

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

David R. Catanach
Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 9-18-14

Well information;

Operator Huntington, Well Name and Number CLU 2506-06 #2H

API# 30-039-31297, Section 5, Township 25 (N/S), Range 6 (E/W)

Conditions of Approval:

(See the below checked and handwritten conditions)

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☒ Hold C-104 for (NSL) NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☐ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ 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
- ☒ Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- ☒ 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.
- ☒ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charles L. Deane
NMOCD Approved by Signature

1-7-2015
Date
KC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMSF078883

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
CLU 2506 6 #2H

9. API Well No.

30-039-31297

10. Field and Pool, or Exploratory
Devil's Fork Gallup

11. Sec., T. R. M. or Blk and Survey or Area
SHL: Sec 5-T25N-R6W
BHL: Sec 6-T25N-R6W

12. County or Parish
Rio Arriba

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 Huntington Energy, L.L.C.

3a. Address 908 N.W. 71st St.
Oklahoma City, OK 73116

3b. Phone No. (include area code)
405-840-9876

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

At surface NWSW, Lot L, 2073' FSL & 70' FWL, Section 5

At proposed prod. zone SWNW, Lot 5, 1980' FNL & 330' FWL, Section 6

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

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any)

70'

16. No. of acres in lease
2560.83

2410.55

17. Spacing Unit dedicated to this well
640

645.21

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft.

19. Proposed Depth
11,500' MD

20. BLM/BIA Bond No. on file
NMB 000076

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6826' GL

22. Approximate date work will start*
03/01/2015

23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 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 required by the
BLM.

25. Signature Catherine Smith

Name (Printed/Typed)
Catherine Smith

Date
09/18/2014

Title
Regulatory

Approved by (Signature) [Signature]

Name (Printed/Typed)

Date
12/23/14

Title

Office
FFO

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)

This action is subject to technical
and procedural review pursuant to
43 CFR 3165.3 and appeal
pursuant to 43 CFR 3165.4

BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

*(Instructions on page 2)
DRILLING OPERATIONS
AUTHORIZED ARE SUBJECT TO
COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

OIL CONS. DIV DIST. 3

DEC 24 2014

AV
NMOCD

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-8181 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-31297	² Pool Code 17610	³ Pool Name DEVILS FORK GALLUP
⁴ Property Code 313617 314079	⁵ Property Name CLU 2506-6	⁶ Well Number 2H
⁷ OGRID No. 208706	⁸ Operator Name HUNTINGTON ENERGY	⁹ Elevation 6826'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	WEST/West line	County
L	5	25N	6W		2073'	SOUTH	70'	WEST	RIO ARriba

¹¹ Bottom Hole Location If Different From Surface

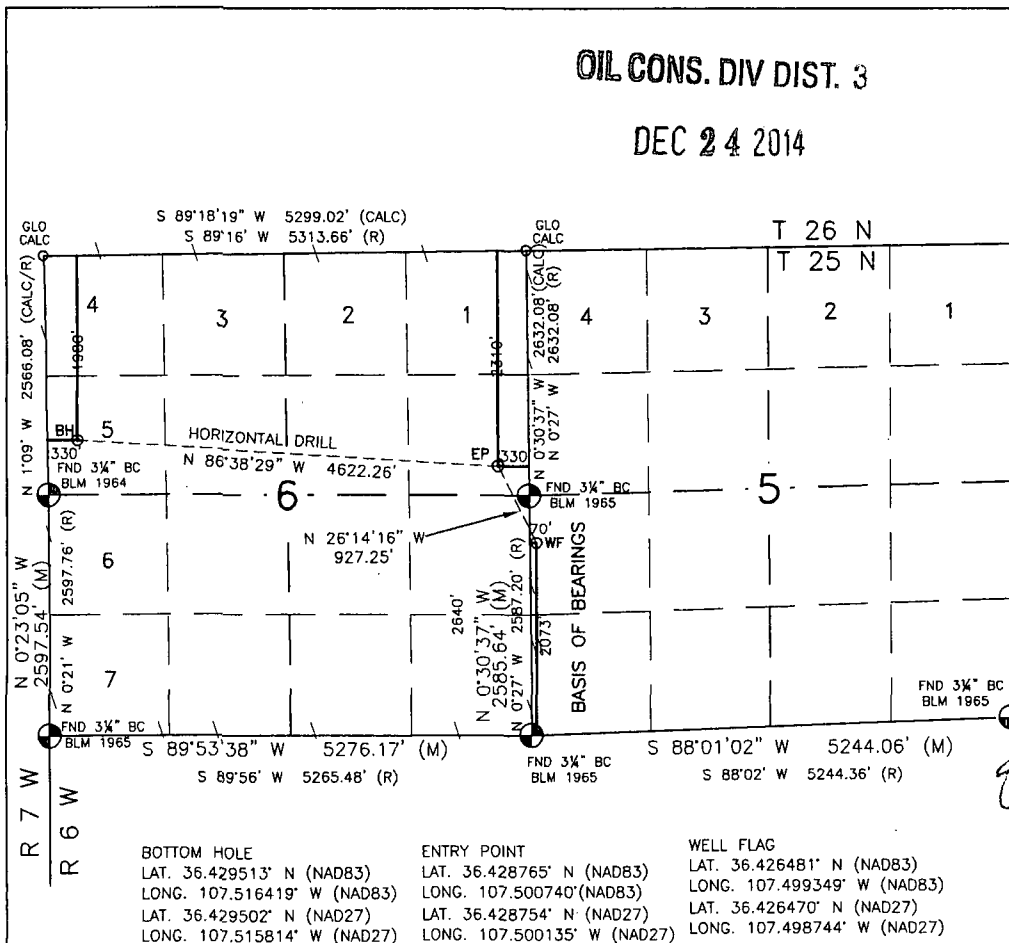
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	WEST/West line	County
E	6	25N	6W	5	1980'	NORTH	330'	WEST	RIO ARriba

¹² Dedicated Acres 645.21 640 Sec 6	PROJECT AREA	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OIL CONS. DIV DIST. 3

DEC 24 2014



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Catherine Smith 9/8/2014
Signature Date

Catherine Smith
Printed Name

csmith@huntingtonenergy.com
E-mail Address

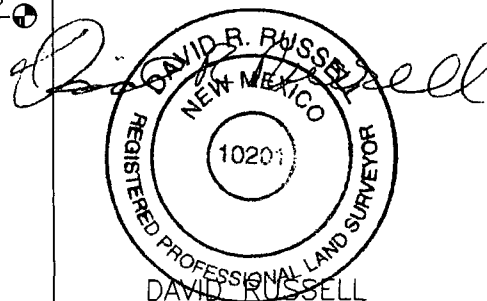
SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

FEBRUARY 14, 2014

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number 10201

Operations Plan

WELL NAME: CLU 2506 6 #2H

LOCATION: SHL: 2073' FSL, 70' FWL 25N-6W Sec. 5 Lot L
BHL: 1980' FNL, 330' FWL 25N-6W Sec. 6 Lot 5
Rio Arriba County, NM

ELEVATION: 6,826' GL
6,838' KB

GEOLOGICAL MARKERS:

<u>Formation Tops</u>	<u>MD</u>	<u>TVD</u>
San Jose	Surface	
Ojo Alamo	2,198'	Possible Water
Kirtland	2,390'	
Fruitland	2,757'	
Pictured Cliffs	2,858'	
Lewis Shale	3,110'	
Huerfanito Bentonite	3,259'	
Chacra	3,717'	
Cliffhouse	4,454'	
Menefee	4,504'	
Point Lookout	5,134'	
Mancos	5,338'	Oil/Gas
El Vado	6,158'	Oil/Gas
Target	TD 11,496'	6,478'

CASING AND CEMENTING PROGRAM:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>
12-1/4"	0 - 450'	9-5/8"	36.0#	J-55
8-3/4"	0 - 6,875'	7"	26.0#	N-80
6-1/8"	0 - 11,496'	4-1/2"	11.6#	P-110

CEMENTING:

Surface Casing - 9-5/8"

Cement to surface w/153 sacks Type III neat (37 bbls, 14.6 ppg).
WOC 8 hr. Prior to drilling out surface casing, test casing to 600 psi for 30 minutes.
10 Centralizers to be installed.

Intermediate Casing - 7"

Lead 610 sacks Premium Lite FM + 3% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 +0.4% bwoc FL-52A + 8% bwoc Bentonite +0.4% bwoc Sodium Metasilicate (232 bbls, 12.1 ppg)
Tail 235 sacks Type III Cement + 1% bwoc Calcium Chloride + 0.25 lbs/sack Cello Flake + 0.2% bwoc FL-52A (58 bbls, 14.6 ppg). Cement to surface.
60 Centralizers to be installed. WOC. Test casing to 1500 psi for 30 minutes.

Production Casing -

4-1/2"

Lead w/272 sacks Premium Lite High Strength + 0.7% bwoc R-3 + 3% bwoc Potassium Chloride + 0.5% bwoc CD-32 + 5 lbs/sack LCM-1 + 0.25 lbs/sack Cello Flake + 1.15% bwoc FL-52A (106 bbls, 12.5 ppg)
Tail w/ 85 sacks Premium Lite High Strength + 0.7% bwoc R-3 + 3% bwoc Potassium Chloride + 0.25 lbs/sack Cello Flake + 5 lbs/sack LCM-1 + 0.5% bwoc CD-32 + 1.15% bwoc FL-52A (27 bbls, 13.5 ppg). Est TOC @ 5300'. 60
Centralizers to be installed. WOC. Test csg to 1500 psi for 30 mins.

PRESSURE CONTROL EQUIPMENT:

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment

Pressure control configuration will be designed to meet and exceed 2M standards.

All equipment will have 3M pressure ratings

During stimulation stages a wellhead isolation sleeve (10,000 psi) will be used

DRILLING FLUIDS:

Mud Program:

<u>Depth Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>Invert Ratio</u>
0 - 450'	Spud	8.4 - 8.6	30 - 35	no control	
0 - 6,875'	LSND	9.0 - 10.5	38 - 42	8 - 12	
0 - 11,496'	LSND	8.5 - 9.5	36 - 40	< 1	

Closed Loop equipment will be utilized for solids control. A line cutting pit will be utilized for water based cuttings from upper hole sections. Cuttings from production hole will be hauled off to an approved disposal site.

PRESSURE AND HAZARDS:

No abnormal or temperatures are anticipated.

No hydrogen sulfide gas is expected on nearby well production.

Maximum bottom hole pressure will be +/- 2,200 psi

Anticipated Pore Pressures

Fruitland Coal	950 psi
Pictured Cliffs	1,030 psi
Mesaverde	1,680 psi
Gallup	2,200 psi

TESTS, LOGS, CORING:

Mud log - KOP to TD

Logs - GR/CCL during perforating stages

LWD - Gamma Ray, Resistivity

Cores & DST's - None

DIRECTIONAL PLAN:

The wellbore directional plan and survey plat (C-102) are attached.

The production hole will be landed and drilled within the target formation horizontally utilizing LWD equipment to help steer the wellbore. Adjustments will be made to the directional plan as formation and hole indicates during drilling.

OTHER INFORMATION:

- 1) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control
- 2) This gas is dedicated

Huntington Energy

Project: Rio Arriba (NM83C)
Site: Sec 5-T25N-R6W
Well: CLU 25-6-6 #2H
Wellbore: Wellbore #1
Design: 09-10-14



Azimuths to True North
Magnetic North: 9.35°

Magnetic Field
Strength: 50319.3nT
Dip Angle: 63.16°
Date: 2014/09/10
Model: IGRF2010



WELL DETAILS: CLU 25-6-6 #2H

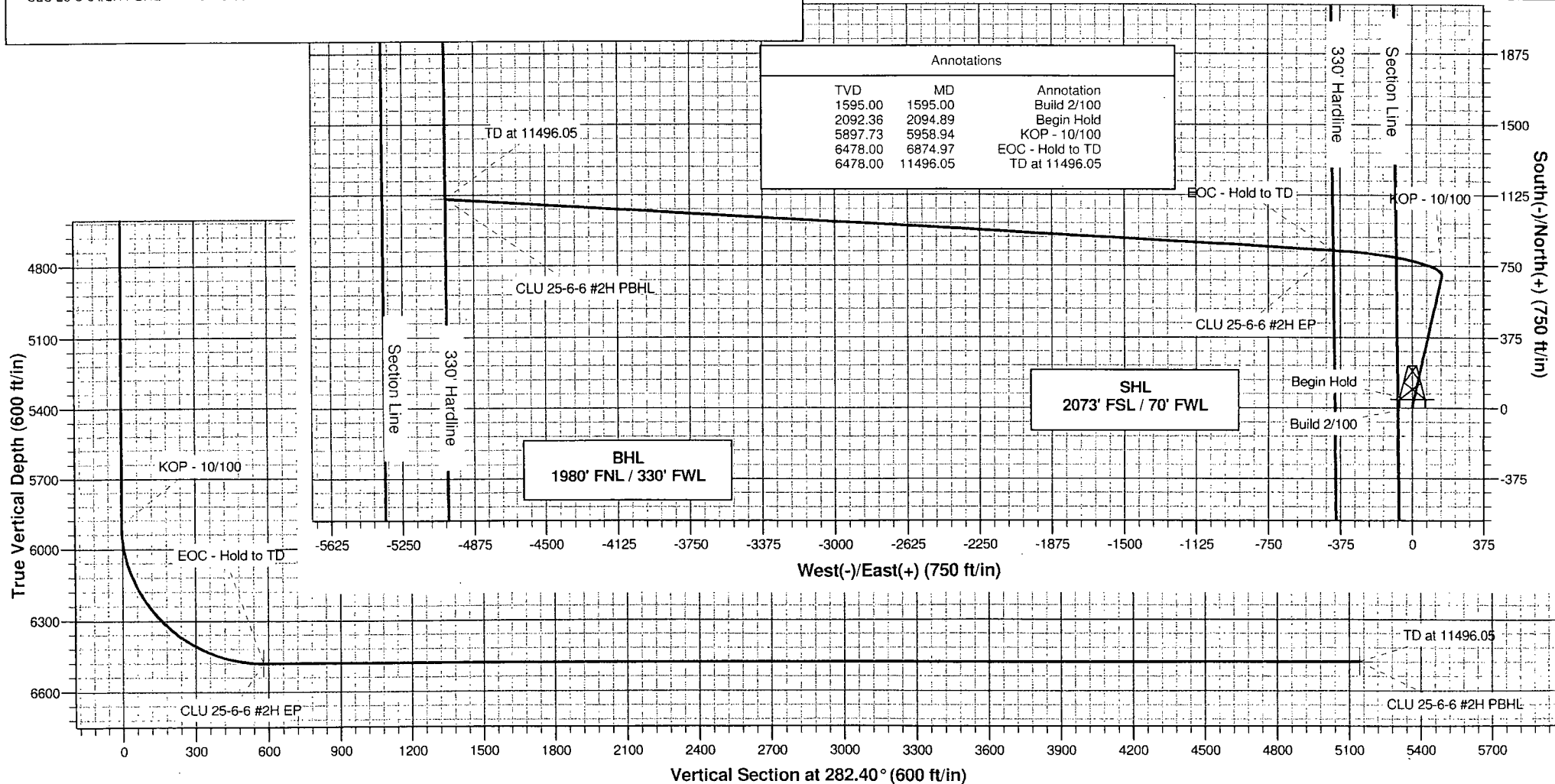
+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude
0.00	0.00	1976889.33	1272872.41	36.426481	-107.499349
SHL 2073' FSL / 70' FWL of Sec 5 BHL 1980' FNL / 330' FWL of Sec 6					

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
CLU 25-6-6 #2H EP	6478.00	831.57	-409.26	36.428765	-107.500740	Point
CLU 25-6-6 #2H PBHL	6478.00	1104.35	-5022.28	36.429513	-107.516419	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1595.00	0.00	0.00	1595.00	0.00	0.00	0.00	0.00	0.00	
3	2094.89	10.00	12.66	2092.36	42.45	9.53	2.00	12.66	-0.19	
4	5958.94	10.00	12.66	5897.73	696.98	156.52	0.00	0.00	-3.18	
5	6874.97	90.00	273.38	6478.00	831.57	-409.26	10.00	-99.13	578.30	CLU 25-6-6 #2H EP
6	11496.05	90.00	273.38	6478.00	1104.35	-5022.28	0.00	0.00	5142.27	CLU 25-6-6 #2H PBHL



Huntington Energy

Rio Arriba (NM83C)

Sec 5-T25N-R6W

CLU 25-6-6 #2H

Wellbore #1

Plan: 09-10-14

Standard Planning Report

10 September, 2014

Wolverine Directinal, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well CLU 25-6-6 #2H
Company:	Huntington Energy	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Rio Arriba (NM83C)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 5-T25N-R6W	North Reference:	True
Well:	CLU 25-6-6 #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	09-10-14		

Project:	Rio Arriba (NM83C)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site:	Sec 5-T25N-R6W		
Site Position:		Northing:	1,976,889.33ft
From:	Lat/Long	Easting:	1,272,872.41ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	36.426481
		Longitude:	-107.499349
		Grid Convergence:	-0.74 °

Well:	CLU 25-6-6 #2H		
Well Position	+N/-S	0.00 ft	Northing: 1,976,889.33 ft
	+E/-W	0.00 ft	Easting: 1,272,872.41ft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	36.426481
		Longitude:	-107.499349
		Ground Level:	0.00ft

Wellbore:	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2014/09/10	9.35	63.16	50,319

Design:	09-10-14		
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Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction (°)
			282.40

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (%/100ft)	Build Rate (%/100ft)	Turn Rate (%/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,595.00	0.00	0.00	1,595.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,094.89	10.00	12.66	2,092.36	42.45	9.53	2.00	2.00	0.00	12.66	
5,958.94	10.00	12.66	5,897.73	696.98	156.52	0.00	0.00	0.00	0.00	
6,874.97	90.00	273.38	6,478.00	831.57	-409.26	10.00	8.73	-10.84	-99.13	CLU 25-6-6 #2H EF
11,496.05	90.00	273.38	6,478.00	1,104.35	-5,022.28	0.00	0.00	0.00	0.00	CLU 25-6-6 #2H PE

Wolverine Directinal, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well CLU 25-6-6 #2H
Company:	Huntington Energy	TVD Reference:	WELL @ 0:00ft (Original Well Elev)
Project:	Rio Arriba (NM83C)	MD Reference:	WELL @ 0:00ft (Original Well Elev)
Site:	Sec 5-T25N-R6W	North Reference:	True
Well:	CLU 25-6-6 #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	09-10-14		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,595.00	0.00	0.00	1,595.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2/100									
1,600.00	0.10	12.66	1,600.00	0.00	0.00	0.00	2.00	2.00	0.00
1,700.00	2.10	12.66	1,699.98	1.88	0.42	-0.01	2.00	2.00	0.00
1,800.00	4.10	12.66	1,799.83	7.15	1.61	-0.03	2.00	2.00	0.00
1,900.00	6.10	12.66	1,899.42	15.83	3.55	-0.07	2.00	2.00	0.00
2,000.00	8.10	12.66	1,998.65	27.89	6.26	-0.13	2.00	2.00	0.00
2,094.89	10.00	12.66	2,092.36	42.45	9.53	-0.19	2.00	2.00	0.00
Begin Hold									
2,100.00	10.00	12.66	2,097.39	43.31	9.73	-0.20	0.00	0.00	0.00
2,200.00	10.00	12.66	2,195.87	60.25	13.53	-0.28	0.00	0.00	0.00
2,300.00	10.00	12.66	2,294.35	77.19	17.33	-0.35	0.00	0.00	0.00
2,400.00	10.00	12.66	2,392.83	94.13	21.14	-0.43	0.00	0.00	0.00
2,500.00	10.00	12.66	2,491.32	111.07	24.94	-0.51	0.00	0.00	0.00
2,600.00	10.00	12.66	2,589.80	128.01	28.75	-0.58	0.00	0.00	0.00
2,700.00	10.00	12.66	2,688.28	144.95	32.55	-0.66	0.00	0.00	0.00
2,800.00	10.00	12.66	2,786.76	161.89	36.35	-0.74	0.00	0.00	0.00
2,900.00	10.00	12.66	2,885.24	178.82	40.16	-0.82	0.00	0.00	0.00
3,000.00	10.00	12.66	2,983.72	195.76	43.96	-0.89	0.00	0.00	0.00
3,100.00	10.00	12.66	3,082.20	212.70	47.77	-0.97	0.00	0.00	0.00
3,200.00	10.00	12.66	3,180.69	229.64	51.57	-1.05	0.00	0.00	0.00
3,300.00	10.00	12.66	3,279.17	246.58	55.37	-1.13	0.00	0.00	0.00
3,400.00	10.00	12.66	3,377.65	263.52	59.18	-1.20	0.00	0.00	0.00
3,500.00	10.00	12.66	3,476.13	280.46	62.98	-1.28	0.00	0.00	0.00
3,600.00	10.00	12.66	3,574.61	297.40	66.79	-1.36	0.00	0.00	0.00
3,700.00	10.00	12.66	3,673.09	314.34	70.59	-1.43	0.00	0.00	0.00
3,800.00	10.00	12.66	3,771.57	331.28	74.39	-1.51	0.00	0.00	0.00
3,900.00	10.00	12.66	3,870.06	348.22	78.20	-1.59	0.00	0.00	0.00
4,000.00	10.00	12.66	3,968.54	365.16	82.00	-1.67	0.00	0.00	0.00
4,100.00	10.00	12.66	4,067.02	382.09	85.80	-1.74	0.00	0.00	0.00
4,200.00	10.00	12.66	4,165.50	399.03	89.61	-1.82	0.00	0.00	0.00
4,300.00	10.00	12.66	4,263.98	415.97	93.41	-1.90	0.00	0.00	0.00
4,400.00	10.00	12.66	4,362.46	432.91	97.22	-1.98	0.00	0.00	0.00
4,500.00	10.00	12.66	4,460.94	449.85	101.02	-2.05	0.00	0.00	0.00
4,600.00	10.00	12.66	4,559.43	466.79	104.82	-2.13	0.00	0.00	0.00
4,700.00	10.00	12.66	4,657.91	483.73	108.63	-2.21	0.00	0.00	0.00
4,800.00	10.00	12.66	4,756.39	500.67	112.43	-2.29	0.00	0.00	0.00
4,900.00	10.00	12.66	4,854.87	517.61	116.24	-2.36	0.00	0.00	0.00

Wolverine Directinal, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well: CLU/25-6-6 #2H
Company:	Huntington Energy	TVD Reference:	WELL @ 0:00ft (Original Well Elev)
Project:	Rio Arriba (NM83C)	MD Reference:	WELL @ 0:00ft (Original Well Elev)
Site:	Sec 5-T25N-R6W	North Reference:	True
Well:	CLU 25-6-6 #2H	Survey/Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	09-10-14		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.00	10.00	12.66	4,953.35	534.55	120.04	-2.44	0.00	0.00	0.00
5,100.00	10.00	12.66	5,051.83	551.49	123.84	-2.52	0.00	0.00	0.00
5,200.00	10.00	12.66	5,150.31	568.43	127.65	-2.59	0.00	0.00	0.00
5,300.00	10.00	12.66	5,248.80	585.36	131.45	-2.67	0.00	0.00	0.00
5,400.00	10.00	12.66	5,347.28	602.30	135.26	-2.75	0.00	0.00	0.00
5,500.00	10.00	12.66	5,445.76	619.24	139.06	-2.83	0.00	0.00	0.00
5,600.00	10.00	12.66	5,544.24	636.18	142.86	-2.90	0.00	0.00	0.00
5,700.00	10.00	12.66	5,642.72	653.12	146.67	-2.98	0.00	0.00	0.00
5,800.00	10.00	12.66	5,741.20	670.06	150.47	-3.06	0.00	0.00	0.00
5,900.00	10.00	12.66	5,839.68	687.00	154.28	-3.14	0.00	0.00	0.00
5,958.94	10.00	12.66	5,897.73	696.98	156.52	-3.18	0.00	0.00	0.00
KOP - 10/100									
6,000.00	10.18	349.08	5,938.17	704.03	156.61	-1.76	10.00	0.44	-57.43
6,050.00	12.38	325.85	5,987.23	712.80	152.76	3.88	10.00	4.39	-46.46
6,100.00	15.88	311.09	6,035.72	721.74	144.59	13.78	10.00	7.01	-29.52
6,150.00	20.02	301.91	6,083.29	730.76	132.17	27.86	10.00	8.28	-18.36
6,200.00	24.47	295.86	6,129.56	739.81	115.57	46.00	10.00	8.90	-12.10
6,250.00	29.09	291.61	6,174.19	748.81	94.94	68.09	10.00	9.24	-8.51
6,300.00	33.81	288.44	6,216.84	757.69	70.43	93.94	10.00	9.44	-6.33
6,350.00	38.59	285.98	6,257.18	766.39	42.22	123.35	10.00	9.57	-4.93
6,400.00	43.42	283.98	6,294.90	774.84	10.53	156.12	10.00	9.65	-3.99
6,450.00	48.28	282.31	6,329.72	782.97	-24.39	191.97	10.00	9.71	-3.34
6,500.00	53.15	280.88	6,361.37	790.73	-62.29	230.66	10.00	9.75	-2.87
6,550.00	58.04	279.62	6,389.61	798.05	-102.88	271.87	10.00	9.78	-2.52
6,600.00	62.94	278.48	6,414.23	804.88	-145.84	315.29	10.00	9.80	-2.27
6,650.00	67.85	277.44	6,435.04	811.17	-190.85	360.60	10.00	9.82	-2.08
6,700.00	72.77	276.48	6,451.88	816.87	-237.56	407.45	10.00	9.83	-1.94
6,750.00	77.69	275.56	6,464.63	821.93	-285.63	455.48	10.00	9.84	-1.83
6,800.00	82.61	274.68	6,473.17	826.32	-334.68	504.33	10.00	9.85	-1.77
6,850.00	87.54	273.81	6,477.46	830.01	-384.34	553.63	10.00	9.85	-1.73
6,874.97	90.00	273.38	6,478.00	831.57	-409.26	578.30	10.00	9.85	-1.72
EOC - Hold to TD									
6,900.00	90.00	273.38	6,478.00	833.05	-434.24	603.02	0.00	0.00	0.00
7,000.00	90.00	273.38	6,478.00	838.95	-534.07	701.78	0.00	0.00	0.00
7,100.00	90.00	273.38	6,478.00	844.86	-633.89	800.54	0.00	0.00	0.00
7,200.00	90.00	273.38	6,478.00	850.76	-733.72	899.31	0.00	0.00	0.00
7,300.00	90.00	273.38	6,478.00	856.66	-833.55	998.07	0.00	0.00	0.00
7,400.00	90.00	273.38	6,478.00	862.56	-933.37	1,096.84	0.00	0.00	0.00
7,500.00	90.00	273.38	6,478.00	868.47	-1,033.20	1,195.60	0.00	0.00	0.00
7,600.00	90.00	273.38	6,478.00	874.37	-1,133.02	1,294.36	0.00	0.00	0.00
7,700.00	90.00	273.38	6,478.00	880.27	-1,232.85	1,393.13	0.00	0.00	0.00
7,800.00	90.00	273.38	6,478.00	886.18	-1,332.67	1,491.89	0.00	0.00	0.00
7,900.00	90.00	273.38	6,478.00	892.08	-1,432.50	1,590.66	0.00	0.00	0.00
8,000.00	90.00	273.38	6,478.00	897.98	-1,532.33	1,689.42	0.00	0.00	0.00
8,100.00	90.00	273.38	6,478.00	903.88	-1,632.15	1,788.19	0.00	0.00	0.00
8,200.00	90.00	273.38	6,478.00	909.79	-1,731.98	1,886.95	0.00	0.00	0.00
8,300.00	90.00	273.38	6,478.00	915.69	-1,831.80	1,985.71	0.00	0.00	0.00
8,400.00	90.00	273.38	6,478.00	921.59	-1,931.63	2,084.48	0.00	0.00	0.00
8,500.00	90.00	273.38	6,478.00	927.50	-2,031.45	2,183.24	0.00	0.00	0.00
8,600.00	90.00	273.38	6,478.00	933.40	-2,131.28	2,282.01	0.00	0.00	0.00
8,700.00	90.00	273.38	6,478.00	939.30	-2,231.10	2,380.77	0.00	0.00	0.00
8,800.00	90.00	273.38	6,478.00	945.20	-2,330.93	2,479.53	0.00	0.00	0.00
8,900.00	90.00	273.38	6,478.00	951.11	-2,430.76	2,578.30	0.00	0.00	0.00
9,000.00	90.00	273.38	6,478.00	957.01	-2,530.58	2,677.06	0.00	0.00	0.00

Wolverine Directinal, LLC

Planning Report

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well CLU 25-6-6 #2H
Company:	Huntington Energy	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Rio Arriba (NM83C)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Sec 5-T25N-R6W	North Reference:	True
Well:	CLU 25-6-6 #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	09-10-14		

Planned Survey									
Measured Depth (ft)	Inclination (%)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,100.00	90.00	273.38	6,478.00	962.91	-2,630.41	2,775.83	0.00	0.00	0.00
9,200.00	90.00	273.38	6,478.00	968.82	-2,730.23	2,874.59	0.00	0.00	0.00
9,300.00	90.00	273.38	6,478.00	974.72	-2,830.06	2,973.35	0.00	0.00	0.00
9,400.00	90.00	273.38	6,478.00	980.62	-2,929.88	3,072.12	0.00	0.00	0.00
9,500.00	90.00	273.38	6,478.00	986.52	-3,029.71	3,170.88	0.00	0.00	0.00
9,600.00	90.00	273.38	6,478.00	992.43	-3,129.54	3,269.65	0.00	0.00	0.00
9,700.00	90.00	273.38	6,478.00	998.33	-3,229.36	3,368.41	0.00	0.00	0.00
9,800.00	90.00	273.38	6,478.00	1,004.23	-3,329.19	3,467.17	0.00	0.00	0.00
9,900.00	90.00	273.38	6,478.00	1,010.14	-3,429.01	3,565.94	0.00	0.00	0.00
10,000.00	90.00	273.38	6,478.00	1,016.04	-3,528.84	3,664.70	0.00	0.00	0.00
10,100.00	90.00	273.38	6,478.00	1,021.94	-3,628.66	3,763.47	0.00	0.00	0.00
10,200.00	90.00	273.38	6,478.00	1,027.84	-3,728.49	3,862.23	0.00	0.00	0.00
10,300.00	90.00	273.38	6,478.00	1,033.75	-3,828.31	3,961.00	0.00	0.00	0.00
10,400.00	90.00	273.38	6,478.00	1,039.65	-3,928.14	4,059.76	0.00	0.00	0.00
10,500.00	90.00	273.38	6,478.00	1,045.55	-4,027.97	4,158.52	0.00	0.00	0.00
10,600.00	90.00	273.38	6,478.00	1,051.46	-4,127.79	4,257.29	0.00	0.00	0.00
10,700.00	90.00	273.38	6,478.00	1,057.36	-4,227.62	4,356.05	0.00	0.00	0.00
10,800.00	90.00	273.38	6,478.00	1,063.26	-4,327.44	4,454.82	0.00	0.00	0.00
10,900.00	90.00	273.38	6,478.00	1,069.17	-4,427.27	4,553.58	0.00	0.00	0.00
11,000.00	90.00	273.38	6,478.00	1,075.07	-4,527.09	4,652.34	0.00	0.00	0.00
11,100.00	90.00	273.38	6,478.00	1,080.97	-4,626.92	4,751.11	0.00	0.00	0.00
11,200.00	90.00	273.38	6,478.00	1,086.87	-4,726.75	4,849.87	0.00	0.00	0.00
11,300.00	90.00	273.38	6,478.00	1,092.78	-4,826.57	4,948.64	0.00	0.00	0.00
11,400.00	90.00	273.38	6,478.00	1,098.68	-4,926.40	5,047.40	0.00	0.00	0.00
11,496.05	90.00	273.38	6,478.00	1,104.35	-5,022.28	5,142.26	0.00	0.00	0.00
TD at 11496.05									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,595.00	1,595.00	0.00	0.00	Build 2/100
2,094.89	2,092.36	42.45	9.53	Begin Hold
5,958.94	5,897.73	696.98	156.52	KOP - 10/100
6,874.97	6,478.00	831.57	-409.26	EOC - Hold to TD
11,496.05	6,478.00	1,104.35	-5,022.28	TD at 11496.05

- c. Trenching activity would be conducted using a trencher or backhoe. Where a pipeline trench would be required, it would be 4 to 5 feet in depth. The trench would be 16 inches in width if a trencher is used or 24 inches in width if a backhoe is used.
- d. After trenching and pipe placement in the trench, the soils excavated from the trench would be returned and compacted to prevent subsidence. The trench would be compacted after approximately 2 feet of fill is placed within the trench and after the ground surface has been leveled.
- e. Construction of the pipeline will take approximately 1 week.

G. Methods for Handling Waste Disposal:

- 1. Cuttings - The drill cuttings will be placed in steel bins. After drilling, cuttings will be disposed of at the appropriate waste disposal facility.
- 2. Drilling Fluids
 - a. Drilling fluids will be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids will be recycled and transferred to other permitted locations or returned to the vendor for re-use, as practical. Residual fluids will be vacuumed from the storage tanks and disposed of at an appropriate waste disposal facility.
 - b. Drilling fluid storage tanks will be adequately sized to ensure confinement of all fluids and will provide sufficient freeboard to prevent uncontrolled releases.
- 3. Flowback Water
 - a. The water-based solution that flows back to the surface during and after completion operations will be placed in storage tanks on location.
 - b. Flowback water will be confined to a storage tank for a period not to exceed 90 days after initial production and will be disposed of at Basin Disposal, Inc. and/or Industrial Ecosystem, Inc. waste disposal facilities, or recycled.
- 4. Spills - any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.
- 5. Sewage - self-contained, chemical toilets will be provided for human waste disposal. The toilet holding tanks will be pumped, as needed, and the contents thereof disposed of in an approved sewage disposal facility. The toilets will be onsite during all operations.

HUNTINGTON ENERGY

CLU 25-6-6 #2H
2073' FSL & 70' FWL
LOCATED IN THE NW/4 SW/4 OF SECTION 5,
T25N, R6W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO

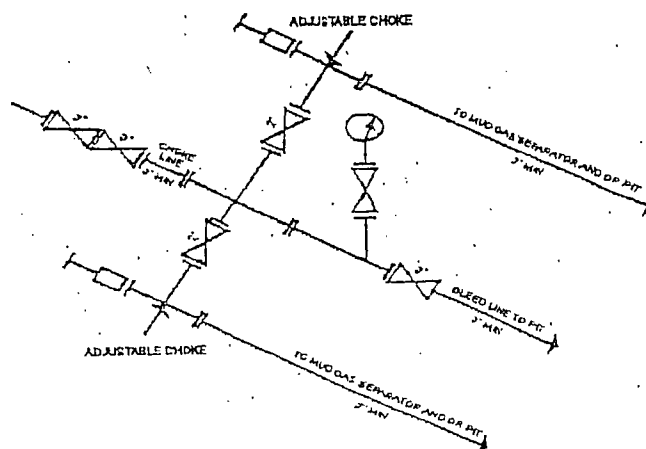
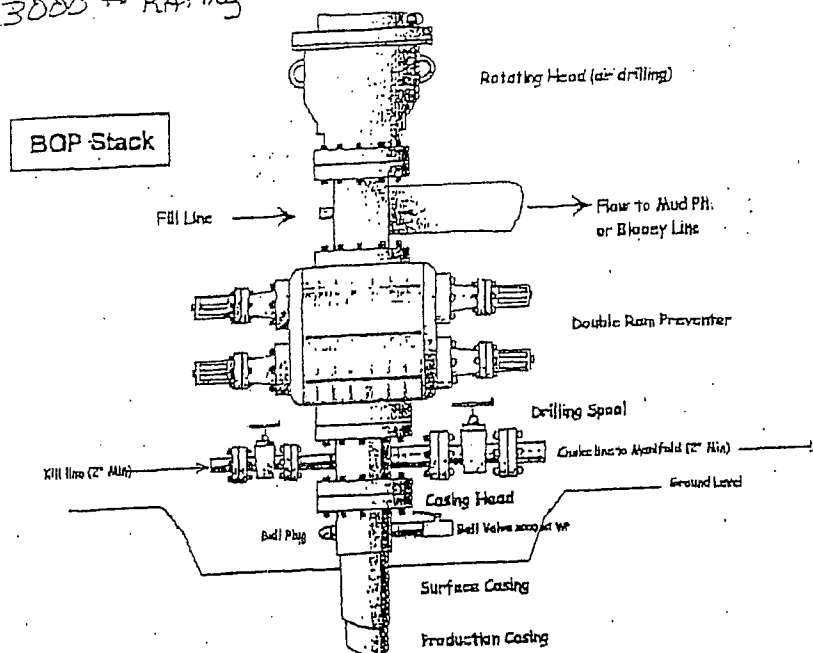
DIRECTIONS

- 1) FROM THE BLANCO TRADING POST OFFICE, GO 1.3 MILES EAST ON HWY 64 TO CR 4450.
- 2) TURN RIGHT AND GO 3.6 MILES TO INTERSECTION.
- 3) TURN RIGHT AND CROSS BRIDGE, TRAVEL 21.8 MILES SOUTH ALONG LARGO CANYON TO OLD SCHOOL HOUSE.
- 4) TURN RIGHT AND TRAVEL 2.5 MILES TO "Y" INTERSECTION.
- 5) STAY RIGHT AND GO 2.2 MILES.
- 6) TURN LEFT AND HEAD UP THE MESA, TRAVELING 4.3 MILES TO CROSS ROADS.
- 7) TURN RIGHT AND GO 0.5 MILES TO "Y" INTERSECTION.
- 8) TURN RIGHT AND GO 1.7 MILES WHERE ACCESS IS STAKED ON LEFT SIDE OF ROAD.

WELL FLAG LOCATED AT LAT. 36.426481° N, LONG. 107.499349° W (NAD 83).



3000 # RATINGS



3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY
[54 FR 39524, Sep. 27, 1989]