

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

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 3160-4 or 3160-5 form.

Operator Signature Date: 9/10/14

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf. Owner	UL	Sec	Twp	N/S	Rng	W/E	Feet	NS	Ft	EW
30-045-35588-00-00	CHACO 2308 03E	001H	WPX ENERGY PRODUCTION, LLC	O	N	San Juan	F	E	3	23	N	8	W	1906	N	817	W

Application Type:

- ☐ P&A ☒ Drilling/Casing Change ☒ Location Change
☐ Recomplete/DHC (For hydraulic fracturing operations review EPA Underground injection control Guidance #84)
☐ Other:

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations
Hold C-104 for directional survey, as drilled plat, NSL, NSP

NMOCD Approved by Signature

9-18-14
Date

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SEP 10 2014

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

SUBMIT IN TRIPLICATE – Other instructions on page 2.

5. Lease Serial No.
NM 109398

6. If Indian, Allottee or Tribe Name

RCVD SEP 15 '14

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

OIL CONS. DIV.

8. Well Name and No.

Chaco 2308-03E **403H**

9. API Well No.

30-045-35588 **DIST. 3**

10. Field and Pool or Exploratory Area
Basin Mancos

11. County or Parish, State

SHL: Sec 3, T23N R8W, UL E

BHL: Sec 4, T23N R8W, UL D

1. Type of Well

☒ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

WPX Energy Production, LLC

3a. Address

PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)

505-333-1822

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1906' FNL & 817' FWL (SW/NW)

330' FNL & 230' FWL (NW/NW)

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

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

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

WPX plans to plans to realign the lateral on this well as per attached C-102, operations plan and directional plan. 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. WPX would also like to change the well name from the HEROS #001H to the Chaco 2308-03E #403H.

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations

**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**

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Heather Riley

Title Regulatory Manager

Signature

Date 9/10/14

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

William Tambekou

**Petroleum
Title Engineer**

Date **9/11/2014**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **FFD**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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: (505) 748-1283 Fax: (505) 748-9720

District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Drive, Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35588	² Pool Code 97232	³ Pool Name BASIN MANCOS
⁴ Property Code 313711	⁵ Property Name CHACO 2308-03E	⁶ Well Number 403H
⁷ GRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC	⁹ Elevation 6892'

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
E	3	23N	8W		1906	NORTH	817	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or Lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	4	23N	8W	4	330	NORTH	230	WEST	SAN JUAN

¹² Dedicated Acres 159.60 Acres N/2 N/2 - Section 4	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. RCVD SEP 15 '14 OIL CONS. DIV.
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DIST. 3

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
330' FNL 230' FWL
SECTION 4, T23N, R8W
LAT: 36.262671°N
LONG: 107.694803°W
DATUM: NAD1927

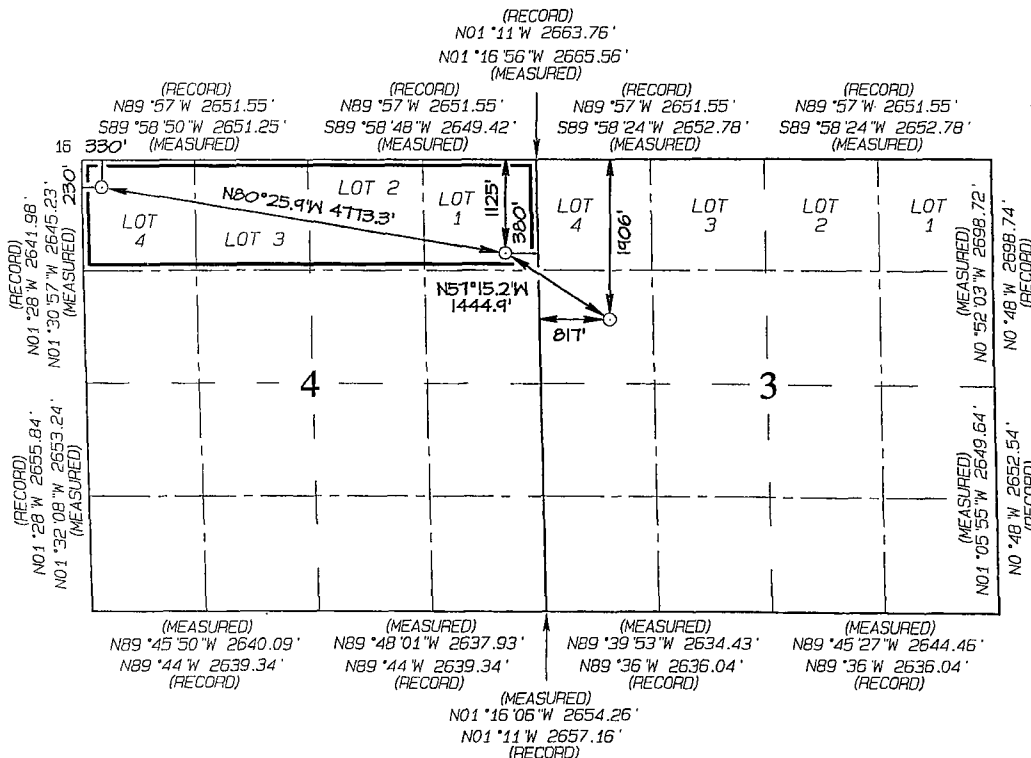
LAT: 36.262683°N
LONG: 107.695415°W
DATUM: NAD1983

POINT-OF-ENTRY
1125' FNL 380' FEL
SECTION 4, T23N, R8W
LAT: 36.260472°N
LONG: 107.678841°W
DATUM: NAD1927

LAT: 36.260484°N
LONG: 107.679453°W
DATUM: NAD1983

SURFACE LOCATION
1906' FNL 817' FWL
SECTION 3, T23N, R8W
LAT: 36.258319°N
LONG: 107.674724°W
DATUM: NAD1927

LAT: 36.258332°N
LONG: 107.675335°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: *Heather R. Rely* Date: 9/10/14
Printed Name: Heather R. Rely
E-mail Address: heather.r.rely@wpxenrgy.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: SEPTEMBER 10, 2014
Survey Date: FEBRUARY 26, 2014

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

Well Name: Chaco 2308-03E #403H
 Surface Location: Chaco 2308-03E
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6892.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1913308.50 546762.42 36.258319 -107.674724
 WELL @ 6906.0usft (Original Well Elev)



Azimuths to True North
 Magnetic North: 9.41°
 Magnetic Field
 Strength: 50150.2snT
 Dip Angle: 62.99°
 Date: 8/28/2014
 Model: IGRF2010

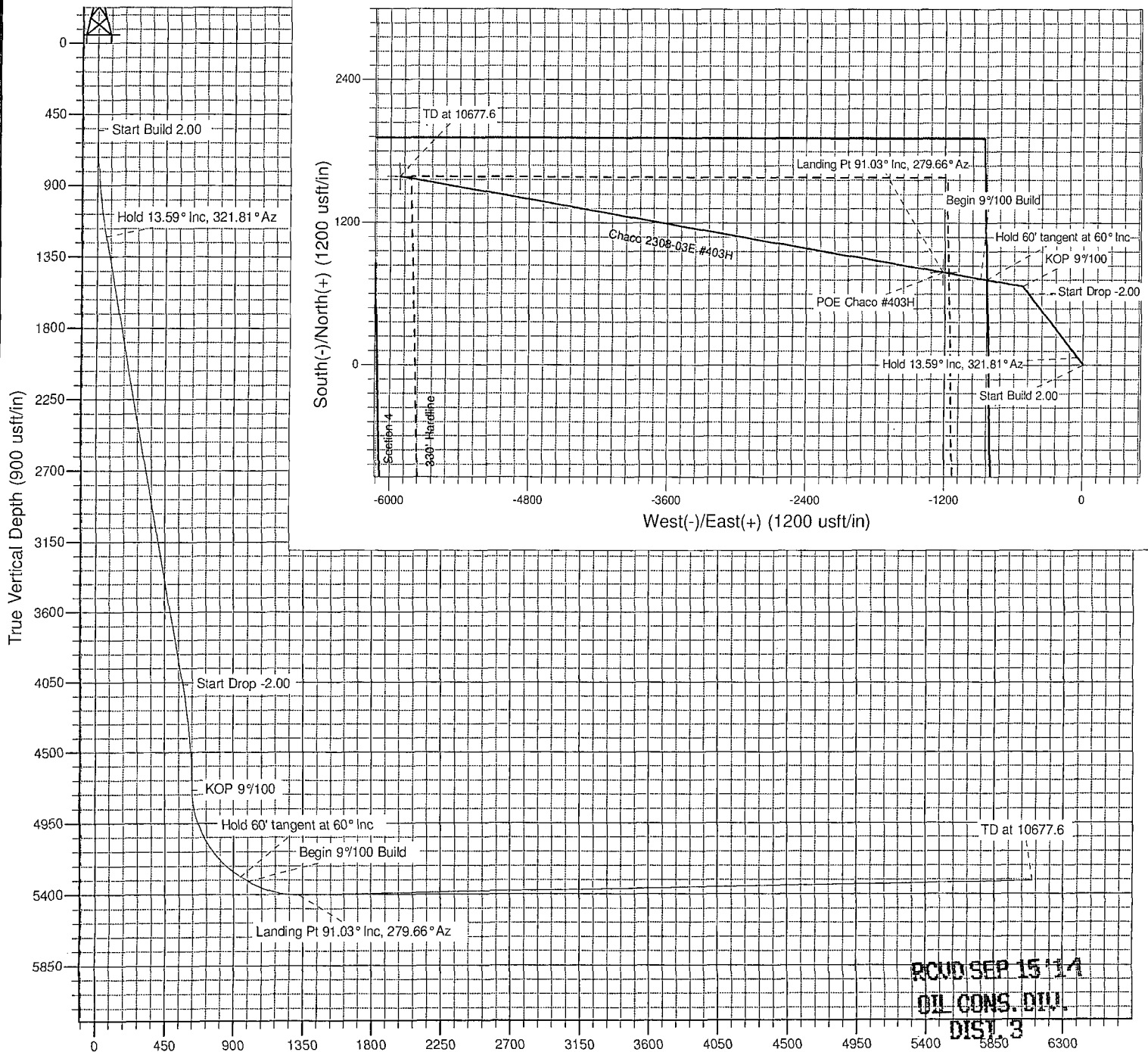
Project: SJ 03-23N 08W
 Site: Chaco 2308-03E
 Well: Chaco 2308-03E #403H
 Design #1 28Aug14 kjs

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V/Sect	Departure	Annotation
550.0	550.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
1223.3	1229.7	13.59	321.81	63.1	-49.6	59.5	80.3	Hold 13.59° Inc, 321.81° Az
4064.2	4152.4	13.59	321.81	603.0	-474.3	568.8	767.2	Start Drop -2.00
4737.5	4832.1	0.00	0.00	666.1	-523.9	628.2	847.4	KOP 9°/100
5288.8	5498.8	60.00	279.66	719.5	-837.7	946.6	1165.8	Hold 60° tangent at 60° Inc
5318.8	5558.8	60.00	279.66	728.2	-888.9	998.5	1217.7	Begin 9°/100 Build
5404.0	5903.6	91.03	279.66	783.6	-1214.0	1328.3	1547.5	Landing Pt 91.03° Inc, 279.66° Az
5318.0	10677.6	91.03	279.66	1584.7	-5919.6	6101.6	6320.8	TD at 10677.6

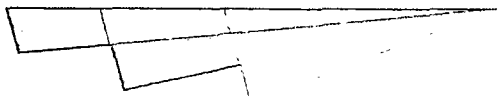
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
TD / PBHL Chaco #403H	5318.0	1584.7	-5919.6	1914883.47	540840.25	36.262671	-107.694803	Point
POE Chaco #403H	5404.0	783.6	-1214.0	1914090.10	545547.14	36.260472	-107.678841	Point
- plan hits target center								



RCUD SEP 15 '14
 OIL CONS. DIV.
 DIST. 3

WPXENERGY SM



SAN JUAN BASIN

SJ 03-23N-08W

Chaco 2308-03E

Chaco 2308-03E #403H

Wellbore #1

Plan: Design #1 28Aug14 kjs

Standard Planning Report - Geographic

29 August, 2014

Database: COMPASS-SANJUAN
 Company: SAN JUAN BASIN
 Project: SJ 03-23N-08W
 Site: Chaco 2308-03E
 Well: Chaco 2308-03E #403H
 Wellbore: Wellbore #1
 Design: Design #1 28Aug14 kjs

Local Co-ordinate Reference: Well Chaco 2308-03E #403H
 TVD Reference: WELL @ 6906.0usft (Original Well Elev)
 MD Reference: WELL @ 6906.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Project	SJ 03-23N-08W, San Juan County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	Chaco 2308-03E		
Site Position:		Northing:	1,913,308.50 usft
From:	Map	Easting:	546,762.42 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	36.258319
		Longitude:	-107.674724
		Grid Convergence:	0.09 °

Well	Chaco 2308-03E #403H		
Well Position	+N/-S	0.0 usft	Northing: 1,913,308.50 usft
	+E/-W	0.0 usft	Easting: 546,762.42 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	36.258319
		Longitude:	-107.674724
		Ground Level:	6,892.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	8/28/2014	(°)	(°)	(nT)
			9.41	62.99	50,150

Design	Design #1 28Aug14 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	279.66

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
550.0	0.00	0.00	550.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,229.7	13.59	321.81	1,223.3	63.1	-49.6	2.00	2.00	0.00	321.81	
4,152.4	13.59	321.81	4,064.2	603.0	-474.3	0.00	0.00	0.00	0.00	
4,832.1	0.00	0.00	4,737.5	666.1	-523.9	2.00	-2.00	0.00	180.00	
5,498.8	60.00	279.66	5,288.8	719.5	-837.7	9.00	9.00	0.00	279.66	
5,558.8	60.00	279.66	5,318.8	728.2	-888.9	0.00	0.00	0.00	0.00	
5,903.6	91.03	279.66	5,404.0	783.6	-1,214.0	9.00	9.00	0.00	0.00	
10,677.6	91.03	279.66	5,318.0	1,584.7	-5,919.6	0.00	0.00	0.00	0.00	TD / PBHL Chaco #403H

Database: COMPASS-SANJUAN
Company: SAN JUAN BASIN
Project: SJ 03-23N-08W
Site: Chaco 2308-03E
Well: Chaco 2308-03E #403H
Wellbore: Wellbore #1
Design: Design #1 28Aug14 kjs

Local Co-ordinate Reference: Well Chaco 2308-03E #403H
TVD Reference: WELL @ 6906.0usft (Original Well Elev)
MD Reference: WELL @ 6906.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,913,308.50	546,762.42	36.258319	-107.674724
200.0	0.00	0.00	200.0	0.0	0.0	1,913,308.50	546,762.42	36.258319	-107.674724
400.0	0.00	0.00	400.0	0.0	0.0	1,913,308.50	546,762.42	36.258319	-107.674724
550.0	0.00	0.00	550.0	0.0	0.0	1,913,308.50	546,762.42	36.258319	-107.674724
Start Build 2.00									
600.0	1.00	321.81	600.0	0.3	-0.3	1,913,308.85	546,762.15	36.258320	-107.674725
800.0	5.00	321.81	799.7	8.6	-6.7	1,913,317.06	546,755.67	36.258343	-107.674747
1,000.0	9.00	321.81	998.2	27.7	-21.8	1,913,336.19	546,740.57	36.258395	-107.674798
1,200.0	13.00	321.81	1,194.4	57.7	-45.4	1,913,366.14	546,716.94	36.258478	-107.674878
1,229.7	13.59	321.81	1,223.3	63.1	-49.6	1,913,371.50	546,712.71	36.258493	-107.674892
Hold 13.59° Inc, 321.81° Az									
1,400.0	13.59	321.81	1,388.9	94.5	-74.4	1,913,402.92	546,687.91	36.258579	-107.674976
1,600.0	13.59	321.81	1,583.3	131.5	-103.4	1,913,439.82	546,658.79	36.258681	-107.675075
1,800.0	13.59	321.81	1,777.7	168.4	-132.5	1,913,476.73	546,629.67	36.258782	-107.675173
2,000.0	13.59	321.81	1,972.1	205.4	-161.5	1,913,513.63	546,600.55	36.258884	-107.675272
2,200.0	13.59	321.81	2,166.5	242.3	-190.6	1,913,550.53	546,571.43	36.258985	-107.675370
2,400.0	13.59	321.81	2,360.9	279.3	-219.7	1,913,587.43	546,542.30	36.259087	-107.675469
2,600.0	13.59	321.81	2,555.3	316.2	-248.7	1,913,624.33	546,513.18	36.259188	-107.675567
2,800.0	13.59	321.81	2,749.7	353.2	-277.8	1,913,661.23	546,484.06	36.259290	-107.675666
3,000.0	13.59	321.81	2,944.0	390.1	-306.8	1,913,698.13	546,454.94	36.259391	-107.675765
3,200.0	13.59	321.81	3,138.4	427.1	-335.9	1,913,735.03	546,425.82	36.259493	-107.675863
3,400.0	13.59	321.81	3,332.8	464.0	-365.0	1,913,771.93	546,396.70	36.259594	-107.675962
3,600.0	13.59	321.81	3,527.2	501.0	-394.0	1,913,808.83	546,367.58	36.259696	-107.676060
3,800.0	13.59	321.81	3,721.6	537.9	-423.1	1,913,845.73	546,338.46	36.259797	-107.676159
4,000.0	13.59	321.81	3,916.0	574.9	-452.1	1,913,882.63	546,309.34	36.259899	-107.676257
4,152.4	13.59	321.81	4,064.2	603.0	-474.3	1,913,910.75	546,287.15	36.259976	-107.676333
Start Drop -2.00									
4,200.0	12.64	321.81	4,110.5	611.5	-481.0	1,913,919.23	546,280.46	36.259999	-107.676355
4,400.0	8.64	321.81	4,307.0	640.5	-503.8	1,913,948.21	546,257.58	36.260079	-107.676433
4,600.0	4.64	321.81	4,505.7	658.7	-518.1	1,913,966.37	546,243.25	36.260129	-107.676481
4,800.0	0.64	321.81	4,705.4	666.0	-523.8	1,913,973.60	546,237.54	36.260149	-107.676500
4,832.1	0.00	0.00	4,737.5	666.1	-523.9	1,913,973.74	546,237.43	36.260149	-107.676501
KOP 9°/100									
5,000.0	15.11	279.66	4,903.5	669.8	-545.6	1,913,977.40	546,215.72	36.260159	-107.676574
5,200.0	33.11	279.66	5,085.3	683.4	-625.8	1,913,990.93	546,135.49	36.260197	-107.676847
5,400.0	51.11	279.66	5,233.0	705.9	-757.5	1,914,013.12	546,003.78	36.260258	-107.677293
5,498.8	60.00	279.66	5,288.8	719.5	-837.7	1,914,026.64	545,923.55	36.260296	-107.677565
Hold 60° tangent at 60° Inc									
5,558.8	60.00	279.66	5,318.8	728.2	-888.9	1,914,035.28	545,872.31	36.260320	-107.677739
Begin 9°/100 Build									
5,600.0	63.71	279.66	5,338.3	734.3	-924.8	1,914,041.32	545,836.46	36.260337	-107.677861
5,800.0	81.71	279.66	5,397.5	766.2	-1,112.2	1,914,072.93	545,648.92	36.260424	-107.678496
5,903.5	91.03	279.66	5,404.0	783.6	-1,214.0	1,914,090.09	545,547.14	36.260472	-107.678842
Landing Pt 91.03° Inc, 279.66° Az - POE Chaco #403H									
6,000.0	91.03	279.66	5,402.3	799.8	-1,309.1	1,914,106.12	545,452.04	36.260516	-107.679164
6,200.0	91.03	279.66	5,398.7	833.3	-1,506.2	1,914,139.35	545,254.85	36.260608	-107.679833
6,400.0	91.03	279.66	5,395.1	866.9	-1,703.3	1,914,172.59	545,057.66	36.260701	-107.680501
6,600.0	91.03	279.66	5,391.5	900.4	-1,900.5	1,914,205.83	544,860.48	36.260793	-107.681170
6,800.0	91.03	279.66	5,387.9	934.0	-2,097.6	1,914,239.07	544,663.29	36.260885	-107.681839
7,000.0	91.03	279.66	5,384.3	967.6	-2,294.7	1,914,272.30	544,466.11	36.260977	-107.682507
7,200.0	91.03	279.66	5,380.7	1,001.1	-2,491.9	1,914,305.54	544,268.92	36.261069	-107.683176
7,400.0	91.03	279.66	5,377.1	1,034.7	-2,689.0	1,914,338.78	544,071.73	36.261161	-107.683845
7,600.0	91.03	279.66	5,373.5	1,068.2	-2,886.1	1,914,372.02	543,874.55	36.261254	-107.684513
7,800.0	91.03	279.66	5,369.8	1,101.8	-3,083.3	1,914,405.25	543,677.36	36.261346	-107.685182

Database: COMPASS-SANJUAN
 Company: SAN JUAN BASIN
 Project: SJ 03-23N-08W
 Site: Chaco 2308-03E
 Well: Chaco 2308-03E #403H
 Wellbore: Wellbore #1
 Design: Design #1 28Aug14 kjs

Local Co-ordinate Reference: Well Chaco 2308-03E #403H
 TVD Reference: WELL @ 6906.0usft (Original Well Elev)
 MD Reference: WELL @ 6906.0usft (Original Well Elev)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,000.0	91.03	279.66	5,366.2	1,135.4	-3,280.4	1,914,438.49	543,480.18	36.261438	-107.685851
8,200.0	91.03	279.66	5,362.6	1,168.9	-3,477.5	1,914,471.73	543,282.99	36.261530	-107.686519
8,400.0	91.03	279.66	5,359.0	1,202.5	-3,674.7	1,914,504.97	543,085.80	36.261622	-107.687188
8,600.0	91.03	279.66	5,355.4	1,236.0	-3,871.8	1,914,538.20	542,888.62	36.261714	-107.687857
8,800.0	91.03	279.66	5,351.8	1,269.6	-4,068.9	1,914,571.44	542,691.43	36.261806	-107.688525
9,000.0	91.03	279.66	5,348.2	1,303.2	-4,266.0	1,914,604.68	542,494.25	36.261898	-107.689194
9,200.0	91.03	279.66	5,344.6	1,336.7	-4,463.2	1,914,637.92	542,297.06	36.261991	-107.689863
9,400.0	91.03	279.66	5,341.0	1,370.3	-4,660.3	1,914,671.15	542,099.88	36.262083	-107.690532
9,600.0	91.03	279.66	5,337.4	1,403.8	-4,857.4	1,914,704.39	541,902.69	36.262175	-107.691200
9,800.0	91.03	279.66	5,333.8	1,437.4	-5,054.6	1,914,737.63	541,705.50	36.262267	-107.691869
10,000.0	91.03	279.66	5,330.2	1,471.0	-5,251.7	1,914,770.87	541,508.32	36.262359	-107.692538
10,200.0	91.03	279.66	5,326.6	1,504.5	-5,448.8	1,914,804.10	541,311.13	36.262451	-107.693206
10,400.0	91.03	279.66	5,323.0	1,538.1	-5,646.0	1,914,837.34	541,113.95	36.262543	-107.693875
10,600.0	91.03	279.66	5,319.4	1,571.6	-5,843.1	1,914,870.58	540,916.76	36.262635	-107.694544
10,677.6	91.03	279.66	5,318.0	1,584.7	-5,919.6	1,914,883.48	540,840.25	36.262671	-107.694803

TD at 10677.6 - TD / PBHL Chaco #403H

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
TD / PBHL Chaco #403H	0.00	0.00	5,318.0	1,584.7	-5,919.6	1,914,883.48	540,840.25	36.262671	-107.694803
- plan hits target center									
- Point									
POE Chaco #403H	0.00	0.00	5,404.0	783.6	-1,214.0	1,914,090.10	545,547.14	36.260472	-107.678842
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
550.0	550.0	0.0	0.0	Start Build 2.00
1,229.7	1,223.3	63.1	-49.6	Hold 13.59° Inc, 321.81° Az
4,152.4	4,064.2	603.0	-474.3	Start Drop -2.00
4,832.1	4,737.5	666.1	-523.9	KOP 9°/100
5,498.8	5,288.8	719.5	-837.7	Hold 60° tangent at 60° Inc
5,558.8	5,318.8	728.2	-888.9	Begin 9°/100 Build
5,903.6	5,404.0	783.6	-1,214.0	Landing Pt 91.03° Inc, 279.66° Az
10,677.6	5,318.0	1,584.7	-5,919.6	TD at 10677.6

WPXENERGY

WPX ENERGY

Operations Plan

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

DATE: 9/2/2014 **FIELD:** Basin Mancos
WELL NAME: Chaco 2308-03E #403H **SURFACE:** BLM
SH Location: SWNW Sec 3-23N-08W **ELEVATION:** 6892' GR
BH Location: NWNW Sec 4-23N-08W **MINERALS:** BLM
San Juan, NM
MEASURED DEPTH: 10,678' **LEASE #:** NM 109398

I. **GEOLOGY:** Surface formation – Nacimiento

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

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1027	1025	Point Lookout	4169	4080
Kirtland	1220	1214	Mancos	4383	4290
Picture Cliffs	1750	1729	Kickoff Point	4832	4738
Lewis	1852	1828	Top Target	5587	5332
Chacra	2125	2094	Landing Point	5904	5404
Cliff House	3243	3180	Base Target	5904	5404
Menefee	3281	3217			
			TD	10678	5318

- 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 +/- 4,832' (MD) / 4,738' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 5,904' (MD) / 5,404' (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 +/- 10,678' (MD) / 5,318' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,754 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:**

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12.25"	400'+	9.625"	36#	J-55
Intermediate	8.75"	5,904'	7"	23#	K-55
Prod. Liner	6.125"	5,754' - 10,678'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5,754'	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., and 2,000ft. Additionally run 1 turbolizing centralizer on every other joint from 100' below the top of the Kirtland to 100' above the top of the Ojo Alamo, as referenced in Formation Tops in Section I-A.
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 +/- 5,454 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 N₂ 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 (~5,700' 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.

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 5,904 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,754 ft. (MD) +/- 78 degree angle. TOC: +/- 5,454 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.