State of New Mexico
Energy, Minerals and Natural Resources Department

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: 5·19·16
Well information;
Operator WPX, Well Name and Number W Lybrook Unit #718H

API# 30·045·35774, Section 14, Township 23 N/S, Range 9 E/W

Conditions of Approval: (See the below checked and handwritten conditions)

- x Notify Aztec OCD 24hrs prior to casing & cement.
- x Hold C-104 for directional survey & "As Drilled" Plat
- x 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.

[signature] 2-23-2017
NMOCD Approved by Signature Date

RECEIVED

MAY 25 2016

Farmington Field Office
Bureau of Land Management

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

1a. Type of work: ☑ DRILL ☐ REENTER	5. Lease Serial No. N0G14031948
	6. If Indian, Allotee or Tribe Name WESTERN NAVAJO
	7. If Unit or CA Agreement, Name and No. NMNM-135166X
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☑ Multiple Zone	8. Lease Name and Well No. W LYBROOK UT / 718H
2. Name of Operator WPX ENERGY LLC	9. API Well No. 30-045-35774
3a. Address 720 S MAIN AZTEC NM 87410 / 3b. Phone No. (include area code) (505)333-1822	10. Field and Pool, or Exploratory LYBROOK MANCOS W
4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface I LOT 0 / 1824 FSL / 607 FEL / LAT 36.224668 / LONG -107.751308 At proposed prod. zone M LOT 0 / 483 FSL / 330 FWL / LAT 36.235485 / LONG -107.766009	11. Sec., T. R. M. or Blk. and Survey or Area SEC 14 / T23N / R9W / NMP
14. Distance in miles and direction from nearest town or post office*	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 160 280
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 607 feet	19. Proposed Depth 4739 feet / 11061 feet / 20. BLM/BIA Bond No. on file IND: B001576
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6719 feet	22. Approximate date work will start* 06/01/2016 / 23. Estimated duration 30 days

OIL CONS. DIV DIST. 3

FEB 22 2017

KP

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 (Electronic Submission)	Name (Printed/Typed) Lacey Granillo / Ph: (505)533-1816	Date 05/19/2016
Title Permitting Tech III		
Approved by (Signature) J Manlieve AFM	Name (Printed/Typed)	Date 2/1/17
Title	Office FARMINGTON	

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)

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

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

NMOCD

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

OIL CONS. DIV DIST. 3

FEB 06 2017

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-35774	98157	LYBROOK MANCOS W

4 Property Code	5 Property Name	6 Well Number
315250	W LYBROOK UNIT	718H
7 OGRID No.	**8 Operator Name**	**9 Elevation**
120782	WPX ENERGY PRODUCTION, LLC	6719'

10 Surface Location

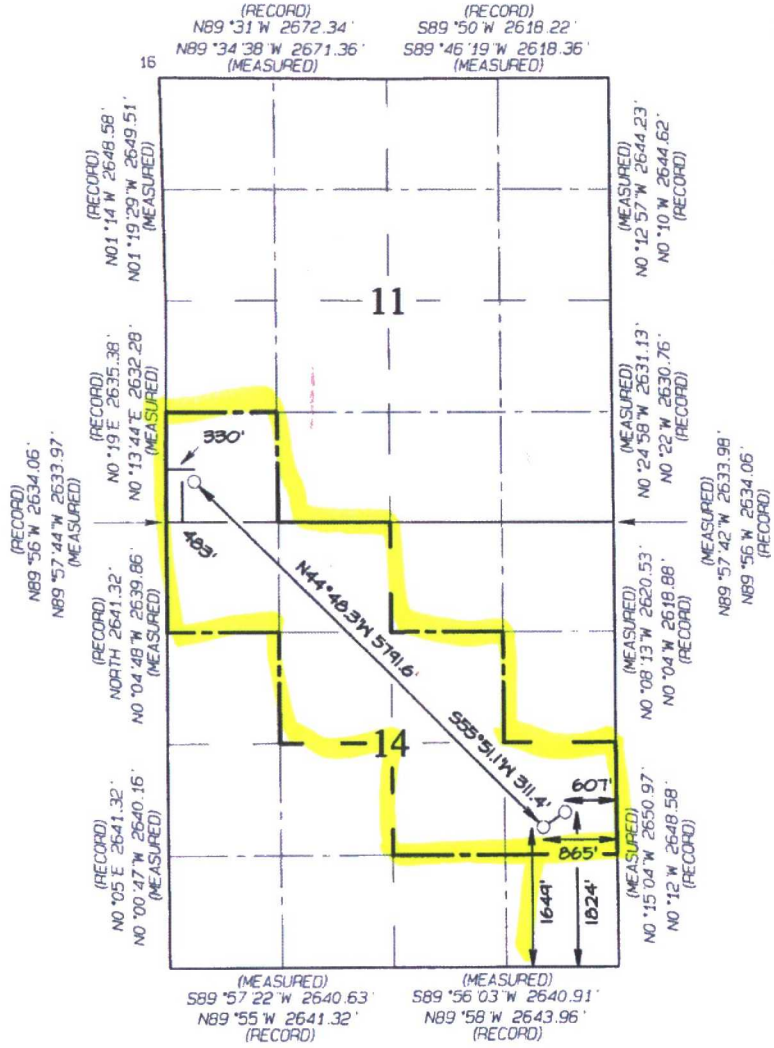
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	14	23N	9W		1824	SOUTH	607	EAST	SAN JUAN

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
M	11	23N	9W		483	SOUTH	330	WEST	SAN JUAN

12 Dedicated Acres		13 Joint or Infill	14 Consolidation Code	15 Order No.
280.00	SW/4 SW/4 - Section 11 N/2 NW/4, SE/4 NW/4 SW/4 NE/4, N/2 SE/4 Section 14			R-14051 - 12,807.24 Acres

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



END-OF-LATERAL
483' FSL 330' FWL
SEC. 11, T23N, R9W
LAT: 36.235472 °N
LONG: 107.765395 °W
DATUM: NAD1927

LAT: 36.235485 °N
LONG: 107.766009 °W
DATUM: NAD1983

POINT-OF-ENTRY
1649' FSL 865' FEL
SEC. 14, T23N, R9W
LAT: 36.224175 °N
LONG: 107.751569 °W
DATUM: NAD1927

LAT: 36.224188 °N
LONG: 107.752182 °W
DATUM: NAD1983

SURFACE LOCATION
1824' FSL 607' FEL
SEC. 14, T23N, R9W
LAT: 36.224655 °N
LONG: 107.750694 °W
DATUM: NAD1927

LAT: 36.224668 °N
LONG: 107.751308 °W
DATUM: NAD1983

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.

5-19-16
Signature Date

Tracy Granville
Printed Name

tracy.granville@wpxenergy.com
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: APRIL 25, 2016
Survey Date: SEPTEMBER 16, 2015

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

WPX Energy

Operations Plan

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

Date:	May 17, 2016	**Field:**	Lybrook Mancos W
Well Name:	W Lybrook UT #718H	**Surface:**	IA
SH Location:	NESE Sec 14-23N-09W	**Elevation:**	6719' GR
BH Location:	SWSW Sec 11-23N-09W	**Minerals:**	IA

Measured Depth: 11,061.13'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (GL)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	469	469	POINT LOOKOUT	3529	3456
KIRTLAND	677	677	MANCOS	3723	3643
PICTURED CLIFFS	1053	1053	GALLUP	4084	3992
LEWIS	1164	1164	KICKOFF POINT	4,006.39	3,916.34
CHACRA	1425	1423	TOP TARGET	5103	4739
CLIFF HOUSE	2535	2498	LANDING POINT	5,269.56	4,760.00
MENEFEE	2586	2547	BASE TARGET	5,269.56	4,760.00
			TD	11,061.13	4,739.00

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 BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 psi for 30 minutes. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. 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"	5,269.56'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5119.56' - 11,061.13'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5119.56'	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. If losses are encountered during the drilling of the intermediate section a DV tool will be utalized and a 2 stage cement job may be planned to ensure cement circ back to surface. The 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, if no cement is seen at surface on the 1st stage the stage tool will be opend and a 2nd stage cement job will be pumped.

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. CEMENT:

(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:

   Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 96 bbls, 274 sks, (541 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 207 bbl Drilling mud or water. Total Cement: 155 bbls, 529 sks, (871 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 (582 sx /791 cuft /141 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-145bbl Fr Water. Total Cement (582 sx /791bbls).

D. COMPLETION:

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.

NOTES:

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
2309-14I WLU
W Lybrook UT #718H - Slot A6

Wellbore #1

Plan: Design #1 20Apr16 sam

Standard Planning Report

20 April, 2016

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #718H (A6) - Slot A6
Company:	WPX Energy	**TVD Reference:**	GL @ 6719.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6719.00usft (Original Well Elev)
Site:	2309-14I WLU	**North Reference:**	True
Well:	W Lybrook UT #718H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 20Apr16 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 2309-14I WLU

Position:		**Northing:**	1,901,091.09 usft	**Latitude:**	36.224833
From:	Map	**Easting:**	524,273.81 usft	**Longitude:**	-107.751036
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.05 °

Well W Lybrook UT #718H - Slot A6

Well Position	**+N/-S**	-64.80 usft	**Northing:**	1,901,026.38 usft	**Latitude:**	36.224655
	+E/-W	100.88 usft	**Easting:**	524,374.74 usft	**Longitude:**	-107.750694
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,719.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/20/2016	9.31	62.91	49,865

Design Design #1 20Apr16 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	312.25

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,772.47	15.45	156.96	1,763.14	-95.26	40.51	2.00	2.00	0.00	156.96	
4,006.39	15.45	156.96	3,916.34	-642.88	273.40	0.00	0.00	0.00	0.00	
4,833.92	60.00	315.24	4,624.71	-463.92	28.78	9.00	5.38	19.13	160.57	Start 60 tan #718H
4,933.92	60.00	315.24	4,674.71	-402.42	-32.20	0.00	0.00	0.00	0.00	End 60 tan #718H
5,098.32	74.79	315.24	4,737.72	-294.95	-138.76	9.00	9.00	0.00	0.00	
5,269.56	90.21	315.24	4,760.00	-174.75	-257.94	9.00	9.00	0.00	0.01	POE #718H
11,061.13	90.21	315.24	4,739.00	3,937.95	-4,335.63	0.00	0.00	0.00	0.00	BHL #718H

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #718H (A6) - Slot A6
Company:	WPX Energy	**TVD Reference:**	GL @ 6719.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6719.00usft (Original Well Elev)
Site:	2309-14I WLU	**North Reference:**	True
Well:	W Lybrook UT #718H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 20Apr16 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
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,500.00	10.00	156.96	1,497.47	-40.05	17.03	-39.54	2.00	2.00	0.00
1,772.47	15.45	156.96	1,763.14	-95.26	40.51	-94.03	2.00	2.00	0.00
Hold 15.45 Inclination									
2,000.00	15.45	156.96	1,982.45	-151.04	64.23	-149.09	0.00	0.00	0.00
2,500.00	15.45	156.96	2,464.38	-273.61	116.36	-270.09	0.00	0.00	0.00
3,000.00	15.45	156.96	2,946.32	-396.18	168.48	-391.08	0.00	0.00	0.00
3,500.00	15.45	156.96	3,428.25	-518.75	220.61	-512.08	0.00	0.00	0.00
4,000.00	15.45	156.96	3,910.18	-641.32	272.73	-633.07	0.00	0.00	0.00
4,006.39	15.45	156.96	3,916.34	-642.88	273.40	-634.62	0.00	0.00	0.00
Start Build DLS 9.00 TFO 160.57									
4,500.00	30.21	309.40	4,391.57	-623.59	199.43	-566.89	9.00	2.99	30.88
4,833.92	60.00	315.24	4,624.71	-463.92	28.78	-333.22	9.00	8.92	1.75
Hold 60.00 Inclination									
4,933.92	60.00	315.24	4,674.71	-402.42	-32.20	-246.73	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
5,000.00	65.95	315.24	4,704.72	-360.64	-73.62	-187.98	9.00	9.00	0.00
5,098.32	74.79	315.24	4,737.72	-294.95	-138.76	-95.59	9.00	9.00	0.00
Start DLS 9.00 TFO 0.01									
5,269.56	90.21	315.24	4,760.00	-174.75	-257.94	73.45	9.00	9.00	0.00
POE at 90.21 Inc 315.24 Deg									
5,270.00	90.21	315.24	4,760.00	-174.44	-258.25	73.88	0.00	0.00	0.00
7"									
5,500.00	90.21	315.24	4,759.16	-11.11	-420.19	303.57	0.00	0.00	0.00
6,000.00	90.21	315.24	4,757.35	343.95	-772.22	802.88	0.00	0.00	0.00
6,500.00	90.21	315.24	4,755.54	699.01	-1,124.26	1,302.19	0.00	0.00	0.00
7,000.00	90.21	315.24	4,753.73	1,054.07	-1,476.30	1,801.51	0.00	0.00	0.00
7,500.00	90.21	315.24	4,751.91	1,409.12	-1,828.33	2,300.82	0.00	0.00	0.00
8,000.00	90.21	315.24	4,750.10	1,764.18	-2,180.37	2,800.13	0.00	0.00	0.00
8,500.00	90.21	315.24	4,748.29	2,119.24	-2,532.41	3,299.45	0.00	0.00	0.00
9,000.00	90.21	315.24	4,746.47	2,474.30	-2,884.44	3,798.76	0.00	0.00	0.00
9,500.00	90.21	315.24	4,744.66	2,829.36	-3,236.48	4,298.07	0.00	0.00	0.00
10,000.00	90.21	315.24	4,742.85	3,184.42	-3,588.52	4,797.39	0.00	0.00	0.00
10,500.00	90.21	315.24	4,741.03	3,539.48	-3,940.56	5,296.70	0.00	0.00	0.00
11,000.00	90.21	315.24	4,739.22	3,894.54	-4,292.59	5,796.01	0.00	0.00	0.00
11,061.13	90.21	315.24	4,739.00	3,937.95	-4,335.63	5,857.06	0.00	0.00	0.00
TD at 11061.13									

Database:	COMPASS	**Local Co-ordinate Reference:**	Well W Lybrook UT #718H (A6) - Slot A6
Company:	WPX Energy	**TVD Reference:**	GL @ 6719.00usft (Original Well Elev)
Project:	T23N R9W	**MD Reference:**	GL @ 6719.00usft (Original Well Elev)
Site:	2309-14I WLU	**North Reference:**	True
Well:	W Lybrook UT #718H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 20Apr16 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 #718H - plan hits target center - Point	0.00	0.00	4,624.71	-463.92	28.78	1,900,562.49	524,403.92	36.223381	-107.750597
End 60 tan #718H - plan misses target center by 0.01usft at 4933.92usft MD (4674.71 TVD, -402.42 N, -32.19 E) - Point	0.00	0.00	4,674.71	-402.43	-32.20	1,900,623.93	524,342.88	36.223550	-107.750803
BHL #718H - plan hits target center - Point	0.00	0.00	4,739.00	3,937.95	-4,335.63	1,904,960.63	520,035.75	36.235472	-107.765396
POE #718H - plan hits target center - Point	0.00	0.00	4,760.00	-174.75	-257.94	1,900,851.41	524,116.95	36.224175	-107.751569

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
5,270.00	4,760.00	7"	7.000	8.750

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,000.00	1,000.00	0.00	0.00	Start Build 2.00
1,772.47	1,763.14	-95.26	40.51	Hold 15.45 Inclination
4,006.39	3,916.34	-642.88	273.40	Start Build DLS 9.00 TFO 160.57
4,833.92	4,624.71	-463.92	28.78	Hold 60.00 Inclination
4,933.92	4,674.71	-402.42	-32.20	Start Build DLS 9.00 TFO 0.00
5,098.32	4,737.72	-294.95	-138.76	Start DLS 9.00 TFO 0.01
5,269.56	4,760.00	-174.75	-257.94	POE at 90.21 Inc 315.24 Deg
11,061.13	4,739.00	3,937.95	-4,335.63	TD at 11061.13

WPXENERGY

Well Name: W Lybrook UT #718H
Surface Location: 2309-14I WLU
NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
Ground Elevation: 6719.00

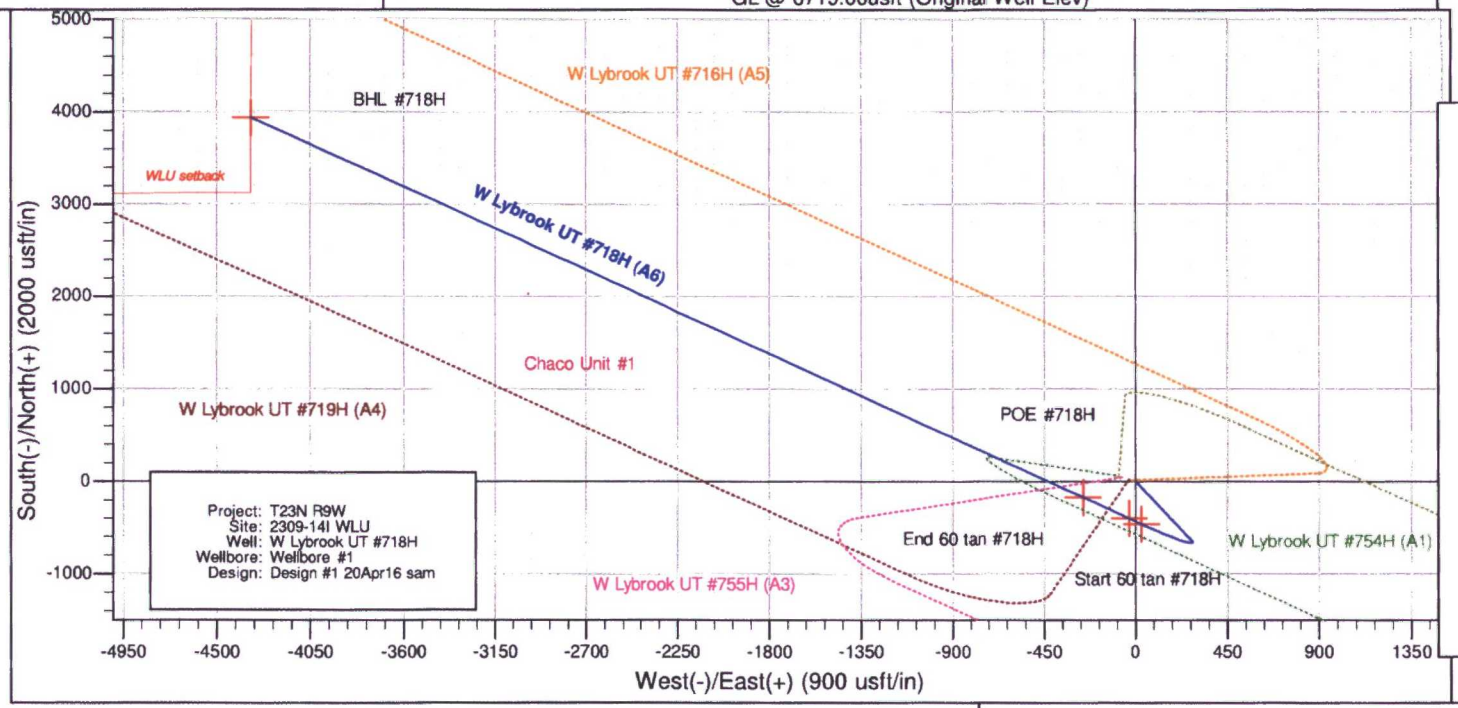
+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.00	0.00	1901026.38	524374.74	36.224655	-107.750694	A6

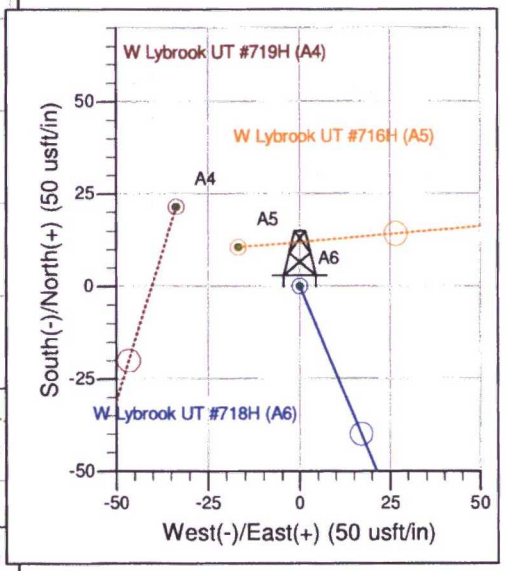
GL @ 6719.00usft (Original Well Elev)

T M

Azimuths to True North
Magnetic North: 9.31°

Magnetic Field
Strength: 49864.8snT
Dip Angle: 62.91°
Date: 4/20/2016
Model: IGRF2015





DESIGN TARGET DETAILS

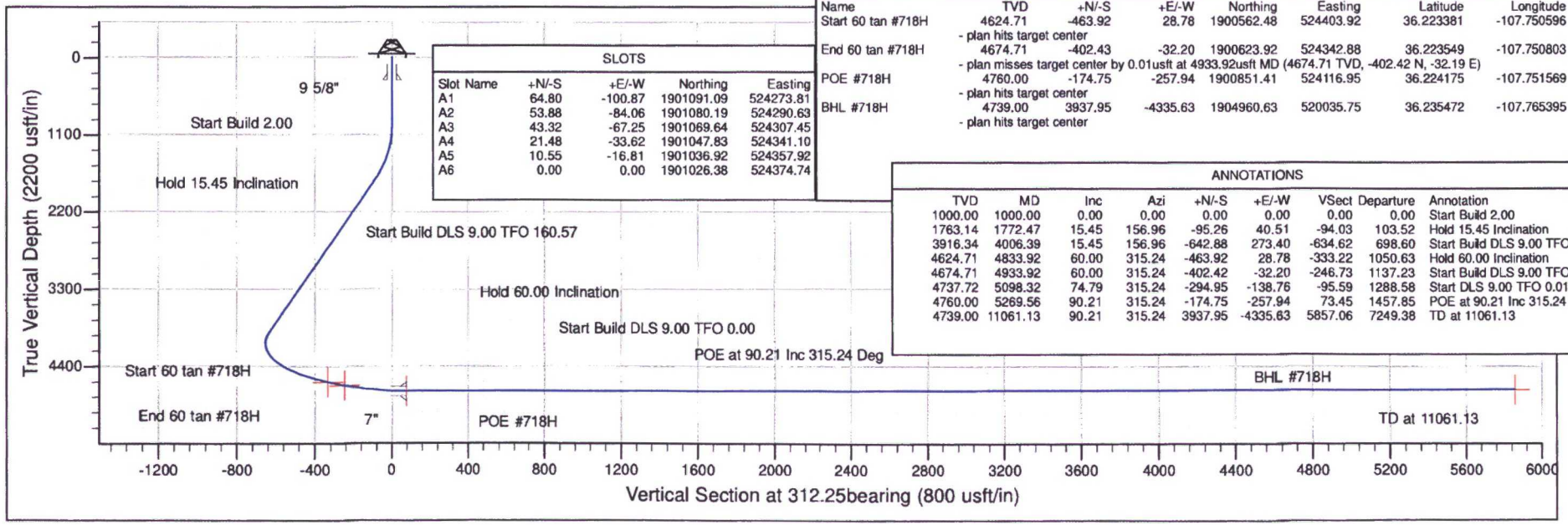
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan #718H	4624.71	-463.92	28.78	1900562.48	524403.92	36.223381	-107.750596	Point
	- plan hits target center							
End 60 tan #718H	4674.71	-402.43	-32.20	1900623.92	524342.88	36.223549	-107.750803	Point
	- plan misses target center by 0.01usft at 4933.92usft MD (4674.71 TVD, -402.42 N, -32.19 E)							
POE #718H	4760.00	-174.75	-257.94	1900851.41	524116.95	36.224175	-107.751569	Point
	- plan hits target center							
BHL #718H	4739.00	3937.95	-4335.63	1904960.63	520035.75	36.235472	-107.765395	Point
	- plan hits target center							

SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	64.80	-100.87	1901091.09	524273.81
A2	53.88	-84.06	1901080.19	524290.63
A3	43.32	-67.25	1901069.64	524307.45
A4	21.48	-33.62	1901047.83	524341.10
A5	10.55	-16.81	1901036.92	524357.92
A6	0.00	0.00	1901026.38	524374.74

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
1000.00	1000.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1763.14	1772.47	15.45	156.96	-95.26	40.51	-94.03	103.52	Hold 15.45 Inclination
3916.34	4006.39	15.45	156.96	-642.88	273.40	-634.62	698.60	Start Build DLS 9.00 TFO 160.57
4624.71	4833.92	60.00	315.24	-463.92	28.78	-333.22	1050.63	Hold 60.00 Inclination
4674.71	4933.92	60.00	315.24	-402.42	-32.20	-246.73	1137.23	Start Build DLS 9.00 TFO 0.00
4737.72	5098.32	74.79	315.24	-294.95	-138.76	-95.59	1288.58	Start DLS 9.00 TFO 0.01
4760.00	5269.56	90.21	315.24	-174.75	-257.94	73.45	1457.85	POE at 90.21 Inc 315.24 Deg
4739.00	11061.13	90.21	315.24	3937.95	-4335.63	5857.06	7249.38	TD at 11061.13



- An existing pond in the southeast quarter of the southwest quarter of Section 13, Township 23 North, Range 09 West is proposed to be cleaned out. Excavated material would be used as fill material on the proposed new road construction. To access the pond, an existing two-track road would be utilized.
- Noise stipulations would be applied due to proximity of nearby residence.

5 All project activities will be confined to permitted areas only.
6 Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, and a dozer.
7 If drilling has not been initiated on the wellpads within 120 days of the wellpads being constructed, the operator will consult with the BLM to address a site-stabilization plan.

D. Production Facilities
1 Production facilities for the W Lybrook UT Nos. 710H, 712H, 714H, 716H, 718H, 719H, 750H, 751H, 752H, 753H, 754H, and 755H oil and natural gas wells will be located on the W Lybrook UT Nos. 716H, 718H, 719H, 753H, 754H, and 755H wellpad. Facilities will be located on the north-northeastern corner of the wellpad within an irregular shaped 270-foot by 105-foot facility area (see Figure 8, Appendix B) to allow for maximum interim reclamation and revegetation of the two wellpads.
2 As practical, access road on the wellpads will be a teardrop-shape through the area so that the center may be revegetated.
3 Within 90 days of installation, production facilities would be painted.
- The production facilities associated with the W Lybrook UT Nos. 710H, 712H, 714H, 750H, 751H, and 752H oil and natural gas wells project will be painted Covert Green to blend with the natural color of the landscape surrounding the wellpad and would be located in efforts to the extent practical, to reasonably minimize visual impact.
- The production facilities associated with the W Lybrook UT Nos. 716H, 718H, 719H, 753H, 754H, and 755H oil and natural gas wells project will be painted Juniper Green to blend with the natural color of the landscape surrounding the wellpad and would be located in efforts to the extent practical, to reasonably minimize visual impact.

4 Berms will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks. Berm walls will be compacted with appropriate equipment to assure containment.

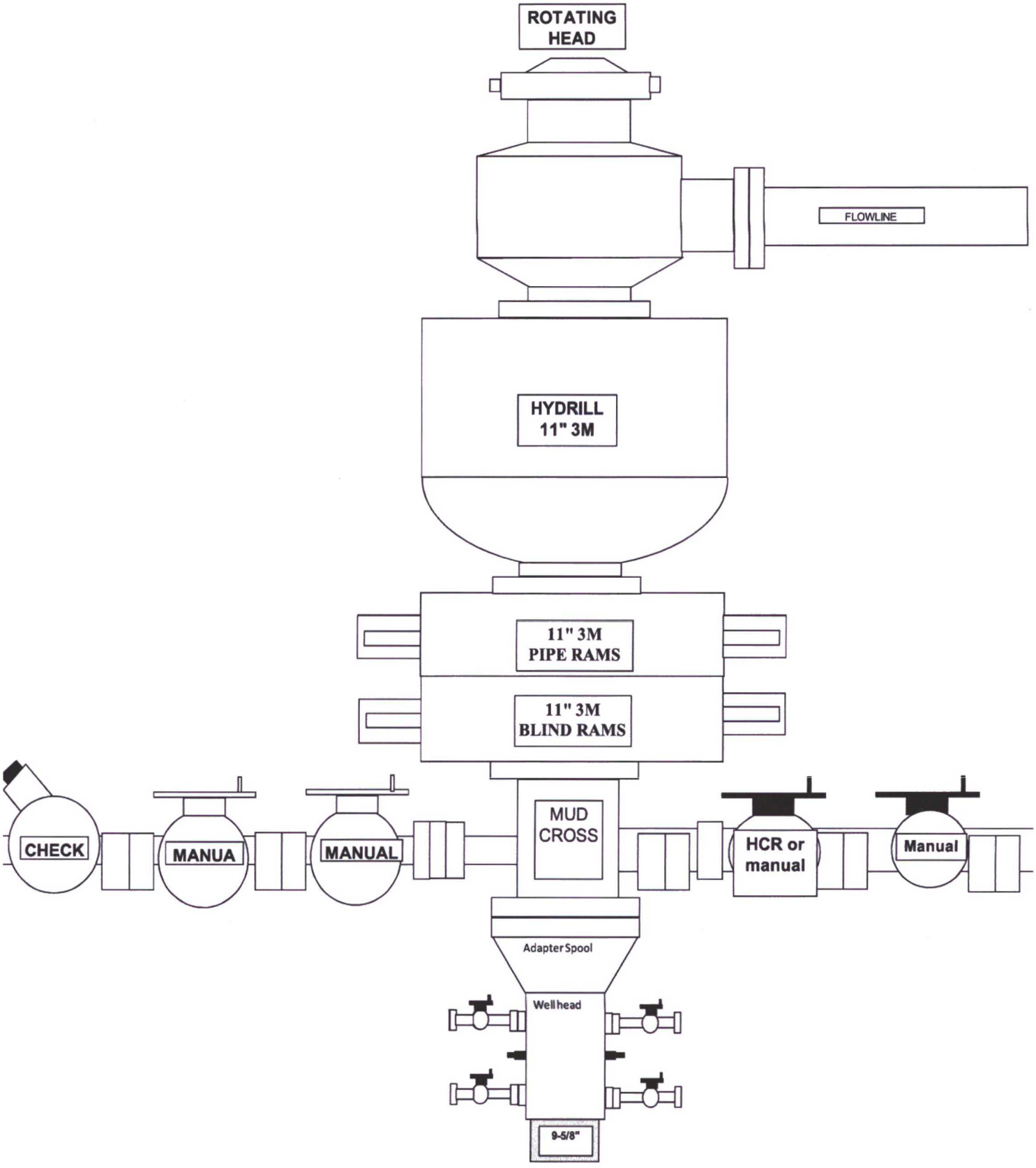
After the completion phases and pipeline installation, portions of the project area not needed for operation will be reclaimed. When the wells are plugged, final reclamation will occur within the remainder of the project area. Reclamation is described in detail in the Surface Use Reclamation Plan (Appendix A).

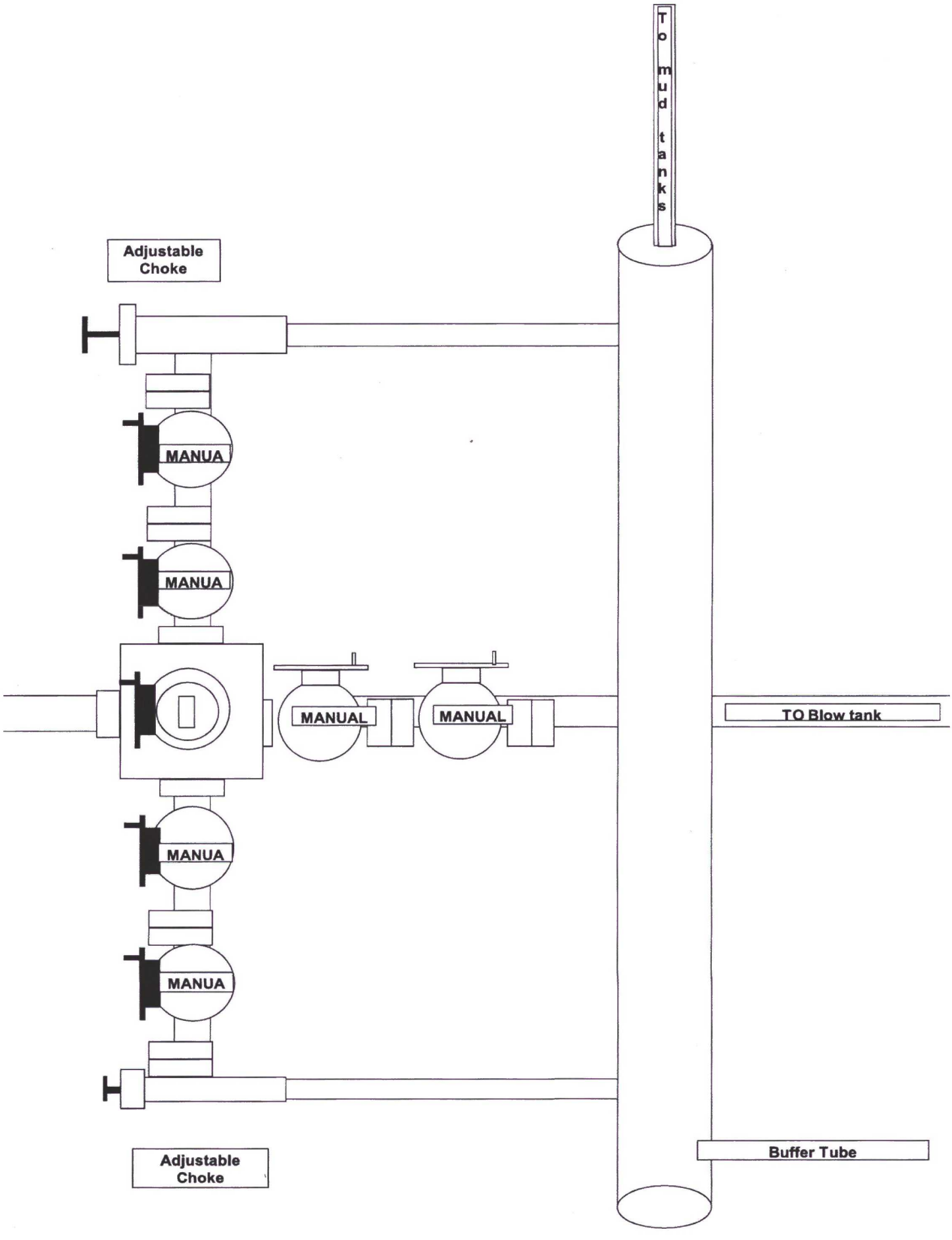
7. METHODS FOR HANDLING WASTE

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


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
Wellhead
9-5/8"


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

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

in Bloomfield, NM to WPX Energy Production, LLC W Lybrook Unit #718H

1824' FSL & 607' FEL, Section 14, T23N, R9W, N.M.P.M., San Juan County, NM

Latitude: 36.224668°N Longitude: 107.751308°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 begin WPX W Lybrook Unit #710H proposed access on right-hand side;

Go Right (North-westerly) along WPX W Lybrook Unit #710H proposed access for 3412.5' to fork in proposed access;

Go Left (South-westerly) continuing for 1344.8' to staked WPX W Lybrook Unit #718H location.