

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
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: 8/25/17

Well information;

Operator WPX, Well Name and Number Rosa Unit 830H

API# 30-0391-31363, Section 36 Township 31 N/S, Range 5 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 NSI, 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.
- ☒ If any of the cement stages or casing strings do not circulate cement to surface a CBL will be required.

Bob Pelt
NMOCD Approved by Signature

2/1/19
Date

Form 100-5
(March 2012)

OCT 06 2017

FORM APPROVED
OMB No 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

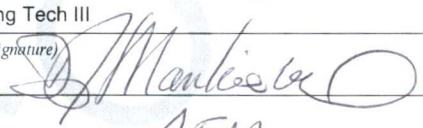
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF078768
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator WPX ENERGY LLC		7. If Unit or CA Agreement, Name and No. ROSA UNIT / NMNM78407E
3a. Address 720 S Main Aztec NM 87410		8. Lease Name and Well No. ROSA UNIT 830H
3b. Phone No. (include area code) (505)333-1822		9. API Well No. 30-039-31363
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface B NWNW / 525 FNL / 492 FWL / LAT 36.861925 / LONG -107.320894 At proposed prod. zone B NWNE / 507 FNL / 2439 FEL / LAT 36.861967 / LONG -107.348957		10. Field and Pool, or Exploratory BASIN MANCOS GAS POOL / MANCOS
14. Distance in miles and direction from nearest town or post office* 38 miles		11. Sec., T. R. M. or Blk and Survey or Area SEC 36 / T31N / R5W / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 492 feet	16. No. of acres in lease 2560	12. County or Parish RIO ARRIBA
17. Spacing Unit dedicated to this well 960	18. Distance from proposed location* to nearest well, drilling, completed, 0 feet applied for, on this lease, ft.	13. State NM
19. Proposed Depth 5500 feet / 10000 feet	20. BLM/BIA Bond No. on file FED: UTB000178	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6563 feet	22. Approximate date work will start* 10/07/2017	23. Estimated duration 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature (Electronic Submission)	Name (Printed Typed) Marie Jaramillo / Ph: (505)533-1808	Date 08/25/2017
Title Permitting Tech III		
Approved by (Signature) 	Name (Printed Typed)	Date 9/14/17
Title AFM	Office FARMINGTON	

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.

(Continued on page 2)

*(Instructions on page 2)

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

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

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

NMOCDA

District I
1625 N. French Drive, Hobbs, NM 88240
Phone: (575) 333-6161 Fax: (575) 393-0720

District II
811 S. First Street, Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-9720

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

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31343		*Pool Code 97232	*Pool Name BASIN MANCOS
*Property Code 17033-320608	*Property Name ROSA UNIT		*Well Number 830H
*GRID No 120782	*Operator Name WPX-ENERGY-PRODUCTION, LLC		*Elevation 6563'

LOGOS Operating, LLC

UL or lot no	Section	Township	Range	Lot 101	Feet from the	North/South line	Feet from the	East/West line	County
D	36	31N	5W		525	NORTH	492	WEST	RIO ARriba

Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot 101	Feet from the	North/South line	Feet from the	East/West line	County
B	34	31N	5W		507	NORTH	2439	EAST	RIO ARriba

*Dedicated Acres 960.00	N/2 - Section 34 N/2 - Section 35 N/2 - Section 36	*Joint or Infill	*Consolidation Code	*Order No. R-13157
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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

END-OF-LATERAL
507' FNL 2439' FEL
SEC 34, T31N, R5W
LAT: 36.861960°N
LONG: 107.348355°W
DATUM: NAD1927

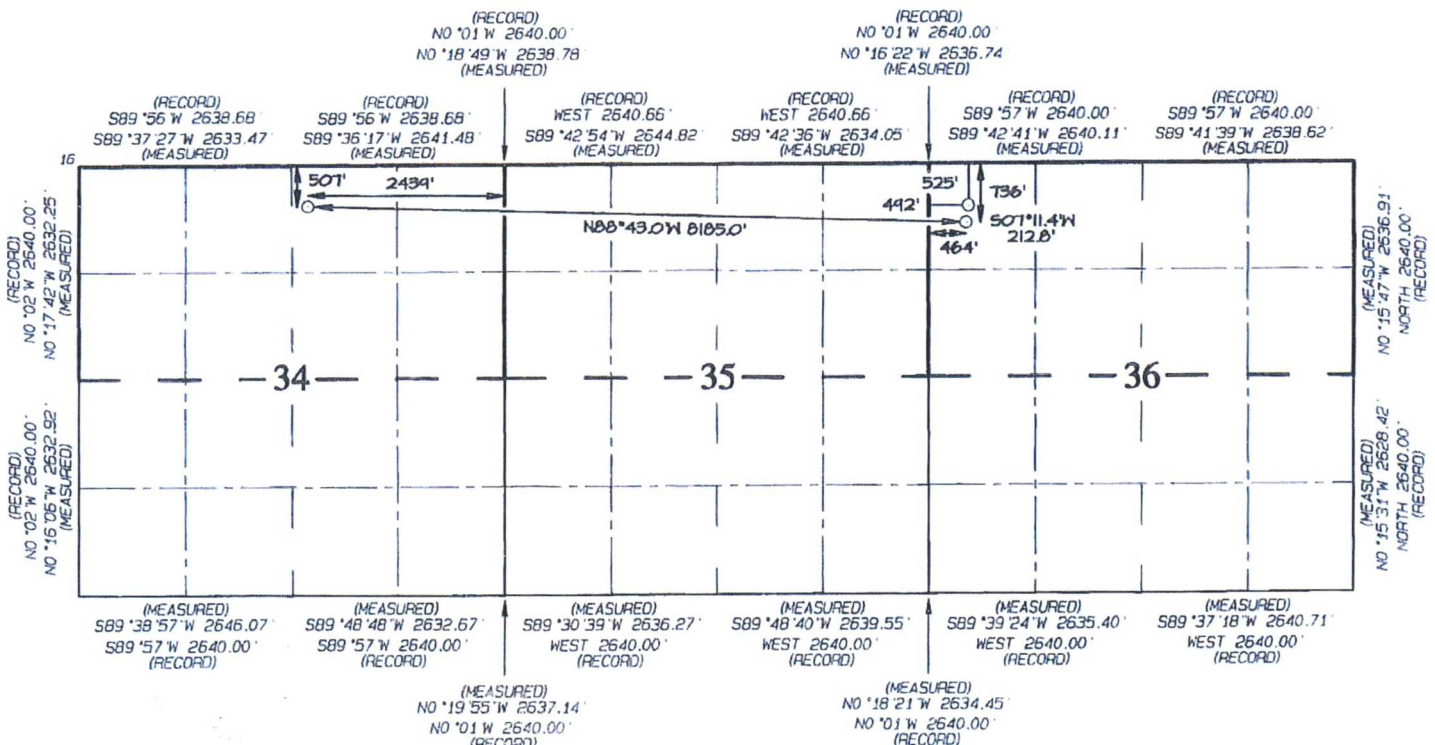
LAT: 36.861967°N
LONG: 107.348957°W
DATUM: NAD1983

POINT-OF-ENTRY
736' FNL 464' FWL
SEC 36, T31N, R5W
LAT: 36.861339°N
LONG: 107.320388°W
DATUM: NAD1927

LAT: 36.861346°N
LONG: 107.320989°W
DATUM: NAD1983

SURFACE LOCATION
525' FNL 492' FWL
SEC 36, T31N, R5W
LAT: 36.861919°N
LONG: 107.320293°W
DATUM: NAD1927

LAT: 36.861925°N
LONG: 107.320894°W
DATUM: NAD1983



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

Signature *Marie E. Jaramillo* Date 8/23/17
Marie E. Jaramillo
Printed Name
marie.jaramillo@wpenergy.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: MARCH 22, 2017
Date of Survey: APRIL 20, 2016

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269



WPX Energy

Operations Plan

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

Date: August 23, 2017

Field: Basin Mancos

Well Name: Rosa Unit #830H

Surface: USFS

SH Location: NWN Sec 31N 05W

Elevation: 6563' GR

BH Location: NWNW Sec 36 31N-05W

Minerals: FED

Measured Depth: 15,826.49'

I. GEOLOGY: SURFACE FORMATION - San Jose

A. FORMATION TOPS (GR)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	2,706.00	2,677.00	MENEFEE	5,699.00	5,644.00
KIRTLAND	2,804.00	2,773.00	POINT LOOKOUT	5,919.00	5,864.00
FRUITLAND	3,292.00	3,254.00	MANCOS	6,409.00	6,354.00
PICTURED CLIFFS	3,486.00	3,444.00	KICKOFF POINT	6,641.45	6,586.38
LEWIS	3,830.00	3,783.00	TOP TARGET	7,299.00	7,133.00
CHACRA	4,837.00	4,782.00	LANDING POINT	7,641.07	7,223.00
CLIFF HOUSE	5,647.00	5,592.00	BASE TARGET	7,641.07	7,223.00
			TD	15,826.49	7,228.00

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 3/4" Directional Vertical hole. A LSND (WBM) or (OBM) will be used to drill the curve and 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 BOPE will be tested to **5000 psi (High) for 10 minutes**. Annular preventor will be tested to 50% of rated working pressure. Pressure test surface casing to **1500 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. **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, equiv or <	STC
INTERMEDIATE	8.75"	6541'	7"	23 LBS	J-55, equiv or <	LTC
PRODUCTION	6.125"	6391.45' - 15,826.49'	4.5"	11.6 LBS	P-110, equiv or <	LTC
TIE BACK	6.125"	Surf. - 7491.07'	4.5"	11.6 LBS	P-110, equiv or <	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.**

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). 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 min. 12 hours. Total Volume: (160 cu-ft/100 sx/ Bbls). TOC at Surface.

2. Intermediate STAGE 1: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 80 bbls, 229 sks, (452 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 17 bbls, 75 sks, (98 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 258 bbl Drilling mud or water. Total Cement: 98 bbls, 304 sks, (549 cuft)
STAGE 2: Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 112 bbls, 324 sks, (631 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 17 bbls, 85 sks, (98 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 147 bbl Drilling mud or water. Total Cement: 130 bbls, 409 sks, (729 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 (817 sx /1111 cuft /198 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/- 208 bbl Fr Water. Total Cement (817 sx /1111 bbls).

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.

- 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:

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

T31N R5W Rosa Unit

Pad 42

Rosa Unit #830H - Slot A1

Wellbore #1

Plan: Design #1 2Mar17 sam

Standard Planning Report

02 March, 2017

WPX Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Rosa Unit #830H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	GL @ 6563.00usft (Original Well Elev)
Project:	T31N R5W Rosa Unit	MD Reference:	GL @ 6563.00usft (Original Well Elev)
Site:	Pad 42	North Reference:	True
Well:	Rosa Unit #830H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 2Mar17 sam		

Project	T31N R5W Rosa Unit		
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		Using geodetic scale factor

Site	Pad 42				
Site Position:		Northing:	2,133,403.40 usft	Latitude:	36.861919
From:	Map	Easting:	650,086.60 usft	Longitude:	-107.320293
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.31 °

Well	Rosa Unit #830H - Slot A1					
Well Position	+N/-S	0.00 usft	Northing:	2,133,403.40 usft	Latitude:	36.861919
	+E/-W	0.00 usft	Easting:	650,086.60 usft	Longitude:	-107.320293
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,563.00 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/9/2017	9.13	63.53	50,206

Design	Design #1 2Mar17 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	270.11

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	
1,007.77	10.16	110.60	1,005.11	-15.79	42.01	2.00	2.00	0.00	110.60	
4,184.08	10.16	110.60	4,131.67	-212.84	566.24	0.00	0.00	0.00	0.00	
4,691.85	0.00	0.00	4,636.78	-228.63	608.25	2.00	-2.00	0.00	180.00	#830H VP
6,641.45	0.00	0.00	6,586.38	-228.63	608.25	0.00	0.00	0.00	0.00	#830H KOP
7,641.07	89.97	271.59	7,223.00	-210.97	-27.74	9.00	9.00	-8.84	271.59	#830H POE
15,826.49	89.97	271.59	7,228.00	16.30	-8,210.00	0.00	0.00	0.00	0.00	#830H BHL

WPX Planning Report

Database: COMPASS
Company: WPX Energy
Project: T31N R5W Rosa Unit
Site: Pad 42
Well: Rosa Unit #830H
Wellbore: Wellbore #1
Design: Design #1 2Mar17 sam

Local Co-ordinate Reference: Well Rosa Unit #830H (A1) - Slot A1
TVD Reference: GL @ 6563.00usft (Original Well Elev)
MD Reference: GL @ 6563.00usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	110.60	997.47	-15.31	40.74	-40.77	2.00	2.00	0.00
1,007.77	10.16	110.60	1,005.11	-15.79	42.01	-42.04	2.00	2.00	0.00
Hold 10.16 Inclination									
1,500.00	10.16	110.60	1,489.63	-46.33	123.25	-123.34	0.00	0.00	0.00
2,000.00	10.16	110.60	1,981.80	-77.35	205.77	-205.93	0.00	0.00	0.00
2,500.00	10.16	110.60	2,473.97	-108.36	288.29	-288.51	0.00	0.00	0.00
3,000.00	10.16	110.60	2,966.13	-139.38	370.82	-371.09	0.00	0.00	0.00
3,500.00	10.16	110.60	3,458.30	-170.40	453.34	-453.68	0.00	0.00	0.00
4,000.00	10.16	110.60	3,950.47	-201.42	535.86	-536.26	0.00	0.00	0.00
4,184.08	10.16	110.60	4,131.67	-212.84	566.24	-566.66	0.00	0.00	0.00
Start Drop -2.00									
4,500.00	3.84	110.60	4,445.07	-226.37	602.24	-602.69	2.00	-2.00	0.00
4,691.85	0.00	0.00	4,636.78	-228.63	608.25	-608.71	2.00	-2.00	0.00
Vertical									
5,000.00	0.00	0.00	4,944.93	-228.63	608.25	-608.71	0.00	0.00	0.00
5,500.00	0.00	0.00	5,444.93	-228.63	608.25	-608.71	0.00	0.00	0.00
6,000.00	0.00	0.00	5,944.93	-228.63	608.25	-608.71	0.00	0.00	0.00
6,500.00	0.00	0.00	6,444.93	-228.63	608.25	-608.71	0.00	0.00	0.00
6,541.00	0.00	0.00	6,485.93	-228.63	608.25	-608.71	0.00	0.00	0.00
7"									
6,641.45	0.00	0.00	6,586.38	-228.63	608.25	-608.71	0.00	0.00	0.00
KOP DLS 9.00 TFO 271.59									
7,000.00	32.27	271.59	6,926.27	-225.90	509.96	-510.41	9.00	9.00	0.00
7,500.00	77.27	271.59	7,207.35	-214.85	112.12	-112.54	9.00	9.00	0.00
7,641.07	89.97	271.59	7,223.00	-210.97	-27.74	27.32	9.00	9.00	0.00
POE 89.97 Inclination									
8,000.00	89.97	271.59	7,223.22	-201.00	-386.53	386.13	0.00	0.00	0.00
8,500.00	89.97	271.59	7,223.52	-187.12	-886.34	885.97	0.00	0.00	0.00
9,000.00	89.97	271.59	7,223.82	-173.24	-1,386.15	1,385.80	0.00	0.00	0.00
9,500.00	89.97	271.59	7,224.13	-159.36	-1,885.95	1,885.63	0.00	0.00	0.00
10,000.00	89.97	271.59	7,224.43	-145.47	-2,385.76	2,385.47	0.00	0.00	0.00
10,500.00	89.97	271.59	7,224.73	-131.59	-2,885.57	2,885.30	0.00	0.00	0.00
11,000.00	89.97	271.59	7,225.04	-117.71	-3,385.37	3,385.13	0.00	0.00	0.00
11,500.00	89.97	271.59	7,225.34	-103.83	-3,885.18	3,884.97	0.00	0.00	0.00
12,000.00	89.97	271.59	7,225.64	-89.95	-4,384.99	4,384.80	0.00	0.00	0.00
12,500.00	89.97	271.59	7,225.95	-76.06	-4,884.80	4,884.64	0.00	0.00	0.00
13,000.00	89.97	271.59	7,226.25	-62.18	-5,384.60	5,384.47	0.00	0.00	0.00
13,500.00	89.97	271.59	7,226.55	-48.30	-5,884.41	5,884.30	0.00	0.00	0.00
14,000.00	89.97	271.59	7,226.86	-34.42	-6,384.22	6,384.14	0.00	0.00	0.00
14,500.00	89.97	271.59	7,227.16	-20.54	-6,884.02	6,883.97	0.00	0.00	0.00
15,000.00	89.97	271.59	7,227.46	-6.66	-7,383.83	7,383.80	0.00	0.00	0.00
15,500.00	89.97	271.59	7,227.77	7.23	-7,883.64	7,883.64	0.00	0.00	0.00
15,826.49	89.97	271.59	7,228.00	16.30	-8,210.00	8,210.02	0.00	0.00	0.00
TD at 15826.49									

WPX Planning Report

Database:	COMPASS	Local Co-ordinate Reference:	Well Rosa Unit #830H (A1) - Slot A1
Company:	WPX Energy	TVD Reference:	GL @ 6563.00usft (Original Well Elev)
Project:	T31N R5W Rosa Unit	MD Reference:	GL @ 6563.00usft (Original Well Elev)
Site:	Pad 42	North Reference:	True
Well:	Rosa Unit #830H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 2Mar17 sam		

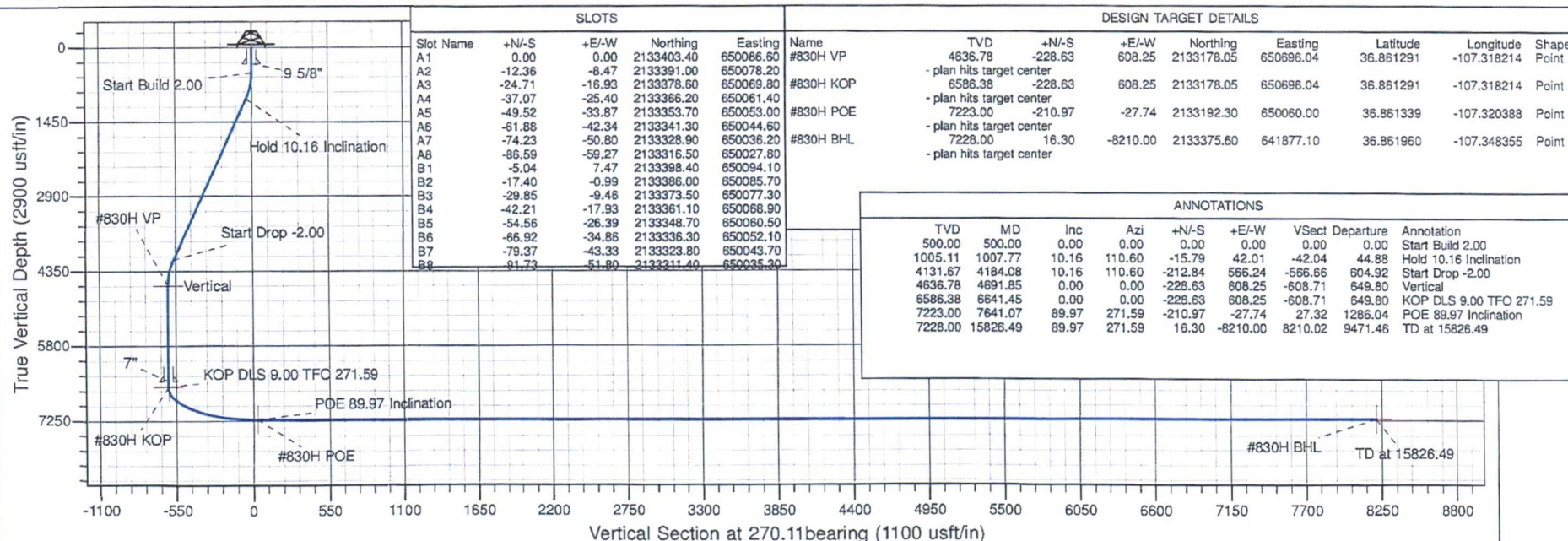
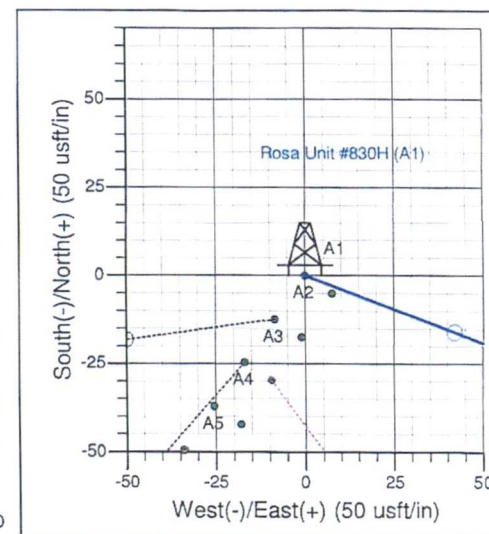
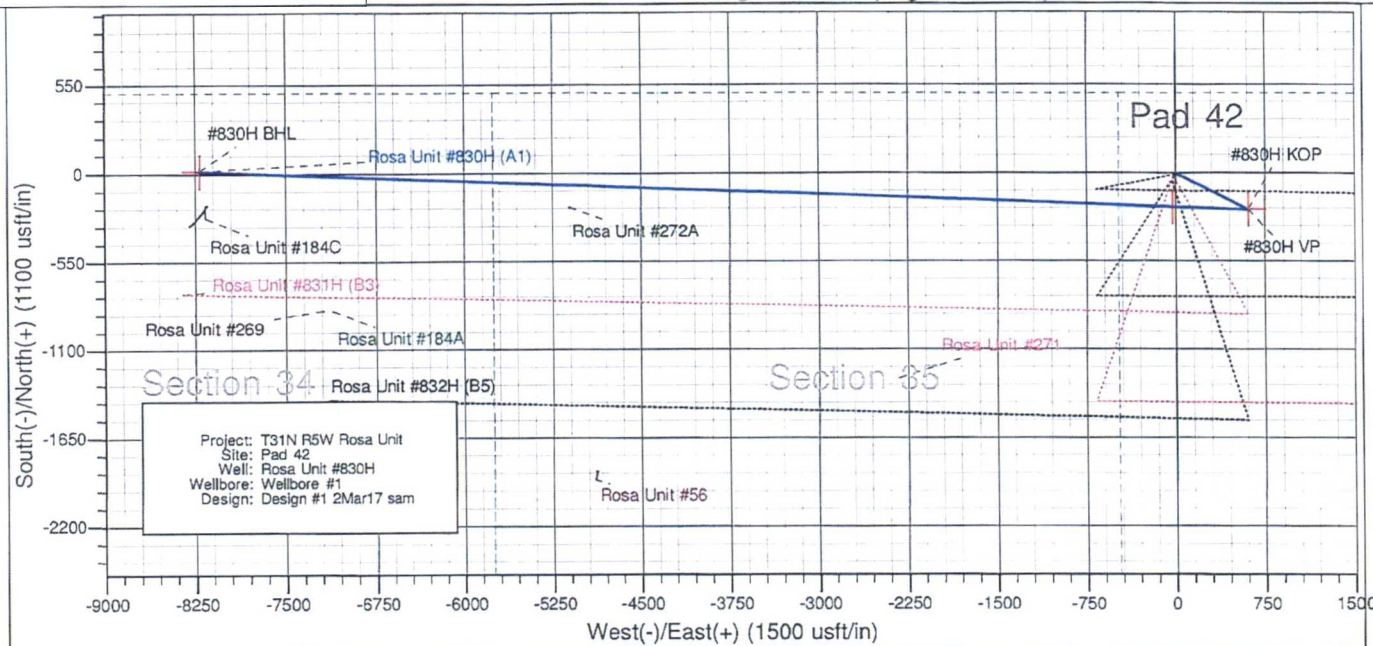
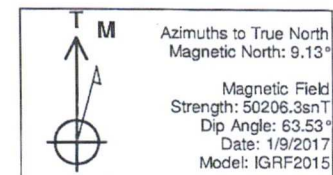
Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
#830H VP - plan hits target center - Point	0.00	0.00	4,636.78	-228.63	608.25	2,133,178.05	650,696.04	36.861291	-107.318214
#830H KOP - plan hits target center - Point	0.00	0.00	6,586.38	-228.63	608.25	2,133,178.05	650,696.04	36.861291	-107.318214
#830H POE - plan hits target center - Point	0.00	0.00	7,223.00	-210.97	-27.74	2,133,192.30	650,060.00	36.861339	-107.320388
#830H BHL - plan hits target center - Point	0.00	0.00	7,228.00	16.30	-8,210.00	2,133,375.60	641,877.10	36.861960	-107.348355

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
320.00	320.00	9 5/8"	9.625	13.500	
6,541.00	6,485.93	7"	7.000	8.500	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
1,007.77	1,005.11	-15.79	42.01	Hold 10.16 Inclination
4,184.08	4,131.67	-212.84	566.24	Start Drop -2.00
4,691.85	4,636.78	-228.63	608.25	Vertical
6,641.45	6,586.38	-228.63	608.25	KOP DLS 9.00 TFO 271.59
7,641.07	7,223.00	-210.97	-27.74	POE 89.97 Inclination
15,826.49	7,228.00	16.30	-8,210.00	TD at 15826.49



Well Name: Rosa Unit #830H
 Surface Location: Pad 42
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) New Mexico West 3003
 Ground Elevation: 6563.00
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.00 0.00 2133403.40 650086.60 36.861919 -107.320293 A1
 GL @ 6563.00usft (Original Well Elev)





- 1 Drilling operations would utilize a closed-loop system. Drilling of the horizontal laterals would be accomplished with water-based mud. All cuttings would be placed in roll-off bins and hauled to a commercial disposal facility, land farm, or WPX permitted cutting disposal. WPX would follow Onshore Oil and Gas Order No. 1 regarding the placement, operation, and removal of closed-loop systems. No blow pit would be used.
- 2 If oil-based mud drilling is used, a closed-loop system will be used to minimize potential impacts to surface and groundwater quality. A 30-mil reinforced liner will be placed under the drill rig mats and all drilling machinery. This area will be enclosed by a containment berm and ditches, which will drain to sump areas for spill prevention and control. The containment berm will be ramped to allow access to the solids control area.
- 3 Closed-loop tanks would be adequately sized for containment of all fluids.

B. Drilling Fluids

- 1 Drilling fluids would be stored onsite in above-ground storage tanks. Upon termination of drilling operations, the drilling fluids would be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical. All residual fluids would be hauled to a commercial disposal facility.

C. Spills

- 1 Any spills of non-freshwater fluids would be immediately cleaned up and removed to an approved disposal site.

D. Sewage

- 1 Portable toilets would be provided and maintained as needed during construction, drilling and completion phases.

E. Garbage and other waste material

- 1 All garbage and trash would be placed in an enclosed metal trash containment. The trash and garbage would be hauled off site and dumped in an approved landfill, as needed.

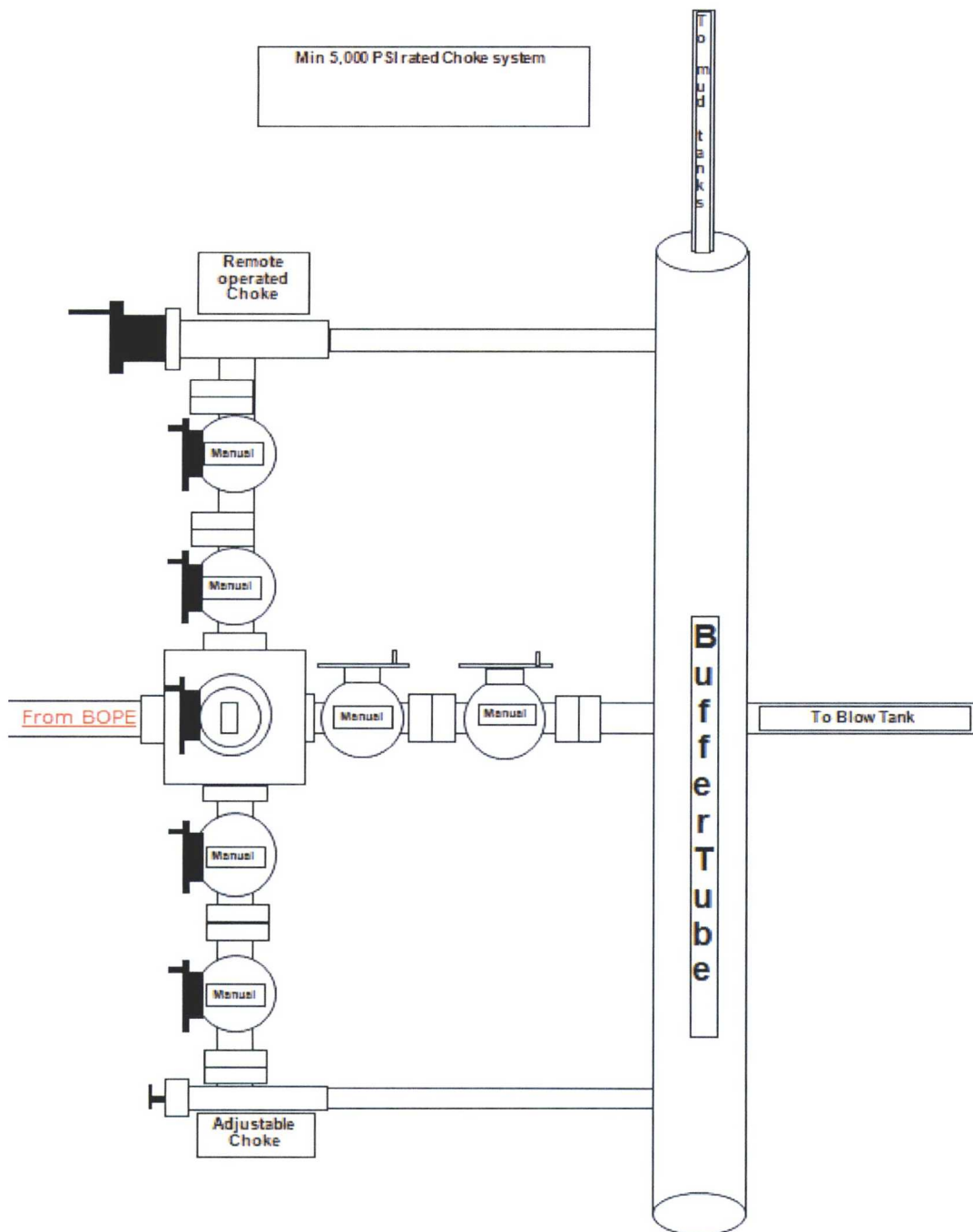
F. Hazardous Waste

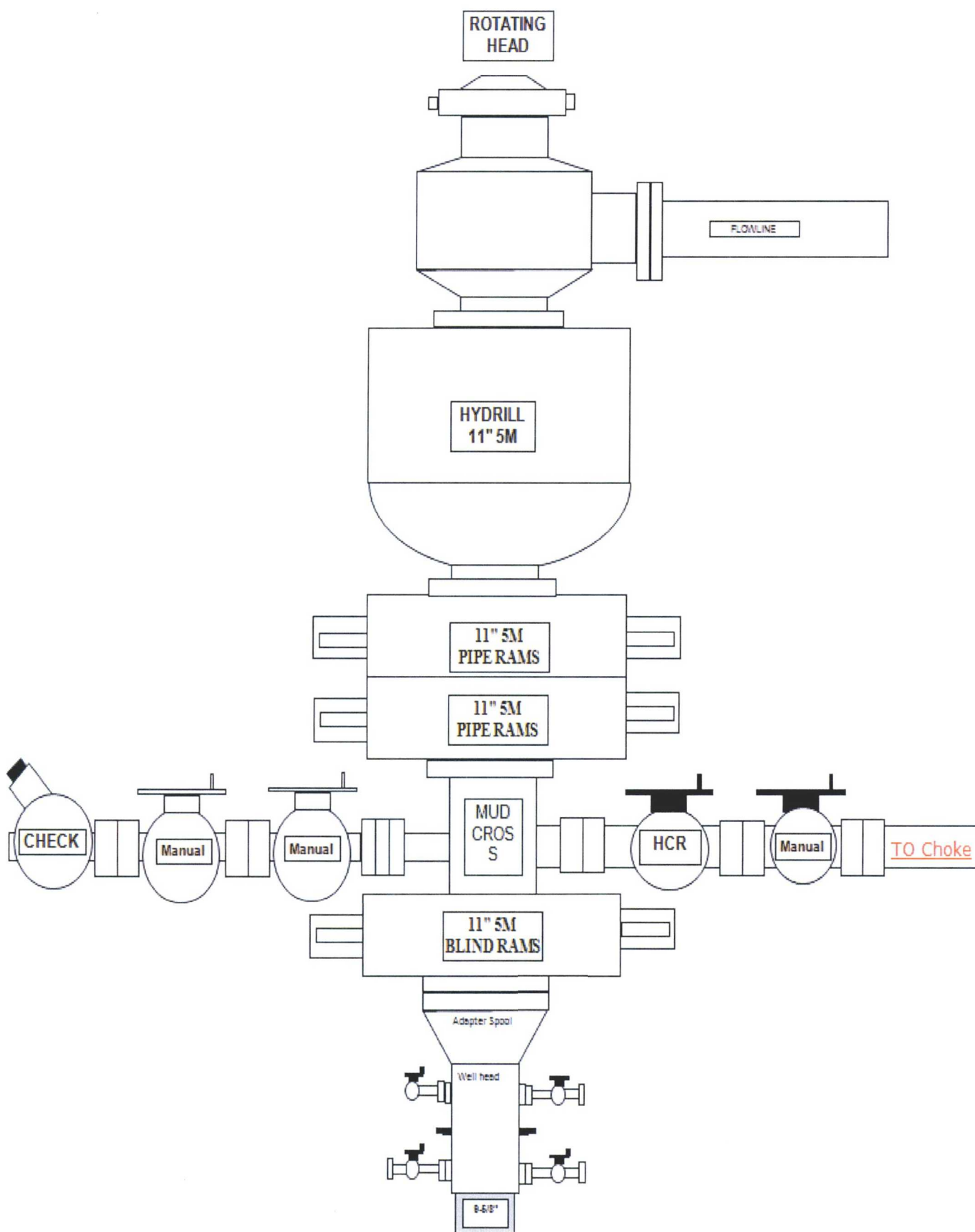
- 1 No chemicals subject to reporting under Superfund Amendments and Reauthorization Act Title III in an amount equal to or greater than 10,000 pounds would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
- 2 No extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of these wells.
- 3 All fluids (i.e., scrubber cleaners) used during washing of production equipment would be properly disposed of to avoid ground contamination or hazard to livestock or wildlife.

G. Produced Water:

- 1 WPX would recycle and reuse produced water from the wells to complete subsequent wells in the area during completion operations. Produced water will be filtered, treated and stored in WPX's Section 30 Recycling Containments.
- 2 Alternatively, if needed, WPX would dispose of produced water from the proposed wells at one of the following facilities:

Min 5,000 PSI rated Choke system





Directions from the Intersection of US Hwy 550 & US Hwy 64
in Bloomfield, NM to WPX Energy Production, LLC Rosa Pad #42
525' FNL & 492' FWL, Section 36, T31N, R5W, N.M.P.M., Rio Arriba County, NM

Latitude: 36.861925°N Longitude: 107.320894°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Easterly on US Hwy 64 for 38.0 miles to Mile Marker 102.3 to State Hwy 527 (Simms Hwy);

Go Left (North-westerly) on State Hwy 527 (Simms Hwy) for 7.9 miles to Rosa Road @ La Jara Station;

Go Right (Northerly) on Rosa Road for 6.5 miles to fork in roadway;

Go Left (Northerly) which is straight remaining on Rosa Road for 2.4 miles to fork in roadway;

Go Right (Easterly) exiting Rosa Road for 0.2 miles to fork in roadway;

Go Left (North-easterly) for 1.0 mile to fork in roadway;

Go Right (North easterly) for 0.5 miles to fork in roadway;

Go Right (South-easterly) for 2.5 miles to fork in roadway;

Go Right (Easterly) which is straight for 1.5 miles to fork in roadway;

Go Left (Easterly) which is straight for 0.4 miles to begin proposed access on left-hand side of roadway which continues for 56.5' to staked WPX Rosa Pad #42 location.