

WPXENERGY®

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 11 2018

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WPX Energy

Eddy County, New Mexico (NAD 83)

Bindel 4 Fee

Bindel 4 Fee 1H

30-015-45042

Wellbore #1

Plan: Design #3

Standard Planning Report

05 October, 2018

MS *Directional*

Database: EDM 5000.14 Conroe DB
Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Bindel 4 Fee
Well: Bindel 4 Fee 1H
Wellbore: Wellbore #1
Design: Design #3

Local Co-ordinate Reference: Well Bindel 4 Fee 1H
TVD Reference: WELL @ 3151.00usft (Orion Phoenix)
MD Reference: WELL @ 3151.00usft (Orion Phoenix)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Bindel 4 Fee			
Site Position:		Northing:	485,869.60 usft	Latitude: 32° 20' 8.321 N
From:	Map	Easting:	585,912.10 usft	Longitude: 104° 11' 20.438 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	

Well	Bindel 4 Fee 1H			
Well Position	+N/-S	0.00 usft	Northing:	486,168.40 usft
	+E/-W	0.00 usft	Easting:	585,969.50 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level: 3,126.00 usft
Grid Convergence:	0.08 °			

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2018	10/10/2018	7.17	60.00	47,864

Design	Design #3			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	9,157.11
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	268.89

Plan Survey Tool Program	Date 10/5/2018			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1 9,157.11	14,774.67	Design #3 (Wellbore #1)	MWD	
			OWSG MWD - Standard	

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
9,157.11	0.00	0.00	9,068.04	-471.23	934.65	0.00	0.00	0.00	0.00	
10,057.11	90.00	268.89	9,641.00	-482.30	361.80	10.00	10.00	-10.12	268.89	
14,774.79	90.00	268.89	9,641.00	-573.40	-4,355.00	0.00	0.00	0.00	0.00	PBHL v3 - Bindel 4

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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)
9,157.11	0.00	0.00	9,068.04	-471.23	934.65	-925.35	0.00	0.00	0.00
SDTRK, 10.00°/100' Build									
9,200.00	4.29	268.89	9,110.89	-471.26	933.05	-923.74	10.00	10.00	0.00
9,250.00	9.29	268.89	9,160.52	-471.38	927.14	-917.84	10.00	10.00	0.00
9,300.00	14.29	268.89	9,209.45	-471.57	916.93	-907.62	10.00	10.00	0.00
9,348.62	19.15	268.89	9,256.00	-471.84	902.95	-893.64	10.00	10.00	0.00
Wolfcamp B									
9,350.00	19.29	268.89	9,257.31	-471.85	902.50	-893.19	10.00	10.00	0.00
9,400.00	24.29	268.89	9,303.72	-472.21	883.95	-874.63	10.00	10.00	0.00
9,450.00	29.29	268.89	9,348.34	-472.65	861.42	-852.10	10.00	10.00	0.00
9,500.00	34.29	268.89	9,390.83	-473.16	835.10	-825.77	10.00	10.00	0.00
9,550.00	39.29	268.89	9,430.86	-473.73	805.17	-795.84	10.00	10.00	0.00
9,552.78	39.57	268.89	9,433.00	-473.77	803.40	-794.08	10.00	10.00	0.00
Wolfcamp C									
9,600.00	44.29	268.89	9,468.12	-474.38	771.86	-762.53	10.00	10.00	0.00
9,650.00	49.29	268.89	9,502.35	-475.08	735.44	-726.10	10.00	10.00	0.00
9,700.00	54.29	268.89	9,533.27	-475.84	696.17	-686.83	10.00	10.00	0.00
9,750.00	59.29	268.89	9,560.64	-476.65	654.36	-645.01	10.00	10.00	0.00
9,800.00	64.29	268.89	9,584.27	-477.50	610.32	-600.96	10.00	10.00	0.00
9,850.00	69.29	268.89	9,603.97	-478.38	564.39	-555.02	10.00	10.00	0.00
9,900.00	74.29	268.89	9,619.59	-479.30	516.92	-507.54	10.00	10.00	0.00
9,901.51	74.44	268.89	9,620.00	-479.33	515.47	-506.08	10.00	10.00	0.00
Wolfcamp D									
9,950.00	79.29	268.89	9,631.02	-480.24	468.27	-458.88	10.00	10.00	0.00
10,000.00	84.29	268.89	9,638.15	-481.20	418.81	-409.41	10.00	10.00	0.00
10,050.00	89.29	268.89	9,640.95	-482.16	368.91	-359.50	10.00	10.00	0.00
10,057.11	90.00	268.89	9,641.00	-482.30	361.80	-352.39	10.00	10.00	0.00
Begin 90.00° Lateral									
10,100.00	90.00	268.89	9,641.00	-483.12	318.92	-309.50	0.00	0.00	0.00
10,200.00	90.00	268.89	9,641.00	-485.06	218.94	-209.50	0.00	0.00	0.00
10,300.00	90.00	268.89	9,641.00	-486.99	118.96	-109.50	0.00	0.00	0.00
10,400.00	90.00	268.89	9,641.00	-488.92	18.98	-9.50	0.00	0.00	0.00
10,500.00	90.00	268.89	9,641.00	-490.85	-81.01	90.50	0.00	0.00	0.00
10,600.00	90.00	268.89	9,641.00	-492.78	-180.99	190.50	0.00	0.00	0.00
10,700.00	90.00	268.89	9,641.00	-494.71	-280.97	290.50	0.00	0.00	0.00
10,800.00	90.00	268.89	9,641.00	-496.64	-380.95	390.50	0.00	0.00	0.00
10,900.00	90.00	268.89	9,641.00	-498.57	-480.93	490.50	0.00	0.00	0.00
11,000.00	90.00	268.89	9,641.00	-500.50	-580.91	590.50	0.00	0.00	0.00
11,100.00	90.00	268.89	9,641.00	-502.44	-680.89	690.50	0.00	0.00	0.00
11,200.00	90.00	268.89	9,641.00	-504.37	-780.87	790.50	0.00	0.00	0.00
11,300.00	90.00	268.89	9,641.00	-506.30	-880.86	890.50	0.00	0.00	0.00
11,400.00	90.00	268.89	9,641.00	-508.23	-980.84	990.50	0.00	0.00	0.00
11,500.00	90.00	268.89	9,641.00	-510.16	-1,080.82	1,090.50	0.00	0.00	0.00
11,600.00	90.00	268.89	9,641.00	-512.09	-1,180.80	1,190.50	0.00	0.00	0.00
11,700.00	90.00	268.89	9,641.00	-514.02	-1,280.78	1,290.50	0.00	0.00	0.00
11,800.00	90.00	268.89	9,641.00	-515.95	-1,380.76	1,390.50	0.00	0.00	0.00
11,900.00	90.00	268.89	9,641.00	-517.88	-1,480.74	1,490.50	0.00	0.00	0.00
12,000.00	90.00	268.89	9,641.00	-519.82	-1,580.73	1,590.50	0.00	0.00	0.00
12,100.00	90.00	268.89	9,641.00	-521.75	-1,680.71	1,690.50	0.00	0.00	0.00
12,200.00	90.00	268.89	9,641.00	-523.68	-1,780.69	1,790.50	0.00	0.00	0.00
12,300.00	90.00	268.89	9,641.00	-525.61	-1,880.67	1,890.50	0.00	0.00	0.00
12,400.00	90.00	268.89	9,641.00	-527.54	-1,980.65	1,990.50	0.00	0.00	0.00
12,500.00	90.00	268.89	9,641.00	-529.47	-2,080.63	2,090.50	0.00	0.00	0.00
12,600.00	90.00	268.89	9,641.00	-531.40	-2,180.61	2,190.50	0.00	0.00	0.00

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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)
12,700.00	90.00	268.89	9,641.00	-533.33	-2,280.60	2,290.50	0.00	0.00	0.00
12,800.00	90.00	268.89	9,641.00	-535.26	-2,380.58	2,390.50	0.00	0.00	0.00
12,900.00	90.00	268.89	9,641.00	-537.20	-2,480.56	2,490.50	0.00	0.00	0.00
13,000.00	90.00	268.89	9,641.00	-539.13	-2,580.54	2,590.50	0.00	0.00	0.00
13,100.00	90.00	268.89	9,641.00	-541.06	-2,680.52	2,690.50	0.00	0.00	0.00
13,200.00	90.00	268.89	9,641.00	-542.99	-2,780.50	2,790.50	0.00	0.00	0.00
13,300.00	90.00	268.89	9,641.00	-544.92	-2,880.48	2,890.50	0.00	0.00	0.00
13,400.00	90.00	268.89	9,641.00	-546.85	-2,980.46	2,990.50	0.00	0.00	0.00
13,500.00	90.00	268.89	9,641.00	-548.78	-3,080.45	3,090.50	0.00	0.00	0.00
13,600.00	90.00	268.89	9,641.00	-550.71	-3,180.43	3,190.50	0.00	0.00	0.00
13,700.00	90.00	268.89	9,641.00	-552.64	-3,280.41	3,290.50	0.00	0.00	0.00
13,800.00	90.00	268.89	9,641.00	-554.58	-3,380.39	3,390.50	0.00	0.00	0.00
13,900.00	90.00	268.89	9,641.00	-556.51	-3,480.37	3,490.50	0.00	0.00	0.00
14,000.00	90.00	268.89	9,641.00	-558.44	-3,580.35	3,590.50	0.00	0.00	0.00
14,100.00	90.00	268.89	9,641.00	-560.37	-3,680.33	3,690.50	0.00	0.00	0.00
14,200.00	90.00	268.89	9,641.00	-562.30	-3,780.32	3,790.50	0.00	0.00	0.00
14,300.00	90.00	268.89	9,641.00	-564.23	-3,880.30	3,890.50	0.00	0.00	0.00
14,400.00	90.00	268.89	9,641.00	-566.16	-3,980.28	3,990.50	0.00	0.00	0.00
14,500.00	90.00	268.89	9,641.00	-568.09	-4,080.26	4,090.50	0.00	0.00	0.00
14,600.00	90.00	268.89	9,641.00	-570.02	-4,180.24	4,190.50	0.00	0.00	0.00
14,700.00	90.00	268.89	9,641.00	-571.96	-4,280.22	4,290.50	0.00	0.00	0.00
14,774.79	90.00	268.89	9,641.00	-573.40	-4,355.00	4,365.29	0.00	0.00	0.00

PBHL - PBHL v2 - Bindel 4 Fee 1H - PBHL v3 - Bindel 4 Fee 1H

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL v3 - Bindel 4 Fee - plan hits target center - Point	0.00	0.00	9,641.00	-573.40	-4,355.00	485,595.00	581,614.50	32° 20' 5.658 N	104° 12' 10.535 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
350.00	350.00	13 3/8"	13-3/8	17-1/2
5,710.31	5,662.00	9 5/8"	9-5/8	12-1/4

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Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
354.00	354.00	Salado		0.00	
697.00	697.00	Castile		0.00	
2,130.00	2,130.00	Bell Canyon		0.00	
3,098.60	3,090.00	Cherry Canyon		0.00	
4,056.16	4,033.00	Brushy Canyon		0.00	
5,607.75	5,561.00	Bone Spring		0.00	
6,038.30	5,985.00	Avalon		0.00	
6,567.34	6,506.00	1st Bone Spring Sand		0.00	
6,854.71	6,789.00	2nd Bone Spring Lime		0.00	
7,186.76	7,116.00	2nd Bone Spring Sand		0.00	
7,402.03	7,328.00	3rd Bone Spring Lime		0.00	
8,676.07	8,587.00	3rd Bone Spring Sand		0.00	
9,018.07	8,929.00	Wolfcamp Top		0.00	
9,050.07	8,961.00	WC_X		0.00	
9,115.07	9,026.00	WC_Y		0.00	
9,155.07	9,066.00	Wolfcamp A		0.00	
9,348.62	9,256.00	Wolfcamp B		0.00	
9,552.78	9,433.00	Wolfcamp C		0.00	
9,901.51	9,620.00	Wolfcamp D		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,157.11	9,068.04	-471.23	934.65	SDTRK, 10.00°/100' Build
10,057.11	9,641.00	-482.30	361.80	Begin 90.00° Lateral
14,774.79	9,641.00	-573.40	-4,355.00	PBHL