

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 02 2017

RECEIVED

WPX Energy

Eddy County, New Mexico NAD 83

C 17 State Pad

C 17 State 2H

API:

Wellbore #1

30-015-44535

Plan: Plan #1

Standard Planning Report

11 October, 2017



www.scientificdrilling.com

C 17 State 2H
Eddy County, New Mexico NAD 83:
Northing: 476120.00
Easting: 580973.40
Plan #1

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)



Scientific Drilling

Azinuths to Grid North
 True North: -0.07°
 Magnetic North: 7.31°
 Magnetic Field
 Strength: 48087.8nT
 Dip Angle: 60.10°
 Date: 10/11/2017
 Model: HDGM

To convert Magnetic North to Grid, Add 7.31°
 To convert True North to Grid, Subtract 0.07°



WELL DETAILS C 17 State 2H				
Ground Level: 3154.00				
+N-S	+E-W	Northing	Easting	Longitude
0.00	0.00	476120.00	580973.40	-104.205039
Latitude 32.308862				

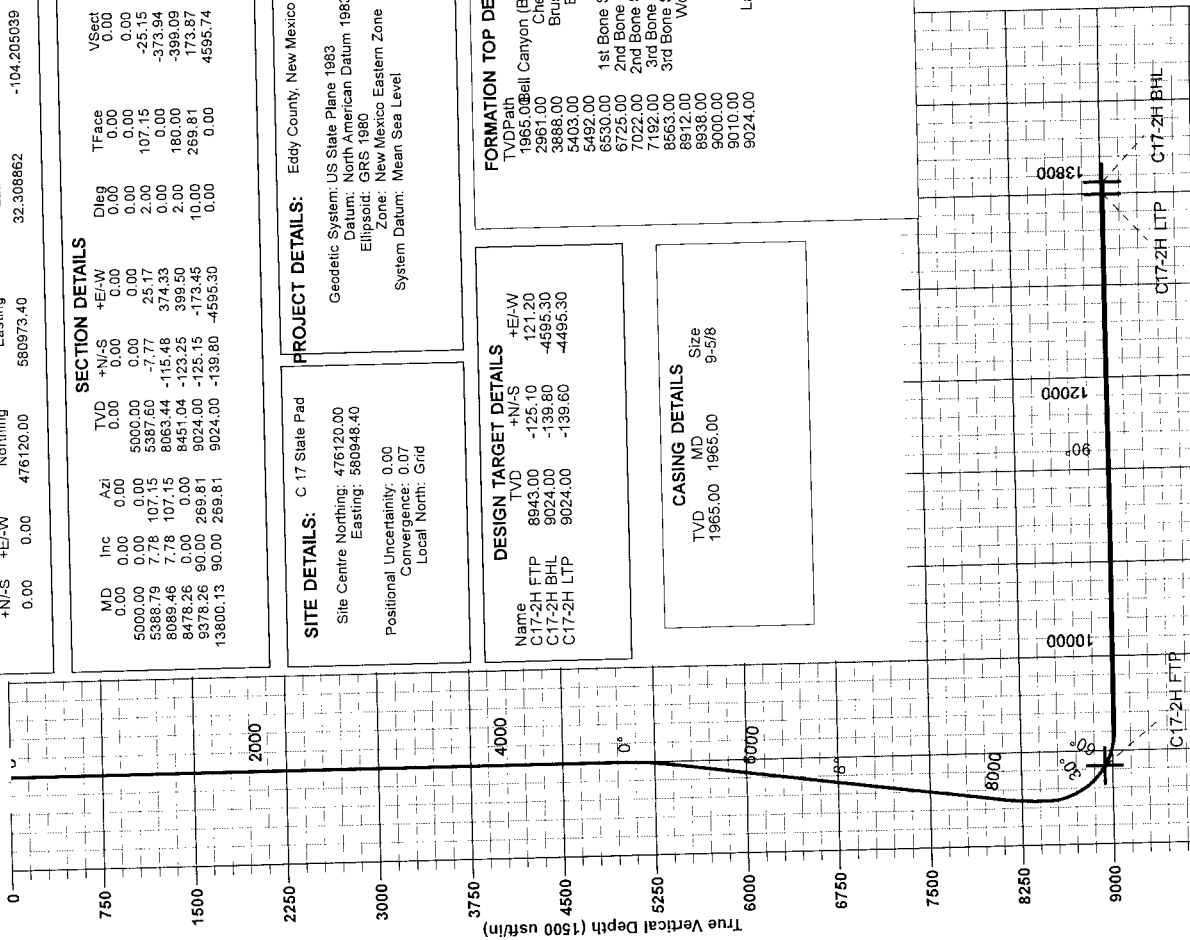
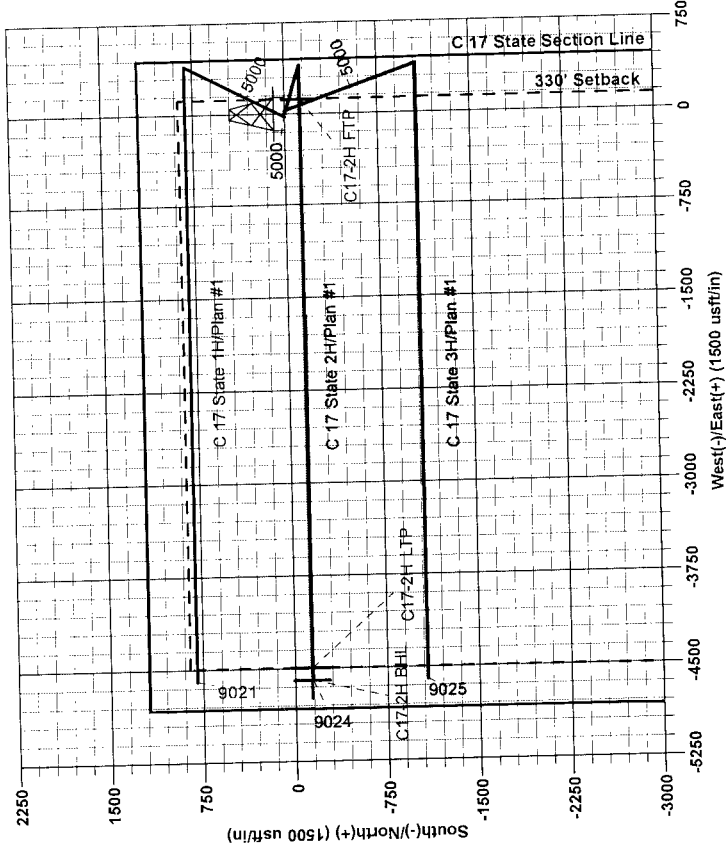
SECTION DETAILS									
MD	Inc	Azi	TVD	+N-S	+E-W	Dlog	TFace	Vsect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	
5388.79	7.78	107.15	5387.60	-7.77	25.17	2.00	107.15	-25.15	
8089.46	7.78	107.15	8063.44	-115.48	374.33	2.00	107.15	-373.94	
8478.26	0.00	0.00	8451.04	-123.25	399.50	2.00	180.00	-399.09	
9378.26	90.00	269.81	9024.00	-123.15	-173.46	10.00	269.81	173.87	
13800.13	90.00	269.81	9024.00	-139.80	-4595.30	0.00	0.00	4595.74	

SITE DETAILS:		PROJECT DETAILS:	
C 17 State Pad		Eddy County, New Mexico NAD 83	
Site Centre Northing: 476120.00		Geodetic System: US State Plane 1983	
Easting: 580946.40		Datum: North American Datum 1983	
Positional Uncertainty: 0.00		Ellipsoid: GRS 1980	
Convergence: 0.07		Zone: New Mexico Eastern Zone	
Local North: Grid		System Datum: Mean Sea Level	

DESIGN TARGET DETAILS			
Name	TVD	+N-S	+E-W
C17-2H FTP	8943.00	-125.10	121.20
C17-2H BHL	9024.00	-139.80	-4595.30
C17-2H LTP	9024.00	-139.60	-4495.30

CASING DETAILS		
TVD	MD	Size
1965.00	1965.00	9-5/8

FORMATION TOP DETAILS	
Formation	TVDPath
1965.00 Bell Canyon (Base of Salt)	1965.00
Cherry Canyon	2961.00
Brushy Canyon	3888.00
Bone Spring	5403.00
Avalon	5492.00
1st Bone Spring Sand	6530.00
2nd Bone Spring Lime	6725.00
2nd Bone Spring Sand	7022.00
3rd Bone Spring Lime	7192.00
3rd Bone Spring Sand	8563.00
Wolfcamp Top	8912.00
WC X	8938.00
WC Y	9000.00
Top Target	9010.00
Landing Point	9024.00



Scientific Drilling Int.

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well C 17 State 2H
Company:	WPX Energy	TVD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Site:	C 17 State Pad	North Reference:	Grid
Well:	C 17 State 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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	C 17 State Pad				
Site Position:		Northing:	476,120.00 usft	Latitude:	32.308862
From:	Map	Easting:	580,948.40 usft	Longitude:	-104.205120
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.07 °

Well	C 17 State 2H					
Well Position	+N/-S	0.00 usft	Northing:	476,120.00 usft	Latitude:	32.308862
	+E/-W	25.00 usft	Easting:	580,973.40 usft	Longitude:	-104.205039
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,154.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	10/11/2017	7.38	60.10	48,068

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 (bearing)	
	0.00	0.00	0.00	269.81	

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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,388.79	7.78	107.15	5,387.60	-7.77	25.17	2.00	2.00	0.00	107.15	
8,089.46	7.78	107.15	8,063.44	-115.48	374.33	0.00	0.00	0.00	0.00	
8,478.26	0.00	0.00	8,451.04	-123.25	399.50	2.00	-2.00	0.00	180.00	
9,378.26	90.00	269.81	9,024.00	-125.15	-173.45	10.00	10.00	-10.02	269.81	
13,800.13	90.00	269.81	9,024.00	-139.80	-4,595.30	0.00	0.00	0.00	0.00	C17-2H BHL

Scientific Drilling Int.

Planning Report

Database: Midland District
Company: WPX Energy

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Project: Eddy County, New Mexico NAD 83

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site: C 17 State Pad

North Reference: Grid

Well: C 17 State 2H

Survey Calculation Method: Minimum Curvature

Wellbore: Wellbore #1

Design: Plan #1

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
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
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
1,965.00	0.00	0.00	1,965.00	0.00	0.00	0.00	0.00	0.00	0.00
Bell Canyon (Base of Salt) - 9 5/8"									
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
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,961.00	0.00	0.00	2,961.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,888.00	0.00	0.00	3,888.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon									
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database: Midland District
Company: WPX Energy

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Project: Eddy County, New Mexico NAD 83

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site: C 17 State Pad

North Reference: Grid
Survey Calculation Method: Minimum Curvature

Well: C 17 State 2H

Wellbore: Wellbore #1

Design: Plan #1

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)
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	2.00	107.15	5,099.98	-0.51	1.67	-1.67	2.00	2.00	0.00
5,200.00	4.00	107.15	5,199.84	-2.06	6.67	-6.66	2.00	2.00	0.00
5,300.00	6.00	107.15	5,299.45	-4.63	15.00	-14.98	2.00	2.00	0.00
5,388.79	7.78	107.15	5,387.60	-7.77	25.17	-25.15	2.00	2.00	0.00
5,400.00	7.78	107.15	5,398.70	-8.21	26.62	-26.59	0.00	0.00	0.00
5,404.34	7.78	107.15	5,403.00	-8.39	27.18	-27.15	0.00	0.00	0.00
Bone Spring									
5,494.16	7.78	107.15	5,492.00	-11.97	38.79	-38.75	0.00	0.00	0.00
Avalon									
5,500.00	7.78	107.15	5,497.79	-12.20	39.55	-39.51	0.00	0.00	0.00
5,600.00	7.78	107.15	5,596.87	-16.19	52.48	-52.42	0.00	0.00	0.00
5,700.00	7.78	107.15	5,695.95	-20.18	65.41	-65.34	0.00	0.00	0.00
5,800.00	7.78	107.15	5,795.03	-24.17	78.33	-78.25	0.00	0.00	0.00
5,900.00	7.78	107.15	5,894.11	-28.16	91.26	-91.17	0.00	0.00	0.00
6,000.00	7.78	107.15	5,993.19	-32.14	104.19	-104.08	0.00	0.00	0.00
6,100.00	7.78	107.15	6,092.27	-36.13	117.12	-117.00	0.00	0.00	0.00
6,200.00	7.78	107.15	6,191.35	-40.12	130.05	-129.91	0.00	0.00	0.00
6,300.00	7.78	107.15	6,290.43	-44.11	142.98	-142.83	0.00	0.00	0.00
6,400.00	7.78	107.15	6,389.51	-48.10	155.91	-155.75	0.00	0.00	0.00
6,500.00	7.78	107.15	6,488.59	-52.09	168.83	-168.66	0.00	0.00	0.00
6,541.79	7.78	107.15	6,530.00	-53.75	174.24	-174.06	0.00	0.00	0.00
1st Bone Spring Sand									
6,600.00	7.78	107.15	6,587.67	-56.08	181.76	-181.58	0.00	0.00	0.00
6,700.00	7.78	107.15	6,686.75	-60.06	194.69	-194.49	0.00	0.00	0.00
6,738.60	7.78	107.15	6,725.00	-61.60	199.68	-199.48	0.00	0.00	0.00
2nd Bone Spring Lime									
6,800.00	7.78	107.15	6,785.83	-64.05	207.62	-207.41	0.00	0.00	0.00
6,900.00	7.78	107.15	6,884.91	-68.04	220.55	-220.32	0.00	0.00	0.00
7,000.00	7.78	107.15	6,983.99	-72.03	233.48	-233.24	0.00	0.00	0.00
7,038.36	7.78	107.15	7,022.00	-73.56	238.44	-238.19	0.00	0.00	0.00
2nd Bone Spring Sand									
7,100.00	7.78	107.15	7,083.07	-76.02	246.41	-246.15	0.00	0.00	0.00
7,200.00	7.78	107.15	7,182.15	-80.01	259.33	-259.07	0.00	0.00	0.00
7,209.94	7.78	107.15	7,192.00	-80.40	260.62	-260.35	0.00	0.00	0.00
3rd Bone Spring Lime									
7,300.00	7.78	107.15	7,281.23	-84.00	272.26	-271.98	0.00	0.00	0.00
7,400.00	7.78	107.15	7,380.31	-87.98	285.19	-284.90	0.00	0.00	0.00
7,500.00	7.78	107.15	7,479.40	-91.97	298.12	-297.81	0.00	0.00	0.00
7,600.00	7.78	107.15	7,578.48	-95.96	311.05	-310.73	0.00	0.00	0.00
7,700.00	7.78	107.15	7,677.56	-99.95	323.98	-323.64	0.00	0.00	0.00
7,800.00	7.78	107.15	7,776.64	-103.94	336.91	-336.56	0.00	0.00	0.00
7,900.00	7.78	107.15	7,875.72	-107.93	349.83	-349.47	0.00	0.00	0.00
8,000.00	7.78	107.15	7,974.80	-111.92	362.76	-362.39	0.00	0.00	0.00
8,089.46	7.78	107.15	8,063.44	-115.48	374.33	-373.94	0.00	0.00	0.00
8,100.00	7.57	107.15	8,073.88	-115.90	375.67	-375.29	2.00	-2.00	0.00
8,200.00	5.57	107.15	8,173.22	-119.27	386.60	-386.20	2.00	-2.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well C 17 State 2H
Company:	WPX Energy	TVD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Site:	C 17 State Pad	North Reference:	Grid
Well:	C 17 State 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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)
8,300.00	3.57	107.15	8,272.90	-121.62	394.20	-393.80	2.00	-2.00	0.00
8,400.00	1.57	107.15	8,372.79	-122.93	398.48	-398.07	2.00	-2.00	0.00
8,478.26	0.00	0.00	8,451.04	-123.25	399.50	-399.09	2.00	-2.00	0.00
8,500.00	2.17	269.81	8,472.78	-123.25	399.09	-398.68	10.00	10.00	0.00
8,550.00	7.17	269.81	8,522.60	-123.26	395.01	-394.60	10.00	10.00	0.00
8,590.94	11.27	269.81	8,563.00	-123.29	388.45	-388.04	10.00	10.00	0.00
3rd Bone Spring Sand									
8,600.00	12.17	269.81	8,571.87	-123.29	386.61	-386.20	10.00	10.00	0.00
8,650.00	17.17	269.81	8,620.22	-123.33	373.95	-373.54	10.00	10.00	0.00
8,700.00	22.17	269.81	8,667.29	-123.39	357.12	-356.71	10.00	10.00	0.00
8,750.00	27.17	269.81	8,712.71	-123.46	336.26	-335.85	10.00	10.00	0.00
8,800.00	32.17	269.81	8,756.14	-123.54	311.51	-311.10	10.00	10.00	0.00
8,850.00	37.17	269.81	8,797.24	-123.64	283.08	-282.67	10.00	10.00	0.00
8,900.00	42.17	269.81	8,835.72	-123.74	251.17	-250.75	10.00	10.00	0.00
8,950.00	47.17	269.81	8,871.26	-123.86	216.02	-215.61	10.00	10.00	0.00
9,000.00	52.17	269.81	8,903.61	-123.98	177.92	-177.50	10.00	10.00	0.00
9,013.90	53.56	269.81	8,912.00	-124.02	166.83	-166.42	10.00	10.00	0.00
Wolfcamp Top									
9,050.00	57.17	269.81	8,932.51	-124.12	137.14	-136.72	10.00	10.00	0.00
9,060.27	58.20	269.81	8,938.00	-124.15	128.46	-128.04	10.00	10.00	0.00
WC_X									
9,100.00	62.17	269.81	8,957.75	-124.26	93.99	-93.58	10.00	10.00	0.00
9,150.00	67.17	269.81	8,979.13	-124.41	48.81	-48.40	10.00	10.00	0.00
9,200.00	72.17	269.81	8,996.49	-124.57	1.94	-1.53	10.00	10.00	0.00
9,211.84	73.36	269.81	9,000.00	-124.60	-9.37	9.78	10.00	10.00	0.00
WC_Y									
9,250.00	77.17	269.81	9,009.70	-124.73	-46.27	46.68	10.00	10.00	0.00
9,251.35	77.31	269.81	9,010.00	-124.73	-47.58	47.99	10.00	10.00	0.00
Top Target									
9,300.00	82.17	269.81	9,018.66	-124.89	-95.44	95.85	10.00	10.00	0.00
9,350.00	87.17	269.81	9,023.30	-125.05	-145.21	145.62	10.00	10.00	0.00
9,378.26	90.00	269.81	9,024.00	-125.15	-173.45	173.87	10.00	10.00	0.00
Landing Point									
9,400.00	90.00	269.81	9,024.00	-125.22	-195.20	195.61	0.00	0.00	0.00
9,500.00	90.00	269.81	9,024.00	-125.55	-295.20	295.61	0.00	0.00	0.00
9,600.00	90.00	269.81	9,024.00	-125.88	-395.20	395.61	0.00	0.00	0.00
9,700.00	90.00	269.81	9,024.00	-126.21	-495.20	495.61	0.00	0.00	0.00
9,800.00	90.00	269.81	9,024.00	-126.55	-595.19	595.61	0.00	0.00	0.00
9,900.00	90.00	269.81	9,024.00	-126.88	-695.19	695.61	0.00	0.00	0.00
10,000.00	90.00	269.81	9,024.00	-127.21	-795.19	795.61	0.00	0.00	0.00
10,100.00	90.00	269.81	9,024.00	-127.54	-895.19	895.61	0.00	0.00	0.00
10,200.00	90.00	269.81	9,024.00	-127.87	-995.19	995.61	0.00	0.00	0.00
10,300.00	90.00	269.81	9,024.00	-128.20	-1,095.19	1,095.61	0.00	0.00	0.00
10,400.00	90.00	269.81	9,024.00	-128.53	-1,195.19	1,195.61	0.00	0.00	0.00
10,500.00	90.00	269.81	9,024.00	-128.87	-1,295.19	1,295.61	0.00	0.00	0.00
10,600.00	90.00	269.81	9,024.00	-129.20	-1,395.19	1,395.61	0.00	0.00	0.00
10,700.00	90.00	269.81	9,024.00	-129.53	-1,495.19	1,495.61	0.00	0.00	0.00
10,800.00	90.00	269.81	9,024.00	-129.86	-1,595.19	1,595.61	0.00	0.00	0.00
10,900.00	90.00	269.81	9,024.00	-130.19	-1,695.19	1,695.61	0.00	0.00	0.00
11,000.00	90.00	269.81	9,024.00	-130.52	-1,795.19	1,795.61	0.00	0.00	0.00
11,100.00	90.00	269.81	9,024.00	-130.85	-1,895.19	1,895.61	0.00	0.00	0.00

Scientific Drilling Int.

Planning Report

Database:	Midland District	Local Co-ordinate Reference:	Well C 17 State 2H
Company:	WPX Energy	TVD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Project:	Eddy County, New Mexico NAD 83	MD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Site:	C 17 State Pad	North Reference:	Grid
Well:	C 17 State 2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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)
11,200.00	90.00	269.81	9,024.00	-131.18	-1,995.19	1,995.61	0.00	0.00	0.00
11,300.00	90.00	269.81	9,024.00	-131.52	-2,095.19	2,095.61	0.00	0.00	0.00
11,400.00	90.00	269.81	9,024.00	-131.85	-2,195.19	2,195.61	0.00	0.00	0.00
11,500.00	90.00	269.81	9,024.00	-132.18	-2,295.19	2,295.61	0.00	0.00	0.00
11,600.00	90.00	269.81	9,024.00	-132.51	-2,395.18	2,395.61	0.00	0.00	0.00
11,700.00	90.00	269.81	9,024.00	-132.84	-2,495.18	2,495.61	0.00	0.00	0.00
11,800.00	90.00	269.81	9,024.00	-133.17	-2,595.18	2,595.61	0.00	0.00	0.00
11,900.00	90.00	269.81	9,024.00	-133.50	-2,695.18	2,695.61	0.00	0.00	0.00
12,000.00	90.00	269.81	9,024.00	-133.84	-2,795.18	2,795.61	0.00	0.00	0.00
12,100.00	90.00	269.81	9,024.00	-134.17	-2,895.18	2,895.61	0.00	0.00	0.00
12,200.00	90.00	269.81	9,024.00	-134.50	-2,995.18	2,995.61	0.00	0.00	0.00
12,300.00	90.00	269.81	9,024.00	-134.83	-3,095.18	3,095.61	0.00	0.00	0.00
12,400.00	90.00	269.81	9,024.00	-135.16	-3,195.18	3,195.61	0.00	0.00	0.00
12,500.00	90.00	269.81	9,024.00	-135.49	-3,295.18	3,295.61	0.00	0.00	0.00
12,600.00	90.00	269.81	9,024.00	-135.82	-3,395.18	3,395.61	0.00	0.00	0.00
12,700.00	90.00	269.81	9,024.00	-136.15	-3,495.18	3,495.61	0.00	0.00	0.00
12,800.00	90.00	269.81	9,024.00	-136.49	-3,595.18	3,595.61	0.00	0.00	0.00
12,900.00	90.00	269.81	9,024.00	-136.82	-3,695.18	3,695.61	0.00	0.00	0.00
13,000.00	90.00	269.81	9,024.00	-137.15	-3,795.18	3,795.61	0.00	0.00	0.00
13,100.00	90.00	269.81	9,024.00	-137.48	-3,895.18	3,895.61	0.00	0.00	0.00
13,200.00	90.00	269.81	9,024.00	-137.81	-3,995.18	3,995.61	0.00	0.00	0.00
13,300.00	90.00	269.81	9,024.00	-138.14	-4,095.18	4,095.61	0.00	0.00	0.00
13,400.00	90.00	269.81	9,024.00	-138.47	-4,195.17	4,195.61	0.00	0.00	0.00
13,500.00	90.00	269.81	9,024.00	-138.81	-4,295.17	4,295.61	0.00	0.00	0.00
13,600.00	90.00	269.81	9,024.00	-139.14	-4,395.17	4,395.61	0.00	0.00	0.00
13,700.00	90.00	269.81	9,024.00	-139.47	-4,495.17	4,495.61	0.00	0.00	0.00
13,800.13	90.00	269.81	9,024.00	-139.80	-4,595.30	4,595.74	0.00	0.00	0.00

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
C17-2H FTP	0.00	0.00	8,943.00	-125.10	121.20	475,994.90	581,094.60	32.308517	-104.204647
- hit/miss target									
- Shape									
- plan misses target center by 1.05usft at 9069.06usft MD (8942.57 TVD, -124.17 N, 120.95 E)									
- Point									
C17-2H BHL	0.00	0.00	9,024.00	-139.80	-4,595.30	475,980.20	576,378.10	32.308492	-104.219914
- hit/miss target									
- Shape									
- plan hits target center									
- Point									
C17-2H LTP	0.00	0.00	9,024.00	-139.60	-4,495.30	475,980.40	576,478.10	32.308492	-104.219590
- hit/miss target									
- Shape									
- plan misses target center by 0.18usft at 13700.00usft MD (9024.00 TVD, -139.47 N, -4495.17 E)									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,965.00	1,965.00	9 5/8"	9-5/8	12-1/4

Scientific Drilling Int.

Planning Report

Database: Midland District
Company: WPX Energy

Project: Eddy County, New Mexico NAD 83

Site: C 17 State Pad

Well: C 17 State 2H

Wellbore: Wellbore #1

Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well C 17 State 2H

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Grid

Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)
1,965.00	1,965.00	Bell Canyon (Base of Salt)			
2,961.00	2,961.00	Cherry Canyon			
3,888.00	3,888.00	Brushy Canyon			
5,404.34	5,403.00	Bone Spring			
5,494.16	5,492.00	Avalon			
6,541.79	6,530.00	1st Bone Spring Sand			
6,738.60	6,725.00	2nd Bone Spring Lime			
7,038.36	7,022.00	2nd Bone Spring Sand			
7,209.94	7,192.00	3rd Bone Spring Lime			
8,590.94	8,563.00	3rd Bone Spring Sand			
9,013.90	8,912.00	Wolfcamp Top			
9,060.27	8,938.00	WC_X			
9,211.84	9,000.00	WC_Y			
9,251.35	9,010.00	Top Target			
9,378.26	9,024.00	Landing Point			

WPX Energy

Eddy County, New Mexico NAD 83

C 17 State Pad

C 17 State 2H

API:

Wellbore #1

Plan #1

Anticollision Report

11 October, 2017

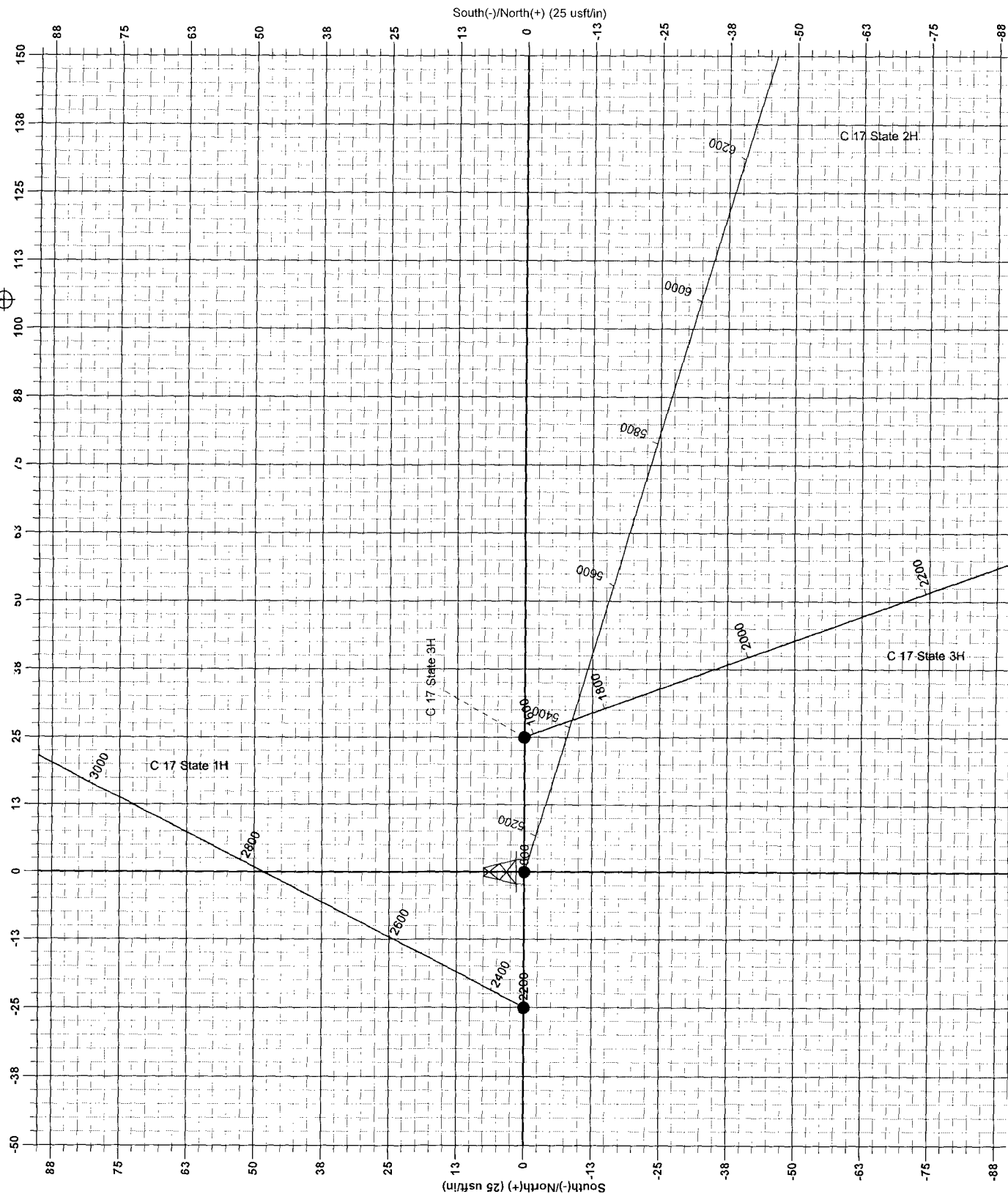


Scientific Drilling

www.scientificdrilling.com

Azimuths to Grid North
 True North: -0.07°
 Magnetic North: 7.31°
 Magnetic Field
 Strength: 48067.8nT
 Dip Angle: 60.10°
 Date: 10/11/2017
 Model: HDGM

To convert Magnetic North to Grid, Add 7.31°
 To convert True North to Grid, Subtract 0.07°



Scientific Drilling Int.

Anticollision Report

Company:	WPX Energy	Local Co-ordinate Reference:	Well C 17 State 2H
Project:	Eddy County, New Mexico NAD 83	TVD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Reference Site:	C 17 State Pad	MD Reference:	GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	C 17 State 2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Midland District
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 9,999.98 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program	Date	10/11/2017
From (usft)	To (usft)	Survey (Wellbore)
0.00	13,800.13	Plan #1 (Wellbore #1)
		Tool Name
		MWD+HDGM
		Description
		OWSG MWD + HDGM

Summary							
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
Offset Well - Wellbore - Design							
C 17 State Pad							
C 17 State 1H - Wellbore #1 - Plan #1	2,456.25	2,456.59	22.21	5.04	1.293	Level 3, CC, ES	
C 17 State 1H - Wellbore #1 - Plan #1	2,500.00	2,500.10	22.61	5.13	1.293	Level 3, SF	
C 17 State 3H - Wellbore #1 - Plan #1	1,500.00	1,500.00	25.00	14.68	2.423	CC	
C 17 State 3H - Wellbore #1 - Plan #1	1,600.00	1,599.67	25.63	14.61	2.327	ES, SF	

Offset Design	C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1										Offset Site Error:	0.00 usft
Survey Program:	0-MWD+HDGM										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-25.00	25.00			
100.00	100.00	100.00	100.00	0.14	0.14	-90.00	0.00	-25.00	25.00	24.72	0.28	89.411
200.00	200.00	200.00	200.00	0.50	0.50	-90.00	0.00	-25.00	25.00	24.00	1.00	25.087
300.00	300.00	300.00	300.00	0.86	0.86	-90.00	0.00	-25.00	25.00	23.29	1.71	14.590
400.00	400.00	400.00	400.00	1.22	1.22	-90.00	0.00	-25.00	25.00	22.57	2.43	10.286
500.00	500.00	500.00	500.00	1.57	1.57	-90.00	0.00	-25.00	25.00	21.85	3.15	7.943
600.00	600.00	600.00	600.00	1.93	1.93	-90.00	0.00	-25.00	25.00	21.14	3.86	6.469
700.00	700.00	700.00	700.00	2.29	2.29	-90.00	0.00	-25.00	25.00	20.42	4.58	5.457
800.00	800.00	800.00	800.00	2.65	2.65	-90.00	0.00	-25.00	25.00	19.70	5.30	4.719
900.00	900.00	900.00	900.00	3.01	3.01	-90.00	0.00	-25.00	25.00	18.98	6.02	4.156
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	-90.00	0.00	-25.00	25.00	18.27	6.73	3.714
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	-90.00	0.00	-25.00	25.00	17.55	7.45	3.356
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	-90.00	0.00	-25.00	25.00	16.83	8.17	3.061
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.44	-90.00	0.00	-25.00	25.00	16.12	8.88	2.814
1,400.00	1,400.00	1,400.00	1,400.00	4.80	4.80	-90.00	0.00	-25.00	25.00	15.40	9.60	2.604
1,500.00	1,500.00	1,500.00	1,500.00	5.16	5.16	-90.00	0.00	-25.00	25.00	14.68	10.32	2.423
1,600.00	1,600.00	1,600.00	1,600.00	5.52	5.52	-90.00	0.00	-25.00	25.00	13.97	11.03	2.266
1,700.00	1,700.00	1,700.00	1,700.00	5.88	5.88	-90.00	0.00	-25.00	25.00	13.25	11.75	2.128
1,800.00	1,800.00	1,800.00	1,800.00	6.23	6.23	-90.00	0.00	-25.00	25.00	12.53	12.47	2.005
1,900.00	1,900.00	1,900.00	1,900.00	6.59	6.59	-90.00	0.00	-25.00	25.00	11.82	13.18	1.896
2,000.00	2,000.00	2,000.00	2,000.00	6.95	6.95	-90.00	0.00	-25.00	25.00	11.10	13.90	1.798

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Site Error: 0.00 usft

North Reference: Grid

Reference Well: C 17 State 2H

Survey Calculation Method: Minimum Curvature

Well Error: 0.00 usft

Output errors are at 2.00 sigma

Reference Wellbore Wellbore #1

Database: Midland District

Reference Design: Plan #1

Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
2,100.00	2,100.00	2,100.00	2,100.00	7.31	7.31	-90.00	0.00	-25.00	25.00	10.38	14.62	1.710			
2,200.00	2,200.00	2,200.00	2,200.00	7.67	7.67	-90.00	0.00	-25.00	25.00	9.66	15.34	1.630			
2,300.00	2,300.00	2,300.36	2,300.34	8.03	8.03	-86.31	1.56	-24.19	24.25	8.19	16.05	1.510			
2,400.00	2,400.00	2,400.48	2,400.31	8.38	8.38	-74.04	6.23	-21.78	22.65	5.89	16.77	1.351 Level 3			
2,456.25	2,456.25	2,456.59	2,456.25	8.59	8.58	-62.66	10.20	-19.73	22.21	5.04	17.17	1.293 Level 3, CC, ES			
2,500.00	2,500.00	2,500.10	2,499.56	8.74	8.74	-51.89	13.95	-17.79	22.61	5.13	17.48	1.293 Level 3, SF			
2,600.00	2,600.00	2,599.01	2,597.72	9.10	9.09	-26.45	24.64	-12.26	27.62	9.43	18.19	1.518			
2,700.00	2,700.00	2,697.50	2,695.07	9.46	9.45	-8.10	37.91	-5.39	38.61	19.71	18.90	2.043			
2,800.00	2,800.00	2,796.28	2,792.64	9.82	9.81	1.87	51.60	1.69	52.15	32.54	19.61	2.660			
2,900.00	2,900.00	2,895.05	2,890.20	10.18	10.17	7.65	65.30	8.77	66.61	46.28	20.33	3.277			
3,000.00	3,000.00	2,993.83	2,987.77	10.54	10.53	11.34	78.99	15.84	81.48	60.44	21.05	3.871			
3,100.00	3,100.00	3,092.60	3,085.33	10.89	10.90	13.89	92.68	22.92	96.59	74.82	21.77	4.437			
3,200.00	3,200.00	3,191.38	3,182.90	11.25	11.28	15.75	106.37	30.00	111.83	89.34	22.50	4.971			
3,300.00	3,300.00	3,290.15	3,280.46	11.61	11.65	17.17	120.06	37.08	127.17	103.94	23.23	5.475			
3,400.00	3,400.00	3,388.93	3,378.03	11.97	12.03	18.27	133.75	44.16	142.56	118.60	23.96	5.950			
3,500.00	3,500.00	3,487.70	3,475.59	12.33	12.41	19.17	147.44	51.24	157.99	133.30	24.69	6.398			
3,600.00	3,600.00	3,586.48	3,573.16	12.69	12.79	19.90	161.13	58.32	173.45	148.02	25.43	6.821			
3,700.00	3,700.00	3,685.25	3,670.72	13.04	13.17	20.51	174.82	65.40	188.94	162.77	26.17	7.221			
3,800.00	3,800.00	3,784.03	3,768.29	13.40	13.55	21.03	188.51	72.48	204.44	177.54	26.90	7.599			
3,900.00	3,900.00	3,882.80	3,865.85	13.76	13.94	21.48	202.21	79.56	219.96	192.32	27.64	7.957			
4,000.00	4,000.00	3,981.58	3,963.42	14.12	14.32	21.87	215.90	86.64	235.49	207.11	28.38	8.297			
4,100.00	4,100.00	4,080.35	4,060.98	14.48	14.71	22.21	229.59	93.72	251.03	221.90	29.13	8.619			
4,200.00	4,200.00	4,179.13	4,158.55	14.84	15.10	22.51	243.28	100.80	266.58	236.71	29.87	8.925			
4,300.00	4,300.00	4,277.90	4,256.11	15.20	15.49	22.77	256.97	107.88	282.13	251.52	30.61	9.216			
4,400.00	4,400.00	4,376.68	4,353.68	15.55	15.88	23.01	270.66	114.96	297.69	266.33	31.36	9.493			
4,500.00	4,500.00	4,475.45	4,451.24	15.91	16.27	23.23	284.35	122.04	313.25	281.15	32.10	9.757			
4,600.00	4,600.00	4,574.23	4,548.81	16.27	16.66	23.42	298.04	129.12	328.82	295.97	32.85	10.009			
4,700.00	4,700.00	4,673.00	4,646.37	16.63	17.05	23.60	311.73	136.20	344.39	310.79	33.60	10.250			
4,800.00	4,800.00	4,771.78	4,743.94	16.99	17.44	23.76	325.42	143.28	359.96	325.62	34.35	10.480			
4,900.00	4,900.00	4,870.55	4,841.50	17.35	17.84	23.91	339.11	150.36	375.54	340.44	35.09	10.701			
5,000.00	5,000.00	4,969.33	4,939.07	17.70	18.23	24.05	352.81	157.44	391.12	355.27	35.84	10.912			
5,100.00	5,099.98	5,068.13	5,036.66	18.05	18.63	-82.91	366.50	164.52	406.49	370.42	36.07	11.270			
5,200.00	5,199.84	5,166.91	5,134.23	18.39	19.02	-83.20	380.19	171.60	421.45	384.68	36.77	11.481			
5,300.00	5,299.45	5,265.54	5,231.66	18.73	19.42	-83.91	393.86	178.67	436.10	398.62	37.48	11.636			
5,400.00	5,398.70	5,363.92	5,328.82	19.07	19.81	-85.02	407.50	185.72	450.57	412.38	38.19	11.799			
5,500.00	5,497.79	5,462.16	5,425.86	19.41	20.21	-86.48	421.12	192.77	465.20	426.31	38.89	11.961			
5,600.00	5,596.87	5,560.40	5,522.90	19.76	20.60	-87.85	434.73	199.81	480.11	440.51	39.60	12.124			
5,700.00	5,695.95	5,658.64	5,619.94	20.10	21.00	-89.14	448.35	206.85	495.28	454.97	40.31	12.286			
5,800.00	5,795.03	5,756.88	5,716.97	20.45	21.39	-90.35	461.97	213.89	510.68	469.65	41.03	12.447			
5,900.00	5,894.11	5,855.12	5,814.01	20.81	21.79	-91.49	475.58	220.93	526.29	484.54	41.75	12.607			
6,000.00	5,993.19	5,953.36	5,911.05	21.16	22.19	-92.57	489.20	227.97	542.10	499.63	42.47	12.765			
6,100.00	6,092.27	6,051.60	6,008.08	21.52	22.58	-93.58	502.82	235.01	558.08	514.89	43.19	12.921			
6,200.00	6,191.35	6,149.84	6,105.12	21.87	22.98	-94.54	516.43	242.06	574.23	530.31	43.92	13.076			
6,300.00	6,290.43	6,248.08	6,202.16	22.23	23.38	-95.45	530.05	249.10	590.52	545.88	44.64	13.228			
6,400.00	6,389.51	6,346.32	6,299.20	22.59	23.78	-96.30	543.67	256.14	606.95	561.58	45.37	13.377			
6,500.00	6,488.59	6,444.56	6,396.23	22.95	24.17	-97.12	557.29	263.18	623.51	577.41	46.10	13.524			
6,600.00	6,587.67	6,542.80	6,493.27	23.32	24.57	-97.89	570.90	270.22	640.19	593.35	46.84	13.668			
6,700.00	6,686.75	6,641.04	6,590.31	23.68	24.97	-98.62	584.52	277.26	656.97	609.40	47.57	13.810			
6,800.00	6,785.83	6,739.29	6,687.34	24.05	25.37	-99.31	598.14	284.30	673.85	625.54	48.31	13.949			
6,900.00	6,884.91	6,837.53	6,784.38	24.42	25.77	-99.98	611.75	291.35	690.82	641.78	49.05	14.085			
7,000.00	6,983.99	6,935.77	6,881.42	24.79	26.17	-100.61	625.37	298.39	707.89	658.10	49.79	14.219			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Plan #1

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)							
7,100.00	7,083.07	7,034.01	6,978.46	25.16	26.57	-101.21	638.99	305.43	725.02	674.50	50.53	14.350			
7,200.00	7,182.15	7,132.25	7,075.49	25.53	26.97	-101.78	652.60	312.47	742.24	690.97	51.27	14.478			
7,300.00	7,281.23	7,230.49	7,172.53	25.90	27.36	-102.33	666.22	319.51	759.52	707.51	52.01	14.603			
7,400.00	7,380.31	7,328.73	7,269.57	26.27	27.76	-102.85	679.84	326.55	776.87	724.11	52.76	14.726			
7,500.00	7,479.40	7,426.97	7,366.60	26.65	28.16	-103.35	693.45	333.60	794.28	740.78	53.50	14.846			
7,600.00	7,578.48	7,525.21	7,463.64	27.02	28.56	-103.83	707.07	340.64	811.74	757.49	54.25	14.964			
7,700.00	7,677.56	7,623.45	7,560.68	27.40	28.96	-104.29	720.69	347.68	829.26	774.26	55.00	15.079			
7,800.00	7,776.64	7,721.69	7,657.72	27.77	29.37	-104.72	734.30	354.72	846.82	791.08	55.74	15.191			
7,900.00	7,875.72	7,819.93	7,754.75	28.15	29.77	-105.15	747.92	361.76	864.44	807.94	56.49	15.302			
8,000.00	7,974.80	7,918.17	7,851.79	28.53	30.17	-105.55	761.54	368.80	882.09	824.85	57.24	15.409			
8,100.00	8,073.88	8,016.42	7,948.83	28.91	30.57	-105.98	775.16	375.84	899.79	841.79	58.00	15.514			
8,200.00	8,173.22	8,132.97	8,064.07	29.28	31.04	-106.60	790.69	383.88	916.49	857.63	58.86	15.571			
8,300.00	8,272.90	8,271.95	8,202.19	29.65	31.57	-107.06	804.26	390.90	928.58	868.80	59.78	15.534			
8,400.00	8,372.79	8,412.18	8,342.14	30.00	32.08	-107.31	811.91	394.85	935.36	874.68	60.67	15.417			
8,500.00	8,472.78	8,542.79	8,472.72	30.35	32.51	89.95	813.65	395.22	936.91	875.42	61.49	15.237			
8,600.00	8,571.87	8,642.52	8,571.47	30.66	32.80	89.92	813.61	382.30	936.92	874.81	62.10	15.087			
8,700.00	8,667.29	8,742.16	8,666.42	30.95	33.04	89.89	813.53	352.50	936.94	874.27	62.66	14.952			
8,800.00	8,756.14	8,841.73	8,754.73	31.22	33.24	89.87	813.41	306.76	936.96	873.77	63.19	14.827			
8,900.00	8,835.72	8,941.24	8,833.75	31.51	33.39	89.85	813.25	246.48	937.00	873.26	63.75	14.699			
9,000.00	8,903.61	9,040.72	8,901.14	31.85	33.51	89.83	813.05	173.48	937.05	872.64	64.41	14.549			
9,100.00	8,957.75	9,140.17	8,954.89	32.31	33.60	89.82	812.83	89.96	937.10	871.82	65.28	14.354			
9,200.00	8,996.49	9,239.60	8,993.42	32.93	33.79	89.81	812.58	-1.58	937.16	870.69	66.47	14.098			
9,300.00	9,018.66	9,339.05	9,015.55	33.74	34.32	89.81	812.32	-98.40	937.22	869.19	68.02	13.778			
9,400.00	9,024.00	9,438.62	9,021.00	34.72	35.20	89.82	812.05	-197.72	937.28	867.36	69.92	13.405			
9,500.00	9,024.00	9,538.62	9,021.00	35.89	36.30	89.82	811.78	-297.72	937.34	865.15	72.19	12.984			
9,600.00	9,024.00	9,638.62	9,021.00	37.23	37.59	89.82	811.51	-397.72	937.40	862.59	74.81	12.530			
9,700.00	9,024.00	9,738.62	9,021.00	38.74	39.04	89.82	811.24	-497.72	937.46	859.70	77.77	12.055			
9,800.00	9,024.00	9,838.62	9,021.00	40.40	40.64	89.82	810.97	-597.72	937.53	856.51	81.01	11.573			
9,900.00	9,024.00	9,938.62	9,021.00	42.18	42.37	89.82	810.70	-697.72	937.59	853.07	84.52	11.093			
10,000.00	9,024.00	10,038.62	9,021.00	44.07	44.21	89.82	810.43	-797.72	937.65	849.40	88.25	10.625			
10,100.00	9,024.00	10,138.62	9,021.00	46.06	46.16	89.82	810.16	-897.72	937.71	845.53	92.19	10.172			
10,200.00	9,024.00	10,238.62	9,021.00	48.14	48.19	89.82	809.89	-997.72	937.77	841.48	96.30	9.738			
10,300.00	9,024.00	10,338.62	9,021.00	50.30	50.31	89.82	809.62	-1,097.72	937.84	837.27	100.56	9.326			
10,400.00	9,024.00	10,438.62	9,021.00	52.52	52.49	89.82	809.36	-1,197.72	937.90	832.93	104.96	8.935			
10,500.00	9,024.00	10,538.62	9,021.00	54.80	54.73	89.82	809.09	-1,297.72	937.96	828.47	109.48	8.567			
10,600.00	9,024.00	10,638.62	9,021.00	57.12	57.03	89.82	808.82	-1,397.72	938.02	823.91	114.11	8.220			
10,700.00	9,024.00	10,738.62	9,021.00	59.50	59.37	89.82	808.55	-1,497.72	938.08	819.25	118.83	7.894			
10,800.00	9,024.00	10,838.62	9,021.00	61.91	61.76	89.82	808.28	-1,597.72	938.14	814.51	123.63	7.588			
10,900.00	9,024.00	10,938.62	9,021.00	64.36	64.19	89.82	808.01	-1,697.72	938.21	809.70	128.50	7.301			
11,000.00	9,024.00	11,038.62	9,021.00	66.84	66.64	89.82	807.74	-1,797.72	938.27	804.82	133.44	7.031			
11,100.00	9,024.00	11,138.62	9,021.00	69.35	69.13	89.82	807.47	-1,897.72	938.33	799.89	138.44	6.778			
11,200.00	9,024.00	11,238.62	9,021.00	71.89	71.65	89.82	807.20	-1,997.72	938.39	794.90	143.49	6.540			
11,300.00	9,024.00	11,338.62	9,021.00	74.44	74.18	89.82	806.93	-2,097.72	938.45	789.87	148.59	6.316			
11,400.00	9,024.00	11,438.62	9,021.00	77.02	76.75	89.82	806.66	-2,197.72	938.52	784.79	153.72	6.105			
11,500.00	9,024.00	11,538.62	9,021.00	79.62	79.32	89.82	806.39	-2,297.72	938.58	779.68	158.90	5.907			
11,600.00	9,024.00	11,638.62	9,021.00	82.23	81.92	89.82	806.12	-2,397.71	938.64	774.53	164.11	5.720			
11,700.00	9,024.00	11,738.62	9,021.00	84.86	84.54	89.82	805.85	-2,497.71	938.70	769.35	169.35	5.543			
11,800.00	9,024.00	11,838.62	9,021.00	87.50	87.16	89.82	805.58	-2,597.71	938.76	764.14	174.62	5.376			
11,900.00	9,024.00	11,938.62	9,021.00	90.15	89.80	89.82	805.31	-2,697.71	938.82	758.91	179.92	5.218			
12,000.00	9,024.00	12,038.62	9,021.00	92.82	92.46	89.82	805.04	-2,797.71	938.89	753.65	185.24	5.069			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Plan #1

Offset Design C 17 State Pad - C 17 State 1H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
12,100.00	9,024.00	12,138.62	9,021.00	95.49	95.12	89.82	804.77	-2,897.71	938.95	748.37	190.58	4.927		
12,200.00	9,024.00	12,238.62	9,021.00	98.18	97.80	89.82	804.50	-2,997.71	939.01	743.07	195.94	4.792		
12,300.00	9,024.00	12,338.62	9,021.00	100.88	100.48	89.82	804.23	-3,097.71	939.07	737.75	201.32	4.665		
12,400.00	9,024.00	12,438.62	9,021.00	103.58	103.18	89.82	803.96	-3,197.71	939.13	732.42	206.72	4.543		
12,500.00	9,024.00	12,538.62	9,021.00	106.29	105.88	89.82	803.69	-3,297.71	939.20	727.07	212.13	4.427		
12,600.00	9,024.00	12,638.62	9,021.00	109.00	108.59	89.82	803.43	-3,397.71	939.26	721.70	217.56	4.317		
12,700.00	9,024.00	12,738.62	9,021.00	111.73	111.30	89.82	803.16	-3,497.71	939.32	716.32	223.00	4.212		
12,800.00	9,024.00	12,838.62	9,021.00	114.46	114.02	89.82	802.89	-3,597.71	939.38	710.93	228.45	4.112		
12,900.00	9,024.00	12,938.62	9,021.00	117.19	116.75	89.82	802.62	-3,697.71	939.44	705.53	233.91	4.016		
13,000.00	9,024.00	13,038.62	9,021.00	119.93	119.49	89.82	802.35	-3,797.71	939.50	700.12	239.39	3.925		
13,100.00	9,024.00	13,138.62	9,021.00	122.68	122.22	89.82	802.08	-3,897.71	939.57	694.69	244.87	3.837		
13,200.00	9,024.00	13,238.62	9,021.00	125.43	124.97	89.82	801.81	-3,997.71	939.63	689.26	250.37	3.753		
13,300.00	9,024.00	13,338.62	9,021.00	128.18	127.72	89.82	801.54	-4,097.71	939.69	683.82	255.87	3.673		
13,400.00	9,024.00	13,438.62	9,021.00	130.94	130.47	89.82	801.27	-4,197.71	939.75	678.37	261.38	3.595		
13,500.00	9,024.00	13,538.62	9,021.00	133.70	133.23	89.82	801.00	-4,297.71	939.81	672.91	266.90	3.521		
13,600.00	9,024.00	13,638.62	9,021.00	136.47	135.99	89.82	800.73	-4,397.71	939.88	667.45	272.43	3.450		
13,700.00	9,024.00	13,738.62	9,021.00	139.24	138.75	89.82	800.46	-4,497.71	939.94	661.98	277.96	3.382		
13,749.07	9,024.00	13,787.70	9,021.00	140.60	140.11	89.82	800.33	-4,546.78	939.97	659.29	280.68	3.349		
13,799.97	9,024.00	13,835.22	9,021.00	142.01	141.42	89.82	800.20	-4,594.30	940.00	656.60	283.40	3.317		
13,800.13	9,024.00	13,835.22	9,021.00	142.01	141.42	89.82	800.20	-4,594.30	940.01	656.60	283.41	3.317		

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Reference Site: C 17 State Pad

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 3H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	89.77	0.10	25.00	25.00						
100.00	100.00	100.00	100.00	0.14	0.14	89.77	0.10	25.00	25.00	24.72	0.28	89.412			
200.00	200.00	200.00	200.00	0.50	0.50	89.77	0.10	25.00	25.00	24.00	1.00	25.087			
300.00	300.00	300.00	300.00	0.86	0.86	89.77	0.10	25.00	25.00	23.29	1.71	14.590			
400.00	400.00	400.00	400.00	1.22	1.22	89.77	0.10	25.00	25.00	22.57	2.43	10.286			
500.00	500.00	500.00	500.00	1.57	1.57	89.77	0.10	25.00	25.00	21.85	3.15	7.943			
600.00	600.00	600.00	600.00	1.93	1.93	89.77	0.10	25.00	25.00	21.14	3.86	6.469			
700.00	700.00	700.00	700.00	2.29	2.29	89.77	0.10	25.00	25.00	20.42	4.58	5.457			
800.00	800.00	800.00	800.00	2.65	2.65	89.77	0.10	25.00	25.00	19.70	5.30	4.719			
900.00	900.00	900.00	900.00	3.01	3.01	89.77	0.10	25.00	25.00	18.99	6.02	4.156			
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	89.77	0.10	25.00	25.00	18.27	6.73	3.714			
1,100.00	1,100.00	1,100.00	1,100.00	3.72	3.72	89.77	0.10	25.00	25.00	17.55	7.45	3.356			
1,200.00	1,200.00	1,200.00	1,200.00	4.08	4.08	89.77	0.10	25.00	25.00	16.83	8.17	3.062			
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.44	89.77	0.10	25.00	25.00	16.12	8.88	2.814			
1,400.00	1,400.00	1,400.00	1,400.00	4.80	4.80	89.77	0.10	25.00	25.00	15.40	9.60	2.604			
1,500.00	1,500.00	1,500.00	1,500.00	5.16	5.16	89.77	0.10	25.00	25.00	14.68	10.32	2.423 CC			
1,600.00	1,600.00	1,599.67	1,599.65	5.52	5.50	93.43	-1.53	25.58	25.63	14.61	11.02	2.327 ES, SF			
1,700.00	1,700.00	1,699.10	1,698.94	5.88	5.82	103.22	-6.42	27.32	28.08	16.38	11.70	2.400			
1,800.00	1,800.00	1,798.05	1,797.52	6.23	6.15	115.64	-14.49	30.19	33.58	21.20	12.39	2.711			
1,900.00	1,900.00	1,896.30	1,895.04	6.59	6.48	126.93	-25.68	34.17	43.04	29.96	13.07	3.292			
2,000.00	2,000.00	1,993.61	1,991.18	6.95	6.82	135.47	-39.87	39.22	56.62	42.85	13.77	4.113			
2,100.00	2,100.00	2,092.07	2,088.15	7.31	7.17	141.20	-55.86	44.91	72.65	58.18	14.47	5.020			
2,200.00	2,200.00	2,190.57	2,185.18	7.67	7.53	144.85	-71.86	50.60	89.13	73.95	15.18	5.871			
2,300.00	2,300.00	2,289.07	2,282.21	8.03	7.89	147.35	-87.86	56.29	105.86	89.96	15.90	6.658			
2,400.00	2,400.00	2,387.57	2,379.23	8.38	8.26	149.17	-103.86	61.99	122.72	106.10	16.62	7.382			
2,500.00	2,500.00	2,486.08	2,476.26	8.74	8.64	150.55	-119.87	67.68	139.68	122.33	17.35	8.049			
2,600.00	2,600.00	2,584.58	2,573.29	9.10	9.02	151.63	-135.87	73.37	156.71	138.62	18.09	8.663			
2,700.00	2,700.00	2,683.08	2,670.31	9.46	9.40	152.50	-151.87	79.07	173.77	154.95	18.83	9.230			
2,800.00	2,800.00	2,781.58	2,767.34	9.82	9.79	153.21	-167.87	84.76	190.87	171.30	19.57	9.754			
2,900.00	2,900.00	2,880.08	2,864.37	10.18	10.18	153.81	-183.87	90.45	207.99	187.68	20.31	10.239			
3,000.00	3,000.00	2,978.59	2,961.40	10.54	10.58	154.31	-199.87	96.14	225.13	204.07	21.06	10.689			
3,100.00	3,100.00	3,077.09	3,058.42	10.89	10.97	154.74	-215.88	101.84	242.28	220.47	21.81	11.108			
3,200.00	3,200.00	3,175.59	3,155.45	11.25	11.37	155.12	-231.88	107.53	259.45	236.89	22.56	11.498			
3,300.00	3,300.00	3,274.09	3,252.48	11.61	11.77	155.45	-247.88	113.22	276.63	253.31	23.32	11.863			
3,400.00	3,400.00	3,372.60	3,349.50	11.97	12.18	155.74	-263.88	118.92	293.81	269.73	24.07	12.204			
3,500.00	3,500.00	3,471.10	3,446.53	12.33	12.58	156.00	-279.88	124.61	311.00	286.17	24.83	12.524			
3,600.00	3,600.00	3,569.60	3,543.56	12.69	12.99	156.23	-295.88	130.30	328.19	302.60	25.59	12.824			
3,700.00	3,700.00	3,668.10	3,640.58	13.04	13.39	156.44	-311.89	136.00	345.39	319.04	26.35	13.107			
3,800.00	3,800.00	3,766.60	3,737.61	13.40	13.80	156.63	-327.89	141.69	362.60	335.49	27.11	13.373			
3,900.00	3,900.00	3,865.11	3,834.64	13.76	14.21	156.80	-343.89	147.38	379.81	351.93	27.88	13.625			
4,000.00	4,000.00	3,963.61	3,931.67	14.12	14.62	156.96	-359.89	153.07	397.02	368.38	28.64	13.862			
4,100.00	4,100.00	4,062.11	4,028.69	14.48	15.03	157.10	-375.89	158.77	414.23	384.83	29.41	14.087			
4,200.00	4,200.00	4,160.61	4,125.72	14.84	15.45	157.23	-391.89	164.46	431.45	401.27	30.17	14.300			
4,300.00	4,300.00	4,259.12	4,222.75	15.20	15.86	157.36	-407.90	170.15	448.66	417.73	30.94	14.502			
4,400.00	4,400.00	4,357.62	4,319.77	15.55	16.27	157.47	-423.90	175.85	465.88	434.18	31.70	14.695			
4,500.00	4,500.00	4,456.12	4,416.80	15.91	16.69	157.57	-439.90	181.54	483.10	450.63	32.47	14.878			
4,600.00	4,600.00	4,554.62	4,513.83	16.27	17.10	157.67	-455.90	187.23	500.33	467.09	33.24	15.052			
4,700.00	4,700.00	4,653.13	4,610.85	16.63	17.52	157.76	-471.90	192.92	517.55	483.54	34.01	15.218			
4,800.00	4,800.00	4,751.63	4,707.88	16.99	17.94	157.85	-487.90	198.62	534.78	500.00	34.78	15.376			
4,900.00	4,900.00	4,850.13	4,804.91	17.35	18.35	157.93	-503.91	204.31	552.00	516.45	35.55	15.528			
5,000.00	5,000.00	4,948.63	4,901.94	17.70	18.77	158.01	-519.91	210.00	569.23	532.91	36.32	15.673			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)

Reference Site: C 17 State Pad

North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Plan #1

Offset Design C 17 State Pad - C 17 State 3H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,100.00	5,099.98	5,047.29	4,999.12	18.05	19.19	50.81	-535.93	215.71	585.37	549.54	35.83	16.336		
5,200.00	5,199.84	5,146.20	5,096.54	18.39	19.61	51.05	-552.00	221.42	599.36	562.80	36.55	16.396		
5,300.00	5,299.45	5,245.22	5,194.08	18.73	20.03	51.55	-568.09	227.14	611.23	573.97	37.26	16.404		
5,400.00	5,398.70	5,344.24	5,291.62	19.07	20.45	52.33	-584.17	232.87	621.08	583.12	37.96	16.362		
5,500.00	5,497.79	5,443.23	5,389.13	19.41	20.87	53.31	-600.25	238.59	630.26	591.59	38.67	16.299		
5,600.00	5,596.87	5,542.22	5,486.63	19.76	21.30	54.27	-616.34	244.31	639.63	600.25	39.38	16.241		
5,700.00	5,695.95	5,641.21	5,584.14	20.10	21.72	55.20	-632.42	250.03	649.17	609.07	40.10	16.189		
5,800.00	5,795.03	5,740.20	5,681.65	20.45	22.14	56.10	-648.50	255.75	658.88	618.06	40.82	16.142		
5,900.00	5,894.11	5,839.20	5,779.16	20.81	22.56	56.98	-664.58	261.47	668.74	627.20	41.54	16.098		
6,000.00	5,993.19	5,938.19	5,876.67	21.16	22.99	57.83	-680.66	267.19	678.76	636.50	42.27	16.059		
6,100.00	6,092.27	6,037.18	5,974.18	21.52	23.41	58.66	-696.74	272.92	688.93	645.93	42.99	16.024		
6,200.00	6,191.35	6,136.17	6,071.69	21.87	23.83	59.46	-712.82	278.64	699.23	655.51	43.72	15.992		
6,300.00	6,290.43	6,235.16	6,169.20	22.23	24.26	60.24	-728.90	284.36	709.67	665.21	44.46	15.963		
6,400.00	6,389.51	6,334.15	6,266.71	22.59	24.68	61.00	-744.98	290.08	720.23	675.04	45.19	15.937		
6,500.00	6,488.59	6,433.15	6,364.22	22.95	25.10	61.74	-761.07	295.80	730.92	684.99	45.93	15.914		
6,600.00	6,587.67	6,532.14	6,461.73	23.32	25.53	62.45	-777.15	301.52	741.72	695.05	46.67	15.893		
6,700.00	6,686.75	6,631.13	6,559.23	23.68	25.95	63.14	-793.23	307.24	752.63	705.22	47.41	15.874		
6,800.00	6,785.83	6,730.12	6,656.74	24.05	26.38	63.82	-809.31	312.96	763.65	715.50	48.16	15.858		
6,900.00	6,884.91	6,829.11	6,754.25	24.42	26.80	64.47	-825.39	318.69	774.78	725.87	48.90	15.843		
7,000.00	6,983.99	6,928.10	6,851.76	24.79	27.23	65.11	-841.47	324.41	786.00	736.35	49.65	15.830		
7,100.00	7,083.07	7,027.10	6,949.27	25.16	27.65	65.73	-857.55	330.13	797.31	746.91	50.40	15.819		
7,200.00	7,182.15	7,126.09	7,046.78	25.53	28.08	66.33	-873.63	335.85	808.72	757.56	51.15	15.809		
7,300.00	7,281.23	7,225.08	7,144.29	25.90	28.50	66.91	-889.72	341.57	820.21	768.30	51.91	15.801		
7,400.00	7,380.31	7,324.07	7,241.80	26.27	28.93	67.48	-905.80	347.29	831.78	779.12	52.66	15.794		
7,500.00	7,479.40	7,423.06	7,339.31	26.65	29.35	68.03	-921.88	353.01	843.43	790.01	53.42	15.788		
7,600.00	7,578.48	7,522.06	7,436.82	27.02	29.78	68.57	-937.96	358.73	855.16	800.98	54.18	15.783		
7,700.00	7,677.56	7,621.05	7,534.32	27.40	30.20	69.10	-954.04	364.45	866.96	812.02	54.94	15.779		
7,800.00	7,776.64	7,720.04	7,631.83	27.77	30.63	69.60	-970.12	370.18	878.83	823.13	55.71	15.777		
7,900.00	7,875.72	7,819.03	7,729.34	28.15	31.06	70.10	-986.20	375.90	890.77	834.30	56.47	15.774		
8,000.00	7,974.80	7,918.02	7,826.85	28.53	31.48	70.58	-1,002.28	381.62	902.77	845.54	57.23	15.773		
8,100.00	8,073.88	8,017.01	7,924.36	28.91	31.91	71.08	-1,018.36	387.34	914.84	856.84	58.00	15.773		
8,200.00	8,173.22	8,114.63	8,050.31	29.28	32.45	71.75	-1,034.44	394.21	926.83	867.78	58.85	15.745		
8,300.00	8,272.90	8,288.34	8,193.04	29.65	33.01	72.25	-1,050.52	399.77	935.11	875.38	59.73	15.655		
8,400.00	8,372.79	8,432.86	8,337.24	30.00	33.53	72.53	-1,062.18	402.93	939.93	879.35	60.58	15.516		
8,500.00	8,472.78	8,568.48	8,472.83	30.35	33.96	-90.07	-1,064.35	403.32	941.11	879.76	61.35	15.340		
8,600.00	8,571.87	8,668.72	8,572.18	30.66	34.24	-90.08	-1,064.39	390.96	941.11	879.15	61.96	15.189		
8,700.00	8,667.29	8,768.99	8,667.88	30.95	34.48	-90.08	-1,064.48	361.49	941.10	878.59	62.51	15.055		
8,800.00	8,766.14	8,869.27	8,757.00	31.22	34.68	-90.09	-1,064.62	315.80	941.09	878.06	63.03	14.931		
8,900.00	8,835.72	8,969.56	8,836.81	31.51	34.83	-90.09	-1,064.81	255.28	941.08	877.51	63.57	14.803		
9,000.00	8,903.61	9,069.84	8,904.86	31.85	34.93	-90.09	-1,065.04	181.79	941.06	876.84	64.22	14.653		
9,100.00	8,957.75	9,170.11	8,959.06	32.31	34.99	-90.08	-1,065.30	97.59	941.04	875.94	65.10	14.455		
9,200.00	8,996.49	9,270.35	8,997.77	32.93	35.02	-90.08	-1,065.58	5.26	941.02	874.72	66.30	14.194		
9,300.00	9,018.66	9,370.57	9,019.82	33.74	35.03	-90.07	-1,065.88	-92.38	941.00	873.13	67.87	13.865		
9,400.00	9,024.00	9,470.72	9,025.00	34.72	35.19	-90.06	-1,066.19	-192.29	940.98	871.19	69.79	13.483		
9,500.00	9,024.00	9,570.72	9,025.00	35.89	36.21	-90.06	-1,066.50	-292.29	940.95	868.87	72.09	13.053		
9,600.00	9,024.00	9,670.72	9,025.00	37.23	37.52	-90.06	-1,066.81	-392.29	940.93	866.19	74.74	12.590		
9,700.00	9,024.00	9,770.72	9,025.00	38.74	39.00	-90.06	-1,067.12	-492.29	940.91	863.20	77.71	12.107		
9,800.00	9,024.00	9,870.72	9,025.00	40.40	40.62	-90.06	-1,067.43	-592.29	940.89	859.90	80.98	11.618		
9,900.00	9,024.00	9,970.72	9,025.00	42.18	42.38	-90.06	-1,067.74	-692.29	940.86	856.36	84.51	11.133		
10,000.00	9,024.00	10,070.72	9,025.00	44.07	44.24	-90.06	-1,068.05	-792.29	940.84	852.58	88.26	10.660		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

Reference Site: C 17 State Pad

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Offset Design C 17 State Pad - C 17 State 3H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.00	9,024.00	10,170.72	9,025.00	46.06	46.21	-90.06	-1,068.35	-892.29	940.82	848.61	92.21	10.203		
10,200.00	9,024.00	10,270.72	9,025.00	48.14	48.26	-90.06	-1,068.66	-992.29	940.80	844.46	96.34	9.765		
10,300.00	9,024.00	10,370.72	9,025.00	50.30	50.39	-90.06	-1,068.97	-1,092.28	940.78	840.15	100.62	9.350		
10,400.00	9,024.00	10,470.72	9,025.00	52.52	52.59	-90.06	-1,069.28	-1,192.28	940.75	835.72	105.04	8.957		
10,500.00	9,024.00	10,570.72	9,025.00	54.80	54.85	-90.06	-1,069.59	-1,292.28	940.73	831.16	109.57	8.586		
10,600.00	9,024.00	10,670.72	9,025.00	57.12	57.16	-90.06	-1,069.90	-1,392.28	940.71	826.50	114.21	8.237		
10,700.00	9,024.00	10,770.72	9,025.00	59.50	59.51	-90.06	-1,070.21	-1,492.28	940.69	821.75	118.93	7.909		
10,800.00	9,024.00	10,870.72	9,025.00	61.91	61.91	-90.06	-1,070.52	-1,592.28	940.66	816.92	123.74	7.602		
10,900.00	9,024.00	10,970.72	9,025.00	64.36	64.34	-90.06	-1,070.83	-1,692.28	940.64	812.01	128.63	7.313		
11,000.00	9,024.00	11,070.72	9,025.00	66.84	66.81	-90.06	-1,071.14	-1,792.28	940.62	807.04	133.57	7.042		
11,100.00	9,024.00	11,170.72	9,025.00	69.35	69.30	-90.06	-1,071.44	-1,892.28	940.60	802.02	138.58	6.787		
11,200.00	9,024.00	11,270.72	9,025.00	71.89	71.82	-90.06	-1,071.75	-1,992.28	940.57	796.94	143.64	6.548		
11,300.00	9,024.00	11,370.72	9,025.00	74.44	74.37	-90.06	-1,072.06	-2,092.28	940.55	791.81	148.74	6.324		
11,400.00	9,024.00	11,470.72	9,025.00	77.02	76.93	-90.06	-1,072.37	-2,192.28	940.53	786.65	153.88	6.112		
11,500.00	9,024.00	11,570.72	9,025.00	79.62	79.52	-90.06	-1,072.68	-2,292.28	940.51	781.44	159.06	5.913		
11,600.00	9,024.00	11,670.72	9,025.00	82.23	82.12	-90.06	-1,072.99	-2,392.28	940.48	776.21	164.28	5.725		
11,700.00	9,024.00	11,770.72	9,025.00	84.86	84.73	-90.06	-1,073.30	-2,492.28	940.46	770.94	169.52	5.548		
11,800.00	9,024.00	11,870.72	9,025.00	87.50	87.37	-90.06	-1,073.61	-2,592.28	940.44	765.64	174.80	5.380		
11,900.00	9,024.00	11,970.72	9,025.00	90.15	90.01	-90.06	-1,073.92	-2,692.28	940.42	760.32	180.10	5.222		
12,000.00	9,024.00	12,070.72	9,025.00	92.82	92.67	-90.06	-1,074.23	-2,792.28	940.40	754.97	185.42	5.072		
12,100.00	9,024.00	12,170.72	9,025.00	95.49	95.34	-90.06	-1,074.53	-2,892.28	940.37	749.61	190.77	4.929		
12,200.00	9,024.00	12,270.72	9,025.00	98.18	98.01	-90.06	-1,074.84	-2,992.28	940.35	744.22	196.13	4.795		
12,300.00	9,024.00	12,370.72	9,025.00	100.88	100.70	-90.06	-1,075.15	-3,092.28	940.33	738.81	201.51	4.666		
12,400.00	9,024.00	12,470.72	9,025.00	103.58	103.40	-90.06	-1,075.46	-3,192.27	940.31	733.39	206.91	4.544		
12,500.00	9,024.00	12,570.72	9,025.00	106.29	106.10	-90.06	-1,075.77	-3,292.27	940.28	727.96	212.33	4.428		
12,600.00	9,024.00	12,670.72	9,025.00	109.00	108.81	-90.06	-1,076.08	-3,392.27	940.26	722.50	217.76	4.318		
12,700.00	9,024.00	12,770.72	9,025.00	111.73	111.53	-90.06	-1,076.39	-3,492.27	940.24	717.04	223.20	4.213		
12,800.00	9,024.00	12,870.72	9,025.00	114.46	114.25	-90.06	-1,076.70	-3,592.27	940.22	711.56	228.65	4.112		
12,900.00	9,024.00	12,970.72	9,025.00	117.19	116.98	-90.06	-1,077.01	-3,692.27	940.19	706.07	234.12	4.016		
13,000.00	9,024.00	13,070.72	9,025.00	119.93	119.72	-90.06	-1,077.32	-3,792.27	940.17	700.58	239.60	3.924		
13,100.00	9,024.00	13,170.72	9,025.00	122.68	122.46	-90.06	-1,077.62	-3,892.27	940.15	695.07	245.08	3.836		
13,200.00	9,024.00	13,270.72	9,025.00	125.43	125.20	-90.06	-1,077.93	-3,992.27	940.13	689.55	250.58	3.752		
13,300.00	9,024.00	13,370.72	9,025.00	128.18	127.95	-90.06	-1,078.24	-4,092.27	940.11	684.02	256.08	3.671		
13,400.00	9,024.00	13,470.72	9,025.00	130.94	130.71	-90.06	-1,078.55	-4,192.27	940.08	678.49	261.60	3.594		
13,500.00	9,024.00	13,570.72	9,025.00	133.70	133.47	-90.06	-1,078.86	-4,292.27	940.06	672.94	267.12	3.519		
13,600.00	9,024.00	13,670.72	9,025.00	136.47	136.23	-90.06	-1,079.17	-4,392.27	940.04	667.39	272.64	3.448		
13,700.00	9,024.00	13,770.72	9,025.00	139.24	138.99	-90.06	-1,079.48	-4,492.27	940.02	661.84	278.18	3.379		
13,799.97	9,024.00	13,870.69	9,025.00	142.01	141.76	-90.06	-1,079.79	-4,592.24	939.99	656.28	283.72	3.313		
13,800.13	9,024.00	13,870.85	9,025.00	142.01	141.76	-90.06	-1,079.79	-4,592.40	939.99	656.27	283.73	3.313		

Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
Project: Eddy County, New Mexico NAD 83

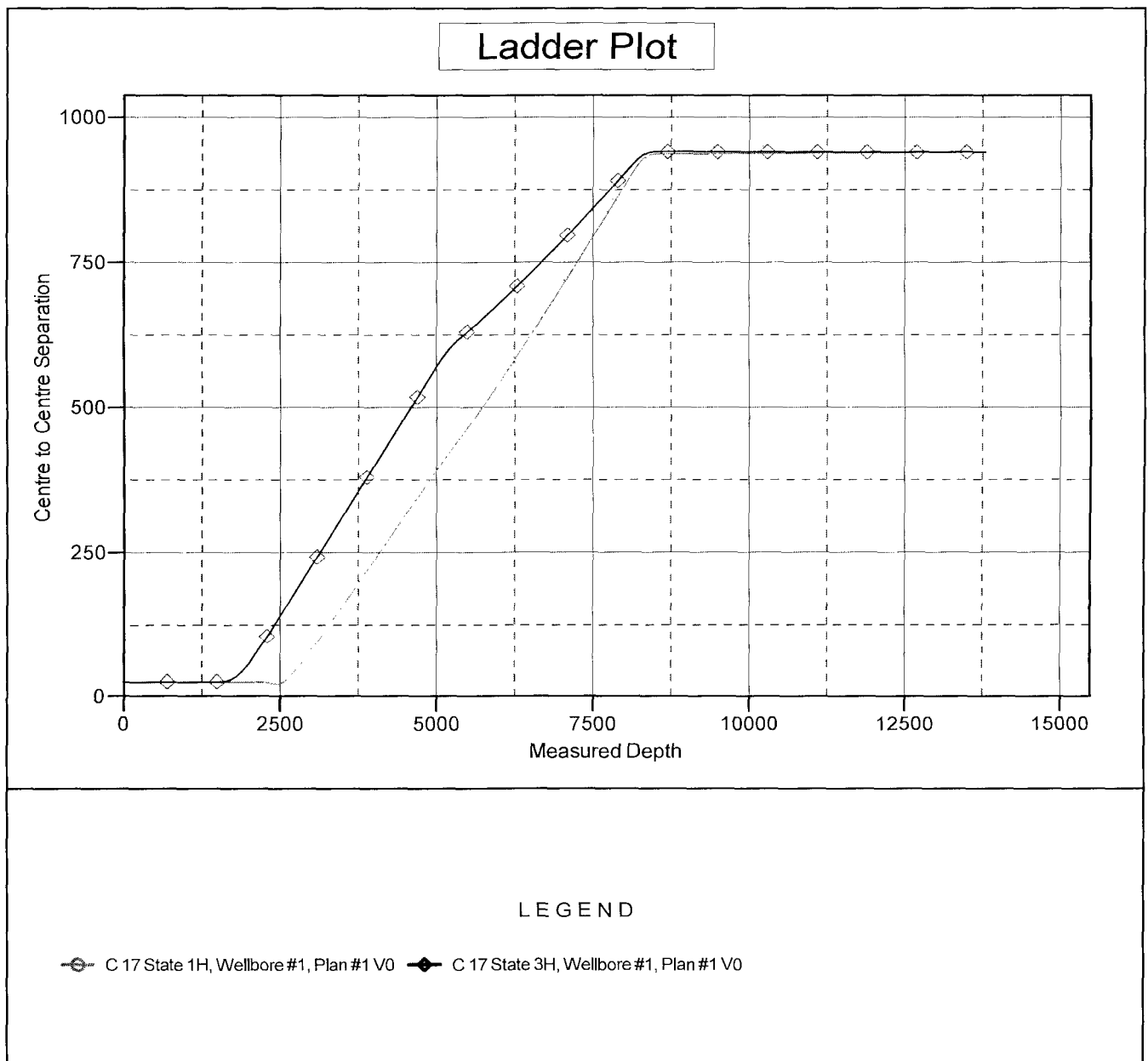
Reference Site: C 17 State Pad

Site Error: 0.00 usft
Reference Well: C 17 State 2H
Well Error: 0.00 usft
Reference Wellbore Wellbore #1
Reference Design: Plan #1

Local Co-ordinate Reference: Well C 17 State 2H
TVD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
MD Reference: GL 3154 + KB 22 = @ 3176.00usft (Orion Pegasus)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: Midland District
Offset TVD Reference: Offset Datum

Reference Depths are relative to GL 3154 + KB 22 = @ 3176.00usft (O
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: C 17 State 2H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.07°



Scientific Drilling Int.

Anticollision Report

Company: WPX Energy
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Reference Site: C 17 State Pad

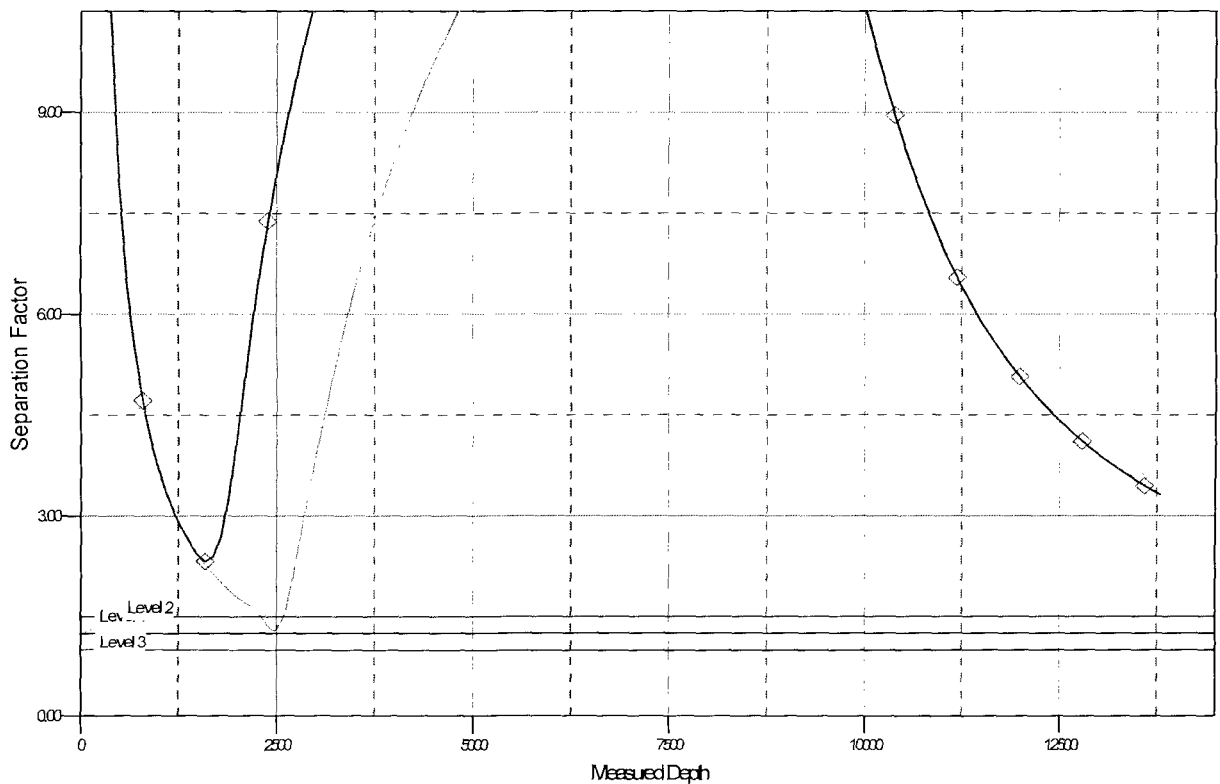
Site Error: 0.00 usft
Reference Well: C 17 State 2H
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Grid Convergence at Surface is: 0.07°

Separation Factor Plot



LEGEND

— C 17 State 1H, Wellbore #1, Plan #1 V0 — C 17 State 3H, Wellbore #1, Plan #1 V0