

WPXENERGY®

**NM OIL CONSERVATION
ARTESIA DISTRICT**

OCT 11 2018

WPX Energy

RECEIVED

Eddy County, New Mexico (NAD 83)

Bindel 4 Fee

Bindel 4 Fee 1H

30-015-45042

Wellbore #1

Design #3

Anticollision Report

05 October, 2018

MS *Directional*

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Reference	Design #3
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 10,000.00usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program Date 10/5/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	9,157.11	Design #3 (Pilot Hole)	MWD	OWSG MWD - Standard
9,157.11	14,774.67	Design #3 (Wellbore #1)	MWD	OWSG MWD - Standard

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						
Ape Fee						
Ape Fee #001 - Wellbore #1 - Surveys	14,711.29	9,151.00	802.69	675.40	6.306	CC, ES
Ape Fee #001 - Wellbore #1 - Surveys	14,774.79	9,151.00	805.20	676.61	6.262	SF
Bindel 4 Fee						
Bindel 4 Fee 1H - Pilot Hole - Design #3	9,500.00	9,479.90	99.58	98.39	84.179	CC, ES, SF
Canal SWD						
Canal SWD #001 - Wellbore #1 - Surveys	8,793.02	8,670.13	1,000.85	742.08	3.868	CC
Canal SWD #001 - Wellbore #1 - Surveys	9,200.00	9,077.94	1,004.16	731.57	3.684	ES
Canal SWD #001 - Wellbore #1 - Surveys	9,300.00	9,170.84	1,012.60	737.61	3.682	SF
Wolfman 5 4 WOLI Federal COM						
Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 -	10,100.00	19,091.28	864.11	642.08	3.892	CC, ES, SF

Offset Design: Ape Fee - Ape Fee #001 - Wellbore #1 - Surveys

Survey Program: 156-MWD										Offset Site Error: 0.00 usft			
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Azimuth from North (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-105.85	-1,206.54	-4,250.63	4,418.55				
100.00	100.00	106.71	106.71	0.13	0.19	-105.84	-1,206.22	-4,250.63	4,418.47	4,418.14	0.33	N/A	
200.00	200.00	211.65	211.65	0.49	0.48	-105.83	-1,205.33	-4,250.65	4,418.25	4,417.28	0.97	4,544.884	
300.00	300.00	315.08	315.07	0.85	0.85	-105.82	-1,204.09	-4,250.67	4,417.95	4,416.25	1.70	2,596.533	
332.98	332.98	333.00	332.99	0.97	0.91	-105.81	-1,203.85	-4,250.68	4,417.86	4,415.98	1.88	2,344.978	
400.00	400.00	368.03	368.01	1.21	1.04	-105.81	-1,203.58	-4,250.82	4,418.04	4,415.80	2.25	1,967.768	
500.00	500.00	438.00	437.97	1.57	1.28	-105.81	-1,204.36	-4,251.91	4,419.62	4,416.78	2.84	1,553.584	
600.00	600.00	470.71	470.66	1.93	1.39	-105.82	-1,205.09	-4,252.69	4,422.03	4,418.71	3.32	1,333.344	
700.00	700.00	564.69	564.60	2.29	1.72	-105.83	-1,206.68	-4,255.16	4,425.02	4,421.02	4.00	1,106.534	
800.00	800.00	721.85	721.69	2.64	2.27	-105.84	-1,208.19	-4,259.12	4,427.86	4,422.96	4.91	902.716	
900.00	900.00	895.90	895.74	3.00	2.87	-105.85	-1,209.39	-4,260.19	4,428.52	4,422.65	5.87	754.269	
1,000.00	1,000.00	1,024.46	1,024.28	3.36	3.32	-105.83	-1,207.57	-4,260.32	4,428.22	4,421.54	6.68	663.057	
1,100.00	1,100.00	1,132.35	1,132.13	3.72	3.70	-105.79	-1,204.86	-4,260.37	4,427.58	4,420.17	7.42	597.084	
1,200.00	1,200.00	1,231.88	1,231.62	4.08	4.05	-105.75	-1,201.88	-4,260.43	4,426.82	4,418.70	8.12	544.871	
1,300.00	1,300.00	1,325.98	1,325.70	4.44	4.38	-105.72	-1,199.47	-4,260.47	4,426.18	4,417.36	8.82	502.077	

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

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 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design: Ape Fee - Ape Fee #001 - Wellbore #1 - Surveys

Survey Program: 156-MWD		Offset		Semi Major Axis		Azimuth from North (°)	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)			
1,400.00	1,400.00	1,559.79	1,559.43	4.79	5.20	-105.71	-1,196.97	-4,256.74	4,424.71	4,414.72	9.98	443.144	
1,500.00	1,500.00	1,684.58	1,684.12	5.15	5.63	-105.71	-1,196.17	-4,252.00	4,420.89	4,410.12	10.77	410.343	
1,600.00	1,600.00	1,738.00	1,737.50	5.51	5.82	-105.71	-1,195.24	-4,249.87	4,416.89	4,405.57	11.32	390.175	
1,700.00	1,700.00	1,831.90	1,831.33	5.87	6.15	-105.70	-1,193.60	-4,246.72	4,413.22	4,401.21	12.01	367.478	
1,800.00	1,800.00	1,890.97	1,890.38	6.23	6.36	-105.69	-1,192.87	-4,245.38	4,410.71	4,398.13	12.58	350.679	
1,900.00	1,900.00	1,981.00	1,980.40	6.59	6.67	-105.69	-1,192.19	-4,244.31	4,409.31	4,396.05	13.25	332.708	
2,000.00	2,000.00	2,033.18	2,032.58	6.95	6.86	-105.69	-1,191.92	-4,244.02	4,408.34	4,394.54	13.80	319.509	
2,100.00	2,100.00	2,142.70	2,142.09	7.30	7.24	-105.68	-1,191.12	-4,243.28	4,407.49	4,392.95	14.54	303.063	
2,200.00	2,200.00	2,240.83	2,240.21	7.66	7.59	-105.67	-1,190.18	-4,242.56	4,406.53	4,391.28	15.25	288.953	
2,233.89	2,233.89	2,272.98	2,272.37	7.78	7.71	-105.67	-1,189.85	-4,242.36	4,406.37	4,390.89	15.48	284.627	
2,300.00	2,299.98	2,335.70	2,335.07	8.01	7.93	-105.64	-1,189.18	-4,242.00	4,406.96	4,391.03	15.93	276.605	
2,400.00	2,399.84	2,430.49	2,429.87	8.34	8.27	-105.59	-1,188.10	-4,241.57	4,410.09	4,393.49	16.60	265.608	
2,500.00	2,499.45	2,525.05	2,524.42	8.68	8.60	-105.50	-1,187.00	-4,241.27	4,415.91	4,398.64	17.28	255.595	
2,600.00	2,598.70	2,623.09	2,622.44	9.03	8.95	-105.38	-1,185.76	-4,241.06	4,424.40	4,406.44	17.97	246.265	
2,700.00	2,697.47	2,721.43	2,720.77	9.38	9.30	-105.22	-1,184.33	-4,240.91	4,435.49	4,416.83	18.66	237.698	
2,800.00	2,795.94	2,821.56	2,820.89	9.75	9.66	-105.05	-1,182.69	-4,240.79	4,447.89	4,428.53	19.37	229.682	
2,900.00	2,894.42	2,921.82	2,921.13	10.12	10.02	-104.88	-1,180.85	-4,240.68	4,460.29	4,440.21	20.08	222.178	
3,000.00	2,892.90	3,020.15	3,019.45	10.49	10.37	-104.71	-1,178.97	-4,240.57	4,472.70	4,451.92	20.78	215.210	
3,100.00	3,091.38	3,107.00	3,106.28	10.88	10.68	-104.55	-1,177.30	-4,240.48	4,485.17	4,463.71	21.45	209.068	
3,200.00	3,189.86	3,197.08	3,196.34	11.27	11.00	-104.38	-1,175.69	-4,240.55	4,497.88	4,475.75	22.14	203.181	
3,300.00	3,288.34	3,277.68	3,276.94	11.66	11.29	-104.22	-1,174.43	-4,240.92	4,511.04	4,488.25	22.79	197.941	
3,400.00	3,386.82	3,366.06	3,365.30	12.06	11.60	-104.06	-1,173.26	-4,241.56	4,524.55	4,501.08	23.47	192.771	
3,500.00	3,485.30	3,456.58	3,455.82	12.46	11.92	-103.90	-1,172.33	-4,242.32	4,538.27	4,514.10	24.16	187.826	
3,600.00	3,583.78	3,554.01	3,553.25	12.87	12.26	-103.74	-1,171.52	-4,243.20	4,552.13	4,527.25	24.88	182.964	
3,700.00	3,682.26	3,654.29	3,653.51	13.28	12.62	-103.59	-1,170.67	-4,244.08	4,566.00	4,540.39	25.61	178.289	
3,800.00	3,780.74	3,759.42	3,758.63	13.69	12.99	-103.43	-1,169.64	-4,244.94	4,579.81	4,553.45	26.36	173.730	
3,900.00	3,879.22	3,865.50	3,864.70	14.10	13.37	-103.28	-1,168.28	-4,245.70	4,593.49	4,566.37	27.12	169.383	
4,000.00	3,977.70	3,951.59	3,950.78	14.52	13.67	-103.12	-1,167.13	-4,246.38	4,607.26	4,579.46	27.80	165.706	
4,100.00	4,076.18	4,048.00	4,047.18	14.94	14.01	-102.97	-1,165.99	-4,247.35	4,621.32	4,592.79	28.53	161.991	
4,200.00	4,174.66	4,119.55	4,118.72	15.36	14.26	-102.82	-1,165.32	-4,248.27	4,635.68	4,606.52	29.16	158.987	
4,300.00	4,273.14	4,199.70	4,198.86	15.79	14.55	-102.67	-1,164.80	-4,249.53	4,650.46	4,620.64	29.82	155.955	
4,400.00	4,371.61	4,282.07	4,281.21	16.21	14.83	-102.53	-1,164.55	-4,251.09	4,665.64	4,635.16	30.49	153.035	
4,500.00	4,470.09	4,366.29	4,365.41	16.64	15.13	-102.39	-1,164.56	-4,252.89	4,681.16	4,649.99	31.16	150.223	
4,600.00	4,568.57	4,449.34	4,448.44	17.07	15.41	-102.25	-1,164.83	-4,254.86	4,696.99	4,665.16	31.83	147.561	
4,700.00	4,667.05	4,529.86	4,528.93	17.50	15.69	-102.12	-1,165.24	-4,257.03	4,713.20	4,680.71	32.49	145.066	
4,800.00	4,765.53	4,613.00	4,612.03	17.93	15.98	-101.99	-1,165.78	-4,259.57	4,729.80	4,696.64	33.16	142.638	
4,900.00	4,864.01	4,753.61	4,752.59	18.36	16.47	-101.86	-1,166.93	-4,263.40	4,746.16	4,712.11	34.05	139.395	
5,000.00	4,962.49	4,861.79	4,860.73	18.80	16.84	-101.74	-1,168.06	-4,265.51	4,761.82	4,727.01	34.81	136.782	
5,100.00	5,060.97	4,951.25	4,950.17	19.23	17.15	-101.62	-1,169.38	-4,267.27	4,777.62	4,742.11	35.51	134.554	
5,200.00	5,159.45	5,043.11	5,041.99	19.67	17.48	-101.51	-1,171.12	-4,269.16	4,793.61	4,757.40	36.21	132.384	
5,300.00	5,257.93	5,136.81	5,135.65	20.10	17.78	-101.40	-1,173.22	-4,271.12	4,809.71	4,772.79	36.92	130.275	
5,400.00	5,356.41	5,257.96	5,256.75	20.54	18.20	-101.30	-1,176.11	-4,273.51	4,825.77	4,788.03	37.74	127.885	
5,500.00	5,454.89	5,400.83	5,399.58	20.98	18.69	-101.20	-1,178.65	-4,275.35	4,841.03	4,802.40	38.63	125.311	
5,600.00	5,553.37	5,465.15	5,463.88	21.42	19.01	-101.08	-1,179.64	-4,278.33	4,856.41	4,817.17	39.24	123.775	
5,700.00	5,651.85	5,552.00	5,550.71	21.86	19.21	-100.97	-1,180.85	-4,277.91	4,872.14	4,832.22	39.92	122.037	
5,800.00	5,750.33	5,605.29	5,603.98	22.30	19.40	-100.85	-1,181.50	-4,279.21	4,888.44	4,847.96	40.48	120.755	
5,900.00	5,848.81	5,663.73	5,662.38	22.74	19.61	-100.72	-1,182.07	-4,281.12	4,905.55	4,864.49	41.06	119.477	
6,000.00	5,947.29	5,850.21	5,848.76	23.18	20.26	-100.60	-1,182.84	-4,286.61	4,922.33	4,880.18	42.14	116.804	
6,100.00	6,045.76	6,043.44	6,041.95	23.62	20.93	-100.48	-1,183.00	-4,287.74	4,936.31	4,893.07	43.24	114.163	
6,200.00	6,144.24	6,118.00	6,116.52	24.07	21.19	-100.35	-1,183.07	-4,288.03	4,950.52	4,906.64	43.88	112.808	
6,300.00	6,242.72	6,203.96	6,202.47	24.51	21.49	-100.23	-1,183.33	-4,288.64	4,965.12	4,920.55	44.57	111.392	
6,400.00	6,341.20	6,296.36	6,294.87	24.95	21.81	-100.12	-1,183.97	-4,289.34	4,979.86	4,934.57	45.29	109.961	

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6,500.00	6,439.68	6,446.94	6,445.45	25.40	22.33	-100.01	-1,185.10	-4,289.83	4,994.24	4,948.02	46.22	108.059	
6,600.00	6,538.16	6,563.06	6,561.56	25.84	22.72	-99.90	-1,185.62	-4,289.27	5,007.75	4,960.73	47.02	106.514	
6,700.00	6,636.64	6,660.75	6,659.25	26.29	23.06	-99.79	-1,186.05	-4,288.74	5,021.24	4,973.50	47.74	105.172	
6,800.00	6,735.12	6,796.16	6,794.65	26.73	23.52	-99.67	-1,186.10	-4,287.69	5,034.49	4,985.88	48.61	103.561	
6,900.00	6,833.60	6,909.47	6,907.94	27.18	23.91	-99.55	-1,185.02	-4,286.18	5,047.00	4,997.60	49.40	102.159	
7,000.00	6,932.08	6,987.10	6,985.57	27.63	24.18	-99.42	-1,184.36	-4,285.29	5,059.77	5,009.71	50.06	101.069	
7,100.00	7,030.56	7,065.73	7,064.20	28.07	24.46	-99.31	-1,183.97	-4,284.68	5,072.96	5,022.24	50.72	100.009	
7,200.00	7,129.04	7,165.04	7,163.50	28.52	24.80	-99.19	-1,183.68	-4,284.05	5,086.36	5,034.89	51.46	98.832	
7,300.00	7,227.52	7,249.00	7,247.46	28.97	25.09	-99.07	-1,183.48	-4,283.50	5,099.78	5,047.64	52.15	97.798	
7,400.00	7,326.00	7,330.14	7,328.60	29.42	25.38	-98.96	-1,183.30	-4,283.23	5,113.54	5,060.72	52.82	96.815	
7,500.00	7,424.48	7,400.27	7,398.73	29.86	25.62	-98.84	-1,183.13	-4,283.42	5,127.88	5,074.43	53.45	95.945	
7,600.00	7,522.96	7,473.25	7,471.70	30.31	25.88	-98.73	-1,182.95	-4,284.01	5,142.76	5,088.68	54.08	95.088	
7,700.00	7,621.43	7,549.20	7,547.65	30.76	26.15	-98.61	-1,182.77	-4,284.97	5,158.12	5,103.38	54.73	94.240	
7,800.00	7,719.91	7,663.33	7,661.72	31.21	27.24	-98.49	-1,182.18	-4,283.40	5,172.06	5,115.77	56.29	91.874	
7,900.00	7,818.39	7,925.28	7,923.64	31.66	27.45	-98.39	-1,182.94	-4,281.79	5,183.91	5,127.01	56.90	91.111	
8,000.00	7,916.87	8,002.00	8,000.32	32.11	27.72	-98.31	-1,184.89	-4,280.27	5,196.50	5,138.95	57.55	90.294	
8,100.00	8,015.35	8,056.21	8,054.50	32.55	27.90	-98.22	-1,186.63	-4,279.50	5,209.69	5,151.57	58.12	89.638	
8,200.00	8,113.83	8,127.30	8,125.55	33.00	28.15	-98.13	-1,188.79	-4,278.84	5,223.45	5,164.70	58.75	88.912	
8,300.00	8,212.48	8,201.40	8,199.62	33.45	28.40	-98.05	-1,190.91	-4,278.57	5,236.93	5,177.54	59.38	88.186	
8,400.00	8,311.62	8,298.57	8,296.76	33.86	28.74	-98.00	-1,193.35	-4,278.48	5,247.88	5,187.78	60.10	87.320	
8,500.00	8,411.16	8,397.15	8,395.32	34.25	29.08	-97.96	-1,195.38	-4,278.50	5,256.03	5,195.22	60.81	86.438	
8,600.00	8,510.97	8,501.18	8,499.33	34.60	29.44	-97.94	-1,197.11	-4,278.53	5,261.28	5,199.76	61.52	85.515	
8,700.00	8,610.93	8,599.29	8,597.44	34.93	29.78	-97.94	-1,198.39	-4,278.55	5,263.61	5,201.40	62.21	84.616	
8,800.00	8,710.93	8,687.02	8,685.16	35.23	30.08	-97.95	-1,199.56	-4,278.72	5,264.07	5,201.24	62.82	83.790	
8,900.00	8,810.93	8,780.80	8,778.93	35.54	30.40	-97.97	-1,200.93	-4,279.09	5,264.66	5,201.18	63.47	82.953	
9,000.00	8,910.93	8,895.39	8,893.50	35.84	30.80	-97.98	-1,202.51	-4,279.42	5,265.13	5,200.94	64.19	82.023	
9,100.00	9,010.93	9,004.45	9,002.55	36.14	31.18	-98.00	-1,203.92	-4,279.46	5,265.35	5,200.46	64.89	81.137	
9,200.00	9,110.89	9,109.52	9,107.62	36.37	31.55	-98.02	-1,205.59	-4,279.35	5,263.87	5,198.34	65.53	80.329	
9,300.00	9,209.45	9,151.00	9,149.09	36.29	31.69	-98.05	-1,206.36	-4,279.26	5,248.23	5,182.59	65.64	79.954	
9,400.00	9,303.72	9,151.00	9,149.09	36.13	31.69	-98.09	-1,206.36	-4,279.26	5,217.43	5,151.85	65.57	79.567	
9,500.00	9,390.83	9,151.00	9,149.09	35.91	31.69	-98.16	-1,206.36	-4,279.26	5,172.29	5,106.80	65.49	78.974	
9,600.00	9,468.12	9,151.00	9,149.09	35.66	31.69	-98.25	-1,206.36	-4,279.26	5,113.84	5,048.44	65.41	78.183	
9,700.00	9,533.27	9,151.00	9,149.09	35.41	31.69	-98.35	-1,206.36	-4,279.26	5,043.43	4,978.10	65.32	77.207	
9,800.00	9,584.27	9,151.00	9,149.09	35.20	31.69	-98.48	-1,206.36	-4,279.26	4,962.72	4,897.48	65.24	76.066	
9,900.00	9,619.59	9,151.00	9,149.09	35.05	31.69	-98.62	-1,206.36	-4,279.26	4,873.74	4,808.57	65.17	74.786	
10,000.00	9,638.15	9,151.00	9,149.09	34.99	31.69	-98.77	-1,206.36	-4,279.26	4,778.79	4,713.68	65.11	73.398	
10,100.00	9,641.00	9,151.00	9,149.09	35.06	31.69	-98.94	-1,206.36	-4,279.26	4,680.63	4,615.57	65.06	71.943	
10,200.00	9,641.00	9,151.00	9,149.09	35.33	31.69	-99.11	-1,206.36	-4,279.26	4,582.14	4,517.13	65.01	70.479	
10,300.00	9,641.00	9,151.00	9,149.09	35.83	31.69	-99.29	-1,206.36	-4,279.26	4,483.72	4,418.75	64.97	69.012	
10,400.00	9,641.00	9,151.00	9,149.09	36.54	31.69	-99.48	-1,206.36	-4,279.26	4,385.37	4,320.44	64.93	67.540	
10,500.00	9,641.00	9,151.00	9,149.09	37.42	31.69	-99.67	-1,206.36	-4,279.26	4,287.10	4,222.21	64.89	66.064	
10,600.00	9,641.00	9,151.00	9,149.09	38.45	31.69	-99.88	-1,206.36	-4,279.26	4,188.91	4,124.05	64.86	64.583	
10,700.00	9,641.00	9,151.00	9,149.09	39.60	31.69	-100.09	-1,206.36	-4,279.26	4,090.81	4,025.98	64.83	63.097	
10,800.00	9,641.00	9,151.00	9,149.09	40.88	31.69	-100.32	-1,206.36	-4,279.26	3,992.80	3,927.99	64.81	61.606	
10,900.00	9,641.00	9,151.00	9,149.09	42.25	31.69	-100.56	-1,206.36	-4,279.26	3,894.90	3,830.10	64.80	60.110	
11,000.00	9,641.00	9,151.00	9,149.09	43.72	31.69	-100.81	-1,206.36	-4,279.26	3,797.10	3,732.31	64.79	58.607	
11,100.00	9,641.00	9,151.00	9,149.09	45.27	31.69	-101.07	-1,206.36	-4,279.26	3,699.42	3,634.63	64.79	57.099	
11,200.00	9,641.00	9,151.00	9,149.09	46.89	31.69	-101.35	-1,206.36	-4,279.26	3,601.87	3,537.07	64.80	55.584	
11,300.00	9,641.00	9,151.00	9,149.09	48.58	31.69	-101.64	-1,206.36	-4,279.26	3,504.45	3,439.63	64.82	54.062	
11,400.00	9,641.00	9,151.00	9,149.09	50.34	31.69	-101.95	-1,206.36	-4,279.26	3,407.19	3,342.33	64.86	52.533	
11,500.00	9,641.00	9,151.00	9,149.09	52.14	31.69	-102.28	-1,206.36	-4,279.26	3,310.09	3,245.18	64.91	50.995	
11,600.00	9,641.00	9,151.00	9,149.09	54.00	31.69	-102.63	-1,206.36	-4,279.26	3,213.16	3,148.18	64.98	49.450	

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

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design: Ape Fee - Ape Fee #001 - Wellbore #1 - Surveys

Survey Program: 156-MWD								Rule Assigned:				Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis		Azimuth from North (°)	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)				
11,700.00	9,641.00	9,151.00	9,149.09	55.89	31.69	-103.00	-1,206.36	-4,279.26	3,116.43	3,051.37	65.07	47.895		
11,800.00	9,641.00	9,151.00	9,149.09	57.83	31.69	-103.40	-1,206.36	-4,279.26	3,019.92	2,954.74	65.18	46.331		
11,900.00	9,641.00	9,151.00	9,149.09	59.81	31.69	-103.82	-1,206.36	-4,279.26	2,923.64	2,858.31	65.32	44.756		
12,000.00	9,641.00	9,151.00	9,149.09	61.81	31.69	-104.27	-1,206.36	-4,279.26	2,827.61	2,762.11	65.50	43.171		
12,100.00	9,641.00	9,151.00	9,149.09	63.85	31.69	-104.76	-1,206.36	-4,279.26	2,731.87	2,666.16	65.71	41.575		
12,200.00	9,641.00	9,151.00	9,149.09	65.91	31.69	-105.28	-1,206.36	-4,279.26	2,636.45	2,570.49	65.96	39.968		
12,300.00	9,641.00	9,151.00	9,149.09	68.00	31.69	-105.84	-1,206.36	-4,279.26	2,541.38	2,475.11	66.27	38.348		
12,400.00	9,641.00	9,151.00	9,149.09	70.10	31.69	-106.45	-1,206.36	-4,279.26	2,446.70	2,380.07	66.64	36.717		
12,500.00	9,641.00	9,151.00	9,149.09	72.23	31.69	-107.11	-1,206.36	-4,279.26	2,352.47	2,285.39	67.07	35.073		
12,600.00	9,641.00	9,151.00	9,149.09	74.38	31.69	-107.83	-1,206.36	-4,279.26	2,258.73	2,191.14	67.59	33.419		
12,700.00	9,641.00	9,151.00	9,149.09	76.54	31.69	-108.61	-1,206.36	-4,279.26	2,165.55	2,097.35	68.20	31.753		
12,800.00	9,641.00	9,151.00	9,149.09	78.72	31.69	-109.47	-1,206.36	-4,279.26	2,073.00	2,004.08	68.92	30.079		
12,900.00	9,641.00	9,151.00	9,149.09	80.92	31.69	-110.41	-1,206.36	-4,279.26	1,981.18	1,911.41	69.77	28.398		
13,000.00	9,641.00	9,151.00	9,149.09	83.12	31.69	-111.44	-1,206.36	-4,279.26	1,890.19	1,819.43	70.76	26.712		
13,100.00	9,641.00	9,151.00	9,149.09	85.34	31.69	-112.59	-1,206.36	-4,279.26	1,800.16	1,728.23	71.93	25.027		
13,200.00	9,641.00	9,151.00	9,149.09	87.57	31.69	-113.87	-1,206.36	-4,279.26	1,711.23	1,637.93	73.29	23.348		
13,300.00	9,641.00	9,151.00	9,149.09	89.81	31.69	-115.31	-1,206.36	-4,279.26	1,623.59	1,548.70	74.89	21.680		
13,400.00	9,641.00	9,151.00	9,149.09	92.06	31.69	-116.92	-1,206.36	-4,279.26	1,537.46	1,460.72	76.74	20.034		
13,500.00	9,641.00	9,151.00	9,149.09	94.32	31.69	-118.75	-1,206.36	-4,279.26	1,453.11	1,374.21	78.90	18.418		
13,600.00	9,641.00	9,151.00	9,149.09	96.59	31.69	-120.82	-1,206.36	-4,279.26	1,370.87	1,289.48	81.39	16.843		
13,700.00	9,641.00	9,151.00	9,149.09	98.87	31.69	-123.20	-1,206.36	-4,279.26	1,291.13	1,206.88	84.25	15.324		
13,800.00	9,641.00	9,151.00	9,149.09	101.15	31.69	-125.95	-1,206.36	-4,279.26	1,214.40	1,126.87	87.53	13.874		
13,900.00	9,641.00	9,151.00	9,149.09	103.44	31.69	-129.13	-1,206.36	-4,279.26	1,141.27	1,050.04	91.23	12.509		
14,000.00	9,641.00	9,151.00	9,149.09	105.73	31.69	-132.83	-1,206.36	-4,279.26	1,072.49	977.11	95.38	11.244		
14,100.00	9,641.00	9,151.00	9,149.09	108.04	31.69	-137.17	-1,206.36	-4,279.26	1,008.95	909.01	99.94	10.096		
14,200.00	9,641.00	9,151.00	9,149.09	110.34	31.69	-142.24	-1,206.36	-4,279.26	951.70	846.86	104.84	9.078		
14,300.00	9,641.00	9,151.00	9,149.09	112.65	31.69	-148.15	-1,206.36	-4,279.26	901.93	791.99	109.93	8.204		
14,400.00	9,641.00	9,151.00	9,149.09	114.97	31.69	-154.97	-1,206.36	-4,279.26	860.94	745.93	115.01	7.486		
14,500.00	9,641.00	9,151.00	9,149.09	117.29	31.69	-162.68	-1,206.36	-4,279.26	830.03	710.27	119.77	6.930		
14,600.00	9,641.00	9,151.00	9,149.09	119.62	31.69	-171.16	-1,206.36	-4,279.26	810.37	686.50	123.87	6.542		
14,700.00	9,641.00	9,151.00	9,149.09	121.95	31.69	-179.91	-1,206.36	-4,279.26	802.77	675.76	127.01	6.320		
14,711.29	9,641.00	9,151.00	9,149.09	122.21	31.69	-178.89	-1,206.36	-4,279.26	802.69	675.40	127.29	6.306 CC, ES		
14,774.79	9,641.00	9,151.00	9,149.09	123.70	31.69	-173.18	-1,206.36	-4,279.26	805.20	676.61	128.59	6.262 SF		

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design: Bindel 4 Fee - Bindel 4 Fee 1H - Pilot Hole - Design #3

Survey Program: 0-MWD										Rule Assigned:				Warning	
Reference		Offset		Semi Major Axis		Azimuth from North (")	Offset Wellbore Centre		Distance Between Centres (usft)	Minimum Separation (usft)	Separation Factor				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)							
9,157.11	9,068.02	9,157.09	9,068.02	0.00	0.00	88.89	-471.23	934.65	1.22	1.22	0.00	N/A			
9,200.00	9,110.89	9,199.96	9,110.89	0.11	0.14	88.89	-471.23	934.65	1.60	1.35	0.26	6.280			
9,300.00	9,209.45	9,298.52	9,209.45	0.13	0.46	88.89	-471.23	934.65	17.73	17.14	0.58	30.493			
9,400.00	9,303.72	9,392.79	9,303.72	0.25	0.77	88.89	-471.23	934.65	50.72	49.82	0.90	58.587			
9,500.00	9,390.83	9,479.90	9,390.83	0.48	1.05	88.89	-471.23	934.65	99.58	98.39	1.18	84.179		CC, ES, SF	
9,600.00	9,468.12	9,557.19	9,468.12	0.79	1.30	88.89	-471.23	934.65	162.82	161.40	1.42	114.798			
9,700.00	9,533.27	9,622.34	9,533.27	1.18	1.52	88.89	-471.23	934.65	238.52	236.96	1.56	152.896			
9,800.00	9,584.27	9,673.34	9,584.27	1.66	1.68	88.89	-471.23	934.65	324.39	322.52	1.88	173.001			
9,900.00	9,619.59	9,708.66	9,619.59	2.22	1.80	88.89	-471.23	934.65	417.81	415.69	2.12	196.947			
10,000.00	9,638.15	9,727.22	9,638.15	2.88	1.86	88.89	-471.23	934.65	515.94	513.61	2.33	221.603			
10,100.00	9,641.00	9,730.07	9,641.00	3.63	1.87	88.89	-471.23	934.65	615.85	613.35	2.50	246.161			
10,200.00	9,641.00	9,730.07	9,641.00	4.49	1.87	88.89	-471.23	934.65	715.85	713.16	2.68	266.624			
10,300.00	9,641.00	9,730.07	9,641.00	5.54	1.87	88.89	-471.23	934.65	815.85	812.95	2.90	281.366			
10,400.00	9,641.00	9,730.07	9,641.00	6.95	1.87	88.89	-471.23	934.65	915.85	912.67	3.18	288.087			
10,500.00	9,641.00	9,730.07	9,641.00	10.14	1.87	88.89	-471.23	934.65	1,015.85	1,012.04	3.81	266.656			
10,600.00	9,641.00	9,730.07	9,641.00	13.88	1.87	88.89	-471.23	934.65	1,115.85	1,111.31	4.54	245.845			
10,700.00	9,641.00	9,730.07	9,641.00	15.45	1.87	88.89	-471.23	934.65	1,215.85	1,211.02	4.82	252.091			
10,800.00	9,641.00	9,730.07	9,641.00	16.74	1.87	88.89	-471.23	934.65	1,315.85	1,310.80	5.04	260.921			
10,900.00	9,641.00	9,730.07	9,641.00	17.92	1.87	88.89	-471.23	934.65	1,415.85	1,410.62	5.23	270.698			
11,000.00	9,641.00	9,730.07	9,641.00	19.06	1.87	88.89	-471.23	934.65	1,515.85	1,510.45	5.40	280.876			
11,100.00	9,641.00	9,730.07	9,641.00	20.18	1.87	88.89	-471.23	934.65	1,615.85	1,610.30	5.55	291.209			
11,200.00	9,641.00	9,730.07	9,641.00	21.32	1.87	88.89	-471.23	934.65	1,715.85	1,710.16	5.69	301.576			
11,300.00	9,641.00	9,730.07	9,641.00	22.49	1.87	88.89	-471.23	934.65	1,815.85	1,810.03	5.82	311.907			
11,400.00	9,641.00	9,730.07	9,641.00	23.71	1.87	88.89	-471.23	934.65	1,915.85	1,909.90	5.95	322.163			
11,500.00	9,641.00	9,730.07	9,641.00	24.97	1.87	88.89	-471.23	934.65	2,015.85	2,009.78	6.07	332.322			
11,600.00	9,641.00	9,730.07	9,641.00	26.28	1.87	88.89	-471.23	934.65	2,115.85	2,109.67	6.18	342.371			
11,700.00	9,641.00	9,730.07	9,641.00	27.65	1.87	88.89	-471.23	934.65	2,215.85	2,209.56	6.29	352.301			
11,800.00	9,641.00	9,730.07	9,641.00	29.08	1.87	88.89	-471.23	934.65	2,315.85	2,309.45	6.40	362.110			
11,900.00	9,641.00	9,730.07	9,641.00	30.58	1.87	88.89	-471.23	934.65	2,415.85	2,409.35	6.50	371.797			
12,000.00	9,641.00	9,730.07	9,641.00	32.13	1.87	88.89	-471.23	934.65	2,515.85	2,509.25	6.60	381.364			
12,100.00	9,641.00	9,730.07	9,641.00	33.74	1.87	88.89	-471.23	934.65	2,615.85	2,609.15	6.69	390.811			
12,200.00	9,641.00	9,730.07	9,641.00	35.41	1.87	88.89	-471.23	934.65	2,715.85	2,709.06	6.79	400.141			
12,300.00	9,641.00	9,730.07	9,641.00	37.14	1.87	88.89	-471.23	934.65	2,815.85	2,808.97	6.88	409.358			
12,400.00	9,641.00	9,730.07	9,641.00	38.92	1.87	88.89	-471.23	934.65	2,915.85	2,908.88	6.97	418.465			
12,500.00	9,641.00	9,730.07	9,641.00	40.74	1.87	88.89	-471.23	934.65	3,015.85	3,008.79	7.06	427.465			
12,600.00	9,641.00	9,730.07	9,641.00	42.61	1.87	88.89	-471.23	934.65	3,115.85	3,108.71	7.14	436.363			
12,700.00	9,641.00	9,730.07	9,641.00	44.52	1.87	88.89	-471.23	934.65	3,215.85	3,208.62	7.22	445.162			
12,800.00	9,641.00	9,730.07	9,641.00	46.47	1.87	88.89	-471.23	934.65	3,315.85	3,308.54	7.31	453.866			
12,900.00	9,641.00	9,730.07	9,641.00	48.45	1.87	88.89	-471.23	934.65	3,415.85	3,408.46	7.39	462.478			
13,000.00	9,641.00	9,730.07	9,641.00	50.46	1.87	88.89	-471.23	934.65	3,515.85	3,508.38	7.48	471.003			
13,100.00	9,641.00	9,730.07	9,641.00	52.51	1.87	88.89	-471.23	934.65	3,615.85	3,608.31	7.54	479.443			
13,200.00	9,641.00	9,730.07	9,641.00	54.58	1.87	88.89	-471.23	934.65	3,715.85	3,708.23	7.62	487.804			
13,300.00	9,641.00	9,730.07	9,641.00	56.67	1.87	88.89	-471.23	934.65	3,815.85	3,808.16	7.69	496.087			
13,400.00	9,641.00	9,730.07	9,641.00	58.79	1.87	88.89	-471.23	934.65	3,915.85	3,908.08	7.76	504.297			
13,500.00	9,641.00	9,730.07	9,641.00	60.93	1.87	88.89	-471.23	934.65	4,015.85	4,008.01	7.84	512.436			
13,600.00	9,641.00	9,730.07	9,641.00	63.08	1.87	88.89	-471.23	934.65	4,115.85	4,107.94	7.91	520.509			
13,700.00	9,641.00	9,730.07	9,641.00	65.25	1.87	88.89	-471.23	934.65	4,215.85	4,207.87	7.98	528.519			
13,800.00	9,641.00	9,730.07	9,641.00	67.44	1.87	88.89	-471.23	934.65	4,315.85	4,307.80	8.04	536.468			
13,900.00	9,641.00	9,730.07	9,641.00	69.65	1.87	88.89	-471.23	934.65	4,415.85	4,407.74	8.11	544.360			
14,000.00	9,641.00	9,730.07	9,641.00	71.88	1.87	88.89	-471.23	934.65	4,515.85	4,507.67	8.18	552.198			
14,100.00	9,641.00	9,730.07	9,641.00	74.09	1.87	88.89	-471.23	934.65	4,615.85	4,607.61	8.24	559.984			
14,200.00	9,641.00	9,730.07	9,641.00	76.33	1.87	88.89	-471.23	934.65	4,715.85	4,707.54	8.31	567.723			

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

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design: Bindel 4 Fee - Bindel 4 Fee 1H - Pilot Hole - Design #3

Survey Program: O-MWD												Offset Site Error: 0.00 usft
Rule Assigned:												Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Reference Depth (usft)	Offset Depth (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
14,300.00	9,641.00	9,730.07	9,641.00	78.57	1.87	88.89	-471.23	934.65	4,815.85	4,807.48	8.37	575.416
14,400.00	9,641.00	9,730.07	9,641.00	80.83	1.87	88.89	-471.23	934.65	4,915.85	4,907.42	8.43	583.067
14,500.00	9,641.00	9,730.07	9,641.00	83.10	1.87	88.89	-471.23	934.65	5,015.85	5,007.36	8.49	590.679
14,600.00	9,641.00	9,730.07	9,641.00	85.37	1.87	88.89	-471.23	934.65	5,115.85	5,107.30	8.55	598.253
14,700.00	9,641.00	9,730.07	9,641.00	87.66	1.87	88.89	-471.23	934.65	5,215.85	5,207.24	8.61	605.793
14,774.79	9,641.00	9,730.07	9,641.00	89.37	1.87	88.89	-471.23	934.65	5,290.64	5,281.99	8.65	611.412



MS Directional
Anticollision Report



Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design: Canal SWD - Canal SWD #001 - Wellbore #1 - Surveys

Survey Program:		200-INC-ONLY		Reference		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Reference	Offset		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	128.90	-1,257.22	1,558.04	2,002.38				
100.00	100.00	62.00	62.00	0.13	0.55	0.13	0.55	128.90	-1,257.22	1,558.04	2,002.02	2,001.34	0.68	2,927.825	
200.00	200.00	162.00	162.00	0.49	1.44	0.49	1.44	128.90	-1,257.22	1,558.04	2,002.02	2,000.09	1.93	1,038.387	
300.00	300.00	262.00	262.00	0.85	2.87	0.85	2.87	128.90	-1,257.22	1,558.04	2,002.02	1,998.30	3.72	537.956	
400.00	400.00	362.00	362.00	1.21	4.65	1.21	4.65	128.90	-1,257.22	1,558.04	2,002.02	1,996.17	5.86	341.919	
500.00	500.00	462.00	462.00	1.57	6.45	1.57	6.45	128.90	-1,257.22	1,558.04	2,002.02	1,994.01	8.01	249.793	
527.49	527.49	489.18	489.18	1.67	6.94	1.67	6.94	128.90	-1,257.08	1,558.04	2,001.94	1,993.34	8.60	232.708	
600.00	600.00	560.14	560.13	1.93	8.21	1.93	8.21	128.90	-1,257.14	1,558.04	2,001.98	1,991.84	10.14	197.422	
700.00	700.00	662.01	662.00	2.29	10.12	2.29	10.12	128.90	-1,257.22	1,558.04	2,002.02	1,989.61	12.41	161.342	
741.52	741.52	703.53	703.52	2.43	10.92	2.43	10.92	128.90	-1,256.99	1,558.04	2,001.88	1,988.53	13.36	149.894	
800.00	800.00	759.06	759.06	2.64	11.99	2.64	11.99	128.90	-1,257.06	1,558.04	2,001.92	1,987.29	14.63	136.817	
900.00	900.00	862.03	862.00	3.00	14.04	3.00	14.04	128.90	-1,257.22	1,558.04	2,002.02	1,984.98	17.04	117.494	
935.70	935.70	897.70	897.67	3.13	14.77	3.13	14.77	128.89	-1,256.82	1,558.04	2,001.77	1,983.88	17.90	111.841	
1,000.00	1,000.00	955.06	955.03	3.36	15.94	3.36	15.94	128.90	-1,256.98	1,558.04	2,001.89	1,982.58	19.30	103.701	
1,100.00	1,100.00	1,062.05	1,062.00	3.72	18.07	3.72	18.07	128.90	-1,257.22	1,558.04	2,002.02	1,980.23	21.79	91.883	
1,200.00	1,200.00	1,162.07	1,162.00	4.08	20.02	4.08	20.02	128.90	-1,257.22	1,558.04	2,002.02	1,977.93	24.10	83.084	
1,245.77	1,245.77	1,207.61	1,207.54	4.24	20.89	4.24	20.89	128.90	-1,257.08	1,558.04	2,001.94	1,976.81	25.13	79.672	
1,300.00	1,300.00	1,257.43	1,257.36	4.44	21.83	4.44	21.83	128.90	-1,257.18	1,558.04	2,002.00	1,975.73	26.27	76.208	
1,400.00	1,400.00	1,362.09	1,362.00	4.79	23.94	4.79	23.94	128.90	-1,257.22	1,558.04	2,002.02	1,973.29	28.74	69.671	
1,500.00	1,500.00	1,462.10	1,462.00	5.15	26.10	5.15	26.10	128.90	-1,257.22	1,558.04	2,002.02	1,970.77	31.26	64.054	
1,600.00	1,600.00	1,562.13	1,562.00	5.51	28.42	5.51	28.42	128.90	-1,257.22	1,558.04	2,002.02	1,968.09	33.93	58.996	
1,700.00	1,700.00	1,662.18	1,662.00	5.87	31.01	5.87	31.01	128.90	-1,257.22	1,558.04	2,002.02	1,965.15	36.88	54.291	
1,800.00	1,800.00	1,762.25	1,762.00	6.23	33.96	6.23	33.96	128.90	-1,257.22	1,558.04	2,002.02	1,961.83	40.19	49.811	
1,900.00	1,900.00	1,862.36	1,862.00	6.59	37.27	6.59	37.27	128.90	-1,257.22	1,558.04	2,002.02	1,958.17	43.86	45.649	
2,000.00	2,000.00	1,962.51	1,962.00	6.95	40.67	6.95	40.67	128.90	-1,257.22	1,558.04	2,002.02	1,954.41	47.61	42.049	
2,100.00	2,100.00	2,062.57	2,062.00	7.30	44.15	7.30	44.15	128.90	-1,257.22	1,558.04	2,002.02	1,950.57	51.45	38.912	
2,134.35	2,134.35	2,096.92	2,096.32	7.43	45.41	7.43	45.41	128.88	-1,256.38	1,558.04	2,001.50	1,948.66	52.84	37.881	
2,200.00	2,200.00	2,145.37	2,144.76	7.66	47.19	7.66	47.19	128.89	-1,256.71	1,558.04	2,001.78	1,946.93	54.85	36.494	
2,300.00	2,299.98	2,244.30	2,243.48	8.01	51.39	8.01	51.39	128.90	-1,256.66	1,558.04	2,000.05	1,940.66	59.40	33.672	
2,400.00	2,399.84	2,356.00	2,354.94	8.34	56.88	8.34	56.88	128.91	-1,255.84	1,558.04	1,994.35	1,929.13	65.22	30.579	
2,500.00	2,499.45	2,462.98	2,461.45	8.68	62.21	8.68	62.21	129.00	-1,257.22	1,558.04	1,988.68	1,915.79	70.89	28.025	
2,600.00	2,598.70	2,562.10	2,560.38	9.03	66.52	9.03	66.52	129.07	-1,256.97	1,558.04	1,974.62	1,899.09	75.53	26.142	
2,700.00	2,697.47	2,658.05	2,656.18	9.38	70.46	9.38	70.46	129.16	-1,257.02	1,558.04	1,959.37	1,879.55	79.82	24.548	
2,800.00	2,795.94	2,759.91	2,757.94	9.75	74.06	9.75	74.06	129.28	-1,257.22	1,558.04	1,942.53	1,858.78	83.75	23.195	
2,900.00	2,894.42	2,849.01	2,846.94	10.12	77.15	10.12	77.15	129.39	-1,257.07	1,558.04	1,925.51	1,838.32	87.18	22.086	
3,000.00	2,992.90	2,957.04	2,954.90	10.49	80.16	10.49	80.16	129.50	-1,257.22	1,558.04	1,908.63	1,818.09	90.54	21.082	
3,100.00	3,091.38	3,050.98	3,048.83	10.88	82.64	10.88	82.64	129.61	-1,256.67	1,558.04	1,891.34	1,797.98	93.36	20.259	
3,200.00	3,189.86	3,154.06	3,151.86	11.27	85.19	11.27	85.19	129.74	-1,257.22	1,558.04	1,874.76	1,778.49	96.26	19.476	
3,300.00	3,288.34	3,248.30	3,246.10	11.66	87.34	11.66	87.34	129.84	-1,256.55	1,558.04	1,857.41	1,758.65	98.76	18.807	
3,400.00	3,386.82	3,351.07	3,348.82	12.06	89.61	12.06	89.61	129.98	-1,257.22	1,558.04	1,840.91	1,739.54	101.37	18.159	
3,500.00	3,485.30	3,449.55	3,447.30	12.46	91.51	12.46	91.51	130.11	-1,257.22	1,558.04	1,824.01	1,720.37	103.63	17.601	
3,600.00	3,583.78	3,540.95	3,538.69	12.87	93.28	12.87	93.28	130.23	-1,256.94	1,558.04	1,806.94	1,701.18	105.76	17.086	
3,700.00	3,682.26	3,646.54	3,644.26	13.28	95.18	13.28	95.18	130.36	-1,257.22	1,558.04	1,790.22	1,682.21	108.01	16.574	
3,800.00	3,780.74	3,745.02	3,742.74	13.69	96.88	13.69	96.88	130.50	-1,257.22	1,558.04	1,773.34	1,663.27	110.07	16.111	
3,900.00	3,879.22	3,842.53	3,840.25	14.10	98.56	14.10	98.56	130.61	-1,256.47	1,558.04	1,755.98	1,643.87	112.11	15.663	
4,000.00	3,977.70	3,937.99	3,935.71	14.52	100.21	14.52	100.21	130.75	-1,256.67	1,558.04	1,739.26	1,625.14	114.12	15.241	
4,100.00	4,076.18	4,033.50	4,031.21	14.94	101.85	14.94	101.85	130.91	-1,257.14	1,558.04	1,722.72	1,606.59	116.13	14.835	
4,200.00	4,174.66	4,138.96	4,136.66	15.36	103.60	15.36	103.60	131.05	-1,257.22	1,558.04	1,705.92	1,587.69	118.23	14.429	
4,300.00	4,273.14	4,237.44	4,235.14	15.79	105.22	15.79	105.22	131.20	-1,257.22	1,558.04	1,689.09	1,568.88	120.21	14.051	
4,400.00	4,371.61	4,334.94	4,332.63	16.21	106.82	16.21	106.82	131.33	-1,256.72	1,558.04	1,671.94	1,549.76	122.18	13.684	
4,500.00	4,470.09	4,431.51	4,429.20	16.64	108.41	16.64	108.41	131.49	-1,256.89	1,558.04	1,655.24	1,531.11	124.13	13.335	
4,600.00	4,568.57	4,532.90	4,530.57	17.07	110.08	17.07	110.08	131.65	-1,257.22	1,558.04	1,638.67	1,512.49	126.17	12.988	

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

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Offset Design: Canal SWD - Canal SWD #001 - Wellbore #1 - Surveys

														Offset Site Error: 0.00 usft	
														Offset Well Error: 0.00 usft	
Survey Program: 200-INC-ONLY															
Reference		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
4,700.00	4,667.05	4,631.38	4,629.05	17.50	111.83	131.81	-1,257.22	1,558.04	1,621.88	1,493.59	128.29	12.642			
4,800.00	4,765.53	4,729.86	4,727.53	17.93	113.58	131.97	-1,257.22	1,558.04	1,605.11	1,474.70	130.41	12.308			
4,900.00	4,864.01	4,827.26	4,824.93	18.36	115.31	132.12	-1,256.71	1,558.04	1,588.02	1,455.51	132.51	11.984			
5,000.00	4,962.49	4,923.93	4,921.60	18.80	117.03	132.29	-1,256.89	1,558.04	1,571.40	1,436.80	134.60	11.675			
5,100.00	5,060.97	5,025.32	5,022.97	19.23	118.86	132.47	-1,257.22	1,558.04	1,554.88	1,418.09	136.79	11.367			
5,200.00	5,159.45	5,123.80	5,121.45	19.67	120.83	132.65	-1,257.22	1,558.04	1,538.16	1,399.03	139.14	11.055			
5,300.00	5,257.93	5,222.28	5,219.93	20.10	122.80	132.83	-1,257.22	1,558.04	1,521.46	1,379.98	141.48	10.754			
5,400.00	5,356.41	5,319.06	5,316.70	20.54	124.74	132.99	-1,256.47	1,558.04	1,504.27	1,360.48	143.79	10.462			
5,500.00	5,454.89	5,414.93	5,412.57	20.98	126.66	133.18	-1,256.76	1,558.04	1,487.80	1,341.71	146.08	10.185			
5,600.00	5,553.37	5,517.78	5,515.37	21.42	128.74	133.39	-1,257.22	1,558.04	1,471.45	1,322.92	148.53	9.907			
5,700.00	5,651.85	5,614.95	5,612.54	21.86	130.78	133.57	-1,256.79	1,558.04	1,454.52	1,303.56	150.96	9.635			
5,800.00	5,750.33	5,714.77	5,712.33	22.30	132.89	133.79	-1,257.22	1,558.04	1,438.20	1,284.76	153.44	9.373			
5,900.00	5,848.81	5,808.51	5,806.07	22.74	134.87	133.98	-1,257.00	1,558.04	1,421.45	1,265.66	155.80	9.124			
6,000.00	5,947.29	5,911.75	5,909.29	23.18	137.19	134.20	-1,257.22	1,558.04	1,405.01	1,246.51	158.50	8.865			
6,100.00	6,045.76	6,010.26	6,007.76	23.62	139.52	134.42	-1,257.22	1,558.04	1,388.45	1,227.25	161.20	8.613			
6,200.00	6,144.24	6,108.77	6,106.24	24.07	142.05	134.64	-1,257.22	1,558.04	1,371.90	1,207.79	164.11	8.360			
6,300.00	6,242.72	6,207.30	6,204.72	24.51	144.91	134.86	-1,257.22	1,558.04	1,355.38	1,188.03	167.35	8.099			
6,400.00	6,341.20	6,305.87	6,303.20	24.95	148.27	135.09	-1,257.22	1,558.04	1,338.88	1,167.79	171.09	7.826			
6,500.00	6,439.68	6,404.48	6,401.68	25.40	151.58	135.33	-1,257.22	1,558.04	1,322.40	1,147.62	174.78	7.566			
6,600.00	6,538.16	6,503.00	6,500.16	25.84	154.62	135.57	-1,257.22	1,558.04	1,305.94	1,127.74	178.20	7.328			
6,700.00	6,636.64	6,601.59	6,598.64	26.29	157.92	135.82	-1,257.22	1,558.04	1,289.51	1,107.63	181.88	7.090			
6,800.00	6,735.12	6,700.15	6,697.12	26.73	161.18	136.08	-1,257.22	1,558.04	1,273.10	1,087.57	185.53	6.862			
6,900.00	6,833.60	6,798.68	6,795.60	27.18	164.25	136.34	-1,257.22	1,558.04	1,256.72	1,067.74	188.98	6.650			
7,000.00	6,932.08	6,895.79	6,892.69	27.63	167.33	136.57	-1,256.04	1,558.04	1,239.51	1,047.06	192.45	6.441			
7,100.00	7,030.56	6,984.23	6,981.10	28.07	170.13	136.87	-1,256.68	1,558.04	1,223.70	1,028.05	195.65	6.255			
7,200.00	7,129.04	7,094.33	7,091.04	28.52	173.63	137.17	-1,257.22	1,558.04	1,207.74	1,008.22	199.52	6.053			
7,300.00	7,227.52	7,192.81	7,189.52	28.97	176.76	137.46	-1,257.22	1,558.04	1,191.48	988.44	203.04	5.868			
7,400.00	7,326.00	7,283.98	7,280.62	29.42	179.65	137.70	-1,256.46	1,558.04	1,173.97	967.63	206.34	5.690			
7,500.00	7,424.48	7,373.79	7,370.39	29.86	182.51	138.05	-1,256.69	1,558.04	1,158.76	949.17	209.59	5.529			
7,600.00	7,522.96	7,488.54	7,484.96	30.31	185.97	138.38	-1,257.22	1,558.04	1,142.87	929.45	213.42	5.355			
7,700.00	7,621.43	7,580.50	7,576.88	30.76	188.69	138.68	-1,256.34	1,558.04	1,126.10	909.55	216.55	5.200			
7,800.00	7,719.91	7,685.65	7,681.91	31.21	191.93	139.04	-1,257.22	1,558.04	1,110.65	890.47	220.18	5.044			
7,900.00	7,818.39	7,784.13	7,780.39	31.66	195.18	139.39	-1,257.22	1,558.04	1,094.59	870.77	223.82	4.890			
8,000.00	7,916.87	7,874.34	7,870.56	32.11	198.16	139.71	-1,256.40	1,558.04	1,077.98	850.77	227.21	4.744			
8,100.00	8,015.35	7,981.34	7,977.35	32.55	201.64	140.11	-1,257.22	1,558.04	1,062.60	831.52	231.08	4.598			
8,200.00	8,113.83	8,079.91	8,075.83	33.00	204.72	140.48	-1,257.22	1,558.04	1,046.68	812.12	234.56	4.462			
8,300.00	8,212.48	8,178.59	8,174.48	33.45	208.12	140.85	-1,257.22	1,558.04	1,031.71	793.35	238.35	4.328			
8,400.00	8,311.62	8,272.24	8,268.10	33.86	211.64	141.12	-1,256.39	1,558.04	1,019.21	776.94	242.27	4.207			
8,500.00	8,411.16	8,377.56	8,373.16	34.25	215.77	141.37	-1,257.22	1,558.04	1,011.14	764.37	246.77	4.097			
8,600.00	8,510.97	8,477.59	8,472.97	34.60	219.91	141.52	-1,257.22	1,558.04	1,005.63	754.35	251.27	4.002			
8,700.00	8,610.93	8,577.55	8,572.93	34.93	223.46	141.58	-1,257.22	1,558.04	1,003.28	748.11	255.17	3.932			
8,793.02	8,703.95	8,670.13	8,665.44	35.21	226.75	141.50	-1,254.59	1,558.04	1,000.85	742.08	258.76	3.868 CC			
8,800.00	8,710.93	8,676.47	8,671.78	35.23	226.98	141.49	-1,254.60	1,558.04	1,001.14	742.13	259.01	3.865			
8,900.00	8,810.93	8,767.35	8,762.62	35.54	230.20	141.51	-1,255.26	1,558.04	1,001.71	739.13	262.58	3.815			
9,000.00	8,910.93	8,877.98	8,872.93	35.84	234.03	141.58	-1,257.22	1,558.04	1,003.19	736.46	266.73	3.761			
9,100.00	9,010.93	8,977.98	8,972.93	36.14	236.67	141.58	-1,257.22	1,558.04	1,003.19	733.49	269.69	3.720			
9,100.11	9,011.05	8,978.09	8,973.05	36.14	236.68	141.58	-1,257.22	1,558.04	1,003.19	733.49	269.70	3.720			
9,200.00	9,110.89	9,077.94	9,072.89	36.37	239.31	141.51	-1,257.22	1,558.04	1,004.16	731.57	272.59	3.684 ES			
9,300.00	9,209.45	9,170.84	9,165.74	36.29	241.76	140.72	-1,255.35	1,558.04	1,012.60	737.61	274.99	3.682 SF			
9,400.00	9,303.72	9,259.10	9,253.96	36.13	244.09	139.31	-1,256.33	1,558.04	1,034.12	756.91	277.21	3.730			
9,500.00	9,390.83	9,358.06	9,352.83	35.91	246.26	137.32	-1,257.22	1,558.04	1,066.49	787.26	279.23	3.819			
9,600.00	9,468.12	9,435.36	9,430.12	35.66	247.60	134.88	-1,257.22	1,558.04	1,109.47	829.00	280.46	3.956			

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

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Bindel 4 Fee
 Site Error: 0.00 usft
 Reference Well: Bindel 4 Fee 1H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference 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
 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design: Canal SWD - Canal SWD #001 - Wellbore #1 - Surveys

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program Reference		200-INC-ONLY		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.00 usft
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)	Distance Between Ellipses (usft)						
9,700.00	9,533.27	9,500.50	9,495.27	35.41	248.72	132.20	-1,257.22	1,558.04	1,163.35	881.80	281.55	4.132				
9,800.00	9,584.27	9,551.51	9,546.27	35.20	249.60	129.45	-1,257.22	1,558.04	1,227.25	944.77	282.48	4.345				
9,900.00	9,619.59	9,585.88	9,580.64	35.05	250.19	126.73	-1,256.18	1,558.04	1,299.03	1,015.83	283.20	4.587				
10,000.00	9,638.15	9,603.94	9,598.70	34.99	250.50	124.23	-1,256.21	1,558.04	1,377.86	1,094.16	283.70	4.857				
10,100.00	9,641.00	9,606.71	9,601.47	35.06	250.55	121.96	-1,256.22	1,558.04	1,460.51	1,176.53	283.98	5.143				
10,200.00	9,641.00	9,606.72	9,601.47	35.33	250.55	119.94	-1,256.22	1,558.04	1,545.28	1,261.05	284.23	5.437				
10,300.00	9,641.00	9,606.72	9,601.48	35.83	250.55	118.13	-1,256.22	1,558.04	1,631.77	1,347.29	284.49	5.736				
10,400.00	9,641.00	9,606.73	9,601.48	36.54	250.55	116.50	-1,256.22	1,558.04	1,719.73	1,434.98	284.75	6.039				
10,500.00	9,641.00	9,606.73	9,601.48	37.42	250.55	115.03	-1,256.22	1,558.04	1,808.94	1,523.93	285.01	6.347				
10,600.00	9,641.00	9,606.73	9,601.49	38.45	250.55	113.70	-1,256.22	1,558.04	1,899.23	1,613.97	285.26	6.658				
10,700.00	9,641.00	9,606.74	9,601.49	39.60	250.55	112.49	-1,256.22	1,558.04	1,990.44	1,704.94	285.50	6.972				
10,800.00	9,641.00	9,606.74	9,601.50	40.88	250.55	111.39	-1,256.22	1,558.04	2,082.46	1,796.73	285.74	7.288				
10,900.00	9,641.00	9,606.74	9,601.50	42.25	250.55	110.38	-1,256.22	1,558.04	2,175.19	1,889.23	285.96	7.607				
11,000.00	9,641.00	9,606.75	9,601.50	43.72	250.55	109.46	-1,256.22	1,558.04	2,268.53	1,982.36	286.17	7.927				
11,100.00	9,641.00	9,606.75	9,601.51	45.27	250.55	108.61	-1,256.22	1,558.04	2,362.42	2,076.05	286.37	8.249				
11,200.00	9,641.00	9,606.76	9,601.51	46.89	250.55	107.82	-1,256.22	1,558.04	2,456.79	2,170.22	286.57	8.573				
11,300.00	9,641.00	9,606.76	9,601.51	48.58	250.55	107.09	-1,256.22	1,558.04	2,551.59	2,264.84	286.75	8.898				
11,400.00	9,641.00	9,606.76	9,601.52	50.34	250.55	106.42	-1,256.22	1,558.04	2,646.77	2,359.85	286.92	9.225				
11,500.00	9,641.00	9,606.77	9,601.52	52.14	250.55	105.79	-1,256.22	1,558.04	2,742.30	2,455.21	287.09	9.552				
11,600.00	9,641.00	9,606.77	9,601.53	54.00	250.55	105.20	-1,256.22	1,558.04	2,838.13	2,550.88	287.25	9.880				
11,700.00	9,641.00	9,606.77	9,601.53	55.89	250.55	104.65	-1,256.22	1,558.04	2,934.24	2,646.84	287.40	10.210				
11,800.00	9,641.00	9,606.78	9,601.53	57.83	250.55	104.14	-1,256.22	1,558.04	3,030.61	2,743.06	287.55	10.540				
11,900.00	9,641.00	9,606.78	9,601.54	59.81	250.55	103.66	-1,256.22	1,558.04	3,127.20	2,839.51	287.69	10.870				
12,000.00	9,641.00	9,606.79	9,601.54	61.81	250.55	103.20	-1,256.22	1,558.04	3,224.00	2,936.18	287.82	11.201				
12,100.00	9,641.00	9,606.79	9,601.54	63.85	250.55	102.78	-1,256.22	1,558.04	3,320.99	3,033.04	287.95	11.533				
12,200.00	9,641.00	9,606.79	9,601.55	65.91	250.55	102.37	-1,256.22	1,558.04	3,418.15	3,130.08	288.07	11.866				
12,300.00	9,641.00	9,606.80	9,601.55	68.00	250.55	101.99	-1,256.22	1,558.04	3,515.47	3,227.28	288.19	12.198				
12,400.00	9,641.00	9,606.80	9,601.56	70.10	250.55	101.64	-1,256.22	1,558.04	3,612.94	3,324.63	288.31	12.532				
12,500.00	9,641.00	9,606.80	9,601.56	72.23	250.55	101.29	-1,256.22	1,558.04	3,710.54	3,422.12	288.42	12.865				
12,600.00	9,641.00	9,606.81	9,601.56	74.38	250.55	100.97	-1,256.22	1,558.04	3,808.27	3,519.74	288.53	13.199				
12,700.00	9,641.00	9,606.81	9,601.57	76.54	250.55	100.66	-1,256.22	1,558.04	3,906.11	3,617.48	288.63	13.533				
12,800.00	9,641.00	9,606.82	9,601.57	78.72	250.55	100.37	-1,256.22	1,558.04	4,004.06	3,715.32	288.74	13.868				
12,900.00	9,641.00	9,606.82	9,601.57	80.92	250.55	100.09	-1,256.22	1,558.04	4,102.11	3,813.27	288.84	14.202				
13,000.00	9,641.00	9,606.82	9,601.58	83.12	250.55	99.83	-1,256.22	1,558.04	4,200.25	3,911.31	288.93	14.537				
13,100.00	9,641.00	9,606.83	9,601.58	85.34	250.55	99.58	-1,256.22	1,558.04	4,298.47	4,009.44	289.03	14.872				
13,200.00	9,641.00	9,606.83	9,601.59	87.57	250.55	99.34	-1,256.22	1,558.04	4,396.78	4,107.66	289.12	15.207				
13,300.00	9,641.00	9,606.83	9,601.59	89.81	250.55	99.10	-1,256.22	1,558.04	4,495.16	4,205.95	289.21	15.543				
13,400.00	9,641.00	9,606.84	9,601.59	92.06	250.55	98.88	-1,256.22	1,558.04	4,593.61	4,304.31	289.30	15.878				
13,500.00	9,641.00	9,606.84	9,601.60	94.32	250.55	98.67	-1,256.22	1,558.04	4,692.13	4,402.73	289.39	16.214				
13,600.00	9,641.00	9,606.85	9,601.60	96.59	250.55	98.47	-1,256.22	1,558.04	4,790.70	4,501.23	289.48	16.549				
13,700.00	9,641.00	9,606.85	9,601.60	98.87	250.55	98.27	-1,256.22	1,558.04	4,889.34	4,599.78	289.56	16.885				
13,800.00	9,641.00	9,606.85	9,601.61	101.15	250.55	98.09	-1,256.22	1,558.04	4,988.03	4,698.38	289.65	17.221				
13,900.00	9,641.00	9,606.86	9,601.61	103.44	250.55	97.91	-1,256.22	1,558.04	5,086.77	4,797.04	289.73	17.557				
14,000.00	9,641.00	9,606.86	9,601.62	105.73	250.55	97.73	-1,256.22	1,558.04	5,185.56	4,895.75	289.81	17.893				
14,100.00	9,641.00	9,606.86	9,601.62	108.04	250.55	97.57	-1,256.22	1,558.04	5,284.39	4,994.50	289.89	18.229				
14,200.00	9,641.00	9,606.87	9,601.62	110.34	250.55	97.41	-1,256.22	1,558.04	5,383.27	5,093.30	289.97	18.565				
14,300.00	9,641.00	9,606.87	9,601.63	112.65	250.55	97.25	-1,256.22	1,558.04	5,482.19	5,192.14	290.05	18.901				
14,400.00	9,641.00	9,606.88	9,601.63	114.97	250.55	97.10	-1,256.22	1,558.04	5,581.15	5,291.01	290.13	19.237				
14,500.00	9,641.00	9,606.88	9,601.63	117.29	250.55	96.96	-1,256.22	1,558.04	5,680.14	5,389.93	290.21	19.573				
14,600.00	9,641.00	9,606.88	9,601.64	119.62	250.55	96.82	-1,256.22	1,558.04	5,779.17	5,488.88	290.29	19.908				
14,700.00	9,641.00	9,606.89	9,601.64	121.95	250.55	96.68	-1,256.22	1,558.04	5,878.23	5,587.86	290.36	20.244				
14,774.79	9,641.00	9,606.89	9,601.64	123.70	250.55	96.59	-1,256.22	1,558.04	5,952.34	5,661.92	290.42	20.495				

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

Company:	WPX Energy	Local Co-ordinate Reference:	Well Bindel 4 Fee 1H
Project:	Eddy County, New Mexico (NAD 83)	TVD Reference:	WELL @ 3151.00usft (Orion Phoenix)
Reference Site:	Bindel 4 Fee	MD Reference:	WELL @ 3151.00usft (Orion Phoenix)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Bindel 4 Fee 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.14 Conroe DB
Reference Design:	Design #3	Offset TVD Reference:	Offset Datum

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Bindel 4 Fee
 Site Error: 0.00 usft
 Reference Well: Bindel 4 Fee 1H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference 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
 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design: Wolfman 5 4 WOLI Federal COM - Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 - Surveys

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-MWD		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		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	18,659.10	9,106.14	0.00	233.50	-175.12	-1,146.12	-97.87	9,147.75				
100.00	100.00	18,660.34	9,106.16	0.13	233.53	-175.18	-1,146.10	-96.63	9,048.55	8,961.93	86.63	104.453	
200.00	200.00	18,661.58	9,106.17	0.49	233.56	-175.24	-1,146.09	-95.39	8,949.37	8,862.62	86.75	103.159	
300.00	300.00	18,662.82	9,106.19	0.85	233.59	-175.30	-1,146.07	-94.15	8,850.21	8,763.32	86.89	101.857	
400.00	400.00	18,664.06	9,106.20	1.21	233.62	-175.37	-1,146.06	-92.91	8,751.07	8,664.04	87.03	100.548	
500.00	500.00	18,665.30	9,106.22	1.57	233.65	-175.43	-1,146.04	-91.67	8,651.95	8,564.76	87.19	99.232	
600.00	600.00	18,666.54	9,106.23	1.93	233.68	-175.49	-1,146.02	-90.44	8,552.84	8,465.49	87.35	97.910	
700.00	700.00	18,667.78	9,106.25	2.29	233.71	-175.55	-1,146.01	-89.20	8,453.76	8,366.23	87.53	96.582	
800.00	800.00	18,669.02	9,106.26	2.64	233.74	-175.61	-1,145.99	-87.96	8,354.70	8,266.99	87.71	95.249	
900.00	900.00	18,670.25	9,106.28	3.00	233.77	-175.67	-1,145.98	-86.72	8,255.66	8,167.75	87.91	93.911	
1,000.00	1,000.00	18,671.49	9,106.29	3.36	233.80	-175.73	-1,145.96	-85.48	8,156.65	8,068.53	88.11	92.568	
1,100.00	1,100.00	18,672.73	9,106.31	3.72	233.83	-175.80	-1,145.95	-84.24	8,057.68	7,969.33	88.33	91.222	
1,200.00	1,200.00	18,673.97	9,106.32	4.08	233.86	-175.86	-1,145.93	-83.00	7,958.69	7,870.14	88.56	89.871	
1,300.00	1,300.00	18,675.21	9,106.34	4.44	233.89	-175.92	-1,145.91	-81.76	7,859.75	7,770.96	88.79	88.518	
1,400.00	1,400.00	18,676.45	9,106.36	4.79	233.92	-175.98	-1,145.90	-80.52	7,760.84	7,671.80	89.04	87.162	
1,500.00	1,500.00	18,677.69	9,106.37	5.15	233.95	-176.04	-1,145.88	-79.28	7,661.96	7,572.66	89.30	85.804	
1,600.00	1,600.00	18,678.93	9,106.39	5.51	233.98	-176.10	-1,145.87	-78.05	7,563.10	7,473.54	89.56	84.444	
1,700.00	1,700.00	18,680.17	9,106.40	5.87	234.00	-176.17	-1,145.85	-76.81	7,464.28	7,374.43	89.84	83.082	
1,800.00	1,800.00	18,681.41	9,106.42	6.23	234.03	-176.23	-1,145.84	-75.57	7,365.48	7,275.35	90.13	81.720	
1,900.00	1,900.00	18,682.65	9,106.43	6.59	234.06	-176.29	-1,145.82	-74.33	7,266.72	7,176.29	90.43	80.356	
2,000.00	2,000.00	18,683.89	9,106.45	6.95	234.09	-176.35	-1,145.80	-73.09	7,168.00	7,077.25	90.74	78.992	
2,100.00	2,100.00	18,685.12	9,106.46	7.30	234.12	-176.41	-1,145.79	-71.85	7,069.31	6,978.24	91.07	77.627	
2,200.00	2,200.00	18,686.36	9,106.48	7.66	234.15	-176.47	-1,145.77	-70.61	6,970.65	6,879.25	91.40	76.263	
2,300.00	2,299.98	18,688.59	9,106.51	8.01	234.22	-176.53	-1,145.74	-69.37	6,871.94	6,780.19	91.75	74.896	
2,400.00	2,399.84	18,690.83	9,106.59	8.34	234.36	-176.59	-1,145.66	-68.15	6,773.15	6,681.04	92.12	73.527	
2,500.00	2,499.45	18,704.00	9,106.70	8.68	234.58	-176.63	-1,145.55	-52.98	6,674.40	6,581.91	92.49	72.161	
2,600.00	2,598.70	18,716.04	9,106.85	9.03	234.87	-176.67	-1,145.39	-40.95	6,575.79	6,482.92	92.88	70.800	
2,700.00	2,697.47	18,731.14	9,107.03	9.38	235.23	-176.71	-1,145.20	-25.85	6,477.45	6,384.17	93.27	69.446	
2,800.00	2,795.94	18,747.77	9,107.24	9.75	235.63	-176.74	-1,144.99	-9.22	6,379.27	6,285.59	93.68	68.098	
2,900.00	2,894.42	18,764.40	9,107.45	10.12	236.03	-176.78	-1,144.78	7.41	6,281.11	6,187.02	94.09	66.753	
3,000.00	2,992.90	18,781.03	9,107.65	10.49	236.43	-176.81	-1,144.57	24.04	6,182.97	6,088.45	94.52	65.413	
3,100.00	3,091.38	18,797.66	9,107.86	10.88	236.83	-176.85	-1,144.35	40.66	6,084.84	5,989.88	94.96	64.079	
3,200.00	3,189.86	18,814.29	9,108.06	11.27	237.23	-176.88	-1,144.14	57.29	5,986.72	5,891.31	95.41	62.750	
3,300.00	3,288.34	18,830.92	9,108.27	11.66	237.63	-176.92	-1,143.93	73.92	5,888.62	5,792.76	95.86	61.427	
3,400.00	3,386.82	18,847.55	9,108.48	12.06	238.03	-176.95	-1,143.72	90.55	5,790.54	5,694.21	96.33	60.109	
3,500.00	3,485.30	18,864.18	9,108.68	12.46	238.43	-176.99	-1,143.51	107.18	5,692.48	5,595.66	96.81	58.798	
3,600.00	3,583.78	18,880.81	9,108.89	12.87	238.83	-177.03	-1,143.30	123.81	5,594.43	5,497.12	97.31	57.492	
3,700.00	3,682.26	18,897.44	9,109.09	13.28	239.23	-177.07	-1,143.08	140.43	5,496.41	5,398.59	97.81	56.192	
3,800.00	3,780.74	18,914.07	9,109.30	13.69	239.64	-177.11	-1,142.87	157.06	5,398.41	5,300.07	98.33	54.899	
3,900.00	3,879.22	18,930.71	9,109.51	14.10	240.04	-177.15	-1,142.66	173.69	5,300.43	5,201.56	98.87	53.612	
4,000.00	3,977.70	18,947.34	9,109.71	14.52	240.44	-177.19	-1,142.45	190.32	5,202.47	5,103.05	99.41	52.331	
4,100.00	4,076.18	18,963.97	9,109.92	14.94	240.84	-177.23	-1,142.24	206.95	5,104.54	5,004.56	99.98	51.057	
4,200.00	4,174.66	18,980.60	9,110.12	15.36	241.24	-177.27	-1,142.02	223.58	5,006.63	4,906.08	100.56	49.789	
4,300.00	4,273.14	18,997.23	9,110.33	15.79	241.64	-177.31	-1,141.81	240.20	4,908.75	4,807.60	101.15	48.528	
4,400.00	4,371.61	19,013.86	9,110.54	16.21	242.04	-177.35	-1,141.60	256.83	4,810.91	4,709.14	101.77	47.274	
4,500.00	4,470.09	19,030.49	9,110.74	16.64	242.44	-177.40	-1,141.39	273.46	4,713.09	4,610.69	102.40	46.026	
4,600.00	4,568.57	19,047.12	9,110.95	17.07	242.84	-177.44	-1,141.18	290.09	4,615.31	4,512.26	103.05	44.785	
4,700.00	4,667.05	19,063.75	9,111.15	17.50	243.24	-177.48	-1,140.96	306.72	4,517.56	4,413.84	103.73	43.552	
4,800.00	4,765.53	19,080.38	9,111.36	17.93	243.64	-177.53	-1,140.75	323.34	4,419.86	4,315.43	104.43	42.325	
4,900.00	4,864.01	19,097.01	9,111.57	18.36	244.04	-177.58	-1,140.54	339.97	4,322.19	4,217.04	105.15	41.105	
5,000.00	4,962.49	19,107.20	9,111.69	18.80	244.29	-177.23	-1,140.41	350.16	4,224.57	4,118.74	105.83	39.917	
5,100.00	5,060.97	19,107.20	9,111.69	19.23	244.29	-176.26	-1,140.41	350.16	4,127.06	4,020.61	106.44	38.772	

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

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Bindel 4 Fee
 Site Error: 0.00 usft
 Reference Well: Bindel 4 Fee 1H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference 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
 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design: Wolfman 5 4 WOLI Federal COM - Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 - Surveys

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program: 100-MWD		Reference		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Reference	Offset		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,200.00	5,159.45	19,107.20	9,111.69	19.67	244.29	19.67	244.29	-175.27	-1,140.41	350.16	4,029.66	3,922.58	107.08	37.632	
5,300.00	5,257.93	19,107.20	9,111.69	20.10	244.29	20.10	244.29	-174.27	-1,140.41	350.16	3,932.40	3,824.65	107.75	36.496	
5,400.00	5,356.41	19,107.20	9,111.69	20.54	244.29	20.54	244.29	-173.26	-1,140.41	350.16	3,835.27	3,726.82	108.45	35.364	
5,500.00	5,454.89	19,107.20	9,111.69	20.98	244.29	20.98	244.29	-172.23	-1,140.41	350.16	3,738.30	3,629.12	109.18	34.238	
5,600.00	5,553.37	19,107.20	9,111.69	21.42	244.29	21.42	244.29	-171.19	-1,140.41	350.16	3,641.49	3,531.54	109.96	33.118	
5,700.00	5,651.85	19,107.20	9,111.69	21.86	244.29	21.86	244.29	-170.14	-1,140.41	350.16	3,544.86	3,434.09	110.77	32.003	
5,800.00	5,750.33	19,107.20	9,111.69	22.30	244.29	22.30	244.29	-169.07	-1,140.41	350.16	3,448.42	3,336.80	111.62	30.893	
5,900.00	5,848.81	19,107.20	9,111.69	22.74	244.29	22.74	244.29	-168.00	-1,140.41	350.16	3,352.19	3,239.67	112.53	29.790	
6,000.00	5,947.29	19,107.20	9,111.69	23.18	244.29	23.18	244.29	-166.91	-1,140.41	350.16	3,256.19	3,142.71	113.48	28.694	
6,100.00	6,045.76	19,107.20	9,111.69	23.62	244.29	23.62	244.29	-165.81	-1,140.41	350.16	3,160.44	3,045.95	114.49	27.605	
6,200.00	6,144.24	19,107.20	9,111.69	24.07	244.29	24.07	244.29	-164.71	-1,140.41	350.16	3,064.95	2,949.39	115.56	26.523	
6,300.00	6,242.72	19,107.20	9,111.69	24.51	244.29	24.51	244.29	-163.59	-1,140.41	350.16	2,969.77	2,853.07	116.70	25.449	
6,400.00	6,341.20	19,107.20	9,111.69	24.95	244.29	24.95	244.29	-162.47	-1,140.41	350.16	2,874.91	2,757.00	117.91	24.383	
6,500.00	6,439.68	19,107.20	9,111.69	25.40	244.29	25.40	244.29	-161.34	-1,140.41	350.16	2,780.41	2,661.21	119.20	23.326	
6,600.00	6,538.16	19,107.20	9,111.69	25.84	244.29	25.84	244.29	-160.20	-1,140.41	350.16	2,686.31	2,565.73	120.57	22.280	
6,700.00	6,636.64	19,107.20	9,111.69	26.29	244.29	26.29	244.29	-159.06	-1,140.41	350.16	2,592.65	2,470.60	122.04	21.243	
6,800.00	6,735.12	19,107.20	9,111.69	26.73	244.29	26.73	244.29	-157.91	-1,140.41	350.16	2,499.48	2,375.86	123.62	20.218	
6,900.00	6,833.60	19,107.20	9,111.69	27.18	244.29	27.18	244.29	-156.76	-1,140.41	350.16	2,406.86	2,281.54	125.32	19.206	
7,000.00	6,932.08	19,107.20	9,111.69	27.63	244.29	27.63	244.29	-155.61	-1,140.41	350.16	2,314.85	2,187.71	127.14	18.206	
7,100.00	7,030.56	19,107.20	9,111.69	28.07	244.29	28.07	244.29	-154.45	-1,140.41	350.16	2,223.54	2,094.43	129.11	17.222	
7,200.00	7,129.04	19,107.20	9,111.69	28.52	244.29	28.52	244.29	-153.30	-1,140.41	350.16	2,133.00	2,001.77	131.24	16.253	
7,300.00	7,227.52	19,107.20	9,111.69	28.97	244.29	28.97	244.29	-152.14	-1,140.41	350.16	2,043.35	1,909.81	133.54	15.302	
7,400.00	7,326.00	19,107.20	9,111.69	29.42	244.29	29.42	244.29	-150.98	-1,140.41	350.16	1,954.70	1,818.67	136.03	14.370	
7,500.00	7,424.48	19,107.20	9,111.69	29.86	244.29	29.86	244.29	-149.83	-1,140.41	350.16	1,867.20	1,728.47	138.73	13.459	
7,600.00	7,522.96	19,107.20	9,111.69	30.31	244.29	30.31	244.29	-148.68	-1,140.41	350.16	1,781.02	1,639.35	141.66	12.572	
7,700.00	7,621.43	19,107.20	9,111.69	30.76	244.29	30.76	244.29	-147.53	-1,140.41	350.16	1,696.35	1,551.50	144.84	11.712	
7,800.00	7,719.91	19,107.20	9,111.69	31.21	244.29	31.21	244.29	-146.39	-1,140.41	350.16	1,613.43	1,465.14	148.29	10.880	
7,900.00	7,818.39	19,107.20	9,111.69	31.66	244.29	31.66	244.29	-145.25	-1,140.41	350.16	1,532.56	1,380.54	152.02	10.081	
8,000.00	7,916.87	19,107.20	9,111.69	32.11	244.29	32.11	244.29	-144.12	-1,140.41	350.16	1,454.07	1,298.03	156.04	9.318	
8,100.00	8,015.35	19,107.20	9,111.69	32.55	244.29	32.55	244.29	-143.00	-1,140.41	350.16	1,378.37	1,218.02	160.35	8.596	
8,200.00	8,113.83	19,107.20	9,111.69	33.00	244.29	33.00	244.29	-141.88	-1,140.41	350.16	1,305.94	1,141.02	164.92	7.919	
8,300.00	8,212.31	19,107.20	9,111.69	33.45	244.29	33.45	244.29	-140.74	-1,140.41	350.16	1,237.09	1,067.27	169.82	7.285	
8,400.00	8,310.79	19,107.20	9,111.69	33.88	244.29	33.88	244.29	-140.01	-1,140.41	350.16	1,171.82	996.58	175.24	6.687	
8,500.00	8,409.27	19,107.20	9,111.69	34.25	244.29	34.25	244.29	-139.41	-1,140.41	350.16	1,110.82	929.64	181.19	6.131	
8,600.00	8,507.75	19,107.20	9,111.69	34.60	244.29	34.60	244.29	-139.03	-1,140.41	350.16	1,054.91	867.35	187.56	5.624	
8,700.00	8,606.23	19,107.20	9,111.69	34.93	244.29	34.93	244.29	-138.87	-1,140.41	350.16	1,005.02	810.80	194.22	5.175	
8,800.00	8,704.71	19,107.20	9,111.69	35.23	244.29	35.23	244.29	-138.86	-1,140.41	350.16	962.37	761.62	200.75	4.794	
8,900.00	8,803.19	19,107.20	9,111.69	35.54	244.29	35.54	244.29	-138.86	-1,140.41	350.16	928.55	722.12	206.43	4.498	
9,000.00	8,901.67	19,107.20	9,111.69	35.84	244.29	35.84	244.29	-138.86	-1,140.41	350.16	904.57	693.82	210.76	4.292	
9,100.00	9,000.15	19,107.20	9,111.69	36.14	244.29	36.14	244.29	-138.86	-1,140.41	350.16	891.24	677.93	213.31	4.178	
9,200.00	9,098.63	19,107.20	9,111.69	36.37	244.29	36.37	244.29	-138.94	-1,140.41	350.16	887.94	673.97	213.97	4.150	
9,300.00	9,197.11	19,107.20	9,111.69	36.29	244.29	36.29	244.29	-139.72	-1,140.41	350.16	886.09	671.89	214.20	4.137	
9,400.00	9,295.59	19,107.20	9,111.69	36.13	244.29	36.13	244.29	-141.38	-1,140.41	350.16	883.83	669.19	214.64	4.118	
9,500.00	9,394.07	19,107.20	9,111.69	35.91	244.29	35.91	244.29	-143.99	-1,140.41	350.16	881.24	665.97	215.27	4.094	
9,600.00	9,492.55	19,107.20	9,111.69	35.66	244.29	35.66	244.29	-147.66	-1,140.41	350.16	878.37	662.31	216.07	4.065	
9,700.00	9,591.03	19,107.20	9,111.69	35.41	244.29	35.41	244.29	-152.50	-1,140.41	350.16	875.33	658.31	217.03	4.033	
9,800.00	9,689.51	19,107.20	9,111.69	35.20	244.29	35.20	244.29	-158.57	-1,140.41	350.16	872.20	654.04	218.16	3.998	
9,900.00	9,787.99	19,107.20	9,111.69	35.05	244.29	35.05	244.29	-165.84	-1,140.41	350.16	869.07	649.59	219.48	3.960	
10,000.00	9,886.47	19,107.20	9,111.69	34.99	244.29	34.99	244.29	-174.05	-1,140.41	350.16	866.05	645.04	221.00	3.919	
10,095.52	9,984.95	19,095.86	9,111.55	35.06	244.01	35.06	244.01	178.66	-1,140.56	338.82	865.48	643.64	221.84	3.901	
10,100.00	9,983.43	19,094.34	9,111.50	35.06	243.90	35.06	243.90	178.66	-1,140.61	334.24	864.11	642.08	222.03	3.892 CC, ES, SF	
10,200.00	9,981.91	18,991.29	9,110.26	35.33	241.49	35.33	241.49	178.66	-1,141.89	234.27	864.42	644.17	220.24	3.925	

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

Company: WPX Energy
 Project: Eddy County, New Mexico (NAD 83)
 Reference Site: Bindel 4 Fee
 Site Error: 0.00 usft
 Reference Well: Bindel 4 Fee 1H
 Well Error: 0.00 usft
 Reference Wellbore: Wellbore #1
 Reference 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
 Output errors are at: 2.00 sigma
 Database: EDM 5000.14 Conroe DB
 Offset TVD Reference: Offset Datum

Offset Design: Wolfman 5 4 WOLI Federal COM - Wolfman 5 4 WOLI Federal COM #001H - Wellbore #1 - Surveys

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Survey Program Reference		Offset		Semi Major Axis		Azimuth from North (°)	Offset Wellbore Centre		Rule Assigned:		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)			
10,300.00	9,641.00	18,891.30	9,109.02	35.83	239.09	178.66	-1,143.16	134.30	864.72	646.15	218.57	3.956	
10,400.00	9,641.00	18,791.31	9,107.78	36.54	236.68	178.66	-1,144.44	34.32	865.03	648.01	217.02	3.986	
10,500.00	9,641.00	18,691.32	9,106.54	37.42	234.27	178.66	-1,145.71	-65.65	865.34	649.77	215.57	4.014	
10,600.00	9,641.00	18,591.33	9,105.30	38.45	231.87	178.66	-1,146.98	-165.63	865.66	651.44	214.22	4.041	
10,700.00	9,641.00	18,491.34	9,104.06	39.60	229.46	178.65	-1,148.26	-265.60	865.97	653.01	212.97	4.066	
10,800.00	9,641.00	18,391.35	9,102.82	40.88	227.06	178.65	-1,149.53	-365.58	866.29	654.49	211.80	4.090	
10,900.00	9,641.00	18,291.36	9,101.58	42.25	224.65	178.65	-1,150.80	-465.55	866.61	655.90	210.71	4.113	
11,000.00	9,641.00	18,191.37	9,100.34	43.72	222.25	178.65	-1,152.08	-565.53	866.93	657.24	209.70	4.134	
11,100.00	9,641.00	18,091.38	9,099.11	45.27	219.84	178.65	-1,153.35	-665.50	867.26	658.51	208.75	4.155	
11,200.00	9,641.00	17,991.39	9,097.87	46.89	217.44	178.64	-1,154.63	-765.47	867.58	659.73	207.88	4.174	
11,300.00	9,641.00	17,891.40	9,096.63	48.58	215.04	178.64	-1,155.90	-865.45	867.91	660.89	207.02	4.192	
11,400.00	9,641.00	17,791.41	9,095.39	50.34	212.64	178.64	-1,157.17	-965.42	868.24	662.01	206.24	4.210	
11,500.00	9,641.00	17,691.42	9,094.15	52.14	210.24	178.64	-1,158.45	-1,065.40	868.58	663.08	205.50	4.227	
11,600.00	9,641.00	17,591.43	9,092.91	54.00	207.84	178.64	-1,159.72	-1,165.37	868.91	664.11	204.80	4.243	
11,700.00	9,641.00	17,491.44	9,091.67	55.89	205.44	178.63	-1,161.00	-1,265.35	869.25	665.11	204.13	4.258	
11,800.00	9,641.00	17,391.45	9,090.43	57.83	203.04	178.63	-1,162.27	-1,365.32	869.59	666.08	203.51	4.273	
11,900.00	9,641.00	17,291.46	9,089.19	59.81	200.64	178.63	-1,163.54	-1,465.29	869.93	667.02	202.91	4.287	
12,000.00	9,641.00	17,191.47	9,087.95	61.81	198.24	178.63	-1,164.82	-1,565.27	870.27	667.93	202.34	4.301	
12,100.00	9,641.00	17,091.48	9,086.72	63.85	195.85	178.63	-1,166.09	-1,665.24	870.62	668.82	201.79	4.314	
12,200.00	9,641.00	16,991.49	9,085.48	65.91	193.45	178.62	-1,167.36	-1,765.22	870.97	669.69	201.27	4.327	
12,300.00	9,641.00	16,891.50	9,084.24	68.00	191.06	178.62	-1,168.64	-1,865.19	871.32	670.54	200.77	4.340	
12,400.00	9,641.00	16,791.51	9,083.00	70.10	188.67	178.62	-1,169.91	-1,965.17	871.67	671.37	200.29	4.352	
12,500.00	9,641.00	16,691.52	9,081.76	72.23	186.27	178.62	-1,171.19	-2,065.14	872.02	672.19	199.83	4.364	
12,600.00	9,641.00	16,591.53	9,080.52	74.38	183.88	178.62	-1,172.46	-2,165.12	872.38	672.99	199.39	4.375	
12,700.00	9,641.00	16,491.54	9,079.28	76.54	181.49	178.61	-1,173.73	-2,265.09	872.74	673.78	198.96	4.387	
12,800.00	9,641.00	16,391.55	9,078.04	78.72	179.10	178.61	-1,175.01	-2,365.06	873.10	674.56	198.54	4.398	
12,900.00	9,641.00	16,291.56	9,076.80	80.92	176.71	178.61	-1,176.28	-2,465.04	873.46	675.32	198.14	4.408	
13,000.00	9,641.00	16,191.57	9,075.56	83.12	174.33	178.61	-1,177.55	-2,565.01	873.82	676.08	197.75	4.419	
13,100.00	9,641.00	16,091.58	9,074.33	85.34	171.94	178.60	-1,178.83	-2,664.99	874.19	676.82	197.37	4.429	
13,200.00	9,641.00	15,991.59	9,073.09	87.57	169.56	178.60	-1,180.10	-2,764.96	874.56	677.56	197.00	4.439	
13,300.00	9,641.00	15,891.60	9,071.85	89.81	167.17	178.60	-1,181.38	-2,864.94	874.93	678.29	196.64	4.449	
13,400.00	9,641.00	15,791.61	9,070.61	92.06	164.79	178.60	-1,182.65	-2,964.91	875.30	679.01	196.30	4.459	
13,500.00	9,641.00	15,691.62	9,069.37	94.32	162.41	178.60	-1,183.92	-3,064.88	875.68	679.72	195.96	4.469	
13,600.00	9,641.00	15,591.63	9,068.13	96.59	160.03	178.59	-1,185.20	-3,164.86	876.05	680.43	195.62	4.478	
13,700.00	9,641.00	15,491.64	9,066.89	98.87	157.65	178.59	-1,186.47	-3,264.83	876.43	681.13	195.30	4.488	
13,800.00	9,641.00	15,391.65	9,065.65	101.15	155.28	178.59	-1,187.75	-3,364.81	876.82	681.83	194.99	4.497	
13,900.00	9,641.00	15,291.66	9,064.41	103.44	152.91	178.59	-1,189.02	-3,464.78	877.20	682.52	194.68	4.506	
14,000.00	9,641.00	15,191.67	9,063.17	105.73	150.53	178.59	-1,190.29	-3,564.76	877.58	683.21	194.38	4.515	
14,100.00	9,641.00	15,091.68	9,061.93	108.04	148.16	178.58	-1,191.57	-3,664.73	877.97	683.89	194.08	4.524	
14,200.00	9,641.00	14,991.69	9,060.70	110.34	145.80	178.58	-1,192.84	-3,764.71	878.36	684.57	193.79	4.532	
14,300.00	9,641.00	14,891.70	9,059.46	112.65	143.43	178.58	-1,194.11	-3,864.68	878.75	685.24	193.51	4.541	
14,400.00	9,641.00	14,791.71	9,058.22	114.97	141.07	178.58	-1,195.39	-3,964.65	879.15	685.91	193.23	4.550	
14,500.00	9,641.00	14,691.72	9,056.98	117.29	138.70	178.58	-1,196.66	-4,064.63	879.54	686.58	192.96	4.558	
14,600.00	9,641.00	14,591.73	9,055.74	119.62	136.34	178.57	-1,197.94	-4,164.60	879.94	687.24	192.70	4.566	
14,700.00	9,641.00	14,491.74	9,054.50	121.95	133.99	178.57	-1,199.21	-4,264.58	880.34	687.90	192.44	4.575	
14,774.79	9,641.00	14,416.95	9,053.57	123.70	132.23	178.57	-1,200.16	-4,339.35	880.64	688.39	192.25	4.581	

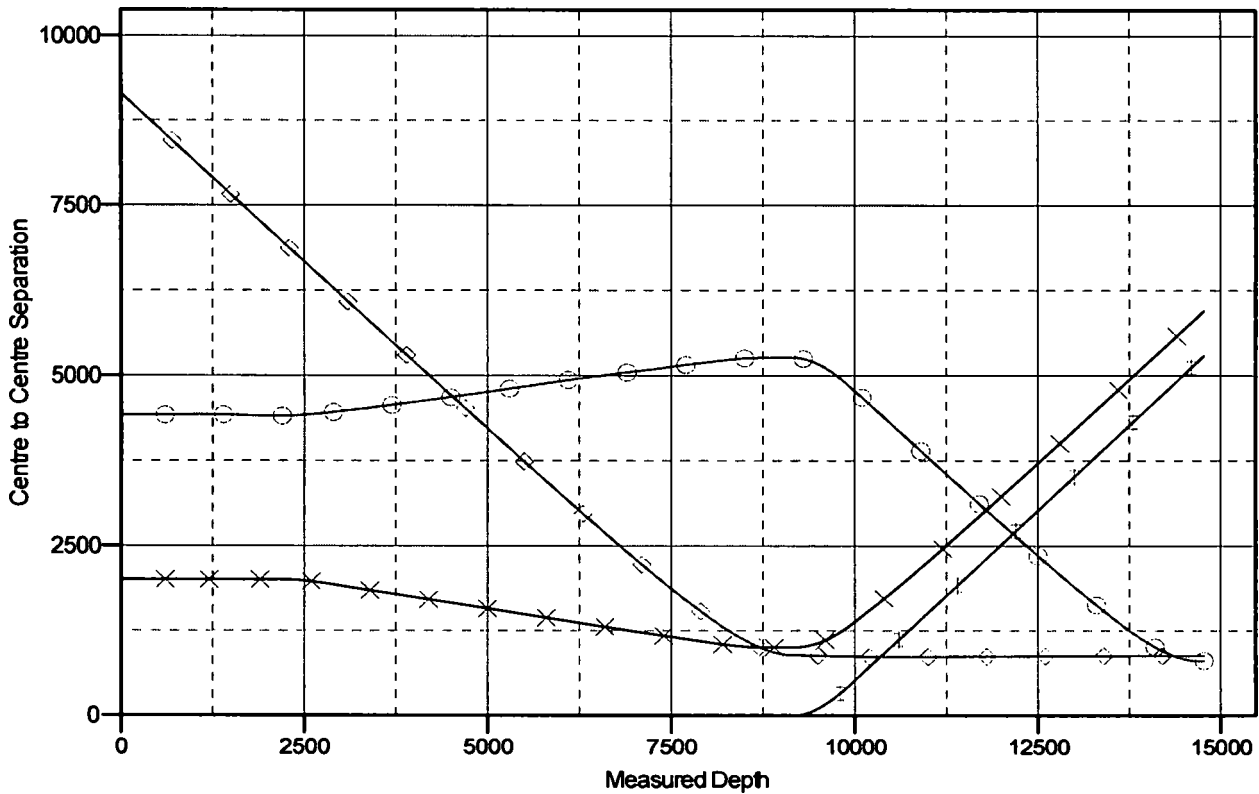
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
Reference Wellbore: Wellbore #1
Reference 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
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 3151.00usft (Orion Phoenix) Coordinates are relative to: Bindel 4 Fee 1H
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.08°

Ladder Plot



LEGEND

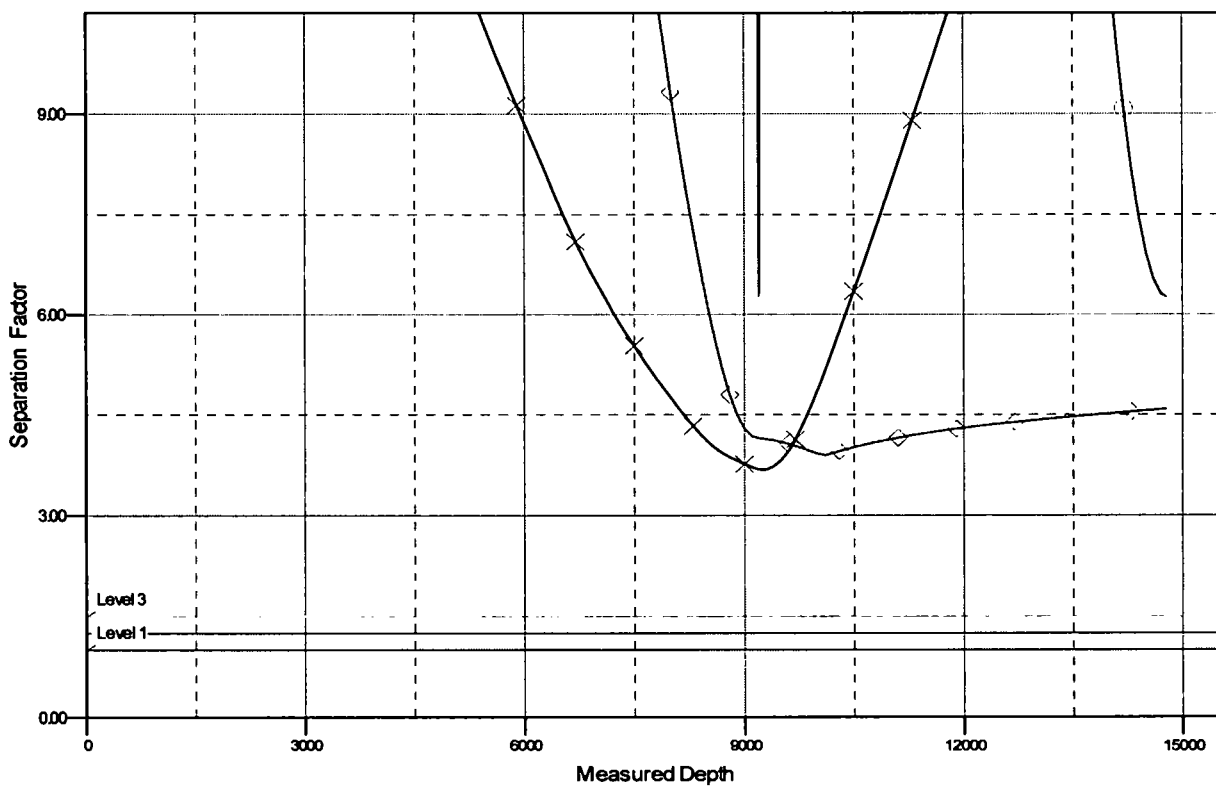
Age First/01/Wellbore #1, Survey 0
 Wellbore #4/Wellbore #1/Wellbore #1, Survey 0
 Conroe/01/Wellbore #1, Survey 0
 Bindel Fee 1H/Wellbore #1, Survey 0

Company: WPX Energy
Project: Eddy County, New Mexico (NAD 83)
Reference Site: Bindel 4 Fee
Site Error: 0.00 usft
Reference Well: Bindel 4 Fee 1H
Well Error: 0.00 usft
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.14 Conroe DB
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 3151.00usft (Orion Phoenix) Coordinates are relative to: Bindel 4 Fee 1H
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.08°

Separation Factor Plot



LEGEND

Ape Feed001, Wellbore#1, Survey#0
 Canal3M0001, Wellbore#1, Survey#0
 Bindel4Fee1H, Wellbore#1, Design#3