

Case No. 15394

Date: 10/15/2015

Exhibit 2Form 3160-3  
(March 2012)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No 1004-0137  
Expires October 31, 20145. Lease Serial No.  
NM 77090

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.  
Romeo Federal Com #1H

9. API Well No.

1a. Type of work: ☒ DRILL ☐ REENTER1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator: GMT Exploration Company LLC

3a. Address 1560 Broadway Suite 2000  
Denver, CO 802023b. Phone No. (include area code)  
303.586.927510. Field and Pool, or Exploratory  
Red Hills North

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

At surface 400' FNL &amp; 660' FWL, Lat. 32.123309, Long. 103.275124

At proposed prod. zone 330' FSL &amp; 660' FWL, Lat. 32.114811, Long. 103.275126

11. Sec., T. R. M. or Blk. and Survey or Area  
Sec 22, T24S R34E14. Distance in miles and direction from nearest town or post office\*  
~15 miles northwest of Jal, NM12. County or Parish  
Lea13. State  
NM15. Distance from proposed\* 400'  
location to nearest  
property or lease line, ft  
(Also to nearest drig. unit line, if any)16. No. of acres in lease  
16017. Spacing Unit dedicated to this well  
16018. Distance from proposed location\* 1320'  
to nearest well, drilling, completed,  
applied for, on this lease, ft19. Proposed Depth  
12,297' TVD  
16,269' MD20. BLM/BIA Bond No. on file  
NMB00088621. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3534' GL22. Approximate date work will start\*  
08/01/201523. Estimated duration  
45 days

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

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 required by the  
BLM.

25. Signature

Name (Printed Typed)

Date

Marissa Walters

11/20/14

Title

Petrotech

Approved by (Signature)

Name (Printed Typed)

Date

Title

Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to  
conduct operations thereon.

Conditions of approval, if any, are attached.

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

(Continued on page 2)

\*(Instructions on page 2)

## DISTRICT I

1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-8161 Fax: (575) 393-0720

## DISTRICT II

811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax: (575) 748-0720

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-8178 Fax: (505) 334-8170

## DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 478-3490 Fax: (505) 478-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code <b>96434</b>	Pool Name <b>Red Hills; Bone Spring, North</b>
Property Code	Property Name <b>ROMEO FEDERAL COM</b>	Well Number <b>1H</b>
GRID No. <b>260.511</b>	Operator Name <b>GMT EXPLORATION COMPANY LLC</b>	Elevation <b>3534</b>

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	22	24 S	34 E		400	NORTH	660	WEST	LEA

## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
M	22	24 S	34 E		330	SOUTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>3532.3' 3532.4'</p> <p>N: 441318.2 E: 809477.2 (NAD83)</p> <p>660' 400'</p> <p>3534.7' 3530.4'</p> <p>4546'</p> <p>330'</p> <p>660'</p> <p>N: 436344.1 E: 809517.0 (NAD83)</p>	<p><b>SURFACE LOCATION</b></p> <p>Lot - N 32°12'33.09"</p> <p>Long - W 103°27'51.24"</p> <p>NMSPCE - N 440924.5 E 810139.5 (NAD-83)</p>	<p>N: 441340.3 E: 812119.3 (NAD83)</p>	<p>N: 441381.3 E: 814761.4 (NAD83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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.</p> <p><i>[Signature]</i> 11/21/14 Signature Date <b>KEITH KRESS</b> Printed Name <b>kress@gmtexploration.com</b> Email Address</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>Date Surveyed: <b>NOV 20, 2014</b> Signature &amp; Seal of Professional Surveyor <i>[Signature]</i> Certified by: <b>CONRAD L. LINDEN</b> 7977 Dated: <b>NOV 20, 2014</b></p> <p>0' 500' 1000' 1500' 2000' SCALE: 1" = 1000' WO Num.: 30453</p>
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GMT Exploration Company LLC  
Romeo Federal Com #1H  
400' FNL 660' FWL Section 22, T24S, R34E  
Lea County, New Mexico

**DRILLING PROGRAM**

Drilling operations for this well will be conducted in accordance with the Onshore Oil and Gas Order #1, 2, 6 as provided for in 43 CFR 3164.1. This includes the well control equipment and its testing, the mud system and associated equipment, and the casing and cementing.

1. **Estimated tops of important geologic markers (Measured Depth):**

<b>Ground Level</b>	<b>3534'</b>
Fresh Water	600'
Rustler	1,160'
Salt Top	1,215'
Salt Base	3,015'
Lamar Limestone	3,030'
Delaware Mountain Group	5,340'
Delaware Bell Canyon	5,365'
Delaware Cherry Canyon	6,580'
Delaware Brushy Canyon	7,780'
Lower Brushy Canyon Marker	8,955'
Bone Spring	9,125'
Avalon Shale Top	9,175'
Avalon Carbonate	9,420'
1 <sup>st</sup> Bone Spring Sand	10,160'
1 <sup>st</sup> Bone Spring Carbonate	10,360'
2 <sup>nd</sup> Bone Spring Sand	10,735'
2 <sup>nd</sup> Bone Spring Carbonate	11,200'
3 <sup>rd</sup> Bone Spring Sand	11,800'
Actual Target	12,297'
Wolfcamp	12,350'

2. **Estimated depths of anticipated water, oil, gas or minerals:**

<u>Mineral</u>	<u>Formation</u>	<u>Depth (Measured Depth)</u>
Water		600'
Natural Gas/Oil	Lower Brushy Canyon Marker	8,955'
Natural Gas/Oil	Avalon Shale Top	9,175'
Natural Gas/Oil	1 <sup>st</sup> Bone Spring Sand	10,160'
Natural Gas/Oil	2 <sup>nd</sup> Bone Spring Sand	10,735'
Natural Gas/Oil	3 <sup>rd</sup> Bone Spring Sand	11,800'
Actual Target		12,297'

Fresh water: Fresh water aquifers will be protected with surface casing set at 1,865'. All potentially productive usable water, hydrocarbons, and other mineral zones will be protected with casing and cement.

3. **Minimum specifications for pressure control:**

The BOP and related equipment will meet or exceed the requirements of a 5M-psi system as set forth in On Shore Order No. 2. See attached BOP Schematic.

A. Casinghead: 14 3/4" x 13 3/8" x 5000 psi WP

Tubinghead: 7-1/16" - 5000 psi WP x 4 1/16" - 10,000 psi WP

B. Minimum Specified Pressure Control Equipment

- Annular preventer
- One Pipe ram, One blind ram
- Drilling spool, or blowout preventer with 2 side outlets. Choke side will be a 3-inch minimum diameter, kill line shall be at least 2-inch diameter
- 3 inch diameter choke line
- 2 – 3 inch choke line valves
- 2 inch Kill line
- 2 chokes with 1 remotely controlled from rig floor ( see Figure 2 )
- 2 – 2 inch kill line valves and a check valve
- Upper kelly cock valve with handle available
- When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed)
- Lower kelly cock valve with handle available
- Safety valve(s) and subs to fit all drill string connections in use
- Inside BOP or float sub available
- Pressure gauge on choke manifold
- All BOPE connections subjected to well pressure shall be flanged, welded, or clamped
- Fill-up line above the uppermost preventer.

C. Auxiliary Equipment

- Audio and visual mud monitoring equipment shall be placed to detect volume changes indicating loss or gain of circulating fluid volume. (OOS 1, III.C.2)
- Gas Buster will be used below 6,000'.
- Upper and lower kelly cocks with handles, safety valve and subs to fit all drill string connections and pressure gauge on choke manifold.

D. BOP Testing procedures:

- The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum:
  - a. when initially installed
  - b. whenever any seal subject to test pressure is broken
  - c. following related repairs
  - d. at 30 day intervals
  - e. Checked daily as to mechanical operating conditions.
- The ram type preventer(s) shall be tested to the approved BOP stack working pressure when a test plug is used. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing.
- The annular type preventer(s) shall be tested to 50% of the approved BOP stack working pressure. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer.
- A Sundry Notice (Form 3160-5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test.
- If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure.

- GMT has engaged Sierra Engineering to perform the BOP tests. We will invite the BLM to witness them.

The BOP Configuration, Choke manifold layout, and Accumulator system, will be in compliance with Onshore Order 2 for a 5000 psi system.

A remote accumulator will be used. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM supervised BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible.

**4. Supplementary Information:**

Any required operational changes in the casing and cement design specified below will be submitted to the BLM Authorized Officer for approval **prior** to running casing and cementing.

**A: Proposed Casing Program:**

PURPOSE	INTERVAL	HOLE SIZE	CASING SIZE	WT/FT ( lbs/ft )	GRADE	COND	THREAD & Coupling
CONDUCTOR	0-80'	26"	20"	94	H-40	NEW	ST&C
SURFACE	0-1,865'	17 1/2"	13 3/8"	54.5	J-55	NEW	ST&C
INTERMEDIATE	0 – 5,400	12 1/4"	8 5/8"	36	J-55	NEW	LT&C
PRODUCTION	0-16,269'	7 7/8"	5 1/2"	20	P-110	NEW	BT&C

Minimum design safety factors: Burst-1.0, Collapse-1.125, Axial -1.6.

Centralizer Program:

Surface:           - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)  
                           - No Cement baskets will be run

Production:       - 1 welded bow spring centralizer on a stop ring 6' above float shoe  
                           - 1 centralizer every other joint to the top of the tail cement  
                           - 1 centralizer every 4 joints to 500' below the top of the lead cement  
                           - The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

No freshly hard banded pipe will be rotated in the surface casing

- GMT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

**B. Proposed Cementing Program:**

Casing Size	Interval	% Excess	Cement Blend
<b>Surface: 13 3/8"</b>	<b>0' – 1,865'</b>	<b>150 % over theoretical hole volume</b>	<p>Cement surface with 400 sacks of 35/65/poz Class "C" Lead and 350 sacks Class "C" Tail. Circulate to surface with 177 sacks.</p> <p>Lead:            Slurry Density: 12.8 lb/gal            Yield: 2.00 ft<sup>3</sup>/sack            Mix Fluid: 10.643 gal/sk            Sack Reference: 89lb of Blend            Blend: 186.59 lb/ft<sup>3</sup>            Fresh Water 10.486 gal/sk            5% BWOW Salt            6% BWOB Extender            .3% BWOB Fluid Loss            .2% BWOB Dispersant            5 lb/sk LCM/extender            .2% BWOB Antifoam</p> <p>Tail:            Slurry Density: 14.8 lb/gal            Yield: 1.34ft<sup>3</sup>/sk            Mix Fluid: 6.336 gal/sk            Sack Reference: 94lb of Blend            Blend: 197.27 lb/ft<sup>3</sup>            Fresh Water: 6.366 gal/sk            1% BWOC Accelerator            .2% BWOC Antifoam</p>
<b>Intermediate: 8 5/8"</b>	<b>0' – 5,400'</b>	<b>25 % over theoretical hole volume -or- 10% over caliper volume</b>	<p>Cement intermediate with 2,080 sacks of 35/65/poz Class "C" Lead and 350 sacks Class "C" Tail. Circulate to surface with 281 sacks.</p> <p>Lead:            Slurry Density: 12.8 lb/gal            Yield: 2.0 ft<sup>3</sup>/sk            Mix Fluid: 10.617 gal/sk            Sack Reference: 89lb of Blend            Blend: 186.59/ft<sup>3</sup>            Fresh Water: 10.440 gal/sk            5% BWOW Salt            6% BWOB Extender            .5% BWOB Fluid Loss            5 lb/sk LCM/extender            .4% BWOB Retarder            .2% BWOB Dispersant            .02 gal/sk Antifoam</p> <p>Tail:</p>

			Slurry Density: 14.8 lb/gal Yield: 1.33 ft <sup>3</sup> /sk Mix Fluid: 6.375 gal/sk Sack Reference: 94lb of Blend Blend Density: 197.27 lb/ft <sup>3</sup> Fresh Water: 6.344 gal/sk .35% BWOC Retarder .2% BWOC Antifoam .02 gal/sk Retarder
Production: 5 1/2"	0- 16,269'	25 % over theoretical hole volume -or- 10% over caliper volume	Cement from TMD to an interlock of at least 1500' into annular space separating 5 1/2" casing(production) and 8 5/8" casing(intermediate) with 440 sacks of 50/50/poz Class "H"Lead and 880 sacks of Trinity Lite.  Lead: Slurry Density: 11.8 lb/gal Yield: 2.55 ft <sup>3</sup> /sk Mix Fluid: 15.134 gal/sk Sack Reference: 86lb of Blend Blend: 182.12 lb/ft <sup>3</sup> Fresh Water: 14.910 gal/sk 10%BWOB Extender 5% BWOW Salt .1% BWOB Viscosifier .2% BWOB Antifoam .1% BWOB Retarder  Tail: Slurry Density: 13 lb/gal Yield: 1.42 ft <sup>3</sup> /sk Mix Fluid: 7.289 gal/sk Sack Reference: 75lb of Blend Blend: 176.05 lb/ft <sup>3</sup> Fresh Water: 7.289 gal/sk 1.5% BWOC Expanding ce .25% Retarder 1% Fluid Loss .2% BWOC Antifoam

The **surface casing** shall be cemented back to surface. In the event cement does not circulate to surface or fall back of the cement column occurs, remedial cementing shall be done to cement the casing back to surface. Pea Gravel or other material shall not be used to fill up around the surface casing in the event cement fall back occurs.

A Sundry Notice (Form 3160-5), along with a copy of the service company's materials ticket and job log, shall be submitted to the local BLM office within 5 working days following the running and cementing

5. **Mud System:**

The following is meant as a guide only. Actual mud weights will be determined by hole conditions. Sufficient quantities of mud materials will be maintained or readily accessible for assuring well control.

Interval	Mud Weight PPG	Viscosity SEC	Fluid Loss CC	PH	Remarks
0' – 1,865'	8.4 – 8.8	28 – 36	Natural	8.5-9.5	Fresh Water
1,865' – 5,400'	8.4 – 8.8	26 – 32	No Control	9.0-10.5	Salt Water/Brine
5,400' – 16,269'	9.0 – 11.0	34 – 45	8 – 12	9.0-10.5	LSND/weight nondispersed

Mud tests will be performed at a minimum interval of every 24 hours after mudding up to determine: density, viscosity, filtration, and pH for formation compatibility.

GMT will use fresh water from surface casing total depth and then switch to a brine-based solution of salinity sufficient to be saturated for preventing washout (10#/gal) ( $\geq 185,000$  ppm).

**Sufficient quantities of mud materials shall be maintained at the well site, at all times, for the purpose of assuring well control.**

Drilling of the surface casing will occur with fresh water.

If a temporary surface pipeline is used to transport drilling water, the pipeline shall be laid and removed when the ground surface is dry so as to minimize surface disturbance. No blading or other alteration of the ground surface shall be allowed.

#### 6. Testing, Logging, and Coring Program

Cores-DST's: None anticipated at this time.

Surveys: Inclination only surveys while drilling, directional survey

Mud Logger: Morco Geological Services Leaving intermediate to TD

Logging: Triple Combo Intermediate to TD  
CMR Intermediate to TD

Stimulation Program:

Evaluate open hole logs to determine interval to perforate. Perforate selected intervals of interest after addressing spacing and commingling considerations. A completion program will be based upon evaluation of the logs and formation parameters.

#### 7. Abnormal Conditions/Expected BHP

- a. GMT does not expect any temperatures in excess of 200°F or pressures exceeding the normal gradient.

#### 8. Additional Information

- a. Anticipated starting date based upon approval will be 8/1/2015.
- b. Duration of the drilling operations will be approximately 45 days.
- c. This well is a directional well per attached directional plan from Pathfinder. Please refer to Exhibit 2.
- d. Rat and mouse holes (or any subgrade excavations for drilling operations) shall be filled and compacted, with appropriate native materials, immediately upon release of the



drilling rig from the location.

- e. Any permanent plug placed in the well during drilling and/or completion operations must have **prior** approval of the Authorized Officer.
- f. As provided in NTL-4A, gas produced from this well may not be vented or flared beyond an initial test period, 30 days or 50 MMCF, whichever first occurs, without approval of the Authorized Officer.
- g. GMT shall report all fresh water flows encountered while drilling to the Authorized Officers representative (Petroleum Engineer) prior to the running the next string of casing. The reported information shall include a) well name, number and location, b) the date the water flow was encountered, c) depth at which the water flow was encountered and d) estimated water flow rate into the well bore. The operator shall file a Form 3160-5 (Subsequent Report Sundry Notice) of this same information within 30 days of releasing the drilling rig.
- h. Anticipated bottom hole temperature is 200°F, and its anticipated pressure is ~4873psi.

**GMT Exploration Company, LLC will promptly plug and abandon each newly completed, re-completed or producing well which is not capable of producing in paying quantities. No well may be temporarily abandoned for more than 30 days without prior approval of the Authorized Officer. When justified by the Operator, the Authorized Officer may authorize additional delays, no one of which may exceed an additional 12 months. Upon removal of drilling or producing equipment from the site of a well which is to be permanently abandoned, the surface of the lands disturbed shall be reclaimed in accordance with a plan first approved or prescribed by the Authorized Officer or per the reclamation conditions of approval stated herein.**

**5D Plan Report**

**GMT Exploration Co., LLC**

**Field Name:** *Lea Co., New Mexico (NAD 83 NME)*

**Site Name:** *Romeo Fed Com #1H*

**Well Name:** *Romeo Fed Com #1H*

**Plan:** *P1:V1*

06 August 2014



**Weatherford®**

Romeo Fed Com #1H  
Lea Co., New Mexico

**Plan Data for Romeo Fed Com #1H**

Site: Romeo Fed Com #1H  
Unit: USFEET TVD Reference:  
Company Name: GMT Exploration Co., LLC  
Position: Northing: 440824.5000ft Easting: 810139.5000ft Latitude: 32°12'13.1" Longitude: -103°27'51.2"  
North Reference: Grid Grid Convergence: 0.48"  
Elevation Above VGR: 5.0000ft

**Plan Data for Romeo Fed Com #1H**

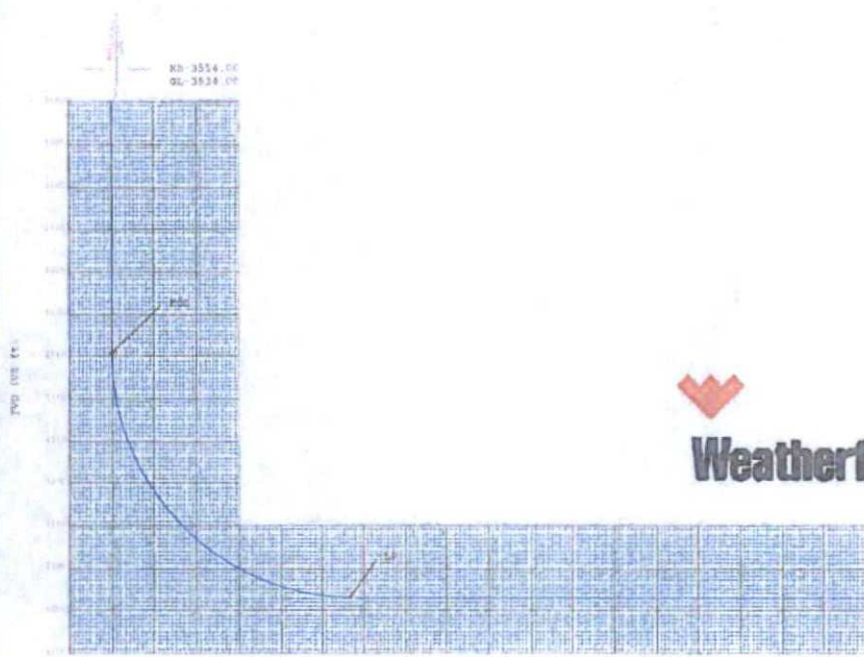
Plan Point Information:  
Display Severity Unit: 1/100.0000 Position offsets from Slot centre  

MC	Inch	As	TVD	+N/-S +E/-W	Northing	Easting	VGR	DL
(USFE)	(")	(")	(USFE)	(USFE)	(USFE)	(USFE)	(USFE)	(USFE)
0.00	0.00	0.00	0.00	0.00	440824.50	810139.50	5.00	0.00
11397.04	0.00	0.00	11397.04	0.00	0.00	440824.50	810139.50	0.00
12297.04	90.00	179.57	11397.00	-572.98	4.30	440824.56	810143.92	372.98
16289.01	90.00	179.57	11397.00	4545.69	34.30	440824.50	810173.80	4545.73

**Plan Data for Romeo Fed Com #1H**

Target Set Information:  
Name: Romeo Fed Com #1H  
Position offsets from Slot centre  

MC	TVD	+N/-S +E/-W	Northing	Easting	Shape Comment
(USFE)	(USFE)	(USFE)	(USFE)	(USFE)	(USFE)
PRBL 11970.00	4545.69	34.30	440824.56	810173.80	Cuboid



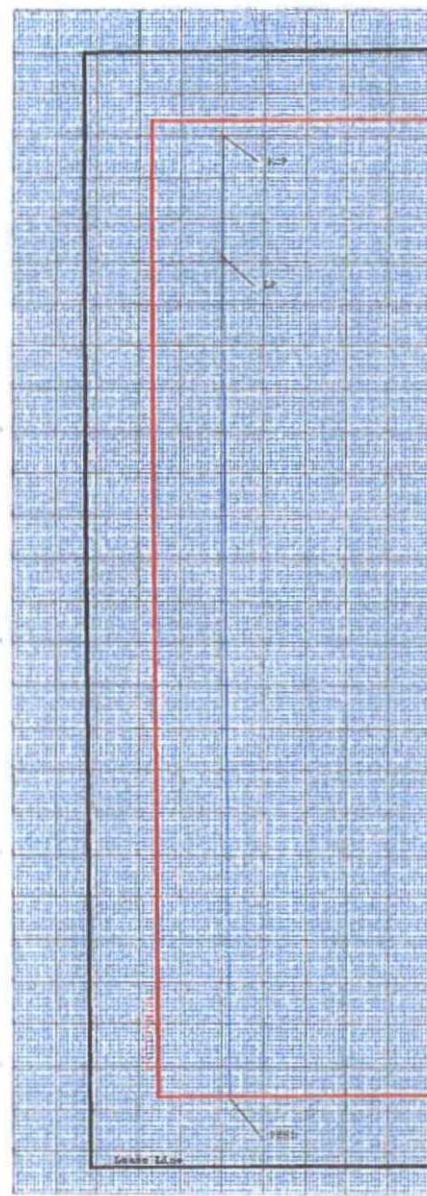
Side View

VS 100 ft (Bearing: 179.57°) Scale: 1000USFE/IN



Side View

VS 100 ft (Bearing: 179.57°) Scale: 1000USFE/IN



Top View

E 1000ft US FE (Scale: 2000USFE/IN)

Sign Off: Patrick Rudolph





## Romeo Fed Com #1H

Field Name  Lea Co., New Mexico (NAD 83 NME)	Map Units : US ft		Company Name : GMT Exploration Co., LLC	
	Vertical Reference Datum (VRD) : Mean Sea Level			
	Projected Coordinate System : NAD83 / New Mexico East (ftUS)			
	Comment :			
Site Name  Romeo Fed Com #1H	Units : US ft	North Reference : Grid	Convergence Angle : 0.46	
	Position	Northing : 440924.50 US ft	Latitude : 32° 12' 33.09"	
		Easting : 810139.50 US ft	Longitude : -103° 27' 51.24"	
	Elevation above Mean Sea Level:3534.00 US ft		Comment :	
Slot Name  Romeo Fed Com #1H	Position (Offsets relative to Site Centre)			
	+N / -S : 0.00 US ft	Northing :440924.50 US ft	Latitude : 32°12'33.09"	
	+E / -W : 0.00 US ft	Easting :810139.50 US ft	Longitude : -103°27'51.24"	
	Slot TVD Reference : Ground Elevation			
Well Name  Romeo Fed Com #1H	Elevation above Mean Sea Level : 3534.00 US ft		Comment :	
	Type : Main well	UWI :	Plan : P1:V1	
	Rig Height <i>Kelly Bushing</i> : 20.00 US ft	Comment :		
	Relative to Mean Sea Level: 3554.00 US ft			
Well Name  Romeo Fed Com #1H	Closure Distance : 4545.73 US ft	Closure Azimuth : 179.568°		
	Vertical Section (Position of Origin Relative to Slot )			
	+N / -S : 0.00 US ft	+E / -W : 0.00 US ft	Az :179.57°	
	Magnetic Parameters			
Well Name  Romeo Fed Com #1H	Model : BGGM	Field Strength : 48255.5nT	Dec : 7.27°	Dip : 60.10°
				Date : 01/Dec/2014

### Target Set

**Name :** Romeo Fed Com #1H **Number of Targets :** 1

#### Comment :

Target Name:  PBHL  Shape:  Cuboid	Position (Relative to Slot centre)			
	+N / -S : -4545.60US ft	Northing : 436378.90 US ft	Latitude : 32°11'48.11"	
	+E / -W : 34.30 US ft	Easting : 810173.80US ft	Longitude : -103°27'51.26"	
	TVD (Kelly Bushing) : 11970.00 US ft			
	Orientation Azimuth : 0.00°	Inclination : 0.00°		
	Dimensions Length : 0.00 US ft	Breadth : 0.00 US ft	Height : 0.00 US ft	

Well path created using minimum curvature

## SD Plan Report

Salient Points (Relative to Slot centre, TVD relative to Kelly Bushing)											Comment
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (%/100 US ft)	VS (US ft)	B.Rate (%/100 US ft)	T.Rate (%/100 US ft)	T.Face (°)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	
11397.04	0.00	0.00	11397.04	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	KOP
12297.04	90.00	179.57	11970.00	-572.94	4.32	10.00	572.96	10.00	0.00	179.57	LP
16269.81	90.00	179.57	11970.00	-4545.60	34.30	0.00	4545.73	0.00	0.00	0.00	PBHL

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)											Comment
MD (US ft)	Incl (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (%/100 US ft)	Northing (US ft)	Easting (US ft)	T.Face (°)	
0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
700.00	0.00	0.00	700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
800.00	0.00	0.00	800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
900.00	0.00	0.00	900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1200.00	0.00	0.00	1200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1300.00	0.00	0.00	1300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1400.00	0.00	0.00	1400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1600.00	0.00	0.00	1600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1700.00	0.00	0.00	1700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1800.00	0.00	0.00	1800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2300.00	0.00	0.00	2300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2400.00	0.00	0.00	2400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2600.00	0.00	0.00	2600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2800.00	0.00	0.00	2800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3100.00	0.00	0.00	3100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3200.00	0.00	0.00	3200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3800.00	0.00	0.00	3800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
3900.00	0.00	0.00	3900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4000.00	0.00	0.00	4000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4100.00	0.00	0.00	4100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4200.00	0.00	0.00	4200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4300.00	0.00	0.00	4300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4400.00	0.00	0.00	4400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4500.00	0.00	0.00	4500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4700.00	0.00	0.00	4700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4800.00	0.00	0.00	4800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
4900.00	0.00	0.00	4900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	



## SD Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing)											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	DLS (7 and US ft)	Northing (US ft)	Easting (US ft)	T.Face (°)	Comment
5000.00	0.00	0.00	5000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5100.00	0.00	0.00	5100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5200.00	0.00	0.00	5200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5300.00	0.00	0.00	5300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5400.00	0.00	0.00	5400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5500.00	0.00	0.00	5500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5600.00	0.00	0.00	5600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5700.00	0.00	0.00	5700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5800.00	0.00	0.00	5800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
5900.00	0.00	0.00	5900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6000.00	0.00	0.00	6000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6100.00	0.00	0.00	6100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6200.00	0.00	0.00	6200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6300.00	0.00	0.00	6300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6400.00	0.00	0.00	6400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6500.00	0.00	0.00	6500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6600.00	0.00	0.00	6600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6700.00	0.00	0.00	6700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6800.00	0.00	0.00	6800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
6900.00	0.00	0.00	6900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7000.00	0.00	0.00	7000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7100.00	0.00	0.00	7100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7200.00	0.00	0.00	7200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7300.00	0.00	0.00	7300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7400.00	0.00	0.00	7400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7500.00	0.00	0.00	7500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7600.00	0.00	0.00	7600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7700.00	0.00	0.00	7700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7800.00	0.00	0.00	7800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
7900.00	0.00	0.00	7900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8000.00	0.00	0.00	8000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8100.00	0.00	0.00	8100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8200.00	0.00	0.00	8200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8300.00	0.00	0.00	8300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8400.00	0.00	0.00	8400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8500.00	0.00	0.00	8500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8600.00	0.00	0.00	8600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8700.00	0.00	0.00	8700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8800.00	0.00	0.00	8800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
8900.00	0.00	0.00	8900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9000.00	0.00	0.00	9000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9100.00	0.00	0.00	9100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9200.00	0.00	0.00	9200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9300.00	0.00	0.00	9300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9400.00	0.00	0.00	9400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9500.00	0.00	0.00	9500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9600.00	0.00	0.00	9600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9700.00	0.00	0.00	9700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9800.00	0.00	0.00	9800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
9900.00	0.00	0.00	9900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10000.00	0.00	0.00	10000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10100.00	0.00	0.00	10100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10200.00	0.00	0.00	10200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10300.00	0.00	0.00	10300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10400.00	0.00	0.00	10400.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10500.00	0.00	0.00	10500.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10600.00	0.00	0.00	10600.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10700.00	0.00	0.00	10700.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	

## SD Plan Report

Interpolated Points (Relative to Slot centre, TVD relative to Kelly Bushing )											
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	VS (US ft)	D.S (%/100 US ft)	Northing (US ft)	Easting (US ft)	T.Face (°)	Comment
10800.00	0.00	0.00	10800.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
10900.00	0.00	0.00	10900.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
11000.00	0.00	0.00	11000.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
11100.00	0.00	0.00	11100.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
11200.00	0.00	0.00	11200.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
11300.00	0.00	0.00	11300.00	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	
11397.04	0.00	0.00	11397.04	0.00	0.00	-0.00	0.00	440924.50	810139.50	0.00	KOP
11400.00	0.30	179.57	11400.00	-0.01	0.00	0.01	10.00	440924.49	810139.50	179.57	
11500.00	10.30	179.57	11499.45	-9.23	0.07	9.23	10.00	440915.27	810139.57	0.00	
11600.00	20.30	179.57	11595.78	-35.57	0.27	35.57	10.00	440888.93	810139.77	0.00	
11700.00	30.30	179.57	11686.08	-78.25	0.59	78.25	10.00	440846.25	810140.09	0.00	
11800.00	40.30	179.57	11767.59	-135.95	1.03	135.95	10.00	440788.55	810140.53	0.00	
11900.00	50.30	179.57	11837.85	-206.93	1.56	206.94	10.00	440717.57	810141.06	0.00	
12000.00	60.30	179.57	11894.71	-289.04	2.18	289.05	10.00	440635.46	810141.68	0.00	
12100.00	70.30	179.57	11936.45	-379.77	2.87	379.78	10.00	440544.73	810142.37	0.00	
12200.00	80.30	179.57	11961.80	-476.37	3.59	476.38	10.00	440448.13	810143.09	0.00	
12297.04	90.00	179.57	11970.00	-572.94	4.32	572.96	10.00	440351.56	810143.82	0.00	LP
12300.00	90.00	179.57	11970.00	-575.90	4.35	575.92	0.00	440348.60	810143.85	0.00	
12400.00	90.00	179.57	11970.00	-675.90	5.10	675.92	0.00	440248.60	810144.60	0.00	
12500.00	90.00	179.57	11970.00	-775.89	5.85	775.92	0.00	440148.61	810145.35	0.00	
12600.00	90.00	179.57	11970.00	-875.89	6.61	875.92	0.00	440048.61	810146.11	0.00	
12700.00	90.00	179.57	11970.00	-975.89	7.36	975.92	0.00	439948.61	810146.86	0.00	
12800.00	90.00	179.57	11970.00	-1075.89	8.12	1075.92	0.00	439848.61	810147.62	0.00	
12900.00	90.00	179.57	11970.00	-1175.88	8.87	1175.92	0.00	439748.62	810148.37	0.00	
13000.00	90.00	179.57	11970.00	-1275.88	9.63	1275.92	0.00	439648.62	810149.13	0.00	
13100.00	90.00	179.57	11970.00	-1375.88	10.38	1375.92	0.00	439548.62	810149.88	0.00	
13200.00	90.00	179.57	11970.00	-1475.87	11.14	1475.92	0.00	439448.63	810150.64	0.00	
13300.00	90.00	179.57	11970.00	-1575.87	11.89	1575.92	0.00	439348.63	810151.39	0.00	
13400.00	90.00	179.57	11970.00	-1675.87	12.65	1675.92	0.00	439248.63	810152.15	0.00	
13500.00	90.00	179.57	11970.00	-1775.87	13.40	1775.92	0.00	439148.63	810152.90	0.00	
13600.00	90.00	179.57	11970.00	-1875.86	14.15	1875.92	0.00	439048.64	810153.65	0.00	
13700.00	90.00	179.57	11970.00	-1975.86	14.91	1975.92	0.00	438948.64	810154.41	0.00	
13800.00	90.00	179.57	11970.00	-2075.86	15.66	2075.92	0.00	438848.64	810155.16	0.00	
13900.00	90.00	179.57	11970.00	-2175.85	16.42	2175.92	0.00	438748.65	810155.92	0.00	
14000.00	90.00	179.57	11970.00	-2275.85	17.17	2275.92	0.00	438648.65	810156.67	0.00	
14100.00	90.00	179.57	11970.00	-2375.85	17.93	2375.92	0.00	438548.65	810157.43	0.00	
14200.00	90.00	179.57	11970.00	-2475.85	18.68	2475.92	0.00	438448.65	810158.18	0.00	
14300.00	90.00	179.57	11970.00	-2575.84	19.44	2575.92	0.00	438348.66	810158.94	0.00	
14400.00	90.00	179.57	11970.00	-2675.84	20.19	2675.92	0.00	438248.66	810159.69	0.00	
14500.00	90.00	179.57	11970.00	-2775.84	20.95	2775.92	0.00	438148.66	810160.45	0.00	
14600.00	90.00	179.57	11970.00	-2875.83	21.70	2875.92	0.00	438048.67	810161.20	0.00	
14700.00	90.00	179.57	11970.00	-2975.83	22.45	2975.92	0.00	437948.67	810161.95	0.00	
14800.00	90.00	179.57	11970.00	-3075.83	23.21	3075.92	0.00	437848.67	810162.71	0.00	
14900.00	90.00	179.57	11970.00	-3175.83	23.96	3175.92	0.00	437748.67	810163.46	0.00	
15000.00	90.00	179.57	11970.00	-3275.82	24.72	3275.92	0.00	437648.68	810164.22	0.00	
15100.00	90.00	179.57	11970.00	-3375.82	25.47	3375.92	0.00	437548.68	810164.97	0.00	
15200.00	90.00	179.57	11970.00	-3475.82	26.23	3475.92	0.00	437448.68	810165.73	0.00	
15300.00	90.00	179.57	11970.00	-3575.81	26.98	3575.92	0.00	437348.69	810166.48	0.00	
15400.00	90.00	179.57	11970.00	-3675.81	27.74	3675.92	0.00	437248.69	810167.24	0.00	
15500.00	90.00	179.57	11970.00	-3775.81	28.49	3775.92	0.00	437148.69	810167.99	0.00	
15600.00	90.00	179.57	11970.00	-3875.81	29.25	3875.92	0.00	437048.69	810168.75	0.00	
15700.00	90.00	179.57	11970.00	-3975.80	30.00	3975.92	0.00	436948.70	810169.50	0.00	
15800.00	90.00	179.57	11970.00	-4075.80	30.76	4075.92	0.00	436848.70	810170.26	0.00	
15900.00	90.00	179.57	11970.00	-4175.80	31.51	4175.92	0.00	436748.70	810171.01	0.00	
16000.00	90.00	179.57	11970.00	-4275.79	32.26	4275.92	0.00	436648.71	810171.76	0.00	
16100.00	90.00	179.57	11970.00	-4375.79	33.02	4375.92	0.00	436548.71	810172.52	0.00	
16200.00	90.00	179.57	11970.00	-4475.79	33.77	4475.92	0.00	436448.71	810173.27	0.00	
16269.81	90.00	179.57	11970.00	-4545.60	34.30	4545.73	0.00	436378.90	810173.80	0.00	PBHL

SD Plan Report





**Weatherford**

## Weatherford Drilling Services

GeoDec4 v2.0.0.3

---

Report Date: August 06, 2014  
Job Number: \_\_\_\_\_  
Customer: GMT Exploration  
Well Name: Romeo Fed Com #1H  
API Number: \_\_\_\_\_  
Rig Name: \_\_\_\_\_  
Location: Lea Co, New Mexico (Nad 83 NME)  
Block: \_\_\_\_\_  
Engineer: Patrick Rudolph

---

NAD83 / New Mexico East (ftUS)	NAD83 (1986)
Projected Coordinate System	Geodetic Coordinate System
Datum: North American Datum 1983 (1986)	Datum: North American Datum 1983 (1986)
Ellipsoid: GRS 1980	Ellipsoid: GRS 1980
EPSG: 2257	EPSG: 4269
North: 440924.5 US Survey Foot	Latitude: 32.209191 Degree
East: 810139.5 US Survey Foot	Longitude: 103.464232 Degree
Convergence: 0.46°	
Declination: 7.23°	
Total Correction: 6.77°	

Datum Transformation: none

---

### Geodetic Location WGS84

MSL Elevation = 0 m  
Latitude = 32° 12' 33.09" N  
Longitude = 103° 27' 51.24" W

---

Magnetic Declination	=	7.23 deg	[True North Offset]
Local Gravity	=	.9988 g	Checksum = 6693
Local Field Strength	=	48268 nT	Magnetic Vector X = 23880 nT
Magnetic Dip	=	60.09 deg	Magnetic Vector Y = 3028 nT
Magnetic Model	=	bggm2013.bgs	Magnetic Vector Z = 41838 nT
Run Date	=	December 01, 2014	Magnetic Vector H = 24071 nT

---

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

# PRODUCTION HOLE SECTION

Fill-up Line

MCVAY RIG #4

13 3/8" 5000# STACK

Drill the Producing Section (7 7/8" Hole)

TEST STACK WITH TEST  
PLUG TO 3000 psig  
TEST CASING TO  
1500 psig

ANNULAR PREVENTER

PIPE RAMS

BLIND RAMS

DRILLING  
SPOOL

2" Nominal

3" Nominal

REVERSE CIRCULATING  
AND  
KILL LINE

5000 PSI WORKING PRESSURE

Remotely Operated Choke

To Pit or Separator

Blowout Preventer  
Stack Outlet

2" Nominal

3" Nominal

Bleed Line to Pit

Choke  
Line

3" Nominal

HCR Valve

2"

To Pit

2" Nominal

Manual Adjustable Choke

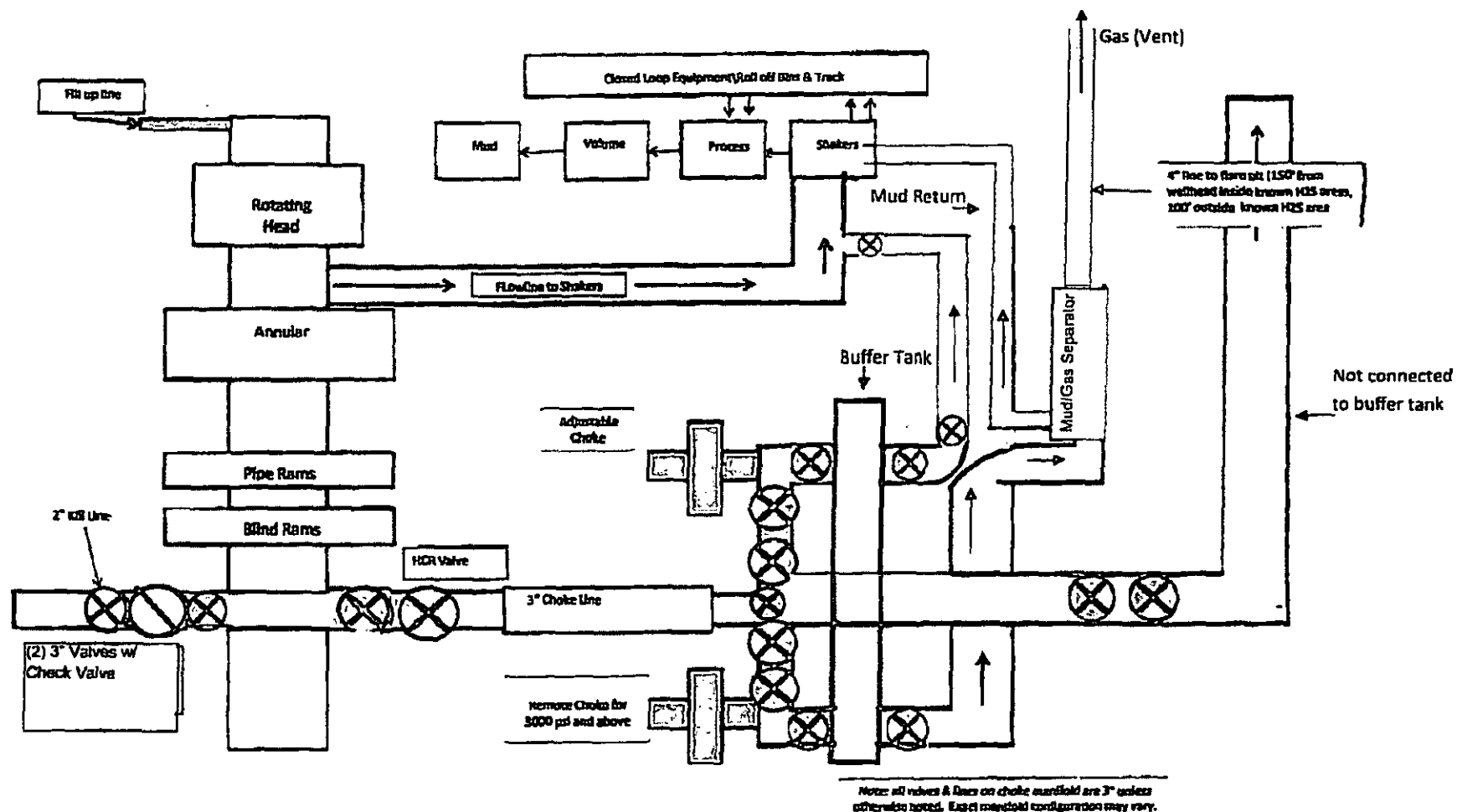
5000 PSI WORKING PRESSURE

Location: Sec. 22 T24S R34E  
Lea County, New Mexico

Romeo Federal Com #1H  
BLOWOUT PREVENTER AND CHOKE MANIFOLD

11/20/2014

Scale: None



13 3/8" X S-M BOPE (2 Rams and Rotating Head) & Closed Loop System Equipment Schematic Diagram 2

Location: Sec. 22 T24S R34E Lea County, New Mexico	Romeo Federal Com #1H BLOWOUT PREVENTER AND CHOKE MANIFOLD	11/20/2014
		Scale: None



**GMT EXPLORATION COMPANY LLC**

ACQUISITIONS • EXPLORATION • PRODUCTION

November 20, 2014

RE: BLM On Site Visit

To Whom It May Concern,

On June 12, 2014 Trisha Badbear of the BLM met GMT Exploration's representative Harvey Waller on location at the Romeo Federal Com #1H, Lease NM77090, Sec 22 T24S R34E, Lea County, NM.

Sincerely,

Keith Kress  
VP Operations

---

Keith Kress, Vice President Operations

kkress@gmtexploration.com

1560 Broadway, Suite 2000 Denver, CO 80202

Office: 720.946.3028 Direct: 303.586.9281 Fax: 720.946.3034

## **SURFACE USE PLAN**

### **GMT Exploration Company, LLC**

#### **Romeo Federal Com #1H**

Surface Location: 400' FNL & 660' FWL, Section 22, T24S-R34E

Bottom Hole Location: 330' FSL & 660' FWL, Section 22, T24S-R34E

Lea County, New Mexico

FEDERAL LEASE No. NMNM-77090

#### **1. Existing Roads**

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102 (Exhibit 1) and Well Pad Topo (Exhibit 2). The well was staked by Basin Surveys.
- b. All existing roads within the vicinity of the well are depicted topographic, geographic and aerial maps of Exhibit 3 (3 pages).
- c. The existing lease road will be maintained in the same or better condition. A regular maintenance program will include, but is not limited to, blading, ditching, culvert installation and surfacing.
- d. Directions to Location: From the city of Jal, go west on US 128, west of mile marker 35, turn south to existing lease road and proposed pad.

#### **2. Access Roads to be Constructed and/or Reconstructed**

- a. Exhibit 2 shows the proposed 510' of new access road. The new access road will be constructed as follows. The maximum width of the road will be 15'. It will be crowned and made of 6" rolled and compacted caliche. Water will be deflected, as necessary to avoid accumulation and prevent surface erosion.
- b. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to location. The average grade will be approximately 1%.
- c. No cattle guards, grates or fence cuts will be necessary. No turnouts are planned.

#### **3. Location of Existing Wells within 1-Mile Radius of the Proposed Location:**

- |                             |                |
|-----------------------------|----------------|
| a. Existing wells           | See Exhibit 4. |
| b. Injection/Disposal Wells | None.          |
| c. Drilling Wells           | None.          |
| d. Proposed Wells           | See Exhibit 4. |
| e. Water Wells              | None.          |
| f. Plugged Wells            | See Exhibit 4. |

#### 4. Location of Existing and/or Proposed Facilities if the Well is Productive

- a. If the well is productive, a tank battery will be utilized and the necessary production equipment will be installed at the well site. See Well Site Layout diagram. (Exhibit 5)
- b. The tank battery will be surrounded by a synthetic spray in liner with a sump of sufficient size to contain the capacity 110% of the largest tank volume and account for the volume arising from the equipment footprint within the liner.
- c. All permanent above-ground structures not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color that simulates the "Standard Environmental Colors" as specified in the COA's.
- d. All access roads will be upgraded and maintained as necessary to prevent erosion and accommodate year-around traffic if the well is a producer.
- e. The pipeline tie in will be located 15' off of the SWSW corner of the pad. (Exhibit 5)
- f. In the event of production, the following items will be done:
  - i. All site-security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.

#### 5. Location and Type of Water Supply

*This location will be drilled using a combination of water mud systems (outline in the Drilling Program). The water will be obtained from a private water well, for drilling and completion work. If additional water is needed, it will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing proposed roads shown in the C-102.*

#### 6. Construction Methods

- a. Construction methods employed will follow the standard procedures and requirements of the BLM on Federal lands.
- b. Surface and subsoil materials along the roadway will be utilized.
- c. No construction materials will be removed from Federal lands.
- d. Any materials to be used which are under BLM jurisdiction shall be approved in advance as per CFR 3610.2-3.

#### 7. Methods for Handling Waste Disposal

- a. Drill cuttings will be disposed.
- b. All trash, junk and other waster material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.

- c. All state and local laws and regulations pertaining to disposal of human and solid waste shall be complied with. GMT will hire a commercial company to provide outhouses on location. The outhouses on location with holding tanks are serviced by the commercial company once a week.
- d. GMT and its contractor(s) maintain a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances, which are used during the course of construction, drilling completion, and production operations for this project. Hazardous materials, which may be found at the site, may include drilling mud and cement products, which are primarily inhalation hazards, fuels (flammable and/or combustible), materials that may be necessary for well completion/stimulation activities such as flammable or combustible substances and acids/gels (corrosives). The opportunity for Superfund Amendments and Reauthorization Act (SARA) listed Extremely Hazardous Substances (EHS) at the site is generally limited to proprietary treating chemicals. All hazardous and EHS and commercial preparations will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment. GMT Exploration Company, LLC maintains an Emergency Response Plan which includes notifying the BLM of all reportable spills of oil, produced water, and hazardous substances.

#### 8. Ancillary Facilities

No campsite or other ancillary facilities will be constructed as a result of this well.

#### 9. Well site Layout

- a. Exhibit 6 shows the Rig Location Layout with the dimensions of the pad layout.
- b. Mud pits in the active circulating system will be steel pits.
- c. A closed loop system will be utilized.
- d. If a pit or closed loop system is utilized, GMT Exploration Company will comply with NMOCD requirements 19.15.17 and submit form C-144 to the appropriate NMOCD District Office. A copy to be provided to the BLM.

#### 10. Plans for Surface Reclamation

- a. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed to near *original conditions and the original top soil will be returned to the pad and contoured, as close as possible, to the original topography.*

#### 11. Surface Ownership

The surface is owned by the Rubert F Madera. The surface is for multiple uses with the primary uses of the region for the grazing of livestock and the production of oil and gas.

12. Other Information

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sage brush, yucca and miscellaneous weeds.
- b. There is no permanent or live water in the general proximity of the location.
- c. There are no dwellings within 2 miles of location.
- d. The Carlsbad Field office (BLM) 575-234-5972 is to be advised when road and pad construction will begin.
- e. *"Sundry Notice and Report of Well" (Form 3160-S)* will be filed for approval for all changes of plans and other operations in accordance with 32 CFR 3164.
- f. The dirt contractor will be provided with an approved copy of the surface use plan.
- g. All survey monuments found within the area of operations shall be protected. Survey monuments include, but are not limited to, General Land Office and Bureau of Land Management Cadastral Survey Corners, reference corners, witness points, military control monuments and recognizable civil, both public and private, survey monuments. In the event of obliteration or disturbance of any of the above, the incident shall be reported in writing to the authorized officer.

13. Lessee's or Operator's Representative and Certification – see attached



DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6181 Fax: (575) 393-6720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 478-3480 Fax: (505) 478-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

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

Exhibit 1

Form C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code <b>96434</b>	Pool Name <b>Red Hills; Bone Spring, North</b>
Property Code	Property Name <b>ROMEO FEDERAL COM</b>	Well Number <b>1H</b>
OGRID No. <b>2A0511</b>	Operator Name <b>GMT EXPLORATION COMPANY LLC</b>	Elevation <b>3534</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	22	24 S	34 E		400	NORTH	660	WEST	LEA

Bottom Hole Location If Different From Surface

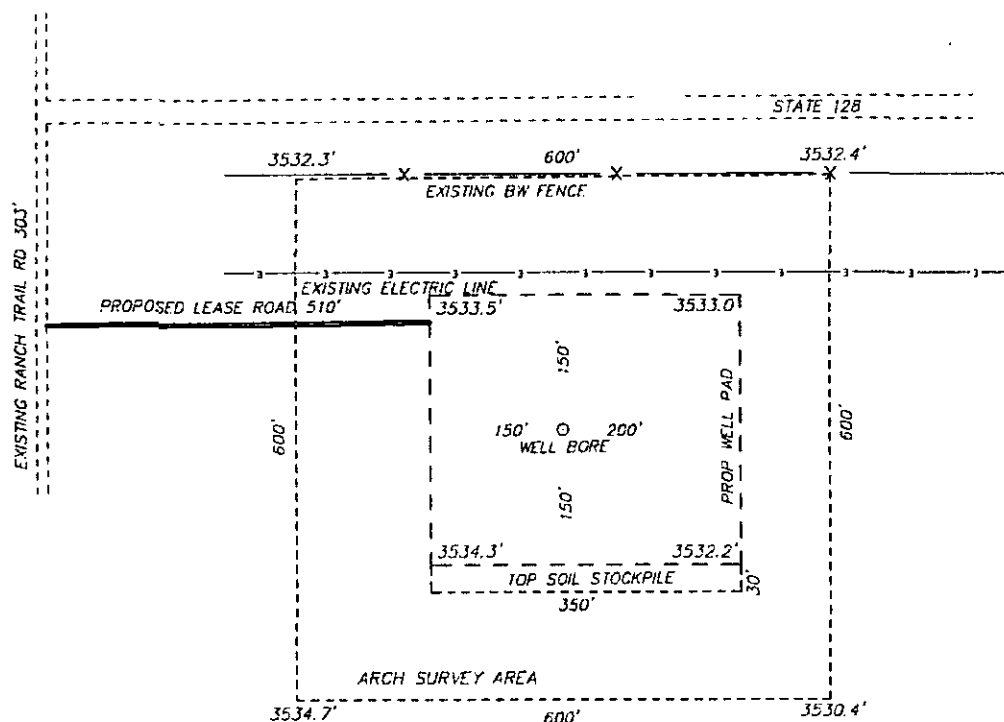
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
M	22	24 S	34 E		330	SOUTH	660	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
-----------------	-----------------	--------------------	-----------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p><b>SURFACE LOCATION</b> Lat - N 32°12'33.09" Long - W 103°27'51.24" NADSPCE - N 440924.5 E 810139.5 (NAD-83)</p> <p><b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32°11'48.11" Long - W 103°27'51.26" NADSPCE - N 436378.9 E 810173.8 (NAD-83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>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.</p> <p>Signature: <i>Keith Kress</i> Date: <i>11/21/14</i></p> <p>Printed Name: <i>KEITH KRESS</i></p> <p>Email Address: <i>KKRESS@GMTEXPLORATION.COM</i></p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>Date Surveyed: <i>NOV 20, 2014</i></p> <p>Signature &amp; Seal of Professional Surveyor: <i>[Seal]</i></p> <p>Certificate No.: <i>7977</i></p> <p>Scale: 1" = 1000'</p> <p>WO Num.: 30453</p>
--	--

**SECTION 22, TOWNSHIP 24 SOUTH, RANGE 34 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**



GMT EXPLORATION COMPANY LLC  
ROMEO FEDERAL COM #1H  
ELEV. - 3534'  
Lat - N 32°12'33.09"  
Long - W 103°27'51.24"  
NMSPCE - N 440924.5  
E 810139.5  
(NAD-83)

**NOTE: V-DOOR TO WEST  
RE-CLAIM 50' EAST  
RE-CLAIM 75' SOUTH**

JAL, NM IS ±17 MILES TO THE SOUTHEAST OF LOCATION.

200 0 200 400 FEET  
SCALE: 1" = 200'

**Directions to Location:**

FROM THE CITY OF JAL, GO WEST ON US 128, WEST  
OF MILE MARKER 35, TURN SOUTH TO EXISTING  
LEASE ROAD AND PROPOSED PAD.

**basin  
surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basin-surveys.com



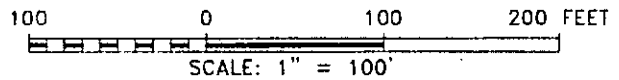
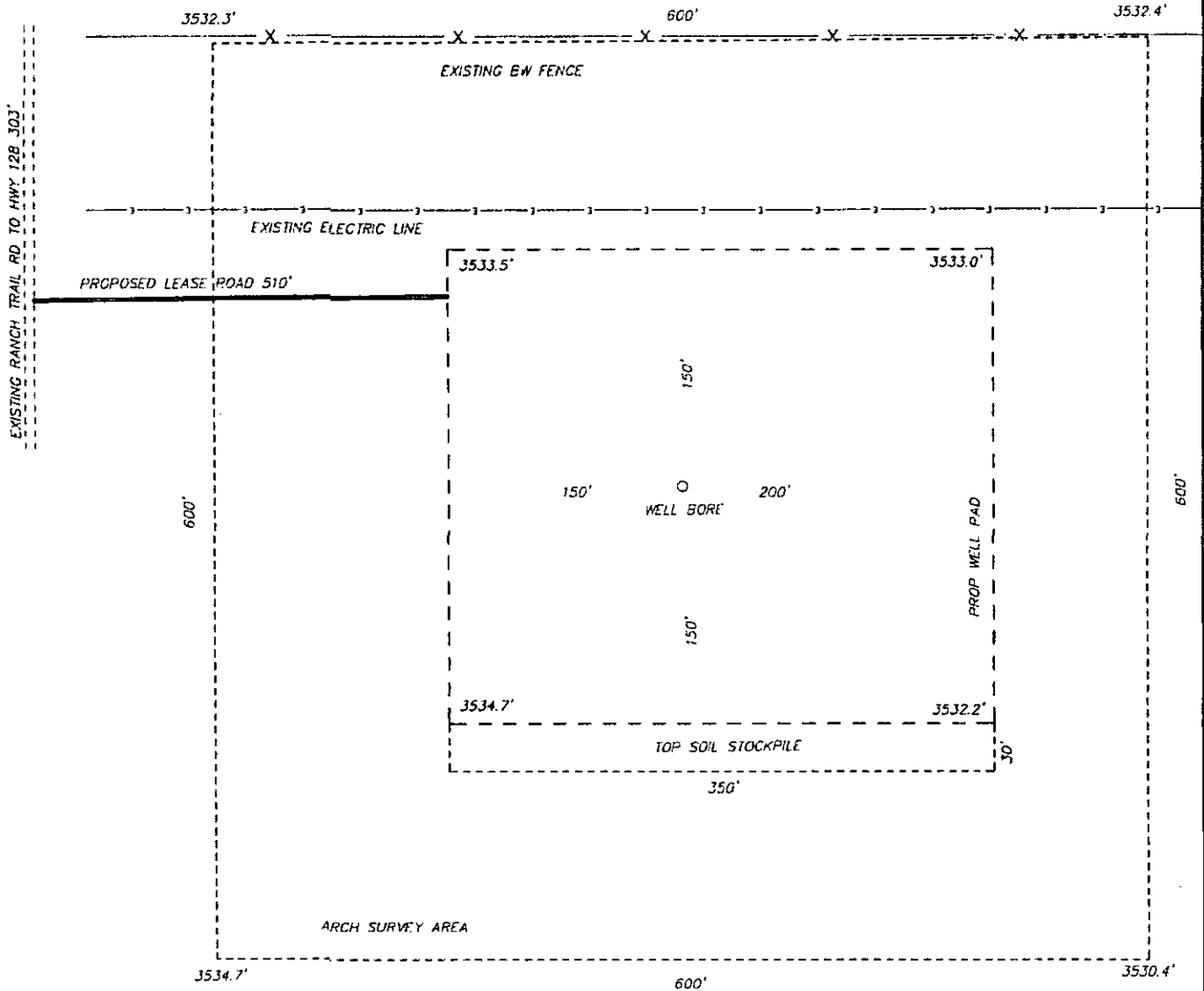
**GMT EXPLORATION COMPANY LLC**

REF: ROMEO FEDERAL COM #1H / WELL PAD TOPO

THE ROMEO FEDERAL COM #1H LOCATED 400' FROM  
THE NORTH LINE AND 660' FROM THE WEST LINE OF  
SECTION 22, TOWNSHIP 24 SOUTH, RANGE 34 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.

SECTION 22, TOWNSHIP 24 SOUTH, RANGE 34 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



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basinsurveys.com



**GMT EXPLORATION COMPANY LLC**

REF: ROMEO FEDERAL COM #1H / WELL PAD TOPO

THE ROMEO FEDERAL COM #1H LOCATED 400' FROM  
THE NORTH LINE AND 660' FROM THE WEST LINE OF  
SECTION 22, TOWNSHIP 24 SOUTH, RANGE 34 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.



Section 22, Township 24 South, Range 34 East,  
N.M.P.M., Lea County, New Mexico.

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(575) 392-2206 - Fax  
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W.O. Number: KAN 30453

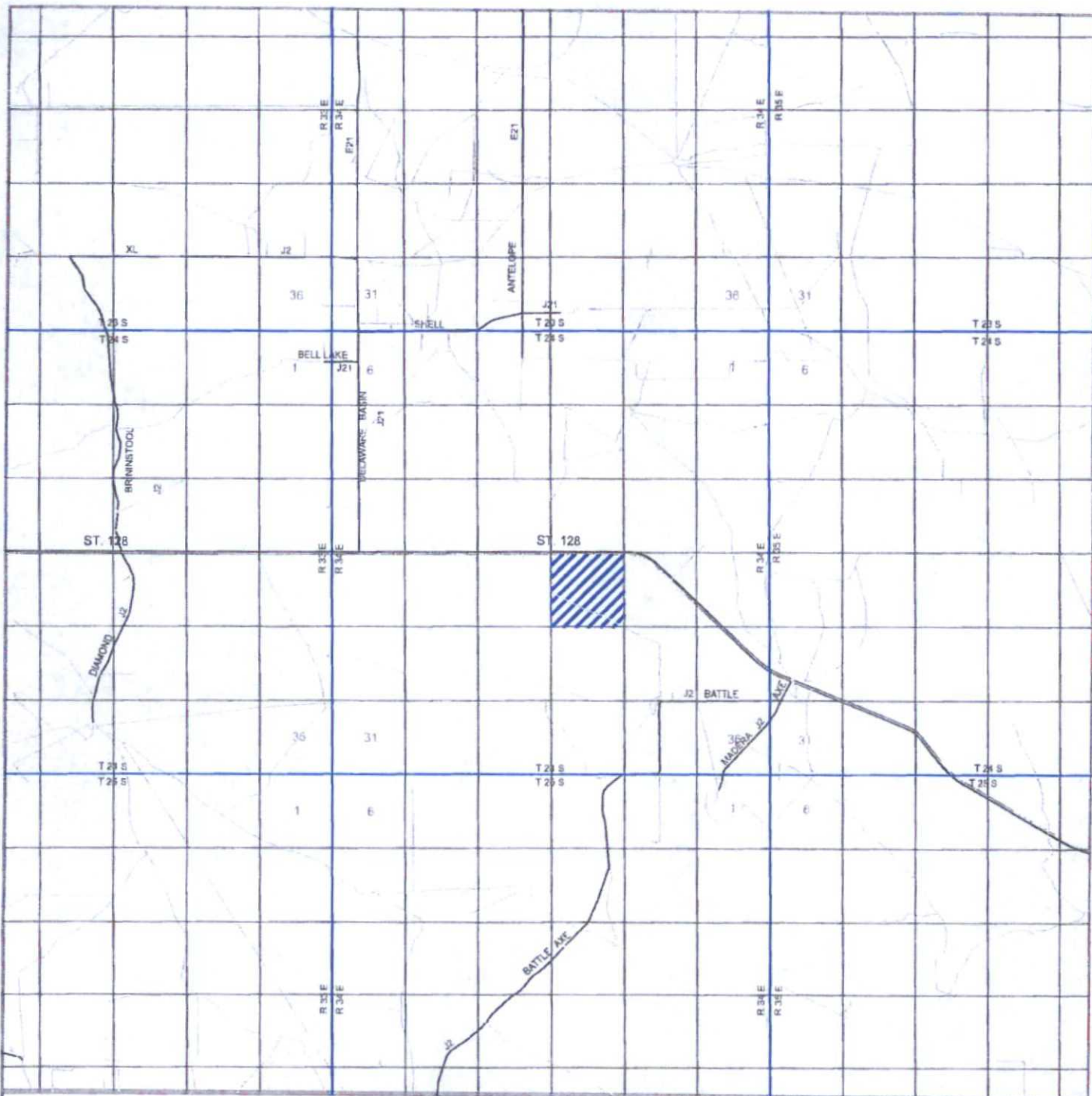
Survey Date: 05-29-2014

YELLOW TINT - USA LAND  
BLUE TINT - STATE LAND  
NATURAL COLOR - FEE LAND



GMT EXPLORATION COMPANY LLC





# **ROMEO FEDERAL COM #1H**

Located 400' FNL and 660' FWL  
 Section 22, Township 24 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basin-surveys.com

0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

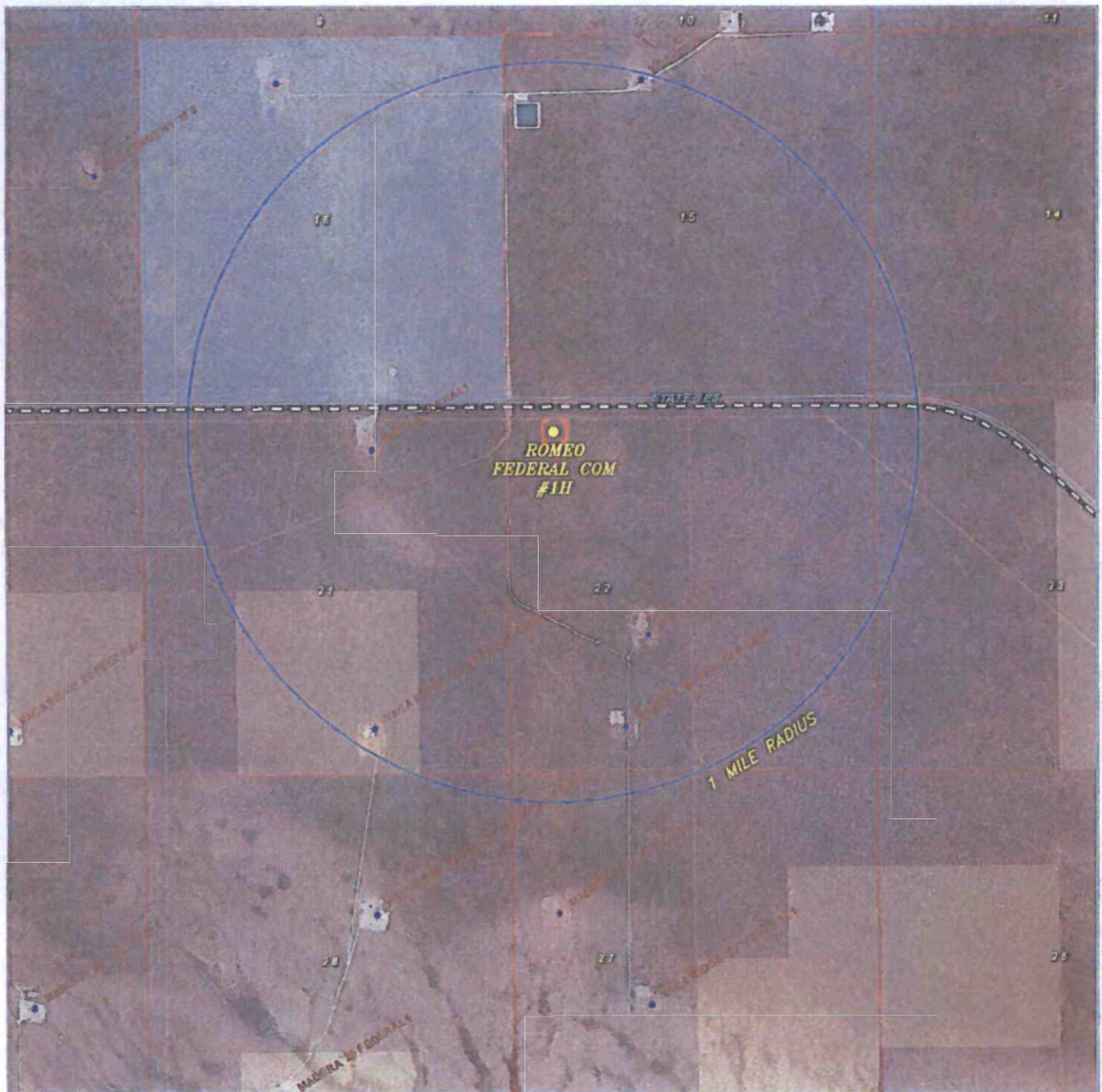
W.O. Number: KAN 30453

Survey Date: 05-29-2014

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



GMT EXPLORATION COMPANY LLC



## ROMEO FEDERAL COM #1H

Located 400' FNL and 660' FWL  
 Section 22, Township 24 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: KAN 30453

Survey Date: 05-29-2014

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



GMT EXPLORATION COMPANY LLC



Exhibit 4

Wells in 1 Mile Radius of SL			
API	Company	Well Name	Qrt/Qrt Location
30025416650000	EOG Resources INC	Jolly Roger 16 State #1H	Sec 16 T24S R34E
30025405660000	GMT Exploration	Pirate State #1H	Sec 16 T24S R34E
Plugged Wells in a 1 Mile Radius of SL			
30025084940000	Cabeen Exploration Co	Shell-Federal #1	Sec 21 T24S R34E
30025700948400	Southland Royalty Co	Vaca Ridge '21' Fed #2	Sec 21 T24S R34E
30025286410000	Southland Royalty Co	Vaca Ridge '21' Fed #1	Sec 21 T24S R34E
30025282350000	HNG Oil Co	Buff '22' #1	Sec 22 T24S R34E
30025301790000	BTA Oil Producers	Madera "B" 8706 JV #1	Sec 22 T24S R34E
30025275720000	Coquina Oil Corp	Buckeye #1	Sec 15 T24S R34E

Wells in 1 Mile Radius of BHL			
API	Company	Well Name	Qrt/Qrt Location
30025284880000	EOG Resources	Pitchfork Ranch '28' #1	Sec 28 T24S R34E
Plugged Wells in a 1 Mile Radius of BHL			
30025084940000	Cabeen Exploration Co	Shell-Federal #1	Sec 21 T24S R34E
30025700948400	Southland Royalty Co	Vaca Ridge '21' Fed #2	Sec 21 T24S R34E
30025286410000	Southland Royalty Co	Vaca Ridge '21' Fed #1	Sec 21 T24S R34E
30025282350000	HNG Oil Co	Buff '22' #1	Sec 22 T24S R34E
30025301790000	BTA Oil Producers	Madera "B" 8706 JV #1	Sec 22 T24S R34E
30025299170000	BTA Oil Producers	Madera 8706 JV-P Co #1	Sec 27 T24S R34E
30025283210000	Southland Royalty Co	Vaca Ridge '27' Fed #1	Sec 27 T24S R34E

GMT Exploration

SE New Mexico

1 Mile Radius Map

Radius Federal (Cen. 1/16)

0 2,130  
FEET

POSTED WELL DATA

Well Name  
Well Number

WELL SYMBOLS  
Locusts Only

- Oil Well
- Gas Well
- Dry Hole
- Abandoned Well
- Abandoned Oil Well

October 16, 2014

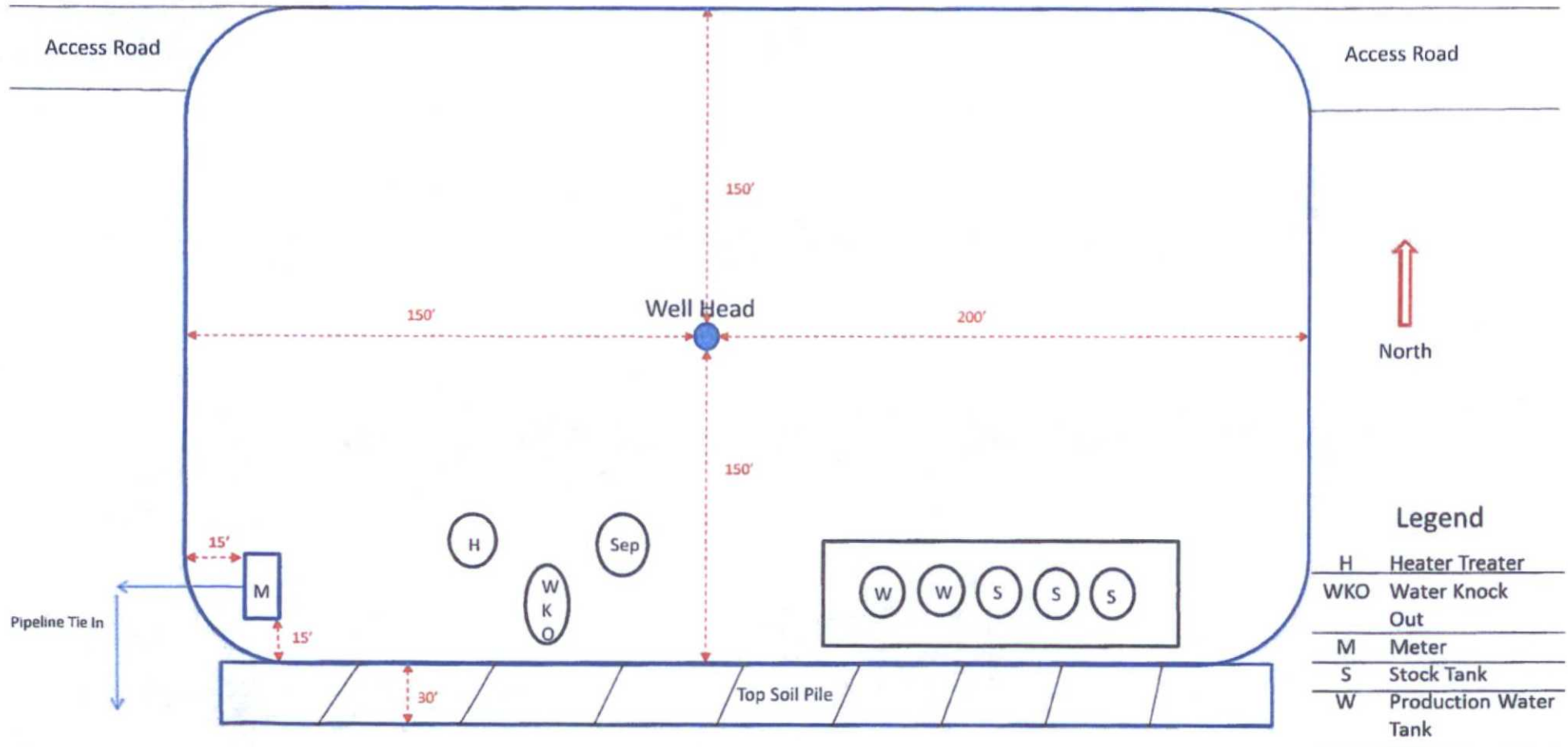
MOORE 34 COM

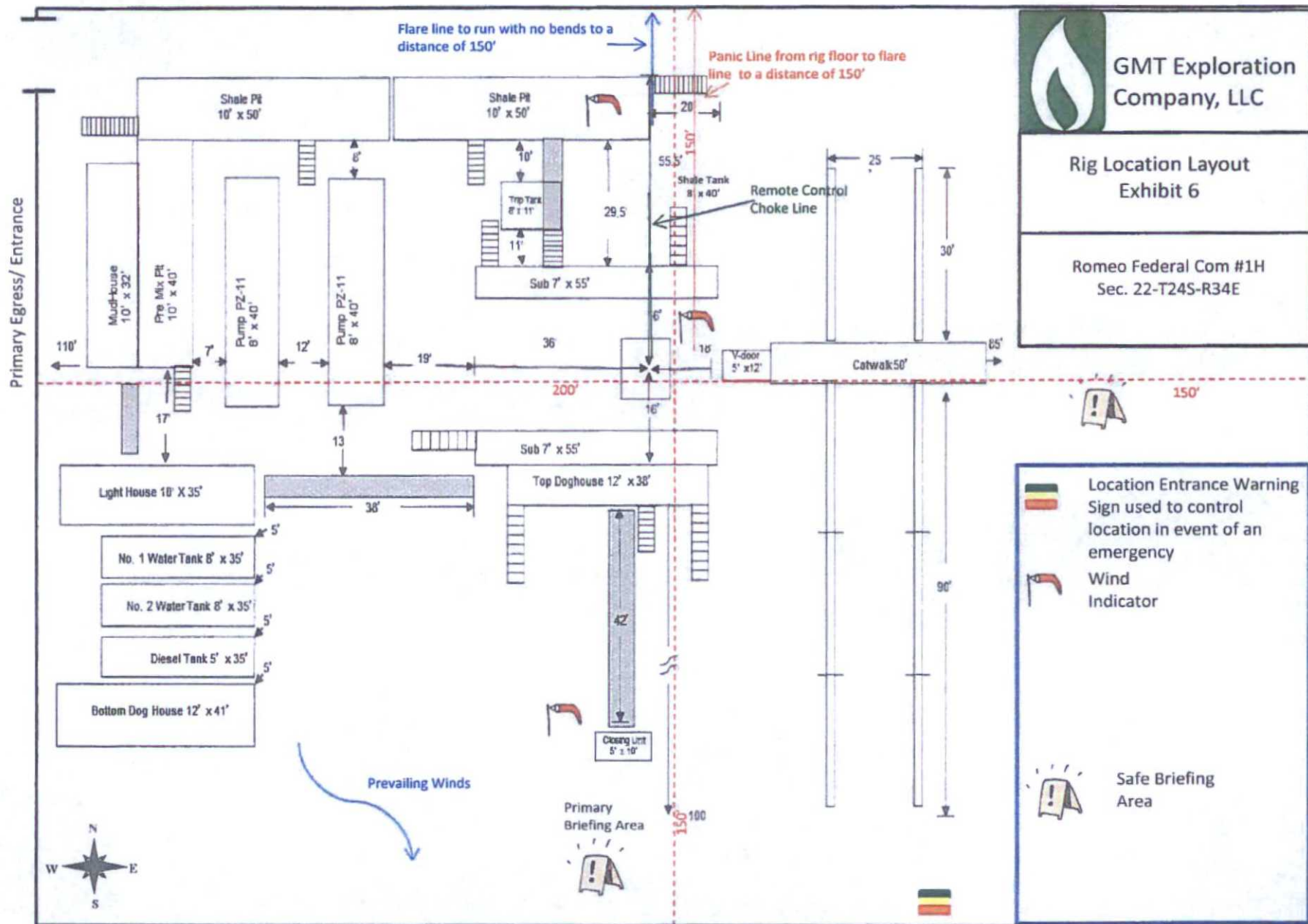




Exhibit 5

# Romeo





Not to Scale



# GMT EXPLORATION COMPANY LLC

ACQUISITIONS • EXPLORATION • PRODUCTION

November 1, 2014

Bureau of Land Management - Carlsbad Office  
620 East Greene Street  
Carlsbad, NM 88220

**RE: Operator's Representative and Certification  
Romeo Federal Com #1H**

**CERTIFICATION:**

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access route; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 21<sup>ST</sup> day of NOV. 2014.

GMT Exploration Company, LLC  
Keith Kress  
VP Engineering  
1560 Broadway Suite 2000  
Denver, CO 80202  
(303) 586-9281

Field Representative:  
B.J. Cox  
1025 9th Street  
Rock Springs, WY 82901  
(307) 354-8895

Keith Kress  
GMT Exploration Company, LLC



**GMT EXPLORATION COMPANY LLC**

ACQUISITIONS • EXPLORATION • PRODUCTION

November 21, 2014

### Self-Certification Statement

Please be advised that GMT Exploration Company, LLC is the operator of the Romeo Federal Com #1H well; located in D of Section 22, Township 24 South, Range 34 East. Lease number NMNM- 77090, Lea County, New Mexico; and is responsible under the terms and conditions of the lease and for the operations conducted upon leased lands. Bond coverage is provided under BLM Bond Number RLB0014473.

Keith Kress, Vice President Operations

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Keith Kress, Vice President Operations  
kkress@gmtexploration.com

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