

OCD Hobbs

ATS-15-572

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 26 2015

RECEIVED

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.

7811 JV-Projo B #1H

9. API Well No.

30-025- 4289

10. Field and Pool, or Exploratory

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 & 2178' FWL Unit Letter C (NENW) SHL Sec 22-T25S-R33E

At proposed prod. Zone 330' FSL & 2178' FWL Unit Letter N (SESW) 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: 5927' BHL: 1812'

19. Proposed Depth

TVD: 9,335' MD: 13,865'

PH: 12,500'

20. BLM/BIA Bond No. on file

NMB1195 & NMB000849

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

3369.8' GL

22. Approximate date work will start\*

6/1/2015

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

Name (Printed/Typed)

Date

Pam Inskeep

4/2/2015

Title

Regulatory Administrator

Approved by (Signature)

Steve Caffey

Name (Printed/Typed)

Date OCT 22 2015

Title

FIELD MANAGER

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.

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 28 2015

OCT 26 2015

## 1. Geologic Formations

TVD of target	9335'	Pilot hole depth	12500	RECEIVED
MD at TD:	13,865'	Deepest expected fresh water:	625	

## Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1047	Water	
Top of Salt	1381	Salt	
Base of Salt	4734	Salt	
Lamar	4980	Barren	
Bell Canyon	5012	Oil/Gas	
Cherry Canyon	6084	Oil/Gas	
U. Avalon Shale	9205	Oil/Gas	
L. Avalon Shale	9789	Oil/Gas Target Zone	
1 <sup>st</sup> Bone Spring Sand	10141	Oil/Gas	
2 <sup>nd</sup> Bone Spring Sand	10688	Oil/Gas	
3 <sup>rd</sup> Bone Spring Sand	11780	Oil/Gas	
Wolfcamp	12170	Oil/Gas	
Penn	13640	Oil/Gas	

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

See CCA

## 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 <del>1100</del> 1170'	13.375"	54.5	J55	STC	1.33	1.09	8.6
12.25"	0	4300	9.625"	40	J55	BTC	1.125	1.31	3.15
12.25"	4300	5000	9.625"	40	HCL80	BTC	1.60	1.91	32.7
8.75"	0	13,865	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

Must have table for contingency casing

	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

**BTA Oil Producers LLC – 7811 JV-P Rojo B 1H**

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?	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 ft3/sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	625	13.5	1.75	9	12	Lead: Class C + 4% Gel + 2% CaCl <sub>2</sub>
	600	14.8	1.34	4.8	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter.	1200	12.7	1.90	10	12	1 <sup>st</sup> stage Lead: Econocem HLC 65:35:6 + 5% Salt
	250	14.8	1.34	6.4	8	1 <sup>st</sup> stage Tail: Class C + 2% CaCl
Prod.	550	10.4	3.38	19	72	1 <sup>st</sup> Lead: Halliburton Tune Lite Blend
	1225	14.4	1.24	5.7	20	1 <sup>st</sup> Tail: Versacem 50:50:2 Class H + 1% Salt
Plug 1	245	11.9	2.5	14	24	Class H 50:50:10 PHTD 12,500 – 11,100 5% Excess
Plug 2	245	11.9	2.5	14	24	Class H 50:50:10 11,100 – 9700 5% OH Excess
Plug 3	450	17.2	.98	3.8	4	Class H 9700' – 8700' 5% OH Excess (Dress off Top to KOP 8858')

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:
See COA 12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	5M 3M	Annular	x	50% testing pressure
			Blind Ram	x	5M 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 – 7811 JV-P Rojo B 1H

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	12,500' PHTD	Cut Brine	8.5-9.3	28-34	N/C
Int shoe	13,865' (Lateral TD)	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	5850 psi at 12,500' MD/TVD (PH)
Abnormal Temperature	NO

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

## BTA Oil Producers LLC – 7811 JV-P Rojo B 1H

*See CWA*

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

### 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
- H<sub>2</sub>S schematic
- H<sub>2</sub>S contingency plan
- Interim reclamation plat



## **BTA Oil Producers LLC**

Lea County, NM  
7811 JV-P Rojo B  
#1H

OH

Plan: Design #1

## **Standard Planning Report**

25 March, 2015



# Wellplanning Planning Report

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

Local Co-ordinate Reference: Well #1H  
TVD Reference: WELL @ 3387.8usft (Original Well Elev)  
MD Reference: WELL @ 3387.8usft (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	7811 JV-P Rojo B				
Site Position:	From: Map	Northing:	409,174.20 usft	Latitude:	32° 7' 21.296 N
		Easting:	739,014.10 usft	Longitude:	103° 33' 40.638 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 "

Well	#1H					
Well Position	+N/-S	0.0 usft	Northing:	409,174.20 usft	Latitude:	32° 7' 21.296 N
	+E/-W	0.0 usft	Easting:	739,014.10 usft	Longitude:	103° 33' 40.638 W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,369.8 usft	

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/25/2015	7.11	60.00	48,179

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	179.61

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	
8,857.5	0.00	0.00	8,857.5	0.0	0.0	0.00	0.00	0.00	0.00	
9,609.8	90.27	179.61	9,335.0	-479.7	3.3	12.00	12.00	0.00	179.61	
13,865.1	90.27	179.61	9,314.9	-4,734.9	32.2	0.00	0.00	0.00	0.00	PBHL(7811 JV-P Rojo)



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MD Reference: WELL @ 3387.8usft (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)
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



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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
8,857.5	0.00	0.00	8,857.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 8857.5 °MD, 0.00° INC, 0.00° AZI									
8,875.0	2.10	179.61	8,875.0	-0.3	0.0	0.3	12.00	12.00	0.00
8,900.0	5.10	179.61	8,899.9	-1.9	0.0	1.9	12.00	12.00	0.00
8,925.0	8.10	179.61	8,924.8	-4.8	0.0	4.8	12.00	12.00	0.00
8,950.0	11.10	179.61	8,949.4	-8.9	0.1	8.9	12.00	12.00	0.00
8,975.0	14.10	179.61	8,973.8	-14.4	0.1	14.4	12.00	12.00	0.00
9,000.0	17.10	179.61	8,997.9	-21.1	0.1	21.1	12.00	12.00	0.00
9,025.0	20.10	179.61	9,021.6	-29.1	0.2	29.1	12.00	12.00	0.00
9,050.0	23.10	179.61	9,044.8	-38.3	0.3	38.3	12.00	12.00	0.00
9,075.0	26.10	179.61	9,067.6	-48.7	0.3	48.7	12.00	12.00	0.00
9,100.0	29.10	179.61	9,089.7	-60.3	0.4	60.3	12.00	12.00	0.00
9,125.0	32.10	179.61	9,111.2	-73.0	0.5	73.0	12.00	12.00	0.00
9,150.0	35.10	179.61	9,132.0	-86.8	0.6	86.8	12.00	12.00	0.00
9,175.0	38.10	179.61	9,152.1	-101.7	0.7	101.7	12.00	12.00	0.00
9,200.0	41.10	179.61	9,171.4	-117.7	0.8	117.7	12.00	12.00	0.00
9,225.0	44.10	179.61	9,189.8	-134.6	0.9	134.6	12.00	12.00	0.00
9,250.0	47.10	179.61	9,207.3	-152.4	1.0	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: 7811 JV-P Rojo B  
Well: #1H  
Wellbore: OH  
Design: Design #1

Local Co-ordinate Reference: Well #1H  
TVD Reference: WELL @ 3387.8usft (Original Well Elev)  
MD Reference: WELL @ 3387.8usft (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)
9,275.0	50.10	179.61	9,223.8	-171.2	1.2	171.2	12.00	12.00	0.00
9,300.0	53.10	179.61	9,239.3	-190.8	1.3	190.8	12.00	12.00	0.00
9,325.0	56.10	179.61	9,253.8	-211.1	1.4	211.1	12.00	12.00	0.00
9,350.0	59.09	179.61	9,267.2	-232.2	1.6	232.3	12.00	12.00	0.00
9,375.0	62.09	179.61	9,279.5	-254.0	1.7	254.0	12.00	12.00	0.00
9,400.0	65.09	179.61	9,290.6	-276.4	1.9	276.4	12.00	12.00	0.00
9,425.0	68.09	179.61	9,300.5	-299.4	2.0	299.4	12.00	12.00	0.00
9,450.0	71.09	179.61	9,309.2	-322.8	2.2	322.8	12.00	12.00	0.00
9,475.0	74.09	179.61	9,316.7	-346.6	2.4	346.6	12.00	12.00	0.00
9,500.0	77.09	179.61	9,322.9	-370.8	2.5	370.8	12.00	12.00	0.00
9,525.0	80.09	179.61	9,327.9	-395.3	2.7	395.4	12.00	12.00	0.00
9,550.0	83.09	179.61	9,331.5	-420.1	2.9	420.1	12.00	12.00	0.00
9,575.0	86.09	179.61	9,333.9	-445.0	3.0	445.0	12.00	12.00	0.00
9,600.0	89.09	179.61	9,334.9	-469.9	3.2	469.9	12.00	12.00	0.00
9,609.8	90.27	179.61	9,335.0	-479.7	3.3	479.8	12.00	12.00	0.00
EOC- 9609.8 °MD, 90.27° INC, 179.61° AZI									
9,700.0	90.27	179.61	9,334.6	-569.9	3.9	569.9	0.00	0.00	0.00
9,800.0	90.27	179.61	9,334.1	-669.9	4.6	669.9	0.00	0.00	0.00
9,900.0	90.27	179.61	9,333.6	-769.9	5.2	769.9	0.00	0.00	0.00
10,000.0	90.27	179.61	9,333.2	-869.9	5.9	869.9	0.00	0.00	0.00
10,100.0	90.27	179.61	9,332.7	-969.9	6.6	969.9	0.00	0.00	0.00
10,200.0	90.27	179.61	9,332.2	-1,069.9	7.3	1,069.9	0.00	0.00	0.00
10,300.0	90.27	179.61	9,331.7	-1,169.9	8.0	1,169.9	0.00	0.00	0.00
10,400.0	90.27	179.61	9,331.3	-1,269.9	8.6	1,269.9	0.00	0.00	0.00
10,500.0	90.27	179.61	9,330.8	-1,369.9	9.3	1,369.9	0.00	0.00	0.00
10,600.0	90.27	179.61	9,330.3	-1,469.9	10.0	1,469.9	0.00	0.00	0.00
10,700.0	90.27	179.61	9,329.9	-1,569.9	10.7	1,569.9	0.00	0.00	0.00
10,800.0	90.27	179.61	9,329.4	-1,669.9	11.4	1,669.9	0.00	0.00	0.00
10,900.0	90.27	179.61	9,328.9	-1,769.9	12.0	1,769.9	0.00	0.00	0.00
11,000.0	90.27	179.61	9,328.4	-1,869.9	12.7	1,869.9	0.00	0.00	0.00
11,100.0	90.27	179.61	9,328.0	-1,969.9	13.4	1,969.9	0.00	0.00	0.00
11,200.0	90.27	179.61	9,327.5	-2,069.9	14.1	2,069.9	0.00	0.00	0.00
11,300.0	90.27	179.61	9,327.0	-2,169.9	14.8	2,169.9	0.00	0.00	0.00
11,400.0	90.27	179.61	9,326.6	-2,269.9	15.5	2,269.9	0.00	0.00	0.00
11,500.0	90.27	179.61	9,326.1	-2,369.9	16.1	2,369.9	0.00	0.00	0.00
11,600.0	90.27	179.61	9,325.6	-2,469.9	16.8	2,469.9	0.00	0.00	0.00
11,700.0	90.27	179.61	9,325.2	-2,569.9	17.5	2,569.9	0.00	0.00	0.00
11,800.0	90.27	179.61	9,324.7	-2,669.9	18.2	2,669.9	0.00	0.00	0.00
11,900.0	90.27	179.61	9,324.2	-2,769.9	18.9	2,769.9	0.00	0.00	0.00
12,000.0	90.27	179.61	9,323.7	-2,869.8	19.5	2,869.9	0.00	0.00	0.00
12,100.0	90.27	179.61	9,323.3	-2,969.8	20.2	2,969.9	0.00	0.00	0.00
12,200.0	90.27	179.61	9,322.8	-3,069.8	20.9	3,069.9	0.00	0.00	0.00
12,300.0	90.27	179.61	9,322.3	-3,169.8	21.6	3,169.9	0.00	0.00	0.00
12,400.0	90.27	179.61	9,321.9	-3,269.8	22.3	3,269.9	0.00	0.00	0.00
12,500.0	90.27	179.61	9,321.4	-3,369.8	22.9	3,369.9	0.00	0.00	0.00
12,600.0	90.27	179.61	9,320.9	-3,469.8	23.6	3,469.9	0.00	0.00	0.00
12,700.0	90.27	179.61	9,320.4	-3,569.8	24.3	3,569.9	0.00	0.00	0.00
12,800.0	90.27	179.61	9,320.0	-3,669.8	25.0	3,669.9	0.00	0.00	0.00
12,900.0	90.27	179.61	9,319.5	-3,769.8	25.7	3,769.9	0.00	0.00	0.00
13,000.0	90.27	179.61	9,319.0	-3,869.8	26.3	3,869.9	0.00	0.00	0.00
13,100.0	90.27	179.61	9,318.6	-3,969.8	27.0	3,969.9	0.00	0.00	0.00
13,200.0	90.27	179.61	9,318.1	-4,069.8	27.7	4,069.9	0.00	0.00	0.00
13,300.0	90.27	179.61	9,317.6	-4,169.8	28.4	4,169.9	0.00	0.00	0.00
13,400.0	90.27	179.61	9,317.1	-4,269.8	29.1	4,269.9	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: 7811 JV-P Rojo B  
Well: #1H  
Wellbore: OH  
Design: Design #1

Local Co-ordinate Reference: Well #1H  
TVD Reference: WELL @ 3387.8usft (Original Well Elev)  
MD Reference: WELL @ 3387.8usft (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	179.61	9,316.7	-4,369.8	29.7	4,369.9	0.00	0.00	0.00
13,600.0	90.27	179.61	9,316.2	-4,469.8	30.4	4,469.9	0.00	0.00	0.00
13,700.0	90.27	179.61	9,315.7	-4,569.8	31.1	4,569.9	0.00	0.00	0.00
13,800.0	90.27	179.61	9,315.3	-4,669.8	31.8	4,669.9	0.00	0.00	0.00
13,865.1	90.27	179.61	9,314.9	-4,734.9	32.2	4,735.0	0.00	0.00	0.00

TD at 13865.1 - PBHL(7811 JV-P Rojo B #1H)

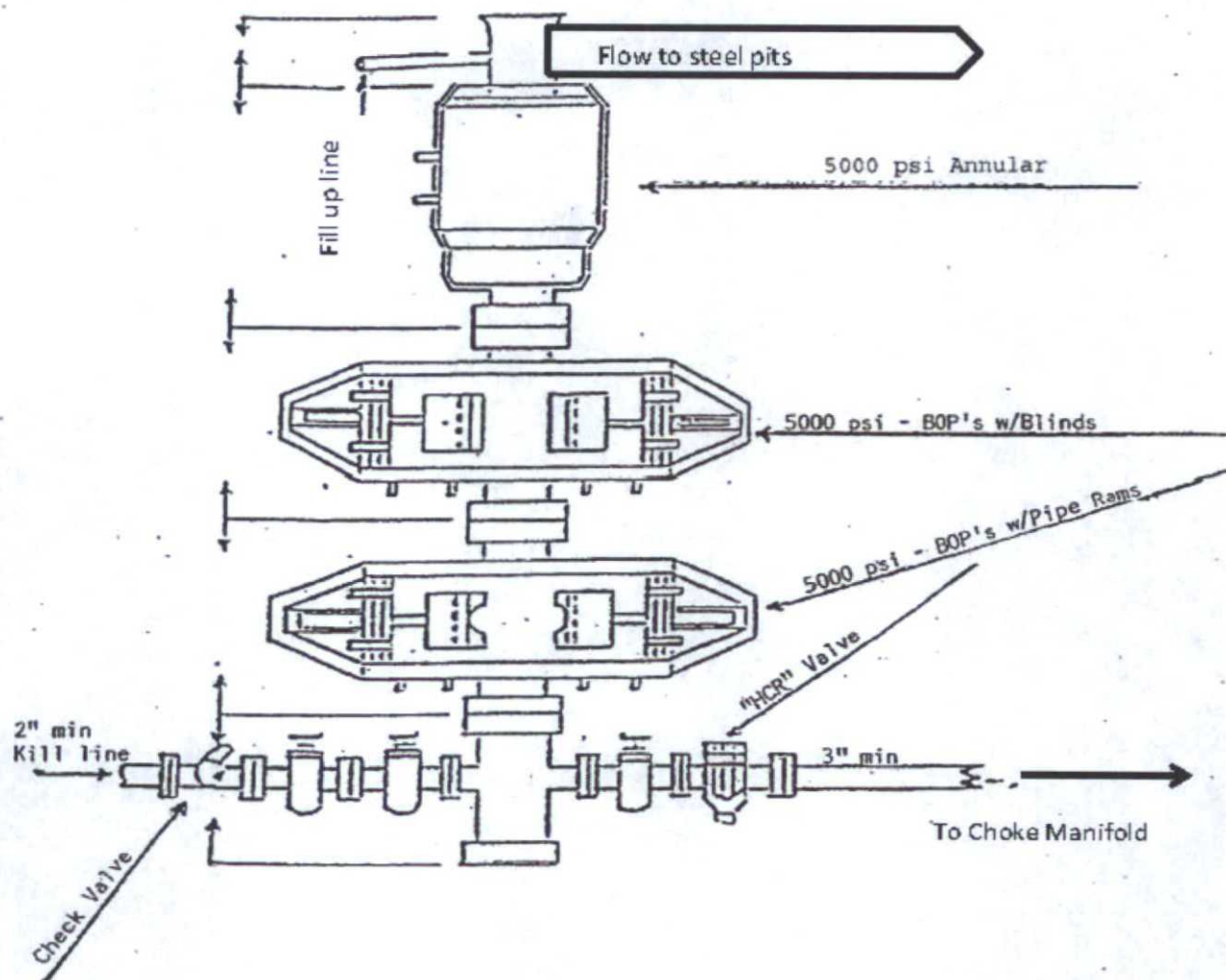
## Design Targets

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(7811 JV-P Rojo B	0.00	0.00	9,315.0	-4,734.9	31.8	404,439.30	739,045.90	32° 6' 34.439 N	103° 33' 40.662 W
- plan misses target center by 0.4usft at 13865.1usft MD (9314.9 TVD, -4734.9 N, 32.2 E)									
- Point									

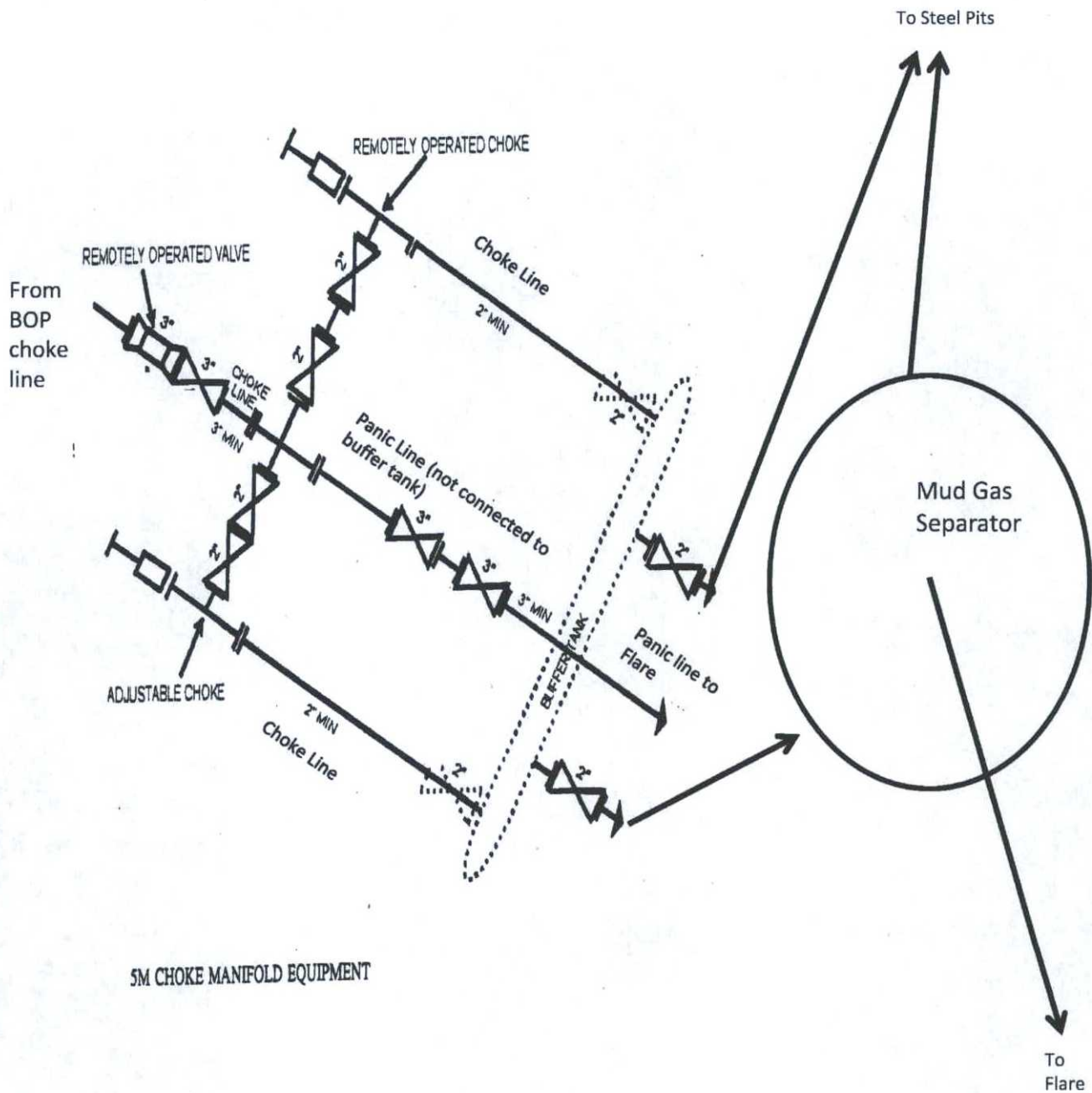
## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,857.5	8,857.5	0.0	0.0	KOP - 8857.5 'MD, 0.00° INC, 0.00° AZI
9,609.8	9,335.0	-479.7	3.3	EOC- 9609.8 'MD, 90.27° INC, 179.61° AZI
13,865.1	9,314.9	-4,734.9	32.2	TD at 13865.1

# 13-5/8" 5,000 PSI BOP

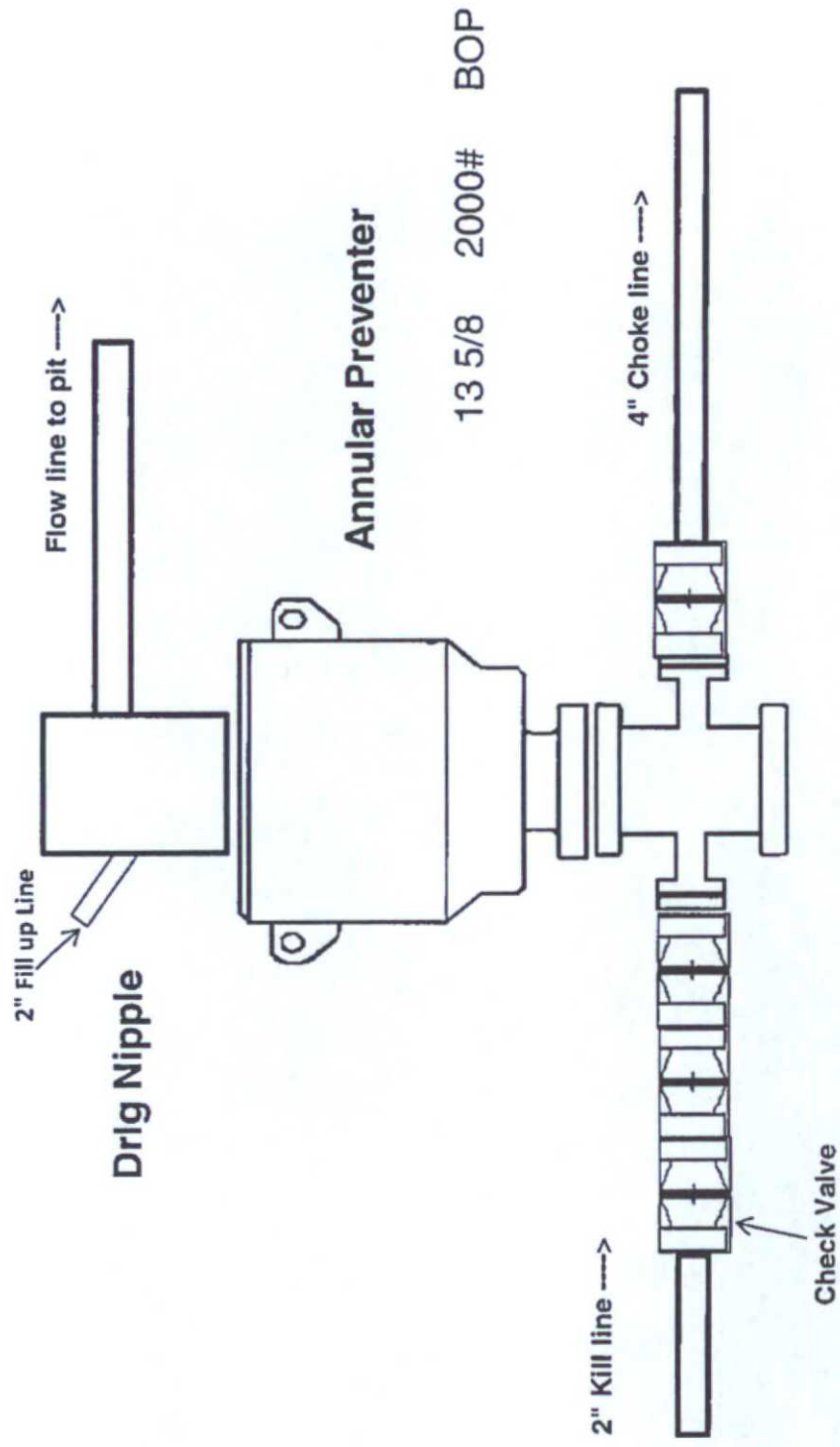


BTA OIL PRODUCERS, LLC  
 7811 JV-P Rojo B #1H  
 210' FNL & 2178' FWL  
 UL -C-, Sec. 22, T25S, R33E  
 Lea County, New Mexico



BTA OIL PRODUCERS, LLC  
 7811 JV-P Rojo B #1H  
 210' FNL & 2178' FWL  
 UL -C-, Sec. 22, T25S, R33E  
 Lea County, New Mexico

# 2,000 psi BOP Schematic



## 2M Choke Manifold Equipment

