



Whiting Oil & Gas

SEC.36-T10N-R60W

Church #36-2523H Pad Sec.36-T10N-R60W

Church #36-2523H

Wellbore #1

Plan #1 (11-10-11)

Anticollision Report

22 August, 2012

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Church #36-2523H
Project:	SEC.36-T10N-R60W	TVD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Reference Site:	Church #36-2523H Pad Sec.36-T10N-R60W	MD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Church #36-2523H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-10-11)	Offset TVD Reference:	Offset Datum

Reference	Plan #1 (11-10-11)		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 8/22/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.0	12,831.2	Plan #1 (11-10-11) (Wellbore #1)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
CHALK BLUFFS 36-13H PAD 36-10N-60W						
CHALK BLUFFS 36-13H (Exist.) - Wellbore #1 - Wellbor	7,395.4	7,753.7	172.8	154.0	9.192	CC, ES
CHALK BLUFFS 36-13H (Exist.) - Wellbore #1 - Wellbor	7,400.0	7,752.8	172.9	154.1	9.186	SF

Offset Design												CHALK BLUFFS 36-13H PAD 36-10N-60W - CHALK BLUFFS 36-13H (Exist.) - Wellbore #1 - Wellbore		Offset Site Error:	0.0 ft
Survey Program: 1626-MWD, 7081-MWD														Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
							+N/-S (ft)	+E/-W (ft)							
0.0	0.0	26.5	26.5	0.0	0.0	-40.84	1,430.4	-1,236.7	1,890.9	1,890.9	0.03	N/A			
100.0	100.0	126.5	126.5	0.1	0.1	-40.85	1,430.4	-1,236.7	1,890.9	1,890.6	0.26	7,402.246			
200.0	200.0	226.6	226.6	0.3	0.3	-40.85	1,430.3	-1,236.8	1,890.9	1,890.3	0.59	3,187.865			
300.0	300.0	326.6	326.6	0.6	0.4	-40.85	1,430.2	-1,236.9	1,890.9	1,889.9	0.93	2,031.341			
400.0	400.0	426.6	426.6	0.8	0.5	-40.86	1,430.1	-1,237.0	1,890.9	1,889.6	1.27	1,490.574			
500.0	500.0	526.6	526.6	1.0	0.6	-40.87	1,429.9	-1,237.2	1,890.9	1,889.3	1.61	1,177.190			
600.0	600.0	626.6	626.6	1.2	0.7	-40.88	1,429.7	-1,237.4	1,890.9	1,888.9	1.94	972.687			
700.0	700.0	726.7	726.7	1.5	0.8	-40.89	1,429.5	-1,237.7	1,890.9	1,888.6	2.28	828.719			
800.0	800.0	826.7	826.7	1.7	0.9	-40.90	1,429.2	-1,238.0	1,890.8	1,888.2	2.62	721.873			
900.0	900.0	926.7	926.7	1.9	1.0	-40.91	1,428.9	-1,238.4	1,890.8	1,887.9	2.96	639.431			
1,000.0	1,000.0	1,026.7	1,026.7	2.1	1.2	-40.93	1,428.5	-1,238.8	1,890.8	1,887.5	3.29	573.888			
1,100.0	1,100.0	1,126.7	1,126.7	2.4	1.3	-40.95	1,428.1	-1,239.2	1,890.8	1,887.2	3.63	520.532			
1,200.0	1,200.0	1,226.8	1,226.7	2.6	1.4	-40.97	1,427.7	-1,239.6	1,890.8	1,886.8	3.97	476.253			
1,300.0	1,300.0	1,326.8	1,326.8	2.8	1.5	-40.99	1,427.3	-1,240.2	1,890.8	1,886.5	4.31	438.916			
1,400.0	1,400.0	1,426.8	1,426.8	3.0	1.6	-41.01	1,426.8	-1,240.7	1,890.8	1,886.1	4.65	407.007			
1,500.0	1,500.0	1,526.8	1,526.8	3.3	1.7	-41.03	1,426.2	-1,241.3	1,890.8	1,885.8	4.98	379.422			
1,581.4	1,581.4	1,608.2	1,608.2	3.4	1.8	-41.05	1,425.8	-1,241.8	1,890.7	1,885.5	5.26	359.589			
1,600.0	1,600.0	1,626.0	1,626.0	3.5	1.8	-41.06	1,425.7	-1,241.9	1,890.7	1,885.4	5.32	355.401			
1,700.0	1,700.0	1,722.6	1,722.6	3.7	2.0	-41.09	1,425.2	-1,242.6	1,890.8	1,885.1	5.75	328.715			
1,800.0	1,800.0	1,819.2	1,819.1	3.9	2.3	-41.11	1,424.8	-1,243.5	1,891.2	1,885.0	6.18	305.848			
1,900.0	1,900.0	1,923.2	1,923.2	4.2	2.5	-41.14	1,424.3	-1,244.5	1,891.4	1,884.8	6.62	285.681			
2,000.0	2,000.0	2,025.9	2,025.8	4.4	2.7	-41.18	1,423.7	-1,245.3	1,891.5	1,884.5	7.05	268.241			
2,100.0	2,100.0	2,125.4	2,125.4	4.6	2.9	-41.19	1,423.5	-1,245.6	1,891.6	1,884.1	7.47	253.310			
2,200.0	2,200.0	2,228.0	2,227.9	4.8	3.1	-41.18	1,423.8	-1,245.4	1,891.6	1,883.7	7.89	239.628			
2,300.0	2,300.0	2,334.5	2,334.5	5.1	3.3	-41.18	1,423.5	-1,245.3	1,891.4	1,883.0	8.33	226.928			

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

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Reference Well:	Church #36-2523H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 1626-MWD, 7081-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
2,400.0	2,400.0	2,438.8	2,438.8	5.3	3.5	-41.20	1,422.5	-1,245.5	1,890.8	1,882.0	8.78	215.239	
2,500.0	2,500.0	2,542.1	2,542.0	5.5	3.7	-41.24	1,421.2	-1,245.9	1,890.1	1,880.8	9.24	204.574	
2,600.0	2,600.0	2,642.2	2,642.2	5.7	3.9	-41.27	1,419.9	-1,246.1	1,889.2	1,879.6	9.67	195.363	
2,700.0	2,700.0	2,742.0	2,741.9	6.0	4.1	-41.27	1,419.3	-1,245.6	1,888.4	1,878.3	10.10	186.995	
2,800.0	2,800.0	2,840.4	2,840.3	6.2	4.3	-41.26	1,418.9	-1,244.9	1,887.6	1,877.1	10.52	179.443	
2,900.0	2,900.0	2,938.3	2,938.2	6.4	4.5	-41.26	1,418.5	-1,244.3	1,886.9	1,876.0	10.94	172.465	
3,000.0	3,000.0	3,033.4	3,033.3	6.6	4.7	-41.25	1,418.3	-1,243.9	1,886.5	1,875.1	11.37	165.944	
3,100.0	3,100.0	3,129.4	3,129.3	6.9	4.9	-41.25	1,418.1	-1,243.8	1,886.2	1,874.4	11.80	159.880	
3,200.0	3,200.0	3,229.2	3,229.1	7.1	5.2	-41.26	1,417.9	-1,243.7	1,886.1	1,873.8	12.24	154.098	
3,300.0	3,300.0	3,330.9	3,330.8	7.3	5.4	-41.26	1,417.7	-1,243.7	1,885.9	1,873.2	12.68	148.685	
3,400.0	3,400.0	3,436.3	3,436.2	7.5	5.6	-41.27	1,417.3	-1,243.6	1,885.5	1,872.4	13.13	143.561	
3,500.0	3,500.0	3,535.3	3,535.2	7.8	5.8	-41.28	1,416.6	-1,243.5	1,885.0	1,871.4	13.57	138.899	
3,600.0	3,600.0	3,629.3	3,629.2	8.0	6.0	-41.30	1,415.9	-1,243.9	1,884.7	1,870.7	14.00	134.645	
3,700.0	3,700.0	3,729.8	3,729.7	8.2	6.2	-41.33	1,415.1	-1,244.7	1,884.6	1,870.2	14.44	130.548	
3,800.0	3,800.0	3,830.6	3,830.5	8.4	6.4	-41.37	1,414.1	-1,245.4	1,884.3	1,869.5	14.87	126.730	
3,877.0	3,877.0	3,903.6	3,903.5	8.6	6.6	-41.39	1,413.6	-1,245.8	1,884.3	1,869.1	15.19	124.068	
3,900.0	3,900.0	3,925.4	3,925.3	8.7	6.6	-41.39	1,413.6	-1,245.9	1,884.3	1,869.0	15.28	123.296	
4,000.0	4,000.0	4,024.6	4,024.5	8.9	6.8	-41.41	1,413.3	-1,246.3	1,884.4	1,868.7	15.70	120.014	
4,100.0	4,100.0	4,127.8	4,127.7	9.1	7.0	-41.42	1,413.1	-1,246.7	1,884.4	1,868.3	16.13	116.812	
4,200.0	4,200.0	4,233.1	4,233.0	9.3	7.2	-41.43	1,412.6	-1,246.9	1,884.2	1,867.6	16.57	113.704	
4,300.0	4,300.0	4,348.6	4,348.4	9.6	7.5	-41.44	1,411.8	-1,246.5	1,883.5	1,866.5	17.03	110.580	
4,400.0	4,400.0	4,462.5	4,462.3	9.8	7.7	-41.41	1,411.1	-1,244.6	1,881.9	1,864.4	17.49	107.606	
4,500.0	4,500.0	4,571.0	4,570.8	10.0	7.9	-41.35	1,410.8	-1,241.5	1,879.8	1,861.9	17.93	104.840	
4,600.0	4,600.0	4,663.9	4,663.7	10.2	8.1	-41.27	1,410.8	-1,238.3	1,877.5	1,859.2	18.34	102.359	
4,700.0	4,700.0	4,751.0	4,750.7	10.5	8.3	-41.20	1,411.2	-1,235.6	1,875.9	1,857.1	18.74	100.077	
4,800.0	4,800.0	4,836.6	4,836.3	10.7	8.5	-41.14	1,411.9	-1,233.6	1,874.9	1,855.8	19.15	97.912	
4,864.5	4,864.5	4,891.3	4,891.0	10.8	8.6	-41.12	1,412.4	-1,232.8	1,874.8	1,855.4	19.41	96.591	
4,900.0	4,900.0	4,921.4	4,921.1	10.9	8.7	-41.11	1,412.7	-1,232.6	1,874.8	1,855.3	19.55	95.887	
5,000.0	5,000.0	5,025.2	5,024.9	11.1	8.9	-41.07	1,413.6	-1,232.0	1,875.1	1,855.1	19.99	93.780	
5,100.0	5,100.0	5,132.6	5,132.3	11.4	9.1	-41.04	1,414.3	-1,231.0	1,875.0	1,854.5	20.44	91.711	
5,200.0	5,200.0	7,992.4	6,664.3	11.6	36.0	12.60	1,093.8	244.4	1,823.0	1,775.4	47.60	38.295	
5,300.0	5,300.0	7,990.9	6,664.4	11.8	36.0	12.52	1,094.0	242.9	1,745.2	1,697.4	47.79	36.517	
5,400.0	5,400.0	7,989.2	6,664.4	12.0	36.0	12.43	1,094.3	241.3	1,669.8	1,621.8	47.98	34.803	
5,500.0	5,500.0	7,987.5	6,664.5	12.2	35.9	12.34	1,094.6	239.5	1,597.1	1,548.9	48.16	33.161	
5,600.0	5,600.0	7,985.5	6,664.6	12.5	35.9	12.25	1,095.0	237.7	1,527.4	1,479.1	48.34	31.598	
5,700.0	5,700.0	7,983.5	6,664.7	12.7	35.8	12.14	1,095.3	235.6	1,461.3	1,412.8	48.52	30.121	
5,800.0	5,800.0	7,981.2	6,664.8	12.9	35.8	12.02	1,095.7	233.4	1,399.2	1,350.5	48.69	28.740	
5,900.0	5,900.0	7,978.7	6,664.9	13.1	35.7	11.90	1,096.2	230.9	1,341.7	1,292.8	48.85	27.465	
5,963.1	5,963.1	7,971.0	6,665.2	13.3	35.5	11.50	1,097.5	223.4	1,308.0	1,259.2	48.81	26.800	
6,000.0	6,000.0	7,971.0	6,665.2	13.4	35.5	12.33	1,097.5	223.4	1,288.3	1,239.5	48.78	26.411	
6,050.0	6,049.6	7,971.0	6,665.2	13.5	35.5	13.19	1,097.5	223.4	1,259.3	1,210.9	48.41	26.013	
6,100.0	6,098.4	7,971.0	6,665.2	13.6	35.5	14.25	1,097.5	223.4	1,227.8	1,180.1	47.67	25.756	
6,150.0	6,146.0	7,965.4	6,665.5	13.7	35.4	15.18	1,098.5	217.8	1,194.0	1,147.5	46.46	25.702	
6,200.0	6,191.9	7,958.7	6,665.9	13.8	35.2	16.27	1,099.7	211.2	1,157.9	1,113.0	44.90	25.787	
6,250.0	6,235.7	7,951.0	6,666.4	13.9	35.0	17.58	1,101.0	203.7	1,119.6	1,076.6	43.06	26.003	
6,300.0	6,277.0	7,942.5	6,666.9	14.1	34.8	19.22	1,102.5	195.3	1,079.4	1,038.4	40.99	26.334	
6,350.0	6,315.4	7,934.4	6,667.5	14.2	34.6	21.44	1,103.8	187.4	1,037.2	998.4	38.81	26.728	
6,400.0	6,350.6	7,926.5	6,668.0	14.4	34.5	24.50	1,105.2	179.6	993.3	956.7	36.64	27.111	
6,450.0	6,382.1	7,918.1	6,668.6	14.7	34.3	28.78	1,106.6	171.4	947.9	913.3	34.68	27.333	
6,500.0	6,409.9	7,909.4	6,669.3	14.9	34.0	35.11	1,108.0	162.8	901.2	868.0	33.26	27.093	
6,550.0	6,433.5	7,900.5	6,670.0	15.2	33.8	45.10	1,109.5	154.1	853.4	820.6	32.87	25.967	
6,600.0	6,452.8	7,891.6	6,670.7	15.6	33.6	61.56	1,111.0	145.3	804.9	771.2	33.68	23.897	

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

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Church #36-2523H
Project:	SEC.36-T10N-R60W	TVD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Reference Site:	Church #36-2523H Pad Sec.36-T10N-R60W	MD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Church #36-2523H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 ft
Survey Program: 1626-MWD, 7081-MWD												Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
6,650.0	6,467.5	7,882.6	6,671.4	16.0	33.4	86.76	1,112.5	136.5	755.9	722.1	33.74	22.404	
6,700.0	6,477.7	7,873.8	6,672.1	16.5	33.2	114.64	1,114.0	127.8	706.8	677.1	29.68	23.818	
6,750.0	6,483.1	7,865.4	6,672.8	17.0	33.0	135.06	1,115.5	119.5	658.2	633.8	24.47	26.895	
6,781.3	6,484.0	7,860.2	6,673.2	17.3	32.9	143.58	1,116.3	114.5	628.3	606.0	22.35	28.107	
6,800.0	6,484.0	7,857.2	6,673.5	17.5	32.8	144.31	1,116.9	111.5	610.6	588.4	22.24	27.459	
6,900.0	6,484.0	7,840.7	6,674.9	18.6	32.4	148.45	1,119.6	95.4	517.0	495.4	21.56	23.977	
7,000.0	6,484.0	7,823.7	6,676.5	19.9	32.1	153.09	1,122.6	78.6	425.5	404.7	20.76	20.494	
7,100.0	6,484.0	7,806.4	6,678.0	21.3	31.7	158.11	1,125.6	61.7	337.9	318.0	19.93	16.955	
7,200.0	6,484.0	7,788.9	6,679.5	22.7	31.3	163.46	1,128.6	44.5	258.4	239.2	19.19	13.460	
7,300.0	6,484.0	7,771.1	6,681.1	24.2	30.9	169.12	1,131.8	27.1	196.6	177.9	18.74	10.491	
7,395.4	6,484.0	7,753.7	6,682.6	25.8	30.5	174.79	1,135.0	10.0	172.8	154.0	18.80	9.192 CC, ES	
7,400.0	6,484.0	7,752.8	6,682.7	25.8	30.5	175.07	1,135.2	9.2	172.9	154.1	18.82	9.186 SF	
7,500.0	6,484.0	7,733.8	6,684.4	27.4	30.0	-178.76	1,138.7	-9.5	201.0	181.3	19.72	10.195	
7,600.0	6,484.0	7,714.9	6,686.1	29.1	29.6	-172.78	1,142.2	-28.0	265.0	243.5	21.52	12.316	
7,700.0	6,484.0	7,695.9	6,687.7	30.8	29.2	-167.03	1,145.7	-46.6	345.4	321.4	24.07	14.350	
7,800.0	6,484.0	7,677.3	6,689.4	32.5	28.8	-161.76	1,149.1	-64.7	433.2	406.2	27.05	16.017	
7,900.0	6,484.0	7,660.1	6,690.9	34.3	28.4	-157.19	1,152.2	-81.6	524.8	494.7	30.11	17.427	
8,000.0	6,484.0	7,643.0	6,692.4	36.0	28.1	-153.02	1,155.3	-98.4	618.5	585.2	33.24	18.605	
8,100.0	6,484.0	7,626.0	6,693.8	37.8	27.7	-149.20	1,158.3	-115.1	713.4	677.0	36.36	19.618	
8,200.0	6,484.0	7,609.8	6,695.2	39.6	27.4	-145.89	1,161.1	-130.9	809.2	769.8	39.34	20.569	
8,300.0	6,484.0	7,594.2	6,696.6	41.4	27.1	-142.98	1,163.8	-146.2	905.6	863.4	42.19	21.463	
8,400.0	6,484.0	7,576.6	6,698.2	43.2	26.7	-139.98	1,166.8	-163.5	1,002.4	957.2	45.17	22.191	
8,500.0	6,484.0	7,558.2	6,699.8	45.0	26.3	-137.14	1,170.0	-181.6	1,099.5	1,051.4	48.11	22.852	
8,600.0	6,484.0	7,536.1	6,701.8	46.8	25.9	-134.11	1,173.8	-203.2	1,196.7	1,145.5	51.21	23.368	
8,700.0	6,484.0	7,516.1	6,703.5	48.7	25.5	-131.66	1,177.3	-222.8	1,294.1	1,240.1	54.01	23.961	
8,800.0	6,484.0	7,497.5	6,705.2	50.5	25.2	-129.63	1,180.6	-241.1	1,391.6	1,335.0	56.61	24.584	
8,900.0	6,484.0	7,470.2	6,707.6	52.4	24.6	-126.97	1,185.6	-267.8	1,489.2	1,429.6	59.56	25.003	
9,000.0	6,484.0	7,450.4	6,709.4	54.2	24.3	-125.27	1,189.2	-287.2	1,586.8	1,524.8	62.01	25.587	
9,100.0	6,484.0	7,432.0	6,711.0	56.1	24.0	-123.82	1,192.6	-305.2	1,684.4	1,620.1	64.35	26.177	
9,200.0	6,484.0	7,414.1	6,712.6	58.0	23.6	-122.54	1,195.8	-322.7	1,782.2	1,715.5	66.62	26.752	
9,300.0	6,484.0	7,392.5	6,714.5	59.8	23.3	-121.13	1,199.8	-343.9	1,879.9	1,811.0	68.97	27.259	
9,400.0	6,484.0	7,365.2	6,716.9	61.7	22.8	-119.53	1,204.9	-370.5	1,977.7	1,906.3	71.41	27.694	
9,500.0	6,484.0	7,341.3	6,719.1	63.6	22.4	-118.27	1,209.5	-394.0	2,075.4	2,001.7	73.70	28.161	
9,600.0	6,484.0	7,321.5	6,720.9	65.5	22.1	-117.33	1,213.2	-413.3	2,173.1	2,097.3	75.84	28.655	
9,700.0	6,484.0	7,302.6	6,722.7	67.4	21.8	-116.50	1,216.9	-431.8	2,270.9	2,193.0	77.94	29.138	
9,800.0	6,484.0	7,278.7	6,725.1	69.3	21.5	-115.54	1,221.5	-455.1	2,368.7	2,288.6	80.10	29.571	
9,900.0	6,484.0	7,005.0	6,738.6	71.1	17.9	-107.73	1,286.7	-719.8	2,465.8	2,384.6	81.18	30.373	
10,000.0	6,484.0	6,990.0	6,737.0	73.0	17.6	-107.29	1,290.8	-734.2	2,561.1	2,478.0	83.11	30.814	
10,100.0	6,484.0	6,979.3	6,735.6	74.9	17.4	-106.97	1,293.7	-744.4	2,656.7	2,571.7	85.03	31.246	
10,200.0	6,484.0	6,969.5	6,734.2	76.8	17.3	-106.66	1,296.2	-753.8	2,752.5	2,665.5	86.94	31.661	
10,300.0	6,484.0	6,958.0	6,732.3	78.7	17.0	-106.30	1,299.0	-764.7	2,848.5	2,759.6	88.87	32.053	
10,400.0	6,484.0	6,621.3	6,577.0	80.6	12.8	-93.67	1,380.7	-1,043.3	2,943.0	2,850.3	92.73	31.736	
10,500.0	6,484.0	6,608.0	6,567.0	82.5	12.7	-93.09	1,383.4	-1,051.6	3,036.8	2,942.2	94.64	32.086	
10,600.0	6,484.0	6,608.0	6,567.0	84.4	12.7	-93.09	1,383.4	-1,051.6	3,130.9	3,034.3	96.54	32.430	
10,700.0	6,484.0	6,608.0	6,567.0	86.3	12.7	-93.09	1,383.4	-1,051.6	3,225.3	3,126.9	98.44	32.763	
10,800.0	6,484.0	6,608.0	6,567.0	88.2	12.7	-93.09	1,383.4	-1,051.6	3,320.1	3,219.7	100.35	33.086	
10,900.0	6,484.0	6,608.0	6,567.0	90.1	12.7	-93.09	1,383.4	-1,051.6	3,415.1	3,312.9	102.25	33.400	
11,000.0	6,484.0	6,595.3	6,557.3	92.0	12.7	-92.55	1,385.8	-1,059.5	3,510.3	3,406.2	104.16	33.700	
11,100.0	6,484.0	6,591.2	6,554.2	93.9	12.6	-92.37	1,386.5	-1,062.0	3,605.8	3,499.8	106.07	33.995	
11,200.0	6,484.0	6,577.0	6,543.2	95.8	12.5	-91.76	1,388.9	-1,070.8	3,701.6	3,593.6	107.98	34.281	
11,300.0	6,484.0	6,577.0	6,543.2	97.8	12.5	-91.76	1,388.9	-1,070.8	3,797.5	3,687.6	109.89	34.558	
11,400.0	6,484.0	6,577.0	6,543.2	99.7	12.5	-91.76	1,388.9	-1,070.8	3,893.6	3,781.8	111.80	34.827	

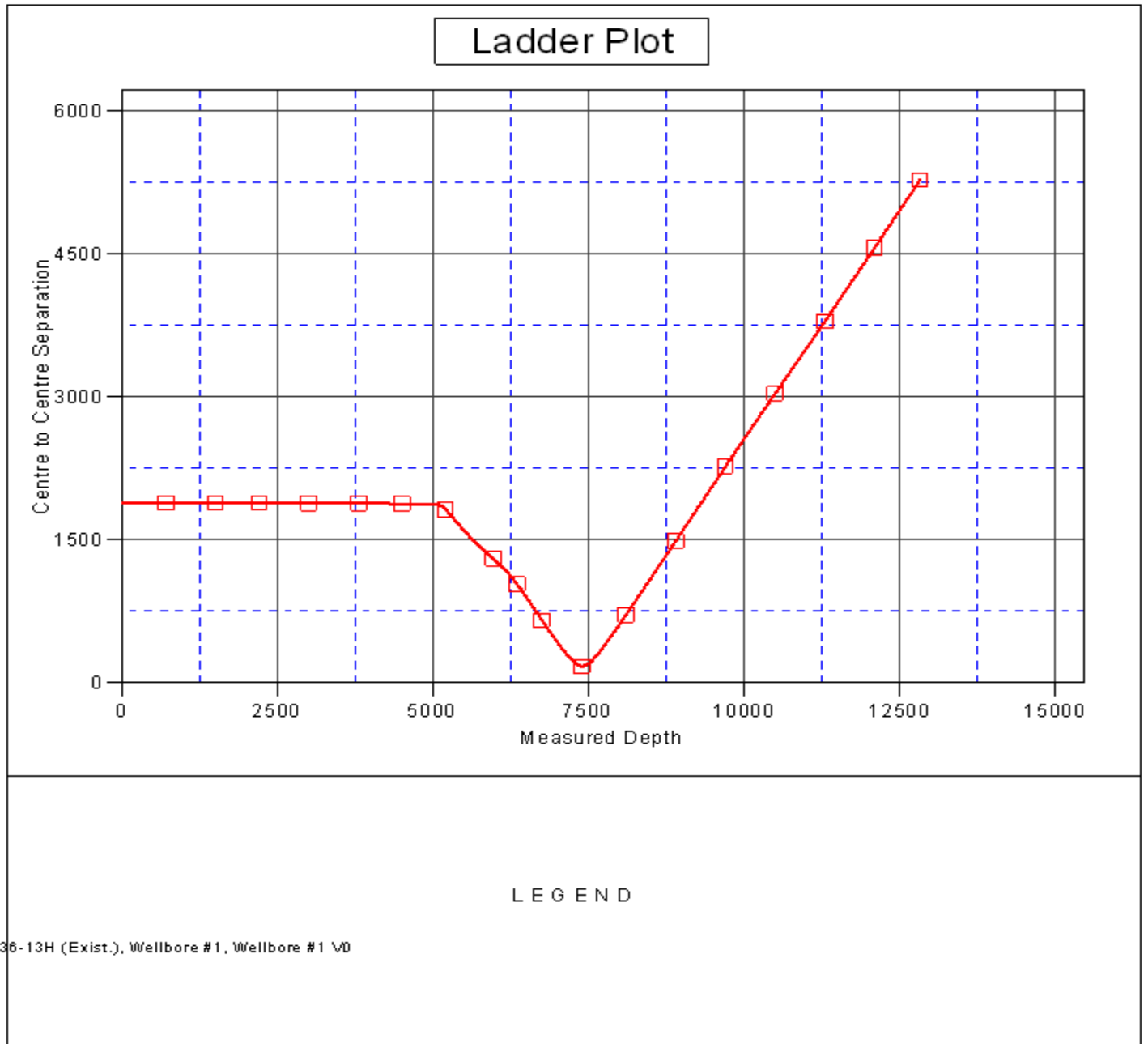
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Church #36-2523H
Project:	SEC.36-T10N-R60W	TVD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Reference Site:	Church #36-2523H Pad Sec.36-T10N-R60W	MD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Church #36-2523H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-10-11)	Offset TVD Reference:	Offset Datum

Offset Design CHALK BLUFFS 36-13H PAD 36-10N-60W - CHALK BLUFFS 36-13H (Exist.) - Wellbore #1 - Wellbore													Offset Site Error:	0.0 ft
Survey Program: 1626-MWD, 7081-MWD													Offset Well Error:	0.0 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,500.0	6,484.0	6,575.3	6,541.9	101.6	12.5	-91.69	1,389.1	-1,071.8	3,989.9	3,876.2	113.71	35.089		
11,600.0	6,484.0	6,548.2	6,520.5	103.5	12.4	-90.53	1,393.4	-1,087.8	4,086.3	3,970.7	115.59	35.351		
11,700.0	6,484.0	6,525.4	6,501.9	105.4	12.3	-89.55	1,396.8	-1,100.5	4,182.8	4,065.3	117.45	35.612		
11,800.0	6,484.0	6,513.0	6,491.5	107.3	12.2	-89.01	1,398.5	-1,107.1	4,279.3	4,160.0	119.32	35.863		
11,900.0	6,484.0	6,513.0	6,491.5	109.2	12.2	-89.01	1,398.5	-1,107.1	4,376.1	4,254.8	121.24	36.095		
12,000.0	6,484.0	6,498.8	6,479.4	111.1	12.2	-88.39	1,400.5	-1,114.3	4,472.9	4,349.8	123.09	36.337		
12,100.0	6,484.0	6,493.5	6,474.8	113.1	12.2	-88.16	1,401.2	-1,117.0	4,569.8	4,444.8	124.98	36.564		
12,200.0	6,484.0	6,481.0	6,464.0	115.0	12.1	-87.61	1,402.7	-1,122.9	4,666.9	4,540.1	126.83	36.797		
12,300.0	6,484.0	6,481.0	6,464.0	116.9	12.1	-87.61	1,402.7	-1,122.9	4,764.0	4,635.3	128.74	37.004		
12,400.0	6,484.0	6,481.0	6,464.0	118.8	12.1	-87.61	1,402.7	-1,122.9	4,861.3	4,730.7	130.66	37.207		
12,500.0	6,484.0	6,472.1	6,456.1	120.7	12.1	-87.22	1,403.7	-1,127.0	4,958.7	4,826.2	132.52	37.419		
12,600.0	6,484.0	6,466.1	6,450.8	122.6	12.1	-86.96	1,404.3	-1,129.6	5,056.1	4,921.7	134.39	37.622		
12,700.0	6,484.0	6,460.5	6,445.8	124.5	12.0	-86.71	1,405.0	-1,132.1	5,153.7	5,017.4	136.27	37.821		
12,800.0	6,484.0	6,450.0	6,436.4	126.5	12.0	-86.24	1,406.0	-1,136.6	5,251.3	5,113.2	138.10	38.025		
12,831.7	6,484.0	6,450.0	6,436.4	127.0	12.0	-86.24	1,406.0	-1,136.6	5,282.3	5,143.7	138.59	38.114		

Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Church #36-2523H
Project:	SEC.36-T10N-R60W	TVD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Reference Site:	Church #36-2523H Pad Sec.36-T10N-R60W	MD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
Site Error:	0.0ft	North Reference:	True
Reference Well:	Church #36-2523H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	Landmark
Reference Design:	Plan #1 (11-10-11)	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5209.5ft (RKB Ensign 14 - 1 Coordinates are relative to: Church #36-2523H
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000 °
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.94°



Company:	Whiting Oil & Gas	Local Co-ordinate Reference:	Well Church #36-2523H
Project:	SEC.36-T10N-R60W	TVD Reference:	WELL @ 5209.5ft (RKB Ensign 14 - 15')
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