

NM OIL CONSERVATION
ARTESIA DISTRICT

JAN 18 2019

WPX Energy

RECEIVED

Eddy County, New Mexico (NAD 83)

Collie 35-34-22-27 Fee Pad

Collie 35-34-22-27 Fee 401H

API: ???

Wellbore #1

30.015-45643

Plan: ON Lease

Standard Planning Report

11 January, 2019



www.scientificdrilling.com

Scientific Drilling, Intl

Planning Report

Database: Midland District
 Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Collie 35-34-22-27 Fee Pad
 Well: Collie 35-34-22-27 Fee 401H
 Wellbore: Wellbore #1
 Design: ON Lease

Local Co-ordinate Reference: Well Collie 35-34-22-27 Fee 401H
 TVD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 MD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 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	Collie 35-34-22-27 Fee Pad			
Site Position:		Northing:	490,402.10 usft	Latitude: 32.348054
From:	Map	Easting:	597,781.90 usft	Longitude: -104.150554
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.10 °

Well	Collie 35-34-22-27 Fee 401H			
Well Position	+N/-S	0.00 usft	Northing:	490,402.10 usft
	+E/-W	0.00 usft	Easting:	597,781.90 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 3,079.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/11/2019	7.23	60.08	47,942

Design	ON Lease			
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	269.78

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	
2,430.00	0.00	0.00	2,430.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,004.88	11.50	341.91	3,001.03	54.65	-17.85	2.00	2.00	0.00	341.91	
8,819.43	11.50	341.91	8,698.90	1,156.36	-377.73	0.00	0.00	0.00	0.00	
9,684.36	90.00	269.78	9,227.00	1,256.43	-950.00	10.00	9.08	-8.34	-72.46	
19,454.62	90.00	269.80	9,227.00	1,220.80	-10,720.20	0.00	0.00	0.00	90.00	Collie 32-401H BHL

Scientific Drilling, Intl

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well Collie 35-34-22-27 Fee 401H
Company:	WPX Energy	TVD Reference:	GL 3079 + KB 26 = @ 3105.00usft (HP 265)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	GL 3079 + KB 26 = @ 3105.00usft (HP 265)
Site:	Collie 35-34-22-27 Fee Pad	North Reference:	Grid
Well:	Collie 35-34-22-27 Fee 401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	ON Lease		

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
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
373.00	0.00	0.00	373.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
825.00	0.00	0.00	825.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,330.00	0.00	0.00	2,330.00	0.00	0.00	0.00	0.00	0.00	0.00
Castile - 9 5/8"									
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,430.00	0.00	0.00	2,430.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	1.40	341.91	2,499.99	0.81	-0.27	0.26	2.00	2.00	0.00
2,600.00	3.40	341.91	2,599.90	4.79	-1.57	1.55	2.00	2.00	0.00
2,700.00	5.40	341.91	2,699.60	12.09	-3.95	3.90	2.00	2.00	0.00
2,800.00	7.40	341.91	2,798.97	22.68	-7.41	7.32	2.00	2.00	0.00
2,900.00	9.40	341.91	2,897.89	38.57	-11.94	11.80	2.00	2.00	0.00
3,004.88	11.50	341.91	3,001.03	54.65	-17.85	17.64	2.00	2.00	0.00
3,100.00	11.50	341.91	3,094.24	72.67	-23.74	23.46	0.00	0.00	0.00
3,110.98	11.50	341.91	3,105.00	74.75	-24.42	24.13	0.00	0.00	0.00
Wolfcamp A									
3,200.00	11.50	341.91	3,192.23	91.62	-29.93	29.58	0.00	0.00	0.00
3,244.66	11.50	341.91	3,236.00	100.08	-32.69	32.31	0.00	0.00	0.00
Bell Canyon (Base of Salt)									
3,300.00	11.50	341.91	3,290.23	110.56	-36.12	35.69	0.00	0.00	0.00
3,400.00	11.50	341.91	3,388.22	129.51	-42.31	41.81	0.00	0.00	0.00
3,500.00	11.50	341.91	3,486.21	148.46	-48.50	47.92	0.00	0.00	0.00
3,600.00	11.50	341.91	3,584.21	167.41	-54.68	54.04	0.00	0.00	0.00
3,700.00	11.50	341.91	3,682.20	186.35	-60.87	60.16	0.00	0.00	0.00
3,800.00	11.50	341.91	3,780.19	205.30	-67.06	66.27	0.00	0.00	0.00
3,900.00	11.50	341.91	3,878.19	224.25	-73.25	72.39	0.00	0.00	0.00
4,000.00	11.50	341.91	3,976.18	243.20	-79.44	78.51	0.00	0.00	0.00
4,100.00	11.50	341.91	4,074.17	262.14	-85.63	84.62	0.00	0.00	0.00
4,200.00	11.50	341.91	4,172.17	281.09	-91.82	90.74	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database: Midland District
 Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Collie 35-34-22-27 Fee Pad
 Well: Collie 35-34-22-27 Fee 401H
 Wellbore: Wellbore #1
 Design: ON Lease

Local Co-ordinate Reference: Well Collie 35-34-22-27 Fee 401H
 TVD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 MD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 North Reference: Grid
 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)
4,247.79	11.50	341.91	4,219.00	290.15	-94.78	93.66	0.00	0.00	0.00
Cherry Canyon									
4,300.00	11.50	341.91	4,270.16	300.04	-98.01	96.86	0.00	0.00	0.00
4,400.00	11.50	341.91	4,368.15	318.99	-104.20	102.97	0.00	0.00	0.00
4,500.00	11.50	341.91	4,466.15	337.93	-110.39	109.09	0.00	0.00	0.00
4,600.00	11.50	341.91	4,564.14	356.88	-116.58	115.21	0.00	0.00	0.00
4,700.00	11.50	341.91	4,662.13	375.83	-122.77	121.32	0.00	0.00	0.00
4,800.00	11.50	341.91	4,760.13	394.78	-128.96	127.44	0.00	0.00	0.00
4,900.00	11.50	341.91	4,858.12	413.72	-135.15	133.56	0.00	0.00	0.00
5,000.00	11.50	341.91	4,956.11	432.67	-141.34	139.67	0.00	0.00	0.00
5,100.00	11.50	341.91	5,054.11	451.62	-147.52	145.79	0.00	0.00	0.00
5,200.00	11.50	341.91	5,152.10	470.57	-153.71	151.91	0.00	0.00	0.00
5,300.00	11.50	341.91	5,250.09	489.51	-159.90	158.02	0.00	0.00	0.00
5,400.00	11.50	341.91	5,348.09	508.46	-166.09	164.14	0.00	0.00	0.00
5,500.00	11.50	341.91	5,446.08	527.41	-172.28	170.26	0.00	0.00	0.00
5,600.00	11.50	341.91	5,544.07	546.36	-178.47	176.37	0.00	0.00	0.00
5,700.00	11.50	341.91	5,642.07	565.30	-184.66	182.49	0.00	0.00	0.00
5,790.76	11.50	341.91	5,731.00	582.50	-190.28	188.04	0.00	0.00	0.00
Brushy Canyon									
5,800.00	11.50	341.91	5,740.06	584.25	-190.85	188.61	0.00	0.00	0.00
5,900.00	11.50	341.91	5,838.05	603.20	-197.04	194.72	0.00	0.00	0.00
6,000.00	11.50	341.91	5,936.05	622.15	-203.23	200.84	0.00	0.00	0.00
6,100.00	11.50	341.91	6,034.04	641.09	-209.42	206.95	0.00	0.00	0.00
6,188.74	11.50	341.91	6,121.00	657.91	-214.91	212.38	0.00	0.00	0.00
Bone Spring									
6,200.00	11.50	341.91	6,132.03	660.04	-215.61	213.07	0.00	0.00	0.00
6,300.00	11.50	341.91	6,230.03	678.99	-221.80	219.19	0.00	0.00	0.00
6,400.00	11.50	341.91	6,328.02	697.94	-227.99	225.30	0.00	0.00	0.00
6,500.00	11.50	341.91	6,426.01	716.88	-234.18	231.42	0.00	0.00	0.00
6,600.00	11.50	341.91	6,524.01	735.83	-240.36	237.54	0.00	0.00	0.00
6,700.00	11.50	341.91	6,622.00	754.78	-246.55	243.65	0.00	0.00	0.00
6,800.00	11.50	341.91	6,719.99	773.73	-252.74	249.77	0.00	0.00	0.00
6,836.75	11.50	341.91	6,756.00	780.69	-255.02	252.02	0.00	0.00	0.00
Avalon									
6,900.00	11.50	341.91	6,817.99	792.67	-258.93	255.89	0.00	0.00	0.00
7,000.00	11.50	341.91	6,915.98	811.62	-265.12	262.00	0.00	0.00	0.00
7,081.66	11.50	341.91	6,996.00	827.09	-270.18	267.00	0.00	0.00	0.00
1st Bone Spring Sand									
7,100.00	11.50	341.91	7,013.97	830.57	-271.31	268.12	0.00	0.00	0.00
7,200.00	11.50	341.91	7,111.97	849.52	-277.50	274.24	0.00	0.00	0.00
7,300.00	11.50	341.91	7,209.96	868.46	-283.69	280.35	0.00	0.00	0.00
7,400.00	11.50	341.91	7,307.95	887.41	-289.88	286.47	0.00	0.00	0.00
7,500.00	11.50	341.91	7,405.95	906.36	-296.07	292.59	0.00	0.00	0.00
7,558.22	11.50	341.91	7,463.00	917.39	-299.67	298.15	0.00	0.00	0.00
2nd Bone Spring Lime									
7,600.00	11.50	341.91	7,503.94	925.31	-302.26	298.70	0.00	0.00	0.00
7,700.00	11.50	341.91	7,601.93	944.25	-308.45	304.82	0.00	0.00	0.00
7,723.54	11.50	341.91	7,625.00	948.71	-309.90	306.26	0.00	0.00	0.00
2nd Bone Spring Sand									
7,800.00	11.50	341.91	7,699.93	963.20	-314.64	310.94	0.00	0.00	0.00
7,900.00	11.50	341.91	7,797.92	982.15	-320.83	317.05	0.00	0.00	0.00
8,000.00	11.50	341.91	7,895.91	1,001.10	-327.02	323.17	0.00	0.00	0.00
8,100.00	11.50	341.91	7,993.91	1,020.04	-333.20	329.29	0.00	0.00	0.00

Scientific Drilling, Intl Planning Report

Database: Midland District
Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Collie 35-34-22-27 Fee Pad
Well: Collie 35-34-22-27 Fee 401H
Wellbore: Wellbore #1
Design: ON Lease

Local Co-ordinate Reference: Well Collie 35-34-22-27 Fee 401H
TVD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
MD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
North Reference: Grid
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)
8,200.00	11.50	341.91	8,091.90	1,038.99	-339.39	335.40	0.00	0.00	0.00
8,300.00	11.50	341.91	8,189.89	1,057.94	-345.58	341.52	0.00	0.00	0.00
8,400.00	11.50	341.91	8,287.89	1,076.89	-351.77	347.64	0.00	0.00	0.00
8,500.00	11.50	341.91	8,385.88	1,095.83	-357.96	353.75	0.00	0.00	0.00
8,600.00	11.50	341.91	8,483.87	1,114.78	-364.15	359.87	0.00	0.00	0.00
8,700.00	11.50	341.91	8,581.86	1,133.73	-370.34	365.98	0.00	0.00	0.00
8,800.00	11.50	341.91	8,679.86	1,152.68	-376.53	372.10	0.00	0.00	0.00
8,819.43	11.50	341.91	8,698.90	1,156.36	-377.73	373.29	0.00	0.00	0.00
KOP									
8,850.00	12.75	328.59	8,728.79	1,162.14	-380.44	375.97	10.00	4.10	-43.57
8,900.00	15.88	312.67	8,777.25	1,171.49	-388.35	383.85	10.00	6.25	-31.84
8,930.06	18.16	305.96	8,806.00	1,177.03	-395.17	390.64	10.00	7.58	-22.33
3rd Bone Spring Lime									
8,950.00	19.77	302.36	8,824.85	1,180.66	-400.53	395.99	10.00	8.11	-18.03
9,000.00	24.07	295.47	8,871.24	1,189.57	-416.89	412.32	10.00	8.59	-13.79
9,050.00	28.58	290.60	8,916.04	1,198.17	-437.30	432.70	10.00	9.03	-9.74
9,100.00	33.23	286.97	8,958.94	1,206.38	-461.62	456.98	10.00	9.29	-7.25
9,150.00	37.95	284.16	8,999.59	1,214.15	-489.64	484.98	10.00	9.45	-5.64
9,200.00	42.73	281.88	9,037.69	1,221.40	-521.17	516.48	10.00	9.56	-4.55
9,250.00	47.55	279.98	9,072.95	1,228.10	-555.98	551.24	10.00	9.63	-3.79
9,299.83	52.37	278.37	9,105.00	1,234.16	-593.60	588.86	10.00	9.69	-3.25
3rd Bone Spring Sand									
9,300.00	52.39	278.36	9,105.11	1,234.18	-593.74	589.00	10.00	9.71	-3.03
9,346.49	56.91	277.03	9,132.00	1,239.24	-631.31	626.55	10.00	9.72	-2.86
Wolfcamp Top									
9,350.00	57.25	276.94	9,133.91	1,239.60	-634.23	629.47	10.00	9.74	-2.70
9,400.00	62.13	275.66	9,159.13	1,244.32	-677.13	672.34	10.00	9.75	-2.55
9,450.00	67.02	274.49	9,180.60	1,248.31	-722.09	717.29	10.00	9.78	-2.33
9,473.93	69.36	273.97	9,189.49	1,249.95	-744.25	739.44	10.00	9.79	-2.21
Collie 32-401H FTP									
9,500.00	71.91	273.41	9,198.13	1,251.53	-768.79	763.98	10.00	9.79	-2.14
9,535.02	75.34	272.69	9,208.00	1,253.31	-802.33	797.51	10.00	9.80	-2.07
WC_X									
9,550.00	76.81	272.38	9,211.60	1,253.95	-816.86	812.04	10.00	9.81	-2.02
9,581.73	79.93	271.75	9,218.00	1,255.07	-847.91	843.09	10.00	9.81	-1.98
WC_Y									
9,600.00	81.72	271.40	9,220.91	1,255.57	-865.94	861.12	10.00	9.81	-1.95
9,650.00	86.63	270.44	9,225.99	1,256.36	-915.66	910.83	10.00	9.82	-1.92
9,684.36	90.00	269.78	9,227.00	1,256.43	-950.00	945.17	10.00	9.82	-1.90
Top Target									
9,700.00	90.00	269.78	9,227.00	1,256.37	-965.64	960.81	0.00	0.00	0.00
9,800.00	90.00	269.78	9,227.00	1,255.99	-1,065.64	1,060.81	0.00	0.00	0.00
9,900.00	90.00	269.78	9,227.00	1,255.61	-1,165.64	1,160.81	0.00	0.00	0.00
10,000.00	90.00	269.78	9,227.00	1,255.24	-1,265.64	1,260.81	0.00	0.00	0.00
10,100.00	90.00	269.78	9,227.00	1,254.86	-1,365.64	1,360.81	0.00	0.00	0.00
10,200.00	90.00	269.78	9,227.00	1,254.48	-1,465.64	1,460.81	0.00	0.00	0.00
10,300.00	90.00	269.78	9,227.00	1,254.11	-1,565.64	1,560.81	0.00	0.00	0.00
10,400.00	90.00	269.78	9,227.00	1,253.73	-1,665.64	1,660.81	0.00	0.00	0.00
10,500.00	90.00	269.78	9,227.00	1,253.35	-1,765.64	1,760.81	0.00	0.00	0.00
10,600.00	90.00	269.78	9,227.00	1,252.98	-1,865.64	1,860.81	0.00	0.00	0.00
10,700.00	90.00	269.78	9,227.00	1,252.60	-1,965.64	1,960.81	0.00	0.00	0.00
10,800.00	90.00	269.78	9,227.00	1,252.23	-2,065.63	2,060.81	0.00	0.00	0.00
10,900.00	90.00	269.79	9,227.00	1,251.85	-2,165.63	2,160.81	0.00	0.00	0.00

Scientific Drilling, Intl Planning Report

Database: Midland District
Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Collie 35-34-22-27 Fee Pad
Well: Collie 35-34-22-27 Fee 401H
Wellbore: Wellbore #1
Design: ON Lease

Local Co-ordinate Reference: Well Collie 35-34-22-27 Fee 401H
TVD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
MD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
North Reference: Grid
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)
11,000.00	90.00	269.79	9,227.00	1,251.48	-2,265.63	2,260.81	0.00	0.00	0.00
11,100.00	90.00	269.79	9,227.00	1,251.10	-2,365.63	2,360.81	0.00	0.00	0.00
11,200.00	90.00	269.79	9,227.00	1,250.73	-2,465.63	2,460.81	0.00	0.00	0.00
11,300.00	90.00	269.79	9,227.00	1,250.35	-2,565.63	2,560.81	0.00	0.00	0.00
11,400.00	90.00	269.79	9,227.00	1,249.98	-2,665.63	2,660.81	0.00	0.00	0.00
11,500.00	90.00	269.79	9,227.00	1,249.61	-2,765.63	2,760.81	0.00	0.00	0.00
11,600.00	90.00	269.79	9,227.00	1,249.23	-2,865.63	2,860.81	0.00	0.00	0.00
11,700.00	90.00	269.79	9,227.00	1,248.86	-2,965.63	2,960.81	0.00	0.00	0.00
11,800.00	90.00	269.79	9,227.00	1,248.49	-3,065.63	3,060.81	0.00	0.00	0.00
11,900.00	90.00	269.79	9,227.00	1,248.11	-3,165.63	3,160.81	0.00	0.00	0.00
12,000.00	90.00	269.79	9,227.00	1,247.74	-3,265.63	3,260.81	0.00	0.00	0.00
12,100.00	90.00	269.79	9,227.00	1,247.37	-3,365.63	3,360.81	0.00	0.00	0.00
12,200.00	90.00	269.79	9,227.00	1,247.00	-3,465.63	3,460.81	0.00	0.00	0.00
12,300.00	90.00	269.79	9,227.00	1,246.63	-3,565.62	3,560.81	0.00	0.00	0.00
12,400.00	90.00	269.79	9,227.00	1,246.26	-3,665.62	3,660.81	0.00	0.00	0.00
12,500.00	90.00	269.79	9,227.00	1,245.89	-3,765.62	3,760.81	0.00	0.00	0.00
12,600.00	90.00	269.79	9,227.00	1,245.52	-3,865.62	3,860.81	0.00	0.00	0.00
12,700.00	90.00	269.79	9,227.00	1,245.15	-3,965.62	3,960.81	0.00	0.00	0.00
12,800.00	90.00	269.79	9,227.00	1,244.78	-4,065.62	4,060.81	0.00	0.00	0.00
12,900.00	90.00	269.79	9,227.00	1,244.41	-4,165.62	4,160.81	0.00	0.00	0.00
13,000.00	90.00	269.79	9,227.00	1,244.04	-4,265.62	4,260.81	0.00	0.00	0.00
13,100.00	90.00	269.79	9,227.00	1,243.67	-4,365.62	4,360.81	0.00	0.00	0.00
13,200.00	90.00	269.79	9,227.00	1,243.30	-4,465.62	4,460.81	0.00	0.00	0.00
13,300.00	90.00	269.79	9,227.00	1,242.93	-4,565.62	4,560.81	0.00	0.00	0.00
13,400.00	90.00	269.79	9,227.00	1,242.56	-4,665.62	4,660.81	0.00	0.00	0.00
13,500.00	90.00	269.79	9,227.00	1,242.20	-4,765.62	4,760.81	0.00	0.00	0.00
13,600.00	90.00	269.79	9,227.00	1,241.83	-4,865.62	4,860.81	0.00	0.00	0.00
13,700.00	90.00	269.79	9,227.00	1,241.46	-4,965.61	4,960.81	0.00	0.00	0.00
13,800.00	90.00	269.79	9,227.00	1,241.09	-5,065.61	5,060.81	0.00	0.00	0.00
13,900.00	90.00	269.79	9,227.00	1,240.73	-5,165.61	5,160.81	0.00	0.00	0.00
14,000.00	90.00	269.79	9,227.00	1,240.36	-5,265.61	5,260.81	0.00	0.00	0.00
14,100.00	90.00	269.79	9,227.00	1,239.99	-5,365.61	5,360.81	0.00	0.00	0.00
14,200.00	90.00	269.79	9,227.00	1,239.63	-5,465.61	5,460.81	0.00	0.00	0.00
14,300.00	90.00	269.79	9,227.00	1,239.26	-5,565.61	5,560.81	0.00	0.00	0.00
14,400.00	90.00	269.79	9,227.00	1,238.90	-5,665.61	5,660.81	0.00	0.00	0.00
14,500.00	90.00	269.79	9,227.00	1,238.53	-5,765.61	5,760.81	0.00	0.00	0.00
14,600.00	90.00	269.79	9,227.00	1,238.17	-5,865.61	5,860.81	0.00	0.00	0.00
14,700.00	90.00	269.79	9,227.00	1,237.80	-5,965.61	5,960.81	0.00	0.00	0.00
14,800.00	90.00	269.79	9,227.00	1,237.44	-6,065.61	6,060.81	0.00	0.00	0.00
14,900.00	90.00	269.79	9,227.00	1,237.07	-6,165.61	6,160.81	0.00	0.00	0.00
15,000.00	90.00	269.79	9,227.00	1,236.71	-6,265.61	6,260.81	0.00	0.00	0.00
15,100.00	90.00	269.79	9,227.00	1,236.35	-6,365.61	6,360.81	0.00	0.00	0.00
15,200.00	90.00	269.79	9,227.00	1,235.99	-6,465.60	6,460.81	0.00	0.00	0.00
15,300.00	90.00	269.79	9,227.00	1,235.62	-6,565.60	6,560.81	0.00	0.00	0.00
15,400.00	90.00	269.79	9,227.00	1,235.26	-6,665.60	6,660.81	0.00	0.00	0.00
15,500.00	90.00	269.79	9,227.00	1,234.90	-6,765.60	6,760.81	0.00	0.00	0.00
15,600.00	90.00	269.79	9,227.00	1,234.54	-6,865.60	6,860.81	0.00	0.00	0.00
15,700.00	90.00	269.79	9,227.00	1,234.17	-6,965.60	6,960.81	0.00	0.00	0.00
15,800.00	90.00	269.79	9,227.00	1,233.81	-7,065.60	7,060.81	0.00	0.00	0.00
15,900.00	90.00	269.79	9,227.00	1,233.45	-7,165.60	7,160.81	0.00	0.00	0.00
16,000.00	90.00	269.79	9,227.00	1,233.09	-7,265.60	7,260.81	0.00	0.00	0.00
16,100.00	90.00	269.79	9,227.00	1,232.73	-7,365.60	7,360.81	0.00	0.00	0.00
16,200.00	90.00	269.79	9,227.00	1,232.37	-7,465.60	7,460.81	0.00	0.00	0.00
16,300.00	90.00	269.79	9,227.00	1,232.01	-7,565.60	7,560.81	0.00	0.00	0.00

Scientific Drilling, Intl

Planning Report

Database: Midland District
 Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Collie 35-34-22-27 Fee Pad
 Well: Collie 35-34-22-27 Fee 401H
 Wellbore: Wellbore #1
 Design: ON Lease

Local Co-ordinate Reference: Well Collie 35-34-22-27 Fee 401H
 TVD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 MD Reference: GL 3079 + KB 26 = @ 3105.00usft (HP 265)
 North Reference: Grid
 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)
16,400.00	90.00	269.79	9,227.00	1,231.65	-7,665.60	7,660.81	0.00	0.00	0.00
16,500.00	90.00	269.79	9,227.00	1,231.29	-7,765.60	7,760.81	0.00	0.00	0.00
16,600.00	90.00	269.79	9,227.00	1,230.93	-7,865.60	7,860.81	0.00	0.00	0.00
16,700.00	90.00	269.79	9,227.00	1,230.57	-7,965.60	7,960.81	0.00	0.00	0.00
16,800.00	90.00	269.79	9,227.00	1,230.21	-8,065.59	8,060.81	0.00	0.00	0.00
16,900.00	90.00	269.79	9,227.00	1,229.86	-8,165.59	8,160.81	0.00	0.00	0.00
17,000.00	90.00	269.79	9,227.00	1,229.50	-8,265.59	8,260.81	0.00	0.00	0.00
17,100.00	90.00	269.80	9,227.00	1,229.14	-8,365.59	8,360.81	0.00	0.00	0.00
17,200.00	90.00	269.80	9,227.00	1,228.78	-8,465.59	8,460.81	0.00	0.00	0.00
17,300.00	90.00	269.80	9,227.00	1,228.43	-8,565.59	8,560.81	0.00	0.00	0.00
17,400.00	90.00	269.80	9,227.00	1,228.07	-8,665.59	8,660.81	0.00	0.00	0.00
17,500.00	90.00	269.80	9,227.00	1,227.71	-8,765.59	8,760.81	0.00	0.00	0.00
17,600.00	90.00	269.80	9,227.00	1,227.36	-8,865.59	8,860.81	0.00	0.00	0.00
17,700.00	90.00	269.80	9,227.00	1,227.00	-8,965.59	8,960.81	0.00	0.00	0.00
17,800.00	90.00	269.80	9,227.00	1,226.64	-9,065.59	9,060.81	0.00	0.00	0.00
17,900.00	90.00	269.80	9,227.00	1,226.29	-9,165.59	9,160.81	0.00	0.00	0.00
18,000.00	90.00	269.80	9,227.00	1,225.93	-9,265.59	9,260.81	0.00	0.00	0.00
18,100.00	90.00	269.80	9,227.00	1,225.58	-9,365.59	9,360.81	0.00	0.00	0.00
18,200.00	90.00	269.80	9,227.00	1,225.22	-9,465.59	9,460.81	0.00	0.00	0.00
18,300.00	90.00	269.80	9,227.00	1,224.87	-9,565.59	9,560.81	0.00	0.00	0.00
18,400.00	90.00	269.80	9,227.00	1,224.52	-9,665.58	9,660.81	0.00	0.00	0.00
18,500.00	90.00	269.80	9,227.00	1,224.16	-9,765.58	9,760.81	0.00	0.00	0.00
18,600.00	90.00	269.80	9,227.00	1,223.81	-9,865.58	9,860.81	0.00	0.00	0.00
18,700.00	90.00	269.80	9,227.00	1,223.46	-9,965.58	9,960.81	0.00	0.00	0.00
18,800.00	90.00	269.80	9,227.00	1,223.10	-10,065.58	10,060.81	0.00	0.00	0.00
18,900.00	90.00	269.80	9,227.00	1,222.75	-10,165.58	10,160.81	0.00	0.00	0.00
19,000.00	90.00	269.80	9,227.00	1,222.40	-10,265.58	10,260.81	0.00	0.00	0.00
19,100.00	90.00	269.80	9,227.00	1,222.05	-10,365.58	10,360.81	0.00	0.00	0.00
19,200.00	90.00	269.80	9,227.00	1,221.69	-10,465.58	10,460.81	0.00	0.00	0.00
19,300.00	90.00	269.80	9,227.00	1,221.34	-10,565.58	10,560.81	0.00	0.00	0.00
19,354.52	90.00	269.80	9,227.00	1,221.15	-10,620.10	10,615.33	0.00	0.00	0.00
Collie 32-401H LTP									
19,400.00	90.00	269.80	9,227.00	1,220.99	-10,665.58	10,660.81	0.00	0.00	0.00
19,454.62	90.00	269.80	9,227.00	1,220.80	-10,720.20	10,715.43	0.00	0.00	0.00
Collie 32-401H BHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Collie 32-401H FTP	0.00	0.00	9,219.19	1,258.60	-732.50	491,660.70	597,049.40	32.351517	-104.152919
- hit/miss target									
- Shape									
- plan misses target center by 33.09usft at 9473.93usft MD (9189.49 TVD, 1249.95 N, -744.25 E)									
- Point									
Collie 32-401H BHL	0.00	0.00	9,227.00	1,220.80	-10,720.20	491,622.90	587,061.70	32.351455	-104.185263
- plan hits target center									
- Point									
Collie 32-401H LTP	0.00	0.00	9,227.00	1,221.20	-10,620.10	491,623.30	587,161.80	32.351456	-104.184939
- plan misses target center by 0.05usft at 19354.52usft MD (9227.00 TVD, 1221.15 N, -10620.10 E)									
- Point									

Scientific Drilling, Intl

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well Collie 35-34-22-27 Fee 401H
Company:	WPX Energy	TVD Reference:	GL 3079 + KB 26 = @ 3105.00usft (HP 265)
Project:	Eddy County, New Mexico (NAD 83)	MD Reference:	GL 3079 + KB 26 = @ 3105.00usft (HP 265)
Site:	Collie 35-34-22-27 Fee Pad	North Reference:	Grid
Well:	Collie 35-34-22-27 Fee 401H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	ON Lease		

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,330.00	2,330.00	9 5/8"	9-5/8	12-1/4

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip Direction (bearing)
373.00	373.00	Rustler		
825.00	825.00	Salado		
2,330.00	2,330.00	Castile		
3,110.98	3,105.00	Wolfcamp A		
3,244.66	3,236.00	Bell Canyon (Base of Salt)		
4,247.79	4,219.00	Cherry Canyon		
5,790.76	5,731.00	Brushy Canyon		
6,188.74	6,121.00	Bone Spring		
6,836.75	6,756.00	Avalon		
7,081.66	6,996.00	1st Bone Spring Sand		
7,558.22	7,463.00	2nd Bone Spring Lime		
7,723.54	7,625.00	2nd Bone Spring Sand		
8,930.06	8,806.00	3rd Bone Spring Lime		
9,299.83	9,105.00	3rd Bone Spring Sand		
9,346.49	9,132.00	Wolfcamp Top		
9,535.02	9,208.00	WC_X		
9,581.73	9,218.00	WC_Y		
9,684.36	9,227.00	Top Target		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,819.43	8,698.90	1,156.36	-377.73	KOP