

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No. NMNM141395
		6. If Indian, Allottee or Tribe Name
		7. If Unit or CA Agreement, Name and No.
		8. Lease Name and Well No. BUCKSKIN FED COM 1H
2. Name of Operator MR NM OPERATING LLC		9. API Well No. 30-015-54202
3a. Address 5950 BERKSHIRE LANE, SUITE 1000, DALLAS, TX 7522	3b. Phone No. (include area code) (469) 906-2004	10. Field and Pool, or Exploratory WC 015 G-5 1627S35M; ABO
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSW / 1055 FSL / 617 FWL / LAT 32.8746204 / LONG -104.2541334 At proposed prod. zone SESE / 745 FSL / 100 FEL / LAT 32.8725196 / LONG -104.2243746		11. Sec., T. R. M. or Blk. and Survey or Area SEC 35/T16S/R27E/NMP
14. Distance in miles and direction from nearest town or post office* 8 miles		12. County or Parish EDDY
		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 617 feet	16. No of acres in lease	17. Spacing Unit dedicated to this well 320.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 125 feet	19. Proposed Depth 6280 feet / 16135 feet	20. BLM/BIA Bond No. in file FED: NMB002039
21. Elevations (Show whether DF, KDB, RT, GL., etc.) 3429 feet	22. Approximate date work will start* 12/01/2022	23. Estimated duration 90 days
24. Attachments		

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) BRIAN WOOD / Ph: (469) 906-2004	Date 08/22/2022
Title President		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 08/31/2023
Title Assistant Field Manager Lands & Minerals		
Office Carlsbad Field Office		

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

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



(Continued on page 2)

*(Instructions on page 2)



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report

09/01/2023

APD ID: 10400087564

Submission Date: 08/22/2022

Highlighted data reflects the most recent changes

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
12046911	QUATERNARY	3429	0	0	ANHYDRITE, OTHER : Mixed Clastics	NONE	N
12046912	YATES	3234	195	195	ANHYDRITE, OTHER : Dolomitic Anhydrite	USEABLE WATER	N
12046913	SEVEN RIVERS	3084	345	345	ANHYDRITE, DOLOMITE	USEABLE WATER	N
12046914	QUEEN	2684	745	745	SANDSTONE	NATURAL GAS, OIL	N
12046915	GRAYBURG	2274	1155	1155	ANHYDRITE, DOLOMITE, SANDSTONE, SHALE	NATURAL GAS, OIL	N
12046916	SAN ANDRES	1916	1513	1515	ANHYDRITE, DOLOMITE	NATURAL GAS, OIL	N
12046917	GLORIETA	489	2940	2955	DOLOMITE	NATURAL GAS, OIL	N
12046918	YESO	444	2985	3032	OTHER, SANDSTONE : Anhydritic Dolomite	NATURAL GAS	N
12046919	TUBB	-781	4210	4301	OTHER, SANDSTONE : Anhydritic Dolomite	NATURAL GAS, OIL	N
12046920	DRINKARD	-961	4390	4490	OTHER, SANDSTONE : Anhydritic Dolomite	NATURAL GAS, OIL	N
12046921	ABO	-1516	4945	5060	ANHYDRITE, DOLOMITE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M

Rating Depth: 10000

Equipment: The minimum blowout prevention equipment (BOPE) will consist of a 3,000- psi working pressure double ram BOP with blind ram and pipe ram inserts. A 3,000-psi annular preventer will be placed on top of the double ram BOP. Both units will be hydraulically operated. A Kelly cock will be kept in the drill string at all times A full opening drill pipe stabbing valve with proper drill pipe connections will always be on the rig floor. H2S monitoring and detection equipment will be utilized from surface casing point to TD.

Requesting Variance? YES

Variance request: MR NM requests a variance to use a flexible choke line from the BOP stack to the choke manifold. If flex hose is utilized the company man will have all proper certified paperwork for that hose available on location.

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

Testing Procedure: All BOPE will be tested in accordance with Onshore Oil & Gas Order No. 2. Prior to drilling out of the surface casing, ram type BOPE and accessory equipment will be tested to 250/3,000 psig and the annular preventer to 250/1,500 psig. All installed casing strings will be tested to 1,500 psi for 30 minutes prior before drilling out. BOPE function tests will be performed daily for pipe rams and when drill pipe is out of the hole for blind rams. Function tests will be noted in the daily drillers log. A BOP system with a minimum working pressure of 3,000 psi will be installed on the wellhead system and will be pressure tested to 250/3,000 psi. The pressure test will be repeated no less than every 30 days per Onshore Order No. 2. All BOP equipment will be tested utilizing a conventional test plug.

Choke Diagram Attachment:

Choke_Diagram_3k_20220821100455.pdf

BOP Diagram Attachment:

BOP_3k_20220821100505.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	500	0	500	3429	2929	500	H-40	48	ST&C	1.125	1.125	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1615	0	1612	3429	1817	1615	J-55	40	LT&C	1.125	1.125	DRY	1.6	DRY	1.6
3	PRODUCTION	8.75	5.5	NEW	API	N	0	16135	0	6280	3429	-2851	16135	L-80	20	BUTT	1.125	1.125	DRY	1.6	DRY	1.6

Casing Attachments

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220821100728.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220821100831.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Assumptions_20220821100929.pdf

Section 4 - Cement

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	0	0	0	0	0	0	None	None
SURFACE	Tail		0	500	518	1.34	14.8	694	100	Class C	2% Calcium
INTERMEDIATE	Lead		0	1292	315	2.17	12.5	684	100	35/65 Poz/C	5% Salt + 5% Strength Enhancer + 4% Bentonite
INTERMEDIATE	Tail		1292	1615	153	1.32	14.8	202	100	C NEat	Neat
PRODUCTION	Lead		1115	5650	538	2.81	11.5	1512	35	50/50 Poz/C	10% Bentonite + 5% Salt
PRODUCTION	Tail		5650	16135	2572	1.39	14	3575	35	50/50 Poz/C	2% Bentonite + 5% Salt

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials will be on location to maintain mud properties and meet minimum loss control and weight increase requirements.

Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be utilized on the rig pits to monitor pit volumes, flow rates, pump pressures, and stroke rates.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	500	OTHER : Fresh Water	8.6	8.8							
500	1615	OTHER : Cut Brine	8.8	9.4							

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1615	1613 5	OTHER : Cut Brine	8.8	9.4							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Open hole logs are not planned for this well. Directional surveys will be run with GR from below surface casing.

List of open and cased hole logs run in the well:

GAMMA RAY LOG,

Coring operation description for the well:

No cores, DSTs, or mud logs are planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2750

Anticipated Surface Pressure: 1368

Anticipated Bottom Hole Temperature(F): 140

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Buckskin_1H_H2S_Contingency_Plan_20220821101736.pdf

Operator Name: MR NM OPERATING LLC

Well Name: BUCKSKIN FED COM

Well Number: 1H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Buckskin_1H_Horizontal_Plan_20220821101801.pdf

Other proposed operations facets description:

MR NM Operating LLC requests the option to contract a surface rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the surface rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both A and B sections). The weld will be tested to 1,000 psi. All valves will be closed, and a wellhead cap will be installed. If timing between rigs is such that MR NM Operating LLC would not be able to preset the surface, the primary rig will MIRU and drill the well in its entirety per the APD.

The multi-bowl wellhead system will be installed by vendor's representative. Any required welding will be monitored by vendor's representative.

Other proposed operations facets attachment:

Buckskin_1H_Anticollision_Report_RDC_20220821114600.pdf

CoFlex_Certs_3k_20220821114609.pdf

Wellhead_Diagram_3_String_RDC_20220821114616.pdf

Buckskin_1H_Drill_Plan_20220822091755.pdf

Other Variance attachment:

MR NM OPERATING, LLC.

**Eddy County, NM (NAD 83)
SEC 35, T-16-S, R-27-E
LO BUCKSKIN FED COM 1H**

ORIGINAL HOLE

Plan: PRELIM #0

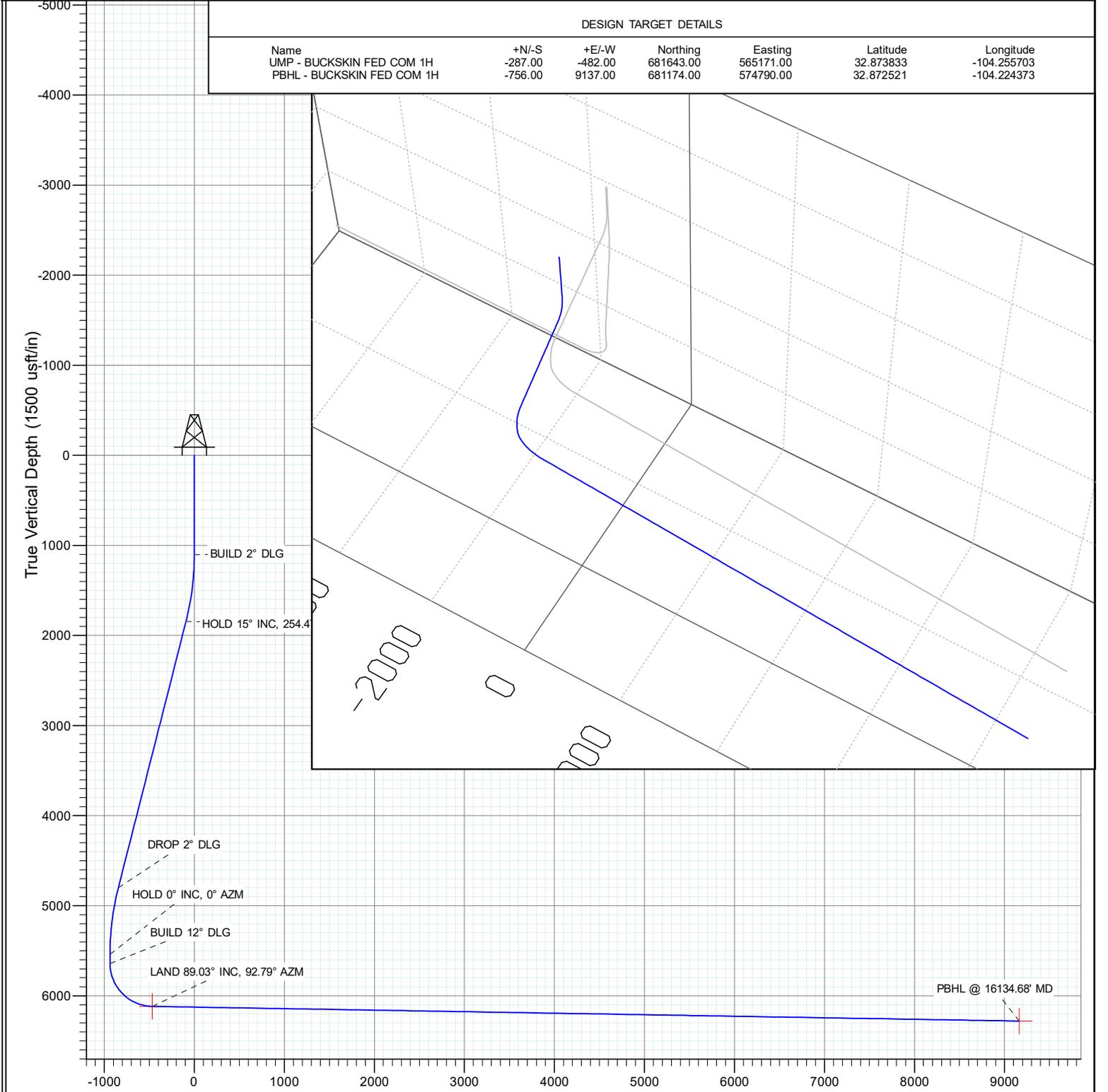
Standard Planning Report

29 June, 2022

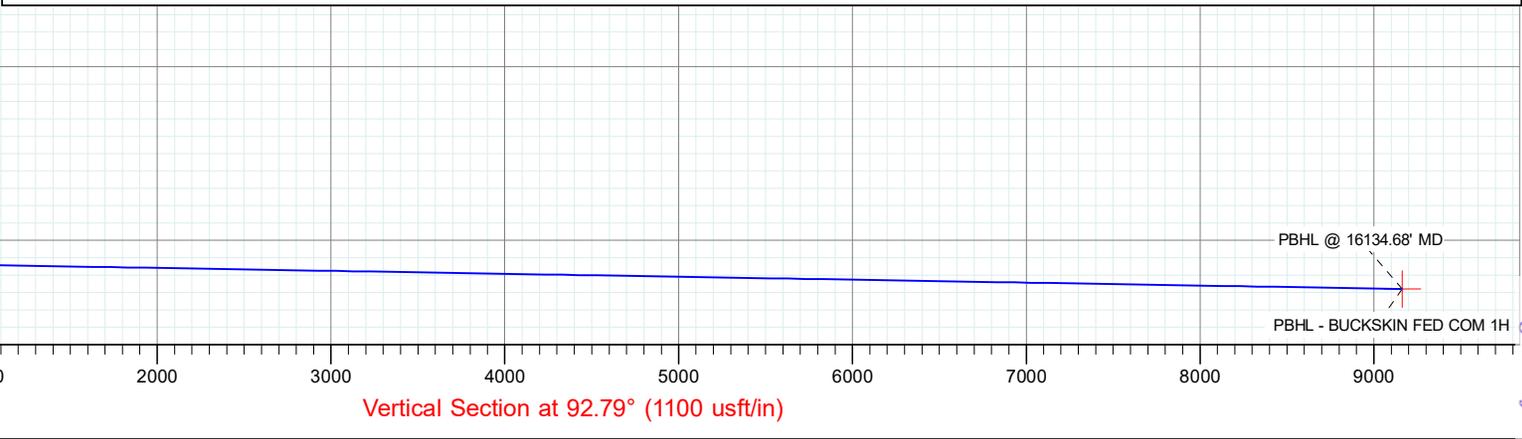
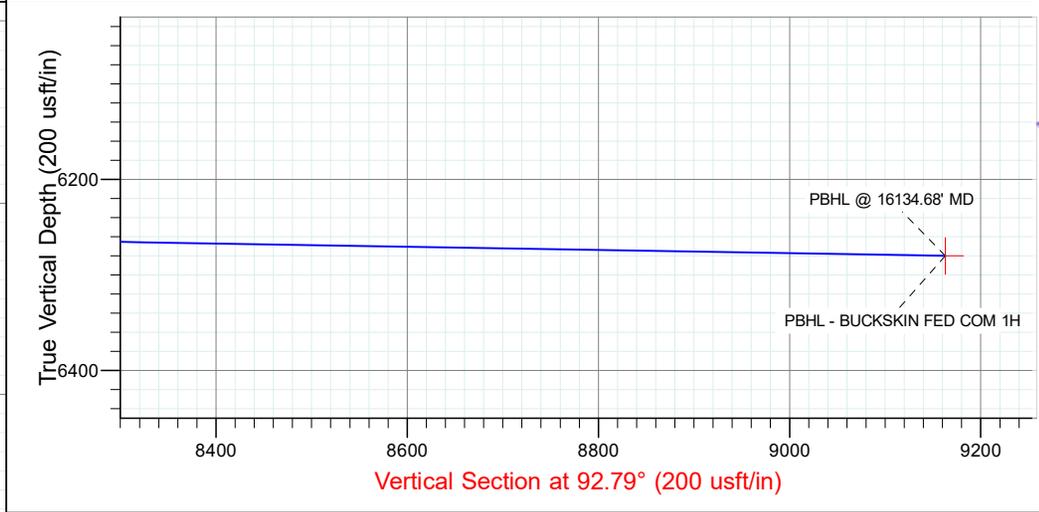
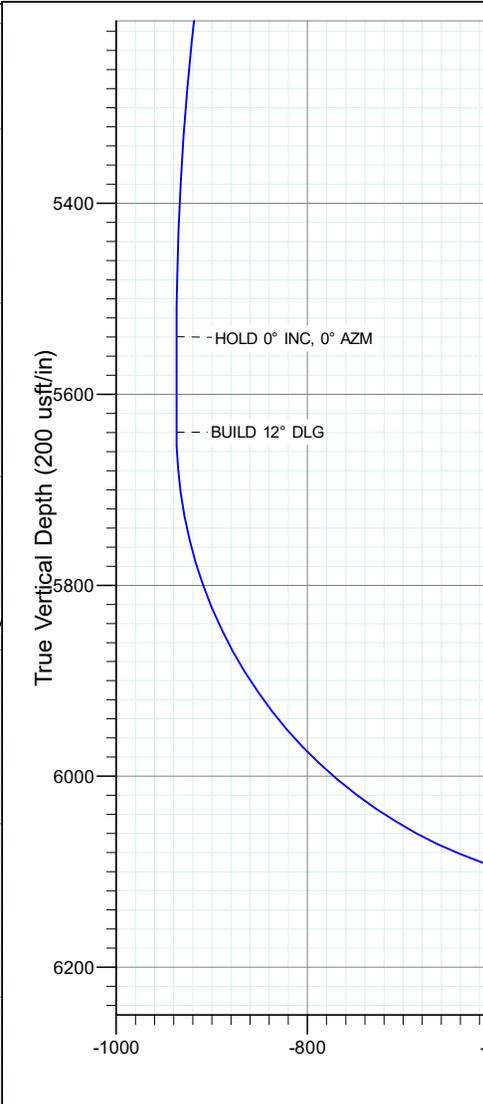
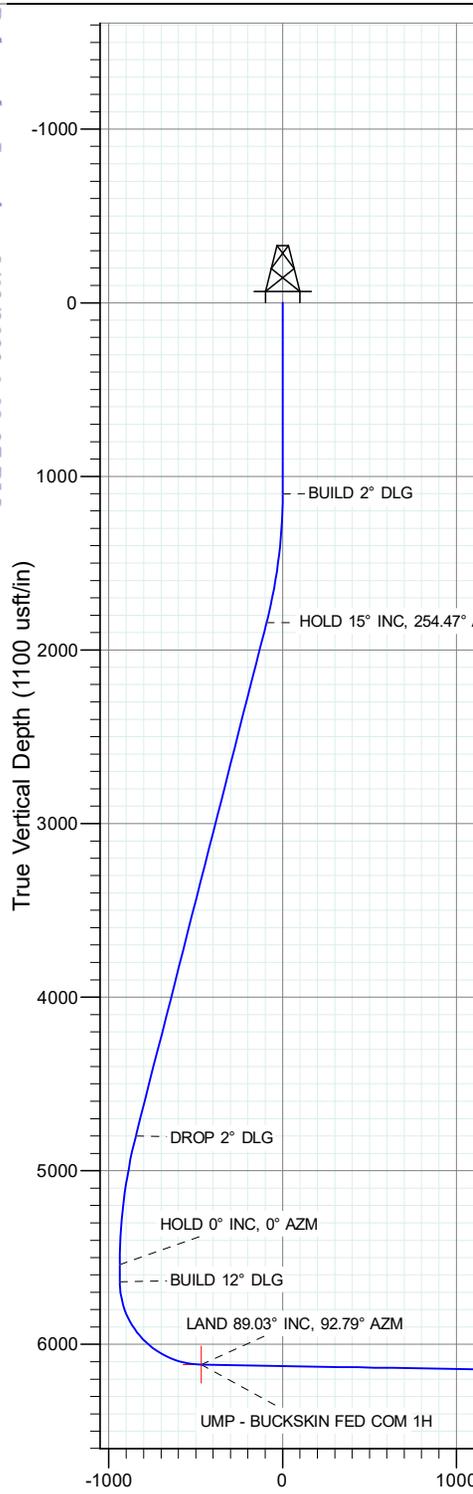


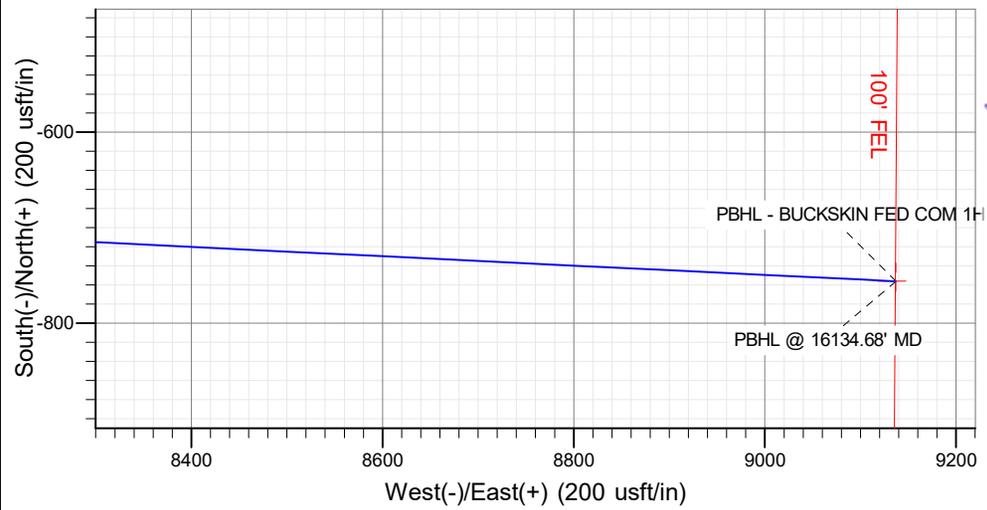
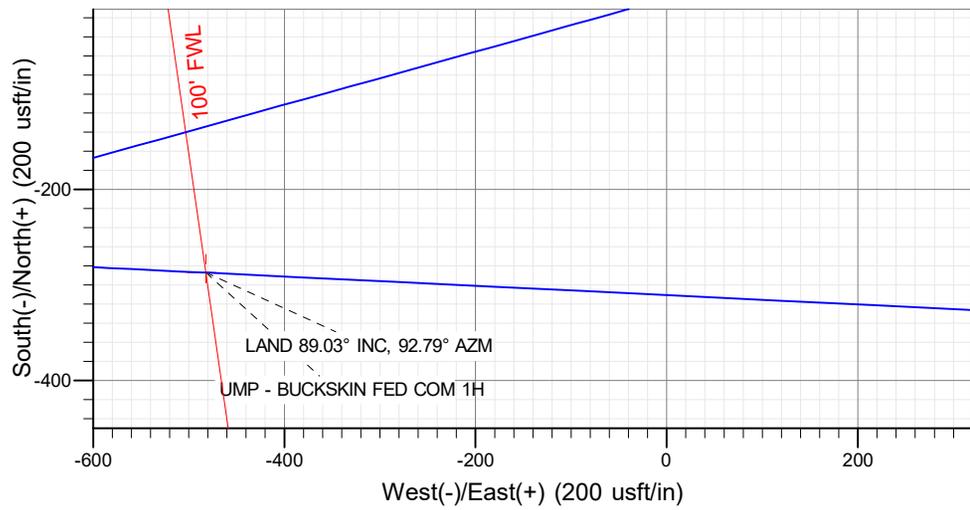
Project: Eddy County, NM (NAD 83) Site: SEC 35, T-16-S, R-27-E Well: LO BUCKSKIN FED COM 1H Wellbore: ORIGINAL HOLE PRELIM #0	WELL DETAILS: LO BUCKSKIN FED COM 1H 16' KB @ 3445.00usft Ground Level: 3429.00		Total Azimuth to Grid North: True North: -0.04° Magnetic North: 6.87° Magnetic Field Strength: 47688.3nT Dip Angle: 60.44° Date: 6/10/2022 Model: HRGM																		
	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>+N/-S</th> <th>+E/-W</th> <th>Northing</th> <th>Easting</th> <th>Latitude</th> <th>Longitude</th> </tr> </thead> <tbody> <tr> <td>0.00</td> <td>0.00</td> <td>681930.00</td> <td>565653.00</td> <td>32.874621</td> <td>-104.254132</td> </tr> <tr> <td colspan="6" style="text-align: center;">US State Plane 1983 New Mexico Eastern Zone</td> </tr> </tbody> </table>	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	0.00	0.00	681930.00	565653.00	32.874621	-104.254132	US State Plane 1983 New Mexico Eastern Zone							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude																
0.00	0.00	681930.00	565653.00	32.874621	-104.254132																
US State Plane 1983 New Mexico Eastern Zone																					

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.00	0.00	
1102.00	0.00	0.00	1102.00	0.00	0.00	0.0	0.00	0.00	BUILD 2° DLG
1851.88	15.00	254.47	1843.35	-26.12	-94.02	2.0	254.47	-92.64	HOLD 15° INC, 254.47° AZM
4911.08	15.00	254.47	4798.34	-238.02	-856.80	0.0	0.00	-844.19	DROP 2° DLG
5660.97	0.00	0.00	5539.69	-264.14	-950.82	2.0	180.00	-936.84	HOLD 0° INC, 0° AZM
5760.96	0.00	0.00	5639.69	-264.14	-950.82	0.0	0.00	-936.84	BUILD 12° DLG
6502.88	89.03	92.79	6117.09	-287.00	-482.00	12.0	92.79	-467.45	LAND 89.03° INC, 92.79° AZM
16134.68	89.03	92.79	6280.14	-756.00	9137.00	0.0	0.00	9162.97	PBHL @ 16134.68' MD

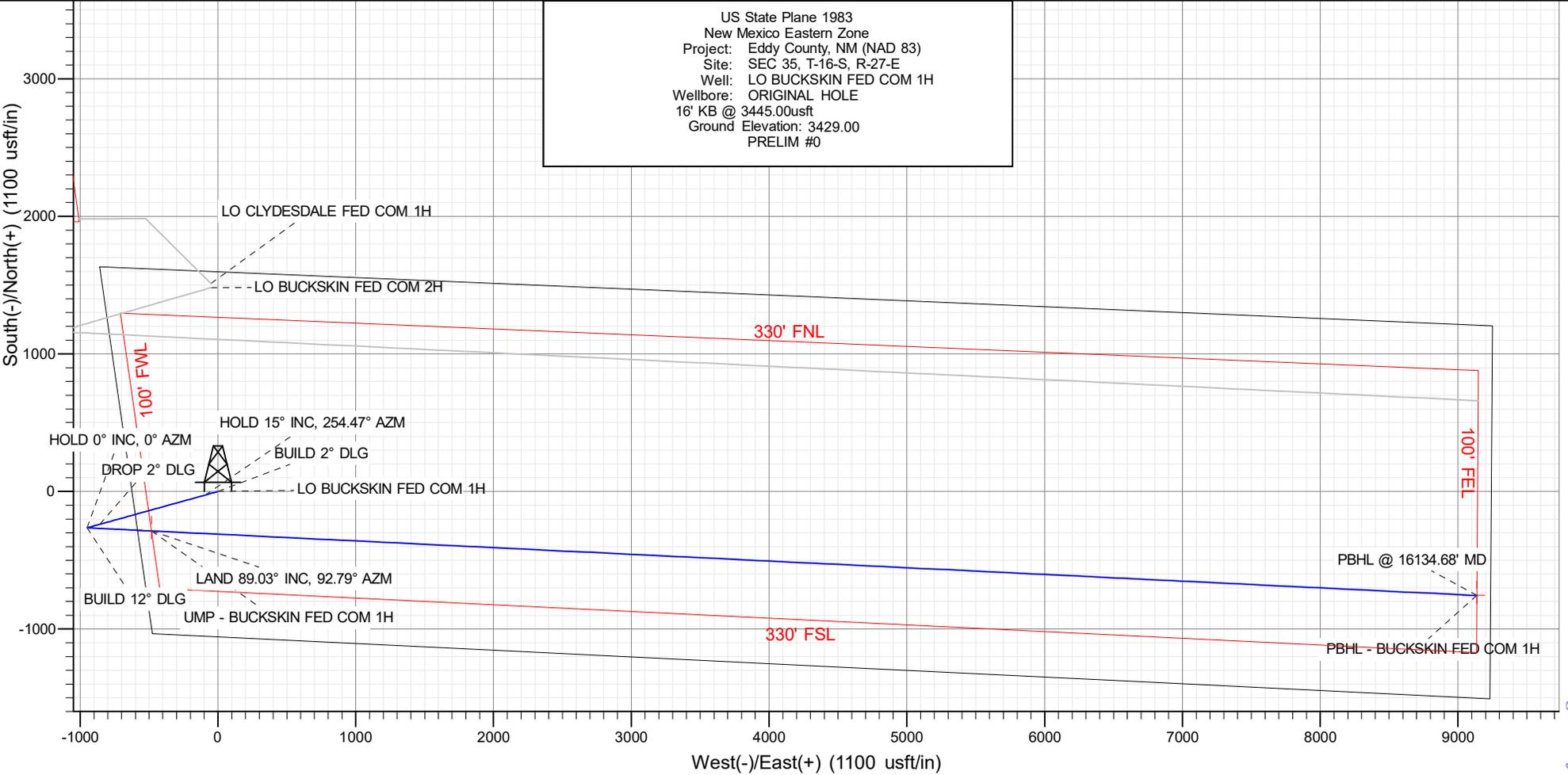


Vertical Section at 92.79° (1500 usft/in)





US State Plane 1983
 New Mexico Eastern Zone
 Project: Eddy County, NM (NAD 83)
 Site: SEC 35, T-16-S, R-27-E
 Well: LO BUCKSKIN FED COM 1H
 Wellbore: ORIGINAL HOLE
 16' KB @ 3445.00usft
 Ground Elevation: 3429.00
 PRELIM #0



Planning Report



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well LO BUCKSKIN FED COM 1H
Company:	MR NM OPERATING, LLC.	TVD Reference:	16' KB @ 3445.00usft
Project:	Eddy County, NM (NAD 83)	MD Reference:	16' KB @ 3445.00usft
Site:	SEC 35, T-16-S, R-27-E	North Reference:	Grid
Well:	LO BUCKSKIN FED COM 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL HOLE		
Design:	PRELIM #0		

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

Site	SEC 35, T-16-S, R-27-E				
Site Position:	Northing:	683,442.00 usft	Latitude:	32.878777	
From: Map	Easting:	565,602.00 usft	Longitude:	-104.254295	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.04 °

Well	LO BUCKSKIN FED COM 1H					
Well Position	+N/-S	-1,512.00 usft	Northing:	681,930.00 usft	Latitude:	32.874621
	+E/-W	51.00 usft	Easting:	565,653.00 usft	Longitude:	-104.254132
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,429.00 usft

Wellbore	ORIGINAL HOLE				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	6/10/2022	6.91	60.44	47,688.33220353

Design	PRELIM #0			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	92.79

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	
1,102.00	0.00	0.00	1,102.00	0.00	0.00	0.0	0.0	0.0	0.00	
1,851.88	15.00	254.47	1,843.35	-26.12	-94.02	2.0	2.0	0.0	254.47	
4,911.08	15.00	254.47	4,798.34	-238.02	-856.80	0.0	0.0	0.0	0.00	
5,660.97	0.00	0.00	5,539.69	-264.14	-950.82	2.0	-2.0	0.0	180.00	
5,760.96	0.00	0.00	5,639.69	-264.14	-950.82	0.0	0.0	0.0	0.00	
6,502.88	89.03	92.79	6,117.09	-287.00	-482.00	12.0	12.0	0.0	92.79	
16,134.68	89.03	92.79	6,280.14	-756.00	9,137.00	0.0	0.0	0.0	0.00	

Planning Report



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well LO BUCKSKIN FED COM 1H
Company:	MR NM OPERATING, LLC.	TVD Reference:	16' KB @ 3445.00usft
Project:	Eddy County, NM (NAD 83)	MD Reference:	16' KB @ 3445.00usft
Site:	SEC 35, T-16-S, R-27-E	North Reference:	Grid
Well:	LO BUCKSKIN FED COM 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL HOLE		
Design:	PRELIM #0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.0	0.0	0.0
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.0	0.0	0.0
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.0	0.0	0.0
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.0	0.0	0.0
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.0	0.0	0.0
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.0	0.0	0.0
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.0	0.0	0.0
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.0	0.0	0.0
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.0	0.0	0.0
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.0	0.0	0.0
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.0	0.0	0.0
1,102.00	0.00	0.00	1,102.00	0.00	0.00	0.00	0.0	0.0	0.0
BUILD 2° DLG									
1,200.00	1.96	254.47	1,199.98	-0.45	-1.61	-1.59	2.0	2.0	0.0
1,300.00	3.96	254.47	1,299.84	-1.83	-6.59	-6.49	2.0	2.0	0.0
1,400.00	5.96	254.47	1,399.46	-4.14	-14.92	-14.70	2.0	2.0	0.0
1,500.00	7.96	254.47	1,498.72	-7.39	-26.60	-26.20	2.0	2.0	0.0
1,600.00	9.96	254.47	1,597.50	-11.56	-41.60	-40.99	2.0	2.0	0.0
1,700.00	11.96	254.47	1,695.67	-16.65	-59.92	-59.04	2.0	2.0	0.0
1,800.00	13.96	254.47	1,793.11	-22.65	-81.53	-80.33	2.0	2.0	0.0
1,851.88	15.00	254.47	1,843.35	-26.12	-94.02	-92.64	2.0	2.0	0.0
HOLD 15° INC, 254.47° AZM									
1,900.00	15.00	254.47	1,889.83	-29.45	-106.02	-104.46	0.0	0.0	0.0
2,000.00	15.00	254.47	1,986.42	-36.38	-130.96	-129.03	0.0	0.0	0.0
2,100.00	15.00	254.47	2,083.01	-43.31	-155.89	-153.60	0.0	0.0	0.0
2,200.00	15.00	254.47	2,179.61	-50.23	-180.82	-178.16	0.0	0.0	0.0
2,300.00	15.00	254.47	2,276.20	-57.16	-205.76	-202.73	0.0	0.0	0.0
2,400.00	15.00	254.47	2,372.80	-64.09	-230.69	-227.30	0.0	0.0	0.0
2,500.00	15.00	254.47	2,469.39	-71.01	-255.62	-251.86	0.0	0.0	0.0
2,600.00	15.00	254.47	2,565.98	-77.94	-280.56	-276.43	0.0	0.0	0.0
2,700.00	15.00	254.47	2,662.58	-84.87	-305.49	-301.00	0.0	0.0	0.0
2,800.00	15.00	254.47	2,759.17	-91.79	-330.42	-325.57	0.0	0.0	0.0
2,900.00	15.00	254.47	2,855.76	-98.72	-355.36	-350.13	0.0	0.0	0.0
3,000.00	15.00	254.47	2,952.36	-105.65	-380.29	-374.70	0.0	0.0	0.0
3,100.00	15.00	254.47	3,048.95	-112.57	-405.23	-399.27	0.0	0.0	0.0
3,200.00	15.00	254.47	3,145.54	-119.50	-430.16	-423.83	0.0	0.0	0.0
3,300.00	15.00	254.47	3,242.14	-126.43	-455.09	-448.40	0.0	0.0	0.0
3,400.00	15.00	254.47	3,338.73	-133.35	-480.03	-472.97	0.0	0.0	0.0
3,500.00	15.00	254.47	3,435.33	-140.28	-504.96	-497.53	0.0	0.0	0.0
3,600.00	15.00	254.47	3,531.92	-147.21	-529.89	-522.10	0.0	0.0	0.0
3,700.00	15.00	254.47	3,628.51	-154.13	-554.83	-546.67	0.0	0.0	0.0
3,800.00	15.00	254.47	3,725.11	-161.06	-579.76	-571.23	0.0	0.0	0.0
3,900.00	15.00	254.47	3,821.70	-167.99	-604.70	-595.80	0.0	0.0	0.0
4,000.00	15.00	254.47	3,918.29	-174.91	-629.63	-620.37	0.0	0.0	0.0
4,100.00	15.00	254.47	4,014.89	-181.84	-654.56	-644.94	0.0	0.0	0.0
4,200.00	15.00	254.47	4,111.48	-188.77	-679.50	-669.50	0.0	0.0	0.0
4,300.00	15.00	254.47	4,208.07	-195.69	-704.43	-694.07	0.0	0.0	0.0
4,400.00	15.00	254.47	4,304.67	-202.62	-729.36	-718.64	0.0	0.0	0.0
4,500.00	15.00	254.47	4,401.26	-209.55	-754.30	-743.20	0.0	0.0	0.0
4,600.00	15.00	254.47	4,497.86	-216.47	-779.23	-767.77	0.0	0.0	0.0
4,700.00	15.00	254.47	4,594.45	-223.40	-804.17	-792.34	0.0	0.0	0.0
4,800.00	15.00	254.47	4,691.04	-230.33	-829.10	-816.90	0.0	0.0	0.0
4,900.00	15.00	254.47	4,787.64	-237.25	-854.03	-841.47	0.0	0.0	0.0

Planning Report



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well LO BUCKSKIN FED COM 1H
Company:	MR NM OPERATING, LLC.	TVD Reference:	16' KB @ 3445.00usft
Project:	Eddy County, NM (NAD 83)	MD Reference:	16' KB @ 3445.00usft
Site:	SEC 35, T-16-S, R-27-E	North Reference:	Grid
Well:	LO BUCKSKIN FED COM 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL HOLE		
Design:	PRELIM #0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,911.08	15.00	254.47	4,798.34	-238.02	-856.80	-844.19	0.0	0.0	0.0
DROP 2° DLG									
5,000.00	13.22	254.47	4,884.57	-243.82	-877.68	-864.77	2.0	-2.0	0.0
5,100.00	11.22	254.47	4,982.30	-249.49	-898.07	-884.86	2.0	-2.0	0.0
5,200.00	9.22	254.47	5,080.71	-254.23	-915.16	-901.70	2.0	-2.0	0.0
5,300.00	7.22	254.47	5,179.68	-258.06	-928.94	-915.28	2.0	-2.0	0.0
5,400.00	5.22	254.47	5,279.09	-260.96	-939.38	-925.56	2.0	-2.0	0.0
5,500.00	3.22	254.47	5,378.81	-262.93	-946.46	-932.54	2.0	-2.0	0.0
5,600.00	1.22	254.47	5,478.73	-263.97	-950.20	-936.22	2.0	-2.0	0.0
5,660.97	0.00	0.00	5,539.69	-264.14	-950.82	-936.84	2.0	-2.0	0.0
HOLD 0° INC, 0° AZM									
5,700.00	0.00	0.00	5,578.72	-264.14	-950.82	-936.84	0.0	0.0	0.0
5,760.96	0.00	0.00	5,639.69	-264.14	-950.82	-936.84	0.0	0.0	0.0
BUILD 12° DLG									
5,800.00	4.68	92.79	5,678.68	-264.22	-949.23	-935.24	12.0	12.0	0.0
5,900.00	16.68	92.79	5,776.77	-265.12	-930.74	-916.74	12.0	12.0	0.0
6,000.00	28.68	92.79	5,868.86	-266.99	-892.29	-878.24	12.0	12.0	0.0
6,100.00	40.68	92.79	5,950.94	-269.76	-835.56	-821.44	12.0	12.0	0.0
6,200.00	52.68	92.79	6,019.42	-273.30	-763.02	-748.81	12.0	12.0	0.0
6,300.00	64.68	92.79	6,071.30	-277.45	-677.85	-663.54	12.0	12.0	0.0
6,400.00	76.68	92.79	6,104.32	-282.04	-583.76	-569.34	12.0	12.0	0.0
6,500.00	88.68	92.79	6,117.03	-286.86	-484.87	-470.33	12.0	12.0	0.0
6,502.88	89.03	92.79	6,117.09	-287.00	-482.00	-467.45	12.0	12.0	0.0
LAND 89.03° INC, 92.79° AZM									
6,600.00	89.03	92.79	6,118.73	-291.73	-385.01	-370.35	0.0	0.0	0.0
6,700.00	89.03	92.79	6,120.42	-296.60	-285.14	-270.36	0.0	0.0	0.0
6,800.00	89.03	92.79	6,122.12	-301.47	-185.27	-170.38	0.0	0.0	0.0
6,900.00	89.03	92.79	6,123.81	-306.34	-85.40	-70.39	0.0	0.0	0.0
7,000.00	89.03	92.79	6,125.50	-311.21	14.46	29.59	0.0	0.0	0.0
7,100.00	89.03	92.79	6,127.19	-316.07	114.33	129.58	0.0	0.0	0.0
7,200.00	89.03	92.79	6,128.89	-320.94	214.20	229.57	0.0	0.0	0.0
7,300.00	89.03	92.79	6,130.58	-325.81	314.06	329.55	0.0	0.0	0.0
7,400.00	89.03	92.79	6,132.27	-330.68	413.93	429.54	0.0	0.0	0.0
7,500.00	89.03	92.79	6,133.97	-335.55	513.80	529.52	0.0	0.0	0.0
7,600.00	89.03	92.79	6,135.66	-340.42	613.67	629.51	0.0	0.0	0.0
7,700.00	89.03	92.79	6,137.35	-345.29	713.53	729.49	0.0	0.0	0.0
7,800.00	89.03	92.79	6,139.04	-350.16	813.40	829.48	0.0	0.0	0.0
7,900.00	89.03	92.79	6,140.74	-355.03	913.27	929.46	0.0	0.0	0.0
8,000.00	89.03	92.79	6,142.43	-359.90	1,013.13	1,029.45	0.0	0.0	0.0
8,100.00	89.03	92.79	6,144.12	-364.77	1,113.00	1,129.44	0.0	0.0	0.0
8,200.00	89.03	92.79	6,145.82	-369.64	1,212.87	1,229.42	0.0	0.0	0.0
8,300.00	89.03	92.79	6,147.51	-374.51	1,312.73	1,329.41	0.0	0.0	0.0
8,400.00	89.03	92.79	6,149.20	-379.38	1,412.60	1,429.39	0.0	0.0	0.0
8,500.00	89.03	92.79	6,150.89	-384.24	1,512.47	1,529.38	0.0	0.0	0.0
8,600.00	89.03	92.79	6,152.59	-389.11	1,612.34	1,629.36	0.0	0.0	0.0
8,700.00	89.03	92.79	6,154.28	-393.98	1,712.20	1,729.35	0.0	0.0	0.0
8,800.00	89.03	92.79	6,155.97	-398.85	1,812.07	1,829.34	0.0	0.0	0.0
8,900.00	89.03	92.79	6,157.67	-403.72	1,911.94	1,929.32	0.0	0.0	0.0
9,000.00	89.03	92.79	6,159.36	-408.59	2,011.80	2,029.31	0.0	0.0	0.0
9,100.00	89.03	92.79	6,161.05	-413.46	2,111.67	2,129.29	0.0	0.0	0.0
9,200.00	89.03	92.79	6,162.74	-418.33	2,211.54	2,229.28	0.0	0.0	0.0
9,300.00	89.03	92.79	6,164.44	-423.20	2,311.40	2,329.26	0.0	0.0	0.0
9,400.00	89.03	92.79	6,166.13	-428.07	2,411.27	2,429.25	0.0	0.0	0.0

Planning Report



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well LO BUCKSKIN FED COM 1H
Company:	MR NM OPERATING, LLC.	TVD Reference:	16' KB @ 3445.00usft
Project:	Eddy County, NM (NAD 83)	MD Reference:	16' KB @ 3445.00usft
Site:	SEC 35, T-16-S, R-27-E	North Reference:	Grid
Well:	LO BUCKSKIN FED COM 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL HOLE		
Design:	PRELIM #0		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	89.03	92.79	6,167.82	-432.94	2,511.14	2,529.24	0.0	0.0	0.0
9,600.00	89.03	92.79	6,169.52	-437.81	2,611.01	2,629.22	0.0	0.0	0.0
9,700.00	89.03	92.79	6,171.21	-442.68	2,710.87	2,729.21	0.0	0.0	0.0
9,800.00	89.03	92.79	6,172.90	-447.55	2,810.74	2,829.19	0.0	0.0	0.0
9,900.00	89.03	92.79	6,174.59	-452.41	2,910.61	2,929.18	0.0	0.0	0.0
10,000.00	89.03	92.79	6,176.29	-457.28	3,010.47	3,029.16	0.0	0.0	0.0
10,100.00	89.03	92.79	6,177.98	-462.15	3,110.34	3,129.15	0.0	0.0	0.0
10,200.00	89.03	92.79	6,179.67	-467.02	3,210.21	3,229.14	0.0	0.0	0.0
10,300.00	89.03	92.79	6,181.37	-471.89	3,310.08	3,329.12	0.0	0.0	0.0
10,400.00	89.03	92.79	6,183.06	-476.76	3,409.94	3,429.11	0.0	0.0	0.0
10,500.00	89.03	92.79	6,184.75	-481.63	3,509.81	3,529.09	0.0	0.0	0.0
10,600.00	89.03	92.79	6,186.45	-486.50	3,609.68	3,629.08	0.0	0.0	0.0
10,700.00	89.03	92.79	6,188.14	-491.37	3,709.54	3,729.06	0.0	0.0	0.0
10,800.00	89.03	92.79	6,189.83	-496.24	3,809.41	3,829.05	0.0	0.0	0.0
10,900.00	89.03	92.79	6,191.52	-501.11	3,909.28	3,929.04	0.0	0.0	0.0
11,000.00	89.03	92.79	6,193.22	-505.98	4,009.14	4,029.02	0.0	0.0	0.0
11,100.00	89.03	92.79	6,194.91	-510.85	4,109.01	4,129.01	0.0	0.0	0.0
11,200.00	89.03	92.79	6,196.60	-515.72	4,208.88	4,228.99	0.0	0.0	0.0
11,300.00	89.03	92.79	6,198.30	-520.58	4,308.75	4,328.98	0.0	0.0	0.0
11,400.00	89.03	92.79	6,199.99	-525.45	4,408.61	4,428.96	0.0	0.0	0.0
11,500.00	89.03	92.79	6,201.68	-530.32	4,508.48	4,528.95	0.0	0.0	0.0
11,600.00	89.03	92.79	6,203.37	-535.19	4,608.35	4,628.93	0.0	0.0	0.0
11,700.00	89.03	92.79	6,205.07	-540.06	4,708.21	4,728.92	0.0	0.0	0.0
11,800.00	89.03	92.79	6,206.76	-544.93	4,808.08	4,828.91	0.0	0.0	0.0
11,900.00	89.03	92.79	6,208.45	-549.80	4,907.95	4,928.89	0.0	0.0	0.0
12,000.00	89.03	92.79	6,210.15	-554.67	5,007.81	5,028.88	0.0	0.0	0.0
12,100.00	89.03	92.79	6,211.84	-559.54	5,107.68	5,128.86	0.0	0.0	0.0
12,200.00	89.03	92.79	6,213.53	-564.41	5,207.55	5,228.85	0.0	0.0	0.0
12,300.00	89.03	92.79	6,215.22	-569.28	5,307.42	5,328.83	0.0	0.0	0.0
12,400.00	89.03	92.79	6,216.92	-574.15	5,407.28	5,428.82	0.0	0.0	0.0
12,500.00	89.03	92.79	6,218.61	-579.02	5,507.15	5,528.81	0.0	0.0	0.0
12,600.00	89.03	92.79	6,220.30	-583.89	5,607.02	5,628.79	0.0	0.0	0.0
12,700.00	89.03	92.79	6,222.00	-588.76	5,706.88	5,728.78	0.0	0.0	0.0
12,800.00	89.03	92.79	6,223.69	-593.62	5,806.75	5,828.76	0.0	0.0	0.0
12,900.00	89.03	92.79	6,225.38	-598.49	5,906.62	5,928.75	0.0	0.0	0.0
13,000.00	89.03	92.79	6,227.07	-603.36	6,006.49	6,028.73	0.0	0.0	0.0
13,100.00	89.03	92.79	6,228.77	-608.23	6,106.35	6,128.72	0.0	0.0	0.0
13,200.00	89.03	92.79	6,230.46	-613.10	6,206.22	6,228.71	0.0	0.0	0.0
13,300.00	89.03	92.79	6,232.15	-617.97	6,306.09	6,328.69	0.0	0.0	0.0
13,400.00	89.03	92.79	6,233.85	-622.84	6,405.95	6,428.68	0.0	0.0	0.0
13,500.00	89.03	92.79	6,235.54	-627.71	6,505.82	6,528.66	0.0	0.0	0.0
13,600.00	89.03	92.79	6,237.23	-632.58	6,605.69	6,628.65	0.0	0.0	0.0
13,700.00	89.03	92.79	6,238.92	-637.45	6,705.55	6,728.63	0.0	0.0	0.0
13,800.00	89.03	92.79	6,240.62	-642.32	6,805.42	6,828.62	0.0	0.0	0.0
13,900.00	89.03	92.79	6,242.31	-647.19	6,905.29	6,928.61	0.0	0.0	0.0
14,000.00	89.03	92.79	6,244.00	-652.06	7,005.16	7,028.59	0.0	0.0	0.0
14,100.00	89.03	92.79	6,245.70	-656.93	7,105.02	7,128.58	0.0	0.0	0.0
14,200.00	89.03	92.79	6,247.39	-661.79	7,204.89	7,228.56	0.0	0.0	0.0
14,300.00	89.03	92.79	6,249.08	-666.66	7,304.76	7,328.55	0.0	0.0	0.0
14,400.00	89.03	92.79	6,250.77	-671.53	7,404.62	7,428.53	0.0	0.0	0.0
14,500.00	89.03	92.79	6,252.47	-676.40	7,504.49	7,528.52	0.0	0.0	0.0
14,600.00	89.03	92.79	6,254.16	-681.27	7,604.36	7,628.51	0.0	0.0	0.0
14,700.00	89.03	92.79	6,255.85	-686.14	7,704.22	7,728.49	0.0	0.0	0.0
14,800.00	89.03	92.79	6,257.55	-691.01	7,804.09	7,828.48	0.0	0.0	0.0

Planning Report



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well LO BUCKSKIN FED COM 1H
Company:	MR NM OPERATING, LLC.	TVD Reference:	16' KB @ 3445.00usft
Project:	Eddy County, NM (NAD 83)	MD Reference:	16' KB @ 3445.00usft
Site:	SEC 35, T-16-S, R-27-E	North Reference:	Grid
Well:	LO BUCKSKIN FED COM 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ORIGINAL HOLE		
Design:	PRELIM #0		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
14,900.00	89.03	92.79	6,259.24	-695.88	7,903.96	7,928.46	0.0	0.0	0.0	
15,000.00	89.03	92.79	6,260.93	-700.75	8,003.83	8,028.45	0.0	0.0	0.0	
15,100.00	89.03	92.79	6,262.63	-705.62	8,103.69	8,128.43	0.0	0.0	0.0	
15,200.00	89.03	92.79	6,264.32	-710.49	8,203.56	8,228.42	0.0	0.0	0.0	
15,300.00	89.03	92.79	6,266.01	-715.36	8,303.43	8,328.40	0.0	0.0	0.0	
15,400.00	89.03	92.79	6,267.70	-720.23	8,403.29	8,428.39	0.0	0.0	0.0	
15,500.00	89.03	92.79	6,269.40	-725.10	8,503.16	8,528.38	0.0	0.0	0.0	
15,600.00	89.03	92.79	6,271.09	-729.96	8,603.03	8,628.36	0.0	0.0	0.0	
15,700.00	89.03	92.79	6,272.78	-734.83	8,702.90	8,728.35	0.0	0.0	0.0	
15,800.00	89.03	92.79	6,274.48	-739.70	8,802.76	8,828.33	0.0	0.0	0.0	
15,900.00	89.03	92.79	6,276.17	-744.57	8,902.63	8,928.32	0.0	0.0	0.0	
16,000.00	89.03	92.79	6,277.86	-749.44	9,002.50	9,028.30	0.0	0.0	0.0	
16,100.00	89.03	92.79	6,279.55	-754.31	9,102.36	9,128.29	0.0	0.0	0.0	
16,134.68	89.03	92.79	6,280.14	-756.00	9,137.00	9,162.97	0.0	0.0	0.0	
PBHL @ 16134.68' MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
UMP - BUCKSKIN FED - hit/miss target - Shape - Point	0.00	0.01	6,117.09	-287.00	-482.00	681,643.00	565,171.00	32.873833	-104.255703	
PBHL - BUCKSKIN FED - plan hits target center - Point	0.00	0.00	6,280.14	-756.00	9,137.00	681,174.00	574,790.00	32.872521	-104.224374	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
1,102.00	1,102.00	0.00	0.00	BUILD 2° DLG	
1,851.88	1,843.35	-26.12	-94.02	HOLD 15° INC, 254.47° AZM	
4,911.08	4,798.34	-238.02	-856.80	DROP 2° DLG	
5,660.97	5,539.69	-264.14	-950.82	HOLD 0° INC, 0° AZM	
5,760.96	5,639.69	-264.14	-950.82	BUILD 12° DLG	
6,502.88	6,117.09	-287.00	-482.00	LAND 89.03° INC, 92.79° AZM	
16,134.68	6,280.14	-756.00	9,137.00	PBHL @ 16134.68' MD	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MR. NM
LEASE NO.:	NMNM141395
LOCATION:	Section 35, T.16 S., R.17 E., NMPPM
COUNTY:	EddyCounty, New Mexico

WELL NAME & NO.:	Buckskin Fed Com 1H
SURFACE HOLE FOOTAGE:	1055'/S & 617'/W
BOTTOM HOLE FOOTAGE:	745'/S & 100'/E

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **500** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

- hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Operator is approve to use a DV Tool as a contingency plan. Notify BLM before proceeding with DV Tool operation.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is: Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the tail cement slurry due to cave/karst.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)**Communitization Agreement**

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

GENERAL REQUIREMENTS

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

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

Eddy County

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

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.

- c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - e. The results of the test shall be reported to the appropriate BLM office.

- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

MR NM Operating, LLC

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H2S training an accordance with Onshore Order III.C.3.a
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible by location personnel.
- C. Required Emergency Equipment:
 - Well Control Equipment
 - Flare line 150' from wellhead to be ignited by flare gun or remote igniter
 - Choke manifold with a remotely operated choke
 - Mud/Gas Separator
 - Protective Equipment for Essential Personnel
 - Breathing Apparatus:
 - Rescue Packs (SCBA) – 1 unit shall be placed at each breathing area, 2 shall be stored in a safety trailer.
 - Work/Escape Packs – 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity
 - Emergency Escape Packs – 4 packs shall be stored in the doghouse for emergency evacuation
 - Auxiliary Rescue Equipment
 - Stretcher
 - Two OSHA full body harnesses
 - 100' of 5/8" OSHA approved rope
 - 1 – 20# Class ABC fire extinguisher
 - H2S Detection and Monitoring Equipment
 - The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell Nipple / End of flowline or where wellbore fluid is being discharged
 - Visual Warning Systems

- One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site
- A colored condition flag will be on display, reflecting the current condition at the site at the time
- Two wind socks will be placed in strategic locations, visible from all angles
- Mud Program
 - The mud program will be designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones
- Metallurgy
 - All drill strings, casings, tubing, wellhead, blowout preventer, drilling spools, kill lines, choke manifolds, and valves shall be suitable for H₂S service
- Communication
 - Communication will be via cell phones and land lines where available

EXHIBIT 2B MR NM OPERATING LLC.

SECTION 35, TOWNSHIP 16-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

LEGEND

-  TOWNSHIP LINE
-  SECTION LINE
-  PROPOSED ROAD

warning signs & windsock

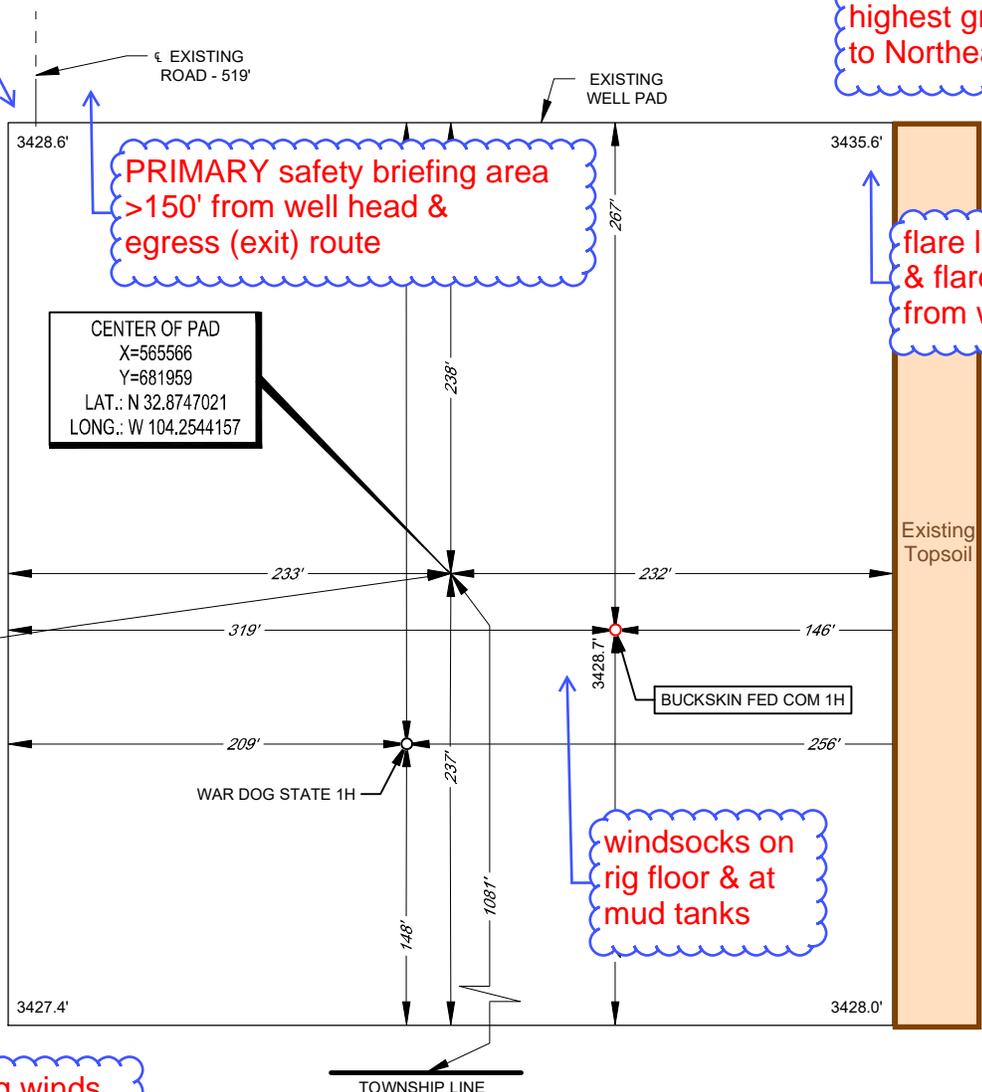
highest ground to Northeast

PRIMARY safety briefing area >150' from well head & egress (exit) route

flare line (straight) & flare >150' from well head

windsocks on rig floor & at mud tanks

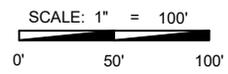
prevailing winds blow from south



CENTER OF PAD
 X=565566
 Y=681959
 LAT.: N 32.8747021
 LONG.: W 104.2544157

LEASE NAME & WELL NO.: BUCKSKIN FED COM 1H
 1H LATITUDE N 32.8746204 1H LONGITUDE W 104.2541334

CENTER OF PAD IS 1081' FSL & 536' FWL



Ramon A. Dominguez, P.S. No. 24508
 MAY 23, 2022

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MR NM OPERATING LLC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

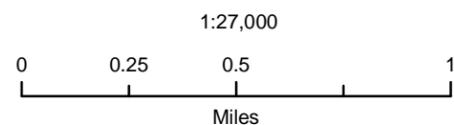
MR NM Operating, LLC

**Buckskin - War Dog Pad
H2S Contingency Plan:
Radius Map**

Section 35, Township 16S, Range 27E
Eddy County, New Mexico



Pad Center



1:27,000

Miles



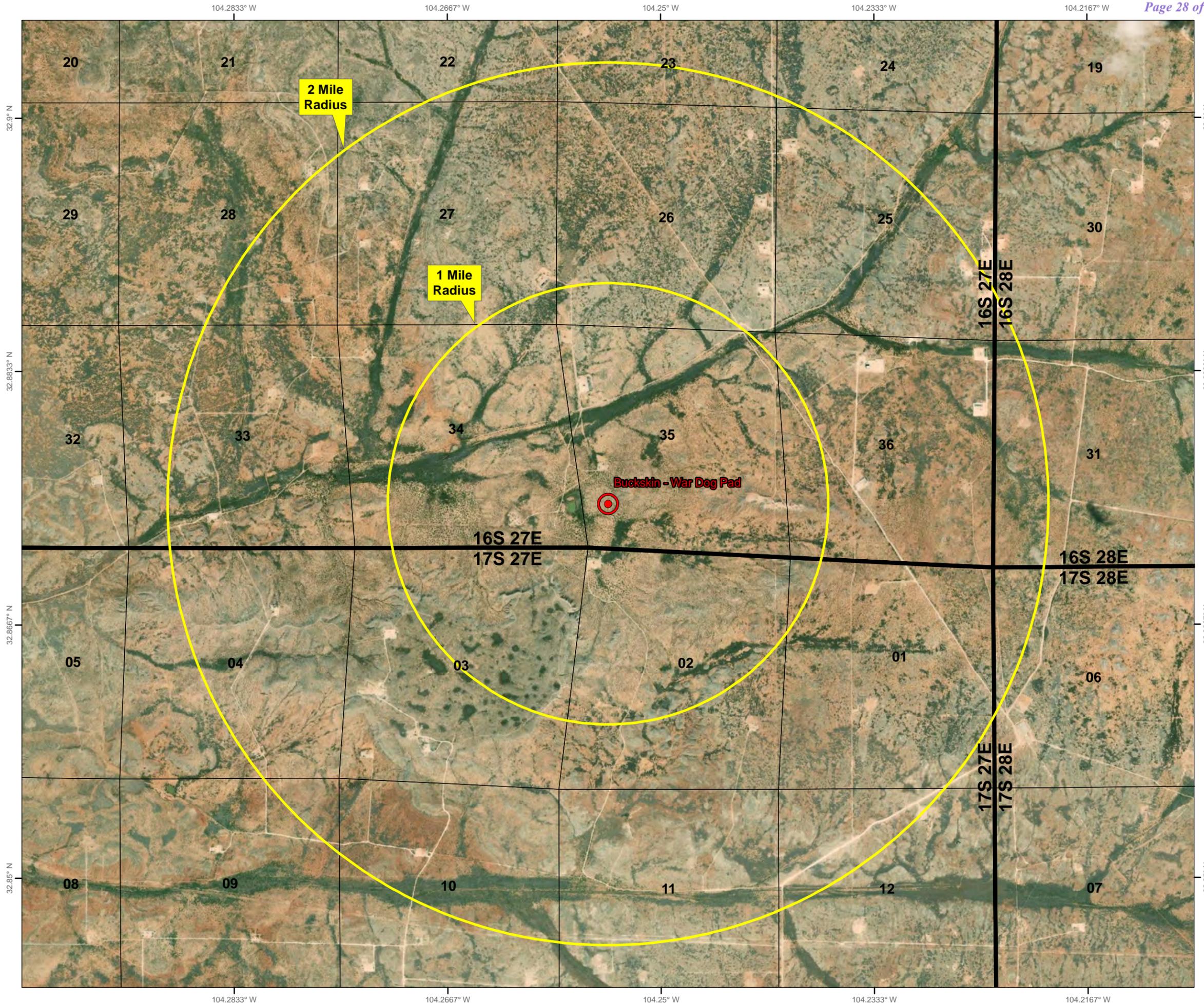
NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

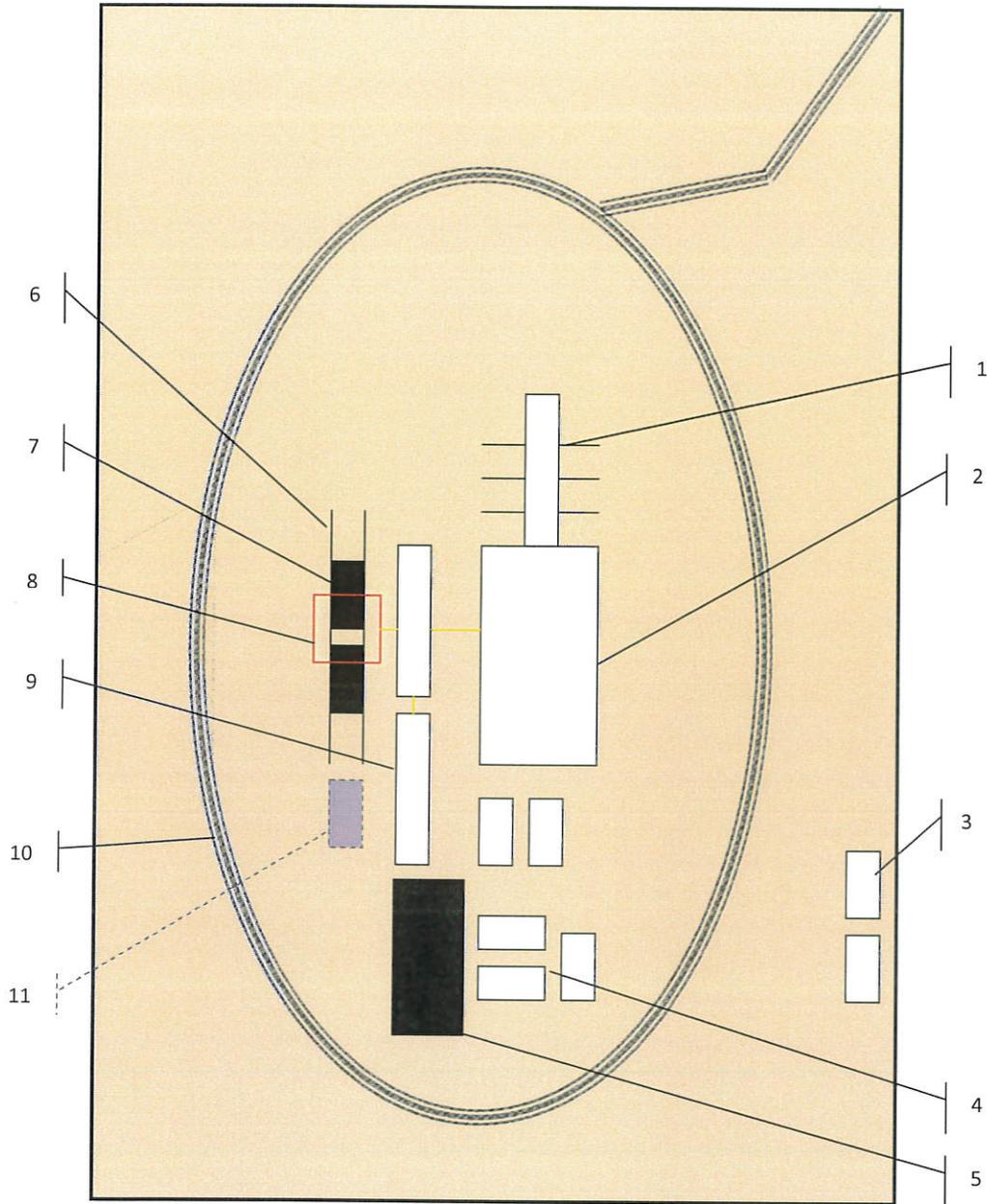


Prepared by Permits West, Inc., August 11, 2022
for FAE II Operating, LLC



Area of Detail





Schematic Closed Loop Drilling Rig*

- 1. Pipe Rack
- 2. Drill Rig
- 3. House Trailers/ Offices
- 4. Generator/Fuel/Storage
- 5. Overflow-Frac Tank
- 6. Skids
- 7. Roll Offs
- 8. Hopper or Centrifuge
- 9. Mud Tanks
- 10. Loop Drive
- 11. Generator (only for use with centrifuge)

*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

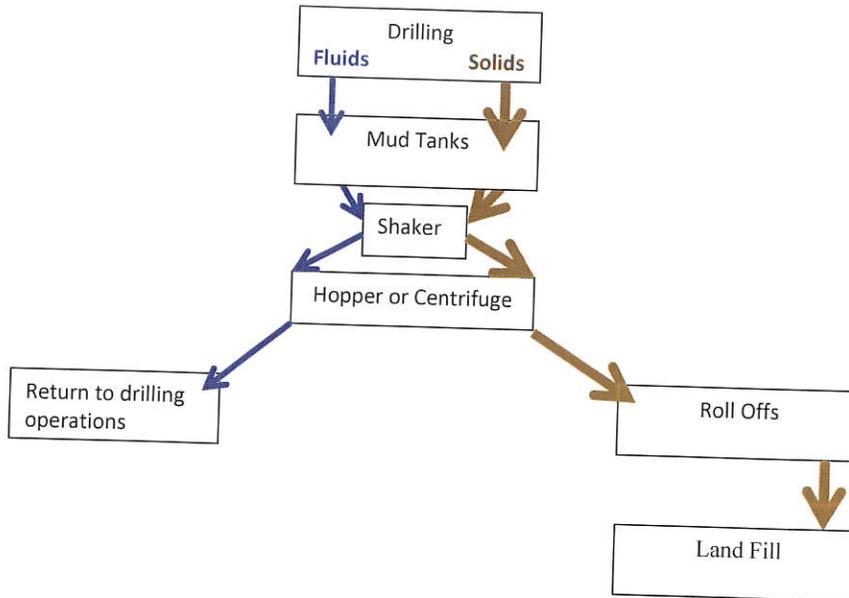


Above: Centrifugal Closed Loop System



Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone:(575) 393-6161 Fax:(575) 393-0720
District II
 811 S. First St., Artesia, NM 88210
 Phone:(575) 748-1283 Fax:(575) 748-9720
District III
 1000 Rio Brazos Rd., Aztec, NM 87410
 Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
 1220 S. St Francis Dr., Santa Fe, NM 87505
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 261349

CONDITIONS

Operator: MR NM Operating LLC 5950 Berkshire Lane Dallas, TX 75225	OGRID:	330506
	Action Number:	261349
	Action Type:	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/12/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/12/2023
ward.rikala	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	9/12/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/12/2023
ward.rikala	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	9/12/2023