

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

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

HOBBS OCD
OCT 30 2015

5. Lease Serial No.

NMNM015091

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No. **(315615)**
Rojo D 7811 JV-P Com #2H

9. API Well No.
30-025- **42918**

10. Field and Pool, or Exploratory **(97900)**
Red Hills; Upper Bone Spring Shale

11. Sec., T.R.M. or Blk and Survey or Area

Section 22 - T25S - R33E

12. County or Parish

Lea County

13. State

NM

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

BTA OIL PRODUCERS, LLC

3a. Address

104 South Pecos
Midland, TX 79701

3b. Phone No. (include area code)

432-682-3753

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

At surface

210' FNL & 1254' FEL Unit Letter A (NENE) SHL Sec 22-T25S-R33E

At proposed prod. Zone

330' FSL & 1254' FEL Unit Letter P (SESE) BHL Sec 22-T25S-R33E

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

Approximately 20 miles from Jal

15. Distance from proposed*
location to nearest
property or lease line, ft.

(Also to nearest drig. Unit line, if any)

210'

16. No. of acres in lease

840

17. Spacing Unit dedicated to this well

160

18. Distance from location*

to nearest well, drilling, completed,
applied for, on this lease, ft.

SHL: 924' (Rojo D 7811 JV-P #3H)
BHL: None on lease

19. Proposed Depth

TVD: 9,360' MD: 13,885'

20. BLM/BIA Bond No. on file

NMB1195 & NMB000849

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

3356.8' GL

22. Approximate date work will start*

7/1/2015

23. Estimated duration

30 days

24. Attachments

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

1. Well plat certified by a registered surveyor.

2. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the
authorized officer.

25. Signature

Pam Inskip

Name (Printed/Typed)

Pam Inskip

Date

4/23/2015

Title

Regulatory Administrator

Approved by (Signature)

Steve Caffey
FIELD MANAGER

Name (Printed/Typed)

CARLSBAD FIELD OFFICE

Date

OCT 22 2015

Application approval does not warrant or certify that the applicant holds legan 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.

APPROVAL FOR TWO YEARS

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)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

OCT 30 2015

1. Geologic Formations

TVD of target	9360'	Pilot hole depth	NA	RECEIVED
MD at TD:	13,885'	Deepest expected fresh water:	625	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1064	Water	
Top of Salt	1398	Salt	
Base of Salt	4751	Salt	
Lamar	4997	Barren	
Bell Canyon	5029	Oil/Gas	
Cherry Canyon	6101	Oil/Gas	
U. Avalon Shale	9222	Oil/Gas Target Zone	
L. Avalon Shale	9806	Oil/Gas	

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1100' 1170'	13.375"	54.5	J55	STC	1.33	1.09	8.6
12.25"	0	4300	9.625"	40	J55	BTC	1.125	1.515	3.15
12.25"	4300	5000	9.625"	40	HCL80	BTC	1.60	2.20	32.7
8.75"	0	13,885	5.5"	17	P110	LTC	1.50	2.28	2.8
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

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

	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

BTA Oil Producers, LLC – Rojo D 7811 JV-P Com 2H

If yes, are the first 2 strings cemented to surface and 3 rd 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 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	625	13.5	1.75	9	12	Lead: Class C + 4% Gel + 2% CaCl ₂
	600	14.8	1.34	4.8	8	Tail: Class C + 2% CaCl ₂
Inter.	1200	12.7	1.90	10	12	1 st stage Lead: Econocem HLC 65:35:6 + 5% Salt
	250	14.8	1.34	6.4	8	1 st stage Tail: Class C + 2% CaCl
Prod.	550	10.4	3.38	19	72	1 st Lead: Halliburton Tune Lite Blend
	1225	14.4	1.24	5.7	20	1 st Tail: Versacem 50:50:2 Class H + 1% Salt

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	75%
Production	4500'	20% OH in Lateral (KOP to EOL) – 40% OH in Vertical (to KOP) - Tie In 500' Inside 9-5/8" Casing Shoe @ 5000' + 100 sx Lead

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	3M	Annular	x	50% testing pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

*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.

X	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.
N	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

BTA Oil Producers, LLC – Rojo D 7811 JV-P Com 2H

	N	Are anchors required by manufacturer?
N	A multibowl wellhead is being used. 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. If any seal subject to test pressure is broken the system must be tested.	

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. shoe	FW Gel	8.6-8.8	28-34	N/C
Surf csg	Int shoe	Saturated Brine	10.0-10.2	28-34	N/C
Int shoe	TD@ 13,885	Cut Brine	8.5-9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain
N	Coring? If yes, explain

Additional logs planned		Interval
N	Resistivity	
N	Density	
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4115 psi at 9360' TVD
Abnormal Temperature	NO

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ 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 ₂ S is present
Y	H ₂ S Plan attached

8. Other facets of operation

Is this a walking operation? NO If yes, describe.

Will be pre-setting casing? NO If yes, describe.

Attachments

- Directional Plan
- BOP & Choke Schematics
- C102 and supporting maps
- Rig plat
- H₂S schematic
- H₂S contingency plan
- Interim reclamation plat

BTA Oil Producers LLC.

Lea County, NM

Rojo D 7811 JV-P Com

#2H

OH

Plan: Design #1

Standard Planning Report

21 April, 2015

Wellplanning

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers LLC.
 Project: Lea County, NM
 Site: Rojo D 7811 JV-P
 Well: #2H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well #2H
 TVD Reference: WELL @ 3374.8usft (Original Well Elev)
 MD Reference: WELL @ 3374.8usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project: Lea County, NM
 Map System: US State Plane 1927 (Exact solution) System Datum: Mean Sea Level
 Geo Datum: NAD 1927 (NADCON CONUS)
 Map Zone: New Mexico East 3001

Site: Rojo D 7811 JV-P
 Site Position: Northing: 409,181.50 usft Latitude: 32° 7' 21.235 N
 From: Map Easting: 740,890.90 usft Longitude: 103° 33' 18.814 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16" Grid Convergence: 0.41°

Well: #2H
 Well Position: +N/-S 0.0 usft Northing: 409,181.50 usft Latitude: 32° 7' 21.235 N
 +E/-W 0.0 usft Easting: 740,890.90 usft Longitude: 103° 33' 18.814 W
 Position Uncertainty: 0.0 usft Wellhead Elevation: Ground Level: 3,356.8 usft

Wellbore: OH
 Magnetics: Model Name Sample Date Declination (°) Dip Angle (°) Field Strength (nT)
 IGRF2010 4/17/2015 7.10 60.00 48,173

Design: Design #1
 Audit Notes:
 Version: Phase: PLAN Tie On Depth: 0.0
 Vertical Section: Depth From (TVD) (usft) +N/-S (usft) +E/-W (usft) Direction (°)
 0.0 0.0 0.0 179.66

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,882.5	0.00	0.00	8,882.5	0.0	0.0	0.00	0.00	0.00	0.00	
9,634.8	90.27	179.66	9,360.0	-479.7	2.8	12.00	12.00	0.00	179.66	
13,885.1	90.27	179.66	9,340.0	-4,729.9	28.1	0.00	0.00	0.00	0.00	PBHL(D #2H)

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Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Well #2H
 WELL @ 3374.8usft (Original Well Elev)
 WELL @ 3374.8usft (Original Well Elev)
 Grid
 Minimum Curvature

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Wellplanning

Planning Report

Database: EDM 5000.1 Single User Db
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 Wellbore: OH
 Design: Design #1

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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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,882.5	0.00	0.00	8,882.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 8882.5 'MD, 0.00° INC, 0.00° AZI									
8,900.0	2.10	179.66	8,900.0	-0.3	0.0	0.3	12.00	12.00	0.00
8,925.0	5.10	179.66	8,924.9	-1.9	0.0	1.9	12.00	12.00	0.00
8,950.0	8.10	179.66	8,949.8	-4.8	0.0	4.8	12.00	12.00	0.00
8,975.0	11.10	179.66	8,974.4	-8.9	0.1	8.9	12.00	12.00	0.00
9,000.0	14.10	179.66	8,998.8	-14.4	0.1	14.4	12.00	12.00	0.00
9,025.0	17.10	179.66	9,022.9	-21.1	0.1	21.1	12.00	12.00	0.00
9,050.0	20.10	179.66	9,046.6	-29.1	0.2	29.1	12.00	12.00	0.00
9,075.0	23.10	179.66	9,069.8	-38.3	0.2	38.3	12.00	12.00	0.00
9,100.0	26.10	179.66	9,092.6	-48.7	0.3	48.7	12.00	12.00	0.00
9,125.0	29.10	179.66	9,114.7	-60.3	0.4	60.3	12.00	12.00	0.00
9,150.0	32.10	179.66	9,136.2	-73.0	0.4	73.0	12.00	12.00	0.00
9,175.0	35.10	179.66	9,157.0	-86.8	0.5	86.8	12.00	12.00	0.00
9,200.0	38.10	179.66	9,177.1	-101.7	0.6	101.7	12.00	12.00	0.00
9,225.0	41.10	179.66	9,196.4	-117.7	0.7	117.7	12.00	12.00	0.00
9,250.0	44.10	179.66	9,214.8	-134.6	0.8	134.6	12.00	12.00	0.00
9,275.0	47.10	179.66	9,232.3	-152.4	0.9	152.4	12.00	12.00	0.00

Wellplanning Planning Report

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers LLC
Project: Lea County, NM
Site: Rojo D 7811 JV-P
Well: #2H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well #2H
TVD Reference: WELL @ 3374.8usft (Original Well Elev)
MD Reference: WELL @ 3374.8usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
9,300.0	50.10	179.66	9,248.8	-171.2	1.0	171.2	12.00	12.00	0.00
9,325.0	53.10	179.66	9,264.3	-190.8	1.1	190.8	12.00	12.00	0.00
9,350.0	56.10	179.66	9,278.8	-211.1	1.3	211.1	12.00	12.00	0.00
9,375.0	59.09	179.66	9,292.2	-232.2	1.4	232.3	12.00	12.00	0.00
9,400.0	62.09	179.66	9,304.5	-254.0	1.5	254.0	12.00	12.00	0.00
9,425.0	65.09	179.66	9,315.6	-276.4	1.6	276.4	12.00	12.00	0.00
9,450.0	68.09	179.66	9,325.5	-299.4	1.8	299.4	12.00	12.00	0.00
9,475.0	71.09	179.66	9,334.2	-322.8	1.9	322.8	12.00	12.00	0.00
9,500.0	74.09	179.66	9,341.7	-346.6	2.1	346.6	12.00	12.00	0.00
9,525.0	77.09	179.66	9,347.9	-370.8	2.2	370.8	12.00	12.00	0.00
9,550.0	80.09	179.66	9,352.9	-395.3	2.3	395.4	12.00	12.00	0.00
9,575.0	83.09	179.66	9,356.5	-420.1	2.5	420.1	12.00	12.00	0.00
9,600.0	86.09	179.66	9,358.9	-445.0	2.6	445.0	12.00	12.00	0.00
9,625.0	89.09	179.66	9,359.9	-469.9	2.8	469.9	12.00	12.00	0.00
9,634.8	90.27	179.66	9,360.0	-479.7	2.8	479.8	12.00	12.00	0.00
EOC- 9634.8 'MD, 90.27° INC, 179.66° AZI									
9,700.0	90.27	179.66	9,359.7	-544.9	3.2	544.9	0.00	0.00	0.00
9,800.0	90.27	179.66	9,359.2	-644.9	3.8	644.9	0.00	0.00	0.00
9,900.0	90.27	179.66	9,358.8	-744.9	4.4	744.9	0.00	0.00	0.00
10,000.0	90.27	179.66	9,358.3	-844.9	5.0	844.9	0.00	0.00	0.00
10,100.0	90.27	179.66	9,357.8	-944.9	5.6	944.9	0.00	0.00	0.00
10,200.0	90.27	179.66	9,357.3	-1,044.9	6.2	1,044.9	0.00	0.00	0.00
10,300.0	90.27	179.66	9,356.9	-1,144.9	6.8	1,144.9	0.00	0.00	0.00
10,400.0	90.27	179.66	9,356.4	-1,244.9	7.4	1,244.9	0.00	0.00	0.00
10,500.0	90.27	179.66	9,355.9	-1,344.9	8.0	1,344.9	0.00	0.00	0.00
10,600.0	90.27	179.66	9,355.5	-1,444.9	8.6	1,444.9	0.00	0.00	0.00
10,700.0	90.27	179.66	9,355.0	-1,544.9	9.2	1,544.9	0.00	0.00	0.00
10,800.0	90.27	179.66	9,354.5	-1,644.9	9.8	1,644.9	0.00	0.00	0.00
10,900.0	90.27	179.66	9,354.0	-1,744.9	10.4	1,744.9	0.00	0.00	0.00
11,000.0	90.27	179.66	9,353.6	-1,844.9	10.9	1,844.9	0.00	0.00	0.00
11,100.0	90.27	179.66	9,353.1	-1,944.9	11.5	1,944.9	0.00	0.00	0.00
11,200.0	90.27	179.66	9,352.6	-2,044.9	12.1	2,044.9	0.00	0.00	0.00
11,300.0	90.27	179.66	9,352.2	-2,144.9	12.7	2,144.9	0.00	0.00	0.00
11,400.0	90.27	179.66	9,351.7	-2,244.9	13.3	2,244.9	0.00	0.00	0.00
11,500.0	90.27	179.66	9,351.2	-2,344.9	13.9	2,344.9	0.00	0.00	0.00
11,600.0	90.27	179.66	9,350.7	-2,444.9	14.5	2,444.9	0.00	0.00	0.00
11,700.0	90.27	179.66	9,350.3	-2,544.9	15.1	2,544.9	0.00	0.00	0.00
11,800.0	90.27	179.66	9,349.8	-2,644.9	15.7	2,644.9	0.00	0.00	0.00
11,900.0	90.27	179.66	9,349.3	-2,744.9	16.3	2,744.9	0.00	0.00	0.00
12,000.0	90.27	179.66	9,348.9	-2,844.9	16.9	2,844.9	0.00	0.00	0.00
12,100.0	90.27	179.66	9,348.4	-2,944.9	17.5	2,944.9	0.00	0.00	0.00
12,200.0	90.27	179.66	9,347.9	-3,044.9	18.1	3,044.9	0.00	0.00	0.00
12,300.0	90.27	179.66	9,347.4	-3,144.9	18.7	3,144.9	0.00	0.00	0.00
12,400.0	90.27	179.66	9,347.0	-3,244.9	19.3	3,244.9	0.00	0.00	0.00
12,500.0	90.27	179.66	9,346.5	-3,344.9	19.8	3,344.9	0.00	0.00	0.00
12,600.0	90.27	179.66	9,346.0	-3,444.8	20.4	3,444.9	0.00	0.00	0.00
12,700.0	90.27	179.66	9,345.6	-3,544.8	21.0	3,544.9	0.00	0.00	0.00
12,800.0	90.27	179.66	9,345.1	-3,644.8	21.6	3,644.9	0.00	0.00	0.00
12,900.0	90.27	179.66	9,344.6	-3,744.8	22.2	3,744.9	0.00	0.00	0.00
13,000.0	90.27	179.66	9,344.1	-3,844.8	22.8	3,844.9	0.00	0.00	0.00
13,100.0	90.27	179.66	9,343.7	-3,944.8	23.4	3,944.9	0.00	0.00	0.00
13,200.0	90.27	179.66	9,343.2	-4,044.8	24.0	4,044.9	0.00	0.00	0.00
13,300.0	90.27	179.66	9,342.7	-4,144.8	24.6	4,144.9	0.00	0.00	0.00
13,400.0	90.27	179.66	9,342.3	-4,244.8	25.2	4,244.9	0.00	0.00	0.00

Wellplanning

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers LLC.
 Project: Lea County, NM
 Site: Rojo D 7811 JV-P
 Well: #2H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well #2H
 TVD Reference: WELL @ 3374.8usft (Original Well Elev)
 MD Reference: WELL @ 3374.8usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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)
13,500.0	90.27	179.66	9,341.8	-4,344.8	25.8	4,344.9	0.00	0.00	0.00
13,600.0	90.27	179.66	9,341.3	-4,444.8	26.4	4,444.9	0.00	0.00	0.00
13,700.0	90.27	179.66	9,340.8	-4,544.8	27.0	4,544.9	0.00	0.00	0.00
13,800.0	90.27	179.66	9,340.4	-4,644.8	27.6	4,644.9	0.00	0.00	0.00
13,885.1	90.27	179.66	9,340.0	-4,729.9	28.1	4,730.0	0.00	0.00	0.00

TD at 13885.1 - PBHL(D #2H)

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL(D #2H)	0.27	179.66	9,340.0	-4,729.9	27.9	404,451.60	740,918.80	32° 6' 34.428 N	103° 33' 18.887 W
- plan misses target center by 0.2usft at 13885.1usft MD (9340.0 TVD, -4729.9 N, 28.1 E)									
- Rectangle (sides W100.0 H4,730.0 D0.0)									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,882.5	8,882.5	0.0	0.0	KOP - 8882.5 'MD, 0.00° INC, 0.00° AZI
9,634.8	9,360.0	-479.7	2.8	EOC- 9634.8 'MD, 90.27° INC, 179.66° AZI
13,885.1	9,340.0	-4,729.9	28.1	TD at 13885.1

BTA

BTA Oil Producers LLC.

Project: Lea County, NM

Site: Rojo D 7811 JV-P

Well: #2H

Wellbore: OH

Plan: Design #1 (#2H/OH)

Ground Elevation: 3356.8

RKB Elevation: WELL @ 3374.8usft (Original Well Elev)

Rig Name: Original Well Elev

Northings
409181.50

Easting
740890.90

Latitude
32° 7' 21.235 N

Longitude
103° 33' 18.814 W

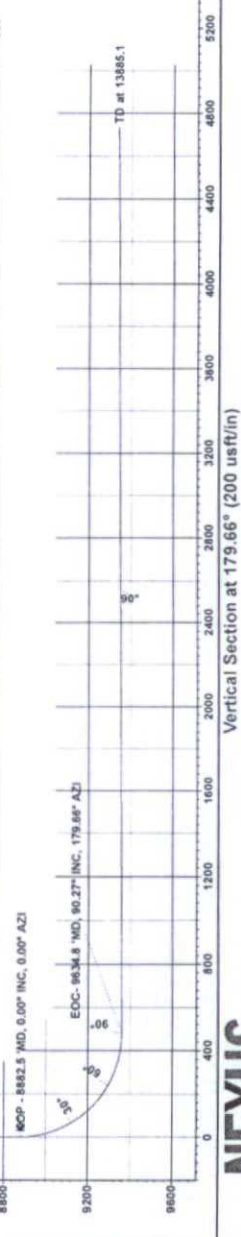
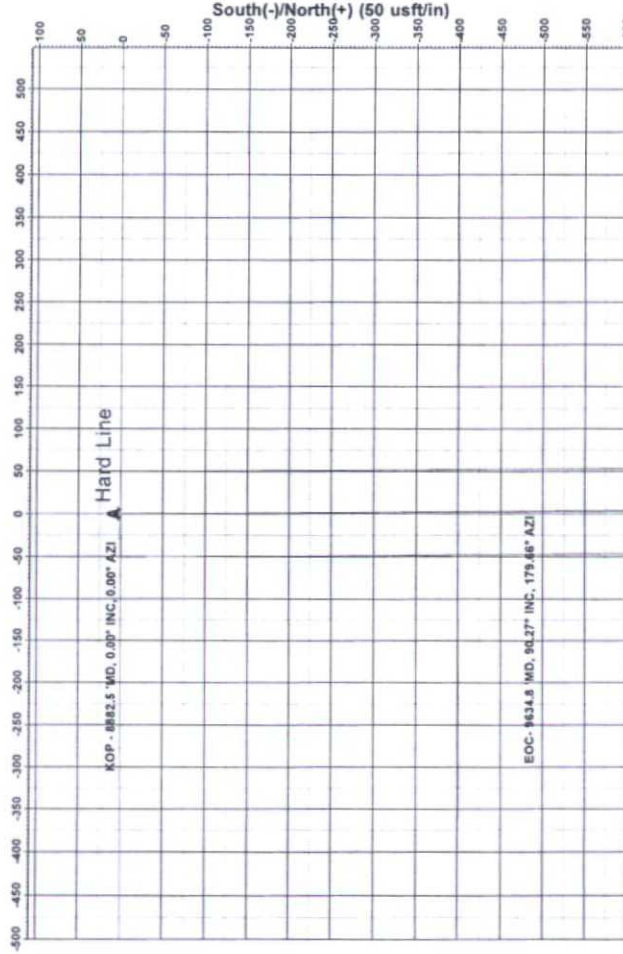
WELL DETAILS: #2H



Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	8882.5	0.00	0.00	8882.5	0.0	0.0	0.00	0.00	0.0
3	9634.8	90.27	179.66	9360.0	-479.7	2.8	12.00	179.66	479.8
4	13885.1	90.27	179.66	9340.0	-4729.9	28.1	0.00	0.00	4730.0 PBHL(D #2H)

West(-)/East(+) (50 usft/in)



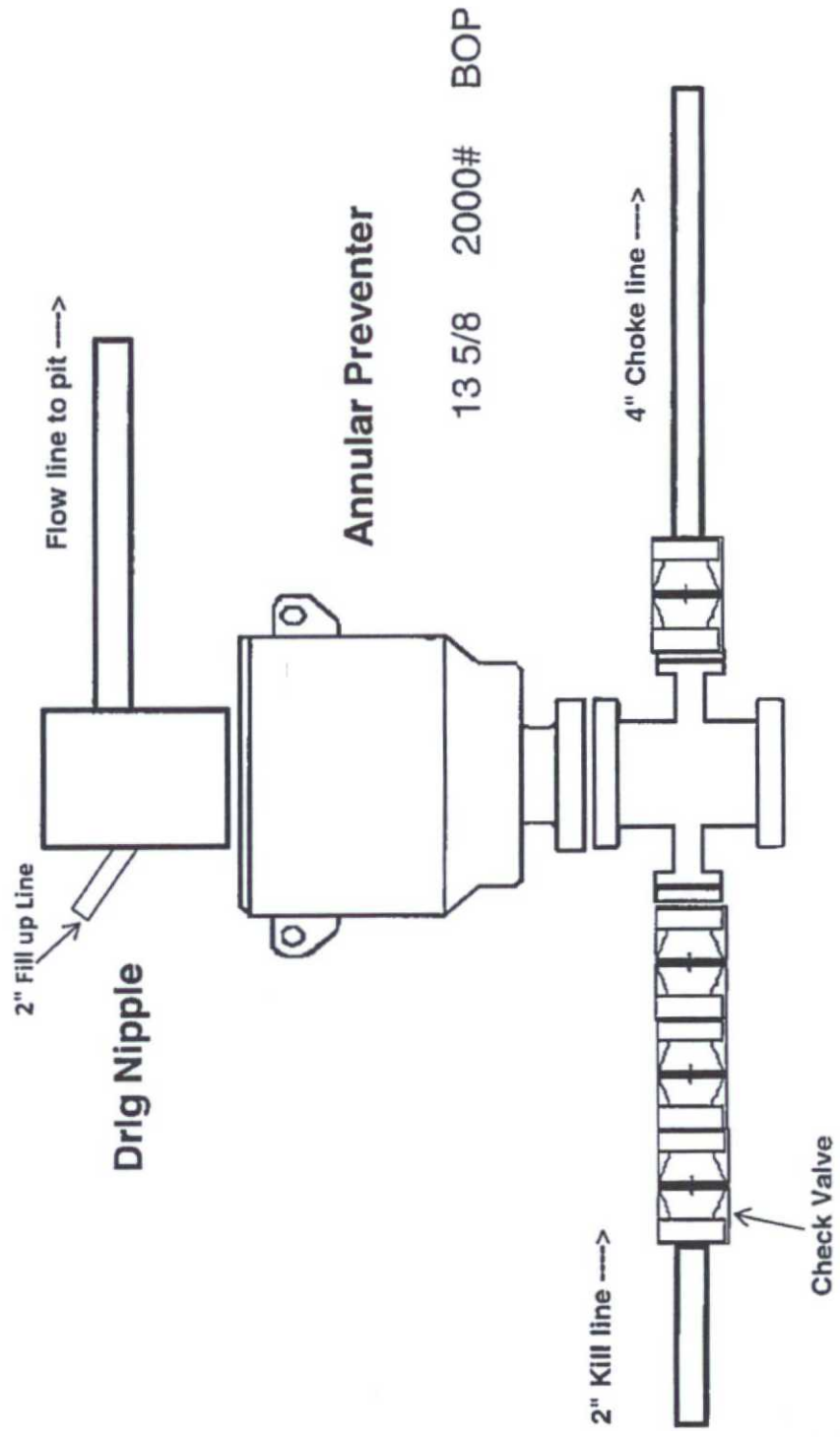
NEXUS
DIRECTIONAL SOLUTIONS, L.P.

Vertical Section at 179.66° (200 usft/in)

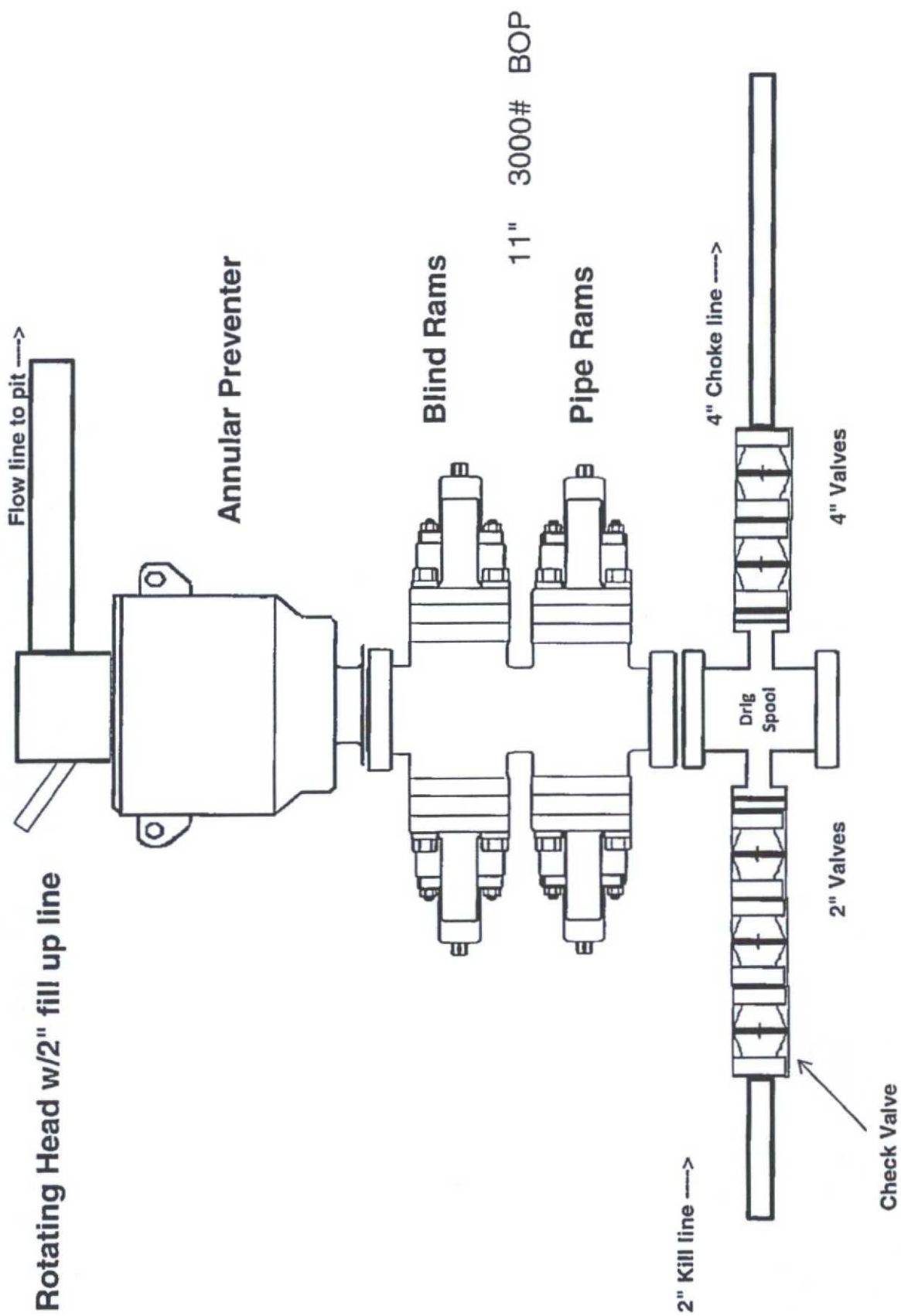
Nexus Directional Solutions

PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

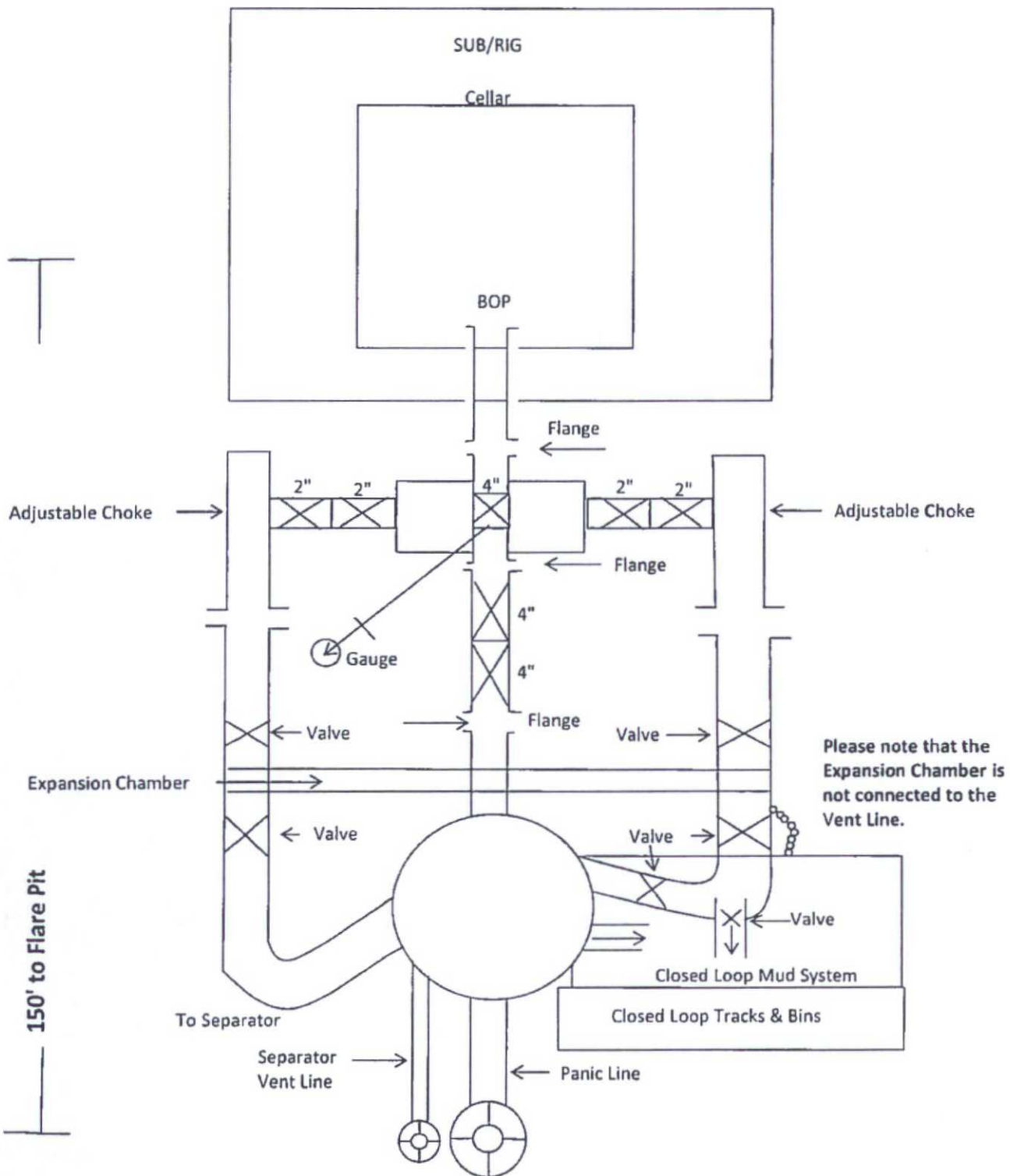
2,000 psi BOP Schematic



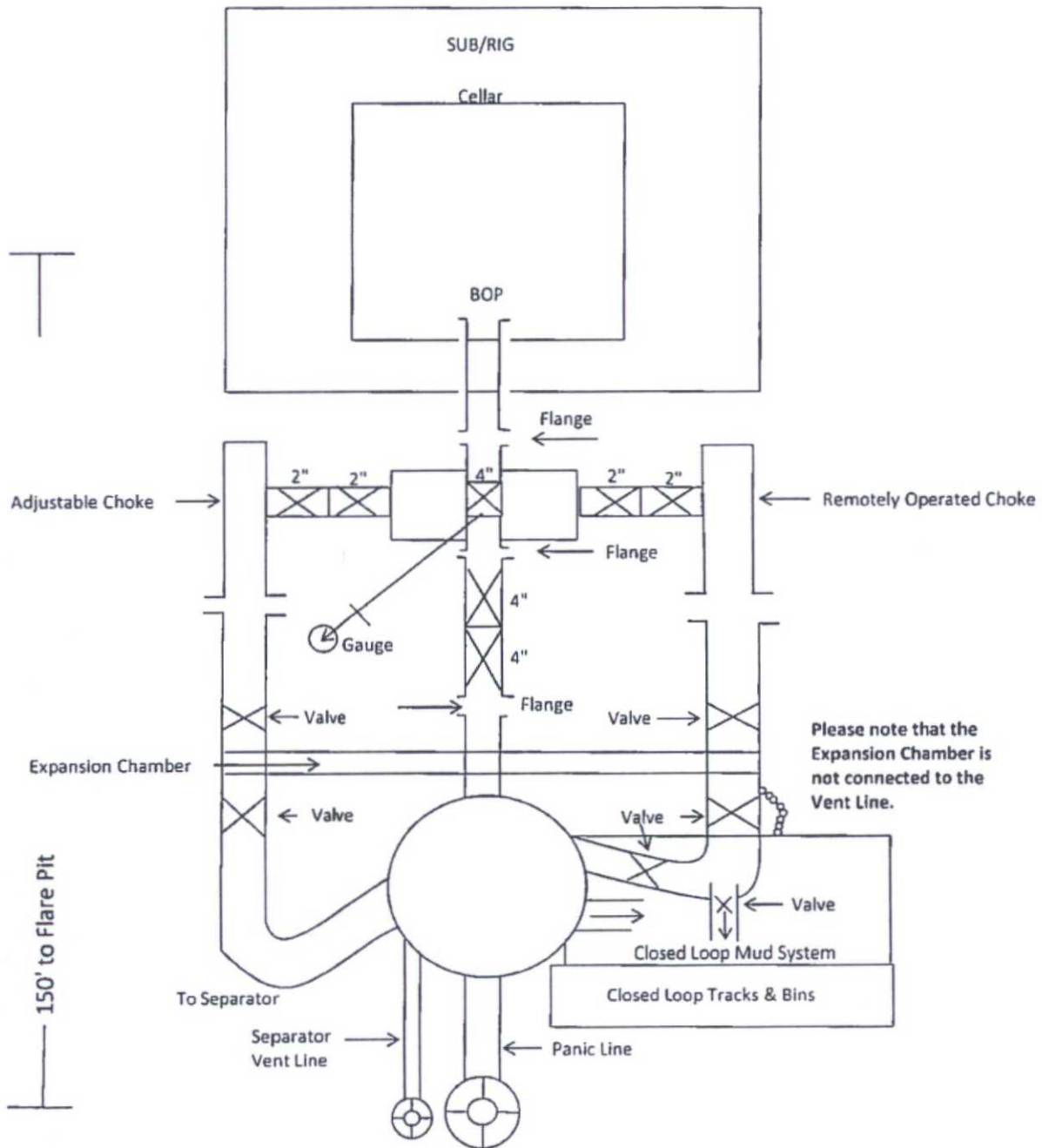
3,000 psi BOP Schematic



2M Choke Manifold Equipment



3M Choke Manifold Equipment



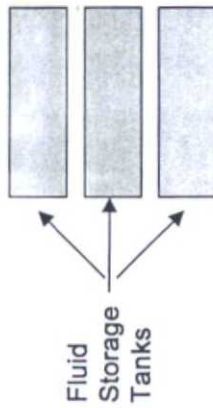
BTA Oil Producers LLC

Rig Plat & Closed Loop Equipment Diagram

Well pad will be 340' X 340' with
cellar in center of pad

Flare Lines will be from both Choke
Manifold & Separator to edge of
location.

170'



Centrifuge or
Solids Sep.

Transfer Pump

NORTH

Shakers

Drig Separator

Flow line

Steel pits

Mud Pumps

170'

170'

Cellar

Pipe
Racks

Water Tanks

Trailer

* I further certify that BTA will comply with Rule 19.15.17
NMAC by using a Closed Loop System.*