

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

NOV 21 2016

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

Farmington Field Office
Bureau of Land Management

SUNDRY NOTICES AND REPORTS ON WELLS
**Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.**

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NO-G-1403-1908
2. Name of Operator WPX Energy Production, LLC		6. If Indian, Allottee or Tribe Name NMNM-135216A
3a. Address PO Box 640 Aztec, NM 87410	3b. Phone No. (include area code) 505-333-1816	7. If Unit of CA/Agreement, Name and/or No. W LYBROOK UNIT
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SHL: 1202' FSL & 1307' FWL Sec 8, T23N 8W BHL: 2297' FNL & 330' FWL Sec 17, T23N 8W		8. Well Name and No. W LYBROOK UT #744H
		9. API Well No. 30-045-35730
		10. Field and Pool or Exploratory Area Basin Mancos
		11. Country or Parish, State San Juan, NM

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

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

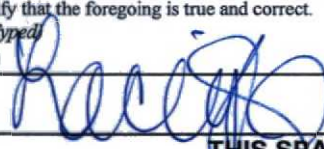
13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths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

WPX requests to change the lateral per the attached Directional, Ops plan and C102.

OIL CONS. DIV DIST. 3
DEC 01 2016

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Lacey Granillo		Title Permit Tech III
Signature 		Date 11/21/16
THIS SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by Abdelgadir Elmadani		Title PE
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office FFG
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.		

(Instructions on page 2)

**ADHERE TO PREVIOUS NMOCD
CONDITIONS OF APPROVAL**

NMOCD

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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

Lateral change

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35730	*Pool Code 98157	*Pool Name LYBROOK MANCOS W
*Property Code 315250	*Property Name W LYBROOK UNIT	*Well Number 744H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6823'

¹⁰ Surface Location

U.L. or lot no.	Section	Township	Range	Lot 10n	Feet from the	North/South line	Feet from the	East/West line	County
M	8	23N	8W		1202	SOUTH	1307	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

U. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	17	23N	8W		2297	NORTH	330	EAST	SAN JUAN
"Dedicated Acres 200.0 SE/4 SW/4 (Section 8) NE/4 NW/4, NW/4 NE/4 E/2 NE/4 (Section 17)					"Joint or Infill	"Consolidation Code	"Order No. R-14051 - 12,807.24 Acres NO ALLOWABLE WILL BE ASSY		

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

SURFACE LOCATION
1202' FSL 1307' FWL
SECTION 8, T23N, R8W
LAT: 36.237622°N
LONG: 107.708510°W
DATUM: NAD1927

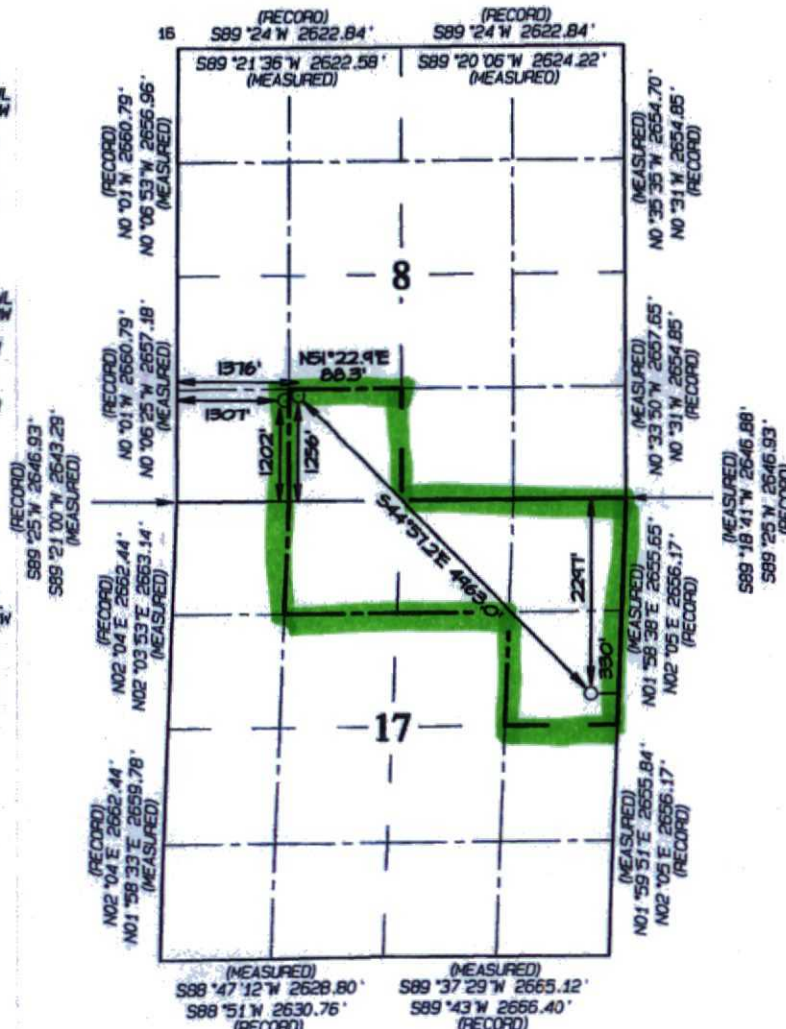
LAT: 36.237635 N
LONG: 107.709122 W
DATUM: NAD1983

POINT-OF-ENTRY
1256' FSL 1376' FNL
SECTION 8, T23N, R6W
LAT: 36.237773°N
LONG: 107.708275°W
DATUM: NAD1927

LAT: 36.237786 N
LONG: 107.708888 W
DATUM: NAD1983

END-OF-LATERAL
2297' FNL 330' FEL
SECTION 17, T23N, R8W
LAT: 36.228111°N
LONG: 107.696402°W
DATUM: NAD1927

LAT: 36.228125 °N
LONG: 107.697014 °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 one or more of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order. Resolutions entered by the division.

Signature Decy Danilo Date 11/11/2019
Printed Name Decy Danilo
E-mail Address decydanilo@yahoo.com

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: NOVEMBER 17, 2016
Date of Survey: MAY 20, 2015

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269



WPX Energy

Operations Plan

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

Date: November 21, 2016
Well Name: W Lybrook UT #744H
SH Location: SWSW Sec 8 23N-08W
BH Location: SENE Sec 17 23N-08W

Field: Lybrook Mancos W
Surface:
Elevation: 6823' GR
Minerals:

Measured Depth: 10,618.59'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (GR)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	833.00	833.00	POINT LOOKOUT	3,902.00	3,820.00
KIRTLAND	1,041.00	1,041.00	MANCOS	4,107.00	4,007.00
PICTURED CLIFFS	1,417.00	1,417.00	GALLUP	4,480.00	4,356.00
LEWIS	1,528.00	1,528.00	KICKOFF POINT	4,318.98	4,201.27
CHACRA	1,787.00	1,787.00	TOP TARGET	5,298.00	5,033.00
CLIFF HOUSE	2,870.00	2,862.00	LANDING POINT	5,654.80	5,124.00
MENEFEE	2,921.00	2,911.00	BASE TARGET	5,654.80	5,124.00
			TD	10,618.59	0.00

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 3/4" 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"	5,654.80'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5504.8' - 10,618.59'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5504.8'	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 utilized 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 opened 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: 108 bbls, 307 sks, (604 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/ +/- 223 bbl Drilling mud or water. Total Cement: 167 bbls, 561 sks, (935 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 (501 sx /681 cuft /121 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-136bbl Fr Water. Total Cement (501 sx /681bbls).

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

WPX Energy Williston, LLC

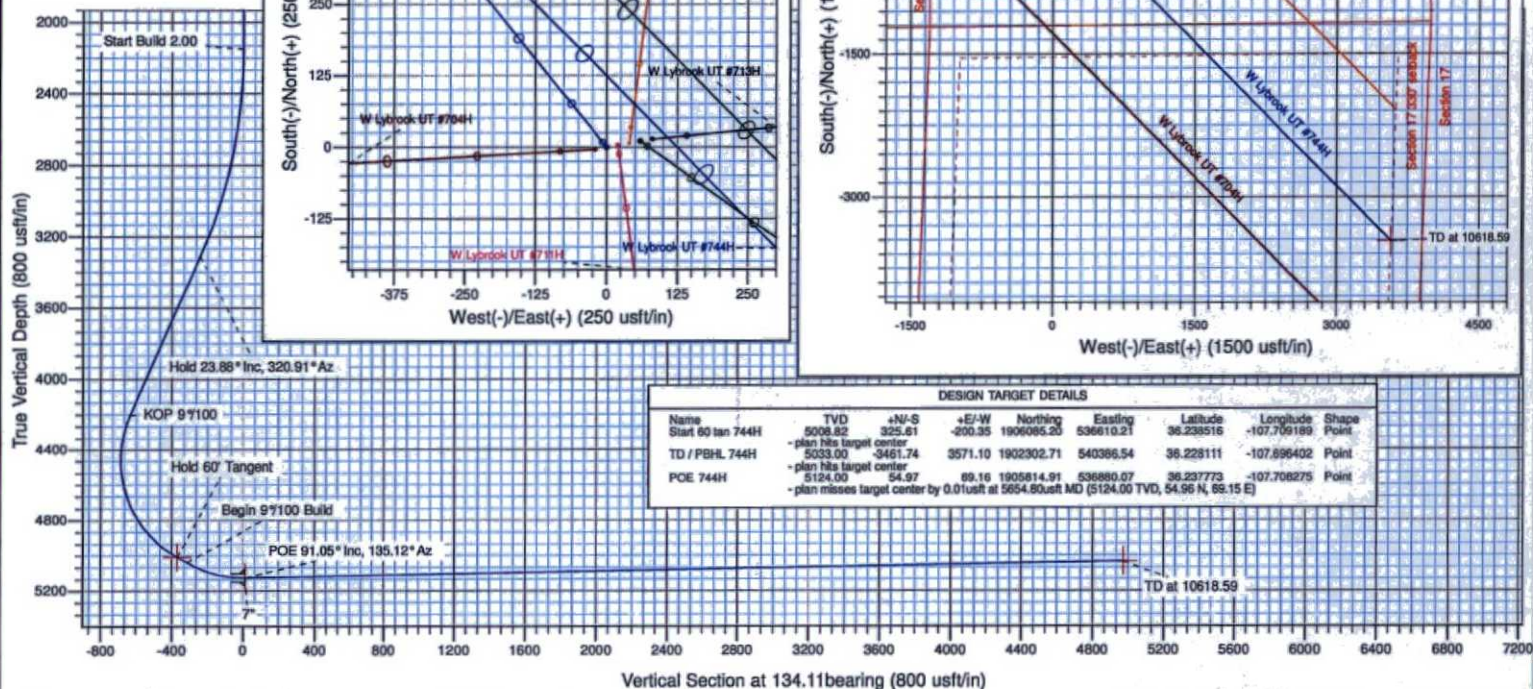
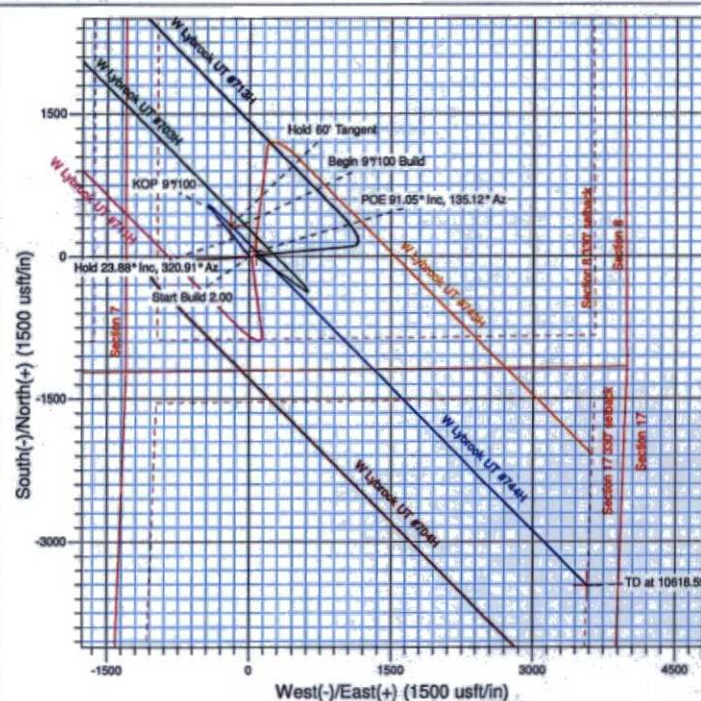
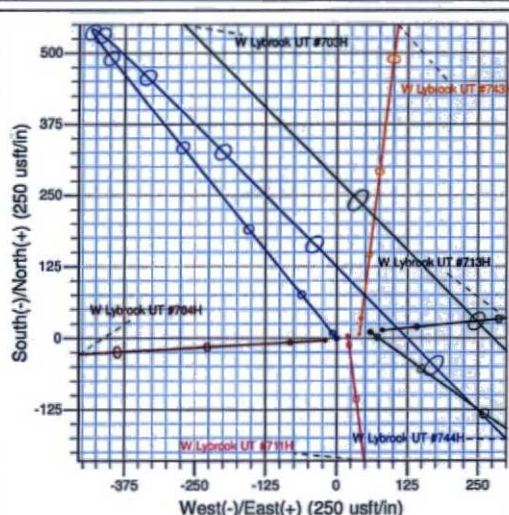
Well Name: W Lybrook UT #744H
 Surface Location: 2308-08N WLU
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6823.00
 WELL @ 6823.00usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1905759.85	536810.98	36.237622	-107.708510	744H

Project: T23N R8W
 Site: 2308-08N WLU
 Well: W Lybrook UT #744H
 Plan: Design #1 28Oct16 kjs

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation
2150.00	2150.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
3309.59	3343.84	23.88	320.91	190.28	-154.61	-243.45	245.17	Hold 23.88° Inc, 320.91° Az
4201.27	4318.97	23.88	320.91	496.61	-403.51	-635.39	639.68	KOP 9°11'00"
5008.82	5249.80	60.00	135.12	325.61	-200.35	-370.49	1015.90	Hold 60° Tangent
5038.82	5309.80	60.00	135.12	288.79	-163.69	-318.53	1067.87	Begin 9°11'00" Build
5124.00	5654.80	91.05	135.12	54.97	69.15	11.40	1397.85	POE 91.05° Inc, 135.12° Az
5033.00	10618.59	91.05	135.12	-3461.74	3571.10	4973.57	6360.80	TD at 10618.59



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 tan 744H	5008.82	325.61	-200.35	1906085.20	536610.21	36.238516	-107.709189	Point
TD / PBHL 744H	5033.00	-3461.74	3571.10	1902302.71	540386.54	36.228111	-107.896402	Point
POE 744H	5124.00	54.97	69.16	1905614.91	536880.07	36.237773	-107.706275	Point

- plan hits target center by 0.01usft at 5654.80usft MD (5124.00 TVD, 54.96 N, 69.15 E)



WPX Energy

T23N R8W

2308-08N WLU

W Lybrook UT #744H - Slot 744H

Wellbore #1

Plan: Design #1 26Oct16 kjs

Standard Planning Report - Geographic

28 October, 2016

Database:	COMPASS	Local Co-ordinate Reference:	Well W Lybrook UT #744H - Slot 744H
Company:	WPX Energy	TVD Reference:	WELL @ 6823.00usft (Original Well Elev)
Project:	T23N R8W	MD Reference:	WELL @ 6823.00usft (Original Well Elev)
Site:	2308-08N WLU	North Reference:	True
Well:	W Lybrook UT #744H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 26Oct16 kjs		

Project	T23N R8W		
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	2308-08N WLU		
Site Position:		Northing:	1,906,343.71 usft
From:	Map	Easting:	537,196.07 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	36.239225
		Longitude:	-107.707202
		Grid Convergence:	0.07 °

Well	W Lybrook UT #744H - Slot 744H					
Well Position	+N/-S	0.00 usft	Northing:	1,905,759.85 usft	Latitude:	36.237622
	+E/-W	0.00 usft	Easting:	536,810.98 usft	Longitude:	-107.708510
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,823.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/26/2016	9.16	62.91	49,922

Design #1 26Oct16 kjs				
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	134.11

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	
2,150.00	0.00	0.00	2,150.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,343.84	23.88	320.91	3,309.59	190.28	-154.61	2.00	2.00	0.00	320.91	
4,318.98	23.88	320.91	4,201.27	496.61	-403.51	0.00	0.00	0.00	0.00	
5,249.80	60.00	135.12	5,008.82	325.61	-200.35	9.00	3.88	18.72	174.96	Start 60 tan 744H
5,309.80	60.00	135.12	5,038.82	288.79	-163.69	0.00	0.00	0.00	0.00	
5,654.80	91.05	135.12	5,124.00	54.97	69.15	9.00	9.00	0.00	0.00	
10,618.59	91.05	135.12	5,033.00	-3,461.74	3,571.10	0.00	0.00	0.00	0.00	TD / PBHL 744H



WPX
Planning Report - Geographic

Database: COMPASS
Company: WPX Energy
Project: T23N R8W
Site: 2308-08N WLU
Well: W Lybrook UT #744H
Wellbore: Wellbore #1
Design: Design #1 26Oct16 kjs

Local Co-ordinate Reference: Well W Lybrook UT #744H - Slot 744H
TVD Reference: WELL @ 6823.00usft (Original Well Elev)
MD Reference: WELL @ 6823.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
200.00	0.00	0.00	200.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
351.00	0.00	0.00	351.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
9 5/8"									
400.00	0.00	0.00	400.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
600.00	0.00	0.00	600.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
800.00	0.00	0.00	800.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
1,800.00	0.00	0.00	1,800.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
2,000.00	0.00	0.00	2,000.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
2,150.00	0.00	0.00	2,150.00	0.00	0.00	1,905,759.85	536,810.98	36.237622	-107.708510
Start Build 2.00									
2,200.00	1.00	320.91	2,200.00	0.34	-0.28	1,905,760.19	536,810.71	36.237623	-107.708511
2,400.00	5.00	320.91	2,399.68	8.46	-6.87	1,905,768.30	536,804.10	36.237645	-107.708534
2,600.00	9.00	320.91	2,598.15	27.37	-22.24	1,905,787.20	536,788.71	36.237697	-107.708586
2,800.00	13.00	320.91	2,794.44	56.98	-46.30	1,905,816.78	536,764.61	36.237779	-107.708667
3,000.00	17.00	320.91	2,987.58	97.15	-78.94	1,905,856.90	536,731.92	36.237889	-107.708778
3,200.00	21.00	320.91	3,176.65	147.68	-119.99	1,905,907.37	536,690.80	36.238028	-107.708917
3,343.84	23.88	320.91	3,309.59	190.28	-154.61	1,905,949.93	536,656.13	36.238145	-107.709035
Hold 23.88° Inc, 320.91° Az									
3,400.00	23.88	320.91	3,360.94	207.92	-168.94	1,905,967.56	536,641.77	36.238193	-107.709083
3,600.00	23.88	320.91	3,543.82	270.75	-219.99	1,906,030.32	536,590.64	36.238366	-107.709256
3,800.00	23.88	320.91	3,726.71	333.58	-271.04	1,906,093.08	536,539.51	36.238538	-107.709429
4,000.00	23.88	320.91	3,909.59	396.41	-322.09	1,906,155.85	536,488.38	36.238711	-107.709602
4,200.00	23.88	320.91	4,092.47	459.24	-373.14	1,906,218.61	536,437.25	36.238884	-107.709776
4,318.98	23.88	320.91	4,201.27	496.61	-403.51	1,906,255.95	536,406.83	36.238986	-107.709879
KOP 9°/100									
4,400.00	16.62	323.14	4,277.23	518.64	-420.83	1,906,277.95	536,389.48	36.239047	-107.709937
4,600.00	2.53	82.63	4,474.58	542.29	-433.72	1,906,301.59	536,376.56	36.239112	-107.709981
4,800.00	19.60	130.57	4,670.30	520.87	-403.62	1,906,280.20	536,406.69	36.239053	-107.709879
5,000.00	37.54	133.64	4,845.24	456.47	-333.46	1,906,215.89	536,476.93	36.238876	-107.709641
5,200.00	55.52	134.90	4,982.26	355.39	-230.12	1,906,114.95	536,580.40	36.238598	-107.709291
5,249.80	60.00	135.12	5,008.82	325.61	-200.35	1,906,085.20	536,610.21	36.238517	-107.709190
Hold 60° Tangent									
5,309.80	60.00	135.12	5,038.82	288.79	-163.69	1,906,048.43	536,646.92	36.238415	-107.709065
Begin 9°/100 Build									
5,400.00	68.12	135.12	5,078.25	231.36	-106.50	1,905,991.07	536,704.18	36.238258	-107.708871
5,600.00	86.12	135.12	5,122.65	93.77	30.51	1,905,853.67	536,841.37	36.237880	-107.708407
5,654.80	91.05	135.12	5,124.00	54.97	69.15	1,905,814.91	536,880.06	36.237773	-107.708276
POE 91.05° Inc, 135.12° Az									
5,655.00	91.05	135.12	5,124.00	54.83	69.29	1,905,814.77	536,880.20	36.237773	-107.708275
7"									
5,800.00	91.05	135.12	5,121.34	-47.90	171.59	1,905,712.17	536,982.63	36.237490	-107.707928
6,000.00	91.05	135.12	5,117.68	-189.60	312.69	1,905,570.66	537,123.92	36.237101	-107.707450
6,200.00	91.05	135.12	5,114.01	-331.29	453.79	1,905,429.15	537,265.20	36.236712	-107.706972
6,400.00	91.05	135.12	5,110.34	-472.99	594.89	1,905,287.63	537,406.48	36.236323	-107.706493
6,600.00	91.05	135.12	5,106.68	-614.68	735.99	1,905,146.12	537,547.76	36.235933	-107.706015
6,800.00	91.05	135.12	5,103.01	-756.38	877.09	1,905,004.61	537,689.05	36.235544	-107.705536
7,000.00	91.05	135.12	5,099.34	-898.07	1,018.19	1,904,863.09	537,830.33	36.235155	-107.705058
7,200.00	91.05	135.12	5,095.68	-1,039.76	1,159.29	1,904,721.58	537,971.61	36.234766	-107.704579

Database: COMPASS
 Company: WPX Energy
 Project: T23N R8W
 Site: 2308-08N WLU
 Well: W Lybrook UT #744H
 Wellbore: Wellbore #1
 Design: Design #1 26Oct16 kjs

Local Co-ordinate Reference: Well W Lybrook UT #744H - Slot 744H
 TVD Reference: WELL @ 6823.00usft (Original Well Elev)
 MD Reference: WELL @ 6823.00usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,400.00	91.05	135.12	5,092.01	-1,181.46	1,300.39	1,904,580.07	538,112.89	36.234376	-107.704101
7,600.00	91.05	135.12	5,088.34	-1,323.15	1,441.49	1,904,438.56	538,254.18	36.233987	-107.703623
7,800.00	91.05	135.12	5,084.67	-1,464.85	1,582.59	1,904,297.04	538,395.46	36.233598	-107.703144
8,000.00	91.05	135.12	5,081.01	-1,606.54	1,723.69	1,904,155.53	538,536.74	36.233209	-107.702666
8,200.00	91.05	135.12	5,077.34	-1,748.24	1,864.79	1,904,014.02	538,678.02	36.232819	-107.702187
8,400.00	91.05	135.12	5,073.67	-1,889.93	2,005.89	1,903,872.51	538,819.30	36.232430	-107.701709
8,600.00	91.05	135.12	5,070.01	-2,031.63	2,146.99	1,903,730.99	538,960.59	36.232041	-107.701230
8,800.00	91.05	135.12	5,066.34	-2,173.32	2,288.09	1,903,589.48	539,101.87	36.231651	-107.700752
9,000.00	91.05	135.12	5,062.67	-2,315.02	2,429.19	1,903,447.97	539,243.15	36.231262	-107.700274
9,200.00	91.05	135.12	5,059.01	-2,456.71	2,570.29	1,903,306.45	539,384.43	36.230873	-107.699795
9,400.00	91.05	135.12	5,055.34	-2,598.41	2,711.39	1,903,164.94	539,525.72	36.230484	-107.699317
9,600.00	91.05	135.12	5,051.67	-2,740.10	2,852.49	1,903,023.43	539,667.00	36.230094	-107.698839
9,800.00	91.05	135.12	5,048.01	-2,881.79	2,993.59	1,902,881.92	539,808.28	36.229705	-107.698360
10,000.00	91.05	135.12	5,044.34	-3,023.49	3,134.69	1,902,740.40	539,949.56	36.229316	-107.697882
10,200.00	91.05	135.12	5,040.67	-3,165.18	3,275.79	1,902,598.89	540,090.85	36.228926	-107.697404
10,400.00	91.05	135.12	5,037.01	-3,306.88	3,416.89	1,902,457.38	540,232.13	36.228537	-107.696925
10,600.00	91.05	135.12	5,033.34	-3,448.57	3,557.99	1,902,315.87	540,373.41	36.228148	-107.696447
10,618.59	91.05	135.12	5,033.00	-3,461.74	3,571.10	1,902,302.71	540,386.54	36.228112	-107.696402

TD at 10618.59

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 744H - plan hits target center - Point	0.00	0.00	5,008.82	325.61	-200.35	1,906,085.20	536,610.21	36.238517	-107.709190
TD / PBHL 744H - plan hits target center - Point	0.00	0.00	5,033.00	-3,461.74	3,571.10	1,902,302.71	540,386.54	36.228112	-107.696402
POE 744H - plan misses target center by 0.01usft at 5654.80usft MD (5124.00 TVD, 54.96 N, 69.15 E) - Point	0.00	0.00	5,124.00	54.97	69.16	1,905,814.91	536,880.07	36.237773	-107.708276

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
351.00	351.00	9 5/8"	9.625	13.500
5,655.00	5,124.00	7"	7.000	7.500

Database: COMPASS
Company: WPX Energy
Project: T23N R8W
Site: 2308-08N WLU
Well: W Lybrook UT #744H
Wellbore: Wellbore #1
Design: Design #1 26Oct16 kjs

Local Co-ordinate Reference: Well W Lybrook UT #744H - Slot 744H
TVD Reference: WELL @ 6823.00usft (Original Well Elev)
MD Reference: WELL @ 6823.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
2,150.00	2,150.00	0.00	0.00	Start Build 2.00
3,343.84	3,309.59	190.28	-154.61	Hold 23.88° Inc, 320.91° Az
4,318.98	4,201.27	496.61	-403.51	KOP 9°/100
5,249.80	5,008.82	325.61	-200.35	Hold 60° Tangent
5,309.80	5,038.82	288.79	-163.69	Begin 9°/100 Build
5,654.80	5,124.00	54.97	69.15	POE 91.05° Inc, 135.12° Az
10,618.59	5,033.00	-3,461.74	3,571.10	TD at 10618.59

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

in Bloomfield, NM to WPX Energy Production, LLC W Lybrook Unit #744H

1202' FSL & 1307' FWL, Section 8, T23N, R8W, N.M.P.M., San Juan County, NM

Latitude: 36.237635°N Longitude: 107.709122°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 38.7 miles to Mile Marker 112.7;

Go Right (Southerly) on County Road #7900 for 0.2 miles to begin proposed access on right-hand side of County Road #7900 which continues for 764.1' to staked WPX W Lybrook Unit #744H location.