,500.00	12,136.00	17,787.89	8,618.00	160.29	156.05	-27.77	9,292.17	-1,044.09	3,973.85	3,833.43	140.42	28.301	
21,600.00	12,136.00	17,887.89	8,618.00	161.88	157.66	-27.78	9,392.17	-1,045.09	3,973.85	3,832.05	141.80	28.024	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 101H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,700.00	12,136.00	17,987.89	8,618.00	163.47	159.28	-27.78	9,492.16	-1,046.08	3,973.85	3,830.67	143.19	27.753	
21,800.00	12,136.00	18,087.89	8,618.00	165.06	160.90	-27.78	9,592.16	-1,047.08	3,973.85	3,829.28	144.57	27.487	
21,900.00	12,136.00	18,187.89	8,618.00	166.65	162.51	-27.78	9,692.15	-1,048.07	3,973.86	3,827.89	145.96	27.225	
22,000.00	12,136.00	18,287.89	8,618.00	168.25	164.13	-27.78	9,792.15	-1,049.07	3,973.86	3,826.50	147.35	26.968	
22,100.00	12,136.00	18,387.89	8,618.00	169.84	165.75	-27.78	9,892.14	-1,050.06	3,973.86	3,825.12	148.74	26.716	
22,200.00	12,136.00	18,487.89	8,618.00	171.44	167.37	-27.78	9,992.14	-1,051.06	3,973.86	3,823.73	150.13	26.469	
22,300.00	12,136.00	18,587.89	8,618.00	173.03	168.99	-27.78	10,092.13	-1,052.05	3,973.86	3,822.34	151.52	26.226	
22,343.22	12,136.00	18,631.10	8,618.00	173.72	169.69	-27.78	10,135.35	-1,052.48	3,973.86	3,821.74	152.12	26.123	
22,343.71	12,136.00	18,631.60	8,618.00	173.75	169.70	-27.78	10,135.84	-1,052.49	3,973.86	3,821.74	152.13	26.122	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,842.90	1,842.90	6.37	6.37	-10.15	74.82	-13.39	76.01	67.00	9.01	8.433	
1,900.00	1,900.00	1,899.90	1,899.90	6.58	6.58	-10.15	74.82	-13.39	76.01	66.71	9.30	8.171	
2,000.00	2,000.00	1,999.90	1,999.90	6.94	6.94	-10.15	74.82	-13.39	76.01	66.20	9.81	7.749	
2,100.00	2,099.99	2,100.92	2,100.91	7.28	7.29	-113.36	74.36	-12.14	75.86	65.56	10.30	7.364	
2,200.00	2,199.91	2,201.94	2,201.84	7.62	7.63	-113.52	72.97	-8.39	75.40	64.63	10.78	6.995	
2,300.00	2,299.69	2,302.95	2,302.63	7.97	7.97	-113.77	70.65	-2.13	74.64	63.38	11.26	6.630	
2,400.00	2,399.27	2,403.95	2,403.20	8.31	8.32	-114.14	67.41	6.62	73.58	61.84	11.74	6.267	
2,500.00	2,498.57	2,504.57	2,503.13	8.66	8.67	-114.75	63.32	17.64	72.32	60.09	12.23	5.913	
2,580.55	2,578.32	2,585.09	2,583.05	8.96	8.96	-116.34	59.91	26.84	71.92	59.28	12.63	5.693	CC
2,600.00	2,597.54	2,604.53	2,602.34	9.03	9.03	-116.91	59.09	29.06	71.94	59.21	12.73	5.652	ES
2,700.00	2,696.09	2,704.39	2,701.46	9.40	9.39	-120.86	54.85	40.47	72.97	59.75	13.23	5.517	
2,764.20	2,759.12	2,768.43	2,765.02	9.64	9.62	-124.20	52.14	47.79	74.58	61.04	13.55	5.506	SF
2,800.00	2,794.20	2,804.11	2,800.44	9.78	9.75	-126.19	50.63	51.87	75.77	62.04	13.72	5.520	
2,900.00	2,892.20	2,903.79	2,899.37	10.17	10.12	-131.41	46.41	63.26	79.53	65.30	14.22	5.592	
3,000.00	2,990.21	3,003.47	2,998.31	10.57	10.49	-136.13	42.18	74.65	83.89	69.17	14.72	5.699	
3,100.00	3,088.21	3,103.15	3,097.24	10.97	10.86	-140.35	37.96	86.04	88.76	73.55	15.22	5.834	
3,200.00	3,186.22	3,202.82	3,196.18	11.38	11.23	-144.12	33.74	97.43	94.07	78.36	15.71	5.987	
3,300.00	3,284.22	3,302.50	3,295.11	11.80	11.61	-147.48	29.51	108.82	99.74	83.53	16.21	6.153	
3,400.00	3,382.23	3,402.18	3,394.05	12.22	11.99	-150.47	25.29	120.21	105.71	89.00	16.71	6.328	
3,500.00	3,480.24	3,501.86	3,492.98	12.65	12.37	-153.13	21.07	131.60	111.94	94.74	17.20	6.506	
3,600.00	3,578.24	3,601.53	3,591.92	13.08	12.75	-155.51	16.84	142.99	118.39	100.68	17.70	6.687	
3,700.00	3,676.25	3,701.21	3,690.85	13.51	13.14	-157.64	12.62	154.38	125.01	106.81	18.21	6.867	
3,800.00	3,774.25	3,800.89	3,789.78	13.95	13.52	-159.55	8.40	165.77	131.80	113.09	18.71	7.045	
3,900.00	3,872.26	3,900.57	3,888.72	14.39	13.91	-161.28	4.17	177.16	138.71	119.50	19.21	7.220	
4,000.00	3,970.26	4,000.25	3,987.65	14.83	14.30	-162.84	-0.05	188.55	145.74	126.02	19.72	7.391	
4,100.00	4,068.27	4,099.92	4,086.59	15.28	14.69	-164.25	-4.27	199.94	152.87	132.64	20.23	7.558	
4,200.00	4,166.27	4,199.60	4,185.52	15.73	15.08	-165.54	-8.49	211.33	160.08	139.34	20.73	7.721	
4,300.00	4,264.28	4,299.28	4,284.46	16.18	15.47	-166.72	-12.72	222.72	167.36	146.12	21.24	7.878	
4,400.00	4,362.28	4,398.96	4,383.39	16.63	15.86	-167.80	-16.94	234.11	174.71	152.96	21.76	8.031	
4,500.00	4,460.29	4,498.64	4,482.33	17.08	16.25	-168.79	-21.16	245.50	182.12	159.85	22.27	8.179	
4,600.00	4,558.29	4,598.31	4,581.26	17.54	16.64	-169.70	-25.39	256.89	189.57	166.79	22.78	8.322	
4,700.00	4,656.30	4,697.99	4,680.20	18.00	17.04	-170.55	-29.61	268.28	197.07	173.78	23.30	8.460	
4,800.00	4,754.30	4,797.67	4,779.13	18.45	17.43	-171.33	-33.83	279.68	204.61	180.80	23.81	8.593	
4,900.00	4,852.31	4,897.35	4,878.07	18.91	17.83	-172.06	-38.06	291.07	212.19	187.86	24.33	8.722	
5,000.00	4,950.31	4,997.02	4,977.00	19.37	18.22	-172.73	-42.28	302.46	219.80	194.95	24.84	8.847	
5,100.00	5,048.32	5,096.70	5,075.94	19.83	18.62	-173.36	-46.50	313.85	227.43	202.07	25.36	8.967	
5,200.00	5,146.33	5,196.38	5,174.87	20.30	19.02	-173.95	-50.73	325.24	235.09	209.21	25.88	9.083	
5,300.00	5,244.33	5,296.06	5,273.81	20.76	19.41	-174.51	-54.95	336.63	242.78	216.37	26.40	9.195	
5,400.00	5,342.34	5,395.74	5,372.74	21.23	19.81	-175.03	-59.17	348.02	250.48	223.56	26.92	9.303	
5,500.00	5,440.34	5,495.41	5,471.68	21.69	20.21	-175.51	-63.40	359.41	258.20	230.76	27.44	9.408	
5,600.00	5,538.35	5,595.09	5,570.61	22.16	20.61	-175.97	-67.62	370.80	265.95	237.98	27.97	9.509	
5,700.00	5,636.35	5,694.77	5,669.55	22.62	21.00	-176.41	-71.84	382.19	273.70	245.21	28.49	9.607	
5,800.00	5,734.36	5,794.45	5,768.48	23.09	21.40	-176.82	-76.07	393.58	281.48	252.46	29.01	9.702	
5,900.00	5,832.36	5,894.12	5,867.42	23.56	21.80	-177.20	-80.29	404.97	289.26	259.73	29.54	9.793	
6,000.00	5,930.37	5,993.80	5,966.35	24.03	22.20	-177.57	-84.51	416.36	297.06	267.00	30.06	9.882	
6,100.00	6,028.37	6,093.48	6,065.28	24.50	22.60	-177.92	-88.74	427.75	304.87	274.28	30.59	9.967	
6,200.00	6,126.38	6,193.16	6,164.22	24.97	23.00	-178.25	-92.96	439.14	312.69	281.58	31.11	10.051	
6,300.00	6,224.38	6,292.84	6,263.15	25.44	23.40	-178.57	-97.18	450.53	320.52	288.89	31.64	10.131	
6,400.00	6,322.39	6,392.51	6,362.09	25.91	23.80	-178.87	-101.40	461.92	328.36	296.20	32.16	10.209	
6,500.00	6,420.39	6,492.19	6,461.02	26.38	24.20	-179.15	-105.63	473.31	336.21	303.52	32.69	10.284	
6,600.00	6,518.40	6,591.87	6,559.96	26.85	24.61	-179.43	-109.85	484.70	344.07	310.85	33.22	10.358	
6,658.66	6,575.89	6,650.34	6,617.99	27.13	24.84	-179.58	-112.33	491.38	348.68	315.15	33.53	10.400	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,700.00	6,616.45	6,691.56	6,658.91	27.32	25.01	-179.69	-114.08	496.09	351.71	317.96	33.75	10.422	
6,800.00	6,714.90	6,791.40	6,758.00	27.78	25.41	-179.94	-118.31	507.50	357.19	322.92	34.27	10.422	
6,900.00	6,813.77	6,891.34	6,857.20	28.21	25.81	179.82	-122.54	518.92	360.07	325.27	34.80	10.348	
7,000.00	6,913.01	6,984.26	6,949.51	28.61	26.18	179.61	-126.22	528.85	361.14	325.84	35.30	10.231	
7,100.00	7,012.53	7,075.67	7,040.54	29.00	26.53	179.45	-129.09	536.59	361.94	326.16	35.78	10.117	
7,200.00	7,112.27	7,167.08	7,131.75	29.36	26.87	179.33	-131.20	542.28	362.49	326.26	36.23	10.005	
7,300.00	7,212.16	7,258.48	7,223.06	29.70	27.20	179.25	-132.55	545.93	362.80	326.14	36.66	9.896	
7,400.00	7,312.14	7,349.88	7,314.45	30.02	27.51	179.22	-133.15	547.53	362.86	325.79	37.07	9.790	
7,422.86	7,335.00	7,370.77	7,335.34	30.09	27.58	-77.61	-133.17	547.61	362.84	325.68	37.15	9.766	
7,450.39	7,362.53	7,397.87	7,362.43	30.18	27.67	-77.61	-133.18	547.61	362.83	325.55	37.28	9.733	
7,500.00	7,412.14	7,447.48	7,412.04	30.32	27.83	-77.61	-133.18	547.61	362.83	325.32	37.52	9.672	
7,600.00	7,512.14	7,547.48	7,512.04	30.63	28.15	-77.61	-133.18	547.61	362.83	324.84	37.99	9.551	
7,700.00	7,612.14	7,647.48	7,612.04	30.93	28.48	-77.61	-133.18	547.61	362.83	324.37	38.47	9.432	
7,800.00	7,712.14	7,747.48	7,712.04	31.23	28.81	-77.61	-133.18	547.61	362.83	323.89	38.94	9.317	
7,900.00	7,812.14	7,847.48	7,812.04	31.54	29.13	-77.61	-133.18	547.61	362.83	323.41	39.42	9.204	
7,912.55	7,824.69	7,860.02	7,824.59	31.57	29.17	-77.61	-133.18	547.61	362.83	323.35	39.48	9.190	
8,000.00	7,912.14	7,946.11	7,910.67	31.84	29.46	-77.60	-133.09	547.61	362.85	322.97	39.88	9.098	
8,100.00	8,012.14	8,032.75	7,996.87	32.15	29.73	-76.38	-125.11	547.53	365.04	324.89	40.16	9.090	
8,200.00	8,112.14	8,115.20	8,076.88	32.46	29.96	-73.44	-105.53	547.33	371.68	331.41	40.27	9.229	
8,300.00	8,212.14	8,190.69	8,147.00	32.76	30.15	-69.42	-77.70	547.05	384.69	344.58	40.11	9.590	
8,400.00	8,312.14	8,257.81	8,205.80	33.07	30.29	-65.01	-45.41	546.73	406.11	366.53	39.58	10.260	
8,500.00	8,412.14	8,316.35	8,253.69	33.39	30.40	-60.74	-11.79	546.39	437.28	398.63	38.65	11.315	
8,600.00	8,512.14	8,366.86	8,292.08	33.70	30.48	-56.90	21.00	546.06	478.43	441.04	37.40	12.793	
8,700.00	8,612.14	8,410.24	8,322.64	34.01	30.53	-53.59	51.78	545.76	528.89	492.89	35.99	14.695	
8,800.00	8,712.14	8,450.00	8,348.52	34.32	30.58	-50.59	81.94	545.45	587.44	552.78	34.66	16.949	
8,900.00	8,812.14	8,479.59	8,366.40	34.64	30.60	-48.42	105.52	545.22	652.75	619.50	33.25	19.633	
9,000.00	8,912.14	8,500.00	8,378.01	34.95	30.62	-46.96	122.31	545.05	723.67	691.83	31.84	22.727	
9,100.00	9,012.14	8,531.51	8,394.74	35.27	30.64	-44.78	149.00	544.78	798.92	767.88	31.04	25.738	
9,200.00	9,112.14	8,550.00	8,403.86	35.59	30.66	-43.54	165.08	544.62	877.88	847.78	30.11	29.158	
9,300.00	9,212.14	8,571.23	8,413.69	35.90	30.67	-42.16	183.90	544.43	959.77	930.31	29.46	32.581	
9,400.00	9,312.14	8,600.00	8,425.89	36.22	30.69	-40.37	209.95	544.17	1,044.27	1,015.15	29.13	35.850	
9,500.00	9,412.14	8,600.00	8,425.89	36.54	30.69	-40.37	209.95	544.17	1,130.37	1,102.03	28.35	39.878	
9,600.00	9,512.14	8,600.00	8,425.89	36.86	30.69	-40.37	209.95	544.17	1,218.59	1,190.85	27.75	43.921	
9,700.00	9,612.14	8,627.19	8,436.20	37.18	30.71	-38.75	235.10	543.92	1,307.61	1,279.89	27.72	47.180	
9,800.00	9,712.14	8,650.00	8,443.92	37.50	30.73	-37.46	256.56	543.70	1,398.26	1,370.58	27.68	50.515	
9,900.00	9,812.14	8,650.00	8,443.92	37.83	30.73	-37.46	256.56	543.70	1,489.55	1,462.17	27.38	54.409	
10,000.00	9,912.14	8,650.00	8,443.92	38.15	30.73	-37.46	256.56	543.70	1,581.89	1,554.73	27.16	58.249	
10,100.00	10,012.14	8,650.00	8,443.92	38.47	30.73	-37.46	256.56	543.70	1,675.11	1,648.10	27.01	62.010	
10,200.00	10,112.14	8,671.62	8,450.44	38.80	30.75	-36.29	277.17	543.49	1,768.54	1,741.38	27.16	65.119	
10,300.00	10,212.14	8,678.38	8,452.33	39.12	30.75	-35.94	283.67	543.43	1,862.76	1,835.59	27.17	68.549	
10,400.00	10,312.14	8,700.00	8,457.82	39.44	30.78	-34.83	304.57	543.22	1,957.72	1,930.36	27.37	71.540	
10,500.00	10,412.14	8,700.00	8,457.82	39.77	30.78	-34.83	304.57	543.22	2,052.69	2,025.31	27.38	74.975	
10,600.00	10,512.14	8,700.00	8,457.82	40.10	30.78	-34.83	304.57	543.22	2,148.11	2,120.68	27.43	78.321	
10,700.00	10,612.14	8,700.00	8,457.82	40.42	30.78	-34.83	304.57	543.22	2,243.93	2,216.42	27.51	81.576	
10,800.00	10,712.14	8,700.00	8,457.82	40.75	30.78	-34.83	304.57	543.22	2,340.10	2,312.48	27.61	84.741	
10,900.00	10,812.14	8,700.00	8,457.82	41.08	30.78	-34.83	304.57	543.22	2,436.57	2,408.83	27.74	87.824	
11,000.00	10,912.14	8,700.00	8,457.82	41.41	30.78	-34.83	304.57	543.22	2,533.33	2,505.43	27.89	90.822	
11,100.00	11,012.14	8,700.00	8,457.82	41.74	30.78	-34.83	304.57	543.22	2,630.32	2,602.26	28.06	93.736	
11,200.00	11,112.14	8,721.29	8,462.46	42.06	30.81	-33.79	325.35	543.01	2,727.06	2,698.69	28.36	96.153	
11,300.00	11,212.14	8,724.68	8,463.13	42.39	30.81	-33.63	328.68	542.98	2,824.30	2,795.73	28.57	98.850	
11,400.00	11,312.14	8,727.88	8,463.74	42.72	30.82	-33.48	331.82	542.95	2,921.71	2,892.92	28.79	101.474	
11,500.00	11,412.14	8,750.00	8,467.48	43.06	30.86	-32.47	353.61	542.73	3,019.65	2,990.53	29.12	103.713	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,600.00	11,512.14	8,750.00	8,467.48	43.39	30.86	-32.47	353.61	542.73	3,117.24	3,087.90	29.34	106.252	
11,650.90	11,563.04	8,750.00	8,467.48	43.56	30.86	-32.47	353.61	542.73	3,166.97	3,137.52	29.46	107.519	
11,700.00	11,612.08	8,750.00	8,467.48	43.72	30.86	-23.00	353.61	542.73	3,214.55	3,184.99	29.56	108.737	
11,750.00	11,661.65	8,750.00	8,467.48	43.87	30.86	-17.81	353.61	542.73	3,261.94	3,232.28	29.66	109.982	
11,800.00	11,710.46	8,750.00	8,467.48	44.02	30.86	-14.53	353.61	542.73	3,307.96	3,278.21	29.74	111.215	
11,850.00	11,758.16	8,750.00	8,467.48	44.16	30.86	-12.30	353.61	542.73	3,352.31	3,322.50	29.82	112.429	
11,900.00	11,804.37	8,750.00	8,467.48	44.29	30.86	-10.70	353.61	542.73	3,394.74	3,364.86	29.88	113.610	
11,950.00	11,848.74	8,750.00	8,467.48	44.41	30.86	-9.50	353.61	542.73	3,434.99	3,405.06	29.93	114.749	
12,000.00	11,890.94	8,750.00	8,467.48	44.51	30.86	-8.59	353.61	542.73	3,472.85	3,442.87	29.98	115.839	
12,050.00	11,930.64	8,750.00	8,467.48	44.60	30.86	-7.88	353.61	542.73	3,508.10	3,478.09	30.02	116.874	
12,100.00	11,967.55	8,750.00	8,467.48	44.68	30.86	-7.32	353.61	542.73	3,540.56	3,510.52	30.04	117.844	
12,150.00	12,001.37	8,773.79	8,470.57	44.74	30.92	-6.83	377.20	542.49	3,569.49	3,539.36	30.13	118.453	
12,200.00	12,031.86	8,800.00	8,472.84	44.80	30.99	-6.45	403.31	542.23	3,595.98	3,565.76	30.22	118.992	
12,250.00	12,058.79	8,800.00	8,472.84	44.84	30.99	-6.17	403.31	542.23	3,618.52	3,588.30	30.23	119.712	
12,300.00	12,081.94	8,800.00	8,472.84	44.87	30.99	-5.95	403.31	542.23	3,637.69	3,607.45	30.24	120.293	
12,350.00	12,101.14	8,800.00	8,472.84	44.90	30.99	-5.79	403.31	542.23	3,653.40	3,623.14	30.26	120.753	
12,400.00	12,116.24	8,800.00	8,472.84	44.92	30.99	-5.66	403.31	542.23	3,665.57	3,635.30	30.27	121.102	
12,450.00	12,127.14	8,800.00	8,472.84	44.95	30.99	-5.58	403.31	542.23	3,674.15	3,643.85	30.30	121.270	
12,500.00	12,133.74	8,818.58	8,473.72	44.99	31.05	-5.53	421.87	542.04	3,678.74	3,648.39	30.36	121.190	
12,550.90	12,136.00	8,836.47	8,474.00	45.03	31.11	-5.52	439.75	541.86	3,679.84	3,649.42	30.42	120.985	
12,600.00	12,136.00	8,836.47	8,474.00	45.10	31.11	-5.52	439.75	541.86	3,679.08	3,648.62	30.46	120.778	
12,633.54	12,136.00	8,837.74	8,474.00	45.15	31.11	-5.52	441.02	541.85	3,678.94	3,648.43	30.51	120.591	
12,700.00	12,136.00	8,904.20	8,474.00	45.28	31.36	-5.52	507.48	541.18	3,678.94	3,648.28	30.66	119.977	
12,800.00	12,136.00	9,004.20	8,474.00	45.54	31.83	-5.52	607.47	540.18	3,678.94	3,648.01	30.93	118.928	
12,900.00	12,136.00	9,104.20	8,474.00	45.88	32.37	-5.52	707.47	539.18	3,678.94	3,647.70	31.24	117.752	
13,000.00	12,136.00	9,204.20	8,474.00	46.30	32.99	-5.52	807.46	538.17	3,678.94	3,647.35	31.59	116.462	
13,100.00	12,136.00	9,304.20	8,474.00	46.78	33.67	-5.52	907.46	537.17	3,678.94	3,646.97	31.97	115.062	
13,200.00	12,136.00	9,404.20	8,474.00	47.33	34.42	-5.52	1,007.45	536.17	3,678.95	3,646.56	32.39	113.580	
13,300.00	12,136.00	9,504.20	8,474.00	47.94	35.23	-5.52	1,107.45	535.17	3,678.95	3,646.11	32.84	112.022	
13,400.00	12,136.00	9,604.20	8,474.00	48.60	36.10	-5.52	1,207.44	534.16	3,678.95	3,645.62	33.32	110.400	
13,500.00	12,136.00	9,704.20	8,474.00	49.31	37.01	-5.52	1,307.44	533.16	3,678.95	3,645.11	33.84	108.725	
13,600.00	12,136.00	9,804.20	8,474.00	50.06	37.98	-5.52	1,407.43	532.16	3,678.95	3,644.57	34.38	107.010	
13,700.00	12,136.00	9,904.20	8,474.00	50.86	38.99	-5.52	1,507.43	531.15	3,678.95	3,644.00	34.95	105.263	
13,800.00	12,136.00	10,004.20	8,474.00	51.70	40.04	-5.52	1,607.42	530.15	3,678.95	3,643.41	35.55	103.496	
13,900.00	12,136.00	10,104.20	8,474.00	52.58	41.14	-5.52	1,707.42	529.15	3,678.95	3,642.78	36.17	101.715	
14,000.00	12,136.00	10,204.20	8,474.00	53.49	42.26	-5.52	1,807.41	528.14	3,678.96	3,642.14	36.82	99.930	
14,100.00	12,136.00	10,304.20	8,474.00	54.44	43.43	-5.52	1,907.41	527.14	3,678.96	3,641.47	37.48	98.147	
14,200.00	12,136.00	10,404.20	8,474.00	55.43	44.62	-5.52	2,007.40	526.14	3,678.96	3,640.78	38.17	96.376	
14,300.00	12,136.00	10,504.20	8,474.00	56.44	45.84	-5.52	2,107.40	525.13	3,678.96	3,640.07	38.88	94.614	
14,400.00	12,136.00	10,604.20	8,474.00	57.49	47.08	-5.52	2,207.39	524.13	3,678.96	3,639.35	39.61	92.869	
14,500.00	12,136.00	10,704.20	8,474.00	58.56	48.35	-5.52	2,307.39	523.13	3,678.96	3,638.60	40.36	91.147	
14,600.00	12,136.00	10,804.20	8,474.00	59.66	49.64	-5.52	2,407.38	522.12	3,678.96	3,637.83	41.13	89.449	
14,700.00	12,136.00	10,904.20	8,474.00	60.78	50.96	-5.52	2,507.38	521.12	3,678.96	3,637.05	41.91	87.780	
14,800.00	12,136.00	11,004.20	8,474.00	61.93	52.29	-5.52	2,607.37	520.12	3,678.96	3,636.26	42.71	86.140	
14,900.00	12,136.00	11,104.20	8,474.00	63.10	53.64	-5.52	2,707.37	519.12	3,678.97	3,635.44	43.52	84.532	
15,000.00	12,136.00	11,204.20	8,474.00	64.29	55.01	-5.52	2,807.36	518.11	3,678.97	3,634.62	44.35	82.955	
15,100.00	12,136.00	11,304.20	8,474.00	65.50	56.39	-5.52	2,907.36	517.11	3,678.97	3,633.78	45.19	81.414	
15,200.00	12,136.00	11,404.20	8,474.00	66.73	57.78	-5.52	3,007.35	516.11	3,678.97	3,632.93	46.04	79.909	
15,300.00	12,136.00	11,504.20	8,474.00	67.98	59.19	-5.52	3,107.35	515.10	3,678.97	3,632.07	46.90	78.438	
15,400.00	12,136.00	11,604.20	8,474.00	69.24	60.61	-5.52	3,207.34	514.10	3,678.97	3,631.19	47.78	77.003	
15,500.00	12,136.00	11,704.20	8,474.00	70.52	62.04	-5.52	3,307.34	513.10	3,678.97	3,630.31	48.66	75.603	
15,600.00	12,136.00	11,804.20	8,474.00	71.82	63.49	-5.52	3,407.33	512.09	3,678.97	3,629.42	49.56	74.239	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,700.00	12,136.00	11,904.20	8,474.00	73.13	64.94	-5.52	3,507.33	511.09	3,678.97	3,628.52	50.46	72.910	
15,800.00	12,136.00	12,004.20	8,474.00	74.45	66.40	-5.52	3,607.32	510.09	3,678.98	3,627.61	51.37	71.616	
15,900.00	12,136.00	12,104.20	8,474.00	75.78	67.87	-5.52	3,707.32	509.08	3,678.98	3,626.69	52.29	70.356	
16,000.00	12,136.00	12,204.20	8,474.00	77.13	69.35	-5.52	3,807.31	508.08	3,678.98	3,625.76	53.22	69.129	
16,100.00	12,136.00	12,304.20	8,474.00	78.49	70.84	-5.52	3,907.31	507.08	3,678.98	3,624.82	54.16	67.934	
16,200.00	12,136.00	12,404.20	8,474.00	79.86	72.33	-5.52	4,007.30	506.07	3,678.98	3,623.88	55.10	66.772	
16,300.00	12,136.00	12,504.20	8,474.00	81.24	73.83	-5.52	4,107.30	505.07	3,678.98	3,622.93	56.05	65.640	
16,400.00	12,136.00	12,604.20	8,474.00	82.64	75.34	-5.52	4,207.29	504.07	3,678.98	3,621.98	57.00	64.539	
16,500.00	12,136.00	12,704.20	8,474.00	84.04	76.85	-5.52	4,307.29	503.07	3,678.98	3,621.02	57.97	63.468	
16,600.00	12,136.00	12,804.20	8,474.00	85.45	78.37	-5.52	4,407.28	502.06	3,678.99	3,620.05	58.93	62.425	
16,700.00	12,136.00	12,904.20	8,474.00	86.86	79.89	-5.52	4,507.28	501.06	3,678.99	3,619.08	59.91	61.411	
16,800.00	12,136.00	13,004.20	8,474.00	88.29	81.42	-5.52	4,607.27	500.06	3,678.99	3,618.10	60.89	60.424	
16,900.00	12,136.00	13,104.20	8,474.00	89.72	82.96	-5.52	4,707.27	499.05	3,678.99	3,617.12	61.87	59.463	
17,000.00	12,136.00	13,204.20	8,474.00	91.17	84.49	-5.52	4,807.26	498.05	3,678.99	3,616.13	62.86	58.527	
17,100.00	12,136.00	13,304.20	8,474.00	92.61	86.04	-5.52	4,907.26	497.05	3,678.99	3,615.14	63.85	57.617	
17,200.00	12,136.00	13,404.20	8,474.00	94.07	87.58	-5.53	5,007.25	496.04	3,678.99	3,614.14	64.85	56.731	
17,300.00	12,136.00	13,504.20	8,474.00	95.53	89.13	-5.53	5,107.25	495.04	3,678.99	3,613.14	65.85	55.868	
17,400.00	12,136.00	13,604.20	8,474.00	97.00	90.68	-5.53	5,207.24	494.04	3,678.99	3,612.14	66.86	55.027	
17,500.00	12,136.00	13,704.20	8,474.00	98.47	92.24	-5.53	5,307.24	493.03	3,679.00	3,611.13	67.87	54.209	
17,600.00	12,136.00	13,804.20	8,474.00	99.95	93.80	-5.53	5,407.23	492.03	3,679.00	3,610.12	68.88	53.412	
17,700.00	12,136.00	13,904.20	8,474.00	101.44	95.37	-5.53	5,507.23	491.03	3,679.00	3,609.10	69.90	52.636	
17,800.00	12,136.00	14,004.20	8,474.00	102.92	96.93	-5.53	5,607.22	490.03	3,679.00	3,608.08	70.92	51.879	
17,900.00	12,136.00	14,104.20	8,474.00	104.42	98.50	-5.53	5,707.22	489.02	3,679.00	3,607.06	71.94	51.142	
18,000.00	12,136.00	14,204.20	8,474.00	105.92	100.07	-5.53	5,807.21	488.02	3,679.00	3,606.04	72.96	50.423	
18,100.00	12,136.00	14,304.20	8,474.00	107.42	101.65	-5.53	5,907.21	487.02	3,679.00	3,605.01	73.99	49.722	
18,200.00	12,136.00	14,404.20	8,474.00	108.93	103.22	-5.53	6,007.20	486.01	3,679.00	3,603.98	75.02	49.038	
18,300.00	12,136.00	14,504.20	8,474.00	110.44	104.80	-5.53	6,107.20	485.01	3,679.01	3,602.95	76.06	48.372	
18,400.00	12,136.00	14,604.20	8,474.00	111.96	106.38	-5.53	6,207.19	484.01	3,679.01	3,601.91	77.09	47.721	
18,500.00	12,136.00	14,704.20	8,474.00	113.48	107.97	-5.53	6,307.19	483.00	3,679.01	3,600.87	78.13	47.087	
18,600.00	12,136.00	14,804.20	8,474.00	115.00	109.55	-5.53	6,407.18	482.00	3,679.01	3,599.83	79.17	46.467	
18,700.00	12,136.00	14,904.20	8,474.00	116.53	111.14	-5.53	6,507.18	481.00	3,679.01	3,598.79	80.22	45.863	
18,800.00	12,136.00	15,004.20	8,474.00	118.06	112.73	-5.53	6,607.17	479.99	3,679.01	3,597.75	81.26	45.272	
18,900.00	12,136.00	15,104.20	8,474.00	119.59	114.32	-5.53	6,707.17	478.99	3,679.01	3,596.70	82.31	44.696	
19,000.00	12,136.00	15,204.20	8,474.00	121.13	115.91	-5.53	6,807.16	477.99	3,679.01	3,595.65	83.36	44.133	
19,100.00	12,136.00	15,304.20	8,474.00	122.67	117.51	-5.53	6,907.16	476.98	3,679.01	3,594.60	84.41	43.583	
19,200.00	12,136.00	15,404.20	8,474.00	124.21	119.10	-5.53	7,007.15	475.98	3,679.02	3,593.55	85.47	43.046	
19,300.00	12,136.00	15,504.20	8,474.00	125.75	120.70	-5.53	7,107.15	474.98	3,679.02	3,592.49	86.52	42.520	
19,400.00	12,136.00	15,604.20	8,474.00	127.30	122.30	-5.53	7,207.14	473.98	3,679.02	3,591.44	87.58	42.007	
19,500.00	12,136.00	15,704.20	8,474.00	128.85	123.90	-5.53	7,307.14	472.97	3,679.02	3,590.38	88.64	41.505	
19,600.00	12,136.00	15,804.20	8,474.00	130.41	125.50	-5.53	7,407.13	471.97	3,679.02	3,589.32	89.70	41.014	
19,700.00	12,136.00	15,904.20	8,474.00	131.96	127.10	-5.53	7,507.13	470.97	3,679.02	3,588.26	90.76	40.534	
19,800.00	12,136.00	16,004.20	8,474.00	133.52	128.71	-5.53	7,607.12	469.96	3,679.02	3,587.20	91.83	40.065	
19,900.00	12,136.00	16,104.20	8,474.00	135.08	130.31	-5.53	7,707.12	468.96	3,679.02	3,586.13	92.89	39.605	
20,000.00	12,136.00	16,204.20	8,474.00	136.64	131.92	-5.53	7,807.11	467.96	3,679.02	3,585.07	93.96	39.156	
20,100.00	12,136.00	16,304.20	8,474.00	138.21	133.53	-5.53	7,907.10	466.95	3,679.03	3,584.00	95.03	38.716	
20,200.00	12,136.00	16,404.20	8,474.00	139.77	135.14	-5.53	8,007.10	465.95	3,679.03	3,582.93	96.10	38.285	
20,300.00	12,136.00	16,504.20	8,474.00	141.34	136.75	-5.53	8,107.09	464.95	3,679.03	3,581.86	97.16	37.864	
20,400.00	12,136.00	16,604.20	8,474.00	142.91	138.36	-5.53	8,207.09	463.94	3,679.03	3,580.79	98.24	37.451	
20,500.00	12,136.00	16,704.20	8,474.00	144.48	139.97	-5.53	8,307.08	462.94	3,679.03	3,579.72	99.31	37.046	
20,600.00	12,136.00	16,804.20	8,474.00	146.06	141.58	-5.53	8,407.08	461.94	3,679.03	3,578.65	100.38	36.650	
20,700.00	12,136.00	16,904.20	8,474.00	147.63	143.20	-5.53	8,507.07	460.93	3,679.03	3,577.57	101.46	36.262	
20,800.00	12,136.00	17,004.20	8,474.00	149.21	144.81	-5.53	8,607.07	459.93	3,679.03	3,576.50	102.53	35.881	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,900.00	12,136.00	17,104.20	8,474.00	150.79	146.43	-5.53	8,707.06	458.93	3,679.04	3,575.42	103.61	35.508	
21,000.00	12,136.00	17,204.20	8,474.00	152.37	148.04	-5.53	8,807.06	457.93	3,679.04	3,574.35	104.69	35.143	
21,100.00	12,136.00	17,304.20	8,474.00	153.95	149.66	-5.53	8,907.05	456.92	3,679.04	3,573.27	105.77	34.784	
21,200.00	12,136.00	17,404.20	8,474.00	155.53	151.28	-5.53	9,007.05	455.92	3,679.04	3,572.19	106.85	34.433	
21,300.00	12,136.00	17,504.20	8,474.00	157.12	152.90	-5.53	9,107.04	454.92	3,679.04	3,571.11	107.93	34.088	
21,400.00	12,136.00	17,604.20	8,474.00	158.70	154.52	-5.53	9,207.04	453.91	3,679.04	3,570.03	109.01	33.750	
21,500.00	12,136.00	17,704.20	8,474.00	160.29	156.13	-5.53	9,307.03	452.91	3,679.04	3,568.95	110.09	33.418	
21,600.00	12,136.00	17,804.20	8,474.00	161.88	157.76	-5.53	9,407.03	451.91	3,679.04	3,567.87	111.18	33.092	
21,700.00	12,136.00	17,904.20	8,474.00	163.47	159.38	-5.53	9,507.02	450.90	3,679.04	3,566.79	112.26	32.773	
21,800.00	12,136.00	18,004.20	8,474.00	165.06	161.00	-5.53	9,607.02	449.90	3,679.05	3,565.70	113.34	32.459	
21,900.00	12,136.00	18,104.20	8,474.00	166.65	162.62	-5.53	9,707.01	448.90	3,679.05	3,564.62	114.43	32.151	
22,000.00	12,136.00	18,204.20	8,474.00	168.25	164.24	-5.53	9,807.01	447.89	3,679.05	3,563.53	115.52	31.849	
22,100.00	12,136.00	18,304.20	8,474.00	169.84	165.87	-5.53	9,907.00	446.89	3,679.05	3,562.45	116.60	31.552	
22,200.00	12,136.00	18,404.20	8,474.00	171.44	167.49	-5.53	10,007.00	445.89	3,679.05	3,561.36	117.69	31.260	
22,300.00	12,136.00	18,504.20	8,474.00	173.03	169.12	-5.53	10,106.99	444.88	3,679.05	3,560.27	118.78	30.974	
22,343.22	12,136.00	18,547.42	8,474.00	173.72	169.82	-5.53	10,150.21	444.45	3,679.05	3,559.80	119.25	30.852	
22,343.71	12,136.00	18,547.91	8,474.00	173.75	169.83	-5.53	10,150.70	444.45	3,679.05	3,559.79	119.26	30.850	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,841.80	1,841.80	6.37	6.37	-27.27	74.59	-38.45	83.92	74.91	9.01	9.313	
1,900.00	1,900.00	1,898.80	1,898.80	6.58	6.57	-27.27	74.59	-38.45	83.92	74.62	9.30	9.024	
2,000.00	2,000.00	1,998.80	1,998.80	6.94	6.93	-27.27	74.59	-38.45	83.92	74.11	9.81	8.557	CC, ES
2,100.00	2,099.99	2,098.19	2,098.18	7.28	7.28	-131.91	74.32	-39.69	85.12	74.82	10.30	8.267	SF
2,200.00	2,199.91	2,197.19	2,197.10	7.62	7.61	-136.10	73.48	-43.42	89.07	78.30	10.77	8.268	
2,300.00	2,299.69	2,295.43	2,295.13	7.97	7.95	-142.22	72.11	-49.60	96.61	85.37	11.25	8.591	
2,400.00	2,399.27	2,392.54	2,391.85	8.31	8.29	-149.17	70.21	-58.12	108.73	97.02	11.71	9.283	
2,500.00	2,498.57	2,488.17	2,486.85	8.66	8.62	-155.95	67.82	-68.86	126.14	113.98	12.17	10.367	
2,600.00	2,597.54	2,582.01	2,579.76	9.03	8.96	-161.94	64.97	-81.65	149.15	136.54	12.61	11.828	
2,700.00	2,696.09	2,673.74	2,670.25	9.40	9.30	-166.94	61.71	-96.30	177.69	164.66	13.04	13.632	
2,764.20	2,759.12	2,731.40	2,726.94	9.64	9.51	-169.63	59.42	-106.60	198.84	185.54	13.30	14.950	
2,800.00	2,794.20	2,763.27	2,758.20	9.78	9.64	-171.01	58.08	-112.64	211.40	197.95	13.45	15.721	
2,900.00	2,892.20	2,855.79	2,848.90	10.17	10.00	-174.29	54.10	-130.51	247.28	233.38	13.90	17.789	
3,000.00	2,990.21	2,948.32	2,939.59	10.57	10.36	-176.74	50.12	-148.38	283.69	269.33	14.36	19.757	
3,100.00	3,088.21	3,040.84	3,030.29	10.97	10.73	-178.64	46.14	-166.25	320.46	305.64	14.82	21.619	
3,200.00	3,186.22	3,133.37	3,120.98	11.38	11.11	179.85	42.17	-184.12	357.47	342.18	15.29	23.378	
3,300.00	3,284.22	3,225.89	3,211.68	11.80	11.49	178.62	38.19	-201.99	394.66	378.90	15.76	25.038	
3,400.00	3,382.23	3,318.42	3,302.37	12.22	11.88	177.60	34.21	-219.86	431.98	415.74	16.24	26.605	
3,500.00	3,480.24	3,410.94	3,393.07	12.65	12.27	176.74	30.23	-237.73	469.39	452.68	16.71	28.084	
3,600.00	3,578.24	3,503.47	3,483.77	13.08	12.66	176.01	26.25	-255.60	506.89	489.69	17.19	29.481	
3,700.00	3,676.25	3,595.99	3,574.46	13.51	13.06	175.38	22.28	-273.47	544.44	526.77	17.68	30.802	
3,800.00	3,774.25	3,688.52	3,665.16	13.95	13.46	174.84	18.30	-291.34	582.05	563.89	18.16	32.052	
3,900.00	3,872.26	3,781.04	3,755.85	14.39	13.87	174.35	14.32	-309.21	619.69	601.05	18.65	33.236	
4,000.00	3,970.26	3,873.57	3,846.55	14.83	14.27	173.93	10.34	-327.08	657.37	638.24	19.13	34.359	
4,100.00	4,068.27	3,966.09	3,937.24	15.28	14.68	173.54	6.37	-344.95	695.08	675.45	19.62	35.424	
4,200.00	4,166.27	4,058.62	4,027.94	15.73	15.09	173.20	2.39	-362.82	732.81	712.69	20.11	36.436	
4,300.00	4,264.28	4,151.14	4,118.63	16.18	15.51	172.89	-1.59	-380.69	770.56	749.95	20.60	37.398	
4,400.00	4,362.28	4,243.67	4,209.33	16.63	15.92	172.61	-5.57	-398.56	808.33	787.23	21.10	38.313	
4,500.00	4,460.29	4,336.19	4,300.03	17.08	16.34	172.36	-9.54	-416.43	846.11	824.52	21.59	39.186	
4,600.00	4,558.29	4,428.72	4,390.72	17.54	16.76	172.13	-13.52	-434.30	883.90	861.82	22.09	40.018	
4,700.00	4,656.30	4,521.24	4,481.42	18.00	17.18	171.91	-17.50	-452.17	921.71	899.13	22.58	40.812	
4,800.00	4,754.30	4,613.77	4,572.11	18.45	17.60	171.72	-21.48	-470.04	959.53	936.45	23.08	41.570	
4,900.00	4,852.31	4,706.29	4,662.81	18.91	18.02	171.53	-25.45	-487.91	997.36	973.78	23.58	42.295	
5,000.00	4,950.31	4,798.82	4,753.50	19.37	18.44	171.37	-29.43	-505.78	1,035.19	1,011.11	24.08	42.989	
5,100.00	5,048.32	4,891.34	4,844.20	19.83	18.87	171.21	-33.41	-523.65	1,073.03	1,048.45	24.58	43.653	
5,200.00	5,146.33	4,983.87	4,934.89	20.30	19.29	171.06	-37.39	-541.52	1,110.88	1,085.80	25.08	44.290	
5,300.00	5,244.33	5,076.39	5,025.59	20.76	19.72	170.93	-41.37	-559.39	1,148.73	1,123.15	25.58	44.901	
5,400.00	5,342.34	5,168.92	5,116.29	21.23	20.15	170.80	-45.34	-577.26	1,186.59	1,160.51	26.09	45.487	
5,500.00	5,440.34	5,261.44	5,206.98	21.69	20.57	170.68	-49.32	-595.13	1,224.46	1,197.87	26.59	46.050	
5,600.00	5,538.35	5,353.97	5,297.68	22.16	21.00	170.56	-53.30	-613.00	1,262.33	1,235.23	27.09	46.591	
5,700.00	5,636.35	5,446.49	5,388.37	22.62	21.43	170.46	-57.28	-630.87	1,300.20	1,272.60	27.60	47.111	
5,800.00	5,734.36	5,539.02	5,479.07	23.09	21.86	170.36	-61.25	-648.74	1,338.07	1,309.97	28.10	47.612	
5,900.00	5,832.36	5,631.54	5,569.76	23.56	22.29	170.26	-65.23	-666.61	1,375.95	1,347.34	28.61	48.095	
6,000.00	5,930.37	5,724.06	5,660.46	24.03	22.73	170.17	-69.21	-684.48	1,413.84	1,384.72	29.12	48.559	
6,100.00	6,028.37	5,816.59	5,751.15	24.50	23.16	170.09	-73.19	-702.35	1,451.72	1,422.10	29.62	49.007	
6,200.00	6,126.38	5,909.11	5,841.85	24.97	23.59	170.01	-77.16	-720.22	1,489.61	1,459.48	30.13	49.440	
6,300.00	6,224.38	6,001.64	5,932.55	25.44	24.03	169.93	-81.14	-738.09	1,527.50	1,496.86	30.64	49.857	
6,400.00	6,322.39	6,094.16	6,023.24	25.91	24.46	169.86	-85.12	-755.96	1,565.39	1,534.25	31.15	50.260	
6,500.00	6,420.39	6,186.69	6,113.94	26.38	24.89	169.79	-89.10	-773.83	1,603.29	1,571.63	31.65	50.649	
6,600.00	6,518.40	6,279.21	6,204.63	26.85	25.33	169.72	-93.07	-791.70	1,641.18	1,609.02	32.16	51.025	
6,658.66	6,575.89	6,333.48	6,257.83	27.13	25.58	169.69	-95.41	-802.19	1,663.41	1,630.95	32.46	51.240	
6,700.00	6,616.45	6,371.82	6,295.41	27.32	25.76	169.70	-97.06	-809.59	1,678.88	1,646.20	32.67	51.383	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
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Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,465.20	6,386.94	27.78	26.20	169.73	-101.07	-827.63	1,714.59	1,681.40	33.18	51.669	
6,900.00	6,813.77	6,559.46	6,479.33	28.21	26.65	169.73	-105.12	-845.83	1,747.89	1,714.19	33.70	51.874	
7,000.00	6,913.01	6,654.53	6,572.52	28.61	27.10	169.72	-109.21	-864.19	1,778.75	1,744.54	34.21	52.000	
7,100.00	7,012.53	6,776.22	6,691.90	29.00	27.67	169.66	-114.35	-887.29	1,806.93	1,772.07	34.87	51.824	
7,200.00	7,112.27	6,956.39	6,869.72	29.36	28.46	169.55	-120.62	-915.44	1,829.28	1,793.47	35.81	51.085	
7,300.00	7,212.16	7,140.77	7,052.91	29.70	29.19	169.46	-125.13	-935.73	1,844.58	1,807.89	36.69	50.279	
7,400.00	7,312.14	7,327.83	7,239.56	30.02	29.86	169.41	-127.75	-947.48	1,852.66	1,815.17	37.49	49.417	
7,422.86	7,335.00	7,370.80	7,282.50	30.09	30.01	-87.43	-128.07	-948.92	1,853.49	1,815.83	37.66	49.214	
7,500.00	7,412.14	7,499.25	7,410.94	30.32	30.41	-87.45	-128.41	-950.45	1,854.29	1,816.13	38.16	48.590	
7,600.00	7,512.14	7,599.25	7,510.94	30.63	30.71	-87.45	-128.41	-950.45	1,854.29	1,815.67	38.63	48.002	
7,700.00	7,612.14	7,699.25	7,610.94	30.93	31.01	-87.45	-128.41	-950.45	1,854.29	1,815.20	39.10	47.428	
7,800.00	7,712.14	7,799.25	7,710.94	31.23	31.31	-87.45	-128.41	-950.45	1,854.29	1,814.73	39.57	46.865	
7,900.00	7,812.14	7,899.25	7,810.94	31.54	31.62	-87.45	-128.41	-950.45	1,854.29	1,814.26	40.04	46.315	
8,000.00	7,912.14	7,999.25	7,910.94	31.84	31.92	-87.45	-128.41	-950.45	1,854.29	1,813.79	40.51	45.777	
8,100.00	8,012.14	8,099.25	8,010.94	32.15	32.23	-87.45	-128.41	-950.45	1,854.29	1,813.31	40.98	45.250	
8,200.00	8,112.14	8,199.25	8,110.94	32.46	32.53	-87.45	-128.41	-950.45	1,854.29	1,812.84	41.45	44.734	
8,300.00	8,212.14	8,299.25	8,210.94	32.76	32.84	-87.45	-128.41	-950.45	1,854.29	1,812.37	41.93	44.228	
8,400.00	8,312.14	8,399.25	8,310.94	33.07	33.15	-87.45	-128.41	-950.45	1,854.29	1,811.89	42.40	43.734	
8,500.00	8,412.14	8,499.25	8,410.94	33.39	33.46	-87.45	-128.41	-950.45	1,854.29	1,811.42	42.87	43.249	
8,600.00	8,512.14	8,599.25	8,510.94	33.70	33.77	-87.45	-128.41	-950.45	1,854.29	1,810.94	43.35	42.775	
8,700.00	8,612.14	8,699.25	8,610.94	34.01	34.08	-87.45	-128.41	-950.45	1,854.29	1,810.47	43.83	42.310	
8,800.00	8,712.14	8,799.25	8,710.94	34.32	34.40	-87.45	-128.41	-950.45	1,854.29	1,809.99	44.30	41.854	
8,900.00	8,812.14	8,899.25	8,810.94	34.64	34.71	-87.45	-128.41	-950.45	1,854.29	1,809.51	44.78	41.408	
9,000.00	8,912.14	8,999.25	8,910.94	34.95	35.02	-87.45	-128.41	-950.45	1,854.29	1,809.03	45.26	40.970	
9,100.00	9,012.14	9,099.25	9,010.94	35.27	35.34	-87.45	-128.41	-950.45	1,854.29	1,808.56	45.74	40.541	
9,200.00	9,112.14	9,199.25	9,110.94	35.59	35.65	-87.45	-128.41	-950.45	1,854.29	1,808.08	46.22	40.120	
9,300.00	9,212.14	9,299.25	9,210.94	35.90	35.97	-87.45	-128.41	-950.45	1,854.29	1,807.60	46.70	39.708	
9,400.00	9,312.14	9,399.25	9,310.94	36.22	36.29	-87.45	-128.41	-950.45	1,854.29	1,807.12	47.18	39.303	
9,500.00	9,412.14	9,499.25	9,410.94	36.54	36.61	-87.45	-128.41	-950.45	1,854.29	1,806.63	47.66	38.906	
9,512.59	9,424.73	9,511.84	9,423.53	36.58	36.65	-87.45	-128.41	-950.45	1,854.29	1,806.57	47.72	38.857	
9,600.00	9,512.14	9,597.61	9,509.31	36.86	36.92	-87.44	-128.34	-950.45	1,854.30	1,806.16	48.14	38.520	
9,700.00	9,612.14	9,681.79	9,593.07	37.18	37.18	-87.21	-120.81	-950.53	1,854.81	1,806.24	48.57	38.187	
9,800.00	9,712.14	9,762.11	9,671.15	37.50	37.41	-86.64	-102.26	-950.71	1,856.33	1,807.35	48.98	37.900	
9,900.00	9,812.14	9,835.99	9,740.04	37.83	37.59	-85.82	-75.72	-950.98	1,859.26	1,809.91	49.35	37.675	
10,000.00	9,912.14	9,900.00	9,796.55	38.15	37.74	-84.90	-45.72	-951.28	1,864.14	1,814.47	49.67	37.530	
10,100.00	10,012.14	9,959.99	9,846.17	38.47	37.85	-83.87	-12.05	-951.61	1,871.52	1,821.58	49.95	37.471	
10,200.00	10,112.14	10,010.25	9,884.84	38.80	37.93	-82.90	20.03	-951.93	1,881.90	1,831.75	50.15	37.523	
10,300.00	10,212.14	10,050.00	9,913.34	39.12	37.99	-82.06	47.72	-952.20	1,895.67	1,845.40	50.27	37.707	
10,400.00	10,312.14	10,100.00	9,946.35	39.44	38.05	-80.92	85.25	-952.58	1,913.15	1,862.77	50.38	37.973	
10,500.00	10,412.14	10,123.38	9,960.63	39.77	38.08	-80.37	103.75	-952.76	1,934.42	1,884.09	50.33	38.432	
10,600.00	10,512.14	10,150.00	9,975.97	40.10	38.11	-79.72	125.51	-952.98	1,959.69	1,909.45	50.24	39.004	
10,700.00	10,612.14	10,175.91	9,989.90	40.42	38.13	-79.07	147.35	-953.20	1,988.93	1,938.84	50.10	39.701	
10,800.00	10,712.14	10,200.00	10,001.96	40.75	38.15	-78.45	168.20	-953.40	2,022.12	1,972.22	49.90	40.522	
10,900.00	10,812.14	10,216.26	10,009.60	41.08	38.16	-78.03	182.56	-953.55	2,059.15	2,009.52	49.62	41.495	
11,000.00	10,912.14	10,233.02	10,017.04	41.41	38.18	-77.58	197.57	-953.69	2,099.90	2,050.58	49.33	42.573	
11,100.00	11,012.14	10,250.00	10,024.13	41.74	38.19	-77.13	213.00	-953.85	2,144.23	2,095.24	49.00	43.763	
11,200.00	11,112.14	10,250.00	10,024.13	42.06	38.19	-77.13	213.00	-953.85	2,192.05	2,143.49	48.57	45.134	
11,300.00	11,212.14	10,273.34	10,033.13	42.39	38.21	-76.50	234.54	-954.06	2,242.93	2,194.67	48.25	46.483	
11,400.00	11,312.14	10,300.00	10,042.32	42.72	38.23	-75.78	259.56	-954.31	2,297.11	2,249.17	47.95	47.911	
11,500.00	11,412.14	10,300.00	10,042.32	43.06	38.23	-75.78	259.56	-954.31	2,353.81	2,306.30	47.51	49.541	
11,600.00	11,512.14	10,300.00	10,042.32	43.39	38.23	-75.78	259.56	-954.31	2,413.33	2,366.24	47.09	51.250	
11,650.90	11,563.04	10,300.00	10,042.32	43.56	38.23	-75.78	259.56	-954.31	2,444.64	2,397.76	46.88	52.147	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,700.00	11,612.08	10,300.00	10,042.32	43.72	38.23	-71.51	259.56	-954.31	2,475.01	2,428.33	46.68	53.025	
11,750.00	11,661.65	10,300.00	10,042.32	43.87	38.23	-67.90	259.56	-954.31	2,505.47	2,459.00	46.47	53.918	
11,800.00	11,710.46	10,323.28	10,049.39	44.02	38.25	-64.02	281.74	-954.53	2,534.83	2,488.45	46.37	54.661	
11,850.00	11,758.16	10,330.10	10,051.28	44.16	38.26	-60.79	288.28	-954.60	2,563.45	2,517.25	46.20	55.489	
11,900.00	11,804.37	10,350.00	10,056.38	44.29	38.28	-57.62	307.52	-954.79	2,591.02	2,544.94	46.08	56.227	
11,950.00	11,848.74	10,350.00	10,056.38	44.41	38.28	-55.08	307.52	-954.79	2,617.00	2,571.12	45.88	57.039	
12,000.00	11,890.94	10,350.00	10,056.38	44.51	38.28	-52.81	307.52	-954.79	2,641.53	2,595.84	45.69	57.818	
12,050.00	11,930.64	10,350.00	10,056.38	44.60	38.28	-50.78	307.52	-954.79	2,664.47	2,618.97	45.50	58.557	
12,100.00	11,967.55	10,372.23	10,061.27	44.68	38.30	-48.78	329.20	-955.00	2,685.29	2,639.87	45.42	59.119	
12,150.00	12,001.37	10,400.00	10,066.20	44.74	38.33	-47.02	356.53	-955.27	2,704.51	2,659.15	45.37	59.614	
12,200.00	12,031.86	10,400.00	10,066.20	44.80	38.33	-45.74	356.53	-955.27	2,721.13	2,675.91	45.22	60.175	
12,250.00	12,058.79	10,400.00	10,066.20	44.84	38.33	-44.66	356.53	-955.27	2,735.69	2,690.60	45.09	60.670	
12,300.00	12,081.94	10,400.00	10,066.20	44.87	38.33	-43.77	356.53	-955.27	2,748.11	2,703.13	44.98	61.091	
12,350.00	12,101.14	10,423.00	10,069.28	44.90	38.36	-42.98	379.32	-955.50	2,757.89	2,712.91	44.98	61.320	
12,400.00	12,116.24	10,450.00	10,071.72	44.92	38.40	-42.40	406.20	-955.77	2,765.56	2,720.56	44.99	61.464	
12,450.00	12,127.14	10,450.00	10,071.72	44.95	38.40	-42.07	406.20	-955.77	2,770.32	2,725.36	44.96	61.620	
12,500.00	12,133.74	10,450.00	10,071.72	44.99	38.40	-41.91	406.20	-955.77	2,772.75	2,727.80	44.95	61.685	
12,550.90	12,136.00	10,466.39	10,072.58	45.03	38.42	-41.92	422.57	-955.93	2,772.59	2,727.58	45.01	61.594	
12,600.00	12,136.00	10,488.35	10,073.00	45.10	38.46	-41.92	444.52	-956.15	2,771.64	2,726.53	45.11	61.447	
12,653.51	12,136.00	10,489.96	10,073.00	45.18	38.46	-41.92	446.13	-956.17	2,771.15	2,725.98	45.18	61.342	
12,700.00	12,136.00	10,536.45	10,073.00	45.28	38.55	-41.92	492.62	-956.63	2,771.16	2,725.82	45.34	61.122	
12,800.00	12,136.00	10,636.45	10,073.00	45.54	38.80	-41.92	592.61	-957.62	2,771.16	2,725.42	45.74	60.590	
12,900.00	12,136.00	10,736.45	10,073.00	45.88	39.15	-41.92	692.61	-958.62	2,771.16	2,724.96	46.20	59.984	
13,000.00	12,136.00	10,836.45	10,073.00	46.30	39.57	-41.92	792.61	-959.61	2,771.16	2,724.44	46.72	59.312	
13,100.00	12,136.00	10,936.45	10,073.00	46.78	40.08	-41.93	892.60	-960.60	2,771.16	2,723.86	47.30	58.582	
13,200.00	12,136.00	11,036.45	10,073.00	47.33	40.66	-41.93	992.60	-961.60	2,771.17	2,723.22	47.94	57.800	
13,300.00	12,136.00	11,136.45	10,073.00	47.94	41.31	-41.93	1,092.59	-962.59	2,771.17	2,722.53	48.64	56.975	
13,400.00	12,136.00	11,236.45	10,073.00	48.60	42.01	-41.93	1,192.59	-963.59	2,771.17	2,721.78	49.38	56.114	
13,500.00	12,136.00	11,336.45	10,073.00	49.31	42.78	-41.93	1,292.58	-964.58	2,771.17	2,720.99	50.18	55.223	
13,600.00	12,136.00	11,436.45	10,073.00	50.06	43.59	-41.93	1,392.58	-965.57	2,771.17	2,720.15	51.03	54.308	
13,700.00	12,136.00	11,536.45	10,073.00	50.86	44.46	-41.93	1,492.57	-966.57	2,771.18	2,719.26	51.92	53.376	
13,800.00	12,136.00	11,636.45	10,073.00	51.70	45.37	-41.93	1,592.57	-967.56	2,771.18	2,718.32	52.85	52.432	
13,900.00	12,136.00	11,736.45	10,073.00	52.58	46.32	-41.93	1,692.56	-968.56	2,771.18	2,717.35	53.83	51.482	
14,000.00	12,136.00	11,836.45	10,073.00	53.49	47.31	-41.93	1,792.56	-969.55	2,771.18	2,716.34	54.84	50.530	
14,100.00	12,136.00	11,936.45	10,073.00	54.44	48.33	-41.93	1,892.55	-970.54	2,771.18	2,715.29	55.89	49.580	
14,200.00	12,136.00	12,036.45	10,073.00	55.43	49.39	-41.93	1,992.55	-971.54	2,771.19	2,714.21	56.98	48.635	
14,300.00	12,136.00	12,136.45	10,073.00	56.44	50.48	-41.93	2,092.54	-972.53	2,771.19	2,713.09	58.10	47.701	
14,400.00	12,136.00	12,236.45	10,073.00	57.49	51.61	-41.93	2,192.54	-973.53	2,771.19	2,711.95	59.24	46.778	
14,500.00	12,136.00	12,336.45	10,073.00	58.56	52.76	-41.93	2,292.53	-974.52	2,771.19	2,710.77	60.42	45.867	
14,600.00	12,136.00	12,436.45	10,073.00	59.66	53.93	-41.93	2,392.53	-975.51	2,771.19	2,709.57	61.62	44.972	
14,700.00	12,136.00	12,536.45	10,073.00	60.78	55.13	-41.93	2,492.52	-976.51	2,771.20	2,708.35	62.85	44.092	
14,800.00	12,136.00	12,636.45	10,073.00	61.93	56.36	-41.93	2,592.52	-977.50	2,771.20	2,707.09	64.10	43.230	
14,900.00	12,136.00	12,736.45	10,073.00	63.10	57.60	-41.93	2,692.51	-978.50	2,771.20	2,705.82	65.38	42.387	
15,000.00	12,136.00	12,836.45	10,073.00	64.29	58.87	-41.93	2,792.51	-979.49	2,771.20	2,704.52	66.68	41.562	
15,100.00	12,136.00	12,936.45	10,073.00	65.50	60.15	-41.93	2,892.50	-980.48	2,771.20	2,703.21	68.00	40.756	
15,200.00	12,136.00	13,036.45	10,073.00	66.73	61.45	-41.93	2,992.50	-981.48	2,771.20	2,701.87	69.33	39.970	
15,300.00	12,136.00	13,136.45	10,073.00	67.98	62.77	-41.93	3,092.49	-982.47	2,771.21	2,700.52	70.69	39.205	
15,400.00	12,136.00	13,236.45	10,073.00	69.24	64.10	-41.93	3,192.49	-983.47	2,771.21	2,699.15	72.05	38.460	
15,500.00	12,136.00	13,336.45	10,073.00	70.52	65.45	-41.93	3,292.48	-984.46	2,771.21	2,697.77	73.44	37.734	
15,600.00	12,136.00	13,436.45	10,073.00	71.82	66.81	-41.93	3,392.48	-985.45	2,771.21	2,696.37	74.84	37.028	
15,700.00	12,136.00	13,536.45	10,073.00	73.13	68.18	-41.93	3,492.47	-986.45	2,771.21	2,694.96	76.26	36.340	
15,800.00	12,136.00	13,636.45	10,073.00	74.45	69.57	-41.93	3,592.47	-987.44	2,771.22	2,693.53	77.69	35.672	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,900.00	12,136.00	13,736.45	10,073.00	75.78	70.97	-41.93	3,692.46	-988.44	2,771.22	2,692.09	79.13	35.023	
16,000.00	12,136.00	13,836.45	10,073.00	77.13	72.37	-41.93	3,792.46	-989.43	2,771.22	2,690.64	80.58	34.392	
16,100.00	12,136.00	13,936.45	10,073.00	78.49	73.79	-41.93	3,892.45	-990.42	2,771.22	2,689.18	82.04	33.778	
16,200.00	12,136.00	14,036.45	10,073.00	79.86	75.22	-41.93	3,992.45	-991.42	2,771.22	2,687.71	83.52	33.182	
16,300.00	12,136.00	14,136.45	10,073.00	81.24	76.66	-41.93	4,092.44	-992.41	2,771.23	2,686.23	85.00	32.603	
16,400.00	12,136.00	14,236.45	10,073.00	82.64	78.10	-41.93	4,192.44	-993.41	2,771.23	2,684.74	86.49	32.041	
16,500.00	12,136.00	14,336.45	10,073.00	84.04	79.55	-41.93	4,292.43	-994.40	2,771.23	2,683.24	87.99	31.494	
16,600.00	12,136.00	14,436.45	10,073.00	85.45	81.02	-41.93	4,392.43	-995.39	2,771.23	2,681.73	89.50	30.962	
16,700.00	12,136.00	14,536.45	10,073.00	86.86	82.48	-41.93	4,492.42	-996.39	2,771.23	2,680.21	91.02	30.445	
16,800.00	12,136.00	14,636.45	10,073.00	88.29	83.96	-41.93	4,592.42	-997.38	2,771.24	2,678.69	92.55	29.944	
16,900.00	12,136.00	14,736.45	10,073.00	89.72	85.44	-41.93	4,692.41	-998.38	2,771.24	2,677.16	94.08	29.456	
17,000.00	12,136.00	14,836.45	10,073.00	91.17	86.93	-41.93	4,792.41	-999.37	2,771.24	2,675.62	95.62	28.982	
17,100.00	12,136.00	14,936.45	10,073.00	92.61	88.42	-41.93	4,892.40	-1,000.36	2,771.24	2,674.08	97.16	28.521	
17,200.00	12,136.00	15,036.45	10,073.00	94.07	89.92	-41.93	4,992.40	-1,001.36	2,771.24	2,672.53	98.72	28.073	
17,300.00	12,136.00	15,136.45	10,073.00	95.53	91.42	-41.93	5,092.39	-1,002.35	2,771.25	2,670.97	100.27	27.637	
17,400.00	12,136.00	15,236.45	10,073.00	97.00	92.93	-41.93	5,192.39	-1,003.35	2,771.25	2,669.41	101.84	27.212	
17,500.00	12,136.00	15,336.45	10,073.00	98.47	94.45	-41.93	5,292.38	-1,004.34	2,771.25	2,667.84	103.41	26.800	
17,600.00	12,136.00	15,436.45	10,073.00	99.95	95.96	-41.93	5,392.38	-1,005.33	2,771.25	2,666.27	104.98	26.399	
17,700.00	12,136.00	15,536.45	10,073.00	101.44	97.49	-41.93	5,492.37	-1,006.33	2,771.25	2,664.70	106.56	26.008	
17,800.00	12,136.00	15,636.45	10,073.00	102.92	99.01	-41.93	5,592.37	-1,007.32	2,771.26	2,663.12	108.14	25.627	
17,900.00	12,136.00	15,736.45	10,073.00	104.42	100.55	-41.93	5,692.36	-1,008.32	2,771.26	2,661.53	109.73	25.256	
18,000.00	12,136.00	15,836.45	10,073.00	105.92	102.08	-41.93	5,792.36	-1,009.31	2,771.26	2,659.94	111.32	24.895	
18,100.00	12,136.00	15,936.45	10,073.00	107.42	103.62	-41.93	5,892.35	-1,010.30	2,771.26	2,658.35	112.91	24.544	
18,200.00	12,136.00	16,036.45	10,073.00	108.93	105.16	-41.93	5,992.35	-1,011.30	2,771.26	2,656.76	114.51	24.202	
18,300.00	12,136.00	16,136.45	10,073.00	110.44	106.70	-41.93	6,092.34	-1,012.29	2,771.27	2,655.16	116.11	23.867	
18,400.00	12,136.00	16,236.45	10,073.00	111.96	108.25	-41.93	6,192.34	-1,013.29	2,771.27	2,653.55	117.71	23.542	
18,500.00	12,136.00	16,336.45	10,073.00	113.48	109.80	-41.93	6,292.33	-1,014.28	2,771.27	2,651.95	119.32	23.225	
18,600.00	12,136.00	16,436.45	10,073.00	115.00	111.36	-41.93	6,392.33	-1,015.27	2,771.27	2,650.34	120.93	22.916	
18,700.00	12,136.00	16,536.45	10,073.00	116.53	112.92	-41.93	6,492.32	-1,016.27	2,771.27	2,648.73	122.55	22.614	
18,800.00	12,136.00	16,636.45	10,073.00	118.06	114.47	-41.93	6,592.32	-1,017.26	2,771.28	2,647.11	124.16	22.320	
18,900.00	12,136.00	16,736.45	10,073.00	119.59	116.04	-41.93	6,692.31	-1,018.26	2,771.28	2,645.50	125.78	22.032	
19,000.00	12,136.00	16,836.45	10,073.00	121.13	117.60	-41.93	6,792.31	-1,019.25	2,771.28	2,643.88	127.40	21.752	
19,100.00	12,136.00	16,936.45	10,073.00	122.67	119.17	-41.93	6,892.30	-1,020.24	2,771.28	2,642.26	129.03	21.478	
19,200.00	12,136.00	17,036.45	10,073.00	124.21	120.74	-41.93	6,992.30	-1,021.24	2,771.28	2,640.63	130.65	21.211	
19,300.00	12,136.00	17,136.45	10,073.00	125.75	122.31	-41.93	7,092.29	-1,022.23	2,771.29	2,639.00	132.28	20.950	
19,400.00	12,136.00	17,236.45	10,073.00	127.30	123.88	-41.93	7,192.29	-1,023.23	2,771.29	2,637.37	133.91	20.695	
19,500.00	12,136.00	17,336.45	10,073.00	128.85	125.46	-41.93	7,292.28	-1,024.22	2,771.29	2,635.74	135.55	20.445	
19,600.00	12,136.00	17,436.45	10,073.00	130.41	127.04	-41.93	7,392.28	-1,025.21	2,771.29	2,634.11	137.18	20.202	
19,700.00	12,136.00	17,536.45	10,073.00	131.96	128.62	-41.93	7,492.27	-1,026.21	2,771.29	2,632.48	138.81	19.964	
19,800.00	12,136.00	17,636.45	10,073.00	133.52	130.20	-41.93	7,592.27	-1,027.20	2,771.30	2,630.84	140.45	19.731	
19,900.00	12,136.00	17,736.45	10,073.00	135.08	131.78	-41.93	7,692.26	-1,028.20	2,771.30	2,629.20	142.09	19.503	
20,000.00	12,136.00	17,836.45	10,073.00	136.64	133.36	-41.93	7,792.26	-1,029.19	2,771.30	2,627.57	143.73	19.281	
20,100.00	12,136.00	17,936.45	10,073.00	138.21	134.95	-41.93	7,892.25	-1,030.18	2,771.30	2,625.93	145.37	19.063	
20,200.00	12,136.00	18,036.45	10,073.00	139.77	136.54	-41.93	7,992.25	-1,031.18	2,771.30	2,624.29	147.02	18.850	
20,300.00	12,136.00	18,136.45	10,073.00	141.34	138.13	-41.93	8,092.24	-1,032.17	2,771.31	2,622.64	148.66	18.641	
20,400.00	12,136.00	18,236.45	10,073.00	142.91	139.72	-41.93	8,192.24	-1,033.17	2,771.31	2,621.00	150.31	18.437	
20,500.00	12,136.00	18,336.45	10,073.00	144.48	141.31	-41.93	8,292.23	-1,034.16	2,771.31	2,619.35	151.96	18.237	
20,600.00	12,136.00	18,436.45	10,073.00	146.06	142.90	-41.93	8,392.23	-1,035.15	2,771.31	2,617.70	153.61	18.042	
20,700.00	12,136.00	18,536.45	10,073.00	147.63	144.50	-41.93	8,492.22	-1,036.15	2,771.31	2,616.06	155.26	17.850	
20,800.00	12,136.00	18,636.45	10,073.00	149.21	146.09	-41.93	8,592.22	-1,037.14	2,771.32	2,614.41	156.91	17.662	
20,900.00	12,136.00	18,736.45	10,073.00	150.79	147.69	-41.93	8,692.21	-1,038.14	2,771.32	2,612.76	158.56	17.478	
21,000.00	12,136.00	18,836.45	10,073.00	152.37	149.29	-41.93	8,792.21	-1,039.13	2,771.32	2,611.11	160.21	17.298	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,100.00	12,136.00	18,936.45	10,073.00	153.95	150.89	-41.93	8,892.21	-1,040.12	2,771.32	2,609.46	161.87	17.121	
21,200.00	12,136.00	19,036.45	10,073.00	155.53	152.49	-41.93	8,992.20	-1,041.12	2,771.32	2,607.80	163.52	16.948	
21,300.00	12,136.00	19,136.45	10,073.00	157.12	154.09	-41.93	9,092.20	-1,042.11	2,771.32	2,606.15	165.18	16.778	
21,400.00	12,136.00	19,236.45	10,073.00	158.70	155.70	-41.93	9,192.19	-1,043.11	2,771.33	2,604.49	166.83	16.611	
21,500.00	12,136.00	19,336.45	10,073.00	160.29	157.30	-41.93	9,292.19	-1,044.10	2,771.33	2,602.84	168.49	16.448	
21,600.00	12,136.00	19,436.45	10,073.00	161.88	158.91	-41.93	9,392.18	-1,045.09	2,771.33	2,601.18	170.15	16.288	
21,700.00	12,136.00	19,536.45	10,073.00	163.47	160.51	-41.93	9,492.18	-1,046.09	2,771.33	2,599.53	171.80	16.131	
21,800.00	12,136.00	19,636.45	10,073.00	165.06	162.12	-41.93	9,592.17	-1,047.08	2,771.33	2,597.87	173.46	15.976	
21,900.00	12,136.00	19,736.45	10,073.00	166.65	163.73	-41.93	9,692.17	-1,048.08	2,771.34	2,596.21	175.12	15.825	
22,000.00	12,136.00	19,836.45	10,073.00	168.25	165.33	-41.93	9,792.16	-1,049.07	2,771.34	2,594.55	176.79	15.676	
22,100.00	12,136.00	19,936.45	10,073.00	169.84	166.94	-41.93	9,892.16	-1,050.06	2,771.34	2,592.90	178.44	15.531	
22,200.00	12,136.00	20,036.45	10,073.00	171.44	168.55	-41.93	9,992.15	-1,051.06	2,771.34	2,591.24	180.10	15.387	
22,300.00	12,136.00	20,136.45	10,073.00	173.03	170.17	-41.93	10,092.15	-1,052.05	2,771.34	2,589.58	181.77	15.247	
22,343.22	12,136.00	20,179.67	10,073.00	173.72	170.86	-41.93	10,135.36	-1,052.48	2,771.35	2,588.86	182.49	15.187	
22,343.71	12,136.00	20,180.16	10,073.00	173.75	170.87	-41.93	10,135.85	-1,052.49	2,771.35	2,588.85	182.50	15.186	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,843.50	1,843.50	6.37	6.38	8.84	75.06	11.68	75.96	66.95	9.01	8.426	
1,900.00	1,900.00	1,900.50	1,900.50	6.58	6.58	8.84	75.06	11.68	75.96	66.66	9.30	8.165	
2,000.00	2,000.00	2,000.50	2,000.50	6.94	6.94	8.84	75.06	11.68	75.96	66.15	9.81	7.743	
2,100.00	2,099.99	2,101.17	2,101.16	7.28	7.29	-94.37	74.42	12.85	75.61	65.31	10.30	7.340	
2,200.00	2,199.91	2,201.83	2,201.74	7.62	7.62	-94.52	72.52	16.36	74.58	63.80	10.78	6.919	
2,300.00	2,299.69	2,302.48	2,302.16	7.97	7.96	-94.80	69.36	22.20	72.87	61.61	11.26	6.472	
2,400.00	2,399.27	2,403.10	2,402.35	8.31	8.31	-95.20	64.95	30.37	70.47	58.73	11.74	6.000	
2,500.00	2,498.57	2,503.52	2,502.07	8.66	8.66	-95.84	59.34	40.74	67.44	55.20	12.24	5.511	
2,600.00	2,597.54	2,603.43	2,601.21	9.03	9.01	-98.28	53.42	51.66	64.48	51.74	12.74	5.062	
2,700.00	2,696.09	2,703.25	2,700.26	9.40	9.37	-103.28	47.52	62.58	62.20	48.95	13.24	4.697	
2,764.20	2,759.12	2,767.26	2,763.77	9.64	9.60	-107.89	43.73	69.58	61.40	47.84	13.56	4.527	
2,800.00	2,794.20	2,802.92	2,799.15	9.78	9.73	-110.75	41.62	73.48	61.24	47.50	13.74	4.456	
2,819.59	2,813.39	2,822.44	2,818.52	9.85	9.80	-112.33	40.47	75.61	61.21	47.37	13.84	4.423	CC
2,900.00	2,892.20	2,902.55	2,898.01	10.17	10.10	-118.75	35.73	84.38	61.60	47.37	14.24	4.327	ES
3,000.00	2,990.21	3,002.18	2,996.86	10.57	10.47	-126.51	29.83	95.27	63.15	48.42	14.73	4.288	SF
3,100.00	3,088.21	3,101.81	3,095.72	10.97	10.84	-133.77	23.94	106.17	65.80	50.59	15.21	4.326	
3,200.00	3,186.22	3,201.44	3,194.58	11.38	11.21	-140.38	18.04	117.06	69.42	53.73	15.69	4.423	
3,300.00	3,284.22	3,301.07	3,293.43	11.80	11.59	-146.27	12.15	127.96	73.87	57.69	16.18	4.567	
3,400.00	3,382.23	3,400.69	3,392.29	12.22	11.97	-151.44	6.25	138.85	79.01	62.35	16.66	4.742	
3,500.00	3,480.24	3,500.32	3,491.14	12.65	12.35	-155.96	0.36	149.75	84.72	67.57	17.15	4.940	
3,600.00	3,578.24	3,599.95	3,590.00	13.08	12.73	-159.88	-5.54	160.64	90.88	73.24	17.64	5.151	
3,700.00	3,676.25	3,699.58	3,688.85	13.51	13.12	-163.29	-11.43	171.54	97.42	79.28	18.14	5.370	
3,800.00	3,774.25	3,799.21	3,787.71	13.95	13.50	-166.27	-17.33	182.43	104.25	85.61	18.64	5.592	
3,900.00	3,872.26	3,898.84	3,886.57	14.39	13.89	-168.88	-23.22	193.33	111.33	92.19	19.15	5.815	
4,000.00	3,970.26	3,998.47	3,985.42	14.83	14.28	-171.17	-29.12	204.22	118.62	98.96	19.66	6.035	
4,100.00	4,068.27	4,098.10	4,084.28	15.28	14.67	-173.19	-35.01	215.12	126.07	105.90	20.17	6.251	
4,200.00	4,166.27	4,197.72	4,183.13	15.73	15.06	-174.99	-40.91	226.02	133.66	112.98	20.68	6.462	
4,300.00	4,264.28	4,297.35	4,281.99	16.18	15.45	-176.59	-46.80	236.91	141.37	120.16	21.20	6.667	
4,400.00	4,362.28	4,396.98	4,380.84	16.63	15.84	-178.02	-52.70	247.81	149.17	127.45	21.72	6.867	
4,500.00	4,460.29	4,496.61	4,479.70	17.08	16.24	-179.31	-58.59	258.70	157.06	134.82	22.25	7.060	
4,600.00	4,558.29	4,596.24	4,578.56	17.54	16.63	179.52	-64.49	269.60	165.02	142.25	22.77	7.247	
4,700.00	4,656.30	4,695.87	4,677.41	18.00	17.03	178.46	-70.38	280.49	173.05	149.75	23.30	7.427	
4,800.00	4,754.30	4,795.50	4,776.27	18.45	17.42	177.49	-76.28	291.39	181.12	157.30	23.83	7.602	
4,900.00	4,852.31	4,895.13	4,875.12	18.91	17.82	176.61	-82.17	302.28	189.25	164.89	24.36	7.770	
5,000.00	4,950.31	4,994.76	4,973.98	19.37	18.22	175.80	-88.07	313.18	197.41	172.52	24.89	7.932	
5,100.00	5,048.32	5,094.38	5,072.83	19.83	18.61	175.05	-93.96	324.07	205.61	180.19	25.42	8.088	
5,200.00	5,146.33	5,194.01	5,171.69	20.30	19.01	174.36	-99.86	334.97	213.85	187.89	25.95	8.239	
5,300.00	5,244.33	5,293.64	5,270.55	20.76	19.41	173.73	-105.75	345.87	222.11	195.62	26.49	8.385	
5,400.00	5,342.34	5,393.27	5,369.40	21.23	19.81	173.13	-111.65	356.76	230.39	203.37	27.02	8.525	
5,500.00	5,440.34	5,492.90	5,468.26	21.69	20.21	172.58	-117.54	367.66	238.70	211.14	27.56	8.661	
5,600.00	5,538.35	5,592.53	5,567.11	22.16	20.61	172.07	-123.44	378.55	247.03	218.93	28.10	8.792	
5,700.00	5,636.35	5,692.16	5,665.97	22.62	21.01	171.59	-129.33	389.45	255.38	226.74	28.64	8.918	
5,800.00	5,734.36	5,791.79	5,764.82	23.09	21.41	171.14	-135.23	400.34	263.75	234.57	29.18	9.040	
5,900.00	5,832.36	5,891.42	5,863.68	23.56	21.81	170.72	-141.12	411.24	272.13	242.41	29.72	9.157	
6,000.00	5,930.37	5,991.04	5,962.53	24.03	22.21	170.32	-147.02	422.13	280.52	250.26	30.26	9.271	
6,100.00	6,028.37	6,090.67	6,061.39	24.50	22.61	169.95	-152.91	433.03	288.93	258.13	30.80	9.381	
6,200.00	6,126.38	6,190.30	6,160.25	24.97	23.01	169.59	-158.81	443.92	297.35	266.01	31.34	9.488	
6,300.00	6,224.38	6,289.93	6,259.10	25.44	23.42	169.26	-164.70	454.82	305.77	273.89	31.88	9.591	
6,400.00	6,322.39	6,389.56	6,357.96	25.91	23.82	168.95	-170.60	465.71	314.21	281.79	32.43	9.690	
6,500.00	6,420.39	6,489.19	6,456.81	26.38	24.22	168.65	-176.49	476.61	322.66	289.69	32.97	9.787	
6,600.00	6,518.40	6,588.82	6,555.67	26.85	24.62	168.36	-182.39	487.51	331.12	297.60	33.51	9.880	
6,658.66	6,575.89	6,647.25	6,613.65	27.13	24.86	168.20	-185.84	493.90	336.08	302.25	33.83	9.934	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,700.00	6,616.45	6,688.46	6,654.54	27.32	25.03	168.10	-188.28	498.40	339.36	305.30	34.06	9.964	
6,800.00	6,714.90	6,788.25	6,753.55	27.78	25.43	167.78	-194.19	509.32	345.50	310.90	34.60	9.985	
6,900.00	6,813.77	6,888.15	6,852.68	28.21	25.84	167.37	-200.10	520.24	349.10	313.95	35.15	9.932	
7,000.00	6,913.01	6,981.55	6,945.45	28.61	26.21	166.96	-205.22	529.71	350.98	315.31	35.67	9.840	
7,100.00	7,012.53	7,074.02	7,037.54	29.00	26.56	166.65	-209.23	537.13	352.45	316.29	36.16	9.746	
7,200.00	7,112.27	7,166.51	7,129.81	29.36	26.91	166.42	-212.19	542.59	353.51	316.87	36.63	9.649	
7,300.00	7,212.16	7,259.00	7,222.22	29.70	27.24	166.27	-214.08	546.08	354.14	317.07	37.08	9.551	
7,400.00	7,312.14	7,351.49	7,314.69	30.02	27.55	166.20	-214.90	547.60	354.36	316.86	37.50	9.451	
7,422.86	7,335.00	7,372.64	7,335.84	30.09	27.62	-90.64	-214.94	547.67	354.35	316.76	37.59	9.428	
7,450.17	7,362.31	7,399.61	7,362.81	30.18	27.71	-90.64	-214.94	547.68	354.35	316.64	37.71	9.397	
7,500.00	7,412.14	7,449.44	7,412.64	30.32	27.87	-90.64	-214.94	547.68	354.35	316.40	37.94	9.339	
7,600.00	7,512.14	7,549.44	7,512.64	30.63	28.19	-90.64	-214.94	547.68	354.35	315.93	38.41	9.225	
7,700.00	7,612.14	7,649.44	7,612.64	30.93	28.52	-90.64	-214.94	547.68	354.35	315.46	38.88	9.113	
7,800.00	7,712.14	7,749.44	7,712.64	31.23	28.84	-90.64	-214.94	547.68	354.35	314.99	39.35	9.004	
7,900.00	7,812.14	7,849.44	7,812.64	31.54	29.16	-90.64	-214.94	547.68	354.35	314.52	39.83	8.897	
8,000.00	7,912.14	7,949.44	7,912.64	31.84	29.49	-90.64	-214.94	547.68	354.35	314.05	40.30	8.793	
8,100.00	8,012.14	8,049.44	8,012.64	32.15	29.82	-90.64	-214.94	547.68	354.35	313.57	40.77	8.691	
8,200.00	8,112.14	8,149.44	8,112.64	32.46	30.14	-90.64	-214.94	547.68	354.35	313.10	41.25	8.591	
8,300.00	8,212.14	8,249.44	8,212.64	32.76	30.47	-90.64	-214.94	547.68	354.35	312.62	41.72	8.493	
8,400.00	8,312.14	8,349.44	8,312.64	33.07	30.80	-90.64	-214.94	547.68	354.35	312.15	42.20	8.397	
8,500.00	8,412.14	8,449.44	8,412.64	33.39	31.13	-90.64	-214.94	547.68	354.35	311.67	42.68	8.303	
8,600.00	8,512.14	8,549.44	8,512.64	33.70	31.46	-90.64	-214.94	547.68	354.35	311.19	43.15	8.211	
8,700.00	8,612.14	8,649.44	8,612.64	34.01	31.79	-90.64	-214.94	547.68	354.35	310.72	43.63	8.121	
8,800.00	8,712.14	8,749.44	8,712.64	34.32	32.12	-90.64	-214.94	547.68	354.35	310.24	44.11	8.033	
8,900.00	8,812.14	8,849.44	8,812.64	34.64	32.45	-90.64	-214.94	547.68	354.35	309.76	44.59	7.947	
9,000.00	8,912.14	8,949.44	8,912.64	34.95	32.78	-90.64	-214.94	547.68	354.35	309.28	45.07	7.862	
9,100.00	9,012.14	9,049.44	9,012.64	35.27	33.12	-90.64	-214.94	547.68	354.35	308.80	45.55	7.779	
9,200.00	9,112.14	9,149.44	9,112.64	35.59	33.45	-90.64	-214.94	547.68	354.35	308.32	46.03	7.698	
9,300.00	9,212.14	9,249.44	9,212.64	35.90	33.78	-90.64	-214.94	547.68	354.35	307.83	46.51	7.618	
9,400.00	9,312.14	9,349.44	9,312.64	36.22	34.12	-90.64	-214.94	547.68	354.35	307.35	46.99	7.540	
9,497.12	9,409.26	9,446.57	9,409.76	36.53	34.44	-90.57	-214.53	547.67	354.35	306.89	47.46	7.466	
9,500.00	9,412.14	9,449.44	9,412.64	36.54	34.45	-90.55	-214.41	547.67	354.35	306.87	47.47	7.464	
9,500.19	9,412.33	9,449.64	9,412.83	36.54	34.45	-90.55	-214.40	547.67	354.35	306.87	47.47	7.464	
9,600.00	9,512.14	9,547.62	9,509.88	36.86	34.75	-88.52	-201.84	547.55	354.58	306.74	47.84	7.411	
9,700.00	9,612.14	9,639.03	9,597.28	37.18	35.00	-84.26	-175.37	547.28	356.83	308.82	48.01	7.432	
9,800.00	9,712.14	9,720.35	9,670.62	37.50	35.18	-78.76	-140.41	546.93	364.45	316.58	47.86	7.614	
9,900.00	9,812.14	9,790.45	9,729.34	37.83	35.31	-72.98	-102.20	546.55	380.94	333.74	47.21	8.070	
10,000.00	9,912.14	9,850.00	9,775.24	38.15	35.40	-67.60	-64.31	546.18	408.66	362.69	45.97	8.889	
10,100.00	10,012.14	9,900.00	9,810.58	38.47	35.46	-62.93	-28.96	545.82	448.14	403.85	44.29	10.119	
10,200.00	10,112.14	9,950.00	9,842.70	38.80	35.51	-58.29	9.34	545.44	498.55	455.84	42.71	11.674	
10,300.00	10,212.14	9,977.11	9,858.68	39.12	35.52	-55.83	31.23	545.22	557.90	517.30	40.60	13.741	
10,400.00	10,312.14	10,000.00	9,871.35	39.44	35.54	-53.80	50.29	545.03	624.85	586.09	38.76	16.122	
10,500.00	10,412.14	10,032.88	9,888.21	39.77	35.55	-50.98	78.51	544.75	697.48	659.87	37.61	18.544	
10,600.00	10,512.14	10,050.00	9,896.33	40.10	35.56	-49.56	93.58	544.60	774.81	738.47	36.35	21.316	
10,700.00	10,612.14	10,074.26	9,907.07	40.42	35.56	-47.62	115.33	544.39	855.69	820.12	35.57	24.057	
10,800.00	10,712.14	10,100.00	9,917.45	40.75	35.57	-45.64	138.89	544.15	939.58	904.54	35.04	26.816	
10,900.00	10,812.14	10,100.00	9,917.45	41.08	35.57	-45.64	138.89	544.15	1,025.60	991.43	34.17	30.013	
11,000.00	10,912.14	10,119.01	9,924.42	41.41	35.57	-44.25	156.57	543.98	1,113.49	1,079.64	33.85	32.890	
11,100.00	11,012.14	10,130.70	9,928.42	41.74	35.57	-43.41	167.56	543.87	1,202.95	1,169.42	33.53	35.872	
11,200.00	11,112.14	10,150.00	9,934.53	42.06	35.57	-42.08	185.86	543.68	1,293.77	1,260.34	33.43	38.699	
11,300.00	11,212.14	10,150.00	9,934.53	42.39	35.57	-42.08	185.86	543.68	1,385.45	1,352.30	33.15	41.798	
11,400.00	11,312.14	10,150.00	9,934.53	42.72	35.57	-42.08	185.86	543.68	1,478.20	1,445.24	32.96	44.850	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,500.00	11,412.14	10,150.00	9,934.53	43.06	35.57	-42.08	185.86	543.68	1,571.85	1,539.00	32.85	47.845	
11,600.00	11,512.14	10,174.02	9,941.26	43.39	35.57	-40.49	208.91	543.45	1,665.57	1,632.52	33.04	50.407	
11,650.90	11,563.04	10,177.39	9,942.13	43.56	35.57	-40.28	212.17	543.42	1,713.66	1,680.60	33.06	51.831	
11,700.00	11,612.08	10,181.02	9,943.04	43.72	35.57	-31.89	215.68	543.39	1,759.61	1,726.53	33.08	53.195	
11,750.00	11,661.65	10,200.00	9,947.45	43.87	35.57	-25.93	234.14	543.20	1,805.40	1,772.19	33.21	54.369	
11,800.00	11,710.46	10,200.00	9,947.45	44.02	35.57	-22.19	234.14	543.20	1,849.30	1,816.16	33.15	55.791	
11,850.00	11,758.16	10,200.00	9,947.45	44.16	35.57	-19.40	234.14	543.20	1,891.51	1,858.43	33.07	57.189	
11,900.00	11,804.37	10,200.00	9,947.45	44.29	35.57	-17.25	234.14	543.20	1,931.81	1,898.82	33.00	58.548	
11,950.00	11,848.74	10,200.00	9,947.45	44.41	35.57	-15.58	234.14	543.20	1,970.03	1,937.12	32.91	59.858	
12,000.00	11,890.94	10,200.00	9,947.45	44.51	35.57	-14.24	234.14	543.20	2,006.01	1,973.18	32.83	61.108	
12,050.00	11,930.64	10,226.88	9,952.64	44.60	35.57	-13.03	260.51	542.94	2,038.80	2,005.91	32.89	61.981	
12,100.00	11,967.55	10,250.00	9,956.12	44.68	35.58	-12.09	283.36	542.71	2,069.50	2,036.57	32.92	62.856	
12,150.00	12,001.37	10,250.00	9,956.12	44.74	35.58	-11.42	283.36	542.71	2,096.92	2,064.10	32.83	63.877	
12,200.00	12,031.86	10,250.00	9,956.12	44.80	35.58	-10.87	283.36	542.71	2,121.57	2,088.82	32.74	64.792	
12,250.00	12,058.79	10,250.00	9,956.12	44.84	35.58	-10.42	283.36	542.71	2,143.35	2,110.67	32.68	65.589	
12,300.00	12,081.94	10,273.40	9,958.69	44.87	35.60	-10.03	306.62	542.48	2,161.58	2,128.87	32.70	66.096	
12,350.00	12,101.14	10,300.00	9,960.46	44.90	35.65	-9.72	333.16	542.22	2,177.07	2,144.34	32.74	66.502	
12,400.00	12,116.24	10,300.00	9,960.46	44.92	35.65	-9.52	333.16	542.22	2,188.72	2,156.01	32.71	66.918	
12,450.00	12,127.14	10,300.00	9,960.46	44.95	35.65	-9.37	333.16	542.22	2,197.24	2,164.54	32.71	67.182	
12,500.00	12,133.74	10,314.32	9,960.90	44.99	35.68	-9.28	347.47	542.07	2,202.40	2,169.65	32.75	67.249	
12,550.90	12,136.00	10,325.25	9,961.00	45.03	35.71	-9.25	358.40	541.97	2,204.17	2,171.36	32.81	67.181	
12,600.00	12,136.00	10,374.35	9,961.00	45.10	35.85	-9.25	407.50	541.48	2,204.17	2,171.27	32.91	66.985	
12,700.00	12,136.00	10,474.35	9,961.00	45.28	36.22	-9.25	507.50	540.48	2,204.17	2,171.05	33.13	66.535	
12,800.00	12,136.00	10,574.35	9,961.00	45.54	36.66	-9.25	607.49	539.49	2,204.18	2,170.79	33.39	66.016	
12,900.00	12,136.00	10,674.35	9,961.00	45.88	37.15	-9.25	707.49	538.49	2,204.18	2,170.49	33.69	65.431	
13,000.00	12,136.00	10,774.35	9,961.00	46.30	37.72	-9.25	807.48	537.49	2,204.18	2,170.15	34.02	64.786	
13,100.00	12,136.00	10,874.35	9,961.00	46.78	38.33	-9.25	907.48	536.50	2,204.18	2,169.78	34.39	64.088	
13,200.00	12,136.00	10,974.35	9,961.00	47.33	39.01	-9.25	1,007.47	535.50	2,204.18	2,169.38	34.80	63.341	
13,300.00	12,136.00	11,074.35	9,961.00	47.94	39.74	-9.25	1,107.47	534.51	2,204.18	2,168.94	35.24	62.552	
13,400.00	12,136.00	11,174.35	9,961.00	48.60	40.53	-9.25	1,207.46	533.51	2,204.18	2,168.47	35.71	61.727	
13,500.00	12,136.00	11,274.35	9,961.00	49.31	41.36	-9.25	1,307.46	532.51	2,204.18	2,167.97	36.21	60.872	
13,600.00	12,136.00	11,374.35	9,961.00	50.06	42.24	-9.25	1,407.45	531.52	2,204.18	2,167.44	36.74	59.991	
13,700.00	12,136.00	11,474.35	9,961.00	50.86	43.17	-9.25	1,507.45	530.52	2,204.18	2,166.88	37.30	59.091	
13,800.00	12,136.00	11,574.35	9,961.00	51.70	44.14	-9.25	1,607.44	529.53	2,204.18	2,166.30	37.89	58.176	
13,900.00	12,136.00	11,674.35	9,961.00	52.58	45.14	-9.25	1,707.44	528.53	2,204.18	2,165.68	38.50	57.252	
14,000.00	12,136.00	11,774.35	9,961.00	53.49	46.18	-9.25	1,807.43	527.54	2,204.18	2,165.05	39.14	56.321	
14,100.00	12,136.00	11,874.35	9,961.00	54.44	47.26	-9.25	1,907.43	526.54	2,204.19	2,164.39	39.80	55.387	
14,200.00	12,136.00	11,974.35	9,961.00	55.43	48.37	-9.25	2,007.42	525.54	2,204.19	2,163.71	40.48	54.453	
14,300.00	12,136.00	12,074.35	9,961.00	56.44	49.51	-9.25	2,107.42	524.55	2,204.19	2,163.00	41.18	53.522	
14,400.00	12,136.00	12,174.35	9,961.00	57.49	50.68	-9.25	2,207.41	523.55	2,204.19	2,162.28	41.91	52.597	
14,500.00	12,136.00	12,274.35	9,961.00	58.56	51.87	-9.25	2,307.41	522.56	2,204.19	2,161.54	42.65	51.681	
14,600.00	12,136.00	12,374.35	9,961.00	59.66	53.09	-9.25	2,407.40	521.56	2,204.19	2,160.78	43.41	50.776	
14,700.00	12,136.00	12,474.35	9,961.00	60.78	54.33	-9.25	2,507.40	520.56	2,204.19	2,160.00	44.19	49.883	
14,800.00	12,136.00	12,574.35	9,961.00	61.93	55.59	-9.25	2,607.39	519.57	2,204.19	2,159.21	44.98	49.003	
14,900.00	12,136.00	12,674.35	9,961.00	63.10	56.87	-9.25	2,707.39	518.57	2,204.19	2,158.40	45.79	48.137	
15,000.00	12,136.00	12,774.35	9,961.00	64.29	58.17	-9.25	2,807.38	517.58	2,204.19	2,157.58	46.61	47.287	
15,100.00	12,136.00	12,874.35	9,961.00	65.50	59.49	-9.25	2,907.38	516.58	2,204.19	2,156.74	47.45	46.452	
15,200.00	12,136.00	12,974.35	9,961.00	66.73	60.82	-9.26	3,007.37	515.59	2,204.19	2,155.89	48.30	45.634	
15,300.00	12,136.00	13,074.35	9,961.00	67.98	62.17	-9.26	3,107.37	514.59	2,204.19	2,155.03	49.16	44.833	
15,400.00	12,136.00	13,174.35	9,961.00	69.24	63.53	-9.26	3,207.36	513.59	2,204.20	2,154.16	50.04	44.050	
15,500.00	12,136.00	13,274.35	9,961.00	70.52	64.91	-9.26	3,307.36	512.60	2,204.20	2,153.27	50.92	43.283	
15,600.00	12,136.00	13,374.35	9,961.00	71.82	66.30	-9.26	3,407.35	511.60	2,204.20	2,152.38	51.82	42.535	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,700.00	12,136.00	13,474.35	9,961.00	73.13	67.70	-9.26	3,507.35	510.61	2,204.20	2,151.47	52.73	41.803	
15,800.00	12,136.00	13,574.35	9,961.00	74.45	69.11	-9.26	3,607.34	509.61	2,204.20	2,150.55	53.64	41.089	
15,900.00	12,136.00	13,674.35	9,961.00	75.78	70.53	-9.26	3,707.34	508.61	2,204.20	2,149.63	54.57	40.393	
16,000.00	12,136.00	13,774.35	9,961.00	77.13	71.97	-9.26	3,807.33	507.62	2,204.20	2,148.70	55.50	39.713	
16,100.00	12,136.00	13,874.35	9,961.00	78.49	73.41	-9.26	3,907.33	506.62	2,204.20	2,147.76	56.44	39.051	
16,200.00	12,136.00	13,974.35	9,961.00	79.86	74.86	-9.26	4,007.32	505.63	2,204.20	2,146.81	57.39	38.406	
16,300.00	12,136.00	14,074.35	9,961.00	81.24	76.32	-9.26	4,107.32	504.63	2,204.20	2,145.85	58.35	37.777	
16,400.00	12,136.00	14,174.35	9,961.00	82.64	77.78	-9.26	4,207.31	503.64	2,204.20	2,144.89	59.31	37.164	
16,500.00	12,136.00	14,274.36	9,961.00	84.04	79.25	-9.26	4,307.31	502.64	2,204.20	2,143.92	60.28	36.566	
16,600.00	12,136.00	14,374.36	9,961.00	85.45	80.73	-9.26	4,407.30	501.64	2,204.20	2,142.95	61.26	35.983	
16,700.00	12,136.00	14,474.36	9,961.00	86.86	82.22	-9.26	4,507.30	500.65	2,204.21	2,141.97	62.24	35.415	
16,800.00	12,136.00	14,574.36	9,961.00	88.29	83.71	-9.26	4,607.29	499.65	2,204.21	2,140.98	63.23	34.861	
16,900.00	12,136.00	14,674.36	9,961.00	89.72	85.21	-9.26	4,707.29	498.66	2,204.21	2,139.99	64.22	34.322	
17,000.00	12,136.00	14,774.36	9,961.00	91.17	86.72	-9.26	4,807.28	497.66	2,204.21	2,138.99	65.22	33.797	
17,100.00	12,136.00	14,874.36	9,961.00	92.61	88.23	-9.26	4,907.28	496.66	2,204.21	2,137.99	66.22	33.285	
17,200.00	12,136.00	14,974.36	9,961.00	94.07	89.74	-9.26	5,007.27	495.67	2,204.21	2,136.98	67.23	32.786	
17,300.00	12,136.00	15,074.36	9,961.00	95.53	91.26	-9.26	5,107.27	494.67	2,204.21	2,135.97	68.24	32.300	
17,400.00	12,136.00	15,174.36	9,961.00	97.00	92.79	-9.26	5,207.26	493.68	2,204.21	2,134.95	69.26	31.826	
17,500.00	12,136.00	15,274.36	9,961.00	98.47	94.31	-9.26	5,307.26	492.68	2,204.21	2,133.93	70.28	31.363	
17,600.00	12,136.00	15,374.36	9,961.00	99.95	95.85	-9.26	5,407.25	491.69	2,204.21	2,132.91	71.31	30.912	
17,700.00	12,136.00	15,474.36	9,961.00	101.44	97.38	-9.26	5,507.25	490.69	2,204.21	2,131.88	72.33	30.473	
17,800.00	12,136.00	15,574.36	9,961.00	102.92	98.92	-9.26	5,607.24	489.69	2,204.21	2,130.85	73.37	30.044	
17,900.00	12,136.00	15,674.36	9,961.00	104.42	100.47	-9.26	5,707.24	488.70	2,204.21	2,129.81	74.40	29.626	
18,000.00	12,136.00	15,774.36	9,961.00	105.92	102.01	-9.26	5,807.23	487.70	2,204.22	2,128.78	75.44	29.218	
18,100.00	12,136.00	15,874.36	9,961.00	107.42	103.56	-9.26	5,907.23	486.71	2,204.22	2,127.73	76.48	28.820	
18,200.00	12,136.00	15,974.36	9,961.00	108.93	105.12	-9.26	6,007.22	485.71	2,204.22	2,126.69	77.53	28.432	
18,300.00	12,136.00	16,074.36	9,961.00	110.44	106.67	-9.26	6,107.22	484.71	2,204.22	2,125.64	78.57	28.053	
18,400.00	12,136.00	16,174.36	9,961.00	111.96	108.23	-9.26	6,207.21	483.72	2,204.22	2,124.59	79.62	27.683	
18,500.00	12,136.00	16,274.36	9,961.00	113.48	109.79	-9.26	6,307.21	482.72	2,204.22	2,123.54	80.68	27.321	
18,600.00	12,136.00	16,374.36	9,961.00	115.00	111.36	-9.26	6,407.20	481.73	2,204.22	2,122.49	81.73	26.968	
18,700.00	12,136.00	16,474.36	9,961.00	116.53	112.92	-9.26	6,507.20	480.73	2,204.22	2,121.43	82.79	26.623	
18,800.00	12,136.00	16,574.36	9,961.00	118.06	114.49	-9.26	6,607.19	479.74	2,204.22	2,120.37	83.85	26.287	
18,900.00	12,136.00	16,674.36	9,961.00	119.59	116.07	-9.26	6,707.19	478.74	2,204.22	2,119.31	84.92	25.958	
19,000.00	12,136.00	16,774.36	9,961.00	121.13	117.64	-9.26	6,807.18	477.74	2,204.22	2,118.24	85.98	25.637	
19,100.00	12,136.00	16,874.36	9,961.00	122.67	119.22	-9.26	6,907.18	476.75	2,204.22	2,117.18	87.05	25.322	
19,200.00	12,136.00	16,974.36	9,961.00	124.21	120.79	-9.26	7,007.17	475.75	2,204.22	2,116.11	88.12	25.015	
19,300.00	12,136.00	17,074.36	9,961.00	125.75	122.37	-9.26	7,107.17	474.76	2,204.23	2,115.04	89.19	24.715	
19,400.00	12,136.00	17,174.36	9,961.00	127.30	123.96	-9.26	7,207.16	473.76	2,204.23	2,113.97	90.26	24.421	
19,500.00	12,136.00	17,274.36	9,961.00	128.85	125.54	-9.26	7,307.16	472.76	2,204.23	2,112.89	91.33	24.134	
19,600.00	12,136.00	17,374.36	9,961.00	130.41	127.12	-9.26	7,407.15	471.77	2,204.23	2,111.82	92.41	23.853	
19,700.00	12,136.00	17,474.36	9,961.00	131.96	128.71	-9.26	7,507.15	470.77	2,204.23	2,110.74	93.49	23.578	
19,800.00	12,136.00	17,574.36	9,961.00	133.52	130.30	-9.26	7,607.14	469.78	2,204.23	2,109.66	94.57	23.308	
19,900.00	12,136.00	17,674.36	9,961.00	135.08	131.89	-9.26	7,707.14	468.78	2,204.23	2,108.58	95.65	23.045	
20,000.00	12,136.00	17,774.36	9,961.00	136.64	133.48	-9.26	7,807.13	467.79	2,204.23	2,107.50	96.73	22.787	
20,100.00	12,136.00	17,874.36	9,961.00	138.21	135.08	-9.26	7,907.13	466.79	2,204.23	2,106.42	97.81	22.535	
20,200.00	12,136.00	17,974.36	9,961.00	139.77	136.67	-9.26	8,007.12	465.79	2,204.23	2,105.33	98.90	22.287	
20,300.00	12,136.00	18,074.36	9,961.00	141.34	138.27	-9.26	8,107.12	464.80	2,204.23	2,104.25	99.99	22.045	
20,400.00	12,136.00	18,174.36	9,961.00	142.91	139.86	-9.26	8,207.11	463.80	2,204.23	2,103.16	101.07	21.808	
20,500.00	12,136.00	18,274.36	9,961.00	144.48	141.46	-9.26	8,307.11	462.81	2,204.23	2,102.07	102.16	21.575	
20,600.00	12,136.00	18,374.36	9,961.00	146.06	143.06	-9.26	8,407.10	461.81	2,204.24	2,100.98	103.25	21.348	
20,700.00	12,136.00	18,474.36	9,961.00	147.63	144.66	-9.26	8,507.10	460.81	2,204.24	2,099.89	104.35	21.124	
20,800.00	12,136.00	18,574.36	9,961.00	149.21	146.27	-9.26	8,607.09	459.82	2,204.24	2,098.80	105.44	20.905	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**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 Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
20,900.00	12,136.00	18,674.36	9,961.00	150.79	147.87	-9.26	8,707.09	458.82	2,204.24	2,097.70	106.53	20.691	
21,000.00	12,136.00	18,774.36	9,961.00	152.37	149.47	-9.26	8,807.08	457.83	2,204.24	2,096.61	107.63	20.480	
21,100.00	12,136.00	18,874.36	9,961.00	153.95	151.08	-9.26	8,907.08	456.83	2,204.24	2,095.52	108.72	20.274	
21,200.00	12,136.00	18,974.36	9,961.00	155.53	152.69	-9.26	9,007.07	455.84	2,204.24	2,094.42	109.82	20.072	
21,300.00	12,136.00	19,074.36	9,961.00	157.12	154.29	-9.26	9,107.07	454.84	2,204.24	2,093.33	110.92	19.873	
21,400.00	12,136.00	19,174.36	9,961.00	158.70	155.90	-9.26	9,207.06	453.84	2,204.24	2,092.23	112.01	19.678	
21,500.00	12,136.00	19,274.36	9,961.00	160.29	157.51	-9.26	9,307.06	452.85	2,204.24	2,091.13	113.11	19.487	
21,600.00	12,136.00	19,374.36	9,961.00	161.88	159.12	-9.26	9,407.05	451.85	2,204.24	2,090.03	114.22	19.299	
21,700.00	12,136.00	19,474.36	9,961.00	163.47	160.73	-9.26	9,507.05	450.86	2,204.24	2,088.93	115.32	19.114	
21,800.00	12,136.00	19,574.36	9,961.00	165.06	162.34	-9.26	9,607.04	449.86	2,204.24	2,087.82	116.42	18.934	
21,900.00	12,136.00	19,674.36	9,961.00	166.65	163.96	-9.26	9,707.04	448.86	2,204.25	2,086.72	117.52	18.756	
22,000.00	12,136.00	19,774.36	9,961.00	168.25	165.57	-9.26	9,807.03	447.87	2,204.25	2,085.62	118.63	18.582	
22,100.00	12,136.00	19,874.36	9,961.00	169.84	167.18	-9.26	9,907.03	446.87	2,204.25	2,084.52	119.73	18.410	
22,200.00	12,136.00	19,974.36	9,961.00	171.44	168.80	-9.26	10,007.02	445.88	2,204.25	2,083.41	120.83	18.242	
22,300.00	12,136.00	20,074.36	9,961.00	173.03	170.41	-9.26	10,107.02	444.88	2,204.25	2,082.31	121.94	18.077	
22,343.22	12,136.00	20,117.57	9,961.00	173.72	171.11	-9.26	10,150.24	444.45	2,204.25	2,081.83	122.42	18.006	
22,343.71	12,136.00	20,118.07	9,961.00	173.75	171.12	-9.26	10,150.73	444.45	2,204.25	2,081.82	122.43	18.005	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 801H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,842.10	1,842.10	6.37	6.37	-90.54	-0.47	-50.13	50.13	41.12	9.01	5.563	
1,900.00	1,900.00	1,899.10	1,899.10	6.58	6.57	-90.54	-0.47	-50.13	50.13	40.83	9.30	5.390	
2,000.00	2,000.00	1,999.10	1,999.10	6.94	6.93	-90.54	-0.47	-50.13	50.13	40.32	9.81	5.112	CC, ES, SF
2,100.00	2,099.99	2,097.79	2,097.78	7.28	7.28	166.31	-0.77	-51.35	52.64	42.35	10.29	5.114	
2,200.00	2,199.91	2,196.09	2,196.00	7.62	7.61	166.33	-1.66	-55.02	60.19	49.44	10.76	5.596	
2,300.00	2,299.69	2,293.64	2,293.35	7.97	7.94	166.35	-3.15	-61.09	72.76	61.54	11.21	6.488	
2,400.00	2,399.27	2,390.09	2,389.42	8.31	8.28	166.35	-5.20	-69.46	90.28	78.62	11.66	7.740	
2,500.00	2,498.57	2,485.10	2,483.79	8.66	8.61	166.33	-7.77	-80.01	112.69	100.58	12.11	9.309	
2,600.00	2,597.54	2,578.33	2,576.12	9.03	8.95	166.30	-10.85	-92.58	139.88	127.34	12.54	11.158	
2,700.00	2,696.09	2,669.50	2,666.08	9.40	9.28	166.25	-14.37	-106.98	171.74	158.79	12.96	13.256	
2,764.20	2,759.12	2,726.83	2,722.45	9.64	9.50	166.22	-16.84	-117.10	194.61	181.39	13.22	14.721	
2,800.00	2,794.20	2,758.40	2,753.43	9.78	9.61	166.23	-18.29	-123.03	208.00	194.64	13.36	15.564	
2,900.00	2,892.20	2,850.73	2,843.92	10.17	9.97	166.24	-22.64	-140.81	245.89	232.06	13.82	17.787	
3,000.00	2,990.21	2,943.27	2,934.63	10.57	10.34	166.25	-26.99	-158.64	283.78	269.49	14.29	19.857	
3,100.00	3,088.21	3,035.81	3,025.33	10.97	10.71	166.26	-31.35	-176.47	321.67	306.91	14.76	21.793	
3,200.00	3,186.22	3,128.36	3,116.04	11.38	11.09	166.26	-35.71	-194.30	359.56	344.33	15.23	23.604	
3,300.00	3,284.22	3,220.90	3,206.74	11.80	11.47	166.26	-40.07	-212.13	397.45	381.74	15.71	25.301	
3,400.00	3,382.23	3,313.45	3,297.45	12.22	11.85	166.27	-44.43	-229.95	435.34	419.15	16.19	26.895	
3,500.00	3,480.24	3,405.99	3,388.15	12.65	12.25	166.27	-48.78	-247.78	473.23	456.56	16.67	28.394	
3,600.00	3,578.24	3,498.53	3,478.86	13.08	12.64	166.27	-53.14	-265.61	511.12	493.97	17.15	29.805	
3,700.00	3,676.25	3,591.08	3,569.56	13.51	13.04	166.27	-57.50	-283.44	549.01	531.38	17.63	31.135	
3,800.00	3,774.25	3,683.62	3,660.27	13.95	13.44	166.28	-61.86	-301.27	586.90	568.78	18.12	32.391	
3,900.00	3,872.26	3,776.16	3,750.98	14.39	13.84	166.28	-66.22	-319.10	624.79	606.18	18.61	33.578	
4,000.00	3,970.26	3,868.71	3,841.68	14.83	14.25	166.28	-70.58	-336.93	662.68	643.58	19.10	34.701	
4,100.00	4,068.27	3,961.25	3,932.39	15.28	14.66	166.28	-74.93	-354.75	700.57	680.98	19.59	35.765	
4,200.00	4,166.27	4,053.80	4,023.09	15.73	15.07	166.28	-79.29	-372.58	738.46	718.38	20.08	36.775	
4,300.00	4,264.28	4,146.34	4,113.80	16.18	15.48	166.28	-83.65	-390.41	776.35	755.77	20.57	37.734	
4,400.00	4,362.28	4,238.88	4,204.50	16.63	15.90	166.28	-88.01	-408.24	814.24	793.17	21.07	38.646	
4,500.00	4,460.29	4,331.43	4,295.21	17.08	16.32	166.28	-92.37	-426.07	852.13	830.56	21.57	39.514	
4,600.00	4,558.29	4,423.97	4,385.91	17.54	16.74	166.28	-96.72	-443.90	890.02	867.96	22.06	40.341	
4,700.00	4,656.30	4,516.51	4,476.62	18.00	17.16	166.29	-101.08	-461.73	927.91	905.35	22.56	41.130	
4,800.00	4,754.30	4,609.06	4,567.33	18.45	17.58	166.29	-105.44	-479.56	965.80	942.74	23.06	41.883	
4,900.00	4,852.31	4,701.60	4,658.03	18.91	18.00	166.29	-109.80	-497.38	1,003.69	980.13	23.56	42.602	
5,000.00	4,950.31	4,794.15	4,748.74	19.37	18.42	166.29	-114.16	-515.21	1,041.58	1,017.52	24.06	43.290	
5,100.00	5,048.32	4,886.69	4,839.44	19.83	18.85	166.29	-118.51	-533.04	1,079.47	1,054.91	24.56	43.948	
5,200.00	5,146.33	4,979.23	4,930.15	20.30	19.27	166.29	-122.87	-550.87	1,117.36	1,092.29	25.06	44.579	
5,300.00	5,244.33	5,071.78	5,020.85	20.76	19.70	166.29	-127.23	-568.70	1,155.25	1,129.68	25.57	45.183	
5,400.00	5,342.34	5,164.32	5,111.56	21.23	20.13	166.29	-131.59	-586.53	1,193.14	1,167.07	26.07	45.763	
5,500.00	5,440.34	5,256.86	5,202.26	21.69	20.56	166.29	-135.95	-604.36	1,231.03	1,204.45	26.58	46.320	
5,600.00	5,538.35	5,349.41	5,292.97	22.16	20.99	166.29	-140.31	-622.18	1,268.92	1,241.84	27.08	46.855	
5,700.00	5,636.35	5,441.95	5,383.67	22.62	21.42	166.29	-144.66	-640.01	1,306.81	1,279.22	27.59	47.369	
5,800.00	5,734.36	5,534.50	5,474.38	23.09	21.85	166.29	-149.02	-657.84	1,344.70	1,316.61	28.09	47.864	
5,900.00	5,832.36	5,627.04	5,565.09	23.56	22.28	166.29	-153.38	-675.67	1,382.59	1,353.99	28.60	48.341	
6,000.00	5,930.37	5,719.58	5,655.79	24.03	22.71	166.29	-157.74	-693.50	1,420.48	1,391.37	29.11	48.800	
6,100.00	6,028.37	5,812.13	5,746.50	24.50	23.14	166.29	-162.10	-711.33	1,458.37	1,428.75	29.62	49.242	
6,200.00	6,126.38	5,904.67	5,837.20	24.97	23.58	166.29	-166.45	-729.16	1,496.26	1,466.13	30.13	49.668	
6,300.00	6,224.38	5,997.21	5,927.91	25.44	24.01	166.29	-170.81	-746.99	1,534.15	1,503.52	30.63	50.080	
6,400.00	6,322.39	6,089.76	6,018.61	25.91	24.45	166.29	-175.17	-764.81	1,572.04	1,540.90	31.14	50.477	
6,500.00	6,420.39	6,182.30	6,109.32	26.38	24.88	166.29	-179.53	-782.64	1,609.93	1,578.28	31.65	50.861	
6,600.00	6,518.40	6,274.85	6,200.02	26.85	25.32	166.29	-183.89	-800.47	1,647.82	1,615.66	32.16	51.232	
6,658.66	6,575.89	6,329.13	6,253.23	27.13	25.57	166.29	-186.44	-810.93	1,670.04	1,637.58	32.46	51.444	
6,700.00	6,616.45	6,367.47	6,290.81	27.32	25.75	166.35	-188.25	-818.32	1,685.51	1,652.83	32.67	51.585	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 801H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,460.87	6,382.35	27.78	26.19	166.46	-192.65	-836.31	1,721.24	1,688.05	33.19	51.867	
6,900.00	6,813.77	6,555.13	6,474.75	28.21	26.64	166.55	-197.09	-854.47	1,754.58	1,720.88	33.70	52.069	
7,000.00	6,913.01	6,650.21	6,567.93	28.61	27.09	166.60	-201.56	-872.79	1,785.51	1,751.30	34.21	52.194	
7,100.00	7,012.53	6,811.94	6,726.95	29.00	27.83	166.59	-208.56	-901.40	1,812.61	1,777.53	35.09	51.662	
7,200.00	7,112.27	6,994.62	6,907.87	29.36	28.60	166.57	-214.54	-925.86	1,832.87	1,796.87	36.00	50.909	
7,300.00	7,212.16	7,181.08	7,093.55	29.70	29.30	166.55	-218.52	-942.15	1,846.00	1,809.15	36.85	50.095	
7,400.00	7,312.14	7,369.72	7,282.01	30.02	29.94	166.54	-220.35	-949.64	1,851.83	1,814.21	37.62	49.227	
7,422.86	7,335.00	7,412.97	7,325.26	30.09	30.08	-90.29	-220.46	-950.09	1,852.13	1,814.35	37.78	49.023	
7,500.00	7,412.14	7,498.95	7,411.24	30.32	30.34	-90.29	-220.47	-950.13	1,852.15	1,813.99	38.16	48.534	
7,600.00	7,512.14	7,598.95	7,511.24	30.63	30.64	-90.29	-220.47	-950.13	1,852.15	1,813.52	38.63	47.947	
7,700.00	7,612.14	7,698.95	7,611.24	30.93	30.94	-90.29	-220.47	-950.13	1,852.15	1,813.06	39.10	47.373	
7,800.00	7,712.14	7,798.95	7,711.24	31.23	31.24	-90.29	-220.47	-950.13	1,852.15	1,812.59	39.57	46.811	
7,900.00	7,812.14	7,898.95	7,811.24	31.54	31.55	-90.29	-220.47	-950.13	1,852.15	1,812.12	40.04	46.262	
8,000.00	7,912.14	7,998.95	7,911.24	31.84	31.85	-90.29	-220.47	-950.13	1,852.15	1,811.65	40.51	45.724	
8,100.00	8,012.14	8,098.95	8,011.24	32.15	32.16	-90.29	-220.47	-950.13	1,852.15	1,811.18	40.98	45.198	
8,200.00	8,112.14	8,198.95	8,111.24	32.46	32.46	-90.29	-220.47	-950.13	1,852.15	1,810.70	41.45	44.682	
8,300.00	8,212.14	8,298.95	8,211.24	32.76	32.77	-90.29	-220.47	-950.13	1,852.15	1,810.23	41.92	44.178	
8,400.00	8,312.14	8,398.95	8,311.24	33.07	33.08	-90.29	-220.47	-950.13	1,852.15	1,809.76	42.40	43.684	
8,500.00	8,412.14	8,498.95	8,411.24	33.39	33.39	-90.29	-220.47	-950.13	1,852.15	1,809.28	42.87	43.200	
8,600.00	8,512.14	8,598.95	8,511.24	33.70	33.70	-90.29	-220.47	-950.13	1,852.15	1,808.80	43.35	42.726	
8,700.00	8,612.14	8,698.95	8,611.24	34.01	34.02	-90.29	-220.47	-950.13	1,852.15	1,808.33	43.83	42.262	
8,800.00	8,712.14	8,798.95	8,711.24	34.32	34.33	-90.29	-220.47	-950.13	1,852.15	1,807.85	44.30	41.807	
8,900.00	8,812.14	8,898.95	8,811.24	34.64	34.64	-90.29	-220.47	-950.13	1,852.15	1,807.37	44.78	41.361	
9,000.00	8,912.14	8,998.95	8,911.24	34.95	34.96	-90.29	-220.47	-950.13	1,852.15	1,806.90	45.26	40.924	
9,100.00	9,012.14	9,098.95	9,011.24	35.27	35.27	-90.29	-220.47	-950.13	1,852.15	1,806.42	45.74	40.495	
9,200.00	9,112.14	9,198.95	9,111.24	35.59	35.59	-90.29	-220.47	-950.13	1,852.15	1,805.94	46.22	40.075	
9,300.00	9,212.14	9,298.95	9,211.24	35.90	35.91	-90.29	-220.47	-950.13	1,852.15	1,805.46	46.70	39.663	
9,400.00	9,312.14	9,398.95	9,311.24	36.22	36.22	-90.29	-220.47	-950.13	1,852.15	1,804.98	47.18	39.259	
9,500.00	9,412.14	9,498.95	9,411.24	36.54	36.54	-90.29	-220.47	-950.13	1,852.15	1,804.50	47.66	38.863	
9,600.00	9,512.14	9,598.95	9,511.24	36.86	36.86	-90.29	-220.47	-950.13	1,852.15	1,804.01	48.14	38.474	
9,700.00	9,612.14	9,698.95	9,611.24	37.18	37.18	-90.29	-220.47	-950.13	1,852.15	1,803.53	48.62	38.092	
9,800.00	9,712.14	9,798.95	9,711.24	37.50	37.50	-90.29	-220.47	-950.13	1,852.15	1,803.05	49.11	37.718	
9,900.00	9,812.14	9,898.95	9,811.24	37.83	37.83	-90.29	-220.47	-950.13	1,852.15	1,802.57	49.59	37.350	
10,000.00	9,912.14	9,998.95	9,911.24	38.15	38.15	-90.29	-220.47	-950.13	1,852.15	1,802.08	50.07	36.989	
10,100.00	10,012.14	10,098.95	10,011.24	38.47	38.47	-90.29	-220.47	-950.13	1,852.15	1,801.60	50.56	36.635	
10,200.00	10,112.14	10,198.95	10,111.24	38.80	38.79	-90.29	-220.47	-950.13	1,852.15	1,801.11	51.04	36.287	
10,300.00	10,212.14	10,298.95	10,211.24	39.12	39.12	-90.29	-220.47	-950.13	1,852.15	1,800.63	51.53	35.946	
10,400.00	10,312.14	10,398.95	10,311.24	39.44	39.44	-90.29	-220.47	-950.13	1,852.15	1,800.14	52.01	35.610	
10,500.00	10,412.14	10,498.95	10,411.24	39.77	39.77	-90.29	-220.47	-950.13	1,852.15	1,799.66	52.50	35.281	
10,600.00	10,512.14	10,598.95	10,511.24	40.10	40.09	-90.29	-220.47	-950.13	1,852.15	1,799.17	52.98	34.957	
10,700.00	10,612.14	10,698.95	10,611.24	40.42	40.42	-90.29	-220.47	-950.13	1,852.15	1,798.68	53.47	34.639	
10,800.00	10,712.14	10,798.95	10,711.24	40.75	40.75	-90.29	-220.47	-950.13	1,852.15	1,798.20	53.96	34.326	
10,900.00	10,812.14	10,898.95	10,811.24	41.08	41.07	-90.29	-220.47	-950.13	1,852.15	1,797.71	54.44	34.019	
11,000.00	10,912.14	10,998.95	10,911.24	41.41	41.40	-90.29	-220.47	-950.13	1,852.15	1,797.22	54.93	33.717	
11,100.00	11,012.14	11,098.95	11,011.24	41.74	41.73	-90.29	-220.47	-950.13	1,852.15	1,796.73	55.42	33.420	
11,200.00	11,112.14	11,198.95	11,111.24	42.06	42.06	-90.29	-220.47	-950.13	1,852.15	1,796.25	55.91	33.128	
11,300.00	11,212.14	11,298.95	11,211.24	42.39	42.39	-90.29	-220.47	-950.13	1,852.15	1,795.76	56.40	32.841	
11,400.00	11,312.14	11,398.95	11,311.24	42.72	42.72	-90.29	-220.47	-950.13	1,852.15	1,795.27	56.89	32.559	
11,500.00	11,412.14	11,498.95	11,411.24	43.06	43.05	-90.29	-220.47	-950.13	1,852.15	1,794.78	57.38	32.281	
11,600.00	11,512.14	11,598.95	11,511.24	43.39	43.38	-90.29	-220.47	-950.13	1,852.15	1,794.29	57.87	32.008	
11,650.90	11,563.04	11,649.85	11,562.14	43.56	43.55	-90.29	-220.47	-950.13	1,852.15	1,794.04	58.11	31.871	
11,700.00	11,612.08	11,698.89	11,611.18	43.72	43.71	-89.79	-220.47	-950.13	1,852.15	1,793.79	58.35	31.740	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 801H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,750.00	11,661.65	11,748.46	11,660.75	43.87	43.88	-89.99	-220.47	-950.13	1,852.13	1,793.54	58.59	31.611	
11,751.94	11,663.56	11,750.37	11,662.66	43.88	43.88	-90.00	-220.47	-950.13	1,852.13	1,793.53	58.60	31.606	
11,800.00	11,710.46	11,797.27	11,709.56	44.02	44.04	-90.31	-220.47	-950.13	1,852.16	1,793.34	58.82	31.488	
11,850.00	11,758.16	11,844.97	11,757.26	44.16	44.20	-90.74	-220.47	-950.13	1,852.31	1,793.26	59.04	31.371	
11,900.00	11,804.37	11,891.18	11,803.47	44.29	44.35	-91.25	-220.47	-950.13	1,852.67	1,793.41	59.26	31.264	
11,950.00	11,848.74	11,939.36	11,851.63	44.41	44.51	-91.84	-219.54	-950.14	1,853.33	1,793.86	59.47	31.164	
12,000.00	11,890.94	11,991.11	11,903.10	44.51	44.67	-92.46	-214.27	-950.19	1,854.27	1,794.59	59.68	31.069	
12,050.00	11,930.64	12,045.45	11,956.39	44.60	44.84	-93.09	-203.76	-950.30	1,855.46	1,795.57	59.89	30.982	
12,100.00	11,967.55	12,102.71	12,011.20	44.68	45.00	-93.71	-187.28	-950.46	1,856.89	1,796.80	60.09	30.903	
12,150.00	12,001.37	12,163.26	12,067.07	44.74	45.16	-94.33	-164.00	-950.69	1,858.51	1,798.23	60.28	30.833	
12,200.00	12,031.86	12,227.47	12,123.27	44.80	45.30	-94.94	-133.03	-950.99	1,860.27	1,799.81	60.46	30.771	
12,250.00	12,058.79	12,295.67	12,178.77	44.84	45.44	-95.54	-93.47	-951.39	1,862.11	1,801.48	60.62	30.716	
12,300.00	12,081.94	12,368.13	12,232.15	44.87	45.55	-96.11	-44.54	-951.87	1,863.94	1,803.17	60.78	30.668	
12,350.00	12,101.14	12,444.96	12,281.52	44.90	45.65	-96.65	14.26	-952.45	1,865.69	1,804.76	60.93	30.622	
12,400.00	12,116.24	12,526.07	12,324.61	44.92	45.72	-97.11	82.89	-953.13	1,867.24	1,806.17	61.07	30.573	
12,450.00	12,127.14	12,611.04	12,358.90	44.95	45.78	-97.49	160.54	-953.90	1,868.51	1,807.28	61.23	30.518	
12,500.00	12,133.74	12,699.09	12,381.91	44.99	45.84	-97.76	245.44	-954.73	1,869.39	1,807.99	61.40	30.446	
12,550.90	12,136.00	12,790.74	12,391.77	45.03	45.93	-97.89	336.45	-955.63	1,869.83	1,808.23	61.60	30.353	
12,600.00	12,136.00	12,847.01	12,392.00	45.10	46.01	-97.90	392.72	-956.19	1,869.85	1,808.06	61.78	30.264	
12,700.00	12,136.00	12,947.01	12,392.00	45.28	46.20	-97.90	492.72	-957.18	1,869.85	1,807.65	62.19	30.066	
12,800.00	12,136.00	13,047.01	12,392.00	45.54	46.46	-97.90	592.71	-958.17	1,869.84	1,807.16	62.68	29.832	
12,900.00	12,136.00	13,147.01	12,392.00	45.88	46.80	-97.90	692.71	-959.16	1,869.84	1,806.59	63.25	29.563	
13,000.00	12,136.00	13,247.01	12,392.00	46.30	47.20	-97.90	792.70	-960.14	1,869.84	1,805.94	63.90	29.262	
13,100.00	12,136.00	13,347.01	12,392.00	46.78	47.68	-97.90	892.70	-961.13	1,869.83	1,805.21	64.63	28.933	
13,200.00	12,136.00	13,447.01	12,392.00	47.33	48.21	-97.90	992.70	-962.12	1,869.83	1,804.41	65.43	28.579	
13,300.00	12,136.00	13,547.01	12,392.00	47.94	48.80	-97.90	1,092.69	-963.11	1,869.83	1,803.53	66.30	28.204	
13,400.00	12,136.00	13,647.01	12,392.00	48.60	49.44	-97.90	1,192.69	-964.10	1,869.83	1,802.59	67.24	27.809	
13,500.00	12,136.00	13,747.01	12,392.00	49.31	50.13	-97.90	1,292.68	-965.09	1,869.82	1,801.58	68.24	27.399	
13,600.00	12,136.00	13,847.01	12,392.00	50.06	50.86	-97.90	1,392.68	-966.07	1,869.82	1,800.51	69.31	26.976	
13,700.00	12,136.00	13,947.01	12,392.00	50.86	51.64	-97.90	1,492.67	-967.06	1,869.82	1,799.37	70.44	26.544	
13,800.00	12,136.00	14,047.01	12,392.00	51.70	52.46	-97.90	1,592.67	-968.05	1,869.82	1,798.18	71.63	26.104	
13,900.00	12,136.00	14,147.01	12,392.00	52.58	53.32	-97.90	1,692.66	-969.04	1,869.81	1,796.94	72.87	25.659	
14,000.00	12,136.00	14,247.01	12,392.00	53.49	54.22	-97.90	1,792.66	-970.03	1,869.81	1,795.65	74.16	25.212	
14,100.00	12,136.00	14,347.01	12,392.00	54.44	55.15	-97.90	1,892.65	-971.02	1,869.81	1,794.30	75.51	24.763	
14,200.00	12,136.00	14,447.01	12,392.00	55.43	56.12	-97.90	1,992.65	-972.00	1,869.80	1,792.91	76.90	24.316	
14,300.00	12,136.00	14,547.01	12,392.00	56.44	57.11	-97.90	2,092.64	-972.99	1,869.80	1,791.47	78.33	23.871	
14,400.00	12,136.00	14,647.01	12,392.00	57.49	58.14	-97.90	2,192.64	-973.98	1,869.80	1,790.00	79.80	23.430	
14,500.00	12,136.00	14,747.01	12,392.00	58.56	59.19	-97.90	2,292.63	-974.97	1,869.80	1,788.48	81.32	22.994	
14,600.00	12,136.00	14,847.01	12,392.00	59.66	60.28	-97.90	2,392.63	-975.96	1,869.79	1,786.93	82.87	22.564	
14,700.00	12,136.00	14,947.01	12,392.00	60.78	61.38	-97.90	2,492.62	-976.95	1,869.79	1,785.34	84.45	22.140	
14,800.00	12,136.00	15,047.01	12,392.00	61.93	62.51	-97.90	2,592.62	-977.93	1,869.79	1,783.71	86.07	21.723	
14,900.00	12,136.00	15,147.01	12,392.00	63.10	63.67	-97.90	2,692.61	-978.92	1,869.78	1,782.06	87.72	21.314	
15,000.00	12,136.00	15,247.01	12,392.00	64.29	64.84	-97.90	2,792.61	-979.91	1,869.78	1,780.38	89.40	20.914	
15,100.00	12,136.00	15,347.01	12,392.00	65.50	66.04	-97.90	2,892.60	-980.90	1,869.78	1,778.67	91.11	20.521	
15,200.00	12,136.00	15,447.01	12,392.00	66.73	67.25	-97.90	2,992.60	-981.89	1,869.78	1,776.93	92.85	20.138	
15,300.00	12,136.00	15,547.01	12,392.00	67.98	68.49	-97.90	3,092.59	-982.87	1,869.77	1,775.17	94.61	19.763	
15,400.00	12,136.00	15,647.01	12,392.00	69.24	69.74	-97.90	3,192.59	-983.86	1,869.77	1,773.38	96.39	19.398	
15,500.00	12,136.00	15,747.01	12,392.00	70.52	71.01	-97.90	3,292.58	-984.85	1,869.77	1,771.57	98.20	19.041	
15,600.00	12,136.00	15,847.01	12,392.00	71.82	72.29	-97.90	3,392.58	-985.84	1,869.77	1,769.74	100.03	18.693	
15,700.00	12,136.00	15,947.01	12,392.00	73.13	73.59	-97.90	3,492.57	-986.83	1,869.76	1,767.89	101.87	18.354	
15,800.00	12,136.00	16,047.01	12,392.00	74.45	74.90	-97.90	3,592.57	-987.82	1,869.76	1,766.02	103.74	18.024	
15,900.00	12,136.00	16,147.01	12,392.00	75.78	76.22	-97.90	3,692.56	-988.80	1,869.76	1,764.13	105.62	17.702	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 801H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,000.00	12,136.00	16,247.01	12,392.00	77.13	77.56	-97.90	3,792.56	-989.79	1,869.75	1,762.23	107.52	17.389	
16,100.00	12,136.00	16,347.01	12,392.00	78.49	78.91	-97.90	3,892.55	-990.78	1,869.75	1,760.31	109.44	17.084	
16,200.00	12,136.00	16,447.01	12,392.00	79.86	80.27	-97.90	3,992.55	-991.77	1,869.75	1,758.37	111.37	16.788	
16,300.00	12,136.00	16,547.01	12,392.00	81.24	81.64	-97.90	4,092.54	-992.76	1,869.75	1,756.43	113.32	16.499	
16,400.00	12,136.00	16,647.01	12,392.00	82.64	83.02	-97.90	4,192.54	-993.75	1,869.74	1,754.46	115.28	16.219	
16,500.00	12,136.00	16,747.01	12,392.00	84.04	84.41	-97.90	4,292.53	-994.73	1,869.74	1,752.49	117.26	15.946	
16,600.00	12,136.00	16,847.01	12,392.00	85.45	85.81	-97.90	4,392.53	-995.72	1,869.74	1,750.50	119.24	15.680	
16,700.00	12,136.00	16,947.01	12,392.00	86.86	87.22	-97.90	4,492.52	-996.71	1,869.74	1,748.50	121.24	15.422	
16,800.00	12,136.00	17,047.01	12,392.00	88.29	88.64	-97.90	4,592.52	-997.70	1,869.73	1,746.49	123.25	15.171	
16,900.00	12,136.00	17,147.01	12,392.00	89.72	90.06	-97.90	4,692.51	-998.69	1,869.73	1,744.46	125.27	14.926	
17,000.00	12,136.00	17,247.01	12,392.00	91.17	91.50	-97.90	4,792.51	-999.68	1,869.73	1,742.43	127.30	14.688	
17,100.00	12,136.00	17,347.01	12,392.00	92.61	92.94	-97.90	4,892.50	-1,000.66	1,869.72	1,740.39	129.34	14.456	
17,200.00	12,136.00	17,447.01	12,392.00	94.07	94.38	-97.90	4,992.50	-1,001.65	1,869.72	1,738.34	131.38	14.231	
17,300.00	12,136.00	17,547.01	12,392.00	95.53	95.84	-97.90	5,092.49	-1,002.64	1,869.72	1,736.28	133.44	14.012	
17,400.00	12,136.00	17,647.01	12,392.00	97.00	97.30	-97.90	5,192.49	-1,003.63	1,869.72	1,734.21	135.51	13.798	
17,500.00	12,136.00	17,747.01	12,392.00	98.47	98.76	-97.90	5,292.49	-1,004.62	1,869.71	1,732.13	137.58	13.590	
17,600.00	12,136.00	17,847.01	12,392.00	99.95	100.23	-97.90	5,392.48	-1,005.61	1,869.71	1,730.05	139.66	13.387	
17,700.00	12,136.00	17,947.01	12,392.00	101.44	101.71	-97.90	5,492.48	-1,006.59	1,869.71	1,727.96	141.75	13.190	
17,800.00	12,136.00	18,047.01	12,392.00	102.92	103.20	-97.90	5,592.47	-1,007.58	1,869.71	1,725.86	143.85	12.998	
17,900.00	12,136.00	18,147.01	12,392.00	104.42	104.68	-97.90	5,692.47	-1,008.57	1,869.70	1,723.75	145.95	12.811	
18,000.00	12,136.00	18,247.01	12,392.00	105.92	106.18	-97.90	5,792.46	-1,009.56	1,869.70	1,721.64	148.06	12.628	
18,100.00	12,136.00	18,347.01	12,392.00	107.42	107.67	-97.90	5,892.46	-1,010.55	1,869.70	1,719.52	150.17	12.450	
18,200.00	12,136.00	18,447.01	12,392.00	108.93	109.17	-97.90	5,992.45	-1,011.54	1,869.69	1,717.40	152.29	12.277	
18,300.00	12,136.00	18,547.01	12,392.00	110.44	110.68	-97.90	6,092.45	-1,012.52	1,869.69	1,715.27	154.42	12.108	
18,400.00	12,136.00	18,647.01	12,392.00	111.96	112.19	-97.90	6,192.44	-1,013.51	1,869.69	1,713.14	156.55	11.943	
18,500.00	12,136.00	18,747.01	12,392.00	113.48	113.71	-97.90	6,292.44	-1,014.50	1,869.69	1,711.00	158.69	11.782	
18,600.00	12,136.00	18,847.01	12,392.00	115.00	115.22	-97.90	6,392.43	-1,015.49	1,869.68	1,708.85	160.83	11.625	
18,700.00	12,136.00	18,947.01	12,392.00	116.53	116.74	-97.90	6,492.43	-1,016.48	1,869.68	1,706.70	162.98	11.472	
18,800.00	12,136.00	19,047.01	12,392.00	118.06	118.27	-97.90	6,592.42	-1,017.47	1,869.68	1,704.55	165.13	11.323	
18,900.00	12,136.00	19,147.01	12,392.00	119.59	119.80	-97.90	6,692.42	-1,018.45	1,869.68	1,702.39	167.28	11.177	
19,000.00	12,136.00	19,247.01	12,392.00	121.13	121.33	-97.90	6,792.41	-1,019.44	1,869.67	1,700.23	169.44	11.034	
19,100.00	12,136.00	19,347.01	12,392.00	122.67	122.86	-97.90	6,892.41	-1,020.43	1,869.67	1,698.06	171.61	10.895	
19,200.00	12,136.00	19,447.01	12,392.00	124.21	124.40	-97.90	6,992.40	-1,021.42	1,869.67	1,695.89	173.78	10.759	
19,300.00	12,136.00	19,547.01	12,392.00	125.75	125.94	-97.90	7,092.40	-1,022.41	1,869.66	1,693.72	175.95	10.626	
19,400.00	12,136.00	19,647.01	12,392.00	127.30	127.49	-97.90	7,192.39	-1,023.40	1,869.66	1,691.54	178.12	10.496	
19,500.00	12,136.00	19,747.01	12,392.00	128.85	129.03	-97.90	7,292.39	-1,024.38	1,869.66	1,689.36	180.30	10.370	
19,600.00	12,136.00	19,847.01	12,392.00	130.41	130.58	-97.90	7,392.38	-1,025.37	1,869.66	1,687.17	182.48	10.246	
19,700.00	12,136.00	19,947.01	12,392.00	131.96	132.13	-97.90	7,492.38	-1,026.36	1,869.65	1,684.98	184.67	10.124	
19,800.00	12,136.00	20,047.01	12,392.00	133.52	133.69	-97.90	7,592.37	-1,027.35	1,869.65	1,682.79	186.86	10.006	
19,900.00	12,136.00	20,147.01	12,392.00	135.08	135.24	-97.90	7,692.37	-1,028.34	1,869.65	1,680.60	189.05	9.890	
20,000.00	12,136.00	20,247.01	12,392.00	136.64	136.80	-97.90	7,792.36	-1,029.33	1,869.65	1,678.40	191.24	9.776	
20,100.00	12,136.00	20,347.01	12,392.00	138.21	138.36	-97.90	7,892.36	-1,030.31	1,869.64	1,676.20	193.44	9.665	
20,200.00	12,136.00	20,447.01	12,392.00	139.77	139.92	-97.90	7,992.35	-1,031.30	1,869.64	1,674.00	195.64	9.556	
20,300.00	12,136.00	20,547.01	12,392.00	141.34	141.49	-97.90	8,092.35	-1,032.29	1,869.64	1,671.79	197.84	9.450	
20,400.00	12,136.00	20,647.01	12,392.00	142.91	143.06	-97.90	8,192.34	-1,033.28	1,869.63	1,669.59	200.05	9.346	
20,500.00	12,136.00	20,747.01	12,392.00	144.48	144.62	-97.90	8,292.34	-1,034.27	1,869.63	1,667.38	202.26	9.244	
20,600.00	12,136.00	20,847.01	12,392.00	146.06	146.19	-97.90	8,392.33	-1,035.26	1,869.63	1,665.16	204.47	9.144	
20,700.00	12,136.00	20,947.01	12,392.00	147.63	147.77	-97.90	8,492.33	-1,036.24	1,869.63	1,662.95	206.68	9.046	
20,800.00	12,136.00	21,047.01	12,392.00	149.21	149.34	-97.90	8,592.32	-1,037.23	1,869.62	1,660.73	208.89	8.950	
20,900.00	12,136.00	21,147.01	12,392.00	150.79	150.92	-97.90	8,692.32	-1,038.22	1,869.62	1,658.51	211.11	8.856	
21,000.00	12,136.00	21,247.01	12,392.00	152.37	152.49	-97.90	8,792.31	-1,039.21	1,869.62	1,656.29	213.33	8.764	
21,100.00	12,136.00	21,347.01	12,392.00	153.95	154.07	-97.90	8,892.31	-1,040.20	1,869.62	1,654.07	215.55	8.674	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 801H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,200.00	12,136.00	21,447.01	12,392.00	155.53	155.65	-97.90	8,992.30	-1,041.19	1,869.61	1,651.84	217.77	8.585	
21,300.00	12,136.00	21,547.01	12,392.00	157.12	157.23	-97.90	9,092.30	-1,042.17	1,869.61	1,649.61	220.00	8.498	
21,400.00	12,136.00	21,647.01	12,392.00	158.70	158.82	-97.90	9,192.29	-1,043.16	1,869.61	1,647.38	222.22	8.413	
21,500.00	12,136.00	21,747.01	12,392.00	160.29	160.40	-97.90	9,292.29	-1,044.15	1,869.60	1,645.15	224.45	8.330	
21,600.00	12,136.00	21,847.01	12,392.00	161.88	161.99	-97.90	9,392.28	-1,045.14	1,869.60	1,642.92	226.68	8.248	
21,700.00	12,136.00	21,947.01	12,392.00	163.47	163.58	-97.90	9,492.28	-1,046.13	1,869.60	1,640.69	228.91	8.167	
21,800.00	12,136.00	22,047.02	12,392.00	165.06	165.16	-97.90	9,592.28	-1,047.11	1,869.60	1,638.45	231.15	8.088	
21,900.00	12,136.00	22,147.02	12,392.00	166.65	166.75	-97.90	9,692.27	-1,048.10	1,869.59	1,636.21	233.38	8.011	
22,000.00	12,136.00	22,247.02	12,392.00	168.25	168.34	-97.90	9,792.27	-1,049.09	1,869.59	1,633.97	235.62	7.935	
22,100.00	12,136.00	22,347.02	12,392.00	169.84	169.94	-97.90	9,892.26	-1,050.08	1,869.59	1,631.73	237.86	7.860	
22,200.00	12,136.00	22,447.02	12,392.00	171.44	171.53	-97.90	9,992.26	-1,051.07	1,869.59	1,629.49	240.10	7.787	
22,300.00	12,136.00	22,547.02	12,392.00	173.03	173.12	-97.90	10,092.25	-1,052.06	1,869.58	1,627.24	242.34	7.715	
22,343.22	12,136.00	22,590.23	12,392.00	173.72	173.81	-97.90	10,135.47	-1,052.48	1,869.58	1,626.27	243.31	7.684	
22,343.71	12,136.00	22,590.72	12,392.00	173.75	173.82	-97.90	10,135.96	-1,052.49	1,869.58	1,626.26	243.32	7.684	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 802H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,842.40	1,842.40	6.37	6.37	-90.54	-0.23	-25.06	25.07	16.05	9.01	2.781	
1,900.00	1,900.00	1,899.40	1,899.40	6.58	6.58	-90.54	-0.23	-25.06	25.07	15.76	9.30	2.695	
2,000.00	2,000.00	1,999.40	1,999.40	6.94	6.93	-90.54	-0.23	-25.06	25.07	15.26	9.81	2.556	CC, ES
2,100.00	2,099.99	2,099.39	2,099.39	7.28	7.29	166.97	-0.23	-25.06	26.34	16.03	10.31	2.555	SF
2,200.00	2,199.91	2,199.31	2,199.31	7.62	7.65	168.64	-0.23	-25.06	30.18	19.38	10.80	2.794	
2,300.00	2,299.69	2,299.14	2,299.13	7.97	7.99	168.62	-1.52	-25.06	36.54	25.26	11.28	3.240	
2,400.00	2,399.27	2,398.74	2,398.65	8.31	8.31	165.96	-5.40	-25.04	45.42	33.67	11.75	3.866	
2,500.00	2,498.57	2,497.95	2,497.65	8.66	8.64	162.25	-11.85	-25.01	57.00	44.78	12.22	4.665	
2,600.00	2,597.54	2,596.63	2,595.92	9.03	8.96	158.42	-20.81	-24.97	71.49	58.79	12.69	5.632	
2,700.00	2,696.09	2,694.81	2,693.46	9.40	9.29	155.05	-32.01	-24.92	88.95	75.78	13.17	6.754	
2,764.20	2,759.12	2,757.73	2,755.94	9.64	9.51	153.67	-39.46	-24.89	101.54	88.06	13.48	7.532	
2,800.00	2,794.20	2,792.76	2,790.72	9.78	9.63	153.15	-43.60	-24.87	108.84	95.19	13.65	7.971	
2,900.00	2,892.20	2,890.63	2,887.90	10.17	9.97	152.02	-55.18	-24.82	129.28	115.13	14.14	9.141	
3,000.00	2,990.21	2,988.49	2,985.07	10.57	10.31	151.19	-66.76	-24.76	149.75	135.11	14.64	10.230	
3,100.00	3,088.21	3,086.35	3,082.25	10.97	10.66	150.56	-78.33	-24.71	170.24	155.10	15.14	11.246	
3,200.00	3,186.22	3,184.22	3,179.42	11.38	11.01	150.06	-89.91	-24.66	190.74	175.10	15.64	12.194	
3,300.00	3,284.22	3,282.08	3,276.60	11.80	11.36	149.67	-101.49	-24.60	211.26	195.11	16.15	13.079	
3,400.00	3,382.23	3,379.94	3,373.78	12.22	11.72	149.34	-113.07	-24.55	231.79	215.12	16.67	13.908	
3,500.00	3,480.24	3,477.80	3,470.95	12.65	12.08	149.06	-124.65	-24.50	252.32	235.14	17.18	14.684	
3,600.00	3,578.24	3,575.67	3,568.13	13.08	12.44	148.83	-136.22	-24.45	272.86	255.15	17.70	15.412	
3,700.00	3,676.25	3,673.53	3,665.30	13.51	12.80	148.63	-147.80	-24.39	293.40	275.17	18.23	16.096	
3,800.00	3,774.25	3,771.39	3,762.48	13.95	13.17	148.46	-159.38	-24.34	313.94	295.19	18.75	16.739	
3,900.00	3,872.26	3,869.26	3,859.65	14.39	13.54	148.30	-170.96	-24.29	334.49	315.20	19.28	17.345	
4,000.00	3,970.26	3,967.12	3,956.83	14.83	13.91	148.17	-182.53	-24.24	355.03	335.22	19.82	17.917	
4,100.00	4,068.27	4,065.17	4,054.19	15.28	14.28	148.05	-194.13	-24.18	375.58	355.23	20.35	18.456	
4,200.00	4,166.27	4,166.26	4,154.73	15.73	14.66	148.15	-204.60	-24.14	395.69	374.79	20.90	18.933	
4,300.00	4,264.28	4,267.58	4,255.75	16.18	15.03	148.60	-212.42	-24.10	415.01	393.57	21.44	19.357	
4,400.00	4,362.28	4,368.99	4,357.03	16.63	15.39	149.35	-217.56	-24.08	433.60	411.62	21.97	19.734	
4,500.00	4,460.29	4,470.35	4,458.36	17.08	15.75	150.37	-220.01	-24.07	451.54	429.04	22.49	20.075	
4,600.00	4,558.29	4,569.69	4,557.69	17.54	16.09	151.56	-220.23	-24.06	469.05	446.06	23.00	20.398	
4,700.00	4,656.30	4,667.70	4,655.70	18.00	16.42	152.67	-220.23	-24.06	486.70	463.21	23.49	20.719	
4,800.00	4,754.30	4,765.70	4,753.70	18.45	16.75	153.70	-220.23	-24.06	504.51	480.52	23.99	21.034	
4,900.00	4,852.31	4,863.71	4,851.71	18.91	17.09	154.66	-220.23	-24.06	522.46	497.98	24.48	21.341	
5,000.00	4,950.31	4,961.71	4,949.71	19.37	17.42	155.56	-220.23	-24.06	540.55	515.58	24.98	21.641	
5,100.00	5,048.32	5,059.72	5,047.72	19.83	17.76	156.40	-220.23	-24.06	558.77	533.29	25.47	21.934	
5,200.00	5,146.33	5,157.72	5,145.73	20.30	18.09	157.19	-220.23	-24.06	577.09	551.12	25.97	22.220	
5,300.00	5,244.33	5,255.73	5,243.73	20.76	18.43	157.93	-220.23	-24.06	595.51	569.04	26.47	22.498	
5,400.00	5,342.34	5,353.73	5,341.74	21.23	18.77	158.62	-220.23	-24.06	614.02	587.06	26.97	22.769	
5,500.00	5,440.34	5,451.74	5,439.74	21.69	19.10	159.28	-220.23	-24.06	632.62	605.15	27.47	23.032	
5,600.00	5,538.35	5,549.74	5,537.75	22.16	19.44	159.89	-220.23	-24.06	651.29	623.32	27.97	23.289	
5,700.00	5,636.35	5,647.75	5,635.75	22.62	19.78	160.48	-220.23	-24.06	670.03	641.56	28.47	23.538	
5,800.00	5,734.36	5,745.75	5,733.76	23.09	20.12	161.03	-220.23	-24.06	688.83	659.87	28.97	23.781	
5,900.00	5,832.36	5,843.76	5,831.76	23.56	20.46	161.55	-220.23	-24.06	707.70	678.23	29.47	24.017	
6,000.00	5,930.37	5,941.76	5,929.77	24.03	20.80	162.05	-220.23	-24.06	726.61	696.64	29.97	24.246	
6,100.00	6,028.37	6,039.77	6,027.77	24.50	21.14	162.52	-220.23	-24.06	745.58	715.11	30.47	24.469	
6,200.00	6,126.38	6,137.78	6,125.78	24.97	21.48	162.96	-220.23	-24.06	764.59	733.62	30.97	24.686	
6,300.00	6,224.38	6,235.78	6,223.78	25.44	21.82	163.39	-220.23	-24.06	783.64	752.17	31.47	24.897	
6,400.00	6,322.39	6,333.79	6,321.79	25.91	22.16	163.79	-220.23	-24.06	802.74	770.76	31.98	25.103	
6,500.00	6,420.39	6,431.79	6,419.79	26.38	22.50	164.18	-220.23	-24.06	821.87	789.39	32.48	25.303	
6,600.00	6,518.40	6,529.80	6,517.80	26.85	22.84	164.55	-220.23	-24.06	841.03	808.05	32.99	25.497	
6,658.66	6,575.89	6,587.28	6,575.29	27.13	23.04	164.76	-220.23	-24.06	852.29	819.01	33.28	25.609	
6,700.00	6,616.45	6,627.85	6,615.85	27.32	23.18	164.93	-220.23	-24.06	860.02	826.53	33.49	25.680	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 802H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,726.30	6,714.30	27.78	23.53	165.29	-220.23	-24.06	876.97	842.98	33.99	25.798	
6,900.00	6,813.77	6,825.17	6,813.17	28.21	23.87	165.59	-220.23	-24.06	891.44	856.95	34.50	25.842	
7,000.00	6,913.01	6,924.40	6,912.41	28.61	24.22	165.83	-220.23	-24.06	903.41	868.42	35.00	25.814	
7,100.00	7,012.53	7,023.92	7,011.93	29.00	24.57	166.01	-220.23	-24.06	912.87	877.37	35.50	25.717	
7,200.00	7,112.27	7,123.67	7,111.67	29.36	24.92	166.14	-220.23	-24.06	919.80	883.81	35.99	25.555	
7,300.00	7,212.16	7,223.56	7,211.56	29.70	25.27	166.23	-220.23	-24.06	924.19	887.70	36.49	25.329	
7,400.00	7,312.14	7,323.54	7,311.54	30.02	25.62	166.26	-220.23	-24.06	926.04	889.07	36.98	25.043	
7,422.86	7,335.00	7,346.40	7,334.40	30.09	25.70	-90.57	-220.23	-24.06	926.11	889.02	37.09	24.970	
7,500.00	7,412.14	7,423.54	7,411.54	30.32	25.97	-90.57	-220.23	-24.06	926.11	888.65	37.46	24.722	
7,600.00	7,512.14	7,523.54	7,511.54	30.63	26.32	-90.57	-220.23	-24.06	926.11	888.17	37.94	24.409	
7,700.00	7,612.14	7,623.54	7,611.54	30.93	26.67	-90.57	-220.23	-24.06	926.11	887.69	38.42	24.102	
7,800.00	7,712.14	7,723.54	7,711.54	31.23	27.02	-90.57	-220.23	-24.06	926.11	887.20	38.91	23.803	
7,900.00	7,812.14	7,823.54	7,811.54	31.54	27.38	-90.57	-220.23	-24.06	926.11	886.72	39.39	23.511	
8,000.00	7,912.14	7,923.54	7,911.54	31.84	27.73	-90.57	-220.23	-24.06	926.11	886.24	39.87	23.226	
8,100.00	8,012.14	8,023.54	8,011.54	32.15	28.08	-90.57	-220.23	-24.06	926.11	885.75	40.36	22.947	
8,200.00	8,112.14	8,123.54	8,111.54	32.46	28.43	-90.57	-220.23	-24.06	926.11	885.27	40.84	22.675	
8,300.00	8,212.14	8,223.54	8,211.54	32.76	28.79	-90.57	-220.23	-24.06	926.11	884.78	41.33	22.408	
8,400.00	8,312.14	8,323.54	8,311.54	33.07	29.14	-90.57	-220.23	-24.06	926.11	884.30	41.82	22.148	
8,500.00	8,412.14	8,423.54	8,411.54	33.39	29.49	-90.57	-220.23	-24.06	926.11	883.81	42.30	21.893	
8,600.00	8,512.14	8,523.54	8,511.54	33.70	29.84	-90.57	-220.23	-24.06	926.11	883.32	42.79	21.644	
8,700.00	8,612.14	8,623.54	8,611.54	34.01	30.20	-90.57	-220.23	-24.06	926.11	882.83	43.28	21.400	
8,800.00	8,712.14	8,723.54	8,711.54	34.32	30.55	-90.57	-220.23	-24.06	926.11	882.35	43.76	21.161	
8,900.00	8,812.14	8,823.54	8,811.54	34.64	30.90	-90.57	-220.23	-24.06	926.11	881.86	44.25	20.928	
9,000.00	8,912.14	8,923.54	8,911.54	34.95	31.26	-90.57	-220.23	-24.06	926.11	881.37	44.74	20.699	
9,100.00	9,012.14	9,023.54	9,011.54	35.27	31.61	-90.57	-220.23	-24.06	926.11	880.88	45.23	20.475	
9,200.00	9,112.14	9,123.54	9,111.54	35.59	31.96	-90.57	-220.23	-24.06	926.11	880.39	45.72	20.256	
9,300.00	9,212.14	9,223.54	9,211.54	35.90	32.32	-90.57	-220.23	-24.06	926.11	879.90	46.21	20.041	
9,400.00	9,312.14	9,323.54	9,311.54	36.22	32.67	-90.57	-220.23	-24.06	926.11	879.41	46.70	19.831	
9,500.00	9,412.14	9,423.54	9,411.54	36.54	33.02	-90.57	-220.23	-24.06	926.11	878.92	47.19	19.624	
9,600.00	9,512.14	9,523.54	9,511.54	36.86	33.38	-90.57	-220.23	-24.06	926.11	878.43	47.68	19.422	
9,700.00	9,612.14	9,623.54	9,611.54	37.18	33.73	-90.57	-220.23	-24.06	926.11	877.94	48.17	19.224	
9,800.00	9,712.14	9,723.54	9,711.54	37.50	34.09	-90.57	-220.23	-24.06	926.11	877.45	48.67	19.030	
9,900.00	9,812.14	9,823.54	9,811.54	37.83	34.44	-90.57	-220.23	-24.06	926.11	876.95	49.16	18.839	
10,000.00	9,912.14	9,923.54	9,911.54	38.15	34.79	-90.57	-220.23	-24.06	926.11	876.46	49.65	18.653	
10,100.00	10,012.14	10,023.54	10,011.54	38.47	35.15	-90.57	-220.23	-24.06	926.11	875.97	50.14	18.469	
10,200.00	10,112.14	10,123.54	10,111.54	38.80	35.50	-90.57	-220.23	-24.06	926.11	875.48	50.64	18.290	
10,300.00	10,212.14	10,223.54	10,211.54	39.12	35.86	-90.57	-220.23	-24.06	926.11	874.98	51.13	18.113	
10,400.00	10,312.14	10,323.54	10,311.54	39.44	36.21	-90.57	-220.23	-24.06	926.11	874.49	51.62	17.940	
10,500.00	10,412.14	10,423.54	10,411.54	39.77	36.57	-90.57	-220.23	-24.06	926.11	873.99	52.12	17.770	
10,600.00	10,512.14	10,523.54	10,511.54	40.10	36.92	-90.57	-220.23	-24.06	926.11	873.50	52.61	17.603	
10,700.00	10,612.14	10,623.54	10,611.54	40.42	37.28	-90.57	-220.23	-24.06	926.11	873.01	53.10	17.439	
10,800.00	10,712.14	10,723.54	10,711.54	40.75	37.63	-90.57	-220.23	-24.06	926.11	872.51	53.60	17.279	
10,900.00	10,812.14	10,823.54	10,811.54	41.08	37.99	-90.57	-220.23	-24.06	926.11	872.02	54.09	17.121	
11,000.00	10,912.14	10,923.54	10,911.54	41.41	38.34	-90.57	-220.23	-24.06	926.11	871.52	54.59	16.965	
11,100.00	11,012.14	11,023.54	11,011.54	41.74	38.70	-90.57	-220.23	-24.06	926.11	871.03	55.08	16.813	
11,200.00	11,112.14	11,123.54	11,111.54	42.06	39.05	-90.57	-220.23	-24.06	926.11	870.53	55.58	16.663	
11,300.00	11,212.14	11,223.54	11,211.54	42.39	39.41	-90.57	-220.23	-24.06	926.11	870.04	56.07	16.516	
11,400.00	11,312.14	11,323.54	11,311.54	42.72	39.76	-90.57	-220.23	-24.06	926.11	869.54	56.57	16.371	
11,500.00	11,412.14	11,423.54	11,411.54	43.06	40.12	-90.57	-220.23	-24.06	926.11	869.05	57.07	16.229	
11,600.00	11,512.14	11,523.54	11,511.54	43.39	40.47	-90.57	-220.23	-24.06	926.11	868.55	57.56	16.089	
11,650.90	11,563.04	11,574.44	11,562.44	43.56	40.65	-90.57	-220.23	-24.06	926.11	868.30	57.81	16.019	
11,650.90	11,563.04	11,574.44	11,562.44	43.56	40.65	-90.57	-220.23	-24.06	926.11	868.30	57.81	16.019	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 802H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,700.00	11,612.08	11,623.48	11,611.48	43.72	40.83	-90.13	-220.23	-24.06	926.11	868.06	58.06	15.951	
11,750.00	11,661.65	11,673.05	11,661.05	43.87	41.00	-90.52	-220.23	-24.06	926.15	867.85	58.30	15.885	
11,800.00	11,710.46	11,722.10	11,710.10	44.02	41.18	-91.16	-220.19	-24.07	926.31	867.76	58.55	15.821	
11,850.00	11,758.16	11,772.83	11,760.74	44.16	41.35	-91.89	-217.32	-24.09	926.65	867.85	58.80	15.760	
11,900.00	11,804.37	11,824.75	11,812.09	44.29	41.53	-92.62	-209.76	-24.17	927.14	868.10	59.04	15.704	
11,950.00	11,848.74	11,877.92	11,863.74	44.41	41.70	-93.34	-197.24	-24.29	927.78	868.51	59.27	15.653	
12,000.00	11,890.94	11,932.41	11,915.23	44.51	41.86	-94.04	-179.50	-24.47	928.55	869.05	59.49	15.608	
12,050.00	11,930.64	11,988.25	11,966.01	44.60	42.03	-94.72	-156.32	-24.70	929.42	869.72	59.70	15.568	
12,100.00	11,967.55	12,045.47	12,015.46	44.68	42.18	-95.37	-127.57	-24.98	930.37	870.48	59.89	15.534	
12,150.00	12,001.37	12,104.10	12,062.88	44.74	42.33	-95.98	-93.15	-25.32	931.37	871.30	60.07	15.504	
12,200.00	12,031.86	12,164.10	12,107.52	44.80	42.48	-96.55	-53.09	-25.72	932.38	872.15	60.23	15.480	
12,250.00	12,058.79	12,225.44	12,148.56	44.84	42.63	-97.07	-7.55	-26.17	933.37	872.99	60.38	15.457	
12,300.00	12,081.94	12,288.01	12,185.18	44.87	42.78	-97.52	43.16	-26.67	934.29	873.76	60.53	15.436	
12,350.00	12,101.14	12,351.71	12,216.55	44.90	42.93	-97.91	98.56	-27.22	935.11	874.44	60.67	15.414	
12,400.00	12,116.24	12,416.37	12,241.90	44.92	43.08	-98.22	158.00	-27.81	935.78	874.97	60.82	15.387	
12,450.00	12,127.14	12,481.79	12,260.57	44.95	43.23	-98.45	220.65	-28.43	936.29	875.31	60.98	15.355	
12,500.00	12,133.74	12,547.73	12,272.05	44.99	43.39	-98.59	285.55	-29.07	936.61	875.45	61.16	15.315	
12,550.90	12,136.00	12,615.13	12,276.00	45.03	43.55	-98.63	352.79	-29.73	936.71	875.35	61.36	15.266	
12,600.00	12,136.00	12,664.21	12,276.00	45.10	43.68	-98.63	401.87	-30.22	936.71	875.17	61.54	15.221	
12,700.00	12,136.00	12,764.21	12,276.00	45.28	43.99	-98.63	501.86	-31.21	936.71	874.74	61.97	15.114	
12,800.00	12,136.00	12,864.21	12,276.00	45.54	44.35	-98.63	601.86	-32.20	936.71	874.22	62.49	14.990	
12,900.00	12,136.00	12,964.21	12,276.00	45.88	44.77	-98.63	701.85	-33.19	936.71	873.62	63.08	14.849	
13,000.00	12,136.00	13,064.21	12,276.00	46.30	45.25	-98.63	801.85	-34.18	936.70	872.95	63.75	14.692	
13,100.00	12,136.00	13,164.21	12,276.00	46.78	45.78	-98.63	901.84	-35.17	936.70	872.20	64.50	14.522	
13,200.00	12,136.00	13,264.21	12,276.00	47.33	46.37	-98.63	1,001.84	-36.16	936.70	871.38	65.33	14.339	
13,300.00	12,136.00	13,364.21	12,276.00	47.94	47.01	-98.63	1,101.83	-37.14	936.70	870.48	66.22	14.146	
13,400.00	12,136.00	13,464.21	12,276.00	48.60	47.69	-98.63	1,201.83	-38.13	936.70	869.52	67.18	13.943	
13,500.00	12,136.00	13,564.21	12,276.00	49.31	48.42	-98.63	1,301.82	-39.12	936.70	868.49	68.21	13.733	
13,600.00	12,136.00	13,664.21	12,276.00	50.06	49.20	-98.63	1,401.82	-40.11	936.69	867.40	69.29	13.518	
13,700.00	12,136.00	13,764.21	12,276.00	50.86	50.02	-98.63	1,501.81	-41.10	936.69	866.25	70.44	13.298	
13,800.00	12,136.00	13,864.21	12,276.00	51.70	50.88	-98.63	1,601.81	-42.09	936.69	865.05	71.64	13.074	
13,900.00	12,136.00	13,964.21	12,276.00	52.58	51.78	-98.63	1,701.80	-43.08	936.69	863.79	72.90	12.849	
14,000.00	12,136.00	14,064.21	12,276.00	53.49	52.71	-98.63	1,801.80	-44.07	936.69	862.48	74.21	12.622	
14,100.00	12,136.00	14,164.21	12,276.00	54.44	53.68	-98.63	1,901.79	-45.06	936.69	861.12	75.56	12.396	
14,200.00	12,136.00	14,264.21	12,276.00	55.43	54.68	-98.63	2,001.79	-46.05	936.68	859.72	76.97	12.170	
14,300.00	12,136.00	14,364.21	12,276.00	56.44	55.71	-98.63	2,101.78	-47.04	936.68	858.27	78.41	11.946	
14,400.00	12,136.00	14,464.21	12,276.00	57.49	56.78	-98.63	2,201.78	-48.03	936.68	856.78	79.90	11.723	
14,500.00	12,136.00	14,564.21	12,276.00	58.56	57.87	-98.63	2,301.77	-49.02	936.68	855.25	81.42	11.504	
14,600.00	12,136.00	14,664.21	12,276.00	59.66	58.98	-98.63	2,401.77	-50.00	936.68	853.69	82.98	11.287	
14,700.00	12,136.00	14,764.21	12,276.00	60.78	60.12	-98.63	2,501.76	-50.99	936.67	852.09	84.58	11.074	
14,800.00	12,136.00	14,864.21	12,276.00	61.93	61.29	-98.63	2,601.76	-51.98	936.67	850.46	86.21	10.865	
14,900.00	12,136.00	14,964.21	12,276.00	63.10	62.47	-98.63	2,701.75	-52.97	936.67	848.80	87.87	10.660	
15,000.00	12,136.00	15,064.21	12,276.00	64.29	63.68	-98.63	2,801.75	-53.96	936.67	847.11	89.56	10.459	
15,100.00	12,136.00	15,164.21	12,276.00	65.50	64.91	-98.63	2,901.75	-54.95	936.67	845.40	91.27	10.263	
15,200.00	12,136.00	15,264.21	12,276.00	66.73	66.15	-98.63	3,001.74	-55.94	936.67	843.65	93.01	10.070	
15,300.00	12,136.00	15,364.21	12,276.00	67.98	67.41	-98.63	3,101.74	-56.93	936.66	841.89	94.78	9.883	
15,400.00	12,136.00	15,464.21	12,276.00	69.24	68.69	-98.63	3,201.73	-57.92	936.66	840.10	96.57	9.700	
15,500.00	12,136.00	15,564.21	12,276.00	70.52	69.99	-98.63	3,301.73	-58.91	936.66	838.28	98.38	9.521	
15,600.00	12,136.00	15,664.21	12,276.00	71.82	71.30	-98.63	3,401.72	-59.90	936.66	836.45	100.21	9.347	
15,700.00	12,136.00	15,764.21	12,276.00	73.13	72.62	-98.63	3,501.72	-60.89	936.66	834.60	102.06	9.178	
15,800.00	12,136.00	15,864.21	12,276.00	74.45	73.96	-98.63	3,601.71	-61.88	936.65	832.73	103.93	9.012	
15,900.00	12,136.00	15,964.21	12,276.00	75.78	75.31	-98.63	3,701.71	-62.87	936.65	830.84	105.82	8.852	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 802H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,000.00	12,136.00	16,064.21	12,276.00	77.13	76.67	-98.63	3,801.70	-63.85	936.65	828.93	107.72	8.695	
16,100.00	12,136.00	16,164.21	12,276.00	78.49	78.04	-98.63	3,901.70	-64.84	936.65	827.01	109.64	8.543	
16,200.00	12,136.00	16,264.21	12,276.00	79.86	79.42	-98.63	4,001.69	-65.83	936.65	825.07	111.58	8.395	
16,300.00	12,136.00	16,364.21	12,276.00	81.24	80.82	-98.63	4,101.69	-66.82	936.65	823.12	113.52	8.251	
16,400.00	12,136.00	16,464.21	12,276.00	82.64	82.22	-98.63	4,201.68	-67.81	936.64	821.16	115.48	8.111	
16,500.00	12,136.00	16,564.21	12,276.00	84.04	83.63	-98.63	4,301.68	-68.80	936.64	819.18	117.46	7.974	
16,600.00	12,136.00	16,664.21	12,276.00	85.45	85.05	-98.63	4,401.67	-69.79	936.64	817.19	119.45	7.842	
16,700.00	12,136.00	16,764.21	12,276.00	86.86	86.48	-98.63	4,501.67	-70.78	936.64	815.19	121.44	7.713	
16,800.00	12,136.00	16,864.21	12,276.00	88.29	87.92	-98.63	4,601.66	-71.77	936.64	813.18	123.45	7.587	
16,900.00	12,136.00	16,964.21	12,276.00	89.72	89.36	-98.63	4,701.66	-72.76	936.64	811.16	125.47	7.465	
17,000.00	12,136.00	17,064.21	12,276.00	91.17	90.81	-98.63	4,801.65	-73.75	936.63	809.13	127.50	7.346	
17,100.00	12,136.00	17,164.21	12,276.00	92.61	92.27	-98.63	4,901.65	-74.74	936.63	807.09	129.54	7.230	
17,200.00	12,136.00	17,264.21	12,276.00	94.07	93.74	-98.63	5,001.64	-75.73	936.63	805.04	131.59	7.118	
17,300.00	12,136.00	17,364.21	12,276.00	95.53	95.21	-98.63	5,101.64	-76.71	936.63	802.98	133.64	7.008	
17,400.00	12,136.00	17,464.21	12,276.00	97.00	96.68	-98.63	5,201.63	-77.70	936.63	800.92	135.71	6.902	
17,500.00	12,136.00	17,564.21	12,276.00	98.47	98.17	-98.63	5,301.63	-78.69	936.62	798.84	137.78	6.798	
17,600.00	12,136.00	17,664.21	12,276.00	99.95	99.65	-98.63	5,401.62	-79.68	936.62	796.76	139.86	6.697	
17,700.00	12,136.00	17,764.21	12,276.00	101.44	101.15	-98.63	5,501.62	-80.67	936.62	794.67	141.95	6.598	
17,800.00	12,136.00	17,864.21	12,276.00	102.92	102.64	-98.63	5,601.61	-81.66	936.62	792.58	144.04	6.502	
17,900.00	12,136.00	17,964.21	12,276.00	104.42	104.15	-98.63	5,701.61	-82.65	936.62	790.48	146.14	6.409	
18,000.00	12,136.00	18,064.21	12,276.00	105.92	105.65	-98.63	5,801.60	-83.64	936.62	788.37	148.25	6.318	
18,100.00	12,136.00	18,164.21	12,276.00	107.42	107.16	-98.63	5,901.60	-84.63	936.61	786.25	150.36	6.229	
18,200.00	12,136.00	18,264.21	12,276.00	108.93	108.68	-98.63	6,001.59	-85.62	936.61	784.13	152.48	6.143	
18,300.00	12,136.00	18,364.21	12,276.00	110.44	110.20	-98.63	6,101.59	-86.61	936.61	782.01	154.60	6.058	
18,400.00	12,136.00	18,464.21	12,276.00	111.96	111.72	-98.63	6,201.58	-87.60	936.61	779.88	156.73	5.976	
18,500.00	12,136.00	18,564.21	12,276.00	113.48	113.25	-98.63	6,301.58	-88.59	936.61	777.74	158.86	5.896	
18,600.00	12,136.00	18,664.21	12,276.00	115.00	114.78	-98.63	6,401.57	-89.58	936.60	775.60	161.00	5.817	
18,700.00	12,136.00	18,764.21	12,276.00	116.53	116.31	-98.63	6,501.57	-90.56	936.60	773.46	163.14	5.741	
18,800.00	12,136.00	18,864.21	12,276.00	118.06	117.85	-98.63	6,601.56	-91.55	936.60	771.31	165.29	5.666	
18,900.00	12,136.00	18,964.21	12,276.00	119.59	119.39	-98.63	6,701.56	-92.54	936.60	769.16	167.44	5.594	
19,000.00	12,136.00	19,064.21	12,276.00	121.13	120.93	-98.63	6,801.55	-93.53	936.60	767.00	169.60	5.522	
19,100.00	12,136.00	19,164.21	12,276.00	122.67	122.48	-98.63	6,901.55	-94.52	936.60	764.84	171.76	5.453	
19,200.00	12,136.00	19,264.21	12,276.00	124.21	124.02	-98.63	7,001.54	-95.51	936.59	762.67	173.92	5.385	
19,300.00	12,136.00	19,364.21	12,276.00	125.75	125.57	-98.63	7,101.54	-96.50	936.59	760.50	176.09	5.319	
19,400.00	12,136.00	19,464.21	12,276.00	127.30	127.13	-98.63	7,201.53	-97.49	936.59	758.33	178.26	5.254	
19,500.00	12,136.00	19,564.21	12,276.00	128.85	128.68	-98.63	7,301.53	-98.48	936.59	756.16	180.43	5.191	
19,600.00	12,136.00	19,664.21	12,276.00	130.41	130.24	-98.63	7,401.53	-99.47	936.59	753.98	182.61	5.129	
19,700.00	12,136.00	19,764.21	12,276.00	131.96	131.80	-98.63	7,501.52	-100.46	936.59	751.79	184.79	5.068	
19,800.00	12,136.00	19,864.21	12,276.00	133.52	133.37	-98.63	7,601.52	-101.45	936.58	749.61	186.97	5.009	
19,900.00	12,136.00	19,964.21	12,276.00	135.08	134.93	-98.63	7,701.51	-102.44	936.58	747.42	189.16	4.951	
20,000.00	12,136.00	20,064.21	12,276.00	136.64	136.50	-98.63	7,801.51	-103.43	936.58	745.23	191.35	4.895	
20,100.00	12,136.00	20,164.21	12,276.00	138.21	138.07	-98.63	7,901.50	-104.41	936.58	743.04	193.54	4.839	
20,200.00	12,136.00	20,264.21	12,276.00	139.77	139.64	-98.63	8,001.50	-105.40	936.58	740.84	195.73	4.785	
20,300.00	12,136.00	20,364.21	12,276.00	141.34	141.21	-98.63	8,101.49	-106.39	936.57	738.64	197.93	4.732	
20,400.00	12,136.00	20,464.21	12,276.00	142.91	142.78	-98.63	8,201.49	-107.38	936.57	736.44	200.13	4.680	
20,500.00	12,136.00	20,564.21	12,276.00	144.48	144.36	-98.63	8,301.48	-108.37	936.57	734.24	202.33	4.629	
20,600.00	12,136.00	20,664.21	12,276.00	146.06	145.94	-98.63	8,401.48	-109.36	936.57	732.03	204.54	4.579	
20,700.00	12,136.00	20,764.21	12,276.00	147.63	147.52	-98.63	8,501.47	-110.35	936.57	729.82	206.74	4.530	
20,800.00	12,136.00	20,864.21	12,276.00	149.21	149.10	-98.63	8,601.47	-111.34	936.57	727.62	208.95	4.482	
20,900.00	12,136.00	20,964.21	12,276.00	150.79	150.68	-98.63	8,701.46	-112.33	936.56	725.40	211.16	4.435	
21,000.00	12,136.00	21,064.21	12,276.00	152.37	152.27	-98.63	8,801.46	-113.32	936.56	723.19	213.37	4.389	
21,100.00	12,136.00	21,164.21	12,276.00	153.95	153.85	-98.63	8,901.45	-114.31	936.56	720.97	215.59	4.344	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design FMM Fed Com - FMM Fed Com 802H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,200.00	12,136.00	21,264.21	12,276.00	155.53	155.44	-98.63	9,001.45	-115.30	936.56	718.76	217.80	4.300	
21,300.00	12,136.00	21,364.21	12,276.00	157.12	157.03	-98.63	9,101.44	-116.29	936.56	716.54	220.02	4.257	
21,400.00	12,136.00	21,464.21	12,276.00	158.70	158.62	-98.63	9,201.44	-117.27	936.55	714.32	222.24	4.214	
21,500.00	12,136.00	21,564.21	12,276.00	160.29	160.21	-98.63	9,301.43	-118.26	936.55	712.09	224.46	4.172	
21,600.00	12,136.00	21,664.21	12,276.00	161.88	161.80	-98.63	9,401.43	-119.25	936.55	709.87	226.68	4.132	
21,700.00	12,136.00	21,764.21	12,276.00	163.47	163.39	-98.63	9,501.42	-120.24	936.55	707.64	228.91	4.091	
21,800.00	12,136.00	21,864.21	12,276.00	165.06	164.99	-98.63	9,601.42	-121.23	936.55	705.42	231.13	4.052	
21,900.00	12,136.00	21,964.21	12,276.00	166.65	166.58	-98.63	9,701.41	-122.22	936.55	703.19	233.36	4.013	
22,000.00	12,136.00	22,064.21	12,276.00	168.25	168.18	-98.63	9,801.41	-123.21	936.54	700.96	235.59	3.975	
22,100.00	12,136.00	22,164.21	12,276.00	169.84	169.78	-98.63	9,901.40	-124.20	936.54	698.73	237.82	3.938	
22,200.00	12,136.00	22,264.21	12,276.00	171.44	171.38	-98.63	10,001.40	-125.19	936.54	696.49	240.05	3.901	
22,300.00	12,136.00	22,364.21	12,276.00	173.03	172.98	-98.63	10,101.39	-126.18	936.54	694.26	242.28	3.866	
22,343.22	12,136.00	22,407.43	12,276.00	173.72	173.67	-98.63	10,144.61	-126.61	936.54	693.29	243.24	3.850	
22,343.71	12,136.00	22,407.92	12,276.00	173.75	173.68	-98.63	10,145.10	-126.61	936.54	693.28	243.26	3.850	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,887.30	1,887.30	6.37	6.53	98.68	-504.57	3,305.19	3,343.49	3,334.36	9.13	366.343	
1,900.00	1,900.00	1,944.30	1,944.30	6.58	6.74	98.68	-504.57	3,305.19	3,343.49	3,334.07	9.42	355.101	
2,000.00	2,000.00	2,044.30	2,044.30	6.94	7.10	98.68	-504.57	3,305.19	3,343.49	3,333.56	9.92	336.960	
2,100.00	2,099.99	2,144.29	2,144.29	7.28	7.45	-4.49	-504.57	3,305.19	3,342.18	3,331.76	10.42	320.696	
2,200.00	2,199.91	2,244.21	2,244.21	7.62	7.81	-4.50	-504.57	3,305.19	3,338.27	3,327.35	10.91	305.870	
2,300.00	2,299.69	2,343.99	2,343.99	7.97	8.17	-4.52	-504.57	3,305.19	3,331.75	3,320.34	11.41	292.075	
2,400.00	2,399.27	2,443.57	2,443.57	8.31	8.53	-4.54	-504.57	3,305.19	3,322.63	3,310.73	11.90	279.196	
2,500.00	2,498.57	2,542.87	2,542.87	8.66	8.88	-4.57	-504.57	3,305.19	3,310.91	3,298.51	12.39	267.134	
2,600.00	2,597.54	2,641.84	2,641.84	9.03	9.24	-4.61	-504.57	3,305.19	3,296.61	3,283.72	12.89	255.801	
2,700.00	2,696.09	2,740.39	2,740.39	9.40	9.59	-4.65	-504.57	3,305.19	3,279.72	3,266.34	13.38	245.120	
2,764.20	2,759.12	2,803.42	2,803.42	9.64	9.82	-4.68	-504.57	3,305.19	3,267.53	3,253.84	13.70	238.568	
2,800.00	2,794.20	2,838.50	2,838.50	9.78	9.94	-4.69	-504.57	3,305.19	3,260.44	3,246.57	13.87	235.028	
2,900.00	2,892.20	2,936.50	2,936.50	10.17	10.29	-4.72	-504.57	3,305.19	3,240.63	3,226.27	14.36	225.605	
3,000.00	2,990.21	3,034.51	3,034.51	10.57	10.64	-4.75	-504.57	3,305.19	3,220.82	3,205.97	14.86	216.779	
3,100.00	3,088.21	3,132.51	3,132.51	10.97	11.00	-4.78	-504.57	3,305.19	3,201.02	3,185.66	15.35	208.500	
3,200.00	3,186.22	3,230.52	3,230.52	11.38	11.35	-4.81	-504.57	3,305.19	3,181.21	3,165.36	15.85	200.719	
3,300.00	3,284.22	3,328.52	3,328.52	11.80	11.70	-4.84	-504.57	3,305.19	3,161.40	3,145.06	16.35	193.396	
3,400.00	3,382.23	3,426.53	3,426.53	12.22	12.05	-4.87	-504.57	3,305.19	3,141.60	3,124.75	16.85	186.492	
3,500.00	3,480.24	3,524.54	3,524.54	12.65	12.40	-4.90	-504.57	3,305.19	3,121.80	3,104.45	17.35	179.973	
3,600.00	3,578.24	3,622.54	3,622.54	13.08	12.75	-4.93	-504.57	3,305.19	3,101.99	3,084.14	17.85	173.810	
3,700.00	3,676.25	3,720.55	3,720.55	13.51	13.10	-4.97	-504.57	3,305.19	3,082.19	3,063.84	18.35	167.975	
3,800.00	3,774.25	3,818.55	3,818.55	13.95	13.46	-5.00	-504.57	3,305.19	3,062.39	3,043.54	18.85	162.444	
3,900.00	3,872.26	3,916.56	3,916.56	14.39	13.81	-5.03	-504.57	3,305.19	3,042.59	3,023.23	19.36	157.193	
4,000.00	3,970.26	4,014.56	4,014.56	14.83	14.16	-5.06	-504.57	3,305.19	3,022.79	3,002.93	19.86	152.203	
4,100.00	4,068.27	4,112.57	4,112.57	15.28	14.51	-5.10	-504.57	3,305.19	3,002.99	2,982.62	20.37	147.456	
4,200.00	4,166.27	4,210.57	4,210.57	15.73	14.86	-5.13	-504.57	3,305.19	2,983.19	2,962.32	20.87	142.933	
4,300.00	4,264.28	4,308.58	4,308.58	16.18	15.21	-5.17	-504.57	3,305.19	2,963.40	2,942.02	21.38	138.621	
4,400.00	4,362.28	4,406.58	4,406.58	16.63	15.56	-5.20	-504.57	3,305.19	2,943.60	2,921.72	21.88	134.505	
4,500.00	4,460.29	4,504.59	4,504.59	17.08	15.91	-5.24	-504.57	3,305.19	2,923.81	2,901.41	22.39	130.572	
4,600.00	4,558.29	4,602.59	4,602.59	17.54	16.27	-5.27	-504.57	3,305.19	2,904.01	2,881.11	22.90	126.811	
4,700.00	4,656.30	4,700.60	4,700.60	18.00	16.62	-5.31	-504.57	3,305.19	2,884.22	2,860.81	23.41	123.211	
4,800.00	4,754.30	4,798.60	4,798.60	18.45	16.97	-5.34	-504.57	3,305.19	2,864.43	2,840.51	23.92	119.761	
4,900.00	4,852.31	4,896.61	4,896.61	18.91	17.32	-5.38	-504.57	3,305.19	2,844.64	2,820.21	24.43	116.453	
5,000.00	4,950.31	4,994.61	4,994.61	19.37	17.67	-5.42	-504.57	3,305.19	2,824.85	2,799.91	24.94	113.279	
5,100.00	5,048.32	5,092.62	5,092.62	19.83	18.02	-5.46	-504.57	3,305.19	2,805.06	2,779.61	25.45	110.230	
5,200.00	5,146.33	5,190.63	5,190.63	20.30	18.37	-5.50	-504.57	3,305.19	2,785.28	2,759.32	25.96	107.300	
5,300.00	5,244.33	5,288.63	5,288.63	20.76	18.73	-5.54	-504.57	3,305.19	2,765.49	2,739.02	26.47	104.481	
5,400.00	5,342.34	5,386.64	5,386.64	21.23	19.08	-5.58	-504.57	3,305.19	2,745.71	2,718.73	26.98	101.768	
5,500.00	5,440.34	5,484.64	5,484.64	21.69	19.43	-5.62	-504.57	3,305.19	2,725.92	2,698.43	27.49	99.154	
5,600.00	5,538.35	5,575.09	5,575.09	22.16	19.74	-5.64	-505.31	3,305.20	2,706.26	2,678.28	27.98	96.728	
5,700.00	5,636.35	5,664.24	5,664.19	22.62	20.03	-5.62	-508.10	3,305.23	2,686.91	2,658.46	28.45	94.437	
5,800.00	5,734.36	5,753.41	5,753.23	23.09	20.32	-5.55	-512.97	3,305.27	2,667.90	2,638.98	28.92	92.242	
5,900.00	5,832.36	5,843.43	5,842.96	23.56	20.61	-5.43	-519.99	3,305.34	2,649.22	2,619.82	29.40	90.122	
6,000.00	5,930.37	5,941.47	5,940.63	24.03	20.93	-5.29	-528.53	3,305.42	2,630.69	2,600.80	29.88	88.028	
6,100.00	6,028.37	6,039.51	6,038.30	24.50	21.24	-5.14	-537.08	3,305.50	2,612.17	2,581.80	30.37	85.998	
6,200.00	6,126.38	6,137.55	6,135.97	24.97	21.57	-4.99	-545.63	3,305.58	2,593.68	2,562.81	30.87	84.029	
6,300.00	6,224.38	6,235.60	6,233.64	25.44	21.89	-4.84	-554.17	3,305.66	2,575.20	2,543.84	31.36	82.118	
6,400.00	6,322.39	6,333.64	6,331.31	25.91	22.21	-4.68	-562.72	3,305.73	2,556.74	2,524.88	31.85	80.263	
6,500.00	6,420.39	6,431.68	6,428.98	26.38	22.54	-4.52	-571.27	3,305.81	2,538.30	2,505.95	32.35	78.463	
6,600.00	6,518.40	6,529.72	6,526.65	26.85	22.87	-4.36	-579.81	3,305.89	2,519.87	2,487.03	32.85	76.714	
6,658.66	6,575.89	6,587.23	6,583.94	27.13	23.06	-4.27	-584.83	3,305.94	2,509.08	2,475.94	33.14	75.712	
6,700.00	6,616.45	6,627.80	6,624.36	27.32	23.20	-4.19	-588.36	3,305.97	2,501.69	2,468.34	33.35	75.023	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,726.24	6,722.42	27.78	23.53	-4.01	-596.95	3,306.05	2,485.65	2,451.81	33.84	73.445	
6,900.00	6,813.77	6,825.05	6,820.85	28.21	23.87	-3.82	-605.56	3,306.13	2,472.23	2,437.88	34.34	71.990	
7,000.00	6,913.01	6,924.16	6,919.58	28.61	24.21	-3.63	-614.20	3,306.21	2,461.41	2,426.57	34.84	70.654	
7,100.00	7,012.53	7,023.50	7,018.55	29.00	24.55	-3.43	-622.86	3,306.29	2,453.23	2,417.89	35.33	69.432	
7,200.00	7,112.27	7,123.01	7,117.68	29.36	24.89	-3.24	-631.53	3,306.37	2,447.67	2,411.85	35.83	68.322	
7,300.00	7,212.16	7,222.62	7,216.91	29.70	25.23	-3.04	-640.22	3,306.46	2,444.76	2,408.44	36.32	67.319	
7,360.29	7,272.43	7,282.69	7,276.75	29.90	25.44	-2.92	-645.45	3,306.50	2,444.28	2,407.67	36.61	66.766	
7,400.00	7,312.14	7,322.26	7,316.16	30.02	25.58	-2.84	-648.90	3,306.54	2,444.49	2,407.68	36.80	66.420	
7,422.86	7,335.00	7,345.03	7,338.85	30.09	25.66	100.37	-650.89	3,306.55	2,444.79	2,407.88	36.91	66.230	
7,500.00	7,412.14	7,421.88	7,415.40	30.32	25.92	100.52	-657.59	3,306.62	2,446.08	2,408.80	37.28	65.609	
7,600.00	7,512.14	7,523.05	7,516.19	30.63	26.28	100.72	-666.39	3,306.70	2,447.77	2,410.00	37.76	64.817	
7,700.00	7,612.14	7,637.25	7,630.12	30.93	26.67	100.90	-674.27	3,306.77	2,449.13	2,410.86	38.27	63.997	
7,800.00	7,712.14	7,751.82	7,744.60	31.23	27.07	101.01	-678.76	3,306.81	2,449.91	2,411.14	38.77	63.187	
7,900.00	7,812.14	7,863.67	7,856.44	31.54	27.45	101.03	-679.87	3,306.82	2,450.11	2,410.83	39.27	62.387	
8,000.00	7,912.14	7,963.67	7,956.44	31.84	27.81	101.03	-679.87	3,306.82	2,450.11	2,410.35	39.76	61.623	
8,100.00	8,012.14	8,063.67	8,056.44	32.15	28.16	101.03	-679.87	3,306.82	2,450.11	2,409.86	40.25	60.877	
8,200.00	8,112.14	8,163.67	8,156.44	32.46	28.51	101.03	-679.87	3,306.82	2,450.11	2,409.37	40.73	60.148	
8,300.00	8,212.14	8,263.67	8,256.44	32.76	28.87	101.03	-679.87	3,306.82	2,450.11	2,408.88	41.22	59.435	
8,400.00	8,312.14	8,363.67	8,356.44	33.07	29.22	101.03	-679.87	3,306.82	2,450.11	2,408.39	41.71	58.739	
8,500.00	8,412.14	8,463.67	8,456.44	33.39	29.57	101.03	-679.87	3,306.82	2,450.11	2,407.90	42.20	58.058	
8,600.00	8,512.14	8,563.67	8,556.44	33.70	29.93	101.03	-679.87	3,306.82	2,450.11	2,407.42	42.69	57.392	
8,700.00	8,612.14	8,663.67	8,656.44	34.01	30.28	101.03	-679.87	3,306.82	2,450.11	2,406.93	43.18	56.741	
8,800.00	8,712.14	8,763.67	8,756.44	34.32	30.63	101.03	-679.87	3,306.82	2,450.11	2,406.44	43.67	56.104	
8,900.00	8,812.14	8,863.67	8,856.44	34.64	30.99	101.03	-679.87	3,306.82	2,450.11	2,405.94	44.16	55.481	
9,000.00	8,912.14	8,963.67	8,956.44	34.95	31.34	101.03	-679.87	3,306.82	2,450.11	2,405.45	44.65	54.870	
9,100.00	9,012.14	9,063.67	9,056.44	35.27	31.70	101.03	-679.87	3,306.82	2,450.11	2,404.96	45.14	54.273	
9,200.00	9,112.14	9,163.67	9,156.44	35.59	32.05	101.03	-679.87	3,306.82	2,450.11	2,404.47	45.64	53.688	
9,300.00	9,212.14	9,263.67	9,256.44	35.90	32.41	101.03	-679.87	3,306.82	2,450.11	2,403.98	46.13	53.115	
9,400.00	9,312.14	9,363.67	9,356.44	36.22	32.76	101.03	-679.87	3,306.82	2,450.11	2,403.49	46.62	52.554	
9,500.00	9,412.14	9,463.67	9,456.44	36.54	33.12	101.03	-679.87	3,306.82	2,450.11	2,402.99	47.11	52.005	
9,600.00	9,512.14	9,563.67	9,556.44	36.86	33.47	101.03	-679.87	3,306.82	2,450.11	2,402.50	47.61	51.466	
9,700.00	9,612.14	9,663.67	9,656.44	37.18	33.82	101.03	-679.87	3,306.82	2,450.11	2,402.01	48.10	50.938	
9,800.00	9,712.14	9,763.67	9,756.44	37.50	34.18	101.03	-679.87	3,306.82	2,450.11	2,401.51	48.59	50.421	
9,900.00	9,812.14	9,863.67	9,856.44	37.83	34.53	101.03	-679.87	3,306.82	2,450.11	2,401.02	49.09	49.914	
10,000.00	9,912.14	9,963.67	9,956.44	38.15	34.89	101.03	-679.87	3,306.82	2,450.11	2,400.52	49.58	49.416	
10,100.00	10,012.14	10,063.67	10,056.44	38.47	35.24	101.03	-679.87	3,306.82	2,450.11	2,400.03	50.08	48.928	
10,200.00	10,112.14	10,163.67	10,156.44	38.80	35.60	101.03	-679.87	3,306.82	2,450.11	2,399.54	50.57	48.450	
10,300.00	10,212.14	10,263.67	10,256.44	39.12	35.96	101.03	-679.87	3,306.82	2,450.11	2,399.04	51.07	47.980	
10,400.00	10,312.14	10,363.67	10,356.44	39.44	36.31	101.03	-679.87	3,306.82	2,450.11	2,398.55	51.56	47.519	
10,500.00	10,412.14	10,463.67	10,456.44	39.77	36.67	101.03	-679.87	3,306.82	2,450.11	2,398.05	52.06	47.067	
10,600.00	10,512.14	10,563.67	10,556.44	40.10	37.02	101.03	-679.87	3,306.82	2,450.11	2,397.55	52.55	46.623	
10,700.00	10,612.14	10,663.67	10,656.44	40.42	37.38	101.03	-679.87	3,306.82	2,450.11	2,397.06	53.05	46.187	
10,800.00	10,712.14	10,763.67	10,756.44	40.75	37.73	101.03	-679.87	3,306.82	2,450.11	2,396.56	53.54	45.760	
10,900.00	10,812.14	10,863.67	10,856.44	41.08	38.09	101.03	-679.87	3,306.82	2,450.11	2,396.07	54.04	45.339	
11,000.00	10,912.14	10,963.67	10,956.44	41.41	38.44	101.03	-679.87	3,306.82	2,450.11	2,395.57	54.54	44.927	
11,100.00	11,012.14	11,440.37	11,384.89	41.74	39.89	96.95	-504.01	3,305.16	2,443.13	2,387.87	55.26	44.211	
11,200.00	11,112.14	11,641.33	11,496.19	42.06	40.41	93.03	-337.92	3,303.58	2,428.81	2,372.94	55.88	43.467	
11,300.00	11,212.14	11,719.62	11,522.77	42.39	40.61	91.27	-264.35	3,302.89	2,416.20	2,359.72	56.48	42.777	
11,400.00	11,312.14	11,759.70	11,532.42	42.72	40.72	90.35	-225.46	3,302.52	2,407.00	2,349.99	57.01	42.222	
11,500.00	11,412.14	11,783.83	11,536.92	43.06	40.78	89.78	-201.76	3,302.29	2,401.66	2,344.21	57.45	41.802	
11,582.58	11,494.72	11,797.50	11,539.02	43.33	40.82	89.46	-188.25	3,302.16	2,400.27	2,342.51	57.76	41.553 CC	
11,600.00	11,512.14	11,800.00	11,539.37	43.39	40.83	89.40	-185.78	3,302.14	2,400.33	2,342.51	57.82	41.511	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,650.90	11,563.04	11,806.17	11,540.18	43.56	40.84	89.25	-179.66	3,302.08	2,401.23	2,343.24	57.98	41.412	
11,700.00	11,612.08	11,813.08	11,541.02	43.72	40.86	89.47	-172.80	3,302.02	2,403.08	2,344.96	58.12	41.345	
11,750.00	11,661.65	11,822.48	11,542.02	43.87	40.89	88.97	-163.46	3,301.93	2,405.92	2,347.67	58.25	41.305	
11,800.00	11,710.46	11,833.79	11,543.03	44.02	40.92	88.34	-152.19	3,301.82	2,409.66	2,351.30	58.36	41.292	
11,850.00	11,758.16	11,850.00	11,544.08	44.16	40.96	87.52	-136.02	3,301.67	2,414.22	2,355.76	58.46	41.299	
11,900.00	11,804.37	11,860.79	11,544.53	44.29	41.00	86.76	-125.24	3,301.57	2,419.51	2,360.98	58.53	41.340	
11,950.00	11,848.74	11,875.98	11,544.81	44.41	41.04	85.84	-110.05	3,301.42	2,425.44	2,366.84	58.59	41.396	
12,000.00	11,890.94	11,894.89	11,544.60	44.51	41.09	84.82	-91.14	3,301.24	2,431.90	2,373.25	58.65	41.464	
12,050.00	11,930.64	11,919.37	11,543.93	44.60	41.17	83.66	-66.68	3,301.01	2,438.75	2,380.03	58.72	41.532	
12,100.00	11,967.55	11,952.05	11,543.02	44.68	41.28	82.38	-34.01	3,300.70	2,445.73	2,386.93	58.80	41.591	
12,150.00	12,001.37	11,987.90	11,542.04	44.74	41.40	81.10	1.83	3,300.36	2,452.67	2,393.78	58.89	41.647	
12,200.00	12,031.86	12,026.65	11,540.97	44.80	41.55	79.87	40.56	3,300.00	2,459.36	2,400.37	59.00	41.686	
12,250.00	12,058.79	12,068.01	11,539.83	44.84	41.71	78.71	81.90	3,299.60	2,465.65	2,406.52	59.12	41.705	
12,300.00	12,081.94	12,111.65	11,538.62	44.87	41.89	77.67	125.53	3,299.19	2,471.35	2,412.08	59.26	41.702	
12,350.00	12,101.14	12,157.26	11,537.37	44.90	42.10	76.76	171.11	3,298.76	2,476.31	2,416.88	59.43	41.667	
12,400.00	12,116.24	12,204.47	11,536.06	44.92	42.32	76.01	218.30	3,298.31	2,480.42	2,420.80	59.62	41.604	
12,450.00	12,127.14	12,252.93	11,534.73	44.95	42.57	75.44	266.74	3,297.85	2,483.55	2,423.70	59.84	41.502	
12,500.00	12,133.74	12,302.28	11,533.37	44.99	42.83	75.06	316.07	3,297.39	2,485.62	2,425.54	60.08	41.371	
12,550.90	12,136.00	12,353.03	11,531.97	45.03	43.12	74.89	366.80	3,296.90	2,486.59	2,426.23	60.36	41.196	
12,600.00	12,136.00	12,402.11	11,530.61	45.10	43.40	74.86	415.86	3,296.44	2,486.97	2,426.33	60.64	41.010	
12,700.00	12,136.00	12,502.07	11,527.86	45.28	44.03	74.80	515.78	3,295.49	2,487.73	2,426.44	61.29	40.591	
12,800.00	12,136.00	12,602.03	11,525.10	45.54	44.72	74.73	615.70	3,294.55	2,488.50	2,426.49	62.01	40.131	
12,900.00	12,136.00	12,702.00	11,522.35	45.88	45.45	74.67	715.62	3,293.60	2,489.27	2,426.46	62.80	39.636	
13,000.00	12,136.00	12,801.96	11,519.59	46.30	46.23	74.61	815.54	3,292.65	2,490.04	2,426.37	63.67	39.109	
13,100.00	12,136.00	12,901.92	11,516.83	46.78	47.05	74.55	915.46	3,291.70	2,490.82	2,426.21	64.60	38.556	
13,200.00	12,136.00	13,001.88	11,514.08	47.33	47.92	74.49	1,015.38	3,290.76	2,491.59	2,426.00	65.60	37.982	
13,300.00	12,136.00	13,101.84	11,511.32	47.94	48.82	74.43	1,115.30	3,289.81	2,492.37	2,425.72	66.66	37.391	
13,400.00	12,136.00	13,201.81	11,508.56	48.60	49.77	74.37	1,215.21	3,288.86	2,493.16	2,425.38	67.78	36.786	
13,500.00	12,136.00	13,301.77	11,505.81	49.31	50.75	74.31	1,315.13	3,287.92	2,493.94	2,425.00	68.95	36.171	
13,600.00	12,136.00	13,401.73	11,503.05	50.06	51.77	74.25	1,415.05	3,286.97	2,494.73	2,424.56	70.17	35.550	
13,700.00	12,136.00	13,501.69	11,500.30	50.86	52.82	74.19	1,514.97	3,286.02	2,495.53	2,424.08	71.45	34.927	
13,800.00	12,136.00	13,601.65	11,497.54	51.70	53.89	74.13	1,614.89	3,285.08	2,496.32	2,423.55	72.77	34.303	
13,900.00	12,136.00	13,701.61	11,494.78	52.58	55.00	74.07	1,714.81	3,284.13	2,497.12	2,422.98	74.14	33.681	
14,000.00	12,136.00	13,801.58	11,492.03	53.49	56.13	74.01	1,814.73	3,283.18	2,497.92	2,422.37	75.55	33.063	
14,100.00	12,136.00	13,901.54	11,489.27	54.44	57.29	73.94	1,914.65	3,282.23	2,498.72	2,421.72	77.00	32.451	
14,200.00	12,136.00	14,001.50	11,486.51	55.43	58.48	73.88	2,014.57	3,281.29	2,499.53	2,421.04	78.49	31.846	
14,300.00	12,136.00	14,101.46	11,483.76	56.44	59.68	73.82	2,114.49	3,280.34	2,500.34	2,420.33	80.01	31.251	
14,400.00	12,136.00	14,201.42	11,481.00	57.49	60.91	73.76	2,214.41	3,279.39	2,501.15	2,419.58	81.56	30.665	
14,500.00	12,136.00	14,301.39	11,478.25	58.56	62.15	73.70	2,314.33	3,278.45	2,501.96	2,418.81	83.15	30.090	
14,600.00	12,136.00	14,401.35	11,475.49	59.66	63.42	73.64	2,414.25	3,277.50	2,502.78	2,418.02	84.76	29.527	
14,700.00	12,136.00	14,501.31	11,472.73	60.78	64.70	73.58	2,514.17	3,276.55	2,503.60	2,417.19	86.40	28.975	
14,800.00	12,136.00	14,601.27	11,469.98	61.93	66.00	73.52	2,614.09	3,275.61	2,504.42	2,416.35	88.07	28.436	
14,900.00	12,136.00	14,701.23	11,467.22	63.10	67.31	73.46	2,714.01	3,274.66	2,505.25	2,415.48	89.76	27.909	
15,000.00	12,136.00	14,801.20	11,464.46	64.29	68.64	73.40	2,813.93	3,273.71	2,506.08	2,414.60	91.48	27.395	
15,100.00	12,136.00	14,901.16	11,461.71	65.50	69.98	73.34	2,913.85	3,272.77	2,506.91	2,413.69	93.22	26.894	
15,200.00	12,136.00	15,001.12	11,458.95	66.73	71.34	73.28	3,013.77	3,271.82	2,507.74	2,412.77	94.97	26.405	
15,300.00	12,136.00	15,101.08	11,456.20	67.98	72.70	73.22	3,113.68	3,270.87	2,508.58	2,411.83	96.75	25.929	
15,400.00	12,136.00	15,201.04	11,453.44	69.24	74.08	73.16	3,213.60	3,269.92	2,509.41	2,410.87	98.54	25.465	
15,500.00	12,136.00	15,301.01	11,450.68	70.52	75.47	73.10	3,313.52	3,268.98	2,510.26	2,409.90	100.35	25.014	
15,600.00	12,136.00	15,400.97	11,447.93	71.82	76.87	73.04	3,413.44	3,268.03	2,511.10	2,408.92	102.18	24.575	
15,700.00	12,136.00	15,500.93	11,445.17	73.13	78.28	72.98	3,513.36	3,267.08	2,511.95	2,407.93	104.02	24.148	
15,800.00	12,136.00	15,600.89	11,442.41	74.45	79.70	72.92	3,613.28	3,266.14	2,512.80	2,406.92	105.88	23.733	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,900.00	12,136.00	15,700.85	11,439.66	75.78	81.13	72.86	3,713.20	3,265.19	2,513.65	2,405.91	107.75	23.329	
16,000.00	12,136.00	15,800.82	11,436.90	77.13	82.57	72.80	3,813.12	3,264.24	2,514.51	2,404.88	109.63	22.937	
16,100.00	12,136.00	15,900.78	11,434.15	78.49	84.01	72.74	3,913.04	3,263.30	2,515.37	2,403.84	111.52	22.555	
16,200.00	12,136.00	16,000.74	11,431.39	79.86	85.46	72.68	4,012.96	3,262.35	2,516.23	2,402.80	113.43	22.184	
16,300.00	12,136.00	16,100.70	11,428.63	81.24	86.92	72.62	4,112.88	3,261.40	2,517.09	2,401.75	115.34	21.823	
16,400.00	12,136.00	16,200.66	11,425.88	82.64	88.39	72.56	4,212.80	3,260.45	2,517.96	2,400.69	117.27	21.472	
16,500.00	12,136.00	16,300.63	11,423.12	84.04	89.86	72.51	4,312.72	3,259.51	2,518.83	2,399.63	119.20	21.131	
16,600.00	12,136.00	16,400.59	11,420.36	85.45	91.34	72.45	4,412.64	3,258.56	2,519.70	2,398.56	121.14	20.800	
16,700.00	12,136.00	16,500.55	11,417.61	86.86	92.82	72.39	4,512.56	3,257.61	2,520.57	2,397.48	123.09	20.477	
16,800.00	12,136.00	16,600.51	11,414.85	88.29	94.31	72.33	4,612.48	3,256.67	2,521.45	2,396.40	125.05	20.163	
16,900.00	12,136.00	16,700.47	11,412.10	89.72	95.81	72.27	4,712.40	3,255.72	2,522.33	2,395.31	127.02	19.858	
17,000.00	12,136.00	16,800.44	11,409.34	91.17	97.31	72.21	4,812.32	3,254.77	2,523.21	2,394.22	128.99	19.561	
17,100.00	12,136.00	16,900.40	11,406.58	92.61	98.81	72.15	4,912.24	3,253.83	2,524.10	2,393.13	130.97	19.272	
17,200.00	12,136.00	17,000.36	11,403.83	94.07	100.32	72.09	5,012.15	3,252.88	2,524.99	2,392.03	132.96	18.991	
17,300.00	12,136.00	17,100.32	11,401.07	95.53	101.84	72.03	5,112.07	3,251.93	2,525.88	2,390.93	134.95	18.717	
17,400.00	12,136.00	17,200.28	11,398.31	97.00	103.35	71.97	5,211.99	3,250.98	2,526.77	2,389.82	136.95	18.451	
17,500.00	12,136.00	17,300.25	11,395.56	98.47	104.88	71.91	5,311.91	3,250.04	2,527.67	2,388.72	138.95	18.191	
17,600.00	12,136.00	17,400.21	11,392.80	99.95	106.40	71.85	5,411.83	3,249.09	2,528.57	2,387.61	140.96	17.938	
17,700.00	12,136.00	17,500.17	11,390.05	101.44	107.93	71.79	5,511.75	3,248.14	2,529.47	2,386.50	142.97	17.692	
17,800.00	12,136.00	17,600.13	11,387.29	102.92	109.47	71.74	5,611.67	3,247.20	2,530.37	2,385.39	144.99	17.452	
17,900.00	12,136.00	17,700.09	11,384.53	104.42	111.00	71.68	5,711.59	3,246.25	2,531.28	2,384.27	147.01	17.219	
18,000.00	12,136.00	17,800.06	11,381.78	105.92	112.54	71.62	5,811.51	3,245.30	2,532.19	2,383.15	149.03	16.991	
18,100.00	12,136.00	17,900.02	11,379.02	107.42	114.09	71.56	5,911.43	3,244.36	2,533.10	2,382.04	151.06	16.769	
18,200.00	12,136.00	17,999.98	11,376.26	108.93	115.63	71.50	6,011.35	3,243.41	2,534.02	2,380.92	153.09	16.552	
18,300.00	12,136.00	18,099.94	11,373.51	110.44	117.18	71.44	6,111.27	3,242.46	2,534.93	2,379.81	155.13	16.341	
18,400.00	12,136.00	18,199.90	11,370.75	111.96	118.73	71.38	6,211.19	3,241.52	2,535.85	2,378.69	157.16	16.135	
18,500.00	12,136.00	18,299.87	11,368.00	113.48	120.29	71.32	6,311.11	3,240.57	2,536.78	2,377.57	159.21	15.934	
18,600.00	12,136.00	18,399.83	11,365.24	115.00	121.84	71.26	6,411.03	3,239.62	2,537.70	2,376.45	161.25	15.738	
18,700.00	12,136.00	18,499.79	11,362.48	116.53	123.40	71.21	6,510.95	3,238.67	2,538.63	2,375.34	163.30	15.546	
18,800.00	12,136.00	18,599.75	11,359.73	118.06	124.97	71.15	6,610.87	3,237.73	2,539.56	2,374.22	165.34	15.359	
18,900.00	12,136.00	18,699.71	11,356.97	119.59	126.53	71.09	6,710.79	3,236.78	2,540.50	2,373.10	167.40	15.177	
19,000.00	12,136.00	18,799.68	11,354.21	121.13	128.10	71.03	6,810.71	3,235.83	2,541.43	2,371.98	169.45	14.998	
19,100.00	12,136.00	18,899.64	11,351.46	122.67	129.67	70.97	6,910.62	3,234.89	2,542.37	2,370.87	171.51	14.824	
19,200.00	12,136.00	18,999.60	11,348.70	124.21	131.24	70.91	7,010.54	3,233.94	2,543.31	2,369.75	173.56	14.654	
19,300.00	12,136.00	19,099.56	11,345.95	125.75	132.81	70.86	7,110.46	3,232.99	2,544.26	2,368.64	175.62	14.487	
19,400.00	12,136.00	19,199.52	11,343.19	127.30	134.38	70.80	7,210.38	3,232.05	2,545.20	2,367.53	177.68	14.325	
19,500.00	12,136.00	19,299.49	11,340.43	128.85	135.96	70.74	7,310.30	3,231.10	2,546.15	2,366.41	179.74	14.166	
19,600.00	12,136.00	19,399.45	11,337.68	130.41	137.54	70.68	7,410.22	3,230.15	2,547.11	2,365.30	181.80	14.010	
19,700.00	12,136.00	19,499.41	11,334.92	131.96	139.12	70.62	7,510.14	3,229.20	2,548.06	2,364.19	183.87	13.858	
19,800.00	12,136.00	19,599.37	11,332.16	133.52	140.70	70.56	7,610.06	3,228.26	2,549.02	2,363.09	185.93	13.710	
19,900.00	12,136.00	19,699.33	11,329.41	135.08	142.28	70.51	7,709.98	3,227.31	2,549.98	2,361.98	188.00	13.564	
20,000.00	12,136.00	19,799.30	11,326.65	136.64	143.87	70.45	7,809.90	3,226.36	2,550.94	2,360.88	190.06	13.422	
20,100.00	12,136.00	19,899.26	11,323.89	138.21	145.45	70.39	7,909.82	3,225.42	2,551.91	2,359.78	192.13	13.282	
20,200.00	12,136.00	19,999.22	11,321.14	139.77	147.04	70.33	8,009.74	3,224.47	2,552.87	2,358.68	194.20	13.146	
20,300.00	12,136.00	20,099.18	11,318.38	141.34	148.63	70.27	8,109.66	3,223.52	2,553.84	2,357.58	196.27	13.012	
20,400.00	12,136.00	20,199.14	11,315.63	142.91	150.22	70.22	8,209.58	3,222.58	2,554.82	2,356.48	198.34	12.881	
20,500.00	12,136.00	20,299.10	11,312.87	144.48	151.81	70.16	8,309.50	3,221.63	2,555.79	2,355.38	200.41	12.753	
20,600.00	12,136.00	20,399.07	11,310.11	146.06	153.40	70.10	8,409.42	3,220.68	2,556.77	2,354.29	202.48	12.627	
20,700.00	12,136.00	20,499.03	11,307.36	147.63	155.00	70.04	8,509.34	3,219.73	2,557.75	2,353.20	204.55	12.504	
20,800.00	12,136.00	20,598.99	11,304.60	149.21	156.59	69.99	8,609.26	3,218.79	2,558.74	2,352.11	206.62	12.384	
20,900.00	12,136.00	20,698.95	11,301.84	150.79	158.19	69.93	8,709.18	3,217.84	2,559.72	2,351.03	208.69	12.265	
21,000.00	12,136.00	20,798.91	11,299.09	152.37	159.79	69.87	8,809.10	3,216.89	2,560.71	2,349.94	210.77	12.150	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 604H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,100.00	12,136.00	20,898.88	11,296.33	153.95	161.39	69.81	8,909.01	3,215.95	2,561.70	2,348.87	212.84	12.036	
21,200.00	12,136.00	20,998.84	11,293.58	155.53	162.99	69.76	9,008.93	3,215.00	2,562.70	2,347.79	214.91	11.925	
21,300.00	12,136.00	21,098.80	11,290.82	157.12	164.59	69.70	9,108.85	3,214.05	2,563.69	2,346.71	216.98	11.815	
21,400.00	12,136.00	21,198.76	11,288.06	158.70	166.19	69.64	9,208.77	3,213.11	2,564.69	2,345.64	219.05	11.708	
21,500.00	12,136.00	21,298.72	11,285.31	160.29	167.79	69.58	9,308.69	3,212.16	2,565.69	2,344.57	221.12	11.603	
21,600.00	12,136.00	21,398.69	11,282.55	161.88	169.40	69.53	9,408.61	3,211.21	2,566.70	2,343.50	223.19	11.500	
21,700.00	12,136.00	21,498.65	11,279.79	163.47	171.00	69.47	9,508.53	3,210.27	2,567.70	2,342.44	225.27	11.399	
21,800.00	12,136.00	21,598.61	11,277.04	165.06	172.61	69.41	9,608.45	3,209.32	2,568.71	2,341.38	227.34	11.299	
21,900.00	12,136.00	21,698.57	11,274.28	166.65	174.21	69.35	9,708.37	3,208.37	2,569.72	2,340.32	229.41	11.202	
22,000.00	12,136.00	21,798.53	11,271.53	168.25	175.82	69.30	9,808.29	3,207.42	2,570.74	2,339.26	231.48	11.106	
22,100.00	12,136.00	21,898.50	11,268.77	169.84	177.43	69.24	9,908.21	3,206.48	2,571.76	2,338.21	233.55	11.012	
22,200.00	12,136.00	21,998.46	11,266.01	171.44	179.04	69.18	10,008.13	3,205.53	2,572.78	2,337.16	235.62	10.919	
22,300.00	12,136.00	22,098.42	11,263.26	173.03	180.65	69.13	10,108.05	3,204.58	2,573.80	2,336.11	237.69	10.828	
22,343.22	12,136.00	22,141.62	11,262.07	173.72	181.34	69.10	10,151.23	3,204.17	2,574.24	2,335.66	238.58	10.790	
22,343.71	12,136.00	22,142.11	11,262.05	173.75	181.35	69.10	10,151.72	3,204.17	2,574.24	2,335.66	238.59	10.789	ES, SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,887.70	1,887.70	6.37	6.53	98.78	-504.86	3,270.19	3,308.94	3,299.81	9.13	362.517	
1,900.00	1,900.00	1,944.70	1,944.70	6.58	6.74	98.78	-504.86	3,270.19	3,308.94	3,299.52	9.42	351.393	
2,000.00	2,000.00	2,044.70	2,044.70	6.94	7.10	98.78	-504.86	3,270.19	3,308.94	3,299.01	9.92	333.443	
2,100.00	2,099.99	2,144.69	2,144.69	7.28	7.46	-4.39	-504.86	3,270.19	3,307.63	3,297.21	10.42	317.350	
2,200.00	2,199.91	2,244.61	2,244.61	7.62	7.81	-4.40	-504.86	3,270.19	3,303.72	3,292.80	10.92	302.675	
2,300.00	2,299.69	2,344.39	2,344.39	7.97	8.17	-4.42	-504.86	3,270.19	3,297.20	3,285.79	11.41	289.020	
2,400.00	2,399.27	2,443.97	2,443.97	8.31	8.53	-4.44	-504.86	3,270.19	3,288.07	3,276.17	11.90	276.269	
2,500.00	2,498.57	2,543.27	2,543.27	8.66	8.88	-4.47	-504.86	3,270.19	3,276.35	3,263.96	12.40	264.324	
2,600.00	2,597.54	2,642.24	2,642.24	9.03	9.24	-4.51	-504.86	3,270.19	3,262.05	3,249.16	12.89	253.099	
2,700.00	2,696.09	2,740.79	2,740.79	9.40	9.59	-4.55	-504.86	3,270.19	3,245.17	3,231.78	13.38	242.518	
2,764.20	2,759.12	2,803.82	2,803.82	9.64	9.82	-4.58	-504.86	3,270.19	3,232.97	3,219.28	13.70	236.027	
2,800.00	2,794.20	2,838.90	2,838.90	9.78	9.94	-4.59	-504.86	3,270.19	3,225.88	3,212.01	13.87	232.519	
2,900.00	2,892.20	2,936.90	2,936.90	10.17	10.29	-4.62	-504.86	3,270.19	3,206.07	3,191.70	14.37	223.183	
3,000.00	2,990.21	3,034.91	3,034.91	10.57	10.65	-4.65	-504.86	3,270.19	3,186.26	3,171.40	14.86	214.439	
3,100.00	3,088.21	3,132.91	3,132.91	10.97	11.00	-4.68	-504.86	3,270.19	3,166.45	3,151.09	15.35	206.235	
3,200.00	3,186.22	3,230.92	3,230.92	11.38	11.35	-4.71	-504.86	3,270.19	3,146.64	3,130.79	15.85	198.526	
3,300.00	3,284.22	3,328.92	3,328.92	11.80	11.70	-4.74	-504.86	3,270.19	3,126.83	3,110.48	16.35	191.270	
3,400.00	3,382.23	3,426.93	3,426.93	12.22	12.05	-4.77	-504.86	3,270.19	3,107.02	3,090.17	16.85	184.429	
3,500.00	3,480.24	3,532.39	3,532.39	12.65	12.42	-4.80	-504.99	3,270.14	3,087.18	3,069.82	17.36	177.826	
3,600.00	3,578.24	3,659.37	3,659.32	13.08	12.85	-4.78	-507.87	3,268.79	3,066.68	3,048.77	17.91	171.254	
3,700.00	3,676.25	3,785.65	3,785.38	13.51	13.26	-4.69	-514.54	3,265.68	3,045.25	3,026.81	18.44	165.111	
3,800.00	3,774.25	3,984.89	3,983.95	13.95	13.92	-4.47	-527.73	3,256.50	3,022.19	3,003.06	19.13	157.995	
3,900.00	3,872.26	4,154.47	4,152.94	14.39	14.50	-4.37	-533.41	3,243.60	2,995.30	2,975.55	19.75	151.643	
4,000.00	3,970.26	4,250.59	4,248.70	14.83	14.84	-4.33	-535.79	3,235.56	2,967.82	2,947.58	20.24	146.657	
4,100.00	4,068.27	4,346.72	4,344.46	15.28	15.17	-4.28	-538.16	3,227.52	2,940.34	2,919.62	20.72	141.894	
4,200.00	4,166.27	4,442.85	4,440.22	15.73	15.51	-4.24	-540.54	3,219.49	2,912.87	2,891.66	21.21	137.340	
4,300.00	4,264.28	4,538.97	4,535.98	16.18	15.85	-4.19	-542.92	3,211.45	2,885.39	2,863.70	21.70	132.982	
4,400.00	4,362.28	4,635.10	4,631.74	16.63	16.19	-4.15	-545.30	3,203.42	2,857.92	2,835.73	22.19	128.809	
4,500.00	4,460.29	4,731.23	4,727.50	17.08	16.53	-4.10	-547.68	3,195.38	2,830.45	2,807.77	22.68	124.810	
4,600.00	4,558.29	4,827.35	4,823.26	17.54	16.87	-4.05	-550.06	3,187.34	2,802.98	2,779.81	23.17	120.974	
4,700.00	4,656.30	4,923.48	4,919.02	18.00	17.22	-4.00	-552.43	3,179.31	2,775.52	2,751.85	23.66	117.293	
4,800.00	4,754.30	5,019.61	5,014.78	18.45	17.56	-3.95	-554.81	3,171.27	2,748.05	2,723.89	24.16	113.758	
4,900.00	4,852.31	5,115.73	5,110.54	18.91	17.91	-3.90	-557.19	3,163.24	2,720.59	2,695.94	24.65	110.360	
5,000.00	4,950.31	5,211.86	5,206.30	19.37	18.26	-3.85	-559.57	3,155.20	2,693.13	2,667.98	25.15	107.093	
5,100.00	5,048.32	5,307.99	5,302.06	19.83	18.61	-3.80	-561.95	3,147.17	2,665.67	2,640.02	25.64	103.948	
5,200.00	5,146.33	5,404.11	5,397.83	20.30	18.95	-3.74	-564.33	3,139.13	2,638.21	2,612.07	26.14	100.921	
5,300.00	5,244.33	5,500.24	5,493.59	20.76	19.30	-3.69	-566.70	3,131.09	2,610.76	2,584.12	26.64	98.003	
5,400.00	5,342.34	5,596.36	5,589.35	21.23	19.66	-3.63	-569.08	3,123.06	2,583.31	2,556.17	27.14	95.190	
5,500.00	5,440.34	5,692.49	5,685.11	21.69	20.01	-3.57	-571.46	3,115.02	2,555.86	2,528.22	27.64	92.477	
5,600.00	5,538.35	5,788.62	5,780.87	22.16	20.36	-3.51	-573.84	3,106.99	2,528.41	2,500.27	28.14	89.858	
5,700.00	5,636.35	5,884.74	5,876.63	22.62	20.71	-3.45	-576.22	3,098.95	2,500.96	2,472.33	28.64	87.328	
5,800.00	5,734.36	5,980.87	5,972.39	23.09	21.06	-3.39	-578.60	3,090.91	2,473.52	2,444.38	29.14	84.884	
5,900.00	5,832.36	6,077.00	6,068.15	23.56	21.42	-3.33	-580.97	3,082.88	2,446.08	2,416.44	29.64	82.521	
6,000.00	5,930.37	6,173.12	6,163.91	24.03	21.77	-3.26	-583.35	3,074.84	2,418.65	2,388.50	30.14	80.236	
6,100.00	6,028.37	6,269.25	6,259.67	24.50	22.13	-3.20	-585.73	3,066.81	2,391.21	2,360.57	30.65	78.024	
6,200.00	6,126.38	6,365.38	6,355.43	24.97	22.48	-3.13	-588.11	3,058.77	2,363.78	2,332.63	31.15	75.883	
6,300.00	6,224.38	6,461.50	6,451.19	25.44	22.84	-3.06	-590.49	3,050.73	2,336.36	2,304.70	31.65	73.808	
6,400.00	6,322.39	6,557.63	6,546.95	25.91	23.19	-2.99	-592.87	3,042.70	2,308.93	2,276.77	32.16	71.798	
6,500.00	6,420.39	6,653.76	6,642.71	26.38	23.55	-2.92	-595.24	3,034.66	2,281.51	2,248.85	32.66	69.849	
6,600.00	6,518.40	6,749.88	6,738.47	26.85	23.91	-2.84	-597.62	3,026.63	2,254.09	2,220.92	33.17	67.958	
6,658.66	6,575.89	6,806.27	6,794.64	27.13	24.12	-2.80	-599.02	3,021.91	2,238.01	2,204.55	33.47	66.876	
6,700.00	6,616.45	6,846.07	6,834.29	27.32	24.27	-2.76	-600.00	3,018.59	2,226.89	2,193.22	33.67	66.131	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

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Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,942.82	6,930.67	27.78	24.63	-2.66	-602.40	3,010.50	2,201.79	2,167.61	34.18	64.418	
6,900.00	6,813.77	7,040.18	7,027.67	28.21	24.99	-2.56	-604.80	3,002.36	2,179.23	2,144.54	34.69	62.828	
7,000.00	6,913.01	7,138.10	7,125.21	28.61	25.36	-2.45	-607.23	2,994.17	2,159.23	2,124.04	35.19	61.358	
7,100.00	7,012.53	7,236.50	7,223.24	29.00	25.72	-2.35	-609.66	2,985.95	2,141.80	2,106.11	35.70	60.002	
7,200.00	7,112.27	7,335.33	7,321.69	29.36	26.09	-2.24	-612.11	2,977.68	2,126.97	2,090.77	36.20	58.759	
7,300.00	7,212.16	7,434.50	7,420.48	29.70	26.46	-2.13	-614.56	2,969.39	2,114.73	2,078.03	36.70	57.623	
7,400.00	7,312.14	7,533.95	7,519.56	30.02	26.84	-2.01	-617.02	2,961.08	2,105.10	2,067.90	37.20	56.591	
7,422.86	7,335.00	7,556.72	7,542.23	30.09	26.92	101.18	-617.58	2,959.18	2,103.26	2,065.95	37.31	56.371	
7,500.00	7,412.14	7,633.57	7,618.79	30.32	27.21	101.27	-619.49	2,952.75	2,097.30	2,059.61	37.69	55.646	
7,600.00	7,512.14	7,733.18	7,718.03	30.63	27.58	101.38	-621.95	2,944.42	2,089.58	2,051.40	38.18	54.728	
7,700.00	7,612.14	7,832.80	7,817.27	30.93	27.96	101.49	-624.42	2,936.10	2,081.87	2,043.20	38.67	53.833	
7,800.00	7,712.14	7,932.42	7,916.51	31.23	28.33	101.60	-626.88	2,927.77	2,074.17	2,035.01	39.17	52.959	
7,900.00	7,812.14	8,032.04	8,015.75	31.54	28.71	101.72	-629.34	2,919.44	2,066.48	2,026.82	39.66	52.106	
8,000.00	7,912.14	8,131.66	8,114.99	31.84	29.08	101.83	-631.81	2,911.11	2,058.79	2,018.64	40.15	51.274	
8,100.00	8,012.14	8,231.28	8,214.23	32.15	29.45	101.95	-634.27	2,902.79	2,051.12	2,010.47	40.65	50.461	
8,200.00	8,112.14	8,330.90	8,313.47	32.46	29.83	102.06	-636.74	2,894.46	2,043.45	2,002.30	41.14	49.667	
8,300.00	8,212.14	8,430.52	8,412.71	32.76	30.21	102.18	-639.20	2,886.13	2,035.79	1,994.15	41.64	48.892	
8,400.00	8,312.14	8,530.14	8,511.95	33.07	30.58	102.30	-641.67	2,877.80	2,028.13	1,986.00	42.13	48.135	
8,500.00	8,412.14	8,629.76	8,611.19	33.39	30.96	102.42	-644.13	2,869.47	2,020.49	1,977.86	42.63	47.395	
8,600.00	8,512.14	8,729.38	8,710.43	33.70	31.33	102.54	-646.60	2,861.15	2,012.86	1,969.73	43.13	46.671	
8,700.00	8,612.14	8,829.00	8,809.67	34.01	31.71	102.66	-649.06	2,852.82	2,005.23	1,961.60	43.63	45.964	
8,800.00	8,712.14	8,928.62	8,908.91	34.32	32.09	102.78	-651.53	2,844.49	1,997.61	1,953.49	44.12	45.272	
8,900.00	8,812.14	9,028.23	9,008.15	34.64	32.46	102.90	-653.99	2,836.16	1,990.00	1,945.38	44.62	44.595	
9,000.00	8,912.14	9,127.85	9,107.39	34.95	32.84	103.02	-656.46	2,827.83	1,982.41	1,937.28	45.12	43.934	
9,100.00	9,012.14	9,227.47	9,206.63	35.27	33.22	103.15	-658.92	2,819.51	1,974.82	1,929.19	45.62	43.286	
9,200.00	9,112.14	9,327.09	9,305.87	35.59	33.59	103.27	-661.39	2,811.18	1,967.24	1,921.11	46.12	42.652	
9,300.00	9,212.14	9,426.71	9,405.11	35.90	33.97	103.40	-663.85	2,802.85	1,959.67	1,913.04	46.62	42.032	
9,400.00	9,312.14	9,526.33	9,504.35	36.22	34.35	103.53	-666.32	2,794.52	1,952.10	1,904.98	47.12	41.424	
9,500.00	9,412.14	9,625.95	9,603.59	36.54	34.72	103.66	-668.78	2,786.19	1,944.55	1,896.93	47.63	40.830	
9,600.00	9,512.14	9,725.57	9,702.83	36.86	35.10	103.79	-671.24	2,777.87	1,937.01	1,888.88	48.13	40.247	
9,700.00	9,612.14	9,825.19	9,802.07	37.18	35.48	103.92	-673.71	2,769.54	1,929.48	1,880.85	48.63	39.677	
9,800.00	9,712.14	9,924.81	9,901.31	37.50	35.86	104.05	-676.17	2,761.21	1,921.96	1,872.83	49.13	39.118	
9,900.00	9,812.14	10,024.43	10,000.55	37.83	36.24	104.18	-678.64	2,752.88	1,914.45	1,864.81	49.64	38.570	
10,000.00	9,912.14	10,121.24	10,096.99	38.15	36.60	104.31	-681.03	2,744.79	1,906.95	1,856.81	50.14	38.034	
10,100.00	10,012.14	10,200.00	10,175.52	38.47	36.90	104.40	-682.75	2,738.98	1,900.30	1,849.68	50.62	37.539	
10,200.00	10,112.14	10,262.99	10,238.40	38.80	37.13	104.46	-683.80	2,735.45	1,895.19	1,844.11	51.08	37.100	
10,300.00	10,212.14	10,333.10	10,308.45	39.12	37.38	104.50	-684.61	2,732.70	1,891.67	1,840.13	51.54	36.703	
10,400.00	10,312.14	10,400.00	10,375.33	39.44	37.62	104.53	-685.05	2,731.22	1,889.74	1,837.76	51.98	36.354	
10,500.00	10,412.14	10,481.51	10,456.84	39.77	37.90	104.53	-685.16	2,730.84	1,889.31	1,836.88	52.44	36.031	
10,600.00	10,512.14	10,581.51	10,556.84	40.10	38.24	104.53	-685.16	2,730.84	1,889.31	1,836.39	52.92	35.700	
10,700.00	10,612.14	10,681.51	10,656.84	40.42	38.58	104.53	-685.16	2,730.84	1,889.31	1,835.90	53.41	35.375	
10,800.00	10,712.14	10,781.51	10,756.84	40.75	38.91	104.53	-685.16	2,730.84	1,889.31	1,835.42	53.90	35.055	
10,900.00	10,812.14	10,881.51	10,856.84	41.08	39.25	104.53	-685.16	2,730.84	1,889.31	1,834.93	54.38	34.741	
11,000.00	10,912.14	10,981.51	10,956.84	41.41	39.59	104.53	-685.16	2,730.84	1,889.31	1,834.44	54.87	34.432	
11,100.00	11,012.14	11,081.51	11,056.84	41.74	39.93	104.53	-685.16	2,730.84	1,889.31	1,833.95	55.36	34.129	
11,200.00	11,112.14	11,181.51	11,156.84	42.06	40.27	104.53	-685.16	2,730.84	1,889.31	1,833.46	55.85	33.830	
11,300.00	11,212.14	11,281.51	11,256.84	42.39	40.61	104.53	-685.16	2,730.84	1,889.31	1,832.98	56.34	33.537	
11,400.00	11,312.14	11,751.94	11,681.61	42.72	41.87	99.46	-515.44	2,729.24	1,880.68	1,823.91	56.77	33.126	
11,500.00	11,412.14	11,958.33	11,797.62	43.06	42.10	94.23	-346.10	2,727.63	1,862.07	1,804.76	57.32	32.488	
11,600.00	11,512.14	12,038.19	11,825.04	43.39	42.19	91.89	-271.16	2,726.92	1,845.51	1,787.51	58.00	31.820	
11,650.90	11,563.04	12,061.78	11,831.12	43.56	42.23	91.17	-248.37	2,726.71	1,838.71	1,780.39	58.32	31.530	
11,700.00	11,612.08	12,081.89	11,835.55	43.72	42.26	91.67	-228.76	2,726.52	1,833.39	1,774.79	58.60	31.287	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,750.00	11,661.65	12,103.34	11,839.52	43.87	42.31	91.44	-207.68	2,726.32	1,829.27	1,770.41	58.86	31.079	
11,800.00	11,710.46	12,125.49	11,842.79	44.02	42.36	91.08	-185.78	2,726.12	1,826.42	1,767.33	59.09	30.909	
11,850.00	11,758.16	12,148.13	11,845.25	44.16	42.41	90.59	-163.27	2,725.90	1,824.78	1,765.49	59.29	30.777	
11,897.05	11,801.69	12,169.78	11,846.77	44.28	42.47	90.03	-141.68	2,725.70	1,824.30	1,764.84	59.45	30.685	CC
11,900.00	11,804.37	12,171.14	11,846.84	44.29	42.47	89.99	-140.32	2,725.68	1,824.30	1,764.84	59.46	30.680	
11,950.00	11,848.74	12,194.44	11,847.51	44.41	42.53	89.29	-117.03	2,725.46	1,824.88	1,765.28	59.60	30.617	
12,000.00	11,890.94	12,218.30	11,847.22	44.51	42.60	88.50	-93.17	2,725.24	1,826.46	1,766.74	59.72	30.583	
12,050.00	11,930.64	12,247.51	11,846.38	44.60	42.70	87.51	-63.97	2,724.96	1,828.89	1,769.05	59.84	30.565	
12,100.00	11,967.55	12,280.15	11,845.44	44.68	42.81	86.43	-31.35	2,724.65	1,831.96	1,772.02	59.94	30.562	
12,150.00	12,001.37	12,315.96	11,844.41	44.74	42.93	85.30	4.44	2,724.31	1,835.48	1,775.43	60.05	30.566	
12,200.00	12,031.86	12,354.68	11,843.30	44.80	43.08	84.16	43.14	2,723.95	1,839.25	1,779.08	60.16	30.571	
12,250.00	12,058.79	12,396.00	11,842.11	44.84	43.25	83.06	84.44	2,723.56	1,843.04	1,782.76	60.28	30.574	
12,300.00	12,081.94	12,439.61	11,840.85	44.87	43.44	82.04	128.04	2,723.14	1,846.68	1,786.26	60.42	30.562	
12,350.00	12,101.14	12,485.19	11,839.54	44.90	43.64	81.14	173.60	2,722.71	1,849.99	1,789.41	60.58	30.537	
12,400.00	12,116.24	12,532.39	11,838.18	44.92	43.87	80.39	220.77	2,722.27	1,852.81	1,792.05	60.77	30.491	
12,450.00	12,127.14	12,580.83	11,836.79	44.95	44.11	79.81	269.19	2,721.81	1,855.02	1,794.04	60.97	30.423	
12,500.00	12,133.74	12,630.17	11,835.37	44.99	44.38	79.42	318.51	2,721.34	1,856.50	1,795.29	61.21	30.330	
12,550.90	12,136.00	12,680.92	11,833.91	45.03	44.66	79.24	369.23	2,720.86	1,857.22	1,795.74	61.48	30.210	
12,600.00	12,136.00	12,730.00	11,832.50	45.10	44.95	79.20	418.29	2,720.40	1,857.50	1,795.74	61.76	30.076	
12,700.00	12,136.00	12,829.96	11,829.63	45.28	45.57	79.11	518.20	2,719.45	1,858.09	1,795.69	62.39	29.780	
12,800.00	12,136.00	12,929.91	11,826.75	45.54	46.24	79.02	618.11	2,718.50	1,858.68	1,795.57	63.10	29.454	
12,900.00	12,136.00	13,029.87	11,823.88	45.88	46.96	78.94	718.03	2,717.56	1,859.27	1,795.38	63.89	29.102	
13,000.00	12,136.00	13,129.83	11,821.00	46.30	47.73	78.85	817.94	2,716.61	1,859.87	1,795.12	64.75	28.726	
13,100.00	12,136.00	13,229.79	11,818.13	46.78	48.53	78.76	917.85	2,715.67	1,860.47	1,794.80	65.67	28.330	
13,200.00	12,136.00	13,329.75	11,815.26	47.33	49.38	78.68	1,017.76	2,714.72	1,861.08	1,794.41	66.66	27.918	
13,300.00	12,136.00	13,429.71	11,812.38	47.94	50.27	78.59	1,117.68	2,713.77	1,861.69	1,793.97	67.72	27.493	
13,400.00	12,136.00	13,529.67	11,809.51	48.60	51.20	78.50	1,217.59	2,712.83	1,862.30	1,793.47	68.83	27.057	
13,500.00	12,136.00	13,629.62	11,806.63	49.31	52.16	78.42	1,317.50	2,711.88	1,862.92	1,792.92	70.00	26.613	
13,600.00	12,136.00	13,729.58	11,803.76	50.06	53.16	78.33	1,417.42	2,710.94	1,863.54	1,792.32	71.22	26.165	
13,700.00	12,136.00	13,829.54	11,800.88	50.86	54.19	78.24	1,517.33	2,709.99	1,864.17	1,791.67	72.50	25.713	
13,800.00	12,136.00	13,929.50	11,798.01	51.70	55.24	78.16	1,617.24	2,709.04	1,864.80	1,790.98	73.82	25.261	
13,900.00	12,136.00	14,029.46	11,795.13	52.58	56.33	78.07	1,717.15	2,708.10	1,865.44	1,790.25	75.19	24.809	
14,000.00	12,136.00	14,129.42	11,792.26	53.49	57.44	77.99	1,817.07	2,707.15	1,866.08	1,789.47	76.60	24.360	
14,100.00	12,136.00	14,229.38	11,789.38	54.44	58.58	77.90	1,916.98	2,706.20	1,866.72	1,788.67	78.06	23.915	
14,200.00	12,136.00	14,329.34	11,786.51	55.43	59.74	77.81	2,016.89	2,705.26	1,867.37	1,787.82	79.55	23.475	
14,300.00	12,136.00	14,429.29	11,783.64	56.44	60.93	77.73	2,116.81	2,704.31	1,868.02	1,786.95	81.07	23.041	
14,400.00	12,136.00	14,529.25	11,780.76	57.49	62.13	77.64	2,216.72	2,703.37	1,868.68	1,786.05	82.63	22.614	
14,500.00	12,136.00	14,629.21	11,777.89	58.56	63.36	77.56	2,316.63	2,702.42	1,869.34	1,785.11	84.23	22.194	
14,600.00	12,136.00	14,729.17	11,775.01	59.66	64.60	77.47	2,416.54	2,701.47	1,870.01	1,784.16	85.85	21.783	
14,700.00	12,136.00	14,829.13	11,772.14	60.78	65.87	77.38	2,516.46	2,700.53	1,870.67	1,783.18	87.50	21.380	
14,800.00	12,136.00	14,929.09	11,769.26	61.93	67.15	77.30	2,616.37	2,699.58	1,871.35	1,782.18	89.17	20.986	
14,900.00	12,136.00	15,029.05	11,766.39	63.10	68.44	77.21	2,716.28	2,698.64	1,872.03	1,781.15	90.87	20.600	
15,000.00	12,136.00	15,129.00	11,763.51	64.29	69.75	77.13	2,816.20	2,697.69	1,872.71	1,780.11	92.60	20.224	
15,100.00	12,136.00	15,228.96	11,760.64	65.50	71.08	77.04	2,916.11	2,696.74	1,873.39	1,779.05	94.35	19.856	
15,200.00	12,136.00	15,328.92	11,757.77	66.73	72.41	76.96	3,016.02	2,695.80	1,874.08	1,777.97	96.12	19.498	
15,300.00	12,136.00	15,428.88	11,754.89	67.98	73.76	76.87	3,115.93	2,694.85	1,874.78	1,776.88	97.90	19.149	
15,400.00	12,136.00	15,528.84	11,752.02	69.24	75.13	76.79	3,215.85	2,693.91	1,875.48	1,775.77	99.71	18.810	
15,500.00	12,136.00	15,628.80	11,749.14	70.52	76.50	76.70	3,315.76	2,692.96	1,876.18	1,774.65	101.53	18.479	
15,600.00	12,136.00	15,728.76	11,746.27	71.82	77.89	76.62	3,415.67	2,692.01	1,876.89	1,773.52	103.37	18.157	
15,700.00	12,136.00	15,828.71	11,743.39	73.13	79.28	76.53	3,515.59	2,691.07	1,877.60	1,772.37	105.22	17.844	
15,800.00	12,136.00	15,928.67	11,740.52	74.45	80.68	76.45	3,615.50	2,690.12	1,878.31	1,771.22	107.09	17.539	
15,900.00	12,136.00	16,028.63	11,737.64	75.78	82.10	76.36	3,715.41	2,689.18	1,879.03	1,770.06	108.97	17.243	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,000.00	12,136.00	16,128.59	11,734.77	77.13	83.52	76.28	3,815.32	2,688.23	1,879.76	1,768.89	110.87	16.955	
16,100.00	12,136.00	16,228.55	11,731.89	78.49	84.95	76.19	3,915.24	2,687.28	1,880.48	1,767.71	112.77	16.675	
16,200.00	12,136.00	16,328.51	11,729.02	79.86	86.39	76.11	4,015.15	2,686.34	1,881.21	1,766.52	114.69	16.402	
16,300.00	12,136.00	16,428.47	11,726.15	81.24	87.84	76.02	4,115.06	2,685.39	1,881.95	1,765.33	116.62	16.137	
16,400.00	12,136.00	16,528.43	11,723.27	82.64	89.29	75.94	4,214.97	2,684.45	1,882.69	1,764.13	118.56	15.880	
16,500.00	12,136.00	16,628.38	11,720.40	84.04	90.75	75.85	4,314.89	2,683.50	1,883.43	1,762.93	120.51	15.629	
16,600.00	12,136.00	16,728.34	11,717.52	85.45	92.22	75.77	4,414.80	2,682.55	1,884.18	1,761.72	122.46	15.386	
16,700.00	12,136.00	16,828.30	11,714.65	86.86	93.69	75.68	4,514.71	2,681.61	1,884.93	1,760.51	124.43	15.149	
16,800.00	12,136.00	16,928.26	11,711.77	88.29	95.17	75.60	4,614.63	2,680.66	1,885.69	1,759.29	126.40	14.918	
16,900.00	12,136.00	17,028.22	11,708.90	89.72	96.65	75.52	4,714.54	2,679.72	1,886.45	1,758.07	128.38	14.694	
17,000.00	12,136.00	17,128.18	11,706.02	91.17	98.14	75.43	4,814.45	2,678.77	1,887.22	1,756.85	130.37	14.476	
17,100.00	12,136.00	17,228.14	11,703.15	92.61	99.64	75.35	4,914.36	2,677.82	1,887.98	1,755.62	132.36	14.264	
17,200.00	12,136.00	17,328.09	11,700.28	94.07	101.13	75.26	5,014.28	2,676.88	1,888.76	1,754.40	134.36	14.057	
17,300.00	12,136.00	17,428.05	11,697.40	95.53	102.64	75.18	5,114.19	2,675.93	1,889.53	1,753.17	136.37	13.856	
17,400.00	12,136.00	17,528.01	11,694.53	97.00	104.15	75.10	5,214.10	2,674.99	1,890.31	1,751.94	138.38	13.661	
17,500.00	12,136.00	17,627.97	11,691.65	98.47	105.66	75.01	5,314.02	2,674.04	1,891.10	1,750.71	140.39	13.470	
17,600.00	12,136.00	17,727.93	11,688.78	99.95	107.18	74.93	5,413.93	2,673.09	1,891.89	1,749.47	142.41	13.285	
17,700.00	12,136.00	17,827.89	11,685.90	101.44	108.70	74.84	5,513.84	2,672.15	1,892.68	1,748.24	144.44	13.104	
17,800.00	12,136.00	17,927.85	11,683.03	102.92	110.22	74.76	5,613.75	2,671.20	1,893.48	1,747.01	146.47	12.928	
17,900.00	12,136.00	18,027.80	11,680.15	104.42	111.75	74.68	5,713.67	2,670.25	1,894.28	1,745.78	148.50	12.756	
18,000.00	12,136.00	18,127.76	11,677.28	105.92	113.28	74.59	5,813.58	2,669.31	1,895.08	1,744.54	150.54	12.589	
18,100.00	12,136.00	18,227.72	11,674.41	107.42	114.82	74.51	5,913.49	2,668.36	1,895.89	1,743.31	152.58	12.426	
18,200.00	12,136.00	18,327.68	11,671.53	108.93	116.36	74.43	6,013.41	2,667.42	1,896.70	1,742.08	154.62	12.267	
18,300.00	12,136.00	18,427.64	11,668.66	110.44	117.90	74.34	6,113.32	2,666.47	1,897.52	1,740.85	156.67	12.112	
18,400.00	12,136.00	18,527.60	11,665.78	111.96	119.44	74.26	6,213.23	2,665.52	1,898.34	1,739.63	158.72	11.961	
18,500.00	12,136.00	18,627.56	11,662.91	113.48	120.99	74.18	6,313.14	2,664.58	1,899.17	1,738.40	160.77	11.813	
18,600.00	12,136.00	18,727.52	11,660.03	115.00	122.54	74.09	6,413.06	2,663.63	1,900.00	1,737.17	162.82	11.669	
18,700.00	12,136.00	18,827.47	11,657.16	116.53	124.09	74.01	6,512.97	2,662.69	1,900.83	1,735.95	164.88	11.529	
18,800.00	12,136.00	18,927.43	11,654.28	118.06	125.65	73.93	6,612.88	2,661.74	1,901.67	1,734.73	166.94	11.391	
18,900.00	12,136.00	19,027.39	11,651.41	119.59	127.20	73.85	6,712.80	2,660.79	1,902.51	1,733.51	169.00	11.258	
19,000.00	12,136.00	19,127.35	11,648.53	121.13	128.76	73.76	6,812.71	2,659.85	1,903.35	1,732.29	171.06	11.127	
19,100.00	12,136.00	19,227.31	11,645.66	122.67	130.33	73.68	6,912.62	2,658.90	1,904.20	1,731.07	173.13	10.999	
19,200.00	12,136.00	19,327.27	11,642.79	124.21	131.89	73.60	7,012.53	2,657.96	1,905.05	1,729.86	175.19	10.874	
19,300.00	12,136.00	19,427.23	11,639.91	125.75	133.46	73.52	7,112.45	2,657.01	1,905.91	1,728.65	177.26	10.752	
19,400.00	12,136.00	19,527.18	11,637.04	127.30	135.02	73.43	7,212.36	2,656.06	1,906.77	1,727.45	179.32	10.633	
19,500.00	12,136.00	19,627.14	11,634.16	128.85	136.59	73.35	7,312.27	2,655.12	1,907.64	1,726.24	181.39	10.517	
19,600.00	12,136.00	19,727.10	11,631.29	130.41	138.17	73.27	7,412.19	2,654.17	1,908.50	1,725.04	183.46	10.403	
19,700.00	12,136.00	19,827.06	11,628.41	131.96	139.74	73.19	7,512.10	2,653.23	1,909.38	1,723.84	185.53	10.291	
19,800.00	12,136.00	19,927.02	11,625.54	133.52	141.32	73.10	7,612.01	2,652.28	1,910.25	1,722.65	187.60	10.182	
19,900.00	12,136.00	20,026.98	11,622.66	135.08	142.89	73.02	7,711.92	2,651.33	1,911.13	1,721.46	189.67	10.076	
20,000.00	12,136.00	20,126.94	11,619.79	136.64	144.47	72.94	7,811.84	2,650.39	1,912.02	1,720.27	191.75	9.972	
20,100.00	12,136.00	20,226.89	11,616.92	138.21	146.05	72.86	7,911.75	2,649.44	1,912.91	1,719.09	193.82	9.870	
20,200.00	12,136.00	20,326.85	11,614.04	139.77	147.64	72.78	8,011.66	2,648.50	1,913.80	1,717.91	195.89	9.770	
20,300.00	12,136.00	20,426.81	11,611.17	141.34	149.22	72.69	8,111.57	2,647.55	1,914.69	1,716.73	197.97	9.672	
20,400.00	12,136.00	20,526.77	11,608.29	142.91	150.81	72.61	8,211.49	2,646.60	1,915.59	1,715.55	200.04	9.576	
20,500.00	12,136.00	20,626.73	11,605.42	144.48	152.39	72.53	8,311.40	2,645.66	1,916.50	1,714.39	202.11	9.482	
20,600.00	12,136.00	20,726.69	11,602.54	146.06	153.98	72.45	8,411.31	2,644.71	1,917.41	1,713.22	204.18	9.391	
20,700.00	12,136.00	20,826.65	11,599.67	147.63	155.57	72.37	8,511.23	2,643.77	1,918.32	1,712.06	206.26	9.301	
20,800.00	12,136.00	20,926.61	11,596.79	149.21	157.16	72.29	8,611.14	2,642.82	1,919.23	1,710.90	208.33	9.212	
20,900.00	12,136.00	21,026.56	11,593.92	150.79	158.75	72.21	8,711.05	2,641.87	1,920.15	1,709.75	210.40	9.126	
21,000.00	12,136.00	21,126.52	11,591.04	152.37	160.35	72.12	8,810.96	2,640.93	1,921.07	1,708.60	212.47	9.041	
21,100.00	12,136.00	21,226.48	11,588.17	153.95	161.94	72.04	8,910.88	2,639.98	1,922.00	1,707.46	214.55	8.958	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 705H - OH - Plan #3

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,200.00	12,136.00	21,326.44	11,585.30	155.53	163.54	71.96	9,010.79	2,639.04	1,922.93	1,706.31	216.62	8.877	
21,300.00	12,136.00	21,426.40	11,582.42	157.12	165.13	71.88	9,110.70	2,638.09	1,923.87	1,705.18	218.69	8.797	
21,400.00	12,136.00	21,526.36	11,579.55	158.70	166.73	71.80	9,210.62	2,637.14	1,924.81	1,704.05	220.76	8.719	
21,500.00	12,136.00	21,626.32	11,576.67	160.29	168.33	71.72	9,310.53	2,636.20	1,925.75	1,702.92	222.83	8.642	
21,600.00	12,136.00	21,726.27	11,573.80	161.88	169.93	71.64	9,410.44	2,635.25	1,926.69	1,701.80	224.89	8.567	
21,700.00	12,136.00	21,826.23	11,570.92	163.47	171.53	71.56	9,510.35	2,634.30	1,927.64	1,700.68	226.96	8.493	
21,800.00	12,136.00	21,926.19	11,568.05	165.06	173.13	71.48	9,610.27	2,633.36	1,928.60	1,699.57	229.03	8.421	
21,900.00	12,136.00	22,026.15	11,565.17	166.65	174.73	71.40	9,710.18	2,632.41	1,929.56	1,698.46	231.10	8.350	
22,000.00	12,136.00	22,126.11	11,562.30	168.25	176.34	71.32	9,810.09	2,631.47	1,930.52	1,697.36	233.16	8.280	
22,100.00	12,136.00	22,226.07	11,559.43	169.84	177.94	71.24	9,910.01	2,630.52	1,931.48	1,696.26	235.23	8.211	
22,200.00	12,136.00	22,326.03	11,556.55	171.44	179.55	71.16	10,009.92	2,629.57	1,932.45	1,695.16	237.29	8.144	
22,300.00	12,136.00	22,425.98	11,553.68	173.03	181.15	71.08	10,109.83	2,628.63	1,933.43	1,694.08	239.35	8.078	
22,343.22	12,136.00	22,469.19	11,552.43	173.72	181.85	71.04	10,153.01	2,628.22	1,933.85	1,693.61	240.24	8.050	
22,343.71	12,136.00	22,469.68	11,552.42	173.75	181.85	71.04	10,153.50	2,628.21	1,933.85	1,693.61	240.25	8.049	ES, SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,887.10	1,887.10	6.37	6.53	98.59	-504.27	3,340.18	3,378.03	3,368.91	9.13	370.150	
1,900.00	1,900.00	1,944.10	1,944.10	6.58	6.74	98.59	-504.27	3,340.18	3,378.03	3,368.62	9.42	358.790	
2,000.00	2,000.00	2,044.10	2,044.10	6.94	7.09	98.59	-504.27	3,340.18	3,378.03	3,368.11	9.92	340.459	
2,100.00	2,099.99	2,144.09	2,144.09	7.28	7.45	-4.58	-504.27	3,340.18	3,376.73	3,366.31	10.42	324.028	
2,200.00	2,199.91	2,244.01	2,244.01	7.62	7.81	-4.59	-504.27	3,340.18	3,372.82	3,361.90	10.91	309.050	
2,300.00	2,299.69	2,343.79	2,343.79	7.97	8.17	-4.61	-504.27	3,340.18	3,366.30	3,354.89	11.41	295.117	
2,400.00	2,399.27	2,443.37	2,443.37	8.31	8.53	-4.63	-504.27	3,340.18	3,357.18	3,345.28	11.90	282.112	
2,500.00	2,498.57	2,542.67	2,542.67	8.66	8.88	-4.67	-504.27	3,340.18	3,345.46	3,333.07	12.39	269.933	
2,600.00	2,597.54	2,641.64	2,641.64	9.03	9.24	-4.70	-504.27	3,340.18	3,331.16	3,318.27	12.89	258.492	
2,700.00	2,696.09	2,740.19	2,740.19	9.40	9.59	-4.75	-504.27	3,340.18	3,314.28	3,300.90	13.38	247.712	
2,764.20	2,759.12	2,803.22	2,803.22	9.64	9.82	-4.78	-504.27	3,340.18	3,302.09	3,288.40	13.70	241.100	
2,800.00	2,794.20	2,838.30	2,838.30	9.78	9.94	-4.79	-504.27	3,340.18	3,295.00	3,281.13	13.87	237.527	
2,900.00	2,892.20	2,936.30	2,936.30	10.17	10.29	-4.82	-504.27	3,340.18	3,275.20	3,260.83	14.36	228.018	
3,000.00	2,990.21	3,034.31	3,034.31	10.57	10.64	-4.85	-504.27	3,340.18	3,255.39	3,240.53	14.86	219.113	
3,100.00	3,088.21	3,132.31	3,132.31	10.97	11.00	-4.88	-504.27	3,340.18	3,235.58	3,220.23	15.35	210.758	
3,200.00	3,186.22	3,230.32	3,230.32	11.38	11.35	-4.91	-504.27	3,340.18	3,215.78	3,199.93	15.85	202.906	
3,300.00	3,284.22	3,328.32	3,328.32	11.80	11.70	-4.94	-504.27	3,340.18	3,195.98	3,179.63	16.35	195.516	
3,400.00	3,382.23	3,426.33	3,426.33	12.22	12.05	-4.97	-504.27	3,340.18	3,176.18	3,159.33	16.85	188.549	
3,500.00	3,480.24	3,524.34	3,524.34	12.65	12.40	-5.00	-504.27	3,340.18	3,156.37	3,139.03	17.35	181.971	
3,600.00	3,578.24	3,622.34	3,622.34	13.08	12.75	-5.03	-504.27	3,340.18	3,136.57	3,118.73	17.85	175.752	
3,700.00	3,676.25	3,720.35	3,720.35	13.51	13.10	-5.07	-504.27	3,340.18	3,116.77	3,098.43	18.35	169.863	
3,800.00	3,774.25	3,818.35	3,818.35	13.95	13.45	-5.10	-504.27	3,340.18	3,096.98	3,078.12	18.85	164.281	
3,900.00	3,872.26	3,916.36	3,916.36	14.39	13.81	-5.13	-504.27	3,340.18	3,077.18	3,057.82	19.36	158.983	
4,000.00	3,970.26	4,014.36	4,014.36	14.83	14.16	-5.17	-504.27	3,340.18	3,057.38	3,037.52	19.86	153.947	
4,100.00	4,068.27	4,112.37	4,112.37	15.28	14.51	-5.20	-504.27	3,340.18	3,037.59	3,017.22	20.37	149.156	
4,200.00	4,166.27	4,210.37	4,210.37	15.73	14.86	-5.23	-504.27	3,340.18	3,017.79	2,996.92	20.87	144.593	
4,300.00	4,264.28	4,308.38	4,308.38	16.18	15.21	-5.27	-504.27	3,340.18	2,998.00	2,976.62	21.38	140.241	
4,400.00	4,362.28	4,406.38	4,406.38	16.63	15.56	-5.30	-504.27	3,340.18	2,978.21	2,956.32	21.88	136.087	
4,500.00	4,460.29	4,504.39	4,504.39	17.08	15.91	-5.34	-504.27	3,340.18	2,958.41	2,936.02	22.39	132.119	
4,600.00	4,558.29	4,602.39	4,602.39	17.54	16.27	-5.37	-504.27	3,340.18	2,938.62	2,915.72	22.90	128.323	
4,700.00	4,656.30	4,700.40	4,700.40	18.00	16.62	-5.41	-504.27	3,340.18	2,918.84	2,895.43	23.41	124.690	
4,800.00	4,754.30	4,798.40	4,798.40	18.45	16.97	-5.45	-504.27	3,340.18	2,899.05	2,875.13	23.92	121.209	
4,900.00	4,852.31	4,896.41	4,896.41	18.91	17.32	-5.49	-504.27	3,340.18	2,879.26	2,854.83	24.43	117.871	
5,000.00	4,950.31	4,994.41	4,994.41	19.37	17.67	-5.52	-504.27	3,340.18	2,859.48	2,834.54	24.94	114.667	
5,100.00	5,048.32	5,092.42	5,092.42	19.83	18.02	-5.56	-504.27	3,340.18	2,839.69	2,814.24	25.45	111.591	
5,200.00	5,146.33	5,190.43	5,190.43	20.30	18.37	-5.60	-504.27	3,340.18	2,819.91	2,793.95	25.96	108.634	
5,300.00	5,244.33	5,288.43	5,288.43	20.76	18.72	-5.64	-504.27	3,340.18	2,800.13	2,773.66	26.47	105.789	
5,400.00	5,342.34	5,386.44	5,386.44	21.23	19.08	-5.68	-504.27	3,340.18	2,780.35	2,753.37	26.98	103.051	
5,500.00	5,440.34	5,484.44	5,484.44	21.69	19.43	-5.72	-504.27	3,340.18	2,760.57	2,733.07	27.49	100.414	
5,600.00	5,538.35	5,550.02	5,550.02	22.16	19.66	-5.75	-504.45	3,340.46	2,741.28	2,713.34	27.93	98.143	
5,700.00	5,636.35	5,600.00	5,599.99	22.62	19.83	-5.76	-504.98	3,341.28	2,723.38	2,695.05	28.33	96.114	
5,800.00	5,734.36	5,669.85	5,669.79	23.09	20.06	-5.77	-506.32	3,343.35	2,706.83	2,678.06	28.77	94.081	
5,900.00	5,832.36	5,730.19	5,730.05	23.56	20.26	-5.76	-508.04	3,346.00	2,691.71	2,662.52	29.19	92.228	
6,000.00	5,930.37	5,800.00	5,799.69	24.03	20.49	-5.75	-510.67	3,350.07	2,678.03	2,648.41	29.62	90.418	
6,100.00	6,028.37	5,862.90	5,862.37	24.50	20.70	-5.73	-513.57	3,354.55	2,665.66	2,635.62	30.03	88.758	
6,200.00	6,126.38	5,962.17	5,961.25	24.97	21.04	-5.69	-518.28	3,361.82	2,653.67	2,623.14	30.53	86.909	
6,300.00	6,224.38	6,061.43	6,060.14	25.44	21.37	-5.65	-522.98	3,369.09	2,641.68	2,610.65	31.04	85.118	
6,400.00	6,322.39	6,160.69	6,159.02	25.91	21.71	-5.61	-527.69	3,376.36	2,629.70	2,598.16	31.54	83.381	
6,500.00	6,420.39	6,259.96	6,257.91	26.38	22.05	-5.57	-532.39	3,383.63	2,617.71	2,585.67	32.04	81.697	
6,600.00	6,518.40	6,359.22	6,356.79	26.85	22.38	-5.53	-537.10	3,390.89	2,605.73	2,573.18	32.55	80.063	
6,658.66	6,575.89	6,417.44	6,414.79	27.13	22.58	-5.51	-539.86	3,395.16	2,598.70	2,565.86	32.84	79.127	
6,700.00	6,616.45	6,458.51	6,455.70	27.32	22.73	-5.48	-541.80	3,398.17	2,593.97	2,560.92	33.05	78.484	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	6,558.02	6,554.84	27.78	23.07	-5.43	-546.52	3,405.45	2,584.35	2,550.80	33.55	77.019	
6,900.00	6,813.77	6,657.75	6,654.18	28.21	23.41	-5.36	-551.25	3,412.75	2,577.34	2,543.28	34.06	75.677	
7,000.00	6,913.01	6,757.61	6,753.67	28.61	23.76	-5.30	-555.98	3,420.07	2,572.93	2,538.37	34.56	74.455	
7,100.00	7,012.53	6,857.56	6,853.23	29.00	24.11	-5.24	-560.72	3,427.39	2,571.12	2,536.07	35.05	73.348	
7,119.07	7,031.54	6,876.62	6,872.22	29.07	24.17	-5.22	-561.62	3,428.78	2,571.08	2,535.93	35.15	73.150	CC, ES
7,200.00	7,112.27	6,957.50	6,952.79	29.36	24.46	-5.17	-565.46	3,434.70	2,571.93	2,536.38	35.55	72.352	
7,300.00	7,212.16	7,057.39	7,052.30	29.70	24.81	-5.10	-570.19	3,442.02	2,575.35	2,539.31	36.04	71.463	
7,400.00	7,312.14	7,157.14	7,151.67	30.02	25.16	-5.03	-574.92	3,449.32	2,581.37	2,544.85	36.52	70.678	
7,422.86	7,335.00	7,179.92	7,174.36	30.09	25.24	98.15	-576.00	3,450.99	2,583.12	2,546.49	36.63	70.514	
7,500.00	7,412.14	7,256.77	7,250.92	30.32	25.51	98.21	-579.64	3,456.62	2,589.23	2,552.24	37.00	69.981	
7,600.00	7,512.14	7,356.39	7,350.16	30.63	25.86	98.29	-584.37	3,463.91	2,597.17	2,559.69	37.48	69.304	
7,700.00	7,612.14	7,456.00	7,449.40	30.93	26.21	98.37	-589.09	3,471.21	2,605.10	2,567.15	37.95	68.642	
7,800.00	7,712.14	7,555.62	7,548.64	31.23	26.57	98.45	-593.81	3,478.50	2,613.05	2,574.62	38.43	67.995	
7,900.00	7,812.14	7,655.24	7,647.87	31.54	26.92	98.53	-598.53	3,485.80	2,620.99	2,582.09	38.91	67.363	
8,000.00	7,912.14	7,754.86	7,747.11	31.84	27.28	98.61	-603.26	3,493.09	2,628.95	2,589.56	39.39	66.745	
8,100.00	8,012.14	7,854.48	7,846.35	32.15	27.63	98.69	-607.98	3,500.39	2,636.90	2,597.04	39.87	66.140	
8,200.00	8,112.14	7,954.10	7,945.59	32.46	27.99	98.76	-612.70	3,507.68	2,644.87	2,604.52	40.35	65.549	
8,300.00	8,212.14	8,053.72	8,044.83	32.76	28.35	98.84	-617.42	3,514.98	2,652.83	2,612.00	40.83	64.971	
8,400.00	8,312.14	8,153.34	8,144.07	33.07	28.71	98.92	-622.14	3,522.27	2,660.80	2,619.49	41.31	64.405	
8,500.00	8,412.14	8,252.96	8,243.31	33.39	29.07	98.99	-626.87	3,529.57	2,668.78	2,626.98	41.80	63.851	
8,600.00	8,512.14	8,352.57	8,342.55	33.70	29.42	99.07	-631.59	3,536.86	2,676.76	2,634.48	42.28	63.309	
8,700.00	8,612.14	8,452.19	8,441.79	34.01	29.79	99.14	-636.31	3,544.16	2,684.75	2,641.98	42.77	62.778	
8,800.00	8,712.14	8,551.81	8,541.03	34.32	30.15	99.22	-641.03	3,551.45	2,692.74	2,649.49	43.25	62.258	
8,900.00	8,812.14	8,651.43	8,640.27	34.64	30.51	99.29	-645.75	3,558.75	2,700.73	2,657.00	43.74	61.749	
9,000.00	8,912.14	8,751.05	8,739.50	34.95	30.87	99.37	-650.48	3,566.04	2,708.73	2,664.51	44.22	61.251	
9,100.00	9,012.14	8,850.67	8,838.74	35.27	31.23	99.44	-655.20	3,573.34	2,716.74	2,672.02	44.71	60.763	
9,200.00	9,112.14	8,950.29	8,937.98	35.59	31.59	99.51	-659.92	3,580.63	2,724.74	2,679.55	45.20	60.284	
9,300.00	9,212.14	9,049.91	9,037.22	35.90	31.96	99.59	-664.64	3,587.92	2,732.76	2,687.07	45.69	59.816	
9,400.00	9,312.14	9,166.15	9,153.03	36.22	32.38	99.67	-670.11	3,596.37	2,740.75	2,694.53	46.22	59.301	
9,500.00	9,412.14	9,460.22	9,446.76	36.54	33.43	99.77	-676.86	3,606.79	2,744.63	2,697.52	47.11	58.258	
9,600.00	9,512.14	9,569.70	9,556.24	36.86	33.81	99.77	-676.87	3,606.81	2,744.64	2,697.02	47.62	57.639	
9,700.00	9,612.14	9,669.70	9,656.24	37.18	34.16	99.77	-676.87	3,606.81	2,744.64	2,696.53	48.11	57.050	
9,800.00	9,712.14	9,769.70	9,756.24	37.50	34.51	99.77	-676.87	3,606.81	2,744.64	2,696.04	48.60	56.473	
9,900.00	9,812.14	9,869.70	9,856.24	37.83	34.86	99.77	-676.87	3,606.81	2,744.64	2,695.55	49.09	55.908	
10,000.00	9,912.14	9,969.70	9,956.24	38.15	35.21	99.77	-676.87	3,606.81	2,744.64	2,695.06	49.58	55.353	
10,100.00	10,012.14	10,069.70	10,056.24	38.47	35.56	99.77	-676.87	3,606.81	2,744.64	2,694.56	50.08	54.808	
10,200.00	10,112.14	10,169.70	10,156.24	38.80	35.91	99.77	-676.87	3,606.81	2,744.64	2,694.07	50.57	54.274	
10,300.00	10,212.14	10,269.70	10,256.24	39.12	36.26	99.77	-676.87	3,606.81	2,744.64	2,693.58	51.06	53.750	
10,400.00	10,312.14	10,369.70	10,356.24	39.44	36.61	99.77	-676.87	3,606.81	2,744.64	2,693.09	51.56	53.236	
10,500.00	10,412.14	10,469.70	10,456.24	39.77	36.96	99.77	-676.87	3,606.81	2,744.64	2,692.59	52.05	52.732	
10,600.00	10,512.14	10,569.70	10,556.24	40.10	37.31	99.77	-676.87	3,606.81	2,744.64	2,692.10	52.54	52.236	
10,700.00	10,612.14	10,669.70	10,656.24	40.42	37.66	99.77	-676.87	3,606.81	2,744.64	2,691.60	53.04	51.749	
10,800.00	10,712.14	10,769.70	10,756.24	40.75	38.02	99.77	-676.87	3,606.81	2,744.64	2,691.11	53.53	51.272	
10,900.00	10,812.14	10,869.70	10,856.24	41.08	38.37	99.77	-676.87	3,606.81	2,744.64	2,690.62	54.03	50.802	
11,000.00	10,912.14	10,969.70	10,956.24	41.41	38.72	99.77	-676.87	3,606.81	2,744.64	2,690.12	54.52	50.341	
11,100.00	11,012.14	11,069.70	11,056.24	41.74	39.07	99.77	-676.87	3,606.81	2,744.64	2,689.63	55.02	49.889	
11,200.00	11,112.14	11,381.41	11,359.22	42.06	40.08	98.60	-619.80	3,606.27	2,742.52	2,686.78	55.74	49.201	
11,300.00	11,212.14	11,731.51	11,610.74	42.39	40.76	93.67	-384.37	3,604.04	2,730.71	2,674.33	56.37	48.442	
11,400.00	11,312.14	11,840.74	11,654.83	42.72	41.03	91.56	-284.62	3,603.09	2,718.55	2,661.57	56.97	47.716	
11,500.00	11,412.14	11,891.76	11,668.75	43.06	41.17	90.52	-235.55	3,602.63	2,709.09	2,651.58	57.50	47.111	
11,600.00	11,512.14	11,920.86	11,674.71	43.39	41.25	89.92	-207.08	3,602.36	2,702.96	2,644.99	57.96	46.631	
11,650.90	11,563.04	11,931.30	11,676.49	43.56	41.28	89.70	-196.79	3,602.26	2,701.19	2,643.02	58.17	46.432	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,700.00	11,612.08	11,941.73	11,678.09	43.72	41.31	90.13	-186.48	3,602.16	2,700.37	2,642.00	58.36	46.268	
11,722.67	11,634.62	11,947.34	11,678.87	43.79	41.32	90.03	-180.93	3,602.11	2,700.28	2,641.83	58.45	46.201	
11,750.00	11,661.65	11,954.66	11,679.81	43.87	41.34	89.86	-173.67	3,602.04	2,700.41	2,641.86	58.54	46.126	
11,800.00	11,710.46	11,969.38	11,681.41	44.02	41.38	89.48	-159.04	3,601.90	2,701.28	2,642.57	58.71	46.011	
11,850.00	11,758.16	11,985.49	11,682.74	44.16	41.43	89.00	-142.99	3,601.75	2,702.95	2,644.09	58.86	45.922	
11,900.00	11,804.37	12,000.00	11,683.54	44.29	41.47	88.48	-128.50	3,601.61	2,705.33	2,646.34	58.99	45.860	
11,950.00	11,848.74	12,020.79	11,684.06	44.41	41.53	87.79	-107.71	3,601.42	2,708.37	2,649.25	59.12	45.810	
12,000.00	11,890.94	12,039.76	11,683.87	44.51	41.58	87.08	-88.75	3,601.24	2,711.98	2,652.75	59.23	45.784	
12,050.00	11,930.64	12,068.85	11,683.10	44.60	41.68	86.18	-59.67	3,600.96	2,716.05	2,656.68	59.36	45.752	
12,100.00	11,967.55	12,101.57	11,682.23	44.68	41.78	85.23	-26.96	3,600.65	2,720.38	2,660.89	59.49	45.725	
12,150.00	12,001.37	12,137.46	11,681.28	44.74	41.91	84.26	8.91	3,600.31	2,724.83	2,665.19	59.64	45.689	
12,200.00	12,031.86	12,176.24	11,680.25	44.80	42.05	83.30	47.68	3,599.94	2,729.24	2,669.45	59.79	45.650	
12,250.00	12,058.79	12,217.63	11,679.15	44.84	42.22	82.40	89.05	3,599.55	2,733.46	2,673.52	59.95	45.597	
12,300.00	12,081.94	12,261.30	11,677.99	44.87	42.40	81.57	132.70	3,599.14	2,737.36	2,677.23	60.13	45.524	
12,350.00	12,101.14	12,306.92	11,676.78	44.90	42.60	80.84	178.31	3,598.71	2,740.80	2,680.47	60.32	45.435	
12,400.00	12,116.24	12,354.15	11,675.53	44.92	42.83	80.24	225.52	3,598.26	2,743.66	2,683.12	60.54	45.317	
12,450.00	12,127.14	12,402.63	11,674.24	44.95	43.07	79.78	273.98	3,597.80	2,745.86	2,685.09	60.78	45.180	
12,500.00	12,133.74	12,451.98	11,672.94	44.99	43.34	79.48	323.31	3,597.33	2,747.33	2,686.29	61.04	45.010	
12,550.90	12,136.00	12,502.74	11,671.59	45.03	43.61	79.34	374.05	3,596.85	2,748.01	2,686.70	61.31	44.818	
12,600.00	12,136.00	12,551.82	11,670.29	45.10	43.90	79.31	423.11	3,596.38	2,748.28	2,686.67	61.61	44.608	
12,700.00	12,136.00	12,651.79	11,667.64	45.28	44.53	79.26	523.04	3,595.44	2,748.81	2,686.55	62.26	44.150	
12,800.00	12,136.00	12,751.75	11,664.99	45.54	45.20	79.20	622.96	3,594.49	2,749.35	2,686.36	62.99	43.647	
12,900.00	12,136.00	12,851.72	11,662.34	45.88	45.92	79.15	722.89	3,593.54	2,749.89	2,686.10	63.79	43.106	
13,000.00	12,136.00	12,951.68	11,659.68	46.30	46.69	79.09	822.81	3,592.59	2,750.43	2,685.76	64.67	42.532	
13,100.00	12,136.00	13,051.65	11,657.03	46.78	47.51	79.04	922.74	3,591.65	2,750.98	2,685.37	65.61	41.928	
13,200.00	12,136.00	13,151.61	11,654.38	47.33	48.37	78.98	1,022.66	3,590.70	2,751.53	2,684.90	66.62	41.301	
13,300.00	12,136.00	13,251.57	11,651.73	47.94	49.26	78.93	1,122.59	3,589.75	2,752.08	2,684.38	67.69	40.655	
13,400.00	12,136.00	13,351.54	11,649.08	48.60	50.20	78.88	1,222.51	3,588.80	2,752.63	2,683.80	68.83	39.993	
13,500.00	12,136.00	13,451.50	11,646.43	49.31	51.17	78.82	1,322.44	3,587.86	2,753.18	2,683.17	70.02	39.321	
13,600.00	12,136.00	13,551.47	11,643.78	50.06	52.18	78.77	1,422.36	3,586.91	2,753.74	2,682.48	71.26	38.643	
13,700.00	12,136.00	13,651.43	11,641.13	50.86	53.21	78.72	1,522.29	3,585.96	2,754.30	2,681.74	72.56	37.960	
13,800.00	12,136.00	13,751.40	11,638.48	51.70	54.28	78.66	1,622.21	3,585.01	2,754.86	2,680.96	73.90	37.278	
13,900.00	12,136.00	13,851.36	11,635.83	52.58	55.38	78.61	1,722.14	3,584.07	2,755.43	2,680.14	75.29	36.598	
14,000.00	12,136.00	13,951.33	11,633.18	53.49	56.50	78.55	1,822.06	3,583.12	2,756.00	2,679.27	76.72	35.922	
14,100.00	12,136.00	14,051.29	11,630.53	54.44	57.65	78.50	1,921.99	3,582.17	2,756.56	2,678.37	78.19	35.253	
14,200.00	12,136.00	14,151.26	11,627.87	55.43	58.83	78.45	2,021.91	3,581.22	2,757.14	2,677.43	79.71	34.592	
14,300.00	12,136.00	14,251.22	11,625.22	56.44	60.02	78.39	2,121.84	3,580.28	2,757.71	2,676.46	81.25	33.940	
14,400.00	12,136.00	14,351.19	11,622.57	57.49	61.24	78.34	2,221.76	3,579.33	2,758.29	2,675.45	82.83	33.299	
14,500.00	12,136.00	14,451.15	11,619.92	58.56	62.48	78.28	2,321.69	3,578.38	2,758.87	2,674.42	84.45	32.670	
14,600.00	12,136.00	14,551.12	11,617.27	59.66	63.73	78.23	2,421.61	3,577.43	2,759.45	2,673.36	86.09	32.052	
14,700.00	12,136.00	14,651.08	11,614.62	60.78	65.00	78.18	2,521.54	3,576.49	2,760.03	2,672.27	87.76	31.448	
14,800.00	12,136.00	14,751.05	11,611.97	61.93	66.29	78.12	2,621.46	3,575.54	2,760.62	2,671.16	89.46	30.858	
14,900.00	12,136.00	14,851.01	11,609.32	63.10	67.60	78.07	2,721.39	3,574.59	2,761.21	2,670.02	91.19	30.280	
15,000.00	12,136.00	14,950.98	11,606.67	64.29	68.92	78.02	2,821.32	3,573.64	2,761.80	2,668.87	92.94	29.717	
15,100.00	12,136.00	15,050.94	11,604.02	65.50	70.26	77.96	2,921.24	3,572.70	2,762.40	2,667.69	94.71	29.168	
15,200.00	12,136.00	15,150.91	11,601.37	66.73	71.60	77.91	3,021.17	3,571.75	2,762.99	2,666.50	96.50	28.633	
15,300.00	12,136.00	15,250.87	11,598.72	67.98	72.96	77.86	3,121.09	3,570.80	2,763.59	2,665.28	98.31	28.112	
15,400.00	12,136.00	15,350.84	11,596.07	69.24	74.34	77.80	3,221.02	3,569.85	2,764.19	2,664.05	100.14	27.604	
15,500.00	12,136.00	15,450.80	11,593.41	70.52	75.72	77.75	3,320.94	3,568.91	2,764.80	2,662.81	101.99	27.110	
15,600.00	12,136.00	15,550.77	11,590.76	71.82	77.11	77.70	3,420.87	3,567.96	2,765.40	2,661.55	103.85	26.628	
15,700.00	12,136.00	15,650.73	11,588.11	73.13	78.52	77.64	3,520.79	3,567.01	2,766.01	2,660.28	105.73	26.161	
15,800.00	12,136.00	15,750.70	11,585.46	74.45	79.93	77.59	3,620.72	3,566.06	2,766.62	2,658.99	107.63	25.705	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,900.00	12,136.00	15,850.66	11,582.81	75.78	81.35	77.53	3,720.64	3,565.12	2,767.23	2,657.70	109.54	25.263	
16,000.00	12,136.00	15,950.63	11,580.16	77.13	82.78	77.48	3,820.57	3,564.17	2,767.85	2,656.39	111.46	24.833	
16,100.00	12,136.00	16,050.59	11,577.51	78.49	84.22	77.43	3,920.49	3,563.22	2,768.47	2,655.08	113.39	24.415	
16,200.00	12,136.00	16,150.55	11,574.86	79.86	85.67	77.37	4,020.42	3,562.28	2,769.09	2,653.75	115.34	24.008	
16,300.00	12,136.00	16,250.52	11,572.21	81.24	87.12	77.32	4,120.34	3,561.33	2,769.71	2,652.42	117.30	23.613	
16,400.00	12,136.00	16,350.48	11,569.56	82.64	88.58	77.27	4,220.27	3,560.38	2,770.34	2,651.07	119.26	23.229	
16,500.00	12,136.00	16,450.45	11,566.91	84.04	90.05	77.21	4,320.19	3,559.43	2,770.96	2,649.72	121.24	22.855	
16,600.00	12,136.00	16,550.41	11,564.26	85.45	91.52	77.16	4,420.12	3,558.49	2,771.59	2,648.36	123.23	22.491	
16,700.00	12,136.00	16,650.38	11,561.60	86.86	93.00	77.11	4,520.04	3,557.54	2,772.23	2,647.00	125.23	22.138	
16,800.00	12,136.00	16,750.34	11,558.95	88.29	94.49	77.06	4,619.97	3,556.59	2,772.86	2,645.63	127.23	21.794	
16,900.00	12,136.00	16,850.31	11,556.30	89.72	95.98	77.00	4,719.89	3,555.64	2,773.50	2,644.25	129.25	21.459	
17,000.00	12,136.00	16,950.27	11,553.65	91.17	97.48	76.95	4,819.82	3,554.70	2,774.14	2,642.87	131.27	21.134	
17,100.00	12,136.00	17,050.24	11,551.00	92.61	98.98	76.90	4,919.74	3,553.75	2,774.78	2,641.49	133.30	20.817	
17,200.00	12,136.00	17,150.20	11,548.35	94.07	100.48	76.84	5,019.67	3,552.80	2,775.43	2,640.09	135.33	20.508	
17,300.00	12,136.00	17,250.17	11,545.70	95.53	101.99	76.79	5,119.59	3,551.85	2,776.07	2,638.70	137.37	20.208	
17,400.00	12,136.00	17,350.13	11,543.05	97.00	103.51	76.74	5,219.52	3,550.91	2,776.72	2,637.30	139.42	19.916	
17,500.00	12,136.00	17,450.10	11,540.40	98.47	105.03	76.68	5,319.44	3,549.96	2,777.37	2,635.90	141.48	19.631	
17,600.00	12,136.00	17,550.06	11,537.75	99.95	106.55	76.63	5,419.37	3,549.01	2,778.03	2,634.49	143.54	19.354	
17,700.00	12,136.00	17,650.03	11,535.10	101.44	108.08	76.58	5,519.30	3,548.06	2,778.68	2,633.08	145.60	19.084	
17,800.00	12,136.00	17,749.99	11,532.45	102.92	109.61	76.52	5,619.22	3,547.12	2,779.34	2,631.67	147.67	18.821	
17,900.00	12,136.00	17,849.96	11,529.79	104.42	111.14	76.47	5,719.15	3,546.17	2,780.00	2,630.26	149.74	18.565	
18,000.00	12,136.00	17,949.92	11,527.14	105.92	112.68	76.42	5,819.07	3,545.22	2,780.67	2,628.84	151.82	18.315	
18,100.00	12,136.00	18,049.89	11,524.49	107.42	114.22	76.37	5,919.00	3,544.27	2,781.33	2,627.43	153.91	18.072	
18,200.00	12,136.00	18,149.85	11,521.84	108.93	115.76	76.31	6,018.92	3,543.33	2,782.00	2,626.01	155.99	17.834	
18,300.00	12,136.00	18,249.82	11,519.19	110.44	117.31	76.26	6,118.85	3,542.38	2,782.67	2,624.59	158.08	17.603	
18,400.00	12,136.00	18,349.78	11,516.54	111.96	118.86	76.21	6,218.77	3,541.43	2,783.34	2,623.17	160.18	17.377	
18,500.00	12,136.00	18,449.75	11,513.89	113.48	120.41	76.15	6,318.70	3,540.48	2,784.02	2,621.75	162.27	17.156	
18,600.00	12,136.00	18,549.71	11,511.24	115.00	121.96	76.10	6,418.62	3,539.54	2,784.70	2,620.32	164.37	16.941	
18,700.00	12,136.00	18,649.68	11,508.59	116.53	123.52	76.05	6,518.55	3,538.59	2,785.38	2,618.90	166.48	16.731	
18,800.00	12,136.00	18,749.64	11,505.94	118.06	125.08	76.00	6,618.47	3,537.64	2,786.06	2,617.48	168.58	16.526	
18,900.00	12,136.00	18,849.61	11,503.29	119.59	126.64	75.94	6,718.40	3,536.69	2,786.74	2,616.05	170.69	16.326	
19,000.00	12,136.00	18,949.57	11,500.64	121.13	128.20	75.89	6,818.32	3,535.75	2,787.43	2,614.63	172.81	16.130	
19,100.00	12,136.00	19,049.53	11,497.99	122.67	129.77	75.84	6,918.25	3,534.80	2,788.12	2,613.20	174.92	15.939	
19,200.00	12,136.00	19,149.50	11,495.33	124.21	131.34	75.79	7,018.17	3,533.85	2,788.81	2,611.77	177.04	15.753	
19,300.00	12,136.00	19,249.46	11,492.68	125.75	132.91	75.73	7,118.10	3,532.90	2,789.51	2,610.35	179.16	15.570	
19,400.00	12,136.00	19,349.43	11,490.03	127.30	134.48	75.68	7,218.02	3,531.96	2,790.20	2,608.92	181.28	15.392	
19,500.00	12,136.00	19,449.39	11,487.38	128.85	136.06	75.63	7,317.95	3,531.01	2,790.90	2,607.50	183.40	15.217	
19,600.00	12,136.00	19,549.36	11,484.73	130.41	137.63	75.58	7,417.87	3,530.06	2,791.60	2,606.07	185.53	15.047	
19,700.00	12,136.00	19,649.32	11,482.08	131.96	139.21	75.52	7,517.80	3,529.11	2,792.31	2,604.65	187.66	14.880	
19,800.00	12,136.00	19,749.29	11,479.43	133.52	140.79	75.47	7,617.72	3,528.17	2,793.01	2,603.23	189.79	14.717	
19,900.00	12,136.00	19,849.25	11,476.78	135.08	142.37	75.42	7,717.65	3,527.22	2,793.72	2,601.80	191.92	14.557	
20,000.00	12,136.00	19,949.22	11,474.13	136.64	143.95	75.37	7,817.57	3,526.27	2,794.43	2,600.38	194.05	14.401	
20,100.00	12,136.00	20,049.18	11,471.48	138.21	145.54	75.31	7,917.50	3,525.32	2,795.14	2,598.96	196.18	14.248	
20,200.00	12,136.00	20,149.15	11,468.83	139.77	147.12	75.26	8,017.42	3,524.38	2,795.86	2,597.54	198.32	14.098	
20,300.00	12,136.00	20,249.11	11,466.18	141.34	148.71	75.21	8,117.35	3,523.43	2,796.58	2,596.12	200.45	13.951	
20,400.00	12,136.00	20,349.08	11,463.52	142.91	150.30	75.16	8,217.28	3,522.48	2,797.30	2,594.71	202.59	13.808	
20,500.00	12,136.00	20,449.04	11,460.87	144.48	151.89	75.10	8,317.20	3,521.53	2,798.02	2,593.29	204.73	13.667	
20,600.00	12,136.00	20,549.01	11,458.22	146.06	153.48	75.05	8,417.13	3,520.59	2,798.74	2,591.88	206.86	13.529	
20,700.00	12,136.00	20,648.97	11,455.57	147.63	155.07	75.00	8,517.05	3,519.64	2,799.47	2,590.47	209.00	13.394	
20,800.00	12,136.00	20,748.94	11,452.92	149.21	156.67	74.95	8,616.98	3,518.69	2,800.20	2,589.05	211.14	13.262	
20,900.00	12,136.00	20,848.90	11,450.27	150.79	158.26	74.90	8,716.90	3,517.74	2,800.93	2,587.65	213.29	13.132	
21,000.00	12,136.00	20,948.87	11,447.62	152.37	159.86	74.84	8,816.83	3,516.80	2,801.66	2,586.24	215.43	13.005	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - El Paso Fed Com 706H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,100.00	12,136.00	21,048.83	11,444.97	153.95	161.45	74.79	8,916.75	3,515.85	2,802.40	2,584.83	217.57	12.880	
21,200.00	12,136.00	21,148.80	11,442.32	155.53	163.05	74.74	9,016.68	3,514.90	2,803.14	2,583.43	219.71	12.758	
21,300.00	12,136.00	21,248.76	11,439.67	157.12	164.65	74.69	9,116.60	3,513.95	2,803.88	2,582.02	221.86	12.638	
21,400.00	12,136.00	21,348.73	11,437.02	158.70	166.25	74.64	9,216.53	3,513.01	2,804.62	2,580.62	224.00	12.520	
21,500.00	12,136.00	21,448.69	11,434.37	160.29	167.85	74.58	9,316.45	3,512.06	2,805.37	2,579.22	226.15	12.405	
21,600.00	12,136.00	21,548.66	11,431.71	161.88	169.46	74.53	9,416.38	3,511.11	2,806.12	2,577.82	228.29	12.292	
21,700.00	12,136.00	21,648.62	11,429.06	163.47	171.06	74.48	9,516.30	3,510.16	2,806.87	2,576.43	230.44	12.180	
21,800.00	12,136.00	21,748.59	11,426.41	165.06	172.66	74.43	9,616.23	3,509.22	2,807.62	2,575.03	232.59	12.071	
21,900.00	12,136.00	21,848.55	11,423.76	166.65	174.27	74.38	9,716.15	3,508.27	2,808.37	2,573.64	234.73	11.964	
22,000.00	12,136.00	21,948.51	11,421.11	168.25	175.87	74.32	9,816.08	3,507.32	2,809.13	2,572.25	236.88	11.859	
22,100.00	12,136.00	22,048.48	11,418.46	169.84	177.48	74.27	9,916.00	3,506.37	2,809.89	2,570.86	239.03	11.756	
22,200.00	12,136.00	22,148.44	11,415.81	171.44	179.09	74.22	10,015.93	3,505.43	2,810.65	2,569.48	241.17	11.654	
22,300.00	12,136.00	22,248.41	11,413.16	173.03	180.70	74.17	10,115.85	3,504.48	2,811.41	2,568.10	243.32	11.555	
22,343.22	12,136.00	22,291.61	11,412.01	173.72	181.39	74.15	10,159.04	3,504.07	2,811.75	2,567.50	244.24	11.512	
22,343.71	12,136.00	22,292.10	11,412.00	173.75	181.40	74.15	10,159.53	3,504.07	2,811.75	2,567.50	244.25	11.512	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,843.00	1,843.00	1,887.40	1,887.40	6.37	6.53	98.87	-505.16	3,235.20	3,274.41	3,265.28	9.13	358.764	
1,900.00	1,900.00	1,944.40	1,944.40	6.58	6.74	98.87	-505.16	3,235.20	3,274.41	3,264.99	9.42	347.755	
2,000.00	2,000.00	2,044.40	2,044.40	6.94	7.10	98.87	-505.16	3,235.20	3,274.41	3,264.48	9.92	329.989	
2,100.00	2,099.99	2,144.39	2,144.39	7.28	7.45	-4.29	-505.16	3,235.20	3,273.10	3,262.68	10.42	314.060	
2,200.00	2,199.91	2,244.31	2,244.31	7.62	7.81	-4.30	-505.16	3,235.20	3,269.19	3,258.27	10.91	299.533	
2,300.00	2,299.69	2,344.09	2,344.09	7.97	8.17	-4.32	-505.16	3,235.20	3,262.66	3,251.26	11.41	286.012	
2,400.00	2,399.27	2,443.67	2,443.67	8.31	8.53	-4.34	-505.16	3,235.20	3,253.54	3,241.64	11.90	273.385	
2,500.00	2,498.57	2,542.97	2,542.97	8.66	8.88	-4.37	-505.16	3,235.20	3,241.82	3,229.43	12.39	261.555	
2,600.00	2,597.54	2,641.94	2,641.94	9.03	9.24	-4.41	-505.16	3,235.20	3,227.51	3,214.62	12.89	250.435	
2,700.00	2,696.09	2,740.49	2,740.49	9.40	9.59	-4.45	-505.16	3,235.20	3,210.63	3,197.25	13.38	239.951	
2,764.20	2,759.12	2,803.52	2,803.52	9.64	9.82	-4.48	-505.16	3,235.20	3,198.43	3,184.74	13.70	233.519	
2,800.00	2,794.20	2,838.60	2,838.60	9.78	9.94	-4.49	-505.16	3,235.20	3,191.34	3,177.47	13.87	230.043	
2,900.00	2,892.20	2,936.60	2,936.60	10.17	10.29	-4.52	-505.16	3,235.20	3,171.53	3,157.16	14.36	220.790	
3,000.00	2,990.21	3,034.61	3,034.61	10.57	10.65	-4.55	-505.16	3,235.20	3,151.71	3,136.85	14.86	212.125	
3,100.00	3,088.21	3,132.61	3,132.61	10.97	11.00	-4.58	-505.16	3,235.20	3,131.90	3,116.55	15.35	203.996	
3,200.00	3,186.22	3,230.62	3,230.62	11.38	11.35	-4.61	-505.16	3,235.20	3,112.09	3,096.24	15.85	196.356	
3,300.00	3,284.22	3,328.62	3,328.62	11.80	11.70	-4.64	-505.16	3,235.20	3,092.27	3,075.93	16.35	189.166	
3,400.00	3,382.23	3,426.63	3,426.63	12.22	12.05	-4.67	-505.16	3,235.20	3,072.46	3,055.62	16.85	182.387	
3,500.00	3,480.24	3,600.13	3,600.12	12.65	12.66	-4.71	-505.41	3,233.91	3,052.35	3,034.83	17.52	174.245	
3,600.00	3,578.24	3,986.48	3,985.17	13.08	13.98	-4.64	-510.95	3,204.81	3,025.47	3,006.89	18.57	162.909	
3,700.00	3,676.25	4,140.77	4,137.88	13.51	14.53	-4.54	-515.07	3,183.23	2,992.38	2,973.23	19.15	156.282	
3,800.00	3,774.25	4,235.02	4,231.09	13.95	14.87	-4.48	-517.68	3,169.54	2,959.09	2,939.47	19.62	150.818	
3,900.00	3,872.26	4,329.26	4,324.30	14.39	15.21	-4.41	-520.29	3,155.85	2,925.81	2,905.71	20.10	145.597	
4,000.00	3,970.26	4,423.50	4,417.51	14.83	15.55	-4.34	-522.90	3,142.16	2,892.53	2,871.96	20.57	140.603	
4,100.00	4,068.27	4,517.75	4,510.71	15.28	15.90	-4.27	-525.50	3,128.47	2,859.25	2,838.20	21.05	135.824	
4,200.00	4,166.27	4,611.99	4,603.92	15.73	16.25	-4.20	-528.11	3,114.79	2,825.98	2,804.45	21.53	131.248	
4,300.00	4,264.28	4,706.23	4,697.13	16.18	16.60	-4.13	-530.72	3,101.10	2,792.71	2,770.70	22.01	126.862	
4,400.00	4,362.28	4,800.47	4,790.33	16.63	16.95	-4.05	-533.33	3,087.41	2,759.45	2,736.95	22.50	122.656	
4,500.00	4,460.29	4,894.72	4,883.54	17.08	17.31	-3.98	-535.94	3,073.72	2,726.19	2,703.21	22.98	118.620	
4,600.00	4,558.29	4,988.96	4,976.75	17.54	17.67	-3.90	-538.55	3,060.03	2,692.93	2,669.46	23.47	114.744	
4,700.00	4,656.30	5,083.20	5,069.95	18.00	18.03	-3.82	-541.16	3,046.35	2,659.68	2,635.73	23.96	111.019	
4,800.00	4,754.30	5,177.45	5,163.16	18.45	18.39	-3.73	-543.77	3,032.66	2,626.44	2,601.99	24.45	107.439	
4,900.00	4,852.31	5,271.69	5,256.37	18.91	18.76	-3.65	-546.38	3,018.97	2,593.20	2,568.26	24.94	103.994	
5,000.00	4,950.31	5,365.93	5,349.58	19.37	19.13	-3.56	-548.98	3,005.28	2,559.96	2,534.53	25.43	100.677	
5,100.00	5,048.32	5,460.17	5,442.78	19.83	19.49	-3.47	-551.59	2,991.60	2,526.73	2,500.81	25.92	97.483	
5,200.00	5,146.33	5,554.42	5,535.99	20.30	19.86	-3.38	-554.20	2,977.91	2,493.51	2,467.09	26.41	94.405	
5,300.00	5,244.33	5,648.66	5,629.20	20.76	20.23	-3.29	-556.81	2,964.22	2,460.29	2,433.38	26.91	91.436	
5,400.00	5,342.34	5,742.90	5,722.40	21.23	20.61	-3.19	-559.42	2,950.53	2,427.08	2,399.67	27.40	88.571	
5,500.00	5,440.34	5,837.15	5,815.61	21.69	20.98	-3.09	-562.03	2,936.84	2,393.87	2,365.97	27.90	85.806	
5,600.00	5,538.35	5,931.39	5,908.82	22.16	21.35	-2.99	-564.64	2,923.16	2,360.67	2,332.27	28.40	83.135	
5,700.00	5,636.35	6,025.63	6,002.02	22.62	21.73	-2.88	-567.25	2,909.47	2,327.48	2,298.58	28.89	80.554	
5,800.00	5,734.36	6,119.87	6,095.23	23.09	22.11	-2.77	-569.86	2,895.78	2,294.29	2,264.90	29.39	78.059	
5,900.00	5,832.36	6,214.12	6,188.44	23.56	22.49	-2.66	-572.47	2,882.09	2,261.11	2,231.22	29.89	75.645	
6,000.00	5,930.37	6,308.36	6,281.65	24.03	22.86	-2.55	-575.07	2,868.40	2,227.94	2,197.55	30.39	73.308	
6,100.00	6,028.37	6,402.60	6,374.85	24.50	23.24	-2.43	-577.68	2,854.72	2,194.78	2,163.89	30.89	71.046	
6,200.00	6,126.38	6,496.85	6,468.06	24.97	23.62	-2.31	-580.29	2,841.03	2,161.63	2,130.24	31.39	68.855	
6,300.00	6,224.38	6,591.09	6,561.27	25.44	24.01	-2.18	-582.90	2,827.34	2,128.49	2,096.59	31.90	66.732	
6,400.00	6,322.39	6,685.33	6,654.47	25.91	24.39	-2.05	-585.51	2,813.65	2,095.35	2,062.95	32.40	64.673	
6,500.00	6,420.39	6,779.57	6,747.68	26.38	24.77	-1.92	-588.12	2,799.96	2,062.23	2,029.32	32.90	62.677	
6,600.00	6,518.40	6,873.82	6,840.89	26.85	25.16	-1.78	-590.73	2,786.28	2,029.11	1,995.71	33.41	60.741	
6,658.66	6,575.89	6,929.10	6,895.56	27.13	25.38	-1.70	-592.26	2,778.25	2,009.69	1,975.99	33.70	59.631	
6,700.00	6,616.45	6,968.13	6,934.17	27.32	25.54	-1.63	-593.34	2,772.58	1,996.22	1,962.31	33.91	58.867	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	6,714.90	7,063.13	7,028.12	27.78	25.93	-1.47	-595.97	2,758.78	1,965.39	1,930.98	34.42	57.107	
6,900.00	6,813.77	7,158.90	7,122.84	28.21	26.32	-1.30	-598.62	2,744.87	1,937.08	1,902.16	34.92	55.468	
7,000.00	6,913.01	7,255.38	7,218.25	28.61	26.72	-1.13	-601.29	2,730.86	1,911.30	1,875.87	35.43	53.945	
7,100.00	7,012.53	7,352.49	7,314.29	29.00	27.12	-0.96	-603.98	2,716.75	1,888.07	1,852.14	35.94	52.536	
7,200.00	7,112.27	7,450.17	7,410.90	29.36	27.52	-0.78	-606.68	2,702.57	1,867.42	1,830.97	36.45	51.237	
7,300.00	7,212.16	7,548.35	7,508.01	29.70	27.92	-0.60	-609.40	2,688.31	1,849.34	1,812.39	36.95	50.045	
7,400.00	7,312.14	7,646.98	7,605.55	30.02	28.33	-0.41	-612.13	2,673.98	1,833.87	1,796.41	37.46	48.955	
7,422.86	7,335.00	7,669.57	7,627.90	30.09	28.42	102.80	-612.76	2,670.70	1,830.70	1,793.12	37.57	48.721	
7,500.00	7,412.14	7,745.87	7,703.35	30.32	28.74	102.94	-614.87	2,659.62	1,820.23	1,782.27	37.96	47.951	
7,600.00	7,512.14	7,844.77	7,801.17	30.63	29.15	103.13	-617.61	2,645.25	1,806.68	1,768.22	38.46	46.975	
7,700.00	7,612.14	7,943.67	7,898.98	30.93	29.56	103.32	-620.35	2,630.89	1,793.15	1,754.19	38.96	46.023	
7,800.00	7,712.14	8,042.57	7,996.79	31.23	29.97	103.51	-623.08	2,616.53	1,779.64	1,740.18	39.46	45.094	
7,900.00	7,812.14	8,141.47	8,094.61	31.54	30.38	103.71	-625.82	2,602.16	1,766.15	1,726.19	39.97	44.189	
8,000.00	7,912.14	8,240.37	8,192.42	31.84	30.79	103.91	-628.56	2,587.80	1,752.69	1,712.21	40.47	43.305	
8,100.00	8,012.14	8,339.27	8,290.24	32.15	31.20	104.11	-631.30	2,573.43	1,739.24	1,698.26	40.98	42.443	
8,200.00	8,112.14	8,438.17	8,388.05	32.46	31.61	104.32	-634.03	2,559.07	1,725.81	1,684.33	41.48	41.601	
8,300.00	8,212.14	8,537.07	8,485.86	32.76	32.02	104.53	-636.77	2,544.70	1,712.41	1,670.42	41.99	40.779	
8,400.00	8,312.14	8,635.97	8,583.68	33.07	32.44	104.74	-639.51	2,530.34	1,699.03	1,656.53	42.50	39.977	
8,500.00	8,412.14	8,734.88	8,681.49	33.39	32.85	104.96	-642.25	2,515.97	1,685.67	1,642.66	43.01	39.193	
8,600.00	8,512.14	8,833.78	8,779.30	33.70	33.26	105.18	-644.99	2,501.61	1,672.34	1,628.82	43.52	38.427	
8,700.00	8,612.14	8,932.68	8,877.12	34.01	33.67	105.40	-647.72	2,487.25	1,659.03	1,615.00	44.03	37.679	
8,800.00	8,712.14	9,031.58	8,974.93	34.32	34.09	105.63	-650.46	2,472.88	1,645.75	1,601.21	44.54	36.948	
8,900.00	8,812.14	9,130.48	9,072.75	34.64	34.50	105.86	-653.20	2,458.52	1,632.49	1,587.44	45.06	36.233	
9,000.00	8,912.14	9,229.38	9,170.56	34.95	34.92	106.09	-655.94	2,444.15	1,619.26	1,573.69	45.57	35.534	
9,100.00	9,012.14	9,328.28	9,268.37	35.27	35.33	106.33	-658.68	2,429.79	1,606.06	1,559.97	46.08	34.851	
9,200.00	9,112.14	9,427.18	9,366.19	35.59	35.75	106.57	-661.41	2,415.42	1,592.88	1,546.28	46.60	34.182	
9,300.00	9,212.14	9,526.08	9,464.00	35.90	36.16	106.82	-664.15	2,401.06	1,579.74	1,532.62	47.12	33.528	
9,400.00	9,312.14	9,624.98	9,561.82	36.22	36.58	107.07	-666.89	2,386.69	1,566.62	1,518.98	47.63	32.889	
9,500.00	9,412.14	9,723.88	9,659.63	36.54	36.99	107.32	-669.63	2,372.33	1,553.53	1,505.38	48.15	32.263	
9,600.00	9,512.14	9,822.79	9,757.44	36.86	37.41	107.58	-672.37	2,357.97	1,540.47	1,491.80	48.67	31.650	
9,700.00	9,612.14	9,921.69	9,855.26	37.18	37.83	107.85	-675.10	2,343.60	1,527.45	1,478.26	49.19	31.051	
9,800.00	9,712.14	10,020.59	9,953.07	37.50	38.24	108.11	-677.84	2,329.24	1,514.45	1,464.74	49.71	30.464	
9,900.00	9,812.14	10,119.49	10,050.89	37.83	38.66	108.38	-680.58	2,314.87	1,501.49	1,451.26	50.24	29.889	
10,000.00	9,912.14	10,200.00	10,130.54	38.15	39.00	108.61	-682.77	2,303.39	1,488.87	1,438.11	50.77	29.328	
10,100.00	10,012.14	10,277.48	10,207.39	38.47	39.31	108.79	-684.61	2,293.71	1,477.81	1,426.52	51.29	28.815	
10,200.00	10,112.14	10,351.92	10,281.40	38.80	39.61	108.95	-686.11	2,285.84	1,468.45	1,416.66	51.79	28.352	
10,300.00	10,212.14	10,426.64	10,355.83	39.12	39.89	109.08	-687.34	2,279.38	1,460.80	1,408.51	52.29	27.936	
10,400.00	10,312.14	10,500.00	10,429.01	39.44	40.17	109.18	-688.29	2,274.43	1,454.86	1,402.09	52.77	27.569	
10,500.00	10,412.14	10,576.73	10,505.65	39.77	40.44	109.25	-688.99	2,270.72	1,450.62	1,397.38	53.24	27.246	
10,600.00	10,512.14	10,651.98	10,580.86	40.10	40.70	109.29	-689.41	2,268.56	1,448.09	1,394.39	53.69	26.970	
10,700.00	10,612.14	10,727.66	10,656.54	40.42	40.95	109.31	-689.54	2,267.85	1,447.26	1,393.13	54.13	26.736	
10,800.00	10,712.14	10,827.66	10,756.54	40.75	41.27	109.31	-689.54	2,267.85	1,447.26	1,392.65	54.61	26.501	
10,900.00	10,812.14	10,927.66	10,856.54	41.08	41.59	109.31	-689.54	2,267.85	1,447.26	1,392.17	55.09	26.269	
11,000.00	10,912.14	11,027.66	10,956.54	41.41	41.92	109.31	-689.54	2,267.85	1,447.26	1,391.68	55.58	26.041	
11,100.00	11,012.14	11,136.95	11,065.84	41.74	42.27	109.30	-689.44	2,267.85	1,447.25	1,391.18	56.08	25.808	
11,200.00	11,112.14	11,638.56	11,501.80	42.06	43.44	100.97	-475.27	2,265.83	1,431.46	1,375.62	55.83	25.638	
11,300.00	11,212.14	11,805.91	11,586.16	42.39	43.60	95.05	-331.43	2,264.47	1,406.93	1,350.54	56.39	24.950	
11,400.00	11,312.14	11,874.85	11,608.11	42.72	43.66	92.32	-266.12	2,263.85	1,385.98	1,328.78	57.20	24.230	
11,500.00	11,412.14	11,911.37	11,616.50	43.06	43.70	90.82	-230.59	2,263.51	1,371.02	1,313.12	57.90	23.679	
11,600.00	11,512.14	11,933.80	11,620.54	43.39	43.72	89.90	-208.52	2,263.30	1,362.81	1,304.40	58.41	23.333	
11,650.90	11,563.04	11,942.18	11,621.82	43.56	43.73	89.55	-200.24	2,263.22	1,361.34	1,302.76	58.58	23.237	
11,665.60	11,577.74	11,944.52	11,622.16	43.60	43.74	90.03	-197.93	2,263.20	1,361.26	1,302.64	58.63	23.220	CC, ES

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,700.00	11,612.08	11,950.00	11,622.91	43.72	43.74	89.76	-192.50	2,263.15	1,361.68	1,302.98	58.70	23.196	
11,750.00	11,661.65	11,962.17	11,624.39	43.87	43.76	89.05	-180.42	2,263.04	1,363.75	1,304.97	58.78	23.202	
11,800.00	11,710.46	11,975.31	11,625.71	44.02	43.77	88.16	-167.35	2,262.91	1,367.44	1,308.63	58.80	23.256	
11,850.00	11,758.16	11,989.94	11,626.82	44.16	43.80	87.07	-152.76	2,262.77	1,372.62	1,313.85	58.77	23.354	
11,900.00	11,804.37	12,000.00	11,627.36	44.29	43.81	86.02	-142.72	2,262.68	1,379.18	1,320.49	58.69	23.500	
11,950.00	11,848.74	12,022.56	11,627.95	44.41	43.85	84.41	-120.16	2,262.47	1,386.89	1,328.29	58.60	23.666	
12,000.00	11,890.94	12,043.29	11,627.70	44.51	43.88	82.80	-99.44	2,262.27	1,395.65	1,337.17	58.48	23.865	
12,050.00	11,930.64	12,067.65	11,626.97	44.60	43.93	81.03	-75.09	2,262.04	1,405.16	1,346.81	58.35	24.082	
12,100.00	11,967.55	12,100.24	11,625.99	44.68	44.00	79.03	-42.52	2,261.73	1,415.04	1,356.81	58.23	24.300	
12,150.00	12,001.37	12,136.01	11,624.92	44.74	44.08	77.03	-6.76	2,261.39	1,424.98	1,366.85	58.13	24.512	
12,200.00	12,031.86	12,174.69	11,623.76	44.80	44.18	75.10	31.89	2,261.03	1,434.67	1,376.62	58.05	24.715	
12,250.00	12,058.79	12,215.98	11,622.53	44.84	44.31	73.30	73.16	2,260.64	1,443.83	1,385.83	57.99	24.896	
12,300.00	12,081.94	12,259.56	11,621.22	44.87	44.45	71.68	116.73	2,260.22	1,452.18	1,394.20	57.98	25.046	
12,350.00	12,101.14	12,305.12	11,619.86	44.90	44.62	70.28	162.26	2,259.79	1,459.48	1,401.48	58.00	25.164	
12,400.00	12,116.24	12,352.29	11,618.44	44.92	44.81	69.13	209.41	2,259.35	1,465.54	1,407.47	58.07	25.236	
12,450.00	12,127.14	12,400.72	11,616.99	44.95	45.02	68.26	257.82	2,258.89	1,470.18	1,411.99	58.19	25.266	
12,500.00	12,133.74	12,450.05	11,615.51	44.99	45.25	67.68	307.12	2,258.42	1,473.27	1,414.90	58.36	25.243	
12,550.90	12,136.00	12,500.79	11,613.99	45.03	45.50	67.41	357.83	2,257.94	1,474.74	1,416.15	58.58	25.173	
12,600.00	12,136.00	12,549.87	11,612.52	45.10	45.77	67.36	406.89	2,257.48	1,475.32	1,416.48	58.84	25.073	
12,700.00	12,136.00	12,649.83	11,609.53	45.28	46.35	67.25	506.79	2,256.53	1,476.52	1,417.11	59.41	24.851	
12,800.00	12,136.00	12,749.78	11,606.53	45.54	46.99	67.15	606.70	2,255.59	1,477.72	1,417.66	60.06	24.604	
12,900.00	12,136.00	12,849.74	11,603.54	45.88	47.68	67.04	706.61	2,254.64	1,478.93	1,418.15	60.78	24.334	
13,000.00	12,136.00	12,949.69	11,600.54	46.30	48.41	66.93	806.51	2,253.70	1,480.14	1,418.58	61.56	24.043	
13,100.00	12,136.00	13,049.65	11,597.55	46.78	49.20	66.83	906.42	2,252.75	1,481.36	1,418.95	62.41	23.736	
13,200.00	12,136.00	13,149.60	11,594.55	47.33	50.03	66.72	1,006.32	2,251.81	1,482.59	1,419.27	63.32	23.414	
13,300.00	12,136.00	13,249.56	11,591.56	47.94	50.90	66.62	1,106.23	2,250.86	1,483.81	1,419.52	64.29	23.080	
13,400.00	12,136.00	13,349.51	11,588.56	48.60	51.80	66.51	1,206.13	2,249.92	1,485.05	1,419.73	65.32	22.737	
13,500.00	12,136.00	13,449.47	11,585.57	49.31	52.75	66.41	1,306.04	2,248.97	1,486.29	1,419.89	66.39	22.386	
13,600.00	12,136.00	13,549.42	11,582.57	50.06	53.72	66.30	1,405.95	2,248.03	1,487.53	1,420.01	67.52	22.030	
13,700.00	12,136.00	13,649.38	11,579.58	50.86	54.74	66.20	1,505.85	2,247.08	1,488.78	1,420.08	68.70	21.671	
13,800.00	12,136.00	13,749.33	11,576.58	51.70	55.78	66.09	1,605.76	2,246.14	1,490.03	1,420.11	69.92	21.310	
13,900.00	12,136.00	13,849.29	11,573.59	52.58	56.85	65.99	1,705.66	2,245.19	1,491.29	1,420.11	71.18	20.950	
14,000.00	12,136.00	13,949.24	11,570.59	53.49	57.94	65.88	1,805.57	2,244.24	1,492.55	1,420.06	72.49	20.590	
14,100.00	12,136.00	14,049.20	11,567.60	54.44	59.07	65.78	1,905.47	2,243.30	1,493.82	1,419.99	73.83	20.233	
14,200.00	12,136.00	14,149.15	11,564.60	55.43	60.21	65.67	2,005.38	2,242.35	1,495.09	1,419.89	75.21	19.880	
14,300.00	12,136.00	14,249.11	11,561.61	56.44	61.38	65.57	2,105.29	2,241.41	1,496.37	1,419.76	76.61	19.532	
14,400.00	12,136.00	14,349.06	11,558.61	57.49	62.57	65.47	2,205.19	2,240.46	1,497.66	1,419.60	78.05	19.188	
14,500.00	12,136.00	14,449.02	11,555.61	58.56	63.79	65.36	2,305.10	2,239.52	1,498.94	1,419.42	79.52	18.850	
14,600.00	12,136.00	14,548.97	11,552.62	59.66	65.02	65.26	2,405.00	2,238.57	1,500.24	1,419.22	81.02	18.517	
14,700.00	12,136.00	14,648.93	11,549.62	60.78	66.27	65.16	2,504.91	2,237.63	1,501.53	1,419.00	82.54	18.192	
14,800.00	12,136.00	14,748.88	11,546.63	61.93	67.53	65.05	2,604.81	2,236.68	1,502.84	1,418.75	84.08	17.873	
14,900.00	12,136.00	14,848.84	11,543.63	63.10	68.82	64.95	2,704.72	2,235.74	1,504.14	1,418.49	85.65	17.562	
15,000.00	12,136.00	14,948.79	11,540.64	64.29	70.12	64.85	2,804.63	2,234.79	1,505.46	1,418.22	87.24	17.257	
15,100.00	12,136.00	15,048.75	11,537.64	65.50	71.43	64.75	2,904.53	2,233.85	1,506.77	1,417.93	88.84	16.960	
15,200.00	12,136.00	15,148.70	11,534.65	66.73	72.75	64.64	3,004.44	2,232.90	1,508.09	1,417.62	90.47	16.670	
15,300.00	12,136.00	15,248.66	11,531.65	67.98	74.09	64.54	3,104.34	2,231.96	1,509.42	1,417.31	92.11	16.387	
15,400.00	12,136.00	15,348.61	11,528.66	69.24	75.45	64.44	3,204.25	2,231.01	1,510.75	1,416.98	93.77	16.111	
15,500.00	12,136.00	15,448.57	11,525.66	70.52	76.81	64.34	3,304.16	2,230.06	1,512.09	1,416.65	95.44	15.843	
15,600.00	12,136.00	15,548.52	11,522.67	71.82	78.18	64.24	3,404.06	2,229.12	1,513.43	1,416.30	97.13	15.582	
15,700.00	12,136.00	15,648.48	11,519.67	73.13	79.57	64.14	3,503.97	2,228.17	1,514.78	1,415.95	98.83	15.328	
15,800.00	12,136.00	15,748.43	11,516.68	74.45	80.96	64.04	3,603.87	2,227.23	1,516.13	1,415.59	100.54	15.080	
15,900.00	12,136.00	15,848.39	11,513.68	75.78	82.37	63.93	3,703.78	2,226.28	1,517.48	1,415.22	102.26	14.839	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,000.00	12,136.00	15,948.34	11,510.69	77.13	83.78	63.83	3,803.68	2,225.34	1,518.84	1,414.85	103.99	14.605	
16,100.00	12,136.00	16,048.30	11,507.69	78.49	85.20	63.73	3,903.59	2,224.39	1,520.20	1,414.47	105.74	14.377	
16,200.00	12,136.00	16,148.25	11,504.70	79.86	86.63	63.63	4,003.50	2,223.45	1,521.57	1,414.09	107.49	14.156	
16,300.00	12,136.00	16,248.21	11,501.70	81.24	88.07	63.53	4,103.40	2,222.50	1,522.95	1,413.70	109.25	13.940	
16,400.00	12,136.00	16,348.16	11,498.71	82.64	89.52	63.43	4,203.31	2,221.56	1,524.33	1,413.31	111.01	13.731	
16,500.00	12,136.00	16,448.12	11,495.71	84.04	90.97	63.33	4,303.21	2,220.61	1,525.71	1,412.92	112.79	13.527	
16,600.00	12,136.00	16,548.07	11,492.72	85.45	92.43	63.23	4,403.12	2,219.67	1,527.10	1,412.53	114.57	13.329	
16,700.00	12,136.00	16,648.03	11,489.72	86.86	93.89	63.13	4,503.02	2,218.72	1,528.49	1,412.13	116.36	13.136	
16,800.00	12,136.00	16,747.98	11,486.73	88.29	95.37	63.03	4,602.93	2,217.78	1,529.89	1,411.74	118.15	12.949	
16,900.00	12,136.00	16,847.94	11,483.73	89.72	96.84	62.94	4,702.84	2,216.83	1,531.29	1,411.34	119.95	12.766	
17,000.00	12,136.00	16,947.89	11,480.74	91.17	98.32	62.84	4,802.74	2,215.88	1,532.69	1,410.94	121.75	12.589	
17,100.00	12,136.00	17,047.85	11,477.74	92.61	99.81	62.74	4,902.65	2,214.94	1,534.10	1,410.55	123.56	12.416	
17,200.00	12,136.00	17,147.80	11,474.75	94.07	101.31	62.64	5,002.55	2,213.99	1,535.52	1,410.15	125.37	12.248	
17,300.00	12,136.00	17,247.76	11,471.75	95.53	102.80	62.54	5,102.46	2,213.05	1,536.94	1,409.75	127.18	12.084	
17,400.00	12,136.00	17,347.71	11,468.76	97.00	104.31	62.44	5,202.36	2,212.10	1,538.36	1,409.36	129.00	11.925	
17,500.00	12,136.00	17,447.67	11,465.76	98.47	105.81	62.34	5,302.27	2,211.16	1,539.79	1,408.97	130.83	11.770	
17,600.00	12,136.00	17,547.62	11,462.77	99.95	107.32	62.25	5,402.18	2,210.21	1,541.23	1,408.58	132.65	11.619	
17,700.00	12,136.00	17,647.58	11,459.77	101.44	108.84	62.15	5,502.08	2,209.27	1,542.66	1,408.19	134.48	11.472	
17,800.00	12,136.00	17,747.53	11,456.78	102.92	110.36	62.05	5,601.99	2,208.32	1,544.11	1,407.80	136.30	11.328	
17,900.00	12,136.00	17,847.49	11,453.78	104.42	111.88	61.95	5,701.89	2,207.38	1,545.55	1,407.42	138.13	11.189	
18,000.00	12,136.00	17,947.45	11,450.79	105.92	113.41	61.86	5,801.80	2,206.43	1,547.00	1,407.04	139.97	11.053	
18,100.00	12,136.00	18,047.40	11,447.79	107.42	114.94	61.76	5,901.70	2,205.49	1,548.46	1,406.66	141.80	10.920	
18,200.00	12,136.00	18,147.36	11,444.80	108.93	116.47	61.66	6,001.61	2,204.54	1,549.92	1,406.28	143.64	10.790	
18,300.00	12,136.00	18,247.31	11,441.80	110.44	118.01	61.57	6,101.52	2,203.60	1,551.38	1,405.91	145.47	10.664	
18,400.00	12,136.00	18,347.27	11,438.81	111.96	119.55	61.47	6,201.42	2,202.65	1,552.85	1,405.54	147.31	10.541	
18,500.00	12,136.00	18,447.22	11,435.81	113.48	121.09	61.37	6,301.33	2,201.70	1,554.33	1,405.18	149.15	10.421	
18,600.00	12,136.00	18,547.18	11,432.82	115.00	122.63	61.28	6,401.23	2,200.76	1,555.80	1,404.82	150.99	10.304	
18,700.00	12,136.00	18,647.13	11,429.82	116.53	124.18	61.18	6,501.14	2,199.81	1,557.29	1,404.46	152.83	10.190	
18,800.00	12,136.00	18,747.09	11,426.83	118.06	125.73	61.09	6,601.04	2,198.87	1,558.77	1,404.11	154.66	10.078	
18,900.00	12,136.00	18,847.04	11,423.83	119.59	127.29	60.99	6,700.95	2,197.92	1,560.26	1,403.76	156.50	9.970	
19,000.00	12,136.00	18,947.00	11,420.84	121.13	128.84	60.90	6,800.86	2,196.98	1,561.76	1,403.42	158.34	9.863	
19,100.00	12,136.00	19,046.95	11,417.84	122.67	130.40	60.80	6,900.76	2,196.03	1,563.26	1,403.08	160.18	9.759	
19,200.00	12,136.00	19,146.91	11,414.85	124.21	131.96	60.71	7,000.67	2,195.09	1,564.76	1,402.74	162.02	9.658	
19,300.00	12,136.00	19,246.86	11,411.85	125.75	133.52	60.61	7,100.57	2,194.14	1,566.27	1,402.41	163.86	9.559	
19,400.00	12,136.00	19,346.82	11,408.86	127.30	135.09	60.52	7,200.48	2,193.20	1,567.78	1,402.09	165.69	9.462	
19,500.00	12,136.00	19,446.77	11,405.86	128.85	136.65	60.42	7,300.38	2,192.25	1,569.30	1,401.77	167.53	9.367	
19,600.00	12,136.00	19,546.73	11,402.87	130.41	138.22	60.33	7,400.29	2,191.31	1,570.82	1,401.46	169.36	9.275	
19,700.00	12,136.00	19,646.68	11,399.87	131.96	139.79	60.23	7,500.20	2,190.36	1,572.34	1,401.15	171.20	9.184	
19,800.00	12,136.00	19,746.64	11,396.88	133.52	141.36	60.14	7,600.10	2,189.42	1,573.87	1,400.85	173.03	9.096	
19,900.00	12,136.00	19,846.59	11,393.88	135.08	142.94	60.05	7,700.01	2,188.47	1,575.41	1,400.55	174.86	9.010	
20,000.00	12,136.00	19,946.55	11,390.89	136.64	144.51	59.95	7,799.91	2,187.52	1,576.94	1,400.25	176.69	8.925	
20,100.00	12,136.00	20,046.50	11,387.89	138.21	146.09	59.86	7,899.82	2,186.58	1,578.49	1,399.97	178.52	8.842	
20,200.00	12,136.00	20,146.46	11,384.90	139.77	147.67	59.77	7,999.72	2,185.63	1,580.03	1,399.69	180.35	8.761	
20,300.00	12,136.00	20,246.41	11,381.90	141.34	149.25	59.67	8,099.63	2,184.69	1,581.58	1,399.41	182.17	8.682	
20,400.00	12,136.00	20,346.37	11,378.90	142.91	150.83	59.58	8,199.54	2,183.74	1,583.14	1,399.14	184.00	8.604	
20,500.00	12,136.00	20,446.32	11,375.91	144.48	152.42	59.49	8,299.44	2,182.80	1,584.70	1,398.88	185.82	8.528	
20,600.00	12,136.00	20,546.28	11,372.91	146.06	154.00	59.40	8,399.35	2,181.85	1,586.26	1,398.62	187.64	8.454	
20,700.00	12,136.00	20,646.23	11,369.92	147.63	155.59	59.30	8,499.25	2,180.91	1,587.82	1,398.36	189.46	8.381	
20,800.00	12,136.00	20,746.19	11,366.92	149.21	157.18	59.21	8,599.16	2,179.96	1,589.40	1,398.12	191.28	8.309	
20,900.00	12,136.00	20,846.14	11,363.93	150.79	158.77	59.12	8,699.06	2,179.02	1,590.97	1,397.88	193.09	8.239	
21,000.00	12,136.00	20,946.10	11,360.93	152.37	160.36	59.03	8,798.97	2,178.07	1,592.55	1,397.64	194.91	8.171	
21,100.00	12,136.00	21,046.05	11,357.94	153.95	161.95	58.94	8,898.88	2,177.13	1,594.13	1,397.42	196.72	8.104	

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Offset Design KC7 Fed Com/El Paso Fed Com - KC7 Fed Com 603H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
21,200.00	12,136.00	21,146.01	11,354.94	155.53	163.54	58.84	8,998.78	2,176.18	1,595.72	1,397.19	198.53	8.038	
21,300.00	12,136.00	21,245.96	11,351.95	157.12	165.13	58.75	9,098.69	2,175.24	1,597.31	1,396.98	200.33	7.973	
21,400.00	12,136.00	21,345.92	11,348.95	158.70	166.73	58.66	9,198.59	2,174.29	1,598.91	1,396.77	202.14	7.910	
21,500.00	12,136.00	21,445.87	11,345.96	160.29	168.33	58.57	9,298.50	2,173.34	1,600.51	1,396.57	203.94	7.848	
21,600.00	12,136.00	21,545.83	11,342.96	161.88	169.92	58.48	9,398.40	2,172.40	1,602.11	1,396.37	205.74	7.787	
21,700.00	12,136.00	21,645.78	11,339.97	163.47	171.52	58.39	9,498.31	2,171.45	1,603.72	1,396.18	207.54	7.727	
21,800.00	12,136.00	21,745.74	11,336.97	165.06	173.12	58.30	9,598.22	2,170.51	1,605.33	1,395.99	209.33	7.669	
21,900.00	12,136.00	21,845.69	11,333.98	166.65	174.72	58.21	9,698.12	2,169.56	1,606.94	1,395.82	211.13	7.611	
22,000.00	12,136.00	21,945.65	11,330.98	168.25	176.32	58.12	9,798.03	2,168.62	1,608.56	1,395.65	212.92	7.555	
22,100.00	12,136.00	22,045.60	11,327.99	169.84	177.92	58.03	9,897.93	2,167.67	1,610.18	1,395.48	214.70	7.500	
22,200.00	12,136.00	22,145.56	11,324.99	171.44	179.53	57.94	9,997.84	2,166.73	1,611.81	1,395.32	216.49	7.445	
22,300.00	12,136.00	22,245.51	11,322.00	173.03	181.13	57.85	10,097.74	2,165.78	1,613.44	1,395.17	218.27	7.392	
22,343.22	12,136.00	22,288.71	11,320.70	173.72	181.82	57.81	10,140.92	2,165.37	1,614.15	1,395.11	219.04	7.369	SF
22,343.71	12,136.00	22,289.20	11,320.69	173.75	181.83	57.81	10,141.41	2,165.37	1,614.16	1,395.12	219.03	7.369	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

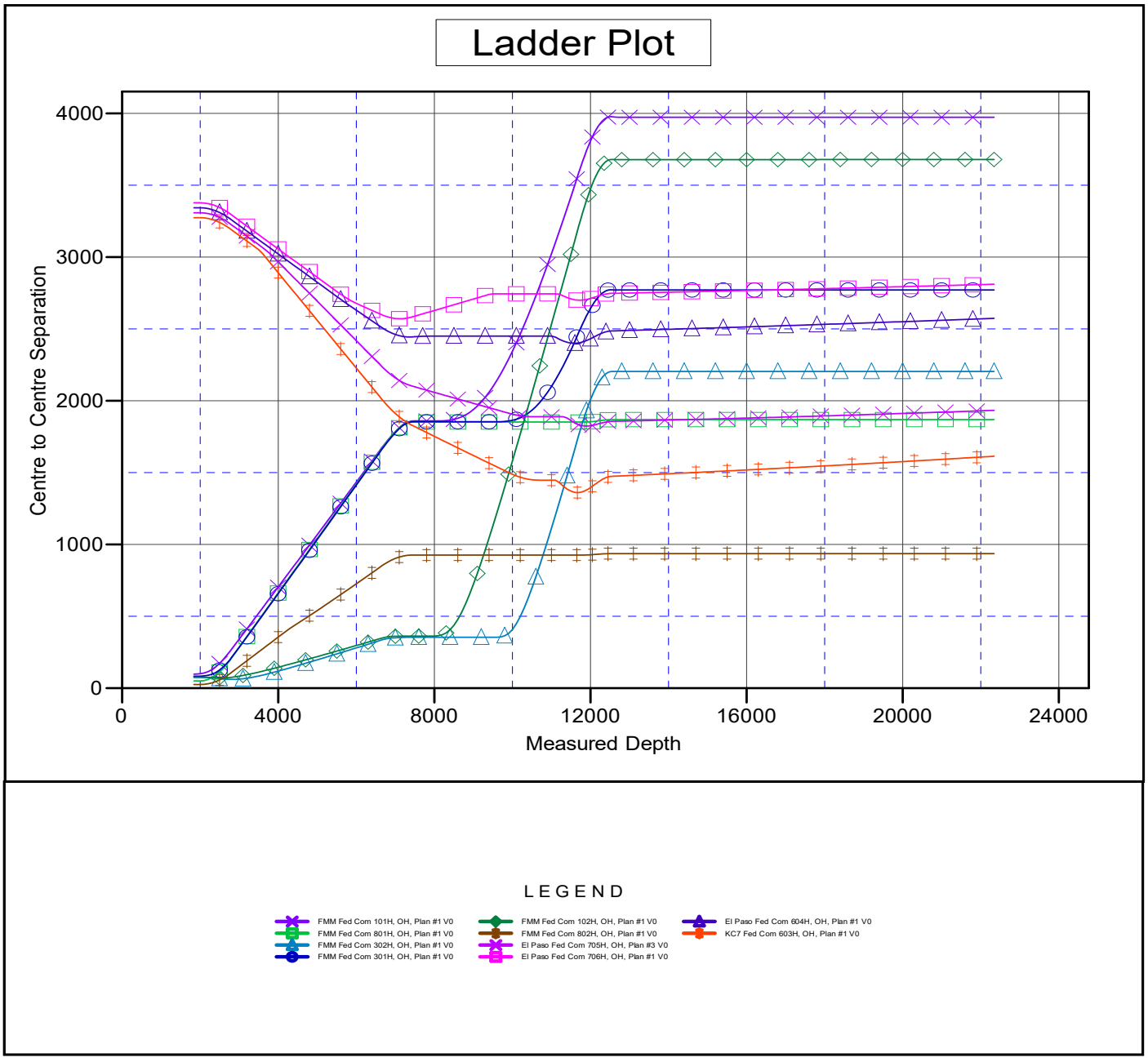
Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3289.8' GE + 30' KB @ 3319.80usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: FMM Fed Com 803H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°



Total Directional Services

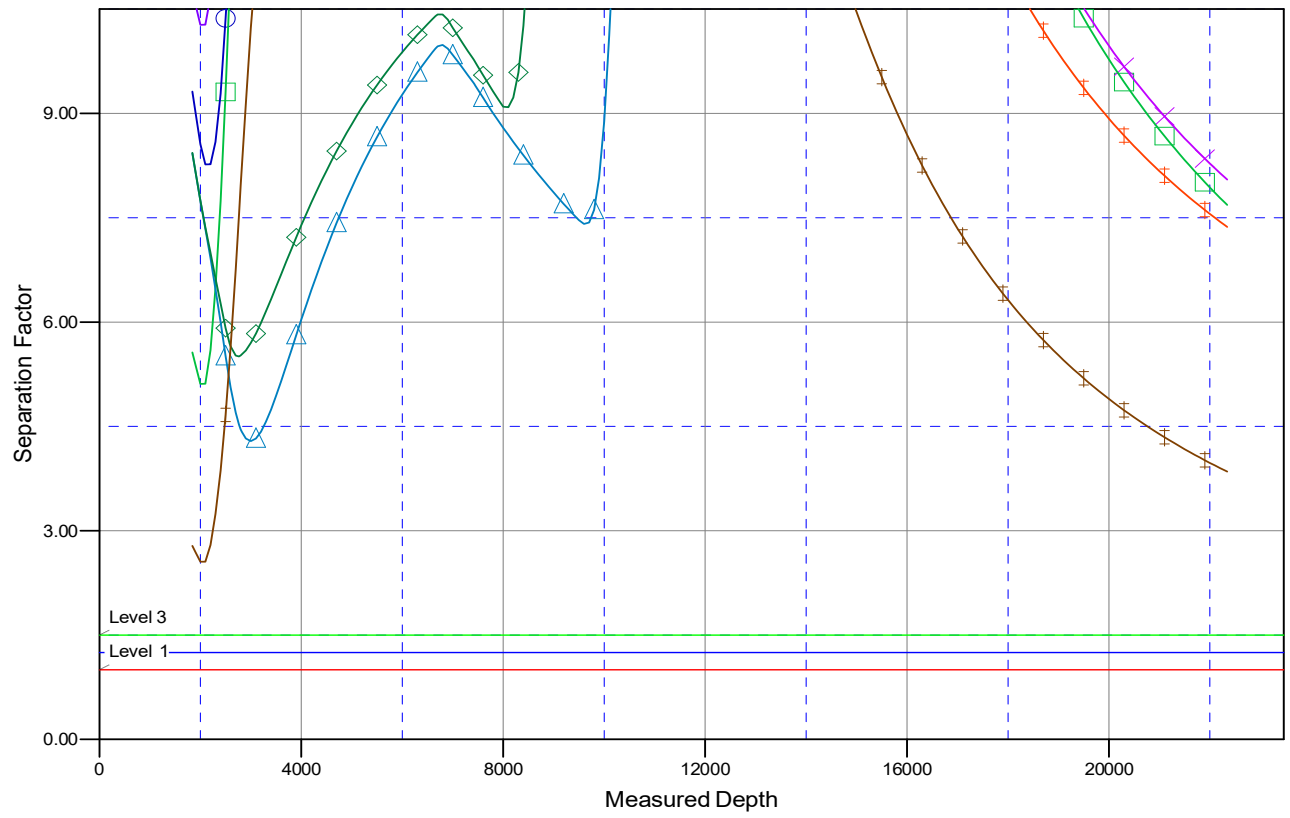
Anticollision Report

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well FMM Fed Com 803H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Reference Site:	FMM Fed Com	**MD Reference:**	3289.8' GE + 30' KB @ 3319.80usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	FMM Fed Com 803H	**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 #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3289.8' GE + 30' KB @ 3319.80usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: FMM Fed Com 803H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

FMM Fed Com 101H, OH, Plan #1 V0
FMM Fed Com 801H, OH, Plan #1 V0
FMM Fed Com 302H, OH, Plan #1 V0
FMM Fed Com 301H, OH, Plan #1 V0
FMM Fed Com 102H, OH, Plan #1 V0
FMM Fed Com 802H, OH, Plan #1 V0
El Paso Fed Com 705H, OH, Plan #3 V0
El Paso Fed Com 706H, OH, Plan #1 V0
El Paso Fed Com 604H, OH, Plan #1 V0
KC7 Fed Com 603H, OH, Plan #1 V0

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 302H**
SURFACE HOLE FOOTAGE:	345'/S & 1344'/W
BOTTOM HOLE FOOTAGE	150'/N & 1877'/W

WELL NAME & NO.:	**FMM Fed Com 803H**
SURFACE HOLE FOOTAGE:	270'/S & 1331'/W
BOTTOM HOLE FOOTAGE	150'/N & 2232'/W

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.

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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 shall be set at approximately **5200 feet** 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.

Approval Date: 02/11/2022

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.

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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.

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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 intergrity 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 intergrity 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

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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 85978

CONDITIONS

Operator: Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	OGRID: 373910
	Action Number: 85978
	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	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	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	Cement is required to circulate on both surface and intermediate1 strings of casing	3/7/2022