State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
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: 12/20/2016
Well information;
Operator WPX, Well Name and Number W Lybrook UT 736H

API# 30-045-35821, Section 28, Township 23 N/S, Range 9 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
- o Hold C-104 for NSL, NSP, DHC
- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o 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
- o 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
- o Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ✓ 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.

Chad Hus
NMOCD Approved by Signature

6-12-2017
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3441 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

Lease WPX
HBP unit
onsite - 9/30/15 + 6/16/16

NOS:
APDP:
MP: 5
SMA: BLM
BOND: B001576
CA/PA: NM135216A

10400008937
ATS-F010-17-35

Form 3160-3
(March 2012)

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

5. Lease Serial No.
N0G14031939

6. If Indian, Allotee or Tribe Name
EASTERN NAVAJO

1a. Type of work: ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No.
INITIAL MANCOS PA / NMNM135216A

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

8. Lease Name and Well No.
W LYBROOK UT 736H

2. Name of Operator
WPX ENERGY LLC

9. API Well No.
30-045-35821

3a. Address
720 S Main Aztec NM 87410

3b. Phone No. *(include area code)*
(505)333-1822

10. Field and Pool, or Exploratory
W LYBROOK MANCOS W / LYBROOK I

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface C NENW / 181 FNL / 2377 FWL / LAT 36.204663 / LONG -107.795004
At proposed prod. zone B NWNE / 420 FNL / 1691 FEL / LAT 36.18955 / LONG -107.773062

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 28 / T23N / R9W / NMP

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

12. County or Parish
SAN JUAN

13. State
NM

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

16. No. of acres in lease
160

17. Spacing Unit dedicated to this well
960

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

19. Proposed Depth
1329 feet / 13170 feet

20. BLM/BIA Bond No. on file
FED: UTB000178 / IND: B001576

KP

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6534 feet

22. Approximate date work will start*
12/01/2016

23. Estimated duration
30 days

OIL CONS. DIV DIST. 3
JUN 01 2017

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	Name *(Printed/Typed)*	Date
(Electronic Submission)	Lacey Granillo / Ph: (505)333-1816	12/20/2016
Title: Permitting Tech III		
Approved by (Signature): Authorized Signature	Name *(Printed/Typed)*: ANTHONY A. GALLEGOS	Date: 6/1/17
Title: AFM-MINERALS	Office: FARMINGTON	

ACCEPTED FOR RECORD
DEC 20 2016
FARMINGTON FIELD OFFICE
BY:

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

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

(Continued on page 2)

*(Instructions on page 2)

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

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

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

NMOCD

POE SWSE NO814031939

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First Street, Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised August 1, 2011

Submit one copy to Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name	
30-015-35821	98157	LYBROOK MANCOS W	
[4] Property Code	[5] Property Name		[6] Well Number
315250	W LYBROOK UNIT		736H
[7] OGRID No.	[8] Operator Name		[9] Elevation
120782	WPX ENERGY PRODUCTION, LLC		6534'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	23N	9W		181	NORTH	2377	WEST	SAN JUAN

[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	East/West line	County
B	34	23N	9W		420	NORTH	1691	EAST	SAN JUAN

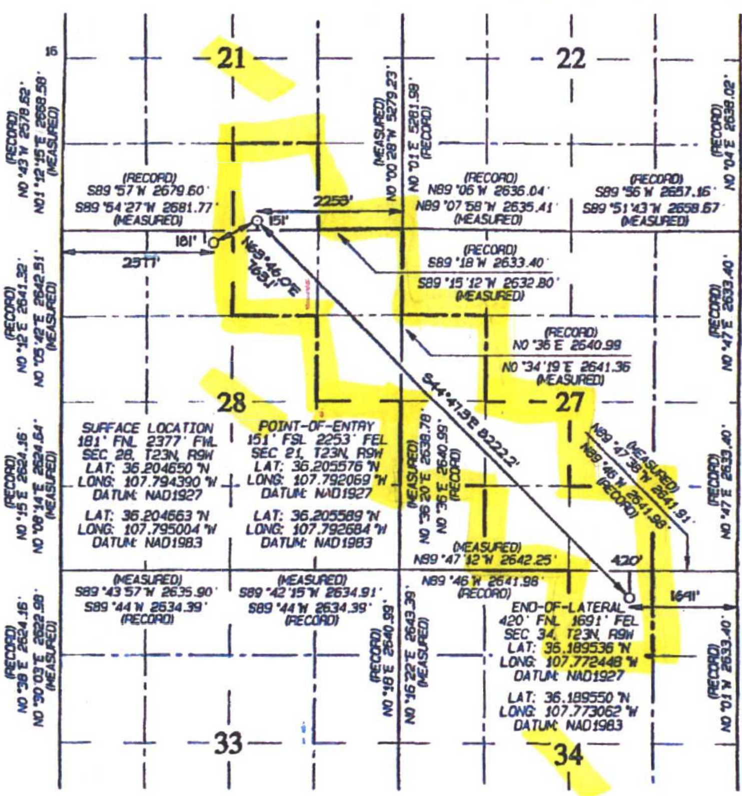
[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
400.0 NW/4 NE/4 - Section 34; SW/4 SE/4 - Section 21; N/2 NE/4, SE/4 NE/4 - Section 28; SW/4 NW/4, N/2 SW/4, SE/4 SW/4; SW/4 SE/4 - Section 27			R-14051 - 12,807.24 Acres

NM136267 NENW

NM57164 NWNE

NWNE Sec 28 NM118731

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



[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.

Signature: [signature] Date: 1/9/17

Printed Name

E-mail Address

[18] **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.

Date Revised: JANUARY 9, 2017
Survey Date: OCTOBER 2, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

Navajo Surface Federal Minerals

WPXENERGY

WPX Energy

Operations Plan

(Note: This procedure will be adjusted onsite based upon actual conditions)

Date:	**December 13, 2016**	**Field:**	**Lybrook Mancos W**
Well Name:	**W Lybrook Unit #736H**	**Surface:**	
SH Location:	**NENW Sec 28 23N-09W**	**Elevation:**	**6534' GR**
BH Location:	**NWNE Sec 34 23N-09W**	**Minerals:**	

Measured Depth: **13,170.22'**

I. **GEOLOGY:** SURFACE FORMATION - NACIMIENTO

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	83	83	POINT LOOKOUT	3231	3150
KIRTLAND	245	245	MANCOS	3412	3325
PICTURED CLIFFS	814	813	GALLUP	3764	3664
LEWIS	934	932	KICKOFF POINT	3,771.16	3,670.75
CHACRA	1119	1114	TOP TARGET	4709	4394
CLIFF HOUSE	2267	2221	LANDING POINT	4,947.36	4,435.00
MENEFEE	2284	2238	BASE TARGET	4,947.36	4,435.00
			TD	13,170.22	4,329.00

B. MUD LOGGING PROGRAM: Mudlogger on location from surface csg to TD.

C. LOGGING PROGRAM: LWD GR from surface casing to TD.

D. NATURAL GAUGES: Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

II. DRILLING

A. **MUD PROGRAM:** LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 ¾" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.

B. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes.** Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	4,947.36'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	4797.36' - 13,170.22'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 4797.36'	4.5"	11.6 LBS	P-110 or equiv	LTC

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.

2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. **A DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time.**

3. PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

C. CEMENTING:

(Note: Volumes may be adjusted onsite due to actual conditions)

1. Surface 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls).TOC at Surface.

2.Intermediate STAGE 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 88 bbls, 250 sks, (492 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 89 bbls, 385 sks, (500 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 195 bbl Drilling mud or water.
Total Cement: 177 bbls, 635 sks, (993 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 17 bbls, 48 sks, (94 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 16 bbls, 78 sks, (90 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 40 bbl Drilling mud or water.
Total Cement: 33 bbls, 126 sks, (184 cuft)

3. PROD. LINER: Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem ™ System. Yield 1.36 cuft/sk 13.3 ppg (820 sx /1116 cuft /199 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (820 sx /1116bbls).

I.

COMPLETION

A. **CBL**

Run CCL for perforating

A. **PRESSURE TEST**

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeves.

B. **STIMULATION**

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N2 for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

C. **RUNNING TUBING**

1. *Production Tubing:* Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner.

- If this horizontal well is drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC,will be entirely within the applicable setbacks . This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2)NMAC, and 19.15.16.15. B(4) NMAC.

NOTE:

Proposed Operations:

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).

WPX Energy

T23N R9W
2309-28C WLU
W Lybrook UT #736H - Slot A3

Wellbore #1

Plan: Design #1 18Dec15 sam

Standard Planning Report

12 January, 2016

WPX
Planning Report

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #736H (A3) - Slot A3
Company:	WPX Energy	**TVD Reference:**	GL @ 6534.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6534.00usft (Original Well Elev)
Site:	2309-28C WLU	**North Reference:**	True
Well:	W Lybrook UT #736H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Dec15 sam		

Project	T23N R9W		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	2309-28C WLU				
Site Position:		**Northing:**	1,893,736.25 usft	**Latitude:**	36.204650
From:	Map	**Easting:**	511,489.39 usft	**Longitude:**	-107.794390
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.02 °

Well	W Lybrook UT #736H - Slot A3					
Well Position	**+N/-S**	0.00 usft	**Northing:**	1,893,736.25 usft	**Latitude:**	36.204650
	+E/-W	0.00 usft	**Easting:**	511,489.39 usft	**Longitude:**	-107.794390
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,534.00 usft

Wellbore	Wellbore #1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	12/18/2015	9.36	62.89	49,885

Design	Design #1 18Dec15 sam				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (bearing)**	
	0.00	0.00	0.00	130.35	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	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	
1,275.87	15.52	9.55	1,266.42	102.98	17.32	2.00	2.00	0.00	9.55	
3,771.16	15.52	9.55	3,670.75	761.30	128.05	0.00	0.00	0.00	0.00	
4,545.82	60.00	135.23	4,319.76	605.63	418.17	9.00	5.74	16.22	131.42	Start 60 Tan #736H
4,605.82	60.00	135.23	4,349.76	568.74	454.76	0.00	0.00	0.00	0.00	End 60 Tan #736H
4,773.61	75.10	135.23	4,413.65	458.96	563.65	9.00	9.00	0.00	0.00	
4,947.36	90.74	135.23	4,435.00	336.92	684.70	9.00	9.00	0.00	0.00	POE #736H
13,170.22	90.74	135.23	4,329.00	-5,500.81	6,474.78	0.00	0.00	0.00	0.00	BHL #736H

WPX
Planning Report

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #736H (A3) - Slot A3
Company:	WPX Energy	**TVD Reference:**	GL @ 6534.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6534.00usft (Original Well Elev)
Site:	2309-28C WLU	**North Reference:**	True
Well:	W Lybrook UT #736H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Dec15 sam		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	10.00	9.55	997.47	42.92	7.22	-22.29	2.00	2.00	0.00
1,275.87	15.52	9.55	1,266.42	102.98	17.32	-53.47	2.00	2.00	0.00
Hold 15.52 Inclination									
1,500.00	15.52	9.55	1,482.38	162.11	27.27	-84.18	0.00	0.00	0.00
2,000.00	15.52	9.55	1,964.15	294.02	49.45	-152.68	0.00	0.00	0.00
2,500.00	15.52	9.55	2,445.93	425.93	71.64	-221.18	0.00	0.00	0.00
3,000.00	15.52	9.55	2,927.70	557.85	93.83	-289.68	0.00	0.00	0.00
3,500.00	15.52	9.55	3,409.48	689.76	116.02	-358.18	0.00	0.00	0.00
3,771.16	15.52	9.55	3,670.75	761.30	128.05	-395.32	0.00	0.00	0.00
Start Build DLS 9.00 TFO 131.42									
4,000.00	15.37	93.88	3,893.74	789.74	163.78	-386.51	9.00	-0.06	36.85
4,500.00	55.99	134.08	4,295.48	632.94	390.54	-112.17	9.00	8.12	8.04
4,545.82	60.00	135.23	4,319.76	605.63	418.17	-73.43	9.00	8.74	2.51
Hold 60.00 Inclination									
4,605.82	60.00	135.23	4,349.76	568.74	454.76	-21.66	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
4,773.61	75.10	135.23	4,413.65	458.96	563.65	132.40	9.00	9.00	0.00
Start DLS 9.00 TFO 0.00									
4,947.00	90.71	135.23	4,435.00	337.17	684.44	303.31	9.00	9.00	0.00
7"									
4,947.36	90.74	135.23	4,435.00	336.92	684.70	303.67	9.00	9.00	0.00
POE at 90.74 Inc 135.23 Deg									
5,000.00	90.74	135.23	4,434.32	299.54	721.76	356.11	0.00	0.00	0.00
5,500.00	90.74	135.23	4,427.88	-55.43	1,073.84	854.26	0.00	0.00	0.00
6,000.00	90.74	135.23	4,421.43	-410.40	1,425.91	1,352.40	0.00	0.00	0.00
6,500.00	90.74	135.23	4,414.99	-765.37	1,777.98	1,850.54	0.00	0.00	0.00
7,000.00	90.74	135.23	4,408.54	-1,120.34	2,130.05	2,348.68	0.00	0.00	0.00
7,500.00	90.74	135.23	4,402.09	-1,475.30	2,482.13	2,846.83	0.00	0.00	0.00
8,000.00	90.74	135.23	4,395.65	-1,830.27	2,834.20	3,344.97	0.00	0.00	0.00
8,500.00	90.74	135.23	4,389.20	-2,185.24	3,186.27	3,843.11	0.00	0.00	0.00
9,000.00	90.74	135.23	4,382.76	-2,540.21	3,538.34	4,341.26	0.00	0.00	0.00
9,500.00	90.74	135.23	4,376.31	-2,895.18	3,890.42	4,839.40	0.00	0.00	0.00
10,000.00	90.74	135.23	4,369.87	-3,250.15	4,242.49	5,337.54	0.00	0.00	0.00
10,500.00	90.74	135.23	4,363.42	-3,605.12	4,594.56	5,835.69	0.00	0.00	0.00
11,000.00	90.74	135.23	4,356.98	-3,960.09	4,946.64	6,333.83	0.00	0.00	0.00
11,500.00	90.74	135.23	4,350.53	-4,315.06	5,298.71	6,831.97	0.00	0.00	0.00
12,000.00	90.74	135.23	4,344.09	-4,670.03	5,650.78	7,330.11	0.00	0.00	0.00
12,500.00	90.74	135.23	4,337.64	-5,025.00	6,002.85	7,828.26	0.00	0.00	0.00
13,000.00	90.74	135.23	4,331.19	-5,379.97	6,354.93	8,326.40	0.00	0.00	0.00
13,170.22	90.74	135.23	4,329.00	-5,500.81	6,474.78	8,495.98	0.00	0.00	0.00
TD at 13170.21									

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #736H (A3) - Slot A3
Company:	WPX Energy	**TVD Reference:**	GL @ 6534.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6534.00usft (Original Well Elev)
Site:	2309-28C WLU	**North Reference:**	True
Well:	W Lybrook UT #736H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 18Dec15 sam		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 Tan #736H - plan hits target center - Point	0.00	0.00	4,319.76	605.63	418.17	1,894,342.05	511,907.32	36.206314	-107.792973
BHL #736H - plan hits target center - Point	0.00	0.00	4,329.00	-5,500.81	6,474.78	1,888,238.04	517,966.38	36.189536	-107.772448
End 60 Tan #736H - plan hits target center - Point	0.00	0.00	4,349.76	568.74	454.76	1,894,305.17	511,943.92	36.206213	-107.792849
POE #736H - plan hits target center - Point	0.00	0.00	4,435.00	336.92	684.70	1,894,073.44	512,173.95	36.205576	-107.792069

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
320.00	320.00	9 5/8"	9.625	12.250
4,947.00	4,435.00	7"	7.000	8.750

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Start Build 2.00
1,275.87	1,266.42	102.98	17.32	Hold 15.52 Inclination
3,771.16	3,670.75	761.30	128.05	Start Build DLS 9.00 TFO 131.42
4,545.82	4,319.76	605.63	418.17	Hold 60.00 Inclination
4,605.82	4,349.76	568.74	454.76	Start Build DLS 9.00 TFO 0.00
4,773.61	4,413.65	458.96	563.65	Start DLS 9.00 TFO 0.00
4,947.36	4,435.00	336.92	684.70	POE at 90.74 Inc 135.23 Deg
13,170.22	4,329.00	-5,500.81	6,474.78	TD at 13170.21

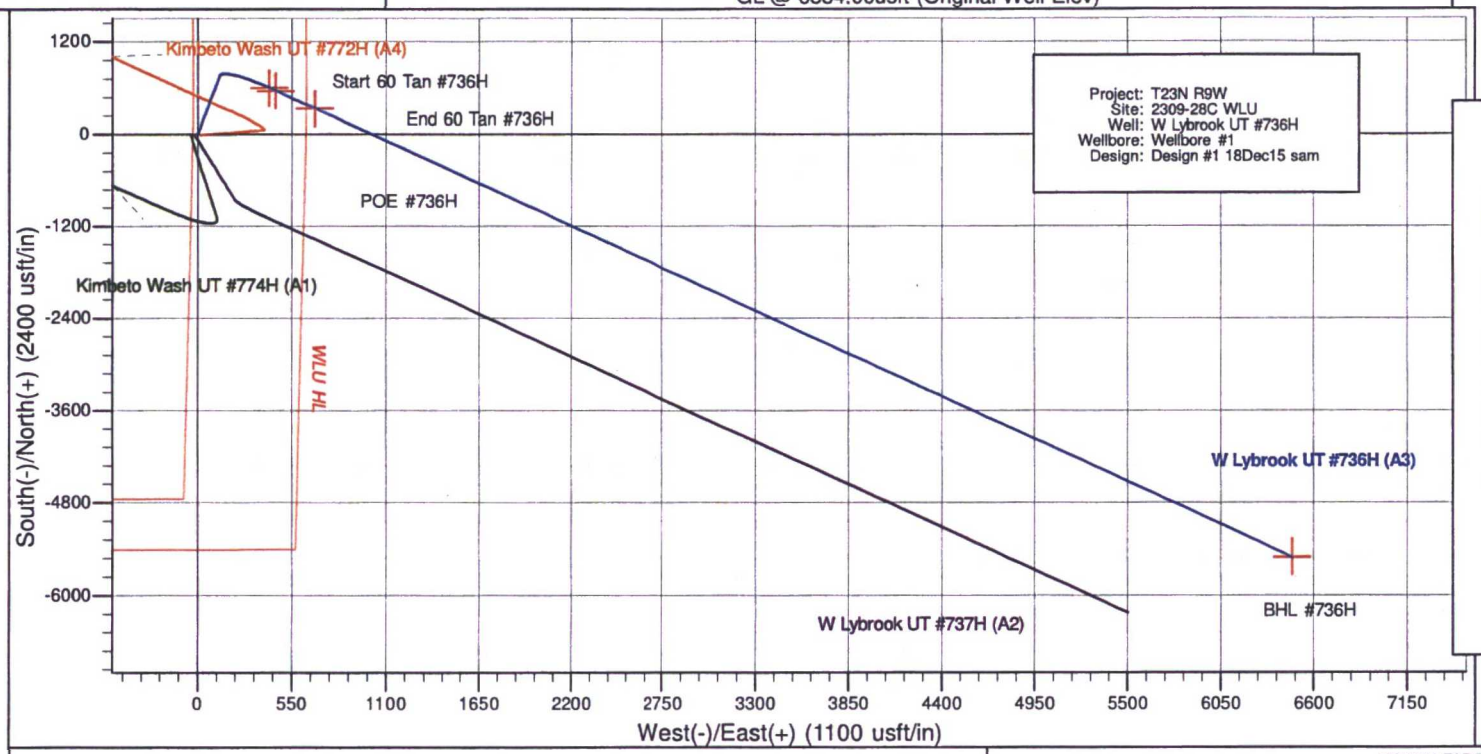
WPXENERGY

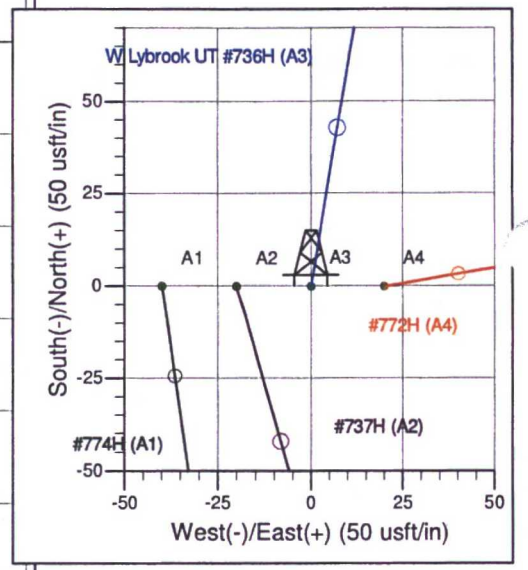
Well Name: W Lybrook UT #736H
Surface Location: 2309-28C WLU
NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
Ground Elevation: 6534.00

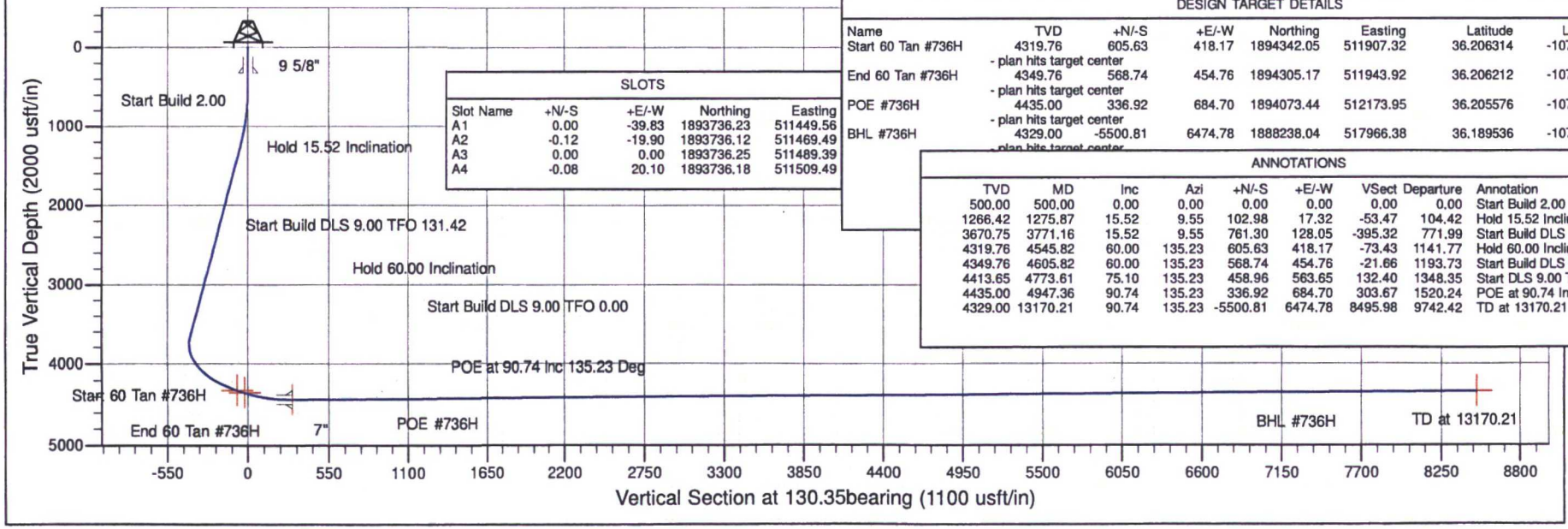
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1893736.25	511489.39	36.204650	-107.794390	A3

GL @ 6534.00usft (Original Well Elev)

Azimuths to True North
Magnetic North: 9.36°
Magnetic Field
Strength: 49885.1snT
Dip Angle: 62.89°
Date: 12/18/2015
Model: IGRF2015







SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	0.00	-39.83	1893736.23	511449.56
A2	-0.12	-19.90	1893736.12	511469.49
A3	0.00	0.00	1893736.25	511489.39
A4	-0.08	20.10	1893736.18	511509.49

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 Tan #736H	4319.76	605.63	418.17	1894342.05	511907.32	36.206314	-107.792973	Point
	- plan hits target center							
End 60 Tan #736H	4349.76	568.74	454.76	1894305.17	511943.92	36.206212	-107.792849	Point
	- plan hits target center							
POE #736H	4435.00	336.92	684.70	1894073.44	512173.95	36.205576	-107.792069	Point
	- plan hits target center							
BHL #736H	4329.00	-5500.81	6474.78	1888238.04	517966.38	36.189536	-107.772448	Point
	- plan hits target center							

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
500.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1266.42	1275.87	15.52	9.55	102.98	17.32	-53.47	104.42	Hold 15.52 Inclination
3670.75	3771.16	15.52	9.55	761.30	128.05	-395.32	771.99	Start Build DLS 9.00 TFO 131.42
4319.76	4545.82	60.00	135.23	605.63	418.17	-73.43	1141.77	Hold 60.00 Inclination
4349.76	4605.82	60.00	135.23	568.74	454.76	-21.66	1193.73	Start Build DLS 9.00 TFO 0.00
4413.65	4773.61	75.10	135.23	458.96	563.65	132.40	1348.35	Start DLS 9.00 TFO 0.00
4435.00	4947.36	90.74	135.23	336.92	684.70	303.67	1520.24	POE at 90.74 Inc 135.23 Deg
4329.00	13170.21	90.74	135.23	-5500.81	6474.78	8495.98	9742.42	TD at 13170.21

Construction and maintenance activities would cease if soil or road surfaces become saturated to the extent that construction equipment is unable to stay within the project area and/or when activities cause irreparable harm to roads, soils, or streams. Surfacing material, such as sandstone, would be used if economically viable and would be obtained from a permitted location.

The Natural Resources Conservation Service (NRCS) has mapped the soils in the proposed KWU 772H/774H and W Lybrook Unit 736H/737H Project area. Complete soil information is available in the NRCS's *Soil Survey of San Juan County, New Mexico, Eastern Part* (USDA/NRCS 2015). The soil map units within the proposed project area footprint are described in the sections below.

A. Blancot – Notal association, gently sloping

Within the project area, this soil map unit is found throughout the entirety of the project with exception to the southeastern most corner of the construction buffer zone. As such, excavated soils during construction of the well pad, access roads, and well connect pipelines would consist of native borrow and subsoils from the Blancot –Notal association, gently sloping soil map unit. A brief description of this soil can be found below.

The Blancot-Notal soil association is composed of 55 percent Blancot and similar soils and 25 percent Notal and similar soils. This soil map unit is considered a well-drained soil, with the depth to water table and depth to restrictive layer being more than 80 inches. This soil association has a moderate to high potential for water erosion and low to moderate potential for wind erosion. The Blancot-Notal association is typically found ranging in elevation from 5,600 to 6,400 feet in elevation, along fan remnant and stream terrace landforms (0- to 5-percent slopes) and within loamy and salt flat ecological sites (USDA/NRCS 2015).

B. Badland

Within the project area, this soil map unit is found at the southeastern most corner of the construction buffer zone. This particular corner of the well pad will require a fill of approximately 6 feet. The construction buffer zone was expanded to 100 feet along the south and east edges of the well pad in order to accommodate the necessary room for a silt trap and topsoil storage within these badland soils. As a result, the 50-foot construction zone along the north and west edges of the well pad were eliminated.

The parent material of the Badland map unit primarily consists of shale. This soil is considered a somewhat excessively drained soil, with the depth to restrictive layer (paralithic bedrock) being zero to two inches. Available water capacity for the Badland soil unit is very low (zero inches). This soil type has a low to moderate potential for water erosion and moderate potential for wind erosion. Badland soils are typically found along the side slopes of break landforms (5- to 80-percent slopes), and are commonly used for wildlife habitat (USDA/NRCS 2015).

7. METHODS FOR HANDLING WASTE

A. Cuttings

1 Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.

2 Closed-loop tanks will be adequately sized for containment of all fluids.

B. Drilling Fluids

1 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 closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids will be hauled to a commercial disposal facility.

C. Spills

1 Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.

Additional Operator Remarks

Location of Well

1. SHL: 181 FNL / 2377 FWL / TWSP: 23N / RANGE: 9W / SECTION: 28 / LAT: 36.204663 / LONG: -107.795004 (TVD: 0 feet, MD: 0 feet)
   PPP: 151 FSL / 2253 FEL / TWSP: 23N / RANGE: 9W / SECTION: 28 / LAT: 36.205589 / LONG: -107.792684 (TVD: 3671 feet, MD: 3771 feet)
   PPP: 151 FSL / 2253 FEL / TWSP: 23N / RANGE: 9W / SECTION: 21 / LAT: 36.205589 / LONG: -107.792684 (TVD: 3671 feet, MD: 3771 feet)
   BHL: 420 FNL / 1691 FEL / TWSP: 23N / RANGE: 9W / SECTION: 34 / LAT: 36.18955 / LONG: -107.773062 (TVD: 1329 feet, MD: 13170 feet)

BLM Point of Contact

Name:

Title:

Phone:

Email:

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to WPX Energy Production, LLC W Lybrook Unit #736H

181' FNL & 2377' FWL, Section 28, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.204663°N Longitude: 107.795004°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 37.8 miles to Mile Marker 113.4;

Go Right (South-westerly) on County Road #7890 for 0.8 miles to fork in roadway;

Go Left (Southerly) remaining on County Road #7890 for 1.3 miles to four-way intersection;

Go Left (South-easterly) remaining on County Road #7890 for 0.6 miles to fork in roadway;

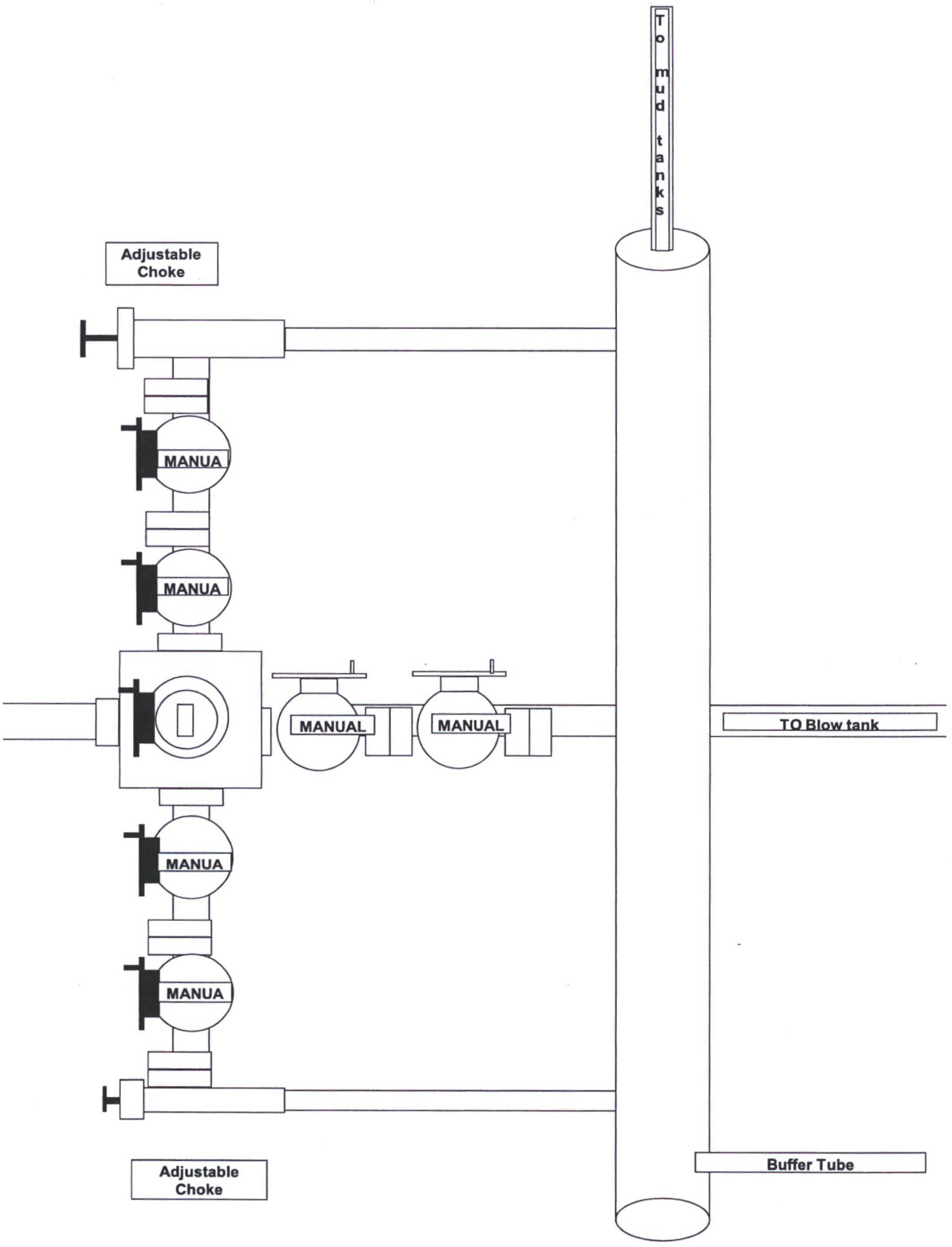
Go Right (South-westerly) remaining on County Road #7890 for 0.5 miles to begin WPX W Lybrook Unit #720H proposed access on right-hand side of County Road;

Go Right (Westerly) exiting County Road #7890 following along WPX W Lybrook Unit #720H proposed access for 3123.1' to fork in proposed access;

Go Left (Westerly) which is straight, following along WPX W Lybrook Unit #726H proposed access for 3937.3' to fork in proposed access;

Go Left (Westerly) which is straight, following along WPX W Lybrook Unit #730H proposed access for 10,164.2' to fork in proposed access;

Go Right (Northerly) for 2093.2' to staked WPX W Lybrook Unit #736H location.


To mud tanks
Adjustable Choke
MANUA
MANUA
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MANUAL
TO Blow tank
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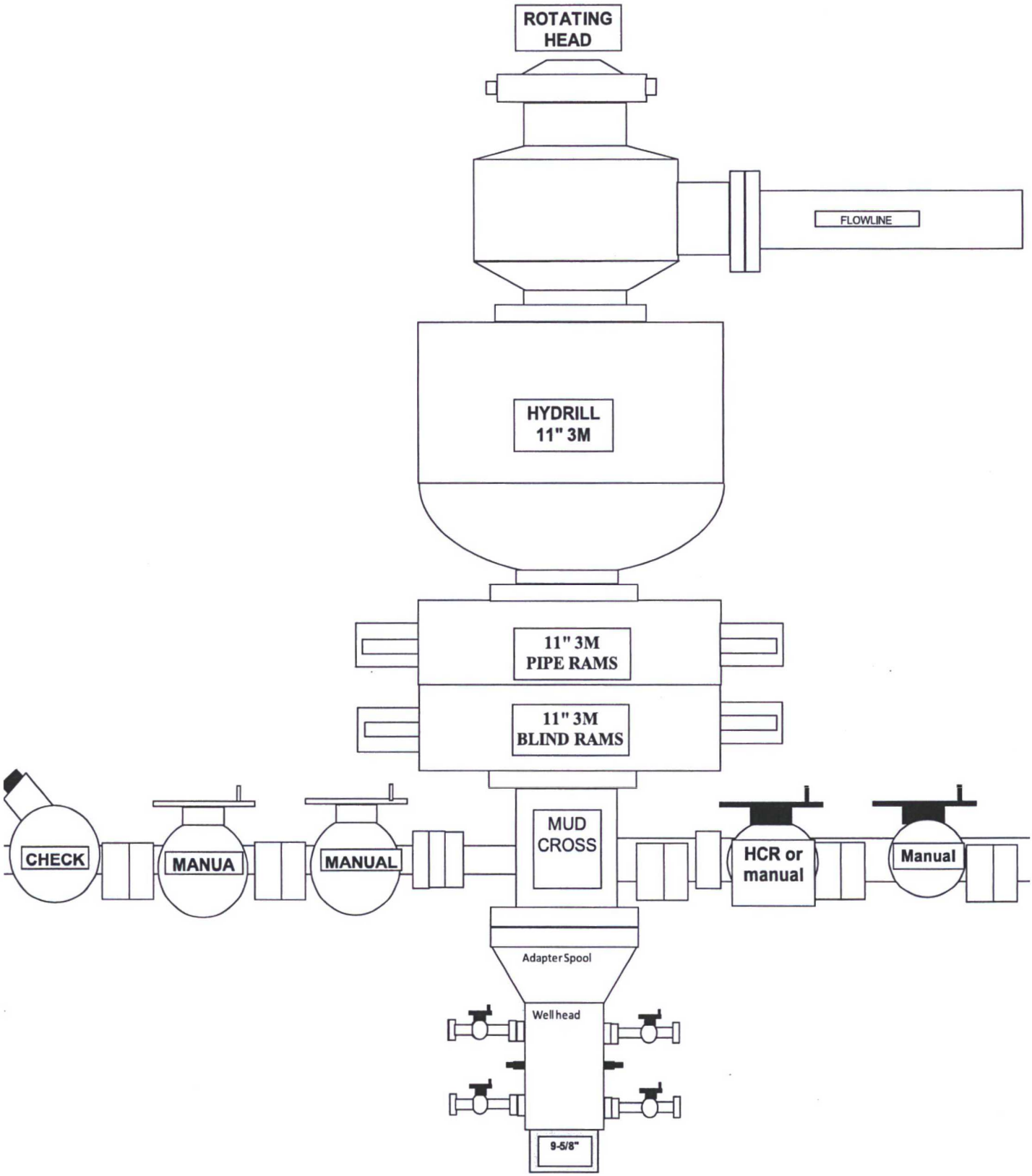
Adjustable Choke
Buffer Tube


ROTATING HEAD
FLOWLINE
HYDRILL 11" 3M
11" 3M PIPE RAMS
11" 3M BLIND RAMS
CHECK
MANUA
MANUAL
MUD CROSS
HCR or manual
Manual
Adapter Spool
Well head
9-5/8"