

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: 6/13/13

Well information;

Operator WPX, Well Name and Number Chaco 2306-06L 179H

API# 30-039-31190, Section 6, Township 23 NS, Range 6 E W

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 Martin
NMOCD Approved by Signature

8.21.2013 ea
Date

RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUN 11 2013

APPLICATION FOR PERMIT TO DRILL OR REENTER

Farmington Field Office
Bureau of Land Management

5. Lease Serial No. NMSF-078362
6. If Indian, Allottee or Tribe Name
7. If Unit or CA Agreement, Name and No.
8. Lease Name and Well No. Chaco 2306-06L #179H
9. API Well No. 30-039-31190
10. Field and Pool, or Exploratory Lybrook Gallup
11. Sec., T., R., M., or Blk. and Survey or Area Section 6, 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 1680' FSL & 591' FWL, sec 6, T23N, R6W At proposed prod. zone 380' FSL & 380' FWL, Sec 1, T23N, R7W	
14. Distance in miles and direction from nearest town or post office* approximately 3 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) 591'	16. No. of Acres in lease 1277.68
17. Spacing Unit dedicated to this well RCVD AUG 15 '13 151.29 acres	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000'	19. Proposed Depth 10,562' MD / 5,505' TVD
20. BLM/BIA Bond No. on file UTB000178	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6933' 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Larry Higgins</i>	Name (Printed/Typed) Larry Higgins	Date 6/13/13
---------------------------------------	---------------------------------------	-----------------

Permit Supervisor. Approved by (signature) <i>[Signature]</i>	Name (Printed/Typed) AFM	Date 8/13/13
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 formation 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. DRILLING OPERATIONS AUTHORIZED ARE 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.

808 feet of new access road is needed.

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

NMCCD
A

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

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

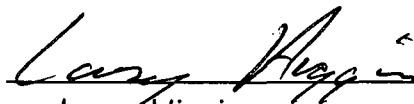
Address P.O. Box 640, Aztec, NM 87410

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

Submit one copy to
Appropriate District Office

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

AMENDED REPORT
RECEIVED

JUN 11 2013

WELL LOCATION AND ACREAGE DEDICATION PLAT

~~Farmington Field Office~~
~~Bureau of Land Management~~

*API Number 30-039-31190		*Pool Code 42289	*Pool Name LYBROOK GALLUP	*Well Name CHACO 2306-06L	*Well Number 179H
*Property Code 40085		*Property Name CHACO 2306-06L			*Well Number 179H
*OGRID No. 120782		*Operator Name WPX ENERGY PRODUCTION, LLC			*Elevation 6933'

¹⁰ Surface Location

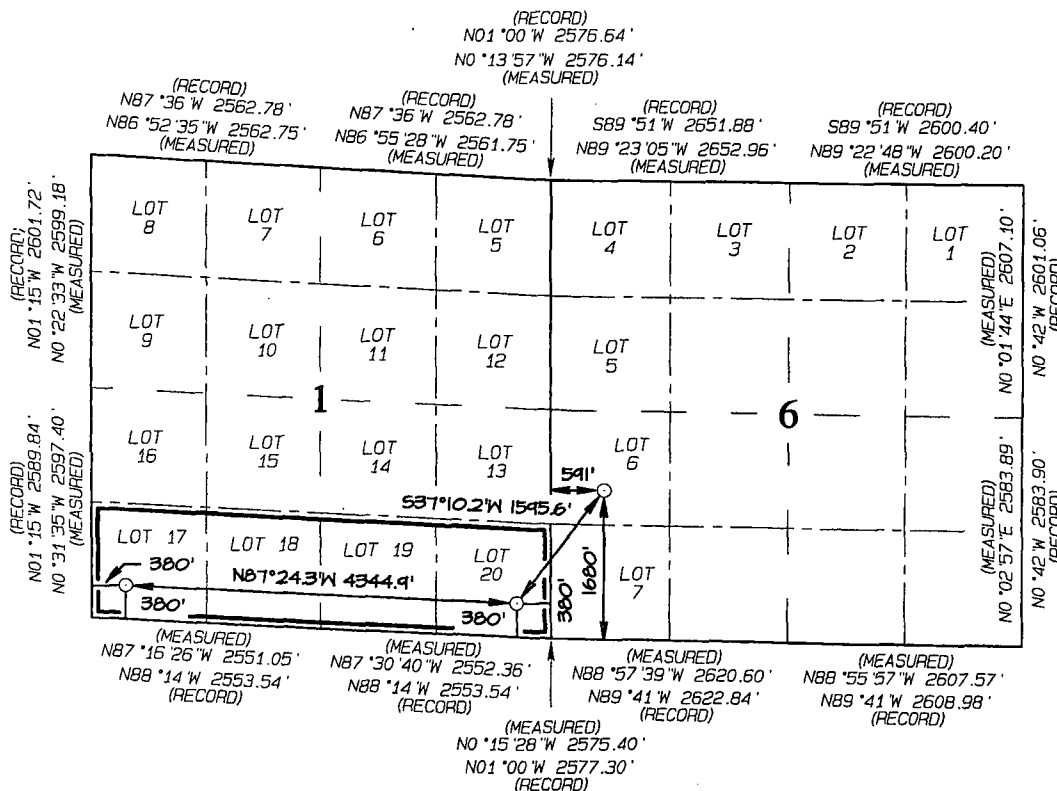
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	6	23N	6W	6	1680	SOUTH	591	WEST	RIO ARRIBA

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	1	23N	7W	17	380	SOUTH	380	WEST	RIO ARRIBA

12 Dedicated Acres	151.29 Acres S/2 S/2 - Section 1	13 Joint or Infill	14 Consolidation Code	15 Order No.
--------------------	-------------------------------------	--------------------	-----------------------	--------------

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 1, T23N, R7W
LAT: 36.24795 °N
LONG: 107.53451 °W
DATUM: NAD1927

LAT: 36.24796°N
LONG: 107.53511°W
DATUM: NAD1983

POINT-OF-ENTRY
380' FSL 380' FEL
SECTION 1, T23N, R7W
LAT: 36.24757°N
LONG: 107.51978°W
DATUM: NAD1927

LAT: 36.24758°N
LONG: 107.52039°W
DATUM: NAD1983

SURFACE LOCATION
1680' FSL 591' FWL
SECTION 6, T23N, R6W
LAT: 36.25109°N
LONG: 107.51657°W
DATUM: NAD1927

LAT: 36.25111°N
LONG: 107.51718°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.

Larry Higgins 6/11/13
Signature Date

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 10, 2013
Survey Date: OCTOBER 1, 2012
Signature and Seal of Professional Surveyor

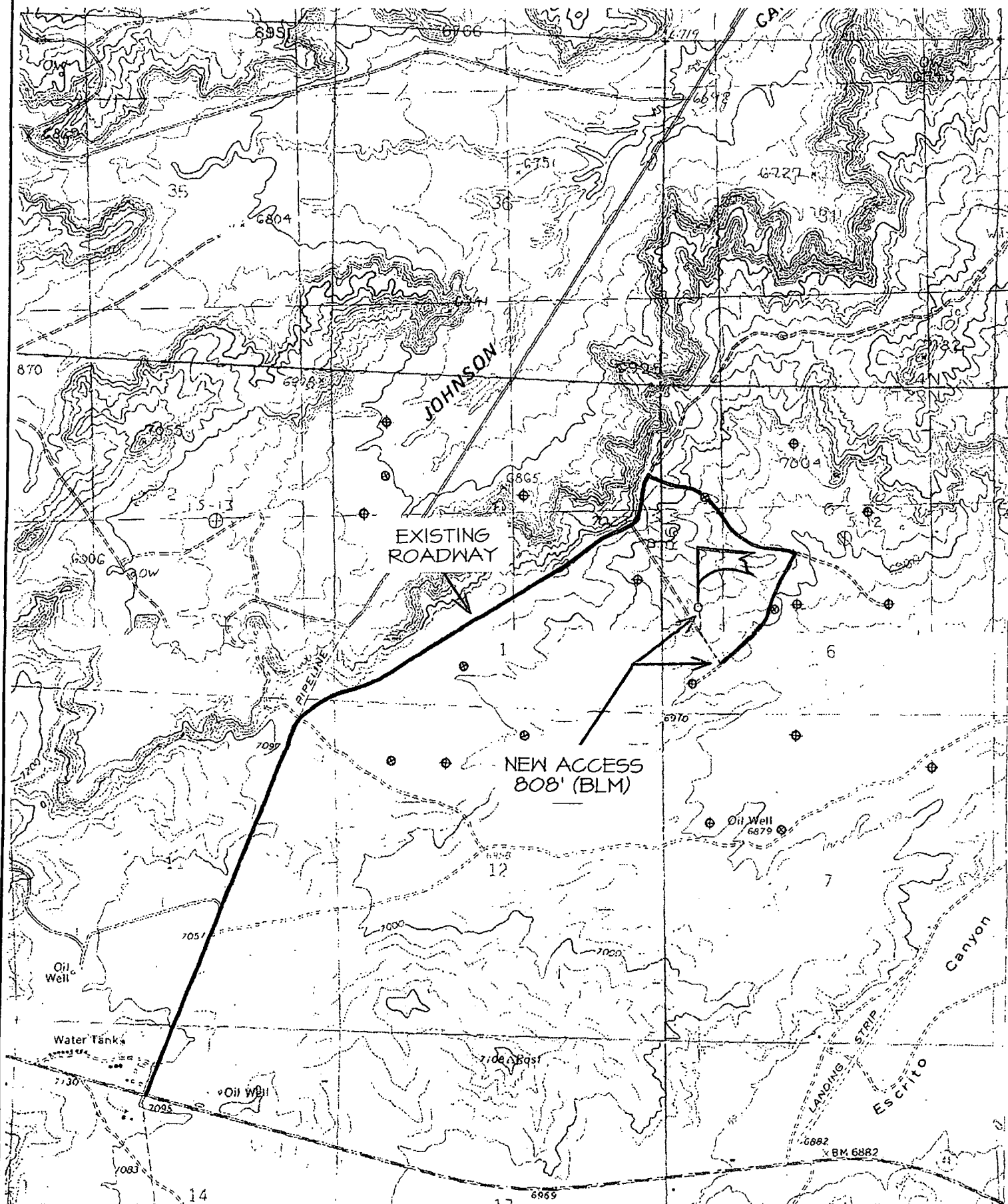


JASON C. EDWARDS
Certificate Number 15269

WPX ENERGY PRODUCTION, LLC CHACO 2306-06L #179H

1680' FSL & 591' FWL, SECTION 6, T23N, R6W, N.M.P.M.

RIO ARriba COUNTY, NEW MEXICO



NAME OF TOPOS
CROW MESA EAST & LYBROOK

⊕ PRODUCING WELL

⊗ PLUGGED & ABANDONED WELL

WPXENERGY.

WPX ENERGY

Operations Plan

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

DATE: 5/01/2013 **FIELD:** Lybrook Gallup
WELL NAME: Chaco 2306-06L #179H **SURFACE:** BLM
SH Location: NWSW of Sec 6 T23N R6W **ELEVATION:** 6,933' GR
County: Rio Arriba Co, NM
BH Location: SWSW Sec 1-23N-7W **MINERALS:** BLM
MEASURED DEPTH: 10,562 **LEASE #:** NMSF-078362

I. GEOLOGY: Surface formation – San Jose

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,523	1,514	Point Lookout	4,593	4,330
Kirtland	1,605	1,593	Mancos	4,798	4,533
Pictured Cliffs	2,129	2,088	Kickoff Point	5,303	5,036
Lewis	2,378	2,314	Target Top	5,986	5,568
Chacra	2,599	2,509	Landing Point	6,216	5,609
Cliff House	3,831	3,598	Target Base	6,216	5,609
Menefee	3,896	3,659			
			TD	10,562	5,505

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 +/- 5,303' MD. Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,216' (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 +/- 10,562' (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"	6216'	7"	23#	J-55
Longstring	6.125"	10,562	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.

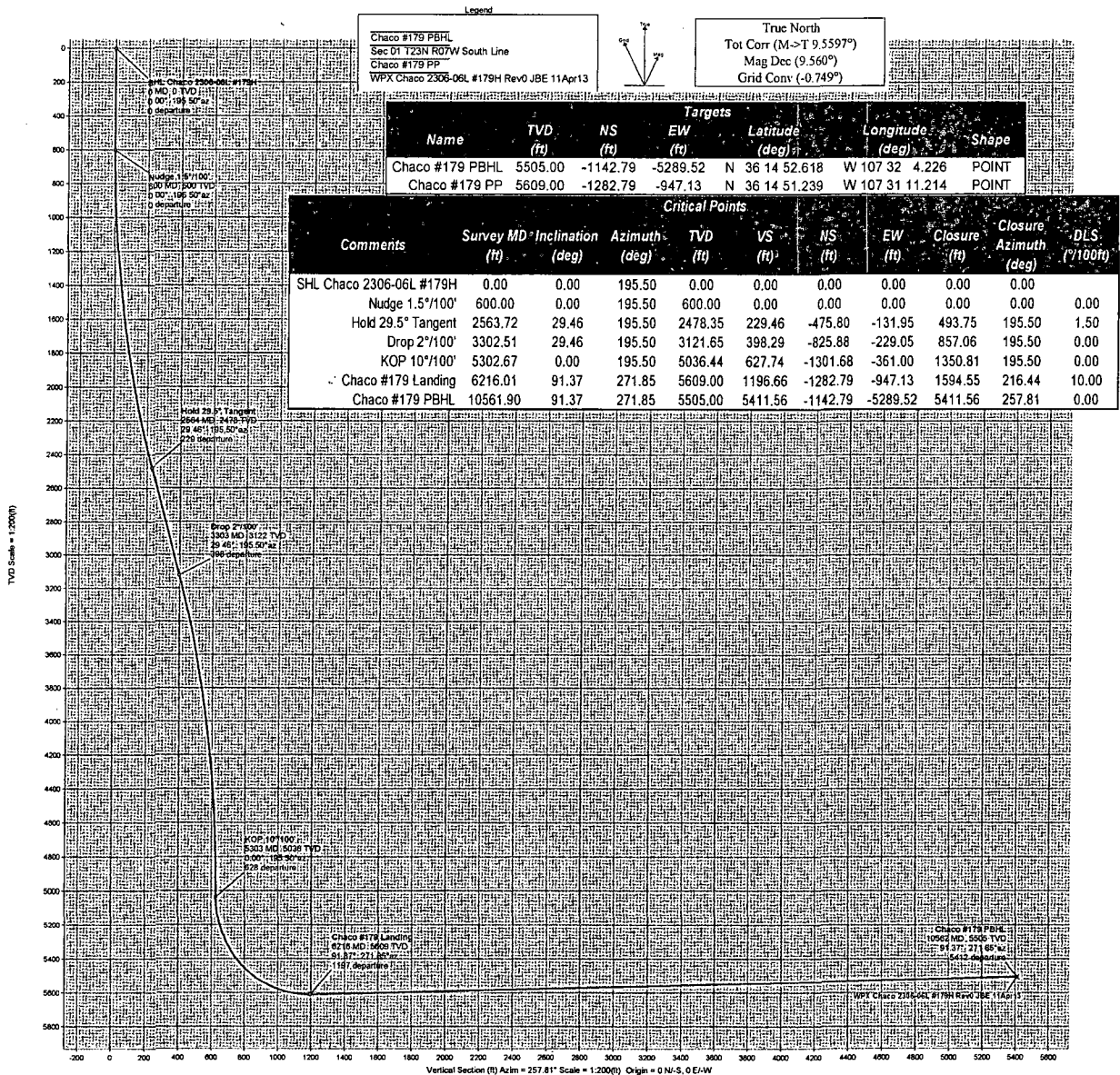
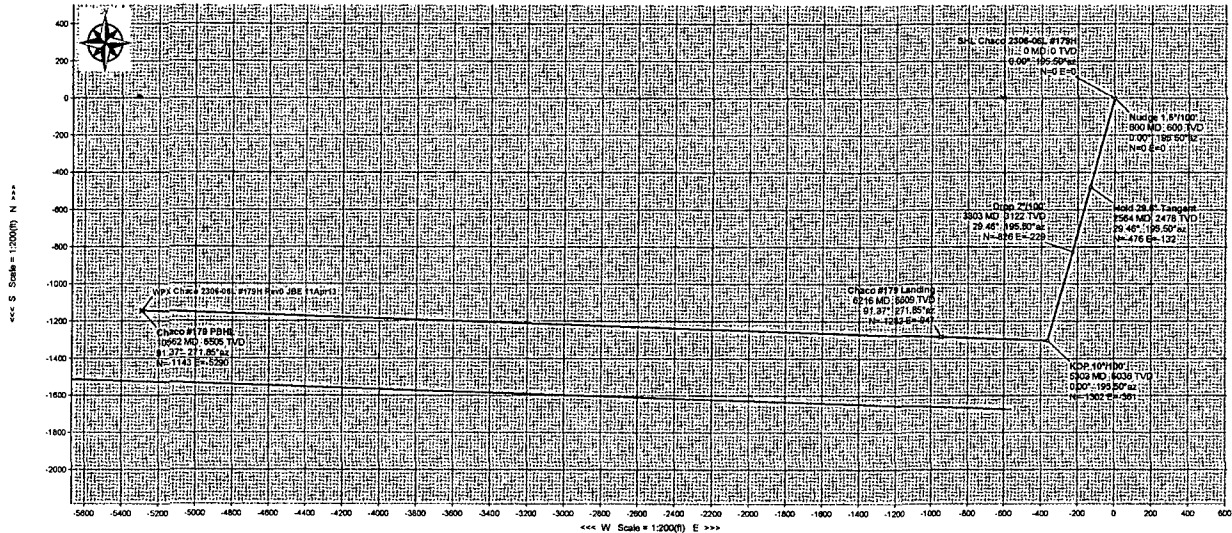
C. STIMULATION

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).
-

WELL	Chaco 2306-06L #179H	FIELD	NM Rio Arriba County NAD27	STRUCTURE	AWS #980
Logistics Parameters	Model: WPCON 2012	Dip: 61.822°	Dec: April 11, 2013	Surface Location	NAD27 New Mexico State Plane, Central Zone, US Feet
	Mag Dec: 9.560°	FS: 5027.847		Lat: W 34.15 3.329	Grid Corr: -0.109'
				Lon: W 107.36 39.632	Northing: 181067.93 ECU
					Scale Fact: 1.0000960
Measurements	Site: Chaco 2306-06L #179H	TVD Ref: ECU/MD (75 above MSL)	Survey Date: April 11, 2013	Plan	Rev0 RE 11Apr13



Legend

Chaco #179 PBHL
Sec 01 T23N R07W South Line
Chaco #179 PP
WPX Chaco 2306-06L #179H Rev0 JBE 11Apr13

True North
Tot Corr (M→T 9.5597°)
Mag Dec (9.560°)
Grid Conv (-0.749°)

Name	TVD (ft)	NS (ft)	EW (ft)	Latitude (deg)	Longitude (deg)	Shape
Chaco #179 PBHL	5505.00	-1142.79	-5289.52	N 36 14 52.618	W 107 32 4.226	POINT
Chaco #179 PP	5609.00	-1282.79	-947.13	N 36 14 51.239	W 107 31 11.214	POINT

Comments	Survey MD (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Azimuth (deg)	DLS (ft/100ft)
SHL Chaco 2306-06L #179H	0.00	0.00	195.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nudge 1.5"/100'	600.00	0.00	195.50	600.00	0.00	0.00	0.00	0.00	0.00	0.00
Hold 29.5° Tangent	2563.72	29.46	195.50	2478.35	229.46	-475.80	-131.95	493.75	195.50	1.50
Drop 2"/100'	3302.51	29.46	195.50	3121.65	398.29	-825.88	-229.05	857.06	195.50	0.00
KOP 10"/100'	5302.67	0.00	195.50	5036.44	627.74	-1301.68	-361.00	1350.81	195.50	0.00
Chaco #179 Landing	6216.01	91.37	271.85	5609.00	1196.66	-1282.79	-947.13	1594.55	216.44	10.00
Chaco #179 PBHL	10561.90	91.37	271.85	5505.00	5411.56	-1142.79	-5289.52	5411.56	257.81	0.00

Drawn By: Brock Enrich
Date Created: April 11, 2013 01:56:11 PM
Checked By:
Approved By:
Approved Date:



WPX Chaco 2306-06L #179H Rev0 JBE 11Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 11, 2013 - 02:11 PM
Client: WPX Energy
Field: NM Rio Arriba County NAD27
Structure / Slot: WPX Chaco 2306-06L #179H / Chaco 2306-06L #179H
Well: Chaco 2306-06L #179H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2306-06L #179H Rev0 JBE 11Apr13
Survey Date: April 11, 2013
Tort / AHD / DDI / ERD Ratio: 150.283 ° / 6281.890 ft / 6.250 / 1.120
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 15' 3.92400", W 107° 30' 59.65200"
Location Grid N/E Y/X: N 1913047.922 ftUS, E 126543.834 ftUS
CRS Grid Convergence Angle: -0.7490 °
Grid Scale Factor: 1.0000596

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 257.809 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6947.000 ft above MSL
Seabed / Ground Elevation: 6933.000 ft above MSL
Magnetic Declination: 9.560 °
Total Gravity Field Strength: 999.1708 mgn (9.8 based)
Total Magnetic Field Strength: 50237.793 nT
Magnetic Dip Angle: 63.022 °
Declination Date: April 11, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5597 °
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	195.50	0.00	0.00	0.00	0.00	N/A	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
Nudge 1.5°/100'	600.00	0.00	195.50	600.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
Hold 29.5° Tangent	2563.72	29.46	195.50	2478.35	229.46	-475.80	-131.95	1.50	1912573.86	126405.66	N 36 14 59.22	W 107 31 1.26
Drop 2°/100'	3302.51	29.46	195.50	3121.65	398.29	-825.88	-229.05	0.00	1912225.06	126304.00	N 36 14 55.76	W 107 31 2.45
	5266.23	0.00	195.50	5000.00	627.74	-1301.68	-361.00	1.50	1911751.00	126165.83	N 36 14 51.05	W 107 31 4.06
KOP 10°/100'	5302.67	0.00	195.50	5036.44	627.74	-1301.68	-361.00	0.00	1911751.00	126165.83	N 36 14 51.05	W 107 31 4.06
Chaco #179	6216.01	91.37	271.85	5609.00	1196.66	-1282.79	-947.13	10.00	1911777.55	125579.96	N 36 14 51.24	W 107 31 11.21
Landing												
Chaco #179 PBHL	10561.90	91.37	271.85	5505.00	5411.56	-1142.79	-5289.52	0.00	1911974.31	121239.52	N 36 14 52.62	W 107 32 4.23

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	10561.904	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / WPX Chaco 2306-06L #179H Rev0 JBE



WPX Chaco 2306-06L #179H Rev0 JBE 11Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 11, 2013 - 02:12 PM
Client: WPX Energy
Field: NM Rio Arriba County NAD27
Structure / Slot: WPX Chaco 2306-06L #179H / Chaco 2306-06L #179H
Well: Chaco 2306-06L #179H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2306-06L #179H Rev0 JBE 11Apr13
Survey Date: April 11, 2013
Tort / AHD / DDI / ERD Ratio: 150.283 ° / 6281.890 ft / 6.250 / 1.120
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 15' 3.92400", W 107° 30' 59.65200"
Location Grid N/E Y/X: N 1913047.922 ftUS, E 126543.834 ftUS
CRS Grid Convergence Angle: -0.7490 °
Grid Scale Factor: 1.0000596

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 257.809 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6947.000 ft above MSL
Seabed / Ground Elevation: 6933.000 ft above MSL
Magnetic Declination: 9.560 °
Total Gravity Field Strength: 999.1708 mgn (9.8 based)
Total Magnetic Field Strength: 50237.793 nT
Magnetic Dip Angle: 63.022 °
Declination Date: April 11, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North→True North: 9.5597 °
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	195.50	0.00	0.00	0.00	0.00	N/A	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	100.00	0.00	195.50	100.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	200.00	0.00	195.50	200.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	300.00	0.00	195.50	300.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	400.00	0.00	195.50	400.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	500.00	0.00	195.50	500.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
Nudge 1.5°/100'	600.00	0.00	195.50	600.00	0.00	0.00	0.00	0.00	1913047.92	126543.83	N 36 15 3.92	W 107 30 59.65
	700.00	1.50	195.50	699.99	0.61	-1.26	-0.35	1.50	1913046.67	126543.47	N 36 15 3.91	W 107 30 59.66
	800.00	3.00	195.50	799.91	2.43	-5.04	-1.40	1.50	1913042.90	126542.37	N 36 15 3.87	W 107 30 59.67
	900.00	4.50	195.50	899.69	5.47	-11.35	-3.15	1.50	1913036.62	126540.54	N 36 15 3.81	W 107 30 59.69
	1000.00	6.00	195.50	999.27	9.72	-20.16	-5.59	1.50	1913027.83	126537.98	N 36 15 3.72	W 107 30 59.72
	1100.00	7.50	195.50	1098.57	15.19	-31.49	-8.73	1.50	1913016.55	126534.69	N 36 15 3.61	W 107 30 59.76
	1200.00	9.00	195.50	1197.54	21.85	-45.32	-12.57	1.50	1913002.77	126530.67	N 36 15 3.48	W 107 30 59.81
	1300.00	10.50	195.50	1296.09	29.72	-61.64	-17.09	1.50	1912986.51	126525.94	N 36 15 3.31	W 107 30 59.86
	1400.00	12.00	195.50	1394.16	38.79	-80.43	-22.31	1.50	1912967.78	126520.48	N 36 15 3.13	W 107 30 59.92
	1500.00	13.50	195.50	1491.70	49.05	-101.70	-28.20	1.50	1912946.59	126514.30	N 36 15 2.92	W 107 31 0.00
	1600.00	15.00	195.50	1588.62	60.48	-125.42	-34.78	1.50	1912922.96	126507.41	N 36 15 2.68	W 107 31 0.08
	1700.00	16.50	195.50	1684.86	73.10	-151.58	-42.04	1.50	1912896.90	126499.82	N 36 15 2.43	W 107 31 0.17
	1800.00	18.00	195.50	1780.36	86.88	-180.15	-49.96	1.50	1912868.43	126491.52	N 36 15 2.14	W 107 31 0.26
	1900.00	19.50	195.50	1875.05	101.82	-211.12	-58.55	1.50	1912837.57	126482.52	N 36 15 1.84	W 107 31 0.37
	2000.00	21.00	195.50	1968.86	117.90	-244.48	-67.80	1.50	1912804.34	126472.84	N 36 15 1.51	W 107 31 0.48
	2100.00	22.50	195.50	2061.74	135.12	-280.18	-77.70	1.50	1912768.76	126462.47	N 36 15 1.15	W 107 31 0.60
	2200.00	24.00	195.50	2153.62	153.46	-318.22	-88.25	1.50	1912730.86	126451.42	N 36 15 0.78	W 107 31 0.73
	2300.00	25.50	195.50	2244.43	172.92	-358.56	-99.44	1.50	1912690.67	126439.71	N 36 15 0.38	W 107 31 0.87
	2400.00	27.00	195.50	2334.12	193.47	-401.18	-111.26	1.50	1912648.21	126427.33	N 36 14 59.96	W 107 31 1.01
	2500.00	28.50	195.50	2422.61	215.11	-446.05	-123.70	1.50	1912603.50	126414.30	N 36 14 59.51	W 107 31 1.16
Hold 29.5° Tangent	2563.72	29.46	195.50	2478.35	229.46	-475.80	-131.95	1.50	1912573.86	126405.66	N 36 14 59.22	W 107 31 1.26
	2600.00	29.46	195.50	2509.94	237.75	-492.99	-136.72	0.00	1912556.74	126400.67	N 36 14 59.05	W 107 31 1.32
	2700.00	29.46	195.50	2597.02	260.60	-540.37	-149.86	0.00	1912509.52	126386.91	N 36 14 58.58	W 107 31 1.48

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 ° ' ")
Drop 2°/100'	2800.00	29.46	195.50	2684.09	283.45	-587.76	-163.01	0.00	1912462.31	126373.15	N 36 14 58.11	W 107 31 1.64
	2900.00	29.46	195.50	2771.17	306.30	-635.15	-176.15	0.00	1912415.10	126359.39	N 36 14 57.64	W 107 31 1.80
	3000.00	29.46	195.50	2858.24	329.16	-682.53	-189.29	0.00	1912367.88	126345.63	N 36 14 57.17	W 107 31 1.96
	3100.00	29.46	195.50	2945.31	352.01	-729.92	-202.43	0.00	1912320.67	126331.87	N 36 14 56.71	W 107 31 2.12
	3200.00	29.46	195.50	3032.39	374.86	-777.31	-215.57	0.00	1912273.45	126318.10	N 36 14 56.24	W 107 31 2.28
	3300.00	29.46	195.50	3119.46	397.71	-824.69	-228.72	0.00	1912226.24	126304.34	N 36 14 55.77	W 107 31 2.44
	3302.51	29.46	195.50	3121.65	398.29	-825.88	-229.05	0.00	1912225.06	126304.00	N 36 14 55.76	W 107 31 2.45
	3400.00	27.99	195.50	3207.14	420.06	-871.03	-241.57	1.50	1912180.07	126290.89	N 36 14 55.31	W 107 31 2.60
	3500.00	26.49	195.50	3296.04	441.33	-915.14	-253.80	1.50	1912136.12	126278.08	N 36 14 54.87	W 107 31 2.75
	3600.00	24.99	195.50	3386.11	461.52	-957.00	-265.41	1.50	1912094.42	126265.92	N 36 14 54.46	W 107 31 2.89
	3700.00	23.49	195.50	3477.29	480.60	-996.56	-276.38	1.50	1912055.00	126254.33	N 36 14 54.07	W 107 31 3.03
	3800.00	21.99	195.50	3569.51	498.56	-1033.82	-286.71	1.50	1912017.88	126243.61	N 36 14 53.70	W 107 31 3.15
	3900.00	20.49	195.50	3662.71	515.40	-1068.73	-296.40	1.50	1911983.10	126233.48	N 36 14 53.36	W 107 31 3.27
	4000.00	18.99	195.50	3756.83	531.10	-1101.28	-305.42	1.50	1911950.66	126224.02	N 36 14 53.03	W 107 31 3.38
	4100.00	17.49	195.50	3851.80	545.65	-1131.45	-313.79	1.50	1911920.61	126215.26	N 36 14 52.74	W 107 31 3.48
	4200.00	15.99	195.50	3947.56	559.04	-1159.21	-321.49	1.50	1911892.95	126207.20	N 36 14 52.46	W 107 31 3.58
	4300.00	14.49	195.50	4044.04	571.25	-1184.54	-328.51	1.50	1911867.71	126199.84	N 36 14 52.21	W 107 31 3.66
	4400.00	12.99	195.50	4141.17	582.29	-1207.44	-334.86	1.50	1911844.90	126193.20	N 36 14 51.98	W 107 31 3.74
	4500.00	11.49	195.50	4238.90	592.15	-1227.87	-340.53	1.50	1911824.54	126187.26	N 36 14 51.78	W 107 31 3.81
	4600.00	9.99	195.50	4337.14	600.81	-1245.83	-345.51	1.50	1911806.64	126182.04	N 36 14 51.60	W 107 31 3.87
	4700.00	8.49	195.50	4435.84	608.28	-1261.31	-349.80	1.50	1911791.22	126177.55	N 36 14 51.45	W 107 31 3.92
	4800.00	6.99	195.50	4534.93	614.54	-1274.30	-353.41	1.50	1911778.28	126173.78	N 36 14 51.32	W 107 31 3.97
	4900.00	5.49	195.50	4634.33	619.59	-1284.77	-356.31	1.50	1911767.84	126170.74	N 36 14 51.22	W 107 31 4.00
	5000.00	3.99	195.50	4733.98	623.43	-1292.74	-358.52	1.50	1911759.90	126168.42	N 36 14 51.14	W 107 31 4.03
	5100.00	2.49	195.50	4833.82	626.06	-1298.19	-360.03	1.50	1911754.47	126166.84	N 36 14 51.09	W 107 31 4.05
	5200.00	0.99	195.50	4933.77	627.48	-1301.13	-360.85	1.50	1911751.55	126165.99	N 36 14 51.06	W 107 31 4.06
	5266.23	0.00	195.50	5000.00	627.74	-1301.68	-361.00	1.50	1911751.00	126165.83	N 36 14 51.05	W 107 31 4.06
KOP 10°/100'	5300.00	0.00	195.50	5033.77	627.74	-1301.68	-361.00	0.00	1911751.00	126165.83	N 36 14 51.05	W 107 31 4.06
	5302.67	0.00	195.50	5036.44	627.74	-1301.68	-361.00	0.00	1911751.00	126165.83	N 36 14 51.05	W 107 31 4.06
	5400.00	9.74	271.85	5133.30	635.75	-1301.41	-369.25	10.00	1911751.37	126157.58	N 36 14 51.05	W 107 31 4.16
	5500.00	19.74	271.85	5229.89	660.40	-1300.60	-394.64	10.00	1911752.52	126132.20	N 36 14 51.06	W 107 31 4.47
	5600.00	29.75	271.85	5320.59	700.95	-1299.25	-436.42	10.00	1911754.42	126090.44	N 36 14 51.08	W 107 31 4.98
	5700.00	39.75	271.85	5402.66	756.17	-1297.41	-493.32	10.00	1911756.99	126033.57	N 36 14 51.09	W 107 31 5.67
	5800.00	49.75	271.85	5473.58	824.39	-1295.15	-563.59	10.00	1911760.18	125963.32	N 36 14 51.12	W 107 31 6.53
	5900.00	59.76	271.85	5531.22	903.52	-1292.52	-645.12	10.00	1911763.87	125881.84	N 36 14 51.14	W 107 31 7.53
	6000.00	69.76	271.85	5573.80	991.16	-1289.61	-735.41	10.00	1911767.96	125791.59	N 36 14 51.17	W 107 31 8.63
	6100.00	79.77	271.85	5600.05	1084.64	-1286.51	-831.72	10.00	1911772.33	125695.32	N 36 14 51.20	W 107 31 9.81
Chaco #179 Landing	6200.00	89.77	271.85	5609.16	1181.13	-1283.30	-931.12	10.00	1911776.83	125595.96	N 36 14 51.23	W 107 31 11.02
	6216.01	91.37	271.85	5609.00	1196.66	-1282.79	-947.13	10.00	1911777.55	125579.96	N 36 14 51.24	W 107 31 11.21
	6300.00	91.37	271.85	5606.99	1278.12	-1280.08	-1031.05	0.00	1911781.36	125496.08	N 36 14 51.27	W 107 31 12.24
	6400.00	91.37	271.85	5604.60	1375.10	-1276.86	-1130.97	0.00	1911785.88	125396.21	N 36 14 51.30	W 107 31 13.46
	6500.00	91.37	271.85	5602.20	1472.09	-1273.64	-1230.89	0.00	1911790.41	125296.33	N 36 14 51.33	W 107 31 14.68
	6600.00	91.37	271.85	5599.81	1569.08	-1270.42	-1330.81	0.00	1911794.94	125196.46	N 36 14 51.36	W 107 31 15.90
	6700.00	91.37	271.85	5597.42	1666.06	-1267.20	-1430.73	0.00	1911799.47	125096.58	N 36 14 51.39	W 107 31 17.12
	6800.00	91.37	271.85	5595.02	1763.05	-1263.97	-1530.64	0.00	1911803.99	124996.71	N 36 14 51.42	W 107 31 18.34
	6900.00	91.37	271.85	5592.63	1860.03	-1260.75	-1630.56	0.00	1911808.52	124896.83	N 36 14 51.46	W 107 31 19.56
	7000.00	91.37	271.85	5590.24	1957.02	-1257.53	-1730.48	0.00	1911813.05	124796.96	N 36 14 51.49	W 107 31 20.78
	7100.00	91.37	271.85	5587.85	2054.00	-1254.31	-1830.40	0.00	1911817.58	124697.08	N 36 14 51.52	W 107 31 22.00
	7200.00	91.37	271.85	5585.45	2150.99	-1251.09	-1930.32	0.00	1911822.10	124597.21	N 36 14 51.55	W 107 31 23.22
	7300.00	91.37	271.85	5583.06	2247.98	-1247.87	-2030.24	0.00	1911826.63	124497.34	N 36 14 51.58	W 107 31 24.44
	7400.00	91.37	271.85	5580.67	2344.96	-1244.65	-2130.16	0.00	1911831.16	124397.46	N 36 14 51.62	W 107 31 25.66
	7500.00	91.37	271.85	5578.27	2441.95	-1241.43	-2230.08	0.00	1911835.69	124297.59	N 36 14 51.65	W 107 31 26.88
	7600.00	91.37	271.85	5575.88	2538.93	-1238.20	-2330.00	0.00	1911840.21	124197.71	N 36 14 51.68	W 107 31 28.10
	7700.00	91.37	271.85	5573.49	2635.92	-1234.98	-2429.92	0.00	1911844.74	124097.84	N 36 14 51.71	W 107 31 29.32
	7800.00	91.37	271.85	5571.09	2732.91	-1231.76	-2529.84	0.00	1911849.27	123997.96	N 36 14 51.74	W 107 31 30.54
	7900.00	91.37	271.85	5568.70	2829.89	-1228.54	-2629.76	0.00	1911853.80	123898.09	N 36 14 51.77	W 107 31 31.76
	8000.00	91.37	271.85	5566.31	2926.88	-1225.32	-2729.68	0.00	1911858.32	123798.21	N 36 14 51.81	W 107 31 32.98
	8100.00	91.37	271.85	5563.91	3023.86	-1222.10	-2829.60	0.00	1911862.85	123698.34	N 36 14 51.84	W 107 31 34.20
	8200.00	91.37	271.85	5561.52	3120.85	-1218.88	-2929.52	0.00	1911867.38	123598.46	N 36 14 51.87	W 107 31 35.42

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 ° ' ")
	8300.00	91.37	271.85	5559.13	3217.83	-1215.66	-3029.44	0.00	1911871.91	123498.59	N 36 14 51.90	W 107 31 36.63
	8400.00	91.37	271.85	5556.74	3314.82	-1212.43	-3129.36	0.00	1911876.43	123398.72	N 36 14 51.93	W 107 31 37.85
	8500.00	91.37	271.85	5554.34	3411.81	-1209.21	-3229.28	0.00	1911880.96	123298.84	N 36 14 51.96	W 107 31 39.07
	8600.00	91.37	271.85	5551.95	3508.79	-1205.99	-3329.19	0.00	1911885.49	123198.97	N 36 14 52.00	W 107 31 40.29
	8700.00	91.37	271.85	5549.56	3605.78	-1202.77	-3429.11	0.00	1911890.02	123099.09	N 36 14 52.03	W 107 31 41.51
	8800.00	91.37	271.85	5547.16	3702.76	-1199.55	-3529.03	0.00	1911894.54	122999.22	N 36 14 52.06	W 107 31 42.73
	8900.00	91.37	271.85	5544.77	3799.75	-1196.33	-3628.95	0.00	1911899.07	122899.34	N 36 14 52.09	W 107 31 43.95
	9000.00	91.37	271.85	5542.38	3896.73	-1193.11	-3728.87	0.00	1911903.60	122799.47	N 36 14 52.12	W 107 31 45.17
	9100.00	91.37	271.85	5539.98	3993.72	-1189.89	-3828.79	0.00	1911908.13	122699.59	N 36 14 52.15	W 107 31 46.39
	9200.00	91.37	271.85	5537.59	4090.71	-1186.66	-3928.71	0.00	1911912.65	122599.72	N 36 14 52.19	W 107 31 47.61
	9300.00	91.37	271.85	5535.20	4187.69	-1183.44	-4028.63	0.00	1911917.18	122499.84	N 36 14 52.22	W 107 31 48.83
	9400.00	91.37	271.85	5532.81	4284.68	-1180.22	-4128.55	0.00	1911921.71	122399.97	N 36 14 52.25	W 107 31 50.05
	9500.00	91.37	271.85	5530.41	4381.66	-1177.00	-4228.47	0.00	1911926.24	122300.09	N 36 14 52.28	W 107 31 51.27
	9600.00	91.37	271.85	5528.02	4478.65	-1173.78	-4328.39	0.00	1911930.76	122200.22	N 36 14 52.31	W 107 31 52.49
	9700.00	91.37	271.85	5525.63	4575.64	-1170.56	-4428.31	0.00	1911935.29	122100.35	N 36 14 52.35	W 107 31 53.71
	9800.00	91.37	271.85	5523.23	4672.62	-1167.34	-4528.23	0.00	1911939.82	122000.47	N 36 14 52.38	W 107 31 54.93
	9900.00	91.37	271.85	5520.84	4769.61	-1164.12	-4628.15	0.00	1911944.35	121900.60	N 36 14 52.41	W 107 31 56.15
	10000.00	91.37	271.85	5518.45	4866.59	-1160.89	-4728.07	0.00	1911948.87	121800.72	N 36 14 52.44	W 107 31 57.37
	10100.00	91.37	271.85	5516.05	4963.58	-1157.67	-4827.99	0.00	1911953.40	121700.85	N 36 14 52.47	W 107 31 58.59
	10200.00	91.37	271.85	5513.66	5060.56	-1154.45	-4927.91	0.00	1911957.93	121600.97	N 36 14 52.50	W 107 31 59.81
	10300.00	91.37	271.85	5511.27	5157.55	-1151.23	-5027.83	0.00	1911962.46	121501.10	N 36 14 52.54	W 107 32 1.03
	10400.00	91.37	271.85	5508.87	5254.54	-1148.01	-5127.74	0.00	1911966.98	121401.22	N 36 14 52.57	W 107 32 2.25
	10500.00	91.37	271.85	5506.48	5351.52	-1144.79	-5227.66	0.00	1911971.51	121301.35	N 36 14 52.60	W 107 32 3.47
Chaco #179 PBHL	10561.90	91.37	271.85	5505.00	5411.56	-1142.79	-5289.52	0.00	1911974.31	121239.52	N 36 14 52.62	W 107 32 4.23

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 2306-06L #179H Rev0 JBE
	14.000	10561.904	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / WPX Chaco 2306-06L #179H 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 2306-06L Number (No.) 179H 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 2306-06L No. 179H 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 2306-06L No. 179H well is located approximately 52 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 48.9 miles, turn left onto County Road 378 for approximately 2.5 miles, and turn right to follow an unnamed, existing road for approximately 0.4 mile 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 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 808-foot-long access road will be needed to access the proposed well site. Approximately 213 feet of the access road will be new access and approximately 595 feet will follow an existing two-track road and pipeline right-of-way. 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 north-northwestward from an existing oil and gas lease road and will enter the proposed well pad at the southern 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, 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.

