

PDC ENERGY

**WELD COUNTY, COLORADO
NE SE SEC. 7 T6N R64W 6th P.M.
CARLSON 7S-202**

**ORIGINAL WELLBORE
PROPOSAL #1**

Anticollision Report

04 March, 2016



Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well CARLSON 7S-202
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4761.0usft
Reference Site:	NE SE SEC. 7 T6N R64W 6th P.M.	MD Reference:	KB-EST @ 4761.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	CARLSON 7S-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 98.4usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.0 us	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 04/03/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	12,426.5	PROPOSAL #1 (ORIGINAL WELLBORE)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
NE NE SEC. 7 T6N R64W 6th P.M.						
BISHOP 7C-204 - ORIGINAL WELLBORE - PROPOSAL	7,480.6	7,313.1	909.4	854.6	16.601	CC
BISHOP 7C-204 - ORIGINAL WELLBORE - PROPOSAL	7,600.0	7,203.5	910.2	853.2	15.960	ES
BISHOP 7C-204 - ORIGINAL WELLBORE - PROPOSAL	8,200.0	6,850.0	1,003.0	933.0	14.315	SF
BISHOP 7C-232 - ORIGINAL WELLBORE - PROPOSAL	6,192.0	6,167.4	958.8	927.7	30.790	CC
BISHOP 7C-232 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,422.7	958.9	637.6	2.985	ES, SF
BISHOP 7C-332 - ORIGINAL WELLBORE - PROPOSAL	6,192.0	6,186.6	755.7	722.7	22.887	CC
BISHOP 7C-332 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,520.0	758.9	439.0	2.372	ES, SF
BISHOP 7C-334 - ORIGINAL WELLBORE - PROPOSAL	7,682.1	7,183.7	703.5	644.3	11.893	CC
BISHOP 7C-334 - ORIGINAL WELLBORE - PROPOSAL	7,700.0	7,168.9	703.6	644.0	11.808	ES
BISHOP 7C-334 - ORIGINAL WELLBORE - PROPOSAL	8,000.0	6,974.6	734.7	668.3	11.072	SF
BISHOP 7C-402 - ORIGINAL WELLBORE - PROPOSAL	6,266.7	6,224.2	1,177.4	1,149.6	42.353	CC
BISHOP 7C-402 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,540.4	1,191.0	873.4	3.749	ES, SF
BISHOP 7C-404 - ORIGINAL WELLBORE - PROPOSAL	7,746.9	7,125.7	1,128.9	1,068.9	18.807	CC
BISHOP 7C-404 - ORIGINAL WELLBORE - PROPOSAL	7,800.0	7,086.9	1,129.5	1,068.1	18.398	ES
BISHOP 7C-404 - ORIGINAL WELLBORE - PROPOSAL	8,400.0	6,829.2	1,245.3	1,169.0	16.322	SF
BISHOP 7S-214 - ORIGINAL WELLBORE - PROPOSAL	7,501.6	7,341.4	441.2	385.5	7.918	CC
BISHOP 7S-214 - ORIGINAL WELLBORE - PROPOSAL	7,578.7	7,270.1	442.0	384.8	7.733	ES
BISHOP 7S-214 - ORIGINAL WELLBORE - PROPOSAL	7,700.0	7,169.0	448.5	389.2	7.565	SF
NE SE SEC. 7 T6N R64W 6th P.M.						
CARLSON 7S-204 - ORIGINAL WELLBORE - PROPOSAL	7,493.8	7,260.3	49.8	-2.2	0.958	Level 1, CC, ES, SF
CARLSON 7S-212 - ORIGINAL WELLBORE - PROPOSAL	1,160.0	1,161.0	30.0	25.1	6.080	CC
CARLSON 7S-212 - ORIGINAL WELLBORE - PROPOSAL	1,200.0	1,201.0	30.1	25.0	5.882	ES
CARLSON 7S-212 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,521.7	488.2	167.6	1.523	SF
CARLSON 7S-312 - ORIGINAL WELLBORE - PROPOSAL	1,160.0	1,160.0	15.0	10.1	3.041	CC
CARLSON 7S-312 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,557.9	259.7	-49.1	0.841	Level 1, ES, SF
CARLSON 7S-314 - ORIGINAL WELLBORE - PROPOSAL	1,160.0	1,160.0	44.8	39.8	9.068	CC
CARLSON 7S-314 - ORIGINAL WELLBORE - PROPOSAL	1,200.0	1,200.0	44.9	39.7	8.765	ES
CARLSON 7S-314 - ORIGINAL WELLBORE - PROPOSAL	7,700.0	7,153.8	201.8	144.9	3.548	SF
CARLSON 7S-404 - ORIGINAL WELLBORE - PROPOSAL	1,043.4	1,045.4	74.8	70.4	16.933	CC
CARLSON 7S-404 - ORIGINAL WELLBORE - PROPOSAL	1,082.7	1,084.1	74.9	70.3	16.319	ES
CARLSON 7S-404 - ORIGINAL WELLBORE - PROPOSAL	7,800.0	7,022.7	328.2	270.1	5.646	SF
CARLSON 7S-432 - ORIGINAL WELLBORE - PROPOSAL	1,045.4	1,044.4	15.0	10.6	3.397	CC
CARLSON 7S-432 - ORIGINAL WELLBORE - PROPOSAL	1,082.7	1,081.6	15.1	10.5	3.285	ES
CARLSON 7S-432 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,543.4	417.6	126.8	1.436	Level 3, SF

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well CARLSON 7S-202
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4761.0usft
Reference Site:	NE SE SEC. 7 T6N R64W 6th P.M.	MD Reference:	KB-EST @ 4761.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	CARLSON 7S-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
SE SE SEC. 7 T6N R64W 6th P.M.						
ABDN VERT DYER #42-7 - Wellbore #1 - Design #1	6,371.6	6,294.6	504.2	363.9	3.592	CC
ABDN VERT DYER #42-7 - Wellbore #1 - Design #1	6,450.0	6,369.4	504.8	362.9	3.558	ES
ABDN VERT DYER #42-7 - Wellbore #1 - Design #1	6,550.0	6,460.2	508.4	364.9	3.541	SF
ABDN VERT EHRlich #3 - Wellbore #1 - Design #1	3,404.3	3,323.0	2,382.2	2,305.3	30.973	CC
ABDN VERT EHRlich #3 - Wellbore #1 - Design #1	6,200.8	6,103.7	2,388.4	2,249.1	17.154	ES
ABDN VERT EHRlich #3 - Wellbore #1 - Design #1	6,250.0	6,152.9	2,390.5	2,250.6	17.086	SF
ABDN VERT GRADY #1 - Wellbore #1 - Design #1	8,116.6	6,860.7	511.6	333.0	2.865	CC, ES
ABDN VERT GRADY #1 - Wellbore #1 - Design #1	8,169.3	6,860.0	514.3	334.4	2.859	SF
ELVERA 7D-212 - ORIGINAL WELLBORE - PROPOSAL	6,192.8	6,197.2	889.9	861.5	31.290	CC
ELVERA 7D-212 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,422.2	890.0	567.3	2.758	ES, SF
ELVERA 7D-312 - ORIGINAL WELLBORE - PROPOSAL	3,226.5	3,422.1	1,051.9	1,036.1	66.485	CC
ELVERA 7D-312 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,476.8	1,176.3	855.0	3.661	ES, SF
ELVERA 7D-314 - ORIGINAL WELLBORE - PROPOSAL	1,160.0	1,147.0	1,094.4	1,089.5	222.938	CC
ELVERA 7D-314 - ORIGINAL WELLBORE - PROPOSAL	7,700.0	7,152.0	1,127.1	1,067.2	18.825	ES
ELVERA 7D-314 - ORIGINAL WELLBORE - PROPOSAL	8,366.1	6,818.7	1,245.3	1,170.0	16.542	SF
ELVERA 7D-402 - ORIGINAL WELLBORE - PROPOSAL	2,024.7	2,216.4	1,048.5	1,039.1	111.156	CC, ES
ELVERA 7D-402 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,518.8	1,419.8	1,100.1	4.440	SF
ELVERA 7D-404 - ORIGINAL WELLBORE - PROPOSAL	1,212.8	1,218.4	1,092.2	1,087.0	211.547	CC, ES
ELVERA 7D-404 - ORIGINAL WELLBORE - PROPOSAL	8,759.8	6,750.0	1,603.9	1,517.8	18.621	SF
ELVERA 7S-234 - ORIGINAL WELLBORE - PROPOSAL	7,276.4	7,558.1	838.7	786.0	15.925	CC
ELVERA 7S-234 - ORIGINAL WELLBORE - PROPOSAL	7,578.7	7,270.2	840.6	783.4	14.685	ES
ELVERA 7S-234 - ORIGINAL WELLBORE - PROPOSAL	8,070.8	6,950.0	905.9	839.1	13.561	SF
ELVERA 7S-332 - ORIGINAL WELLBORE - PROPOSAL	6,192.0	6,238.9	635.0	595.8	16.196	CC
ELVERA 7S-332 - ORIGINAL WELLBORE - PROPOSAL	12,426.5	12,554.4	639.4	317.9	1.989	ES, SF
ELVERA 7S-334 - ORIGINAL WELLBORE - PROPOSAL	7,629.5	7,342.9	582.5	523.5	9.869	CC
ELVERA 7S-334 - ORIGINAL WELLBORE - PROPOSAL	7,677.1	7,302.2	583.0	523.0	9.720	ES
ELVERA 7S-334 - ORIGINAL WELLBORE - PROPOSAL	7,900.0	7,150.0	604.3	540.2	9.433	SF
EXIST VERT CARLSON #33-7 - Wellbore #1 - Design #1	1,922.4	1,860.5	998.9	957.3	24.025	CC
EXIST VERT CARLSON #33-7 - Wellbore #1 - Design #1	2,460.6	2,386.9	1,005.1	950.9	18.539	ES
EXIST VERT CARLSON #33-7 - Wellbore #1 - Design #1	6,250.0	6,139.9	1,109.6	970.2	7.956	SF
EXIST VERT CARLSON #34-7 - Wellbore #1 - Design #1	1,160.0	1,119.0	1,974.4	1,949.9	80.612	CC
EXIST VERT CARLSON #34-7 - Wellbore #1 - Design #1	1,279.5	1,238.5	1,975.9	1,948.7	72.754	ES
EXIST VERT CARLSON #34-7 - Wellbore #1 - Design #1	6,400.0	6,300.0	2,371.6	2,230.8	16.840	SF
EXIST VERT CARLSON #44-7 - Wellbore #1 - Design #1	1,160.0	1,137.0	1,460.8	1,436.1	59.199	CC
EXIST VERT CARLSON #44-7 - Wellbore #1 - Design #1	1,200.0	1,177.0	1,461.0	1,435.5	57.142	ES
EXIST VERT CARLSON #44-7 - Wellbore #1 - Design #1	7,381.9	6,828.3	2,088.1	1,927.5	13.006	SF
EXIST VERT DYER #41-7 - Wellbore #1 - Design #1	6,865.6	6,698.5	1,825.3	1,675.0	12.151	CC
EXIST VERT DYER #41-7 - Wellbore #1 - Design #1	6,900.0	6,718.1	1,825.5	1,674.6	12.099	ES
EXIST VERT DYER #41-7 - Wellbore #1 - Design #1	7,325.4	6,836.0	1,875.3	1,715.6	11.741	SF
EXIST VERT EHRlich #1 - Wellbore #1 - Design #1	6,192.0	6,090.9	3,573.1	3,437.2	26.278	CC
EXIST VERT EHRlich #1 - Wellbore #1 - Design #1	6,200.8	6,099.7	3,573.2	3,434.0	25.676	ES
EXIST VERT EHRlich #1 - Wellbore #1 - Design #1	6,250.0	6,148.9	3,575.4	3,435.6	25.576	SF
EXIST VERT EHRlich #2 - Wellbore #1 - Design #1	1,160.0	1,106.0	3,973.2	3,948.8	163.096	CC
EXIST VERT EHRlich #2 - Wellbore #1 - Design #1	1,600.0	1,544.3	3,978.0	3,943.8	116.320	ES
EXIST VERT EHRlich #2 - Wellbore #1 - Design #1	6,299.2	6,188.7	4,099.4	3,959.4	29.289	SF
EXIST VERT EHRlich #22-7 - Wellbore #1 - Design #1	6,192.0	6,098.9	2,588.0	2,451.7	18.989	CC
EXIST VERT EHRlich #22-7 - Wellbore #1 - Design #1	6,200.8	6,107.7	2,588.0	2,449.0	18.613	ES
EXIST VERT EHRlich #22-7 - Wellbore #1 - Design #1	6,250.0	6,156.9	2,590.3	2,450.7	18.548	SF
EXIST VERT EHRlich #24-7 - Wellbore #1 - Design #1	1,160.0	1,109.0	2,941.0	2,916.6	120.576	CC
EXIST VERT EHRlich #24-7 - Wellbore #1 - Design #1	1,400.0	1,348.7	2,943.8	2,914.0	98.956	ES
EXIST VERT EHRlich #24-7 - Wellbore #1 - Design #1	6,300.0	6,192.5	3,152.4	3,012.4	22.525	SF
EXIST VERT EHRlich #32-7 - Wellbore #1 - Design #1	6,192.0	6,101.9	886.7	749.4	6.455	CC
EXIST VERT EHRlich #32-7 - Wellbore #1 - Design #1	6,200.8	6,110.7	886.8	748.7	6.421	ES

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SE SE SEC. 7 T6N R64W 6th P.M.						
EXIST VERT EHRlich #32-7 - Wellbore #1 - Design #1	6,250.0	6,159.9	888.9	750.1	6.406	SF
EXIST VERT EHRlich #4 - Wellbore #1 - Design #1	6,192.0	6,095.9	3,468.2	3,331.6	25.386	CC
EXIST VERT EHRlich #4 - Wellbore #1 - Design #1	6,200.8	6,104.7	3,468.3	3,329.6	25.006	ES
EXIST VERT EHRlich #4 - Wellbore #1 - Design #1	6,250.0	6,153.9	3,470.6	3,331.3	24.913	SF
EXIST VERT ERICKSON A #8-1 - Wellbore #1 - Design	12,202.3	4,843.0	2,790.8	2,615.1	15.878	CC
EXIST VERT ERICKSON A #8-1 - Wellbore #1 - Design	12,300.0	4,843.0	2,792.5	2,614.8	15.714	ES
EXIST VERT ERICKSON A #8-1 - Wellbore #1 - Design	12,426.5	4,843.0	2,799.8	2,619.6	15.535	SF
EXIST VERT ERICKSON A #8-17 - Wellbore #1 - Design	11,756.7	6,887.9	1,218.8	941.4	4.393	CC
EXIST VERT ERICKSON A #8-17 - Wellbore #1 - Design	11,800.0	6,887.3	1,219.6	941.0	4.377	ES
EXIST VERT ERICKSON A #8-17 - Wellbore #1 - Design	11,909.4	6,886.1	1,228.4	946.7	4.361	SF
EXIST VERT ERICKSON A #8-2 - Wellbore #1 - Design	10,843.9	6,873.6	1,898.5	1,646.5	7.536	CC
EXIST VERT ERICKSON A #8-2 - Wellbore #1 - Design	10,900.0	6,872.9	1,899.3	1,645.8	7.493	ES
EXIST VERT ERICKSON A #8-2 - Wellbore #1 - Design	11,220.4	6,869.2	1,935.5	1,673.1	7.378	SF
EXIST VERT ERICKSON A #8-7 - Wellbore #1 - Design	11,041.6	6,870.3	583.3	325.9	2.266	CC, ES
EXIST VERT ERICKSON A #8-7 - Wellbore #1 - Design	11,100.0	6,869.6	586.2	327.2	2.264	SF
EXIST VERT ERICKSON A #8-8 - Wellbore #1 - Design	12,371.8	6,892.6	595.3	300.7	2.021	CC
EXIST VERT ERICKSON A #8-8 - Wellbore #1 - Design	12,400.0	6,892.3	595.9	300.6	2.017	ES
EXIST VERT ERICKSON A #8-8 - Wellbore #1 - Design	12,401.5	6,892.3	596.0	300.6	2.017	SF
EXIST VERT FRANCEN #23-8 - Wellbore #1 - Design #1	9,392.5	6,861.6	979.8	767.1	4.605	CC
EXIST VERT FRANCEN #23-8 - Wellbore #1 - Design #1	9,400.0	6,861.6	979.9	766.9	4.601	ES
EXIST VERT FRANCEN #23-8 - Wellbore #1 - Design #1	9,500.0	6,860.4	985.7	770.0	4.570	SF
EXIST VERT FRANCEN #24-8 - Wellbore #1 - Design #1	9,717.3	4,645.0	3,069.7	2,937.1	23.145	CC
EXIST VERT FRANCEN #24-8 - Wellbore #1 - Design #1	9,800.0	4,645.0	3,070.8	2,936.4	22.855	ES
EXIST VERT FRANCEN #24-8 - Wellbore #1 - Design #1	11,220.4	4,645.0	3,417.9	3,253.6	20.797	SF
EXIST VERT FRANCIS #11-8 - Wellbore #1 - Design #1	8,032.3	6,852.7	2,025.7	1,849.4	11.491	CC
EXIST VERT FRANCIS #11-8 - Wellbore #1 - Design #1	8,070.8	6,852.2	2,026.0	1,848.8	11.429	ES
EXIST VERT FRANCIS #11-8 - Wellbore #1 - Design #1	8,661.4	6,845.2	2,121.1	1,928.3	11.003	SF
EXIST VERT FRANCIS #21-8 - Wellbore #1 - Design #1	9,383.8	6,856.7	2,069.5	1,857.0	9.739	CC
EXIST VERT FRANCIS #21-8 - Wellbore #1 - Design #1	9,448.8	6,856.0	2,070.5	1,856.3	9.663	ES
EXIST VERT FRANCIS #21-8 - Wellbore #1 - Design #1	9,940.9	6,850.2	2,143.2	1,915.4	9.411	SF
EXIST VERT FRANCIS #22-8 - Wellbore #1 - Design #1	9,384.0	6,861.7	368.1	155.6	1.732	CC
EXIST VERT FRANCIS #22-8 - Wellbore #1 - Design #1	9,400.0	6,861.6	368.5	155.5	1.730	ES, SF
EXIST VERT KREPS #1 - Wellbore #1 - Design #1	6,192.0	6,102.9	2,094.4	1,955.1	15.033	CC, ES, SF
EXIST VERT KREPS #11-7 - Wellbore #1 - Design #1	6,192.0	6,115.9	3,979.8	3,841.7	28.822	CC
EXIST VERT KREPS #11-7 - Wellbore #1 - Design #1	6,200.8	6,124.7	3,979.9	3,841.7	28.802	ES
EXIST VERT KREPS #11-7 - Wellbore #1 - Design #1	6,250.0	6,173.9	3,981.9	3,843.0	28.675	SF
EXIST VERT KREPS #21-7 - Wellbore #1 - Design #1	6,192.0	6,119.9	3,054.4	2,915.7	22.023	CC, ES, SF
EXIST VERT MHS #8-33 - Wellbore #1 - Design #1	8,156.8	6,854.2	1,904.2	1,724.7	10.608	CC
EXIST VERT MHS #8-33 - Wellbore #1 - Design #1	8,200.0	6,853.7	1,904.7	1,724.1	10.545	ES
EXIST VERT MHS #8-33 - Wellbore #1 - Design #1	8,700.0	6,847.8	1,980.2	1,786.3	10.216	SF
EXIST VERT MILE HIGH SHEEP #8-32 - Wellbore #1 - I	8,035.2	6,863.6	969.0	792.6	5.491	CC
EXIST VERT MILE HIGH SHEEP #8-32 - Wellbore #1 - I	8,070.8	6,863.2	969.7	792.3	5.467	ES
EXIST VERT MILE HIGH SHEEP #8-32 - Wellbore #1 - I	8,169.3	6,862.0	978.3	798.3	5.438	SF
EXIST VERT MILE HIGH SHEEP #8-35 - Wellbore #1 - I	8,627.7	6,866.6	1,439.0	1,246.9	7.491	CC
EXIST VERT MILE HIGH SHEEP #8-35 - Wellbore #1 - I	8,661.4	6,866.2	1,439.4	1,246.4	7.459	ES
EXIST VERT MILE HIGH SHEEP #8-35 - Wellbore #1 - I	8,900.0	6,863.4	1,464.5	1,265.1	7.345	SF
EXIST VERT ROY CARLSON #43-7 - Wellbore #1 - Des	1,160.0	1,149.0	297.9	273.1	12.014	CC
EXIST VERT ROY CARLSON #43-7 - Wellbore #1 - Des	1,200.0	1,189.0	298.2	272.5	11.607	ES
EXIST VERT ROY CARLSON #43-7 - Wellbore #1 - Des	7,000.0	6,772.1	801.5	648.8	5.250	SF
EXIST VERT UHRICH #33-8 - Wellbore #1 - Design #1	10,905.6	6,863.8	957.8	706.2	3.808	CC
EXIST VERT UHRICH #33-8 - Wellbore #1 - Design #1	10,925.2	6,863.6	958.0	705.9	3.800	ES
EXIST VERT UHRICH #33-8 - Wellbore #1 - Design #1	11,000.0	6,862.7	962.4	708.3	3.787	SF
EXIST VERT UHRICH #34-8 - Wellbore #1 - Design #1	10,922.5	6,833.7	2,313.0	2,060.3	9.153	CC

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

Anticollision Report



Company:	PDC ENERGY	Local Co-ordinate Reference:	Well CARLSON 7S-202
Project:	WELD COUNTY, COLORADO	TVD Reference:	KB-EST @ 4761.0usft
Reference Site:	NE SE SEC. 7 T6N R64W 6th P.M.	MD Reference:	KB-EST @ 4761.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	CARLSON 7S-202	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	ORIGINAL WELLBORE	Database:	EDM 5000.1 Single User Db
Reference Design:	PROPOSAL #1	Offset TVD Reference:	Offset Datum

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						
SE SE SEC. 7 T6N R64W 6th P.M.						
EXIST VERT UHRICH #34-8 - Wellbore #1 - Design #1	11,000.0	6,832.7	2,314.3	2,059.5	9.081	ES
EXIST VERT UHRICH #34-8 - Wellbore #1 - Design #1	11,515.7	6,826.7	2,387.9	2,118.8	8.873	SF
EXIST VERT UHRICH #43-8 - Wellbore #1 - Design #1	12,426.5	6,871.0	946.5	652.6	3.221	CC, ES, SF
EXIST VERT UHRICH #44-8 - Wellbore #1 - Design #1	12,218.7	6,846.4	2,312.7	2,024.9	8.034	CC
EXIST VERT UHRICH #44-8 - Wellbore #1 - Design #1	12,300.0	6,845.5	2,314.2	2,024.1	7.977	ES
EXIST VERT UHRICH #44-8 - Wellbore #1 - Design #1	12,426.5	6,844.0	2,322.1	2,028.4	7.908	SF

Offset Design										NE NE SEC. 7 T6N R64W 6th P.M. - BISHOP 7C-204 - ORIGINAL WELLBORE - PROPOSAL #1			Offset Site Error:		0.0 usft
Survey Program: 0-MWD													Offset Well Error:		0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
0.0	0.0	0.0	0.0	0.0	0.0	-2.02	1,888.3	-66.5	1,889.4						
98.4	98.4	94.4	94.4	0.1	0.1	-2.02	1,888.3	-66.5	1,889.4	1,889.3	0.17	N/A			
100.0	100.0	96.0	96.0	0.1	0.1	-2.02	1,888.3	-66.5	1,889.4	1,889.3	0.17	N/A			
196.8	196.8	192.8	192.8	0.3	0.3	-2.02	1,888.3	-66.5	1,889.4	1,888.8	0.60	3,151.952			
200.0	200.0	196.0	196.0	0.3	0.3	-2.02	1,888.3	-66.5	1,889.4	1,888.8	0.61	3,079.214			
295.3	295.3	291.3	291.3	0.5	0.5	-2.02	1,888.3	-66.5	1,889.4	1,888.4	1.04	1,813.452			
300.0	300.0	296.0	296.0	0.5	0.5	-2.02	1,888.3	-66.5	1,889.4	1,888.4	1.06	1,777.221			
393.7	393.7	389.7	389.7	0.7	0.7	-2.02	1,888.3	-66.5	1,889.4	1,888.0	1.48	1,272.904			
400.0	400.0	396.0	396.0	0.8	0.8	-2.02	1,888.3	-66.5	1,889.4	1,887.9	1.51	1,249.072			
492.1	492.1	488.1	488.1	1.0	1.0	-2.02	1,888.3	-66.5	1,889.4	1,887.5	1.93	980.607			
500.0	500.0	496.0	496.0	1.0	1.0	-2.02	1,888.3	-66.5	1,889.4	1,887.5	1.96	962.916			
590.5	590.5	586.5	586.5	1.2	1.2	-2.02	1,888.3	-66.5	1,889.4	1,887.1	2.37	797.482			
600.0	600.0	596.0	596.0	1.2	1.2	-2.02	1,888.3	-66.5	1,889.4	1,887.0	2.41	783.435			
689.0	689.0	685.0	685.0	1.4	1.4	-2.02	1,888.3	-66.5	1,889.4	1,886.6	2.81	671.990			
700.0	700.0	696.0	696.0	1.4	1.4	-2.02	1,888.3	-66.5	1,889.4	1,886.6	2.86	660.350			
787.4	787.4	783.4	783.4	1.6	1.6	-2.02	1,888.3	-66.5	1,889.4	1,886.2	3.25	580.623			
800.0	800.0	796.0	796.0	1.7	1.7	-2.02	1,888.3	-66.5	1,889.4	1,886.1	3.31	570.690			
885.8	885.8	881.8	881.8	1.9	1.8	-2.02	1,888.3	-66.5	1,889.4	1,885.7	3.70	511.127			
900.0	900.0	896.0	896.0	1.9	1.9	-2.02	1,888.3	-66.5	1,889.4	1,885.7	3.76	502.466			
984.2	984.2	980.2	980.2	2.1	2.1	-2.02	1,888.3	-66.5	1,889.4	1,885.3	4.14	456.490			
1,000.0	1,000.0	996.0	996.0	2.1	2.1	-2.02	1,888.3	-66.5	1,889.4	1,885.2	4.21	448.812			
1,082.7	1,082.7	1,078.7	1,078.7	2.3	2.3	-2.02	1,888.3	-66.5	1,889.4	1,884.9	4.58	412.405			
1,100.0	1,100.0	1,096.0	1,096.0	2.3	2.3	-2.02	1,888.3	-66.5	1,889.4	1,884.8	4.66	405.512			
1,160.0	1,160.0	1,156.0	1,156.0	2.5	2.5	-2.02	1,888.3	-66.5	1,889.4	1,884.5	4.93	383.322			
1,181.1	1,181.1	1,177.1	1,177.1	2.5	2.5	14.74	1,888.3	-66.5	1,889.4	1,884.3	5.02	376.079			
1,200.0	1,200.0	1,196.0	1,196.0	2.6	2.5	14.74	1,888.3	-66.5	1,889.2	1,884.1	5.11	369.806			
1,279.5	1,279.5	1,275.5	1,275.5	2.7	2.7	14.77	1,888.3	-66.5	1,887.0	1,881.6	5.46	345.372			
1,300.0	1,299.9	1,295.9	1,295.9	2.8	2.8	14.78	1,888.3	-66.5	1,886.1	1,880.6	5.55	339.565			
1,377.9	1,377.7	1,373.7	1,373.7	3.0	2.9	14.84	1,888.3	-66.5	1,881.4	1,875.5	5.90	318.898			
1,400.0	1,399.7	1,395.7	1,395.7	3.0	3.0	14.86	1,888.3	-66.5	1,879.7	1,873.7	6.00	313.474			
1,476.4	1,475.7	1,475.1	1,475.1	3.2	3.2	14.96	1,888.3	-66.4	1,872.6	1,866.2	6.34	295.547			
1,500.0	1,499.2	1,505.3	1,505.3	3.2	3.2	15.01	1,888.2	-66.1	1,869.9	1,863.4	6.45	290.021			
1,574.8	1,573.4	1,600.4	1,600.3	3.4	3.4	15.26	1,887.2	-63.2	1,859.6	1,852.8	6.79	273.916			
1,600.0	1,598.3	1,632.1	1,632.0	3.5	3.5	15.37	1,886.7	-61.6	1,855.5	1,848.6	6.91	268.712			
1,673.2	1,670.5	1,723.5	1,723.1	3.7	3.7	15.78	1,884.5	-55.0	1,841.9	1,834.7	7.25	254.187			
1,700.0	1,696.8	1,756.5	1,755.9	3.8	3.7	15.96	1,883.5	-51.9	1,836.4	1,829.0	7.37	249.094			
1,759.8	1,755.5	1,829.3	1,828.3	4.0	3.9	16.42	1,880.9	-43.9	1,822.7	1,815.1	7.66	237.991			

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