

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: 7/11/14

Well information;

Operator WPX, Well Name and Number Chaco 2306-17 D #270H

API# 30-039-31255, Section 17, 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
- Regarding Hydraulic Fracturing, review EPA Underground Injection Control Guidance 84
- Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.

Charles L. ...  
NMOCD Approved by Signature

9-5-2014  
Date KE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER **11 2014**

5. Lease Serial Number **OIL CONS. DIV DIST. 3**  
NMSF-078359  
6. If Indian, Allottee or Tribe Name **AUG 20 2014**

1a. Type of Work:  DRILL  REENTER  
1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

7. If Unit or CA Agreement, Name and No.  
8. Lease Name and Well No.  
Chaco 2306-17D #270H

2. Name of Operator  
WPX Energy Production, LLC

9. API Well No.  
**30-039-31255**

3a. Address  
P.O. Box 640 Aztec, NM 87410

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

10. Field and Pool, or Exploratory  
Counselors Gallup-Dakota

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface **D** 1285' FNL & 327' FWL, sec 17, T23N, R6W **NWNW**  
At proposed prod. zone **F** 1525' FNL & 1661' FWL, sec 16, T23N, R6W **SE NW**

11. Sec., T., R., M., or Blk. and Survey or Area  
SHL: Section 17, T23N, R6W  
BHL: Section 16, T23N, R6W

14. Distance in miles and direction from nearest town or post office\*  
**approximately 4 miles east of Lybrook, New Mexico**

12. County or Parish  
Rio Arriba County

13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **327'**

16. No. of Acres in lease  
**Federal**  
~~2384.69~~ **2461.69**

17. Spacing Unit dedicated to this well  
273.77 acres

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
**22'**

19. Proposed Depth  
12,156' MD / 5,503' TVD

20. BLM/BIA Bond No. on file  
UTB000178

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6910' GR

22. Approximate date work will start\*  
August 15, 2014

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 **Heather Riley** Name (Printed/Typed) Heather Riley Date 7/11/2014

Title Regulatory Team Lead

Approved by (Signature) **[Signature]** Name (Printed/Typed) Date 8/15/14

Title **AFM** Office **FFO**

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 and Counselors Gallup-Dakota formations at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is under jurisdiction of the BLM and is co-located with the Chaco 2306-17E #201H and the Chaco 2306-17E #202H.

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

A 1331' access road is needed.

There will be 2981' of pipeline associated with these wells and it is all on lease. Pipeline plans are attached.

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

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

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

**NMOCDA**

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  
RECEIVED

JUL 11 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-039-31255</b>		*Pool Code 13379	*Pool Name COUNSELORS GALLUP - DAKOTA
*Property Code <b>313645</b>	*Property Name CHACO 2306-17D		*Well Number 270H
*OGRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6910'

10 Surface Location

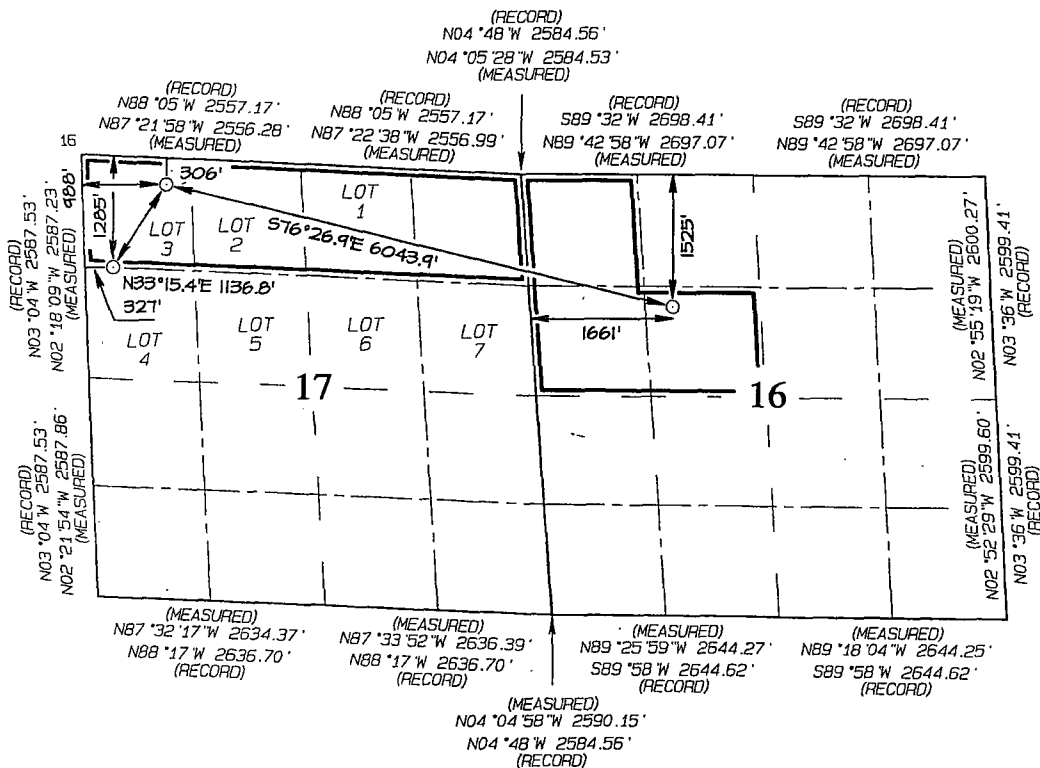
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	17	23N	6W	3	1285	NORTH	327	WEST	RIO ARRIBA

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
F	16	23N	6W		1525	NORTH	1661	WEST	RIO ARRIBA

12 Dedicated Acres 273.77	N/2 N/2 (Section 17) S/2 NW/4 & NW/4 NW/4 (Section 16)	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



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: *Heather Riley* Date: 7/11/2014

Printed Name: Heather Riley

E-mail Address: *heather.riley@wpxenergy.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 7, 2014  
Survey Date: DECEMBER 10, 2013

Signature and Seal of Professional Surveyor

**JASON C. EDWARDS**  
NEW MEXICO  
REGISTERED PROFESSIONAL SURVEYOR  
15269

**JASON C. EDWARDS**  
Certificate Number 15269

SURFACE LOCATION  
1285' FNL 327' FWL  
SECTION 17, T23N, R6W  
LAT: 36.22865°N  
LONG: 107.49947°W  
DATUM: NAD1927

LAT: 36.22866°N  
LONG: 107.50007°W  
DATUM: NAD1983

POINT-OF-ENTRY  
306' FNL 988' FWL  
SECTION 17, T23N, R6W  
LAT: 36.23128°N  
LONG: 107.49740°W  
DATUM: NAD1927

LAT: 36.23130°N  
LONG: 107.49800°W  
DATUM: NAD1983

END-OF-LATERAL  
1525' FNL 1661' FWL  
SECTION 16, T23N, R6W  
LAT: 36.22760°N  
LONG: 107.47742°W  
DATUM: NAD1927

LAT: 36.22761°N  
LONG: 107.47802°W  
DATUM: NAD1983

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 July, 2014.

Name Heather Riley

Position Title Regulatory Team Lead


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

Telephone (505) 333-1822

Field representative (if not above signatory) \_\_\_\_\_

E-mail heather.riley@wpxenergy.com

Date: 7/11/14



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Heather Riley  
Regulatory Team Lead  
WPX Energy Production, LLC

# WPXENERGY

## WPX ENERGY

### Operations Plan

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

**DATE:** 6/18/2014 **FIELD:** Lybrook (Gallup)  
**WELL NAME:** Chaco 2306-17D #270H **SURFACE:** BLM  
**SH Location:** NWNW Sec 17 -23N -06W **ELEVATION:** 6910' GR  
**BH Location:** SENW Sec 16 -23N -06W **MINERALS:** BLM  
Rio Arriba Co, NM  
**MEASURED DEPTH:** 12,156' **LEASE #:** NMSF 078359

I. **GEOLOGY:** Surface formation – San Jose

A. **FORMATION TOPS: ( KB)**

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1371	1361	Point Lookout	4327	4235
Kirtland	1675	1656	Mancos	4545	4447
Picture Cliffs	1997	1969	<b>Kickoff Point</b>	<b>4996</b>	4885
Lewis	2098	2068	Top Target	5756	5492
Chacra	2437	2397	<b>Landing Point</b>	<b>6112</b>	5582
Cliff House	3561	3490	Base Target	6099	5582
Menefee	3601	3529			
			TD	12156	5503

- 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.**

**NOTE: Vertical portion of the well (8-3/4 in.) will be directionally drilled as per attached Directional Plan to +/- 4,996' (MD) / 4,885' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,112' (MD) / 5,582' (TVD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 12,156' (MD) / 5,503' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,962 ft. to TD and cemented. Liner will be tied back to surface w / 4-1/2" Casing for stimulation / testing, then removed from the well.**

### III. MATERIALS

#### A. CASING PROGRAM:

<u>CASING TYPE</u>	<u>OH SIZE (IN)</u>	<u>DEPTH (MD) (FT)</u>	<u>CASING SIZE (IN)</u>	<u>WEIGHT(LB)</u>	<u>GRADE</u>
Surface	12.25"	400'+	9.625"	36#	J-55
Intermediate	8.75"	6,112'	7"	23#	K-55
Prod. Liner	6.125"	5,962' - 12,156'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5962'	4-1/2"	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) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
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 + (2) RSI (Sliding Sleeves) 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.
4. TIE-BACK CASING: None

#### 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). TOC at Surface.
2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft / 216.5 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (1050 sx / 1461 cu-ft / 260 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PRODUCTION LINER: **STAGE 1:** 10 bbl (56 cu-ft) Fr Water Spacer. **STAGE 2:** 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III + 0.5 gal/bbl Musol + 38.75 ppb Barite + 0.5 gal/bbl SEM-7. **STAGE 3:** 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement:** 50 / 50 Poz Premium + 0.2% Versaset + 0.2% Halad -766, Yield 1.43 cu ft/sk, 13.0 ppg, (10 sx / 14.3 cu ft. / 2.5 bbls). **STAGE 5:** 200 sx. Foamed Lead Cement: 50 / 50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.97 cu-ft/sk. 13.0 ppg (200 sx / 394 cu-ft. / 70.2 bbls.). **STAGE 6:** Tail Cement : 100 sx. 50/50 Poz Standard + 0.2% Versaset + 0.05% HALAD-766 + .05% SA-1015, Weight: 13.5 ppg ( 100 sx / Yield 1.28 cu ft/sk. / 128 cu ft. / 22.8 bbls) **STAGE 7:** Displace w/ +/- 137 bbl Fr Water. Total Cement ( 536.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,662 ft.

#### IV. COMPLETION

##### A. CBL

1. Run CCL for perforating.

##### B. 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.

##### 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 N<sub>2</sub> for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

##### D. 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 point of curve (~5,800' MD).

- 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.

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#### NOTE:

Installation of RSI sleeves at Toe of Lateral.

##### **Proposed Operations:**

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-55 Intermediate casing (set at 6,112 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,962 ft. (MD) +/- 78 degree angle. TOC: +/- 5,662 ft. (MD).

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

A 4-1/2" 11.6# N-80 tie-back string with seal assembly will be run and stung into the PBR of the liner hanger, tested to 1500 PSI and hung off at the surface.

The Drilling Rig will be rigged down at this point and Completion operations will begin. After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.

Note: Changes to formation tops, casing landing points, well TD and Directional Plan.

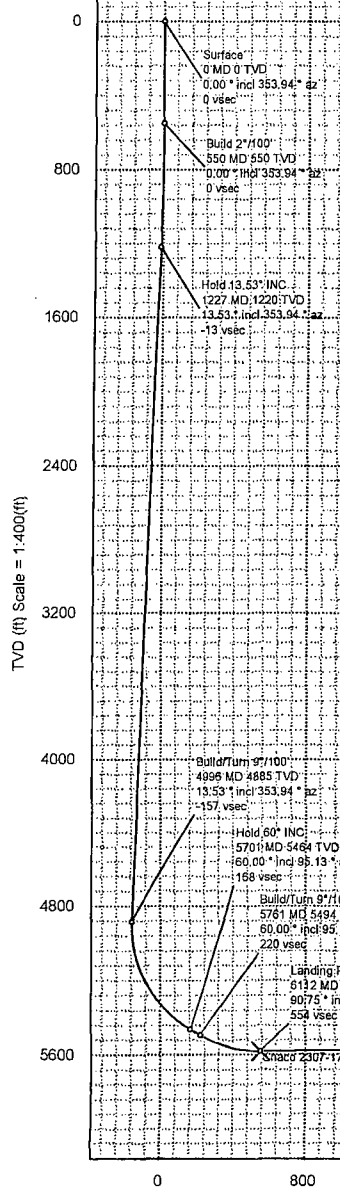
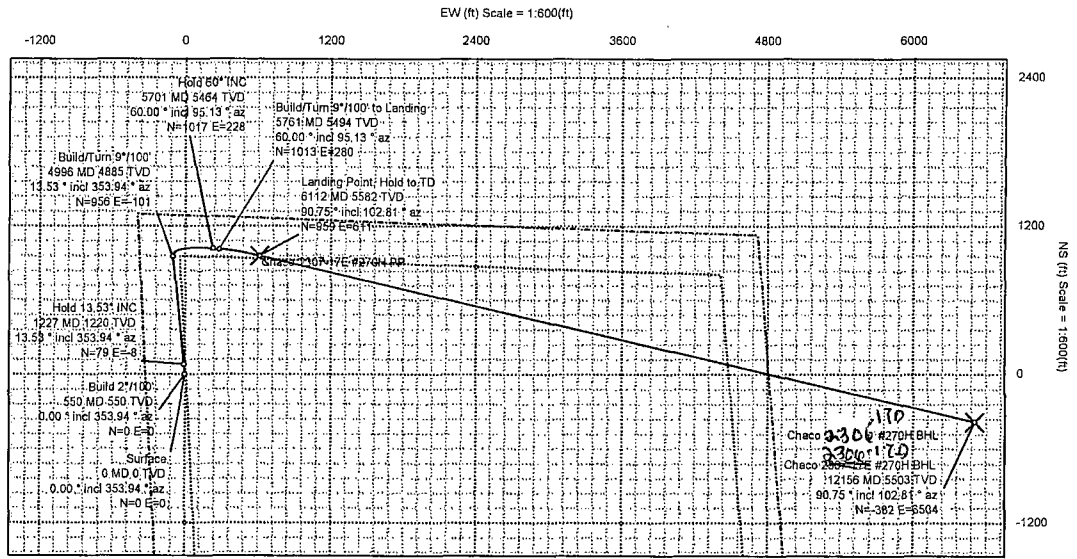
<b>Borehole:</b> Original Hole	<b>Well:</b> Chaco 2306-17D #270H	<b>Field:</b> NM, Rio Arriba (NAD 27 CZ)	<b>Structure:</b> Sec 17-23N-6W
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<b>Gravity &amp; Magnetic Parameters</b> Model: BGGM 2014 Dip: 63.014° Date: 16-Jun-2014 MagDec: 9.435° FS: 50097.258mT Gravity FS: 998.498mgn (9.80665 Based)	<b>Surface Location</b> NAD27 New Mexico State Plane, Central Zone, US Feet Lat: N 36 13 43.14 Northing: 1904813.535R Lon: W 107 29 58.09 Easting: 131480.793R S Grid Conv: -0.7385° Scale Fact: 1.00005541	<b>Miscellaneous</b> Slot: Chaco 2306-17D #270H TVD Ref: KB(6924ft above MSL) Plan: Chaco 2307-17E #270H R0 mdv 16Jun14
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**Proposal**



True North  
Tot Corr (M->T 9.435°)  
Mag Dec (9.435°)  
Grid Conv (-0.739°)



Surface Location								
Northing: 1904813.535		Easting: 131480.793		Latitude: N 36 13 43.14		Longitude: W 107 29 58.09		
				VSec Azimuth: 93.358				
Target Description	Grid Coord			Local Coord				
Target Name	Latitude	Longitude	Northing	Easting	TVD	VSec	N(+)/S(-)	E(+)/W(-)
Chaco 2306-17D #270H BHL	N 36 13 39.36	W 107 29 38.71	1904348.11	137980.05	5503.00	6515.56	-381.59	6504.37
Chaco 2306-17D #270H PP	N 36 13 52.62	W 107 29 50.63	1905764.35	132104.34	5582.00	554.00	958.73	611.21
Chaco 2306-17D #270H PP	N 36 13 43.14	W 107 29 58.09	1904813.54	131480.79	6924.00	0.00	0.00	0.00
Chaco 2307-17E #270H PP	N 36 13 43.14	W 107 29 58.09	1904813.54	131480.79	6924.00	0.00	0.00	0.00

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Surface	0.00	0.00	353.94	0.00	0.00	0.00	0.00	0.00
Build 2°/100'	550.00	0.00	353.94	550.00	0.00	0.00	0.00	0.00
Hold 13.53° INC	1226.64	13.53	353.94	1220.37	-13.01	79.09	-8.39	2.00
Build/Turn 9°/100'	4995.62	13.53	353.94	4894.70	-157.27	956.12	-101.45	0.00
Hold 60° INC	5700.74	60.00	95.13	5464.25	168.41	1017.24	228.38	9.00
Build/Turn 9°/100' to Landing	5760.74	60.00	95.13	5494.25	220.35	1012.59	280.13	0.00
Landing Point, Hold to TD	6111.97	90.75	102.81	5582.00	554.08	958.67	611.28	9.00
Chaco 2307-17E #270H BHL	12156.06	90.75	102.81	5503.00	6515.56	-381.59	6504.37	0.00

Vertical Section (ft) Azim = 93.358° Scale = 1:400(ft) Origin = 0N/-S, 0E/-W



**Chaco 2307-17E #270H R0 mdv 16Jun14 Proposal Geodetic Report**

(Def Plan)

Report Date: June 16, 2014 - 02:34 PM  
 Client: WPX Energy  
 Field: NM, Rio Arriba (NAD 27 CZ)  
 Structure / Slot: WPX Sec 17-23N-6W (Chaco 2307-17E Pad) / Chaco 2307-17E #270H  
 Well: Chaco 2307-17E #270H  
 Borehole: Original Hole  
 UWI / API#: Unknown / Unknown *2307-17E*  
 Survey Name: Chaco 2307-17E #270H R0 mdv 16Jun14  
 Survey Date: January 17, 2014  
 Tort / AHD / DDI / ERD Ratio: 108.608 \* / 7751.036 ft / 6.263 / 1.389  
 Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet  
 Location Lat / Long: N 36° 13' 43.14000", W 107° 29' 58.09200"  
 Location Grid N/E Y/X: N 1904813.535 RUS, E 131480.793 RUS  
 CRS Grid Convergence Angle: -0.7385 \*  
 Grid Scale Factor: 1.00005541  
 Version / Patch: 2.7.1043.0

Survey / DLS Computation: Minimum Curvature / Lubinski  
 Vertical Section Azimuth: 93.358 \* (True North)  
 Vertical Section Origin: 0.000 ft, 0.000 ft  
 TVD Reference Datum: KB  
 TVD Reference Elevation: 6924.000 ft above MSL  
 Seabed / Ground Elevation: 6910.000 ft above MSL  
 Magnetic Declination: 9.435 \*  
 Total Gravity Field Strength: 998.4978mgn (9.80665 Based)  
 Gravity Model: GARM  
 Total Magnetic Field Strength: 50097.258 nT  
 Magnetic Dip Angle: 63.014 \*  
 Declination Date: June 16, 2014  
 Magnetic Declination Model: BGGM 2014  
 North Reference: True North  
 Grid Convergence Used: 0.0000 \*  
 Total Corr Mag North->True North: 9.4347 \*  
 Local Coord Referenced To: Well Head

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 ° ' ")
Surface	0.00	0.00	353.94	0.00	0.00	0.00	0.00	N/A	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	100.00	0.00	353.94	100.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	200.00	0.00	353.94	200.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	300.00	0.00	353.94	300.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	400.00	0.00	353.94	400.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	500.00	0.00	353.94	500.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
Build 2"/100'	550.00	0.00	353.94	550.00	0.00	0.00	0.00	0.00	1904813.54	131480.79	N 36 13 43.14	W 107 29 58.09
	600.00	1.00	353.94	600.00	-0.07	0.43	-0.05	2.00	1904813.97	131480.75	N 36 13 43.14	W 107 29 58.09
	700.00	3.00	353.94	699.93	-0.64	3.90	-0.41	2.00	1904817.44	131480.43	N 36 13 43.18	W 107 29 58.10
	800.00	5.00	353.94	799.68	-1.78	10.84	-1.15	2.00	1904824.39	131479.78	N 36 13 43.25	W 107 29 58.11
	900.00	7.00	353.94	899.13	-3.49	21.23	-2.25	2.00	1904834.80	131478.81	N 36 13 43.35	W 107 29 58.12
	1000.00	9.00	353.94	998.15	-5.77	35.07	-3.72	2.00	1904848.66	131477.52	N 36 13 43.49	W 107 29 58.14
	1100.00	11.00	353.94	1096.63	-8.61	52.34	-5.55	2.00	1904865.95	131475.91	N 36 13 43.66	W 107 29 58.16
	1200.00	13.00	353.94	1194.44	-12.01	73.01	-7.75	2.00	1904886.65	131473.99	N 36 13 43.86	W 107 29 58.19
Hold 13.53° INC	1226.64	13.53	353.94	1220.37	-13.01	79.09	-8.39	2.00	1904892.73	131473.42	N 36 13 43.92	W 107 29 58.19
	1300.00	13.53	353.94	1291.69	-15.82	98.16	-10.20	0.00	1904909.83	131471.83	N 36 13 44.09	W 107 29 58.22
	1400.00	13.53	353.94	1388.91	-19.65	119.43	-12.67	0.00	1904933.13	131469.66	N 36 13 44.32	W 107 29 58.25
	1500.00	13.53	353.94	1486.14	-23.47	142.70	-15.14	0.00	1904956.43	131467.49	N 36 13 44.55	W 107 29 58.28
	1600.00	13.53	353.94	1583.36	-27.30	165.97	-17.61	0.00	1904979.73	131465.32	N 36 13 44.78	W 107 29 58.31
	1700.00	13.53	353.94	1680.58	-31.13	189.24	-20.08	0.00	1905003.03	131463.15	N 36 13 45.01	W 107 29 58.34
	1800.00	13.53	353.94	1777.81	-34.96	212.51	-22.55	0.00	1905026.33	131460.98	N 36 13 45.24	W 107 29 58.37
	1900.00	13.53	353.94	1875.03	-38.78	235.78	-25.02	0.00	1905049.63	131458.81	N 36 13 45.47	W 107 29 58.40
	2000.00	13.53	353.94	1972.25	-42.61	259.05	-27.49	0.00	1905072.93	131456.65	N 36 13 45.70	W 107 29 58.43
	2100.00	13.53	353.94	2069.48	-46.44	282.32	-29.96	0.00	1905096.23	131454.48	N 36 13 45.93	W 107 29 58.46
	2200.00	13.53	353.94	2166.70	-50.27	305.59	-32.43	0.00	1905119.53	131452.31	N 36 13 46.16	W 107 29 58.49
	2300.00	13.53	353.94	2263.93	-54.09	328.86	-34.89	0.00	1905142.84	131450.14	N 36 13 46.39	W 107 29 58.52
	2400.00	13.53	353.94	2361.15	-57.92	352.13	-37.36	0.00	1905166.14	131447.97	N 36 13 46.62	W 107 29 58.55
	2500.00	13.53	353.94	2458.37	-61.75	375.40	-39.83	0.00	1905189.44	131445.80	N 36 13 46.85	W 107 29 58.58
	2600.00	13.53	353.94	2555.60	-65.58	398.67	-42.30	0.00	1905212.74	131443.63	N 36 13 47.08	W 107 29 58.61
	2700.00	13.53	353.94	2652.82	-69.40	421.94	-44.77	0.00	1905236.04	131441.46	N 36 13 47.31	W 107 29 58.64
	2800.00	13.53	353.94	2750.04	-73.23	445.21	-47.24	0.00	1905259.34	131439.29	N 36 13 47.54	W 107 29 58.67
	2900.00	13.53	353.94	2847.27	-77.06	468.48	-49.71	0.00	1905282.64	131437.12	N 36 13 47.77	W 107 29 58.70
	3000.00	13.53	353.94	2944.49	-80.89	491.75	-52.18	0.00	1905305.94	131434.96	N 36 13 48.00	W 107 29 58.73
	3100.00	13.53	353.94	3041.71	-84.72	515.02	-54.65	0.00	1905329.24	131432.79	N 36 13 48.23	W 107 29 58.76
	3200.00	13.53	353.94	3138.94	-88.54	538.29	-57.12	0.00	1905352.54	131430.62	N 36 13 48.46	W 107 29 58.79
	3300.00	13.53	353.94	3236.16	-92.37	561.56	-59.58	0.00	1905375.84	131428.45	N 36 13 48.69	W 107 29 58.82
	3400.00	13.53	353.94	3333.39	-96.20	584.83	-62.05	0.00	1905399.14	131426.28	N 36 13 48.92	W 107 29 58.85
	3500.00	13.53	353.94	3430.61	-100.03	608.10	-64.52	0.00	1905422.44	131424.11	N 36 13 49.15	W 107 29 58.88
	3600.00	13.53	353.94	3527.83	-103.85	631.37	-66.99	0.00	1905445.75	131421.94	N 36 13 49.38	W 107 29 58.91
	3700.00	13.53	353.94	3625.06	-107.68	654.64	-69.46	0.00	1905469.05	131419.77	N 36 13 49.61	W 107 29 58.94
	3800.00	13.53	353.94	3722.28	-111.51	677.90	-71.93	0.00	1905492.35	131417.60	N 36 13 49.84	W 107 29 58.97
	3900.00	13.53	353.94	3819.50	-115.34	701.17	-74.40	0.00	1905515.65	131415.43	N 36 13 50.07	W 107 29 59.00
	4000.00	13.53	353.94	3916.73	-119.16	724.44	-76.87	0.00	1905538.95	131413.27	N 36 13 50.30	W 107 29 59.03
	4100.00	13.53	353.94	4013.95	-122.99	747.71	-79.34	0.00	1905562.25	131411.10	N 36 13 50.53	W 107 29 59.06
	4200.00	13.53	353.94	4111.17	-126.82	770.98	-81.81	0.00	1905585.55	131408.93	N 36 13 50.76	W 107 29 59.09
	4300.00	13.53	353.94	4208.40	-130.65	794.25	-84.27	0.00	1905608.85	131406.76	N 36 13 50.99	W 107 29 59.12
	4400.00	13.53	353.94	4305.62	-134.47	817.52	-86.74	0.00	1905632.15	131404.59	N 36 13 51.22	W 107 29 59.15
	4500.00	13.53	353.94	4402.84	-138.30	840.79	-89.21	0.00	1905655.45	131402.42	N 36 13 51.45	W 107 29 59.18
	4600.00	13.53	353.94	4500.07	-142.13	864.06	-91.68	0.00	1905678.75	131400.25	N 36 13 51.68	W 107 29 59.21
	4700.00	13.53	353.94	4597.29	-145.96	887.33	-94.15	0.00	1905702.05	131398.08	N 36 13 51.91	W 107 29 59.24
	4800.00	13.53	353.94	4694.52	-149.78	910.60	-96.62	0.00	1905725.35	131395.91	N 36 13 52.14	W 107 29 59.27
	4900.00	13.53	353.94	4791.74	-153.61	933.87	-99.09	0.00	1905748.66	131393.74	N 36 13 52.37	W 107 29 59.30
Build/Turn 9"/100'	4995.62	13.53	353.94	4884.70	-157.27	956.12	-101.45	0.00	1905770.93	131391.57	N 36 13 52.59	W 107 29 59.33
	5000.00	13.41	355.56	4888.96	-157.42	957.14	-101.54	9.00	1905771.95	131391.59	N 36 13 52.61	W 107 29 59.33
	5100.00	13.79	34.50	4986.36	-152.82	978.57	-95.68	9.00	1905793.31	131397.73	N 36 13 52.82	W 107 29 59.26
	5200.00	18.97	61.15	5082.40	-132.87	996.27	-74.65	9.00	1905810.74	131418.99	N 36 13 52.99	W 107 29 59.00
	5300.00	26.24	75.15	5174.72	-98.04	1009.81	-36.97	9.00	1905828.81	131454.84	N 36 13 53.13	W 107 29 58.57
	5400.00	34.30	83.17	5261.05	-49.21	1018.84	10.48	9.00	1905832.21	131504.40	N 36 13 53.22	W 107 29 57.96
	5500.00	42.70	88.39	5339.27	12.43	1023.15	72.47	9.00	1905835.72	131566.45	N 36 13 53.26	W 107 29 57.21
	5600.00	51.27	92.16	5407.43	85.35	1022.63	145.49	9.00	1905834.26	131639.46	N 36 13 53.25	W 107 29 56.32
	5700.00	59.94	95.11	5463.88	167.77	1017.30	227.74	9.00	1905827.87	131721.64	N 36 13 53.20	W 107 29 55.31
	5700.74	60.00	95.13	5464.25	168.41	1017.24	228.38	9.00	1905827.80	131722.28	N 36 13 53.20	W 107 29 55.30
Hold 60° INC Build/Turn 9"/100' to Landing	5760.74	60.00	95.13	5494.25	220.35	1012.59	280.13	0.00	1905822.49	131773.97	N 36 13 53.15	W 107 29 54.67
	5800.00	63.42	96.14	5512.86	254.89	1009.19	314.53	9.00	1905818.65	131808.32	N 36 13 53.12	W 107 29 54.25
	5900.00	72.16	98.46	5550.63	347.15							

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 ° ' ")
	6700.00	90.75	102.81	5574.30	1134.07	828.27	1184.62	0.00	1905626.51	132676.05	N 36 13 51.33	W 107 29 43.63
	6800.00	90.75	102.81	5572.99	1232.71	806.09	1282.12	0.00	1905603.08	132773.26	N 36 13 51.11	W 107 29 42.44
	6900.00	90.75	102.81	5571.69	1331.34	783.92	1379.62	0.00	1905579.64	132870.48	N 36 13 50.89	W 107 29 41.25
	7000.00	90.75	102.81	5570.38	1429.97	761.74	1477.12	0.00	1905556.21	132967.69	N 36 13 50.67	W 107 29 40.06
	7100.00	90.75	102.81	5569.07	1528.60	739.56	1574.62	0.00	1905532.78	133064.90	N 36 13 50.45	W 107 29 38.87
	7200.00	90.75	102.81	5567.76	1627.24	717.39	1672.12	0.00	1905509.35	133162.11	N 36 13 50.23	W 107 29 37.68
	7300.00	90.75	102.81	5566.45	1725.87	695.21	1769.62	0.00	1905485.92	133259.33	N 36 13 50.01	W 107 29 36.49
	7400.00	90.75	102.81	5565.14	1824.50	673.04	1867.13	0.00	1905462.48	133356.54	N 36 13 49.80	W 107 29 35.30
	7500.00	90.75	102.81	5563.84	1923.14	650.86	1964.63	0.00	1905439.05	133453.75	N 36 13 49.58	W 107 29 34.11
	7600.00	90.75	102.81	5562.53	2021.77	628.68	2062.13	0.00	1905415.62	133550.96	N 36 13 49.36	W 107 29 32.92
	7700.00	90.75	102.81	5561.22	2120.40	606.51	2159.63	0.00	1905392.19	133648.18	N 36 13 49.14	W 107 29 31.73
	7800.00	90.75	102.81	5559.91	2219.03	584.33	2257.13	0.00	1905368.76	133745.39	N 36 13 48.92	W 107 29 30.54
	7900.00	90.75	102.81	5558.60	2317.67	562.16	2354.63	0.00	1905345.32	133842.60	N 36 13 48.70	W 107 29 29.35
	8000.00	90.75	102.81	5557.30	2416.30	539.98	2452.13	0.00	1905321.89	133939.81	N 36 13 48.48	W 107 29 28.16
	8100.00	90.75	102.81	5555.99	2514.93	517.81	2549.64	0.00	1905298.46	134037.03	N 36 13 48.26	W 107 29 26.97
	8200.00	90.75	102.81	5554.68	2613.57	495.63	2647.14	0.00	1905275.03	134134.24	N 36 13 48.04	W 107 29 25.78
	8300.00	90.75	102.81	5553.37	2712.20	473.45	2744.64	0.00	1905251.60	134231.45	N 36 13 47.82	W 107 29 24.59
	8400.00	90.75	102.81	5552.07	2810.83	451.28	2842.14	0.00	1905228.17	134328.67	N 36 13 47.60	W 107 29 23.40
	8500.00	90.75	102.81	5550.76	2909.46	429.10	2939.64	0.00	1905204.73	134425.88	N 36 13 47.38	W 107 29 22.21
	8600.00	90.75	102.81	5549.45	3008.10	406.93	3037.14	0.00	1905181.30	134523.09	N 36 13 47.16	W 107 29 21.02
	8700.00	90.75	102.81	5548.14	3106.73	384.75	3134.64	0.00	1905157.87	134620.30	N 36 13 46.94	W 107 29 19.83
	8800.00	90.75	102.81	5546.84	3205.36	362.58	3232.15	0.00	1905134.44	134717.52	N 36 13 46.72	W 107 29 18.64
	8900.00	90.75	102.81	5545.53	3304.00	340.40	3329.65	0.00	1905111.01	134814.73	N 36 13 46.50	W 107 29 17.45
	9000.00	90.75	102.81	5544.22	3402.63	318.23	3427.15	0.00	1905087.58	134911.94	N 36 13 46.28	W 107 29 16.26
	9100.00	90.75	102.81	5542.91	3501.26	296.05	3524.65	0.00	1905064.15	135009.16	N 36 13 46.07	W 107 29 15.07
	9200.00	90.75	102.81	5541.61	3599.89	273.88	3622.15	0.00	1905040.72	135106.37	N 36 13 45.85	W 107 29 13.88
	9300.00	90.75	102.81	5540.30	3698.53	251.70	3719.65	0.00	1905017.29	135203.58	N 36 13 45.63	W 107 29 12.69
	9400.00	90.75	102.81	5538.99	3797.16	229.53	3817.16	0.00	1904993.86	135300.79	N 36 13 45.41	W 107 29 11.50
	9500.00	90.75	102.81	5537.69	3895.79	207.36	3914.66	0.00	1904970.42	135398.01	N 36 13 45.19	W 107 29 10.31
	9600.00	90.75	102.81	5536.38	3994.43	185.18	4012.16	0.00	1904946.99	135495.22	N 36 13 44.97	W 107 29 9.12
	9700.00	90.75	102.81	5535.07	4093.06	163.01	4109.66	0.00	1904923.56	135592.43	N 36 13 44.75	W 107 29 7.93
	9800.00	90.75	102.81	5533.77	4191.69	140.83	4207.16	0.00	1904900.13	135689.65	N 36 13 44.53	W 107 29 6.74
	9900.00	90.75	102.81	5532.46	4290.33	118.66	4304.66	0.00	1904876.70	135786.86	N 36 13 44.31	W 107 29 5.55
	10000.00	90.75	102.81	5531.15	4388.96	96.48	4402.17	0.00	1904853.27	135884.07	N 36 13 44.09	W 107 29 4.36
	10100.00	90.75	102.81	5529.85	4487.59	74.31	4499.67	0.00	1904829.84	135981.29	N 36 13 43.87	W 107 29 3.17
	10200.00	90.75	102.81	5528.54	4586.23	52.14	4597.17	0.00	1904806.41	136078.50	N 36 13 43.65	W 107 29 1.98
	10300.00	90.75	102.81	5527.23	4684.86	29.96	4694.67	0.00	1904782.98	136175.71	N 36 13 43.43	W 107 29 0.79
	10400.00	90.75	102.81	5525.93	4783.49	7.79	4792.17	0.00	1904759.55	136272.92	N 36 13 43.21	W 107 28 59.60
	10500.00	90.75	102.81	5524.62	4882.12	-14.39	4889.68	0.00	1904736.12	136370.14	N 36 13 42.99	W 107 28 58.41
	10600.00	90.75	102.81	5523.32	4980.76	-36.56	4987.18	0.00	1904712.69	136467.35	N 36 13 42.77	W 107 28 57.22
	10700.00	90.75	102.81	5522.01	5078.39	-58.73	5084.68	0.00	1904689.26	136564.56	N 36 13 42.55	W 107 28 56.03
	10800.00	90.75	102.81	5520.70	5176.02	-80.91	5182.18	0.00	1904665.83	136661.77	N 36 13 42.34	W 107 28 54.84
	10900.00	90.75	102.81	5519.40	5273.66	-103.08	5279.68	0.00	1904642.40	136758.98	N 36 13 42.12	W 107 28 53.65
	11000.00	90.75	102.81	5518.09	5371.29	-125.25	5377.18	0.00	1904618.97	136856.20	N 36 13 41.90	W 107 28 52.46
	11100.00	90.75	102.81	5516.79	5468.92	-147.43	5474.69	0.00	1904595.54	136953.42	N 36 13 41.68	W 107 28 51.27
	11200.00	90.75	102.81	5515.48	5566.55	-169.60	5572.19	0.00	1904572.11	137050.63	N 36 13 41.46	W 107 28 50.08
	11300.00	90.75	102.81	5514.17	5664.19	-191.77	5669.69	0.00	1904548.68	137147.84	N 36 13 41.24	W 107 28 48.89
	11400.00	90.75	102.81	5512.87	5761.82	-213.95	5767.19	0.00	1904525.25	137245.06	N 36 13 41.02	W 107 28 47.70
	11500.00	90.75	102.81	5511.56	5859.46	-236.12	5864.69	0.00	1904501.82	137342.27	N 36 13 40.80	W 107 28 46.51
	11600.00	90.75	102.81	5510.26	5957.09	-258.29	5962.20	0.00	1904478.40	137439.48	N 36 13 40.58	W 107 28 45.32
	11700.00	90.75	102.81	5508.95	6054.73	-280.47	6059.70	0.00	1904454.97	137536.70	N 36 13 40.36	W 107 28 44.13
	11800.00	90.75	102.81	5507.65	6152.36	-302.64	6157.20	0.00	1904431.54	137633.91	N 36 13 40.14	W 107 28 42.94
	11900.00	90.75	102.81	5506.34	6250.00	-324.81	6254.70	0.00	1904408.11	137731.12	N 36 13 39.92	W 107 28 41.75
	12000.00	90.75	102.81	5505.04	6347.63	-346.99	6352.21	0.00	1904384.68	137828.34	N 36 13 39.70	W 107 28 40.56
	12100.00	90.75	102.81	5503.73	6445.26	-369.16	6449.71	0.00	1904361.25	137925.55	N 36 13 39.48	W 107 28 39.37

Chaco 2307-17E #270H BHL 12156.06 90.75 102.81 5503.00 6515.56 -381.59 6504.37 0.00 1904348.11 137980.05 N 36 13 39.36 W 107 28 38.71

Survey Type: Def Plan

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

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / Chaco 2307-17E #270H R0 mdv 16Jun14
	1	14.000	12156.065	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 2307-17E #270H R0 mdv 16Jun14

2306 17D  
2306 17D

# 1. INTRODUCTION

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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 2306-17D No. 270H (270H) oil and natural gas well project and Chaco 2306-17E Nos. 201H and 202H oil and natural gas wells project and revised Chaco 2306-17E access road and well-connect pipeline project Application for Permit to Drill (APD). This SUPO is provided per Onshore Oil and Gas Order No. 1.

The 270H oil and natural gas well will be twinned with the Chaco 2306-17E Nos. 201H and 202H (201H/202H) wells. The 201H/202H SUPO was submitted to the BLM-FFO on March 11, 2014 and the 201H/202H Environmental Assessment was submitted to the BLM-FFO on March 13, 2014. The 201H/202H wells and project features (well pad, construction zone, access road, and well-connect pipeline) have not been permitted to date. Since the submittal of the 201H/202H SUPO, WPX recently added the 270H well to the 201H/202H project, and WPX has recently revised the 201H/202H access road and well-connect pipeline (hereby known as the 201H/202H/270H access road and 201H/202H/270H well-connect pipeline). Therefore, this revised SUPO is being submitted for the addition of the 270H well to the project and for the access road and well-connect pipeline revisions.

The wells will drill to BLM-FFO-managed minerals. Surface features associated with the project will be on surface managed by the BLM-FFO and on private (Fee) surface. The construction of the original 201H/202H well pad and construction zone will not change with the addition of the 270H well. According to the BLM-FFO, the addition of the 270H well to the project and the 201H/202H/270H access road and well-connect pipeline will be approved under a Determination of NEPA [National Environmental Policy Act] Adequacy. Additionally, the 270H well and the 201H/202H/270H access road and well-connect pipeline will be permitted under the BLM-FFO-approved 270H APD.

Three potential staging areas will be associated with the project: Elm Ridge Exploration Company's (Elm Ridge's) plugged March A No. 1 well pad, active March A No. 3 well pad, and active Federal 8 No. 1 well pad. These staging areas will be authorized via an agreement between WPX and Elm Ridge.

A pre-disturbance onsite meeting was held for the project on January 29, 2014. The BLM, WPX, and an environmental consultant (Nelson Consulting, Inc.) attended the meeting. A pre-disturbance onsite meeting was deemed unnecessary by the BLM-FFO for the addition of the 270H well to the 201H/202H project area because no new surface disturbance will be caused by the addition of the 270H well. However, a second pre-disturbance onsite meeting was held on July 1, 2014, for the 201H/202H/270H access road and well-connect pipeline.

In addition to the best management practices (BMPs) provided below and in the Surface Reclamation Plan (Reclamation Plan; Appendix A), the general Conditions of Approval will be followed, if any are attached to the approved 270H APD.

## 2. PROJECT LOCATION AND DESCRIPTION

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### 2.1. Project Location

The project area is located in Rio Arriba County, New Mexico. The project area is located approximately 45 miles south-southeast of the town of Bloomfield, New Mexico. To access the project area from Bloomfield, head south on U.S. Highway 550 from the U.S. Highway 550-U.S. Highway 64 intersection for approximately 52 miles and turn left onto the 201H/202H/270H access road, which was formerly the entrance to Burt's Junkyard. The access route from U.S. Highway 550 is depicted on Figure B.1 (Appendix B) and on the construction plats provided in the 270H APD permit package.

The legal location of the project area is described in the table below (New Mexico Principal Meridian [NMPM]).

Construction and maintenance activities will cease when soil or road surfaces become saturated to the extent that construction equipment is unable to stay within the project area and/or when activities cause irreparable harm to roads, soils, or streams. No frozen soils will be used for construction purposes.

Soils will be excavated from the well-connect pipeline trenches using a trencher or backhoe. Each trench will be 4 to 5 feet in depth. The trench will be 16 inches in width if a trencher is used or 24 inches in width if a backhoe is used. Soft plugs will be placed within the trench every quarter mile. When stringing pipe, one joint of pipe will be set back every quarter mile. Backfilling operations will be performed within a reasonable amount of time to ensure that the trench is not left open for more than 24 hours. If a trench is left open overnight, it will be fenced with a temporary fence or a night watchman will be utilized.

After a pipe has been welded and coated, a side-boom tractor will be used to place the pipe into the trench. Prior to construction commencement, WPX will notify the BLM-FFO of additional types of construction equipment to be used.

The soils excavated from the trench will be returned to the trench, atop the pipe, and compacted to prevent subsidence. The trench will be compacted after approximately 2 feet of fill is placed within the trench and after the ground surface has been leveled.

Prior to the well-connect pipelines being placed in service, the pipes will be pressure tested.

Pipeline markers will be installed along the well-connect pipeline corridor within the line of sight. These markers will not create safety hazards.

Construction plats are provided in the 270H APD permit package.

## **9. METHODS FOR HANDLING WASTE DISPOSAL**

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- ✓ Drilling operations will utilize a closed-loop system. Drilling of the horizontal lateral will be accomplished with water-based mud. All cuttings will be hauled to a commercial disposal facility or land farm. WPX will follow New Mexico Oil Conservation Division "Pit Rule" guidelines and Onshore Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.

If drilling has not been initiated on the well pad within 120 days of the well pad being constructed, WPX will submit a site-stabilization plan to the BLM-FFO.

All garbage and trash will be placed in a metal trash basket. The trash and garbage will be hauled off site and dumped in an approved landfill, as needed. Portable toilets will be provided and maintained during construction, as needed (see Figures B.3 and B.4, Appendix B, for the location of toilets and trash receptacles).

## **10. ANCILLARY FACILITIES**

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Three previously disturbed well pads will potentially be used as staging areas for the project; the staging areas are described in Section 2.2 (Project Description). During staging, WPX will stay within the boundaries of the previously disturbed well pads associated with the staging areas. During interim reclamation, WPX will repair any damage to and reseed the staging areas (with the exception of portions of the staging areas that the well pad operator prefers to remain unseeded).

## **11. WELL SITE LAYOUT**

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The approximate cuts, approximate fills, and orientation for the well pad are depicted on the construction plats in the 270H APD permit package. The location of drilling equipment, rig orientation, and the location

