

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

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

Jami Bailey, Division Director
Oil Conservation Division



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

Operator Signature Date: 6/11/13

Well information;

Operator WPX, Well Name and Number Chaco 2306-07L 183H

API# 30-039-31191, Section 7, Township 23 NS, Range 6 EW

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

- ☒ Notify Aztec OCD 24hrs prior to casing & cement.
- ☒ Hold C-104 for directional survey & "As Drilled" Plat
- ☐ Hold C-104 for NSL, NSP, DHC
- ☐ Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- ☒ Regarding the use of a pit, closed loop system or below grade tank, the operator must comply with the following as applicable:
 - A pit requires a complete C-144 be submitted and approved prior to the construction or use of the pit, pursuant to 19.15.17.8.A
 - A closed loop system requires notification prior to use, pursuant to 19.15.17.9.A
 - A below grade tank requires a registration be filed prior to the construction or use of the below grade tank, pursuant to 19.15.17.8.C
- ☐ Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
- ☐ 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

Charles P. ...
NMOCD Approved by Signature

8-21-2013
Date ca

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

JUN 11 2013

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

NMSF-078359

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.

Chaco 2306-07L #183H

9. API Well No.

30-039-31191

10. Field and Pool, or Exploratory

Lybrook Gallup

11. Sec., T., R., M., or Blk. and Survey or Area

Section 7, T23N, R6W

12. County or Parish

Rio Arriba County

13. State

NM

1a. Type of Work: ☒ DRILL

☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other

☒ Single Zone ☐ Multiple Zone

2. Name of Operator

WPX Energy Production, LLC

3a. Address

P.O. Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

(505) 333-1808

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

At surface 1935' FSL & 301' FWL, sec 7, T23N, R6W

At proposed prod. zone 380' FSL & 380' FWL, sec 12, T23N, R7W

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

approximately 2 miles northeast of Lybrook, New Mexico

15. Distance from proposed*

location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 301'

16. No. of Acres in lease

2381.69 2461.69

17. Spacing Unit dedicated to this well

160 acres RCVD AUG 15 '13

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 3000'

19. Proposed Depth

10,516' MD / 5,461' TVD

20. BLM/BIA Bond No. on file

UTB000178

OIL CONS. DIV.
DIST. 3

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

6950' GR

22. Approximate date work will start*

July 1, 2013

23. Estimated duration

1 month

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall 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
authorized officer.

25. Signature

Larry Higgins

Name (Printed/Typed)

Larry Higgins

Date

6/11/13

Permit Supervisor.

Approved by (Signature)

AFM

Name (Printed/Typed)

FED

Date

8/13/13

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.

*(Instructions on reverse)

WPX Energy Production, LLC, proposes to develop the Lybrook Gallup formation at the above described location in accordance with the attached drilling and surface use plans.

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

The well pad surface is under jurisdiction of the BLM.

DRILLING OPERATIONS AUTHORIZED AND SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

This location has been archaeologically surveyed by La Plata Archaeological Consultants. Copies of their report have been submitted directly to the BLM.

286 feet of new access road is needed.

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

NMOC
N

APD Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 11th day of June, 2013.

Name Larry Higgins

Position Title Permit Supervisor

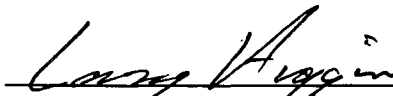
Address P.O. Box 640, Aztec, NM 87410

Telephone (505) 333-1808

Field representative (if not above signatory) _____

E-mail larry.higgins@wpxenergy.com

Date: 06/11/2013



Larry Higgins
Permit Suprv.
WPX Energy Production, LLC

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

RECEIVED

JUN 11 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31191	*Pool Code 42289	*Pool Name LYBROOK GALLUP	Farmington Field Office Bureau of Land Management
*Property Code 400860	*Property Name CHACO 2306-07L		*Well Number 183H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6950'

¹⁰ Surface Location

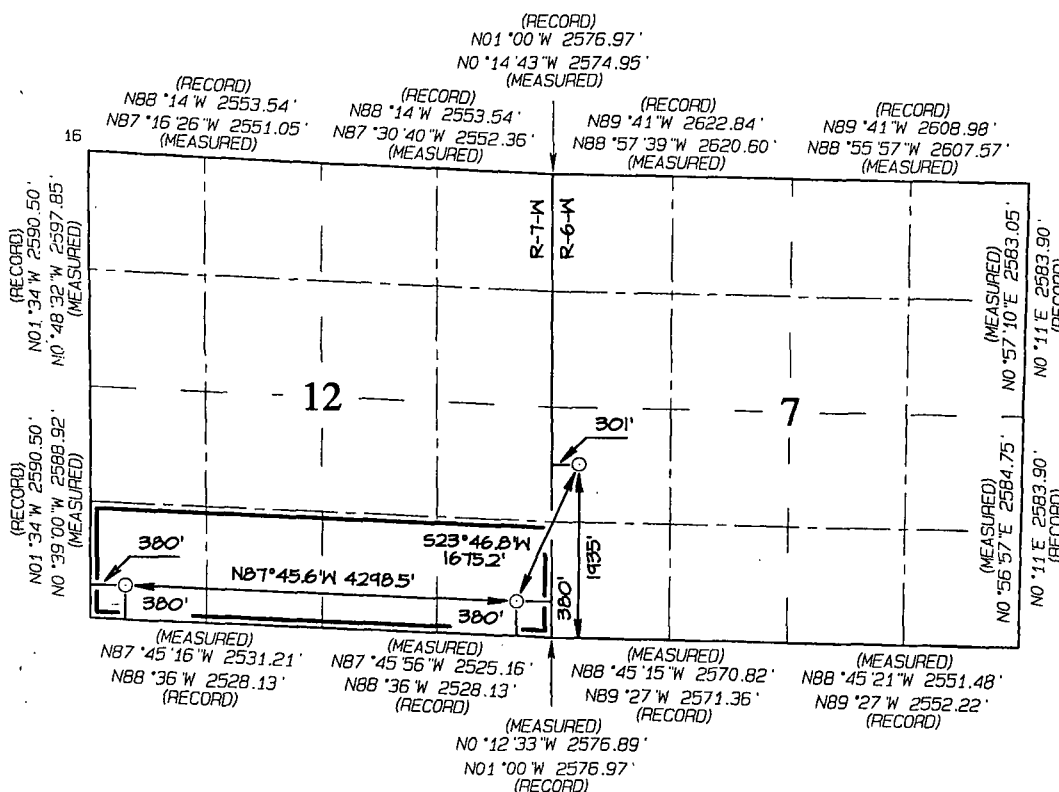
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	7	23N	6W	3	1935	SOUTH	301	WEST	RIO ARRIBA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	12	23N	7W	2	380	SOUTH	380	WEST	RIO ARRIBA

12	Dedicated Acres	155.0100 Acres S/2 S/2 - Section 12	13	Joint or Infill	14	Consolidation Code	15	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



END-OF-LATERAL
380' FSL 380' FWL
SECTION 12, T23N, R7W
LAT: 36.23372°N
LONG: 107.53405°W
DATUM: NAD1927

LAT: 36.23373 *N
LONG: 107.53466 *W
DATUM: NAD1983

POINT-OF-ENTRY
380' FSL 380' FEL
SECTION 12, T23N, R7W
LAT: 36.23341°N
LONG: 107.51949°W
DATUM: NAD1927

LAT: 36.23342°N
LONG: 107.52009°W
DATUM: NAD1983

SURFACE LOCATION
1935' FSL 301' FWL
SECTION 7, T23N, R6W
LAT: 36.23765°N
LONG: 107.51726°W
DATUM: NAD1927

LAT: 36.23766°N
LONG: 107.51787°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.

Signature Larry Higgins Date 6-11-13

Larry Higgins

Printed Name _____

larry.higgins@wpxenergy.com

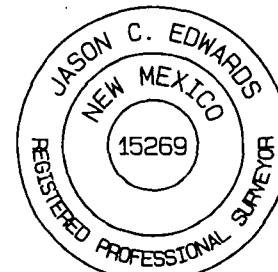
E-mail Address

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: MAY 20, 2013
Survey Date: OCTOBER 1, 2012

Signature and Seal of Professional Surveyor



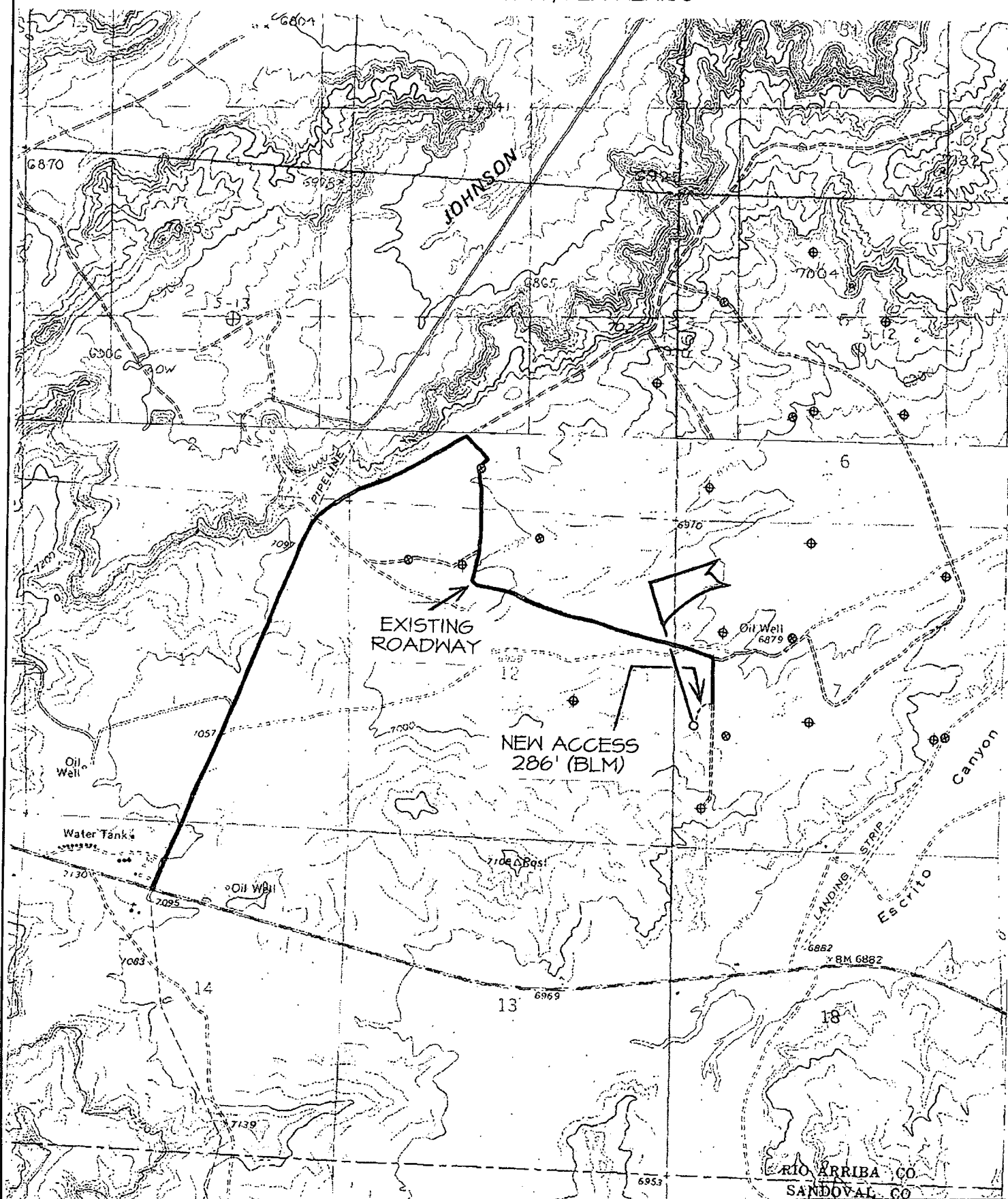
JASON C. EDWARDS

Certificate Number 15269

WFX ENERGY PRODUCTION, LLC CHACO 2306-07L #183H

1935' FSL & 301' FWL, SECTION 7, T23N, R6W, N.M.P.M.

RIO ARriba COUNTY, NEW MEXICO



NAME OF TOPOS
CROW MESA EAST & LYBROOK

⊕ PRODUCING WELL

⊗ PLUGGED & ABANDONED WELL

WPX ENERGY**Operations Plan***(Note: This procedure will be adjusted on site based upon actual conditions)*

DATE: 4/09/2013 **FIELD:** Lybrook Gallup

WELL NAME: Chaco 2306-07L #183H **SURFACE:** BLM

SH Location: NWSW of Sec 7 T23N R6W **ELEVATION:** 6,950' GR

County: Rio Arriba Co, NM

BH Location: SWSW Sec 12-23N-7W **MINERALS:** BLM

MEASURED DEPTH: 10,516' **LEASE #:** NMSF-078359

I. GEOLOGY: Surface formation – San Jose**A. FORMATION TOPS:** (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,417	1,404	Point Lookout	4,595	4,267
Kirtland	1,705	1,705	Mancos	4,876	4,544
Pictured Cliffs	2,053	1,986	Kickoff Point	5,293	4,960
Lewis	2,357	2,284	Target Top	5,630	5,227
Chacra	2,548	2,422	Landing Point	6,217	5,541
Cliff House	3,782	3,510	Target Base	6,217	5,541
Menefee	3,969	3,676			
			TD	10,516	5,461

B. MUD LOGGING PROGRAM: Mudlogger on location from surface csg to TD.**C. LOGGING PROGRAM:** MWD GR for curve and lateral.**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 8 3/4" vertical Pilot Hole. Will use WBM to drill the curve portion of well, and OBM 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 **1800 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.**

NOTE Vertical portion of the well (8-3/4 in.) will be vertically/directionally drilled as per attached Directional Plan to +/- 5,293' MD. Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,217' (MD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 10,516' (MD). Will run 4-1/2 in. Production Casing from surface to TD and cement.

III. MATERIALS**A. CASING PROGRAM:**

<u>CASING TYPE</u>	<u>OH SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>
Surface	12.25"	400'	9.625"	36#	K-55
Intermediate	8.75"	6,217'	7"	23#	J-55
Longstring	6.125"	10,516'	4.5"	11.6#	N-80

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) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700', 2,500', 2,300', 2,000', 1,500', and 1,000'.
3. PRODUCTION CASING: Run 4-1/2" casing with cement nose guide Float Shoe + 10' bottom joint of 4-1/2" csg + Float Collar + 10' joint of 4-1/2" csg + landing collar for Alpha Sleeve plug + 1jt 4-1/2" csg + Alpha Sleeve. Centralizer program will be determined when Lateral is evaluated by Geoscientists and Reservoir Engineers.

C. CEMENTING:

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

1. SURFACE: 10 bbl Fr Water Spacer + 190 sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake, 15.8 #/gal (1.17 cu ft./sk, Vol 39.58 Bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. Total Volume: (222.3 cu-ft/190 sx/39.6 Bbls).
2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft) + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 / TOTETANK + TAIL: 100 sx 13.5 #/gal. (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft) + 0.2% Versaset + 0.15% HALAD-766. + F. Water Displacement (1,511 cu-ft) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk (Vol: 117 cu-ft). Est TOC: Surface. Test Casing to 1500 PSI for 30 minutes. Total Volume: (2021 cu-ft/1050 sx/260 bbls).
3. PRODUCTION CASING: **STAGE 1**: 10 bbl (56 cu-ft) Fr Water Spacer. **STAGE 2**: 20 bbl 10 ppg (112.3 cu-ft) Tuned Spacer III + 0.2 gal/bbl Musol + 59.8 ppb Barite. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement**: Standard Type V + .4% Halad-766 + .3% Halad R-344, Yield 1.19 cu ft/sk, 15.6 #/gal, (60 sx/71.4 cu ft.) **STAGE 5**: Foamed Lead Cement: 248 sx 13.0 ppg (63.28 bbl / 355.3 cu-ft) 50/50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.43 cu-ft/sk. **STAGE 6**: Tail Cement : 150 sx 50/50 Poz Standard + 0.2% Versaset + 0.25% HALAD-766, Weight: 13.5 ppg (Yield 1.29 cu ft/sk. / 193.5 cu ft.) **STAGE 7**: Displace w/176.6 bbl Fr Water. Total Cement (620.2 cu ft / 110.4 bbls). Mix w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 4,900 ft. Total Volume: (620.2 cu-ft/458 sx/110.4 bbls).

IV. COMPLETION

A. CBL

1. Run Cement Bond Log and ensure top of cement is above 7" casing shoe.

B. PRESSURE TEST

1. Pressure test 4-1/2" casing to 5000 psi max, hold at 1500 psi for 30 minutes.

C. 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 with CTU and flowback lateral.

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, N-80, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at landing point of curve (~6,217' MD).
-

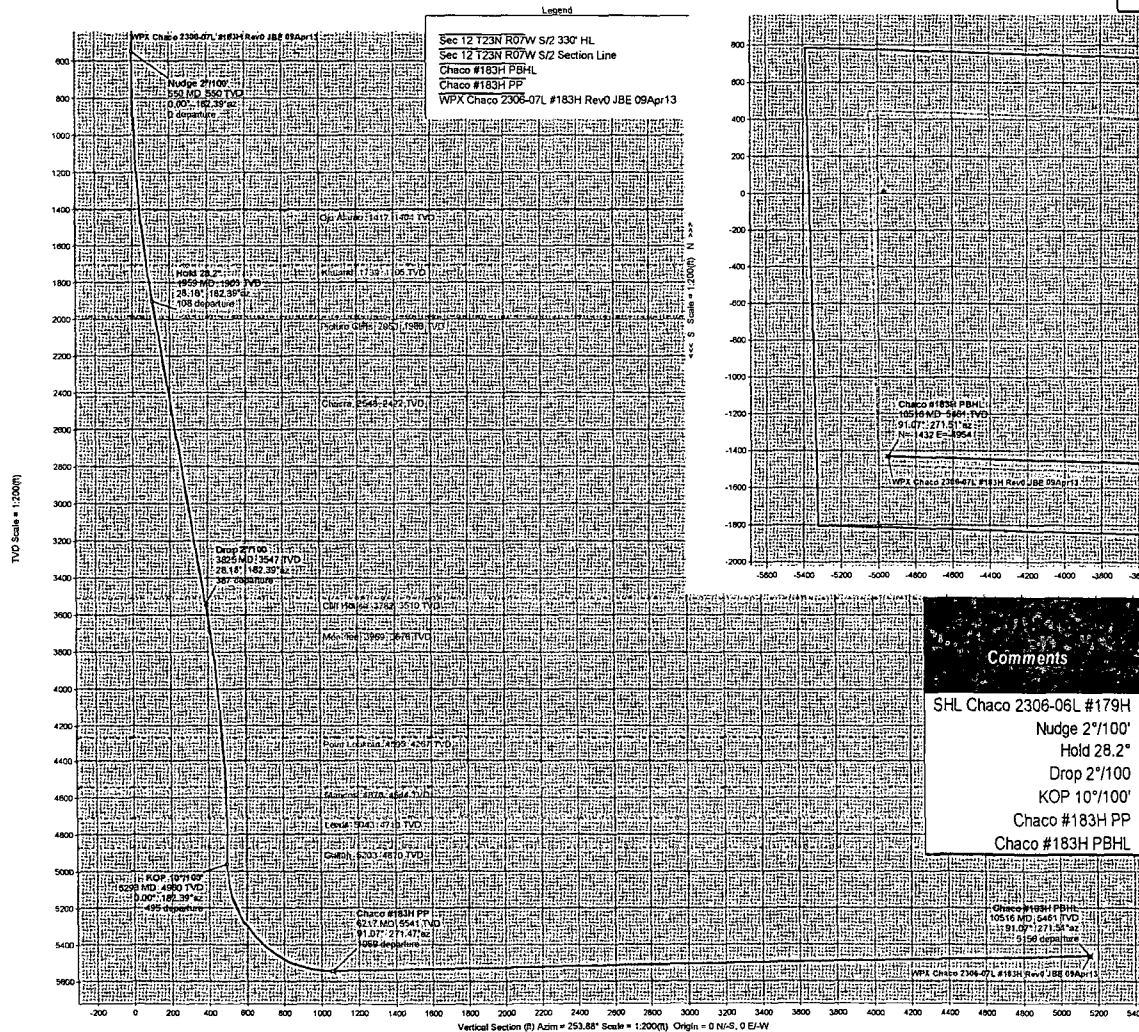


WPX Energy

PATHFINDER

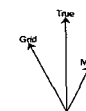
A Schlumberger Company

Name	TVD (ft)	NS (ft)	Targets		Latitude (deg)	Longitude (deg)	Shape
			EW (ft)				
Chaco #183H PBHL	5461.00	-1431.51	-4953.57	N	36 14 1.380	W 107 32 2.598	POINT
Chaco #183H PP	5541.00	-1543.29	-656.78	N	36 14 0.279	W 107 31 10.152	POINT



Comments	Critical Points									
	Survey MD (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (%/100ft)
SHL Chaco 2306-06L #179H	0.00	0.00	182.39	0.00	0.00	0.00	0.00	0.00	0.00	
Nudge 2°/100'	550.00	0.00	182.39	550.00	0.00	0.00	0.00	0.00	0.00	0.00
Hold 28.2°	1958.76	28.18	182.39	1902.66	107.75	-339.16	-14.15	339.45	182.39	2.00
Drop 2°/100'	3824.51	28.18	182.39	3547.34	387.38	-1219.34	-50.85	1220.40	182.39	0.00
KOP 10°/100'	5293.20	0.00	182.39	4959.94	495.12	-1558.50	-65.00	1559.85	182.39	0.00
Chaco #183H PP	6216.91	91.07	271.47	5541.00	1059.42	-1543.29	-856.78	1677.23	203.05	9.86
Chaco #183H PBHL	10515.89	91.07	271.51	5461.00	5156.27	-1431.51	-4953.57	5156.27	253.88	0.00

True North
Tot Corr (M->T 9.5591°)
Mag Dec (9.559°)
Grid Conv (-0.749°)



Drawn By: Breck Enoch
Date Created: April 09, 2013 09:39:48
Checked By:
Checked Date:
Approved By:
Approved Date:



WPX Chaco 2306-07L #183H Rev0 JBE 09Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 09, 2013 - 09:57 AM
Client: WPX Energy
Field: NM Rio Arriba County NAD27
Structure / Slot: WPX Chaco 2306-07L #183H / Chaco 2306-07L #183H
Well: Chaco 2306-07L #183H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2306-07L #183H Rev0 JBE 09Apr13
Survey Date: April 09, 2013
Tort / AHD / DDI / ERD Ratio: 147.451 ° / 6450.075 ft / 6.256 / 1.164
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 14' 15.54000", W 107° 31' 2.13600"
Location Grid N/E Y/X: N 1908157.960 ftUS, E 126276.383 ftUS
CRS Grid Convergence Angle: -0.7492 °
Grid Scale Factor: 1.00005983

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 253.882 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6964.000 ft above MSL
Seabed / Ground Elevation: 6950.000 ft above MSL
Magnetic Declination: 9.559 °
Total Gravity Field Strength: 999.1680 mgn (9.8 based)
Total Magnetic Field Strength: 50230.645 nT
Magnetic Dip Angle: 63.010 °
Declination Date: April 09, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5591 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL Chaco 2306-06L #179H	0.00	0.00	182.39	0.00	0.00	0.00	0.00	N/A	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	100.00	0.00	182.39	100.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	200.00	0.00	182.39	200.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	300.00	0.00	182.39	300.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	400.00	0.00	182.39	400.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	500.00	0.00	182.39	500.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
Nudge 2"/100'	550.00	0.00	182.39	550.00	0.00	0.00	0.00	0.00	1908157.96	126276.38	N 36 14 15.54	W 107 31 2.14
	600.00	1.00	182.39	600.00	0.14	-0.44	-0.02	2.00	1908157.52	126276.36	N 36 14 15.54	W 107 31 2.14
	700.00	3.00	182.39	699.93	1.25	-3.92	-0.16	2.00	1908154.04	126276.17	N 36 14 15.50	W 107 31 2.14
	800.00	5.00	182.39	799.68	3.46	-10.89	-0.45	2.00	1908147.07	126275.79	N 36 14 15.43	W 107 31 2.14
	900.00	7.00	182.39	899.13	6.78	-21.34	-0.89	2.00	1908136.64	126275.21	N 36 14 15.33	W 107 31 2.15
	1000.00	9.00	182.39	998.15	11.20	-35.24	-1.47	2.00	1908122.74	126274.45	N 36 14 15.19	W 107 31 2.15
	1100.00	11.00	182.39	1096.63	16.71	-52.59	-2.19	2.00	1908105.40	126273.50	N 36 14 15.02	W 107 31 2.16
	1200.00	13.00	182.39	1194.44	23.31	-73.36	-3.06	2.00	1908084.64	126272.36	N 36 14 14.81	W 107 31 2.17
	1300.00	15.00	182.39	1291.46	30.98	-97.53	-4.07	2.00	1908060.49	126271.04	N 36 14 14.58	W 107 31 2.19
	1400.00	17.00	182.39	1387.58	39.73	-125.07	-5.22	2.00	1908032.96	126269.53	N 36 14 14.30	W 107 31 2.20
Ojo Alamo	1417.18	17.34	182.39	1404.00	41.34	-130.14	-5.43	2.00	1908027.90	126269.25	N 36 14 14.25	W 107 31 2.20
	1500.00	19.00	182.39	1482.68	49.54	-155.94	-6.50	2.00	1908002.11	126267.84	N 36 14 14.00	W 107 31 2.22
	1600.00	21.00	182.39	1576.65	60.40	-190.11	-7.93	2.00	1907967.96	126265.97	N 36 14 13.66	W 107 31 2.23
	1700.00	23.00	182.39	1669.36	72.29	-227.54	-9.49	2.00	1907930.55	126263.92	N 36 14 13.29	W 107 31 2.25
Kirtland	1738.83	23.78	182.39	1705.00	77.18	-242.94	-10.13	2.00	1907915.16	126263.07	N 36 14 13.14	W 107 31 2.26
	1800.00	25.00	182.39	1760.71	85.20	-268.18	-11.18	2.00	1907889.94	126261.69	N 36 14 12.89	W 107 31 2.27
	1900.00	27.00	182.39	1850.59	99.11	-311.97	-13.01	2.00	1907846.17	126259.29	N 36 14 12.45	W 107 31 2.29
Hold 28.2"	1958.76	28.18	182.39	1902.66	107.75	-339.16	-14.15	2.00	1907819.00	126257.80	N 36 14 12.19	W 107 31 2.31
	2000.00	28.18	182.39	1939.02	113.93	-358.62	-14.96	0.00	1907799.55	126256.74	N 36 14 11.99	W 107 31 2.32
Picture Cliffs	2053.30	28.18	182.39	1986.00	121.92	-383.76	-16.01	0.00	1907774.42	126255.36	N 36 14 11.75	W 107 31 2.33
	2100.00	28.18	182.39	2027.17	128.92	-405.79	-16.92	0.00	1907752.40	126254.15	N 36 14 11.53	W 107 31 2.34
	2200.00	28.18	182.39	2115.32	143.90	-452.97	-18.89	0.00	1907705.25	126251.57	N 36 14 11.06	W 107 31 2.37

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Chacara	2300.00	28.18	182.39	2203.47	158.89	-500.14	-20.86	0.00	1907658.10	126248.98	N 36 14 10.59	W 107 31 2.39
	2400.00	28.18	182.39	2291.62	173.88	-547.32	-22.83	0.00	1907610.96	126246.40	N 36 14 10.13	W 107 31 2.41
	2500.00	28.18	182.39	2379.77	188.87	-594.49	-24.79	0.00	1907563.81	126243.82	N 36 14 9.66	W 107 31 2.44
	2547.90	28.18	182.39	2422.00	196.05	-617.09	-25.74	0.00	1907541.22	126242.58	N 36 14 9.44	W 107 31 2.45
	2600.00	28.18	182.39	2467.92	203.85	-641.67	-26.76	0.00	1907516.66	126241.23	N 36 14 9.19	W 107 31 2.46
	2700.00	28.18	182.39	2556.07	218.84	-688.85	-28.73	0.00	1907469.51	126238.65	N 36 14 8.73	W 107 31 2.49
	2800.00	28.18	182.39	2644.23	233.83	-736.02	-30.70	0.00	1907422.36	126236.06	N 36 14 8.26	W 107 31 2.51
	2900.00	28.18	182.39	2732.38	248.82	-783.20	-32.66	0.00	1907375.21	126233.48	N 36 14 7.80	W 107 31 2.53
	3000.00	28.18	182.39	2820.53	263.80	-830.37	-34.63	0.00	1907328.06	126230.89	N 36 14 7.33	W 107 31 2.56
	3100.00	28.18	182.39	2908.68	278.79	-877.55	-36.60	0.00	1907280.91	126228.31	N 36 14 6.86	W 107 31 2.58
	3200.00	28.18	182.39	2996.83	293.78	-924.73	-38.57	0.00	1907233.77	126225.72	N 36 14 6.40	W 107 31 2.61
	3300.00	28.18	182.39	3084.98	308.77	-971.90	-40.53	0.00	1907186.62	126223.14	N 36 14 5.93	W 107 31 2.63
	3400.00	28.18	182.39	3173.13	323.75	-1019.08	-42.50	0.00	1907139.47	126220.56	N 36 14 5.46	W 107 31 2.65
	3500.00	28.18	182.39	3261.28	338.74	-1066.25	-44.47	0.00	1907092.32	126217.97	N 36 14 5.00	W 107 31 2.68
	3600.00	28.18	182.39	3349.43	353.73	-1113.43	-46.44	0.00	1907045.17	126215.39	N 36 14 4.53	W 107 31 2.70
Cliff House	3700.00	28.18	182.39	3437.58	368.71	-1160.60	-48.41	0.00	1906998.02	126212.80	N 36 14 4.06	W 107 31 2.73
	3782.15	28.18	182.39	3510.00	381.03	-1199.36	-50.02	0.00	1906959.29	126210.68	N 36 14 3.68	W 107 31 2.75
Drop 2°/100	3800.00	28.18	182.39	3525.73	383.70	-1207.78	-50.37	0.00	1906950.87	126210.22	N 36 14 3.60	W 107 31 2.75
	3824.51	28.18	182.39	3547.34	387.38	-1219.34	-50.85	0.00	1906939.32	126209.59	N 36 14 3.48	W 107 31 2.76
Menefee	3900.00	26.67	182.39	3614.35	398.41	-1254.08	-52.30	2.00	1906904.60	126207.68	N 36 14 3.14	W 107 31 2.77
	3968.59	25.29	182.39	3676.00	407.95	-1284.09	-53.56	2.00	1906874.60	126206.04	N 36 14 2.84	W 107 31 2.79
	4000.00	24.67	182.39	3704.48	412.16	-1297.35	-54.11	2.00	1906861.36	126205.31	N 36 14 2.71	W 107 31 2.80
	4100.00	22.67	182.39	3796.06	424.90	-1337.45	-55.78	2.00	1906821.28	126203.12	N 36 14 2.31	W 107 31 2.82
	4200.00	20.67	182.39	3888.99	436.62	-1374.33	-57.32	2.00	1906784.41	126201.09	N 36 14 1.95	W 107 31 2.84
	4300.00	18.67	182.39	3983.16	447.30	-1407.96	-58.72	2.00	1906750.81	126199.25	N 36 14 1.62	W 107 31 2.85
	4400.00	16.67	182.39	4078.44	456.93	-1438.27	-59.99	2.00	1906720.51	126197.59	N 36 14 1.32	W 107 31 2.87
	4500.00	14.67	182.39	4174.72	465.50	-1465.25	-61.11	2.00	1906693.55	126196.11	N 36 14 1.05	W 107 31 2.88
	4595.00	12.77	182.39	4267.00	472.65	-1487.75	-62.05	2.00	1906671.06	126194.88	N 36 14 0.83	W 107 31 2.89
	4600.00	12.67	182.39	4271.88	473.00	-1488.85	-62.10	2.00	1906669.96	126194.82	N 36 14 0.82	W 107 31 2.89
	4700.00	10.67	182.39	4369.81	479.41	-1509.05	-62.94	2.00	1906649.77	126193.71	N 36 14 0.62	W 107 31 2.90
	4800.00	8.67	182.39	4468.39	484.74	-1525.83	-63.64	2.00	1906633.01	126192.80	N 36 14 0.45	W 107 31 2.91
	4876.34	7.14	182.39	4544.00	488.07	-1536.31	-64.07	2.00	1906622.53	126192.22	N 36 14 0.35	W 107 31 2.92
	4900.00	6.67	182.39	4567.49	488.98	-1539.15	-64.19	2.00	1906619.69	126192.07	N 36 14 0.32	W 107 31 2.92
	5000.00	4.67	182.39	4666.99	492.11	-1549.02	-64.60	2.00	1906609.83	126191.53	N 36 14 0.22	W 107 31 2.92
Lewis	5043.12	3.80	182.39	4710.00	493.12	-1552.20	-64.74	2.00	1906606.65	126191.35	N 36 14 0.19	W 107 31 2.93
	5100.00	2.67	182.39	4766.78	494.14	-1555.40	-64.87	2.00	1906603.45	126191.18	N 36 14 0.16	W 107 31 2.93
Gallup	5200.00	0.67	182.39	4866.74	495.06	-1558.31	-64.99	2.00	1906600.55	126191.02	N 36 14 0.13	W 107 31 2.93
	5203.26	0.60	182.39	4870.00	495.07	-1558.34	-64.99	2.00	1906600.51	126191.01	N 36 14 0.13	W 107 31 2.93
KOP 10°/100'	5233.26	0.00	182.39	4900.00	495.12	-1558.50	-65.00	2.00	1906600.35	126191.01	N 36 14 0.13	W 107 31 2.93
	5293.20	0.00	182.39	4959.94	495.12	-1558.50	-65.00	0.00	1906600.35	126191.01	N 36 14 0.13	W 107 31 2.93
	5300.00	0.67	271.47	4966.74	495.16	-1558.50	-65.04	9.86	1906600.35	126190.97	N 36 14 0.13	W 107 31 2.93
	5400.00	10.53	271.47	5066.14	504.45	-1558.25	-74.78	9.86	1906600.73	126181.23	N 36 14 0.13	W 107 31 3.05
	5500.00	20.39	271.47	5162.40	529.83	-1557.56	-101.39	9.86	1906601.76	126154.62	N 36 14 0.14	W 107 31 3.37
	5600.00	30.25	271.47	5252.68	570.54	-1556.47	-144.09	9.86	1906603.42	126111.94	N 36 14 0.15	W 107 31 3.89
	5700.00	40.11	271.47	5334.32	625.39	-1554.99	-201.61	9.86	1906605.65	126054.45	N 36 14 0.16	W 107 31 4.60
	5800.00	49.96	271.47	5404.90	692.75	-1553.17	-272.25	9.86	1906608.39	125983.83	N 36 14 0.18	W 107 31 5.46
	5900.00	59.82	271.47	5462.34	770.64	-1551.07	-353.93	9.86	1906611.56	125902.18	N 36 14 0.20	W 107 31 6.46
	6000.00	69.68	271.47	5504.94	856.75	-1548.75	-444.24	9.86	1906615.06	125811.90	N 36 14 0.22	W 107 31 7.56
	6100.00	79.54	271.47	5531.44	948.54	-1546.27	-540.50	9.86	1906618.80	125715.67	N 36 14 0.25	W 107 31 8.73
	6200.00	89.40	271.47	5541.07	1043.30	-1543.72	-639.88	9.86	1906622.65	125616.33	N 36 14 0.27	W 107 31 9.95
	6216.91	91.07	271.47	5541.00	1059.42	-1543.29	-656.78	9.86	1906623.31	125599.44	N 36 14 0.28	W 107 31 10.15
	6300.00	91.07	271.47	5539.45	1138.61	-1541.15	-739.83	0.00	1906626.53	125516.42	N 36 14 0.30	W 107 31 11.17
	6400.00	91.07	271.47	5537.59	1233.92	-1538.58	-839.78	0.00	1906630.41	125416.50	N 36 14 0.33	W 107 31 12.39
Chaco #183H PP	6500.00	91.07	271.48	5535.73	1329.23	-1536.00	-939.73	0.00	1906634.29	125316.59	N 36 14 0.35	W 107 31 13.61
	6600.00	91.07	271.48	5533.87	1424.53	-1533.43	-1039.68	0.00	1906638.17	125216.68	N 36 14 0.38	W 107 31 14.83
	6700.00	91.07	271.48	5532.01	1519.84	-1530.85	-1139.63	0.00	1906642.05	125116.76	N 36 14 0.40	W 107 31 16.05
	6800.00	91.07	271.48	5530.15	1615.14	-1528.28	-1239.58	0.00	1906645.93	125016.85	N 36 14 0.43	W 107 31 17.27
	6900.00	91.07	271.48	5528.29	1710.45	-1525.70	-1339.53	0.00	1906649.82	124916.94	N 36 14 0.45	W 107 31 18.49
	7000.00	91.07	271.48	5526.43	1805.75	-1523.12	-1439.48	0.00	1906653.71	124817.02	N 36 14 0.48	W 107 31 19.71

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7100.00	91.07	271.48	5524.57	1901.05	-1520.54	-1539.43	0.00	1906657.60	124717.11	N 36 14 0.50	W 107 31 20.93
	7200.00	91.07	271.48	5522.71	1996.36	-1517.95	-1639.38	0.00	1906661.49	124617.20	N 36 14 0.53	W 107 31 22.15
	7300.00	91.07	271.48	5520.84	2091.66	-1515.37	-1739.33	0.00	1906665.38	124517.29	N 36 14 0.55	W 107 31 23.37
	7400.00	91.07	271.48	5518.98	2186.96	-1512.78	-1839.28	0.00	1906669.27	124417.37	N 36 14 0.58	W 107 31 24.59
	7500.00	91.07	271.48	5517.12	2282.26	-1510.20	-1939.23	0.00	1906673.16	124317.46	N 36 14 0.61	W 107 31 25.81
	7600.00	91.07	271.48	5515.26	2377.57	-1507.61	-2039.18	0.00	1906677.06	124217.55	N 36 14 0.63	W 107 31 27.03
	7700.00	91.07	271.48	5513.40	2472.87	-1505.02	-2139.13	0.00	1906680.96	124117.64	N 36 14 0.66	W 107 31 28.25
	7800.00	91.07	271.49	5511.54	2568.17	-1502.43	-2239.08	0.00	1906684.85	124017.72	N 36 14 0.68	W 107 31 29.47
	7900.00	91.07	271.49	5509.68	2663.47	-1499.83	-2339.02	0.00	1906688.75	123917.81	N 36 14 0.71	W 107 31 30.69
	8000.00	91.07	271.49	5507.82	2758.77	-1497.24	-2438.97	0.00	1906692.65	123817.90	N 36 14 0.73	W 107 31 31.91
	8100.00	91.07	271.49	5505.96	2854.07	-1494.64	-2538.92	0.00	1906696.56	123717.99	N 36 14 0.76	W 107 31 33.13
	8200.00	91.07	271.49	5504.10	2949.37	-1492.05	-2638.87	0.00	1906700.46	123618.07	N 36 14 0.78	W 107 31 34.35
	8300.00	91.07	271.49	5502.24	3044.66	-1489.45	-2738.82	0.00	1906704.37	123518.16	N 36 14 0.81	W 107 31 35.57
	8400.00	91.07	271.49	5500.37	3139.96	-1486.85	-2838.77	0.00	1906708.27	123418.25	N 36 14 0.84	W 107 31 36.79
	8500.00	91.07	271.49	5498.51	3235.26	-1484.25	-2938.72	0.00	1906712.18	123318.34	N 36 14 0.86	W 107 31 38.00
	8600.00	91.07	271.49	5496.65	3330.56	-1481.64	-3038.67	0.00	1906716.09	123218.43	N 36 14 0.89	W 107 31 39.22
	8700.00	91.07	271.49	5494.79	3425.85	-1479.04	-3138.62	0.00	1906720.00	123118.51	N 36 14 0.91	W 107 31 40.44
	8800.00	91.07	271.49	5492.93	3521.15	-1476.44	-3238.56	0.00	1906723.91	123018.60	N 36 14 0.94	W 107 31 41.66
	8900.00	91.07	271.49	5491.07	3616.45	-1473.83	-3338.51	0.00	1906727.83	122918.69	N 36 14 0.96	W 107 31 42.88
	9000.00	91.07	271.50	5489.21	3711.74	-1471.22	-3438.46	0.00	1906731.74	122818.78	N 36 14 0.99	W 107 31 44.10
	9100.00	91.07	271.50	5487.35	3807.04	-1468.61	-3538.41	0.00	1906735.66	122718.87	N 36 14 1.01	W 107 31 45.32
	9200.00	91.07	271.50	5485.49	3902.33	-1466.00	-3638.36	0.00	1906739.58	122618.96	N 36 14 1.04	W 107 31 46.54
	9300.00	91.07	271.50	5483.63	3997.63	-1463.39	-3738.31	0.00	1906743.50	122519.04	N 36 14 1.07	W 107 31 47.76
	9400.00	91.07	271.50	5481.77	4092.92	-1460.77	-3838.26	0.00	1906747.42	122419.13	N 36 14 1.09	W 107 31 48.98
	9500.00	91.07	271.50	5479.90	4188.21	-1458.16	-3938.20	0.00	1906751.34	122319.22	N 36 14 1.12	W 107 31 50.20
	9600.00	91.07	271.50	5478.04	4283.51	-1455.54	-4038.15	0.00	1906755.26	122219.31	N 36 14 1.14	W 107 31 51.42
	9700.00	91.07	271.50	5476.18	4378.80	-1452.92	-4138.10	0.00	1906759.19	122119.40	N 36 14 1.17	W 107 31 52.64
	9800.00	91.07	271.50	5474.32	4474.09	-1450.30	-4238.05	0.00	1906763.12	122019.49	N 36 14 1.20	W 107 31 53.86
	9900.00	91.07	271.50	5472.46	4569.38	-1447.68	-4338.00	0.00	1906767.04	121919.58	N 36 14 1.22	W 107 31 55.08
	10000.00	91.07	271.50	5470.60	4664.67	-1445.06	-4437.95	0.00	1906770.97	121819.66	N 36 14 1.25	W 107 31 56.30
	10100.00	91.07	271.50	5468.74	4759.96	-1442.44	-4537.89	0.00	1906774.90	121719.75	N 36 14 1.27	W 107 31 57.52
	10200.00	91.07	271.51	5466.88	4855.25	-1439.81	-4637.84	0.00	1906778.84	121619.84	N 36 14 1.30	W 107 31 58.74
	10300.00	91.07	271.51	5465.02	4950.54	-1437.18	-4737.79	0.00	1906782.77	121519.93	N 36 14 1.32	W 107 31 59.96
	10400.00	91.07	271.51	5463.16	5045.83	-1434.56	-4837.74	0.00	1906786.71	121420.02	N 36 14 1.35	W 107 32 1.18
	10500.00	91.07	271.51	5461.30	5141.12	-1431.93	-4937.69	0.00	1906790.64	121320.11	N 36 14 1.38	W 107 32 2.40
Chaco #183H PBHL	10515.89	91.07	271.51	5461.00	5156.27	-1431.51	-4953.57	0.00	1906791.27	121304.23	N 36 14 1.38	W 107 32 2.60

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Borehole / WPX Chaco 2306-07L #183H Rev0 JBE
	14.000	10515.892	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / WPX Chaco 2306-07L #183H Rev0 JBE

1. INTRODUCTION

WPX Energy Production, LLC (WPX) is providing this Surface Use Plan of Operations (SUPO) to the Bureau of Land Management – Farmington Field Office (BLM-FFO) as part of their Chaco 2306-07L Number (No.) 183H Application for Permit to Drill (APD), related to Onshore Oil and Gas Order No. 1.

In addition to the best management practices (BMPs) provided below and in the Chaco 2306-07L No. 183H Surface Reclamation Plan (Reclamation Plan; Appendix A), general Conditions of Approval will be followed, if any are attached to the APD.

2. PROJECT LOCATION AND EXISTING ROADS

The proposed WPX Chaco 2306-07L No. 183H well is located approximately 49 road miles south-southeast of the town of Bloomfield, New Mexico. To access the proposed well from the town of Bloomfield, head south from the United States (U.S.) Highway 550-U.S. Highway 64 intersection for approximately 49.0 miles, turn left onto County Road 378 for approximately 0.5 mile, and turn right to follow an unnamed, existing road for approximately 1.4 miles until reaching the proposed access road. The access route to the proposed project location from the U.S. Highway 550-County Road 378 intersection is depicted on Figure 1 (Appendix B), and on the construction plats provided in the APD permit package.

For existing county roads or roads that are considered collector roads, WPX will defer to the county or Roads Committee, when formed, for maintenance determinations. During the December 18, 2012, pre-disturbance site visit, WPX was not allocated any existing roads for upgrading or maintenance. WPX will upgrade existing non-County Roads leading to the project site, if required by the BLM-FFO. The road(s) will be upgraded following *The Gold Book: Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development (Gold Book)* and BLM Handbook 9113.

3. NEW OR RECONSTRUCTED ACCESS ROADS

An approximately 286-foot-long access road will be needed to access the proposed well site. All of the 286 feet of the access road will be new access. The proposed access road is depicted on Figures 1 and 2 in Appendix B, and on the construction plats provided in the APD permit package.

The proposed access road (a resource road) will travel southwestward from an existing oil and gas lease road and will enter the proposed well pad at the northern side of the pad. The maximum grade of the proposed access road will be 8 percent. The all-weather driving surface will be 14 feet wide with turnouts, as necessary, and will be crowned with a surface material (sandstone), if economically available. The proposed access road will be built up 18 to 24 inches and designed following the Basic Design Requirements for Constructed Roads from the *Gold Book* and BLM Handbook 9113. Topsoil removed from the proposed access road will be used on cut slopes and bar ditches.

The placement of water diversions, such as culverts and silt traps, along the proposed access road were not determined during the December 18, 2012, pre-disturbance site visit. Although no drainage issues are anticipated along the proposed access road, 24-inch-diameter culverts will be installed beneath the proposed access road, where needed.

WPX will maintain the proposed access road, as outlined in their Road Maintenance Plan (Appendix C).

No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment. If equipment creates ruts deeper than 6 inches, the soil will be deemed too wet for construction or maintenance.

