

RECEIVED

Form 3160-5
(June 2015)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUL 11 2017

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018**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.*Farmington Field Office
Bureau of Land Management5. Lease Serial No.
NOG14011865
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

OIL CONS. DIV DIST. 3

2. Name of Operator
WPX Energy Production, LLC3a. Address
PO Box 640 Aztec, NM 874103b. Phone No. (include area code)
505-333-18164. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SHL: 1333' FSL & 2250' FEL, Sec 7, T23N, R8W
BHL: 330' FSL & 434' FEL, Sec 17, T23N, R8W7. If Unit of CA/Agreement, Name and/or No.
NMNM 135216A8. Well Name and No.
W Lybrook Unit 745H9. API Well No.
30-045-3575010. Field and Pool or Exploratory Area
Lybrook Mancos W11. 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	<u>Change in</u>
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	<u>Plans</u>

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 Energy requests a change in plans to shift the POE/BHL Lateral to the Southwest per attached C102, ops and directional plans.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Lacey Granillo

Title Permit Tech III

Signature

Date 7/11/17

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

PE

Date

7/12/17

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

FFO

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.

ADHERE TO PREVIOUS NMOC
CONDITIONS OF APPROVAL

NMOC

AV

13

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

Form C-102
Revised August 1, 2011
Submit one copy to
Appropriate District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35750	*Pool Code 98157	*Pool Name LYBROOK MANCOS W
*Property Code 315250	*Property Name W LYBROOK UNIT	*Well Number 745H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC	*Elevation 6778'

¹⁰ Surface Location

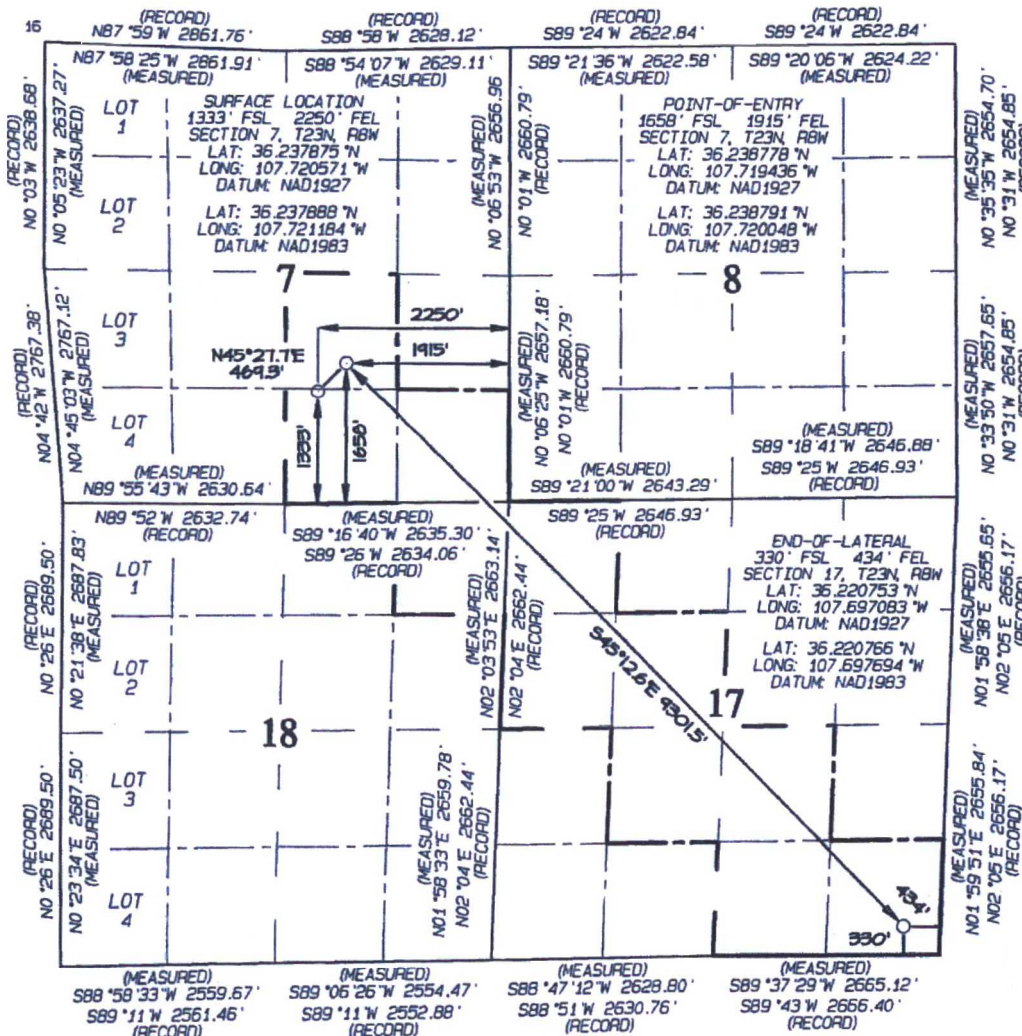
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	7	23N	8W		1333	SOUTH	2250	EAST	SAN JUAN

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
P	17	23N	8W		330	SOUTH	434	EAST	SAN JUAN

*Dedicated Acres 440.0 NE/4 NE/4 - Section 18 NW/4 SE/4, S/2 SE/4 - Section 7 NW/4 NW/4, S/2 NW/4, NE/4 SW/4 NW/4 SE/4, S/2 SE/4 - Section 17	*Joint or Infill	*Consolidation Code	*Order No. R-14051 - 12,807.24 Acres
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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



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: Lacey granillo Date: 7/11/17
Printed Name: Lacey granillo
E-mail Address: lacey.granillo@wpenergy.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: JULY 11, 2017
Date of Survey: MAY 15, 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)

<u>Date:</u>	July 11, 2017	<u>Field:</u>	Lybrook Mancos W
<u>Well Name:</u>	W Lybrook Unit #745H	<u>Surface:</u>	IA
<u>SH Location:</u>	SWSE Sec 7-23N-08W	<u>Elevation:</u>	6778' GR
<u>BH Location:</u>	SESE Sec 17-23N-08W	<u>Minerals:</u>	FED

Measured Depth: 15009.75'

I. GEOLOGY: SURFACE FORMATION - NACIMIENTO

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	789.00	788.00	POINT LOOKOUT	3861.00	3775.00
KIRTLAND	999.00	996.00	MANCOS	4053.00	3962.00
PICTURED CLIFFS	1,384.00	1,372.00	GALLUP	4413.00	4311.00
LEWIS	1,499.00	1,483.00	KICKOFF POINT	4414.51	4312.61
CHACRA	1,766.00	1,742.00	TOP TARGET	5315.00	5038.00
CLIFF HOUSE	2,873.00	2,817.00	LANDING POINT	5558.87	5082.00
MENEFEE	2,924.00	2,866.00	BASE TARGET	5558.87	5082.00
			TD	15009.75	4997.00

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 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"	5558.87'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5408.87' - 15009.75'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5408.87'	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: 108 bbls, 308 sks, (607 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 88 bbls, 381 sks, (495 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 219 bbl Drilling mud or water. Total Cement: 196 bbls, 689 sks, (1102 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 37 bbls, 108 sks, (210 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/ +/- 66 bbl Drilling mud or water. Total Cement: 54 bbls, 186 sks, (301 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 (941 sx /1280 cuft /228 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (941 sx /1280bbls).

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.

- Although this horizontal well will be 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 R8W

W Lybrook 705 Pad

W Lybrook 745H

API: 30-045-35750

Wellbore #1

Plan: Plan #3

Standard Planning Report - Geographic

06 July, 2017



www.scientificdrilling.com



Scientific Drilling Int.
Planning Report - Geographic

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lybrook 745H
Company:	WPX Energy	TVD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

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	W Lybrook 705 Pad			
Site Position:		Northing:	1,905,858.53 usft	Latitude: 36.237905
From:	Lat/Long	Easting:	533,270.53 usft	Longitude: -107.720515
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.07 °

Well	W Lybrook 745H			
Well Position	+N/-S	0.00 usft	Northing:	1,905,847.59 usft
	+E/-W	0.00 usft	Easting:	533,254.02 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,778.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/6/2017	9.00	62.88	49,664

Design	Plan #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	134.85

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	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	
1,198.05	13.96	341.26	1,191.16	80.14	-27.19	2.00	2.00	0.00	341.26	
4,414.51	13.96	341.26	4,312.61	814.99	-276.56	0.00	0.00	0.00	0.00	
5,558.87	90.52	134.85	5,082.00	433.45	228.68	9.00	6.69	13.42	152.85	
15,009.75	90.52	134.85	4,997.00	-6,231.85	6,928.36	0.00	0.00	0.00	0.00	WL745H BHL

Scientific Drilling Int.
Planning Report - Geographic

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lybrook 745H
Company:	WPX Energy	TVD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	1,905,847.59	533,254.02	36.237875	-107.720571
100.00	0.00	0.00	100.00	0.00	0.00	1,905,847.59	533,254.02	36.237875	-107.720571
200.00	0.00	0.00	200.00	0.00	0.00	1,905,847.59	533,254.02	36.237875	-107.720571
300.00	0.00	0.00	300.00	0.00	0.00	1,905,847.59	533,254.02	36.237875	-107.720571
400.00	0.00	0.00	400.00	0.00	0.00	1,905,847.59	533,254.02	36.237875	-107.720571
500.00	0.00	0.00	500.00	0.00	0.00	1,905,847.59	533,254.02	36.237875	-107.720571
Start Build 2.00									
600.00	2.00	341.26	599.98	1.65	-0.56	1,905,849.24	533,253.46	36.237880	-107.720573
700.00	4.00	341.26	699.84	6.61	-2.24	1,905,854.19	533,251.77	36.237893	-107.720579
799.55	5.99	341.26	799.00	14.82	-5.03	1,905,862.40	533,248.98	36.237916	-107.720588
Ojo Alamo									
800.00	6.00	341.26	799.45	14.86	-5.04	1,905,862.44	533,248.96	36.237916	-107.720588
900.00	8.00	341.26	898.70	26.40	-8.96	1,905,873.98	533,245.03	36.237948	-107.720602
1,000.00	10.00	341.26	997.47	41.21	-13.99	1,905,888.79	533,239.99	36.237988	-107.720619
1,009.68	10.19	341.26	1,007.00	42.82	-14.53	1,905,890.39	533,239.44	36.237993	-107.720621
Kirtland									
1,100.00	12.00	341.26	1,095.62	59.28	-20.12	1,905,906.85	533,233.84	36.238038	-107.720639
1,198.05	13.96	341.26	1,191.16	80.14	-27.19	1,905,927.69	533,226.74	36.238095	-107.720663
Start 3216.46 hold at 1198.05 MD									
1,200.00	13.96	341.26	1,193.06	80.58	-27.34	1,905,928.14	533,226.59	36.238096	-107.720664
1,300.00	13.96	341.26	1,290.10	103.43	-35.10	1,905,950.98	533,218.81	36.238159	-107.720690
1,395.73	13.96	341.26	1,383.00	125.30	-42.52	1,905,972.84	533,211.36	36.238219	-107.720715
Picture Cliffs									
1,400.00	13.96	341.26	1,387.15	126.28	-42.85	1,905,973.82	533,211.03	36.238222	-107.720717
1,500.00	13.96	341.26	1,484.19	149.12	-50.60	1,905,996.65	533,203.25	36.238285	-107.720743
1,555.44	13.96	341.26	1,538.00	161.79	-54.90	1,906,009.31	533,198.93	36.238320	-107.720757
Lewis									
1,600.00	13.96	341.26	1,581.24	171.97	-58.36	1,906,019.49	533,195.47	36.238348	-107.720769
1,700.00	13.96	341.26	1,678.29	194.82	-66.11	1,906,042.33	533,187.69	36.238410	-107.720795
1,776.99	13.96	341.26	1,753.00	212.41	-72.08	1,906,059.91	533,181.70	36.238459	-107.720816
Chacra									
1,800.00	13.96	341.26	1,775.33	217.66	-73.86	1,906,065.17	533,179.91	36.238473	-107.720822
1,900.00	13.96	341.26	1,872.38	240.51	-81.61	1,906,088.00	533,172.13	36.238536	-107.720848
2,000.00	13.96	341.26	1,969.42	263.36	-89.37	1,906,110.84	533,164.35	36.238599	-107.720874
2,100.00	13.96	341.26	2,066.47	286.20	-97.12	1,906,133.68	533,156.57	36.238661	-107.720901
2,200.00	13.96	341.26	2,163.52	309.05	-104.87	1,906,156.52	533,148.79	36.238724	-107.720927
2,300.00	13.96	341.26	2,260.56	331.90	-112.62	1,906,179.35	533,141.01	36.238787	-107.720953
2,400.00	13.96	341.26	2,357.61	354.74	-120.38	1,906,202.19	533,133.23	36.238850	-107.720979
2,500.00	13.96	341.26	2,454.65	377.59	-128.13	1,906,225.03	533,125.46	36.238912	-107.721006
2,600.00	13.96	341.26	2,551.70	400.44	-135.88	1,906,247.87	533,117.68	36.238975	-107.721032
2,700.00	13.96	341.26	2,648.75	423.28	-143.64	1,906,270.70	533,109.90	36.239038	-107.721058
2,800.00	13.96	341.26	2,745.79	446.13	-151.39	1,906,293.54	533,102.12	36.239101	-107.721085
2,884.71	13.96	341.26	2,828.00	465.48	-157.96	1,906,312.89	533,095.53	36.239154	-107.721107
Cliff House									
2,900.00	13.96	341.26	2,842.84	468.98	-159.14	1,906,316.38	533,094.34	36.239163	-107.721111
2,935.20	13.96	341.26	2,877.00	477.02	-161.87	1,906,324.42	533,091.60	36.239186	-107.721120
Menefee									
3,000.00	13.96	341.26	2,939.88	491.82	-166.89	1,906,339.22	533,086.56	36.239226	-107.721137
3,100.00	13.96	341.26	3,036.93	514.67	-174.65	1,906,362.05	533,078.78	36.239289	-107.721163
3,200.00	13.96	341.26	3,133.98	537.52	-182.40	1,906,384.89	533,071.00	36.239352	-107.721190
3,300.00	13.96	341.26	3,231.02	560.36	-190.15	1,906,407.73	533,063.22	36.239414	-107.721216
3,400.00	13.96	341.26	3,328.07	583.21	-197.90	1,906,430.57	533,055.44	36.239477	-107.721242

Scientific Drilling Int.
Planning Report - Geographic

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lybrook 745H
Company:	WPX Energy	TVD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
3,500.00	13.96	341.26	3,425.11	606.06	-205.66	1,906,453.40	533,047.66	36.239540	-107.721269
3,600.00	13.96	341.26	3,522.16	628.90	-213.41	1,906,476.24	533,039.88	36.239603	-107.721295
3,700.00	13.96	341.26	3,619.21	651.75	-221.16	1,906,499.08	533,032.10	36.239666	-107.721321
3,800.00	13.96	341.26	3,716.25	674.59	-228.92	1,906,521.92	533,024.32	36.239728	-107.721348
3,871.87	13.96	341.26	3,786.00	691.02	-234.49	1,906,538.33	533,018.73	36.239773	-107.721366
Point Lookout									
3,900.00	13.96	341.26	3,813.30	697.44	-236.67	1,906,544.75	533,016.55	36.239791	-107.721374
4,000.00	13.96	341.26	3,910.34	720.29	-244.42	1,906,567.59	533,008.77	36.239854	-107.721400
4,064.56	13.96	341.26	3,973.00	735.04	-249.43	1,906,582.34	533,003.74	36.239894	-107.721417
Mancos									
4,100.00	13.96	341.26	4,007.39	743.13	-252.17	1,906,590.43	533,000.99	36.239917	-107.721426
4,200.00	13.96	341.26	4,104.44	765.98	-259.93	1,906,613.27	532,993.21	36.239979	-107.721453
4,300.00	13.96	341.26	4,201.48	788.83	-267.68	1,906,636.11	532,985.43	36.240042	-107.721479
4,400.00	13.96	341.26	4,298.53	811.67	-275.43	1,906,658.94	532,977.65	36.240105	-107.721505
4,414.51	13.96	341.26	4,312.61	814.99	-276.56	1,906,662.26	532,976.52	36.240114	-107.721509
KOP - Start DLS 9.00 TFO 152.85									
4,424.17	13.19	342.99	4,322.00	817.15	-277.25	1,906,664.41	532,975.82	36.240120	-107.721511
Gallup									
4,450.00	11.21	348.77	4,347.25	822.43	-278.60	1,906,669.69	532,974.46	36.240134	-107.721516
4,500.00	7.92	7.58	4,396.55	830.62	-279.10	1,906,677.88	532,973.96	36.240157	-107.721518
4,550.00	6.33	42.26	4,446.19	836.07	-276.79	1,906,683.34	532,976.26	36.240172	-107.721510
4,600.00	7.60	78.63	4,495.84	838.76	-271.69	1,906,686.04	532,981.36	36.240179	-107.721493
4,619.35	8.68	88.28	4,515.00	839.06	-268.98	1,906,686.34	532,984.07	36.240180	-107.721483
Gallup Upper									
4,650.00	10.76	99.13	4,545.21	838.68	-263.84	1,906,685.96	532,989.21	36.240179	-107.721466
4,700.00	14.63	109.68	4,593.99	835.81	-253.29	1,906,683.10	532,999.77	36.240171	-107.721430
4,750.00	18.78	115.78	4,641.87	830.18	-240.09	1,906,677.49	533,012.97	36.240156	-107.721385
4,800.00	23.06	119.71	4,688.56	821.82	-224.33	1,906,669.15	533,028.74	36.240133	-107.721332
4,850.00	27.40	122.46	4,733.78	810.79	-206.10	1,906,658.13	533,046.98	36.240102	-107.721270
4,900.00	31.79	124.50	4,777.25	797.14	-185.53	1,906,644.52	533,067.57	36.240065	-107.721200
4,936.84	35.04	125.71	4,808.00	785.47	-168.94	1,906,632.86	533,084.17	36.240033	-107.721144
Mancos Lwr									
4,950.00	36.20	126.09	4,818.70	780.98	-162.73	1,906,628.38	533,090.38	36.240021	-107.721123
5,000.00	40.63	127.38	4,857.86	762.39	-137.85	1,906,609.81	533,115.29	36.239969	-107.721039
5,045.05	44.63	128.35	4,891.00	743.66	-113.78	1,906,591.11	533,139.38	36.239918	-107.720957
El Vado									
5,050.00	45.07	128.45	4,894.51	741.49	-111.04	1,906,588.95	533,142.12	36.239912	-107.720948
5,100.00	49.52	129.37	4,928.41	718.41	-82.46	1,906,565.90	533,170.73	36.239849	-107.720851
5,116.56	51.00	129.65	4,939.00	710.30	-72.64	1,906,557.81	533,180.56	36.239826	-107.720818
Frac Barrier									
5,137.65	52.87	129.99	4,952.00	699.67	-59.89	1,906,547.19	533,193.32	36.239797	-107.720774
Mancos Unc									
5,150.00	53.98	130.18	4,959.36	693.29	-52.30	1,906,540.81	533,200.92	36.239780	-107.720749
5,199.69	58.41	130.89	4,987.00	666.46	-20.93	1,906,514.02	533,232.32	36.239706	-107.720642
PS 3									
5,200.00	58.44	130.89	4,987.16	666.28	-20.73	1,906,513.85	533,232.52	36.239705	-107.720642
5,250.00	62.90	131.55	5,011.65	637.56	12.04	1,906,485.17	533,265.33	36.239627	-107.720530
5,255.20	63.36	131.61	5,014.00	634.49	15.51	1,906,482.09	533,268.80	36.239618	-107.720519
PS2									
5,300.00	67.37	132.15	5,032.67	607.30	45.83	1,906,454.95	533,299.14	36.239543	-107.720416

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Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/S (usft)	+E/W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,346.51	71.52	132.67	5,049.00	577.93	77.97	1,906,425.61	533,331.32	36.239463	-107.720307
PS1									
5,350.00	71.84	132.71	5,050.10	575.69	80.41	1,906,423.37	533,333.76	36.239457	-107.720299
5,400.00	76.31	133.25	5,063.82	542.92	115.57	1,906,390.64	533,368.96	36.239367	-107.720179
5,409.52	77.16	133.35	5,066.00	536.56	122.31	1,906,384.29	533,375.71	36.239349	-107.720157
PSA									
5,450.00	80.78	133.76	5,073.75	509.19	151.10	1,906,356.95	533,404.53	36.239274	-107.720059
5,500.00	85.25	134.27	5,079.83	474.71	186.78	1,906,322.52	533,440.25	36.239179	-107.719938
5,550.00	89.72	134.76	5,082.02	439.70	222.39	1,906,287.55	533,475.90	36.239083	-107.719817
5,558.87	90.52	134.85	5,082.00	433.45	228.68	1,906,281.30	533,482.20	36.239066	-107.719796
Start 9450.88 hold at 5558.87 MD									
5,600.00	90.52	134.85	5,081.63	404.44	257.84	1,906,252.33	533,511.39	36.238986	-107.719697
5,700.00	90.52	134.85	5,080.73	333.91	328.73	1,906,181.89	533,582.36	36.238792	-107.719457
5,706.32	90.52	134.85	5,080.67	329.46	333.21	1,906,177.43	533,586.85	36.238780	-107.719441
7"									
5,800.00	90.52	134.85	5,079.83	263.39	399.62	1,906,111.44	533,653.34	36.238599	-107.719216
5,900.00	90.52	134.85	5,078.93	192.86	470.51	1,906,041.00	533,724.31	36.238405	-107.718976
6,000.00	90.52	134.85	5,078.03	122.34	541.40	1,905,970.56	533,795.28	36.238211	-107.718735
6,100.00	90.52	134.85	5,077.13	51.81	612.29	1,905,900.11	533,866.25	36.238017	-107.718495
6,200.00	90.52	134.85	5,076.23	-18.71	683.18	1,905,829.67	533,937.22	36.237824	-107.718255
6,300.00	90.52	134.85	5,075.33	-89.24	754.07	1,905,759.23	534,008.19	36.237630	-107.718014
6,400.00	90.52	134.85	5,074.44	-159.77	824.96	1,905,688.78	534,079.16	36.237436	-107.717774
6,500.00	90.52	134.85	5,073.54	-230.29	895.84	1,905,618.34	534,150.14	36.237242	-107.717534
6,600.00	90.52	134.85	5,072.64	-300.82	966.73	1,905,547.90	534,221.11	36.237049	-107.717293
6,700.00	90.52	134.85	5,071.74	-371.34	1,037.62	1,905,477.45	534,292.08	36.236855	-107.717053
6,800.00	90.52	134.85	5,070.84	-441.87	1,108.51	1,905,407.01	534,363.05	36.236661	-107.716812
6,900.00	90.52	134.85	5,069.94	-512.39	1,179.40	1,905,336.57	534,434.02	36.236467	-107.716572
7,000.00	90.52	134.85	5,069.04	-582.92	1,250.29	1,905,266.12	534,504.99	36.236274	-107.716332
7,100.00	90.52	134.85	5,068.14	-653.45	1,321.18	1,905,195.68	534,575.97	36.236080	-107.716091
7,200.00	90.52	134.85	5,067.24	-723.97	1,392.07	1,905,125.24	534,646.94	36.235886	-107.715851
7,300.00	90.52	134.85	5,066.34	-794.50	1,462.96	1,905,054.80	534,717.91	36.235692	-107.715611
7,400.00	90.52	134.85	5,065.44	-865.02	1,533.85	1,904,984.35	534,788.88	36.235499	-107.715370
7,500.00	90.52	134.85	5,064.54	-935.55	1,604.74	1,904,913.91	534,859.85	36.235305	-107.715130
7,600.00	90.52	134.85	5,063.64	-1,006.07	1,675.63	1,904,843.47	534,930.82	36.235111	-107.714890
7,700.00	90.52	134.85	5,062.74	-1,076.60	1,746.52	1,904,773.02	535,001.79	36.234917	-107.714649
7,800.00	90.52	134.85	5,061.84	-1,147.13	1,817.41	1,904,702.58	535,072.77	36.234724	-107.714409
7,900.00	90.52	134.85	5,060.94	-1,217.65	1,888.30	1,904,632.14	535,143.74	36.234530	-107.714168
8,000.00	90.52	134.85	5,060.04	-1,288.18	1,959.19	1,904,561.69	535,214.71	36.234336	-107.713928
8,100.00	90.52	134.85	5,059.15	-1,358.70	2,030.08	1,904,491.25	535,285.68	36.234142	-107.713688
8,200.00	90.52	134.85	5,058.25	-1,429.23	2,100.97	1,904,420.81	535,356.65	36.233949	-107.713447
8,300.00	90.52	134.85	5,057.35	-1,499.75	2,171.86	1,904,350.36	535,427.62	36.233755	-107.713207
8,400.00	90.52	134.85	5,056.45	-1,570.28	2,242.74	1,904,279.92	535,498.59	36.233561	-107.712967
8,500.00	90.52	134.85	5,055.55	-1,640.80	2,313.63	1,904,209.48	535,569.57	36.233367	-107.712726
8,600.00	90.52	134.85	5,054.65	-1,711.33	2,384.52	1,904,139.03	535,640.54	36.233174	-107.712486
8,700.00	90.52	134.85	5,053.75	-1,781.86	2,455.41	1,904,068.59	535,711.51	36.232980	-107.712246
8,800.00	90.52	134.85	5,052.85	-1,852.38	2,526.30	1,903,998.15	535,782.48	36.232786	-107.712005
8,900.00	90.52	134.85	5,051.95	-1,922.91	2,597.19	1,903,927.70	535,853.45	36.232592	-107.711765
9,000.00	90.52	134.85	5,051.05	-1,993.43	2,668.08	1,903,857.26	535,924.42	36.232398	-107.711525
9,100.00	90.52	134.85	5,050.15	-2,063.96	2,738.97	1,903,786.82	535,995.39	36.232205	-107.711284
9,200.00	90.52	134.85	5,049.25	-2,134.48	2,809.86	1,903,716.37	536,066.37	36.232011	-107.711044
9,300.00	90.52	134.85	5,048.35	-2,205.01	2,880.75	1,903,645.93	536,137.34	36.231817	-107.710804
9,400.00	90.52	134.85	5,047.45	-2,275.54	2,951.64	1,903,575.49	536,208.31	36.231623	-107.710563

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Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,500.00	90.52	134.85	5,046.55	-2,346.06	3,022.53	1,903,505.05	536,279.28	36.231430	-107.710323
9,600.00	90.52	134.85	5,045.65	-2,416.59	3,093.42	1,903,434.60	536,350.25	36.231236	-107.710083
9,700.00	90.52	134.85	5,044.76	-2,487.11	3,164.31	1,903,364.16	536,421.22	36.231042	-107.709842
9,800.00	90.52	134.85	5,043.86	-2,557.64	3,235.20	1,903,293.72	536,492.20	36.230848	-107.709602
9,900.00	90.52	134.85	5,042.96	-2,628.16	3,306.09	1,903,223.27	536,563.17	36.230655	-107.709362
10,000.00	90.52	134.85	5,042.06	-2,698.69	3,376.98	1,903,152.83	536,634.14	36.230461	-107.709121
10,100.00	90.52	134.85	5,041.16	-2,769.22	3,447.87	1,903,082.39	536,705.11	36.230267	-107.708881
10,200.00	90.52	134.85	5,040.26	-2,839.74	3,518.76	1,903,011.94	536,776.08	36.230073	-107.708641
10,300.00	90.52	134.85	5,039.36	-2,910.27	3,589.64	1,902,941.50	536,847.05	36.229880	-107.708400
10,400.00	90.52	134.85	5,038.46	-2,980.79	3,660.53	1,902,871.06	536,918.02	36.229686	-107.708160
10,500.00	90.52	134.85	5,037.56	-3,051.32	3,731.42	1,902,800.61	536,989.00	36.229492	-107.707920
10,600.00	90.52	134.85	5,036.66	-3,121.84	3,802.31	1,902,730.17	537,059.97	36.229298	-107.707679
10,700.00	90.52	134.85	5,035.76	-3,192.37	3,873.20	1,902,659.73	537,130.94	36.229104	-107.707439
10,800.00	90.52	134.85	5,034.86	-3,262.90	3,944.09	1,902,589.28	537,201.91	36.228911	-107.707199
10,900.00	90.52	134.85	5,033.96	-3,333.42	4,014.98	1,902,518.84	537,272.88	36.228717	-107.706958
11,000.00	90.52	134.85	5,033.06	-3,403.95	4,085.87	1,902,448.40	537,343.85	36.228523	-107.706718
11,100.00	90.52	134.85	5,032.16	-3,474.47	4,156.76	1,902,377.95	537,414.82	36.228329	-107.706478
11,200.00	90.52	134.85	5,031.26	-3,545.00	4,227.65	1,902,307.51	537,485.80	36.228136	-107.706237
11,300.00	90.52	134.85	5,030.37	-3,615.52	4,298.54	1,902,237.07	537,556.77	36.227942	-107.705997
11,400.00	90.52	134.85	5,029.47	-3,686.05	4,369.43	1,902,166.63	537,627.74	36.227748	-107.705757
11,500.00	90.52	134.85	5,028.57	-3,756.58	4,440.32	1,902,096.18	537,698.71	36.227554	-107.705516
11,600.00	90.52	134.85	5,027.67	-3,827.10	4,511.21	1,902,025.74	537,769.68	36.227360	-107.705276
11,700.00	90.52	134.85	5,026.77	-3,897.63	4,582.10	1,901,955.30	537,840.65	36.227167	-107.705036
11,800.00	90.52	134.85	5,025.87	-3,968.15	4,652.99	1,901,884.85	537,911.62	36.226973	-107.704795
11,900.00	90.52	134.85	5,024.97	-4,038.68	4,723.88	1,901,814.41	537,982.60	36.226779	-107.704555
12,000.00	90.52	134.85	5,024.07	-4,109.20	4,794.77	1,901,743.97	538,053.57	36.226585	-107.704315
12,100.00	90.52	134.85	5,023.17	-4,179.73	4,865.65	1,901,673.52	538,124.54	36.226392	-107.704075
12,200.00	90.52	134.85	5,022.27	-4,250.26	4,936.54	1,901,603.08	538,195.51	36.226198	-107.703834
12,300.00	90.52	134.85	5,021.37	-4,320.78	5,007.43	1,901,532.64	538,266.48	36.226004	-107.703594
12,400.00	90.52	134.85	5,020.47	-4,391.31	5,078.32	1,901,462.19	538,337.45	36.225810	-107.703354
12,500.00	90.52	134.85	5,019.57	-4,461.83	5,149.21	1,901,391.75	538,408.43	36.225616	-107.703113
12,600.00	90.52	134.85	5,018.67	-4,532.36	5,220.10	1,901,321.31	538,479.40	36.225423	-107.702873
12,700.00	90.52	134.85	5,017.77	-4,602.88	5,290.99	1,901,250.86	538,550.37	36.225229	-107.702633
12,800.00	90.52	134.85	5,016.87	-4,673.41	5,361.88	1,901,180.42	538,621.34	36.225035	-107.702392
12,900.00	90.52	134.85	5,015.97	-4,743.94	5,432.77	1,901,109.98	538,692.31	36.224841	-107.702152
13,000.00	90.52	134.85	5,015.08	-4,814.46	5,503.66	1,901,039.53	538,763.28	36.224648	-107.701912
13,100.00	90.52	134.85	5,014.18	-4,884.99	5,574.55	1,900,969.09	538,834.25	36.224454	-107.701672
13,200.00	90.52	134.85	5,013.28	-4,955.51	5,645.44	1,900,898.65	538,905.23	36.224260	-107.701431
13,300.00	90.52	134.85	5,012.38	-5,026.04	5,716.33	1,900,828.20	538,976.20	36.224066	-107.701191
13,400.00	90.52	134.85	5,011.48	-5,096.56	5,787.22	1,900,757.76	539,047.17	36.223872	-107.700951
13,500.00	90.52	134.85	5,010.58	-5,167.09	5,858.11	1,900,687.32	539,118.14	36.223679	-107.700710
13,600.00	90.52	134.85	5,009.68	-5,237.62	5,929.00	1,900,616.88	539,189.11	36.223485	-107.700470
13,700.00	90.52	134.85	5,008.78	-5,308.14	5,999.89	1,900,546.43	539,260.08	36.223291	-107.700230
13,800.00	90.52	134.85	5,007.88	-5,378.67	6,070.78	1,900,475.99	539,331.05	36.223097	-107.699990
13,900.00	90.52	134.85	5,006.98	-5,449.19	6,141.67	1,900,405.55	539,402.03	36.222904	-107.699749
14,000.00	90.52	134.85	5,006.08	-5,519.72	6,212.55	1,900,335.10	539,473.00	36.222710	-107.699509
14,100.00	90.52	134.85	5,005.18	-5,590.24	6,283.44	1,900,264.66	539,543.97	36.222516	-107.699269
14,200.00	90.52	134.85	5,004.28	-5,660.77	6,354.33	1,900,194.22	539,614.94	36.222322	-107.699028
14,300.00	90.52	134.85	5,003.38	-5,731.30	6,425.22	1,900,123.77	539,685.91	36.222128	-107.698788
14,400.00	90.52	134.85	5,002.48	-5,801.82	6,496.11	1,900,053.33	539,756.88	36.221935	-107.698548
14,500.00	90.52	134.85	5,001.58	-5,872.35	6,567.00	1,899,982.89	539,827.85	36.221741	-107.698308
14,600.00	90.52	134.85	5,000.69	-5,942.87	6,637.89	1,899,912.44	539,898.83	36.221547	-107.698067
14,700.00	90.52	134.85	4,999.79	-6,013.40	6,708.78	1,899,842.00	539,969.80	36.221353	-107.697827

Scientific Drilling Int.
Planning Report - Geographic

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lybrook 745H
Company:	WPX Energy	TVD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,800.00	90.52	134.85	4,998.89	-6,083.92	6,779.67	1,899,771.56	540,040.77	36.221159	-107.697587
14,900.00	90.52	134.85	4,997.99	-6,154.45	6,850.56	1,899,701.11	540,111.74	36.220966	-107.697346
15,009.75	90.52	134.85	4,997.00	-6,231.85	6,928.36	1,899,623.80	540,189.63	36.220753	-107.697083
TD at 15009.75									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
WL745H BHL - plan hits target center - Point	0.00	0.00	4,997.00	-6,231.85	6,928.36	1,899,623.80	540,189.63	36.220753	-107.697083
WL745H POE orig. - plan misses target center by 1.47usft at 5707.92usft MD (5080.66 TVD, 328.33 N, 334.35 E) - Point	0.00	0.00	5,082.00	328.74	334.78	1,906,176.72	533,588.42	36.238778	-107.719436

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
5,706.32	5,080.67	7"	7	8-3/4	

Scientific Drilling Int.
Planning Report - Geographic

Database:	Grand Junction District	Local Co-ordinate Reference:	Well W Lybrook 745H
Company:	WPX Energy	TVD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Project:	T23N R8W	MD Reference:	GL 6778 + KB 21 = @ 6799.00usft (Cyclone 32)
Site:	W Lybrook 705 Pad	North Reference:	True
Well:	W Lybrook 745H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
799.55	799.00	Ojo Alamo			
1,009.68	1,007.00	Kirtland			
1,395.73	1,383.00	Picture Cliffs			
1,555.44	1,538.00	Lewis			
1,776.99	1,753.00	Chacra			
2,884.71	2,828.00	Cliff House			
2,935.20	2,877.00	Menefee			
3,871.87	3,786.00	Point Lookout			
4,064.56	3,973.00	Mancos			
4,424.17	4,322.00	Gallup			
4,619.35	4,515.00	Gallup Upper			
4,936.84	4,808.00	Mancos Lwr			
5,045.05	4,891.00	El Vado			
5,116.56	4,939.00	Frac Barrier			
5,137.65	4,952.00	Mancos Unc			
5,199.69	4,987.00	PS 3			
5,255.20	5,014.00	PS2			
5,346.51	5,049.00	PS1			
5,409.52	5,066.00	PSA			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
1,198.05	1,191.16	80.14	-27.19	Start 3216.46 hold at 1198.05 MD
4,414.51	4,312.61	814.99	-276.56	KOP
4,414.51	4,312.61	814.99	-276.56	Start DLS 9.00 TFO 152.85
5,558.87	5,082.00	433.45	228.68	Start 9450.88 hold at 5558.87 MD
15,009.75	4,997.00	-6,231.85	6,928.36	TD at 15009.75