State of New Mexico
Energy, Minerals and Natural Resources Department

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: 12-1-14
Well information;
Operator WPX, Well Name and Number NE Chaco Com #264H

API# 30-039-31287, Section 5, Township 23 (N)S, 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
- o Spacing rule violation. Operator must follow up with change of status notification on other well to be shut in or abandoned
- o 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
- o 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.
- ✓ Well-bore communication is regulated under 19.15.29 NMAC. This requires well-bore Communication to be reported in accordance with 19.15.29.8.

Charlie Perrin
NMOCD Approved by Signature

12-18-2014
Date

1220 South St. Francis Drive • Santa Fe, New Mexico 87505
Phone (505) 476-3460 • Fax (505) 476-3462 • www.emnrd.state.nm.us/ocd

Form 3160-3
(September 2001)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMSF028735

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No. CA 132829

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

8. Lease Name and Well No. NE Chaco COM 264H

2. Name of Operator WPX Energy Production, LLC

9. API Well No. 30-039-31287

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

3b. Phone No. *(include area code)* (505) 333-1849

10. Field and Pool, or Exploratory Chaco Unit NE HZ (OIL)

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface L 1345' FSL & 259' FWL, sec 5, T23N, R6W
At proposed prod. zone P 781' FSL & 230' FEL, sec 5, T23N, R6W

11. Sec., T., R., M., or Blk. and Survey or Area
SHL: Section 5, T23N, R6W
BHL: Section 5, 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) 259'

16. No. of Acres in lease 160.00 ~~9,237.3~~

17. Spacing Unit dedicated to this well 320 acres

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

19. Proposed Depth 11,369'MD / 5,493' TVD

20. BLM/BIA Bond No. on file UTB000178

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6830' GR

22. Approximate date work will start* February 1, 2015

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 [signature]	Name *(Printed/Typed)* Andrea Felix	Date 12-1-2014
Title Regulatory Specialist		
Approved by *(Signature)* [signature]	Name *(Printed/Typed)*	Date 12/16/14
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 Chaco Unit NE HZ (OIL) pool at the above described location in accordance with the attached drilling and surface use plans.

The well pad surface is on lease under jurisdiction of BLM FFO and is co-located with the NE Chaco COM #255H, 254H, and 265H.

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

New access road is approximately 702' on lease on BLM surface.

New pipeline is approximately 966.8' on lease on BLM surface.

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

OIL CONS. DIV DIST. 3
DEC 17 2014

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

NMOCD

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

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

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-31287	98088	CHACO UNIT NE HZ (OIL)

[4] Property Code	[5] Property Name	[6] Well Number
313800	NE CHACO COM	264H

[7] OGRID No.	[8] Operator Name	[9] Elevation
120782	WPX ENERGY PRODUCTION, LLC	6830'

[10] Surface Location

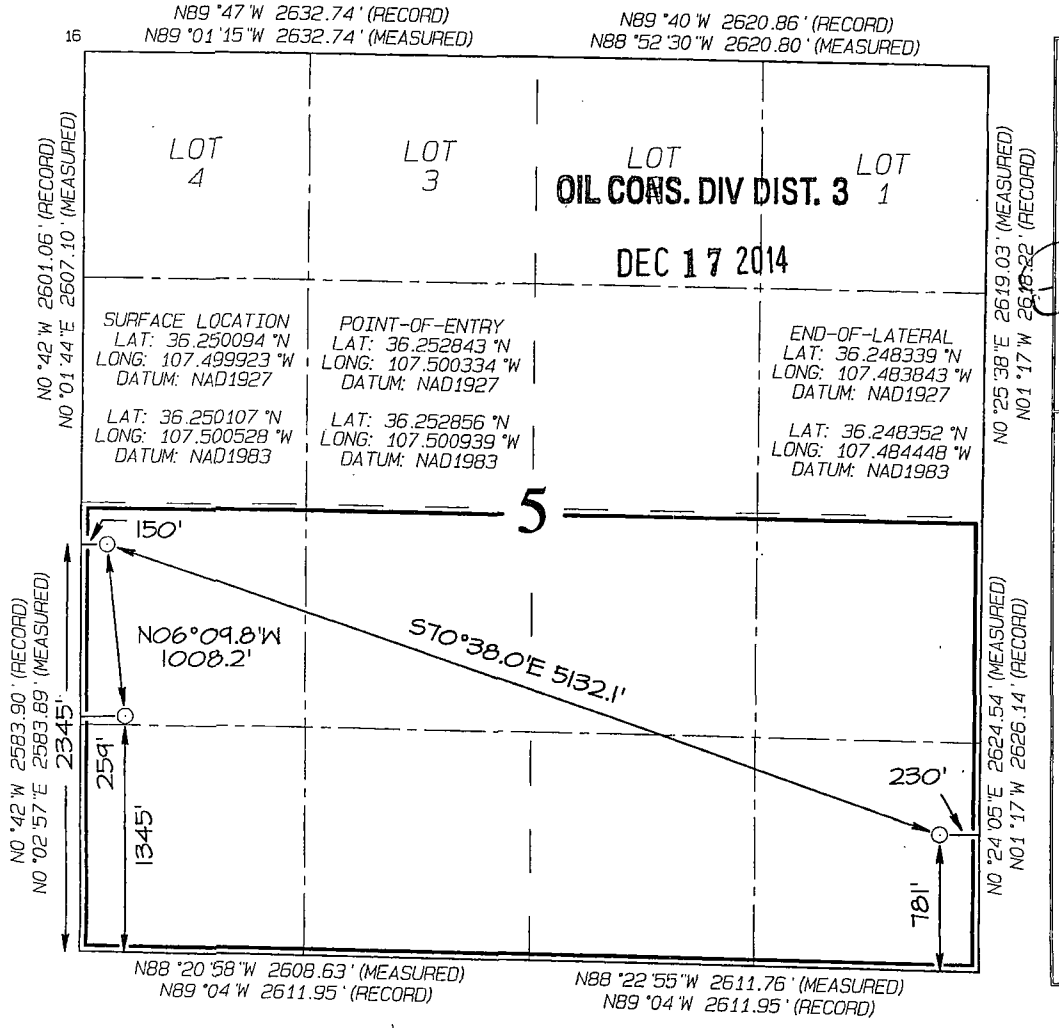
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	23N	6W		1345	SOUTH	259	WEST	RIO ARRIBA

[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
P	5	23N	6W		781	SOUTH	230	EAST	RIO ARRIBA

[12] Dedicated Acres		[13] Joint or Infill	[14] Consolidation Code	[15] Order No.	
320.00	S/2 - Section 5			R-13817A	9,237.3 acres

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.

Andrea Felix 12-1-14
Signature Date

Andrea Felix
Printed Name

andrea.felix@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: DECEMBER 1, 2014
Survey Date: DECEMBER 10, 2013

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

WPXENERGY.

WPX ENERGY

Operations Plan

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

DATE:	10/23/2014	**FIELD:**	Chaco Unit NE HZ (Oil)
WELL NAME:	**NE Chaco COM # 264H**	**SURFACE:**	BLM
SH Location:	NWSW Sec 5 -23N -06W	**ELEVATION:**	6830' GR
BH Location:	SESE Sec 5 -23N -06W Rio Arriba CO., NM	**MINERALS:**	Federal
MEASURED DEPTH:	**11,369**	**LEASE #:**	NMNM028735

I. GEOLOGY: Surface formation – San Jose

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

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1417	1404	Point Lookout	4477	4271
Kirtland	1749	1716	Mancos	4717	4496
Picture Cliffs	2051	1999	**Kickoff Point**	**4976**	4738
Lewis	2177	2117	Top Target	5880	5491
Chacra	2526	2444	**Landing Point**	**6238**	5583
Cliff House	3689	3533	Base Target	6238	5583
Menefee	3731	3572			
			TD	11369	5493

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 ¾" 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 +/- 4,976' (MD) / 4,738' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,238' (MD) / 5,583' (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 +/- 11,369' (MD) / 5,493' (TVD). Will run 4-1/2 in. Production Liner from +/- 6,088 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"	6,238'	7"	23#	K-55
Prod. Liner	6.125"	6,088 - 11,396'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 6,088'	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 + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.

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: +/- 700 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 (563.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,644 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 (~5,800' 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.

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 6,094 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,944 ft. (MD) +/- 78 degree angle. TOC: +/- 5,644 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.

WPXENERGY

Well Name: Chaco 2306-05L 264H
Surface Location: Chaco 2306-05L
NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
Ground Elevation: 6830.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1910443.81	598309.66	36.250090	-107.499920	264H

KB @ 6844.0usft (Original Well Elev)

T M

Azimuths to True North
Magnetic North: 9.32°

Magnetic Field
Strength: 50154.9snT
Dip Angle: 63.01°
Date: 10/19/2014
Model: IGRF2010

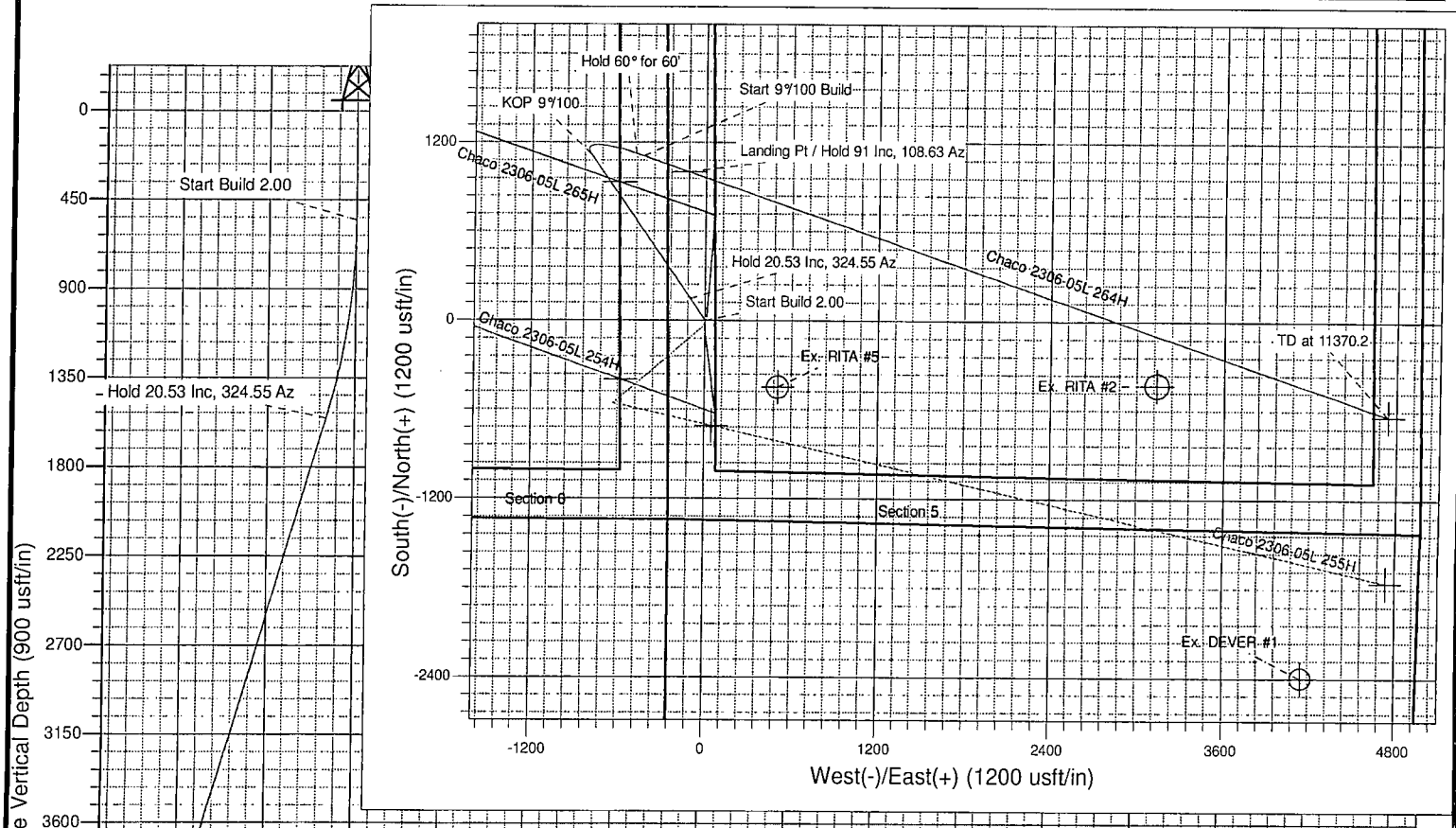
Project: SJ 5-23N-06W
Site: Chaco 2306-05L
Well: Chaco 2306-05L 264H
Plan 19Oct14 kjs

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
550.0	550.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.00
1554.6	1576.4	20.53	324.55	148.2	-105.5	-124.3	181.9	Hold 20.53 Inc, 324.55 Az
4738.3	4976.0	20.53	324.55	1119.3	-797.0	-939.0	1374.1	KOP 9°/100
5467.8	5833.3	60.00	108.63	1123.9	-483.6	-629.0	1763.3	Hold 60° for 60'
5497.8	5893.3	60.00	108.63	1107.3	-434.4	-578.0	1815.3	Start 9°/100 Build
5583.0	6237.8	91.00	108.63	1002.1	-122.2	-254.6	2144.7	Landing Pt / Hold 91 Inc, 108.63 Az
5493.0	11369.2	91.00	108.63	-636.7	4739.7	4782.2	7275.4	TD at 11370.2

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
TD / PBHL Chaco 2306-05L 264H	5493.0	-637.0	4740.6	1909823.12	603052.41	36.248339	-107.483843
POP Chaco 2306-05L 264H	5583.0	1002.1	-122.1	1911445.52	598184.14	36.252843	-107.500334



OIL CONS. DIV DIST. 3
DEC 17 2014

WPXENERGY SM

SAN JUAN BASIN

SJ 5-23N-06W
Chaco 2306-05L
Chaco 2306-05L 264H - Slot 264H

Wellbore #1

Plan: Plan 19Oct14 kjs

Standard Planning Report - Geographic

20 October, 2014

Database:	COMPASS-SANJUAN	**Local Co-ordinate Reference:**	Well Chaco 2306-05L 264H - Slot 264H
Company:	SAN JUAN BASIN	**TVD Reference:**	KB @ 6844.0usft (Original Well Elev)
Project:	SJ 5-23N-06W	**MD Reference:**	KB @ 6844.0usft (Original Well Elev)
Site:	Chaco 2306-05L	**North Reference:**	True
Well:	Chaco 2306-05L 264H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 19Oct14 kjs		

Project	SJ 5-23N-06W, 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 2306-05L				
Site Position:		**Northing:**	1,910,443.81 usft	**Latitude:**	36.250090
From:	Lat/Long	**Easting:**	598,309.66 usft	**Longitude:**	-107.499920
Position Uncertainty:	0.0 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.20 °

Well	Chaco 2306-05L 264H - Slot 264H					
Well Position	**+N/-S**	0.0 usft	**Northing:**	1,910,443.81 usft	**Latitude:**	36.250090
	+E/-W	0.0 usft	**Easting:**	598,309.66 usft	**Longitude:**	-107.499920
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	6,830.0 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2010	10/19/2014	9.32	63.01	50,155

Design	Plan 19Oct14 kjs				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	108.63	

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	
1,576.4	20.53	324.55	1,554.6	148.2	-105.5	2.00	2.00	0.00	324.55	
4,976.0	20.53	324.55	4,738.3	1,119.3	-797.0	0.00	0.00	0.00	0.00	
5,833.3	60.00	108.63	5,467.8	1,123.9	-483.6	9.00	4.60	16.81	148.60	
5,893.3	60.00	108.63	5,497.8	1,107.3	-434.4	0.00	0.00	0.00	0.00	
6,237.8	91.00	108.63	5,583.0	1,002.1	-122.1	9.00	9.00	0.00	0.00	
11,370.2	91.00	108.63	5,493.0	-637.0	4,740.6	0.00	0.00	0.00	0.00	TD / PBHL Chaco 230

Database:	COMPASS-SANJUAN	**Local Co-ordinate Reference:**	Well Chaco 2306-05L 264H - Slot 264H
Company:	SAN JUAN BASIN	**TVD Reference:**	KB @ 6844.0usft (Original Well Elev)
Project:	SJ 5-23N-06W	**MD Reference:**	KB @ 6844.0usft (Original Well Elev)
Site:	Chaco 2306-05L	**North Reference:**	True
Well:	Chaco 2306-05L 264H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 19Oct14 kjs		

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	1,910,443.81	598,309.66	36.250090	-107.499920
200.0	0.00	0.00	200.0	0.0	0.0	1,910,443.81	598,309.66	36.250090	-107.499920
400.0	0.00	0.00	400.0	0.0	0.0	1,910,443.81	598,309.66	36.250090	-107.499920
550.0	0.00	0.00	550.0	0.0	0.0	1,910,443.81	598,309.66	36.250090	-107.499920
Start Build 2.00									
600.0	1.00	324.55	600.0	0.4	-0.3	1,910,444.16	598,309.41	36.250091	-107.499921
800.0	5.00	324.55	799.7	8.9	-6.3	1,910,452.67	598,303.31	36.250114	-107.499942
1,000.0	9.00	324.55	998.2	28.7	-20.5	1,910,472.47	598,289.10	36.250169	-107.499990
1,200.0	13.00	324.55	1,194.4	59.8	-42.6	1,910,503.47	598,266.87	36.250254	-107.500065
1,400.0	17.00	324.55	1,387.6	102.0	-72.6	1,910,545.53	598,236.70	36.250370	-107.500167
1,576.4	20.53	324.55	1,554.6	148.2	-105.5	1,910,591.63	598,203.63	36.250497	-107.500278
Hold 20.53 Inc, 324.55 Az									
1,600.0	20.53	324.55	1,576.7	154.9	-110.3	1,910,598.35	598,198.81	36.250516	-107.500294
1,800.0	20.53	324.55	1,764.0	212.1	-151.0	1,910,655.34	598,157.93	36.250673	-107.500432
2,000.0	20.53	324.55	1,951.3	269.2	-191.7	1,910,712.33	598,117.05	36.250830	-107.500570
2,200.0	20.53	324.55	2,138.6	326.3	-232.4	1,910,769.33	598,076.18	36.250987	-107.500708
2,400.0	20.53	324.55	2,325.9	383.4	-273.0	1,910,826.32	598,035.30	36.251143	-107.500846
2,600.0	20.53	324.55	2,513.2	440.6	-313.7	1,910,883.31	597,994.42	36.251300	-107.500984
2,800.0	20.53	324.55	2,700.5	497.7	-354.4	1,910,940.30	597,953.54	36.251457	-107.501122
3,000.0	20.53	324.55	2,887.8	554.8	-395.1	1,910,997.29	597,912.66	36.251614	-107.501260
3,200.0	20.53	324.55	3,075.1	612.0	-435.8	1,911,054.28	597,871.78	36.251771	-107.501398
3,400.0	20.53	324.55	3,262.4	669.1	-476.5	1,911,111.27	597,830.90	36.251928	-107.501536
3,600.0	20.53	324.55	3,449.7	726.2	-517.1	1,911,168.26	597,790.03	36.252085	-107.501674
3,800.0	20.53	324.55	3,637.0	783.4	-557.8	1,911,225.26	597,749.15	36.252242	-107.501812
4,000.0	20.53	324.55	3,824.3	840.5	-598.5	1,911,282.25	597,708.27	36.252399	-107.501950
4,200.0	20.53	324.55	4,011.6	897.6	-639.2	1,911,339.24	597,667.39	36.252556	-107.502088
4,400.0	20.53	324.55	4,198.9	954.8	-679.9	1,911,396.23	597,626.51	36.252713	-107.502226
4,600.0	20.53	324.55	4,386.2	1,011.9	-720.5	1,911,453.22	597,585.63	36.252870	-107.502364
4,800.0	20.53	324.55	4,573.5	1,069.0	-761.2	1,911,510.21	597,544.75	36.253027	-107.502502
4,976.0	20.53	324.55	4,738.3	1,119.3	-797.0	1,911,560.36	597,508.78	36.253165	-107.502623
KOP 9°/100									
5,000.0	18.72	328.05	4,760.9	1,126.0	-801.5	1,911,567.05	597,504.28	36.253183	-107.502639
5,200.0	10.80	37.87	4,955.4	1,168.4	-807.0	1,911,609.40	597,498.61	36.253300	-107.502657
5,400.0	22.88	88.66	5,147.4	1,184.2	-756.2	1,911,625.41	597,549.35	36.253343	-107.502485
5,600.0	39.63	101.82	5,317.9	1,172.0	-654.1	1,911,613.51	597,651.53	36.253310	-107.502139
5,800.0	57.07	107.87	5,450.4	1,132.8	-510.6	1,911,574.85	597,795.16	36.253202	-107.501652
5,833.3	60.00	108.63	5,467.8	1,123.9	-483.6	1,911,566.05	597,822.16	36.253178	-107.501561
Hold 60° for 60'									
5,893.3	60.00	108.63	5,497.8	1,107.3	-434.4	1,911,549.62	597,871.46	36.253132	-107.501394
Start 9°/100 Build									
6,000.0	69.60	108.63	5,543.2	1,076.5	-343.0	1,911,519.13	597,962.94	36.253047	-107.501084
6,200.0	87.60	108.63	5,582.5	1,014.1	-158.0	1,911,457.40	598,148.18	36.252876	-107.500456
6,237.8	91.00	108.63	5,583.0	1,002.1	-122.2	1,911,445.46	598,184.03	36.252843	-107.500335
Landing Pt / Hold 91 Inc, 108.63 Az									
6,237.9	91.00	108.63	5,583.0	1,002.0	-122.1	1,911,445.43	598,184.11	36.252843	-107.500334
POP Chaco 2306-05L 264H									
6,400.0	91.00	108.63	5,580.1	950.3	31.5	1,911,394.18	598,337.89	36.252701	-107.499813
6,600.0	91.00	108.63	5,576.6	886.4	221.0	1,911,330.97	598,527.60	36.252525	-107.499171
6,800.0	91.00	108.63	5,573.1	822.5	410.5	1,911,267.75	598,717.32	36.252350	-107.498528
7,000.0	91.00	108.63	5,569.6	758.7	600.0	1,911,204.53	598,907.03	36.252174	-107.497885
7,200.0	91.00	108.63	5,566.1	694.8	789.5	1,911,141.31	599,096.74	36.251999	-107.497243
7,400.0	91.00	108.63	5,562.6	630.9	979.0	1,911,078.09	599,286.45	36.251823	-107.496600
7,600.0	91.00	108.63	5,559.1	567.0	1,168.5	1,911,014.87	599,476.17	36.251648	-107.495957
7,800.0	91.00	108.63	5,555.6	503.2	1,358.0	1,910,951.65	599,665.88	36.251472	-107.495315

Database:	COMPASS-SANJUAN	**Local Co-ordinate Reference:**	Well Chaco 2306-05L 264H - Slot 264H
Company:	SAN JUAN BASIN	**TVD Reference:**	KB @ 6844.0usft (Original Well Elev)
Project:	SJ 5-23N-06W	**MD Reference:**	KB @ 6844.0usft (Original Well Elev)
Site:	Chaco 2306-05L	**North Reference:**	True
Well:	Chaco 2306-05L 264H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 19Oct14 kjs		

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	91.00	108.63	5,552.1	439.3	1,547.5	1,910,888.43	599,855.59	36.251297	-107.494672
8,200.0	91.00	108.63	5,548.6	375.4	1,736.9	1,910,825.21	600,045.31	36.251121	-107.494029
8,400.0	91.00	108.63	5,545.1	311.6	1,926.4	1,910,761.99	600,235.02	36.250946	-107.493387
8,600.0	91.00	108.63	5,541.6	247.7	2,115.9	1,910,698.77	600,424.73	36.250770	-107.492744
8,800.0	91.00	108.63	5,538.1	183.8	2,305.4	1,910,635.55	600,614.44	36.250595	-107.492102
9,000.0	91.00	108.63	5,534.6	119.9	2,494.9	1,910,572.33	600,804.16	36.250419	-107.491459
9,200.0	91.00	108.63	5,531.1	56.1	2,684.4	1,910,509.11	600,993.87	36.250244	-107.490816
9,400.0	91.00	108.63	5,527.5	-7.8	2,873.9	1,910,445.89	601,183.58	36.250068	-107.490174
9,600.0	91.00	108.63	5,524.0	-71.7	3,063.4	1,910,382.67	601,373.30	36.249893	-107.489531
9,800.0	91.00	108.63	5,520.5	-135.6	3,252.9	1,910,319.45	601,563.01	36.249717	-107.488888
10,000.0	91.00	108.63	5,517.0	-199.4	3,442.4	1,910,256.23	601,752.72	36.249542	-107.488246
10,200.0	91.00	108.63	5,513.5	-263.3	3,631.9	1,910,193.01	601,942.43	36.249366	-107.487603
10,400.0	91.00	108.63	5,510.0	-327.2	3,821.4	1,910,129.79	602,132.15	36.249191	-107.486960
10,600.0	91.00	108.63	5,506.5	-391.0	4,010.9	1,910,066.57	602,321.86	36.249015	-107.486318
10,800.0	91.00	108.63	5,503.0	-454.9	4,200.4	1,910,003.35	602,511.57	36.248840	-107.485675
11,000.0	91.00	108.63	5,499.5	-518.8	4,389.9	1,909,940.13	602,701.29	36.248664	-107.485033
11,200.0	91.00	108.63	5,496.0	-582.7	4,579.4	1,909,876.91	602,891.00	36.248488	-107.484390
11,369.2	91.00	108.63	5,493.0	-636.7	4,739.7	1,909,823.43	603,051.50	36.248340	-107.483846
TD at 11370.2									
11,370.2	91.00	108.63	5,493.0	-637.0	4,740.6	1,909,823.12	603,052.41	36.248339	-107.483843
TD / PBHL Chaco 2306-05L 264H									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TD / PBHL Chaco 2306-	0.00	0.00	5,493.0	-637.0	4,740.6	1,909,823.12	603,052.41	36.248339	-107.483843
- plan hits target center									
- Point									
POP Chaco 2306-05L 2(	0.00	0.00	5,583.0	1,002.1	-122.1	1,911,445.52	598,184.14	36.252843	-107.500334
- plan misses target center by 0.1usft at 6237.9usft MD (5583.0 TVD, 1002.0 N, -122.1 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
550.0	550.0	0.0	0.0	Start Build 2.00
1,576.4	1,554.6	148.2	-105.5	Hold 20.53 Inc, 324.55 Az
4,976.0	4,738.3	1,119.3	-797.0	KOP 9°/100
5,833.3	5,467.8	1,123.9	-483.6	Hold 60° for 60'
5,893.3	5,497.8	1,107.3	-434.4	Start 9°/100 Build
6,237.8	5,583.0	1,002.1	-122.2	Landing Pt / Hold 91 Inc, 108.63 Az
11,369.2	5,493.0	-636.7	4,739.7	TD at 11370.2

9. METHODS FOR HANDLING WASTE DISPOSAL

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, the operator 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 toilet[s] and trash receptacle[s]).

10. ANCILLARY FACILITIES

Three potential TUAs (all previously disturbed well pads) will be used; they are described in Section 2.2 (Project Location and Description - Project Description). During staging, WPX will stay within the boundaries of the previously disturbed well pads. During interim (post-construction) reclamation, WPX will repair any damage to and reseed the TUAs (with the exception of portions of well pads that Elm Ridge or Bannon prefers to remain unseeded).

11. WELL SITE LAYOUT

The approximate cuts, approximate fills, and orientation for the well pad are depicted on the construction plats in the APD packages. Rig orientation and the location of drilling equipment and topsoil or spoil material stockpiles are depicted on Figures B.3 and B.4 (Appendix B). The layout of the completions rigs is depicted on Figure B.4 (Appendix B). The interim reclamation/long-term disturbance layout is depicted on Figure B.5 (Appendix B) and is described below.

- The following areas (known as the "non-reseed working areas") will remain unreclaimed throughout the lifetime of the project:
    - Production facilities will be located within a 300-foot-by-100-foot (0.7-acre) facility area at the northeastern end of the well pad.
    - The teardrop for the well pad will include a looped, 35-foot-wide driving surface, totaling approximately 0.4 acre.
- The following areas (known as the "reseed working areas") will be reseeded (but not recontoured) during interim reclamation:
    - The center of the teardrop will measure approximately 0.3 acre.
    - A 210-by-180-foot (0.9-acre) workover area will surround each wellhead. This area may be used for future activities within the well pad, but will not be used for daily activities. After excluding the portions of these polygons that overlap one another, the teardrop, and the teardrop center, this area measures approximately 0.8 acre.

Directions from the Intersection of US Hwy 550 & US Hwy 64

in Bloomfield, NM to WPX Energy Production, LLC NE Chaco COM #264H

1345' FSL & 259' FWL, Section 5, T23N, R6W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.250107°N Longitude: 107.500528°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 50.2 miles to Mile Marker 101;

Go Left (Northerly) for 0.3 miles to fork in roadway;

Go Right (Northerly) which is straight for 0.9 miles to fork in roadway;

Go Right (Northerly) which is straight for 0.6 miles to fork in road at Elm Ridge Marcus #2 well;

Go Right (Easterly) for 0.5 miles to new access on right-hand side of existing roadway which continues for 702' to staked WPX NE Chaco COM #264H location.

3000 PSI BOP Schematic