State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

Tony Delfin
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division

New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-3 APD form.

Operator Signature Date: 2-25-16
Well information;
Operator WPX, Well Name and Number N Escavada Ut #328H

API# 30-043-21286, Section 10, Township 22 N/S, Range 07 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
- ✓ Submit Gas Capture Plan form prior to spudding or initiating recompletion operations
- ✓ 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.

Chuck Herm
NMOCD Approved by Signature

5-25-2015
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)

OIL CONS. DIV DIST. 3

MAY 12 2016

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

RECEIVED
FEB 25 2016
Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NO-G-1312-1809

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.
North Escavada Unit NMNM 135217X

8. Lease Name and Well No.
N ESCAVADA UT #328H

9. API Well No.
30-043-21286

10. Field and Pool, or Exploratory
North Escavada Unit;Mancos Pool

11. Sec., T., R., M., or Blk. and Survey or Area
SHL: Sec 10, T22N, R7W
BHL: Sec 14, T22N, R7W

1a. Type of Work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
WPX Energy Production, LLC

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

3b. Phone No. *(include area code)*
(505) 333-1816

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface 1918' FSL & 1267' FEL SEC 10 22N 7W Unit I
At proposed prod. zone 1156' FNL & 2291' FWL SEC 14 22N 7W Unit C

14. Distance in miles and direction from nearest town or post office*
From intersection US Hwy & 550 US Hwy 64 in Bloomfield NM, South 48.3 miles to Mile Marker 103.0

12. County or Parish
Sandoval

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1267'

16. No. of Acres in lease
160 Acres

17. Spacing Unit dedicated to this well
640-Acres

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
40'

19. Proposed Depth
10833.55' MD / 4999' TVD

20. BLM/BIA Bond No. on file
B001576

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6944' GR

22. Approximate date work will start*
April 1, 2016

23. Estimated duration
1 month

24. Attachments

KP

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
Name *(Printed/Typed)* Lacey Granillo
Date 2/25/16

Title
Permit Technician III

Approved by *(Signature)*
Name *(Printed/Typed)*
Date 5/10/16

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 North Escavada Unit 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 BLM, FIMO and BIA and is on lease and will be twinned with the N Escavada UT #329H/313H/314H

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

The new access of 950.6' of Navajo Allotted is on lease access road will be built and permitted via the APD.

A new pipeline of 407.8' of Navajo Allotted is on lease well connect pipeline will be built and permitted via the APD.

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

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

NMOCD

CONFIDENTIAL

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

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
30-043-21286	98172	Escavada; Mancos N

4 Property Code	5 Property Name	6 Well Number
316006	N ESCAVADA UT	328H

7 OGRID No.	8 Operator Name	9 Elevation
120782	WPX ENERGY PRODUCTION, LLC	6944'

10 Surface Location

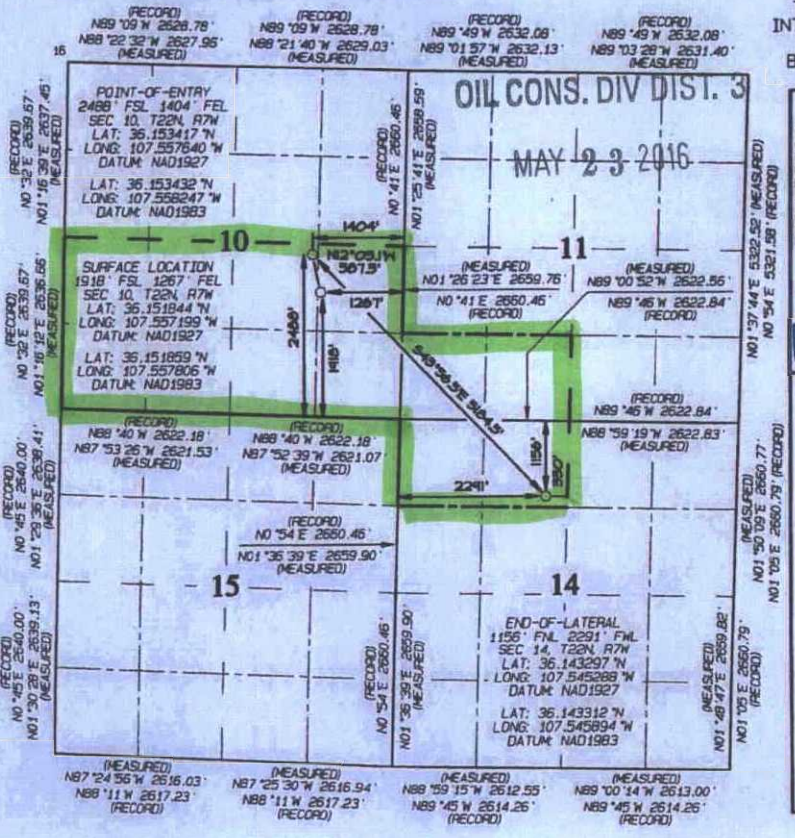
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	10	22N	7W		1918	SOUTH	1267	EAST	SANDOVAL

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
C	14	22N	7W		1156	NORTH	2291	WEST	SANDOVAL

12 Dedicated Acres		13 Joint or Infill	14 Consolidation Code	15 Order No.
480.0	S/2 - Section 10 S/2 SW/4 - Section 11 N/2 NW/4 - Section 14			R-14080

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATION

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

Signature — Date: 5/18/16

Printed Name

E-Mail Address

18 SURVEYOR CERTIFICATION

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

Date Revised: MAY 17, 2016
Survey Date: OCTOBER 30, 2015

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 onsite based upon actual conditions)

Date:	**February 23, 2016**	**Field:**	**Lybrook Gallup**
Well Name:	**N Escavada UT #328H**	**Surface:**	**IA**
SH Location:	**NESE Sec 10 22N-07W**	**Elevation:**	**6944' GR**
BH Location:	**NENW Sec 14 22N-07W**	**Minerals:**	**IA**

Measured Depth: **10,833.55'**

I. **GEOLOGY:** SURFACE FORMATION - NACIMIENTO

A. FORMATION TOPS (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	836	835	POINT LOOKOUT	3955	3776
KIRTLAND	987	985	MANCOS	4114	3925
PICTURED CLIFFS	1363	1350	GALLUP	4461	4252
LEWIS	1482	1463	KICKOFF POINT	4,359.52	4,154.46
CHACRA	1787	1748	TOP TARGET	5481	5019
CLIFF HOUSE	2940	2827	LANDING POINT	5,649.68	5,040.00
MENEFEE	2980	2864	BASE TARGET	5,649.68	5,040.00
			TD	10,833.55	4,999.00

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.**

III. MATERIALS

A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CSG SIZE	WEIGHT	GRADE	CONN
SURFACE	12.25"	320.00'	9.625"	36 LBS	J-55 or equiv	STC
INTERMEDIATE	8.75"	5,649.68'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5499.68' - 10,833.55'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5499.68'	4.5"	11.6 LBS	P-110 or equiv	LTC

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 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. **A DV tool will be placed 100' above the top of the Chacra formation. If cement is circulated back to surface on the first stage, a cancelation device will be dropped to shift the dv tool closed and the 2nd stage cement job will be aborted at that time.**

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.

C. CEMENTING:

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

1. Surface 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls).TOC at Surface.

2.Intermediate STAGE 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 109 bbls, 312 sks, (615 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 90 bbls, 389 sks, (506 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 222 bbl Drilling mud or water.
Total Cement: 200 bbls, 701 sks, (1120 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 38 bbls, 110 sks, (214 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 16 bbls, 78 sks, (90 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 66 bbl Drilling mud or water.
Total Cement: 54 bbls, 188 sks, (304 cuft)

3. PROD. LINER: Spacer #1:10 bbl (56.cu-ft) Water Spacer. Spacer #2: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. Spacer #3: 10 bbl Water Spacer. Lead Cement: Extencem ™ System. Yield 1.36 cuft/sk 13.3 ppg (522 sx /710 cuft /127 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 140 bbl Fr Water. Total Cement (522 sx /710bbls).

I.
COMPLETION

A. **CBL**

Run CCL for perforating

A. **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.

B. **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.

C. **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.

- If this horizontal well is 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:

Proposed Operations:

A 4-1/2" 11.6# P-110 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# J-55 Intermediate casing with a Liner Hanger and pack-off assembly then cemented to top of liner hanger.

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

WPX Energy

T22N R7W
2207-10I NEU
N Escavada UT #328H - Slot A2

Wellbore #1

Plan: Design #1 5Jan16 sam

Standard Planning Report

08 January, 2016

Database:	COMPASS	**Local Co-ordinate Reference:**	Well N Escavada UT #328H (A2) - Slot A2
Company:	WPX Energy	**TVD Reference:**	GL @ 6944.00usft (Original Well Elev)
Project:	T22N R7W	**MD Reference:**	GL @ 6944.00usft (Original Well Elev)
Site:	2207-10I NEU	**North Reference:**	True
Well:	N Escavada UT #328H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 5Jan16 sam		

Project	T22N R7W		
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	2207-10I NEU				
Site Position:		**Northing:**	1,874,627.95 usft	**Latitude:**	36.151844
From:	Map	**Easting:**	581,522.23 usft	**Longitude:**	-107.557199
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.16 °

Well	N Escavada UT #328H - Slot A2					
Well Position	**+N/-S**	0.00 usft	**Northing:**	1,874,627.95 usft	**Latitude:**	36.151844
	+E/-W	0.00 usft	**Easting:**	581,522.23 usft	**Longitude:**	-107.557199
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	6,944.00 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	1/5/2016	9.25	62.89	49,878

Design	Design #1 5Jan16 sam			
Audit Notes:				
Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (bearing)**
	0.00	0.00	0.00	131.50

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,536.02	20.72	328.34	1,513.58	157.72	-97.26	2.00	2.00	0.00	328.34	
4,359.52	20.72	328.34	4,154.46	1,008.03	-621.59	0.00	0.00	0.00	0.00	
5,251.30	60.00	135.29	4,924.73	839.38	-394.26	9.00	4.40	18.72	168.55	Start 60 Tan #328H
5,311.30	60.00	135.29	4,954.73	802.45	-357.70	0.00	0.00	0.00	0.00	End 60 Tan #328H
5,483.72	75.52	135.29	5,019.79	689.39	-245.76	9.00	9.00	0.00	0.00	
5,649.68	90.45	135.29	5,040.00	572.67	-130.20	9.00	9.00	0.00	0.00	POE #328H
10,833.55	90.45	135.29	4,999.00	-3,111.03	3,516.88	0.00	0.00	0.00	0.00	BHL #328H

Database:	COMPASS	**Local Co-ordinate Reference:**	Well N Escavada UT #328H (A2) - Slot A2
Company:	WPX Energy	**TVD Reference:**	GL @ 6944.00usft (Original Well Elev)
Project:	T22N R7W	**MD Reference:**	GL @ 6944.00usft (Original Well Elev)
Site:	2207-10I NEU	**North Reference:**	True
Well:	N Escavada UT #328H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 5Jan16 sam		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
320.00	0.00	0.00	320.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	10.00	328.34	997.47	37.05	-22.84	-41.66	2.00	2.00	0.00
1,500.00	20.00	328.34	1,479.82	147.06	-90.68	-165.36	2.00	2.00	0.00
1,536.02	20.72	328.34	1,513.58	157.72	-97.26	-177.35	2.00	2.00	0.00
Hold 20.72 Inclination									
2,000.00	20.72	328.34	1,947.55	297.45	-183.42	-334.47	0.00	0.00	0.00
2,500.00	20.72	328.34	2,415.21	448.03	-276.27	-503.78	0.00	0.00	0.00
3,000.00	20.72	328.34	2,882.87	598.61	-369.12	-673.09	0.00	0.00	0.00
3,500.00	20.72	328.34	3,350.53	749.19	-461.98	-842.41	0.00	0.00	0.00
4,000.00	20.72	328.34	3,818.19	899.76	-554.83	-1,011.72	0.00	0.00	0.00
4,359.52	20.72	328.34	4,154.46	1,008.03	-621.59	-1,133.46	0.00	0.00	0.00
Start Build DLS 9.00 TFO 168.55									
4,500.00	8.68	345.06	4,290.14	1,039.56	-637.43	-1,166.22	9.00	-8.57	11.90
5,000.00	37.49	132.35	4,760.06	969.92	-529.09	-1,038.93	9.00	5.76	29.46
5,251.30	60.00	135.29	4,924.73	839.38	-394.26	-851.45	9.00	8.96	1.17
Hold 60.00 Inclination									
5,311.30	60.00	135.29	4,954.73	802.45	-357.70	-799.60	0.00	0.00	0.00
Start Build DLS 9.00 TFO 0.00									
5,483.72	75.52	135.29	5,019.79	689.39	-245.76	-640.84	9.00	9.00	0.00
Start DLS 9.00 TFO 0.00									
5,500.00	76.98	135.29	5,023.66	678.15	-234.64	-625.07	9.00	9.00	0.00
5,649.68	90.45	135.29	5,040.00	572.67	-130.20	-476.96	9.00	9.00	0.00
POE at 90.45 Inc 135.29 Deg									
5,650.00	90.45	135.29	5,040.00	572.44	-129.97	-476.63	0.00	0.00	0.00
7"									
6,000.00	90.45	135.29	5,037.23	323.73	116.27	-127.41	0.00	0.00	0.00
6,500.00	90.45	135.29	5,033.27	-31.57	468.04	371.48	0.00	0.00	0.00
7,000.00	90.45	135.29	5,029.32	-386.88	819.81	870.37	0.00	0.00	0.00
7,500.00	90.45	135.29	5,025.37	-742.18	1,171.58	1,369.26	0.00	0.00	0.00
8,000.00	90.45	135.29	5,021.41	-1,097.49	1,523.35	1,868.15	0.00	0.00	0.00
8,500.00	90.45	135.29	5,017.46	-1,452.79	1,875.12	2,367.04	0.00	0.00	0.00
9,000.00	90.45	135.29	5,013.50	-1,808.10	2,226.90	2,865.94	0.00	0.00	0.00
9,500.00	90.45	135.29	5,009.55	-2,163.40	2,578.67	3,364.83	0.00	0.00	0.00
10,000.00	90.45	135.29	5,005.59	-2,518.70	2,930.44	3,863.72	0.00	0.00	0.00
10,500.00	90.45	135.29	5,001.64	-2,874.01	3,282.21	4,362.61	0.00	0.00	0.00
10,833.55	90.45	135.29	4,999.00	-3,111.03	3,516.88	4,695.42	0.00	0.00	0.00
TD at 10833.55									

Database:	COMPASS	**Local Co-ordinate Reference:**	Well N Escavada UT #328H (A2) - Slot A2
Company:	WPX Energy	**TVD Reference:**	GL @ 6944.00usft (Original Well Elev)
Project:	T22N R7W	**MD Reference:**	GL @ 6944.00usft (Original Well Elev)
Site:	2207-10I NEU	**North Reference:**	True
Well:	N Escavada UT #328H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 5Jan16 sam		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Start 60 Tan #328H - plan hits target center - Point	0.00	0.00	4,924.73	839.38	-394.26	1,875,466.21	581,125.59	36.154150	-107.558535
End 60 Tan #328H - plan hits target center - Point	0.00	0.00	4,954.73	802.45	-357.70	1,875,429.38	581,162.25	36.154049	-107.558411
BHL #328H - plan hits target center - Point	0.00	0.00	4,999.00	-3,111.03	3,516.88	1,871,526.93	585,047.94	36.143297	-107.545288
POE #328H - plan hits target center - Point	0.00	0.00	5,040.00	572.67	-130.20	1,875,200.25	581,390.40	36.153417	-107.557640

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
320.00	320.00	9 5/8"	9.625	12.250
5,650.00	5,040.00	7"	7.000	8.750

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Start Build 2.00
1,536.02	1,513.58	157.72	-97.26	Hold 20.72 Inclination
4,359.52	4,154.46	1,008.03	-621.59	Start Build DLS 9.00 TFO 168.55
5,251.30	4,924.73	839.38	-394.26	Hold 60.00 Inclination
5,311.30	4,954.73	802.45	-357.70	Start Build DLS 9.00 TFO 0.00
5,483.72	5,019.79	689.39	-245.76	Start DLS 9.00 TFO 0.00
5,649.68	5,040.00	572.67	-130.20	POE at 90.45 Inc 135.29 Deg
10,833.55	4,999.00	-3,111.03	3,516.88	TD at 10833.55

WPXENERGY

Well Name: N Escavada UT #328H
Surface Location: 2207-10I NEU
NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
Ground Elevation: 6944.00

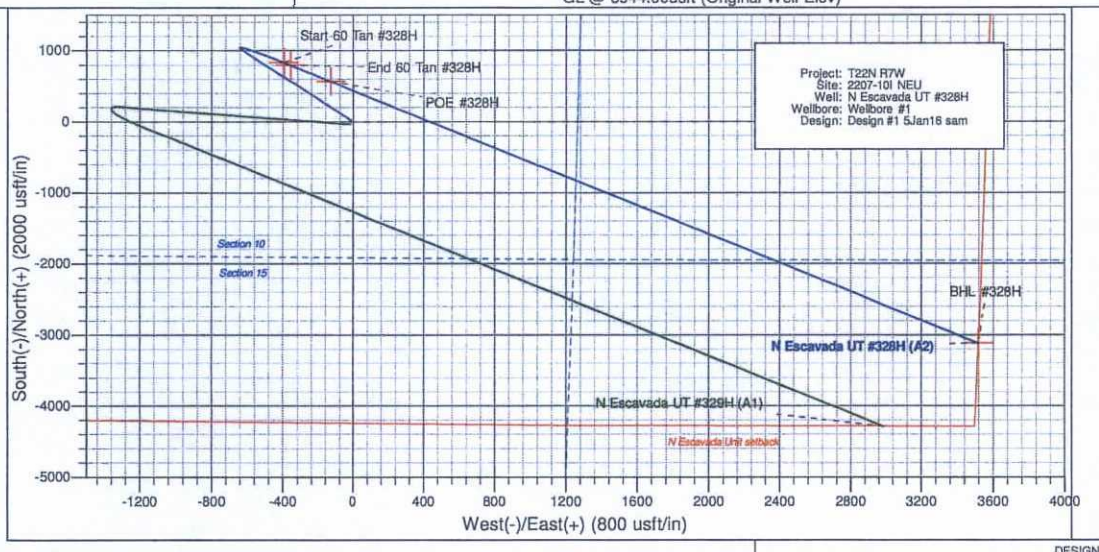
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1874627.95	581522.23	36.151844	-107.557199	A2

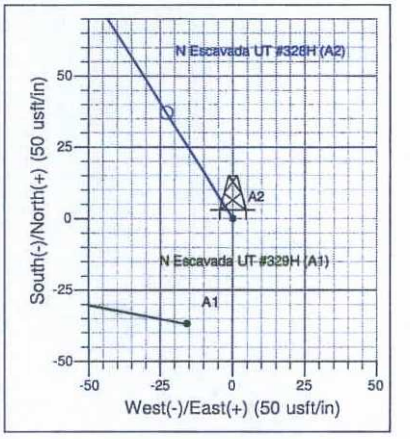
GL @ 6944.00usft (Original Well Elev)

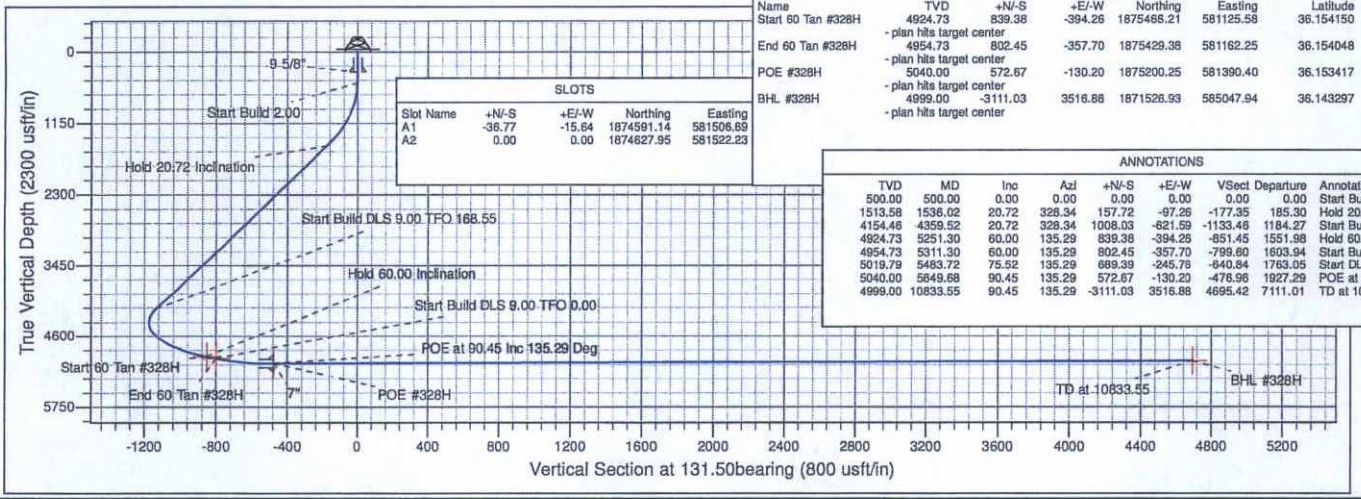
T M

Azimuths to True North
Magnetic North: 9.25°

Magnetic Field
Strength: 49877.9snT
Dip Angle: 62.89°
Date: 1/5/2016
Model: IGRF2015







SLOTS

Slot Name	+N/-S	+E/-W	Northing	Easting
A1	-36.77	-15.64	1874591.14	581506.69
A2	0.00	0.00	1874627.95	581522.23

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Start 60 Tan #328H	4924.73	839.38	-394.26	1875468.21	581125.58	36.154150	-107.558534	Point
	- plan hits target center							
End 60 Tan #328H	4954.73	802.45	-357.70	1875429.38	581162.25	36.154048	-107.558411	Point
	- plan hits target center							
POE #328H	5040.00	572.67	-130.20	1875200.25	581390.40	36.153417	-107.557640	Point
	- plan hits target center							
BHL #328H	4999.00	-3111.03	3516.88	1871526.93	585047.94	36.143297	-107.545288	Point
	- plan hits target center							

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSect	Departure	Annotation
500.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
1513.58	1536.02	20.72	328.34	157.72	-97.26	-177.35	185.30	Hold 20.72 Inclination
4154.46	4359.52	20.72	328.34	1008.03	-621.59	-1133.46	1184.27	Start Build DLS 9.00 TFO 168.55
4924.73	5251.30	60.00	135.29	839.38	-394.26	-851.45	1551.98	Hold 60.00 Inclination
4954.73	5311.30	60.00	135.29	802.45	-357.70	-799.60	1603.94	Start Build DLS 9.00 TFO 0.00
5019.79	5483.72	75.52	135.29	689.39	-245.78	-640.84	1763.05	Start DLS 9.00 TFO 0.00
5040.00	5649.68	90.45	135.29	572.67	-130.20	-476.96	1927.29	POE at 90.45 Inc 135.29 Deg
4999.00	10833.55	90.45	135.29	-3111.03	3516.88	4695.42	7111.01	TD at 10833.55

2. Vegetation and topsoil removal, storage, and protection are described in detail in the Reclamation Plan (Appendix C).
3. The well pad will be leveled to provide space and a level working surface for vehicles and equipment. Excavated materials from cuts will be used on fill portions of the well pad to level the working surface. Construction of the well pad would require a maximum fill of approximately 3-feet along the southwest end, and a cut of 5 feet on the north and northeast corners (corner 2 and corner 3 respectively). No additional surfacing materials will be required for construction.
4. As determined during the onsite on October 28, 2015, the following best management practices will be implemented:
    a. Diversions will be installed upon reclamation.
    b. No additional fill would be required to construct the pad.
    c. Culverts are identified on the construction plats; any additional need for culverts will be determined upon construction/reclamation and installed where needed as needed.
    d. Facilities will be painted Juniper Green.
    e. BLM approved sagebrush seed mix will be used upon reclamation.
5. All project activities will be confined to permitted areas only.
6. Construction equipment may include chain saws, a brush hog, scraper, maintainer, excavator, backhoe, trencher, and a dozer.
7. If drilling has not been initiated on the well pad within 120 days of the well pad being constructed, the operator will consult with the BLM to address a site-stabilization plan.

D. Production Facilities
    1. As practical, access will be a teardrop-shaped road through the production area so that the center may be revegetated.
    2. Within 90 days of installation, production facilities would be painted Juniper Green to blend with the natural color of the landscape and would be located, to the extent practical, to reasonably minimize visual impact.
    3. Berms will be constructed around all storage facilities sufficient in size to contain the storage capacity of tanks. Berm walls will be compacted with appropriate equipment to assure containment.

After the completion phases and pipeline installation, portions of the project area not needed for operation will be reclaimed. When the well is plugged, final reclamation will occur within the remainder of the project area. Reclamation is described in detail in the Reclamation Plan (Appendix C).

7.0 Methods for Handling Waste

A. Cuttings
    1. Drilling operations will utilize a closed-loop system. Drilling of the horizontal laterals will be accomplished with water-based mud. All cuttings will be placed in roll-off bins and hauled to a commercial disposal facility or land farm. WPX will follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit will be used.
    2. Closed-loop tanks will be adequately sized for containment of all fluids.

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

in Bloomfield, NM to WPX Energy Production, LLC N Escavada UT #328H

1918' FSL & 1267' FEL, Section 10, T22N, R7W, N.M.P.M., Sandoval County, NM

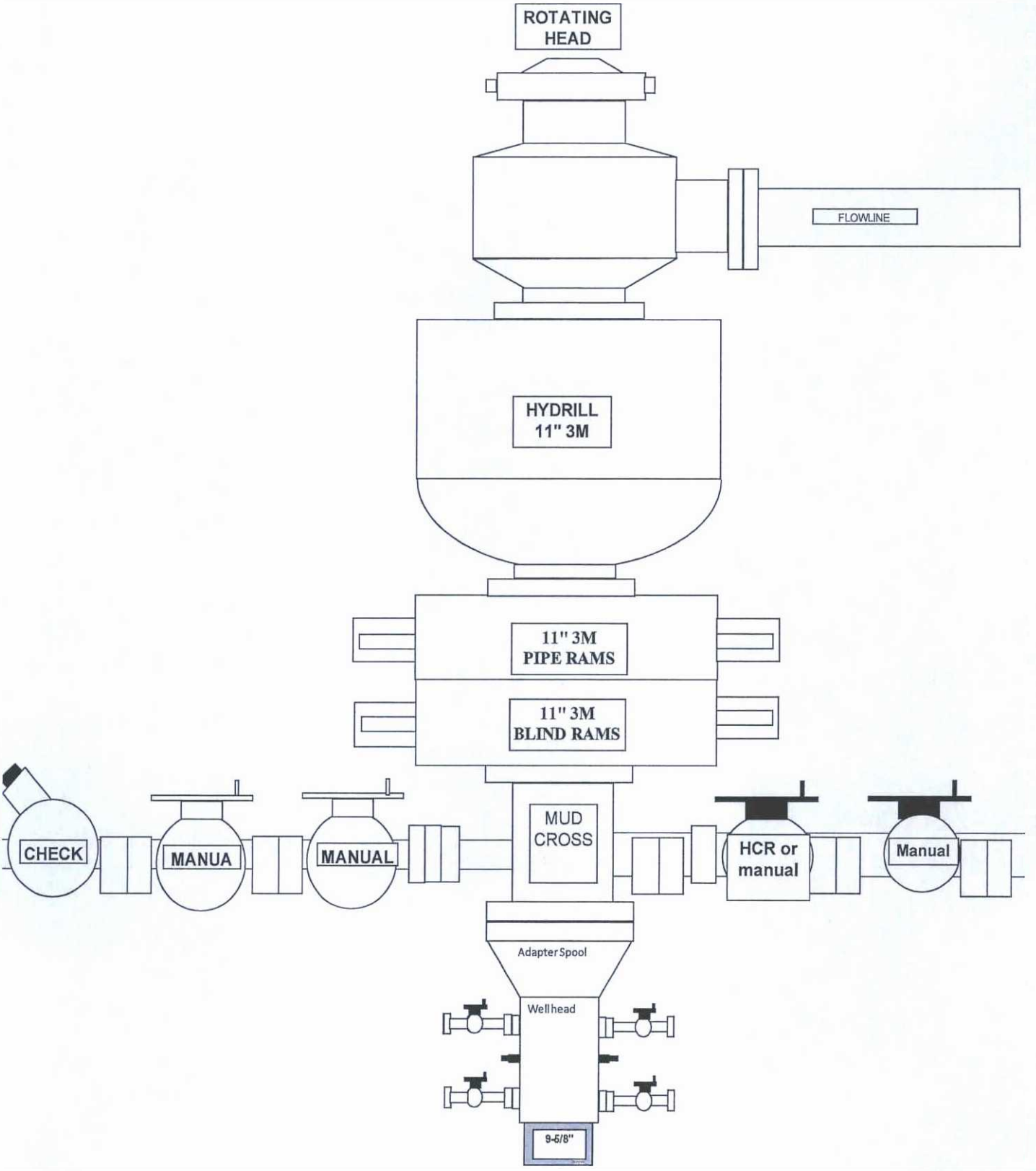
Latitude: 36.151859°N Longitude: 107.557199°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 48.3 miles to Mile Marker 103.0;

Go Right (Southerly) on Atkins Road for 4.2 miles to 4-way intersection;

Go Straight (Southerly) continuing on Atkins Road for 1.6 miles to 4-way intersection;

Go Right (Westerly) exiting Atkins Road for 0.2 miles to new access on left-hand side of existing roadway which continues for an additional 950.6' to staked WPX N Escavada UT #328H location.


ROTATING HEAD
FLOWLINE
HYDRILL 11" 3M
11" 3M PIPE RAMS
11" 3M BLIND RAMS
CHECK
MANUA
MANUAL
MUD CROSS
HCR or manual
Manual
Adapter Spool
Wellhead
9-5/8"