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.: NMNM138898

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.: 1912 FEDERAL [330842] 601H

2. Name of Operator: FRANKLIN MOUNTAIN ENERGY LLC [373910]

9. API Well No.: 30-025-48910

3a. Address: 44 COOK STREET SUITE 1000, DENVER, CO 80206

3b. Phone No. *(include area code)*: (720) 414-7868

10. Field and Pool, or Exploratory: LWR BONE SPRIN [98185]/WC-025 G-09

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSW / 285 FSL / 730 FWL / LAT 32.109395 / LONG -103.327424

At proposed prod. zone: NWNW / 150 FNL / 600 FWL / LAT 32.137222 / LONG -103.327821

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 24/T25S/R35E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 285 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 35 feet

19. Proposed Depth: 11642 feet / 21929 feet

20. BLM/BIA Bond No. in file: FED: NMB001761

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3111 feet

22. Approximate date work will start*: 09/01/2020

23. Estimated duration: 30 days

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: (Electronic Submission)

Name *(Printed/Typed)*: JENNIFER SUMMERS / Ph: (720) 414-7868

Date: 08/27/2020

Title: Field Technician

Approved by *(Signature)*: (Electronic Submission)

Name *(Printed/Typed)*: Cody Layton / Ph: (575) 234-5959

Date: 04/22/2021

Title: Assistant Field Manager Lands & Minerals

Office: Carlsbad Field 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.

GCP Rec 04/26/2021

KZ
05/25/2021

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 04/22/2021

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.

(Continued on page 3)

Approval Date: 04/22/2021

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 285 FSL / 730 FWL / TWSP: 25S / RANGE: 35E / SECTION: 24 / LAT: 32.109395 / LONG: -103.327424 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 634 FSL / 600 FWL / TWSP: 25S / RANGE: 35E / SECTION: 24 / LAT: 32.110354 / LONG: -103.327843 (TVD: 11804 feet, MD: 12152 feet)

BHL: NWNW / 150 FNL / 600 FWL / TWSP: 25S / RANGE: 35E / SECTION: 13 / LAT: 32.137222 / LONG: -103.327821 (TVD: 11642 feet, MD: 21929 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
30-025-48910	98185	WC-025 G-09 S253502B;LWR BONE SPRING
[4] Property Code	[5] Property Name	[6] Well Number
330842	1912 FEDERAL	601H
[7] OGRID No.	[8] Operator Name	[9] Elevation
373910	FRANKLIN MOUNTAIN ENERGY LLC	3111.3

[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
M	24	25S	35E		285	SOUTH	730	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
D	13	25S	35E		150	NORTH	600	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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]

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

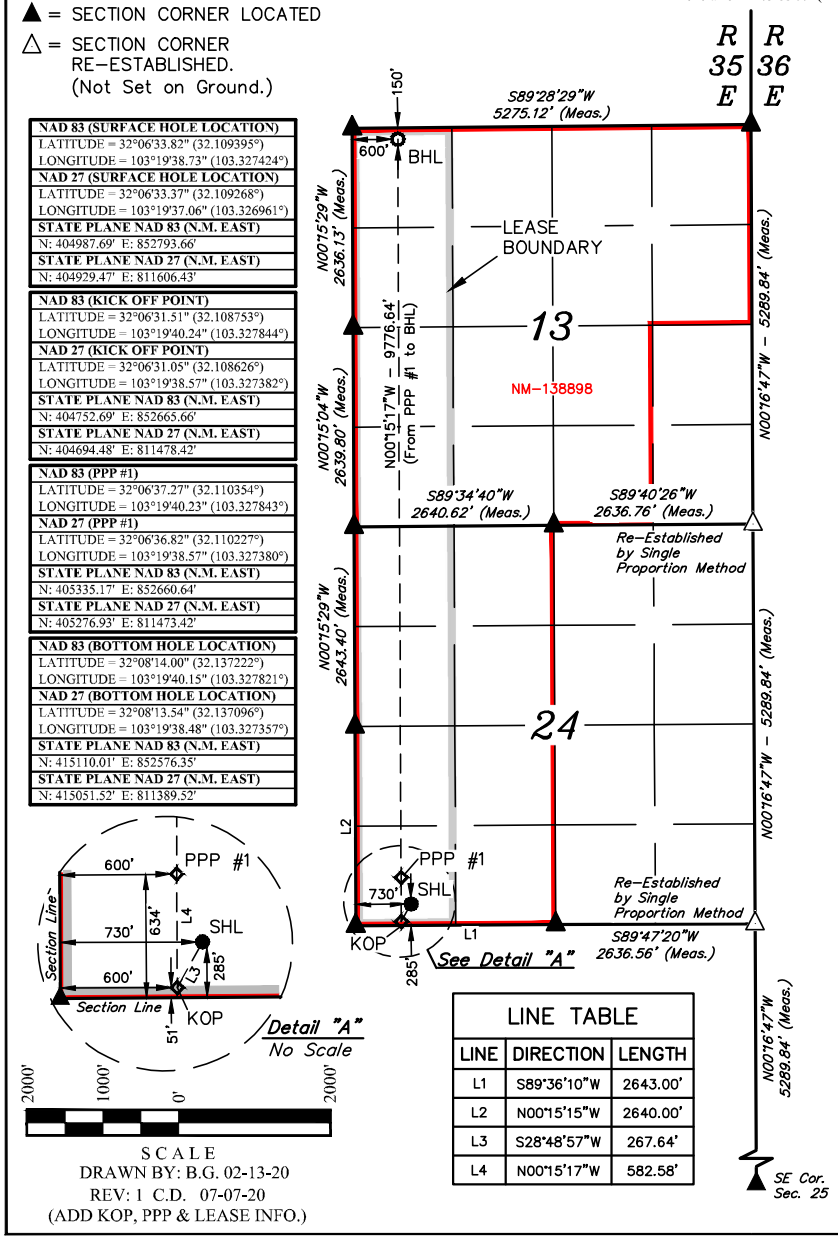
NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°06'33.82" (32.109395°)
LONGITUDE = 103°19'38.73" (103.327424°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°06'33.37" (32.109268°)
LONGITUDE = 103°19'37.06" (103.326961°)
STATE PLANE NAD 83 (N.M. EAST)
N: 404987.69' E: 852793.66'
STATE PLANE NAD 27 (N.M. EAST)
N: 404929.47' E: 811606.43'

NAD 83 (KICK OFF POINT)
LATITUDE = 32°06'31.51" (32.108753°)
LONGITUDE = 103°19'40.24" (103.327844°)
NAD 27 (KICK OFF POINT)
LATITUDE = 32°06'31.05" (32.108626°)
LONGITUDE = 103°19'38.57" (103.327382°)
STATE PLANE NAD 83 (N.M. EAST)
N: 404752.69' E: 852665.66'
STATE PLANE NAD 27 (N.M. EAST)
N: 404694.48' E: 811478.42'

NAD 83 (PPP #1)
LATITUDE = 32°06'37.27" (32.110354°)
LONGITUDE = 103°19'40.23" (103.327843°)
NAD 27 (PPP #1)
LATITUDE = 32°06'36.82" (32.110227°)
LONGITUDE = 103°19'38.57" (103.327380°)
STATE PLANE NAD 83 (N.M. EAST)
N: 405335.17' E: 852660.64'
STATE PLANE NAD 27 (N.M. EAST)
N: 405276.93' E: 811473.42'

NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°08'14.00" (32.137222°)
LONGITUDE = 103°19'40.15" (103.327821°)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°08'13.54" (32.137096°)
LONGITUDE = 103°19'38.48" (103.327357°)
STATE PLANE NAD 83 (N.M. EAST)
N: 415110.01' E: 852576.35'
STATE PLANE NAD 27 (N.M. EAST)
N: 415051.52' E: 811389.52'



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°36'10"W	2643.00'
L2	N00°15'15"W	2640.00'
L3	S28°48'57"W	267.64'
L4	N00°15'17"W	582.58'

SCALE
DRAWN BY: B.G. 02-13-20
REV: 1 C.D. 07-07-20
(ADD KOP, PPP & 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 7/14/2020 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.

February 10, 2020
Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 07-07-20

Certificate Number:

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: 12/2/2020

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: Franklin Mountain Energy, LLC 373910

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
1912 Federal 601H	TBD **30-025-48910**	M-24-25S-35E	285 FSL 730 FWL	1100 +/-	Flared	New well; expect to tie-in at IP
1912 Federal 701H	TBD	M-24-25S-35E	285 FSL 695 FWL	1100 +/-	Flared	New well; expect to tie-in at IP
1912 Federal 702H	TBD	M-24-25S-35E	285 FSL 765 FWL	1100 +/-	Flared	New well; expect to tie-in at IP

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Energy Transfer Company and will be connected to Energy Transfer Company's gathering system located in Lea County, New Mexico. It will require 5,000' of pipeline to connect the facility to low/high pressure gathering system. Franklin Mountain Energy, LLC provides (periodically) to Energy Transfer Company a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Franklin Mountain Energy, LLC and Energy Transfer Company have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Energy Transfer Company's Keystone Gas Processing Facility located in Sec.5, Block B-2, Kermit, Winkler Co., Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to permanent central tank battery and gas will be sold or flared. Gas sales should start as soon as the wells start producing gas unless there are operational issues on Energy Transfer Company's system at that time. Based on current information, it is Franklin Mountain Energy's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

FRANKLIN MOUNTAIN ENERGY

1912 Federal 601H

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)	3,111'	30'	30'	0	Sand/Gravels/unconsolidated
Rustler	2,340'	801'			Carbonates
Salado	1,737'	1,404'			Salt, Carbonate & Clastics
Base Salt	-1,064'	4,205'			Shaley Carbonate & Shale
Lamar	-1,830'	4,971'			Carbonate & Clastics
Bell Canyon	-1,882'	5,023'			Sandstone - oil/gas/water
Cherry Canyon	-2,915'	6,056'			Sandstone - oil/gas/water
Brushy Canyon	-4,217'	7,358'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,468'	8,609'			Shale/Carbonates - oil/gas
Avalon	-5,491'	8,632'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,880'	10,021'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-7,008'	10,149'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,402'	10,543'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,852'	10,993'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,502'	11,643'			Sandstone - oil/gas/water
HZ Target at SHL	-8,670'	11,811'			Overpressure shale/sand- Oil/Gas
Wolfcamp	-8,805'	11,946'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,840'	11,981'			Overpressure Shale - Oil/Gas
Wolfcamp B	-9,032'	12,173'			Overpressure Shale - Oil/Gas

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

Upper Permian Sands	0- 400’	Fresh Water
Delaware Sands	5,023’	Oil
Bone Spring	10,021’	Oil
Wolfcamp	11,946’	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 casings 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	5400	1.72	1.67	2.90	3.30
Intermediate 7 5/8"	29.7	HCP-110	8280	7150	827	Stinger 564	12152	1.11	1.26	1.79	1.22
Long string 5 1/2"	23	P-110	14520	14520	729	Anaconda 656	21929	1.32	1.41	1.21	1.09

Safety factors calculated assuming the well is vertical.

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	795	Extenda Cem, 13.5 ppg Class C, 3lb/sk Kol-Seal 0.125pps Poly-E-Flake	1.747	9.06	0	334	HalCem TM, 14.8 ppg, Class C, 1% CaCl2, 0.125pps Celo-Flake	1.349	6.51	1000	100%
Int1	12.25	9.625	5400	1167	Neocem TM, 11.5 ppg, Class C 5% Salt, 0.125 pps Poly-E-Flake, 3lb/sk Kol-Seal	2.444	14.32	0	153	HalCem TM, 14.8 ppg, Class C, 0.1% HR 800 .125 pps Poly-E-Flake	1.334	6.42	5100	100%
Int2	8.75	7.625	12152	348	NeoCem, 11 ppg, Class C 3lb/sk Bridgemaker Gel, 5% Salt, 5pps LCM, 0.25pps Cello-Flake	2.798	17.15	4400	112	NeoCem 13.2 ppg, Class C 0.25 pps Cello-Flake, 2% CaICl2	1.44	7.29	11152	50%
Prod	6.75	5.5	21929	794	NeoCem, 13.5 ppg, Gas Migration Control	1.357	6.65	11152						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 2000 psi for 30 minutes prior to drillout.
Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

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

FRANKLIN MOUNTAIN ENERGY

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' – 12,152'	Brine	8.8-10.2	28-34	N/c
12,152' – 21,929' Lateral	Oil Base	10.0-11.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 10-11 ppg. In order to maintain hole stability, mud weights up to 12 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 11,804' TVD (deepest point of the well) is 195F with an estimated maximum bottom-hole pressure (BHP) at the same point of 7,365 psig (based on 12 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.

FRANKLIN MOUNTAIN ENERGY

12. Disposal/environmental concerns:

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

13. Wellhead:

A multi-bowl wellhead system will be utilized.
After running the 13 3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5,000 psi pressure test. This pressure test will be repeated at least every 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 Cameron 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: 1912 Federal
Well: 1912 Federal 601H
Wellbore: OH
Design: Plan #2

3111.3' GE + 30' KB @ 3141.30usft

Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.04°

Magnetic Field
Strength: 47586.8nT
Dip Angle: 59.88°
Date: 3/4/2020
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

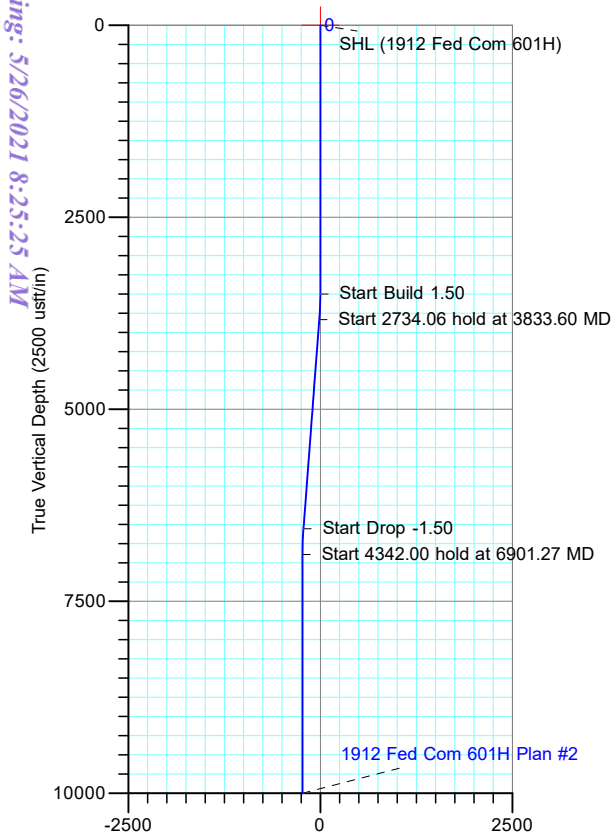
FRANKLIN MOUNTAIN ENERGY

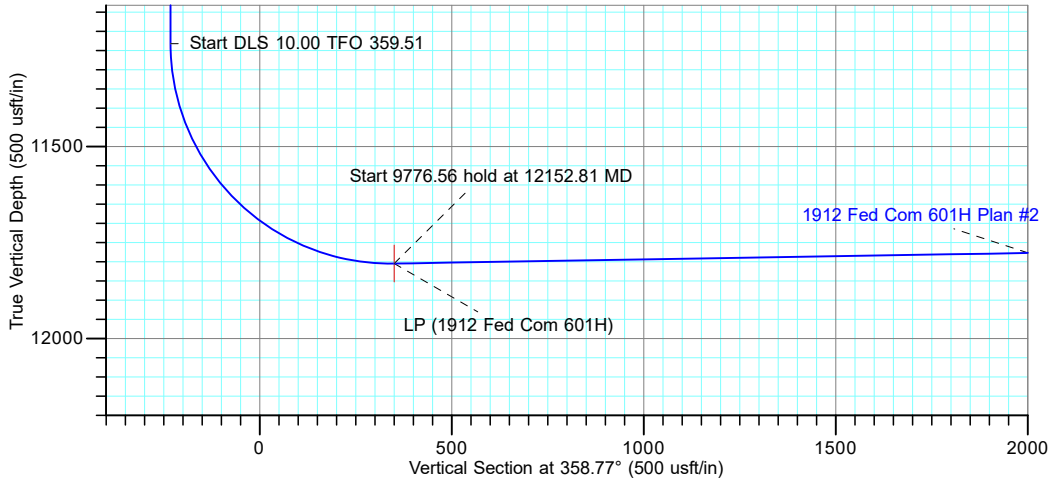
SECTION DETAILS

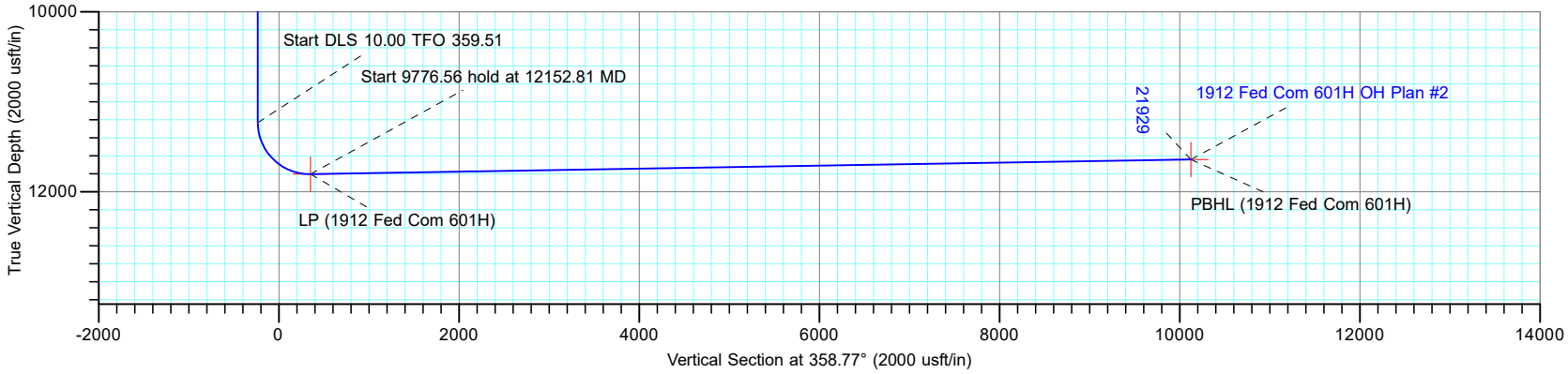
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3833.60	5.00	208.58	3833.18	-12.79	-6.96	1.50	208.58	-12.63	Start 2734.06 hold at 3833.60 MD
6567.67	5.00	208.58	6556.82	-222.21	-121.04	0.00	0.00	-219.57	Start Drop -1.50
6901.27	0.00	0.00	6890.00	-235.00	-128.00	1.50	180.00	-232.20	Start 4342.00 hold at 6901.27 MD
11243.27	0.00	0.00	11232.00	-235.00	-128.00	0.00	0.00	-232.20	Start DLS 10.00 TFO 359.51
12152.81	90.95	359.51	11804.88	347.48	-133.02	10.00	359.51	350.25	Start 9776.56 hold at 12152.81 MD
21929.37	90.95	359.51	11642.11	10122.32	-217.31	0.00	0.00	10124.65	TD at 21929.37

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
LP (1912 Fed Com 601H)	11804.88	347.48	-133.02	32.110354	-103.327843
PBHL (1912 Fed Com 601H)	11642.11	10122.32	-217.31	32.137222	-103.327821
SHL (1912 Fed Com 601H)	0.00	0.00	0.00	32.109395	-103.327424







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

Plan: Plan #2 (1912 Fed Com 601H/OH)
1912 Fed Com
Created By: Dustin Ault Date: 22:34, June 21 2020
Date: _____
Approved: _____ Date: _____

Franklin Mountain Energy

Project: Lea County, NM (NAD83)
Site: 1912 Fed Com
Well: 1912 Fed Com 601H
Wellbore: OH
Design: Plan #2

Azimuths to Grid North
True North: -0.53°
Magnetic North: 6.04°

Magnetic Field
Strength: 47586.8nT
Dip Angle: 59.88°
Date: 3/4/2020
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

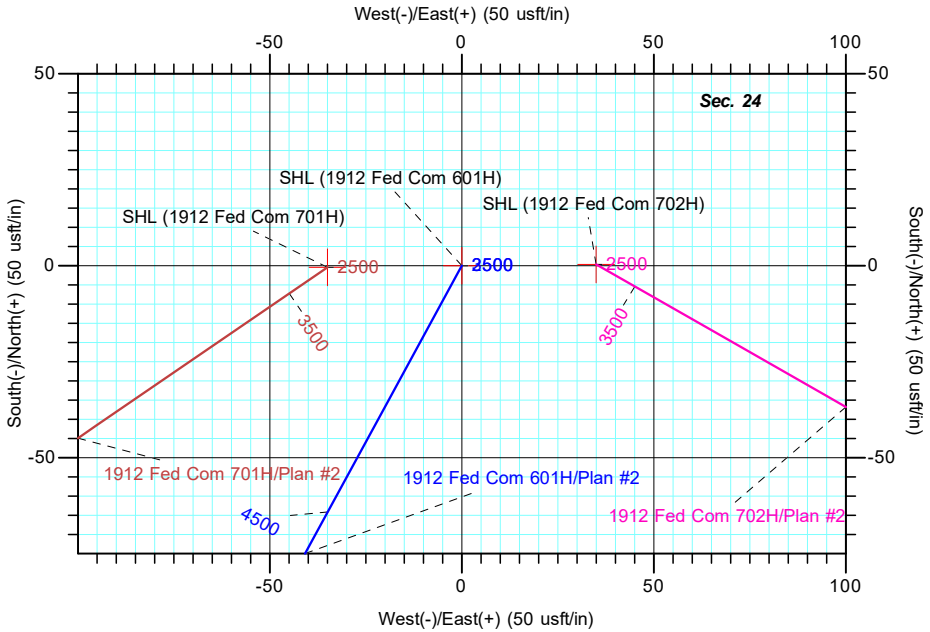
FRANKLIN MOUNTAIN ENERGY

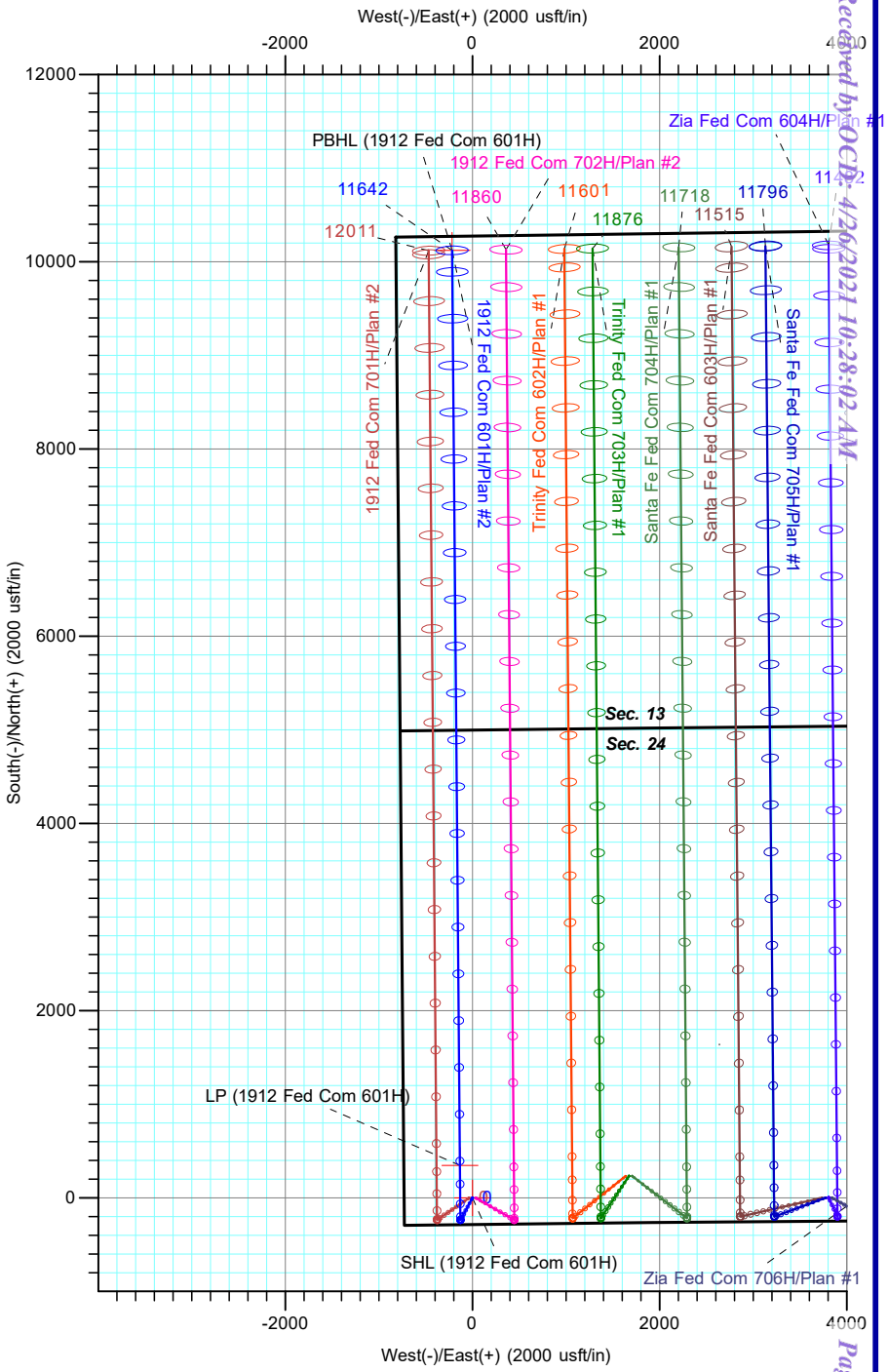
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (1912 Fed Com 601H)	11804.88	347.48	-133.02	405335.17	852660.64	32.110354	-103.327843
PBHL (1912 Fed Com 601H)	11642.11	10122.32	-217.31	415110.01	852576.35	32.137222	-103.327821
SHL (1912 Fed Com 601H)	0.00	0.00	0.00	404987.69	852793.66	32.109395	-103.327424

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	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.50
3833.60	5.00	208.58	3833.18	-12.79	-6.96	1.50	208.58	-12.63	Start 2734.06 hold at 3833.60 MD
6567.67	5.00	208.58	6556.82	-222.21	-121.04	0.00	0.00	-219.57	Start Drop -1.50
6901.27	0.00	0.00	6890.00	-235.00	-128.00	1.50	180.00	-232.20	Start 4342.00 hold at 6901.27 MD
11243.27	0.00	0.00	11232.00	-235.00	-128.00	0.00	0.00	-232.20	Start DLS 10.00 TFO 359.51
12152.81	90.95	359.51	11804.88	347.48	-133.02	10.00	359.51	350.25	Start 9776.56 hold at 12152.81 MD
21929.37	90.95	359.51	11642.11	10122.32	-217.31	0.00	0.00	10124.65	TD at 21929.37





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Date: _____
Approved: _____ Date: _____

FRANKLIN MOUNTAIN ENERGY

Franklin Mountain Energy

Lea County, NM (NAD83)
1912 Fed Com
1912 Fed Com 601H

OH

Plan: Plan #2

Standard Planning Report

21 June, 2020

total

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project Lea County, NM (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site 1912 Fed Com

Site Position:		**Northing:**	404,987.32 usft	**Latitude:**	32.109395
From:	Map	**Easting:**	852,758.67 usft	**Longitude:**	-103.327537
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.53 °

Well 1912 Fed Com 601H

Well Position	**+N/-S**	0.37 usft	**Northing:**	404,987.69 usft	**Latitude:**	32.109395
	+E/-W	34.99 usft	**Easting:**	852,793.66 usft	**Longitude:**	-103.327424
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,111.30 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	3/4/2020	6.57	59.88	47,586.78507654

Design Plan #2

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	358.77

Plan Survey Tool Program **Date** 6/21/2020

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,929.23	Plan #2 (OH)	OWSG (Rev2) MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,833.60	5.00	208.58	3,833.18	-12.79	-6.96	1.50	1.50	0.00	208.58	
6,567.67	5.00	208.58	6,556.82	-222.21	-121.04	0.00	0.00	0.00	0.00	
6,901.27	0.00	0.00	6,890.00	-235.00	-128.00	1.50	-1.50	0.00	180.00	
11,243.27	0.00	0.00	11,232.00	-235.00	-128.00	0.00	0.00	0.00	0.00	
12,152.81	90.95	359.51	11,804.88	347.48	-133.02	10.00	10.00	-0.05	359.51	
21,929.37	90.95	359.51	11,642.11	10,122.32	-217.31	0.00	0.00	0.00	0.00	PBHL (1912 Fed Com

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (1912 Fed Com 601H)									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
3,600.00	1.50	208.58	3,599.99	-1.15	-0.63	-1.14	1.50	1.50	0.00
3,700.00	3.00	208.58	3,699.91	-4.60	-2.50	-4.54	1.50	1.50	0.00
3,800.00	4.50	208.58	3,799.69	-10.34	-5.63	-10.22	1.50	1.50	0.00
3,833.60	5.00	208.58	3,833.18	-12.79	-6.96	-12.63	1.50	1.50	0.00
Start 2734.06 hold at 3833.60 MD									
3,900.00	5.00	208.58	3,899.32	-17.87	-9.73	-17.66	0.00	0.00	0.00
4,000.00	5.00	208.58	3,998.94	-25.53	-13.91	-25.23	0.00	0.00	0.00
4,100.00	5.00	208.58	4,098.56	-33.19	-18.08	-32.80	0.00	0.00	0.00
4,200.00	5.00	208.58	4,198.18	-40.85	-22.25	-40.36	0.00	0.00	0.00
4,300.00	5.00	208.58	4,297.80	-48.51	-26.42	-47.93	0.00	0.00	0.00
4,400.00	5.00	208.58	4,397.42	-56.17	-30.60	-55.50	0.00	0.00	0.00
4,500.00	5.00	208.58	4,497.04	-63.83	-34.77	-63.07	0.00	0.00	0.00
4,600.00	5.00	208.58	4,596.66	-71.49	-38.94	-70.64	0.00	0.00	0.00
4,700.00	5.00	208.58	4,696.27	-79.15	-43.11	-78.21	0.00	0.00	0.00
4,800.00	5.00	208.58	4,795.89	-86.81	-47.28	-85.78	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 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	5.00	208.58	4,895.51	-94.47	-51.46	-93.35	0.00	0.00	0.00
5,000.00	5.00	208.58	4,995.13	-102.13	-55.63	-100.91	0.00	0.00	0.00
5,100.00	5.00	208.58	5,094.75	-109.79	-59.80	-108.48	0.00	0.00	0.00
5,200.00	5.00	208.58	5,194.37	-117.45	-63.97	-116.05	0.00	0.00	0.00
5,300.00	5.00	208.58	5,293.99	-125.11	-68.15	-123.62	0.00	0.00	0.00
5,400.00	5.00	208.58	5,393.61	-132.77	-72.32	-131.19	0.00	0.00	0.00
5,500.00	5.00	208.58	5,493.22	-140.43	-76.49	-138.76	0.00	0.00	0.00
5,600.00	5.00	208.58	5,592.84	-148.09	-80.66	-146.33	0.00	0.00	0.00
5,700.00	5.00	208.58	5,692.46	-155.75	-84.83	-153.89	0.00	0.00	0.00
5,800.00	5.00	208.58	5,792.08	-163.41	-89.01	-161.46	0.00	0.00	0.00
5,900.00	5.00	208.58	5,891.70	-171.07	-93.18	-169.03	0.00	0.00	0.00
6,000.00	5.00	208.58	5,991.32	-178.73	-97.35	-176.60	0.00	0.00	0.00
6,100.00	5.00	208.58	6,090.94	-186.39	-101.52	-184.17	0.00	0.00	0.00
6,200.00	5.00	208.58	6,190.56	-194.05	-105.70	-191.74	0.00	0.00	0.00
6,300.00	5.00	208.58	6,290.18	-201.71	-109.87	-199.31	0.00	0.00	0.00
6,400.00	5.00	208.58	6,389.79	-209.37	-114.04	-206.88	0.00	0.00	0.00
6,500.00	5.00	208.58	6,489.41	-217.03	-118.21	-214.44	0.00	0.00	0.00
6,567.67	5.00	208.58	6,556.82	-222.21	-121.04	-219.57	0.00	0.00	0.00
Start Drop -1.50									
6,600.00	4.52	208.58	6,589.04	-224.57	-122.32	-221.89	1.50	-1.50	0.00
6,700.00	3.02	208.58	6,688.82	-230.34	-125.46	-227.60	1.50	-1.50	0.00
6,800.00	1.52	208.58	6,788.74	-233.82	-127.36	-231.03	1.50	-1.50	0.00
6,901.27	0.00	0.00	6,890.00	-235.00	-128.00	-232.20	1.50	-1.50	0.00
Start 4342.00 hold at 6901.27 MD									
7,000.00	0.00	0.00	6,988.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,100.00	0.00	0.00	7,088.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,200.00	0.00	0.00	7,188.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,300.00	0.00	0.00	7,288.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,400.00	0.00	0.00	7,388.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,500.00	0.00	0.00	7,488.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,600.00	0.00	0.00	7,588.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,700.00	0.00	0.00	7,688.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,800.00	0.00	0.00	7,788.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
7,900.00	0.00	0.00	7,888.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,000.00	0.00	0.00	7,988.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,100.00	0.00	0.00	8,088.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,200.00	0.00	0.00	8,188.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,300.00	0.00	0.00	8,288.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,400.00	0.00	0.00	8,388.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,500.00	0.00	0.00	8,488.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,600.00	0.00	0.00	8,588.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,700.00	0.00	0.00	8,688.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,800.00	0.00	0.00	8,788.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
8,900.00	0.00	0.00	8,888.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,000.00	0.00	0.00	8,988.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,100.00	0.00	0.00	9,088.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,200.00	0.00	0.00	9,188.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,300.00	0.00	0.00	9,288.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,400.00	0.00	0.00	9,388.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,500.00	0.00	0.00	9,488.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,600.00	0.00	0.00	9,588.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,700.00	0.00	0.00	9,688.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,800.00	0.00	0.00	9,788.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
9,900.00	0.00	0.00	9,888.73	-235.00	-128.00	-232.20	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 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	0.00	0.00	9,988.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,100.00	0.00	0.00	10,088.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,200.00	0.00	0.00	10,188.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,300.00	0.00	0.00	10,288.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,400.00	0.00	0.00	10,388.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,500.00	0.00	0.00	10,488.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,600.00	0.00	0.00	10,588.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,700.00	0.00	0.00	10,688.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,800.00	0.00	0.00	10,788.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
10,900.00	0.00	0.00	10,888.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
11,000.00	0.00	0.00	10,988.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
11,100.00	0.00	0.00	11,088.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
11,200.00	0.00	0.00	11,188.73	-235.00	-128.00	-232.20	0.00	0.00	0.00
11,243.27	0.00	0.00	11,232.00	-235.00	-128.00	-232.20	0.00	0.00	0.00
Start DLS 10.00 TFO 359.51									
11,250.00	0.67	359.51	11,238.73	-234.96	-128.00	-232.16	10.00	10.00	0.00
11,300.00	5.67	359.51	11,288.64	-232.19	-128.02	-229.39	10.00	10.00	0.00
11,350.00	10.67	359.51	11,338.12	-225.09	-128.09	-222.29	10.00	10.00	0.00
11,400.00	15.67	359.51	11,386.78	-213.70	-128.18	-210.90	10.00	10.00	0.00
11,450.00	20.67	359.51	11,434.28	-198.11	-128.32	-195.31	10.00	10.00	0.00
11,500.00	25.67	359.51	11,480.23	-178.44	-128.49	-175.64	10.00	10.00	0.00
11,550.00	30.67	359.51	11,524.29	-154.84	-128.69	-152.04	10.00	10.00	0.00
11,600.00	35.67	359.51	11,566.13	-127.49	-128.93	-124.70	10.00	10.00	0.00
11,650.00	40.67	359.51	11,605.42	-96.60	-129.19	-93.81	10.00	10.00	0.00
11,700.00	45.67	359.51	11,641.87	-62.40	-129.49	-59.61	10.00	10.00	0.00
11,750.00	50.67	359.51	11,675.21	-25.16	-129.81	-22.37	10.00	10.00	0.00
11,800.00	55.67	359.51	11,705.17	14.85	-130.15	17.64	10.00	10.00	0.00
11,850.00	60.67	359.51	11,731.53	57.32	-130.52	60.11	10.00	10.00	0.00
11,900.00	65.67	359.51	11,754.09	101.92	-130.91	104.71	10.00	10.00	0.00
11,950.00	70.67	359.51	11,772.67	148.32	-131.31	151.10	10.00	10.00	0.00
12,000.00	75.67	359.51	11,787.14	196.16	-131.72	198.94	10.00	10.00	0.00
12,050.00	80.67	359.51	11,797.38	245.08	-132.14	247.86	10.00	10.00	0.00
12,100.00	85.67	359.51	11,803.33	294.71	-132.57	297.49	10.00	10.00	0.00
12,152.81	90.95	359.51	11,804.88	347.48	-133.02	350.26	10.00	10.00	0.00
Start 9776.56 hold at 12152.81 MD - LP (1912 Fed Com 601H)									
12,200.00	90.95	359.51	11,804.09	394.66	-133.43	397.43	0.00	0.00	0.00
12,300.00	90.95	359.51	11,802.43	494.64	-134.29	497.41	0.00	0.00	0.00
12,400.00	90.95	359.51	11,800.76	594.62	-135.15	597.39	0.00	0.00	0.00
12,500.00	90.95	359.51	11,799.10	694.61	-136.02	697.37	0.00	0.00	0.00
12,600.00	90.95	359.51	11,797.43	794.59	-136.88	797.34	0.00	0.00	0.00
12,700.00	90.95	359.51	11,795.77	894.57	-137.74	897.32	0.00	0.00	0.00
12,800.00	90.95	359.51	11,794.10	994.55	-138.60	997.30	0.00	0.00	0.00
12,900.00	90.95	359.51	11,792.44	1,094.54	-139.46	1,097.28	0.00	0.00	0.00
13,000.00	90.95	359.51	11,790.77	1,194.52	-140.33	1,197.25	0.00	0.00	0.00
13,100.00	90.95	359.51	11,789.11	1,294.50	-141.19	1,297.23	0.00	0.00	0.00
13,200.00	90.95	359.51	11,787.44	1,394.48	-142.05	1,397.21	0.00	0.00	0.00
13,300.00	90.95	359.51	11,785.78	1,494.47	-142.91	1,497.19	0.00	0.00	0.00
13,400.00	90.95	359.51	11,784.11	1,594.45	-143.78	1,597.17	0.00	0.00	0.00
13,500.00	90.95	359.51	11,782.45	1,694.43	-144.64	1,697.14	0.00	0.00	0.00
13,600.00	90.95	359.51	11,780.78	1,794.41	-145.50	1,797.12	0.00	0.00	0.00
13,700.00	90.95	359.51	11,779.12	1,894.40	-146.36	1,897.10	0.00	0.00	0.00
13,800.00	90.95	359.51	11,777.45	1,994.38	-147.22	1,997.08	0.00	0.00	0.00
13,900.00	90.95	359.51	11,775.79	2,094.36	-148.09	2,097.06	0.00	0.00	0.00
14,000.00	90.95	359.51	11,774.13	2,194.34	-148.95	2,197.03	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 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,100.00	90.95	359.51	11,772.46	2,294.32	-149.81	2,297.01	0.00	0.00	0.00
14,200.00	90.95	359.51	11,770.80	2,394.31	-150.67	2,396.99	0.00	0.00	0.00
14,300.00	90.95	359.51	11,769.13	2,494.29	-151.53	2,496.97	0.00	0.00	0.00
14,400.00	90.95	359.51	11,767.47	2,594.27	-152.40	2,596.95	0.00	0.00	0.00
14,500.00	90.95	359.51	11,765.80	2,694.25	-153.26	2,696.92	0.00	0.00	0.00
14,600.00	90.95	359.51	11,764.14	2,794.24	-154.12	2,796.90	0.00	0.00	0.00
14,700.00	90.95	359.51	11,762.47	2,894.22	-154.98	2,896.88	0.00	0.00	0.00
14,800.00	90.95	359.51	11,760.81	2,994.20	-155.85	2,996.86	0.00	0.00	0.00
14,900.00	90.95	359.51	11,759.14	3,094.18	-156.71	3,096.83	0.00	0.00	0.00
15,000.00	90.95	359.51	11,757.48	3,194.17	-157.57	3,196.81	0.00	0.00	0.00
15,100.00	90.95	359.51	11,755.81	3,294.15	-158.43	3,296.79	0.00	0.00	0.00
15,200.00	90.95	359.51	11,754.15	3,394.13	-159.29	3,396.77	0.00	0.00	0.00
15,300.00	90.95	359.51	11,752.48	3,494.11	-160.16	3,496.75	0.00	0.00	0.00
15,400.00	90.95	359.51	11,750.82	3,594.10	-161.02	3,596.72	0.00	0.00	0.00
15,500.00	90.95	359.51	11,749.15	3,694.08	-161.88	3,696.70	0.00	0.00	0.00
15,600.00	90.95	359.51	11,747.49	3,794.06	-162.74	3,796.68	0.00	0.00	0.00
15,700.00	90.95	359.51	11,745.82	3,894.04	-163.60	3,896.66	0.00	0.00	0.00
15,800.00	90.95	359.51	11,744.16	3,994.03	-164.47	3,996.64	0.00	0.00	0.00
15,900.00	90.95	359.51	11,742.49	4,094.01	-165.33	4,096.61	0.00	0.00	0.00
16,000.00	90.95	359.51	11,740.83	4,193.99	-166.19	4,196.59	0.00	0.00	0.00
16,100.00	90.95	359.51	11,739.16	4,293.97	-167.05	4,296.57	0.00	0.00	0.00
16,200.00	90.95	359.51	11,737.50	4,393.96	-167.91	4,396.55	0.00	0.00	0.00
16,300.00	90.95	359.51	11,735.83	4,493.94	-168.78	4,496.53	0.00	0.00	0.00
16,400.00	90.95	359.51	11,734.17	4,593.92	-169.64	4,596.50	0.00	0.00	0.00
16,500.00	90.95	359.51	11,732.50	4,693.90	-170.50	4,696.48	0.00	0.00	0.00
16,600.00	90.95	359.51	11,730.84	4,793.89	-171.36	4,796.46	0.00	0.00	0.00
16,700.00	90.95	359.51	11,729.17	4,893.87	-172.23	4,896.44	0.00	0.00	0.00
16,800.00	90.95	359.51	11,727.51	4,993.85	-173.09	4,996.41	0.00	0.00	0.00
16,900.00	90.95	359.51	11,725.84	5,093.83	-173.95	5,096.39	0.00	0.00	0.00
17,000.00	90.95	359.51	11,724.18	5,193.82	-174.81	5,196.37	0.00	0.00	0.00
17,100.00	90.95	359.51	11,722.51	5,293.80	-175.67	5,296.35	0.00	0.00	0.00
17,200.00	90.95	359.51	11,720.85	5,393.78	-176.54	5,396.33	0.00	0.00	0.00
17,300.00	90.95	359.51	11,719.18	5,493.76	-177.40	5,496.30	0.00	0.00	0.00
17,400.00	90.95	359.51	11,717.52	5,593.74	-178.26	5,596.28	0.00	0.00	0.00
17,500.00	90.95	359.51	11,715.85	5,693.73	-179.12	5,696.26	0.00	0.00	0.00
17,600.00	90.95	359.51	11,714.19	5,793.71	-179.98	5,796.24	0.00	0.00	0.00
17,700.00	90.95	359.51	11,712.52	5,893.69	-180.85	5,896.22	0.00	0.00	0.00
17,800.00	90.95	359.51	11,710.86	5,993.67	-181.71	5,996.19	0.00	0.00	0.00
17,900.00	90.95	359.51	11,709.19	6,093.66	-182.57	6,096.17	0.00	0.00	0.00
18,000.00	90.95	359.51	11,707.53	6,193.64	-183.43	6,196.15	0.00	0.00	0.00
18,100.00	90.95	359.51	11,705.86	6,293.62	-184.30	6,296.13	0.00	0.00	0.00
18,200.00	90.95	359.51	11,704.20	6,393.60	-185.16	6,396.11	0.00	0.00	0.00
18,300.00	90.95	359.51	11,702.54	6,493.59	-186.02	6,496.08	0.00	0.00	0.00
18,400.00	90.95	359.51	11,700.87	6,593.57	-186.88	6,596.06	0.00	0.00	0.00
18,500.00	90.95	359.51	11,699.21	6,693.55	-187.74	6,696.04	0.00	0.00	0.00
18,600.00	90.95	359.51	11,697.54	6,793.53	-188.61	6,796.02	0.00	0.00	0.00
18,700.00	90.95	359.51	11,695.88	6,893.52	-189.47	6,895.99	0.00	0.00	0.00
18,800.00	90.95	359.51	11,694.21	6,993.50	-190.33	6,995.97	0.00	0.00	0.00
18,900.00	90.95	359.51	11,692.55	7,093.48	-191.19	7,095.95	0.00	0.00	0.00
19,000.00	90.95	359.51	11,690.88	7,193.46	-192.05	7,195.93	0.00	0.00	0.00
19,100.00	90.95	359.51	11,689.22	7,293.45	-192.92	7,295.91	0.00	0.00	0.00
19,200.00	90.95	359.51	11,687.55	7,393.43	-193.78	7,395.88	0.00	0.00	0.00
19,300.00	90.95	359.51	11,685.89	7,493.41	-194.64	7,495.86	0.00	0.00	0.00
19,400.00	90.95	359.51	11,684.22	7,593.39	-195.50	7,595.84	0.00	0.00	0.00

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

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Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,500.00	90.95	359.51	11,682.56	7,693.38	-196.37	7,695.82	0.00	0.00	0.00
19,600.00	90.95	359.51	11,680.89	7,793.36	-197.23	7,795.80	0.00	0.00	0.00
19,700.00	90.95	359.51	11,679.23	7,893.34	-198.09	7,895.77	0.00	0.00	0.00
19,800.00	90.95	359.51	11,677.56	7,993.32	-198.95	7,995.75	0.00	0.00	0.00
19,900.00	90.95	359.51	11,675.90	8,093.31	-199.81	8,095.73	0.00	0.00	0.00
20,000.00	90.95	359.51	11,674.23	8,193.29	-200.68	8,195.71	0.00	0.00	0.00
20,100.00	90.95	359.51	11,672.57	8,293.27	-201.54	8,295.69	0.00	0.00	0.00
20,200.00	90.95	359.51	11,670.90	8,393.25	-202.40	8,395.66	0.00	0.00	0.00
20,300.00	90.95	359.51	11,669.24	8,493.24	-203.26	8,495.64	0.00	0.00	0.00
20,400.00	90.95	359.51	11,667.57	8,593.22	-204.12	8,595.62	0.00	0.00	0.00
20,500.00	90.95	359.51	11,665.91	8,693.20	-204.99	8,695.60	0.00	0.00	0.00
20,600.00	90.95	359.51	11,664.24	8,793.18	-205.85	8,795.58	0.00	0.00	0.00
20,700.00	90.95	359.51	11,662.58	8,893.16	-206.71	8,895.55	0.00	0.00	0.00
20,800.00	90.95	359.51	11,660.91	8,993.15	-207.57	8,995.53	0.00	0.00	0.00
20,900.00	90.95	359.51	11,659.25	9,093.13	-208.44	9,095.51	0.00	0.00	0.00
21,000.00	90.95	359.51	11,657.58	9,193.11	-209.30	9,195.49	0.00	0.00	0.00
21,100.00	90.95	359.51	11,655.92	9,293.09	-210.16	9,295.46	0.00	0.00	0.00
21,200.00	90.95	359.51	11,654.25	9,393.08	-211.02	9,395.44	0.00	0.00	0.00
21,300.00	90.95	359.51	11,652.59	9,493.06	-211.88	9,495.42	0.00	0.00	0.00
21,400.00	90.95	359.51	11,650.92	9,593.04	-212.75	9,595.40	0.00	0.00	0.00
21,500.00	90.95	359.51	11,649.26	9,693.02	-213.61	9,695.38	0.00	0.00	0.00
21,600.00	90.95	359.51	11,647.59	9,793.01	-214.47	9,795.35	0.00	0.00	0.00
21,700.00	90.95	359.51	11,645.93	9,892.99	-215.33	9,895.33	0.00	0.00	0.00
21,800.00	90.95	359.51	11,644.26	9,992.97	-216.19	9,995.31	0.00	0.00	0.00
21,900.00	90.95	359.51	11,642.60	10,092.95	-217.06	10,095.29	0.00	0.00	0.00
21,929.37	90.95	359.51	11,642.11	10,122.32	-217.31	10,124.65	0.00	0.00	0.00
TD at 21929.37 - PBHL (1912 Fed Com 601H)									

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 (1912 Fed Com 60 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	404,987.69	852,793.66	32.109395	-103.327424
PBHL (1912 Fed Com 6 - plan hits target center - Point	0.00	0.00	11,642.11	10,122.32	-217.31	415,110.01	852,576.35	32.137222	-103.327821
LP (1912 Fed Com 601H - plan hits target center - Point	0.00	0.00	11,804.88	347.48	-133.02	405,335.17	852,660.64	32.110354	-103.327843

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Planning Report

total

Database:	EDM 5000.15 Single User Db	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Company:	Franklin Mountain Energy	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Project:	Lea County, NM (NAD83)	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site:	1912 Fed Com	**North Reference:**	Grid
Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,500.00	3,500.00	0.00	0.00	Start Build 1.50
3,833.60	3,833.18	-12.79	-6.96	Start 2734.06 hold at 3833.60 MD
6,567.67	6,556.82	-222.21	-121.04	Start Drop -1.50
6,901.27	6,890.00	-235.00	-128.00	Start 4342.00 hold at 6901.27 MD
11,243.27	11,232.00	-235.00	-128.00	Start DLS 10.00 TFO 359.51
12,152.81	11,804.88	347.48	-133.02	Start 9776.56 hold at 12152.81 MD
21,929.37	11,642.11	10,122.32	-217.31	TD at 21929.37

FRANKLIN MOUNTAIN ENERGY

Franklin Mountain Energy

Lea County, NM (NAD83)
1912 Fed Com
1912 Fed Com 601H

OH
Plan #2

Anticollision Report

21 June, 2020

total

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

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

Survey Tool Program **Date** 6/21/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	21,929.23	Plan #2 (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
1912 Fed Com						
1912 Fed Com 701H - OH - Plan #2	3,115.71	3,118.51	34.99	19.52	2.262	CC
1912 Fed Com 701H - OH - Plan #2	3,200.00	3,202.78	34.99	19.09	2.201	ES, SF
1912 Fed Com 702H - OH - Plan #2	3,200.00	3,197.70	34.99	19.10	2.203	CC, ES
1912 Fed Com 702H - OH - Plan #2	3,300.00	3,296.91	36.07	19.69	2.202	SF
Santa Fe Fed/Zia Fed						
Santa Fe Fed Com 603H - OH - Plan #1	21,929.37	21,809.38	2,988.24	2,743.71	12.220	CC, ES, SF
Santa Fe Fed Com 705H - OH - Plan #1	21,929.37	22,057.85	3,352.20	3,107.32	13.689	CC, ES, SF
Zia Fed Com 604H - OH - Plan #1	3,500.00	3,458.70	3,807.00	3,789.68	219.792	CC
Zia Fed Com 604H - OH - Plan #1	21,929.37	21,716.77	4,027.59	3,782.87	16.458	ES, SF
Zia Fed Com 706H - OH - Plan #1	3,009.29	2,967.99	3,841.99	3,827.15	259.012	CC
Zia Fed Com 706H - OH - Plan #1	3,100.00	3,031.25	3,842.20	3,826.97	252.431	ES
Zia Fed Com 706H - OH - Plan #1	21,929.37	21,877.16	4,324.41	4,079.47	17.655	SF
Trinity Fed/Santa Fe Fed						
Santa Fe Fed Com 704H - OH - Plan #1	2,500.00	2,472.50	1,723.27	1,710.98	140.260	CC
Santa Fe Fed Com 704H - OH - Plan #1	2,600.00	2,555.04	1,723.63	1,710.89	135.262	ES
Santa Fe Fed Com 704H - OH - Plan #1	21,929.37	22,013.05	2,423.96	2,180.95	9.975	SF
Trinity Fed Com 602H - OH - Plan #1	11,200.00	11,204.54	1,198.47	1,142.58	21.445	CC
Trinity Fed Com 602H - OH - Plan #1	21,929.37	21,891.57	1,200.53	957.74	4.945	ES, SF
Trinity Fed Com 703H - OH - Plan #1	11,323.15	11,311.24	1,500.43	1,444.12	26.645	CC
Trinity Fed Com 703H - OH - Plan #1	21,929.37	22,155.06	1,519.96	1,278.85	6.304	ES, SF

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2 — **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
0.00	0.00	2.80	2.80	0.00	0.00	-90.61	-0.37	-34.99	34.99				
100.00	100.00	102.80	102.80	0.13	0.14	-90.61	-0.37	-34.99	34.99	34.81	0.18	189.485	
200.00	200.00	202.80	202.80	0.48	0.49	-90.61	-0.37	-34.99	34.99	34.30	0.69	50.601	
300.00	300.00	302.80	302.80	0.84	0.85	-90.61	-0.37	-34.99	34.99	33.79	1.20	29.197	
400.00	400.00	402.80	402.80	1.20	1.21	-90.61	-0.37	-34.99	34.99	33.29	1.71	20.518	
500.00	500.00	502.80	502.80	1.56	1.57	-90.61	-0.37	-34.99	34.99	32.78	2.21	15.817	
600.00	600.00	602.80	602.80	1.92	1.93	-90.61	-0.37	-34.99	34.99	32.27	2.72	12.868	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2

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
700.00	700.00	702.80	702.80	2.28	2.29	-90.61	-0.37	-34.99	34.99	31.77	3.23	10.846	
800.00	800.00	802.80	802.80	2.63	2.64	-90.61	-0.37	-34.99	34.99	31.26	3.73	9.373	
900.00	900.00	902.80	902.80	2.99	3.00	-90.61	-0.37	-34.99	34.99	30.75	4.24	8.252	
1,000.00	1,000.00	1,002.80	1,002.80	3.35	3.36	-90.61	-0.37	-34.99	34.99	30.24	4.75	7.371	
1,100.00	1,100.00	1,102.80	1,102.80	3.71	3.72	-90.61	-0.37	-34.99	34.99	29.74	5.25	6.660	
1,200.00	1,200.00	1,202.80	1,202.80	4.07	4.08	-90.61	-0.37	-34.99	34.99	29.23	5.76	6.074	
1,300.00	1,300.00	1,302.80	1,302.80	4.43	4.44	-90.61	-0.37	-34.99	34.99	28.72	6.27	5.583	
1,400.00	1,400.00	1,402.80	1,402.80	4.79	4.80	-90.61	-0.37	-34.99	34.99	28.22	6.77	5.165	
1,500.00	1,500.00	1,502.80	1,502.80	5.14	5.15	-90.61	-0.37	-34.99	34.99	27.71	7.28	4.805	
1,600.00	1,600.00	1,602.80	1,602.80	5.50	5.51	-90.61	-0.37	-34.99	34.99	27.20	7.79	4.493	
1,700.00	1,700.00	1,702.80	1,702.80	5.86	5.87	-90.61	-0.37	-34.99	34.99	26.70	8.30	4.218	
1,800.00	1,800.00	1,802.80	1,802.80	6.22	6.23	-90.61	-0.37	-34.99	34.99	26.19	8.80	3.975	
1,900.00	1,900.00	1,902.80	1,902.80	6.58	6.59	-90.61	-0.37	-34.99	34.99	25.68	9.31	3.759	
2,000.00	2,000.00	2,002.80	2,002.80	6.94	6.95	-90.61	-0.37	-34.99	34.99	25.18	9.82	3.565	
2,100.00	2,100.00	2,102.80	2,102.80	7.29	7.30	-90.61	-0.37	-34.99	34.99	24.67	10.32	3.389	
2,200.00	2,200.00	2,202.80	2,202.80	7.65	7.66	-90.61	-0.37	-34.99	34.99	24.16	10.83	3.231	
2,300.00	2,300.00	2,302.80	2,302.80	8.01	8.02	-90.61	-0.37	-34.99	34.99	23.65	11.34	3.086	
2,400.00	2,400.00	2,402.80	2,402.80	8.37	8.38	-90.61	-0.37	-34.99	34.99	23.15	11.84	2.954	
2,500.00	2,500.00	2,502.80	2,502.80	8.73	8.74	-90.61	-0.37	-34.99	34.99	22.64	12.35	2.833	
2,600.00	2,600.00	2,602.80	2,602.80	9.09	9.10	-90.61	-0.37	-34.99	34.99	22.13	12.86	2.721	
2,700.00	2,700.00	2,702.80	2,702.80	9.45	9.46	-90.61	-0.37	-34.99	34.99	21.63	13.37	2.618	
2,800.00	2,800.00	2,802.80	2,802.80	9.80	9.81	-90.61	-0.37	-34.99	34.99	21.12	13.87	2.522	
2,900.00	2,900.00	2,902.80	2,902.80	10.16	10.17	-90.61	-0.37	-34.99	34.99	20.61	14.38	2.433	
3,000.00	3,000.00	3,002.80	3,002.80	10.52	10.53	-90.61	-0.37	-34.99	34.99	20.11	14.89	2.351	
3,100.00	3,100.00	3,102.80	3,102.80	10.88	10.89	-90.61	-0.37	-34.99	34.99	19.60	15.39	2.273	
3,115.71	3,115.71	3,118.51	3,118.51	10.94	10.95	-90.61	-0.37	-34.99	34.99	19.52	15.47	2.262	CC
3,200.00	3,200.00	3,202.78	3,202.78	11.24	11.25	-90.61	-0.37	-34.99	34.99	19.09	15.90	2.201	ES, SF
3,300.00	3,300.00	3,302.00	3,301.99	11.60	11.59	-91.81	-1.14	-36.11	36.14	19.75	16.39	2.205	
3,400.00	3,400.00	3,401.08	3,400.99	11.96	11.92	-94.88	-3.36	-39.36	39.54	22.68	16.86	2.346	
3,500.00	3,500.00	3,500.00	3,499.69	12.31	12.25	-98.93	-7.03	-44.70	45.36	28.04	17.32	2.620	
3,600.00	3,599.99	3,598.42	3,597.69	12.65	12.58	49.31	-12.10	-52.12	52.89	35.15	17.74	2.981	
3,700.00	3,699.91	3,698.13	3,696.86	12.98	12.92	48.28	-18.00	-60.72	60.02	41.81	18.21	3.296	
3,800.00	3,799.69	3,797.98	3,796.16	13.31	13.26	49.17	-23.90	-69.33	65.43	46.75	18.68	3.503	
3,833.60	3,833.18	3,831.54	3,829.54	13.42	13.38	49.81	-25.88	-72.22	66.87	48.03	18.84	3.550	
3,900.00	3,899.32	3,897.86	3,895.50	13.64	13.61	51.24	-29.80	-77.95	69.56	50.41	19.15	3.632	
4,000.00	3,998.94	3,997.75	3,994.84	13.97	13.96	53.18	-35.70	-86.56	73.69	54.06	19.63	3.753	
4,100.00	4,098.56	4,097.63	4,094.17	14.30	14.31	54.92	-41.61	-95.18	77.89	57.78	20.11	3.872	
4,200.00	4,198.18	4,197.52	4,193.51	14.64	14.66	56.47	-47.51	-103.79	82.16	61.56	20.60	3.989	
4,300.00	4,297.80	4,297.40	4,292.85	14.98	15.02	57.88	-53.41	-112.41	86.48	65.39	21.08	4.101	
4,400.00	4,397.42	4,397.29	4,392.19	15.32	15.37	59.15	-59.32	-121.03	90.84	69.27	21.57	4.211	
4,500.00	4,497.04	4,497.17	4,491.52	15.66	15.73	60.30	-65.22	-129.64	95.25	73.18	22.07	4.317	
4,600.00	4,596.66	4,597.06	4,590.86	16.01	16.09	61.35	-71.12	-138.26	99.69	77.13	22.56	4.419	
4,700.00	4,696.27	4,696.94	4,690.20	16.36	16.46	62.31	-77.03	-146.88	104.16	81.11	23.06	4.518	
4,800.00	4,795.89	4,796.83	4,789.54	16.71	16.82	63.19	-82.93	-155.49	108.66	85.11	23.56	4.613	
4,900.00	4,895.51	4,896.71	4,888.88	17.06	17.19	64.00	-88.83	-164.11	113.19	89.13	24.06	4.705	
5,000.00	4,995.13	4,996.60	4,988.21	17.41	17.55	64.75	-94.74	-172.72	117.73	93.17	24.56	4.794	
5,100.00	5,094.75	5,096.49	5,087.55	17.76	17.92	65.44	-100.64	-181.34	122.29	97.23	25.06	4.879	
5,200.00	5,194.37	5,196.37	5,186.89	18.12	18.29	66.08	-106.54	-189.96	126.87	101.30	25.57	4.962	
5,300.00	5,293.99	5,296.26	5,286.23	18.48	18.66	66.68	-112.45	-198.57	131.47	105.39	26.08	5.041	
5,400.00	5,393.61	5,396.14	5,385.56	18.83	19.03	67.24	-118.35	-207.19	136.07	109.49	26.59	5.118	
5,500.00	5,493.22	5,496.03	5,484.90	19.19	19.41	67.76	-124.25	-215.81	140.69	113.59	27.10	5.192	
5,600.00	5,592.84	5,595.91	5,584.24	19.55	19.78	68.24	-130.16	-224.42	145.32	117.71	27.61	5.263	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2

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
5,700.00	5,692.46	5,695.80	5,683.58	19.91	20.16	68.70	-136.06	-233.04	149.96	121.84	28.12	5.332	
5,800.00	5,792.08	5,795.68	5,782.92	20.28	20.53	69.13	-141.96	-241.65	154.61	125.97	28.64	5.399	
5,900.00	5,891.70	5,895.57	5,882.25	20.64	20.91	69.54	-147.87	-250.27	159.27	130.11	29.15	5.463	
6,000.00	5,991.32	5,995.45	5,981.59	21.00	21.28	69.92	-153.77	-258.89	163.93	134.26	29.67	5.525	
6,100.00	6,090.94	6,095.34	6,080.93	21.37	21.66	70.28	-159.67	-267.50	168.60	138.41	30.19	5.585	
6,200.00	6,190.56	6,195.22	6,180.27	21.73	22.04	70.62	-165.58	-276.12	173.28	142.57	30.71	5.643	
6,300.00	6,290.18	6,295.11	6,279.60	22.10	22.42	70.94	-171.48	-284.74	177.96	146.74	31.23	5.699	
6,400.00	6,389.79	6,395.00	6,378.94	22.46	22.80	71.25	-177.38	-293.35	182.65	150.90	31.75	5.753	
6,500.00	6,489.41	6,494.88	6,478.28	22.83	23.18	71.54	-183.29	-301.97	187.35	155.08	32.27	5.805	
6,567.67	6,556.82	6,562.47	6,545.50	23.08	23.44	71.73	-187.28	-307.80	190.53	157.90	32.63	5.840	
6,600.00	6,589.04	6,594.76	6,577.62	23.20	23.56	71.80	-189.19	-310.58	192.09	159.29	32.79	5.857	
6,700.00	6,688.82	6,694.61	6,676.92	23.56	23.94	71.55	-195.09	-319.20	197.46	164.16	33.31	5.929	
6,800.00	6,788.74	6,794.35	6,776.11	23.92	24.32	70.62	-200.98	-327.80	203.70	169.89	33.81	6.025	
6,901.27	6,890.00	6,895.18	6,876.38	24.27	24.71	-82.34	-206.94	-336.50	211.02	176.72	34.30	6.152	
7,000.00	6,988.73	6,993.37	6,974.03	24.61	25.08	-84.14	-212.75	-344.97	218.81	184.03	34.78	6.292	
7,100.00	7,088.73	7,092.82	7,072.94	24.95	25.46	-85.85	-218.62	-353.55	226.90	191.65	35.26	6.436	
7,200.00	7,188.73	7,193.12	7,172.69	25.30	25.85	-87.44	-224.53	-362.17	235.16	199.41	35.75	6.578	
7,300.00	7,288.73	7,298.04	7,277.22	25.64	26.24	-88.73	-229.65	-369.65	242.13	205.85	36.28	6.674	
7,400.00	7,388.73	7,403.37	7,382.37	25.99	26.63	-89.57	-233.16	-374.77	246.95	210.16	36.79	6.712	
7,500.00	7,488.73	7,508.98	7,487.92	26.33	27.00	-90.01	-235.04	-377.50	249.53	212.24	37.29	6.691	
7,600.00	7,588.73	7,612.60	7,591.53	26.68	27.36	-90.08	-235.37	-377.99	249.99	212.21	37.78	6.617	
7,700.00	7,688.73	7,712.60	7,691.53	27.03	27.70	-90.08	-235.37	-377.99	249.99	211.72	38.27	6.533	
7,800.00	7,788.73	7,812.60	7,791.53	27.37	28.03	-90.08	-235.37	-377.99	249.99	211.24	38.75	6.451	
7,900.00	7,888.73	7,912.60	7,891.53	27.72	28.37	-90.08	-235.37	-377.99	249.99	210.75	39.24	6.370	
8,000.00	7,988.73	8,012.60	7,991.53	28.07	28.71	-90.08	-235.37	-377.99	249.99	210.26	39.73	6.292	
8,100.00	8,088.73	8,112.60	8,091.53	28.41	29.05	-90.08	-235.37	-377.99	249.99	209.77	40.22	6.215	
8,200.00	8,188.73	8,212.60	8,191.53	28.76	29.39	-90.08	-235.37	-377.99	249.99	209.28	40.71	6.140	
8,300.00	8,288.73	8,312.60	8,291.53	29.11	29.73	-90.08	-235.37	-377.99	249.99	208.79	41.20	6.067	
8,400.00	8,388.73	8,412.60	8,391.53	29.46	30.08	-90.08	-235.37	-377.99	249.99	208.30	41.69	5.996	
8,500.00	8,488.73	8,512.60	8,491.53	29.81	30.42	-90.08	-235.37	-377.99	249.99	207.80	42.19	5.926	
8,600.00	8,588.73	8,612.60	8,591.53	30.16	30.76	-90.08	-235.37	-377.99	249.99	207.31	42.68	5.858	
8,700.00	8,688.73	8,712.60	8,691.53	30.51	31.10	-90.08	-235.37	-377.99	249.99	206.82	43.17	5.791	
8,800.00	8,788.73	8,812.60	8,791.53	30.86	31.44	-90.08	-235.37	-377.99	249.99	206.33	43.66	5.726	
8,900.00	8,888.73	8,912.60	8,891.53	31.20	31.79	-90.08	-235.37	-377.99	249.99	205.84	44.15	5.662	
9,000.00	8,988.73	9,012.60	8,991.53	31.55	32.13	-90.08	-235.37	-377.99	249.99	205.34	44.65	5.599	
9,100.00	9,088.73	9,112.60	9,091.53	31.90	32.47	-90.08	-235.37	-377.99	249.99	204.85	45.14	5.538	
9,200.00	9,188.73	9,212.60	9,191.53	32.25	32.82	-90.08	-235.37	-377.99	249.99	204.36	45.63	5.478	
9,300.00	9,288.73	9,312.60	9,291.53	32.60	33.16	-90.08	-235.37	-377.99	249.99	203.86	46.13	5.419	
9,400.00	9,388.73	9,412.60	9,391.53	32.96	33.51	-90.08	-235.37	-377.99	249.99	203.37	46.62	5.362	
9,500.00	9,488.73	9,512.60	9,491.53	33.31	33.85	-90.08	-235.37	-377.99	249.99	202.87	47.12	5.306	
9,600.00	9,588.73	9,612.60	9,591.53	33.66	34.20	-90.08	-235.37	-377.99	249.99	202.38	47.61	5.251	
9,700.00	9,688.73	9,712.60	9,691.53	34.01	34.54	-90.08	-235.37	-377.99	249.99	201.88	48.11	5.197	
9,800.00	9,788.73	9,812.60	9,791.53	34.36	34.89	-90.08	-235.37	-377.99	249.99	201.39	48.60	5.144	
9,900.00	9,888.73	9,912.60	9,891.53	34.71	35.23	-90.08	-235.37	-377.99	249.99	200.89	49.10	5.092	
10,000.00	9,988.73	10,012.60	9,991.53	35.06	35.58	-90.08	-235.37	-377.99	249.99	200.40	49.59	5.041	
10,100.00	10,088.73	10,112.60	10,091.53	35.41	35.93	-90.08	-235.37	-377.99	249.99	199.90	50.09	4.991	
10,200.00	10,188.73	10,212.60	10,191.53	35.76	36.27	-90.08	-235.37	-377.99	249.99	199.41	50.59	4.942	
10,300.00	10,288.73	10,312.60	10,291.53	36.12	36.62	-90.08	-235.37	-377.99	249.99	198.91	51.08	4.894	
10,400.00	10,388.73	10,412.60	10,391.53	36.47	36.97	-90.08	-235.37	-377.99	249.99	198.41	51.58	4.847	
10,500.00	10,488.73	10,512.60	10,491.53	36.82	37.32	-90.08	-235.37	-377.99	249.99	197.92	52.07	4.801	
10,600.00	10,588.73	10,612.60	10,591.53	37.17	37.66	-90.08	-235.37	-377.99	249.99	197.42	52.57	4.755	
10,700.00	10,688.73	10,712.60	10,691.53	37.52	38.01	-90.08	-235.37	-377.99	249.99	196.92	53.07	4.711	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2

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
10,800.00	10,788.73	10,812.60	10,791.53	37.88	38.36	-90.08	-235.37	-377.99	249.99	196.42	53.57	4.667	
10,900.00	10,888.73	10,912.60	10,891.53	38.23	38.71	-90.08	-235.37	-377.99	249.99	195.93	54.06	4.624	
11,000.00	10,988.73	11,012.60	10,991.53	38.58	39.06	-90.08	-235.37	-377.99	249.99	195.43	54.56	4.582	
11,100.00	11,088.73	11,112.60	11,091.53	38.94	39.40	-90.08	-235.37	-377.99	249.99	194.93	55.06	4.540	
11,200.00	11,188.73	11,212.60	11,191.53	39.29	39.75	-90.08	-235.37	-377.99	249.99	194.43	55.56	4.500	
11,243.27	11,232.00	11,255.87	11,234.80	39.44	39.90	-90.08	-235.37	-377.99	249.99	194.22	55.77	4.482	
11,250.00	11,238.73	11,262.60	11,241.53	39.46	39.93	-89.60	-235.37	-377.99	249.99	194.18	55.81	4.480	
11,288.54	11,277.22	11,301.09	11,280.02	39.60	40.06	-90.00	-235.37	-377.99	249.98	193.99	55.99	4.465	
11,300.00	11,288.64	11,312.50	11,291.44	39.64	40.10	-90.23	-235.37	-377.99	249.99	193.94	56.05	4.460	
11,350.00	11,338.12	11,361.98	11,340.92	39.80	40.27	-91.83	-235.37	-377.99	250.12	193.84	56.27	4.445	
11,400.00	11,386.78	11,410.65	11,389.58	39.96	40.44	-94.30	-235.37	-377.99	250.74	194.26	56.49	4.439	
11,450.00	11,434.28	11,458.14	11,437.08	40.11	40.61	-97.49	-235.37	-377.99	252.44	195.75	56.68	4.453	
11,500.00	11,480.23	11,504.09	11,483.03	40.25	40.77	-101.17	-235.37	-377.99	255.91	199.04	56.87	4.500	
11,550.00	11,524.29	11,548.15	11,527.09	40.39	40.92	-105.09	-235.37	-377.99	261.98	204.93	57.05	4.592	
11,600.00	11,566.13	11,597.60	11,576.49	40.51	41.10	-109.61	-233.87	-378.00	270.95	213.75	57.19	4.737	
11,650.00	11,605.42	11,651.32	11,629.82	40.62	41.27	-114.08	-227.47	-378.06	282.00	224.77	57.23	4.927	
11,700.00	11,641.87	11,708.62	11,685.75	40.73	41.46	-118.31	-215.18	-378.16	294.73	237.65	57.09	5.163	
11,750.00	11,675.21	11,770.08	11,744.07	40.84	41.63	-122.28	-195.87	-378.33	308.65	251.98	56.67	5.446	
11,800.00	11,705.17	11,836.37	11,804.26	40.95	41.81	-125.98	-168.16	-378.57	323.23	267.32	55.91	5.782	
11,850.00	11,731.53	11,908.21	11,865.39	41.06	41.98	-129.38	-130.52	-378.89	337.86	283.12	54.74	6.172	
11,900.00	11,754.09	11,986.22	11,925.87	41.17	42.12	-132.44	-81.34	-379.32	351.93	298.74	53.18	6.617	
11,950.00	11,772.67	12,070.87	11,983.28	41.28	42.25	-135.10	-19.24	-379.85	364.75	313.45	51.30	7.110	
12,000.00	11,787.14	12,162.21	12,034.24	41.40	42.34	-137.28	56.44	-380.51	375.63	326.34	49.29	7.620	
12,050.00	11,797.38	12,259.65	12,074.62	41.52	42.42	-138.91	144.99	-381.27	383.93	336.44	47.49	8.084	
12,100.00	11,803.33	12,361.80	12,100.22	41.65	42.67	-139.91	243.73	-382.12	389.06	342.76	46.30	8.402	
12,152.81	11,804.88	12,466.71	12,107.88	41.78	42.93	-140.22	348.21	-383.02	390.67	344.59	46.08	8.478	
12,200.00	11,804.09	12,513.90	12,107.43	41.91	43.07	-140.25	395.40	-383.43	390.92	344.74	46.18	8.465	
12,300.00	11,802.43	12,613.90	12,106.46	42.24	43.39	-140.31	495.39	-384.29	391.46	345.03	46.43	8.431	
12,400.00	11,800.76	12,713.90	12,105.50	42.62	43.77	-140.38	595.38	-385.15	392.00	345.26	46.74	8.387	
12,500.00	11,799.10	12,813.89	12,104.54	43.07	44.21	-140.44	695.37	-386.01	392.54	345.44	47.10	8.334	
12,600.00	11,797.43	12,913.89	12,103.58	43.57	44.70	-140.51	795.36	-386.88	393.08	345.57	47.52	8.272	
12,700.00	11,795.77	13,013.89	12,102.61	44.13	45.24	-140.57	895.34	-387.74	393.63	345.64	47.99	8.203	
12,800.00	11,794.10	13,113.89	12,101.65	44.75	45.84	-140.64	995.33	-388.60	394.17	345.66	48.50	8.127	
12,900.00	11,792.44	13,213.88	12,100.69	45.41	46.49	-140.70	1,095.32	-389.46	394.71	345.64	49.07	8.044	
13,000.00	11,790.77	13,313.88	12,099.72	46.13	47.18	-140.77	1,195.31	-390.32	395.25	345.58	49.68	7.956	
13,100.00	11,789.11	13,413.88	12,098.76	46.89	47.92	-140.83	1,295.30	-391.19	395.80	345.47	50.33	7.864	
13,200.00	11,787.44	13,513.88	12,097.80	47.70	48.71	-140.90	1,395.29	-392.05	396.34	345.32	51.03	7.767	
13,300.00	11,785.78	13,613.87	12,096.83	48.55	49.53	-140.96	1,495.28	-392.91	396.89	345.13	51.76	7.668	
13,400.00	11,784.11	13,713.87	12,095.87	49.44	50.40	-141.02	1,595.27	-393.77	397.43	344.90	52.53	7.566	
13,500.00	11,782.45	13,813.87	12,094.91	50.37	51.31	-141.09	1,695.26	-394.63	397.98	344.64	53.33	7.462	
13,600.00	11,780.78	13,913.87	12,093.94	51.33	52.25	-141.15	1,795.25	-395.49	398.52	344.35	54.17	7.357	
13,700.00	11,779.12	14,013.87	12,092.98	52.33	53.23	-141.21	1,895.24	-396.36	399.07	344.03	55.04	7.250	
13,800.00	11,777.45	14,113.86	12,092.02	53.37	54.24	-141.28	1,995.23	-397.22	399.62	343.68	55.94	7.144	
13,900.00	11,775.79	14,213.86	12,091.06	54.43	55.28	-141.34	2,095.21	-398.08	400.17	343.30	56.86	7.037	
14,000.00	11,774.13	14,313.86	12,090.09	55.52	56.34	-141.40	2,195.20	-398.94	400.71	342.90	57.81	6.931	
14,100.00	11,772.46	14,413.86	12,089.13	56.64	57.44	-141.47	2,295.19	-399.80	401.26	342.47	58.79	6.826	
14,200.00	11,770.80	14,513.85	12,088.17	57.78	58.56	-141.53	2,395.18	-400.67	401.81	342.03	59.78	6.721	
14,300.00	11,769.13	14,613.85	12,087.20	58.95	59.71	-141.59	2,495.17	-401.53	402.36	341.56	60.80	6.618	
14,400.00	11,767.47	14,713.85	12,086.24	60.14	60.88	-141.65	2,595.16	-402.39	402.91	341.08	61.83	6.516	
14,500.00	11,765.80	14,813.85	12,085.28	61.35	62.07	-141.71	2,695.15	-403.25	403.46	340.57	62.89	6.415	
14,600.00	11,764.14	14,913.84	12,084.31	62.59	63.29	-141.78	2,795.14	-404.11	404.01	340.05	63.96	6.317	
14,700.00	11,762.47	15,013.84	12,083.35	63.84	64.52	-141.84	2,895.13	-404.98	404.56	339.52	65.04	6.220	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2

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
14,800.00	11,760.81	15,113.84	12,082.39	65.11	65.77	-141.90	2,995.12	-405.84	405.12	338.97	66.14	6.125	
14,900.00	11,759.14	15,213.84	12,081.42	66.39	67.04	-141.96	3,095.11	-406.70	405.67	338.41	67.26	6.032	
15,000.00	11,757.48	15,313.83	12,080.46	67.69	68.32	-142.02	3,195.10	-407.56	406.22	337.84	68.38	5.940	
15,100.00	11,755.81	15,413.83	12,079.50	69.01	69.62	-142.08	3,295.08	-408.42	406.77	337.26	69.52	5.851	
15,200.00	11,754.15	15,513.83	12,078.53	70.34	70.93	-142.14	3,395.07	-409.29	407.33	336.66	70.67	5.764	
15,300.00	11,752.48	15,613.83	12,077.57	71.69	72.26	-142.20	3,495.06	-410.15	407.88	336.06	71.82	5.679	
15,400.00	11,750.82	15,713.82	12,076.61	73.04	73.60	-142.26	3,595.05	-411.01	408.44	335.45	72.99	5.596	
15,500.00	11,749.15	15,813.82	12,075.65	74.41	74.96	-142.32	3,695.04	-411.87	408.99	334.83	74.16	5.515	
15,600.00	11,747.49	15,913.82	12,074.68	75.79	76.32	-142.38	3,795.03	-412.73	409.55	334.21	75.34	5.436	
15,700.00	11,745.82	16,013.82	12,073.72	77.18	77.70	-142.44	3,895.02	-413.60	410.10	333.57	76.53	5.359	
15,800.00	11,744.16	16,113.81	12,072.76	78.58	79.09	-142.50	3,995.01	-414.46	410.66	332.94	77.72	5.284	
15,900.00	11,742.49	16,213.81	12,071.79	79.99	80.48	-142.56	4,095.00	-415.32	411.22	332.29	78.92	5.210	
16,000.00	11,740.83	16,313.81	12,070.83	81.41	81.89	-142.62	4,194.99	-416.18	411.77	331.65	80.13	5.139	
16,100.00	11,739.16	16,413.81	12,069.87	82.84	83.30	-142.68	4,294.98	-417.04	412.33	330.99	81.34	5.069	
16,200.00	11,737.50	16,513.80	12,068.90	84.28	84.73	-142.74	4,394.97	-417.91	412.89	330.34	82.55	5.002	
16,300.00	11,735.83	16,613.80	12,067.94	85.72	86.16	-142.80	4,494.96	-418.77	413.45	329.68	83.77	4.936	
16,400.00	11,734.17	16,713.80	12,066.98	87.17	87.60	-142.86	4,594.94	-419.63	414.01	329.02	84.99	4.871	
16,500.00	11,732.50	16,813.80	12,066.01	88.63	89.05	-142.92	4,694.93	-420.49	414.57	328.35	86.21	4.809	
16,600.00	11,730.84	16,913.79	12,065.05	90.10	90.50	-142.97	4,794.92	-421.35	415.13	327.69	87.44	4.747	
16,700.00	11,729.17	17,013.79	12,064.09	91.57	91.96	-143.03	4,894.91	-422.22	415.69	327.02	88.67	4.688	
16,800.00	11,727.51	17,113.79	12,063.13	93.04	93.43	-143.09	4,994.90	-423.08	416.25	326.35	89.90	4.630	
16,900.00	11,725.84	17,213.79	12,062.16	94.53	94.90	-143.15	5,094.89	-423.94	416.81	325.67	91.14	4.573	
17,000.00	11,724.18	17,313.78	12,061.20	96.02	96.38	-143.21	5,194.88	-424.80	417.37	325.00	92.37	4.518	
17,100.00	11,722.51	17,413.78	12,060.24	97.51	97.86	-143.26	5,294.87	-425.66	417.93	324.33	93.61	4.465	
17,200.00	11,720.85	17,513.78	12,059.27	99.01	99.35	-143.32	5,394.86	-426.53	418.50	323.65	94.85	4.412	
17,300.00	11,719.18	17,613.78	12,058.31	100.51	100.85	-143.38	5,494.85	-427.39	419.06	322.98	96.08	4.361	
17,400.00	11,717.52	17,713.77	12,057.35	102.02	102.35	-143.44	5,594.84	-428.25	419.62	322.30	97.32	4.312	
17,500.00	11,715.85	17,813.77	12,056.38	103.53	103.85	-143.49	5,694.83	-429.11	420.19	321.62	98.56	4.263	
17,600.00	11,714.19	17,913.77	12,055.42	105.05	105.36	-143.55	5,794.81	-429.97	420.75	320.95	99.80	4.216	
17,700.00	11,712.52	18,013.77	12,054.46	106.57	106.87	-143.61	5,894.80	-430.84	421.32	320.27	101.04	4.170	
17,800.00	11,710.86	18,113.76	12,053.49	108.10	108.39	-143.66	5,994.79	-431.70	421.88	319.59	102.29	4.125	
17,900.00	11,709.19	18,213.76	12,052.53	109.63	109.91	-143.72	6,094.78	-432.56	422.45	318.92	103.53	4.081	
18,000.00	11,707.53	18,313.76	12,051.57	111.16	111.44	-143.78	6,194.77	-433.42	423.01	318.25	104.77	4.038	
18,100.00	11,705.86	18,413.76	12,050.61	112.69	112.96	-143.83	6,294.76	-434.28	423.58	317.57	106.01	3.996	
18,200.00	11,704.20	18,513.75	12,049.64	114.23	114.50	-143.89	6,394.75	-435.15	424.14	316.90	107.25	3.955	
18,300.00	11,702.54	18,613.75	12,048.68	115.77	116.03	-143.94	6,494.74	-436.01	424.71	316.22	108.49	3.915	
18,400.00	11,700.87	18,713.75	12,047.72	117.32	117.57	-144.00	6,594.73	-436.87	425.28	315.55	109.73	3.876	
18,500.00	11,699.21	18,813.75	12,046.75	118.87	119.11	-144.06	6,694.72	-437.73	425.85	314.88	110.96	3.838	
18,600.00	11,697.54	18,913.74	12,045.79	120.42	120.65	-144.11	6,794.71	-438.59	426.42	314.21	112.20	3.800	
18,700.00	11,695.88	19,013.74	12,044.83	121.97	122.20	-144.17	6,894.70	-439.45	426.98	313.55	113.44	3.764	
18,800.00	11,694.21	19,113.74	12,043.86	123.52	123.75	-144.22	6,994.68	-440.32	427.55	312.88	114.67	3.728	
18,900.00	11,692.55	19,213.74	12,042.90	125.08	125.30	-144.28	7,094.67	-441.18	428.12	312.21	115.91	3.694	
19,000.00	11,690.88	19,313.73	12,041.94	126.64	126.86	-144.33	7,194.66	-442.04	428.69	311.55	117.14	3.660	
19,100.00	11,689.22	19,413.73	12,040.97	128.21	128.41	-144.39	7,294.65	-442.90	429.26	310.89	118.38	3.626	
19,200.00	11,687.55	19,513.73	12,040.01	129.77	129.97	-144.44	7,394.64	-443.76	429.83	310.23	119.61	3.594	
19,300.00	11,685.89	19,613.73	12,039.05	131.34	131.53	-144.49	7,494.63	-444.63	430.40	309.57	120.84	3.562	
19,400.00	11,684.22	19,713.72	12,038.08	132.91	133.10	-144.55	7,594.62	-445.49	430.98	308.91	122.07	3.531	
19,500.00	11,682.56	19,813.72	12,037.12	134.48	134.66	-144.60	7,694.61	-446.35	431.55	308.25	123.30	3.500	
19,600.00	11,680.89	19,913.72	12,036.16	136.05	136.23	-144.66	7,794.60	-447.21	432.12	307.60	124.52	3.470	
19,700.00	11,679.23	20,013.72	12,035.20	137.63	137.80	-144.71	7,894.59	-448.07	432.69	306.94	125.75	3.441	
19,800.00	11,677.56	20,113.72	12,034.23	139.20	139.37	-144.76	7,994.58	-448.94	433.26	306.29	126.97	3.412	
19,900.00	11,675.90	20,213.71	12,033.27	140.78	140.95	-144.82	8,094.57	-449.80	433.84	305.64	128.20	3.384	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 701H - OH - Plan #2

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
20,000.00	11,674.23	20,313.71	12,032.31	142.36	142.52	-144.87	8,194.55	-450.66	434.41	304.99	129.42	3.357	
20,100.00	11,672.57	20,413.71	12,031.34	143.94	144.10	-144.92	8,294.54	-451.52	434.99	304.35	130.64	3.330	
20,200.00	11,670.90	20,513.71	12,030.38	145.52	145.68	-144.98	8,394.53	-452.38	435.56	303.70	131.86	3.303	
20,300.00	11,669.24	20,613.70	12,029.42	147.11	147.26	-145.03	8,494.52	-453.25	436.13	303.06	133.08	3.277	
20,400.00	11,667.57	20,713.70	12,028.45	148.70	148.84	-145.08	8,594.51	-454.11	436.71	302.42	134.29	3.252	
20,500.00	11,665.91	20,813.70	12,027.49	150.28	150.42	-145.14	8,694.50	-454.97	437.29	301.78	135.51	3.227	
20,600.00	11,664.24	20,913.70	12,026.53	151.87	152.01	-145.19	8,794.49	-455.83	437.86	301.14	136.72	3.203	
20,700.00	11,662.58	21,013.69	12,025.56	153.46	153.59	-145.24	8,894.48	-456.69	438.44	300.51	137.93	3.179	
20,800.00	11,660.91	21,113.69	12,024.60	155.05	155.18	-145.29	8,994.47	-457.56	439.01	299.87	139.14	3.155	
20,900.00	11,659.25	21,213.69	12,023.64	156.65	156.77	-145.35	9,094.46	-458.42	439.59	299.24	140.35	3.132	
21,000.00	11,657.58	21,313.69	12,022.68	158.24	158.36	-145.40	9,194.45	-459.28	440.17	298.61	141.56	3.109	
21,100.00	11,655.92	21,413.68	12,021.71	159.84	159.95	-145.45	9,294.44	-460.14	440.75	297.98	142.76	3.087	
21,200.00	11,654.25	21,513.68	12,020.75	161.43	161.54	-145.50	9,394.43	-461.00	441.32	297.35	143.97	3.065	
21,300.00	11,652.59	21,613.68	12,019.79	163.03	163.14	-145.55	9,494.41	-461.87	441.90	296.73	145.17	3.044	
21,400.00	11,650.92	21,713.68	12,018.82	164.63	164.73	-145.60	9,594.40	-462.73	442.48	296.11	146.38	3.023	
21,500.00	11,649.26	21,813.67	12,017.86	166.23	166.33	-145.65	9,694.39	-463.59	443.06	295.49	147.58	3.002	
21,600.00	11,647.59	21,913.67	12,016.90	167.83	167.93	-145.71	9,794.38	-464.45	443.64	294.87	148.77	2.982	
21,700.00	11,645.93	22,013.67	12,015.93	169.43	169.52	-145.76	9,894.37	-465.31	444.22	294.25	149.97	2.962	
21,800.00	11,644.26	22,113.67	12,014.97	171.03	171.12	-145.81	9,994.36	-466.18	444.80	293.63	151.17	2.942	
21,900.00	11,642.60	22,213.66	12,014.01	172.63	172.72	-145.86	10,094.35	-467.04	445.38	293.02	152.36	2.923	
21,929.37	11,642.11	22,238.31	12,013.77	173.11	173.12	-145.87	10,118.99	-467.25	445.58	292.97	152.60	2.920	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2

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
0.00	0.00	0.00	0.00	0.00	0.00	89.41	0.36	34.99	35.07				
100.00	100.00	97.70	97.70	0.13	0.12	89.41	0.36	34.99	34.99	34.82	0.18	199.491	
200.00	200.00	197.70	197.70	0.48	0.48	89.41	0.36	34.99	34.99	34.31	0.68	51.566	
300.00	300.00	297.70	297.70	0.84	0.83	89.41	0.36	34.99	34.99	33.81	1.19	29.516	
400.00	400.00	397.70	397.70	1.20	1.19	89.41	0.36	34.99	34.99	33.30	1.69	20.675	
500.00	500.00	497.70	497.70	1.56	1.55	89.41	0.36	34.99	34.99	32.79	2.20	15.909	
600.00	600.00	597.70	597.70	1.92	1.91	89.41	0.36	34.99	34.99	32.29	2.71	12.929	
700.00	700.00	697.70	697.70	2.28	2.27	89.41	0.36	34.99	34.99	31.78	3.21	10.890	
800.00	800.00	797.70	797.70	2.63	2.63	89.41	0.36	34.99	34.99	31.27	3.72	9.406	
900.00	900.00	897.70	897.70	2.99	2.98	89.41	0.36	34.99	34.99	30.76	4.23	8.278	
1,000.00	1,000.00	997.70	997.70	3.35	3.34	89.41	0.36	34.99	34.99	30.26	4.73	7.391	
1,100.00	1,100.00	1,097.70	1,097.70	3.71	3.70	89.41	0.36	34.99	34.99	29.75	5.24	6.676	
1,200.00	1,200.00	1,197.70	1,197.70	4.07	4.06	89.41	0.36	34.99	34.99	29.24	5.75	6.088	
1,300.00	1,300.00	1,297.70	1,297.70	4.43	4.42	89.41	0.36	34.99	34.99	28.74	6.26	5.594	
1,400.00	1,400.00	1,397.70	1,397.70	4.79	4.78	89.41	0.36	34.99	34.99	28.23	6.76	5.175	
1,500.00	1,500.00	1,497.70	1,497.70	5.14	5.14	89.41	0.36	34.99	34.99	27.72	7.27	4.814	
1,600.00	1,600.00	1,597.70	1,597.70	5.50	5.49	89.41	0.36	34.99	34.99	27.22	7.78	4.500	
1,700.00	1,700.00	1,697.70	1,697.70	5.86	5.85	89.41	0.36	34.99	34.99	26.71	8.28	4.225	
1,800.00	1,800.00	1,797.70	1,797.70	6.22	6.21	89.41	0.36	34.99	34.99	26.20	8.79	3.981	
1,900.00	1,900.00	1,897.70	1,897.70	6.58	6.57	89.41	0.36	34.99	34.99	25.70	9.30	3.764	
2,000.00	2,000.00	1,997.70	1,997.70	6.94	6.93	89.41	0.36	34.99	34.99	25.19	9.80	3.569	
2,100.00	2,100.00	2,097.70	2,097.70	7.29	7.29	89.41	0.36	34.99	34.99	24.68	10.31	3.394	
2,200.00	2,200.00	2,197.70	2,197.70	7.65	7.65	89.41	0.36	34.99	34.99	24.17	10.82	3.235	
2,300.00	2,300.00	2,297.70	2,297.70	8.01	8.00	89.41	0.36	34.99	34.99	23.67	11.32	3.090	
2,400.00	2,400.00	2,397.70	2,397.70	8.37	8.36	89.41	0.36	34.99	34.99	23.16	11.83	2.957	
2,500.00	2,500.00	2,497.70	2,497.70	8.73	8.72	89.41	0.36	34.99	34.99	22.65	12.34	2.836	
2,600.00	2,600.00	2,597.70	2,597.70	9.09	9.08	89.41	0.36	34.99	34.99	22.15	12.85	2.724	
2,700.00	2,700.00	2,697.70	2,697.70	9.45	9.44	89.41	0.36	34.99	34.99	21.64	13.35	2.621	
2,800.00	2,800.00	2,797.70	2,797.70	9.80	9.80	89.41	0.36	34.99	34.99	21.13	13.86	2.525	
2,900.00	2,900.00	2,897.70	2,897.70	10.16	10.15	89.41	0.36	34.99	34.99	20.63	14.37	2.436	
3,000.00	3,000.00	2,997.70	2,997.70	10.52	10.51	89.41	0.36	34.99	34.99	20.12	14.87	2.353	
3,100.00	3,100.00	3,097.70	3,097.70	10.88	10.87	89.41	0.36	34.99	34.99	19.61	15.38	2.275	
3,200.00	3,200.00	3,197.70	3,197.70	11.24	11.23	89.41	0.36	34.99	34.99	19.10	15.89	2.203	CC, ES
3,300.00	3,300.00	3,296.91	3,296.90	11.60	11.57	90.40	-0.25	36.06	36.07	19.69	16.38	2.202	SF
3,400.00	3,400.00	3,395.98	3,395.89	11.96	11.90	93.10	-2.13	39.36	39.46	22.61	16.85	2.342	
3,500.00	3,500.00	3,494.78	3,494.48	12.31	12.23	96.70	-5.27	44.87	45.29	27.99	17.30	2.618	
3,600.00	3,599.99	3,593.18	3,592.48	12.65	12.57	-109.34	-9.66	52.55	54.11	36.37	17.73	3.051	
3,700.00	3,699.91	3,691.39	3,690.05	12.98	12.90	-108.90	-15.24	62.34	66.14	47.98	18.16	3.641	
3,800.00	3,799.69	3,790.44	3,788.36	13.31	13.25	-110.14	-21.22	72.83	79.72	61.08	18.64	4.278	
3,833.60	3,833.18	3,823.69	3,821.36	13.42	13.36	-110.83	-23.23	76.34	84.50	65.70	18.80	4.495	
3,900.00	3,899.32	3,889.35	3,886.53	13.64	13.59	-112.26	-27.19	83.30	94.08	74.97	19.11	4.923	
4,000.00	3,998.94	3,988.25	3,984.69	13.97	13.94	-113.93	-33.17	93.77	108.60	89.01	19.59	5.544	
4,100.00	4,098.56	4,087.15	4,082.85	14.30	14.29	-115.21	-39.14	104.24	123.19	103.12	20.07	6.139	
4,200.00	4,198.18	4,186.04	4,181.01	14.64	14.65	-116.22	-45.11	114.71	137.83	117.28	20.55	6.707	
4,300.00	4,297.80	4,284.94	4,279.17	14.98	15.01	-117.04	-51.08	125.18	152.50	131.47	21.03	7.251	
4,400.00	4,397.42	4,383.84	4,377.33	15.32	15.36	-117.71	-57.05	135.64	167.19	145.67	21.52	7.770	
4,500.00	4,497.04	4,482.74	4,475.49	15.66	15.73	-118.27	-63.02	146.11	181.91	159.90	22.00	8.267	
4,600.00	4,596.66	4,581.63	4,573.65	16.01	16.09	-118.75	-69.00	156.58	196.63	174.14	22.49	8.742	
4,700.00	4,696.27	4,680.53	4,671.81	16.36	16.46	-119.16	-74.97	167.05	211.37	188.39	22.98	9.196	
4,800.00	4,795.89	4,779.43	4,769.97	16.71	16.82	-119.52	-80.94	177.52	226.12	202.65	23.48	9.632	
4,900.00	4,895.51	4,878.32	4,868.13	17.06	17.19	-119.83	-86.91	187.99	240.88	216.91	23.97	10.048	
5,000.00	4,995.13	4,977.22	4,966.29	17.41	17.56	-120.11	-92.88	198.46	255.64	231.17	24.47	10.448	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2

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
5,100.00	5,094.75	5,076.12	5,064.45	17.76	17.94	-120.36	-98.86	208.93	270.41	245.44	24.97	10.831	
5,200.00	5,194.37	5,175.02	5,162.61	18.12	18.31	-120.58	-104.83	219.40	285.18	259.72	25.47	11.199	
5,300.00	5,293.99	5,273.91	5,260.77	18.48	18.68	-120.78	-110.80	229.87	299.96	273.99	25.97	11.552	
5,400.00	5,393.61	5,372.81	5,358.93	18.83	19.06	-120.96	-116.77	240.34	314.74	288.27	26.47	11.891	
5,500.00	5,493.22	5,471.71	5,457.09	19.19	19.44	-121.13	-122.74	250.81	329.52	302.55	26.97	12.217	
5,600.00	5,592.84	5,570.60	5,555.25	19.55	19.82	-121.28	-128.71	261.28	344.31	316.83	27.48	12.531	
5,700.00	5,692.46	5,669.50	5,653.41	19.91	20.20	-121.42	-134.69	271.75	359.09	331.11	27.98	12.833	
5,800.00	5,792.08	5,768.40	5,751.57	20.28	20.58	-121.55	-140.66	282.22	373.88	345.39	28.49	13.124	
5,900.00	5,891.70	5,867.30	5,849.73	20.64	20.96	-121.67	-146.63	292.69	388.67	359.68	29.00	13.404	
6,000.00	5,991.32	5,966.19	5,947.89	21.00	21.34	-121.77	-152.60	303.16	403.47	373.96	29.51	13.674	
6,100.00	6,090.94	6,065.09	6,046.05	21.37	21.72	-121.88	-158.57	313.63	418.26	388.24	30.02	13.935	
6,200.00	6,190.56	6,163.99	6,144.21	21.73	22.11	-121.97	-164.55	324.10	433.05	402.53	30.53	14.186	
6,300.00	6,290.18	6,262.88	6,242.37	22.10	22.49	-122.06	-170.52	334.57	447.85	416.81	31.04	14.429	
6,400.00	6,389.79	6,361.78	6,340.53	22.46	22.88	-122.14	-176.49	345.04	462.65	431.10	31.55	14.664	
6,500.00	6,489.41	6,460.68	6,438.69	22.83	23.26	-122.22	-182.46	355.51	477.44	445.38	32.06	14.891	
6,567.67	6,556.82	6,527.60	6,505.11	23.08	23.52	-122.27	-186.50	362.59	487.46	455.05	32.41	15.040	
6,600.00	6,589.04	6,559.59	6,536.86	23.20	23.65	-122.34	-188.43	365.98	492.17	459.59	32.58	15.108	
6,700.00	6,688.82	6,658.64	6,635.17	23.56	24.04	-122.37	-194.41	376.47	505.83	472.74	33.09	15.288	
6,800.00	6,788.74	6,757.82	6,733.62	23.92	24.42	-122.15	-200.40	386.97	518.11	484.52	33.59	15.423	
6,901.27	6,890.00	6,858.33	6,833.37	24.27	24.82	86.89	-206.47	397.61	529.18	495.08	34.10	15.518	
7,000.00	6,988.73	6,956.32	6,930.64	24.61	25.20	87.58	-212.39	407.98	539.35	504.76	34.59	15.592	
7,100.00	7,088.73	7,055.58	7,029.15	24.95	25.59	88.26	-218.38	418.49	549.73	514.64	35.09	15.666	
7,200.00	7,188.73	7,164.02	7,136.87	25.30	26.02	88.93	-224.59	429.37	559.67	524.02	35.65	15.699	
7,300.00	7,288.73	7,278.16	7,250.56	25.64	26.45	89.45	-229.57	438.10	567.26	531.03	36.23	15.657	
7,400.00	7,388.73	7,392.80	7,365.00	25.99	26.87	89.79	-232.87	443.89	572.30	535.51	36.79	15.557	
7,500.00	7,488.73	7,507.73	7,479.88	26.33	27.27	89.95	-234.48	446.70	574.74	537.42	37.32	15.399	
7,600.00	7,588.73	7,614.28	7,586.43	26.68	27.63	89.96	-234.64	446.99	574.99	537.17	37.82	15.202	
7,700.00	7,688.73	7,714.28	7,686.43	27.03	27.97	89.96	-234.64	446.99	574.99	536.68	38.31	15.009	
7,800.00	7,788.73	7,814.28	7,786.43	27.37	28.31	89.96	-234.64	446.99	574.99	536.19	38.80	14.820	
7,900.00	7,888.73	7,914.28	7,886.43	27.72	28.64	89.96	-234.64	446.99	574.99	535.70	39.29	14.636	
8,000.00	7,988.73	8,014.28	7,986.43	28.07	28.98	89.96	-234.64	446.99	574.99	535.21	39.78	14.456	
8,100.00	8,088.73	8,114.28	8,086.43	28.41	29.32	89.96	-234.64	446.99	574.99	534.72	40.27	14.280	
8,200.00	8,188.73	8,214.28	8,186.43	28.76	29.66	89.96	-234.64	446.99	574.99	534.23	40.76	14.108	
8,300.00	8,288.73	8,314.28	8,286.43	29.11	30.00	89.96	-234.64	446.99	574.99	533.74	41.25	13.940	
8,400.00	8,388.73	8,414.28	8,386.43	29.46	30.34	89.96	-234.64	446.99	574.99	533.25	41.74	13.777	
8,500.00	8,488.73	8,514.28	8,486.43	29.81	30.68	89.96	-234.64	446.99	574.99	532.76	42.23	13.616	
8,600.00	8,588.73	8,614.28	8,586.43	30.16	31.02	89.96	-234.64	446.99	574.99	532.27	42.72	13.460	
8,700.00	8,688.73	8,714.28	8,686.43	30.51	31.36	89.96	-234.64	446.99	574.99	531.78	43.21	13.306	
8,800.00	8,788.73	8,814.28	8,786.43	30.86	31.70	89.96	-234.64	446.99	574.99	531.29	43.70	13.157	
8,900.00	8,888.73	8,914.28	8,886.43	31.20	32.04	89.96	-234.64	446.99	574.99	530.79	44.20	13.010	
9,000.00	8,988.73	9,014.28	8,986.43	31.55	32.38	89.96	-234.64	446.99	574.99	530.30	44.69	12.866	
9,100.00	9,088.73	9,114.28	9,086.43	31.90	32.72	89.96	-234.64	446.99	574.99	529.81	45.18	12.726	
9,200.00	9,188.73	9,214.28	9,186.43	32.25	33.06	89.96	-234.64	446.99	574.99	529.31	45.68	12.589	
9,300.00	9,288.73	9,314.28	9,286.43	32.60	33.41	89.96	-234.64	446.99	574.99	528.82	46.17	12.454	
9,400.00	9,388.73	9,414.28	9,386.43	32.96	33.75	89.96	-234.64	446.99	574.99	528.33	46.66	12.322	
9,500.00	9,488.73	9,514.28	9,486.43	33.31	34.09	89.96	-234.64	446.99	574.99	527.83	47.16	12.193	
9,600.00	9,588.73	9,614.28	9,586.43	33.66	34.44	89.96	-234.64	446.99	574.99	527.34	47.65	12.066	
9,700.00	9,688.73	9,714.28	9,686.43	34.01	34.78	89.96	-234.64	446.99	574.99	526.84	48.15	11.942	
9,800.00	9,788.73	9,814.28	9,786.43	34.36	35.13	89.96	-234.64	446.99	574.99	526.35	48.64	11.821	
9,900.00	9,888.73	9,914.28	9,886.43	34.71	35.47	89.96	-234.64	446.99	574.99	525.85	49.14	11.702	
10,000.00	9,988.73	10,014.28	9,986.43	35.06	35.82	89.96	-234.64	446.99	574.99	525.36	49.63	11.585	
10,100.00	10,088.73	10,114.28	10,086.43	35.41	36.16	89.96	-234.64	446.99	574.99	524.86	50.13	11.470	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2

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
10,200.00	10,188.73	10,214.28	10,186.43	35.76	36.51	89.96	-234.64	446.99	574.99	524.36	50.63	11.358	
10,300.00	10,288.73	10,314.28	10,286.43	36.12	36.85	89.96	-234.64	446.99	574.99	523.87	51.12	11.248	
10,400.00	10,388.73	10,414.28	10,386.43	36.47	37.20	89.96	-234.64	446.99	574.99	523.37	51.62	11.139	
10,500.00	10,488.73	10,514.28	10,486.43	36.82	37.54	89.96	-234.64	446.99	574.99	522.88	52.11	11.033	
10,600.00	10,588.73	10,614.28	10,586.43	37.17	37.89	89.96	-234.64	446.99	574.99	522.38	52.61	10.929	
10,700.00	10,688.73	10,714.28	10,686.43	37.52	38.24	89.96	-234.64	446.99	574.99	521.88	53.11	10.827	
10,800.00	10,788.73	10,814.28	10,786.43	37.88	38.58	89.96	-234.64	446.99	574.99	521.38	53.61	10.726	
10,900.00	10,888.73	10,914.28	10,886.43	38.23	38.93	89.96	-234.64	446.99	574.99	520.89	54.10	10.628	
11,000.00	10,988.73	11,014.28	10,986.43	38.58	39.28	89.96	-234.64	446.99	574.99	520.39	54.60	10.531	
11,100.00	11,088.73	11,114.28	11,086.43	38.94	39.63	89.96	-234.64	446.99	574.99	519.89	55.10	10.436	
11,200.00	11,188.73	11,214.28	11,186.43	39.29	39.97	89.96	-234.64	446.99	574.99	519.39	55.60	10.342	
11,243.27	11,232.00	11,257.55	11,229.70	39.44	40.12	89.96	-234.64	446.99	574.99	519.18	55.81	10.302	
11,250.00	11,238.73	11,264.28	11,236.43	39.46	40.15	90.46	-234.64	446.99	574.99	519.15	55.85	10.296	
11,300.00	11,288.64	11,314.19	11,286.34	39.64	40.32	90.73	-234.64	446.99	575.02	518.93	56.09	10.252	
11,350.00	11,338.12	11,363.66	11,335.82	39.80	40.49	91.42	-234.64	446.99	575.15	518.83	56.33	10.211	
11,400.00	11,386.78	11,412.59	11,384.74	39.96	40.66	92.49	-234.61	446.99	575.55	519.00	56.55	10.177	
11,450.00	11,434.28	11,463.77	11,435.82	40.11	40.84	93.74	-231.82	446.97	576.28	519.51	56.77	10.151	
11,500.00	11,480.23	11,516.24	11,487.72	40.25	41.01	94.97	-224.23	446.90	577.29	520.31	56.98	10.131	
11,550.00	11,524.29	11,570.08	11,540.03	40.39	41.18	96.18	-211.55	446.79	578.55	521.38	57.17	10.120	
11,600.00	11,566.13	11,625.36	11,592.25	40.51	41.33	97.35	-193.48	446.64	580.03	522.70	57.34	10.117	
11,650.00	11,605.42	11,682.13	11,643.82	40.62	41.48	98.49	-169.77	446.44	581.69	524.21	57.47	10.121	
11,700.00	11,641.87	11,740.43	11,694.05	40.73	41.62	99.56	-140.25	446.18	583.46	525.88	57.58	10.133	
11,750.00	11,675.21	11,800.26	11,742.22	40.84	41.74	100.56	-104.81	445.88	585.29	527.64	57.65	10.153	
11,800.00	11,705.17	11,861.59	11,787.48	40.95	41.84	101.49	-63.47	445.53	587.12	529.43	57.69	10.178	
11,850.00	11,731.53	11,924.36	11,828.96	41.06	41.92	102.31	-16.39	445.13	588.86	531.16	57.70	10.206	
11,900.00	11,754.09	11,988.47	11,865.75	41.17	41.99	103.03	36.06	444.68	590.44	532.74	57.70	10.233	
11,950.00	11,772.67	12,053.75	11,896.96	41.28	42.03	103.62	93.36	444.19	591.81	534.11	57.70	10.256	
12,000.00	11,787.14	12,120.02	11,921.77	41.40	42.05	104.07	154.77	443.67	592.90	535.17	57.73	10.270	
12,050.00	11,797.38	12,187.02	11,939.47	41.52	42.12	104.38	219.34	443.12	593.66	535.87	57.79	10.272	
12,100.00	11,803.33	12,254.48	11,949.57	41.65	42.30	104.54	286.00	442.55	594.05	536.14	57.91	10.258	
12,152.81	11,804.88	12,322.37	11,951.84	41.78	42.49	104.55	353.82	441.97	594.08	535.98	58.10	10.225	
12,200.00	11,804.09	12,369.56	11,951.38	41.91	42.63	104.58	401.00	441.57	594.17	535.90	58.27	10.198	
12,300.00	11,802.43	12,469.56	11,950.42	42.24	42.96	104.65	500.99	440.71	594.36	535.68	58.68	10.129	
12,400.00	11,800.76	12,569.56	11,949.46	42.62	43.35	104.71	600.98	439.86	594.54	535.36	59.18	10.047	
12,500.00	11,799.10	12,669.55	11,948.49	43.07	43.79	104.78	700.97	439.01	594.73	534.97	59.76	9.953	
12,600.00	11,797.43	12,769.55	11,947.53	43.57	44.29	104.84	800.96	438.15	594.92	534.50	60.41	9.847	
12,700.00	11,795.77	12,869.55	11,946.57	44.13	44.84	104.91	900.95	437.30	595.11	533.96	61.15	9.732	
12,800.00	11,794.10	12,969.55	11,945.60	44.75	45.44	104.97	1,000.94	436.45	595.30	533.34	61.96	9.608	
12,900.00	11,792.44	13,069.54	11,944.64	45.41	46.09	105.04	1,100.93	435.60	595.49	532.65	62.83	9.477	
13,000.00	11,790.77	13,169.54	11,943.68	46.13	46.79	105.10	1,200.92	434.74	595.68	531.90	63.78	9.340	
13,100.00	11,789.11	13,269.54	11,942.72	46.89	47.54	105.17	1,300.91	433.89	595.87	531.08	64.79	9.197	
13,200.00	11,787.44	13,369.54	11,941.75	47.70	48.33	105.23	1,400.90	433.04	596.06	530.21	65.86	9.051	
13,300.00	11,785.78	13,469.53	11,940.79	48.55	49.16	105.30	1,500.89	432.18	596.26	529.27	66.99	8.901	
13,400.00	11,784.11	13,569.53	11,939.83	49.44	50.04	105.36	1,600.88	431.33	596.45	528.28	68.17	8.749	
13,500.00	11,782.45	13,669.53	11,938.87	50.37	50.95	105.43	1,700.87	430.48	596.65	527.24	69.41	8.597	
13,600.00	11,780.78	13,769.53	11,937.90	51.33	51.90	105.49	1,800.85	429.62	596.84	526.15	70.69	8.443	
13,700.00	11,779.12	13,869.52	11,936.94	52.33	52.88	105.56	1,900.84	428.77	597.04	525.02	72.02	8.290	
13,800.00	11,777.45	13,969.52	11,935.98	53.37	53.89	105.62	2,000.83	427.92	597.24	523.84	73.39	8.137	
13,900.00	11,775.79	14,069.52	11,935.02	54.43	54.94	105.69	2,100.82	427.06	597.44	522.63	74.81	7.986	
14,000.00	11,774.13	14,169.52	11,934.05	55.52	56.01	105.75	2,200.81	426.21	597.63	521.37	76.26	7.836	
14,100.00	11,772.46	14,269.52	11,933.09	56.64	57.11	105.82	2,300.80	425.36	597.83	520.08	77.75	7.689	
14,200.00	11,770.80	14,369.51	11,932.13	57.78	58.24	105.88	2,400.79	424.50	598.04	518.76	79.28	7.543	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2

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
14,300.00	11,769.13	14,469.51	11,931.16	58.95	59.39	105.94	2,500.78	423.65	598.24	517.40	80.83	7.401	
14,400.00	11,767.47	14,569.51	11,930.20	60.14	60.57	106.01	2,600.77	422.80	598.44	516.02	82.42	7.261	
14,500.00	11,765.80	14,669.51	11,929.24	61.35	61.77	106.07	2,700.76	421.95	598.64	514.61	84.04	7.124	
14,600.00	11,764.14	14,769.50	11,928.28	62.59	62.98	106.14	2,800.75	421.09	598.84	513.17	85.68	6.990	
14,700.00	11,762.47	14,869.50	11,927.31	63.84	64.22	106.20	2,900.74	420.24	599.05	511.71	87.34	6.859	
14,800.00	11,760.81	14,969.50	11,926.35	65.11	65.48	106.27	3,000.73	419.39	599.25	510.22	89.03	6.731	
14,900.00	11,759.14	15,069.50	11,925.39	66.39	66.75	106.33	3,100.71	418.53	599.46	508.72	90.74	6.606	
15,000.00	11,757.48	15,169.49	11,924.43	67.69	68.04	106.39	3,200.70	417.68	599.67	507.19	92.47	6.485	
15,100.00	11,755.81	15,269.49	11,923.46	69.01	69.34	106.46	3,300.69	416.83	599.87	505.65	94.22	6.367	
15,200.00	11,754.15	15,369.49	11,922.50	70.34	70.66	106.52	3,400.68	415.97	600.08	504.09	95.99	6.251	
15,300.00	11,752.48	15,469.49	11,921.54	71.69	71.99	106.59	3,500.67	415.12	600.29	502.52	97.78	6.139	
15,400.00	11,750.82	15,569.48	11,920.57	73.04	73.34	106.65	3,600.66	414.27	600.50	500.92	99.58	6.031	
15,500.00	11,749.15	15,669.48	11,919.61	74.41	74.69	106.71	3,700.65	413.41	600.71	499.32	101.39	5.925	
15,600.00	11,747.49	15,769.48	11,918.65	75.79	76.06	106.78	3,800.64	412.56	600.92	497.70	103.22	5.822	
15,700.00	11,745.82	15,869.48	11,917.69	77.18	77.44	106.84	3,900.63	411.71	601.13	496.07	105.06	5.722	
15,800.00	11,744.16	15,969.47	11,916.72	78.58	78.83	106.91	4,000.62	410.86	601.35	494.43	106.92	5.624	
15,900.00	11,742.49	16,069.47	11,915.76	79.99	80.23	106.97	4,100.61	410.00	601.56	492.78	108.78	5.530	
16,000.00	11,740.83	16,169.47	11,914.80	81.41	81.64	107.03	4,200.60	409.15	601.77	491.12	110.66	5.438	
16,100.00	11,739.16	16,269.47	11,913.84	82.84	83.06	107.10	4,300.59	408.30	601.99	489.44	112.54	5.349	
16,200.00	11,737.50	16,369.46	11,912.87	84.28	84.49	107.16	4,400.58	407.44	602.20	487.77	114.44	5.262	
16,300.00	11,735.83	16,469.46	11,911.91	85.72	85.92	107.22	4,500.56	406.59	602.42	486.08	116.34	5.178	
16,400.00	11,734.17	16,569.46	11,910.95	87.17	87.37	107.29	4,600.55	405.74	602.64	484.38	118.25	5.096	
16,500.00	11,732.50	16,669.46	11,909.99	88.63	88.82	107.35	4,700.54	404.88	602.85	482.68	120.17	5.017	
16,600.00	11,730.84	16,769.45	11,909.02	90.10	90.27	107.41	4,800.53	404.03	603.07	480.97	122.10	4.939	
16,700.00	11,729.17	16,869.45	11,908.06	91.57	91.74	107.48	4,900.52	403.18	603.29	479.26	124.03	4.864	
16,800.00	11,727.51	16,969.45	11,907.10	93.04	93.21	107.54	5,000.51	402.32	603.51	477.54	125.97	4.791	
16,900.00	11,725.84	17,069.45	11,906.13	94.53	94.68	107.60	5,100.50	401.47	603.73	475.81	127.92	4.720	
17,000.00	11,724.18	17,169.44	11,905.17	96.02	96.16	107.67	5,200.49	400.62	603.95	474.08	129.87	4.650	
17,100.00	11,722.51	17,269.44	11,904.21	97.51	97.65	107.73	5,300.48	399.77	604.18	472.35	131.82	4.583	
17,200.00	11,720.85	17,369.44	11,903.25	99.01	99.14	107.79	5,400.47	398.91	604.40	470.61	133.79	4.518	
17,300.00	11,719.18	17,469.44	11,902.28	100.51	100.64	107.86	5,500.46	398.06	604.62	468.87	135.75	4.454	
17,400.00	11,717.52	17,569.43	11,901.32	102.02	102.14	107.92	5,600.45	397.21	604.85	467.13	137.72	4.392	
17,500.00	11,715.85	17,669.43	11,900.36	103.53	103.65	107.98	5,700.44	396.35	605.07	465.38	139.69	4.332	
17,600.00	11,714.19	17,769.43	11,899.40	105.05	105.16	108.05	5,800.42	395.50	605.30	463.63	141.67	4.273	
17,700.00	11,712.52	17,869.43	11,898.43	106.57	106.67	108.11	5,900.41	394.65	605.52	461.88	143.64	4.215	
17,800.00	11,710.86	17,969.42	11,897.47	108.10	108.19	108.17	6,000.40	393.79	605.75	460.13	145.63	4.160	
17,900.00	11,709.19	18,069.42	11,896.51	109.63	109.71	108.23	6,100.39	392.94	605.98	458.37	147.61	4.105	
18,000.00	11,707.53	18,169.42	11,895.54	111.16	111.24	108.30	6,200.38	392.09	606.21	456.61	149.59	4.052	
18,100.00	11,705.86	18,269.42	11,894.58	112.69	112.77	108.36	6,300.37	391.23	606.44	454.86	151.58	4.001	
18,200.00	11,704.20	18,369.41	11,893.62	114.23	114.30	108.42	6,400.36	390.38	606.67	453.10	153.57	3.950	
18,300.00	11,702.54	18,469.41	11,892.66	115.77	115.84	108.49	6,500.35	389.53	606.90	451.34	155.56	3.901	
18,400.00	11,700.87	18,569.41	11,891.69	117.32	117.38	108.55	6,600.34	388.67	607.13	449.57	157.56	3.853	
18,500.00	11,699.21	18,669.41	11,890.73	118.87	118.92	108.61	6,700.33	387.82	607.36	447.81	159.55	3.807	
18,600.00	11,697.54	18,769.40	11,889.77	120.42	120.47	108.67	6,800.32	386.97	607.60	446.05	161.55	3.761	
18,700.00	11,695.88	18,869.40	11,888.81	121.97	122.02	108.74	6,900.31	386.12	607.83	444.29	163.54	3.717	
18,800.00	11,694.21	18,969.40	11,887.84	123.52	123.57	108.80	7,000.30	385.26	608.06	442.52	165.54	3.673	
18,900.00	11,692.55	19,069.40	11,886.88	125.08	125.12	108.86	7,100.29	384.41	608.30	440.76	167.54	3.631	
19,000.00	11,690.88	19,169.39	11,885.92	126.64	126.68	108.92	7,200.27	383.56	608.54	439.00	169.54	3.589	
19,100.00	11,689.22	19,269.39	11,884.95	128.21	128.23	108.98	7,300.26	382.70	608.77	437.24	171.53	3.549	
19,200.00	11,687.55	19,369.39	11,883.99	129.77	129.80	109.05	7,400.25	381.85	609.01	435.48	173.53	3.509	
19,300.00	11,685.89	19,469.39	11,883.03	131.34	131.36	109.11	7,500.24	381.00	609.25	433.72	175.53	3.471	
19,400.00	11,684.22	19,569.38	11,882.07	132.91	132.92	109.17	7,600.23	380.14	609.49	431.96	177.53	3.433	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design 1912 Fed Com - 1912 Fed Com 702H - OH - Plan #2

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
19,500.00	11,682.56	19,669.38	11,881.10	134.48	134.49	109.23	7,700.22	379.29	609.73	430.20	179.53	3.396	
19,600.00	11,680.89	19,769.38	11,880.14	136.05	136.06	109.30	7,800.21	378.44	609.97	428.44	181.52	3.360	
19,700.00	11,679.23	19,869.38	11,879.18	137.63	137.63	109.36	7,900.20	377.58	610.21	426.69	183.52	3.325	
19,800.00	11,677.56	19,969.37	11,878.22	139.20	139.20	109.42	8,000.19	376.73	610.45	424.93	185.52	3.291	
19,900.00	11,675.90	20,069.37	11,877.25	140.78	140.78	109.48	8,100.18	375.88	610.69	423.18	187.51	3.257	
20,000.00	11,674.23	20,169.37	11,876.29	142.36	142.36	109.54	8,200.17	375.03	610.94	421.43	189.51	3.224	
20,100.00	11,672.57	20,269.37	11,875.33	143.94	143.93	109.60	8,300.16	374.17	611.18	419.68	191.50	3.192	
20,200.00	11,670.90	20,369.36	11,874.37	145.52	145.51	109.67	8,400.15	373.32	611.42	417.93	193.49	3.160	
20,300.00	11,669.24	20,469.36	11,873.40	147.11	147.09	109.73	8,500.14	372.47	611.67	416.19	195.48	3.129	
20,400.00	11,667.57	20,569.36	11,872.44	148.70	148.68	109.79	8,600.12	371.61	611.91	414.44	197.47	3.099	
20,500.00	11,665.91	20,669.36	11,871.48	150.28	150.26	109.85	8,700.11	370.76	612.16	412.70	199.46	3.069	
20,600.00	11,664.24	20,769.35	11,870.51	151.87	151.85	109.91	8,800.10	369.91	612.41	410.96	201.45	3.040	
20,700.00	11,662.58	20,869.35	11,869.55	153.46	153.43	109.97	8,900.09	369.05	612.66	409.22	203.43	3.012	
20,800.00	11,660.91	20,969.35	11,868.59	155.05	155.02	110.04	9,000.08	368.20	612.91	407.49	205.42	2.984	
20,900.00	11,659.25	21,069.35	11,867.63	156.65	156.61	110.10	9,100.07	367.35	613.16	405.75	207.40	2.956	
21,000.00	11,657.58	21,169.35	11,866.66	158.24	158.20	110.16	9,200.06	366.49	613.41	404.02	209.38	2.930	
21,100.00	11,655.92	21,269.34	11,865.70	159.84	159.80	110.22	9,300.05	365.64	613.66	402.30	211.36	2.903	
21,200.00	11,654.25	21,369.34	11,864.74	161.43	161.39	110.28	9,400.04	364.79	613.91	400.57	213.34	2.878	
21,300.00	11,652.59	21,469.34	11,863.78	163.03	162.98	110.34	9,500.03	363.93	614.16	398.85	215.31	2.852	
21,400.00	11,650.92	21,569.34	11,862.81	164.63	164.58	110.40	9,600.02	363.08	614.41	397.13	217.28	2.828	
21,500.00	11,649.26	21,669.33	11,861.85	166.23	166.18	110.46	9,700.01	362.23	614.67	395.41	219.25	2.803	
21,600.00	11,647.59	21,769.33	11,860.89	167.83	167.78	110.52	9,800.00	361.38	614.92	393.70	221.22	2.780	
21,700.00	11,645.93	21,869.33	11,859.92	169.43	169.37	110.59	9,899.98	360.52	615.18	391.99	223.19	2.756	
21,800.00	11,644.26	21,969.33	11,858.96	171.03	170.97	110.65	9,999.97	359.67	615.43	390.28	225.15	2.733	
21,900.00	11,642.60	22,069.32	11,858.00	172.63	172.58	110.71	10,099.96	358.82	615.69	388.58	227.11	2.711	
21,929.37	11,642.11	22,098.69	11,857.72	173.11	173.05	110.73	10,129.33	358.57	615.76	388.08	227.68	2.704	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe 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
0.00	0.00	0.00	0.00	0.00	0.00	89.99	0.81	3,737.01	3,737.23				
100.00	100.00	59.70	59.70	0.13	0.08	89.99	0.81	3,737.01	3,737.01	3,736.86	0.15	N/A	
200.00	200.00	159.70	159.70	0.48	0.36	89.99	0.81	3,737.01	3,737.01	3,736.41	0.60	6,222.749	
300.00	300.00	259.70	259.70	0.84	0.71	89.99	0.81	3,737.01	3,737.01	3,735.91	1.10	3,383.950	
400.00	400.00	359.70	359.70	1.20	1.07	89.99	0.81	3,737.01	3,737.01	3,735.40	1.61	2,320.961	
500.00	500.00	459.70	459.70	1.56	1.43	89.99	0.81	3,737.01	3,737.01	3,734.90	2.12	1,765.693	
600.00	600.00	559.70	559.70	1.92	1.79	89.99	0.81	3,737.01	3,737.01	3,734.39	2.62	1,424.690	
700.00	700.00	659.70	659.70	2.28	2.15	89.99	0.81	3,737.01	3,737.01	3,733.88	3.13	1,194.034	
800.00	800.00	759.70	759.70	2.63	2.51	89.99	0.81	3,737.01	3,737.01	3,733.38	3.64	1,027.638	
900.00	900.00	859.70	859.70	2.99	2.86	89.99	0.81	3,737.01	3,737.01	3,732.87	4.14	901.936	
1,000.00	1,000.00	959.70	959.70	3.35	3.22	89.99	0.81	3,737.01	3,737.01	3,732.36	4.65	803.629	
1,100.00	1,100.00	1,059.70	1,059.70	3.71	3.58	89.99	0.81	3,737.01	3,737.01	3,731.86	5.16	724.643	
1,200.00	1,200.00	1,159.70	1,159.70	4.07	3.94	89.99	0.81	3,737.01	3,737.01	3,731.35	5.66	659.792	
1,300.00	1,300.00	1,259.70	1,259.70	4.43	4.30	89.99	0.81	3,737.01	3,737.01	3,730.84	6.17	605.594	
1,400.00	1,400.00	1,359.70	1,359.70	4.79	4.66	89.99	0.81	3,737.01	3,737.01	3,730.34	6.68	559.624	
1,500.00	1,500.00	1,459.70	1,459.70	5.14	5.02	89.99	0.81	3,737.01	3,737.01	3,729.83	7.18	520.140	
1,600.00	1,600.00	1,559.70	1,559.70	5.50	5.37	89.99	0.81	3,737.01	3,737.01	3,729.32	7.69	485.859	
1,700.00	1,700.00	1,659.70	1,659.70	5.86	5.73	89.99	0.81	3,737.01	3,737.01	3,728.82	8.20	455.818	
1,800.00	1,800.00	1,759.70	1,759.70	6.22	6.09	89.99	0.81	3,737.01	3,737.01	3,728.31	8.71	429.275	
1,900.00	1,900.00	1,859.70	1,859.70	6.58	6.45	89.99	0.81	3,737.01	3,737.01	3,727.80	9.21	405.653	
2,000.00	2,000.00	1,959.70	1,959.70	6.94	6.81	89.99	0.81	3,737.01	3,737.01	3,727.29	9.72	384.496	
2,100.00	2,100.00	2,059.70	2,059.70	7.29	7.17	89.99	0.81	3,737.01	3,737.01	3,726.79	10.23	365.435	
2,200.00	2,200.00	2,159.70	2,159.70	7.65	7.53	89.99	0.81	3,737.01	3,737.01	3,726.28	10.73	348.175	
2,300.00	2,300.00	2,259.70	2,259.70	8.01	7.88	89.99	0.81	3,737.01	3,737.01	3,725.77	11.24	332.472	
2,400.00	2,400.00	2,359.70	2,359.70	8.37	8.24	89.99	0.81	3,737.01	3,737.01	3,725.27	11.75	318.125	
2,500.00	2,500.00	2,459.70	2,459.70	8.73	8.60	89.99	0.81	3,737.01	3,737.01	3,724.76	12.25	304.964	
2,600.00	2,600.00	3,067.95	3,065.88	9.09	10.71	90.13	-8.55	3,696.08	3,730.59	3,716.67	13.92	267.972	
2,700.00	2,700.00	3,166.98	3,163.95	9.45	11.06	90.18	-11.62	3,682.64	3,717.02	3,702.61	14.41	257.919	
2,800.00	2,800.00	3,266.01	3,262.01	9.80	11.42	90.23	-14.69	3,669.20	3,703.46	3,688.55	14.90	248.500	
2,900.00	2,900.00	3,365.03	3,360.07	10.16	11.79	90.28	-17.76	3,655.77	3,689.89	3,674.50	15.40	239.659	
3,000.00	3,000.00	3,464.06	3,458.13	10.52	12.16	90.33	-20.83	3,642.33	3,676.33	3,660.44	15.89	231.348	
3,100.00	3,100.00	3,563.09	3,556.20	10.88	12.53	90.38	-23.90	3,628.89	3,662.78	3,646.39	16.39	223.521	
3,200.00	3,200.00	3,662.11	3,654.26	11.24	12.90	90.43	-26.97	3,615.46	3,649.22	3,632.34	16.88	216.139	
3,300.00	3,300.00	3,761.14	3,752.32	11.60	13.28	90.48	-30.05	3,602.02	3,635.67	3,618.29	17.38	209.166	
3,400.00	3,400.00	3,860.17	3,850.39	11.96	13.66	90.53	-33.12	3,588.58	3,622.12	3,604.24	17.88	202.571	
3,500.00	3,500.00	3,959.19	3,948.45	12.31	14.04	90.58	-36.19	3,575.14	3,608.58	3,590.20	18.38	196.325	
3,600.00	3,599.99	4,058.33	4,046.62	12.65	14.42	-118.14	-39.26	3,561.69	3,595.65	3,576.78	18.87	190.548	
3,700.00	3,699.91	4,157.64	4,144.96	12.98	14.81	-118.30	-42.34	3,548.22	3,583.94	3,564.59	19.35	185.219	
3,800.00	3,799.69	4,257.05	4,243.41	13.31	15.20	-118.48	-45.43	3,534.73	3,573.47	3,553.63	19.83	180.191	
3,833.60	3,833.18	4,290.47	4,276.50	13.42	15.33	-118.54	-46.46	3,530.19	3,570.23	3,550.23	19.99	178.567	
3,900.00	3,899.32	4,356.50	4,341.89	13.64	15.59	-118.59	-48.51	3,521.23	3,563.96	3,543.65	20.32	175.430	
4,000.00	3,998.94	4,455.96	4,440.38	13.97	15.98	-118.66	-51.60	3,507.74	3,554.54	3,533.73	20.80	170.872	
4,100.00	4,098.56	4,555.41	4,538.86	14.30	16.37	-118.73	-54.68	3,494.24	3,545.12	3,523.82	21.29	166.506	
4,200.00	4,198.18	4,654.86	4,637.35	14.64	16.77	-118.81	-57.76	3,480.75	3,535.70	3,513.92	21.78	162.321	
4,300.00	4,297.80	4,754.31	4,735.83	14.98	17.16	-118.88	-60.85	3,467.25	3,526.29	3,504.02	22.27	158.308	
4,400.00	4,397.42	4,853.77	4,834.32	15.32	17.56	-118.96	-63.93	3,453.76	3,516.89	3,494.12	22.77	154.456	
4,500.00	4,497.04	4,953.22	4,932.80	15.66	17.96	-119.03	-67.02	3,440.26	3,507.49	3,484.23	23.27	150.758	
4,600.00	4,596.66	5,052.67	5,031.28	16.01	18.36	-119.11	-70.10	3,426.77	3,498.10	3,474.34	23.76	147.205	
4,700.00	4,696.27	5,152.13	5,129.77	16.36	18.76	-119.18	-73.19	3,413.28	3,488.71	3,464.45	24.26	143.789	
4,800.00	4,795.89	5,251.58	5,228.25	16.71	19.16	-119.26	-76.27	3,399.78	3,479.34	3,454.57	24.76	140.504	
4,900.00	4,895.51	5,351.03	5,326.74	17.06	19.56	-119.33	-79.36	3,386.29	3,469.96	3,444.70	25.27	137.343	
5,000.00	4,995.13	5,450.48	5,425.22	17.41	19.96	-119.41	-82.44	3,372.79	3,460.60	3,434.83	25.77	134.298	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe 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
5,100.00	5,094.75	5,549.94	5,523.71	17.76	20.37	-119.49	-85.53	3,359.30	3,451.23	3,424.96	26.27	131.365	
5,200.00	5,194.37	5,649.39	5,622.19	18.12	20.77	-119.57	-88.61	3,345.80	3,441.88	3,415.10	26.78	128.537	
5,300.00	5,293.99	5,748.84	5,720.68	18.48	21.18	-119.64	-91.69	3,332.31	3,432.53	3,405.25	27.28	125.810	
5,400.00	5,393.61	5,848.30	5,819.16	18.83	21.58	-119.72	-94.78	3,318.81	3,423.19	3,395.40	27.79	123.179	
5,500.00	5,493.22	5,947.75	5,917.65	19.19	21.99	-119.80	-97.86	3,305.32	3,413.85	3,385.56	28.30	120.638	
5,600.00	5,592.84	6,047.20	6,016.13	19.55	22.40	-119.88	-100.95	3,291.82	3,404.52	3,375.72	28.81	118.184	
5,700.00	5,692.46	6,146.65	6,114.62	19.91	22.80	-119.96	-104.03	3,278.33	3,395.20	3,365.89	29.32	115.812	
5,800.00	5,792.08	6,246.11	6,213.10	20.28	23.21	-120.04	-107.12	3,264.83	3,385.89	3,356.06	29.83	113.518	
5,900.00	5,891.70	6,345.56	6,311.59	20.64	23.62	-120.12	-110.20	3,251.34	3,376.58	3,346.24	30.34	111.300	
6,000.00	5,991.32	6,445.01	6,410.07	21.00	24.03	-120.20	-113.29	3,237.84	3,367.27	3,336.42	30.85	109.152	
6,100.00	6,090.94	6,544.47	6,508.56	21.37	24.44	-120.28	-116.37	3,224.35	3,357.98	3,326.62	31.36	107.073	
6,200.00	6,190.56	6,643.92	6,607.04	21.73	24.85	-120.36	-119.46	3,210.85	3,348.69	3,316.81	31.87	105.060	
6,300.00	6,290.18	6,743.37	6,705.53	22.10	25.26	-120.45	-122.54	3,197.36	3,339.41	3,307.02	32.39	103.108	
6,400.00	6,389.79	6,842.82	6,804.01	22.46	25.67	-120.53	-125.62	3,183.86	3,330.13	3,297.23	32.90	101.216	
6,500.00	6,489.41	6,942.28	6,902.49	22.83	26.08	-120.61	-128.71	3,170.37	3,320.86	3,287.45	33.42	99.381	
6,567.67	6,556.82	7,009.57	6,969.14	23.08	26.35	-120.67	-130.80	3,161.24	3,314.59	3,280.83	33.76	98.170	
6,600.00	6,589.04	7,041.73	7,000.98	23.20	26.49	-120.66	-131.79	3,156.87	3,311.53	3,277.60	33.93	97.598	
6,700.00	6,688.82	7,141.14	7,099.43	23.56	26.90	-120.57	-134.88	3,143.38	3,301.18	3,266.74	34.44	95.846	
6,800.00	6,788.74	7,240.45	7,197.77	23.92	27.31	-120.43	-137.96	3,129.91	3,289.51	3,254.56	34.95	94.116	
6,901.27	6,890.00	7,340.85	7,297.19	24.27	27.72	88.34	-141.07	3,116.29	3,276.35	3,240.89	35.46	92.389	
7,000.00	6,988.73	7,438.62	7,394.01	24.61	28.13	88.39	-144.10	3,103.02	3,262.87	3,226.91	35.96	90.740	
7,100.00	7,088.73	7,537.65	7,492.07	24.95	28.54	88.44	-147.17	3,089.58	3,249.21	3,212.75	36.46	89.115	
7,200.00	7,188.73	7,636.67	7,590.13	25.30	28.95	88.48	-150.25	3,076.15	3,235.56	3,198.59	36.96	87.534	
7,300.00	7,288.73	7,735.70	7,688.19	25.64	29.36	88.53	-153.32	3,062.71	3,221.91	3,184.44	37.47	85.994	
7,400.00	7,388.73	7,834.73	7,786.26	25.99	29.77	88.58	-156.39	3,049.27	3,208.26	3,170.29	37.97	84.494	
7,500.00	7,488.73	7,933.75	7,884.32	26.33	30.19	88.63	-159.46	3,035.84	3,194.61	3,156.14	38.47	83.032	
7,600.00	7,588.73	8,032.78	7,982.38	26.68	30.60	88.68	-162.53	3,022.40	3,180.97	3,141.99	38.98	81.608	
7,700.00	7,688.73	8,131.81	8,080.44	27.03	31.01	88.73	-165.60	3,008.96	3,167.33	3,127.85	39.48	80.219	
7,800.00	7,788.73	8,230.83	8,178.51	27.37	31.42	88.78	-168.67	2,995.52	3,153.69	3,113.70	39.99	78.865	
7,900.00	7,888.73	8,329.86	8,276.57	27.72	31.83	88.83	-171.74	2,982.09	3,140.06	3,099.56	40.49	77.544	
8,000.00	7,988.73	8,428.89	8,374.63	28.07	32.25	88.89	-174.82	2,968.65	3,126.42	3,085.42	41.00	76.255	
8,100.00	8,088.73	8,527.91	8,472.70	28.41	32.66	88.94	-177.89	2,955.21	3,112.79	3,071.29	41.51	74.998	
8,200.00	8,188.73	8,626.94	8,570.76	28.76	33.07	88.99	-180.96	2,941.78	3,099.16	3,057.15	42.01	73.770	
8,300.00	8,288.73	8,725.97	8,668.82	29.11	33.49	89.04	-184.03	2,928.34	3,085.54	3,043.02	42.52	72.570	
8,400.00	8,388.73	8,824.99	8,766.88	29.46	33.90	89.10	-187.10	2,914.90	3,071.91	3,028.89	43.02	71.399	
8,500.00	8,488.73	8,924.02	8,864.95	29.81	34.31	89.15	-190.17	2,901.47	3,058.29	3,014.76	43.53	70.254	
8,600.00	8,588.73	9,000.00	8,940.24	30.16	34.63	89.19	-192.45	2,891.50	3,045.11	3,001.12	43.99	69.215	
8,700.00	8,688.73	9,045.83	8,985.73	30.51	34.81	89.21	-193.67	2,886.16	3,033.25	2,988.86	44.39	68.327	
8,800.00	8,788.73	9,100.00	9,039.60	30.86	35.03	89.24	-194.96	2,880.53	3,022.85	2,978.05	44.80	67.472	
8,900.00	8,888.73	9,158.01	9,097.36	31.20	35.25	89.26	-196.15	2,875.32	3,013.87	2,968.66	45.21	66.663	
9,000.00	8,988.73	9,200.00	9,139.22	31.55	35.41	89.27	-196.89	2,872.09	3,006.39	2,960.82	45.57	65.968	
9,100.00	9,088.73	9,270.75	9,209.82	31.90	35.67	89.29	-197.90	2,867.65	3,000.23	2,954.23	46.00	65.222	
9,200.00	9,188.73	9,327.27	9,266.28	32.25	35.87	89.30	-198.50	2,865.03	2,995.57	2,949.19	46.38	64.582	
9,300.00	9,288.73	9,400.00	9,338.97	32.60	36.12	89.31	-199.00	2,862.85	2,992.44	2,945.63	46.81	63.932	
9,400.00	9,388.73	9,440.49	9,379.46	32.96	36.26	89.31	-199.14	2,862.22	2,990.60	2,943.47	47.13	63.457	
9,500.00	9,488.73	9,509.47	9,448.43	33.31	36.48	89.31	-199.19	2,862.01	2,990.23	2,942.70	47.52	62.921	
9,600.00	9,588.73	9,609.47	9,548.43	33.66	36.80	89.31	-199.19	2,862.01	2,990.23	2,942.22	48.01	62.283	
9,700.00	9,688.73	9,709.47	9,648.43	34.01	37.12	89.31	-199.19	2,862.01	2,990.23	2,941.73	48.50	61.658	
9,800.00	9,788.73	9,809.47	9,748.43	34.36	37.44	89.31	-199.19	2,862.01	2,990.23	2,941.24	48.98	61.045	
9,900.00	9,888.73	9,909.47	9,848.43	34.71	37.76	89.31	-199.19	2,862.01	2,990.23	2,940.76	49.47	60.444	
10,000.00	9,988.73	10,009.47	9,948.43	35.06	38.08	89.31	-199.19	2,862.01	2,990.23	2,940.27	49.96	59.853	
10,100.00	10,088.73	10,109.47	10,048.43	35.41	38.40	89.31	-199.19	2,862.01	2,990.23	2,939.78	50.45	59.274	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe 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
10,200.00	10,188.73	10,209.47	10,148.43	35.76	38.72	89.31	-199.19	2,862.01	2,990.23	2,939.29	50.94	58.705	
10,300.00	10,288.73	10,309.47	10,248.43	36.12	39.04	89.31	-199.19	2,862.01	2,990.23	2,938.80	51.43	58.147	
10,400.00	10,388.73	10,409.47	10,348.43	36.47	39.37	89.31	-199.19	2,862.01	2,990.23	2,938.31	51.91	57.599	
10,500.00	10,488.73	10,509.47	10,448.43	36.82	39.69	89.31	-199.19	2,862.01	2,990.23	2,937.82	52.40	57.061	
10,600.00	10,588.73	10,609.47	10,548.43	37.17	40.02	89.31	-199.19	2,862.01	2,990.23	2,937.33	52.89	56.532	
10,700.00	10,688.73	10,709.47	10,648.43	37.52	40.34	89.31	-199.19	2,862.01	2,990.23	2,936.84	53.38	56.013	
10,800.00	10,788.73	10,809.47	10,748.43	37.88	40.67	89.31	-199.19	2,862.01	2,990.23	2,936.35	53.88	55.503	
10,900.00	10,888.73	10,909.47	10,848.43	38.23	40.99	89.31	-199.19	2,862.01	2,990.23	2,935.86	54.37	55.002	
11,000.00	10,988.73	11,009.47	10,948.43	38.58	41.32	89.31	-199.19	2,862.01	2,990.23	2,935.37	54.86	54.509	
11,100.00	11,088.73	11,109.47	11,048.43	38.94	41.65	89.31	-199.19	2,862.01	2,990.23	2,934.88	55.35	54.025	
11,101.97	11,090.70	11,111.44	11,050.40	38.94	41.65	89.31	-199.19	2,862.01	2,990.23	2,934.87	55.36	54.016	
11,200.00	11,188.73	11,207.93	11,146.69	39.29	41.97	89.22	-194.43	2,861.97	2,990.25	2,934.42	55.83	53.560	
11,243.27	11,232.00	11,250.00	11,188.18	39.44	42.09	89.09	-187.49	2,861.91	2,990.29	2,934.26	56.03	53.369	
11,250.00	11,238.73	11,255.74	11,193.79	39.46	42.11	89.56	-186.31	2,861.90	2,990.30	2,934.24	56.06	53.342	
11,300.00	11,288.64	11,302.56	11,239.11	39.64	42.25	89.38	-174.58	2,861.79	2,990.38	2,934.11	56.28	53.137	
11,350.00	11,338.12	11,350.00	11,283.89	39.80	42.38	89.19	-158.97	2,861.65	2,990.50	2,934.01	56.49	52.941	
11,400.00	11,386.78	11,394.19	11,324.31	39.96	42.49	89.02	-141.14	2,861.49	2,990.63	2,933.95	56.68	52.763	
11,450.00	11,434.28	11,439.11	11,363.86	40.11	42.59	88.86	-119.87	2,861.29	2,990.79	2,933.92	56.87	52.593	
11,500.00	11,480.23	11,483.50	11,401.19	40.25	42.68	88.70	-95.89	2,861.08	2,990.95	2,933.91	57.04	52.433	
11,550.00	11,524.29	11,527.40	11,436.18	40.39	42.76	88.55	-69.38	2,860.84	2,991.13	2,933.92	57.21	52.282	
11,600.00	11,566.13	11,570.87	11,468.73	40.51	42.83	88.41	-40.58	2,860.57	2,991.31	2,933.94	57.37	52.139	
11,650.00	11,605.42	11,613.95	11,498.74	40.62	42.89	88.28	-9.68	2,860.29	2,991.49	2,933.96	57.53	52.003	
11,700.00	11,641.87	11,656.69	11,526.13	40.73	42.95	88.17	23.11	2,860.00	2,991.66	2,933.98	57.68	51.871	
11,750.00	11,675.21	11,700.00	11,551.31	40.84	42.99	88.06	58.33	2,859.68	2,991.82	2,934.00	57.82	51.741	
11,800.00	11,705.17	11,741.30	11,572.79	40.95	43.03	87.97	93.59	2,859.36	2,991.97	2,934.00	57.97	51.616	
11,850.00	11,731.53	11,783.25	11,591.95	41.06	43.06	87.89	130.90	2,859.02	2,992.09	2,933.98	58.11	51.490	
11,900.00	11,754.09	11,825.02	11,608.26	41.17	43.10	87.83	169.35	2,858.67	2,992.20	2,933.94	58.26	51.364	
11,950.00	11,772.67	11,866.65	11,621.68	41.28	43.13	87.78	208.74	2,858.31	2,992.28	2,933.87	58.40	51.235	
12,000.00	11,787.14	11,908.16	11,632.19	41.40	43.17	87.74	248.89	2,857.95	2,992.33	2,933.78	58.55	51.105	
12,050.00	11,797.38	11,950.00	11,639.81	41.52	43.21	87.72	290.01	2,857.57	2,992.35	2,933.65	58.71	50.972	
12,100.00	11,803.33	11,991.01	11,644.34	41.65	43.26	87.72	330.77	2,857.21	2,992.34	2,933.48	58.86	50.837	
12,152.81	11,804.88	12,034.75	11,645.96	41.78	43.33	87.73	374.46	2,856.81	2,992.31	2,933.27	59.03	50.689	
12,200.00	11,804.09	12,080.01	11,645.24	41.91	43.41	87.73	419.71	2,856.40	2,992.28	2,933.07	59.21	50.534	
12,300.00	11,802.43	12,180.01	11,643.49	42.24	43.65	87.73	519.69	2,855.49	2,992.24	2,932.57	59.67	50.147	
12,400.00	11,800.76	12,280.01	11,641.74	42.62	43.98	87.73	619.67	2,854.58	2,992.20	2,931.99	60.21	49.695	
12,500.00	11,799.10	12,380.01	11,640.00	43.07	44.39	87.72	719.65	2,853.68	2,992.16	2,931.32	60.84	49.182	
12,600.00	11,797.43	12,480.01	11,638.25	43.57	44.86	87.72	819.63	2,852.77	2,992.12	2,930.57	61.55	48.614	
12,700.00	11,795.77	12,580.01	11,636.50	44.13	45.40	87.72	919.61	2,851.86	2,992.07	2,929.74	62.34	47.999	
12,800.00	11,794.10	12,680.01	11,634.75	44.75	45.99	87.72	1,019.60	2,850.96	2,992.03	2,928.83	63.20	47.341	
12,900.00	11,792.44	12,780.01	11,633.00	45.41	46.64	87.72	1,119.58	2,850.05	2,991.99	2,927.85	64.14	46.648	
13,000.00	11,790.77	12,880.01	11,631.25	46.13	47.35	87.72	1,219.56	2,849.14	2,991.95	2,926.80	65.15	45.925	
13,100.00	11,789.11	12,980.01	11,629.50	46.89	48.10	87.71	1,319.54	2,848.23	2,991.91	2,925.68	66.22	45.179	
13,200.00	11,787.44	13,080.01	11,627.75	47.70	48.89	87.71	1,419.52	2,847.33	2,991.87	2,924.50	67.36	44.415	
13,300.00	11,785.78	13,180.01	11,626.00	48.55	49.73	87.71	1,519.50	2,846.42	2,991.82	2,923.26	68.56	43.638	
13,400.00	11,784.11	13,280.01	11,624.26	49.44	50.60	87.71	1,619.48	2,845.51	2,991.78	2,921.97	69.82	42.852	
13,500.00	11,782.45	13,380.01	11,622.51	50.37	51.52	87.71	1,719.46	2,844.61	2,991.74	2,920.61	71.13	42.061	
13,600.00	11,780.78	13,480.01	11,620.76	51.33	52.47	87.71	1,819.44	2,843.70	2,991.70	2,919.21	72.49	41.270	
13,700.00	11,779.12	13,580.01	11,619.01	52.33	53.45	87.70	1,919.42	2,842.79	2,991.66	2,917.76	73.90	40.481	
13,800.00	11,777.45	13,680.01	11,617.26	53.37	54.47	87.70	2,019.40	2,841.88	2,991.62	2,916.26	75.36	39.698	
13,900.00	11,775.79	13,780.01	11,615.51	54.43	55.52	87.70	2,119.38	2,840.98	2,991.57	2,914.71	76.86	38.922	
14,000.00	11,774.13	13,880.01	11,613.76	55.52	56.59	87.70	2,219.36	2,840.07	2,991.53	2,913.13	78.40	38.157	
14,100.00	11,772.46	13,980.01	11,612.01	56.64	57.70	87.70	2,319.34	2,839.16	2,991.49	2,911.51	79.98	37.402	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe 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
14,200.00	11,770.80	14,080.01	11,610.27	57.78	58.83	87.70	2,419.32	2,838.26	2,991.45	2,909.85	81.60	36.661	
14,300.00	11,769.13	14,180.01	11,608.52	58.95	59.98	87.70	2,519.30	2,837.35	2,991.41	2,908.16	83.25	35.934	
14,400.00	11,767.47	14,280.01	11,606.77	60.14	61.16	87.69	2,619.28	2,836.44	2,991.37	2,906.44	84.93	35.222	
14,500.00	11,765.80	14,380.01	11,605.02	61.35	62.35	87.69	2,719.26	2,835.53	2,991.32	2,904.68	86.64	34.526	
14,600.00	11,764.14	14,480.01	11,603.27	62.59	63.57	87.69	2,819.25	2,834.63	2,991.28	2,902.90	88.38	33.845	
14,700.00	11,762.47	14,580.01	11,601.52	63.84	64.81	87.69	2,919.23	2,833.72	2,991.24	2,901.09	90.15	33.181	
14,800.00	11,760.81	14,680.01	11,599.77	65.11	66.06	87.69	3,019.21	2,832.81	2,991.20	2,899.26	91.94	32.534	
14,900.00	11,759.14	14,780.01	11,598.02	66.39	67.33	87.69	3,119.19	2,831.91	2,991.16	2,897.40	93.76	31.903	
15,000.00	11,757.48	14,880.01	11,596.28	67.69	68.62	87.68	3,219.17	2,831.00	2,991.12	2,895.52	95.60	31.289	
15,100.00	11,755.81	14,980.01	11,594.53	69.01	69.92	87.68	3,319.15	2,830.09	2,991.08	2,893.62	97.46	30.691	
15,200.00	11,754.15	15,080.01	11,592.78	70.34	71.24	87.68	3,419.13	2,829.18	2,991.03	2,891.70	99.34	30.110	
15,300.00	11,752.48	15,180.01	11,591.03	71.69	72.57	87.68	3,519.11	2,828.28	2,990.99	2,889.76	101.24	29.545	
15,400.00	11,750.82	15,280.01	11,589.28	73.04	73.91	87.68	3,619.09	2,827.37	2,990.95	2,887.80	103.15	28.995	
15,500.00	11,749.15	15,380.01	11,587.53	74.41	75.27	87.68	3,719.07	2,826.46	2,990.91	2,885.82	105.09	28.461	
15,600.00	11,747.49	15,480.01	11,585.78	75.79	76.64	87.67	3,819.05	2,825.56	2,990.87	2,883.83	107.04	27.942	
15,700.00	11,745.82	15,580.01	11,584.03	77.18	78.02	87.67	3,919.03	2,824.65	2,990.83	2,881.82	109.00	27.438	
15,800.00	11,744.16	15,680.01	11,582.28	78.58	79.41	87.67	4,019.01	2,823.74	2,990.78	2,879.80	110.98	26.949	
15,900.00	11,742.49	15,780.01	11,580.54	79.99	80.80	87.67	4,118.99	2,822.83	2,990.74	2,877.77	112.97	26.473	
16,000.00	11,740.83	15,880.01	11,578.79	81.41	82.21	87.67	4,218.97	2,821.93	2,990.70	2,875.72	114.98	26.011	
16,100.00	11,739.16	15,980.01	11,577.04	82.84	83.63	87.67	4,318.95	2,821.02	2,990.66	2,873.66	117.00	25.562	
16,200.00	11,737.50	16,080.01	11,575.29	84.28	85.05	87.66	4,418.93	2,820.11	2,990.62	2,871.59	119.03	25.126	
16,300.00	11,735.83	16,180.01	11,573.54	85.72	86.49	87.66	4,518.91	2,819.21	2,990.58	2,869.51	121.07	24.702	
16,400.00	11,734.17	16,280.01	11,571.79	87.17	87.93	87.66	4,618.90	2,818.30	2,990.54	2,867.42	123.12	24.290	
16,500.00	11,732.50	16,380.01	11,570.04	88.63	89.38	87.66	4,718.88	2,817.39	2,990.49	2,865.31	125.18	23.890	
16,600.00	11,730.84	16,480.01	11,568.29	90.10	90.83	87.66	4,818.86	2,816.48	2,990.45	2,863.20	127.25	23.501	
16,700.00	11,729.17	16,580.01	11,566.55	91.57	92.29	87.66	4,918.84	2,815.58	2,990.41	2,861.08	129.33	23.123	
16,800.00	11,727.51	16,680.01	11,564.80	93.04	93.76	87.65	5,018.82	2,814.67	2,990.37	2,858.95	131.42	22.755	
16,900.00	11,725.84	16,780.01	11,563.05	94.53	95.24	87.65	5,118.80	2,813.76	2,990.33	2,856.82	133.51	22.397	
17,000.00	11,724.18	16,880.01	11,561.30	96.02	96.72	87.65	5,218.78	2,812.86	2,990.29	2,854.67	135.62	22.050	
17,100.00	11,722.51	16,980.01	11,559.55	97.51	98.20	87.65	5,318.76	2,811.95	2,990.24	2,852.52	137.73	21.711	
17,200.00	11,720.85	17,080.01	11,557.80	99.01	99.69	87.65	5,418.74	2,811.04	2,990.20	2,850.36	139.84	21.382	
17,300.00	11,719.18	17,180.01	11,556.05	100.51	101.19	87.65	5,518.72	2,810.13	2,990.16	2,848.19	141.97	21.062	
17,400.00	11,717.52	17,280.01	11,554.30	102.02	102.69	87.64	5,618.70	2,809.23	2,990.12	2,846.02	144.10	20.750	
17,500.00	11,715.85	17,380.01	11,552.55	103.53	104.19	87.64	5,718.68	2,808.32	2,990.08	2,843.84	146.24	20.447	
17,600.00	11,714.19	17,480.01	11,550.81	105.05	105.70	87.64	5,818.66	2,807.41	2,990.04	2,841.65	148.38	20.151	
17,700.00	11,712.52	17,580.01	11,549.06	106.57	107.22	87.64	5,918.64	2,806.51	2,990.00	2,839.46	150.53	19.863	
17,800.00	11,710.86	17,680.01	11,547.31	108.10	108.73	87.64	6,018.62	2,805.60	2,989.95	2,837.27	152.69	19.582	
17,900.00	11,709.19	17,780.01	11,545.56	109.63	110.25	87.64	6,118.60	2,804.69	2,989.91	2,835.07	154.85	19.309	
18,000.00	11,707.53	17,880.01	11,543.81	111.16	111.78	87.63	6,218.58	2,803.78	2,989.87	2,832.86	157.01	19.043	
18,100.00	11,705.86	17,980.01	11,542.06	112.69	113.31	87.63	6,318.56	2,802.88	2,989.83	2,830.65	159.18	18.783	
18,200.00	11,704.20	18,080.01	11,540.31	114.23	114.84	87.63	6,418.54	2,801.97	2,989.79	2,828.43	161.35	18.529	
18,300.00	11,702.54	18,180.01	11,538.56	115.77	116.37	87.63	6,518.53	2,801.06	2,989.75	2,826.21	163.53	18.282	
18,400.00	11,700.87	18,280.01	11,536.82	117.32	117.91	87.63	6,618.51	2,800.16	2,989.70	2,823.99	165.72	18.041	
18,500.00	11,699.21	18,380.01	11,535.07	118.87	119.45	87.63	6,718.49	2,799.25	2,989.66	2,821.76	167.90	17.806	
18,600.00	11,697.54	18,480.01	11,533.32	120.42	121.00	87.62	6,818.47	2,798.34	2,989.62	2,819.53	170.09	17.576	
18,700.00	11,695.88	18,580.01	11,531.57	121.97	122.55	87.62	6,918.45	2,797.43	2,989.58	2,817.29	172.29	17.352	
18,800.00	11,694.21	18,680.01	11,529.82	123.52	124.10	87.62	7,018.43	2,796.53	2,989.54	2,815.05	174.49	17.133	
18,900.00	11,692.55	18,780.01	11,528.07	125.08	125.65	87.62	7,118.41	2,795.62	2,989.50	2,812.81	176.69	16.920	
19,000.00	11,690.88	18,880.01	11,526.32	126.64	127.20	87.62	7,218.39	2,794.71	2,989.46	2,810.56	178.89	16.711	
19,100.00	11,689.22	18,980.01	11,524.57	128.21	128.76	87.62	7,318.37	2,793.81	2,989.41	2,808.31	181.10	16.507	
19,200.00	11,687.55	19,080.01	11,522.83	129.77	130.32	87.61	7,418.35	2,792.90	2,989.37	2,806.06	183.31	16.308	
19,300.00	11,685.89	19,180.01	11,521.08	131.34	131.88	87.61	7,518.33	2,791.99	2,989.33	2,803.81	185.53	16.113	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe 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
19,400.00	11,684.22	19,280.01	11,519.33	132.91	133.45	87.61	7,618.31	2,791.08	2,989.29	2,801.55	187.74	15.922	
19,500.00	11,682.56	19,380.01	11,517.58	134.48	135.01	87.61	7,718.29	2,790.18	2,989.25	2,799.29	189.96	15.736	
19,600.00	11,680.89	19,480.01	11,515.83	136.05	136.58	87.61	7,818.27	2,789.27	2,989.21	2,797.02	192.19	15.554	
19,700.00	11,679.23	19,580.01	11,514.08	137.63	138.15	87.61	7,918.25	2,788.36	2,989.17	2,794.75	194.41	15.375	
19,800.00	11,677.56	19,680.01	11,512.33	139.20	139.72	87.60	8,018.23	2,787.46	2,989.12	2,792.49	196.64	15.201	
19,900.00	11,675.90	19,780.01	11,510.58	140.78	141.29	87.60	8,118.21	2,786.55	2,989.08	2,790.21	198.87	15.030	
20,000.00	11,674.23	19,880.01	11,508.83	142.36	142.87	87.60	8,218.19	2,785.64	2,989.04	2,787.94	201.10	14.863	
20,100.00	11,672.57	19,980.01	11,507.09	143.94	144.45	87.60	8,318.18	2,784.73	2,989.00	2,785.66	203.34	14.700	
20,200.00	11,670.90	20,080.01	11,505.34	145.52	146.03	87.60	8,418.16	2,783.83	2,988.96	2,783.38	205.57	14.540	
20,300.00	11,669.24	20,180.01	11,503.59	147.11	147.61	87.60	8,518.14	2,782.92	2,988.92	2,781.10	207.81	14.383	
20,400.00	11,667.57	20,280.01	11,501.84	148.70	149.19	87.59	8,618.12	2,782.01	2,988.88	2,778.82	210.05	14.229	
20,500.00	11,665.91	20,380.01	11,500.09	150.28	150.77	87.59	8,718.10	2,781.11	2,988.83	2,776.54	212.30	14.079	
20,600.00	11,664.24	20,480.01	11,498.34	151.87	152.36	87.59	8,818.08	2,780.20	2,988.79	2,774.25	214.54	13.931	
20,700.00	11,662.58	20,580.01	11,496.59	153.46	153.94	87.59	8,918.06	2,779.29	2,988.75	2,771.96	216.79	13.786	
20,800.00	11,660.91	20,680.01	11,494.84	155.05	155.53	87.59	9,018.04	2,778.39	2,988.71	2,769.67	219.04	13.645	
20,900.00	11,659.25	20,780.01	11,493.10	156.65	157.12	87.59	9,118.02	2,777.48	2,988.67	2,767.38	221.29	13.506	
21,000.00	11,657.58	20,880.01	11,491.35	158.24	158.71	87.58	9,218.00	2,776.57	2,988.63	2,765.09	223.54	13.369	
21,100.00	11,655.92	20,980.01	11,489.60	159.84	160.30	87.58	9,317.98	2,775.66	2,988.59	2,762.79	225.80	13.236	
21,200.00	11,654.25	21,080.01	11,487.85	161.43	161.89	87.58	9,417.96	2,774.76	2,988.54	2,760.49	228.05	13.105	
21,300.00	11,652.59	21,180.01	11,486.10	163.03	163.49	87.58	9,517.94	2,773.85	2,988.50	2,758.19	230.31	12.976	
21,400.00	11,650.92	21,280.01	11,484.35	164.63	165.08	87.58	9,617.92	2,772.94	2,988.46	2,755.89	232.57	12.850	
21,500.00	11,649.26	21,380.01	11,482.60	166.23	166.68	87.58	9,717.90	2,772.04	2,988.42	2,753.59	234.83	12.726	
21,600.00	11,647.59	21,480.01	11,480.85	167.83	168.28	87.58	9,817.88	2,771.13	2,988.38	2,751.29	237.09	12.604	
21,700.00	11,645.93	21,580.01	11,479.10	169.43	169.87	87.57	9,917.86	2,770.22	2,988.34	2,748.99	239.35	12.485	
21,800.00	11,644.26	21,680.01	11,477.36	171.03	171.47	87.57	10,017.84	2,769.31	2,988.30	2,746.68	241.62	12.368	
21,900.00	11,642.60	21,780.01	11,475.61	172.63	173.07	87.57	10,117.83	2,768.41	2,988.25	2,744.37	243.88	12.253	
21,929.37	11,642.11	21,809.38	11,475.09	173.11	173.53	87.57	10,147.19	2,768.14	2,988.24	2,743.71	244.53	12.220	CC, ES, SF

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe Fed Com 705H - 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
0.00	0.00	0.00	0.00	0.00	0.00	89.99	0.78	3,772.01	3,772.22				
100.00	100.00	59.70	59.70	0.13	0.08	89.99	0.78	3,772.01	3,772.01	3,771.86	0.15	N/A	
200.00	200.00	159.70	159.70	0.48	0.36	89.99	0.78	3,772.01	3,772.01	3,771.41	0.60	6,281.018	
300.00	300.00	259.70	259.70	0.84	0.71	89.99	0.78	3,772.01	3,772.01	3,770.90	1.10	3,415.636	
400.00	400.00	359.70	359.70	1.20	1.07	89.99	0.78	3,772.01	3,772.01	3,770.40	1.61	2,342.694	
500.00	500.00	459.70	459.70	1.56	1.43	89.99	0.78	3,772.01	3,772.01	3,769.89	2.12	1,782.227	
600.00	600.00	559.70	559.70	1.92	1.79	89.99	0.78	3,772.01	3,772.01	3,769.38	2.62	1,438.031	
700.00	700.00	659.70	659.70	2.28	2.15	89.99	0.78	3,772.01	3,772.01	3,768.88	3.13	1,205.215	
800.00	800.00	759.70	759.70	2.63	2.51	89.99	0.78	3,772.01	3,772.01	3,768.37	3.64	1,037.260	
900.00	900.00	859.70	859.70	2.99	2.86	89.99	0.78	3,772.01	3,772.01	3,767.86	4.14	910.381	
1,000.00	1,000.00	959.70	959.70	3.35	3.22	89.99	0.78	3,772.01	3,772.01	3,767.36	4.65	811.154	
1,100.00	1,100.00	1,059.70	1,059.70	3.71	3.58	89.99	0.78	3,772.01	3,772.01	3,766.85	5.16	731.428	
1,200.00	1,200.00	1,159.70	1,159.70	4.07	3.94	89.99	0.78	3,772.01	3,772.01	3,766.34	5.66	665.970	
1,300.00	1,300.00	1,259.70	1,259.70	4.43	4.30	89.99	0.78	3,772.01	3,772.01	3,765.84	6.17	611.265	
1,400.00	1,400.00	1,359.70	1,359.70	4.79	4.66	89.99	0.78	3,772.01	3,772.01	3,765.33	6.68	564.864	
1,500.00	1,500.00	1,459.70	1,459.70	5.14	5.02	89.99	0.78	3,772.01	3,772.01	3,764.82	7.18	525.010	
1,600.00	1,600.00	1,559.70	1,559.70	5.50	5.37	89.99	0.78	3,772.01	3,772.01	3,764.32	7.69	490.409	
1,700.00	1,700.00	1,659.70	1,659.70	5.86	5.73	89.99	0.78	3,772.01	3,772.01	3,763.81	8.20	460.086	
1,800.00	1,800.00	1,759.70	1,759.70	6.22	6.09	89.99	0.78	3,772.01	3,772.01	3,763.30	8.71	433.295	
1,900.00	1,900.00	1,859.70	1,859.70	6.58	6.45	89.99	0.78	3,772.01	3,772.01	3,762.79	9.21	409.452	
2,000.00	2,000.00	1,959.70	1,959.70	6.94	6.81	89.99	0.78	3,772.01	3,772.01	3,762.29	9.72	388.096	
2,100.00	2,100.00	2,059.70	2,059.70	7.29	7.17	89.99	0.78	3,772.01	3,772.01	3,761.78	10.23	368.857	
2,200.00	2,200.00	2,159.70	2,159.70	7.65	7.53	89.99	0.78	3,772.01	3,772.01	3,761.27	10.73	351.436	
2,300.00	2,300.00	2,259.70	2,259.70	8.01	7.88	89.99	0.78	3,772.01	3,772.01	3,760.77	11.24	335.586	
2,400.00	2,400.00	2,359.70	2,359.70	8.37	8.24	89.99	0.78	3,772.01	3,772.01	3,760.26	11.75	321.103	
2,500.00	2,500.00	2,459.70	2,459.70	8.73	8.60	89.99	0.78	3,772.01	3,772.01	3,759.75	12.25	307.820	
2,600.00	2,600.00	2,559.70	2,559.70	9.09	8.96	89.99	0.78	3,772.01	3,772.01	3,759.25	12.76	295.591	
2,700.00	2,700.00	2,659.70	2,659.70	9.45	9.32	89.99	0.78	3,772.01	3,772.01	3,758.74	13.27	284.297	
2,800.00	2,800.00	2,759.70	2,759.70	9.80	9.68	89.99	0.78	3,772.01	3,772.01	3,758.23	13.77	273.834	
2,900.00	2,900.00	2,859.70	2,859.70	10.16	10.03	89.99	0.78	3,772.01	3,772.01	3,757.72	14.28	264.114	
3,000.00	3,000.00	2,959.70	2,959.70	10.52	10.39	89.99	0.78	3,772.01	3,772.01	3,757.22	14.79	255.061	
3,100.00	3,100.00	3,492.39	3,491.04	10.88	12.22	90.15	-10.10	3,742.33	3,767.12	3,750.85	16.26	231.651	
3,200.00	3,200.00	3,591.65	3,589.55	11.24	12.57	90.22	-14.26	3,730.96	3,755.67	3,738.92	16.75	224.201	
3,300.00	3,300.00	3,690.90	3,688.07	11.60	12.92	90.28	-18.42	3,719.59	3,744.22	3,726.98	17.24	217.155	
3,400.00	3,400.00	3,790.15	3,786.58	11.96	13.27	90.35	-22.59	3,708.23	3,732.79	3,715.05	17.73	210.482	
3,500.00	3,500.00	3,889.41	3,885.09	12.31	13.63	90.41	-26.75	3,696.86	3,721.35	3,703.12	18.23	204.156	
3,600.00	3,599.99	3,988.77	3,983.71	12.65	13.99	-118.26	-30.92	3,685.48	3,710.54	3,691.83	18.71	198.305	
3,700.00	3,699.91	4,088.30	4,082.50	12.98	14.35	-118.37	-35.09	3,674.09	3,700.96	3,681.77	19.19	192.908	
3,800.00	3,799.69	4,187.94	4,181.40	13.31	14.71	-118.51	-39.27	3,662.68	3,692.62	3,672.96	19.66	187.812	
3,833.60	3,833.18	4,221.43	4,214.64	13.42	14.84	-118.55	-40.68	3,658.84	3,690.09	3,670.27	19.82	186.163	
3,900.00	3,899.32	4,287.61	4,280.33	13.64	15.08	-118.59	-43.45	3,651.26	3,685.25	3,665.11	20.14	182.981	
4,000.00	3,998.94	4,387.29	4,379.26	13.97	15.45	-118.64	-47.63	3,639.85	3,677.95	3,657.33	20.62	178.353	
4,100.00	4,098.56	4,486.96	4,478.19	14.30	15.82	-118.70	-51.81	3,628.43	3,670.66	3,649.55	21.11	173.916	
4,200.00	4,198.18	4,586.64	4,577.12	14.64	16.20	-118.75	-55.99	3,617.02	3,663.37	3,641.78	21.59	169.660	
4,300.00	4,297.80	4,686.31	4,676.05	14.98	16.57	-118.81	-60.18	3,605.61	3,656.09	3,634.00	22.08	165.576	
4,400.00	4,397.42	4,785.99	4,774.98	15.32	16.95	-118.86	-64.36	3,594.19	3,648.80	3,626.23	22.57	161.654	
4,500.00	4,497.04	4,885.66	4,873.91	15.66	17.33	-118.92	-68.54	3,582.78	3,641.52	3,618.46	23.06	157.887	
4,600.00	4,596.66	4,985.34	4,972.84	16.01	17.71	-118.97	-72.72	3,571.36	3,634.25	3,610.69	23.56	154.266	
4,700.00	4,696.27	5,085.01	5,071.77	16.36	18.09	-119.02	-76.90	3,559.95	3,626.98	3,602.92	24.05	150.783	
4,800.00	4,795.89	5,184.68	5,170.70	16.71	18.47	-119.08	-81.08	3,548.54	3,619.71	3,595.15	24.55	147.432	
4,900.00	4,895.51	5,284.36	5,269.63	17.06	18.85	-119.14	-85.26	3,537.12	3,612.44	3,587.39	25.05	144.206	
5,000.00	4,995.13	5,384.03	5,368.56	17.41	19.24	-119.19	-89.44	3,525.71	3,605.18	3,579.63	25.55	141.098	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe Fed Com 705H - 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
5,100.00	5,094.75	5,483.71	5,467.49	17.76	19.62	-119.25	-93.62	3,514.29	3,597.92	3,571.87	26.05	138.103	
5,200.00	5,194.37	5,583.38	5,566.42	18.12	20.01	-119.30	-97.80	3,502.88	3,590.66	3,564.11	26.56	135.216	
5,300.00	5,293.99	5,683.06	5,665.35	18.48	20.39	-119.36	-101.99	3,491.47	3,583.41	3,556.35	27.06	132.430	
5,400.00	5,393.61	5,782.73	5,764.28	18.83	20.78	-119.42	-106.17	3,480.05	3,576.16	3,548.60	27.56	129.741	
5,500.00	5,493.22	5,882.40	5,863.21	19.19	21.17	-119.47	-110.35	3,468.64	3,568.92	3,540.85	28.07	127.145	
5,600.00	5,592.84	5,982.08	5,962.14	19.55	21.56	-119.53	-114.53	3,457.22	3,561.68	3,533.10	28.58	124.636	
5,700.00	5,692.46	6,081.75	6,061.07	19.91	21.95	-119.59	-118.71	3,445.81	3,554.44	3,525.35	29.08	122.211	
5,800.00	5,792.08	6,181.43	6,160.00	20.28	22.34	-119.65	-122.89	3,434.40	3,547.20	3,517.61	29.59	119.867	
5,900.00	5,891.70	6,281.10	6,258.93	20.64	22.73	-119.70	-127.07	3,422.98	3,539.97	3,509.87	30.10	117.598	
6,000.00	5,991.32	6,380.78	6,357.86	21.00	23.12	-119.76	-131.25	3,411.57	3,532.75	3,502.13	30.61	115.402	
6,100.00	6,090.94	6,480.45	6,456.79	21.37	23.51	-119.82	-135.43	3,400.15	3,525.52	3,494.40	31.12	113.276	
6,200.00	6,190.56	6,580.12	6,555.73	21.73	23.91	-119.88	-139.61	3,388.74	3,518.30	3,486.67	31.63	111.216	
6,300.00	6,290.18	6,679.80	6,654.66	22.10	24.30	-119.94	-143.79	3,377.33	3,511.09	3,478.94	32.15	109.220	
6,400.00	6,389.79	6,779.47	6,753.59	22.46	24.69	-120.00	-147.98	3,365.91	3,503.87	3,471.21	32.66	107.285	
6,500.00	6,489.41	6,879.15	6,852.52	22.83	25.09	-120.06	-152.16	3,354.50	3,496.67	3,463.49	33.17	105.407	
6,567.67	6,556.82	6,946.59	6,919.46	23.08	25.35	-120.10	-154.99	3,346.77	3,491.79	3,458.27	33.52	104.168	
6,600.00	6,589.04	6,978.82	6,951.45	23.20	25.48	-120.08	-156.34	3,343.08	3,489.39	3,455.70	33.69	103.584	
6,700.00	6,688.82	7,078.46	7,050.34	23.56	25.88	-120.00	-160.52	3,331.67	3,481.11	3,446.91	34.20	101.792	
6,800.00	6,788.74	7,178.00	7,149.13	23.92	26.27	-119.87	-164.69	3,320.28	3,471.53	3,436.82	34.71	100.026	
6,901.27	6,890.00	7,278.62	7,249.01	24.27	26.67	88.90	-168.91	3,308.75	3,460.50	3,425.29	35.22	98.265	
7,000.00	6,988.73	7,376.61	7,346.27	24.61	27.06	88.96	-173.02	3,297.53	3,449.11	3,413.40	35.71	96.584	
7,100.00	7,088.73	7,475.87	7,444.78	24.95	27.46	89.03	-177.19	3,286.17	3,437.58	3,401.37	36.21	94.927	
7,200.00	7,188.73	7,575.12	7,543.29	25.30	27.85	89.10	-181.35	3,274.80	3,426.05	3,389.34	36.72	93.315	
7,300.00	7,288.73	7,674.37	7,641.81	25.64	28.25	89.16	-185.51	3,263.43	3,414.53	3,377.31	37.22	91.745	
7,400.00	7,388.73	7,767.43	7,734.17	25.99	28.62	89.23	-189.42	3,252.78	3,403.02	3,365.31	37.71	90.247	
7,500.00	7,488.73	7,824.80	7,791.16	26.33	28.84	89.26	-191.68	3,246.61	3,392.25	3,354.12	38.12	88.984	
7,600.00	7,588.73	7,900.00	7,866.00	26.68	29.13	89.31	-194.19	3,239.74	3,382.93	3,344.36	38.57	87.706	
7,700.00	7,688.73	7,933.27	7,899.16	27.03	29.26	89.32	-195.14	3,237.15	3,374.71	3,335.79	38.92	86.704	
7,800.00	7,788.73	8,000.00	7,965.72	27.37	29.51	89.35	-196.75	3,232.76	3,367.99	3,328.65	39.34	85.602	
7,900.00	7,888.73	8,042.23	8,007.89	27.72	29.66	89.36	-197.56	3,230.55	3,362.54	3,322.84	39.70	84.695	
8,000.00	7,988.73	8,100.00	8,065.60	28.07	29.87	89.38	-198.41	3,228.23	3,358.47	3,318.38	40.09	83.769	
8,100.00	8,088.73	8,151.51	8,117.09	28.41	30.05	89.38	-198.91	3,226.85	3,355.75	3,315.29	40.46	82.941	
8,200.00	8,188.73	8,200.00	8,165.58	28.76	30.22	89.39	-199.17	3,226.15	3,354.39	3,313.58	40.81	82.191	
8,300.00	8,288.73	8,282.86	8,248.43	29.11	30.50	89.39	-199.22	3,226.01	3,354.20	3,312.94	41.25	81.307	
8,400.00	8,388.73	8,382.86	8,348.43	29.46	30.83	89.39	-199.22	3,226.01	3,354.20	3,312.46	41.74	80.355	
8,500.00	8,488.73	8,482.86	8,448.43	29.81	31.16	89.39	-199.22	3,226.01	3,354.20	3,311.97	42.23	79.425	
8,600.00	8,588.73	8,582.86	8,548.43	30.16	31.49	89.39	-199.22	3,226.01	3,354.20	3,311.48	42.72	78.515	
8,700.00	8,688.73	8,682.86	8,648.43	30.51	31.83	89.39	-199.22	3,226.01	3,354.20	3,310.99	43.21	77.625	
8,800.00	8,788.73	8,782.86	8,748.43	30.86	32.16	89.39	-199.22	3,226.01	3,354.20	3,310.50	43.70	76.754	
8,900.00	8,888.73	8,882.86	8,848.43	31.20	32.49	89.39	-199.22	3,226.01	3,354.20	3,310.01	44.19	75.902	
9,000.00	8,988.73	8,982.86	8,948.43	31.55	32.83	89.39	-199.22	3,226.01	3,354.20	3,309.52	44.68	75.068	
9,100.00	9,088.73	9,082.86	9,048.43	31.90	33.16	89.39	-199.22	3,226.01	3,354.20	3,309.02	45.17	74.252	
9,200.00	9,188.73	9,182.86	9,148.43	32.25	33.50	89.39	-199.22	3,226.01	3,354.20	3,308.53	45.66	73.453	
9,300.00	9,288.73	9,282.86	9,248.43	32.60	33.84	89.39	-199.22	3,226.01	3,354.20	3,308.04	46.16	72.670	
9,400.00	9,388.73	9,382.86	9,348.43	32.96	34.17	89.39	-199.22	3,226.01	3,354.20	3,307.55	46.65	71.903	
9,500.00	9,488.73	9,482.86	9,448.43	33.31	34.51	89.39	-199.22	3,226.01	3,354.20	3,307.06	47.14	71.152	
9,600.00	9,588.73	9,582.86	9,548.43	33.66	34.85	89.39	-199.22	3,226.01	3,354.20	3,306.56	47.63	70.415	
9,700.00	9,688.73	9,682.86	9,648.43	34.01	35.19	89.39	-199.22	3,226.01	3,354.20	3,306.07	48.13	69.694	
9,800.00	9,788.73	9,782.86	9,748.43	34.36	35.53	89.39	-199.22	3,226.01	3,354.20	3,305.58	48.62	68.987	
9,900.00	9,888.73	9,882.86	9,848.43	34.71	35.87	89.39	-199.22	3,226.01	3,354.20	3,305.08	49.11	68.293	
10,000.00	9,988.73	9,982.86	9,948.43	35.06	36.20	89.39	-199.22	3,226.01	3,354.20	3,304.59	49.61	67.613	
10,100.00	10,088.73	10,082.86	10,048.43	35.41	36.54	89.39	-199.22	3,226.01	3,354.20	3,304.09	50.10	66.946	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe Fed Com 705H - 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
10,200.00	10,188.73	10,182.86	10,148.43	35.76	36.88	89.39	-199.22	3,226.01	3,354.20	3,303.60	50.60	66.292	
10,300.00	10,288.73	10,282.86	10,248.43	36.12	37.22	89.39	-199.22	3,226.01	3,354.20	3,303.11	51.09	65.650	
10,400.00	10,388.73	10,382.86	10,348.43	36.47	37.57	89.39	-199.22	3,226.01	3,354.20	3,302.61	51.59	65.020	
10,500.00	10,488.73	10,482.86	10,448.43	36.82	37.91	89.39	-199.22	3,226.01	3,354.20	3,302.11	52.08	64.402	
10,600.00	10,588.73	10,582.86	10,548.43	37.17	38.25	89.39	-199.22	3,226.01	3,354.20	3,301.62	52.58	63.795	
10,700.00	10,688.73	10,682.86	10,648.43	37.52	38.59	89.39	-199.22	3,226.01	3,354.20	3,301.12	53.07	63.199	
10,800.00	10,788.73	10,782.86	10,748.43	37.88	38.93	89.39	-199.22	3,226.01	3,354.20	3,300.63	53.57	62.614	
10,900.00	10,888.73	10,882.86	10,848.43	38.23	39.27	89.39	-199.22	3,226.01	3,354.20	3,300.13	54.07	62.039	
11,000.00	10,988.73	10,982.86	10,948.43	38.58	39.62	89.39	-199.22	3,226.01	3,354.20	3,299.64	54.56	61.475	
11,100.00	11,088.73	11,082.86	11,048.43	38.94	39.96	89.39	-199.22	3,226.01	3,354.20	3,299.14	55.06	60.921	
11,200.00	11,188.73	11,182.86	11,148.43	39.29	40.30	89.39	-199.22	3,226.01	3,354.20	3,298.64	55.55	60.376	
11,243.27	11,232.00	11,226.12	11,191.70	39.44	40.45	89.39	-199.22	3,226.01	3,354.20	3,298.43	55.77	60.144	
11,250.00	11,238.73	11,232.86	11,198.43	39.46	40.47	89.88	-199.22	3,226.01	3,354.20	3,298.39	55.80	60.108	
11,300.00	11,288.64	11,282.76	11,248.34	39.64	40.65	89.93	-199.22	3,226.01	3,354.19	3,298.14	56.05	59.844	
11,331.75	11,320.13	11,314.25	11,279.83	39.74	40.75	90.00	-199.22	3,226.01	3,354.19	3,297.99	56.20	59.681	
11,350.00	11,338.12	11,332.24	11,297.82	39.80	40.82	90.05	-199.22	3,226.01	3,354.19	3,297.90	56.29	59.588	
11,400.00	11,386.78	11,381.10	11,346.67	39.96	40.98	90.24	-199.18	3,226.01	3,354.22	3,297.70	56.52	59.341	
11,450.00	11,434.28	11,431.39	11,396.87	40.11	41.15	90.45	-196.39	3,225.98	3,354.30	3,297.54	56.76	59.100	
11,500.00	11,480.23	11,482.90	11,447.83	40.25	41.32	90.67	-188.99	3,225.91	3,354.43	3,297.44	56.98	58.869	
11,550.00	11,524.29	11,535.73	11,499.18	40.39	41.48	90.88	-176.67	3,225.80	3,354.60	3,297.40	57.20	58.647	
11,600.00	11,566.13	11,589.94	11,550.47	40.51	41.64	91.09	-159.17	3,225.64	3,354.81	3,297.40	57.41	58.435	
11,650.00	11,605.42	11,645.59	11,601.15	40.62	41.79	91.29	-136.25	3,225.43	3,355.05	3,297.44	57.62	58.232	
11,700.00	11,641.87	11,702.72	11,650.63	40.73	41.92	91.49	-107.72	3,225.17	3,355.32	3,297.51	57.81	58.038	
11,750.00	11,675.21	11,761.37	11,698.20	40.84	42.04	91.67	-73.46	3,224.85	3,355.61	3,297.60	58.00	57.851	
11,800.00	11,705.17	11,821.53	11,743.09	40.95	42.14	91.85	-33.45	3,224.49	3,355.90	3,297.71	58.19	57.670	
11,850.00	11,731.53	11,883.17	11,784.48	41.06	42.23	92.01	12.18	3,224.07	3,356.19	3,297.81	58.38	57.492	
11,900.00	11,754.09	11,946.20	11,821.49	41.17	42.30	92.15	63.16	3,223.60	3,356.46	3,297.90	58.56	57.314	
11,950.00	11,772.67	12,010.52	11,853.25	41.28	42.36	92.28	119.05	3,223.09	3,356.70	3,297.95	58.75	57.135	
12,000.00	11,787.14	12,075.96	11,878.93	41.40	42.41	92.38	179.20	3,222.54	3,356.90	3,297.96	58.94	56.952	
12,050.00	11,797.38	12,142.30	11,897.79	41.52	42.48	92.46	242.76	3,221.96	3,357.05	3,297.91	59.14	56.764	
12,100.00	11,803.33	12,209.30	11,909.26	41.65	42.59	92.51	308.73	3,221.36	3,357.14	3,297.79	59.34	56.570	
12,152.81	11,804.88	12,280.46	11,912.93	41.78	42.75	92.53	379.75	3,220.71	3,357.16	3,297.59	59.57	56.357	
12,200.00	11,804.09	12,328.48	11,912.16	41.91	42.88	92.53	427.75	3,220.27	3,357.14	3,297.38	59.76	56.176	
12,300.00	11,802.43	12,428.48	11,910.55	42.24	43.21	92.53	527.74	3,219.35	3,357.09	3,296.87	60.22	55.746	
12,400.00	11,800.76	12,528.48	11,908.94	42.62	43.61	92.54	627.72	3,218.43	3,357.04	3,296.27	60.77	55.245	
12,500.00	11,799.10	12,628.48	11,907.34	43.07	44.06	92.54	727.70	3,217.52	3,356.99	3,295.59	61.40	54.678	
12,600.00	11,797.43	12,728.48	11,905.73	43.57	44.57	92.54	827.69	3,216.60	3,356.94	3,294.83	62.11	54.051	
12,700.00	11,795.77	12,828.48	11,904.12	44.13	45.13	92.54	927.67	3,215.69	3,356.88	3,293.99	62.90	53.372	
12,800.00	11,794.10	12,928.48	11,902.51	44.75	45.74	92.54	1,027.65	3,214.77	3,356.83	3,293.07	63.76	52.646	
12,900.00	11,792.44	13,028.48	11,900.90	45.41	46.41	92.54	1,127.63	3,213.86	3,356.78	3,292.08	64.70	51.882	
13,000.00	11,790.77	13,128.48	11,899.29	46.13	47.12	92.54	1,227.62	3,212.94	3,356.73	3,291.02	65.71	51.086	
13,100.00	11,789.11	13,228.48	11,897.68	46.89	47.87	92.54	1,327.60	3,212.03	3,356.68	3,289.90	66.78	50.264	
13,200.00	11,787.44	13,328.48	11,896.07	47.70	48.67	92.54	1,427.58	3,211.11	3,356.63	3,288.71	67.92	49.421	
13,300.00	11,785.78	13,428.48	11,894.46	48.55	49.51	92.54	1,527.57	3,210.20	3,356.58	3,287.46	69.12	48.565	
13,400.00	11,784.11	13,528.48	11,892.85	49.44	50.40	92.55	1,627.55	3,209.28	3,356.53	3,286.16	70.37	47.698	
13,500.00	11,782.45	13,628.48	11,891.24	50.37	51.31	92.55	1,727.53	3,208.36	3,356.48	3,284.80	71.68	46.827	
13,600.00	11,780.78	13,728.48	11,889.64	51.33	52.27	92.55	1,827.51	3,207.45	3,356.43	3,283.39	73.04	45.954	
13,700.00	11,779.12	13,828.48	11,888.03	52.33	53.26	92.55	1,927.50	3,206.53	3,356.38	3,281.93	74.45	45.084	
13,800.00	11,777.45	13,928.48	11,886.42	53.37	54.28	92.55	2,027.48	3,205.62	3,356.33	3,280.43	75.90	44.220	
13,900.00	11,775.79	14,028.48	11,884.81	54.43	55.33	92.55	2,127.46	3,204.70	3,356.27	3,278.88	77.40	43.364	
14,000.00	11,774.13	14,128.48	11,883.20	55.52	56.41	92.55	2,227.45	3,203.79	3,356.22	3,277.29	78.93	42.519	
14,100.00	11,772.46	14,228.48	11,881.59	56.64	57.52	92.55	2,327.43	3,202.87	3,356.17	3,275.66	80.51	41.686	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe Fed Com 705H - 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
14,200.00	11,770.80	14,328.48	11,879.98	57.78	58.65	92.55	2,427.41	3,201.96	3,356.12	3,274.00	82.12	40.868	
14,300.00	11,769.13	14,428.48	11,878.37	58.95	59.80	92.55	2,527.39	3,201.04	3,356.07	3,272.30	83.77	40.064	
14,400.00	11,767.47	14,528.48	11,876.76	60.14	60.98	92.56	2,627.38	3,200.13	3,356.02	3,270.57	85.45	39.277	
14,500.00	11,765.80	14,628.48	11,875.15	61.35	62.18	92.56	2,727.36	3,199.21	3,355.97	3,268.82	87.15	38.506	
14,600.00	11,764.14	14,728.48	11,873.54	62.59	63.40	92.56	2,827.34	3,198.29	3,355.92	3,267.03	88.89	37.753	
14,700.00	11,762.47	14,828.48	11,871.94	63.84	64.64	92.56	2,927.33	3,197.38	3,355.87	3,265.21	90.65	37.018	
14,800.00	11,760.81	14,928.48	11,870.33	65.11	65.90	92.56	3,027.31	3,196.46	3,355.82	3,263.37	92.44	36.302	
14,900.00	11,759.14	15,028.48	11,868.72	66.39	67.17	92.56	3,127.29	3,195.55	3,355.77	3,261.51	94.26	35.603	
15,000.00	11,757.48	15,128.48	11,867.11	67.69	68.46	92.56	3,227.27	3,194.63	3,355.72	3,259.63	96.09	34.922	
15,100.00	11,755.81	15,228.48	11,865.50	69.01	69.77	92.56	3,327.26	3,193.72	3,355.67	3,257.72	97.95	34.260	
15,200.00	11,754.15	15,328.48	11,863.89	70.34	71.09	92.56	3,427.24	3,192.80	3,355.61	3,255.79	99.82	33.615	
15,300.00	11,752.48	15,428.48	11,862.28	71.69	72.42	92.56	3,527.22	3,191.89	3,355.56	3,253.84	101.72	32.989	
15,400.00	11,750.82	15,528.48	11,860.67	73.04	73.77	92.57	3,627.20	3,190.97	3,355.51	3,251.88	103.63	32.379	
15,500.00	11,749.15	15,628.48	11,859.06	74.41	75.13	92.57	3,727.19	3,190.05	3,355.46	3,249.90	105.56	31.787	
15,600.00	11,747.49	15,728.48	11,857.45	75.79	76.50	92.57	3,827.17	3,189.14	3,355.41	3,247.90	107.51	31.211	
15,700.00	11,745.82	15,828.48	11,855.84	77.18	77.88	92.57	3,927.15	3,188.22	3,355.36	3,245.89	109.47	30.651	
15,800.00	11,744.16	15,928.48	11,854.24	78.58	79.27	92.57	4,027.14	3,187.31	3,355.31	3,243.86	111.45	30.107	
15,900.00	11,742.49	16,028.48	11,852.63	79.99	80.67	92.57	4,127.12	3,186.39	3,355.26	3,241.82	113.43	29.579	
16,000.00	11,740.83	16,128.48	11,851.02	81.41	82.08	92.57	4,227.10	3,185.48	3,355.21	3,239.77	115.44	29.065	
16,100.00	11,739.16	16,228.48	11,849.41	82.84	83.50	92.57	4,327.08	3,184.56	3,355.16	3,237.71	117.45	28.566	
16,200.00	11,737.50	16,328.48	11,847.80	84.28	84.93	92.57	4,427.07	3,183.65	3,355.11	3,235.63	119.48	28.081	
16,300.00	11,735.83	16,428.48	11,846.19	85.72	86.37	92.57	4,527.05	3,182.73	3,355.06	3,233.54	121.52	27.610	
16,400.00	11,734.17	16,528.48	11,844.58	87.17	87.81	92.58	4,627.03	3,181.82	3,355.01	3,231.44	123.56	27.152	
16,500.00	11,732.50	16,628.48	11,842.97	88.63	89.26	92.58	4,727.02	3,180.90	3,354.95	3,229.33	125.62	26.707	
16,600.00	11,730.84	16,728.48	11,841.36	90.10	90.72	92.58	4,827.00	3,179.98	3,354.90	3,227.22	127.69	26.274	
16,700.00	11,729.17	16,828.48	11,839.75	91.57	92.18	92.58	4,926.98	3,179.07	3,354.85	3,225.09	129.76	25.854	
16,800.00	11,727.51	16,928.48	11,838.14	93.04	93.65	92.58	5,026.96	3,178.15	3,354.80	3,222.95	131.85	25.444	
16,900.00	11,725.84	17,028.48	11,836.54	94.53	95.13	92.58	5,126.95	3,177.24	3,354.75	3,220.81	133.94	25.046	
17,000.00	11,724.18	17,128.48	11,834.93	96.02	96.61	92.58	5,226.93	3,176.32	3,354.70	3,218.66	136.04	24.659	
17,100.00	11,722.51	17,228.48	11,833.32	97.51	98.10	92.58	5,326.91	3,175.41	3,354.65	3,216.50	138.15	24.282	
17,200.00	11,720.85	17,328.48	11,831.71	99.01	99.59	92.58	5,426.90	3,174.49	3,354.60	3,214.33	140.27	23.916	
17,300.00	11,719.18	17,428.48	11,830.10	100.51	101.09	92.58	5,526.88	3,173.58	3,354.55	3,212.16	142.39	23.559	
17,400.00	11,717.52	17,528.48	11,828.49	102.02	102.59	92.59	5,626.86	3,172.66	3,354.50	3,209.98	144.52	23.212	
17,500.00	11,715.85	17,628.48	11,826.88	103.53	104.10	92.59	5,726.84	3,171.75	3,354.45	3,207.79	146.65	22.873	
17,600.00	11,714.19	17,728.48	11,825.27	105.05	105.61	92.59	5,826.83	3,170.83	3,354.40	3,205.60	148.79	22.544	
17,700.00	11,712.52	17,828.48	11,823.66	106.57	107.12	92.59	5,926.81	3,169.91	3,354.35	3,203.40	150.94	22.223	
17,800.00	11,710.86	17,928.48	11,822.05	108.10	108.64	92.59	6,026.79	3,169.00	3,354.29	3,201.20	153.09	21.910	
17,900.00	11,709.19	18,028.48	11,820.44	109.63	110.16	92.59	6,126.78	3,168.08	3,354.24	3,198.99	155.25	21.605	
18,000.00	11,707.53	18,128.48	11,818.84	111.16	111.69	92.59	6,226.76	3,167.17	3,354.19	3,196.78	157.41	21.308	
18,100.00	11,705.86	18,228.48	11,817.23	112.69	113.22	92.59	6,326.74	3,166.25	3,354.14	3,194.56	159.58	21.018	
18,200.00	11,704.20	18,328.48	11,815.62	114.23	114.75	92.59	6,426.72	3,165.34	3,354.09	3,192.34	161.75	20.736	
18,300.00	11,702.54	18,428.48	11,814.01	115.77	116.29	92.59	6,526.71	3,164.42	3,354.04	3,190.11	163.93	20.460	
18,400.00	11,700.87	18,528.48	11,812.40	117.32	117.83	92.60	6,626.69	3,163.51	3,353.99	3,187.88	166.11	20.191	
18,500.00	11,699.21	18,628.48	11,810.79	118.87	119.37	92.60	6,726.67	3,162.59	3,353.94	3,185.64	168.29	19.929	
18,600.00	11,697.54	18,728.48	11,809.18	120.42	120.92	92.60	6,826.66	3,161.67	3,353.89	3,183.40	170.48	19.673	
18,700.00	11,695.88	18,828.48	11,807.57	121.97	122.47	92.60	6,926.64	3,160.76	3,353.84	3,181.16	172.68	19.423	
18,800.00	11,694.21	18,928.48	11,805.96	123.52	124.02	92.60	7,026.62	3,159.84	3,353.79	3,178.91	174.87	19.178	
18,900.00	11,692.55	19,028.48	11,804.35	125.08	125.57	92.60	7,126.60	3,158.93	3,353.74	3,176.66	177.07	18.940	
19,000.00	11,690.88	19,128.48	11,802.74	126.64	127.13	92.60	7,226.59	3,158.01	3,353.69	3,174.41	179.27	18.707	
19,100.00	11,689.22	19,228.48	11,801.14	128.21	128.69	92.60	7,326.57	3,157.10	3,353.63	3,172.15	181.48	18.479	
19,200.00	11,687.55	19,328.48	11,799.53	129.77	130.25	92.60	7,426.55	3,156.18	3,353.58	3,169.89	183.69	18.257	
19,300.00	11,685.89	19,428.47	11,797.92	131.34	131.81	92.60	7,526.54	3,155.27	3,353.53	3,167.63	185.90	18.039	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Santa Fe Fed Com 705H - OH - Plan #1

Offset Site Error: 0.00 usft

Survey Program: 0-OWSG (Rev2) MWD

Offset Well Error: 0.00 usft

Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
19,400.00	11,684.22	19,528.47	11,796.31	132.91	133.38	92.61	7,626.52	3,154.35	3,353.48	3,165.36	188.12	17.826	
19,500.00	11,682.56	19,628.47	11,794.70	134.48	134.94	92.61	7,726.50	3,153.44	3,353.43	3,163.10	190.34	17.618	
19,600.00	11,680.89	19,728.47	11,793.09	136.05	136.51	92.61	7,826.48	3,152.52	3,353.38	3,160.82	192.56	17.415	
19,700.00	11,679.23	19,828.47	11,791.48	137.63	138.08	92.61	7,926.47	3,151.60	3,353.33	3,158.55	194.78	17.216	
19,800.00	11,677.56	19,928.47	11,789.87	139.20	139.66	92.61	8,026.45	3,150.69	3,353.28	3,156.27	197.01	17.021	
19,900.00	11,675.90	20,028.47	11,788.26	140.78	141.23	92.61	8,126.43	3,149.77	3,353.23	3,153.99	199.23	16.831	
20,000.00	11,674.23	20,128.47	11,786.65	142.36	142.81	92.61	8,226.42	3,148.86	3,353.18	3,151.71	201.47	16.644	
20,100.00	11,672.57	20,228.47	11,785.04	143.94	144.39	92.61	8,326.40	3,147.94	3,353.13	3,149.43	203.70	16.461	
20,200.00	11,670.90	20,328.47	11,783.44	145.52	145.97	92.61	8,426.38	3,147.03	3,353.08	3,147.14	205.93	16.282	
20,300.00	11,669.24	20,428.47	11,781.83	147.11	147.55	92.61	8,526.36	3,146.11	3,353.03	3,144.85	208.17	16.107	
20,400.00	11,667.57	20,528.47	11,780.22	148.70	149.13	92.62	8,626.35	3,145.20	3,352.97	3,142.56	210.41	15.935	
20,500.00	11,665.91	20,628.47	11,778.61	150.28	150.72	92.62	8,726.33	3,144.28	3,352.92	3,140.27	212.65	15.767	
20,600.00	11,664.24	20,728.47	11,777.00	151.87	152.30	92.62	8,826.31	3,143.37	3,352.87	3,137.98	214.90	15.602	
20,700.00	11,662.58	20,828.47	11,775.39	153.46	153.89	92.62	8,926.30	3,142.45	3,352.82	3,135.68	217.14	15.441	
20,800.00	11,660.91	20,928.47	11,773.78	155.05	155.48	92.62	9,026.28	3,141.53	3,352.77	3,133.38	219.39	15.282	
20,900.00	11,659.25	21,028.47	11,772.17	156.65	157.07	92.62	9,126.26	3,140.62	3,352.72	3,131.08	221.64	15.127	
21,000.00	11,657.58	21,128.47	11,770.56	158.24	158.66	92.62	9,226.24	3,139.70	3,352.67	3,128.78	223.89	14.975	
21,100.00	11,655.92	21,228.47	11,768.95	159.84	160.25	92.62	9,326.23	3,138.79	3,352.62	3,126.48	226.14	14.825	
21,200.00	11,654.25	21,328.47	11,767.34	161.43	161.84	92.62	9,426.21	3,137.87	3,352.57	3,124.17	228.40	14.679	
21,300.00	11,652.59	21,428.47	11,765.74	163.03	163.44	92.62	9,526.19	3,136.96	3,352.52	3,121.87	230.65	14.535	
21,400.00	11,650.92	21,528.47	11,764.13	164.63	165.03	92.63	9,626.18	3,136.04	3,352.47	3,119.56	232.91	14.394	
21,500.00	11,649.26	21,628.47	11,762.52	166.23	166.63	92.63	9,726.16	3,135.13	3,352.42	3,117.25	235.17	14.255	
21,600.00	11,647.59	21,728.47	11,760.91	167.83	168.23	92.63	9,826.14	3,134.21	3,352.37	3,114.94	237.43	14.119	
21,700.00	11,645.93	21,828.47	11,759.30	169.43	169.83	92.63	9,926.12	3,133.29	3,352.32	3,112.62	239.69	13.986	
21,800.00	11,644.26	21,928.47	11,757.69	171.03	171.43	92.63	10,026.11	3,132.38	3,352.26	3,110.31	241.95	13.855	
21,900.00	11,642.60	22,028.47	11,756.08	172.63	173.03	92.63	10,126.09	3,131.46	3,352.21	3,108.00	244.22	13.726	
21,929.37	11,642.11	22,057.85	11,755.61	173.11	173.50	92.63	10,155.46	3,131.19	3,352.20	3,107.32	244.88	13.689	CC, ES, SF

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
0.00	0.00	0.00	0.00	0.00	0.00	89.98	1.11	3,807.00	3,807.22				
100.00	100.00	58.70	58.70	0.13	0.08	89.98	1.11	3,807.00	3,807.00	3,806.85	0.15	N/A	
200.00	200.00	158.70	158.70	0.48	0.35	89.98	1.11	3,807.00	3,807.00	3,806.40	0.60	6,361.694	
300.00	300.00	258.70	258.70	0.84	0.71	89.98	1.11	3,807.00	3,807.00	3,805.89	1.10	3,454.560	
400.00	400.00	358.70	358.70	1.20	1.07	89.98	1.11	3,807.00	3,807.00	3,805.39	1.61	2,367.934	
500.00	500.00	458.70	458.70	1.56	1.43	89.98	1.11	3,807.00	3,807.00	3,804.88	2.11	1,800.820	
600.00	600.00	558.70	558.70	1.92	1.79	89.98	1.11	3,807.00	3,807.00	3,804.38	2.62	1,452.724	
700.00	700.00	658.70	658.70	2.28	2.14	89.98	1.11	3,807.00	3,807.00	3,803.87	3.13	1,217.351	
800.00	800.00	758.70	758.70	2.63	2.50	89.98	1.11	3,807.00	3,807.00	3,803.36	3.63	1,047.594	
900.00	900.00	858.70	858.70	2.99	2.86	89.98	1.11	3,807.00	3,807.00	3,802.86	4.14	919.376	
1,000.00	1,000.00	958.70	958.70	3.35	3.22	89.98	1.11	3,807.00	3,807.00	3,802.35	4.65	819.116	
1,100.00	1,100.00	1,058.70	1,058.70	3.71	3.58	89.98	1.11	3,807.00	3,807.00	3,801.84	5.15	738.570	
1,200.00	1,200.00	1,158.70	1,158.70	4.07	3.94	89.98	1.11	3,807.00	3,807.00	3,801.33	5.66	672.444	
1,300.00	1,300.00	1,258.70	1,258.70	4.43	4.30	89.98	1.11	3,807.00	3,807.00	3,800.83	6.17	617.185	
1,400.00	1,400.00	1,358.70	1,358.70	4.79	4.65	89.98	1.11	3,807.00	3,807.00	3,800.32	6.68	570.317	
1,500.00	1,500.00	1,458.70	1,458.70	5.14	5.01	89.98	1.11	3,807.00	3,807.00	3,799.81	7.18	530.065	
1,600.00	1,600.00	1,558.70	1,558.70	5.50	5.37	89.98	1.11	3,807.00	3,807.00	3,799.31	7.69	495.119	
1,700.00	1,700.00	1,658.70	1,658.70	5.86	5.73	89.98	1.11	3,807.00	3,807.00	3,798.80	8.20	464.496	
1,800.00	1,800.00	1,758.70	1,758.70	6.22	6.09	89.98	1.11	3,807.00	3,807.00	3,798.29	8.70	437.440	
1,900.00	1,900.00	1,858.70	1,858.70	6.58	6.45	89.98	1.11	3,807.00	3,807.00	3,797.79	9.21	413.363	
2,000.00	2,000.00	1,958.70	1,958.70	6.94	6.80	89.98	1.11	3,807.00	3,807.00	3,797.28	9.72	391.797	
2,100.00	2,100.00	2,058.70	2,058.70	7.29	7.16	89.98	1.11	3,807.00	3,807.00	3,796.77	10.22	372.370	
2,200.00	2,200.00	2,158.70	2,158.70	7.65	7.52	89.98	1.11	3,807.00	3,807.00	3,796.27	10.73	354.779	
2,300.00	2,300.00	2,258.70	2,258.70	8.01	7.88	89.98	1.11	3,807.00	3,807.00	3,795.76	11.24	338.774	
2,400.00	2,400.00	2,358.70	2,358.70	8.37	8.24	89.98	1.11	3,807.00	3,807.00	3,795.25	11.74	324.151	
2,500.00	2,500.00	2,458.70	2,458.70	8.73	8.60	89.98	1.11	3,807.00	3,807.00	3,794.74	12.25	310.739	
2,600.00	2,600.00	2,558.70	2,558.70	9.09	8.96	89.98	1.11	3,807.00	3,807.00	3,794.24	12.76	298.392	
2,700.00	2,700.00	2,658.70	2,658.70	9.45	9.31	89.98	1.11	3,807.00	3,807.00	3,793.73	13.27	286.989	
2,800.00	2,800.00	2,758.70	2,758.70	9.80	9.67	89.98	1.11	3,807.00	3,807.00	3,793.22	13.77	276.425	
2,900.00	2,900.00	2,858.70	2,858.70	10.16	10.03	89.98	1.11	3,807.00	3,807.00	3,792.72	14.28	266.611	
3,000.00	3,000.00	2,958.70	2,958.70	10.52	10.39	89.98	1.11	3,807.00	3,807.00	3,792.21	14.79	257.470	
3,100.00	3,100.00	3,058.70	3,058.70	10.88	10.75	89.98	1.11	3,807.00	3,807.00	3,791.70	15.29	248.936	
3,200.00	3,200.00	3,158.70	3,158.70	11.24	11.11	89.98	1.11	3,807.00	3,807.00	3,791.20	15.80	240.948	
3,300.00	3,300.00	3,258.70	3,258.70	11.60	11.46	89.98	1.11	3,807.00	3,807.00	3,790.69	16.31	233.458	
3,400.00	3,400.00	3,358.70	3,358.70	11.96	11.82	89.98	1.11	3,807.00	3,807.00	3,790.18	16.81	226.419	
3,500.00	3,500.00	3,458.70	3,458.70	12.31	12.18	89.98	1.11	3,807.00	3,807.00	3,789.68	17.32	219.792	CC
3,600.00	3,599.99	3,558.69	3,558.69	12.65	12.54	-118.60	1.11	3,807.00	3,807.62	3,789.81	17.82	213.727	
3,700.00	3,699.91	3,658.61	3,658.61	12.98	12.90	-118.63	1.11	3,807.00	3,809.50	3,791.21	18.30	208.193	
3,800.00	3,799.69	3,758.39	3,758.39	13.31	13.26	-118.67	1.11	3,807.00	3,812.65	3,793.86	18.78	203.002	
3,833.60	3,833.18	3,791.88	3,791.88	13.42	13.38	-118.69	1.11	3,807.00	3,813.99	3,795.04	18.94	201.330	
3,900.00	3,899.32	3,858.02	3,858.02	13.64	13.61	-118.77	1.11	3,807.00	3,816.78	3,797.51	19.27	198.113	
4,000.00	3,998.94	3,957.64	3,957.64	13.97	13.97	-118.88	1.11	3,807.00	3,821.00	3,801.24	19.75	193.451	
4,100.00	4,098.56	4,057.26	4,057.26	14.30	14.33	-119.00	1.11	3,807.00	3,825.23	3,804.99	20.24	188.996	
4,200.00	4,198.18	4,156.88	4,156.88	14.64	14.68	-119.11	1.11	3,807.00	3,829.48	3,808.75	20.73	184.737	
4,300.00	4,297.80	4,256.50	4,256.50	14.98	15.04	-119.22	1.11	3,807.00	3,833.74	3,812.52	21.22	180.662	
4,400.00	4,397.42	4,356.12	4,356.12	15.32	15.40	-119.34	1.11	3,807.00	3,838.02	3,816.31	21.71	176.760	
4,500.00	4,497.04	4,455.74	4,455.74	15.66	15.76	-119.45	1.11	3,807.00	3,842.31	3,820.11	22.21	173.022	
4,600.00	4,596.66	4,539.23	4,539.23	16.01	16.05	-119.54	0.92	3,807.08	3,846.74	3,824.08	22.66	169.789	
4,700.00	4,696.27	4,600.00	4,599.99	16.36	16.26	-119.60	-0.08	3,807.55	3,851.87	3,828.83	23.04	167.156	
4,800.00	4,795.89	4,680.64	4,680.57	16.71	16.52	-119.65	-2.76	3,808.81	3,857.72	3,834.25	23.47	164.361	
4,900.00	4,895.51	4,751.38	4,751.20	17.06	16.75	-119.67	-6.38	3,810.51	3,864.35	3,840.47	23.88	161.854	
5,000.00	4,995.13	4,822.09	4,821.71	17.41	16.98	-119.68	-11.18	3,812.77	3,871.72	3,847.44	24.28	159.461	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
5,100.00	5,094.75	4,899.98	4,899.25	17.76	17.23	-119.67	-17.83	3,815.90	3,879.85	3,855.15	24.70	157.059	
5,200.00	5,194.37	4,989.33	4,988.11	18.12	17.53	-119.64	-26.28	3,819.87	3,888.41	3,863.26	25.16	154.566	
5,300.00	5,293.99	5,088.94	5,087.18	18.48	17.86	-119.61	-35.70	3,824.30	3,896.99	3,871.35	25.64	151.993	
5,400.00	5,393.61	5,188.56	5,186.24	18.83	18.19	-119.58	-45.13	3,828.73	3,905.56	3,879.44	26.12	149.501	
5,500.00	5,493.22	5,288.17	5,285.31	19.19	18.53	-119.55	-54.55	3,833.15	3,914.14	3,887.52	26.61	147.087	
5,600.00	5,592.84	5,387.78	5,384.38	19.55	18.86	-119.53	-63.97	3,837.58	3,922.71	3,895.61	27.10	144.747	
5,700.00	5,692.46	5,487.39	5,483.44	19.91	19.21	-119.50	-73.40	3,842.01	3,931.29	3,903.70	27.59	142.479	
5,800.00	5,792.08	5,587.00	5,582.51	20.28	19.55	-119.47	-82.82	3,846.44	3,939.87	3,911.78	28.09	140.281	
5,900.00	5,891.70	5,686.62	5,681.58	20.64	19.89	-119.44	-92.24	3,850.87	3,948.45	3,919.87	28.58	138.149	
6,000.00	5,991.32	5,786.23	5,780.64	21.00	20.24	-119.41	-101.66	3,855.30	3,957.03	3,927.95	29.08	136.081	
6,100.00	6,090.94	5,885.84	5,879.71	21.37	20.59	-119.38	-111.09	3,859.73	3,965.61	3,936.03	29.58	134.076	
6,200.00	6,190.56	5,985.45	5,978.78	21.73	20.94	-119.36	-120.51	3,864.16	3,974.19	3,944.11	30.08	132.129	
6,300.00	6,290.18	6,085.07	6,077.84	22.10	21.29	-119.33	-129.93	3,868.59	3,982.78	3,952.19	30.58	130.240	
6,400.00	6,389.79	6,184.68	6,176.91	22.46	21.64	-119.30	-139.36	3,873.01	3,991.36	3,960.28	31.08	128.406	
6,500.00	6,489.41	6,284.29	6,275.98	22.83	21.99	-119.27	-148.78	3,877.44	3,999.94	3,968.36	31.59	126.624	
6,567.67	6,556.82	6,351.69	6,343.01	23.08	22.24	-119.25	-155.16	3,880.44	4,005.75	3,973.82	31.93	125.447	
6,600.00	6,589.04	6,383.91	6,375.05	23.20	22.35	-119.28	-158.20	3,881.87	4,008.46	3,976.37	32.10	124.892	
6,700.00	6,688.82	6,483.55	6,474.14	23.56	22.71	-119.32	-167.63	3,886.30	4,016.00	3,983.40	32.60	123.190	
6,800.00	6,788.74	6,583.16	6,573.21	23.92	23.07	-119.32	-177.05	3,890.73	4,022.27	3,989.16	33.10	121.513	
6,901.27	6,890.00	6,738.74	6,728.12	24.27	23.62	89.36	-189.93	3,896.78	4,026.84	3,993.09	33.75	119.297	
7,000.00	6,988.73	6,914.62	6,903.78	24.61	24.24	89.47	-197.73	3,900.45	4,028.86	3,994.41	34.44	116.976	
7,100.00	7,088.73	7,058.28	7,047.43	24.95	24.74	89.49	-198.89	3,901.00	4,029.16	3,994.12	35.04	114.991	
7,200.00	7,188.73	7,158.28	7,147.43	25.30	25.09	89.49	-198.89	3,901.00	4,029.16	3,993.63	35.53	113.398	
7,300.00	7,288.73	7,258.28	7,247.43	25.64	25.44	89.49	-198.89	3,901.00	4,029.16	3,993.13	36.02	111.848	
7,400.00	7,388.73	7,358.28	7,347.43	25.99	25.79	89.49	-198.89	3,901.00	4,029.16	3,992.64	36.52	110.339	
7,500.00	7,488.73	7,458.28	7,447.43	26.33	26.14	89.49	-198.89	3,901.00	4,029.16	3,992.15	37.01	108.868	
7,600.00	7,588.73	7,558.28	7,547.43	26.68	26.49	89.49	-198.89	3,901.00	4,029.16	3,991.65	37.50	107.435	
7,700.00	7,688.73	7,658.28	7,647.43	27.03	26.84	89.49	-198.89	3,901.00	4,029.16	3,991.16	38.00	106.039	
7,800.00	7,788.73	7,758.28	7,747.43	27.37	27.19	89.49	-198.89	3,901.00	4,029.16	3,990.67	38.49	104.677	
7,900.00	7,888.73	7,858.28	7,847.43	27.72	27.54	89.49	-198.89	3,901.00	4,029.16	3,990.17	38.99	103.349	
8,000.00	7,988.73	7,958.28	7,947.43	28.07	27.90	89.49	-198.89	3,901.00	4,029.16	3,989.68	39.48	102.054	
8,100.00	8,088.73	8,058.28	8,047.43	28.41	28.25	89.49	-198.89	3,901.00	4,029.16	3,989.18	39.98	100.789	
8,200.00	8,188.73	8,158.28	8,147.43	28.76	28.60	89.49	-198.89	3,901.00	4,029.16	3,988.69	40.47	99.555	
8,300.00	8,288.73	8,258.28	8,247.43	29.11	28.95	89.49	-198.89	3,901.00	4,029.16	3,988.19	40.97	98.351	
8,400.00	8,388.73	8,358.28	8,347.43	29.46	29.30	89.49	-198.89	3,901.00	4,029.16	3,987.69	41.46	97.174	
8,500.00	8,488.73	8,458.28	8,447.43	29.81	29.66	89.49	-198.89	3,901.00	4,029.16	3,987.20	41.96	96.025	
8,600.00	8,588.73	8,558.28	8,547.43	30.16	30.01	89.49	-198.89	3,901.00	4,029.16	3,986.70	42.46	94.901	
8,700.00	8,688.73	8,658.28	8,647.43	30.51	30.36	89.49	-198.89	3,901.00	4,029.16	3,986.20	42.95	93.804	
8,800.00	8,788.73	8,758.28	8,747.43	30.86	30.71	89.49	-198.89	3,901.00	4,029.16	3,985.71	43.45	92.731	
8,900.00	8,888.73	8,858.28	8,847.43	31.20	31.07	89.49	-198.89	3,901.00	4,029.16	3,985.21	43.95	91.681	
9,000.00	8,988.73	8,958.28	8,947.43	31.55	31.42	89.49	-198.89	3,901.00	4,029.16	3,984.71	44.44	90.655	
9,100.00	9,088.73	9,058.28	9,047.43	31.90	31.77	89.49	-198.89	3,901.00	4,029.16	3,984.22	44.94	89.651	
9,200.00	9,188.73	9,158.28	9,147.43	32.25	32.13	89.49	-198.89	3,901.00	4,029.16	3,983.72	45.44	88.669	
9,300.00	9,288.73	9,258.28	9,247.43	32.60	32.48	89.49	-198.89	3,901.00	4,029.16	3,983.22	45.94	87.708	
9,400.00	9,388.73	9,358.28	9,347.43	32.96	32.83	89.49	-198.89	3,901.00	4,029.16	3,982.72	46.44	86.766	
9,500.00	9,488.73	9,458.28	9,447.43	33.31	33.19	89.49	-198.89	3,901.00	4,029.16	3,982.22	46.94	85.845	
9,600.00	9,588.73	9,558.28	9,547.43	33.66	33.54	89.49	-198.89	3,901.00	4,029.16	3,981.72	47.43	84.942	
9,700.00	9,688.73	9,658.28	9,647.43	34.01	33.90	89.49	-198.89	3,901.00	4,029.16	3,981.22	47.93	84.058	
9,800.00	9,788.73	9,758.28	9,747.43	34.36	34.25	89.49	-198.89	3,901.00	4,029.16	3,980.73	48.43	83.192	
9,900.00	9,888.73	9,858.28	9,847.43	34.71	34.60	89.49	-198.89	3,901.00	4,029.16	3,980.23	48.93	82.344	
10,000.00	9,988.73	9,958.28	9,947.43	35.06	34.96	89.49	-198.89	3,901.00	4,029.16	3,979.73	49.43	81.512	
10,100.00	10,088.73	10,058.28	10,047.43	35.41	35.31	89.49	-198.89	3,901.00	4,029.16	3,979.23	49.93	80.696	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
10,200.00	10,188.73	10,158.28	10,147.43	35.76	35.67	89.49	-198.89	3,901.00	4,029.16	3,978.73	50.43	79.897	
10,300.00	10,288.73	10,258.28	10,247.43	36.12	36.02	89.49	-198.89	3,901.00	4,029.16	3,978.23	50.93	79.113	
10,400.00	10,388.73	10,358.28	10,347.43	36.47	36.38	89.49	-198.89	3,901.00	4,029.16	3,977.73	51.43	78.344	
10,500.00	10,488.73	10,458.28	10,447.43	36.82	36.73	89.49	-198.89	3,901.00	4,029.16	3,977.23	51.93	77.589	
10,600.00	10,588.73	10,558.28	10,547.43	37.17	37.08	89.49	-198.89	3,901.00	4,029.16	3,976.73	52.43	76.849	
10,700.00	10,688.73	10,658.28	10,647.43	37.52	37.44	89.49	-198.89	3,901.00	4,029.16	3,976.23	52.93	76.123	
10,800.00	10,788.73	10,758.28	10,747.43	37.88	37.79	89.49	-198.89	3,901.00	4,029.16	3,975.73	53.43	75.410	
10,900.00	10,888.73	10,858.28	10,847.43	38.23	38.15	89.49	-198.89	3,901.00	4,029.16	3,975.23	53.93	74.710	
11,000.00	10,988.73	10,958.28	10,947.43	38.58	38.50	89.49	-198.89	3,901.00	4,029.16	3,974.73	54.43	74.023	
11,097.80	11,086.53	11,056.08	11,045.23	38.93	38.85	89.48	-198.42	3,900.99	4,029.16	3,974.24	54.92	73.363	
11,100.00	11,088.73	11,058.29	11,047.43	38.94	38.86	89.48	-198.33	3,900.99	4,029.16	3,974.23	54.93	73.349	
11,100.05	11,088.78	11,058.33	11,047.47	38.94	38.86	89.48	-198.33	3,900.99	4,029.16	3,974.23	54.93	73.349	
11,200.00	11,188.73	11,156.43	11,144.63	39.29	39.19	89.30	-185.62	3,900.88	4,029.18	3,973.76	55.41	72.709	
11,243.27	11,232.00	11,197.04	11,183.95	39.44	39.32	89.15	-175.53	3,900.78	4,029.23	3,973.61	55.61	72.450	
11,250.00	11,238.73	11,203.23	11,189.88	39.46	39.34	89.62	-173.75	3,900.77	4,029.24	3,973.60	55.64	72.410	
11,300.00	11,288.64	11,250.00	11,233.99	39.64	39.48	89.43	-158.23	3,900.63	4,029.35	3,973.48	55.87	72.124	
11,350.00	11,338.12	11,293.20	11,273.49	39.80	39.61	89.25	-140.75	3,900.47	4,029.50	3,973.43	56.07	71.862	
11,400.00	11,386.78	11,336.93	11,312.01	39.96	39.72	89.07	-120.08	3,900.28	4,029.69	3,973.42	56.27	71.613	
11,450.00	11,434.28	11,379.93	11,348.24	40.11	39.84	88.89	-96.95	3,900.07	4,029.91	3,973.45	56.46	71.379	
11,500.00	11,480.23	11,422.27	11,382.12	40.25	39.94	88.73	-71.58	3,899.84	4,030.15	3,973.51	56.64	71.158	
11,550.00	11,524.29	11,464.02	11,413.61	40.39	40.04	88.57	-44.18	3,899.59	4,030.40	3,973.59	56.81	70.950	
11,600.00	11,566.13	11,505.25	11,442.67	40.51	40.14	88.42	-14.94	3,899.33	4,030.66	3,973.69	56.97	70.752	
11,650.00	11,605.42	11,550.00	11,471.74	40.62	40.24	88.27	19.07	3,899.02	4,030.93	3,973.80	57.13	70.553	
11,700.00	11,641.87	11,586.35	11,493.34	40.73	40.33	88.15	48.29	3,898.75	4,031.19	3,973.91	57.28	70.380	
11,750.00	11,675.21	11,626.33	11,514.90	40.84	40.42	88.04	81.94	3,898.45	4,031.44	3,974.01	57.43	70.202	
11,800.00	11,705.17	11,665.99	11,533.93	40.95	40.52	87.94	116.74	3,898.13	4,031.67	3,974.09	57.57	70.026	
11,850.00	11,731.53	11,705.39	11,550.40	41.06	40.61	87.85	152.52	3,897.81	4,031.88	3,974.16	57.72	69.852	
11,900.00	11,754.09	11,744.56	11,564.30	41.17	40.71	87.77	189.13	3,897.47	4,032.06	3,974.19	57.87	69.677	
11,950.00	11,772.67	11,783.54	11,575.61	41.28	40.81	87.71	226.43	3,897.13	4,032.21	3,974.19	58.02	69.501	
12,000.00	11,787.14	11,822.38	11,584.34	41.40	40.91	87.66	264.26	3,896.79	4,032.32	3,974.15	58.17	69.322	
12,050.00	11,797.38	11,861.12	11,590.47	41.52	41.01	87.63	302.50	3,896.44	4,032.39	3,974.07	58.32	69.140	
12,100.00	11,803.33	11,900.00	11,594.02	41.65	41.11	87.61	341.21	3,896.09	4,032.43	3,973.95	58.48	68.955	
12,152.81	11,804.88	11,941.84	11,594.89	41.78	41.22	87.60	383.03	3,895.71	4,032.42	3,973.77	58.65	68.751	
12,200.00	11,804.09	11,987.40	11,594.17	41.91	41.35	87.60	428.59	3,895.30	4,032.40	3,973.56	58.84	68.533	
12,300.00	11,802.43	12,087.40	11,592.60	42.24	41.69	87.60	528.57	3,894.39	4,032.35	3,973.04	59.31	67.992	
12,400.00	11,800.76	12,187.40	11,591.03	42.62	42.09	87.61	628.55	3,893.48	4,032.30	3,972.44	59.86	67.362	
12,500.00	11,799.10	12,287.40	11,589.46	43.07	42.55	87.61	728.54	3,892.58	4,032.25	3,971.75	60.50	66.649	
12,600.00	11,797.43	12,387.40	11,587.89	43.57	43.07	87.61	828.52	3,891.67	4,032.20	3,970.98	61.22	65.863	
12,700.00	11,795.77	12,487.40	11,586.32	44.13	43.65	87.61	928.51	3,890.76	4,032.15	3,970.13	62.02	65.011	
12,800.00	11,794.10	12,587.40	11,584.76	44.75	44.28	87.61	1,028.49	3,889.85	4,032.10	3,969.20	62.90	64.103	
12,900.00	11,792.44	12,687.40	11,583.19	45.41	44.96	87.61	1,128.47	3,888.95	4,032.05	3,968.20	63.85	63.148	
13,000.00	11,790.77	12,787.40	11,581.62	46.13	45.69	87.61	1,228.46	3,888.04	4,032.00	3,967.13	64.87	62.153	
13,100.00	11,789.11	12,887.40	11,580.05	46.89	46.47	87.62	1,328.44	3,887.13	4,031.95	3,965.99	65.96	61.128	
13,200.00	11,787.44	12,987.40	11,578.48	47.70	47.29	87.62	1,428.42	3,886.22	4,031.90	3,964.79	67.11	60.078	
13,300.00	11,785.78	13,087.40	11,576.91	48.55	48.15	87.62	1,528.41	3,885.31	4,031.85	3,963.53	68.32	59.012	
13,400.00	11,784.11	13,187.40	11,575.34	49.44	49.06	87.62	1,628.39	3,884.41	4,031.80	3,962.21	69.59	57.935	
13,500.00	11,782.45	13,287.40	11,573.77	50.37	50.00	87.62	1,728.37	3,883.50	4,031.76	3,960.84	70.92	56.853	
13,600.00	11,780.78	13,387.40	11,572.20	51.33	50.98	87.62	1,828.36	3,882.59	4,031.71	3,959.42	72.29	55.772	
13,700.00	11,779.12	13,487.40	11,570.63	52.33	52.00	87.62	1,928.34	3,881.68	4,031.66	3,957.94	73.71	54.694	
13,800.00	11,777.45	13,587.40	11,569.06	53.37	53.04	87.62	2,028.32	3,880.78	4,031.61	3,956.43	75.18	53.626	
13,900.00	11,775.79	13,687.40	11,567.49	54.43	54.12	87.63	2,128.31	3,879.87	4,031.56	3,954.87	76.69	52.568	
14,000.00	11,774.13	13,787.40	11,565.92	55.52	55.22	87.63	2,228.29	3,878.96	4,031.51	3,953.26	78.24	51.525	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
14,100.00	11,772.46	13,887.40	11,564.35	56.64	56.36	87.63	2,328.27	3,878.05	4,031.46	3,951.62	79.83	50.498	
14,200.00	11,770.80	13,987.40	11,562.78	57.78	57.51	87.63	2,428.26	3,877.14	4,031.41	3,949.95	81.46	49.490	
14,300.00	11,769.13	14,087.40	11,561.21	58.95	58.69	87.63	2,528.24	3,876.24	4,031.36	3,948.24	83.12	48.501	
14,400.00	11,767.47	14,187.40	11,559.64	60.14	59.89	87.63	2,628.22	3,875.33	4,031.31	3,946.50	84.81	47.533	
14,500.00	11,765.80	14,287.40	11,558.07	61.35	61.12	87.63	2,728.21	3,874.42	4,031.26	3,944.73	86.53	46.587	
14,600.00	11,764.14	14,387.40	11,556.50	62.59	62.36	87.64	2,828.19	3,873.51	4,031.21	3,942.93	88.28	45.663	
14,700.00	11,762.47	14,487.40	11,554.93	63.84	63.62	87.64	2,928.18	3,872.61	4,031.16	3,941.10	90.06	44.762	
14,800.00	11,760.81	14,587.40	11,553.37	65.11	64.90	87.64	3,028.16	3,871.70	4,031.11	3,939.25	91.86	43.884	
14,900.00	11,759.14	14,687.40	11,551.80	66.39	66.20	87.64	3,128.14	3,870.79	4,031.06	3,937.38	93.68	43.029	
15,000.00	11,757.48	14,787.40	11,550.23	67.69	67.51	87.64	3,228.13	3,869.88	4,031.01	3,935.48	95.53	42.197	
15,100.00	11,755.81	14,887.40	11,548.66	69.01	68.84	87.64	3,328.11	3,868.98	4,030.96	3,933.57	97.40	41.387	
15,200.00	11,754.15	14,987.40	11,547.09	70.34	70.18	87.64	3,428.09	3,868.07	4,030.91	3,931.63	99.28	40.600	
15,300.00	11,752.48	15,087.40	11,545.52	71.69	71.53	87.64	3,528.08	3,867.16	4,030.86	3,929.67	101.19	39.835	
15,400.00	11,750.82	15,187.40	11,543.95	73.04	72.89	87.65	3,628.06	3,866.25	4,030.81	3,927.70	103.11	39.091	
15,500.00	11,749.15	15,287.40	11,542.38	74.41	74.27	87.65	3,728.04	3,865.34	4,030.77	3,925.71	105.05	38.368	
15,600.00	11,747.49	15,387.40	11,540.81	75.79	75.66	87.65	3,828.03	3,864.44	4,030.72	3,923.71	107.01	37.667	
15,700.00	11,745.82	15,487.40	11,539.24	77.18	77.06	87.65	3,928.01	3,863.53	4,030.67	3,921.69	108.98	36.985	
15,800.00	11,744.16	15,587.40	11,537.67	78.58	78.46	87.65	4,027.99	3,862.62	4,030.62	3,919.65	110.97	36.323	
15,900.00	11,742.49	15,687.40	11,536.10	79.99	79.88	87.65	4,127.98	3,861.71	4,030.57	3,917.60	112.97	35.680	
16,000.00	11,740.83	15,787.40	11,534.53	81.41	81.31	87.65	4,227.96	3,860.81	4,030.52	3,915.54	114.98	35.055	
16,100.00	11,739.16	15,887.40	11,532.96	82.84	82.74	87.66	4,327.94	3,859.90	4,030.47	3,913.47	117.00	34.449	
16,200.00	11,737.50	15,987.40	11,531.39	84.28	84.19	87.66	4,427.93	3,858.99	4,030.42	3,911.39	119.03	33.859	
16,300.00	11,735.83	16,087.40	11,529.82	85.72	85.64	87.66	4,527.91	3,858.08	4,030.37	3,909.29	121.08	33.287	
16,400.00	11,734.17	16,187.40	11,528.25	87.17	87.09	87.66	4,627.89	3,857.17	4,030.32	3,907.19	123.14	32.731	
16,500.00	11,732.50	16,287.40	11,526.68	88.63	88.56	87.66	4,727.88	3,856.27	4,030.27	3,905.07	125.20	32.190	
16,600.00	11,730.84	16,387.40	11,525.11	90.10	90.03	87.66	4,827.86	3,855.36	4,030.22	3,902.95	127.28	31.665	
16,700.00	11,729.17	16,487.40	11,523.54	91.57	91.50	87.66	4,927.85	3,854.45	4,030.17	3,900.81	129.36	31.155	
16,800.00	11,727.51	16,587.40	11,521.98	93.04	92.99	87.66	5,027.83	3,853.54	4,030.12	3,898.67	131.45	30.659	
16,900.00	11,725.84	16,687.40	11,520.41	94.53	94.48	87.67	5,127.81	3,852.64	4,030.07	3,896.52	133.55	30.176	
17,000.00	11,724.18	16,787.40	11,518.84	96.02	95.97	87.67	5,227.80	3,851.73	4,030.02	3,894.36	135.66	29.707	
17,100.00	11,722.51	16,887.40	11,517.27	97.51	97.47	87.67	5,327.78	3,850.82	4,029.97	3,892.20	137.77	29.251	
17,200.00	11,720.85	16,987.40	11,515.70	99.01	98.97	87.67	5,427.76	3,849.91	4,029.93	3,890.03	139.90	28.807	
17,300.00	11,719.18	17,087.40	11,514.13	100.51	100.48	87.67	5,527.75	3,849.01	4,029.88	3,887.85	142.03	28.374	
17,400.00	11,717.52	17,187.40	11,512.56	102.02	101.99	87.67	5,627.73	3,848.10	4,029.83	3,885.67	144.16	27.954	
17,500.00	11,715.85	17,287.40	11,510.99	103.53	103.51	87.67	5,727.71	3,847.19	4,029.78	3,883.48	146.30	27.544	
17,600.00	11,714.19	17,387.40	11,509.42	105.05	105.03	87.68	5,827.70	3,846.28	4,029.73	3,881.28	148.45	27.146	
17,700.00	11,712.52	17,487.40	11,507.85	106.57	106.56	87.68	5,927.68	3,845.37	4,029.68	3,879.08	150.60	26.757	
17,800.00	11,710.86	17,587.40	11,506.28	108.10	108.08	87.68	6,027.66	3,844.47	4,029.63	3,876.87	152.76	26.379	
17,900.00	11,709.19	17,687.40	11,504.71	109.63	109.62	87.68	6,127.65	3,843.56	4,029.58	3,874.66	154.92	26.010	
18,000.00	11,707.53	17,787.40	11,503.14	111.16	111.15	87.68	6,227.63	3,842.65	4,029.53	3,872.44	157.09	25.651	
18,100.00	11,705.86	17,887.40	11,501.57	112.69	112.69	87.68	6,327.61	3,841.74	4,029.48	3,870.22	159.26	25.301	
18,200.00	11,704.20	17,987.40	11,500.00	114.23	114.23	87.68	6,427.60	3,840.84	4,029.43	3,867.99	161.44	24.959	
18,300.00	11,702.54	18,087.40	11,498.43	115.77	115.78	87.68	6,527.58	3,839.93	4,029.38	3,865.76	163.62	24.626	
18,400.00	11,700.87	18,187.40	11,496.86	117.32	117.33	87.69	6,627.57	3,839.02	4,029.33	3,863.52	165.81	24.301	
18,500.00	11,699.21	18,287.40	11,495.29	118.87	118.88	87.69	6,727.55	3,838.11	4,029.28	3,861.29	168.00	23.984	
18,600.00	11,697.54	18,387.40	11,493.72	120.42	120.43	87.69	6,827.53	3,837.20	4,029.23	3,859.04	170.19	23.675	
18,700.00	11,695.88	18,487.40	11,492.15	121.97	121.99	87.69	6,927.52	3,836.30	4,029.18	3,856.80	172.39	23.373	
18,800.00	11,694.21	18,587.40	11,490.59	123.52	123.55	87.69	7,027.50	3,835.39	4,029.13	3,854.55	174.59	23.078	
18,900.00	11,692.55	18,687.40	11,489.02	125.08	125.11	87.69	7,127.48	3,834.48	4,029.09	3,852.29	176.79	22.790	
19,000.00	11,690.88	18,787.40	11,487.45	126.64	126.67	87.69	7,227.47	3,833.57	4,029.04	3,850.03	179.00	22.508	
19,100.00	11,689.22	18,887.40	11,485.88	128.21	128.24	87.70	7,327.45	3,832.67	4,028.99	3,847.77	181.21	22.234	
19,200.00	11,687.55	18,987.40	11,484.31	129.77	129.80	87.70	7,427.43	3,831.76	4,028.94	3,845.51	183.43	21.965	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
19,300.00	11,685.89	19,087.40	11,482.74	131.34	131.37	87.70	7,527.42	3,830.85	4,028.89	3,843.25	185.64	21.702	
19,400.00	11,684.22	19,187.40	11,481.17	132.91	132.95	87.70	7,627.40	3,829.94	4,028.84	3,840.98	187.86	21.446	
19,500.00	11,682.56	19,287.40	11,479.60	134.48	134.52	87.70	7,727.38	3,829.04	4,028.79	3,838.70	190.09	21.195	
19,600.00	11,680.89	19,387.40	11,478.03	136.05	136.09	87.70	7,827.37	3,828.13	4,028.74	3,836.43	192.31	20.949	
19,700.00	11,679.23	19,487.40	11,476.46	137.63	137.67	87.70	7,927.35	3,827.22	4,028.69	3,834.15	194.54	20.709	
19,800.00	11,677.56	19,587.40	11,474.89	139.20	139.25	87.70	8,027.33	3,826.31	4,028.64	3,831.87	196.77	20.474	
19,900.00	11,675.90	19,687.40	11,473.32	140.78	140.83	87.71	8,127.32	3,825.40	4,028.59	3,829.59	199.00	20.244	
20,000.00	11,674.23	19,787.40	11,471.75	142.36	142.41	87.71	8,227.30	3,824.50	4,028.54	3,827.31	201.24	20.019	
20,100.00	11,672.57	19,887.40	11,470.18	143.94	144.00	87.71	8,327.28	3,823.59	4,028.49	3,825.02	203.47	19.799	
20,200.00	11,670.90	19,987.40	11,468.61	145.52	145.58	87.71	8,427.27	3,822.68	4,028.44	3,822.73	205.71	19.583	
20,300.00	11,669.24	20,087.40	11,467.04	147.11	147.17	87.71	8,527.25	3,821.77	4,028.39	3,820.44	207.95	19.372	
20,400.00	11,667.57	20,187.40	11,465.47	148.70	148.76	87.71	8,627.24	3,820.87	4,028.34	3,818.15	210.20	19.165	
20,500.00	11,665.91	20,287.40	11,463.90	150.28	150.35	87.71	8,727.22	3,819.96	4,028.30	3,815.85	212.44	18.962	
20,600.00	11,664.24	20,387.40	11,462.33	151.87	151.94	87.72	8,827.20	3,819.05	4,028.25	3,813.56	214.69	18.763	
20,700.00	11,662.58	20,487.40	11,460.76	153.46	153.53	87.72	8,927.19	3,818.14	4,028.20	3,811.26	216.94	18.568	
20,800.00	11,660.91	20,587.40	11,459.20	155.05	155.12	87.72	9,027.17	3,817.24	4,028.15	3,808.96	219.19	18.377	
20,900.00	11,659.25	20,687.40	11,457.63	156.65	156.72	87.72	9,127.15	3,816.33	4,028.10	3,806.66	221.44	18.190	
21,000.00	11,657.58	20,787.40	11,456.06	158.24	158.31	87.72	9,227.14	3,815.42	4,028.05	3,804.35	223.70	18.007	
21,100.00	11,655.92	20,887.40	11,454.49	159.84	159.91	87.72	9,327.12	3,814.51	4,028.00	3,802.05	225.95	17.827	
21,200.00	11,654.25	20,987.40	11,452.92	161.43	161.51	87.72	9,427.10	3,813.60	4,027.95	3,799.74	228.21	17.650	
21,300.00	11,652.59	21,087.40	11,451.35	163.03	163.11	87.72	9,527.09	3,812.70	4,027.90	3,797.43	230.47	17.477	
21,400.00	11,650.92	21,187.40	11,449.78	164.63	164.71	87.73	9,627.07	3,811.79	4,027.85	3,795.12	232.73	17.307	
21,500.00	11,649.26	21,287.40	11,448.21	166.23	166.31	87.73	9,727.05	3,810.88	4,027.80	3,792.81	234.99	17.140	
21,600.00	11,647.59	21,387.40	11,446.64	167.83	167.91	87.73	9,827.04	3,809.97	4,027.75	3,790.50	237.26	16.976	
21,700.00	11,645.93	21,487.40	11,445.07	169.43	169.52	87.73	9,927.02	3,809.07	4,027.70	3,788.18	239.52	16.816	
21,800.00	11,644.26	21,587.40	11,443.50	171.03	171.12	87.73	10,027.00	3,808.16	4,027.65	3,785.87	241.79	16.658	
21,900.00	11,642.60	21,687.40	11,441.93	172.63	172.72	87.73	10,126.99	3,807.25	4,027.61	3,783.55	244.05	16.503	
21,929.37	11,642.11	21,716.77	11,441.47	173.11	173.20	87.73	10,156.35	3,806.98	4,027.59	3,782.87	244.72	16.458	ES, SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
0.00	0.00	0.00	0.00	0.00	0.00	89.98	1.44	3,841.99	3,842.21				
100.00	100.00	58.70	58.70	0.13	0.08	89.98	1.44	3,841.99	3,841.99	3,841.84	0.15	N/A	
200.00	200.00	158.70	158.70	0.48	0.35	89.98	1.44	3,841.99	3,841.99	3,841.39	0.60	6,420.163	
300.00	300.00	258.70	258.70	0.84	0.71	89.98	1.44	3,841.99	3,841.99	3,840.88	1.10	3,486.311	
400.00	400.00	358.70	358.70	1.20	1.07	89.98	1.44	3,841.99	3,841.99	3,840.38	1.61	2,389.697	
500.00	500.00	458.70	458.70	1.56	1.43	89.98	1.44	3,841.99	3,841.99	3,839.87	2.11	1,817.371	
600.00	600.00	558.70	558.70	1.92	1.79	89.98	1.44	3,841.99	3,841.99	3,839.37	2.62	1,466.075	
700.00	700.00	658.70	658.70	2.28	2.14	89.98	1.44	3,841.99	3,841.99	3,838.86	3.13	1,228.540	
800.00	800.00	758.70	758.70	2.63	2.50	89.98	1.44	3,841.99	3,841.99	3,838.35	3.63	1,057.222	
900.00	900.00	858.70	858.70	2.99	2.86	89.98	1.44	3,841.99	3,841.99	3,837.84	4.14	927.826	
1,000.00	1,000.00	958.70	958.70	3.35	3.22	89.98	1.44	3,841.99	3,841.99	3,837.34	4.65	826.644	
1,100.00	1,100.00	1,058.70	1,058.70	3.71	3.58	89.98	1.44	3,841.99	3,841.99	3,836.83	5.15	745.358	
1,200.00	1,200.00	1,158.70	1,158.70	4.07	3.94	89.98	1.44	3,841.99	3,841.99	3,836.32	5.66	678.624	
1,300.00	1,300.00	1,258.70	1,258.70	4.43	4.30	89.98	1.44	3,841.99	3,841.99	3,835.82	6.17	622.857	
1,400.00	1,400.00	1,358.70	1,358.70	4.79	4.65	89.98	1.44	3,841.99	3,841.99	3,835.31	6.68	575.559	
1,500.00	1,500.00	1,458.70	1,458.70	5.14	5.01	89.98	1.44	3,841.99	3,841.99	3,834.80	7.18	534.936	
1,600.00	1,600.00	1,558.70	1,558.70	5.50	5.37	89.98	1.44	3,841.99	3,841.99	3,834.30	7.69	499.670	
1,700.00	1,700.00	1,658.70	1,658.70	5.86	5.73	89.98	1.44	3,841.99	3,841.99	3,833.79	8.20	468.765	
1,800.00	1,800.00	1,758.70	1,758.70	6.22	6.09	89.98	1.44	3,841.99	3,841.99	3,833.28	8.70	441.461	
1,900.00	1,900.00	1,858.70	1,858.70	6.58	6.45	89.98	1.44	3,841.99	3,841.99	3,832.78	9.21	417.162	
2,000.00	2,000.00	1,958.70	1,958.70	6.94	6.80	89.98	1.44	3,841.99	3,841.99	3,832.27	9.72	395.398	
2,100.00	2,100.00	2,058.70	2,058.70	7.29	7.16	89.98	1.44	3,841.99	3,841.99	3,831.76	10.22	375.793	
2,200.00	2,200.00	2,158.70	2,158.70	7.65	7.52	89.98	1.44	3,841.99	3,841.99	3,831.26	10.73	358.039	
2,300.00	2,300.00	2,258.70	2,258.70	8.01	7.88	89.98	1.44	3,841.99	3,841.99	3,830.75	11.24	341.888	
2,400.00	2,400.00	2,358.70	2,358.70	8.37	8.24	89.98	1.44	3,841.99	3,841.99	3,830.24	11.74	327.131	
2,500.00	2,500.00	2,458.70	2,458.70	8.73	8.60	89.98	1.44	3,841.99	3,841.99	3,829.73	12.25	313.595	
2,600.00	2,600.00	2,558.70	2,558.70	9.09	8.96	89.98	1.44	3,841.99	3,841.99	3,829.23	12.76	301.134	
2,700.00	2,700.00	2,658.70	2,658.70	9.45	9.31	89.98	1.44	3,841.99	3,841.99	3,828.72	13.27	289.626	
2,800.00	2,800.00	2,758.70	2,758.70	9.80	9.67	89.98	1.44	3,841.99	3,841.99	3,828.21	13.77	278.965	
2,900.00	2,900.00	2,858.70	2,858.70	10.16	10.03	89.98	1.44	3,841.99	3,841.99	3,827.71	14.28	269.062	
3,000.00	3,000.00	2,958.70	2,958.70	10.52	10.39	89.98	1.44	3,841.99	3,841.99	3,827.20	14.79	259.837	
3,009.29	3,009.29	2,967.99	2,967.99	10.55	10.42	89.98	1.44	3,841.99	3,841.99	3,827.15	14.83	259.012 CC	
3,100.00	3,100.00	3,031.25	3,031.25	10.88	10.65	89.98	1.38	3,842.10	3,842.20	3,826.97	15.22	252.431 ES	
3,200.00	3,200.00	3,100.00	3,099.99	11.24	10.88	89.99	0.80	3,843.13	3,843.58	3,827.94	15.64	245.725	
3,300.00	3,300.00	3,137.66	3,137.63	11.60	11.01	90.00	0.23	3,844.15	3,846.06	3,830.08	15.98	240.649	
3,400.00	3,400.00	3,200.00	3,199.91	11.96	11.22	90.02	-1.11	3,846.56	3,849.83	3,833.45	16.38	235.035	
3,500.00	3,500.00	3,243.85	3,243.69	12.31	11.36	90.03	-2.35	3,848.78	3,854.78	3,838.05	16.73	230.386	
3,600.00	3,599.99	3,300.00	3,299.69	12.65	11.55	-118.43	-4.29	3,852.27	3,861.59	3,844.49	17.10	225.832	
3,700.00	3,699.91	3,364.36	3,363.82	12.98	11.77	-118.31	-6.95	3,857.04	3,870.79	3,853.31	17.47	221.510	
3,800.00	3,799.69	3,463.77	3,462.85	13.31	12.11	-118.19	-11.16	3,864.60	3,881.50	3,863.56	17.94	216.360	
3,833.60	3,833.18	3,497.13	3,496.08	13.42	12.22	-118.15	-12.58	3,867.14	3,885.38	3,867.28	18.10	214.699	
3,900.00	3,899.32	3,563.03	3,561.73	13.64	12.45	-118.18	-15.37	3,872.15	3,893.18	3,874.77	18.41	211.498	
4,000.00	3,998.94	3,662.27	3,660.60	13.97	12.79	-118.24	-19.58	3,879.70	3,904.93	3,886.05	18.88	206.850	
4,100.00	4,098.56	3,761.52	3,759.47	14.30	13.14	-118.29	-23.78	3,887.25	3,916.68	3,897.33	19.35	202.397	
4,200.00	4,198.18	3,860.77	3,858.34	14.64	13.49	-118.34	-27.99	3,894.80	3,928.43	3,908.61	19.83	198.128	
4,300.00	4,297.80	3,960.02	3,957.21	14.98	13.83	-118.39	-32.19	3,902.35	3,940.19	3,919.88	20.31	194.036	
4,400.00	4,397.42	4,059.27	4,056.09	15.32	14.19	-118.44	-36.40	3,909.90	3,951.95	3,931.16	20.79	190.110	
4,500.00	4,497.04	4,158.51	4,154.96	15.66	14.54	-118.49	-40.60	3,917.45	3,963.71	3,942.44	21.27	186.342	
4,600.00	4,596.66	4,257.76	4,253.83	16.01	14.89	-118.54	-44.81	3,925.00	3,975.48	3,953.72	21.76	182.724	
4,700.00	4,696.27	4,357.01	4,352.70	16.36	15.25	-118.58	-49.01	3,932.55	3,987.25	3,965.00	22.24	179.248	
4,800.00	4,795.89	4,456.26	4,451.57	16.71	15.60	-118.63	-53.22	3,940.10	3,999.02	3,976.29	22.73	175.908	
4,900.00	4,895.51	4,555.50	4,550.44	17.06	15.96	-118.68	-57.43	3,947.65	4,010.79	3,987.57	23.22	172.695	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
5,000.00	4,995.13	4,654.75	4,649.31	17.41	16.32	-118.73	-61.63	3,955.20	4,022.57	3,998.85	23.72	169.604	
5,100.00	5,094.75	4,754.00	4,748.18	17.76	16.68	-118.78	-65.84	3,962.74	4,034.35	4,010.14	24.21	166.629	
5,200.00	5,194.37	4,853.25	4,847.05	18.12	17.04	-118.82	-70.04	3,970.29	4,046.13	4,021.43	24.71	163.763	
5,300.00	5,293.99	4,952.50	4,945.92	18.48	17.40	-118.87	-74.25	3,977.84	4,057.92	4,032.72	25.20	161.001	
5,400.00	5,393.61	5,051.74	5,044.79	18.83	17.77	-118.92	-78.45	3,985.39	4,069.71	4,044.01	25.70	158.339	
5,500.00	5,493.22	5,150.99	5,143.66	19.19	18.13	-118.96	-82.66	3,992.94	4,081.50	4,055.30	26.20	155.771	
5,600.00	5,592.84	5,250.24	5,242.54	19.55	18.49	-119.01	-86.87	4,000.49	4,093.29	4,066.59	26.70	153.292	
5,700.00	5,692.46	5,349.49	5,341.41	19.91	18.86	-119.06	-91.07	4,008.04	4,105.09	4,077.88	27.20	150.899	
5,800.00	5,792.08	5,448.73	5,440.28	20.28	19.22	-119.10	-95.28	4,015.59	4,116.89	4,089.18	27.71	148.587	
5,900.00	5,891.70	5,547.98	5,539.15	20.64	19.59	-119.15	-99.48	4,023.14	4,128.69	4,100.48	28.21	146.353	
6,000.00	5,991.32	5,647.23	5,638.02	21.00	19.96	-119.19	-103.69	4,030.69	4,140.49	4,111.78	28.72	144.193	
6,100.00	6,090.94	5,746.48	5,736.89	21.37	20.32	-119.24	-107.89	4,038.24	4,152.30	4,123.08	29.22	142.103	
6,200.00	6,190.56	5,845.72	5,835.76	21.73	20.69	-119.28	-112.10	4,045.79	4,164.11	4,134.38	29.73	140.080	
6,300.00	6,290.18	5,944.97	5,934.63	22.10	21.06	-119.33	-116.31	4,053.34	4,175.92	4,145.69	30.23	138.122	
6,400.00	6,389.79	6,044.22	6,033.50	22.46	21.43	-119.37	-120.51	4,060.88	4,187.73	4,156.99	30.74	136.225	
6,500.00	6,489.41	6,143.47	6,132.37	22.83	21.80	-119.42	-124.72	4,068.43	4,199.55	4,168.30	31.25	134.387	
6,567.67	6,556.82	6,210.63	6,199.27	23.08	22.05	-119.45	-127.56	4,073.54	4,207.55	4,175.95	31.59	133.175	
6,600.00	6,589.04	6,242.73	6,231.25	23.20	22.17	-119.51	-128.92	4,075.98	4,211.30	4,179.54	31.76	132.604	
6,700.00	6,688.82	6,342.13	6,330.28	23.56	22.54	-119.67	-133.14	4,083.54	4,222.07	4,189.80	32.27	130.854	
6,800.00	6,788.74	6,441.68	6,429.45	23.92	22.91	-119.78	-137.35	4,091.12	4,231.54	4,198.77	32.77	129.132	
6,901.27	6,890.00	6,542.55	6,529.94	24.27	23.29	88.73	-141.63	4,098.79	4,239.82	4,206.55	33.28	127.417	
7,000.00	6,988.73	6,640.91	6,627.92	24.61	23.66	88.79	-145.80	4,106.27	4,247.25	4,213.48	33.77	125.783	
7,100.00	7,088.73	6,740.53	6,727.16	24.95	24.03	88.85	-150.02	4,113.85	4,254.77	4,220.51	34.26	124.174	
7,200.00	7,188.73	6,840.15	6,826.41	25.30	24.40	88.91	-154.24	4,121.43	4,262.30	4,227.54	34.76	122.609	
7,300.00	7,288.73	6,939.77	6,925.65	25.64	24.78	88.97	-158.46	4,129.00	4,269.83	4,234.57	35.26	121.088	
7,400.00	7,388.73	7,039.39	7,024.89	25.99	25.15	89.03	-162.68	4,136.58	4,277.37	4,241.61	35.76	119.607	
7,500.00	7,488.73	7,139.01	7,124.13	26.33	25.53	89.09	-166.90	4,144.16	4,284.91	4,248.65	36.26	118.167	
7,600.00	7,588.73	7,238.63	7,223.37	26.68	25.90	89.14	-171.13	4,151.74	4,292.46	4,255.70	36.76	116.764	
7,700.00	7,688.73	7,338.25	7,322.62	27.03	26.28	89.20	-175.35	4,159.31	4,300.01	4,262.75	37.26	115.398	
7,800.00	7,788.73	7,437.87	7,421.86	27.37	26.65	89.26	-179.57	4,166.89	4,307.57	4,269.81	37.76	114.068	
7,900.00	7,888.73	7,537.49	7,521.10	27.72	27.03	89.32	-183.79	4,174.47	4,315.13	4,276.87	38.26	112.771	
8,000.00	7,988.73	7,637.11	7,620.34	28.07	27.40	89.38	-188.01	4,182.05	4,322.69	4,283.93	38.77	111.507	
8,100.00	8,088.73	8,064.93	8,047.43	28.41	28.96	89.52	-198.56	4,200.99	4,329.14	4,289.00	40.14	107.841	
8,200.00	8,188.73	8,164.93	8,147.43	28.76	29.30	89.52	-198.56	4,200.99	4,329.14	4,288.51	40.63	106.543	
8,300.00	8,288.73	8,264.93	8,247.43	29.11	29.64	89.52	-198.56	4,200.99	4,329.14	4,288.02	41.12	105.275	
8,400.00	8,388.73	8,364.93	8,347.43	29.46	29.97	89.52	-198.56	4,200.99	4,329.14	4,287.53	41.61	104.036	
8,500.00	8,488.73	8,464.93	8,447.43	29.81	30.32	89.52	-198.56	4,200.99	4,329.14	4,287.04	42.10	102.825	
8,600.00	8,588.73	8,564.93	8,547.43	30.16	30.66	89.52	-198.56	4,200.99	4,329.14	4,286.55	42.59	101.640	
8,700.00	8,688.73	8,664.93	8,647.43	30.51	31.00	89.52	-198.56	4,200.99	4,329.14	4,286.06	43.08	100.482	
8,800.00	8,788.73	8,764.93	8,747.43	30.86	31.34	89.52	-198.56	4,200.99	4,329.14	4,285.56	43.57	99.349	
8,900.00	8,888.73	8,864.93	8,847.43	31.20	31.68	89.52	-198.56	4,200.99	4,329.14	4,285.07	44.07	98.241	
9,000.00	8,988.73	8,964.93	8,947.43	31.55	32.02	89.52	-198.56	4,200.99	4,329.14	4,284.58	44.56	97.156	
9,100.00	9,088.73	9,064.93	9,047.43	31.90	32.36	89.52	-198.56	4,200.99	4,329.14	4,284.09	45.05	96.094	
9,200.00	9,188.73	9,164.93	9,147.43	32.25	32.71	89.52	-198.56	4,200.99	4,329.14	4,283.59	45.54	95.054	
9,300.00	9,288.73	9,264.93	9,247.43	32.60	33.05	89.52	-198.56	4,200.99	4,329.14	4,283.10	46.04	94.037	
9,400.00	9,388.73	9,364.93	9,347.43	32.96	33.39	89.52	-198.56	4,200.99	4,329.14	4,282.61	46.53	93.040	
9,500.00	9,488.73	9,464.93	9,447.43	33.31	33.74	89.52	-198.56	4,200.99	4,329.14	4,282.12	47.02	92.063	
9,600.00	9,588.73	9,564.93	9,547.43	33.66	34.08	89.52	-198.56	4,200.99	4,329.14	4,281.62	47.52	91.106	
9,700.00	9,688.73	9,664.93	9,647.43	34.01	34.42	89.52	-198.56	4,200.99	4,329.14	4,281.13	48.01	90.168	
9,800.00	9,788.73	9,764.93	9,747.43	34.36	34.77	89.52	-198.56	4,200.99	4,329.14	4,280.63	48.51	89.249	
9,900.00	9,888.73	9,864.93	9,847.43	34.71	35.11	89.52	-198.56	4,200.99	4,329.14	4,280.14	49.00	88.348	
10,000.00	9,988.73	9,964.93	9,947.43	35.06	35.46	89.52	-198.56	4,200.99	4,329.14	4,279.64	49.50	87.465	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
10,100.00	10,088.73	10,064.93	10,047.43	35.41	35.80	89.52	-198.56	4,200.99	4,329.14	4,279.15	49.99	86.599	
10,200.00	10,188.73	10,164.93	10,147.43	35.76	36.15	89.52	-198.56	4,200.99	4,329.14	4,278.65	50.49	85.749	
10,300.00	10,288.73	10,264.93	10,247.43	36.12	36.50	89.52	-198.56	4,200.99	4,329.14	4,278.16	50.98	84.915	
10,400.00	10,388.73	10,364.93	10,347.43	36.47	36.84	89.52	-198.56	4,200.99	4,329.14	4,277.66	51.48	84.097	
10,500.00	10,488.73	10,464.93	10,447.43	36.82	37.19	89.52	-198.56	4,200.99	4,329.14	4,277.17	51.97	83.295	
10,600.00	10,588.73	10,564.93	10,547.43	37.17	37.54	89.52	-198.56	4,200.99	4,329.14	4,276.67	52.47	82.507	
10,700.00	10,688.73	10,664.93	10,647.43	37.52	37.88	89.52	-198.56	4,200.99	4,329.14	4,276.17	52.97	81.734	
10,800.00	10,788.73	10,764.93	10,747.43	37.88	38.23	89.52	-198.56	4,200.99	4,329.14	4,275.68	53.46	80.974	
10,900.00	10,888.73	10,864.93	10,847.43	38.23	38.58	89.52	-198.56	4,200.99	4,329.14	4,275.18	53.96	80.229	
11,000.00	10,988.73	10,964.93	10,947.43	38.58	38.92	89.52	-198.56	4,200.99	4,329.14	4,274.68	54.46	79.496	
11,100.00	11,088.73	11,064.93	11,047.43	38.94	39.27	89.52	-198.56	4,200.99	4,329.14	4,274.18	54.95	78.777	
11,200.00	11,188.73	11,164.93	11,147.43	39.29	39.62	89.52	-198.56	4,200.99	4,329.14	4,273.69	55.45	78.071	
11,243.27	11,232.00	11,208.29	11,190.79	39.44	39.77	89.51	-198.22	4,200.98	4,329.14	4,273.47	55.67	77.769	
11,250.00	11,238.73	11,215.05	11,197.54	39.46	39.79	90.00	-197.95	4,200.98	4,329.14	4,273.44	55.70	77.723	
11,300.00	11,288.64	11,265.15	11,247.41	39.64	39.96	89.98	-193.44	4,200.94	4,329.14	4,273.19	55.94	77.387	
11,350.00	11,338.12	11,315.09	11,296.56	39.80	40.12	89.96	-184.64	4,200.86	4,329.13	4,272.96	56.17	77.066	
11,400.00	11,386.78	11,364.88	11,344.61	39.96	40.28	89.94	-171.63	4,200.74	4,329.13	4,272.73	56.40	76.763	
11,450.00	11,434.28	11,414.53	11,391.21	40.11	40.42	89.91	-154.56	4,200.59	4,329.12	4,272.52	56.61	76.476	
11,500.00	11,480.23	11,464.03	11,436.03	40.25	40.55	89.89	-133.58	4,200.40	4,329.12	4,272.31	56.81	76.205	
11,550.00	11,524.29	11,513.40	11,478.76	40.39	40.67	89.87	-108.89	4,200.17	4,329.11	4,272.11	57.00	75.948	
11,600.00	11,566.13	11,562.63	11,519.10	40.51	40.78	89.85	-80.70	4,199.92	4,329.10	4,271.91	57.18	75.704	
11,650.00	11,605.42	11,611.73	11,556.78	40.62	40.87	89.84	-49.23	4,199.63	4,329.09	4,271.73	57.36	75.471	
11,700.00	11,641.87	11,660.72	11,591.55	40.73	40.95	89.82	-14.74	4,199.32	4,329.08	4,271.54	57.53	75.247	
11,750.00	11,675.21	11,709.60	11,623.17	40.84	41.01	89.80	22.50	4,198.98	4,329.06	4,271.36	57.70	75.029	
11,800.00	11,705.17	11,758.38	11,651.45	40.95	41.07	89.79	62.22	4,198.62	4,329.05	4,271.19	57.86	74.815	
11,850.00	11,731.53	11,807.06	11,676.21	41.06	41.11	89.78	104.12	4,198.24	4,329.03	4,271.01	58.03	74.604	
11,900.00	11,754.09	11,855.66	11,697.29	41.17	41.14	89.77	147.89	4,197.84	4,329.02	4,270.83	58.19	74.394	
11,950.00	11,772.67	11,904.19	11,714.57	41.28	41.25	89.76	193.23	4,197.43	4,329.00	4,270.64	58.36	74.182	
12,000.00	11,787.14	11,952.65	11,727.93	41.40	41.38	89.75	239.80	4,197.00	4,328.98	4,270.46	58.52	73.969	
12,050.00	11,797.38	12,001.07	11,737.30	41.52	41.51	89.74	287.28	4,196.57	4,328.96	4,270.27	58.69	73.754	
12,100.00	11,803.33	12,050.00	11,742.66	41.65	41.64	89.74	335.90	4,196.13	4,328.94	4,270.07	58.87	73.535	
12,152.81	11,804.88	12,100.61	11,743.84	41.78	41.79	89.74	386.48	4,195.67	4,328.92	4,269.86	59.06	73.300	
12,200.00	11,804.09	12,147.80	11,743.12	41.91	41.94	89.74	433.66	4,195.24	4,328.89	4,269.64	59.25	73.062	
12,300.00	11,802.43	12,247.80	11,741.58	42.24	42.29	89.74	533.65	4,194.34	4,328.85	4,269.13	59.71	72.494	
12,400.00	11,800.76	12,347.80	11,740.05	42.62	42.70	89.74	633.63	4,193.43	4,328.80	4,268.54	60.26	71.831	
12,500.00	11,799.10	12,447.80	11,738.51	43.07	43.16	89.75	733.61	4,192.52	4,328.76	4,267.86	60.90	71.081	
12,600.00	11,797.43	12,547.80	11,736.98	43.57	43.68	89.75	833.60	4,191.61	4,328.71	4,267.09	61.62	70.253	
12,700.00	11,795.77	12,647.80	11,735.45	44.13	44.25	89.75	933.58	4,190.71	4,328.66	4,266.25	62.41	69.355	
12,800.00	11,794.10	12,747.80	11,733.91	44.75	44.88	89.75	1,033.57	4,189.80	4,328.62	4,265.33	63.29	68.398	
12,900.00	11,792.44	12,847.80	11,732.38	45.41	45.56	89.75	1,133.55	4,188.89	4,328.57	4,264.34	64.23	67.390	
13,000.00	11,790.77	12,947.80	11,730.85	46.13	46.28	89.75	1,233.53	4,187.98	4,328.52	4,263.28	65.25	66.340	
13,100.00	11,789.11	13,047.80	11,729.31	46.89	47.05	89.76	1,333.52	4,187.07	4,328.48	4,262.15	66.33	65.257	
13,200.00	11,787.44	13,147.80	11,727.78	47.70	47.87	89.76	1,433.50	4,186.17	4,328.43	4,260.96	67.48	64.148	
13,300.00	11,785.78	13,247.80	11,726.24	48.55	48.72	89.76	1,533.49	4,185.26	4,328.39	4,259.70	68.68	63.021	
13,400.00	11,784.11	13,347.80	11,724.71	49.44	49.62	89.76	1,633.47	4,184.35	4,328.34	4,258.39	69.95	61.881	
13,500.00	11,782.45	13,447.80	11,723.18	50.37	50.55	89.76	1,733.45	4,183.44	4,328.29	4,257.03	71.26	60.736	
13,600.00	11,780.78	13,547.80	11,721.64	51.33	51.52	89.76	1,833.44	4,182.53	4,328.25	4,255.61	72.63	59.591	
13,700.00	11,779.12	13,647.80	11,720.11	52.33	52.53	89.77	1,933.42	4,181.63	4,328.20	4,254.15	74.05	58.450	
13,800.00	11,777.45	13,747.80	11,718.57	53.37	53.56	89.77	2,033.41	4,180.72	4,328.15	4,252.64	75.51	57.317	
13,900.00	11,775.79	13,847.80	11,717.04	54.43	54.63	89.77	2,133.39	4,179.81	4,328.11	4,251.09	77.02	56.195	
14,000.00	11,774.13	13,947.80	11,715.51	55.52	55.73	89.77	2,233.37	4,178.90	4,328.06	4,249.50	78.57	55.088	
14,100.00	11,772.46	14,047.80	11,713.97	56.64	56.85	89.77	2,333.36	4,177.99	4,328.02	4,247.86	80.15	53.998	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
14,200.00	11,770.80	14,147.80	11,712.44	57.78	57.99	89.77	2,433.34	4,177.09	4,327.97	4,246.20	81.77	52.927	
14,300.00	11,769.13	14,247.80	11,710.91	58.95	59.16	89.78	2,533.33	4,176.18	4,327.92	4,244.50	83.43	51.877	
14,400.00	11,767.47	14,347.80	11,709.37	60.14	60.36	89.78	2,633.31	4,175.27	4,327.88	4,242.76	85.11	50.848	
14,500.00	11,765.80	14,447.80	11,707.84	61.35	61.57	89.78	2,733.30	4,174.36	4,327.83	4,241.00	86.83	49.842	
14,600.00	11,764.14	14,547.80	11,706.30	62.59	62.81	89.78	2,833.28	4,173.46	4,327.78	4,239.21	88.58	48.860	
14,700.00	11,762.47	14,647.80	11,704.77	63.84	64.06	89.78	2,933.26	4,172.55	4,327.74	4,237.39	90.35	47.901	
14,800.00	11,760.81	14,747.80	11,703.24	65.11	65.33	89.79	3,033.25	4,171.64	4,327.69	4,235.55	92.15	46.966	
14,900.00	11,759.14	14,847.80	11,701.70	66.39	66.62	89.79	3,133.23	4,170.73	4,327.65	4,233.68	93.97	46.055	
15,000.00	11,757.48	14,947.80	11,700.17	67.69	67.92	89.79	3,233.22	4,169.82	4,327.60	4,231.79	95.81	45.169	
15,100.00	11,755.81	15,047.80	11,698.63	69.01	69.24	89.79	3,333.20	4,168.92	4,327.55	4,229.88	97.67	44.306	
15,200.00	11,754.15	15,147.80	11,697.10	70.34	70.57	89.79	3,433.18	4,168.01	4,327.51	4,227.95	99.56	43.467	
15,300.00	11,752.48	15,247.80	11,695.57	71.69	71.91	89.79	3,533.17	4,167.10	4,327.46	4,226.00	101.46	42.652	
15,400.00	11,750.82	15,347.80	11,694.03	73.04	73.27	89.80	3,633.15	4,166.19	4,327.41	4,224.03	103.38	41.859	
15,500.00	11,749.15	15,447.80	11,692.50	74.41	74.64	89.80	3,733.14	4,165.28	4,327.37	4,222.05	105.32	41.088	
15,600.00	11,747.49	15,547.80	11,690.97	75.79	76.02	89.80	3,833.12	4,164.38	4,327.32	4,220.05	107.27	40.340	
15,700.00	11,745.82	15,647.80	11,689.43	77.18	77.41	89.80	3,933.10	4,163.47	4,327.28	4,218.04	109.24	39.612	
15,800.00	11,744.16	15,747.80	11,687.90	78.58	78.82	89.80	4,033.09	4,162.56	4,327.23	4,216.01	111.22	38.906	
15,900.00	11,742.49	15,847.80	11,686.36	79.99	80.23	89.80	4,133.07	4,161.65	4,327.18	4,213.96	113.22	38.220	
16,000.00	11,740.83	15,947.80	11,684.83	81.41	81.65	89.81	4,233.06	4,160.74	4,327.14	4,211.91	115.23	37.553	
16,100.00	11,739.16	16,047.80	11,683.30	82.84	83.07	89.81	4,333.04	4,159.84	4,327.09	4,209.84	117.25	36.905	
16,200.00	11,737.50	16,147.80	11,681.76	84.28	84.51	89.81	4,433.02	4,158.93	4,327.04	4,207.76	119.28	36.276	
16,300.00	11,735.83	16,247.80	11,680.23	85.72	85.96	89.81	4,533.01	4,158.02	4,327.00	4,205.67	121.32	35.665	
16,400.00	11,734.17	16,347.80	11,678.70	87.17	87.41	89.81	4,632.99	4,157.11	4,326.95	4,203.57	123.38	35.071	
16,500.00	11,732.50	16,447.80	11,677.16	88.63	88.87	89.81	4,732.98	4,156.21	4,326.91	4,201.46	125.44	34.493	
16,600.00	11,730.84	16,547.80	11,675.63	90.10	90.33	89.82	4,832.96	4,155.30	4,326.86	4,199.34	127.52	33.932	
16,700.00	11,729.17	16,647.80	11,674.09	91.57	91.80	89.82	4,932.94	4,154.39	4,326.81	4,197.22	129.60	33.387	
16,800.00	11,727.51	16,747.80	11,672.56	93.04	93.28	89.82	5,032.93	4,153.48	4,326.77	4,195.08	131.69	32.856	
16,900.00	11,725.84	16,847.80	11,671.03	94.53	94.76	89.82	5,132.91	4,152.57	4,326.72	4,192.94	133.79	32.341	
17,000.00	11,724.18	16,947.80	11,669.49	96.02	96.25	89.82	5,232.90	4,151.67	4,326.68	4,190.78	135.89	31.839	
17,100.00	11,722.51	17,047.80	11,667.96	97.51	97.75	89.82	5,332.88	4,150.76	4,326.63	4,188.62	138.01	31.351	
17,200.00	11,720.85	17,147.80	11,666.42	99.01	99.25	89.83	5,432.86	4,149.85	4,326.58	4,186.46	140.13	30.876	
17,300.00	11,719.18	17,247.80	11,664.89	100.51	100.75	89.83	5,532.85	4,148.94	4,326.54	4,184.28	142.25	30.414	
17,400.00	11,717.52	17,347.80	11,663.36	102.02	102.26	89.83	5,632.83	4,148.03	4,326.49	4,182.10	144.39	29.964	
17,500.00	11,715.85	17,447.80	11,661.82	103.53	103.77	89.83	5,732.82	4,147.13	4,326.44	4,179.92	146.53	29.526	
17,600.00	11,714.19	17,547.80	11,660.29	105.05	105.29	89.83	5,832.80	4,146.22	4,326.40	4,177.72	148.68	29.100	
17,700.00	11,712.52	17,647.80	11,658.76	106.57	106.81	89.84	5,932.78	4,145.31	4,326.35	4,175.53	150.83	28.684	
17,800.00	11,710.86	17,747.80	11,657.22	108.10	108.33	89.84	6,032.77	4,144.40	4,326.31	4,173.32	152.98	28.279	
17,900.00	11,709.19	17,847.80	11,655.69	109.63	109.86	89.84	6,132.75	4,143.50	4,326.26	4,171.11	155.15	27.885	
18,000.00	11,707.53	17,947.80	11,654.15	111.16	111.39	89.84	6,232.74	4,142.59	4,326.21	4,168.90	157.31	27.501	
18,100.00	11,705.86	18,047.80	11,652.62	112.69	112.93	89.84	6,332.72	4,141.68	4,326.17	4,166.68	159.49	27.126	
18,200.00	11,704.20	18,147.80	11,651.09	114.23	114.47	89.84	6,432.70	4,140.77	4,326.12	4,164.46	161.66	26.760	
18,300.00	11,702.54	18,247.80	11,649.55	115.77	116.01	89.85	6,532.69	4,139.86	4,326.08	4,162.23	163.84	26.404	
18,400.00	11,700.87	18,347.80	11,648.02	117.32	117.56	89.85	6,632.67	4,138.96	4,326.03	4,160.00	166.03	26.056	
18,500.00	11,699.21	18,447.80	11,646.48	118.87	119.10	89.85	6,732.66	4,138.05	4,325.98	4,157.77	168.22	25.717	
18,600.00	11,697.54	18,547.80	11,644.95	120.42	120.65	89.85	6,832.64	4,137.14	4,325.94	4,155.53	170.41	25.385	
18,700.00	11,695.88	18,647.80	11,643.42	121.97	122.21	89.85	6,932.62	4,136.23	4,325.89	4,153.28	172.61	25.062	
18,800.00	11,694.21	18,747.80	11,641.88	123.52	123.76	89.85	7,032.61	4,135.32	4,325.85	4,151.04	174.81	24.746	
18,900.00	11,692.55	18,847.80	11,640.35	125.08	125.32	89.86	7,132.59	4,134.42	4,325.80	4,148.79	177.01	24.438	
19,000.00	11,690.88	18,947.80	11,638.82	126.64	126.88	89.86	7,232.58	4,133.51	4,325.75	4,146.53	179.22	24.137	
19,100.00	11,689.22	19,047.80	11,637.28	128.21	128.44	89.86	7,332.56	4,132.60	4,325.71	4,144.28	181.43	23.842	
19,200.00	11,687.55	19,147.80	11,635.75	129.77	130.01	89.86	7,432.54	4,131.69	4,325.66	4,142.02	183.64	23.555	
19,300.00	11,685.89	19,247.80	11,634.21	131.34	131.57	89.86	7,532.53	4,130.78	4,325.62	4,139.76	185.86	23.274	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Santa Fe Fed/Zia Fed - Zia 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
19,400.00	11,684.22	19,347.80	11,632.68	132.91	133.14	89.86	7,632.51	4,129.88	4,325.57	4,137.49	188.08	22.999	
19,500.00	11,682.56	19,447.80	11,631.15	134.48	134.71	89.87	7,732.50	4,128.97	4,325.52	4,135.22	190.30	22.730	
19,600.00	11,680.89	19,547.80	11,629.61	136.05	136.29	89.87	7,832.48	4,128.06	4,325.48	4,132.95	192.53	22.467	
19,700.00	11,679.23	19,647.80	11,628.08	137.63	137.86	89.87	7,932.46	4,127.15	4,325.43	4,130.68	194.75	22.210	
19,800.00	11,677.56	19,747.80	11,626.55	139.20	139.44	89.87	8,032.45	4,126.25	4,325.39	4,128.40	196.98	21.958	
19,900.00	11,675.90	19,847.80	11,625.01	140.78	141.02	89.87	8,132.43	4,125.34	4,325.34	4,126.12	199.22	21.712	
20,000.00	11,674.23	19,947.80	11,623.48	142.36	142.60	89.88	8,232.42	4,124.43	4,325.29	4,123.84	201.45	21.471	
20,100.00	11,672.57	20,047.80	11,621.94	143.94	144.18	89.88	8,332.40	4,123.52	4,325.25	4,121.56	203.69	21.235	
20,200.00	11,670.90	20,147.79	11,620.41	145.52	145.76	89.88	8,432.38	4,122.61	4,325.20	4,119.27	205.93	21.003	
20,300.00	11,669.24	20,247.79	11,618.88	147.11	147.35	89.88	8,532.37	4,121.71	4,325.16	4,116.99	208.17	20.777	
20,400.00	11,667.57	20,347.79	11,617.34	148.70	148.93	89.88	8,632.35	4,120.80	4,325.11	4,114.70	210.41	20.555	
20,500.00	11,665.91	20,447.79	11,615.81	150.28	150.52	89.88	8,732.34	4,119.89	4,325.06	4,112.40	212.66	20.338	
20,600.00	11,664.24	20,547.79	11,614.27	151.87	152.11	89.89	8,832.32	4,118.98	4,325.02	4,110.11	214.91	20.125	
20,700.00	11,662.58	20,647.79	11,612.74	153.46	153.70	89.89	8,932.30	4,118.07	4,324.97	4,107.82	217.16	19.916	
20,800.00	11,660.91	20,747.79	11,611.21	155.05	155.29	89.89	9,032.29	4,117.17	4,324.93	4,105.52	219.41	19.712	
20,900.00	11,659.25	20,847.79	11,609.67	156.65	156.88	89.89	9,132.27	4,116.26	4,324.88	4,103.22	221.66	19.511	
21,000.00	11,657.58	20,947.79	11,608.14	158.24	158.48	89.89	9,232.26	4,115.35	4,324.83	4,100.92	223.91	19.315	
21,100.00	11,655.92	21,047.79	11,606.61	159.84	160.07	89.89	9,332.24	4,114.44	4,324.79	4,098.62	226.17	19.122	
21,200.00	11,654.25	21,147.79	11,605.07	161.43	161.67	89.90	9,432.22	4,113.53	4,324.74	4,096.31	228.43	18.933	
21,300.00	11,652.59	21,247.79	11,603.54	163.03	163.27	89.90	9,532.21	4,112.63	4,324.70	4,094.01	230.69	18.747	
21,400.00	11,650.92	21,347.79	11,602.00	164.63	164.86	89.90	9,632.19	4,111.72	4,324.65	4,091.70	232.95	18.565	
21,500.00	11,649.26	21,447.79	11,600.47	166.23	166.46	89.90	9,732.18	4,110.81	4,324.60	4,089.39	235.21	18.386	
21,600.00	11,647.59	21,547.79	11,598.94	167.83	168.06	89.90	9,832.16	4,109.90	4,324.56	4,087.08	237.47	18.211	
21,700.00	11,645.93	21,647.79	11,597.40	169.43	169.67	89.90	9,932.14	4,109.00	4,324.51	4,084.77	239.74	18.038	
21,800.00	11,644.26	21,747.79	11,595.87	171.03	171.27	89.91	10,032.13	4,108.09	4,324.47	4,082.46	242.01	17.869	
21,900.00	11,642.60	21,847.79	11,594.33	172.63	172.87	89.91	10,132.11	4,107.18	4,324.42	4,080.15	244.27	17.703	
21,929.37	11,642.11	21,877.16	11,593.88	173.11	173.34	89.91	10,161.48	4,106.91	4,324.41	4,079.47	244.94	17.655 SF	

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - 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
0.00	0.00	0.00	0.00	0.00	0.00	82.20	233.89	1,707.32	1,723.49				
100.00	100.00	72.50	72.50	0.13	0.10	82.20	233.89	1,707.32	1,723.27	1,723.10	0.16	N/A	
200.00	200.00	172.50	172.50	0.48	0.40	82.20	233.89	1,707.32	1,723.27	1,722.64	0.63	2,740.569	
300.00	300.00	272.50	272.50	0.84	0.76	82.20	233.89	1,707.32	1,723.27	1,722.13	1.13	1,518.906	
400.00	400.00	372.50	372.50	1.20	1.12	82.20	233.89	1,707.32	1,723.27	1,721.63	1.64	1,050.108	
500.00	500.00	472.50	472.50	1.56	1.48	82.20	233.89	1,707.32	1,723.27	1,721.12	2.15	802.360	
600.00	600.00	572.50	572.50	1.92	1.84	82.20	233.89	1,707.32	1,723.27	1,720.61	2.65	649.174	
700.00	700.00	672.50	672.50	2.28	2.19	82.20	233.89	1,707.32	1,723.27	1,720.10	3.16	545.095	
800.00	800.00	772.50	772.50	2.63	2.55	82.20	233.89	1,707.32	1,723.27	1,719.60	3.67	469.774	
900.00	900.00	872.50	872.50	2.99	2.91	82.20	233.89	1,707.32	1,723.27	1,719.09	4.18	412.740	
1,000.00	1,000.00	972.50	972.50	3.35	3.27	82.20	233.89	1,707.32	1,723.27	1,718.58	4.68	368.054	
1,100.00	1,100.00	1,072.50	1,072.50	3.71	3.63	82.20	233.89	1,707.32	1,723.27	1,718.08	5.19	332.099	
1,200.00	1,200.00	1,172.50	1,172.50	4.07	3.99	82.20	233.89	1,707.32	1,723.27	1,717.57	5.70	302.543	
1,300.00	1,300.00	1,272.50	1,272.50	4.43	4.34	82.20	233.89	1,707.32	1,723.27	1,717.06	6.20	277.817	
1,400.00	1,400.00	1,372.50	1,372.50	4.79	4.70	82.20	233.89	1,707.32	1,723.27	1,716.56	6.71	256.828	
1,500.00	1,500.00	1,472.50	1,472.50	5.14	5.06	82.20	233.89	1,707.32	1,723.27	1,716.05	7.22	238.787	
1,600.00	1,600.00	1,572.50	1,572.50	5.50	5.42	82.20	233.89	1,707.32	1,723.27	1,715.54	7.72	223.115	
1,700.00	1,700.00	1,672.50	1,672.50	5.86	5.78	82.20	233.89	1,707.32	1,723.27	1,715.04	8.23	209.372	
1,800.00	1,800.00	1,772.50	1,772.50	6.22	6.14	82.20	233.89	1,707.32	1,723.27	1,714.53	8.74	197.225	
1,900.00	1,900.00	1,872.50	1,872.50	6.58	6.50	82.20	233.89	1,707.32	1,723.27	1,714.02	9.24	186.410	
2,000.00	2,000.00	1,972.50	1,972.50	6.94	6.85	82.20	233.89	1,707.32	1,723.27	1,713.51	9.75	176.719	
2,100.00	2,100.00	2,072.50	2,072.50	7.29	7.21	82.20	233.89	1,707.32	1,723.27	1,713.01	10.26	167.986	
2,200.00	2,200.00	2,172.50	2,172.50	7.65	7.57	82.20	233.89	1,707.32	1,723.27	1,712.50	10.77	160.075	
2,300.00	2,300.00	2,272.50	2,272.50	8.01	7.93	82.20	233.89	1,707.32	1,723.27	1,711.99	11.27	152.876	
2,400.00	2,400.00	2,372.50	2,372.50	8.37	8.29	82.20	233.89	1,707.32	1,723.27	1,711.49	11.78	146.297	
2,500.00	2,500.00	2,472.50	2,472.50	8.73	8.65	82.20	233.89	1,707.32	1,723.27	1,710.98	12.29	140.260 CC	
2,600.00	2,600.00	2,555.04	2,555.03	9.09	8.93	82.21	233.65	1,707.63	1,723.63	1,710.89	12.74	135.262 ES	
2,700.00	2,700.00	2,630.91	2,630.88	9.45	9.19	82.25	232.52	1,709.10	1,725.35	1,712.17	13.18	130.946	
2,800.00	2,800.00	2,700.00	2,699.91	9.80	9.42	82.32	230.70	1,711.47	1,728.48	1,714.89	13.59	127.228	
2,900.00	2,900.00	2,782.28	2,782.02	10.16	9.70	82.44	227.54	1,715.59	1,732.98	1,718.95	14.03	123.537	
3,000.00	3,000.00	2,857.66	2,857.14	10.52	9.95	82.59	223.70	1,720.59	1,738.90	1,724.45	14.45	120.330	
3,100.00	3,100.00	2,932.77	2,931.84	10.88	10.21	82.77	218.97	1,726.74	1,746.25	1,731.37	14.87	117.419	
3,200.00	3,200.00	3,020.99	3,019.43	11.24	10.51	83.02	212.52	1,735.15	1,754.81	1,739.48	15.33	114.467	
3,300.00	3,300.00	3,120.25	3,117.94	11.60	10.86	83.29	205.15	1,744.75	1,763.55	1,747.73	15.82	111.456	
3,400.00	3,400.00	3,219.50	3,216.46	11.96	11.21	83.57	197.78	1,754.34	1,772.34	1,756.02	16.32	108.616	
3,500.00	3,500.00	3,318.75	3,314.97	12.31	11.56	83.84	190.42	1,763.93	1,781.16	1,764.35	16.81	105.934	
3,600.00	3,599.99	3,418.02	3,413.50	12.65	11.92	-124.38	183.05	1,773.53	1,790.76	1,773.46	17.30	103.516	
3,700.00	3,699.91	3,517.27	3,512.01	12.98	12.28	-124.08	175.68	1,783.12	1,801.85	1,784.08	17.77	101.372	
3,800.00	3,799.69	3,616.44	3,610.43	13.31	12.64	-123.83	168.32	1,792.70	1,814.41	1,796.16	18.25	99.409	
3,833.60	3,833.18	3,649.73	3,643.48	13.42	12.76	-123.76	165.85	1,795.92	1,818.96	1,800.55	18.41	98.786	
3,900.00	3,899.32	3,715.49	3,708.75	13.64	13.01	-123.74	160.97	1,802.28	1,828.10	1,809.37	18.73	97.594	
4,000.00	3,998.94	3,814.53	3,807.05	13.97	13.37	-123.71	153.62	1,811.85	1,841.88	1,822.66	19.21	95.861	
4,100.00	4,098.56	3,913.57	3,905.35	14.30	13.74	-123.67	146.27	1,821.42	1,855.65	1,835.95	19.70	94.198	
4,200.00	4,198.18	4,012.61	4,003.66	14.64	14.11	-123.64	138.92	1,830.99	1,869.42	1,849.23	20.19	92.603	
4,300.00	4,297.80	4,111.65	4,101.96	14.98	14.49	-123.61	131.57	1,840.57	1,883.19	1,862.52	20.68	91.072	
4,400.00	4,397.42	4,210.70	4,200.26	15.32	14.86	-123.58	124.22	1,850.14	1,896.97	1,875.80	21.17	89.601	
4,500.00	4,497.04	4,309.74	4,298.57	15.66	15.24	-123.55	116.87	1,859.71	1,910.74	1,889.08	21.67	88.189	
4,600.00	4,596.66	4,408.78	4,396.87	16.01	15.62	-123.52	109.51	1,869.29	1,924.52	1,902.35	22.16	86.832	
4,700.00	4,696.27	4,507.82	4,495.17	16.36	16.00	-123.49	102.16	1,878.86	1,938.29	1,915.63	22.66	85.527	
4,800.00	4,795.89	4,606.86	4,593.48	16.71	16.38	-123.46	94.81	1,888.43	1,952.07	1,928.91	23.16	84.271	
4,900.00	4,895.51	4,705.90	4,691.78	17.06	16.76	-123.43	87.46	1,898.00	1,965.85	1,942.18	23.67	83.063	
5,000.00	4,995.13	4,804.95	4,790.09	17.41	17.14	-123.40	80.11	1,907.58	1,979.62	1,955.45	24.17	81.900	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - 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
5,100.00	5,094.75	4,903.99	4,888.39	17.76	17.52	-123.37	72.76	1,917.15	1,993.40	1,968.72	24.68	80.780	
5,200.00	5,194.37	5,003.03	4,986.69	18.12	17.91	-123.35	65.41	1,926.72	2,007.18	1,981.99	25.18	79.700	
5,300.00	5,293.99	5,102.07	5,085.00	18.48	18.30	-123.32	58.06	1,936.29	2,020.96	1,995.26	25.69	78.658	
5,400.00	5,393.61	5,201.11	5,183.30	18.83	18.68	-123.29	50.71	1,945.87	2,034.74	2,008.53	26.20	77.654	
5,500.00	5,493.22	5,300.15	5,281.60	19.19	19.07	-123.27	43.36	1,955.44	2,048.52	2,021.80	26.71	76.684	
5,600.00	5,592.84	5,399.20	5,379.91	19.55	19.46	-123.24	36.00	1,965.01	2,062.29	2,035.07	27.23	75.748	
5,700.00	5,692.46	5,498.24	5,478.21	19.91	19.85	-123.21	28.65	1,974.58	2,076.08	2,048.34	27.74	74.844	
5,800.00	5,792.08	5,597.28	5,576.51	20.28	20.24	-123.19	21.30	1,984.16	2,089.86	2,061.60	28.25	73.969	
5,900.00	5,891.70	5,696.32	5,674.82	20.64	20.63	-123.16	13.95	1,993.73	2,103.64	2,074.87	28.77	73.124	
6,000.00	5,991.32	5,795.36	5,773.12	21.00	21.02	-123.14	6.60	2,003.30	2,117.42	2,088.13	29.28	72.306	
6,100.00	6,090.94	5,894.40	5,871.42	21.37	21.41	-123.11	-0.75	2,012.87	2,131.20	2,101.40	29.80	71.515	
6,200.00	6,190.56	5,993.45	5,969.73	21.73	21.80	-123.09	-8.10	2,022.45	2,144.98	2,114.66	30.32	70.749	
6,300.00	6,290.18	6,092.49	6,068.03	22.10	22.19	-123.07	-15.45	2,032.02	2,158.76	2,127.93	30.84	70.006	
6,400.00	6,389.79	6,191.53	6,166.33	22.46	22.59	-123.04	-22.80	2,041.59	2,172.55	2,141.19	31.36	69.287	
6,500.00	6,489.41	6,290.57	6,264.64	22.83	22.98	-123.02	-30.15	2,051.16	2,186.33	2,154.45	31.88	68.590	
6,567.67	6,556.82	6,357.59	6,331.16	23.08	23.25	-123.00	-35.13	2,057.64	2,195.66	2,163.43	32.23	68.130	
6,600.00	6,589.04	6,389.62	6,362.95	23.20	23.37	-123.05	-37.51	2,060.74	2,200.04	2,167.64	32.40	67.911	
6,700.00	6,688.82	6,488.78	6,461.37	23.56	23.77	-123.14	-44.87	2,070.32	2,212.66	2,179.75	32.91	67.226	
6,800.00	6,788.74	6,588.03	6,559.88	23.92	24.16	-123.15	-52.23	2,079.92	2,223.86	2,190.44	33.43	66.527	
6,901.27	6,890.00	6,688.56	6,659.66	24.27	24.56	85.48	-59.69	2,089.63	2,233.78	2,199.83	33.94	65.807	
7,000.00	6,988.73	6,786.56	6,756.93	24.61	24.95	85.69	-66.97	2,099.10	2,242.76	2,208.31	34.45	65.110	
7,100.00	7,088.73	6,885.81	6,855.44	24.95	25.35	85.89	-74.33	2,108.70	2,251.88	2,216.93	34.95	64.424	
7,200.00	7,188.73	6,985.06	6,953.96	25.30	25.75	86.10	-81.70	2,118.29	2,261.04	2,225.57	35.46	63.759	
7,300.00	7,288.73	7,084.32	7,052.47	25.64	26.14	86.30	-89.07	2,127.88	2,270.22	2,234.25	35.97	63.112	
7,400.00	7,388.73	7,183.57	7,150.99	25.99	26.54	86.50	-96.43	2,137.48	2,279.43	2,242.95	36.48	62.484	
7,500.00	7,488.73	7,282.83	7,249.50	26.33	26.94	86.70	-103.80	2,147.07	2,288.66	2,251.67	36.99	61.874	
7,600.00	7,588.73	7,382.08	7,348.02	26.68	27.34	86.90	-111.17	2,156.66	2,297.93	2,260.43	37.50	61.281	
7,700.00	7,688.73	7,481.34	7,446.53	27.03	27.74	87.09	-118.53	2,166.26	2,307.22	2,269.21	38.01	60.703	
7,800.00	7,788.73	7,580.59	7,545.05	27.37	28.13	87.29	-125.90	2,175.85	2,316.54	2,278.02	38.52	60.142	
7,900.00	7,888.73	7,679.85	7,643.56	27.72	28.53	87.48	-133.27	2,185.44	2,325.89	2,286.86	39.03	59.596	
8,000.00	7,988.73	7,779.10	7,742.08	28.07	28.93	87.67	-140.64	2,195.03	2,335.26	2,295.72	39.54	59.064	
8,100.00	8,088.73	7,878.36	7,840.59	28.41	29.33	87.86	-148.00	2,204.63	2,344.65	2,304.61	40.05	58.546	
8,200.00	8,188.73	7,977.61	7,939.11	28.76	29.73	88.05	-155.37	2,214.22	2,354.08	2,313.52	40.56	58.042	
8,300.00	8,288.73	8,076.87	8,037.62	29.11	30.13	88.24	-162.74	2,223.81	2,363.53	2,322.46	41.07	57.551	
8,400.00	8,388.73	8,176.12	8,136.14	29.46	30.53	88.43	-170.10	2,233.41	2,373.00	2,331.42	41.58	57.072	
8,500.00	8,488.73	8,275.38	8,234.65	29.81	30.93	88.61	-177.47	2,243.00	2,382.50	2,340.41	42.09	56.605	
8,600.00	8,588.73	8,374.63	8,333.16	30.16	31.33	88.79	-184.84	2,252.59	2,392.02	2,349.42	42.60	56.150	
8,700.00	8,688.73	8,473.89	8,431.68	30.51	31.73	88.97	-192.20	2,262.19	2,401.57	2,358.45	43.11	55.706	
8,800.00	8,788.73	8,583.74	8,540.72	30.86	32.17	89.17	-200.32	2,272.76	2,411.11	2,367.45	43.66	55.224	
8,900.00	8,888.73	8,781.96	8,738.10	31.20	32.93	89.44	-211.25	2,286.98	2,418.24	2,373.75	44.49	54.355	
9,000.00	8,988.73	8,981.51	8,937.49	31.55	33.64	89.55	-215.93	2,293.09	2,421.28	2,376.03	45.25	53.512	
9,100.00	9,088.73	9,105.26	9,061.23	31.90	34.04	89.55	-216.11	2,293.32	2,421.39	2,375.61	45.78	52.891	
9,200.00	9,188.73	9,205.26	9,161.23	32.25	34.37	89.55	-216.11	2,293.32	2,421.39	2,375.13	46.26	52.342	
9,300.00	9,288.73	9,305.26	9,261.23	32.60	34.69	89.55	-216.11	2,293.32	2,421.39	2,374.65	46.74	51.803	
9,400.00	9,388.73	9,405.26	9,361.23	32.96	35.01	89.55	-216.11	2,293.32	2,421.39	2,374.17	47.22	51.275	
9,500.00	9,488.73	9,505.26	9,461.23	33.31	35.33	89.55	-216.11	2,293.32	2,421.39	2,373.69	47.71	50.757	
9,600.00	9,588.73	9,605.26	9,561.23	33.66	35.66	89.55	-216.11	2,293.32	2,421.39	2,373.21	48.19	50.249	
9,700.00	9,688.73	9,705.26	9,661.23	34.01	35.98	89.55	-216.11	2,293.32	2,421.39	2,372.72	48.67	49.750	
9,800.00	9,788.73	9,805.26	9,761.23	34.36	36.30	89.55	-216.11	2,293.32	2,421.39	2,372.24	49.15	49.261	
9,900.00	9,888.73	9,905.26	9,861.23	34.71	36.63	89.55	-216.11	2,293.32	2,421.39	2,371.76	49.64	48.781	
10,000.00	9,988.73	10,005.26	9,961.23	35.06	36.96	89.55	-216.11	2,293.32	2,421.39	2,371.27	50.12	48.309	
10,100.00	10,088.73	10,105.26	10,061.23	35.41	37.28	89.55	-216.11	2,293.32	2,421.39	2,370.79	50.61	47.847	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - 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
10,200.00	10,188.73	10,205.26	10,161.23	35.76	37.61	89.55	-216.11	2,293.32	2,421.39	2,370.30	51.09	47.392	
10,300.00	10,288.73	10,305.26	10,261.23	36.12	37.94	89.55	-216.11	2,293.32	2,421.39	2,369.82	51.58	46.946	
10,400.00	10,388.73	10,405.26	10,361.23	36.47	38.27	89.55	-216.11	2,293.32	2,421.39	2,369.33	52.06	46.508	
10,500.00	10,488.73	10,505.26	10,461.23	36.82	38.60	89.55	-216.11	2,293.32	2,421.39	2,368.84	52.55	46.077	
10,600.00	10,588.73	10,605.26	10,561.23	37.17	38.92	89.55	-216.11	2,293.32	2,421.39	2,368.36	53.04	45.654	
10,700.00	10,688.73	10,705.26	10,661.23	37.52	39.25	89.55	-216.11	2,293.32	2,421.39	2,367.87	53.52	45.239	
10,800.00	10,788.73	10,805.26	10,761.23	37.88	39.59	89.55	-216.11	2,293.32	2,421.39	2,367.38	54.01	44.830	
10,900.00	10,888.73	10,905.26	10,861.23	38.23	39.92	89.55	-216.11	2,293.32	2,421.39	2,366.89	54.50	44.429	
11,000.00	10,988.73	11,005.26	10,961.23	38.58	40.25	89.55	-216.11	2,293.32	2,421.39	2,366.41	54.99	44.035	
11,100.00	11,088.73	11,105.26	11,061.23	38.94	40.58	89.55	-216.11	2,293.32	2,421.39	2,365.92	55.48	43.647	
11,200.00	11,188.73	11,205.26	11,161.23	39.29	40.91	89.55	-216.11	2,293.32	2,421.39	2,365.43	55.97	43.265	
11,243.27	11,232.00	11,248.53	11,204.50	39.44	41.06	89.55	-216.11	2,293.32	2,421.39	2,365.22	56.18	43.102	
11,250.00	11,238.73	11,255.26	11,211.23	39.46	41.08	90.05	-216.11	2,293.32	2,421.39	2,365.18	56.21	43.077	
11,300.00	11,288.64	11,305.16	11,261.14	39.64	41.24	90.11	-216.11	2,293.32	2,421.40	2,364.95	56.45	42.894	
11,350.00	11,338.12	11,355.24	11,311.20	39.80	41.41	90.26	-215.26	2,293.31	2,421.42	2,364.73	56.68	42.718	
11,400.00	11,386.78	11,406.06	11,361.75	39.96	41.57	90.41	-210.25	2,293.27	2,421.46	2,364.55	56.91	42.552	
11,450.00	11,434.28	11,457.48	11,412.25	40.11	41.71	90.56	-200.64	2,293.19	2,421.51	2,364.40	57.12	42.397	
11,500.00	11,480.23	11,509.53	11,462.28	40.25	41.85	90.71	-186.34	2,293.07	2,421.59	2,364.27	57.31	42.252	
11,550.00	11,524.29	11,562.19	11,511.37	40.39	41.97	90.85	-167.32	2,292.91	2,421.67	2,364.18	57.50	42.118	
11,600.00	11,566.13	11,615.49	11,559.05	40.51	42.08	90.99	-143.57	2,292.70	2,421.77	2,364.10	57.67	41.994	
11,650.00	11,605.42	11,669.39	11,604.83	40.62	42.17	91.12	-115.14	2,292.46	2,421.88	2,364.05	57.83	41.879	
11,700.00	11,641.87	11,723.88	11,648.18	40.73	42.25	91.24	-82.16	2,292.18	2,421.99	2,364.00	57.98	41.771	
11,750.00	11,675.21	11,778.95	11,688.61	40.84	42.30	91.36	-44.81	2,291.87	2,422.10	2,363.97	58.13	41.669	
11,800.00	11,705.17	11,834.54	11,725.60	40.95	42.35	91.46	-3.33	2,291.51	2,422.21	2,363.94	58.27	41.571	
11,850.00	11,731.53	11,890.62	11,758.66	41.06	42.37	91.55	41.93	2,291.13	2,422.32	2,363.91	58.40	41.476	
11,900.00	11,754.09	11,947.13	11,787.34	41.17	42.38	91.62	90.59	2,290.72	2,422.41	2,363.87	58.54	41.383	
11,950.00	11,772.67	12,004.01	11,811.23	41.28	42.37	91.69	142.18	2,290.28	2,422.49	2,363.82	58.67	41.289	
12,000.00	11,787.14	12,061.18	11,829.97	41.40	42.36	91.73	196.17	2,289.82	2,422.56	2,363.75	58.81	41.195	
12,050.00	11,797.38	12,118.58	11,843.28	41.52	42.33	91.77	251.98	2,289.35	2,422.61	2,363.66	58.95	41.098	
12,100.00	11,803.33	12,176.11	11,850.96	41.65	42.29	91.78	308.97	2,288.86	2,422.64	2,363.55	59.09	40.999	
12,152.81	11,804.88	12,236.48	11,852.83	41.78	42.25	91.78	369.28	2,288.35	2,422.65	2,363.40	59.25	40.890	
12,200.00	11,804.09	12,283.68	11,852.05	41.91	42.23	91.78	416.47	2,287.95	2,422.65	2,363.25	59.40	40.787	
12,300.00	11,802.43	12,383.68	11,850.39	42.24	42.40	91.78	516.45	2,287.10	2,422.67	2,362.88	59.78	40.524	
12,400.00	11,800.76	12,483.68	11,848.72	42.62	42.73	91.79	616.43	2,286.25	2,422.68	2,362.42	60.26	40.207	
12,500.00	11,799.10	12,583.68	11,847.06	43.07	43.12	91.79	716.42	2,285.40	2,422.69	2,361.88	60.81	39.838	
12,600.00	11,797.43	12,683.68	11,845.40	43.57	43.56	91.79	816.40	2,284.55	2,422.71	2,361.25	61.46	39.422	
12,700.00	11,795.77	12,783.68	11,843.74	44.13	44.06	91.79	916.38	2,283.71	2,422.72	2,360.54	62.18	38.964	
12,800.00	11,794.10	12,883.68	11,842.08	44.75	44.60	91.79	1,016.36	2,282.86	2,422.73	2,359.75	62.98	38.468	
12,900.00	11,792.44	12,983.68	11,840.42	45.41	45.20	91.79	1,116.35	2,282.01	2,422.75	2,358.89	63.86	37.940	
13,000.00	11,790.77	13,083.68	11,838.76	46.13	45.84	91.79	1,216.33	2,281.16	2,422.76	2,357.96	64.81	37.385	
13,100.00	11,789.11	13,183.68	11,837.10	46.89	46.54	91.79	1,316.31	2,280.31	2,422.77	2,356.95	65.82	36.807	
13,200.00	11,787.44	13,283.68	11,835.44	47.70	47.28	91.79	1,416.29	2,279.46	2,422.79	2,355.88	66.91	36.211	
13,300.00	11,785.78	13,383.68	11,833.78	48.55	48.06	91.79	1,516.28	2,278.61	2,422.80	2,354.75	68.06	35.601	
13,400.00	11,784.11	13,483.68	11,832.12	49.44	48.88	91.79	1,616.26	2,277.76	2,422.81	2,353.55	69.26	34.981	
13,500.00	11,782.45	13,583.68	11,830.46	50.37	49.75	91.79	1,716.24	2,276.92	2,422.83	2,352.30	70.53	34.354	
13,600.00	11,780.78	13,683.68	11,828.80	51.33	50.65	91.79	1,816.22	2,276.07	2,422.84	2,351.00	71.84	33.724	
13,700.00	11,779.12	13,783.68	11,827.14	52.33	51.59	91.79	1,916.21	2,275.22	2,422.86	2,349.64	73.21	33.094	
13,800.00	11,777.45	13,883.68	11,825.47	53.37	52.56	91.79	2,016.19	2,274.37	2,422.87	2,348.24	74.63	32.467	
13,900.00	11,775.79	13,983.68	11,823.81	54.43	53.57	91.79	2,116.17	2,273.52	2,422.88	2,346.79	76.09	31.843	
14,000.00	11,774.13	14,083.68	11,822.15	55.52	54.60	91.79	2,216.15	2,272.67	2,422.90	2,345.30	77.59	31.226	
14,100.00	11,772.46	14,183.68	11,820.49	56.64	55.67	91.79	2,316.14	2,271.82	2,422.91	2,343.77	79.14	30.617	
14,200.00	11,770.80	14,283.68	11,818.83	57.78	56.76	91.79	2,416.12	2,270.97	2,422.92	2,342.20	80.72	30.017	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - 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
14,300.00	11,769.13	14,383.68	11,817.17	58.95	57.88	91.79	2,516.10	2,270.13	2,422.94	2,340.60	82.34	29.427	
14,400.00	11,767.47	14,483.68	11,815.51	60.14	59.03	91.79	2,616.09	2,269.28	2,422.95	2,338.96	83.99	28.849	
14,500.00	11,765.80	14,583.68	11,813.85	61.35	60.19	91.79	2,716.07	2,268.43	2,422.96	2,337.29	85.67	28.282	
14,600.00	11,764.14	14,683.68	11,812.19	62.59	61.38	91.79	2,816.05	2,267.58	2,422.98	2,335.59	87.39	27.727	
14,700.00	11,762.47	14,783.68	11,810.53	63.84	62.59	91.79	2,916.03	2,266.73	2,422.99	2,333.86	89.13	27.186	
14,800.00	11,760.81	14,883.68	11,808.87	65.11	63.82	91.79	3,016.02	2,265.88	2,423.00	2,332.11	90.90	26.657	
14,900.00	11,759.14	14,983.68	11,807.21	66.39	65.07	91.79	3,116.00	2,265.03	2,423.02	2,330.33	92.69	26.141	
15,000.00	11,757.48	15,083.68	11,805.55	67.69	66.34	91.79	3,215.98	2,264.18	2,423.03	2,328.52	94.51	25.639	
15,100.00	11,755.81	15,183.68	11,803.88	69.01	67.62	91.79	3,315.96	2,263.34	2,423.04	2,326.70	96.35	25.149	
15,200.00	11,754.15	15,283.68	11,802.22	70.34	68.92	91.79	3,415.95	2,262.49	2,423.06	2,324.85	98.21	24.673	
15,300.00	11,752.48	15,383.68	11,800.56	71.69	70.23	91.79	3,515.93	2,261.64	2,423.07	2,322.98	100.09	24.210	
15,400.00	11,750.82	15,483.68	11,798.90	73.04	71.56	91.79	3,615.91	2,260.79	2,423.08	2,321.10	101.99	23.759	
15,500.00	11,749.15	15,583.68	11,797.24	74.41	72.90	91.79	3,715.89	2,259.94	2,423.10	2,319.19	103.90	23.321	
15,600.00	11,747.49	15,683.68	11,795.58	75.79	74.25	91.79	3,815.88	2,259.09	2,423.11	2,317.27	105.84	22.895	
15,700.00	11,745.82	15,783.68	11,793.92	77.18	75.62	91.79	3,915.86	2,258.24	2,423.12	2,315.34	107.79	22.481	
15,800.00	11,744.16	15,883.68	11,792.26	78.58	76.99	91.79	4,015.84	2,257.39	2,423.14	2,313.39	109.75	22.079	
15,900.00	11,742.49	15,983.68	11,790.60	79.99	78.38	91.79	4,115.82	2,256.55	2,423.15	2,311.42	111.73	21.688	
16,000.00	11,740.83	16,083.68	11,788.94	81.41	79.78	91.79	4,215.81	2,255.70	2,423.17	2,309.44	113.72	21.308	
16,100.00	11,739.16	16,183.68	11,787.28	82.84	81.18	91.79	4,315.79	2,254.85	2,423.18	2,307.45	115.73	20.939	
16,200.00	11,737.50	16,283.68	11,785.62	84.28	82.60	91.79	4,415.77	2,254.00	2,423.19	2,305.45	117.74	20.580	
16,300.00	11,735.83	16,383.68	11,783.96	85.72	84.02	91.79	4,515.75	2,253.15	2,423.21	2,303.43	119.77	20.232	
16,400.00	11,734.17	16,483.68	11,782.29	87.17	85.45	91.79	4,615.74	2,252.30	2,423.22	2,301.41	121.81	19.893	
16,500.00	11,732.50	16,583.68	11,780.63	88.63	86.89	91.79	4,715.72	2,251.45	2,423.23	2,299.37	123.86	19.564	
16,600.00	11,730.84	16,683.68	11,778.97	90.10	88.34	91.79	4,815.70	2,250.60	2,423.25	2,297.32	125.92	19.244	
16,700.00	11,729.17	16,783.68	11,777.31	91.57	89.79	91.79	4,915.69	2,249.75	2,423.26	2,295.27	127.99	18.933	
16,800.00	11,727.51	16,883.68	11,775.65	93.04	91.25	91.79	5,015.67	2,248.91	2,423.27	2,293.20	130.07	18.630	
16,900.00	11,725.84	16,983.68	11,773.99	94.53	92.72	91.79	5,115.65	2,248.06	2,423.29	2,291.13	132.16	18.336	
17,000.00	11,724.18	17,083.68	11,772.33	96.02	94.19	91.79	5,215.63	2,247.21	2,423.30	2,289.05	134.25	18.050	
17,100.00	11,722.51	17,183.68	11,770.67	97.51	95.67	91.79	5,315.62	2,246.36	2,423.31	2,286.96	136.36	17.772	
17,200.00	11,720.85	17,283.68	11,769.01	99.01	97.15	91.79	5,415.60	2,245.51	2,423.33	2,284.86	138.47	17.501	
17,300.00	11,719.18	17,383.68	11,767.35	100.51	98.64	91.79	5,515.58	2,244.66	2,423.34	2,282.76	140.58	17.238	
17,400.00	11,717.52	17,483.68	11,765.69	102.02	100.14	91.79	5,615.56	2,243.81	2,423.35	2,280.65	142.71	16.981	
17,500.00	11,715.85	17,583.68	11,764.03	103.53	101.64	91.79	5,715.55	2,242.96	2,423.37	2,278.53	144.84	16.731	
17,600.00	11,714.19	17,683.68	11,762.37	105.05	103.14	91.79	5,815.53	2,242.12	2,423.38	2,276.41	146.98	16.488	
17,700.00	11,712.52	17,783.68	11,760.70	106.57	104.65	91.79	5,915.51	2,241.27	2,423.39	2,274.28	149.12	16.251	
17,800.00	11,710.86	17,883.68	11,759.04	108.10	106.16	91.79	6,015.49	2,240.42	2,423.41	2,272.14	151.27	16.021	
17,900.00	11,709.19	17,983.68	11,757.38	109.63	107.68	91.79	6,115.48	2,239.57	2,423.42	2,270.00	153.42	15.796	
18,000.00	11,707.53	18,083.68	11,755.72	111.16	109.20	91.79	6,215.46	2,238.72	2,423.43	2,267.85	155.58	15.577	
18,100.00	11,705.86	18,183.68	11,754.06	112.69	110.73	91.79	6,315.44	2,237.87	2,423.45	2,265.70	157.75	15.363	
18,200.00	11,704.20	18,283.68	11,752.40	114.23	112.25	91.79	6,415.42	2,237.02	2,423.46	2,263.55	159.91	15.155	
18,300.00	11,702.54	18,383.68	11,750.74	115.77	113.79	91.79	6,515.41	2,236.17	2,423.48	2,261.39	162.09	14.952	
18,400.00	11,700.87	18,483.68	11,749.08	117.32	115.32	91.79	6,615.39	2,235.33	2,423.49	2,259.22	164.27	14.753	
18,500.00	11,699.21	18,583.68	11,747.42	118.87	116.86	91.79	6,715.37	2,234.48	2,423.50	2,257.05	166.45	14.560	
18,600.00	11,697.54	18,683.68	11,745.76	120.42	118.40	91.79	6,815.35	2,233.63	2,423.52	2,254.88	168.63	14.371	
18,700.00	11,695.88	18,783.68	11,744.10	121.97	119.94	91.79	6,915.34	2,232.78	2,423.53	2,252.70	170.83	14.187	
18,800.00	11,694.21	18,883.68	11,742.44	123.52	121.49	91.79	7,015.32	2,231.93	2,423.54	2,250.52	173.02	14.007	
18,900.00	11,692.55	18,983.68	11,740.78	125.08	123.04	91.79	7,115.30	2,231.08	2,423.56	2,248.34	175.22	13.832	
19,000.00	11,690.88	19,083.68	11,739.11	126.64	124.59	91.79	7,215.29	2,230.23	2,423.57	2,246.15	177.42	13.660	
19,100.00	11,689.22	19,183.68	11,737.45	128.21	126.15	91.79	7,315.27	2,229.38	2,423.58	2,243.96	179.62	13.493	
19,200.00	11,687.55	19,283.68	11,735.79	129.77	127.71	91.79	7,415.25	2,228.54	2,423.60	2,241.77	181.83	13.329	
19,300.00	11,685.89	19,383.68	11,734.13	131.34	129.27	91.79	7,515.23	2,227.69	2,423.61	2,239.57	184.04	13.169	
19,400.00	11,684.22	19,483.68	11,732.47	132.91	130.83	91.79	7,615.22	2,226.84	2,423.62	2,237.37	186.26	13.012	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Santa Fe Fed Com 704H - 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
19,500.00	11,682.56	19,583.68	11,730.81	134.48	132.39	91.79	7,715.20	2,225.99	2,423.64	2,235.16	188.47	12.859	
19,600.00	11,680.89	19,683.68	11,729.15	136.05	133.96	91.79	7,815.18	2,225.14	2,423.65	2,232.96	190.69	12.710	
19,700.00	11,679.23	19,783.68	11,727.49	137.63	135.53	91.79	7,915.16	2,224.29	2,423.66	2,230.75	192.92	12.563	
19,800.00	11,677.56	19,883.68	11,725.83	139.20	137.10	91.79	8,015.15	2,223.44	2,423.68	2,228.54	195.14	12.420	
19,900.00	11,675.90	19,983.68	11,724.17	140.78	138.67	91.79	8,115.13	2,222.59	2,423.69	2,226.32	197.37	12.280	
20,000.00	11,674.23	20,083.68	11,722.51	142.36	140.24	91.79	8,215.11	2,221.75	2,423.70	2,224.11	199.60	12.143	
20,100.00	11,672.57	20,183.68	11,720.85	143.94	141.82	91.79	8,315.09	2,220.90	2,423.72	2,221.89	201.83	12.009	
20,200.00	11,670.90	20,283.68	11,719.19	145.52	143.39	91.79	8,415.08	2,220.05	2,423.73	2,219.67	204.07	11.877	
20,300.00	11,669.24	20,383.68	11,717.52	147.11	144.97	91.79	8,515.06	2,219.20	2,423.75	2,217.44	206.30	11.748	
20,400.00	11,667.57	20,483.68	11,715.86	148.70	146.55	91.79	8,615.04	2,218.35	2,423.76	2,215.22	208.54	11.622	
20,500.00	11,665.91	20,583.68	11,714.20	150.28	148.14	91.79	8,715.02	2,217.50	2,423.77	2,212.99	210.78	11.499	
20,600.00	11,664.24	20,683.68	11,712.54	151.87	149.72	91.79	8,815.01	2,216.65	2,423.79	2,210.76	213.03	11.378	
20,700.00	11,662.58	20,783.68	11,710.88	153.46	151.30	91.79	8,914.99	2,215.80	2,423.80	2,208.53	215.27	11.259	
20,800.00	11,660.91	20,883.68	11,709.22	155.05	152.89	91.79	9,014.97	2,214.96	2,423.81	2,206.29	217.52	11.143	
20,900.00	11,659.25	20,983.68	11,707.56	156.65	154.48	91.79	9,114.95	2,214.11	2,423.83	2,204.06	219.77	11.029	
21,000.00	11,657.58	21,083.68	11,705.90	158.24	156.07	91.79	9,214.94	2,213.26	2,423.84	2,201.82	222.02	10.917	
21,100.00	11,655.92	21,183.68	11,704.24	159.84	157.66	91.79	9,314.92	2,212.41	2,423.85	2,199.58	224.27	10.808	
21,200.00	11,654.25	21,283.68	11,702.58	161.43	159.25	91.79	9,414.90	2,211.56	2,423.87	2,197.34	226.53	10.700	
21,300.00	11,652.59	21,383.68	11,700.92	163.03	160.84	91.79	9,514.88	2,210.71	2,423.88	2,195.10	228.78	10.595	
21,400.00	11,650.92	21,483.68	11,699.26	164.63	162.44	91.79	9,614.87	2,209.86	2,423.89	2,192.86	231.04	10.491	
21,500.00	11,649.26	21,583.68	11,697.60	166.23	164.03	91.79	9,714.85	2,209.01	2,423.91	2,190.61	233.30	10.390	
21,600.00	11,647.59	21,683.68	11,695.93	167.83	165.63	91.79	9,814.83	2,208.16	2,423.92	2,188.36	235.56	10.290	
21,700.00	11,645.93	21,783.68	11,694.27	169.43	167.22	91.79	9,914.82	2,207.32	2,423.93	2,186.12	237.82	10.192	
21,800.00	11,644.26	21,883.68	11,692.61	171.03	168.82	91.79	10,014.80	2,206.47	2,423.95	2,183.87	240.08	10.096	
21,900.00	11,642.60	21,983.68	11,690.95	172.63	170.42	91.79	10,114.78	2,205.62	2,423.96	2,181.62	242.35	10.002	
21,929.37	11,642.11	22,013.05	11,690.46	173.11	170.89	91.79	10,144.15	2,205.37	2,423.96	2,180.95	243.01	9.975	SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - 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
0.00	0.00	0.00	0.00	0.00	0.00	81.90	233.12	1,637.33	1,654.12				
100.00	100.00	69.80	69.80	0.13	0.10	81.90	233.12	1,637.33	1,653.84	1,653.68	0.16	N/A	
200.00	200.00	169.80	169.80	0.48	0.39	81.90	233.12	1,637.33	1,653.84	1,653.22	0.62	2,656.078	
300.00	300.00	269.80	269.80	0.84	0.75	81.90	233.12	1,637.33	1,653.84	1,652.71	1.13	1,466.063	
400.00	400.00	369.80	369.80	1.20	1.11	81.90	233.12	1,637.33	1,653.84	1,652.21	1.63	1,011.861	
500.00	500.00	469.80	469.80	1.56	1.47	81.90	233.12	1,637.33	1,653.84	1,651.70	2.14	772.425	
600.00	600.00	569.80	569.80	1.92	1.83	81.90	233.12	1,637.33	1,653.84	1,651.19	2.65	624.594	
700.00	700.00	669.80	669.80	2.28	2.18	81.90	233.12	1,637.33	1,653.84	1,650.69	3.15	524.248	
800.00	800.00	769.80	769.80	2.63	2.54	81.90	233.12	1,637.33	1,653.84	1,650.18	3.66	451.677	
900.00	900.00	869.80	869.80	2.99	2.90	81.90	233.12	1,637.33	1,653.84	1,649.67	4.17	396.753	
1,000.00	1,000.00	969.80	969.80	3.35	3.26	81.90	233.12	1,637.33	1,653.84	1,649.17	4.68	353.737	
1,100.00	1,100.00	1,069.80	1,069.80	3.71	3.62	81.90	233.12	1,637.33	1,653.84	1,648.66	5.18	319.136	
1,200.00	1,200.00	1,169.80	1,169.80	4.07	3.98	81.90	233.12	1,637.33	1,653.84	1,648.15	5.69	290.700	
1,300.00	1,300.00	1,269.80	1,269.80	4.43	4.33	81.90	233.12	1,637.33	1,653.84	1,647.65	6.20	266.917	
1,400.00	1,400.00	1,369.80	1,369.80	4.79	4.69	81.90	233.12	1,637.33	1,653.84	1,647.14	6.70	246.731	
1,500.00	1,500.00	1,469.80	1,469.80	5.14	5.05	81.90	233.12	1,637.33	1,653.84	1,646.63	7.21	229.383	
1,600.00	1,600.00	1,569.80	1,569.80	5.50	5.41	81.90	233.12	1,637.33	1,653.84	1,646.13	7.72	214.314	
1,700.00	1,700.00	1,669.80	1,669.80	5.86	5.77	81.90	233.12	1,637.33	1,653.84	1,645.62	8.22	201.104	
1,800.00	1,800.00	1,769.80	1,769.80	6.22	6.13	81.90	233.12	1,637.33	1,653.84	1,645.11	8.73	189.427	
1,900.00	1,900.00	1,869.80	1,869.80	6.58	6.49	81.90	233.12	1,637.33	1,653.84	1,644.60	9.24	179.032	
2,000.00	2,000.00	1,969.80	1,969.80	6.94	6.84	81.90	233.12	1,637.33	1,653.84	1,644.10	9.74	169.718	
2,100.00	2,100.00	2,069.80	2,069.80	7.29	7.20	81.90	233.12	1,637.33	1,653.84	1,643.59	10.25	161.325	
2,200.00	2,200.00	2,169.80	2,169.80	7.65	7.56	81.90	233.12	1,637.33	1,653.84	1,643.08	10.76	153.724	
2,300.00	2,300.00	2,269.80	2,269.80	8.01	7.92	81.90	233.12	1,637.33	1,653.84	1,642.58	11.27	146.806	
2,400.00	2,400.00	2,369.80	2,369.80	8.37	8.28	81.90	233.12	1,637.33	1,653.84	1,642.07	11.77	140.484	
2,500.00	2,500.00	2,469.80	2,469.80	8.73	8.64	81.90	233.12	1,637.33	1,653.84	1,641.56	12.28	134.684	
2,600.00	2,600.00	2,611.42	2,611.40	9.09	9.13	81.93	232.11	1,636.06	1,652.96	1,640.09	12.88	128.371	
2,700.00	2,700.00	2,770.66	2,770.44	9.45	9.66	82.07	227.16	1,629.82	1,648.65	1,635.17	13.48	122.258	
2,800.00	2,800.00	2,928.97	2,928.07	9.80	10.19	82.32	218.16	1,618.48	1,640.77	1,626.69	14.08	116.523	
2,900.00	2,900.00	3,054.35	3,052.45	10.16	10.62	82.61	208.40	1,606.18	1,629.91	1,615.29	14.61	111.530	
3,000.00	3,000.00	3,153.49	3,150.75	10.52	10.97	82.85	200.35	1,596.04	1,618.72	1,603.61	15.10	107.165	
3,100.00	3,100.00	3,252.63	3,249.05	10.88	11.32	83.09	192.31	1,585.91	1,607.55	1,591.95	15.60	103.062	
3,200.00	3,200.00	3,351.78	3,347.34	11.24	11.68	83.33	184.27	1,575.77	1,596.42	1,580.32	16.09	99.200	
3,300.00	3,300.00	3,450.92	3,445.64	11.60	12.04	83.58	176.22	1,565.64	1,585.31	1,568.72	16.59	95.559	
3,400.00	3,400.00	3,550.07	3,543.94	11.96	12.40	83.83	168.18	1,555.51	1,574.23	1,557.14	17.09	92.123	
3,500.00	3,500.00	3,649.21	3,642.24	12.31	12.77	84.08	160.14	1,545.37	1,563.18	1,545.60	17.59	88.876	
3,600.00	3,599.99	3,748.50	3,740.68	12.65	13.14	-124.40	152.08	1,535.22	1,552.90	1,534.82	18.08	85.900	
3,700.00	3,699.91	3,848.04	3,839.36	12.98	13.51	-124.37	144.01	1,525.05	1,544.11	1,525.55	18.56	83.204	
3,800.00	3,799.69	3,947.76	3,938.23	13.31	13.89	-124.40	135.92	1,514.85	1,536.79	1,517.75	19.04	80.710	
3,833.60	3,833.18	3,981.29	3,971.47	13.42	14.01	-124.42	133.20	1,511.43	1,534.67	1,515.46	19.20	79.916	
3,900.00	3,899.32	4,047.57	4,037.18	13.64	14.26	-124.43	127.82	1,504.65	1,530.63	1,511.10	19.53	78.388	
4,000.00	3,998.94	4,147.38	4,136.14	13.97	14.64	-124.43	119.72	1,494.45	1,524.55	1,504.53	20.01	76.171	
4,100.00	4,098.56	4,247.20	4,235.10	14.30	15.03	-124.44	111.62	1,484.24	1,518.47	1,497.96	20.51	74.051	
4,200.00	4,198.18	4,347.01	4,334.07	14.64	15.41	-124.44	103.53	1,474.04	1,512.39	1,491.39	21.00	72.021	
4,300.00	4,297.80	4,446.83	4,433.03	14.98	15.80	-124.45	95.43	1,463.84	1,506.31	1,484.81	21.50	70.077	
4,400.00	4,397.42	4,546.64	4,531.99	15.32	16.18	-124.45	87.33	1,453.63	1,500.23	1,478.23	21.99	68.214	
4,500.00	4,497.04	4,646.46	4,630.95	15.66	16.57	-124.46	79.23	1,443.43	1,494.15	1,471.65	22.49	66.428	
4,600.00	4,596.66	4,746.27	4,729.91	16.01	16.96	-124.46	71.13	1,433.23	1,488.07	1,465.07	22.99	64.714	
4,700.00	4,696.27	4,846.09	4,828.87	16.36	17.35	-124.47	63.04	1,423.03	1,481.98	1,458.49	23.50	63.069	
4,800.00	4,795.89	4,945.90	4,927.83	16.71	17.75	-124.48	54.94	1,412.82	1,475.90	1,451.90	24.00	61.489	
4,900.00	4,895.51	5,045.72	5,026.79	17.06	18.14	-124.48	46.84	1,402.62	1,469.82	1,445.31	24.51	59.970	
5,000.00	4,995.13	5,145.53	5,125.76	17.41	18.54	-124.49	38.74	1,392.42	1,463.74	1,438.73	25.02	58.509	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - 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
5,100.00	5,094.75	5,245.35	5,224.72	17.76	18.93	-124.49	30.65	1,382.21	1,457.66	1,432.14	25.53	57.104	
5,200.00	5,194.37	5,345.16	5,323.68	18.12	19.33	-124.50	22.55	1,372.01	1,451.58	1,425.54	26.04	55.751	
5,300.00	5,293.99	5,444.97	5,422.64	18.48	19.72	-124.50	14.45	1,361.81	1,445.50	1,418.95	26.55	54.447	
5,400.00	5,393.61	5,544.79	5,521.60	18.83	20.12	-124.51	6.35	1,351.60	1,439.42	1,412.36	27.06	53.191	
5,500.00	5,493.22	5,644.60	5,620.56	19.19	20.52	-124.52	-1.75	1,341.40	1,433.34	1,405.76	27.58	51.979	
5,600.00	5,592.84	5,744.42	5,719.52	19.55	20.92	-124.52	-9.84	1,331.20	1,427.26	1,399.17	28.09	50.810	
5,700.00	5,692.46	5,844.23	5,818.48	19.91	21.32	-124.53	-17.94	1,320.99	1,421.18	1,392.57	28.61	49.681	
5,800.00	5,792.08	5,944.05	5,917.44	20.28	21.72	-124.54	-26.04	1,310.79	1,415.10	1,385.98	29.12	48.591	
5,900.00	5,891.70	6,043.86	6,016.41	20.64	22.12	-124.54	-34.14	1,300.59	1,409.02	1,379.38	29.64	47.537	
6,000.00	5,991.32	6,143.68	6,115.37	21.00	22.52	-124.55	-42.23	1,290.38	1,402.94	1,372.78	30.16	46.519	
6,100.00	6,090.94	6,243.49	6,214.33	21.37	22.93	-124.55	-50.33	1,280.18	1,396.86	1,366.18	30.68	45.533	
6,200.00	6,190.56	6,343.31	6,313.29	21.73	23.33	-124.56	-58.43	1,269.98	1,390.78	1,359.58	31.20	44.580	
6,300.00	6,290.18	6,443.12	6,412.25	22.10	23.73	-124.57	-66.53	1,259.77	1,384.70	1,352.98	31.72	43.657	
6,400.00	6,389.79	6,542.94	6,511.21	22.46	24.13	-124.57	-74.62	1,249.57	1,378.62	1,346.38	32.24	42.762	
6,500.00	6,489.41	6,642.75	6,610.17	22.83	24.54	-124.58	-82.72	1,239.37	1,372.54	1,339.78	32.76	41.896	
6,567.67	6,556.82	6,710.29	6,677.14	23.08	24.81	-124.59	-88.20	1,232.46	1,368.42	1,335.31	33.11	41.324	
6,600.00	6,589.04	6,742.56	6,709.13	23.20	24.94	-124.56	-90.82	1,229.17	1,366.38	1,333.10	33.28	41.053	
6,700.00	6,688.82	6,842.28	6,807.99	23.56	25.35	-124.40	-98.91	1,218.97	1,359.08	1,325.28	33.80	40.204	
6,800.00	6,788.74	6,941.82	6,906.68	23.92	25.75	-124.13	-106.99	1,208.80	1,350.31	1,315.99	34.32	39.341	
6,901.27	6,890.00	7,042.37	7,006.38	24.27	26.16	84.84	-115.14	1,198.52	1,339.96	1,305.12	34.85	38.453	
7,000.00	6,988.73	7,140.26	7,103.43	24.61	26.56	85.14	-123.08	1,188.51	1,329.18	1,293.83	35.36	37.595	
7,100.00	7,088.73	7,239.40	7,201.72	24.95	26.96	85.45	-131.13	1,178.38	1,318.30	1,282.43	35.87	36.750	
7,200.00	7,188.73	7,338.55	7,300.02	25.30	27.37	85.77	-139.17	1,168.24	1,307.46	1,271.07	36.39	35.930	
7,300.00	7,288.73	7,437.69	7,398.32	25.64	27.77	86.10	-147.21	1,158.11	1,296.66	1,259.75	36.91	35.133	
7,400.00	7,388.73	7,536.84	7,496.61	25.99	28.17	86.42	-155.26	1,147.97	1,285.90	1,248.47	37.43	34.359	
7,500.00	7,488.73	7,635.98	7,594.91	26.33	28.58	86.76	-163.30	1,137.84	1,275.18	1,237.24	37.95	33.606	
7,600.00	7,588.73	7,735.13	7,693.21	26.68	28.98	87.10	-171.34	1,127.70	1,264.51	1,226.04	38.47	32.874	
7,700.00	7,688.73	7,834.27	7,791.50	27.03	29.39	87.44	-179.39	1,117.57	1,253.88	1,214.89	38.99	32.162	
7,800.00	7,788.73	7,933.42	7,889.80	27.37	29.79	87.79	-187.43	1,107.44	1,243.30	1,203.79	39.51	31.469	
7,900.00	7,888.73	8,032.56	7,988.10	27.72	30.20	88.15	-195.47	1,097.30	1,232.77	1,192.73	40.03	30.795	
8,000.00	7,988.73	8,114.22	8,069.14	28.07	30.53	88.43	-201.72	1,089.43	1,222.89	1,182.36	40.53	30.174	
8,100.00	8,088.73	8,200.00	8,154.47	28.41	30.87	88.68	-207.14	1,082.60	1,214.71	1,173.69	41.02	29.611	
8,200.00	8,188.73	8,273.01	8,227.24	28.76	31.14	88.85	-210.82	1,077.97	1,208.17	1,166.69	41.48	29.127	
8,300.00	8,288.73	8,352.79	8,306.87	29.11	31.43	88.99	-213.84	1,074.16	1,203.31	1,161.38	41.94	28.694	
8,400.00	8,388.73	8,432.75	8,386.76	29.46	31.72	89.08	-215.84	1,071.65	1,200.13	1,157.75	42.38	28.318	
8,500.00	8,488.73	8,512.80	8,466.79	29.81	31.99	89.13	-216.79	1,070.44	1,198.61	1,155.80	42.81	27.998	
8,556.95	8,545.68	8,561.49	8,515.48	30.01	32.15	89.13	-216.88	1,070.33	1,198.47	1,155.41	43.06	27.834	
8,600.00	8,588.73	8,604.54	8,558.53	30.16	32.29	89.13	-216.88	1,070.33	1,198.47	1,155.20	43.26	27.701	
8,700.00	8,688.73	8,704.54	8,658.53	30.51	32.61	89.13	-216.88	1,070.33	1,198.47	1,154.72	43.74	27.398	
8,800.00	8,788.73	8,804.54	8,758.53	30.86	32.93	89.13	-216.88	1,070.33	1,198.47	1,154.24	44.22	27.100	
8,900.00	8,888.73	8,904.54	8,858.53	31.20	33.25	89.13	-216.88	1,070.33	1,198.47	1,153.76	44.70	26.809	
9,000.00	8,988.73	9,004.54	8,958.53	31.55	33.57	89.13	-216.88	1,070.33	1,198.47	1,153.28	45.19	26.524	
9,100.00	9,088.73	9,104.54	9,058.53	31.90	33.89	89.13	-216.88	1,070.33	1,198.47	1,152.80	45.67	26.244	
9,200.00	9,188.73	9,204.54	9,158.53	32.25	34.21	89.13	-216.88	1,070.33	1,198.47	1,152.32	46.15	25.970	
9,300.00	9,288.73	9,304.54	9,258.53	32.60	34.54	89.13	-216.88	1,070.33	1,198.47	1,151.84	46.63	25.701	
9,400.00	9,388.73	9,404.54	9,358.53	32.96	34.86	89.13	-216.88	1,070.33	1,198.47	1,151.35	47.11	25.437	
9,500.00	9,488.73	9,504.54	9,458.53	33.31	35.19	89.13	-216.88	1,070.33	1,198.47	1,150.87	47.60	25.179	
9,600.00	9,588.73	9,604.54	9,558.53	33.66	35.51	89.13	-216.88	1,070.33	1,198.47	1,150.38	48.08	24.925	
9,700.00	9,688.73	9,704.54	9,658.53	34.01	35.84	89.13	-216.88	1,070.33	1,198.47	1,149.90	48.57	24.676	
9,800.00	9,788.73	9,804.54	9,758.53	34.36	36.17	89.13	-216.88	1,070.33	1,198.47	1,149.41	49.05	24.432	
9,900.00	9,888.73	9,904.54	9,858.53	34.71	36.49	89.13	-216.88	1,070.33	1,198.47	1,148.93	49.54	24.193	
10,000.00	9,988.73	10,004.54	9,958.53	35.06	36.82	89.13	-216.88	1,070.33	1,198.47	1,148.44	50.02	23.958	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - 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
10,100.00	10,088.73	10,104.54	10,058.53	35.41	37.15	89.13	-216.88	1,070.33	1,198.47	1,147.96	50.51	23.727	
10,200.00	10,188.73	10,204.54	10,158.53	35.76	37.48	89.13	-216.88	1,070.33	1,198.47	1,147.47	51.00	23.501	
10,300.00	10,288.73	10,304.54	10,258.53	36.12	37.81	89.13	-216.88	1,070.33	1,198.47	1,146.98	51.48	23.278	
10,400.00	10,388.73	10,404.54	10,358.53	36.47	38.14	89.13	-216.88	1,070.33	1,198.47	1,146.49	51.97	23.060	
10,500.00	10,488.73	10,504.54	10,458.53	36.82	38.47	89.13	-216.88	1,070.33	1,198.47	1,146.01	52.46	22.845	
10,600.00	10,588.73	10,604.54	10,558.53	37.17	38.80	89.13	-216.88	1,070.33	1,198.47	1,145.52	52.95	22.635	
10,700.00	10,688.73	10,704.54	10,658.53	37.52	39.13	89.13	-216.88	1,070.33	1,198.47	1,145.03	53.44	22.428	
10,800.00	10,788.73	10,804.54	10,758.53	37.88	39.47	89.13	-216.88	1,070.33	1,198.47	1,144.54	53.93	22.224	
10,900.00	10,888.73	10,904.54	10,858.53	38.23	39.80	89.13	-216.88	1,070.33	1,198.47	1,144.05	54.42	22.024	
11,000.00	10,988.73	11,004.54	10,958.53	38.58	40.13	89.13	-216.88	1,070.33	1,198.47	1,143.56	54.90	21.828	
11,100.00	11,088.73	11,104.54	11,058.53	38.94	40.46	89.13	-216.88	1,070.33	1,198.47	1,143.07	55.39	21.635	
11,200.00	11,188.73	11,204.54	11,158.53	39.29	40.80	89.13	-216.88	1,070.33	1,198.47	1,142.58	55.89	21.445	CC
11,243.27	11,232.00	11,247.31	11,201.28	39.44	40.94	89.09	-215.91	1,070.32	1,198.47	1,142.38	56.09	21.366	
11,250.00	11,238.73	11,253.92	11,207.88	39.46	40.96	89.56	-215.49	1,070.32	1,198.48	1,142.35	56.12	21.354	
11,300.00	11,288.64	11,302.92	11,256.56	39.64	41.11	89.43	-210.00	1,070.27	1,198.50	1,142.15	56.35	21.269	
11,350.00	11,338.12	11,351.69	11,304.36	39.80	41.25	89.29	-200.42	1,070.19	1,198.53	1,141.97	56.56	21.189	
11,400.00	11,386.78	11,400.00	11,350.74	39.96	41.38	89.17	-186.96	1,070.08	1,198.57	1,141.81	56.76	21.115	
11,450.00	11,434.28	11,448.59	11,396.09	40.11	41.49	89.05	-169.53	1,069.93	1,198.61	1,141.66	56.95	21.047	
11,500.00	11,480.23	11,496.75	11,439.41	40.25	41.59	88.94	-148.52	1,069.75	1,198.66	1,141.53	57.12	20.984	
11,550.00	11,524.29	11,544.73	11,480.66	40.39	41.67	88.83	-124.05	1,069.54	1,198.70	1,141.42	57.29	20.925	
11,600.00	11,566.13	11,592.55	11,519.60	40.51	41.75	88.74	-96.32	1,069.31	1,198.75	1,141.31	57.44	20.871	
11,650.00	11,605.42	11,640.23	11,555.99	40.62	41.80	88.65	-65.53	1,069.05	1,198.80	1,141.22	57.58	20.820	
11,700.00	11,641.87	11,687.78	11,589.60	40.73	41.85	88.57	-31.92	1,068.76	1,198.84	1,141.12	57.71	20.772	
11,750.00	11,675.21	11,735.22	11,620.24	40.84	41.88	88.51	4.28	1,068.45	1,198.88	1,141.03	57.84	20.726	
11,800.00	11,705.17	11,782.57	11,647.74	40.95	41.90	88.45	42.81	1,068.13	1,198.92	1,140.94	57.97	20.681	
11,850.00	11,731.53	11,829.83	11,671.92	41.06	41.90	88.41	83.40	1,067.78	1,198.95	1,140.85	58.10	20.638	
11,900.00	11,754.09	11,877.05	11,692.65	41.17	41.90	88.37	125.80	1,067.42	1,198.97	1,140.75	58.22	20.594	
11,950.00	11,772.67	11,924.22	11,709.81	41.28	41.89	88.35	169.72	1,067.05	1,198.99	1,140.64	58.35	20.550	
12,000.00	11,787.14	11,971.36	11,723.29	41.40	41.87	88.34	214.89	1,066.66	1,199.00	1,140.53	58.47	20.505	
12,050.00	11,797.38	12,018.51	11,733.02	41.52	41.85	88.35	261.00	1,066.27	1,199.01	1,140.40	58.61	20.459	
12,100.00	11,803.33	12,065.67	11,738.92	41.65	41.82	88.36	307.78	1,065.88	1,199.00	1,140.26	58.74	20.412	
12,152.81	11,804.88	12,115.51	11,740.96	41.78	41.78	88.39	357.56	1,065.45	1,198.99	1,140.10	58.89	20.361	
12,158.43	11,804.79	12,120.82	11,740.92	41.80	41.78	88.39	362.87	1,065.41	1,198.99	1,140.09	58.90	20.355	
12,200.00	11,804.09	12,162.20	11,740.21	41.91	41.74	88.39	404.25	1,065.06	1,199.00	1,139.96	59.04	20.309	
12,300.00	11,802.43	12,262.20	11,738.47	42.24	41.90	88.39	504.23	1,064.21	1,199.01	1,139.59	59.42	20.178	
12,400.00	11,800.76	12,362.20	11,736.72	42.62	42.25	88.38	604.21	1,063.36	1,199.03	1,139.14	59.89	20.019	
12,500.00	11,799.10	12,462.20	11,734.98	43.07	42.64	88.38	704.19	1,062.51	1,199.04	1,138.59	60.45	19.835	
12,600.00	11,797.43	12,562.20	11,733.24	43.57	43.08	88.38	804.17	1,061.66	1,199.06	1,137.97	61.09	19.627	
12,700.00	11,795.77	12,662.20	11,731.50	44.13	43.58	88.37	904.15	1,060.81	1,199.08	1,137.26	61.82	19.397	
12,800.00	11,794.10	12,762.20	11,729.76	44.75	44.12	88.37	1,004.13	1,059.96	1,199.09	1,136.47	62.62	19.149	
12,900.00	11,792.44	12,862.20	11,728.02	45.41	44.72	88.36	1,104.12	1,059.12	1,199.11	1,135.61	63.50	18.884	
13,000.00	11,790.77	12,962.20	11,726.28	46.13	45.37	88.36	1,204.10	1,058.27	1,199.12	1,134.67	64.45	18.606	
13,100.00	11,789.11	13,062.20	11,724.54	46.89	46.06	88.36	1,304.08	1,057.42	1,199.14	1,133.67	65.47	18.317	
13,200.00	11,787.44	13,162.20	11,722.80	47.70	46.80	88.35	1,404.06	1,056.57	1,199.15	1,132.60	66.55	18.018	
13,300.00	11,785.78	13,262.20	11,721.06	48.55	47.59	88.35	1,504.04	1,055.72	1,199.17	1,131.47	67.70	17.712	
13,400.00	11,784.11	13,362.20	11,719.32	49.44	48.41	88.35	1,604.02	1,054.87	1,199.18	1,130.27	68.91	17.401	
13,500.00	11,782.45	13,462.20	11,717.58	50.37	49.28	88.34	1,704.00	1,054.02	1,199.20	1,129.02	70.18	17.088	
13,600.00	11,780.78	13,562.20	11,715.84	51.33	50.19	88.34	1,803.98	1,053.17	1,199.22	1,127.72	71.50	16.772	
13,700.00	11,779.12	13,662.20	11,714.10	52.33	51.13	88.34	1,903.96	1,052.33	1,199.23	1,126.36	72.87	16.457	
13,800.00	11,777.45	13,762.20	11,712.35	53.37	52.11	88.33	2,003.95	1,051.48	1,199.25	1,124.96	74.29	16.143	
13,900.00	11,775.79	13,862.20	11,710.61	54.43	53.12	88.33	2,103.93	1,050.63	1,199.26	1,123.51	75.75	15.831	
14,000.00	11,774.13	13,962.20	11,708.87	55.52	54.16	88.32	2,203.91	1,049.78	1,199.28	1,122.02	77.26	15.523	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - 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
14,100.00	11,772.46	14,062.20	11,707.13	56.64	55.23	88.32	2,303.89	1,048.93	1,199.29	1,120.49	78.81	15.218	
14,200.00	11,770.80	14,162.20	11,705.39	57.78	56.33	88.32	2,403.87	1,048.08	1,199.31	1,118.92	80.39	14.918	
14,300.00	11,769.13	14,262.20	11,703.65	58.95	57.46	88.31	2,503.85	1,047.23	1,199.32	1,117.31	82.01	14.623	
14,400.00	11,767.47	14,362.20	11,701.91	60.14	58.61	88.31	2,603.83	1,046.38	1,199.34	1,115.67	83.67	14.334	
14,500.00	11,765.80	14,462.20	11,700.17	61.35	59.78	88.31	2,703.81	1,045.53	1,199.36	1,114.00	85.36	14.051	
14,600.00	11,764.14	14,562.20	11,698.43	62.59	60.97	88.30	2,803.80	1,044.69	1,199.37	1,112.30	87.07	13.774	
14,700.00	11,762.47	14,662.20	11,696.69	63.84	62.19	88.30	2,903.78	1,043.84	1,199.39	1,110.57	88.82	13.504	
14,800.00	11,760.81	14,762.20	11,694.95	65.11	63.42	88.30	3,003.76	1,042.99	1,199.40	1,108.81	90.59	13.240	
14,900.00	11,759.14	14,862.20	11,693.21	66.39	64.68	88.29	3,103.74	1,042.14	1,199.42	1,107.03	92.39	12.983	
15,000.00	11,757.48	14,962.20	11,691.47	67.69	65.95	88.29	3,203.72	1,041.29	1,199.43	1,105.23	94.21	12.732	
15,100.00	11,755.81	15,062.20	11,689.72	69.01	67.23	88.29	3,303.70	1,040.44	1,199.45	1,103.40	96.05	12.488	
15,200.00	11,754.15	15,162.20	11,687.98	70.34	68.54	88.28	3,403.68	1,039.59	1,199.46	1,101.55	97.91	12.250	
15,300.00	11,752.48	15,262.20	11,686.24	71.69	69.86	88.28	3,503.66	1,038.74	1,199.48	1,099.68	99.79	12.019	
15,400.00	11,750.82	15,362.20	11,684.50	73.04	71.19	88.27	3,603.65	1,037.90	1,199.50	1,097.80	101.70	11.795	
15,500.00	11,749.15	15,462.20	11,682.76	74.41	72.53	88.27	3,703.63	1,037.05	1,199.51	1,095.89	103.62	11.576	
15,600.00	11,747.49	15,562.20	11,681.02	75.79	73.89	88.27	3,803.61	1,036.20	1,199.53	1,093.97	105.55	11.364	
15,700.00	11,745.82	15,662.20	11,679.28	77.18	75.26	88.26	3,903.59	1,035.35	1,199.54	1,092.04	107.51	11.158	
15,800.00	11,744.16	15,762.20	11,677.54	78.58	76.64	88.26	4,003.57	1,034.50	1,199.56	1,090.09	109.47	10.958	
15,900.00	11,742.49	15,862.20	11,675.80	79.99	78.03	88.26	4,103.55	1,033.65	1,199.57	1,088.12	111.45	10.763	
16,000.00	11,740.83	15,962.20	11,674.06	81.41	79.43	88.25	4,203.53	1,032.80	1,199.59	1,086.14	113.45	10.574	
16,100.00	11,739.16	16,062.20	11,672.32	82.84	80.84	88.25	4,303.51	1,031.95	1,199.61	1,084.15	115.46	10.390	
16,200.00	11,737.50	16,162.20	11,670.58	84.28	82.26	88.25	4,403.50	1,031.11	1,199.62	1,082.15	117.48	10.212	
16,300.00	11,735.83	16,262.20	11,668.84	85.72	83.68	88.24	4,503.48	1,030.26	1,199.64	1,080.13	119.51	10.038	
16,400.00	11,734.17	16,362.20	11,667.10	87.17	85.12	88.24	4,603.46	1,029.41	1,199.65	1,078.10	121.55	9.870	
16,500.00	11,732.50	16,462.20	11,665.35	88.63	86.56	88.23	4,703.44	1,028.56	1,199.67	1,076.07	123.60	9.706	
16,600.00	11,730.84	16,562.20	11,663.61	90.10	88.01	88.23	4,803.42	1,027.71	1,199.68	1,074.02	125.66	9.547	
16,700.00	11,729.17	16,662.20	11,661.87	91.57	89.47	88.23	4,903.40	1,026.86	1,199.70	1,071.97	127.73	9.392	
16,800.00	11,727.51	16,762.20	11,660.13	93.04	90.93	88.22	5,003.38	1,026.01	1,199.71	1,069.90	129.81	9.242	
16,900.00	11,725.84	16,862.20	11,658.39	94.53	92.40	88.22	5,103.36	1,025.16	1,199.73	1,067.83	131.90	9.096	
17,000.00	11,724.18	16,962.20	11,656.65	96.02	93.88	88.22	5,203.35	1,024.32	1,199.75	1,065.75	134.00	8.953	
17,100.00	11,722.51	17,062.20	11,654.91	97.51	95.36	88.21	5,303.33	1,023.47	1,199.76	1,063.66	136.10	8.815	
17,200.00	11,720.85	17,162.20	11,653.17	99.01	96.85	88.21	5,403.31	1,022.62	1,199.78	1,061.56	138.22	8.680	
17,300.00	11,719.18	17,262.20	11,651.43	100.51	98.34	88.21	5,503.29	1,021.77	1,199.79	1,059.46	140.33	8.549	
17,400.00	11,717.52	17,362.20	11,649.69	102.02	99.84	88.20	5,603.27	1,020.92	1,199.81	1,057.35	142.46	8.422	
17,500.00	11,715.85	17,462.20	11,647.95	103.53	101.34	88.20	5,703.25	1,020.07	1,199.82	1,055.23	144.59	8.298	
17,600.00	11,714.19	17,562.20	11,646.21	105.05	102.85	88.20	5,803.23	1,019.22	1,199.84	1,053.11	146.73	8.177	
17,700.00	11,712.52	17,662.20	11,644.47	106.57	104.36	88.19	5,903.21	1,018.37	1,199.86	1,050.98	148.88	8.059	
17,800.00	11,710.86	17,762.20	11,642.73	108.10	105.87	88.19	6,003.19	1,017.53	1,199.87	1,048.85	151.02	7.945	
17,900.00	11,709.19	17,862.20	11,640.98	109.63	107.39	88.18	6,103.18	1,016.68	1,199.89	1,046.71	153.18	7.833	
18,000.00	11,707.53	17,962.20	11,639.24	111.16	108.92	88.18	6,203.16	1,015.83	1,199.90	1,044.56	155.34	7.724	
18,100.00	11,705.86	18,062.20	11,637.50	112.69	110.44	88.18	6,303.14	1,014.98	1,199.92	1,042.41	157.51	7.618	
18,200.00	11,704.20	18,162.20	11,635.76	114.23	111.97	88.17	6,403.12	1,014.13	1,199.93	1,040.26	159.68	7.515	
18,300.00	11,702.54	18,262.20	11,634.02	115.77	113.51	88.17	6,503.10	1,013.28	1,199.95	1,038.10	161.85	7.414	
18,400.00	11,700.87	18,362.20	11,632.28	117.32	115.04	88.17	6,603.08	1,012.43	1,199.97	1,035.94	164.03	7.316	
18,500.00	11,699.21	18,462.20	11,630.54	118.87	116.58	88.16	6,703.06	1,011.58	1,199.98	1,033.77	166.21	7.220	
18,600.00	11,697.54	18,562.20	11,628.80	120.42	118.13	88.16	6,803.04	1,010.73	1,200.00	1,031.60	168.40	7.126	
18,700.00	11,695.88	18,662.20	11,627.06	121.97	119.67	88.16	6,903.03	1,009.89	1,200.01	1,029.42	170.59	7.034	
18,800.00	11,694.21	18,762.20	11,625.32	123.52	121.22	88.15	7,003.01	1,009.04	1,200.03	1,027.24	172.79	6.945	
18,900.00	11,692.55	18,862.20	11,623.58	125.08	122.77	88.15	7,102.99	1,008.19	1,200.05	1,025.06	174.98	6.858	
19,000.00	11,690.88	18,962.20	11,621.84	126.64	124.33	88.14	7,202.97	1,007.34	1,200.06	1,022.88	177.19	6.773	
19,100.00	11,689.22	19,062.20	11,620.10	128.21	125.89	88.14	7,302.95	1,006.49	1,200.08	1,020.69	179.39	6.690	
19,200.00	11,687.55	19,162.20	11,618.36	129.77	127.44	88.14	7,402.93	1,005.64	1,200.09	1,018.49	181.60	6.608	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 602H - 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
19,300.00	11,685.89	19,262.20	11,616.61	131.34	129.01	88.13	7,502.91	1,004.79	1,200.11	1,016.30	183.81	6.529	
19,400.00	11,684.22	19,362.20	11,614.87	132.91	130.57	88.13	7,602.89	1,003.94	1,200.12	1,014.10	186.03	6.451	
19,500.00	11,682.56	19,462.20	11,613.13	134.48	132.14	88.13	7,702.88	1,003.10	1,200.14	1,011.90	188.24	6.375	
19,600.00	11,680.89	19,562.20	11,611.39	136.05	133.70	88.12	7,802.86	1,002.25	1,200.16	1,009.69	190.46	6.301	
19,700.00	11,679.23	19,662.20	11,609.65	137.63	135.27	88.12	7,902.84	1,001.40	1,200.17	1,007.49	192.69	6.229	
19,800.00	11,677.56	19,762.20	11,607.91	139.20	136.84	88.12	8,002.82	1,000.55	1,200.19	1,005.28	194.91	6.158	
19,900.00	11,675.90	19,862.20	11,606.17	140.78	138.42	88.11	8,102.80	999.70	1,200.20	1,003.06	197.14	6.088	
20,000.00	11,674.23	19,962.20	11,604.43	142.36	139.99	88.11	8,202.78	998.85	1,200.22	1,000.85	199.37	6.020	
20,100.00	11,672.57	20,062.20	11,602.69	143.94	141.57	88.11	8,302.76	998.00	1,200.23	998.63	201.60	5.953	
20,200.00	11,670.90	20,162.20	11,600.95	145.52	143.15	88.10	8,402.74	997.15	1,200.25	996.41	203.84	5.888	
20,300.00	11,669.24	20,262.20	11,599.21	147.11	144.73	88.10	8,502.73	996.31	1,200.27	994.19	206.07	5.824	
20,400.00	11,667.57	20,362.20	11,597.47	148.70	146.31	88.09	8,602.71	995.46	1,200.28	991.97	208.31	5.762	
20,500.00	11,665.91	20,462.20	11,595.73	150.28	147.90	88.09	8,702.69	994.61	1,200.30	989.74	210.56	5.701	
20,600.00	11,664.24	20,562.20	11,593.98	151.87	149.48	88.09	8,802.67	993.76	1,200.31	987.52	212.80	5.641	
20,700.00	11,662.58	20,662.20	11,592.24	153.46	151.07	88.08	8,902.65	992.91	1,200.33	985.29	215.04	5.582	
20,800.00	11,660.91	20,762.20	11,590.50	155.05	152.65	88.08	9,002.63	992.06	1,200.35	983.06	217.29	5.524	
20,900.00	11,659.25	20,862.20	11,588.76	156.65	154.24	88.08	9,102.61	991.21	1,200.36	980.82	219.54	5.468	
21,000.00	11,657.58	20,962.20	11,587.02	158.24	155.83	88.07	9,202.59	990.36	1,200.38	978.59	221.79	5.412	
21,100.00	11,655.92	21,062.20	11,585.28	159.84	157.43	88.07	9,302.58	989.52	1,200.39	976.35	224.04	5.358	
21,200.00	11,654.25	21,162.20	11,583.54	161.43	159.02	88.07	9,402.56	988.67	1,200.41	974.11	226.30	5.305	
21,300.00	11,652.59	21,262.20	11,581.80	163.03	160.61	88.06	9,502.54	987.82	1,200.43	971.87	228.55	5.252	
21,400.00	11,650.92	21,362.20	11,580.06	164.63	162.21	88.06	9,602.52	986.97	1,200.44	969.63	230.81	5.201	
21,500.00	11,649.26	21,462.20	11,578.32	166.23	163.80	88.05	9,702.50	986.12	1,200.46	967.39	233.07	5.151	
21,600.00	11,647.59	21,562.20	11,576.58	167.83	165.40	88.05	9,802.48	985.27	1,200.47	965.15	235.33	5.101	
21,700.00	11,645.93	21,662.20	11,574.84	169.43	167.00	88.05	9,902.46	984.42	1,200.49	962.90	237.59	5.053	
21,800.00	11,644.26	21,762.20	11,573.10	171.03	168.60	88.04	10,002.44	983.57	1,200.50	960.65	239.85	5.005	
21,900.00	11,642.60	21,862.20	11,571.36	172.63	170.20	88.04	10,102.42	982.72	1,200.52	958.40	242.12	4.958	
21,929.37	11,642.11	21,891.57	11,570.84	173.11	170.67	88.04	10,131.79	982.48	1,200.53	957.74	242.78	4.945	ES, SF

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 703H - 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
0.00	0.00	0.00	0.00	0.00	0.00	82.05	233.50	1,672.33	1,688.78				
100.00	100.00	72.00	72.00	0.13	0.10	82.05	233.50	1,672.33	1,688.55	1,688.39	0.16	N/A	
200.00	200.00	172.00	172.00	0.48	0.40	82.05	233.50	1,672.33	1,688.55	1,687.92	0.63	2,690.253	
300.00	300.00	272.00	272.00	0.84	0.76	82.05	233.50	1,672.33	1,688.55	1,687.42	1.13	1,489.885	
400.00	400.00	372.00	372.00	1.20	1.12	82.05	233.50	1,672.33	1,688.55	1,686.91	1.64	1,029.721	
500.00	500.00	472.00	472.00	1.56	1.48	82.05	233.50	1,672.33	1,688.55	1,686.41	2.15	786.648	
600.00	600.00	572.00	572.00	1.92	1.83	82.05	233.50	1,672.33	1,688.55	1,685.90	2.65	636.394	
700.00	700.00	672.00	672.00	2.28	2.19	82.05	233.50	1,672.33	1,688.55	1,685.39	3.16	534.325	
800.00	800.00	772.00	772.00	2.63	2.55	82.05	233.50	1,672.33	1,688.55	1,684.89	3.67	460.468	
900.00	900.00	872.00	872.00	2.99	2.91	82.05	233.50	1,672.33	1,688.55	1,684.38	4.17	404.547	
1,000.00	1,000.00	972.00	972.00	3.35	3.27	82.05	233.50	1,672.33	1,688.55	1,683.87	4.68	360.737	
1,100.00	1,100.00	1,072.00	1,072.00	3.71	3.63	82.05	233.50	1,672.33	1,688.55	1,683.36	5.19	325.488	
1,200.00	1,200.00	1,172.00	1,172.00	4.07	3.98	82.05	233.50	1,672.33	1,688.55	1,682.86	5.69	296.514	
1,300.00	1,300.00	1,272.00	1,272.00	4.43	4.34	82.05	233.50	1,672.33	1,688.55	1,682.35	6.20	272.276	
1,400.00	1,400.00	1,372.00	1,372.00	4.79	4.70	82.05	233.50	1,672.33	1,688.55	1,681.84	6.71	251.702	
1,500.00	1,500.00	1,472.00	1,472.00	5.14	5.06	82.05	233.50	1,672.33	1,688.55	1,681.34	7.22	234.018	
1,600.00	1,600.00	1,572.00	1,572.00	5.50	5.42	82.05	233.50	1,672.33	1,688.55	1,680.83	7.72	218.656	
1,700.00	1,700.00	1,672.00	1,672.00	5.86	5.78	82.05	233.50	1,672.33	1,688.55	1,680.32	8.23	205.186	
1,800.00	1,800.00	1,772.00	1,772.00	6.22	6.14	82.05	233.50	1,672.33	1,688.55	1,679.82	8.74	193.280	
1,900.00	1,900.00	1,872.00	1,872.00	6.58	6.49	82.05	233.50	1,672.33	1,688.55	1,679.31	9.24	182.679	
2,000.00	2,000.00	1,972.00	1,972.00	6.94	6.85	82.05	233.50	1,672.33	1,688.55	1,678.80	9.75	173.181	
2,100.00	2,100.00	2,072.00	2,072.00	7.29	7.21	82.05	233.50	1,672.33	1,688.55	1,678.30	10.26	164.622	
2,200.00	2,200.00	2,172.00	2,172.00	7.65	7.57	82.05	233.50	1,672.33	1,688.55	1,677.79	10.76	156.869	
2,300.00	2,300.00	2,272.00	2,272.00	8.01	7.93	82.05	233.50	1,672.33	1,688.55	1,677.28	11.27	149.813	
2,400.00	2,400.00	2,372.00	2,372.00	8.37	8.29	82.05	233.50	1,672.33	1,688.55	1,676.77	11.78	143.365	
2,500.00	2,500.00	2,472.00	2,472.00	8.73	8.64	82.05	233.50	1,672.33	1,688.55	1,676.27	12.28	137.449	
2,600.00	2,600.00	2,572.00	2,572.00	9.09	9.00	82.05	233.50	1,672.33	1,688.55	1,675.76	12.79	132.002	
2,700.00	2,700.00	2,672.00	2,672.00	9.45	9.36	82.05	233.50	1,672.33	1,688.55	1,675.25	13.30	126.970	
2,800.00	2,800.00	2,772.00	2,772.00	9.80	9.72	82.05	233.50	1,672.33	1,688.55	1,674.75	13.81	122.308	
2,900.00	2,900.00	2,872.00	2,872.00	10.16	10.08	82.05	233.50	1,672.33	1,688.55	1,674.24	14.31	117.975	
3,000.00	3,000.00	2,972.00	2,972.00	10.52	10.44	82.05	233.50	1,672.33	1,688.55	1,673.73	14.82	113.940	
3,100.00	3,100.00	3,101.92	3,101.91	10.88	10.89	82.09	232.37	1,671.58	1,687.91	1,672.53	15.39	109.692	
3,200.00	3,200.00	3,243.20	3,243.04	11.24	11.35	82.25	227.06	1,668.04	1,684.92	1,668.96	15.96	105.587	
3,300.00	3,300.00	3,383.82	3,383.17	11.60	11.81	82.54	217.47	1,661.64	1,679.50	1,662.98	16.52	101.663	
3,400.00	3,400.00	3,487.99	3,486.78	11.96	12.16	82.82	208.43	1,655.62	1,672.63	1,655.62	17.02	98.302	
3,500.00	3,500.00	3,587.44	3,585.69	12.31	12.50	83.10	199.78	1,649.85	1,665.79	1,648.28	17.50	95.166	
3,600.00	3,599.99	3,687.02	3,684.72	12.65	12.84	-125.32	191.12	1,644.08	1,659.74	1,641.75	17.98	92.295	
3,700.00	3,699.91	3,786.80	3,783.95	12.98	13.18	-125.21	182.44	1,638.29	1,655.22	1,636.76	18.45	89.702	
3,800.00	3,799.69	3,886.72	3,883.32	13.31	13.53	-125.15	173.75	1,632.50	1,652.21	1,633.29	18.93	87.302	
3,833.60	3,833.18	3,920.31	3,916.73	13.42	13.65	-125.15	170.83	1,630.55	1,651.55	1,632.46	19.08	86.537	
3,900.00	3,899.32	3,986.70	3,982.75	13.64	13.88	-125.13	165.05	1,626.70	1,650.39	1,630.99	19.40	85.067	
4,000.00	3,998.94	4,086.68	4,082.18	13.97	14.23	-125.10	156.35	1,620.90	1,648.65	1,628.77	19.88	82.928	
4,100.00	4,098.56	4,186.66	4,181.62	14.30	14.59	-125.07	147.66	1,615.10	1,646.91	1,626.55	20.36	80.878	
4,200.00	4,198.18	4,286.64	4,281.05	14.64	14.94	-125.04	138.96	1,609.30	1,645.17	1,624.32	20.85	78.912	
4,300.00	4,297.80	4,386.62	4,380.48	14.98	15.30	-125.01	130.26	1,603.50	1,643.43	1,622.10	21.34	77.026	
4,400.00	4,397.42	4,486.60	4,479.92	15.32	15.66	-124.98	121.56	1,597.71	1,641.70	1,619.87	21.83	75.215	
4,500.00	4,497.04	4,586.58	4,579.35	15.66	16.03	-124.95	112.87	1,591.91	1,639.96	1,617.64	22.32	73.476	
4,600.00	4,596.66	4,686.57	4,678.78	16.01	16.39	-124.92	104.17	1,586.11	1,638.22	1,615.41	22.81	71.806	
4,700.00	4,696.27	4,786.55	4,778.22	16.36	16.76	-124.89	95.47	1,580.31	1,636.48	1,613.17	23.31	70.200	
4,800.00	4,795.89	4,886.53	4,877.65	16.71	17.12	-124.86	86.77	1,574.51	1,634.75	1,610.94	23.81	68.655	
4,900.00	4,895.51	4,986.51	4,977.08	17.06	17.49	-124.83	78.08	1,568.71	1,633.01	1,608.70	24.31	67.169	
5,000.00	4,995.13	5,086.49	5,076.52	17.41	17.86	-124.80	69.38	1,562.92	1,631.28	1,606.46	24.81	65.739	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 703H - 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
5,100.00	5,094.75	5,186.47	5,175.95	17.76	18.23	-124.77	60.68	1,557.12	1,629.54	1,604.22	25.32	64.361	
5,200.00	5,194.37	5,286.45	5,275.38	18.12	18.61	-124.74	51.98	1,551.32	1,627.81	1,601.98	25.82	63.033	
5,300.00	5,293.99	5,386.43	5,374.82	18.48	18.98	-124.71	43.29	1,545.52	1,626.08	1,599.74	26.33	61.753	
5,400.00	5,393.61	5,486.42	5,474.25	18.83	19.35	-124.68	34.59	1,539.72	1,624.34	1,597.50	26.84	60.518	
5,500.00	5,493.22	5,586.40	5,573.68	19.19	19.73	-124.65	25.89	1,533.92	1,622.61	1,595.26	27.35	59.327	
5,600.00	5,592.84	5,686.38	5,673.12	19.55	20.10	-124.62	17.19	1,528.13	1,620.88	1,593.02	27.86	58.176	
5,700.00	5,692.46	5,786.36	5,772.55	19.91	20.48	-124.59	8.50	1,522.33	1,619.14	1,590.77	28.37	57.065	
5,800.00	5,792.08	5,886.34	5,871.98	20.28	20.86	-124.55	-0.20	1,516.53	1,617.41	1,588.53	28.89	55.991	
5,900.00	5,891.70	5,986.32	5,971.42	20.64	21.24	-124.52	-8.90	1,510.73	1,615.68	1,586.28	29.40	54.952	
6,000.00	5,991.32	6,086.30	6,070.85	21.00	21.62	-124.49	-17.60	1,504.93	1,613.95	1,584.03	29.92	53.948	
6,100.00	6,090.94	6,186.28	6,170.28	21.37	22.00	-124.46	-26.29	1,499.13	1,612.22	1,581.79	30.43	52.976	
6,200.00	6,190.56	6,286.26	6,269.72	21.73	22.38	-124.43	-34.99	1,493.34	1,610.49	1,579.54	30.95	52.035	
6,300.00	6,290.18	6,386.25	6,369.15	22.10	22.76	-124.40	-43.69	1,487.54	1,608.76	1,577.29	31.47	51.123	
6,400.00	6,389.79	6,486.23	6,468.58	22.46	23.14	-124.37	-52.39	1,481.74	1,607.03	1,575.05	31.99	50.239	
6,500.00	6,489.41	6,586.21	6,568.02	22.83	23.52	-124.34	-61.08	1,475.94	1,605.31	1,572.80	32.51	49.383	
6,567.67	6,556.82	6,653.86	6,635.30	23.08	23.78	-124.32	-66.97	1,472.02	1,604.14	1,571.28	32.86	48.818	
6,600.00	6,589.04	6,686.19	6,667.45	23.20	23.90	-124.29	-69.78	1,470.14	1,603.50	1,570.47	33.03	48.551	
6,700.00	6,688.82	6,786.11	6,766.82	23.56	24.28	-124.16	-78.47	1,464.35	1,600.56	1,567.02	33.55	47.712	
6,800.00	6,788.74	6,885.89	6,866.05	23.92	24.67	-123.93	-87.15	1,458.56	1,596.16	1,562.10	34.06	46.860	
6,901.27	6,890.00	6,986.73	6,966.34	24.27	25.05	84.97	-95.93	1,452.71	1,590.25	1,555.66	34.58	45.985	
7,000.00	6,988.73	7,084.92	7,064.00	24.61	25.43	85.26	-104.47	1,447.02	1,583.79	1,548.70	35.09	45.139	
7,100.00	7,088.73	7,184.37	7,162.90	24.95	25.81	85.56	-113.12	1,441.25	1,577.29	1,541.69	35.60	44.308	
7,200.00	7,188.73	7,283.82	7,261.81	25.30	26.20	85.86	-121.77	1,435.48	1,570.83	1,534.72	36.11	43.500	
7,300.00	7,288.73	7,383.28	7,360.72	25.64	26.58	86.16	-130.42	1,429.71	1,564.42	1,527.80	36.62	42.715	
7,400.00	7,388.73	7,482.73	7,459.62	25.99	26.96	86.46	-139.07	1,423.95	1,558.05	1,520.91	37.14	41.953	
7,500.00	7,488.73	7,582.18	7,558.53	26.33	27.35	86.77	-147.73	1,418.18	1,551.73	1,514.07	37.65	41.212	
7,600.00	7,588.73	7,681.63	7,657.44	26.68	27.73	87.08	-156.38	1,412.41	1,545.45	1,507.28	38.17	40.491	
7,700.00	7,688.73	7,781.08	7,756.34	27.03	28.12	87.39	-165.03	1,406.64	1,539.21	1,500.53	38.68	39.790	
7,800.00	7,788.73	7,880.54	7,855.25	27.37	28.50	87.70	-173.68	1,400.88	1,533.02	1,493.82	39.20	39.108	
7,900.00	7,888.73	7,979.99	7,954.16	27.72	28.89	88.02	-182.33	1,395.11	1,526.88	1,487.16	39.72	38.444	
8,000.00	7,988.73	8,079.44	8,053.06	28.07	29.27	88.34	-190.98	1,389.34	1,520.78	1,480.55	40.23	37.798	
8,100.00	8,088.73	8,177.71	8,150.79	28.41	29.65	88.66	-199.53	1,383.64	1,514.74	1,473.99	40.75	37.171	
8,200.00	8,188.73	8,258.84	8,231.58	28.76	29.96	88.89	-205.78	1,379.47	1,509.42	1,468.20	41.23	36.614	
8,300.00	8,288.73	8,340.26	8,312.79	29.11	30.27	89.07	-210.62	1,376.25	1,505.35	1,463.65	41.69	36.106	
8,400.00	8,388.73	8,421.89	8,394.31	29.46	30.56	89.20	-214.03	1,373.98	1,502.50	1,460.35	42.15	35.646	
8,500.00	8,488.73	8,500.00	8,472.39	29.81	30.84	89.27	-215.93	1,372.71	1,500.88	1,458.29	42.59	35.241	
8,600.00	8,588.73	8,588.35	8,560.73	30.16	31.14	89.29	-216.50	1,372.33	1,500.44	1,457.40	43.04	34.859	
8,700.00	8,688.73	8,688.35	8,660.73	30.51	31.47	89.29	-216.50	1,372.33	1,500.44	1,456.92	43.52	34.474	
8,800.00	8,788.73	8,788.35	8,760.73	30.86	31.80	89.29	-216.50	1,372.33	1,500.44	1,456.44	44.01	34.096	
8,900.00	8,888.73	8,888.35	8,860.73	31.20	32.13	89.29	-216.50	1,372.33	1,500.44	1,455.95	44.49	33.726	
9,000.00	8,988.73	8,988.35	8,960.73	31.55	32.46	89.29	-216.50	1,372.33	1,500.44	1,455.47	44.97	33.364	
9,100.00	9,088.73	9,088.35	9,060.73	31.90	32.79	89.29	-216.50	1,372.33	1,500.44	1,454.99	45.46	33.009	
9,200.00	9,188.73	9,188.35	9,160.73	32.25	33.12	89.29	-216.50	1,372.33	1,500.44	1,454.50	45.94	32.661	
9,300.00	9,288.73	9,288.35	9,260.73	32.60	33.45	89.29	-216.50	1,372.33	1,500.44	1,454.02	46.43	32.320	
9,400.00	9,388.73	9,388.35	9,360.73	32.96	33.79	89.29	-216.50	1,372.33	1,500.44	1,453.53	46.91	31.985	
9,500.00	9,488.73	9,488.35	9,460.73	33.31	34.12	89.29	-216.50	1,372.33	1,500.44	1,453.05	47.40	31.658	
9,600.00	9,588.73	9,588.35	9,560.73	33.66	34.45	89.29	-216.50	1,372.33	1,500.44	1,452.56	47.88	31.336	
9,700.00	9,688.73	9,688.35	9,660.73	34.01	34.79	89.29	-216.50	1,372.33	1,500.44	1,452.08	48.37	31.021	
9,800.00	9,788.73	9,788.35	9,760.73	34.36	35.12	89.29	-216.50	1,372.33	1,500.44	1,451.59	48.86	30.712	
9,900.00	9,888.73	9,888.35	9,860.73	34.71	35.46	89.29	-216.50	1,372.33	1,500.44	1,451.10	49.34	30.409	
10,000.00	9,988.73	9,988.35	9,960.73	35.06	35.79	89.29	-216.50	1,372.33	1,500.44	1,450.61	49.83	30.111	
10,100.00	10,088.73	10,088.35	10,060.73	35.41	36.13	89.29	-216.50	1,372.33	1,500.44	1,450.13	50.32	29.819	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 703H - 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
10,200.00	10,188.73	10,188.35	10,160.73	35.76	36.47	89.29	-216.50	1,372.33	1,500.44	1,449.64	50.81	29.532	
10,300.00	10,288.73	10,288.35	10,260.73	36.12	36.80	89.29	-216.50	1,372.33	1,500.44	1,449.15	51.30	29.251	
10,400.00	10,388.73	10,388.35	10,360.73	36.47	37.14	89.29	-216.50	1,372.33	1,500.44	1,448.66	51.79	28.974	
10,500.00	10,488.73	10,488.35	10,460.73	36.82	37.48	89.29	-216.50	1,372.33	1,500.44	1,448.17	52.27	28.703	
10,600.00	10,588.73	10,588.35	10,560.73	37.17	37.82	89.29	-216.50	1,372.33	1,500.44	1,447.68	52.76	28.437	
10,700.00	10,688.73	10,688.35	10,660.73	37.52	38.16	89.29	-216.50	1,372.33	1,500.44	1,447.19	53.25	28.175	
10,800.00	10,788.73	10,788.35	10,760.73	37.88	38.50	89.29	-216.50	1,372.33	1,500.44	1,446.70	53.75	27.918	
10,900.00	10,888.73	10,888.35	10,860.73	38.23	38.84	89.29	-216.50	1,372.33	1,500.44	1,446.21	54.24	27.665	
11,000.00	10,988.73	10,988.35	10,960.73	38.58	39.17	89.29	-216.50	1,372.33	1,500.44	1,445.72	54.73	27.417	
11,100.00	11,088.73	11,088.35	11,060.73	38.94	39.51	89.29	-216.50	1,372.33	1,500.44	1,445.23	55.22	27.173	
11,200.00	11,188.73	11,188.35	11,160.73	39.29	39.86	89.29	-216.50	1,372.33	1,500.44	1,444.73	55.71	26.933	
11,243.27	11,232.00	11,231.62	11,204.00	39.44	40.00	89.29	-216.50	1,372.33	1,500.44	1,444.52	55.92	26.831	
11,250.00	11,238.73	11,238.35	11,210.73	39.46	40.03	89.79	-216.50	1,372.33	1,500.44	1,444.49	55.96	26.815	
11,300.00	11,288.64	11,288.26	11,260.64	39.64	40.20	89.90	-216.50	1,372.33	1,500.44	1,444.24	56.20	26.698	
11,323.15	11,311.63	11,311.24	11,283.63	39.71	40.27	90.00	-216.50	1,372.33	1,500.43	1,444.12	56.31	26.645 CC	
11,350.00	11,338.12	11,337.73	11,310.12	39.80	40.36	90.16	-216.50	1,372.33	1,500.44	1,444.00	56.44	26.584	
11,400.00	11,386.78	11,386.40	11,358.78	39.96	40.53	90.58	-216.50	1,372.33	1,500.52	1,443.84	56.68	26.475	
11,450.00	11,434.28	11,433.89	11,406.28	40.11	40.69	91.12	-216.50	1,372.33	1,500.76	1,443.86	56.90	26.373	
11,500.00	11,480.23	11,480.74	11,453.12	40.25	40.85	91.77	-216.41	1,372.33	1,501.30	1,444.17	57.13	26.279	
11,550.00	11,524.29	11,531.63	11,503.89	40.39	41.02	92.49	-213.25	1,372.30	1,502.15	1,444.80	57.35	26.191	
11,600.00	11,566.13	11,584.75	11,556.38	40.51	41.18	93.21	-205.17	1,372.23	1,503.28	1,445.71	57.57	26.112	
11,650.00	11,605.42	11,640.38	11,610.29	40.62	41.34	93.94	-191.53	1,372.12	1,504.67	1,446.89	57.78	26.043	
11,700.00	11,641.87	11,698.81	11,665.21	40.73	41.48	94.65	-171.66	1,371.95	1,506.28	1,448.31	57.97	25.985	
11,750.00	11,675.21	11,760.31	11,720.51	40.84	41.62	95.36	-144.81	1,371.72	1,508.07	1,449.93	58.14	25.938	
11,800.00	11,705.17	11,825.15	11,775.34	40.95	41.74	96.05	-110.27	1,371.43	1,509.98	1,451.69	58.29	25.903	
11,850.00	11,731.53	11,893.55	11,828.55	41.06	41.85	96.71	-67.37	1,371.06	1,511.93	1,453.51	58.42	25.878	
11,900.00	11,754.09	11,965.61	11,878.68	41.17	41.95	97.32	-15.66	1,370.62	1,513.84	1,455.30	58.54	25.861	
11,950.00	11,772.67	12,041.32	11,923.90	41.28	42.02	97.88	44.98	1,370.11	1,515.60	1,456.97	58.64	25.847	
12,000.00	11,787.14	12,120.44	11,962.20	41.40	42.09	98.35	114.14	1,369.52	1,517.13	1,458.40	58.73	25.831	
12,050.00	11,797.38	12,202.50	11,991.47	41.52	42.16	98.72	190.72	1,368.87	1,518.33	1,459.48	58.84	25.803	
12,100.00	11,803.33	12,286.77	12,009.83	41.65	42.25	98.96	272.89	1,368.17	1,519.11	1,460.13	58.98	25.757	
12,152.81	11,804.88	12,377.11	12,015.92	41.78	42.36	99.05	362.92	1,367.41	1,519.43	1,460.27	59.16	25.682	
12,200.00	11,804.09	12,425.69	12,015.10	41.91	42.45	99.05	411.50	1,367.00	1,519.44	1,460.11	59.32	25.612	
12,300.00	11,802.43	12,525.69	12,013.39	42.24	42.68	99.05	511.48	1,366.15	1,519.44	1,459.72	59.72	25.443	
12,400.00	11,800.76	12,625.69	12,011.67	42.62	42.98	99.05	611.46	1,365.30	1,519.45	1,459.25	60.20	25.240	
12,500.00	11,799.10	12,725.69	12,009.96	43.07	43.34	99.05	711.44	1,364.45	1,519.45	1,458.69	60.77	25.005	
12,600.00	11,797.43	12,825.69	12,008.25	43.57	43.76	99.04	811.42	1,363.60	1,519.46	1,458.04	61.41	24.741	
12,700.00	11,795.77	12,925.69	12,006.53	44.13	44.24	99.04	911.40	1,362.75	1,519.46	1,457.32	62.14	24.452	
12,800.00	11,794.10	13,025.69	12,004.82	44.75	44.78	99.04	1,011.39	1,361.90	1,519.47	1,456.52	62.94	24.140	
12,900.00	11,792.44	13,125.69	12,003.11	45.41	45.37	99.04	1,111.37	1,361.05	1,519.47	1,455.65	63.82	23.808	
13,000.00	11,790.77	13,225.69	12,001.39	46.13	46.01	99.04	1,211.35	1,360.20	1,519.48	1,454.71	64.77	23.460	
13,100.00	11,789.11	13,325.69	11,999.68	46.89	46.69	99.03	1,311.33	1,359.36	1,519.48	1,453.70	65.78	23.098	
13,200.00	11,787.44	13,425.69	11,997.97	47.70	47.43	99.03	1,411.31	1,358.51	1,519.49	1,452.62	66.87	22.725	
13,300.00	11,785.78	13,525.69	11,996.25	48.55	48.21	99.03	1,511.29	1,357.66	1,519.49	1,451.49	68.01	22.343	
13,400.00	11,784.11	13,625.69	11,994.54	49.44	49.03	99.03	1,611.28	1,356.81	1,519.50	1,450.29	69.21	21.956	
13,500.00	11,782.45	13,725.69	11,992.83	50.37	49.90	99.03	1,711.26	1,355.96	1,519.51	1,449.04	70.46	21.565	
13,600.00	11,780.78	13,825.69	11,991.12	51.33	50.80	99.03	1,811.24	1,355.11	1,519.51	1,447.74	71.77	21.172	
13,700.00	11,779.12	13,925.69	11,989.40	52.33	51.74	99.02	1,911.22	1,354.26	1,519.52	1,446.39	73.13	20.779	
13,800.00	11,777.45	14,025.69	11,987.69	53.37	52.71	99.02	2,011.20	1,353.41	1,519.52	1,444.99	74.53	20.387	
13,900.00	11,775.79	14,125.69	11,985.98	54.43	53.72	99.02	2,111.18	1,352.56	1,519.53	1,443.54	75.98	19.998	
14,000.00	11,774.13	14,225.69	11,984.26	55.52	54.76	99.02	2,211.17	1,351.71	1,519.53	1,442.06	77.47	19.614	
14,100.00	11,772.46	14,325.69	11,982.55	56.64	55.83	99.02	2,311.15	1,350.86	1,519.54	1,440.53	79.00	19.234	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 703H - 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
14,200.00	11,770.80	14,425.69	11,980.84	57.78	56.92	99.01	2,411.13	1,350.02	1,519.54	1,438.97	80.57	18.859	
14,300.00	11,769.13	14,525.69	11,979.12	58.95	58.05	99.01	2,511.11	1,349.17	1,519.55	1,437.37	82.18	18.491	
14,400.00	11,767.47	14,625.69	11,977.41	60.14	59.19	99.01	2,611.09	1,348.32	1,519.55	1,435.74	83.81	18.130	
14,500.00	11,765.80	14,725.69	11,975.70	61.35	60.36	99.01	2,711.08	1,347.47	1,519.56	1,434.08	85.48	17.777	
14,600.00	11,764.14	14,825.69	11,973.98	62.59	61.56	99.01	2,811.06	1,346.62	1,519.56	1,432.39	87.18	17.431	
14,700.00	11,762.47	14,925.69	11,972.27	63.84	62.77	99.00	2,911.04	1,345.77	1,519.57	1,430.67	88.90	17.093	
14,800.00	11,760.81	15,025.69	11,970.56	65.11	64.00	99.00	3,011.02	1,344.92	1,519.58	1,428.92	90.65	16.763	
14,900.00	11,759.14	15,125.69	11,968.85	66.39	65.25	99.00	3,111.00	1,344.07	1,519.58	1,427.15	92.43	16.441	
15,000.00	11,757.48	15,225.69	11,967.13	67.69	66.52	99.00	3,210.98	1,343.22	1,519.59	1,425.36	94.23	16.127	
15,100.00	11,755.81	15,325.69	11,965.42	69.01	67.81	99.00	3,310.97	1,342.37	1,519.59	1,423.55	96.05	15.822	
15,200.00	11,754.15	15,425.69	11,963.71	70.34	69.11	99.00	3,410.95	1,341.52	1,519.60	1,421.71	97.89	15.524	
15,300.00	11,752.48	15,525.69	11,961.99	71.69	70.42	98.99	3,510.93	1,340.68	1,519.60	1,419.85	99.75	15.234	
15,400.00	11,750.82	15,625.69	11,960.28	73.04	71.75	98.99	3,610.91	1,339.83	1,519.61	1,417.98	101.63	14.953	
15,500.00	11,749.15	15,725.69	11,958.57	74.41	73.09	98.99	3,710.89	1,338.98	1,519.61	1,416.09	103.52	14.679	
15,600.00	11,747.49	15,825.69	11,956.85	75.79	74.45	98.99	3,810.87	1,338.13	1,519.62	1,414.18	105.44	14.412	
15,700.00	11,745.82	15,925.69	11,955.14	77.18	75.81	98.99	3,910.86	1,337.28	1,519.62	1,412.26	107.37	14.154	
15,800.00	11,744.16	16,025.69	11,953.43	78.58	77.19	98.98	4,010.84	1,336.43	1,519.63	1,410.32	109.31	13.902	
15,900.00	11,742.49	16,125.69	11,951.71	79.99	78.58	98.98	4,110.82	1,335.58	1,519.63	1,408.37	111.27	13.657	
16,000.00	11,740.83	16,225.69	11,950.00	81.41	79.98	98.98	4,210.80	1,334.73	1,519.64	1,406.40	113.24	13.420	
16,100.00	11,739.16	16,325.69	11,948.29	82.84	81.38	98.98	4,310.78	1,333.88	1,519.64	1,404.42	115.22	13.189	
16,200.00	11,737.50	16,425.69	11,946.58	84.28	82.80	98.98	4,410.76	1,333.03	1,519.65	1,402.43	117.22	12.964	
16,300.00	11,735.83	16,525.69	11,944.86	85.72	84.23	98.97	4,510.75	1,332.19	1,519.66	1,400.43	119.22	12.746	
16,400.00	11,734.17	16,625.69	11,943.15	87.17	85.66	98.97	4,610.73	1,331.34	1,519.66	1,398.42	121.24	12.534	
16,500.00	11,732.50	16,725.69	11,941.44	88.63	87.10	98.97	4,710.71	1,330.49	1,519.67	1,396.40	123.27	12.328	
16,600.00	11,730.84	16,825.69	11,939.72	90.10	88.55	98.97	4,810.69	1,329.64	1,519.67	1,394.36	125.31	12.127	
16,700.00	11,729.17	16,925.69	11,938.01	91.57	90.00	98.97	4,910.67	1,328.79	1,519.68	1,392.32	127.36	11.932	
16,800.00	11,727.51	17,025.69	11,936.30	93.04	91.47	98.97	5,010.65	1,327.94	1,519.68	1,390.27	129.41	11.743	
16,900.00	11,725.84	17,125.69	11,934.58	94.53	92.93	98.96	5,110.64	1,327.09	1,519.69	1,388.21	131.48	11.558	
17,000.00	11,724.18	17,225.69	11,932.87	96.02	94.41	98.96	5,210.62	1,326.24	1,519.69	1,386.14	133.55	11.379	
17,100.00	11,722.51	17,325.69	11,931.16	97.51	95.89	98.96	5,310.60	1,325.39	1,519.70	1,384.07	135.63	11.205	
17,200.00	11,720.85	17,425.69	11,929.44	99.01	97.37	98.96	5,410.58	1,324.54	1,519.70	1,381.99	137.72	11.035	
17,300.00	11,719.18	17,525.69	11,927.73	100.51	98.87	98.96	5,510.56	1,323.69	1,519.71	1,379.90	139.81	10.870	
17,400.00	11,717.52	17,625.69	11,926.02	102.02	100.36	98.95	5,610.54	1,322.85	1,519.71	1,377.80	141.91	10.709	
17,500.00	11,715.85	17,725.69	11,924.31	103.53	101.86	98.95	5,710.53	1,322.00	1,519.72	1,375.70	144.02	10.552	
17,600.00	11,714.19	17,825.69	11,922.59	105.05	103.37	98.95	5,810.51	1,321.15	1,519.73	1,373.59	146.14	10.399	
17,700.00	11,712.52	17,925.69	11,920.88	106.57	104.88	98.95	5,910.49	1,320.30	1,519.73	1,371.47	148.26	10.251	
17,800.00	11,710.86	18,025.69	11,919.17	108.10	106.39	98.95	6,010.47	1,319.45	1,519.74	1,369.35	150.38	10.106	
17,900.00	11,709.19	18,125.69	11,917.45	109.63	107.91	98.94	6,110.45	1,318.60	1,519.74	1,367.23	152.51	9.965	
18,000.00	11,707.53	18,225.69	11,915.74	111.16	109.43	98.94	6,210.44	1,317.75	1,519.75	1,365.10	154.65	9.827	
18,100.00	11,705.86	18,325.69	11,914.03	112.69	110.96	98.94	6,310.42	1,316.90	1,519.75	1,362.96	156.79	9.693	
18,200.00	11,704.20	18,425.69	11,912.31	114.23	112.49	98.94	6,410.40	1,316.05	1,519.76	1,360.82	158.94	9.562	
18,300.00	11,702.54	18,525.69	11,910.60	115.77	114.02	98.94	6,510.38	1,315.20	1,519.76	1,358.68	161.09	9.435	
18,400.00	11,700.87	18,625.69	11,908.89	117.32	115.55	98.94	6,610.36	1,314.35	1,519.77	1,356.53	163.24	9.310	
18,500.00	11,699.21	18,725.69	11,907.17	118.87	117.09	98.93	6,710.34	1,313.51	1,519.77	1,354.38	165.40	9.189	
18,600.00	11,697.54	18,825.69	11,905.46	120.42	118.64	98.93	6,810.33	1,312.66	1,519.78	1,352.22	167.56	9.070	
18,700.00	11,695.88	18,925.69	11,903.75	121.97	120.18	98.93	6,910.31	1,311.81	1,519.79	1,350.06	169.73	8.954	
18,800.00	11,694.21	19,025.69	11,902.04	123.52	121.73	98.93	7,010.29	1,310.96	1,519.79	1,347.89	171.90	8.841	
18,900.00	11,692.55	19,125.69	11,900.32	125.08	123.28	98.93	7,110.27	1,310.11	1,519.80	1,345.72	174.07	8.731	
19,000.00	11,690.88	19,225.69	11,898.61	126.64	124.83	98.92	7,210.25	1,309.26	1,519.80	1,343.55	176.25	8.623	
19,100.00	11,689.22	19,325.69	11,896.90	128.21	126.39	98.92	7,310.23	1,308.41	1,519.81	1,341.38	178.43	8.518	
19,200.00	11,687.55	19,425.69	11,895.18	129.77	127.95	98.92	7,410.22	1,307.56	1,519.81	1,339.20	180.61	8.415	
19,300.00	11,685.89	19,525.69	11,893.47	131.34	129.51	98.92	7,510.20	1,306.71	1,519.82	1,337.02	182.80	8.314	

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 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Offset Design Trinity Fed/Santa Fe Fed - Trinity Fed Com 703H - 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
19,400.00	11,684.22	19,625.69	11,891.76	132.91	131.07	98.92	7,610.18	1,305.86	1,519.82	1,334.83	184.99	8.216	
19,500.00	11,682.56	19,725.69	11,890.04	134.48	132.63	98.91	7,710.16	1,305.01	1,519.83	1,332.65	187.18	8.120	
19,600.00	11,680.89	19,825.69	11,888.33	136.05	134.20	98.91	7,810.14	1,304.17	1,519.83	1,330.46	189.38	8.025	
19,700.00	11,679.23	19,925.69	11,886.62	137.63	135.77	98.91	7,910.12	1,303.32	1,519.84	1,328.27	191.57	7.933	
19,800.00	11,677.56	20,025.69	11,884.90	139.20	137.34	98.91	8,010.11	1,302.47	1,519.84	1,326.07	193.77	7.843	
19,900.00	11,675.90	20,125.69	11,883.19	140.78	138.91	98.91	8,110.09	1,301.62	1,519.85	1,323.87	195.98	7.755	
20,000.00	11,674.23	20,225.69	11,881.48	142.36	140.49	98.91	8,210.07	1,300.77	1,519.86	1,321.67	198.18	7.669	
20,100.00	11,672.57	20,325.69	11,879.77	143.94	142.06	98.90	8,310.05	1,299.92	1,519.86	1,319.47	200.39	7.584	
20,200.00	11,670.90	20,425.69	11,878.05	145.52	143.64	98.90	8,410.03	1,299.07	1,519.87	1,317.27	202.60	7.502	
20,300.00	11,669.24	20,525.69	11,876.34	147.11	145.22	98.90	8,510.01	1,298.22	1,519.87	1,315.06	204.81	7.421	
20,400.00	11,667.57	20,625.68	11,874.63	148.70	146.80	98.90	8,610.00	1,297.37	1,519.88	1,312.85	207.03	7.341	
20,500.00	11,665.91	20,725.68	11,872.91	150.28	148.38	98.90	8,709.98	1,296.52	1,519.88	1,310.64	209.24	7.264	
20,600.00	11,664.24	20,825.68	11,871.20	151.87	149.97	98.89	8,809.96	1,295.68	1,519.89	1,308.43	211.46	7.188	
20,700.00	11,662.58	20,925.68	11,869.49	153.46	151.55	98.89	8,909.94	1,294.83	1,519.89	1,306.21	213.68	7.113	
20,800.00	11,660.91	21,025.68	11,867.77	155.05	153.14	98.89	9,009.92	1,293.98	1,519.90	1,304.00	215.90	7.040	
20,900.00	11,659.25	21,125.68	11,866.06	156.65	154.73	98.89	9,109.90	1,293.13	1,519.90	1,301.78	218.13	6.968	
21,000.00	11,657.58	21,225.68	11,864.35	158.24	156.32	98.89	9,209.89	1,292.28	1,519.91	1,299.56	220.35	6.898	
21,100.00	11,655.92	21,325.68	11,862.63	159.84	157.91	98.88	9,309.87	1,291.43	1,519.92	1,297.34	222.58	6.829	
21,200.00	11,654.25	21,425.68	11,860.92	161.43	159.50	98.88	9,409.85	1,290.58	1,519.92	1,295.11	224.81	6.761	
21,300.00	11,652.59	21,525.68	11,859.21	163.03	161.09	98.88	9,509.83	1,289.73	1,519.93	1,292.89	227.04	6.695	
21,400.00	11,650.92	21,625.68	11,857.50	164.63	162.69	98.88	9,609.81	1,288.88	1,519.93	1,290.66	229.27	6.629	
21,500.00	11,649.26	21,725.68	11,855.78	166.23	164.28	98.88	9,709.79	1,288.03	1,519.94	1,288.43	231.50	6.565	
21,600.00	11,647.59	21,825.68	11,854.07	167.83	165.88	98.88	9,809.78	1,287.18	1,519.94	1,286.20	233.74	6.503	
21,700.00	11,645.93	21,925.68	11,852.36	169.43	167.48	98.87	9,909.76	1,286.34	1,519.95	1,283.97	235.97	6.441	
21,800.00	11,644.26	22,025.68	11,850.64	171.03	169.08	98.87	10,009.74	1,285.49	1,519.95	1,281.74	238.21	6.381	
21,900.00	11,642.60	22,125.68	11,848.93	172.63	170.68	98.87	10,109.72	1,284.64	1,519.96	1,279.51	240.45	6.321	
21,929.37	11,642.11	22,155.06	11,848.43	173.11	171.15	98.87	10,139.09	1,284.39	1,519.96	1,278.85	241.11	6.304	ES, SF

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

FRANKLIN MOUNTAIN ENERGY

Total Directional Services

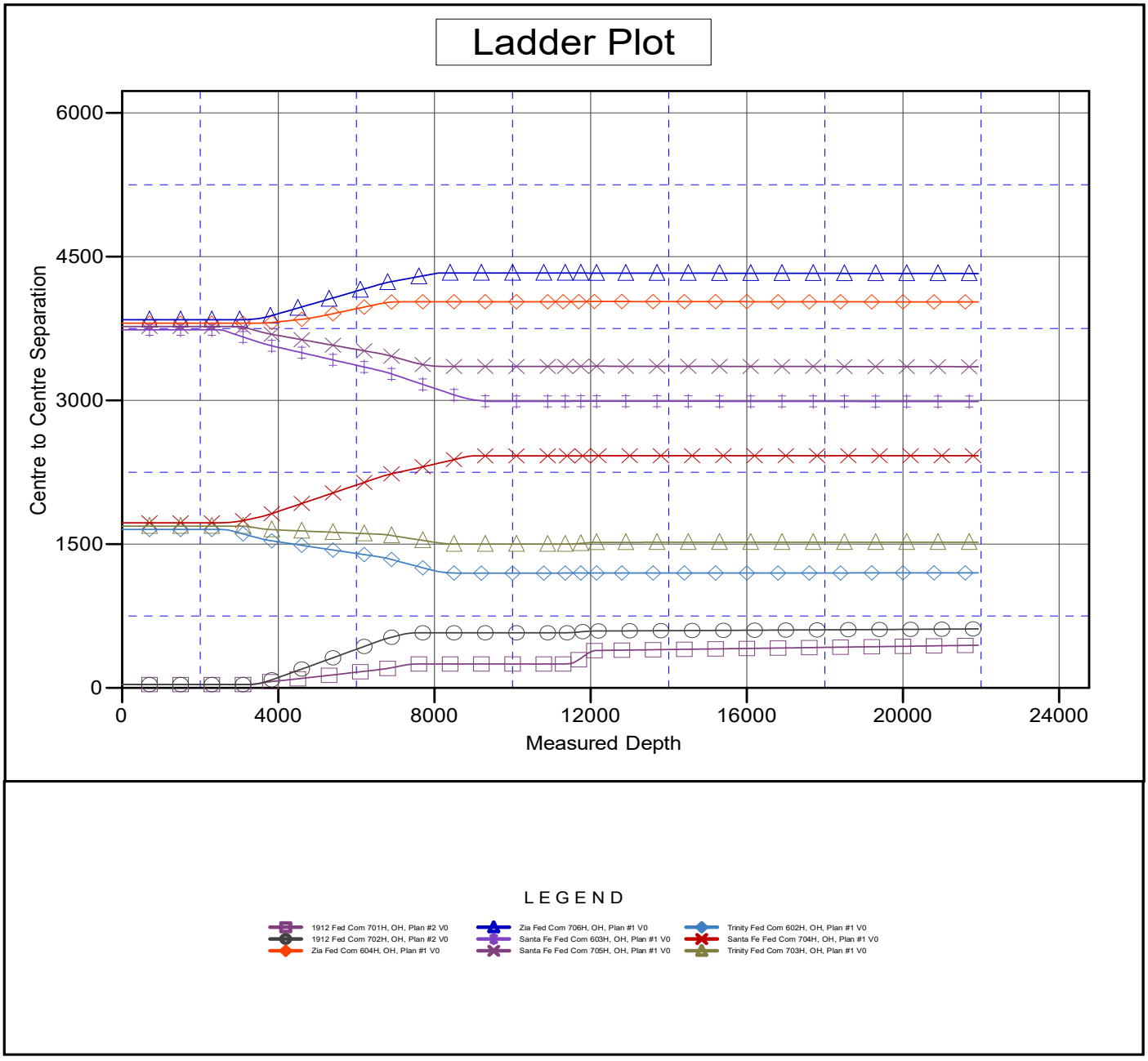
Anticollision Report

total

Company:	Franklin Mountain Energy	**Local Co-ordinate Reference:**	Well 1912 Fed Com 601H
Project:	Lea County, NM (NAD83)	**TVD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Reference Site:	1912 Fed Com	**MD Reference:**	3111.3' GE + 30' KB @ 3141.30usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	1912 Fed Com 601H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.15 Single User Db
Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3111.3' GE + 30' KB @ 3141.30usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: 1912 Fed Com 601H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.53°



FRANKLIN MOUNTAIN ENERGY

Total Directional Services

Anticollision Report

total

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Reference Design:	Plan #2	**Offset TVD Reference:**	Offset Datum

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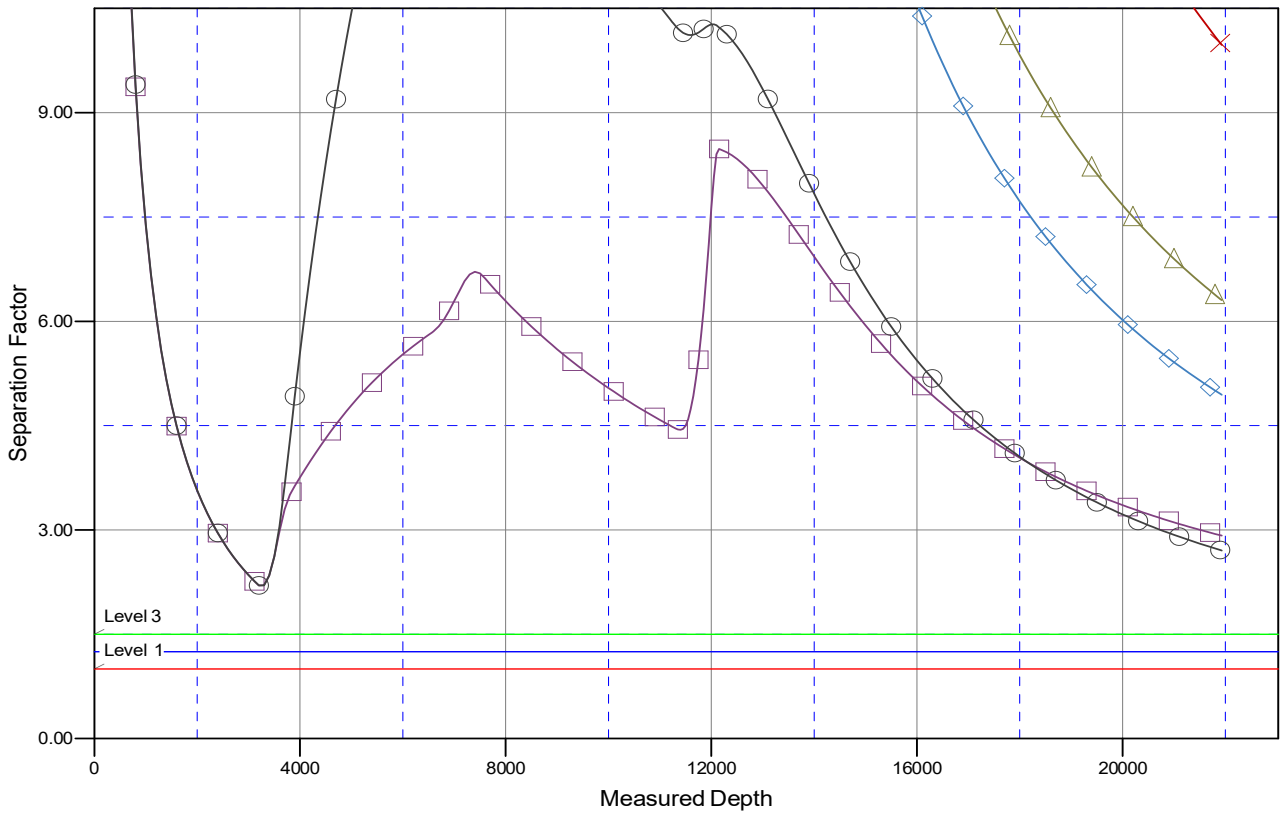
Separation Factor Plot



LEGEND

1912 Fed Com 701H, OH, Plan #2 V0
1912 Fed Com 702H, OH, Plan #2 V0
Zia Fed Com 604H, OH, Plan #1 V0
Zia Fed Com 706H, OH, Plan #1 V0
Santa Fe Fed Com 603H, OH, Plan #1 V0
Santa Fe Fed Com 705H, OH, Plan #1 V0
Trinity Fed Com 602H, OH, Plan #1 V0
Santa Fe Fed Com 704H, OH, Plan #1 V0
Trinity Fed Com 703H, OH, Plan #1 V0

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	1912 FEDERAL 601H
SURFACE HOLE FOOTAGE:	285'/S & 730'/W
BOTTOM HOLE FOOTAGE	150'/N & 600'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	1912 FEDERAL 701H
SURFACE HOLE FOOTAGE:	285'/S & 695'/W
BOTTOM HOLE FOOTAGE	150'/N & 350'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	1912 FEDERAL 702H
SURFACE HOLE FOOTAGE:	285'/S & 765'/W
BOTTOM HOLE FOOTAGE	150'/N & 1176'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	SANTA FE FED COM 704H
SURFACE HOLE FOOTAGE:	710'/S & 2626'/W
BOTTOM HOLE FOOTAGE	150'/N & 2252'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	SANTA FE FED COM 603H
SURFACE HOLE FOOTAGE:	250'/S & 812'/E
BOTTOM HOLE FOOTAGE	150'/N & 1689'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	SANTA FE FED COM 705H
SURFACE HOLE FOOTAGE:	250'/S & 777'/E
BOTTOM HOLE FOOTAGE	150'/N & 1326'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	TRINITY FEDERAL 602H
SURFACE HOLE FOOTAGE:	710'/S & 2584'/W
BOTTOM HOLE FOOTAGE	150'/N & 1800'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico

Approval Date: 04/22/2021

OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	TRINITY FEDERAL 703H
SURFACE HOLE FOOTAGE:	710'/S & 2619'/W
BOTTOM HOLE FOOTAGE	150'/N & 2102'/W
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	ZIA FED COM 604H
SURFACE HOLE FOOTAGE:	250'/S & 742'/E
BOTTOM HOLE FOOTAGE	150'/N & 650'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	FRANKLIN MOUNTAIN ENERGY LLC
WELL NAME & NO.:	ZIA FED COM 706H
SURFACE HOLE FOOTAGE:	250'/S & 707'/E
BOTTOM HOLE FOOTAGE	150'/N & 350'/E
LOCATION:	Section 24, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

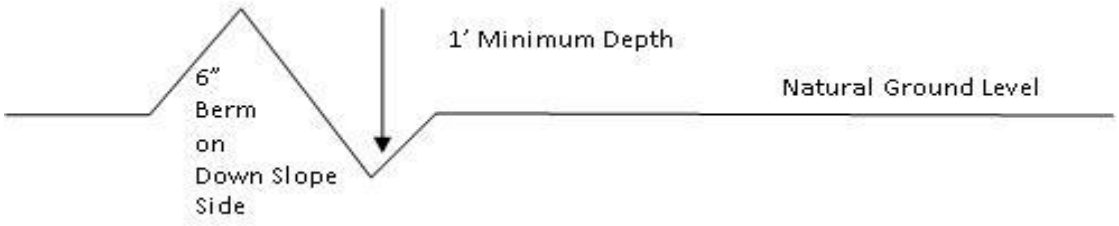
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

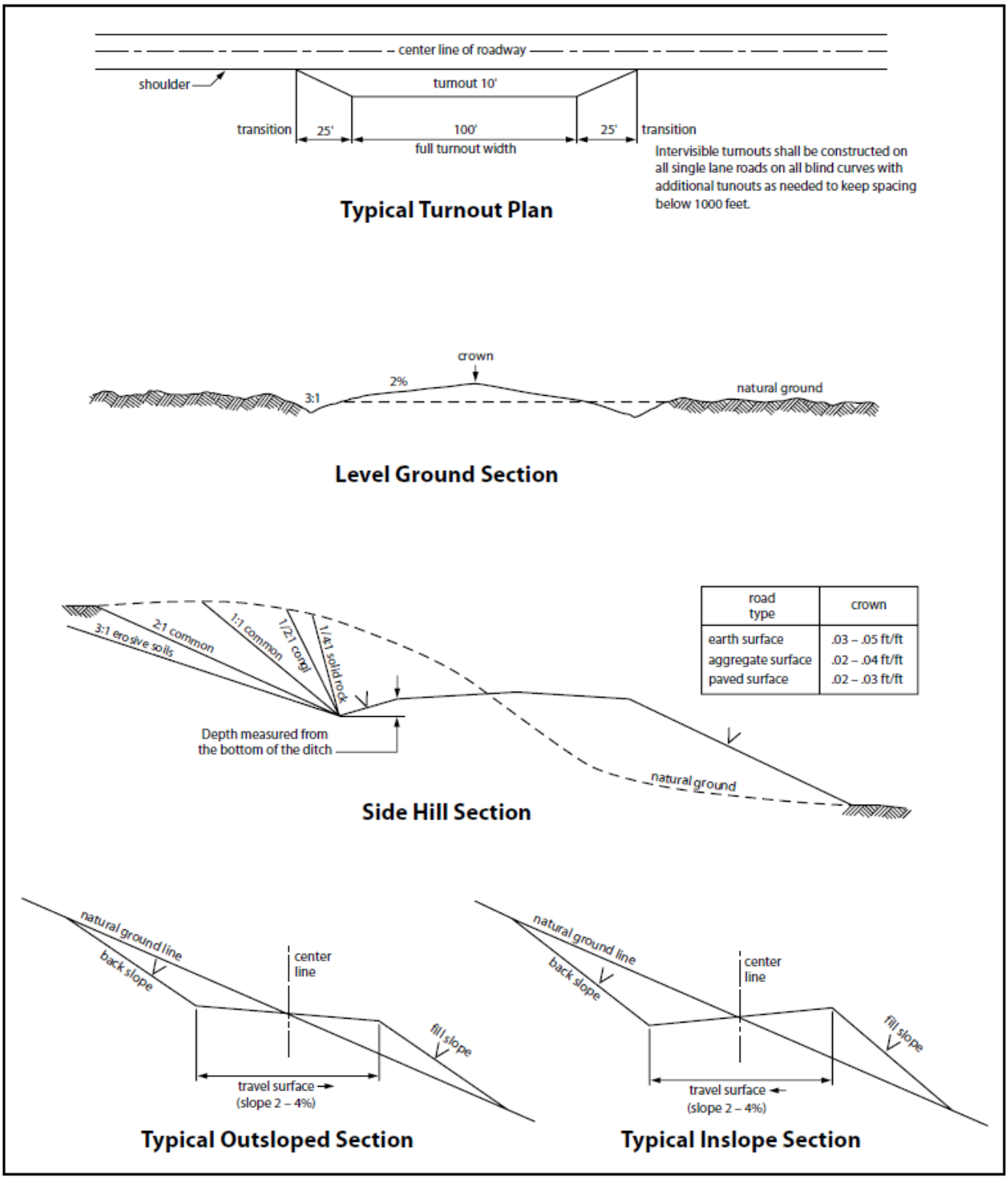


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

Approval Date: 04/22/2021

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone*.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting

Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless

otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	(X) seed mixture 3
(X) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist,

which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

When crossing ephemeral drainages, the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Range:

Cattleguards
Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

C. STIPULATIONS FOR OVERHEAD ELECTRIC LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b.

A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply

with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Range:

Cattleguards
Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

D. STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or

requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1 (X) seed mixture 3

(X) seed mixture 2 ( ) seed mixture 4

( ) seed mixture 2/LPC ( ) Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

Wildlife:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

Range:

 Approval Date: 04/22/2021

Cattleguards
Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Approval Date: 04/22/2021

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass (*Setaria macrostachya*)	1.0
Green Sprangletop (*Leptochloa dubia*)	2.0
Sideoats Grama (*Bouteloua curtipendula)*	5.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Franklin Mountain Energy LLC**
LEASE NO.:	**NMNM138898**
LOCATION:	Section 24, T.25 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	1912 Federal 601H
SURFACE HOLE FOOTAGE:	285'/S & 730'/W
BOTTOM HOLE FOOTAGE	150'/N & 600'/W

WELL NAME & NO.:	1912 Federal 701H
SURFACE HOLE FOOTAGE:	285'/S & 695'/W
BOTTOM HOLE FOOTAGE	150'/N & 350'/W

WELL NAME & NO.:	1912 Federal 702H
SURFACE HOLE FOOTAGE:	285'/S & 765'/W
BOTTOM HOLE FOOTAGE	150'/N & 1176'/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
Other	☑ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

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.

Approval Date: 04/22/2021

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1225 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

    - 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 or potash.**

    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 **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

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: 04/22/2021

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 **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:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 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.**

    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. 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.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

Approval Date: 04/22/2021

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.

Approval Date: 04/22/2021

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

 Approval Date: 04/22/2021

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

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

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

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

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

FRANKLIN MOUNTAIN ENERGY

Geologic Prognosis

Well Name	**1912 Federal 601H**
Operator	Franklin Mountain Energy, LLC
Project Area	LOE Unit
Well Type	10,000' Third Bone Spring Lateral
API	
Permit Number	
Rig	

State	NM	**County**	Lea							
SHL	**Township**	25S/35E	**Section**	13	730'	FWL	285'	FSL		
BHL	**Township**	25S/35E	**Section**	24	600'	FWL	150'	FSL		
Surface Latitude			**NAD 83**	32.109395						
Surface Longitude			**NAD 83**	103.327424						
Bottom Hole Lattitude			**NAD 83**	32.1372222						
Bottom Hole Longitude			**NAD 83**	103.327821						
Ground Level			3,111'	**Rig KB**	21'	**KB**	3,132'			

Formations	PROG SS	PROG TVD	Picked TVD	delta	Potential/Issues
Cenozoic Alluvium (surface)	3,111'	21'	21'	0	Sand/Gravels/unconsolidated
Rustler	2,335'	797'			Carbonates
Salado	1,732'	1,400'			Salt, Carbonate & Clastics
Base Salt	-1,069'	4,201'			Shaley Carbonate & Shale
Lamar	-1,835'	4,967'			Carbonate & Clastics
Bell Canyon	-1,887'	5,019'			Sandstone - oil/gas/water
Cherry Canyon	-2,920'	6,052'			Sandstone - oil/gas/water
Brushy Canyon	-4,222'	7,354'			Sand/carb/shales - oil/gas/water
Bone Spring Lime	-5,473'	8,605'			Shale/Carbonates - oil/gas
Avalon	-5,496'	8,628'			Shale/Carbonates - oil/gas
First Bone Spring Sand	-6,885'	10,017'			Sandstone - oil/gas/water
Second Bone Spring Carbonates	-7,013'	10,145'			Shale/Carbonates - oil/gas
Second Bone Spring Sand	-7,407'	10,539'			Sandstone - oil/gas/water
Third Bone Spring Carbonates	-7,936'	11,068'			Shale/Carbonates - oil/gas
Third Bone Spring Sand	-8,559'	11,691'			Sandstone - oil/gas/water
HZ Target at SHL	-8,675'	11,807'			Overpressure shale/sand- Oil/Gas
Wolfcamp	-8,810'	11,942'			Overpressure shale/sand- Oil/Gas
Wolfcamp A	-8,875'	12,007'			Overpressure Shale - Oil/Gas
Wolfcamp B	-9,037'	12,169'			Overpressure Shale - Oil/Gas

Target interval is expected to have an average apparent dip of ~1.0 degrees up along the lateral based on the Wolfcamp A structure

Target window tolerance is set at +/- 10'

Target Line: 11805' KBTVD @ 0' VS w/ 90.95° inc.
Offset Log: Talco Unit 001 (30025267470000)

FME Geologist	Ben Kessel		bkessel@fmellc.com	
	Office	720.414.7868	Cell	303.868.9946
FME Engineer				

Electric Logs					From	To
Open-Hole						
	n/a					
MWD/LWD						
	MWD GR				**Int. 1 Csg. Point**	**TD**

Mud Log:

t drill out of surface casing

Sampling:	10' samples in vertical and through curve, 30' samples in lateral
Samples:	1 set dry samples at footage frequency noted above
Mud Gas:	Continuous
Daily Contact:	Email distribution of mud log/daily report at 7:30am and 4:30 pm CST

Daily Mud Log Email Distribution List

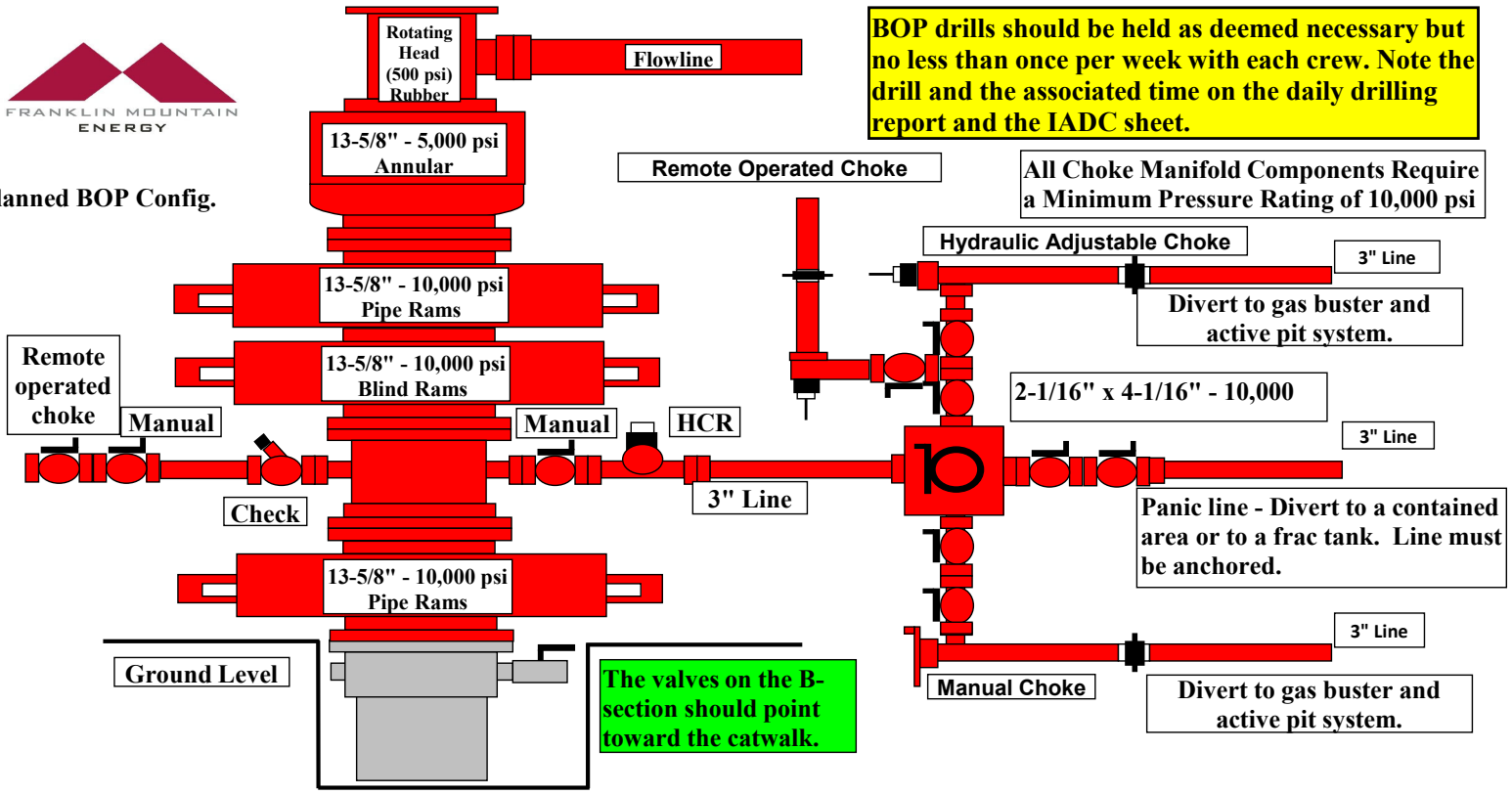
Final Mud Log Distribution

	Ben Kessel (bkessel@fmellc.com)	email	

Cuttings/Samples Shipment Information

FRANKLIN MOUNTAIN ENERGY

Planned BOP Config.



Note - Actual BOP configuration subject to change given wellsite requirements.
Lower BOP outlet can be used in place of mud cross if necessary.
Choke manifold configuration may vary but must have 1 manual and 1 adjustable choke with at least a 10,000 psi rating.

BOP Description:

Use contractor's 13-5/8", 10K double BOP (drill pipe rams on top and blind rams on bottom), single 13-5/8", 10K pipe rams beneath the double and 13-5/8", 5K annular. RU 10K psi choke manifold equipped with one manual adjustable choke and one hydraulically adjustable choke. Kill line and choke line should be located below blind ram chamber. Install two (2) full opening gate valves and a check valve on the kill line with the gate valve nearest to the wellhead. The choke line shall be equipped with a manual full opening gate valve and an HCR valve. The manual valve should be open and the HCR valve should be closed during drilling operations. Chokes should be closed at all times as well. All lines should be flushed on a regular basis to avoid blockage (barite plugging). The pressure rating of the choke and kill lines and all valves should be equal to or greater than the BOP rams. RU contractor's accumulator system.

Test the accumulator system noting the initial pressure, final pressure and the amount of time required to close the various BOP components. Prior to drilling out, pressure test the casing and BOP equipment, using test plug, as follows and record test information on the daily report. Ensure casing head valves are open while testing BOPs. Test BOPs, choke manifold and lines, HCR, standpipe, mud line and all safety valves to 5,000 psig (high) and 250 psig (low) for 5 min. Test the annular to 5,000 psig (high) and 250 (low) for 5 minutes.

Drillpipe safety valves (TIW) should be full opening and have a rated working pressure of at least 5,000 psi. Safety valves for each size of drillpipe in use with the proper connection should be available on the rig floor in front of the drawworks at all times in the open position. Safety valves with the proper crossover should also be available if drill collars have a different connection than the drillpipe. IThe appropriate wrench for all manually operated valves should be marked and readily available on the rig floor at all times.

Ensurepressure guage on choke manifold is operational. All BOP connections subjected to well pressurewill be flanged, welded or clamped. All choke lines will be straight, turns will have tee blocks or targeted and shall be anchored.

Well Control Procedure

BOP & related components will be tested to required BLM specifications. Should a well-control situation arise, a contingency plan will be implemented. The plan is as follows.

Preparation:

- Sufficient kill mud volume will be prepared in the pre-mix tank prior to testing BOP components.
- Kill mud weight will be adequate to combat Maximum Anticipated Surface Pressure
- Choke manifold system is operable set up according to the BLM requirements and connected to the kill mud storage

Execution:

During any well control issues if the annular preventer should become inoperable or a wash out occurs

- well control will continue using the upper pipe rams in place of the annular preventer.
    - Close pipe rams
    - Pump kill mud to neutralize the well control situation
- Constantly monitor situation using choke manifold
- Use Kill lines of manifold if necessary

This additional well control procedure, as required by the BLM, is applicable to testing Annular Preventor to 100% of the rating.

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 25517

CONDITIONS

Operator:	OGRID:
Franklin Mountain Energy LLC 44 Cook Street Denver, CO 80206	373910
	Action Number: 25517
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
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	5/26/2021
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	5/26/2021