

**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**

Form C-101

August 1, 2011

Permit 291160

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024		2. OGRID Number 328947
		3. API Number 30-015-47912
4. Property Code 329967	5. Property Name MORRIS BOYD	6. Well No. 013H

**7. Surface Location**

UL - Lot P	Section 23	Township 19S	Range 25E	Lot Idn P	Feet From 930	N/S Line S	Feet From 866	E/W Line E	County Eddy
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	----------------

**8. Proposed Bottom Hole Location**

UL - Lot P	Section 26	Township 19S	Range 25E	Lot Idn P	Feet From 50	N/S Line S	Feet From 331	E/W Line E	County Eddy
---------------	---------------	-----------------	--------------	--------------	-----------------	---------------	------------------	---------------	----------------

**9. Pool Information**

N. SEVEN RIVERS; GLORIETA-YESO	97565
--------------------------------	-------

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3420
16. Multiple N	17. Proposed Depth 8800	18. Formation Yeso	19. Contractor	20. Spud Date 5/3/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	1200	393	0
Prod	8.75	7	32	3300	1423	0
Prod	8.75	5.5	20	8800	1423	0

**Casing/Cement Program: Additional Comments**

SEE ATTACHED DRILL PLAN FOR MORE INFORMATION.
---

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Blind	5	70	Control Technology Inc.

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	<b>OIL CONSERVATION DIVISION</b>	
Signature:		
Printed Name: Electronically filed by Sarah Chapman	Approved By: Kurt Simmons	
Title: Regulatory Director	Title: Petroleum Specialist - A	
Email Address: schapman@spurepllc.com	Approved Date: 1/12/2021	Expiration Date: 1/12/2023
Date: 1/11/2021	Phone: 832-930-8613	Conditions of Approval Attached

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

<sup>1</sup> API Number <b>30-015-</b>	<sup>2</sup> Pool Code <b>97565</b>	<sup>3</sup> Pool Name <b>N. SEVEN RIVERS; GLORIETA-YESO</b>
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>MORRIS BOYD</b>	<sup>6</sup> Well Number <b>13H</b>
<sup>7</sup> OGRID NO. <b>328947</b>	<sup>8</sup> Operator Name <b>SPUR ENERGY PARTNERS LLC.</b>	<sup>9</sup> Elevation <b>3420'</b>

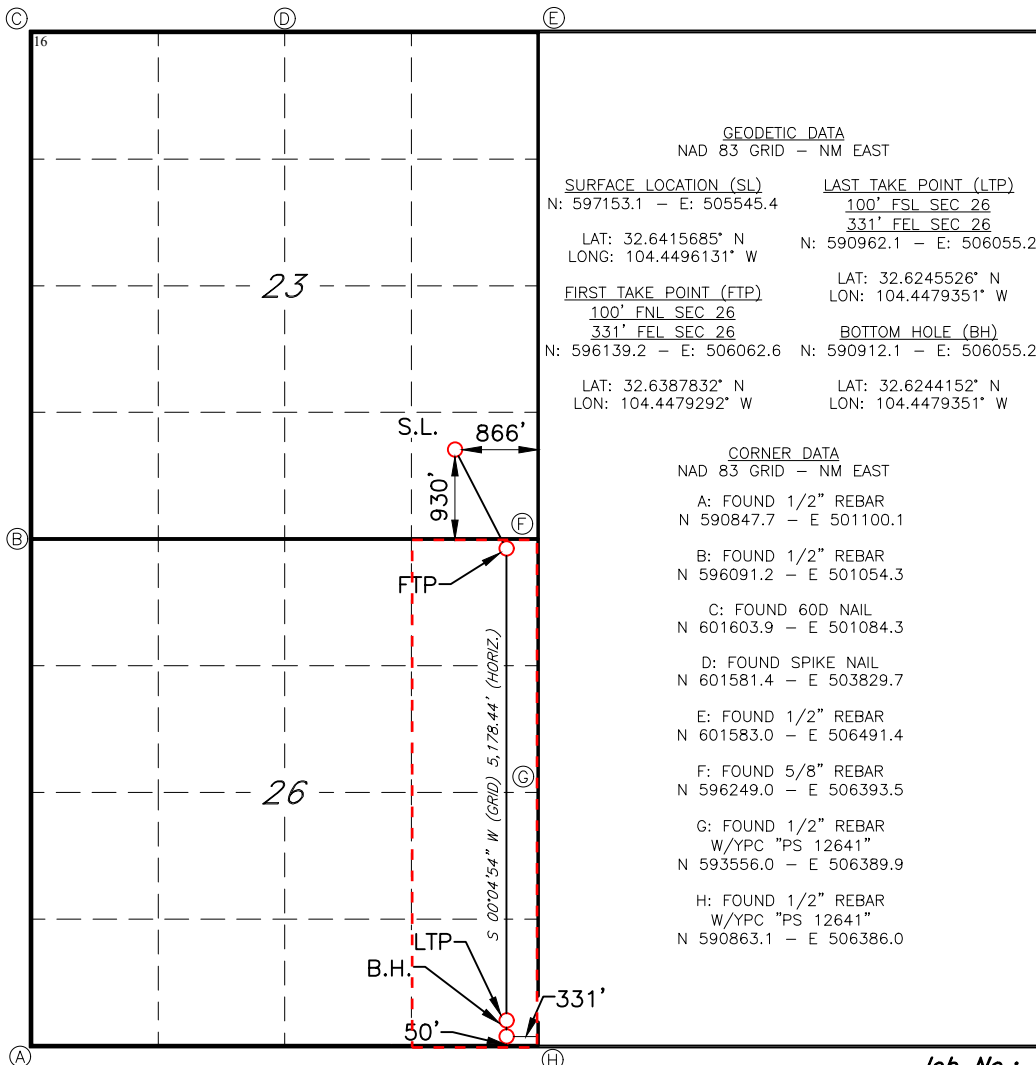
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
<b>P</b>	<b>23</b>	<b>19S</b>	<b>25E</b>		<b>930</b>	<b>SOUTH</b>	<b>866</b>	<b>EAST</b>	<b>EDDY</b>

<sup>11</sup> 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
<b>P</b>	<b>26</b>	<b>19S</b>	<b>25E</b>		<b>50</b>	<b>SOUTH</b>	<b>331</b>	<b>EAST</b>	<b>EDDY</b>
<sup>12</sup> Dedicated Acres <b>160</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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



<sup>17</sup> 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.

*Sarah Chapman* 01/11/2021  
Signature Date

SARAH CHAPMAN

Printed Name

SCHAPMAN@SPUREPLLC.COM

E-mail Address

<sup>18</sup> 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.

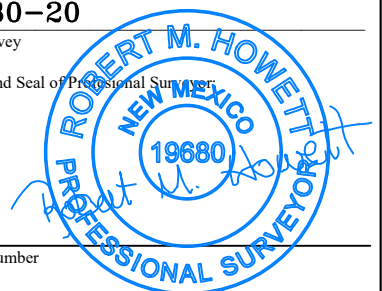
**11-30-20**

Date of Survey

Signature and Seal of Professional Surveyor

**19680**

Certificate Number



Job No.:

LS20110724

**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**

## GAS CAPTURE PLAN

Date: 1/12/2021

☒ Original

Operator & OGRID No.: [328947] Spur Energy Partners LLC

☐ Amended - Reason for  
Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple 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
MORRIS BOYD #013H	30-015-47912	P-23-19S-25E	0930S 0866E	600	Flared	WILL FLARE UNTIL TIE-IN COMPLETED.

**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 DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP Low Pressure gathering system located in Eddy County, New Mexico. It will require 1267' of pipeline to connect the facility to Low Pressure gathering system. Spur Energy Partners LLC provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Spur Energy Partners LLC and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 07, Twn. 18S, Rng. 28E, Eddy County, New Mexico. 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 temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is Spur Energy Partners LLC'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

**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**

Form APD Comments

Permit 291160

PERMIT COMMENTS

Operator Name and Address: Spur Energy Partners LLC [328947] 9655 Katy Freeway Houston, TX 77024		API Number: 30-015-47912
		Well: MORRIS BOYD #013H
Created By	Comment	Comment Date

**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**

Form APD Conditions

Permit 291160

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: Spur Energy Partners LLC [328947] 9655 Katy Freeway Houston, TX 77024	API Number: 30-015-47912
	Well: MORRIS BOYD #013H

OCD Reviewer	Condition
ksimmons	Notify OCD 24 hours prior to casing & cement
ksimmons	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days

## Spur Energy Partners LLC – Morris Boyd 13H

### 1. Geologic Formations

Formation	TVD - RKB	Expected Fluids
San Andres	850'	Water Flow
Lower San Andres	1875'	Oil/Gas
Glorieta	2480'	Oil/Gas
Top Yeso	2585'	<b>Oil/Gas</b>
<b>Base Yeso</b>	<b>4125'</b>	Oil/Gas

\*H<sub>2</sub>S, water flows, loss of circulation, abnormal pressures, etc.

### 2. Casing Program

#### *Primary Plan:*

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
	From (ft)	To (ft)					Collapse		Tension	Tension
12.25	0	1200	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
8.75	0	3300	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
8.75	3300	8800	5.5	20	L-80	BK-HT	1.125	1.2	1.4	1.4
SF Values will meet or Exceed										

**Spur Energy Partners LLC – Morris Boyd 13H**

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

**3. Cementing Program****Primary Plan:**

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	0	950	100%
Surface (Tail)	950	1200	165%
Production (Lead)	0	2300	0%
Production (Tail)	2300	8800	50%

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	270	12.2	2.31	13.48	8:12	Clas C Premium Plus Cement
Surface (Tail)	123	13.2	1.84	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	144	11.8	2.54	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1279	13.2	1.81	9.81	N/A	Clas C Premium Plus Cement

**Spur Energy Partners LLC – Morris Boyd 13H****4. Pressure Control Equipment**

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	11"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 5000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		
8.75" Hole	11"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 5000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		

**\*Spur Energy Partners LLC will be utilizing a 5M BOP\***

Condition	Specify what type and where?
BH Pressure at deepest TVD	1394 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	105°F

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	Are anchors required by manufacturer?
	A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. See attached schematics.



## Spur Energy Partners LLC – Morris Boyd 13H

### 5. BOP Break Testing Request

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as per the verbal agreement reached over the phone between SPUR/BLM on September 7, 2020. A separate sundry will be sent prior to spud that reflects the pad-based break testing plan.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3<sup>rd</sup> Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

- 1) The void between the wellhead and the spool (this consists of two tests)
- 2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

- 1) The void between the wellhead and the pipe rams

### 6. Mud Program

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	1200	Water-Based Mud	8.6-8.9	32-36	N/C
1200	8800	Water-Based Mud	8.6-8.9	32-36	N/C

What will be used to monitor the loss or gain of fluid?	PVT/PASON/Visual Monitoring
---	-----------------------------

**Spur Energy Partners LLC – Morris Boyd 13H****7. Logging and Testing Procedures**

<b>Logging, Coring and Testing.</b>		
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.	
No	Logs are planned based on well control or offset log information.	
No	Drill stem test? If yes, explain	
No	Coring? If yes, explain	
<b>Additional logs planned</b>		<b>Interval</b>
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

**8. Drilling Conditions**

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H <sub>2</sub> S) monitors will be installed prior to drilling out the surface shoe. If H <sub>2</sub> S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H <sub>2</sub> S is present
Y	H <sub>2</sub> S Plan attached

**Total estimated cuttings volume: 829 bbls.**

**9. Other facets of operation**

	<b>Yes/No</b>
Will more than one drilling rig be used for drilling operations? If yes, describe. Spur Energy Partners LLC requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Spur Energy Partners LLC. would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

**Spur Energy Partners LLC – Morris Boyd 13H**

## Attachments

- ☒ Directional Plan  
☒ H2S Contingency Plan  
☒ Akita 57 Attachment  
☒ BOP Schematics  
☒ Spudder Rig Attachment

**10. Company Personnel**

<u>Name</u>	<u>Title</u>	<u>Office Phone</u>	<u>Mobile Phone</u>
Christopher Hollis	Drilling Manager	832-930-8629	713-380-7754
Johnny Nabors	Senior Vice President Operations	832-930-8502	281-904-8811



# **Spur Energy Partners, LLC**

**Eddy County, NM (NAD 83 - NME)**

**Morris-Boyd**

**#13H**

**OH**

**Plan: Plan #2**

## **Standard Planning Report**

**28 December, 2020**





## Planning Report



<b>Database:</b>	WBDS_SQL_2	<b>Local Co-ordinate Reference:</b>	Well #13H
<b>Company:</b>	Spur Energy Partners, LLC	<b>TVD Reference:</b>	RKB=20' @ 3440.00usft
<b>Project:</b>	Eddy County, NM (NAD 83 - NME)	<b>MD Reference:</b>	RKB=20' @ 3440.00usft
<b>Site:</b>	Morris-Boyd	<b>North Reference:</b>	Grid
<b>Well:</b>	#13H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

<b>Project</b>	Eddy County, NM (NAD 83 - NME)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site	Morris-Boyd				
Site Position:		Northing:	597,070.85 usft	Latitude:	32.6413386
From:	Map	Easting:	504,307.71 usft	Longitude:	-104.4536337
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-0.065

Well	#13H					
Well Position	+N/-S	82.25 usft	Northing:	597,153.10 usft	Latitude:	32.6415685
	+E/-W	1,237.69 usft	Easting:	505,545.40 usft	Longitude:	-104.4496131
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,420.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	02/05/20	7.108	60.271	47,819.33505738

<b>Design</b>	Plan #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	180.08

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/28/20		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	8,800.87 Plan #2 (OH)	MWD+IGRF	
			OWSG MWD + IGRF or WM	

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,086.00	15.72	99.87	1,076.17	-18.38	105.56	2.00	2.00	0.00	99.875	
2,097.33	15.72	99.87	2,049.68	-65.37	375.51	0.00	0.00	0.00	0.000	
3,073.77	60.00	180.08	2,833.24	-554.22	517.85	6.00	4.53	8.21	89.575	
3,273.77	60.00	180.08	2,933.24	-727.42	517.61	0.00	0.00	0.00	0.000	
3,573.77	90.00	180.08	3,010.00	-1,013.90	517.20	10.00	10.00	0.00	0.000	Morris-Boyd 13H: F
8,750.87	90.00	180.08	3,010.00	-6,191.00	509.87	0.00	0.00	0.00	0.000	Morris-Boyd 13H: L
8,800.87	90.00	180.08	3,010.00	-6,241.00	509.80	0.00	0.00	0.00	0.000	Morris-Boyd 13H: P



## Planning Report



<b>Database:</b>	WBDS_SQL_2	<b>Local Co-ordinate Reference:</b>	Well #13H
<b>Company:</b>	Spur Energy Partners, LLC	<b>TVD Reference:</b>	RKB=20' @ 3440.00usft
<b>Project:</b>	Eddy County, NM (NAD 83 - NME)	<b>MD Reference:</b>	RKB=20' @ 3440.00usft
<b>Site:</b>	Morris-Boyd	<b>North Reference:</b>	Grid
<b>Well:</b>	#13H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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	2.00	99.87	399.98	-0.30	1.72	0.30	2.00	2.00	0.00
500.00	4.00	99.87	499.84	-1.20	6.88	1.19	2.00	2.00	0.00
600.00	6.00	99.87	599.45	-2.69	15.46	2.67	2.00	2.00	0.00
700.00	8.00	99.87	698.70	-4.78	27.47	4.74	2.00	2.00	0.00
800.00	10.00	99.87	797.47	-7.46	42.88	7.40	2.00	2.00	0.00
900.00	12.00	99.87	895.62	-10.74	61.68	10.65	2.00	2.00	0.00
1,000.00	14.00	99.87	993.06	-14.59	83.84	14.48	2.00	2.00	0.00
1,086.00	15.72	99.87	1,076.17	-18.38	105.56	18.23	2.00	2.00	0.00
1,100.00	15.72	99.87	1,089.65	-19.03	109.30	18.87	0.00	0.00	0.00
1,200.00	15.72	99.87	1,185.91	-23.67	135.99	23.48	0.00	0.00	0.00
1,300.00	15.72	99.87	1,282.17	-28.32	162.68	28.09	0.00	0.00	0.00
1,400.00	15.72	99.87	1,378.43	-32.97	189.38	32.70	0.00	0.00	0.00
1,500.00	15.72	99.87	1,474.69	-37.61	216.07	37.31	0.00	0.00	0.00
1,600.00	15.72	99.87	1,570.95	-42.26	242.76	41.92	0.00	0.00	0.00
1,700.00	15.72	99.87	1,667.21	-46.91	269.45	46.53	0.00	0.00	0.00
1,800.00	15.72	99.87	1,763.47	-51.55	296.15	51.14	0.00	0.00	0.00
1,900.00	15.72	99.87	1,859.73	-56.20	322.84	55.75	0.00	0.00	0.00
2,000.00	15.72	99.87	1,955.99	-60.84	349.53	60.36	0.00	0.00	0.00
2,097.33	15.72	99.87	2,049.68	-65.37	375.51	64.84	0.00	0.00	0.00
2,100.00	15.72	100.47	2,052.25	-65.49	376.22	64.97	6.00	0.07	22.14
2,150.00	16.05	111.38	2,100.35	-69.25	389.32	68.70	6.00	0.66	21.82
2,200.00	16.90	121.54	2,148.31	-75.57	401.95	75.01	6.00	1.70	20.33
2,250.00	18.19	130.53	2,195.99	-84.44	414.08	83.87	6.00	2.59	17.98
2,300.00	19.85	138.21	2,243.26	-95.85	425.68	95.25	6.00	3.31	15.37
2,350.00	21.79	144.67	2,290.00	-109.75	436.70	109.14	6.00	3.87	12.92
2,400.00	23.93	150.08	2,336.08	-126.12	447.13	125.49	6.00	4.29	10.81
2,450.00	26.24	154.61	2,381.36	-144.89	456.93	144.26	6.00	4.61	9.07
2,500.00	28.66	158.44	2,425.74	-166.04	466.08	165.39	6.00	4.85	7.67
2,550.00	31.18	161.72	2,469.07	-189.49	474.55	188.82	6.00	5.04	6.55
2,600.00	33.77	164.54	2,511.25	-215.18	482.31	214.50	6.00	5.18	5.65
2,650.00	36.42	167.00	2,552.16	-243.04	489.36	242.35	6.00	5.29	4.93
2,700.00	39.11	169.17	2,591.69	-272.99	495.66	272.30	6.00	5.38	4.34
2,750.00	41.83	171.11	2,629.72	-304.96	501.20	304.26	6.00	5.45	3.86
2,800.00	44.59	172.84	2,666.16	-338.85	505.96	338.15	6.00	5.51	3.47
2,850.00	47.37	174.41	2,700.91	-374.58	509.94	373.87	6.00	5.56	3.15
2,900.00	50.16	175.85	2,733.86	-412.04	513.12	411.32	6.00	5.60	2.88
2,950.00	52.98	177.18	2,764.94	-451.13	515.49	450.41	6.00	5.63	2.65
3,000.00	55.81	178.41	2,794.05	-491.75	517.05	491.02	6.00	5.66	2.46
3,050.00	58.65	179.56	2,821.11	-533.78	517.79	533.05	6.00	5.68	2.30
3,073.77	60.00	180.08	2,833.24	-554.22	517.85	553.49	6.00	5.69	2.20
3,100.00	60.00	180.08	2,846.35	-576.94	517.82	576.21	0.00	0.00	0.00
3,200.00	60.00	180.08	2,896.35	-663.54	517.70	662.81	0.00	0.00	0.00
3,273.77	60.00	180.08	2,933.24	-727.42	517.61	726.70	0.00	0.00	0.00
3,300.00	62.62	180.08	2,945.83	-750.43	517.57	749.71	10.00	10.00	0.00
3,350.00	67.62	180.08	2,966.86	-795.78	517.51	795.06	10.00	10.00	0.00
3,400.00	72.62	180.08	2,983.85	-842.78	517.44	842.06	10.00	10.00	0.00
3,450.00	77.62	180.08	2,996.68	-891.09	517.37	890.37	10.00	10.00	0.00
3,500.00	82.62	180.08	3,005.26	-940.34	517.30	939.61	10.00	10.00	0.00
3,550.00	87.62	180.08	3,009.51	-990.14	517.23	989.42	10.00	10.00	0.00
3,573.77	90.00	180.08	3,010.00	-1,013.90	517.20	1,013.18	10.00	10.00	0.00



## Planning Report



<b>Database:</b>	WBDS_SQL_2	<b>Local Co-ordinate Reference:</b>	Well #13H
<b>Company:</b>	Spur Energy Partners, LLC	<b>TVD Reference:</b>	RKB=20' @ 3440.00usft
<b>Project:</b>	Eddy County, NM (NAD 83 - NME)	<b>MD Reference:</b>	RKB=20' @ 3440.00usft
<b>Site:</b>	Morris-Boyd	<b>North Reference:</b>	Grid
<b>Well:</b>	#13H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,600.00	90.00	180.08	3,010.00	-1,040.13	517.16	1,039.41	0.00	0.00	0.00
3,700.00	90.00	180.08	3,010.00	-1,140.13	517.02	1,139.41	0.00	0.00	0.00
3,800.00	90.00	180.08	3,010.00	-1,240.13	516.88	1,239.41	0.00	0.00	0.00
3,900.00	90.00	180.08	3,010.00	-1,340.13	516.74	1,339.41	0.00	0.00	0.00
4,000.00	90.00	180.08	3,010.00	-1,440.13	516.60	1,439.41	0.00	0.00	0.00
4,100.00	90.00	180.08	3,010.00	-1,540.13	516.46	1,539.41	0.00	0.00	0.00
4,200.00	90.00	180.08	3,010.00	-1,640.13	516.31	1,639.41	0.00	0.00	0.00
4,300.00	90.00	180.08	3,010.00	-1,740.13	516.17	1,739.41	0.00	0.00	0.00
4,400.00	90.00	180.08	3,010.00	-1,840.13	516.03	1,839.41	0.00	0.00	0.00
4,500.00	90.00	180.08	3,010.00	-1,940.13	515.89	1,939.41	0.00	0.00	0.00
4,600.00	90.00	180.08	3,010.00	-2,040.13	515.75	2,039.41	0.00	0.00	0.00
4,700.00	90.00	180.08	3,010.00	-2,140.13	515.61	2,139.41	0.00	0.00	0.00
4,800.00	90.00	180.08	3,010.00	-2,240.13	515.46	2,239.41	0.00	0.00	0.00
4,900.00	90.00	180.08	3,010.00	-2,340.13	515.32	2,339.41	0.00	0.00	0.00
5,000.00	90.00	180.08	3,010.00	-2,440.13	515.18	2,439.41	0.00	0.00	0.00
5,100.00	90.00	180.08	3,010.00	-2,540.13	515.04	2,539.41	0.00	0.00	0.00
5,200.00	90.00	180.08	3,010.00	-2,640.13	514.90	2,639.41	0.00	0.00	0.00
5,300.00	90.00	180.08	3,010.00	-2,740.13	514.76	2,739.41	0.00	0.00	0.00
5,400.00	90.00	180.08	3,010.00	-2,840.13	514.61	2,839.41	0.00	0.00	0.00
5,500.00	90.00	180.08	3,010.00	-2,940.13	514.47	2,939.41	0.00	0.00	0.00
5,600.00	90.00	180.08	3,010.00	-3,040.13	514.33	3,039.41	0.00	0.00	0.00
5,700.00	90.00	180.08	3,010.00	-3,140.13	514.19	3,139.41	0.00	0.00	0.00
5,800.00	90.00	180.08	3,010.00	-3,240.13	514.05	3,239.41	0.00	0.00	0.00
5,900.00	90.00	180.08	3,010.00	-3,340.13	513.91	3,339.41	0.00	0.00	0.00
6,000.00	90.00	180.08	3,010.00	-3,440.13	513.77	3,439.41	0.00	0.00	0.00
6,100.00	90.00	180.08	3,010.00	-3,540.13	513.62	3,539.41	0.00	0.00	0.00
6,200.00	90.00	180.08	3,010.00	-3,640.13	513.48	3,639.41	0.00	0.00	0.00
6,300.00	90.00	180.08	3,010.00	-3,740.13	513.34	3,739.41	0.00	0.00	0.00
6,400.00	90.00	180.08	3,010.00	-3,840.13	513.20	3,839.41	0.00	0.00	0.00
6,500.00	90.00	180.08	3,010.00	-3,940.13	513.06	3,939.41	0.00	0.00	0.00
6,600.00	90.00	180.08	3,010.00	-4,040.13	512.92	4,039.41	0.00	0.00	0.00
6,700.00	90.00	180.08	3,010.00	-4,140.13	512.77	4,139.41	0.00	0.00	0.00
6,800.00	90.00	180.08	3,010.00	-4,240.13	512.63	4,239.41	0.00	0.00	0.00
6,900.00	90.00	180.08	3,010.00	-4,340.13	512.49	4,339.41	0.00	0.00	0.00
7,000.00	90.00	180.08	3,010.00	-4,440.13	512.35	4,439.41	0.00	0.00	0.00
7,100.00	90.00	180.08	3,010.00	-4,540.13	512.21	4,539.41	0.00	0.00	0.00
7,200.00	90.00	180.08	3,010.00	-4,640.13	512.07	4,639.41	0.00	0.00	0.00
7,300.00	90.00	180.08	3,010.00	-4,740.13	511.92	4,739.41	0.00	0.00	0.00
7,400.00	90.00	180.08	3,010.00	-4,840.13	511.78	4,839.41	0.00	0.00	0.00
7,500.00	90.00	180.08	3,010.00	-4,940.13	511.64	4,939.41	0.00	0.00	0.00
7,600.00	90.00	180.08	3,010.00	-5,040.13	511.50	5,039.41	0.00	0.00	0.00
7,700.00	90.00	180.08	3,010.00	-5,140.13	511.36	5,139.41	0.00	0.00	0.00
7,800.00	90.00	180.08	3,010.00	-5,240.13	511.22	5,239.41	0.00	0.00	0.00
7,900.00	90.00	180.08	3,010.00	-5,340.13	511.08	5,339.41	0.00	0.00	0.00
8,000.00	90.00	180.08	3,010.00	-5,440.13	510.93	5,439.41	0.00	0.00	0.00
8,100.00	90.00	180.08	3,010.00	-5,540.13	510.79	5,539.41	0.00	0.00	0.00
8,200.00	90.00	180.08	3,010.00	-5,640.13	510.65	5,639.41	0.00	0.00	0.00
8,300.00	90.00	180.08	3,010.00	-5,740.13	510.51	5,739.41	0.00	0.00	0.00
8,400.00	90.00	180.08	3,010.00	-5,840.13	510.37	5,839.41	0.00	0.00	0.00
8,500.00	90.00	180.08	3,010.00	-5,940.13	510.23	5,939.41	0.00	0.00	0.00
8,600.00	90.00	180.08	3,010.00	-6,040.13	510.08	6,039.41	0.00	0.00	0.00
8,700.00	90.00	180.08	3,010.00	-6,140.13	509.94	6,139.41	0.00	0.00	0.00
8,750.87	90.00	180.08	3,010.00	-6,191.00	509.87	6,190.28	0.00	0.00	0.00
8,800.87	90.00	180.08	3,010.00	-6,241.00	509.80	6,240.28	0.00	0.00	0.00



## Planning Report



<b>Database:</b>	WBDS_SQL_2	<b>Local Co-ordinate Reference:</b>	Well #13H
<b>Company:</b>	Spur Energy Partners, LLC	<b>TVD Reference:</b>	RKB=20' @ 3440.00usft
<b>Project:</b>	Eddy County, NM (NAD 83 - NME)	<b>MD Reference:</b>	RKB=20' @ 3440.00usft
<b>Site:</b>	Morris-Boyd	<b>North Reference:</b>	Grid
<b>Well:</b>	#13H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

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
Morris-Boyd 13H: SHI - plan hits target center - Point	0.00	360.00	0.00	0.00	0.00	597,153.10	505,545.40	32.6415685	-104.4496131
Morris-Boyd 13H: KOI - plan hits target center - Point	0.00	0.00	2,049.68	-65.37	375.51	597,087.74	505,920.91	32.6413899	-104.4483929
Morris-Boyd 13H: FTF - plan hits target center - Point	0.00	360.00	3,010.00	-1,013.90	517.20	596,139.20	506,062.60	32.6387831	-104.4479293
Morris-Boyd 13H: PBI - plan hits target center - Point	0.00	360.00	3,010.00	-6,241.00	509.80	590,912.10	506,055.20	32.6244152	-104.4479350
Morris-Boyd 13H: LTF - plan misses target center by 0.07usft at 8750.87usft MD (3010.00 TVD, -6191.00 N, 509.87 E) - Point	0.00	360.00	3,010.00	-6,191.00	509.80	590,962.10	506,055.20	32.6245527	-104.4479352





Company: Spur Energy Partners, LLC  
Project: Eddy County, NM (NAD 83 - NME)  
Site: Morris-Boyd  
Well: #13H  
Wellbore: OH  
Rig:  
Design: Plan #2 / 11:14, December 28 2020

WELL DETAILS: #13H

RKB=20' @ 3440.00usft  
3420.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	597153.10	505545.40	32.6415685	-104.4496131

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Morris-Boyd 13H: SHL (930' FSL/866' FEL)	0.00	0.00	0.00	597153.10	505545.40	32.6415685	-104.4496131
Morris-Boyd 13H: KOP @ 2097.33' MD	2049.68	-65.37	375.51	597087.73	505920.91	32.6413899	-104.4483929
Morris-Boyd 13H: FTP/LP	3010.00	-1013.90	517.20	596139.20	506062.60	32.6387831	-104.4479293
Morris-Boyd 13H: LTP	3010.00	-6191.00	509.80	590962.10	506055.20	32.6245526	-104.4479352
Morris-Boyd 13H: PBHL (50' FSL/331' FEL)	3010.00	-6241.00	509.80	590912.10	506055.20	32.6244152	-104.4479350

SECTION DETAILS

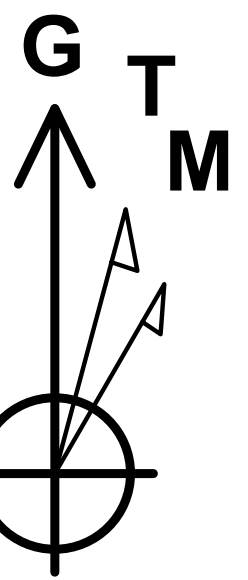
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
3	1086.00	15.72	99.87	1076.17	-18.38	105.56	2.00	18.23
4	2097.33	15.72	99.87	2049.68	-65.37	375.51	0.00	64.84
5	3073.77	60.00	180.08	2833.24	-554.22	517.85	6.00	553.49
6	3273.77	60.00	180.08	2933.24	-727.42	517.61	0.00	726.70
7	3573.77	90.00	180.08	3010.00	-1013.90	517.20	10.00	1013.18
8	8750.87	90.00	180.08	3010.00	-6191.00	509.87	0.00	6190.28
9	8800.87	90.00	180.08	3010.00	-6241.00	509.80	0.00	6240.28

PROJECT DETAILS: Eddy County, NM (NAD 83 - NME)

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

Disclaimer:

All Plan Details, boundary lines and offset well location/ survey data is provided by customer and subject to customer approval.

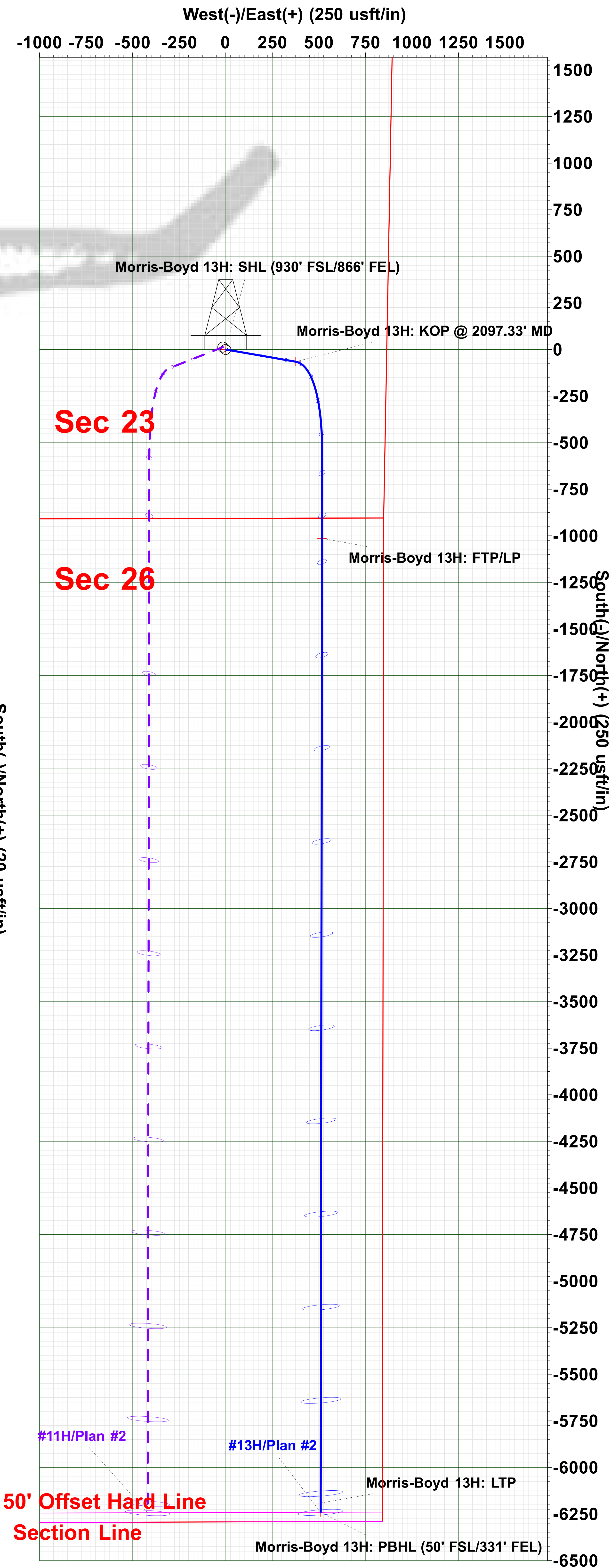
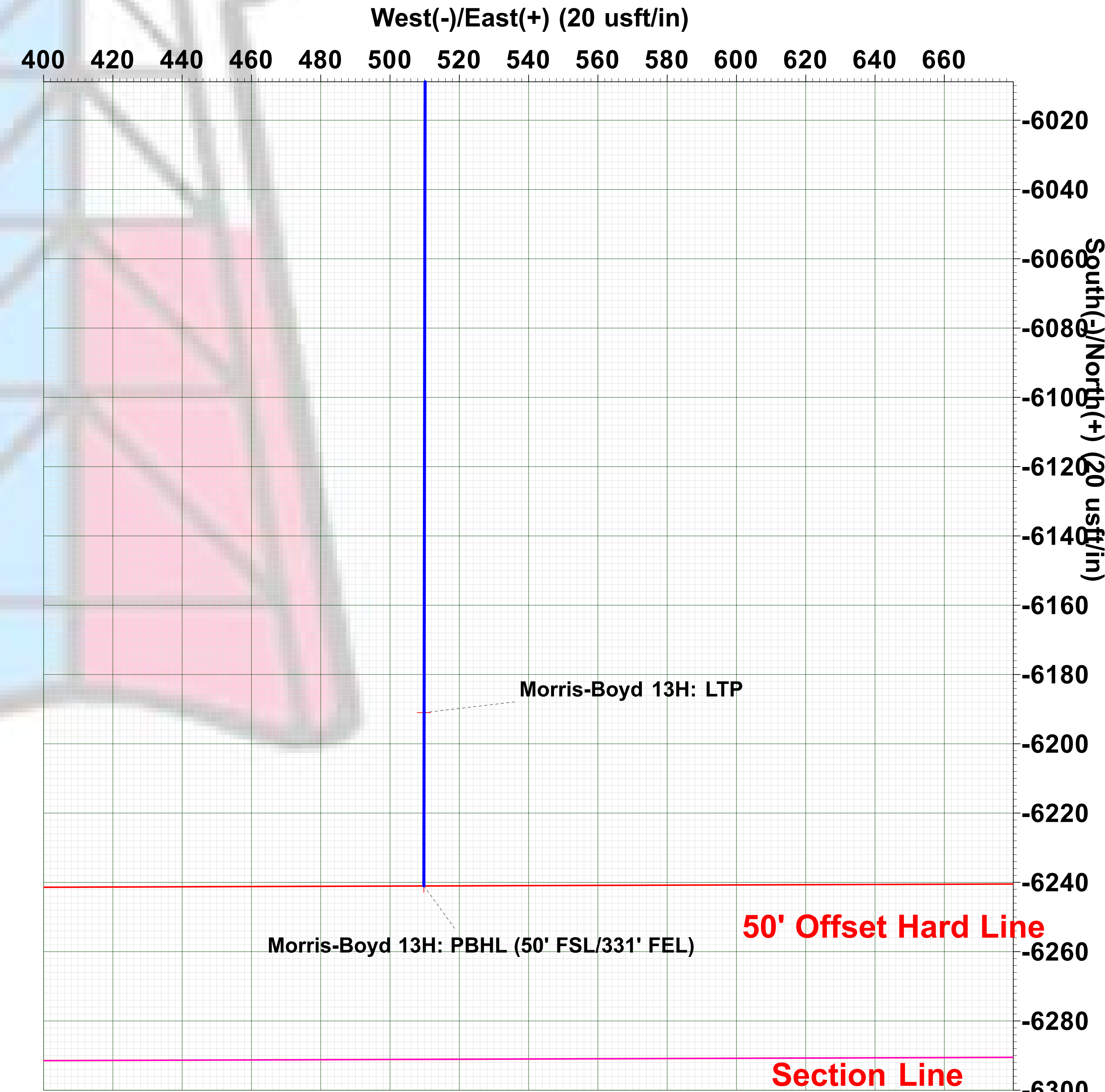
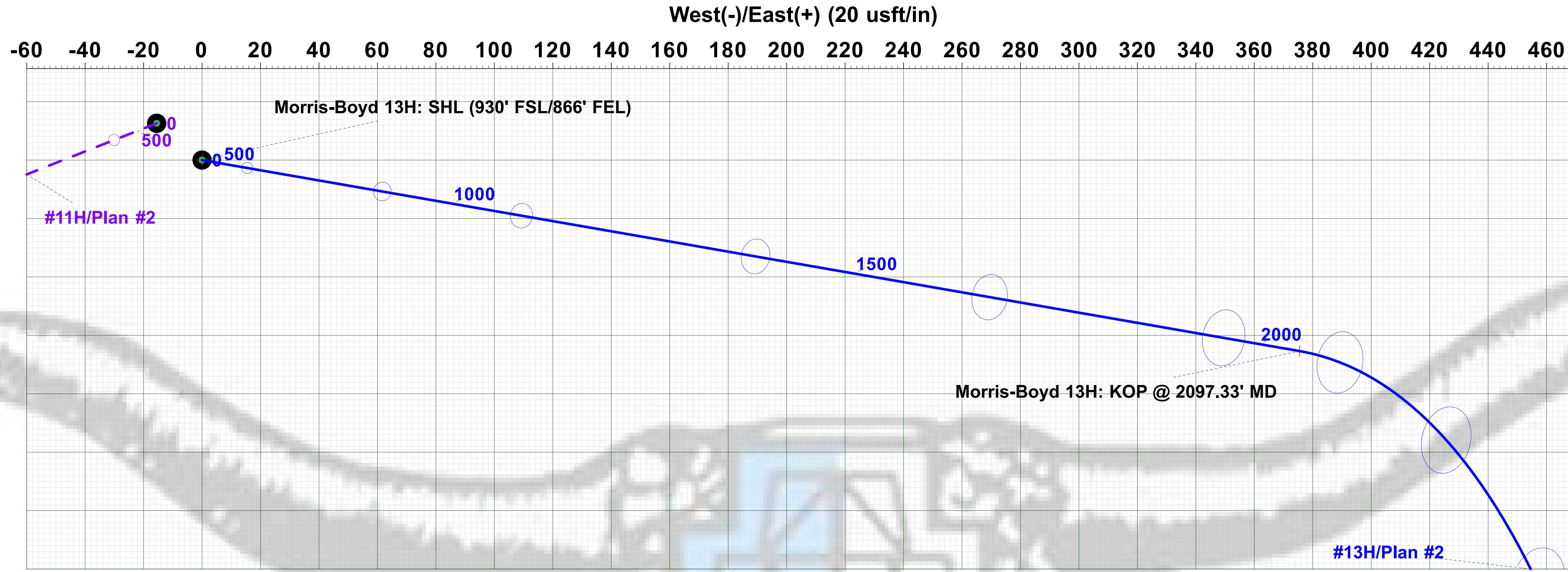


Azimuths to Grid North  
True North: 0.06°  
Magnetic North: 7.10°

Magnetic Field  
Strength: 47694.1snT  
Dip Angle: 60.16°  
Date: 01/05/2021  
Model: IGRF2020

CORRECTION REFERENCE DATA:

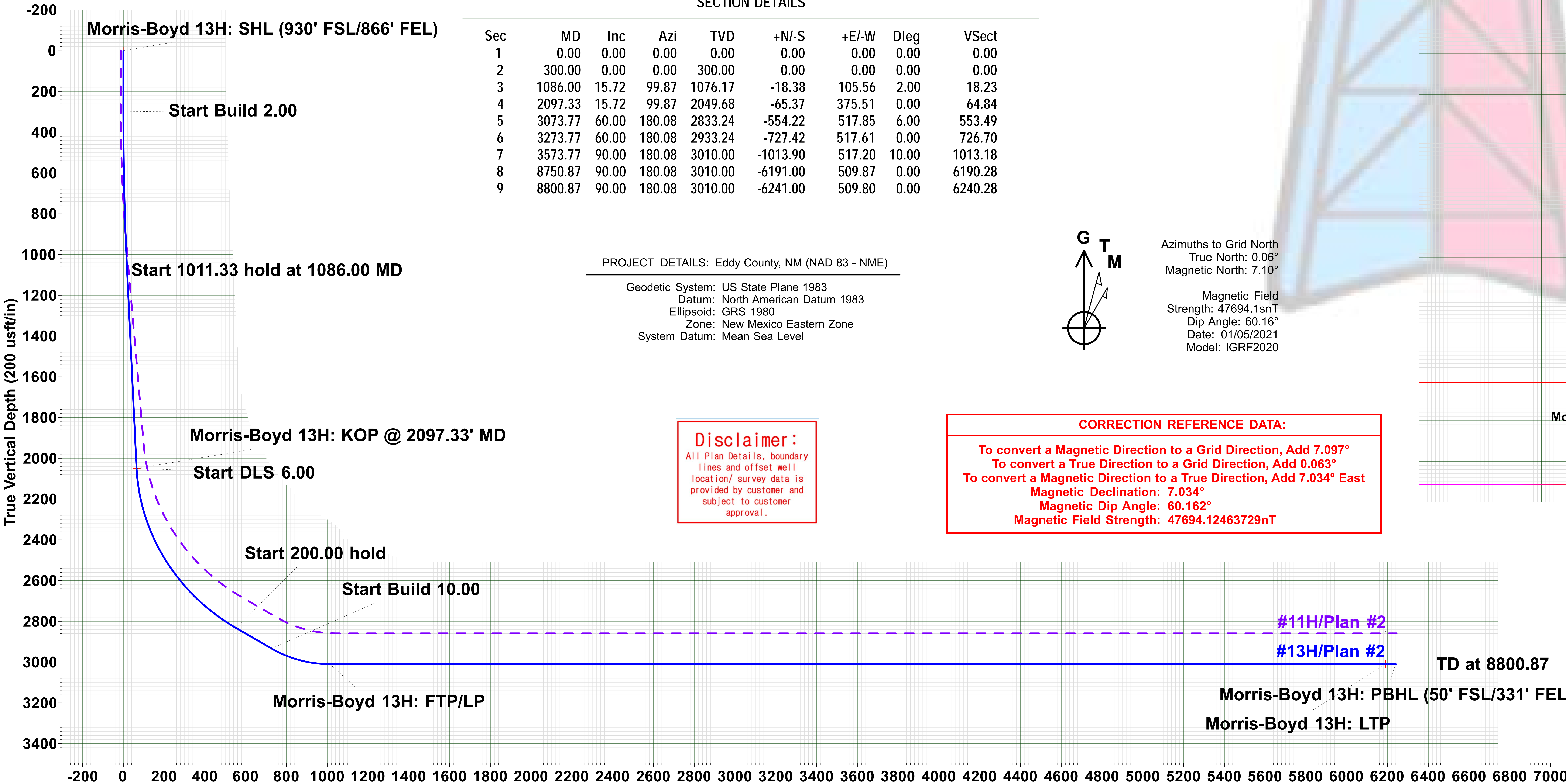
To convert a Magnetic Direction to a Grid Direction, Add 7.097°  
To convert a True Direction to a Grid Direction, Add 0.063°  
To convert a Magnetic Direction to a True Direction, Add 7.034° East  
Magnetic Declination: 7.034°  
Magnetic Dip Angle: 60.162°  
Magnetic Field Strength: 47694.12463729nT



Plan: Plan #2 (#13H/OH)

Created By: Matthew May Date: 11:14, December 28 2020

Vertical Section at 180.08° (200 usft/in)







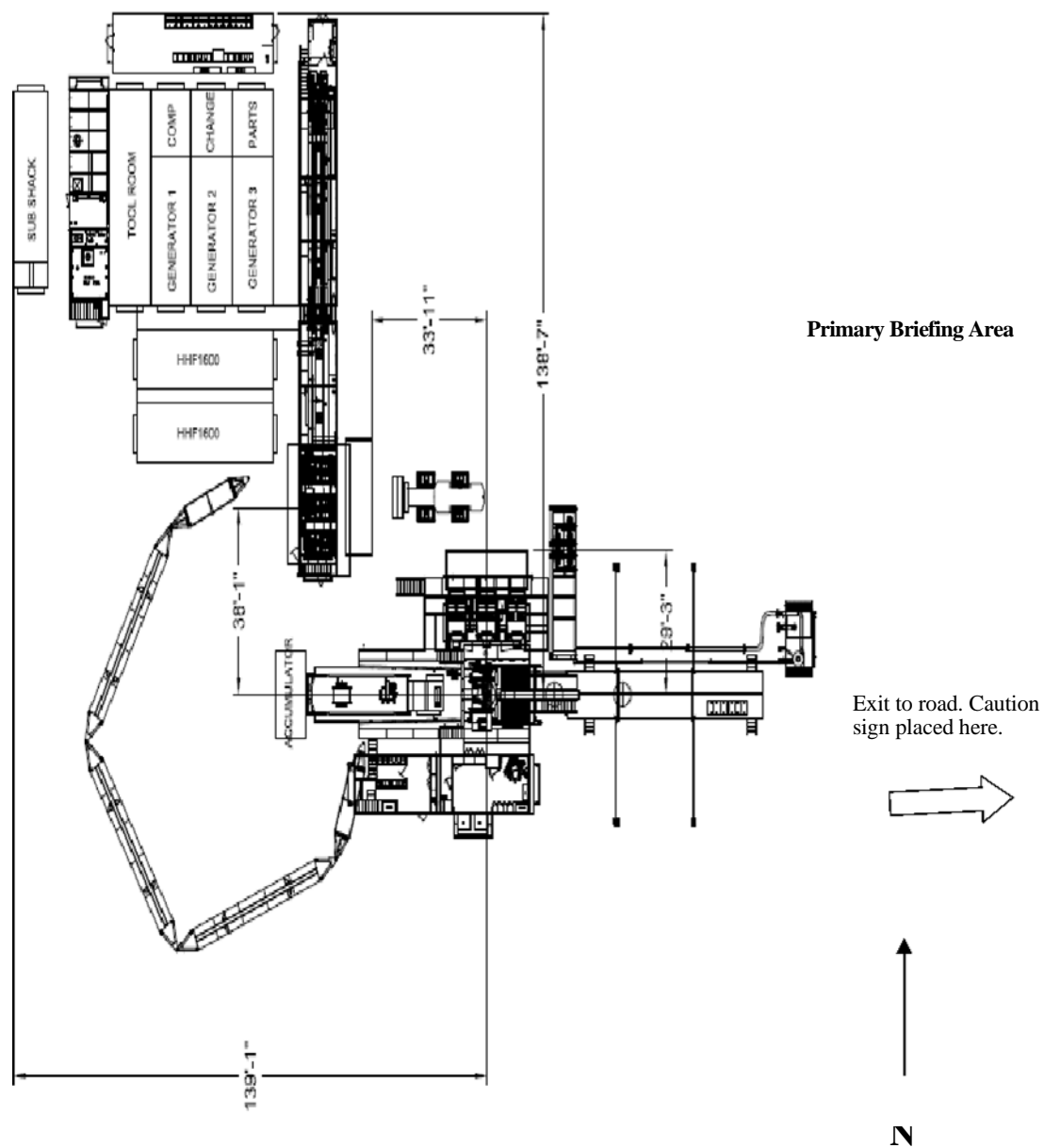
## **Permian Drilling Hydrogen Sulfide Drilling Operations Plan Morris Boyd 13H**

Open drill site. No homes or buildings are near the proposed location.

### **1. Escape**

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

Secondary Briefing Area



WIND: Prevailing winds are from the Southwest

Secondary Egress

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018