

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



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: 9-25-14

Well information;


Operator WPX, Well Name and Number Chaco 2408 33D #119H

API# 30-045-35601, Section 33, Township 24 N, Range 8 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
- ☒ 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.


NMOCD Approved by Signature

10-23-14
Date

RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 25 2014

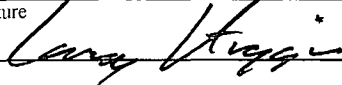
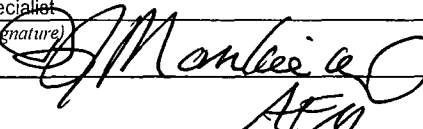
APPLICATION FOR PERMIT TO DRILL OR REENTER

Albuquerque Field Office

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM #23233
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator WPX Energy Production, LLC		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 640 Aztec, NM 87410	3b. Phone No. (include area code) (505) 333-1808	8. Lease Name and Well No. Chaco 2408-33D #119H
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1290' FNL & 388' FWL, sec 33, T24N, R8W At proposed prod. zone 1201' FNL & 230' FEL, sec 33, T24N, R8W		9. API Well No. 30-045-3560Z 1
14. Distance in miles and direction from nearest town or post office* approximately 9 miles northwest of Lybrook, New Mexico		10. Field and Pool, or Exploratory Basin Mancos
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 388'	16. No. of Acres in lease 800	11. Sec., T., R., M., or Blk. and Survey or Area Surface: Sec 33, T24N, R8W BHL: Sec 33, T24N, R8W
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 22'	19. Proposed Depth 10,954' MD / 5,486' TVD	12. County or Parish San Juan County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7020' GR	22. Approximate date work will start* November 1, 2014	13. State NM
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 	Name (Printed/Typed) Larry Higgins	Date 9/25/14
Title Regulatory Specialist		
Approved by (Signature) 	Name (Printed/Typed) J. Montee	Date 10/20/14
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 Basin Mancos 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. This location is shared with the Chaco 2408-33D #113H, 112H and 118H

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

1053' of new access road is needed for this well site

An approximate 867' pipeline has been applied for these wells as a separate ROW action

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

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

NMOCDA

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

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT
RECEIVED

SEP 25 2014

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35601		*Pool Code 97232	*Pool Name Manington Field Office
*Property Code 313755	*Property Name CHACO 2408-33D		*Well Number 119H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 7020'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	24N	8W		1290	NORTH	388	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

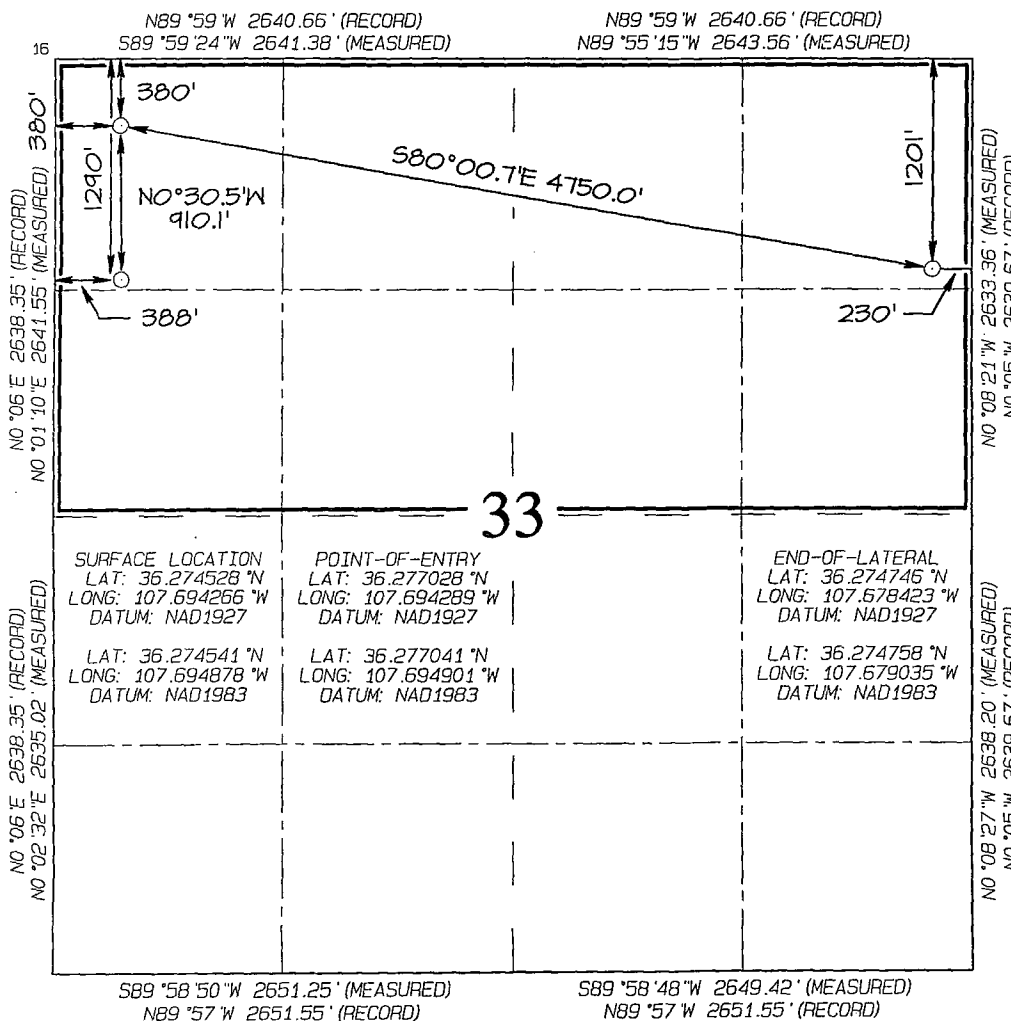
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	33	24N	8W		1201	NORTH	230	EAST	SAN JUAN

¹² Dedicated Acres 320.0 Acres N/2 - Section 33	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE
BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OIL CONS. DIV DIST. 3

OCT 21 2014



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Larry Higgins* Date: *9/25/14*

Printed Name: **Larry Higgins**

E-mail Address: **larry.higgins@wpxenergy.com**

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: **SEPTEMBER 25, 2014**
Survey Date: **DECEMBER 12, 2013**

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
15269

JASON C. EDWARDS
Certificate Number 15269

WPX ENERGY

WPX ENERGY

Operations Plan

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

DATE: 9/8/14 **FIELD:** Basin Mancos
WELL NAME: Chaco 2408-33D #119H **SURFACE:** BLM
SH Location: NWNW Sec 33 -24N -08W **ELEVATION:** 7020' GR
BH Location: NENE Sec 33 -24N -08W **MINERALS:** BLM
San Juan Co., NM
MEASURED DEPTH: 10,954' **LEASE #:** NMNM 023233

I. GEOLOGY: Surface formation – Nacimiento

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1303	1294	Point Lookout	4425	4230
Kirtland	1508	1490	Mancos	4658	4458
Picture Cliffs	1893	1851	Kickoff Point	5129	4927
Lewis	2038	1987	Top Target	5960	5412
Chacra	2333	2264	Landing Point	6204	5593
Cliff House	3467	3326	Base Target	6204	5593
Menefee	3512	3368			
			TD	10954	5486

- 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 +/- 5,129' (MD) / 4,927' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,204' (MD) / 5,593' (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 +/- 10,954' (MD) / 5,486' (TVD). Will run 4-1/2 in. Production Liner from +/- 6,054 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"	6,204'	7"	23#	K-55
Prod. Liner	6.125"	6,054' - 10,954'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 6,054'	4-1/2"	11.6#	N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
3. PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + (2) RSI (Sliding Sleeves) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.
4. TIE-BACK CASING: None

C. CEMENTING:

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

1. SURFACE: 10 bbl Fr Water Spacer + 190 sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake, 15.8 #/gal (1.17 cu ft./sk, Vol 39.58 Bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. Total Volume: (222.3 cu-ft/190 sx/39.6 Bbls). TOC at Surface.
2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft / 216.5 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (1050 sx / 1461 cu-ft / 260 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
3. PRODUCTION LINER: **STAGE 1**:10 bbl (56.cu-ft) Fr Water Spacer. **STAGE 2**:40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III + 0.5 gal/bbl Musol + 38.75 ppb Barite + 0.5 gal/bbl SEM-7. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement**: 50 / 50 Poz Premium + 0.2% Versaset + 0.2% Halad -766, Yield 1.43 cu ft/sk, 13.0 ppg, (10 sx / 14.3 cu ft. / 2.5 bbls). **STAGE 5**: 200 sx. Foamed Lead Cement: 50 / 50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.97 cu-ft/sk. 13.0 ppg (200 sx / 394 cu-ft. / 70.2 bbls.). **STAGE 6**: Tail Cement : 100 sx. 50/50 Poz Standard + 0.2% Versaset + 0.05% HALAD-766 + .05% SA-1015, Weight: 13.5 ppg (100 sx / Yield 1.28 cu ft/sk. / 128 cu ft. / 22.8 bbls) **STAGE 7**: Displace w/ +/- 137 bbl Fr Water. Total Cement (536.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,754 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 6,204 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 6,054 ft. (MD) +/- 78 degree angle. TOC: +/- 5,754 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.

WPX ENERGY

Well Name: Chaco 2408-33D #119H
 Surface Location: Chaco 2408-33D
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 7020.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1919200.62 540991.14 36.274530 -107.694270 119H
 WELL @ 7034.0usft (Original Well Elev)



Azimuths to True North
 Magnetic North: 9.42°
 Magnetic Field
 Strength: 50155.7snT
 Dip Angle: 63.00°
 Date: 8/29/2014
 Model: IGRF2010

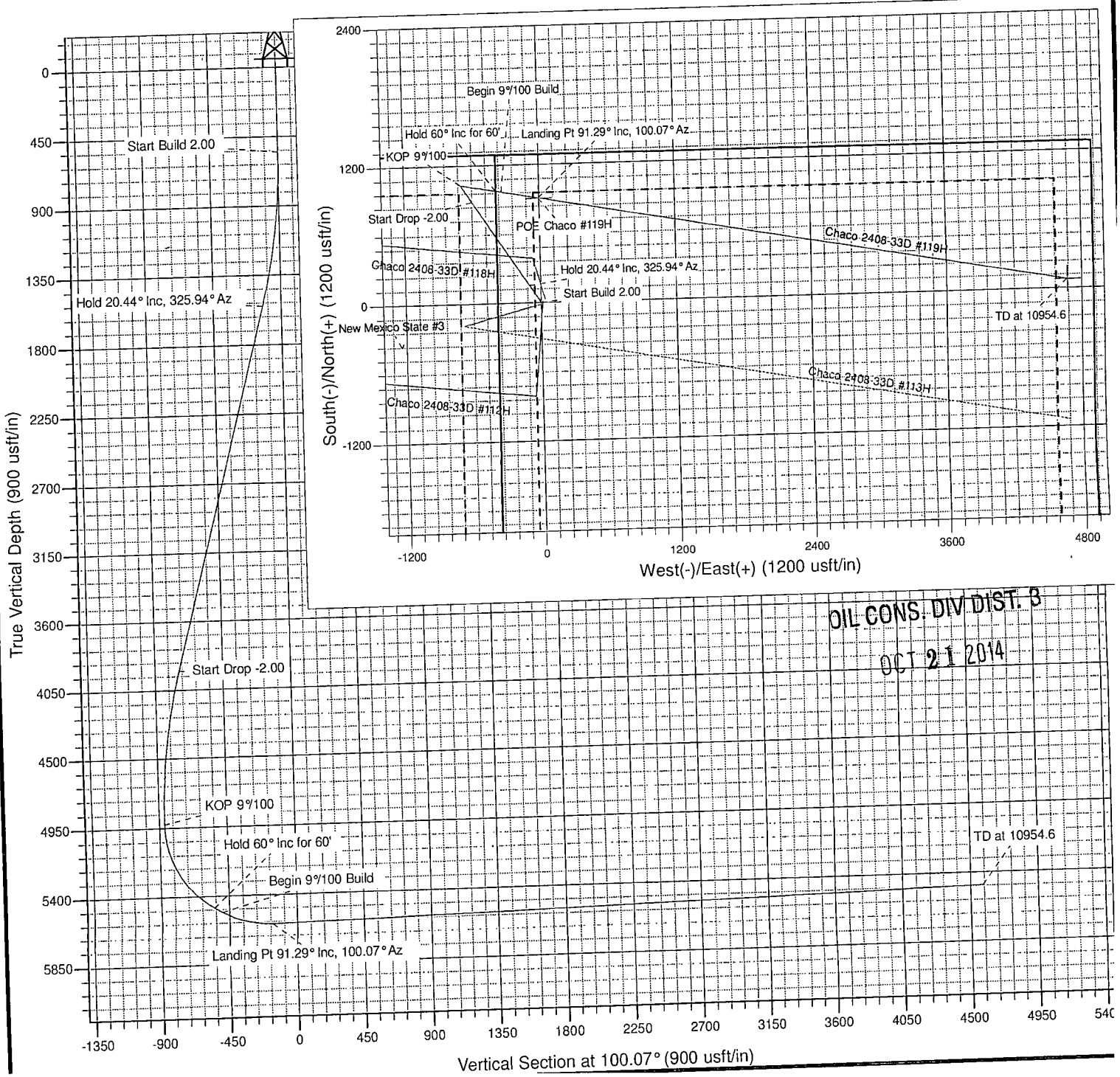
Project: SJ 32-24N-08W
 Site: Chaco 2408-33D
 Well: Chaco 2408-33D #119H
 Design #1 29Aug14 kjs

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
1550.4	1571.9	20.44	325.94	149.4	-101.0	-125.6	180.3	Hold 20.44° Inc, 325.94° Az
3926.1	4107.3	20.44	325.94	882.9	-596.8	-742.0	1065.7	Start Drop -2.00
4926.5	5129.2	0.00	0.00	1032.3	-697.8	-867.5	1246.0	KOP 9°100
5477.8	5795.8	60.00	100.07	976.6	-384.4	-549.2	1564.3	Hold 60° Inc for 60'
5507.8	5855.8	60.00	100.07	967.6	-333.2	-497.3	1616.3	Begin 9°100 Build
5593.0	6203.5	91.29	100.07	909.4	-5.7	-164.6	1948.9	Landing Pt 91.29° Inc, 100.07° Az
5486.0	10953.6	91.29	100.07	79.0	4670.0	4584.3	6697.8	TD at 10954.6

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
TD / PBHL Chaco #119H	5486.0	78.8	4671.0	1919286.17	545662.05	36.274746	-107.678423
POE Chaco #119H	5593.0	909.4	-5.7	1920110.02	540984.12	36.277028	-107.694289





SAN JUAN BASIN

SJ 32-24N-08W

Chaco 2408-33D

Chaco 2408-33D #119H - Slot 119H

Wellbore #1

Plan: Design #1 29Aug14 kjs

Standard Planning Report - Geographic

03 September, 2014

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2408-33D #119H - Slot 119H
Company:	SAN JUAN BASIN	TVD Reference:	WELL @ 7034.0usft (Original Well Elev)
Project:	SJ 32-24N-08W	MD Reference:	WELL @ 7034.0usft (Original Well Elev)
Site:	Chaco 2408-33D	North Reference:	True
Well:	Chaco 2408-33D #119H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 29Aug14 kjs		

Project	SJ 32-24N-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 2408-33D				
Site Position:		Northing:	1,919,215.20 usft	Latitude:	36.274570
From:	Map	Easting:	541,008.80 usft	Longitude:	-107.694210
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.08 °

Well	Chaco 2408-33D #119H - Slot 119H					
Well Position	+N/-S	0.0 usft	Northing:	1,919,200.62 usft	Latitude:	36.274530
	+E/-W	0.0 usft	Easting:	540,991.14 usft	Longitude:	-107.694270
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	7,020.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/29/2014	9.42	63.00	50,156

Design	Design #1 29Aug14 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	100.07

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	
1,571.9	20.44	325.94	1,550.4	149.4	-101.0	2.00	2.00	0.00	325.94	
4,107.3	20.44	325.94	3,926.1	882.9	-596.8	0.00	0.00	0.00	0.00	
5,129.2	0.00	0.00	4,926.5	1,032.3	-697.8	2.00	-2.00	0.00	180.00	
5,795.8	60.00	100.07	5,477.8	976.6	-384.4	9.00	9.00	0.00	100.07	
5,855.8	60.00	100.07	5,507.8	967.6	-333.2	0.00	0.00	0.00	0.00	
6,203.5	91.29	100.07	5,593.0	909.4	-5.7	9.00	9.00	0.00	0.00	
10,954.6	91.29	100.07	5,486.0	78.8	4,671.0	0.00	0.00	0.00	0.00	TD / PBHL Chaco #11



WPX
Planning Report - Geographic

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2408-33D #119H - Slot 119H
Company:	SAN JUAN BASIN	TVD Reference:	WELL @ 7034.0usft (Original Well Elev)
Project:	SJ 32-24N-08W	MD Reference:	WELL @ 7034.0usft (Original Well Elev)
Site:	Chaco 2408-33D	North Reference:	True
Well:	Chaco 2408-33D #119H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 29Aug14 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	1,919,200.62	540,991.14	36.274530	-107.694270
200.0	0.00	0.00	200.0	0.0	0.0	1,919,200.62	540,991.14	36.274530	-107.694270
400.0	0.00	0.00	400.0	0.0	0.0	1,919,200.62	540,991.14	36.274530	-107.694270
550.0	0.00	0.00	550.0	0.0	0.0	1,919,200.62	540,991.14	36.274530	-107.694270
Start Build 2.00									
600.0	1.00	325.94	600.0	0.4	-0.2	1,919,200.98	540,990.89	36.274531	-107.694271
800.0	5.00	325.94	799.7	9.0	-6.1	1,919,209.64	540,985.02	36.274555	-107.694291
1,000.0	9.00	325.94	998.2	29.2	-19.8	1,919,229.81	540,971.34	36.274610	-107.694337
1,200.0	13.00	325.94	1,194.4	60.8	-41.1	1,919,261.39	540,949.93	36.274697	-107.694410
1,400.0	17.00	325.94	1,387.6	103.7	-70.1	1,919,304.22	540,920.89	36.274815	-107.694508
1,571.9	20.44	325.94	1,550.4	149.4	-101.0	1,919,349.88	540,889.93	36.274941	-107.694613
Hold 20.44° Inc, 325.94° Az									
1,600.0	20.44	325.94	1,576.7	157.5	-106.5	1,919,358.00	540,884.42	36.274963	-107.694632
1,800.0	20.44	325.94	1,764.1	215.4	-145.6	1,919,415.80	540,845.23	36.275122	-107.694764
2,000.0	20.44	325.94	1,951.5	273.3	-184.7	1,919,473.61	540,806.03	36.275281	-107.694897
2,200.0	20.44	325.94	2,138.9	331.1	-223.8	1,919,531.41	540,766.84	36.275440	-107.695030
2,400.0	20.44	325.94	2,326.3	389.0	-262.9	1,919,589.22	540,727.64	36.275599	-107.695162
2,600.0	20.44	325.94	2,513.7	446.8	-302.0	1,919,647.02	540,688.45	36.275758	-107.695295
2,800.0	20.44	325.94	2,701.2	504.7	-341.2	1,919,704.83	540,649.25	36.275917	-107.695428
3,000.0	20.44	325.94	2,888.6	562.6	-380.3	1,919,762.63	540,610.06	36.276076	-107.695560
3,200.0	20.44	325.94	3,076.0	620.4	-419.4	1,919,820.43	540,570.86	36.276234	-107.695693
3,400.0	20.44	325.94	3,263.4	678.3	-458.5	1,919,878.24	540,531.67	36.276393	-107.695826
3,600.0	20.44	325.94	3,450.8	736.1	-497.6	1,919,936.04	540,492.47	36.276552	-107.695958
3,800.0	20.44	325.94	3,638.2	794.0	-536.7	1,919,993.85	540,453.28	36.276711	-107.696091
4,000.0	20.44	325.94	3,825.6	851.9	-575.8	1,920,051.65	540,414.09	36.276870	-107.696224
4,107.3	20.44	325.94	3,926.1	882.9	-596.8	1,920,082.65	540,393.07	36.276955	-107.696295
Start Drop -2.00									
4,200.0	18.58	325.94	4,013.5	908.6	-614.2	1,920,108.29	540,375.68	36.277026	-107.696354
4,400.0	14.58	325.94	4,205.2	955.8	-646.1	1,920,155.52	540,343.65	36.277156	-107.696462
4,600.0	10.58	325.94	4,400.3	991.9	-670.5	1,920,191.58	540,319.21	36.277255	-107.696545
4,800.0	6.58	325.94	4,598.1	1,016.6	-687.2	1,920,216.28	540,302.46	36.277323	-107.696602
5,000.0	2.58	325.94	4,797.4	1,029.9	-696.2	1,920,229.51	540,293.49	36.277359	-107.696632
5,129.2	0.00	0.00	4,926.5	1,032.3	-697.8	1,920,231.92	540,291.86	36.277366	-107.696638
KOP 9°/100									
5,200.0	6.37	100.07	4,997.2	1,031.6	-693.9	1,920,231.23	540,295.73	36.277364	-107.696625
5,400.0	24.37	100.07	5,189.2	1,022.4	-641.9	1,920,222.07	540,347.74	36.277339	-107.696448
5,600.0	42.37	100.07	5,355.6	1,003.2	-534.0	1,920,203.07	540,455.65	36.277286	-107.696082
5,795.8	60.00	100.07	5,477.8	976.6	-384.4	1,920,176.71	540,605.34	36.277213	-107.695574
Hold 60° Inc for 60'									
5,800.0	60.00	100.07	5,479.9	976.0	-380.8	1,920,176.08	540,608.89	36.277211	-107.695562
5,855.8	60.00	100.07	5,507.8	967.6	-333.2	1,920,167.70	540,656.52	36.277188	-107.695401
Begin 9°/100 Build									
6,000.0	72.97	100.07	5,565.2	944.5	-203.4	1,920,144.82	540,786.43	36.277125	-107.694960
6,200.0	90.97	100.07	5,593.0	910.0	-9.2	1,920,110.61	540,980.66	36.277030	-107.694301
6,203.5	91.29	100.07	5,593.0	909.4	-5.7	1,920,110.00	540,984.11	36.277028	-107.694290
Landing Pt 91.29° Inc, 100.07° Az - POE Chaco #119H									
6,400.0	91.29	100.07	5,588.5	875.0	187.7	1,920,075.93	541,177.58	36.276934	-107.693633
6,600.0	91.29	100.07	5,584.0	840.1	384.6	1,920,041.25	541,374.50	36.276838	-107.692966
6,800.0	91.29	100.07	5,579.5	805.1	581.4	1,920,006.57	541,571.42	36.276742	-107.692298
7,000.0	91.29	100.07	5,575.0	770.2	778.3	1,919,971.89	541,768.34	36.276646	-107.691630
7,200.0	91.29	100.07	5,570.5	735.2	975.2	1,919,937.21	541,965.26	36.276550	-107.690962
7,400.0	91.29	100.07	5,566.0	700.2	1,172.0	1,919,902.53	542,162.18	36.276454	-107.690294
7,600.0	91.29	100.07	5,561.5	665.3	1,368.9	1,919,867.85	542,359.10	36.276358	-107.689626
7,800.0	91.29	100.07	5,557.0	630.3	1,565.8	1,919,833.17	542,556.02	36.276262	-107.688958



WPX
Planning Report - Geographic

Database:	COMPASS-SANJUAN	Local Co-ordinate Reference:	Well Chaco 2408-33D #119H - Slot 119H
Company:	SAN JUAN BASIN	TVD Reference:	WELL @ 7034.0usft (Original Well Elev)
Project:	SJ 32-24N-08W	MD Reference:	WELL @ 7034.0usft (Original Well Elev)
Site:	Chaco 2408-33D	North Reference:	True
Well:	Chaco 2408-33D #119H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 29Aug14 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	91.29	100.07	5,552.5	595.3	1,762.7	1,919,798.50	542,752.93	36.276165	-107.688290
8,200.0	91.29	100.07	5,548.0	560.4	1,959.5	1,919,763.82	542,949.85	36.276069	-107.687622
8,400.0	91.29	100.07	5,543.5	525.4	2,156.4	1,919,729.14	543,146.77	36.275973	-107.686955
8,600.0	91.29	100.07	5,539.0	490.5	2,353.3	1,919,694.46	543,343.69	36.275877	-107.686287
8,800.0	91.29	100.07	5,534.5	455.5	2,550.1	1,919,659.78	543,540.61	36.275781	-107.685619
9,000.0	91.29	100.07	5,530.0	420.5	2,747.0	1,919,625.10	543,737.53	36.275685	-107.684951
9,200.0	91.29	100.07	5,525.5	385.6	2,943.9	1,919,590.42	543,934.45	36.275589	-107.684283
9,400.0	91.29	100.07	5,521.0	350.6	3,140.7	1,919,555.74	544,131.37	36.275493	-107.683615
9,600.0	91.29	100.07	5,516.5	315.6	3,337.6	1,919,521.06	544,328.29	36.275397	-107.682947
9,800.0	91.29	100.07	5,512.0	280.7	3,534.5	1,919,486.38	544,525.20	36.275301	-107.682279
10,000.0	91.29	100.07	5,507.5	245.7	3,731.3	1,919,451.70	544,722.12	36.275204	-107.681612
10,200.0	91.29	100.07	5,503.0	210.8	3,928.2	1,919,417.02	544,919.04	36.275108	-107.680944
10,400.0	91.29	100.07	5,498.5	175.8	4,125.1	1,919,382.34	545,115.96	36.275012	-107.680276
10,600.0	91.29	100.07	5,494.0	140.8	4,321.9	1,919,347.66	545,312.88	36.274916	-107.679608
10,800.0	91.29	100.07	5,489.5	105.9	4,518.8	1,919,312.98	545,509.80	36.274820	-107.678940
10,954.6	91.29	100.07	5,486.0	78.8	4,671.0	1,919,286.17	545,662.05	36.274746	-107.678424
TD at 10954.6 - TD / PBHL Chaco #119H									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
TD / PBHL Chaco #119H - hit/miss target - Shape - Point	0.00	0.00	5,486.0	78.8	4,671.0	1,919,286.17	545,662.05	36.274746	-107.678424
POE Chaco #119H - plan hits target center - Point	0.00	0.00	5,593.0	909.4	-5.7	1,920,110.03	540,984.12	36.277028	-107.694290

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
1,571.9	1,550.4	149.4	-101.0	Hold 20.44° Inc, 325.94° Az
4,107.3	3,926.1	882.9	-596.8	Start Drop -2.00
5,129.2	4,926.5	1,032.3	-697.8	KOP 9°/100
5,795.8	5,477.8	976.6	-384.4	Hold 60° Inc for 60'
5,855.8	5,507.8	967.6	-333.2	Begin 9°/100 Build
6,203.5	5,593.0	909.4	-5.7	Landing Pt 91.29° Inc, 100.07° Az
10,954.6	5,486.0	78.8	4,671.0	TD at 10954.6

irreparable harm to roads, soils, or streams. No frozen soils will be used for construction purposes or trench backfilling.

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

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

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

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

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

Construction plats are provided in the APD and ROW Grant permit packages.

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 toilets and trash receptacles).

10. ANCILLARY FACILITIES

Two TUAs will be used; the TUAs are described in Section 2.2 (Project Description). During staging, WPX will stay within the boundaries of the previously disturbed well pads associated with the TUAs. During interim reclamation, WPX will repair any damage to and reseed the TUAs (with the exception of portions of the TUAs that the well pad operator 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 and ROW Grant permit packages. Rig orientation and the location of drilling equipment and topsoil or spoil material stockpiles are depicted on Figure B.3 (Appendix B). The layout of the completions rigs is depicted on Figure B.4 (Appendix B).

