Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

HOBBS OCD

OCT 14 2014

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM59398
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No. 8115 JV-P MESA B COM 4H
2. Name of Operator BTA OIL PRODUCERS Contact: MELANIE J PARKER E-Mail: mparker@concho.com	9. API Well No. 30-025-42127-00-X1
3a. Address 104 SOUTH PECOS STREET MIDLAND, TX 79701 3b. Phone No. (include area code) Ph: 575-748-6940	10. Field and Pool, or Exploratory WC-025 G06 S253329D
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 7 T26S R33E SESW 190FSL 1880FWL 32.051186 N Lat, 103.613373 W Lon	11. County or Parish, and State LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BTA Oil Producers, LLC respectfully requests the following changes to the original APD:
Pilot hole depth - change from 12,250' to 12,750'
Pilot hole size - change bit size from 7 7/8" to 8 3/4"
TVD - change from 9715' TVD to 9220' TVD at EOL
TD - change from 14,298' MD to 13,812' MD
Revised directional plan is attached
Plan to drill the vertical/curve from 9 5/8" intermediate at 4750' to End of Curve at 9524' MD/9249' TVD with 8 3/4" bit instead of 7 7/8" bit.
In the lateral at 9524' MD/9249' TVD, we plan to reduce hole size from 8 3/4" to 7 7/8" to TD.
Plug back cementing program changes (due to drlg deeper PH, higher KOP and 8 3/4" bit size), the following cement plugs are proposed:
12,750' - 11,750' 410 sx Class H @ 16.4 ppg / 1.07 cuft/sx / 4.3 gal/sx

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #268986 verified by the BLM Well Information System
For BTA OIL PRODUCERS, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER MASON on 10/08/2014 (15JAM0005SE)

Name *(Printed/Typed)* ALEX KORZENEWSKI — Title AGENT (DRLG ENGINEER)

Signature (Electronic Submission) — Date 10/07/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

APPROVED
OCT 8 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Approved By _____ Title _____ Date _____

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

OCT 16 2014

Additional data for EC transaction #268986 that would not fit on the form

32. Additional remarks, continued

11,750' - 10,750' 410 sx Class H @ 16.4 ppg / 1.07 cuft/sx / 4.3 gal/sx
10,750' - 9,500' 490 sx Class H @ 16.4 ppg / 1.07 cuft/sx / 4.3 gal/sx
9,500' - 8,500' 425 sx Class H @ 17.2 ppg / .98 cuft/sx / 3.8 gal/sx
*Plug back cmt volumes based on 8 3/4" bit size + 5% - may be adjusted based on Open Hole Caliper Logs and hole conditions.
The 2nd stage production cementing program is adjusted to reflect the changes in drld hole length and changes in bit sizes. Note: Volumes subject to change based on Open Hole Caliper Logs from KOP to intermediate csg shoe and fluid caliper logs ran at TD.
1st Stage: Lead - 350 sx EconoCem HLH + 5 pps Kol Seal + 5% Salt + 0.125 pps Poly-E-Flake + HR-601 @ 12.7 ppg / 2.0 cuft/sx / 10.5 gal/sx
Tail - 1025 sx VersaCem H + 1% Salt + 0.4% GasStop + HR-601 @ 14.4 ppg / 1.24 cuft/sx / 5.66 gal/sx
2nd Stage: Lead - 775 sx EconoCem C @ 11.9 ppg / 2.51 cuft/sx / 14.07 gal/sx
Tail - 200 sx HalCem C @ 14.8 ppg / 1.34 cuft/sx / 6.35 gal/sx

Attachment to 3160-5
NMNM160973
8115 JV-P Mesa B Com #4H
09/16/2014

Summary of Volume Calculation Excess Factors Based on Bit and Casing Size by Stage/Hole Section

1st Stage

Lead: 8774' – 6900' (Kick Off Point to DV Tool) 8-3/4" Bit Size x 5-1/2" Casing AV + 35%
Tail: 13,812' – 9524' (End of Lateral to End of Curve) 7-7/8" Bit Size x 5-1/2" Casing AV + 35%
Tail: 9524' – 8774' (End of Curve to Kick Off Point) 8-3/4" Bit Size x 5-1/2" Casing AV + 35%

2nd Stage

Lead: 0' – 4750'(inside 9-5/8"Intermediate (8.835" ID to Surface) + 5% Excess
Lead: 4750' – 6600' (ICP Shoe to 300' above DV Tool Depth) 8-3/4" Bit x 5-1/2" Casing AV + 35% Excess
Tail: 6600' – 6900' (300' above DV Tool to DV Tool) 8-3/4" Bit X 5-1/2" Casing AV + >35%

BTA Oil Producers LLC.
Project: Lea County, NM
Site: 8115 JV-P Mesa B
Well: #4H
Wellbore: OH
Plan: Plan #2 (#4H/OH)

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	8771.5	0.00	0.00	8771.5	0.0	0.0	0.00	0.00	0.0
3	9524.8	90.39	3.61	9249.0	479.8	30.3	12.00	3.61	480.8
4	13811.7	90.39	3.61	9219.8	4758.1	300.2	0.00	0.00	4767.5

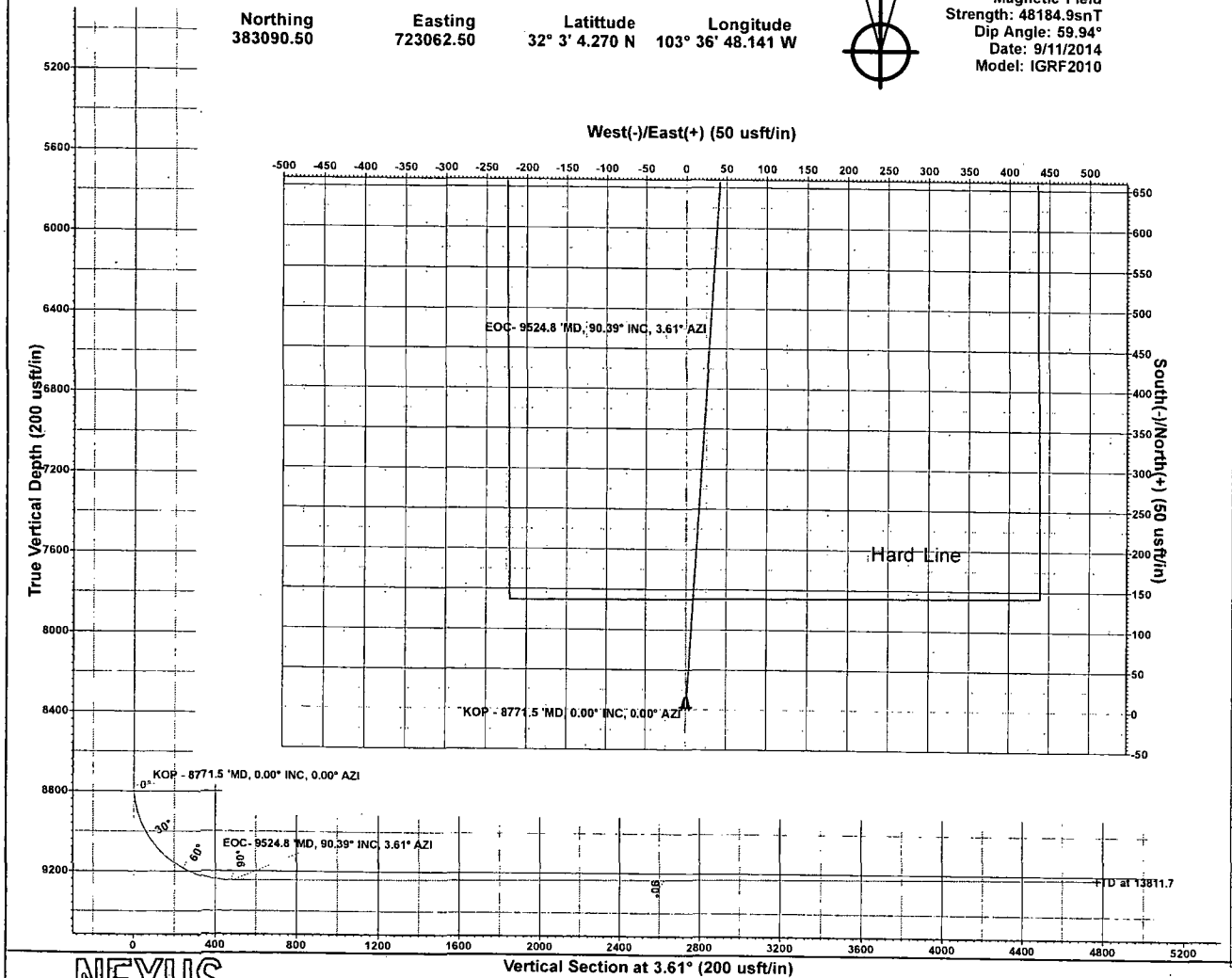
WELL DETAILS: #4H

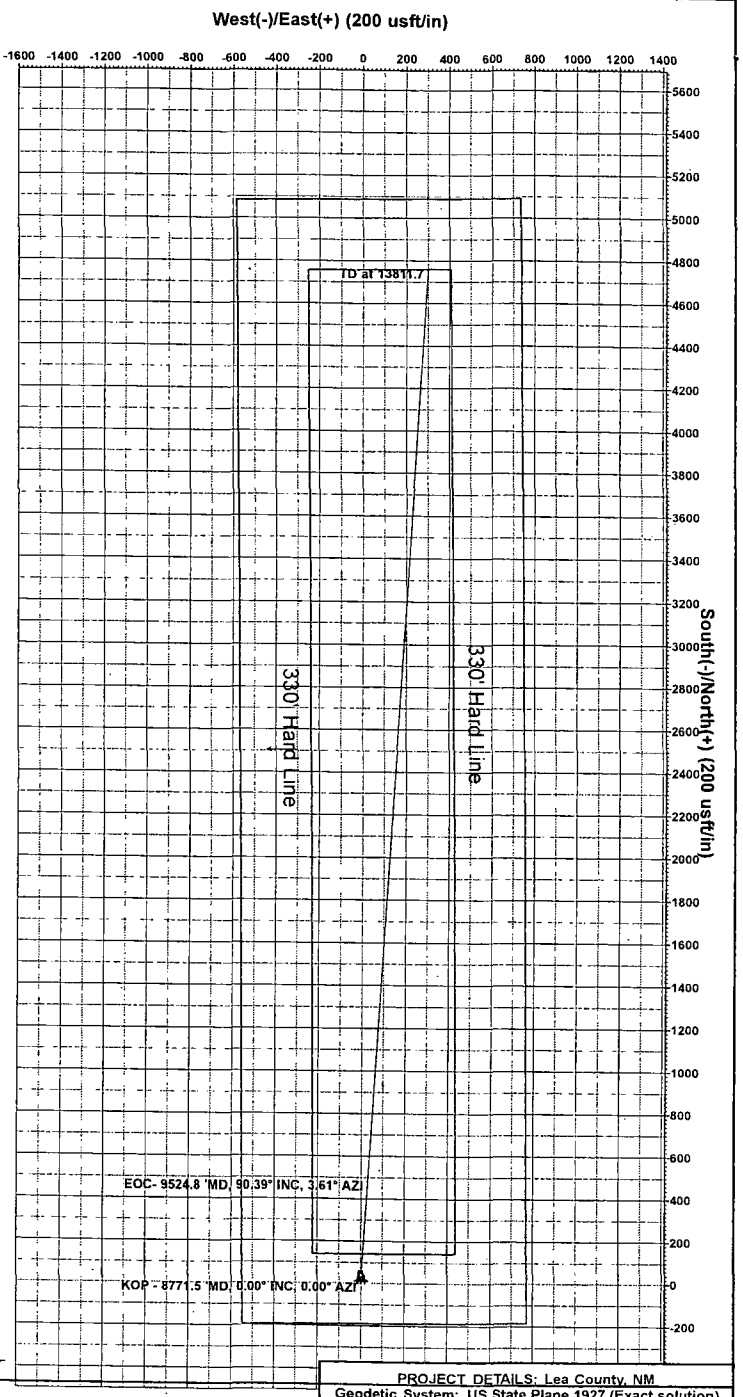
Ground Elevation:: 3230.4
RKB Elevation: WELL @ 3248.4usft (Original Well Elev)
Rig Name: Original Well Elev

Northing	Easting	Latittude	Longitude
383090.50	723062.50	32° 3' 4.270 N	103° 36' 48.141 W

Azimuths to Grid North
True North: -0.38°
Magnetic North: 6.81°

Magnetic Field
Strength: 48184.9snT
Dip Angle: 59.94°
Date: 9/11/2014
Model: IGRF2010





NEXUS DIRECTIONAL SOLUTIONS, L.P.

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

BTA Oil Producers LLC.

Lea County, NM
8115 JV-P Mesa B
#4H

OH

Plan: Plan #2

Standard Planning Report

11 September, 2014

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	BTA Oil Producers LLC.	**TVD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Project:	Lea County, NM	**MD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Site:	8115 JV-P Mesa B	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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 8115 JV-P Mesa B

Site Position:		**Northing:**	383,090.50 usft	**Latitude:**	32° 3' 4.270 N
From:	Map	**Easting:**	723,062.50 usft	**Longitude:**	103° 36' 48.141 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.38 °

Well #4H

Well Position	**+N/-S**	0.0 usft	**Northing:**	383,090.50 usft	**Latitude:**	32° 3' 4.270 N
	+E/-W	0.0 usft	**Easting:**	723,062.50 usft	**Longitude:**	103° 36' 48.141 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,230.4 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/11/2014	7.19	59.94	48,185

Design Plan #2

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	3.61

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	
8,771.5	0.00	0.00	8,771.5	0.0	0.0	0.00	0.00	0.00	0.00	
9,524.8	90.39	3.61	9,249.0	479.8	30.3	12.00	12.00	0.00	3.61	
13,811.7	90.39	3.61	9,219.8	4,758.1	300.2	0.00	0.00	0.00	0.00	PBHL(JVP#4)

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	BTA Oil Producers LLC.	**TVD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Project:	Lea County, NM	**MD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Site:	8115 JV-P Mesa B	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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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Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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
8,771.5	0.00	0.00	8,771.5	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 8771.5 'MD, 0.00° INC, 0.00° AZI									
8,775.0	0.42	3.61	8,775.0	0.0	0.0	0.0	12.00	12.00	0.00
8,800.0	3.42	3.61	8,800.0	0.8	0.1	0.9	12.00	12.00	0.00
8,825.0	6.42	3.61	8,824.9	3.0	0.2	3.0	12.00	12.00	0.00
8,850.0	9.42	3.61	8,849.6	6.4	0.4	6.4	12.00	12.00	0.00
8,875.0	12.42	3.61	8,874.2	11.2	0.7	11.2	12.00	12.00	0.00
8,900.0	15.42	3.61	8,898.5	17.2	1.1	17.2	12.00	12.00	0.00
8,925.0	18.42	3.61	8,922.4	24.4	1.5	24.5	12.00	12.00	0.00
8,950.0	21.42	3.61	8,945.9	32.9	2.1	33.0	12.00	12.00	0.00
8,975.0	24.42	3.61	8,968.9	42.6	2.7	42.7	12.00	12.00	0.00
9,000.0	27.42	3.61	8,991.4	53.5	3.4	53.6	12.00	12.00	0.00
9,025.0	30.42	3.61	9,013.3	65.6	4.1	65.7	12.00	12.00	0.00
9,050.0	33.42	3.61	9,034.5	78.8	5.0	78.9	12.00	12.00	0.00
9,075.0	36.42	3.61	9,055.0	93.1	5.9	93.2	12.00	12.00	0.00
9,100.0	39.42	3.61	9,074.7	108.4	6.8	108.6	12.00	12.00	0.00
9,125.0	42.42	3.61	9,093.6	124.7	7.9	125.0	12.00	12.00	0.00
9,150.0	45.42	3.61	9,111.6	142.0	9.0	142.3	12.00	12.00	0.00
9,175.0	48.42	3.61	9,128.7	160.3	10.1	160.6	12.00	12.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	BTA Oil Producers LLC.	**TVD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Project:	Lea County, NM	**MD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Site:	8115 JV-P Mesa B	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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)
9,200.0	51.42	3.61	9,144.8	179.3	11.3	179.7	12.00	12.00	0.00
9,225.0	54.41	3.61	9,159.8	199.2	12.6	199.6	12.00	12.00	0.00
9,250.0	57.41	3.61	9,173.8	219.9	13.9	220.3	12.00	12.00	0.00
9,275.0	60.41	3.61	9,186.8	241.3	15.2	241.8	12.00	12.00	0.00
9,300.0	63.41	3.61	9,198.5	263.3	16.6	263.8	12.00	12.00	0.00
9,325.0	66.41	3.61	9,209.1	285.9	18.0	286.4	12.00	12.00	0.00
9,350.0	69.41	3.61	9,218.5	309.0	19.5	309.6	12.00	12.00	0.00
9,375.0	72.41	3.61	9,226.7	332.6	21.0	333.2	12.00	12.00	0.00
9,400.0	75.41	3.61	9,233.6	356.5	22.5	357.2	12.00	12.00	0.00
9,425.0	78.41	3.61	9,239.3	380.8	24.0	381.6	12.00	12.00	0.00
9,450.0	81.41	3.61	9,243.7	405.4	25.6	406.2	12.00	12.00	0.00
9,475.0	84.41	3.61	9,246.7	430.2	27.1	431.0	12.00	12.00	0.00
9,500.0	87.41	3.61	9,248.5	455.0	28.7	455.9	12.00	12.00	0.00
9,524.8	90.39	3.61	9,249.0	479.8	30.3	480.8	12.00	12.00	0.00
EOC- 9524.8 'MD, 90.39° INC, 3.61° AZI									
9,600.0	90.39	3.61	9,248.5	554.8	35.0	555.9	0.00	0.00	0.00
9,700.0	90.39	3.61	9,247.8	654.6	41.3	655.9	0.00	0.00	0.00
9,800.0	90.39	3.61	9,247.1	754.4	47.6	755.9	0.00	0.00	0.00
9,900.0	90.39	3.61	9,246.4	854.2	53.9	855.9	0.00	0.00	0.00
10,000.0	90.39	3.61	9,245.8	954.0	60.2	955.9	0.00	0.00	0.00
10,100.0	90.39	3.61	9,245.1	1,053.8	66.5	1,055.9	0.00	0.00	0.00
10,200.0	90.39	3.61	9,244.4	1,153.6	72.8	1,155.9	0.00	0.00	0.00
10,300.0	90.39	3.61	9,243.7	1,253.4	79.1	1,255.9	0.00	0.00	0.00
10,400.0	90.39	3.61	9,243.0	1,353.2	85.4	1,355.9	0.00	0.00	0.00
10,500.0	90.39	3.61	9,242.4	1,453.0	91.7	1,455.9	0.00	0.00	0.00
10,600.0	90.39	3.61	9,241.7	1,552.8	98.0	1,555.9	0.00	0.00	0.00
10,700.0	90.39	3.61	9,241.0	1,652.6	104.3	1,655.9	0.00	0.00	0.00
10,800.0	90.39	3.61	9,240.3	1,752.4	110.6	1,755.9	0.00	0.00	0.00
10,900.0	90.39	3.61	9,239.6	1,852.2	116.9	1,855.9	0.00	0.00	0.00
11,000.0	90.39	3.61	9,239.0	1,952.0	123.2	1,955.9	0.00	0.00	0.00
11,100.0	90.39	3.61	9,238.3	2,051.8	129.4	2,055.9	0.00	0.00	0.00
11,200.0	90.39	3.61	9,237.6	2,151.6	135.7	2,155.9	0.00	0.00	0.00
11,300.0	90.39	3.61	9,236.9	2,251.4	142.0	2,255.9	0.00	0.00	0.00
11,400.0	90.39	3.61	9,236.2	2,351.2	148.3	2,355.9	0.00	0.00	0.00
11,500.0	90.39	3.61	9,235.6	2,451.0	154.6	2,455.9	0.00	0.00	0.00
11,600.0	90.39	3.61	9,234.9	2,550.8	160.9	2,555.9	0.00	0.00	0.00
11,700.0	90.39	3.61	9,234.2	2,650.6	167.2	2,655.9	0.00	0.00	0.00
11,800.0	90.39	3.61	9,233.5	2,750.4	173.5	2,755.9	0.00	0.00	0.00
11,900.0	90.39	3.61	9,232.8	2,850.2	179.8	2,855.9	0.00	0.00	0.00
12,000.0	90.39	3.61	9,232.2	2,950.0	186.1	2,955.9	0.00	0.00	0.00
12,100.0	90.39	3.61	9,231.5	3,049.8	192.4	3,055.9	0.00	0.00	0.00
12,200.0	90.39	3.61	9,230.8	3,149.6	198.7	3,155.9	0.00	0.00	0.00
12,300.0	90.39	3.61	9,230.1	3,249.4	205.0	3,255.9	0.00	0.00	0.00
12,400.0	90.39	3.61	9,229.4	3,349.2	211.3	3,355.9	0.00	0.00	0.00
12,500.0	90.39	3.61	9,228.7	3,449.0	217.6	3,455.9	0.00	0.00	0.00
12,600.0	90.39	3.61	9,228.1	3,548.8	223.9	3,555.9	0.00	0.00	0.00
12,700.0	90.39	3.61	9,227.4	3,648.6	230.2	3,655.9	0.00	0.00	0.00
12,800.0	90.39	3.61	9,226.7	3,748.4	236.5	3,755.9	0.00	0.00	0.00
12,900.0	90.39	3.61	9,226.0	3,848.2	242.8	3,855.9	0.00	0.00	0.00
13,000.0	90.39	3.61	9,225.3	3,948.0	249.1	3,955.9	0.00	0.00	0.00
13,100.0	90.39	3.61	9,224.7	4,047.8	255.4	4,055.9	0.00	0.00	0.00
13,200.0	90.39	3.61	9,224.0	4,147.6	261.7	4,155.9	0.00	0.00	0.00
13,300.0	90.39	3.61	9,223.3	4,247.4	268.0	4,255.9	0.00	0.00	0.00
13,400.0	90.39	3.61	9,222.6	4,347.2	274.3	4,355.8	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well #4H
Company:	BTA Oil Producers LLC.	**TVD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Project:	Lea County, NM	**MD Reference:**	WELL @ 3248.4usft (Original Well Elev)
Site:	8115 JV-P Mesa B	**North Reference:**	Grid
Well:	#4H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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	90.39	3.61	9,221.9	4,447.0	280.6	4,455.8	0.00	0.00	0.00
13,600.0	90.39	3.61	9,221.3	4,546.8	286.9	4,555.8	0.00	0.00	0.00
13,700.0	90.39	3.61	9,220.6	4,646.6	293.2	4,655.8	0.00	0.00	0.00
13,800.0	90.39	3.61	9,219.9	4,746.4	299.5	4,755.8	0.00	0.00	0.00
13,811.7	90.39	3.61	9,219.8	4,758.1	300.2	4,767.5	0.00	0.00	0.00
TD at 13811.7 - PBHL(JVP#4)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL(JVP#4)	0.00	0.00	9,220.0	4,758.1	299.8	387,848.60	723,362.30	32° 3' 51.336 N	103° 36' 44.289 W
- plan misses target center by 0.4usft at 13811.7usft MD (9219.8 TVD, 4758.1 N, 300.2 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,771.5	8,771.5	0.0	0.0	KOP - 8771.5 'MD, 0.00° INC, 0.00° AZI
9,524.8	9,249.0	479.8	30.3	EOC- 9524.8 'MD, 90.39° INC, 3.61° AZI
13,811.7	9,219.8	4,758.1	300.2	TD at 13811.7

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BTA Oil Producers
LEASE NO.:	NM59398
WELL NAME & NO.:	4H-8115 JV-P Mesa B Com
SURFACE HOLE FOOTAGE:	190'/S & 1880'/W
BOTTOM HOLE FOOTAGE	330'/N & 2180'/W
LOCATION:	Sec. 7, T. 26 S., R. 33 E.
COUNTY:	Eddy County, New Mexico
API:	30-025-42127

The original COAs still stand with the following drilling modifications:

I. DRILLING

A. DRILLING OPERATIONS 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)

☒ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 393-3612

1. **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.**

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. 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 is located, this does not include the dog house or stairway area.

4. **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.**

B. CASING

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **840** feet (**in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt**) and cemented to the surface. **Fresh water mud to be used to setting depth.**

    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 is to include the lead cement slurry.

    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.

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 lead cement slurry due to cave/karst.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Centralizers required through the curve, a minimum of one every other joint.

Pilot hole is required to have a plug at the bottom of the hole. When multiple plugs are set, the BLM is to be contacted (575-393-3612) prior to tag of bottom plug, which must be a minimum of 200' in length.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Operator has proposed DV tool at depth of 6900'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. 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.

C. 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. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **5000 (5M)** psi. **5M 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.**

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. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

   c. 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.

   d. The results of the test shall be reported to the appropriate BLM office.

   e. 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.**

   f. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. 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.

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