

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: 6-19-17

Well information:

Operator WDX, Well Name and Number Escavade Unit #362H

API# 30043-21311, Section 20, Township 22 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
- ☐ 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.

Charles Bern
NMOCD Approved by Signature

7-20-2018
Date

*APD held for
unit approval
- all agencies*

Revised - WPX
Expires 11/30/17
note 4/18/17

NOS: 0
APDP: 5
MP: 5
SMA: BLM
BOND: UTP000178
CA/PA: 0

10400015210
ATS FOIO-17-105

Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. NMNM119281
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☒ 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.
3a. Address 720 S Main Aztec NM 87410	3b. Phone No. (include area code) (505)333-1822	8. Lease Name and Well No. S ESCAVADA UNIT 362H
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SWSE / 306 FSL / 1601 FEL / LAT 36.117386 / LONG -107.48867 At proposed prod. zone NWSW / 2312 FSL / 793 FWL / LAT 36.138135 / LONG -107.51566		9. API Well No. 30-043-21311
14. Distance in miles and direction from nearest town or post office* 53.9 miles		10. Field and Pool, or Exploratory BASIN MANCOS / ESCAVADA MANCO
15. Distance from proposed* location to nearest property or lease line, ft. 20 feet (Also to nearest drig. unit line, if any)		11. Sec., T. R. M. or Blk. and Survey or Area SEC 20 / T22N / R6W / NMP
16. No. of acres in lease 640		12. County or Parish SANDOVAL
17. Spacing Unit dedicated to this well 480.68		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, 306 feet applied for, on this lease, ft.		19. Proposed Depth 5182 feet / 16004 feet
20. BLM/BIA Bond No. on file FED: UTB000178		21. Estimated duration 30 days
22. Approximate date work will start* 08/01/2017		23. Estimated duration 30 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.
2. A Drilling Plan.
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).
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 BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Lacey Granillo / Ph: (505)333-1816	Date 06/19/2017
Title Permitting Tech III		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 11/7/2017
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"

NMOCDN

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21311	*Pool Code 528120	*Pool Name Rusty Grillup Oil Pool
*Property Code 322151	*Property Name S ESCAVADA UNIT	*Well Number 362H
*GRID No. 120782 (372286)	*Operator Name WPX ENERGY PRODUCTION, LLC (Enduring)	*Elevation 7051

10 Surface Location

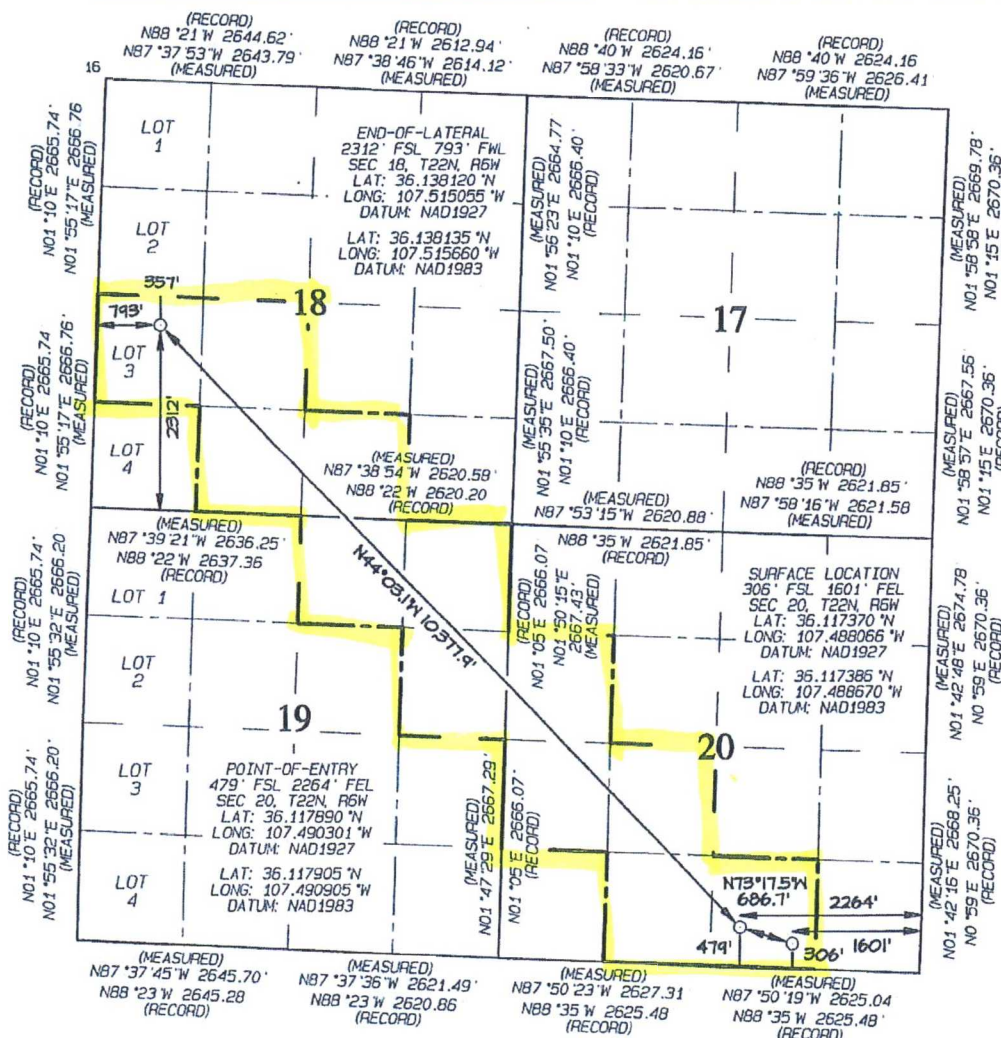
UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
0	20	22N	6W		306	SOUTH	1601	EAST	SANDOVAL

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ion	Feet from the	North/South line	Feet from the	East/West line	County
L	18	22N	6W	3	2312	SOUTH	793	WEST	SANDOVAL

*Dedicated Acres 480.68	N/2 SW/4, SE/4 SW/4 SW/4 SE/4 - Section 18 N/2 NE/4, SE/4 NE/4 - Section 19 SW/4 NW/4, N/2 SW/4, SE/4 SW/4 SW/4 SE/4 - Section 20	*Joint or Infill	*Consolidation Code	*Order No. R-14347
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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



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: **Lacey Granillo** Date: **6/12/17**

Printed Name: **Lacey Granillo**

E-mail Address: **lacey.granillo@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: **MAY 30, 2017**
Date of Survey: **MARCH 1, 2017**

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269



WPX Energy

Operations Plan

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

Date: June 6, 2017
Well Name: S Escavada Unit #362H
SH Location: SWSE Sec 20 22N-06W
BH Location: NWSW Sec 18 22N-06W

Field: Escavada S; Mancos
Surface: BLM
Elevation: 7051' GR
Minerals: FED

Measured Depth: 16004.28'

I. GEOLOGY

Surface formation - NACIMIENTO

A. FORMATION TOPS: (KB)

NAME	MD	TVD	NAME	MD	TVD
OJO ALAMO	946.00	944.00	POINT LOOKOUT	3,883.00	3,858.00
KIRTLAND	1,098.00	1,095.00	MANCOS	4,056.00	4,031.00
PICTURED CLIFFS	1,517.00	1,510.00	GALLUP	4,376.00	4,351.00
LEWIS	1,669.00	1,660.00	KICKOFF POINT	4,485.41	4,460.40
CHACRA	1,930.00	1,919.00	TOP TARGET	5,327.00	5,077.00
CLIFF HOUSE	3,014.00	2,992.00	LANDING POINT	5,627.73	5,098.19
MENEFEE	3,051.00	3,029.00	BASE TARGET	5,627.73	5,098.19
			TD	16,004.28	5,182.00

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, 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 BOPE will be tested to 2,000 psi (High) for 10 minutes and the annular tested to 1,500 psi for 10 minutes. Pressure test surface casing to 1,500 psi for 30 minutes and intermediate casing to 1,500 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 or equiv	STC
INTERMEDIATE	8.75"	5627.73'	7"	23 LBS	J-55 or equiv	LTC
PRODUCTION	6.125"	5477.73' - 16004.28'	4.5"	11.6 LBS	P-110 or equiv	LTC
TIE BACK	6.125"	Surf. - 5477.73'	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. If losses are encountered during the drilling of the intermediate section a DV tool will be utilized and a 2 stage cement job may be planned to ensure cement circ back to surface. The 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, if no cement is seen at surface on the 1st stage the stage tool will be opened and a 2nd stage cement job will be pumped.

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. CEMENT:

(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:

Spacer #1: 20 bbl (112 cuft) Chemwash. Lead Cement: 107 bbls, 305 sks, (600 cuft), 12.3 ppg @ 1.97 cuft/sk yield. Tail Cement: 59 bbls, 254 sks, (331 cuft), 13.5 ppg @ 1.3 cuft/sk yield. Displacement: Displace w/ +/- 222 bbl Drilling mud or water. Total Cement: 166 bbls, 559 sks, (931 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 (1032 sx /1403 cuft /250 bbls). Tail Spacer: 20 BBL of MMCR. Displacement: Displace w/ +/-220bbl Fr Water. Total Cement (1032 sx /1403bbls).

D. COMPLETION:

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.

NOTES:

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).

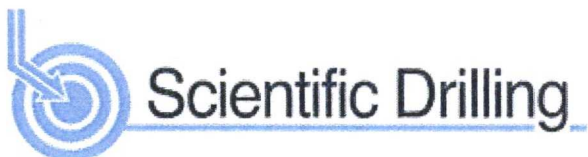
WPX Energy

Sandoval County, NM 3003 West
S Escavada Unit 361 Pad
S Escavada Unit #362H
API: ???
Wellbore #1

Plan: Plan #1

Standard Planning Report

18 May, 2017



Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well S Escavada Unit #362H
Company:	WPX Energy	TVD Reference:	KB @ 7072.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 7072.00usft (Cyclone 32)
Site:	S Escavada Unit 361 Pad	North Reference:	Grid
Well:	S Escavada Unit #362H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	Sandoval County, NM 3003 West		
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	S Escavada Unit 361 Pad			
Site Position:		Northing:	1,862,128.71 usft	Latitude: 36° 7' 2.377 N
From:	Map	Easting:	601,964.75 usft	Longitude: 107° 29' 17.185 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.20 °

Well	S Escavada Unit #362H			
Well Position	+N/-S	15.70 usft	Northing:	1,862,144.41 usft
	+E/-W	12.05 usft	Easting:	601,976.80 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level:	7,051.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/15/2017	8.95	62.88	49,505

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	315.00

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
0.00	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	
898.13	7.96	196.65	896.85	-26.46	-7.91	2.00	2.00	0.00	196.65	
3,226.89	7.96	196.65	3,203.15	-335.54	-100.32	0.00	0.00	0.00	0.00	
3,625.01	0.00	0.00	3,600.00	-362.00	-108.23	2.00	-2.00	0.00	180.00	
4,485.41	0.00	0.00	4,460.40	-362.00	-108.23	0.00	0.00	0.00	0.00	
5,480.27	89.54	315.00	5,097.00	84.52	-554.75	9.00	9.00	0.00	315.00	
5,627.73	89.54	315.00	5,098.19	188.79	-659.02	0.00	0.00	0.00	0.00	SEU362H POE
16,004.28	89.54	315.00	5,182.00	7,525.95	-7,996.04	0.00	0.00	0.00	0.00	SEU362H BHL

Scientific Drilling Int. Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well S Escavada Unit #362H
Company:	WPX Energy	TVD Reference:	KB @ 7072.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 7072.00usft (Cyclone 32)
Site:	S Escavada Unit 361 Pad	North Reference:	Grid
Well:	S Escavada Unit #362H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	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
600.00	2.00	196.65	599.98	-1.67	-0.50	-0.83	2.00	2.00	0.00
700.00	4.00	196.65	699.84	-6.69	-2.00	-3.31	2.00	2.00	0.00
800.00	6.00	196.65	799.45	-15.04	-4.50	-7.45	2.00	2.00	0.00
898.13	7.96	196.65	896.85	-26.46	-7.91	-13.12	2.00	2.00	0.00
900.00	7.96	196.65	898.70	-26.71	-7.99	-13.24	0.00	0.00	0.00
945.74	7.96	196.65	944.00	-32.78	-9.80	-16.25	0.00	0.00	0.00
Ojo Alamo									
1,000.00	7.96	196.65	997.74	-39.98	-11.95	-19.82	0.00	0.00	0.00
1,098.21	7.96	196.65	1,095.00	-53.02	-15.85	-26.28	0.00	0.00	0.00
Kirtland									
1,100.00	7.96	196.65	1,096.77	-53.26	-15.92	-26.40	0.00	0.00	0.00
1,200.00	7.96	196.65	1,195.81	-66.53	-19.89	-32.98	0.00	0.00	0.00
1,300.00	7.96	196.65	1,294.85	-79.80	-23.86	-39.56	0.00	0.00	0.00
1,400.00	7.96	196.65	1,393.88	-93.07	-27.83	-46.14	0.00	0.00	0.00
1,500.00	7.96	196.65	1,492.92	-106.34	-31.79	-52.71	0.00	0.00	0.00
1,517.25	7.96	196.65	1,510.00	-108.63	-32.48	-53.85	0.00	0.00	0.00
Picture Cliffs									
1,600.00	7.96	196.65	1,591.95	-119.62	-35.76	-59.29	0.00	0.00	0.00
1,668.71	7.96	196.65	1,660.00	-128.73	-38.49	-63.81	0.00	0.00	0.00
Lewis									
1,700.00	7.96	196.65	1,690.99	-132.89	-39.73	-65.87	0.00	0.00	0.00
1,800.00	7.96	196.65	1,790.02	-146.16	-43.70	-72.45	0.00	0.00	0.00
1,900.00	7.96	196.65	1,889.06	-159.43	-47.67	-79.03	0.00	0.00	0.00
1,930.23	7.96	196.65	1,919.00	-163.44	-48.87	-81.02	0.00	0.00	0.00
Chacra									
2,000.00	7.96	196.65	1,988.10	-172.70	-51.63	-85.61	0.00	0.00	0.00
2,100.00	7.96	196.65	2,087.13	-185.98	-55.60	-92.19	0.00	0.00	0.00
2,200.00	7.96	196.65	2,186.17	-199.25	-59.57	-98.77	0.00	0.00	0.00
2,300.00	7.96	196.65	2,285.20	-212.52	-63.54	-105.35	0.00	0.00	0.00
2,400.00	7.96	196.65	2,384.24	-225.79	-67.51	-111.92	0.00	0.00	0.00
2,500.00	7.96	196.65	2,483.28	-239.06	-71.48	-118.50	0.00	0.00	0.00
2,600.00	7.96	196.65	2,582.31	-252.34	-75.44	-125.08	0.00	0.00	0.00
2,700.00	7.96	196.65	2,681.35	-265.61	-79.41	-131.66	0.00	0.00	0.00
2,800.00	7.96	196.65	2,780.38	-278.88	-83.38	-138.24	0.00	0.00	0.00
2,900.00	7.96	196.65	2,879.42	-292.15	-87.35	-144.82	0.00	0.00	0.00
3,000.00	7.96	196.65	2,978.46	-305.43	-91.32	-151.40	0.00	0.00	0.00
3,013.68	7.96	196.65	2,992.00	-307.24	-91.86	-152.30	0.00	0.00	0.00
Cliff House									
3,051.04	7.96	196.65	3,029.00	-312.20	-93.34	-154.76	0.00	0.00	0.00
Menefee									
3,100.00	7.96	196.65	3,077.49	-318.70	-95.28	-157.98	0.00	0.00	0.00
3,200.00	7.96	196.65	3,176.53	-331.97	-99.25	-164.56	0.00	0.00	0.00
3,226.89	7.96	196.65	3,203.15	-335.54	-100.32	-166.33	0.00	0.00	0.00
3,300.00	6.50	196.65	3,275.68	-344.36	-102.95	-170.70	2.00	-2.00	0.00
3,400.00	4.50	196.65	3,375.22	-353.54	-105.70	-175.25	2.00	-2.00	0.00
3,500.00	2.50	196.65	3,475.03	-359.39	-107.45	-178.15	2.00	-2.00	0.00
3,600.00	0.50	196.65	3,574.99	-361.90	-108.20	-179.39	2.00	-2.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well S Escavada Unit #362H
Company:	WPX Energy	TVD Reference:	KB @ 7072.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 7072.00usft (Cyclone 32)
Site:	S Escavada Unit 361 Pad	North Reference:	Grid
Well:	S Escavada Unit #362H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,625.01	0.00	0.00	3,600.00	-362.00	-108.23	-179.44	2.00	-2.00	0.00
3,700.00	0.00	0.00	3,674.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
3,800.00	0.00	0.00	3,774.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
3,883.01	0.00	0.00	3,858.00	-362.00	-108.23	-179.44	0.00	0.00	0.00
Point Lookout									
3,900.00	0.00	0.00	3,874.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,000.00	0.00	0.00	3,974.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,056.01	0.00	0.00	4,031.00	-362.00	-108.23	-179.44	0.00	0.00	0.00
Mancos									
4,100.00	0.00	0.00	4,074.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,200.00	0.00	0.00	4,174.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,300.00	0.00	0.00	4,274.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,376.01	0.00	0.00	4,351.00	-362.00	-108.23	-179.44	0.00	0.00	0.00
Gallup									
4,400.00	0.00	0.00	4,374.99	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,485.41	0.00	0.00	4,460.40	-362.00	-108.23	-179.44	0.00	0.00	0.00
4,500.00	1.31	315.00	4,474.99	-361.88	-108.35	-179.28	9.00	9.00	0.00
4,550.00	5.81	315.00	4,524.88	-359.69	-110.54	-176.17	9.00	9.00	0.00
4,600.00	10.31	315.00	4,574.37	-354.73	-115.50	-169.16	9.00	9.00	0.00
4,604.71	10.74	315.00	4,579.00	-354.12	-116.11	-168.30	9.00	9.00	0.00
Gallup Upper									
4,650.00	14.81	315.00	4,623.16	-347.04	-123.19	-158.29	9.00	9.00	0.00
4,700.00	19.31	315.00	4,670.95	-336.67	-133.56	-143.62	9.00	9.00	0.00
4,750.00	23.81	315.00	4,717.44	-323.68	-146.55	-125.25	9.00	9.00	0.00
4,800.00	28.31	315.00	4,762.34	-308.15	-162.08	-103.28	9.00	9.00	0.00
4,850.00	32.81	315.00	4,805.38	-290.17	-180.06	-77.87	9.00	9.00	0.00
4,900.00	37.31	315.00	4,846.30	-269.87	-200.36	-49.15	9.00	9.00	0.00
4,922.57	39.34	315.00	4,864.00	-259.97	-210.26	-35.16	9.00	9.00	0.00
Mancos Lwr									
4,947.54	41.59	315.00	4,883.00	-248.51	-221.72	-18.95	9.00	9.00	0.00
El Vado									
4,950.00	41.81	315.00	4,884.83	-247.36	-222.87	-17.31	9.00	9.00	0.00
5,000.00	46.31	315.00	4,920.75	-222.78	-247.45	17.45	9.00	9.00	0.00
5,050.00	50.81	315.00	4,953.84	-196.28	-273.95	54.93	9.00	9.00	0.00
5,094.98	54.86	315.00	4,981.00	-170.94	-299.29	90.76	9.00	9.00	0.00
Frac Barrier - Mancos Unc									
5,100.00	55.31	315.00	4,983.87	-168.02	-302.21	94.88	9.00	9.00	0.00
5,150.00	59.81	315.00	5,010.69	-138.19	-332.04	137.07	9.00	9.00	0.00
5,200.00	64.31	315.00	5,034.11	-106.97	-363.26	181.23	9.00	9.00	0.00
5,250.00	68.81	315.00	5,053.99	-74.54	-395.69	227.09	9.00	9.00	0.00
5,258.48	69.58	315.00	5,057.00	-68.93	-401.30	235.02	9.00	9.00	0.00
PS 3									
5,300.00	73.31	315.00	5,070.21	-41.10	-429.13	274.37	9.00	9.00	0.00
5,325.34	75.59	315.00	5,077.00	-23.84	-446.39	298.78	9.00	9.00	0.00
PS2									
5,350.00	77.81	315.00	5,082.67	-6.87	-463.36	322.78	9.00	9.00	0.00
5,400.00	82.31	315.00	5,091.30	27.94	-498.17	372.02	9.00	9.00	0.00
5,450.00	86.81	315.00	5,096.04	63.13	-533.36	421.78	9.00	9.00	0.00
5,480.27	89.54	315.00	5,097.00	84.52	-554.75	452.04	9.00	9.00	0.00
5,500.00	89.54	315.00	5,097.16	98.47	-568.70	471.76	0.00	0.00	0.00
5,600.00	89.54	315.00	5,097.97	169.18	-639.41	571.76	0.00	0.00	0.00
5,627.73	89.54	315.00	5,098.19	188.79	-659.02	599.49	0.00	0.00	0.00

7"

Scientific Drilling Int.

Planning Report

Database: Grand Junction District
 Company: WPX Energy
 Project: Sandoval County, NM 3003 West
 Site: S Escavada Unit 361 Pad
 Well: S Escavada Unit #362H
 Wellbore: Wellbore #1
 Design: Plan #1

Local Co-ordinate Reference: Well S Escavada Unit #362H
 TVD Reference: KB @ 7072.00usft (Cyclone 32)
 MD Reference: KB @ 7072.00usft (Cyclone 32)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,700.00	89.54	315.00	5,098.77	239.89	-710.12	671.76	0.00	0.00	0.00
5,800.00	89.54	315.00	5,099.58	310.60	-780.83	771.75	0.00	0.00	0.00
5,900.00	89.54	315.00	5,100.39	381.31	-851.54	871.75	0.00	0.00	0.00
6,000.00	89.54	315.00	5,101.20	452.01	-922.24	971.75	0.00	0.00	0.00
6,100.00	89.54	315.00	5,102.00	522.72	-992.95	1,071.74	0.00	0.00	0.00
6,200.00	89.54	315.00	5,102.81	593.43	-1,063.66	1,171.74	0.00	0.00	0.00
6,300.00	89.54	315.00	5,103.62	664.14	-1,134.37	1,271.74	0.00	0.00	0.00
6,400.00	89.54	315.00	5,104.43	734.85	-1,205.08	1,371.73	0.00	0.00	0.00
6,500.00	89.54	315.00	5,105.24	805.56	-1,275.79	1,471.73	0.00	0.00	0.00
6,600.00	89.54	315.00	5,106.04	876.26	-1,346.49	1,571.73	0.00	0.00	0.00
6,700.00	89.54	315.00	5,106.85	946.97	-1,417.20	1,671.73	0.00	0.00	0.00
6,800.00	89.54	315.00	5,107.66	1,017.68	-1,487.91	1,771.72	0.00	0.00	0.00
6,900.00	89.54	315.00	5,108.47	1,088.39	-1,558.62	1,871.72	0.00	0.00	0.00
7,000.00	89.54	315.00	5,109.27	1,159.10	-1,629.33	1,971.72	0.00	0.00	0.00
7,100.00	89.54	315.00	5,110.08	1,229.81	-1,700.04	2,071.71	0.00	0.00	0.00
7,200.00	89.54	315.00	5,110.89	1,300.51	-1,770.74	2,171.71	0.00	0.00	0.00
7,300.00	89.54	315.00	5,111.70	1,371.22	-1,841.45	2,271.71	0.00	0.00	0.00
7,400.00	89.54	315.00	5,112.50	1,441.93	-1,912.16	2,371.70	0.00	0.00	0.00
7,500.00	89.54	315.00	5,113.31	1,512.64	-1,982.87	2,471.70	0.00	0.00	0.00
7,600.00	89.54	315.00	5,114.12	1,583.35	-2,053.58	2,571.70	0.00	0.00	0.00
7,700.00	89.54	315.00	5,114.93	1,654.06	-2,124.29	2,671.69	0.00	0.00	0.00
7,800.00	89.54	315.00	5,115.73	1,724.77	-2,195.00	2,771.69	0.00	0.00	0.00
7,900.00	89.54	315.00	5,116.54	1,795.47	-2,265.70	2,871.69	0.00	0.00	0.00
8,000.00	89.54	315.00	5,117.35	1,866.18	-2,336.41	2,971.68	0.00	0.00	0.00
8,100.00	89.54	315.00	5,118.16	1,936.89	-2,407.12	3,071.68	0.00	0.00	0.00
8,200.00	89.54	315.00	5,118.97	2,007.60	-2,477.83	3,171.68	0.00	0.00	0.00
8,300.00	89.54	315.00	5,119.77	2,078.31	-2,548.54	3,271.67	0.00	0.00	0.00
8,400.00	89.54	315.00	5,120.58	2,149.02	-2,619.25	3,371.67	0.00	0.00	0.00
8,500.00	89.54	315.00	5,121.39	2,219.72	-2,689.95	3,471.67	0.00	0.00	0.00
8,600.00	89.54	315.00	5,122.20	2,290.43	-2,760.66	3,571.66	0.00	0.00	0.00
8,700.00	89.54	315.00	5,123.00	2,361.14	-2,831.37	3,671.66	0.00	0.00	0.00
8,800.00	89.54	315.00	5,123.81	2,431.85	-2,902.08	3,771.66	0.00	0.00	0.00
8,900.00	89.54	315.00	5,124.62	2,502.56	-2,972.79	3,871.65	0.00	0.00	0.00
9,000.00	89.54	315.00	5,125.43	2,573.27	-3,043.50	3,971.65	0.00	0.00	0.00
9,100.00	89.54	315.00	5,126.23	2,643.97	-3,114.20	4,071.65	0.00	0.00	0.00
9,200.00	89.54	315.00	5,127.04	2,714.68	-3,184.91	4,171.64	0.00	0.00	0.00
9,300.00	89.54	315.00	5,127.85	2,785.39	-3,255.62	4,271.64	0.00	0.00	0.00
9,400.00	89.54	315.00	5,128.66	2,856.10	-3,326.33	4,371.64	0.00	0.00	0.00
9,500.00	89.54	315.00	5,129.46	2,926.81	-3,397.04	4,471.63	0.00	0.00	0.00
9,600.00	89.54	315.00	5,130.27	2,997.52	-3,467.75	4,571.63	0.00	0.00	0.00
9,700.00	89.54	315.00	5,131.08	3,068.22	-3,538.45	4,671.63	0.00	0.00	0.00
9,800.00	89.54	315.00	5,131.89	3,138.93	-3,609.16	4,771.62	0.00	0.00	0.00
9,900.00	89.54	315.00	5,132.70	3,209.64	-3,679.87	4,871.62	0.00	0.00	0.00
10,000.00	89.54	315.00	5,133.50	3,280.35	-3,750.58	4,971.62	0.00	0.00	0.00
10,100.00	89.54	315.00	5,134.31	3,351.06	-3,821.29	5,071.61	0.00	0.00	0.00
10,200.00	89.54	315.00	5,135.12	3,421.77	-3,892.00	5,171.61	0.00	0.00	0.00
10,300.00	89.54	315.00	5,135.93	3,492.47	-3,962.70	5,271.61	0.00	0.00	0.00
10,400.00	89.54	315.00	5,136.73	3,563.18	-4,033.41	5,371.60	0.00	0.00	0.00
10,500.00	89.54	315.00	5,137.54	3,633.89	-4,104.12	5,471.60	0.00	0.00	0.00
10,600.00	89.54	315.00	5,138.35	3,704.60	-4,174.83	5,571.60	0.00	0.00	0.00
10,700.00	89.54	315.00	5,139.16	3,775.31	-4,245.54	5,671.59	0.00	0.00	0.00
10,800.00	89.54	315.00	5,139.96	3,846.02	-4,316.25	5,771.59	0.00	0.00	0.00
10,900.00	89.54	315.00	5,140.77	3,916.72	-4,386.95	5,871.59	0.00	0.00	0.00
11,000.00	89.54	315.00	5,141.58	3,987.43	-4,457.66	5,971.58	0.00	0.00	0.00

Scientific Drilling Int. Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well S Escavada Unit #362H
Company:	WPX Energy	TVD Reference:	KB @ 7072.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 7072.00usft (Cyclone 32)
Site:	S Escavada Unit 361 Pad	North Reference:	Grid
Well:	S Escavada Unit #362H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,100.00	89.54	315.00	5,142.39	4,058.14	-4,528.37	6,071.58	0.00	0.00	0.00
11,200.00	89.54	315.00	5,143.20	4,128.85	-4,599.08	6,171.58	0.00	0.00	0.00
11,300.00	89.54	315.00	5,144.00	4,199.56	-4,669.79	6,271.58	0.00	0.00	0.00
11,400.00	89.54	315.00	5,144.81	4,270.27	-4,740.50	6,371.57	0.00	0.00	0.00
11,500.00	89.54	315.00	5,145.62	4,340.98	-4,811.21	6,471.57	0.00	0.00	0.00
11,600.00	89.54	315.00	5,146.43	4,411.68	-4,881.91	6,571.57	0.00	0.00	0.00
11,700.00	89.54	315.00	5,147.23	4,482.39	-4,952.62	6,671.56	0.00	0.00	0.00
11,800.00	89.54	315.00	5,148.04	4,553.10	-5,023.33	6,771.56	0.00	0.00	0.00
11,900.00	89.54	315.00	5,148.85	4,623.81	-5,094.04	6,871.56	0.00	0.00	0.00
12,000.00	89.54	315.00	5,149.66	4,694.52	-5,164.75	6,971.55	0.00	0.00	0.00
12,100.00	89.54	315.00	5,150.46	4,765.23	-5,235.46	7,071.55	0.00	0.00	0.00
12,200.00	89.54	315.00	5,151.27	4,835.93	-5,306.16	7,171.55	0.00	0.00	0.00
12,300.00	89.54	315.00	5,152.08	4,906.64	-5,376.87	7,271.54	0.00	0.00	0.00
12,400.00	89.54	315.00	5,152.89	4,977.35	-5,447.58	7,371.54	0.00	0.00	0.00
12,500.00	89.54	315.00	5,153.69	5,048.06	-5,518.29	7,471.54	0.00	0.00	0.00
12,600.00	89.54	315.00	5,154.50	5,118.77	-5,589.00	7,571.53	0.00	0.00	0.00
12,700.00	89.54	315.00	5,155.31	5,189.48	-5,659.71	7,671.53	0.00	0.00	0.00
12,800.00	89.54	315.00	5,156.12	5,260.18	-5,730.41	7,771.53	0.00	0.00	0.00
12,900.00	89.54	315.00	5,156.93	5,330.89	-5,801.12	7,871.52	0.00	0.00	0.00
13,000.00	89.54	315.00	5,157.73	5,401.60	-5,871.83	7,971.52	0.00	0.00	0.00
13,100.00	89.54	315.00	5,158.54	5,472.31	-5,942.54	8,071.52	0.00	0.00	0.00
13,200.00	89.54	315.00	5,159.35	5,543.02	-6,013.25	8,171.51	0.00	0.00	0.00
13,300.00	89.54	315.00	5,160.16	5,613.73	-6,083.96	8,271.51	0.00	0.00	0.00
13,400.00	89.54	315.00	5,160.96	5,684.43	-6,154.66	8,371.51	0.00	0.00	0.00
13,500.00	89.54	315.00	5,161.77	5,755.14	-6,225.37	8,471.50	0.00	0.00	0.00
13,600.00	89.54	315.00	5,162.58	5,825.85	-6,296.08	8,571.50	0.00	0.00	0.00
13,700.00	89.54	315.00	5,163.39	5,896.56	-6,366.79	8,671.50	0.00	0.00	0.00
13,800.00	89.54	315.00	5,164.19	5,967.27	-6,437.50	8,771.49	0.00	0.00	0.00
13,900.00	89.54	315.00	5,165.00	6,037.98	-6,508.21	8,871.49	0.00	0.00	0.00
14,000.00	89.54	315.00	5,165.81	6,108.68	-6,578.91	8,971.49	0.00	0.00	0.00
14,100.00	89.54	315.00	5,166.62	6,179.39	-6,649.62	9,071.48	0.00	0.00	0.00
14,200.00	89.54	315.00	5,167.42	6,250.10	-6,720.33	9,171.48	0.00	0.00	0.00
14,300.00	89.54	315.00	5,168.23	6,320.81	-6,791.04	9,271.48	0.00	0.00	0.00
14,400.00	89.54	315.00	5,169.04	6,391.52	-6,861.75	9,371.47	0.00	0.00	0.00
14,500.00	89.54	315.00	5,169.85	6,462.23	-6,932.46	9,471.47	0.00	0.00	0.00
14,600.00	89.54	315.00	5,170.66	6,532.93	-7,003.16	9,571.47	0.00	0.00	0.00
14,700.00	89.54	315.00	5,171.46	6,603.64	-7,073.87	9,671.46	0.00	0.00	0.00
14,800.00	89.54	315.00	5,172.27	6,674.35	-7,144.58	9,771.46	0.00	0.00	0.00
14,900.00	89.54	315.00	5,173.08	6,745.06	-7,215.29	9,871.46	0.00	0.00	0.00
15,000.00	89.54	315.00	5,173.89	6,815.77	-7,286.00	9,971.45	0.00	0.00	0.00
15,100.00	89.54	315.00	5,174.69	6,886.48	-7,356.71	10,071.45	0.00	0.00	0.00
15,200.00	89.54	315.00	5,175.50	6,957.18	-7,427.41	10,171.45	0.00	0.00	0.00
15,300.00	89.54	315.00	5,176.31	7,027.89	-7,498.12	10,271.44	0.00	0.00	0.00
15,400.00	89.54	315.00	5,177.12	7,098.60	-7,568.83	10,371.44	0.00	0.00	0.00
15,500.00	89.54	315.00	5,177.92	7,169.31	-7,639.54	10,471.44	0.00	0.00	0.00
15,600.00	89.54	315.00	5,178.73	7,240.02	-7,710.25	10,571.43	0.00	0.00	0.00
15,700.00	89.54	315.00	5,179.54	7,310.73	-7,780.96	10,671.43	0.00	0.00	0.00
15,800.00	89.54	315.00	5,180.35	7,381.44	-7,851.67	10,771.43	0.00	0.00	0.00
15,900.00	89.54	315.00	5,181.16	7,452.14	-7,922.37	10,871.43	0.00	0.00	0.00
16,004.28	89.54	315.00	5,182.00	7,522.85	-7,993.08	10,971.43	0.00	0.00	0.00

Scientific Drilling Int.

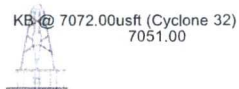
Planning Report

Database:	Grand Junction District	Local Co-ordinate Reference:	Well S Escavada Unit #362H
Company:	WPX Energy	TVD Reference:	KB @ 7072.00usft (Cyclone 32)
Project:	Sandoval County, NM 3003 West	MD Reference:	KB @ 7072.00usft (Cyclone 32)
Site:	S Escavada Unit 361 Pad	North Reference:	Grid
Well:	S Escavada Unit #362H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

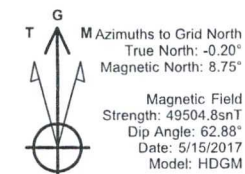
Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SEU362H POE	0.00	0.00	5,098.19	186.76	-660.67	1,862,331.17	601,316.13	36° 7' 4.402 N	107° 29' 25.082 W
- plan misses target center by 2.60usft at 5627.46usft MD (5098.19 TVD, 188.60 N, -658.83 E)									
- Point									
SEU362H BHL	0.00	0.00	5,182.00	7,525.95	-7,996.04	1,869,670.36	593,980.76	36° 8' 17.232 N	107° 30' 54.197 W
- plan hits target center									
- Point									

Casing Points				
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter
(usft)	(usft)		(")	(")
5,627.73	5,098.19	7"	7	8-3/4

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
945.74	944.00	Ojo Alamo				
1,098.21	1,095.00	Kirtland				
1,517.25	1,510.00	Picture Cliffs				
1,668.71	1,660.00	Lewis				
1,930.23	1,919.00	Chacra				
3,013.68	2,992.00	Cliff House				
3,051.04	3,029.00	Menefee				
3,883.01	3,858.00	Point Lookout				
4,056.01	4,031.00	Mancos				
4,376.01	4,351.00	Gallup				
4,604.71	4,579.00	Gallup Upper				
4,922.57	4,864.00	Mancos Lwr				
4,947.54	4,883.00	El Vado				
5,094.98	4,981.00	Frac Barrier				
5,094.98	4,981.00	Mancos Unc				
5,258.48	5,057.00	PS 3				
5,325.34	5,077.00	PS2				



SEU 361-362H
Sandoval County, NM 3003 West
Northing: 1862144.41
Easting: 601976.80
Plan #1



WELL DETAILS SEU 361-362H

Ground Level: 7051.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1862144.41	601976.80	36° 7' 2.532 N	107° 29' 17.038 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
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	
898.13	7.96	196.65	896.85	-26.46	-7.91	2.00	196.65	-13.12	
3226.88	7.96	196.65	3203.15	-335.54	-100.32	0.00	0.00	-166.33	
3625.01	0.00	0.00	3600.00	-362.00	-108.23	2.00	180.00	-179.44	
4485.41	0.00	0.00	4460.40	-362.00	-108.23	0.00	0.00	-179.44	
5480.27	89.54	315.00	5097.00	84.52	-554.75	9.00	315.00	452.04	
5627.73	89.54	315.00	5098.19	188.79	-659.02	0.00	0.00	599.49	SEU362H POE
6004.28	89.54	315.00	5182.00	7525.95	-7996.04	0.00	0.00	10975.71	SEU362H BHL

SITE DETAILS: SEU 361 Pad

Site Centre Northing: 1862128.71
Easting: 601964.74

ositional Uncertainty: 0.00
Convergence: 0.20
Local North: Grid

PROJECT DETAILS: Sandoval County, NM 3003 West

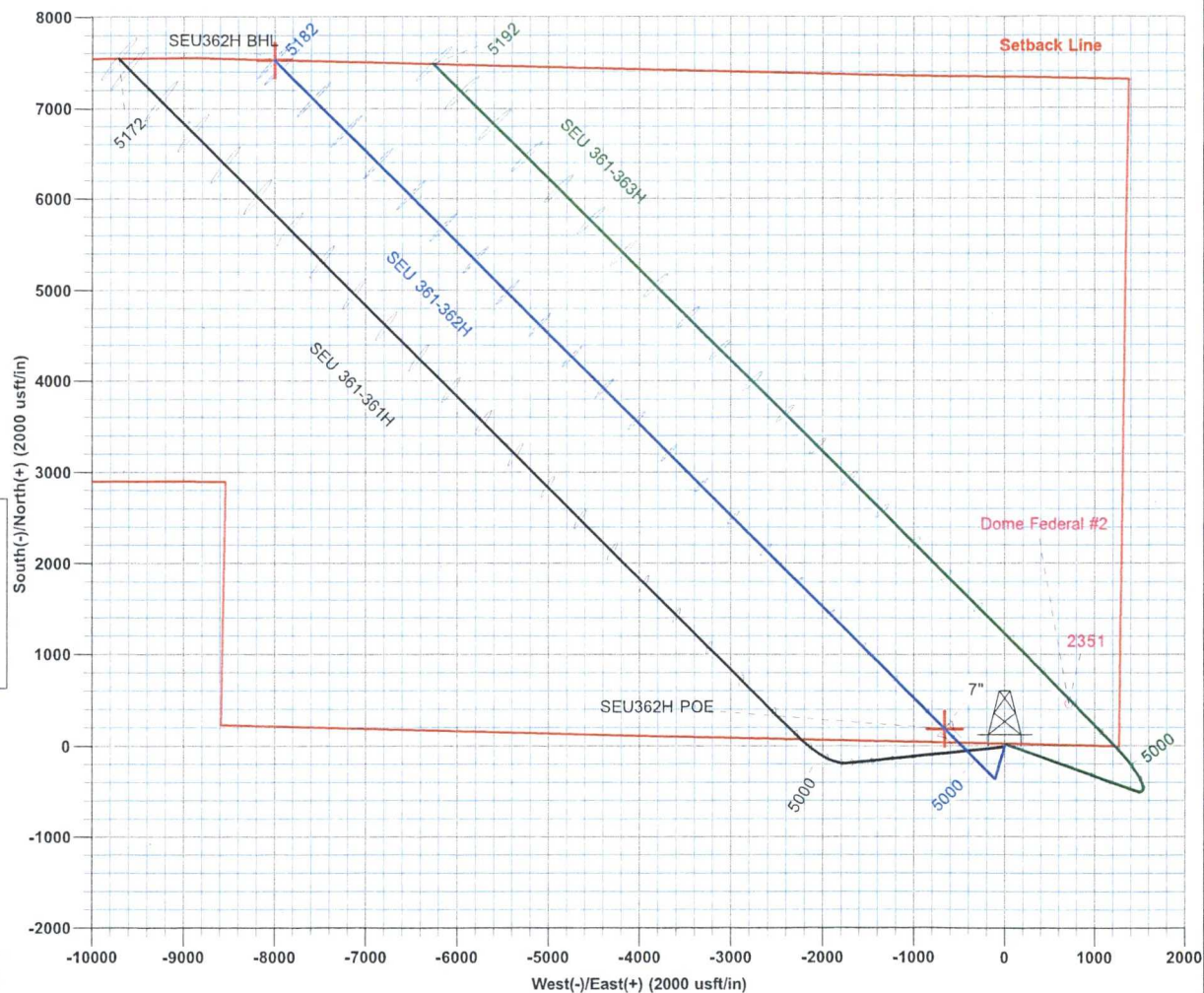
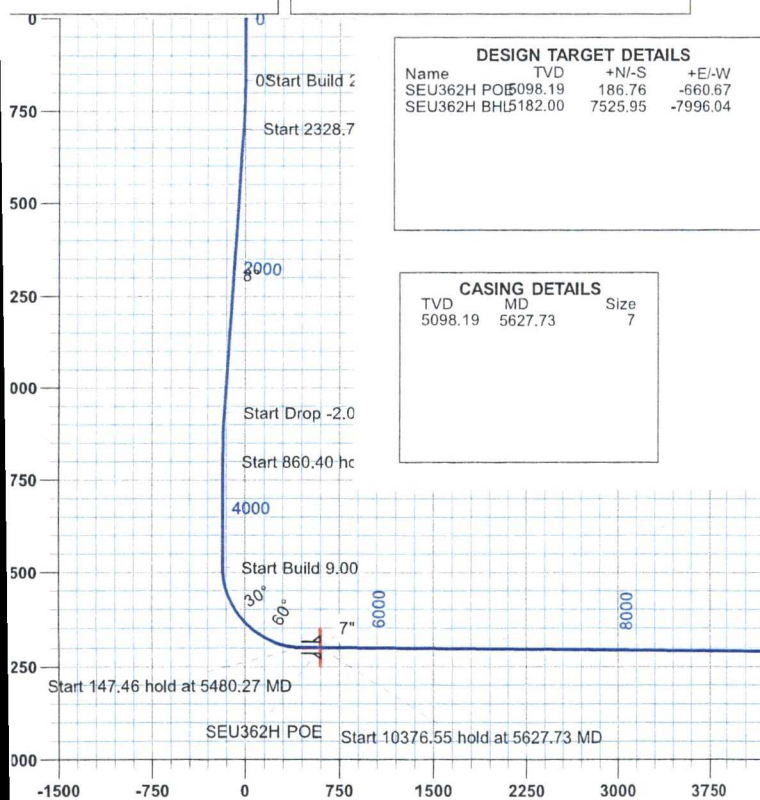
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W
SEU362H POE	5098.19	186.76	-660.67
SEU362H BHL	5182.00	7525.95	-7996.04

CASING DETAILS

TVD	MD	Size
5098.19	5627.73	7



12:10, May 17 2017
Scientific Drilling
325 S Pauline Rd
Odessa, TX 79765

6.3. Vessilla – Menefee – Orlie complex

This soil is found along the northern portion of the pipeline corridor (30.4 percent of the project area). As such, excavated soils during construction of the well connect pipelines would consist of native borrow and subsoils from the soil map unit. A brief description of this soil can be found below.

The Vessilla-Menefee-Orlie soil association is composed of 45 percent Vessilla and similar soils, 25 percent Menefee and similar soils, 20 percent Orlie and similar soils, and 10 percent of other minor components. This soil map unit is considered a well-drained soil, with the depth to water table and depth to restrictive layer being more than 80 inches. This soil association has a moderate to high potential for water erosion and low to moderate potential for wind erosion. The Vessilla-Menefee-Orlie association is typically found ranging in elevation from 6,000 to 7,460 feet in elevation, along gravelly, woodland, loamy (1- to 30-percent slopes) and within loamy, sandy and salt flat ecological sites (USDA/NRCS 2015).

6.4. Orlie-Sparham association, 0 to 5 percent slopes

This soil is found on the northern end of the pipeline intermixed with the Vessilla-Menefee-Orlie association and is within approximately 7 percent of the total project area. As such, excavated soils during construction of the well connect pipelines would consist of native borrow and subsoils from the soil map unit. A brief description of this soil can be found below

The Orlie-Sparham association is composed of 45 percent Orlie and similar soils, 35 percent Sparham and similar soils and 20 percent minor components. Orlie-Sparham association soils are found on valley sides, mesas, cuestas, hills, alluvial fans and floodplains ranging from 5,000 feet to 8,000 feet in elevation. Orlie soils occur on slopes of 1 to 5 percent, are well drained, and have a moderately high water permeability. Sparham soils occur on slopes of 0 to 2 percent, are well drained, and have moderately low to moderately high water permeability. This soil association is not prime farmland and salinity ranges from very slightly saline to strongly saline (USDA/NRCS 2015).

7. 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.

B. Drilling Fluids

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

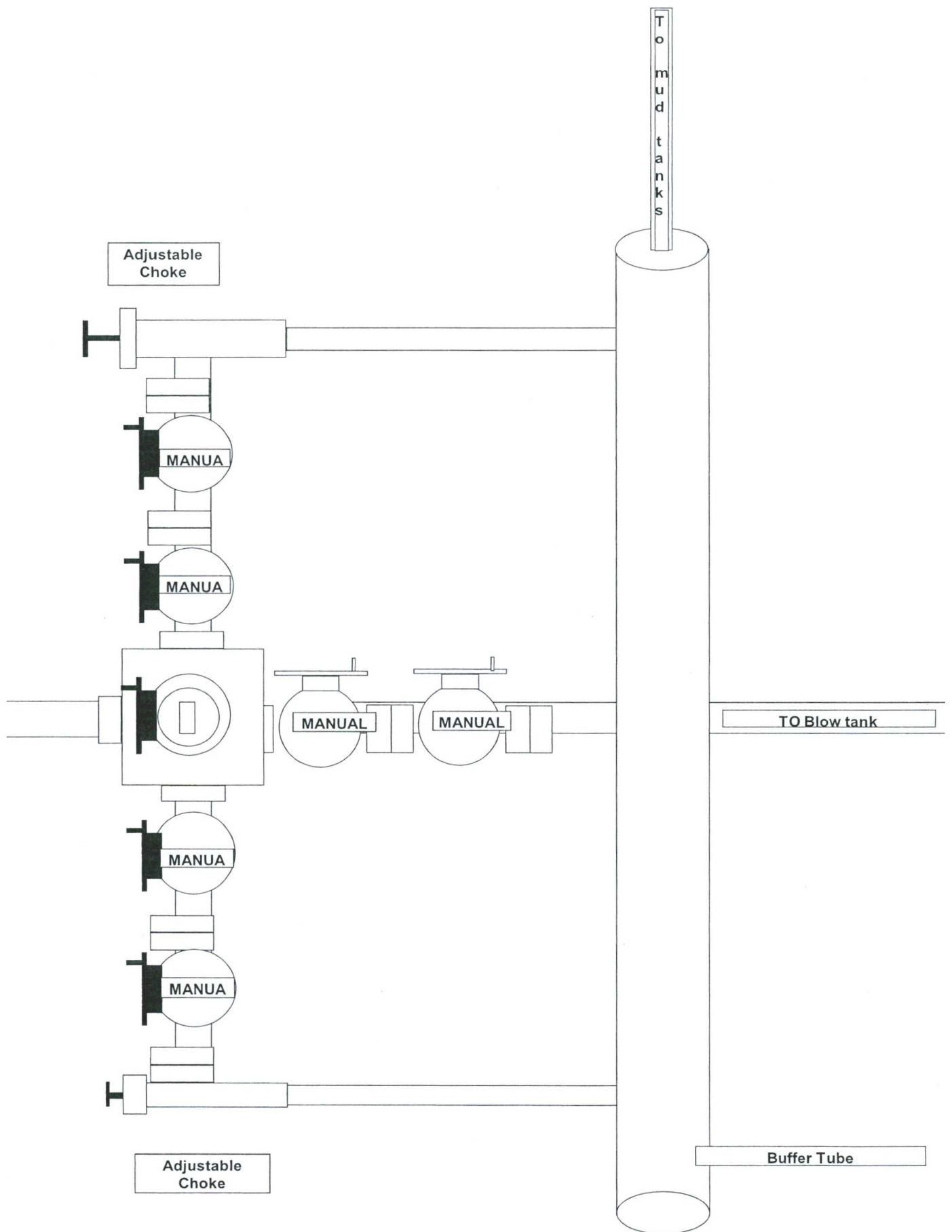
C. Spills

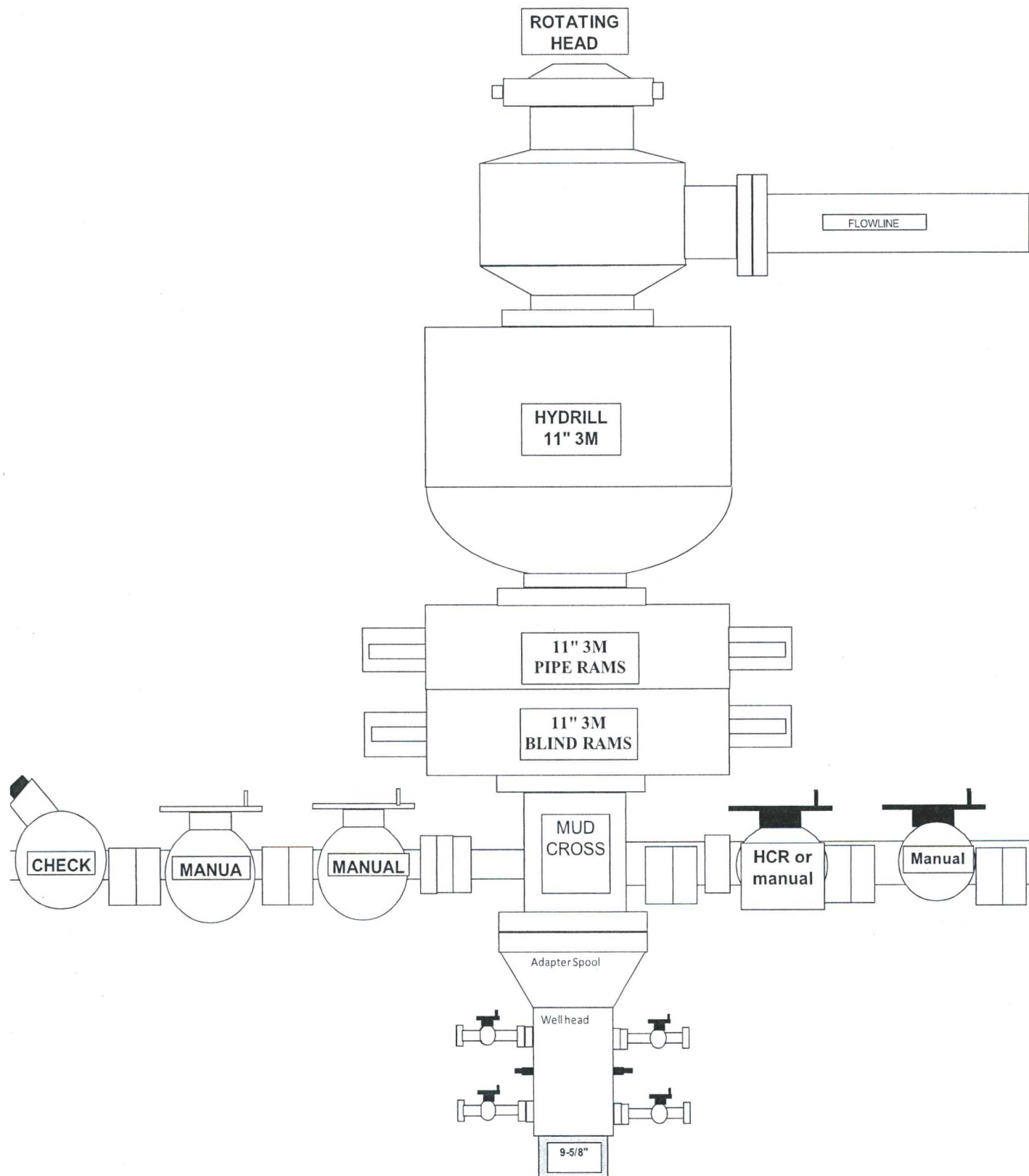
- 1 Any spills of non-freshwater fluids will be immediately cleaned up and removed to an approved disposal site.

D. Sewage

- 1 Portable toilets will be provided and maintained during construction, as needed (see Figures 2 & 3 in Appendix B for the location of toilets).

E. Garbage and other waste material





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

in Bloomfield, NM to WPX Energy Production, LLC S Escavada Unit #362H

306' FSL & 1601' FEL, Section 20, T22N, R6W, N.M.P.M., Sandoval County, NM

Latitude: 36.117386°N Longitude: 107.488670°W Datum: NAD1983

From the intersection of US Hwy 550 & US Hwy 64 in Bloomfield, NM, travel Southerly on US Hwy 550 for 53.6 miles to Mile Marker 97.7;

Go Right (Southerly) on Indian Service Route #474 for 3.6 miles to fork in roadway;

Go Right (Southerly) which is straight continuing on Indian Service Route #474 for 1.0 miles to fork in roadway;

Go Left (Southerly) continuing on Indian Service Route #474 for 0.2 miles to fork in roadway;

Go Right (Southerly) which is straight exiting Indian Service Route #474 entering Indian Service Route #46 for 3.2 miles to new access on right-hand side of roadway which continues for 324.7' to staked WPX S Escavada Unit #362H location.