

EXTRACTION OIL & GAS

**WELD COUNTY, COLORADO (NAD 83)
SW NW SEC. 15 T5N R65W 6th P.M.
VT-GLENMERE 3-16-18**

**ORIGINAL WELLBORE
PROPOSAL #2**

Anticollision Report

10 March, 2016



Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL #2		
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	10/03/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,703.3	PROPOSAL #2 (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
Offset Well - Wellbore - Design						
SW NW SEC. 15 T5N R65W 6th P.M.						
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - Design #1	1,000.0	958.0	2,600.7	2,579.8	124.506	CC
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - Design #1	1,100.0	1,058.0	2,601.9	2,578.8	112.575	ES
ABDN VERT LORENZ FARM INC #1 - Wellbore #1 - Design #1	7,800.0	4,600.0	5,967.0	5,795.7	34.834	SF
CARLSON A-15-16HN - Wellbore #1 - Design #1	8,310.4	14,862.7	255.5	-55.6	0.821	Level 1, CC, ES, SF
CARLSON B-15-16HC - Wellbore #1 - Design #1	8,298.9	14,905.1	152.7	-39.8	0.793	Level 1, CC
CARLSON B-15-16HC - Wellbore #1 - Design #1	8,300.0	14,905.1	152.7	-39.9	0.793	Level 1, ES, SF
CARLSON C-15-16HN - Wellbore #1 - Design #1	8,197.2	14,731.6	84.4	-132.4	0.389	Level 1, CC
CARLSON C-15-16HN - Wellbore #1 - Design #1	8,267.7	14,796.3	87.6	-177.8	0.330	Level 1, ES, SF
CARLSON D-15-16HN - Wellbore #1 - Design #1	7,787.4	14,353.4	311.9	81.3	1.353	Level 3, CC
CARLSON D-15-16HN - Wellbore #1 - Design #1	7,972.4	14,514.3	335.7	70.2	1.264	Level 3, ES
CARLSON D-15-16HN - Wellbore #1 - Design #1	8,000.0	14,538.4	341.4	71.3	1.264	Level 3, SF
CARLSON E-15-16HC - Wellbore #1 - Design #1	7,761.2	14,402.5	491.6	253.3	2.063	CC
CARLSON E-15-16HC - Wellbore #1 - Design #1	7,800.0	14,434.8	492.9	251.0	2.038	ES
CARLSON E-15-16HC - Wellbore #1 - Design #1	8,267.7	14,848.6	582.8	279.1	1.919	SF
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,676.7	14,257.2	547.9	293.1	2.150	CC
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,700.0	14,274.8	548.4	291.9	2.138	ES
CARLSON F-15-16HN - Wellbore #1 - Design #1	7,775.6	14,335.4	556.0	293.8	2.121	SF
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,575.7	14,204.4	933.6	669.3	3.532	CC
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,600.0	14,220.3	934.1	669.2	3.526	ES
CARLSON G-15-16HN - Wellbore #1 - Design #1	7,677.1	14,275.1	940.8	673.6	3.520	SF
CARLSON H-15-16HC - Wellbore #1 - Design #1	7,584.9	14,306.1	1,116.2	852.7	4.236	CC
CARLSON H-15-16HC - Wellbore #1 - Design #1	7,600.0	14,316.1	1,116.3	852.6	4.233	ES
CARLSON H-15-16HC - Wellbore #1 - Design #1	8,350.0	14,883.6	1,289.4	977.1	4.129	SF
CARLSON I-15-16HN - Wellbore #1 - Design #1	7,515.3	14,216.2	1,294.9	1,027.6	4.845	CC, ES
CARLSON I-15-16HN - Wellbore #1 - Design #1	8,366.1	14,836.2	1,501.5	1,187.5	4.783	SF
CARLSON J-15-16HN - Wellbore #1 - Design #1	7,446.0	14,243.4	1,613.0	1,346.5	6.052	CC
CARLSON J-15-16HN - Wellbore #1 - Design #1	7,492.5	14,268.4	1,613.4	1,345.1	6.012	ES
CARLSON J-15-16HN - Wellbore #1 - Design #1	8,500.0	14,901.4	1,846.5	1,529.9	5.832	SF
CARLSON K-15-16HC - Wellbore #1 - Design #1	7,486.4	14,377.1	1,793.1	1,525.7	6.705	CC
CARLSON K-15-16HC - Wellbore #1 - Design #1	7,492.5	14,380.4	1,793.1	1,525.5	6.699	ES
CARLSON K-15-16HC - Wellbore #1 - Design #1	8,563.0	15,013.6	2,022.3	1,704.6	6.366	SF
CARLSON L-15-16HN - Wellbore #1 - Design #1	7,343.9	14,264.1	1,931.7	1,668.2	7.329	CC
CARLSON L-15-16HN - Wellbore #1 - Design #1	7,480.3	14,337.4	1,935.1	1,666.6	7.207	ES
CARLSON L-15-16HN - Wellbore #1 - Design #1	8,600.0	14,977.0	2,188.6	1,869.6	6.860	SF
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	12,472.2	7,043.2	4,388.5	4,165.3	19.657	CC
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	12,598.4	7,043.1	4,390.3	4,163.6	19.363	ES
EXIST DD BMC #B8 - Wellbore #1 - Wellbore #1	14,862.2	7,039.9	4,997.1	4,707.6	17.261	SF

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

Anticollision Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
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Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
SW NW SEC. 15 T5N R65W 6th P.M.						
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	9,877.4	7,207.4	4,270.3	4,111.4	26.886	CC
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	10,000.0	7,205.9	4,272.0	4,109.9	26.352	ES
EXIST DD BUS BARN #A5 - Wellbore #1 - Wellbore #1	13,090.5	7,169.4	5,344.0	5,097.4	21.668	SF
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	13,196.1	7,138.4	4,899.7	4,650.4	19.653	CC
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	13,300.0	7,138.5	4,900.8	4,648.7	19.433	ES
EXIST DD CDOT 2 #D7 - Wellbore #1 - Wellbore #1	15,900.0	7,140.7	5,596.3	5,271.8	17.248	SF
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	11,794.0	6,867.7	4,901.4	4,707.0	25.206	CC
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	11,909.4	6,867.2	4,902.8	4,705.2	24.809	ES
EXIST DD CDOT 3 # D2 - Wellbore #1 - Wellbore #1	15,255.9	6,854.6	6,000.7	5,710.4	20.671	SF
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	10,477.0	7,950.0	3,378.9	3,211.6	20.201	CC
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	10,600.0	7,950.0	3,381.1	3,210.5	19.821	ES
EXIST DD CLARK #A1 - Wellbore #1 - Wellbore #1	12,400.0	7,950.0	3,887.7	3,668.1	17.698	SF
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	13,800.9	7,694.4	2,970.1	2,687.7	10.516	CC
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	13,877.9	7,696.6	2,971.1	2,686.6	10.441	ES
EXIST DD CLASSIC LANES #C9 - Wellbore #1 - Wellbo	14,665.3	7,718.8	3,093.3	2,786.8	10.094	SF
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	10,654.4	7,737.7	2,282.0	2,103.7	12.802	CC
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	10,728.3	7,740.7	2,283.2	2,102.9	12.665	ES
EXIST DD COUNTRYSIDE CENTER C3 - Wellbore #1 -	11,417.3	7,767.7	2,405.9	2,206.8	12.084	SF
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	9,833.6	7,850.0	2,964.6	2,804.4	18.514	CC
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	9,900.0	7,848.7	2,965.3	2,803.4	18.316	ES
EXIST DD DELTA PARK #A2 - Wellbore #1 - Wellbore #	11,318.9	7,725.5	3,312.5	3,112.2	16.537	SF
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	12,594.7	8,008.6	1,700.4	1,467.1	7.288	CC
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	12,600.0	8,008.7	1,700.4	1,467.0	7.284	ES
EXIST DD DISTRICT SIX #C6 - Wellbore #1 - Wellbore #	12,900.0	8,019.5	1,727.6	1,485.8	7.145	SF
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	13,063.1	7,124.1	3,680.7	3,434.1	14.930	CC
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	13,188.9	7,118.8	3,682.8	3,432.8	14.732	ES
EXIST DD DRIFTWOOD #D1 - Wellbore #1 - Wellbore #	14,566.9	7,069.3	3,975.4	3,687.5	13.807	SF
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	14,401.0	7,621.1	4,926.8	4,620.1	16.065	CC
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	14,566.9	7,660.0	4,929.5	4,618.1	15.831	ES
EXIST DD EHRlich MOTORS #D8 - Wellbore #1 - Well	16,633.8	7,840.0	5,399.6	5,030.7	14.637	SF
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	13,876.2	7,699.0	4,236.7	3,955.4	15.058	CC
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	14,000.0	7,699.0	4,238.5	3,953.7	14.883	ES
EXIST DD GARDEN CITY #D5 - Wellbore #1 - Wellbore	15,649.6	7,699.0	4,592.9	4,262.4	13.896	SF
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	12,567.6	7,641.3	3,091.5	2,861.2	13.422	CC
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	12,696.8	7,650.5	3,094.2	2,860.4	13.231	ES
EXIST DD GREELEY IND SOUTH #B9 - Wellbore #1 - V	13,700.0	7,731.1	3,290.9	3,029.7	12.601	SF
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	10,452.5	6,909.0	4,989.6	4,825.1	30.323	CC
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	10,600.0	6,909.0	4,991.8	4,823.3	29.616	ES
EXIST DD HWY 34-1 #A-7 - Wellbore #1 - Wellbore #1	14,700.0	6,911.4	6,552.7	6,271.1	23.270	SF
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	9,232.0	7,274.9	4,973.2	4,818.8	32.219	CC
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	9,350.4	7,273.5	4,974.6	4,817.1	31.588	ES
EXIST DD HWY 34-2 #A-8 - Wellbore #1 - Wellbore #1	13,700.0	7,224.1	6,685.3	6,409.1	24.203	SF
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	11,088.0	6,943.4	4,314.4	4,137.8	24.429	CC
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	11,200.0	6,943.3	4,315.9	4,136.2	24.022	ES
EXIST DD HWY 85-1 #B-12 - Wellbore #1 - Wellbore #1	14,000.0	6,940.3	5,205.2	4,948.3	20.261	SF
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	11,321.9	7,850.1	2,937.2	2,750.1	15.698	CC
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	11,400.0	7,850.1	2,938.3	2,749.1	15.530	ES
EXIST DD HWY 85-2 #B11 - Wellbore #1 - Wellbore #1	12,598.4	7,850.3	3,202.6	2,981.1	14.458	SF
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,167.6	7,930.7	1,750.2	1,559.6	9.184	CC
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,220.4	7,931.1	1,751.0	1,559.0	9.119	ES
EXIST DD HWY 85-3 #C4 - Wellbore #1 - Wellbore #1	11,614.1	7,933.9	1,806.2	1,603.5	8.908	SF
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	4,003.0	4,280.7	1,612.7	1,576.4	44.525	CC
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	4,035.4	4,306.3	1,612.8	1,576.2	44.051	ES

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Reference Design:	PROPOSAL #2	Offset TVD Reference:	Offset Datum

Summary

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SW NW SEC. 15 T5N R65W 6th P.M.						
EXIST DD KUETTEL #11-15 - Wellbore #1 - Wellbore #1	8,418.2	7,020.8	3,668.0	3,560.8	34.226	SF
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	2,713.0	2,988.7	2,111.8	2,089.2	93.364	CC
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	2,755.9	3,023.2	2,112.1	2,088.8	90.598	ES
EXIST DD KUETTEL #21-15 - Wellbore #1 - Wellbore #1	13,200.0	7,123.4	9,919.2	9,675.8	40.757	SF
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	2,991.3	3,328.7	1,723.0	1,696.6	65.272	CC
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	3,051.2	3,370.0	1,723.6	1,696.3	63.159	ES
EXIST DD KUETTEL #CNW-15 - Wellbore #1 - Wellbore	13,900.0	7,067.3	9,965.0	9,708.2	38.810	SF
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	7,819.0	8,140.0	2,808.8	2,687.0	23.066	CC
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	8,759.8	8,140.0	2,820.5	2,668.0	18.504	ES
EXIST DD PARKVIEW AOUTH #A3 - Wellbore #1 - Well	10,137.8	7,989.5	3,164.4	2,975.8	16.771	SF
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	7,485.8	7,666.5	4,071.6	3,945.7	32.343	CC
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	7,500.0	7,691.0	4,071.7	3,945.5	32.273	ES
EXIST DD SAM PAK #A6 - Wellbore #1 - Wellbore #1	11,700.0	7,115.9	5,253.5	5,022.4	22.736	SF
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	9,293.5	7,707.0	3,737.8	3,584.0	24.294	CC
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	9,400.0	7,684.2	3,739.2	3,582.6	23.871	ES
EXIST DD SMITH 5 SPOT #A4 - Wellbore #1 - Wellbore	11,800.0	7,397.4	4,488.0	4,267.1	20.322	SF
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	7,873.7	7,049.3	1,671.2	1,561.3	15.205	CC
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	7,900.0	7,058.7	1,671.4	1,560.8	15.116	ES
EXIST DD STATE #16-6B - Wellbore #1 - Wellbore #1	9,153.5	7,203.3	1,807.8	1,669.6	13.077	SF
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	11,894.4	7,629.1	2,321.4	2,114.5	11.221	CC
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	12,000.0	7,632.3	2,323.8	2,114.0	11.077	ES
EXIST DD UNION PACIFIC #C5 - Wellbore #1 - Wellbore	12,600.0	7,644.0	2,426.1	2,199.8	10.718	SF
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	14,451.7	7,849.0	3,674.8	3,361.3	11.723	CC
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	14,566.9	7,849.0	3,676.6	3,359.9	11.610	ES
EXIST DD UNIVERSITY 5 SPOT #D4 - Wellbore #1 - W	15,649.6	7,890.6	3,864.8	3,518.1	11.147	SF
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	15,253.2	8,199.0	4,307.3	3,956.3	12.272	CC
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	15,354.3	8,199.0	4,308.5	3,954.7	12.178	ES
EXIST DD UNIVERSITY SQUARE #D6 - Wellbore #1 - V	16,732.2	8,199.0	4,554.2	4,162.1	11.614	SF
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	13,154.2	7,735.1	2,360.7	2,106.5	9.287	CC
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	13,200.0	7,735.1	2,361.2	2,105.7	9.243	ES
EXIST DD VOLK #C7 - Wellbore #1 - Wellbore #1	13,779.5	7,735.1	2,442.1	2,170.6	8.994	SF
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	15,072.5	8,136.7	3,090.8	2,745.2	8.942	CC
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	15,157.4	8,140.7	3,092.0	2,744.0	8.885	ES
EXIST DD WHEELER #D3 - Wellbore #1 - Wellbore #1	15,846.4	8,169.1	3,186.1	2,818.9	8.677	SF
EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor	1,018.7	1,010.3	1,511.8	1,509.0	541.692	CC, ES
EXIST VERT EISENMAN #22-15 - Wellbore #1 - Wellbor	12,900.0	6,600.0	9,925.1	9,714.6	47.158	SF
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,072.7	5,358.9	1,105.6	943.2	6.809	CC
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,200.0	5,462.6	1,108.1	942.0	6.673	ES
EXIST VERT FAY #1 - Wellbore #1 - Design #1	6,594.5	5,783.7	1,146.4	970.6	6.521	SF
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	1,000.0	962.0	1,271.8	1,250.8	60.767	CC
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	1,200.0	1,161.8	1,273.8	1,248.4	50.189	ES
EXIST VERT HARRINGTON #1 - Wellbore #1 - Design #	8,366.1	6,824.4	4,546.4	4,320.1	20.085	SF
EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #	1,566.6	1,548.3	88.7	84.4	20.562	CC
EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #	1,574.8	1,556.4	88.8	84.4	20.439	ES
EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #	1,700.0	1,679.3	92.8	88.0	19.479	SF
VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2	98.6	99.6	237.6	237.5	1,272.338	CC, ES
VETTING 12 - ORIGINAL WELLBORE - PROPOSAL #2	13,877.9	15,072.1	2,327.1	1,851.7	4.895	SF
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	197.5	198.5	214.8	214.2	341.371	CC
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	200.0	200.0	214.8	214.1	336.474	ES
VETTING 13 - ORIGINAL WELLBORE - PROPOSAL #2	13,900.0	15,280.6	2,518.7	2,043.8	5.304	SF
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	296.0	297.0	194.7	193.7	181.625	CC
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	300.0	300.0	194.7	193.6	179.002	ES
VETTING 14 - ORIGINAL WELLBORE - PROPOSAL #2	13,976.3	15,100.4	2,685.2	2,206.7	5.612	SF

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	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
SW NW SEC. 15 T5N R65W 6th P.M.						
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	394.5	395.5	173.2	171.7	114.344	CC
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	400.0	400.0	173.2	171.7	112.676	ES
VETTING 15 - ORIGINAL WELLBORE - PROPOSAL #2	14,074.8	15,171.7	3,029.7	2,547.2	6.280	SF
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	493.0	494.0	157.5	155.5	80.429	CC
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	500.0	500.0	157.5	155.5	79.247	ES
VETTING 16 - ORIGINAL WELLBORE - PROPOSAL #2	14,100.0	15,409.8	3,201.7	2,719.1	6.634	SF
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	591.5	592.5	138.8	136.4	57.843	CC
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	600.0	600.0	138.9	136.4	56.988	ES
VETTING 17 - ORIGINAL WELLBORE - PROPOSAL #2	14,173.2	15,284.8	3,370.7	2,884.9	6.939	SF
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	691.0	692.0	124.0	121.1	43.531	CC
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	700.0	700.0	124.0	121.1	42.953	ES
VETTING 18 - ORIGINAL WELLBORE - PROPOSAL #2	14,300.0	15,420.3	3,722.0	3,232.7	7.607	SF
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	790.4	791.4	110.8	107.5	33.644	CC
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	800.0	800.0	110.8	107.5	33.234	ES
VETTING 19 - ORIGINAL WELLBORE - PROPOSAL #2	14,370.0	15,682.9	3,902.4	3,411.4	7.948	SF
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	889.9	890.9	102.6	98.9	27.422	CC
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	900.0	900.0	102.6	98.8	27.111	ES
VETTING 20 - ORIGINAL WELLBORE - PROPOSAL #2	14,468.5	15,616.6	4,079.8	3,585.0	8.246	SF
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	989.4	990.4	99.3	95.2	23.715	CC
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	1,000.0	1,000.0	99.4	95.1	23.462	ES
VETTING 21 - ORIGINAL WELLBORE - PROPOSAL #2	14,600.0	15,843.4	4,434.4	3,935.9	8.895	SF
VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2	1,000.0	1,001.0	101.4	97.2	23.934	CC, ES
VETTING 22 - ORIGINAL WELLBORE - PROPOSAL #2	14,700.0	16,129.6	4,622.7	4,121.7	9.227	SF
VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2	1,000.0	1,001.0	109.8	105.5	25.911	CC, ES
VETTING 23 - ORIGINAL WELLBORE - PROPOSAL #2	14,763.7	16,069.4	4,794.6	4,290.8	9.518	SF
VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2	1,000.0	1,001.0	123.6	119.4	29.172	CC, ES
VETTING 24 - ORIGINAL WELLBORE - PROPOSAL #2	14,960.6	16,281.8	5,168.0	4,658.6	10.146	SF
VT-ALLES 1-16-18 - ORIGINAL WELLBORE - PROPOS	100.0	100.0	216.4	216.2	1,146.316	CC, ES
VT-ALLES 1-16-18 - ORIGINAL WELLBORE - PROPOS	20,703.3	20,226.0	2,003.7	1,157.8	2.369	SF
VT-GLENMERE C1-16-18 - ORIGINAL WELLBORE - PF	1,000.0	1,000.0	25.3	21.1	5.981	CC
VT-GLENMERE C1-16-18 - ORIGINAL WELLBORE - PF	20,703.3	20,876.3	255.5	-315.1	0.448	Level 1, ES, SF
VT-LDS 1-16-18 - ORIGINAL WELLBORE - PROPOSAL	889.9	890.9	25.3	21.6	6.769	CC
VT-LDS 1-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,550.2	331.5	-524.4	0.387	Level 1, ES, SF
VT-LDS 2-16-18 - ORIGINAL WELLBORE - PROPOSAL	691.0	692.0	73.2	70.4	25.718	CC
VT-LDS 2-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,471.3	659.4	-194.3	0.772	Level 1, ES, SF
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	591.5	592.5	95.8	93.4	39.915	CC
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	600.0	600.0	95.8	93.4	39.326	ES
VT-LDS 3-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,403.6	990.9	138.7	1.163	Level 2, SF
VT-LDS 4-16-18 - ORIGINAL WELLBORE - PROPOSAL	400.0	400.0	143.2	141.7	93.148	CC, ES
VT-LDS 4-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,287.9	1,340.7	491.0	1.578	SF
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	296.0	297.0	168.5	167.5	157.193	CC
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	300.0	300.0	168.5	167.4	154.923	ES
VT-LDS 5-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,298.7	1,672.2	823.8	1.971	SF
VT-LDS C2-16-18 - ORIGINAL WELLBORE - PROPOSAL	800.0	800.0	47.9	44.6	14.362	CC
VT-LDS C2-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,658.8	532.5	-268.1	0.665	Level 1, ES, SF
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	493.0	494.0	120.6	118.7	61.627	CC
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	500.0	500.0	120.6	118.7	60.721	ES
VT-LDS C3-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,510.3	1,196.5	356.3	1.424	Level 3, SF
VT-LDS C4-16-18 - ORIGINAL WELLBORE - PROPOSAL	200.0	200.0	191.1	190.5	298.846	CC, ES
VT-LDS C4-16-18 - ORIGINAL WELLBORE - PROPOSAL	20,703.3	20,473.7	1,846.6	1,003.9	2.191	SF

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON C-15-16HN - Wellbore #1 - Design #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	78.74	862.0	4,329.1	4,414.1				
98.4	98.4	78.9	78.9	0.1	0.1	78.74	862.0	4,329.1	4,414.1	4,413.9	0.14	N/A	
100.0	100.0	80.5	80.5	0.1	0.1	78.74	862.0	4,329.1	4,414.1	4,413.9	0.15	N/A	
196.8	196.8	177.3	177.3	0.3	0.2	78.74	862.0	4,329.1	4,414.1	4,413.5	0.55	8,033.773	
200.0	200.0	180.5	180.5	0.3	0.2	78.74	862.0	4,329.1	4,414.1	4,413.5	0.56	7,831.928	
295.3	295.3	275.8	275.8	0.5	0.5	78.74	862.0	4,329.1	4,414.1	4,413.1	0.99	4,450.161	
300.0	300.0	280.5	280.5	0.5	0.5	78.74	862.0	4,329.1	4,414.1	4,413.1	1.01	4,356.864	
393.7	393.7	374.2	374.2	0.8	0.7	78.74	862.0	4,329.1	4,414.1	4,412.6	1.43	3,077.421	
400.0	400.0	380.5	380.5	0.8	0.7	78.74	862.0	4,329.1	4,414.1	4,412.6	1.46	3,017.835	
492.1	492.1	472.6	472.6	1.0	0.9	78.74	862.0	4,329.1	4,414.1	4,412.2	1.88	2,351.924	
500.0	500.0	480.5	480.5	1.0	0.9	78.74	862.0	4,329.1	4,414.1	4,412.2	1.91	2,308.383	
590.5	590.5	571.0	571.0	1.2	1.1	78.74	862.0	4,329.1	4,414.1	4,411.8	2.32	1,903.238	
600.0	600.0	580.5	580.5	1.2	1.1	78.74	862.0	4,329.1	4,414.1	4,411.7	2.36	1,869.005	
689.0	689.0	643.1	643.1	1.4	1.3	78.74	862.2	4,329.2	4,414.3	4,411.6	2.70	1,633.592	
700.0	700.0	650.0	650.0	1.4	1.3	78.74	862.3	4,329.2	4,414.4	4,411.6	2.74	1,609.724	
787.4	787.4	700.0	700.0	1.6	1.4	78.72	863.2	4,329.6	4,415.3	4,412.2	3.05	1,447.303	
800.0	800.0	700.0	700.0	1.7	1.4	78.72	863.2	4,329.6	4,415.5	4,412.4	3.08	1,434.059	
885.8	885.8	765.3	765.2	1.9	1.6	78.70	865.3	4,330.4	4,417.1	4,413.7	3.42	1,291.932	
900.0	900.0	774.1	774.0	1.9	1.6	78.70	865.7	4,330.5	4,417.5	4,414.0	3.47	1,272.803	
984.2	984.2	826.2	826.1	2.1	1.7	78.67	868.2	4,331.5	4,419.8	4,416.0	3.78	1,169.555	
1,000.0	1,000.0	836.0	835.8	2.1	1.7	78.66	868.8	4,331.7	4,420.3	4,416.5	3.84	1,152.054	
1,082.7	1,082.7	900.0	899.7	2.3	1.9	146.63	873.0	4,333.2	4,424.3	4,420.2	4.16	1,063.236	
1,100.0	1,100.0	900.0	899.7	2.3	1.9	146.62	873.0	4,333.2	4,425.5	4,421.3	4.20	1,053.970	
1,181.1	1,181.0	947.7	947.2	2.5	2.0	146.52	876.8	4,334.7	4,432.4	4,427.9	4.48	988.385	
1,200.0	1,199.8	959.3	958.8	2.5	2.0	146.49	877.8	4,335.1	4,434.4	4,429.8	4.55	974.222	
1,279.5	1,279.1	1,000.0	999.3	2.7	2.1	146.36	881.6	4,336.5	4,444.2	4,439.4	4.82	922.176	
1,300.0	1,299.5	1,020.6	1,019.7	2.8	2.2	146.32	883.6	4,337.2	4,447.1	4,442.2	4.91	904.916	
1,377.9	1,376.9	1,082.7	1,081.4	3.0	2.3	146.15	890.5	4,339.8	4,459.6	4,454.3	5.24	850.957	
1,400.0	1,398.7	1,082.7	1,081.4	3.0	2.3	146.11	890.5	4,339.8	4,463.5	4,458.2	5.29	843.898	
1,476.4	1,474.2	1,155.5	1,153.6	3.2	2.5	145.92	899.1	4,343.1	4,478.2	4,472.6	5.65	792.594	
1,500.0	1,497.5	1,178.6	1,176.5	3.3	2.6	145.86	901.8	4,344.1	4,483.1	4,477.4	5.76	778.044	
1,574.8	1,571.0	1,251.5	1,248.9	3.5	2.8	145.66	910.4	4,347.3	4,499.7	4,493.6	6.13	734.149	
1,604.5	1,600.0	1,280.3	1,277.5	3.6	2.9	145.59	913.8	4,348.6	4,506.7	4,500.4	6.27	718.275	
1,669.5	1,663.6	1,343.4	1,340.1	3.9	3.1	145.60	921.2	4,351.4	4,522.3	4,515.7	6.61	683.966	
1,673.2	1,667.2	1,347.1	1,343.7	3.9	3.1	145.59	921.7	4,351.6	4,523.2	4,516.6	6.63	682.123	
1,700.0	1,693.4	1,373.0	1,369.4	4.0	3.1	145.51	924.7	4,352.7	4,529.8	4,523.0	6.77	669.309	
1,771.6	1,763.1	1,442.2	1,438.1	4.3	3.3	145.32	932.9	4,355.8	4,548.3	4,541.2	7.14	636.757	
1,800.0	1,790.5	1,469.5	1,465.1	4.4	3.4	145.24	936.1	4,357.0	4,556.1	4,548.8	7.29	624.899	
1,870.1	1,858.1	1,536.5	1,531.6	4.7	3.6	145.04	944.0	4,360.0	4,576.1	4,568.4	7.67	596.433	
1,900.0	1,886.8	1,565.0	1,559.9	4.8	3.7	144.95	947.4	4,361.2	4,585.1	4,577.3	7.84	585.198	
1,968.5	1,952.2	1,630.0	1,624.3	5.2	3.9	144.75	955.0	4,364.1	4,606.5	4,598.3	8.22	560.101	
2,000.0	1,982.0	1,659.6	1,653.8	5.4	4.0	144.65	958.5	4,365.4	4,616.8	4,608.4	8.40	549.381	
2,066.9	2,045.2	1,722.3	1,716.0	5.7	4.2	144.45	965.9	4,368.2	4,639.6	4,630.8	8.80	527.116	
2,100.0	2,076.2	1,753.1	1,746.5	5.9	4.3	144.34	969.6	4,369.6	4,651.3	4,642.3	9.00	516.798	
2,165.3	2,137.1	1,813.6	1,806.5	6.4	4.5	144.12	976.7	4,372.3	4,675.3	4,665.9	9.41	496.793	
2,200.0	2,169.1	1,845.4	1,838.0	6.6	4.6	144.01	980.4	4,373.7	4,688.4	4,678.8	9.63	486.879	
2,263.8	2,227.7	1,903.6	1,895.7	7.1	4.7	143.78	987.3	4,376.3	4,713.5	4,703.4	10.05	468.827	
2,300.0	2,260.7	1,936.4	1,928.3	7.4	4.8	143.65	991.2	4,377.7	4,728.2	4,717.9	10.30	459.239	
2,362.2	2,316.9	1,992.2	1,983.7	7.9	5.0	143.42	997.8	4,380.2	4,754.2	4,743.5	10.73	442.876	
2,400.0	2,350.8	11,454.6	6,878.5	8.2	132.4	143.58	1,402.0	-303.4	4,724.7	4,672.3	52.47	90.051	
2,460.6	2,404.6	11,480.4	6,878.5	8.7	133.1	144.93	1,401.9	-329.1	4,670.0	4,619.2	50.80	91.937	
2,500.0	2,439.3	11,497.6	6,878.5	9.1	133.6	145.77	1,401.8	-346.4	4,634.7	4,584.9	49.83	93.018	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWMD												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,559.0	2,490.8	11,524.4	6,878.5	9.7	134.3	146.94	1,401.6	-373.1	4,582.2	4,533.6	48.56	94.369	
2,600.0	2,526.2	11,543.5	6,878.5	10.1	134.9	147.72	1,401.5	-392.2	4,546.1	4,498.3	47.78	95.141	
2,657.5	2,575.3	11,571.1	6,878.5	10.7	135.6	148.75	1,401.4	-419.8	4,495.7	4,448.9	46.86	95.943	
2,700.0	2,611.2	11,592.1	6,878.5	11.2	136.2	149.47	1,401.2	-440.8	4,458.8	4,412.5	46.27	96.359	
2,755.9	2,658.0	11,620.5	6,878.5	11.8	137.0	150.38	1,401.1	-469.2	4,410.6	4,365.0	45.64	96.631	
2,800.0	2,694.4	11,643.5	6,878.5	12.3	137.6	151.06	1,400.9	-492.2	4,373.0	4,327.8	45.24	96.668	
2,840.0	2,727.1	11,664.7	6,878.5	12.8	138.2	151.65	1,400.8	-513.5	4,339.2	4,294.2	44.94	96.547	
2,854.3	2,738.8	11,672.4	6,878.5	13.0	138.5	151.65	1,400.8	-521.2	4,327.1	4,282.0	45.09	95.966	
2,900.0	2,776.0	11,697.0	6,878.5	13.6	139.1	151.63	1,400.6	-545.7	4,288.6	4,243.0	45.56	94.139	
2,952.7	2,818.9	11,725.3	6,878.5	14.3	139.9	151.62	1,400.5	-574.1	4,244.1	4,198.0	46.10	92.062	
3,000.0	2,857.4	11,750.7	6,878.5	14.9	140.6	151.60	1,400.3	-599.5	4,204.2	4,157.6	46.59	90.239	
3,051.2	2,899.1	11,778.2	6,878.5	15.5	141.4	151.58	1,400.2	-627.0	4,161.1	4,114.0	47.13	88.296	
3,100.0	2,938.8	11,804.5	6,878.5	16.1	142.1	151.56	1,400.0	-653.2	4,119.9	4,072.3	47.64	86.480	
3,149.6	2,979.2	11,831.1	6,878.5	16.8	142.9	151.55	1,399.9	-679.8	4,078.1	4,029.9	48.17	84.665	
3,200.0	3,020.2	11,858.2	6,878.5	17.4	143.6	151.53	1,399.7	-706.9	4,035.6	3,986.9	48.70	82.859	
3,248.0	3,059.3	11,884.0	6,878.5	18.0	144.4	151.51	1,399.6	-732.7	3,995.1	3,945.9	49.22	81.167	
3,300.0	3,101.6	11,911.9	6,878.5	18.7	145.1	151.49	1,399.4	-760.7	3,951.3	3,901.5	49.78	79.372	
3,346.4	3,139.5	11,936.9	6,878.5	19.3	145.8	151.47	1,399.3	-785.6	3,912.1	3,861.8	50.29	77.796	
3,400.0	3,183.1	11,965.7	6,878.5	20.0	146.6	151.45	1,399.1	-814.4	3,867.0	3,816.1	50.87	76.015	
3,444.9	3,219.6	11,989.8	6,878.5	20.6	147.3	151.43	1,399.0	-838.5	3,829.1	3,777.7	51.36	74.548	
3,500.0	3,264.5	12,019.4	6,878.5	21.3	148.1	151.41	1,398.8	-868.1	3,782.6	3,730.7	51.97	72.782	
3,543.3	3,299.7	12,042.7	6,878.5	21.9	148.8	151.39	1,398.6	-891.4	3,746.1	3,693.7	52.45	71.419	
3,600.0	3,345.9	12,073.2	6,878.5	22.6	149.6	151.37	1,398.5	-921.9	3,698.3	3,645.2	53.08	69.669	
3,641.7	3,379.8	12,095.6	6,878.5	23.2	150.3	151.35	1,398.3	-944.3	3,663.1	3,609.6	53.55	68.403	
3,700.0	3,427.3	12,126.9	6,878.5	23.9	151.1	151.32	1,398.2	-975.6	3,614.0	3,559.8	54.21	66.670	
3,740.1	3,460.0	12,148.5	6,878.5	24.5	151.7	151.30	1,398.0	-997.2	3,580.1	3,525.5	54.66	65.496	
3,800.0	3,508.7	12,180.6	6,878.5	25.2	152.6	151.28	1,397.9	-1,029.4	3,529.7	3,474.3	55.34	63.780	
3,838.6	3,540.1	12,201.4	6,878.5	25.8	153.2	151.26	1,397.7	-1,050.1	3,497.1	3,441.4	55.78	62.692	
3,900.0	3,590.1	12,234.4	6,878.5	26.6	154.1	151.23	1,397.5	-1,083.1	3,445.4	3,388.9	56.49	60.993	
3,937.0	3,620.2	12,254.3	6,878.5	27.1	154.7	151.21	1,397.4	-1,103.0	3,414.2	3,357.2	56.91	59.988	
4,000.0	3,671.5	12,288.1	6,878.5	27.9	155.6	151.17	1,397.2	-1,136.8	3,361.0	3,303.4	57.64	58.306	
4,035.4	3,700.4	12,307.2	6,878.5	28.4	156.2	151.15	1,397.1	-1,155.9	3,331.2	3,273.1	58.06	57.377	
4,100.0	3,752.9	12,341.9	6,878.5	29.2	157.1	151.12	1,396.9	-1,190.6	3,276.7	3,217.9	58.81	55.713	
4,133.8	3,780.5	12,360.0	6,878.5	29.7	157.6	151.10	1,396.8	-1,208.8	3,248.2	3,189.0	59.21	54.856	
4,200.0	3,834.3	12,395.6	6,878.5	30.5	158.6	151.06	1,396.6	-1,244.3	3,192.4	3,132.4	60.00	53.210	
4,232.3	3,860.6	12,412.9	6,878.5	31.0	159.1	151.04	1,396.5	-1,261.7	3,165.2	3,104.8	60.38	52.421	
4,300.0	3,915.8	12,449.3	6,878.5	31.9	160.1	151.00	1,396.3	-1,298.0	3,108.1	3,046.9	61.19	50.793	
4,330.7	3,940.8	12,465.8	6,878.5	32.3	160.6	150.98	1,396.2	-1,314.5	3,082.2	3,020.6	61.56	50.068	
4,400.0	3,997.2	12,503.1	6,878.5	33.2	161.6	150.94	1,396.0	-1,351.8	3,023.8	2,961.4	62.40	48.458	
4,429.1	4,020.9	12,518.7	6,878.5	33.6	162.1	150.92	1,395.9	-1,367.4	2,999.2	2,936.5	62.76	47.792	
4,500.0	4,078.6	12,556.8	6,878.5	34.5	163.1	150.87	1,395.7	-1,405.5	2,939.5	2,875.8	63.62	46.200	
4,527.5	4,101.0	12,571.6	6,878.5	34.9	163.5	150.85	1,395.6	-1,420.3	2,916.2	2,852.3	63.96	45.592	
4,600.0	4,160.0	12,610.5	6,878.5	35.8	164.6	150.80	1,395.4	-1,459.3	2,855.2	2,790.3	64.86	44.017	
4,626.0	4,181.1	12,624.5	6,878.5	36.2	165.0	150.78	1,395.3	-1,473.2	2,833.3	2,768.1	65.19	43.462	
4,700.0	4,241.4	12,664.3	6,878.5	37.2	166.1	150.72	1,395.1	-1,513.0	2,770.8	2,704.7	66.12	41.905	
4,724.4	4,261.3	12,677.4	6,878.5	37.5	166.5	150.70	1,395.0	-1,526.1	2,750.3	2,683.8	66.43	41.400	
4,800.0	4,322.8	12,718.0	6,878.5	38.5	167.6	150.64	1,394.8	-1,566.7	2,686.5	2,619.1	67.40	39.861	
4,822.8	4,341.4	12,730.3	6,878.5	38.8	168.0	150.62	1,394.7	-1,579.0	2,667.3	2,599.6	67.69	39.403	
4,900.0	4,404.2	12,771.8	6,878.5	39.8	169.1	150.56	1,394.4	-1,620.5	2,602.2	2,533.5	68.69	37.881	
4,921.2	4,421.5	12,783.2	6,878.5	40.1	169.5	150.54	1,394.4	-1,631.9	2,584.3	2,515.3	68.97	37.468	
5,000.0	4,485.6	12,825.5	6,878.5	41.2	170.6	150.46	1,394.1	-1,674.2	2,517.9	2,447.9	70.01	35.963	
5,019.7	4,501.7	12,836.1	6,878.5	41.4	170.9	150.45	1,394.1	-1,684.8	2,501.3	2,431.1	70.28	35.593	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON C-15-16HN - Wellbore #1 - Design #1		Offset Site Error:		0.0 usft
Survey Program: 0-MWWD													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					
5,100.0	4,567.1	12,879.2	6,878.5	42.5	172.1	150.37	1,393.8	-1,727.9	2,433.6	2,362.3	71.36	34.105					
5,118.1	4,581.8	12,889.0	6,878.5	42.7	172.4	150.35	1,393.8	-1,737.7	2,418.4	2,346.8	71.60	33.774					
5,200.0	4,648.5	12,933.0	6,878.5	43.8	173.6	150.26	1,393.5	-1,781.7	2,349.3	2,276.6	72.73	32.303					
5,216.5	4,661.9	12,941.9	6,878.5	44.1	173.9	150.24	1,393.5	-1,790.6	2,335.4	2,262.4	72.96	32.010					
5,300.0	4,729.9	12,986.7	6,878.5	45.2	175.1	150.15	1,393.2	-1,835.4	2,265.0	2,190.9	74.13	30.555					
5,314.9	4,742.0	12,994.8	6,878.5	45.4	175.4	150.13	1,393.2	-1,843.5	2,252.4	2,178.1	74.34	30.298					
5,400.0	4,811.3	13,040.5	6,878.5	46.5	176.7	150.03	1,392.9	-1,889.2	2,180.7	2,105.2	75.56	28.860					
5,413.4	4,822.2	13,047.6	6,878.5	46.7	176.9	150.01	1,392.9	-1,896.3	2,169.5	2,093.7	75.76	28.637					
5,500.0	4,892.7	13,094.2	6,878.5	47.8	178.2	149.89	1,392.6	-1,942.9	2,096.4	2,019.4	77.04	27.214					
5,511.8	4,902.3	13,100.5	6,878.5	48.0	178.3	149.88	1,392.6	-1,949.2	2,086.5	2,009.3	77.21	27.023					
5,600.0	4,974.1	13,147.9	6,878.5	49.2	179.7	149.75	1,392.3	-1,996.6	2,012.1	1,933.6	78.55	25.616					
5,610.2	4,982.4	13,153.4	6,878.5	49.3	179.8	149.74	1,392.2	-2,002.1	2,003.5	1,924.8	78.71	25.456					
5,700.0	5,055.5	13,201.7	6,878.5	50.5	181.2	149.60	1,392.0	-2,050.4	1,927.9	1,847.8	80.11	24.065					
5,708.6	5,062.6	13,206.3	6,878.5	50.6	181.3	149.58	1,391.9	-2,055.0	1,920.6	1,840.3	80.25	23.933					
5,800.0	5,136.9	13,255.4	6,878.5	51.8	182.7	149.43	1,391.7	-2,104.1	1,843.6	1,761.9	81.73	22.558					
5,807.1	5,142.7	13,259.2	6,878.5	51.9	182.8	149.42	1,391.6	-2,107.9	1,837.6	1,755.8	81.84	22.453					
5,900.0	5,218.3	13,309.2	6,878.5	53.2	184.2	149.24	1,391.4	-2,157.9	1,759.3	1,675.9	83.41	21.093					
5,905.5	5,222.8	13,312.1	6,878.5	53.3	184.2	149.23	1,391.3	-2,160.8	1,754.7	1,671.2	83.50	21.014					
6,000.0	5,299.8	13,362.9	6,878.5	54.5	185.7	149.04	1,391.0	-2,211.6	1,675.0	1,589.9	85.16	19.670					
6,003.9	5,303.0	13,365.0	6,878.5	54.6	185.7	149.03	1,391.0	-2,213.7	1,671.7	1,586.5	85.23	19.615					
6,100.0	5,381.2	13,416.6	6,878.5	55.9	187.2	148.82	1,390.7	-2,265.3	1,590.8	1,503.8	86.99	18.287					
6,102.3	5,383.1	13,417.9	6,878.5	55.9	187.2	148.81	1,390.7	-2,266.6	1,588.8	1,501.8	87.03	18.255					
6,200.0	5,462.6	13,470.4	6,878.5	57.2	188.7	148.57	1,390.4	-2,319.1	1,506.5	1,417.6	88.92	16.942					
6,200.8	5,463.2	13,470.8	6,878.5	57.2	188.7	148.56	1,390.4	-2,319.5	1,505.9	1,416.9	88.94	16.932					
6,299.2	5,543.3	13,523.7	6,878.5	58.5	190.2	148.29	1,390.1	-2,372.4	1,422.9	1,332.0	90.95	15.646					
6,300.0	5,544.0	13,524.1	6,878.5	58.5	190.2	148.29	1,390.1	-2,372.8	1,422.3	1,331.3	90.97	15.635					
6,397.6	5,623.5	13,576.6	6,878.5	59.8	191.6	147.98	1,389.8	-2,425.3	1,340.0	1,246.9	93.09	14.394					
6,400.0	5,625.4	13,577.8	6,878.5	59.9	191.7	147.97	1,389.8	-2,426.5	1,338.0	1,244.9	93.15	14.365					
6,496.0	5,703.6	13,629.5	6,878.5	61.2	193.1	147.63	1,389.5	-2,478.2	1,257.1	1,161.7	95.40	13.178					
6,500.0	5,706.8	13,631.6	6,878.5	61.2	193.2	147.62	1,389.5	-2,480.3	1,253.8	1,158.3	95.50	13.129					
6,594.5	5,783.7	13,682.4	6,878.5	62.5	194.6	147.23	1,389.2	-2,531.0	1,174.3	1,076.4	97.90	11.995					
6,600.0	5,788.2	13,685.3	6,878.5	62.5	194.7	147.21	1,389.2	-2,534.0	1,169.6	1,071.6	98.05	11.929					
6,692.9	5,863.9	13,735.2	6,878.5	63.8	196.1	146.77	1,388.9	-2,583.9	1,091.4	990.8	100.63	10.845					
6,700.0	5,869.6	13,739.1	6,878.5	63.9	196.2	146.74	1,388.9	-2,587.8	1,085.4	984.6	100.84	10.764					
6,791.3	5,944.0	13,788.1	6,878.5	65.1	197.6	146.24	1,388.6	-2,636.8	1,008.6	904.9	103.67	9.729					
6,800.0	5,951.0	13,792.8	6,878.5	65.2	197.7	146.19	1,388.6	-2,641.5	1,001.3	897.3	103.95	9.632					
6,889.7	6,024.1	13,841.0	6,878.5	66.4	199.0	145.61	1,388.3	-2,689.7	925.8	818.7	107.07	8.646					
6,900.0	6,032.5	13,846.5	6,878.5	66.6	199.2	145.54	1,388.3	-2,695.2	917.1	809.7	107.45	8.535					
6,988.2	6,104.2	13,893.9	6,878.5	67.7	200.5	144.87	1,388.0	-2,742.6	843.0	732.0	110.97	7.597					
7,000.0	6,113.9	13,900.3	6,878.5	67.9	200.7	144.77	1,387.9	-2,749.0	833.1	721.6	111.47	7.473					
7,086.6	6,184.4	13,946.8	6,878.5	69.1	202.0	143.96	1,387.7	-2,795.5	760.3	644.8	115.50	6.583					
7,100.0	6,195.3	13,954.0	6,878.5	69.2	202.2	143.82	1,387.6	-2,802.7	749.0	632.8	116.18	6.447					
7,185.0	6,264.5	13,999.7	6,878.5	70.4	203.5	142.83	1,387.4	-2,848.4	677.6	556.7	120.90	5.605					
7,200.0	6,276.7	14,007.8	6,878.5	70.6	203.7	142.64	1,387.3	-2,856.4	665.1	543.3	121.82	5.460					
7,283.4	6,344.6	14,052.6	6,878.5	71.7	205.0	141.40	1,387.1	-2,901.3	595.1	467.6	127.51	4.667					
7,300.0	6,358.1	14,061.5	6,878.5	71.9	205.2	141.12	1,387.0	-2,910.2	581.2	452.5	128.78	4.514					
7,381.9	6,424.8	14,105.5	6,878.5	73.0	206.4	139.53	1,386.8	-2,954.2	512.7	376.8	135.87	3.773					
7,400.0	6,439.5	14,115.2	6,878.5	73.2	206.7	139.12	1,386.7	-2,963.9	497.6	359.9	137.66	3.614					
7,480.3	6,504.9	14,158.4	6,878.5	74.3	207.9	136.97	1,386.5	-3,007.1	430.5	283.7	146.87	2.931					
7,492.5	6,514.8	14,164.9	6,878.5	74.5	208.1	136.59	1,386.4	-3,013.6	420.4	271.9	148.48	2.831					
7,500.0	6,520.9	14,169.0	6,878.5	74.6	208.2	137.12	1,386.4	-3,017.7	414.2	267.0	147.12	2.815					
7,550.0	6,559.9	14,198.0	6,878.5	75.3	209.0	140.28	1,386.2	-3,046.6	373.8	234.1	139.66	2.677					

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWDD													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		
7,578.7	6,581.0	14,216.0	6,878.5	75.8	209.5	141.89	1,386.1	-3,064.7	351.6	215.2	136.38	2.578		
7,600.0	6,596.0	14,229.9	6,878.5	76.2	209.9	143.03	1,386.0	-3,078.6	335.6	201.3	134.27	2.499		
7,650.0	6,628.9	14,264.7	6,878.5	77.1	210.9	145.61	1,385.8	-3,113.4	299.7	169.7	130.02	2.305		
7,677.1	6,645.4	14,284.7	6,878.5	77.6	211.5	147.02	1,385.7	-3,133.4	281.3	153.4	127.88	2.200		
7,700.0	6,658.5	14,302.0	6,878.5	78.1	211.9	148.24	1,385.6	-3,150.7	266.4	140.4	126.03	2.114		
7,750.0	6,684.4	14,341.6	6,878.5	79.2	213.1	151.14	1,385.4	-3,190.3	236.1	114.6	121.44	1.944		
7,775.6	6,696.2	14,362.6	6,878.5	79.7	213.6	152.81	1,385.3	-3,211.2	221.7	103.1	118.61	1.869		
7,800.0	6,706.5	14,383.1	6,878.5	80.3	214.2	154.54	1,385.2	-3,231.7	208.9	93.4	115.48	1.809		
7,848.3	6,724.1	14,424.7	6,878.5	81.5	215.4	158.50	1,384.9	-3,273.3	186.2	78.4	107.84	1.727		
7,874.0	6,732.4	14,447.2	6,878.5	82.1	216.0	160.47	1,384.8	-3,295.9	175.2	72.9	102.33	1.712		
7,900.0	6,740.9	14,469.9	6,878.5	82.7	216.7	162.71	1,384.7	-3,318.6	164.3	67.8	96.52	1.702		
7,972.4	6,764.4	14,533.3	6,878.5	84.5	218.4	170.64	1,384.3	-3,382.0	135.4	52.7	82.72	1.637		
8,000.0	6,773.3	14,557.5	6,878.5	85.2	219.1	174.48	1,384.2	-3,406.2	125.3	43.8	81.47	1.538		
8,070.8	6,796.3	14,619.5	6,878.5	86.9	220.8	-172.86	1,383.8	-3,468.2	102.6	-1.1	103.65	0.990 Level 1		
8,100.0	6,805.7	14,645.0	6,878.5	87.6	221.6	-166.34	1,383.7	-3,493.7	95.3	-30.0	125.27	0.760 Level 1		
8,135.3	6,817.2	14,675.9	6,878.5	88.5	222.4	-157.44	1,383.5	-3,524.6	88.6	-70.1	158.68	0.559 Level 1		
8,150.0	6,821.8	14,688.9	6,878.5	88.8	222.8	-153.32	1,383.4	-3,537.6	86.7	-85.9	172.65	0.502 Level 1		
8,169.3	6,827.6	14,706.2	6,878.5	89.3	223.3	-147.93	1,383.3	-3,554.8	85.2	-106.0	191.17	0.445 Level 1		
8,197.2	6,835.2	14,731.6	6,878.5	90.0	224.0	-140.40	1,383.2	-3,580.3	84.4	-132.4	216.76	0.389 Level 1, CC		
8,200.0	6,835.9	14,734.3	6,878.5	90.1	224.1	-139.66	1,383.2	-3,582.9	84.4	-134.8	219.22	0.385 Level 1		
8,250.0	6,847.2	14,781.3	6,878.5	91.4	225.4	-127.90	1,382.9	-3,629.9	86.3	-170.0	256.31	0.337 Level 1		
8,267.7	6,850.5	14,796.3	6,878.5	91.8	225.8	-124.76	1,382.9	-3,645.0	87.6	-177.8	265.40	0.330 Level 1, ES, SF		
8,300.0	6,855.7	14,796.3	6,878.5	92.6	225.8	-123.52	1,382.9	-3,645.0	96.0	-172.7	268.71	0.357 Level 1		
8,350.0	6,861.2	14,796.3	6,878.5	93.9	225.8	-119.64	1,382.9	-3,645.0	124.8	-154.2	278.93	0.447 Level 1		
8,366.1	6,862.4	14,796.3	6,878.5	94.3	225.8	-117.93	1,382.9	-3,645.0	136.5	-146.6	283.16	0.482 Level 1		
8,400.0	6,863.8	14,796.3	6,878.5	95.1	225.8	-113.70	1,382.9	-3,645.0	163.3	-129.2	292.56	0.558 Level 1		
8,418.2	6,864.0	14,796.3	6,878.5	95.5	225.8	-111.14	1,382.9	-3,645.0	178.6	-118.8	297.47	0.601 Level 1		
8,464.5	6,864.0	14,796.3	6,878.5	96.6	225.8	-111.14	1,382.9	-3,645.0	219.3	-79.2	298.57	0.735 Level 1		
8,500.0	6,864.0	14,796.3	6,878.5	97.5	225.8	-111.14	1,382.9	-3,645.0	251.8	-47.6	299.42	0.841 Level 1		
8,563.0	6,864.0	14,796.3	6,878.5	99.0	225.8	-111.14	1,382.9	-3,645.0	311.1	10.2	300.93	1.034 Level 2		
8,600.0	6,864.0	14,796.3	6,878.5	99.9	225.8	-111.14	1,382.9	-3,645.0	346.6	44.7	301.82	1.148 Level 2		
8,661.4	6,864.0	14,796.3	6,878.5	101.4	225.8	-111.14	1,382.9	-3,645.0	406.0	102.7	303.30	1.339 Level 3		
8,700.0	6,864.0	14,796.3	6,878.5	102.4	225.8	-111.14	1,382.9	-3,645.0	443.6	139.4	304.24	1.458 Level 3		
8,759.8	6,864.0	14,796.3	6,878.5	103.8	225.8	-111.14	1,382.9	-3,645.0	502.2	196.5	305.69	1.643		
8,800.0	6,864.0	14,796.3	6,878.5	104.8	225.8	-111.14	1,382.9	-3,645.0	541.7	235.1	306.67	1.767		
8,858.2	6,864.0	14,796.3	6,878.5	106.3	225.8	-111.14	1,382.9	-3,645.0	599.2	291.1	308.09	1.945		
8,900.0	6,864.0	14,796.3	6,878.5	107.3	225.8	-111.14	1,382.9	-3,645.0	640.5	331.4	309.11	2.072		
8,956.7	6,864.0	14,796.3	6,878.5	108.7	225.8	-111.14	1,382.9	-3,645.0	696.6	386.1	310.50	2.243		
9,000.0	6,864.0	14,796.3	6,878.5	109.8	225.8	-111.14	1,382.9	-3,645.0	739.5	428.0	311.56	2.374		
9,055.1	6,864.0	14,796.3	6,878.5	111.2	225.8	-111.14	1,382.9	-3,645.0	794.2	481.3	312.91	2.538		
9,100.0	6,864.0	14,796.3	6,878.5	112.3	225.8	-111.14	1,382.9	-3,645.0	838.8	524.8	314.02	2.671		
9,153.5	6,864.0	14,796.3	6,878.5	113.7	225.8	-111.14	1,382.9	-3,645.0	892.0	576.7	315.34	2.829		
9,200.0	6,864.0	14,796.3	6,878.5	114.8	225.8	-111.14	1,382.9	-3,645.0	938.2	621.7	316.49	2.965		
9,251.9	6,864.0	14,796.3	6,878.5	116.2	225.8	-111.14	1,382.9	-3,645.0	989.9	672.2	317.77	3.115		
9,300.0	6,864.0	14,796.3	6,878.5	117.4	225.8	-111.14	1,382.9	-3,645.0	1,037.8	718.8	318.96	3.254		
9,350.4	6,864.0	14,796.3	6,878.5	118.7	225.8	-111.14	1,382.9	-3,645.0	1,087.9	767.7	320.21	3.398		
9,400.0	6,864.0	14,796.3	6,878.5	119.9	225.8	-111.14	1,382.9	-3,645.0	1,137.4	815.9	321.45	3.538		
9,448.8	6,864.0	14,796.3	6,878.5	121.2	225.8	-111.14	1,382.9	-3,645.0	1,186.0	863.4	322.66	3.676		
9,500.0	6,864.0	14,796.3	6,878.5	122.5	225.8	-111.14	1,382.9	-3,645.0	1,237.1	913.1	323.94	3.819		
9,547.2	6,864.0	14,796.3	6,878.5	123.7	225.8	-111.14	1,382.9	-3,645.0	1,284.2	959.1	325.12	3.950		
9,600.0	6,864.0	14,796.3	6,878.5	125.1	225.8	-111.14	1,382.9	-3,645.0	1,336.8	1,010.4	326.43	4.095		
9,645.6	6,864.0	14,796.3	6,878.5	126.2	225.8	-111.14	1,382.9	-3,645.0	1,382.3	1,054.8	327.58	4.220		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													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		
9,700.0	6,864.0	14,796.3	6,878.5	127.6	225.8	-111.14	1,382.9	-3,645.0	1,436.6	1,107.6	328.94	4.367		
9,744.1	6,864.0	14,796.3	6,878.5	128.8	225.8	-111.14	1,382.9	-3,645.0	1,480.6	1,150.5	330.04	4.486		
9,800.0	6,864.0	14,796.3	6,878.5	130.2	225.8	-111.14	1,382.9	-3,645.0	1,536.4	1,204.9	331.45	4.635		
9,842.5	6,864.0	14,796.3	6,878.5	131.3	225.8	-111.14	1,382.9	-3,645.0	1,578.8	1,246.3	332.52	4.748		
9,900.0	6,864.0	14,796.3	6,878.5	132.8	225.8	-111.14	1,382.9	-3,645.0	1,636.2	1,302.2	333.96	4.899		
9,940.9	6,864.0	14,796.3	6,878.5	133.9	225.8	-111.14	1,382.9	-3,645.0	1,677.1	1,342.1	334.99	5.006		
10,000.0	6,864.0	14,796.3	6,878.5	135.4	225.8	-111.14	1,382.9	-3,645.0	1,736.0	1,399.6	336.48	5.159		
10,039.3	6,864.0	14,796.3	6,878.5	136.5	225.8	-111.14	1,382.9	-3,645.0	1,775.3	1,437.9	337.48	5.261		
10,100.0	6,864.0	14,796.3	6,878.5	138.1	225.8	-111.14	1,382.9	-3,645.0	1,835.9	1,496.9	339.01	5.416		
10,137.8	6,864.0	14,796.3	6,878.5	139.0	225.8	-111.14	1,382.9	-3,645.0	1,873.6	1,533.7	339.96	5.511		
10,200.0	6,864.0	14,796.3	6,878.5	140.7	225.8	-111.14	1,382.9	-3,645.0	1,935.8	1,594.2	341.54	5.668		
10,236.2	6,864.0	14,796.3	6,878.5	141.6	225.8	-111.14	1,382.9	-3,645.0	1,971.9	1,629.5	342.46	5.758		
10,300.0	6,864.0	14,796.3	6,878.5	143.3	225.8	-111.14	1,382.9	-3,645.0	2,035.7	1,691.6	344.07	5.916		
10,334.6	6,864.0	14,796.3	6,878.5	144.2	225.8	-111.14	1,382.9	-3,645.0	2,070.3	1,725.3	344.95	6.002		
10,400.0	6,864.0	14,796.3	6,878.5	145.9	225.8	-111.14	1,382.9	-3,645.0	2,135.6	1,789.0	346.61	6.161		
10,433.0	6,864.0	14,796.3	6,878.5	146.8	225.8	-111.14	1,382.9	-3,645.0	2,168.6	1,821.1	347.45	6.241		
10,500.0	6,864.0	14,796.3	6,878.5	148.6	225.8	-111.14	1,382.9	-3,645.0	2,235.5	1,886.3	349.15	6.403		
10,531.5	6,864.0	14,796.3	6,878.5	149.4	225.8	-111.14	1,382.9	-3,645.0	2,266.9	1,917.0	349.95	6.478		
10,600.0	6,864.0	14,796.3	6,878.5	151.2	225.8	-111.14	1,382.9	-3,645.0	2,335.4	1,983.7	351.70	6.640		
10,629.9	6,864.0	14,796.3	6,878.5	152.0	225.8	-111.14	1,382.9	-3,645.0	2,365.3	2,012.8	352.46	6.711		
10,700.0	6,864.0	14,796.3	6,878.5	153.9	225.8	-111.14	1,382.9	-3,645.0	2,435.3	2,081.1	354.24	6.875		
10,728.3	6,864.0	14,796.3	6,878.5	154.6	225.8	-111.14	1,382.9	-3,645.0	2,463.6	2,108.6	354.97	6.940		
10,800.0	6,864.0	14,796.3	6,878.5	156.6	225.8	-111.14	1,382.9	-3,645.0	2,535.2	2,178.4	356.80	7.106		
10,826.7	6,864.0	14,796.3	6,878.5	157.3	225.8	-111.14	1,382.9	-3,645.0	2,562.0	2,204.5	357.48	7.167		
10,900.0	6,864.0	14,796.3	6,878.5	159.2	225.8	-111.14	1,382.9	-3,645.0	2,635.2	2,275.8	359.35	7.333		
10,925.2	6,864.0	14,796.3	6,878.5	159.9	225.8	-111.14	1,382.9	-3,645.0	2,660.3	2,300.3	360.00	7.390		
11,000.0	6,864.0	14,796.3	6,878.5	161.9	225.8	-111.14	1,382.9	-3,645.0	2,735.1	2,373.2	361.91	7.557		
11,023.6	6,864.0	14,796.3	6,878.5	162.5	225.8	-111.14	1,382.9	-3,645.0	2,758.7	2,396.2	362.51	7.610		
11,100.0	6,864.0	14,796.3	6,878.5	164.6	225.8	-111.14	1,382.9	-3,645.0	2,835.0	2,470.6	364.47	7.779		
11,122.0	6,864.0	14,796.3	6,878.5	165.2	225.8	-111.14	1,382.9	-3,645.0	2,857.1	2,492.0	365.03	7.827		
11,200.0	6,864.0	14,796.3	6,878.5	167.2	225.8	-111.14	1,382.9	-3,645.0	2,935.0	2,568.0	367.03	7.997		
11,220.4	6,864.0	14,796.3	6,878.5	167.8	225.8	-111.14	1,382.9	-3,645.0	2,955.4	2,587.9	367.56	8.041		
11,300.0	6,864.0	14,796.3	6,878.5	169.9	225.8	-111.14	1,382.9	-3,645.0	3,034.9	2,665.3	369.60	8.211		
11,318.9	6,864.0	14,796.3	6,878.5	170.4	225.8	-111.14	1,382.9	-3,645.0	3,053.8	2,683.7	370.08	8.252		
11,400.0	6,864.0	14,796.3	6,878.5	172.6	225.8	-111.14	1,382.9	-3,645.0	3,134.9	2,762.7	372.17	8.423		
11,417.3	6,864.0	14,796.3	6,878.5	173.1	225.8	-111.14	1,382.9	-3,645.0	3,152.2	2,779.6	372.61	8.460		
11,500.0	6,864.0	14,796.3	6,878.5	175.3	225.8	-111.14	1,382.9	-3,645.0	3,234.9	2,860.1	374.74	8.632		
11,515.7	6,864.0	14,796.3	6,878.5	175.7	225.8	-111.14	1,382.9	-3,645.0	3,250.6	2,875.4	375.14	8.665		
11,600.0	6,864.0	14,796.3	6,878.5	178.0	225.8	-111.14	1,382.9	-3,645.0	3,334.8	2,957.5	377.31	8.838		
11,614.1	6,864.0	14,796.3	6,878.5	178.4	225.8	-111.14	1,382.9	-3,645.0	3,349.0	2,971.3	377.67	8.867		
11,700.0	6,864.0	14,796.3	6,878.5	180.7	225.8	-111.14	1,382.9	-3,645.0	3,434.8	3,054.9	379.88	9.042		
11,712.6	6,864.0	14,796.3	6,878.5	181.0	225.8	-111.14	1,382.9	-3,645.0	3,447.3	3,067.1	380.21	9.067		
11,800.0	6,864.0	14,796.3	6,878.5	183.4	225.8	-111.14	1,382.9	-3,645.0	3,534.7	3,152.3	382.46	9.242		
11,811.0	6,864.0	14,796.3	6,878.5	183.7	225.8	-111.14	1,382.9	-3,645.0	3,545.7	3,163.0	382.74	9.264		
11,900.0	6,864.0	14,796.3	6,878.5	186.1	225.8	-111.14	1,382.9	-3,645.0	3,634.7	3,249.7	385.04	9.440		
11,909.4	6,864.0	14,796.3	6,878.5	186.4	225.8	-111.14	1,382.9	-3,645.0	3,644.1	3,258.8	385.28	9.458		
12,000.0	6,864.0	14,796.3	6,878.5	188.8	225.8	-111.14	1,382.9	-3,645.0	3,734.7	3,347.1	387.62	9.635		
12,007.8	6,864.0	14,796.3	6,878.5	189.0	225.8	-111.14	1,382.9	-3,645.0	3,742.5	3,354.7	387.82	9.650		
12,100.0	6,864.0	14,796.3	6,878.5	191.5	225.8	-111.14	1,382.9	-3,645.0	3,834.6	3,444.4	390.20	9.827		
12,106.3	6,864.0	14,796.3	6,878.5	191.7	225.8	-111.14	1,382.9	-3,645.0	3,840.9	3,450.6	390.36	9.839		
12,200.0	6,864.0	14,796.3	6,878.5	194.3	225.8	-111.14	1,382.9	-3,645.0	3,934.6	3,541.8	392.78	10.017		
12,204.7	6,864.0	14,796.3	6,878.5	194.4	225.8	-111.14	1,382.9	-3,645.0	3,939.3	3,546.4	392.90	10.026		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-MWDD												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,300.0	6,864.0	14,796.3	6,878.5	197.0	225.8	-111.14	1,382.9	-3,645.0	4,034.6	3,639.2	395.37	10.205	
12,303.1	6,864.0	14,796.3	6,878.5	197.1	225.8	-111.14	1,382.9	-3,645.0	4,037.7	3,642.3	395.45	10.210	
12,400.0	6,864.0	14,796.3	6,878.5	199.7	225.8	-111.14	1,382.9	-3,645.0	4,134.6	3,736.6	397.95	10.390	
12,401.5	6,864.0	14,796.3	6,878.5	199.7	225.8	-111.14	1,382.9	-3,645.0	4,136.1	3,738.1	397.99	10.392	
12,500.0	6,864.0	14,796.3	6,878.5	202.4	225.8	-111.14	1,382.9	-3,645.0	4,234.5	3,834.0	400.54	10.572	
12,598.4	6,864.0	14,796.3	6,878.5	205.1	225.8	-111.14	1,382.9	-3,645.0	4,332.9	3,929.8	403.09	10.749	
12,600.0	6,864.0	14,796.3	6,878.5	205.1	225.8	-111.14	1,382.9	-3,645.0	4,334.5	3,931.4	403.13	10.752	
12,696.8	6,864.0	14,796.3	6,878.5	207.8	225.8	-111.14	1,382.9	-3,645.0	4,431.3	4,025.7	405.64	10.924	
12,700.0	6,864.0	14,796.3	6,878.5	207.9	225.8	-111.14	1,382.9	-3,645.0	4,434.5	4,028.8	405.72	10.930	
12,795.2	6,864.0	14,796.3	6,878.5	210.5	225.8	-111.14	1,382.9	-3,645.0	4,529.7	4,121.5	408.19	11.097	
12,800.0	6,864.0	14,796.3	6,878.5	210.6	225.8	-111.14	1,382.9	-3,645.0	4,534.5	4,126.1	408.31	11.105	
12,893.7	6,864.0	14,796.3	6,878.5	213.2	225.8	-111.14	1,382.9	-3,645.0	4,628.1	4,217.4	410.74	11.268	
12,900.0	6,864.0	14,796.3	6,878.5	213.3	225.8	-111.14	1,382.9	-3,645.0	4,634.4	4,223.5	410.90	11.279	
12,992.1	6,864.0	14,796.3	6,878.5	215.9	225.8	-111.14	1,382.9	-3,645.0	4,726.5	4,313.2	413.29	11.436	
13,000.0	6,864.0	14,796.3	6,878.5	216.1	225.8	-111.14	1,382.9	-3,645.0	4,734.4	4,320.9	413.50	11.450	
13,090.5	6,864.0	14,796.3	6,878.5	218.5	225.8	-111.14	1,382.9	-3,645.0	4,824.9	4,409.1	415.85	11.603	
13,100.0	6,864.0	14,796.3	6,878.5	218.8	225.8	-111.14	1,382.9	-3,645.0	4,834.4	4,418.3	416.09	11.619	
13,188.9	6,864.0	14,796.3	6,878.5	221.2	225.8	-111.14	1,382.9	-3,645.0	4,923.3	4,504.9	418.40	11.767	
13,200.0	6,864.0	14,796.3	6,878.5	221.5	225.8	-111.14	1,382.9	-3,645.0	4,934.4	4,515.7	418.69	11.785	
13,287.4	6,864.0	14,796.3	6,878.5	223.9	225.8	-111.14	1,382.9	-3,645.0	5,021.7	4,600.8	420.96	11.929	
13,300.0	6,864.0	14,796.3	6,878.5	224.3	225.8	-111.14	1,382.9	-3,645.0	5,034.4	4,613.1	421.29	11.950	
13,385.8	6,864.0	14,796.3	6,878.5	226.6	225.8	-111.14	1,382.9	-3,645.0	5,120.1	4,696.6	423.52	12.090	
13,400.0	6,864.0	14,796.3	6,878.5	227.0	225.8	-111.14	1,382.9	-3,645.0	5,134.3	4,710.5	423.89	12.113	
13,484.2	6,864.0	14,796.3	6,878.5	229.3	225.8	-111.14	1,382.9	-3,645.0	5,218.6	4,792.5	426.08	12.248	
13,500.0	6,864.0	14,796.3	6,878.5	229.8	225.8	-111.14	1,382.9	-3,645.0	5,234.3	4,807.8	426.49	12.273	
13,582.6	6,864.0	14,796.3	6,878.5	232.0	225.8	-111.14	1,382.9	-3,645.0	5,317.0	4,888.3	428.63	12.404	
13,600.0	6,864.0	14,796.3	6,878.5	232.5	225.8	-111.14	1,382.9	-3,645.0	5,334.3	4,905.2	429.09	12.432	
13,681.1	6,864.0	14,796.3	6,878.5	234.7	225.8	-111.14	1,382.9	-3,645.0	5,415.4	4,984.2	431.19	12.559	
13,700.0	6,864.0	14,796.3	6,878.5	235.3	225.8	-111.14	1,382.9	-3,645.0	5,434.3	5,002.6	431.69	12.589	
13,779.5	6,864.0	14,796.3	6,878.5	237.4	225.8	-111.14	1,382.9	-3,645.0	5,513.8	5,080.0	433.76	12.712	
13,800.0	6,864.0	14,796.3	6,878.5	238.0	225.8	-111.14	1,382.9	-3,645.0	5,534.3	5,100.0	434.29	12.743	
13,877.9	6,864.0	14,796.3	6,878.5	240.2	225.8	-111.14	1,382.9	-3,645.0	5,612.2	5,175.9	436.32	12.863	
13,900.0	6,864.0	14,796.3	6,878.5	240.8	225.8	-111.14	1,382.9	-3,645.0	5,634.3	5,197.4	436.89	12.896	
13,976.3	6,864.0	14,796.3	6,878.5	242.9	225.8	-111.14	1,382.9	-3,645.0	5,710.6	5,271.7	438.88	13.012	
14,000.0	6,864.0	14,796.3	6,878.5	243.5	225.8	-111.14	1,382.9	-3,645.0	5,734.3	5,294.8	439.50	13.047	
14,074.8	6,864.0	14,796.3	6,878.5	245.6	225.8	-111.14	1,382.9	-3,645.0	5,809.0	5,367.6	441.44	13.159	
14,100.0	6,864.0	14,796.3	6,878.5	246.3	225.8	-111.14	1,382.9	-3,645.0	5,834.2	5,392.1	442.10	13.197	
14,173.2	6,864.0	14,796.3	6,878.5	248.3	225.8	-111.14	1,382.9	-3,645.0	5,907.4	5,463.4	444.01	13.305	
14,200.0	6,864.0	14,796.3	6,878.5	249.0	225.8	-111.14	1,382.9	-3,645.0	5,934.2	5,489.5	444.71	13.344	
14,271.6	6,864.0	14,796.3	6,878.5	251.0	225.8	-111.14	1,382.9	-3,645.0	6,005.8	5,559.3	446.57	13.449	
14,300.0	6,864.0	14,796.3	6,878.5	251.8	225.8	-111.14	1,382.9	-3,645.0	6,034.2	5,586.9	447.31	13.490	
14,370.0	6,864.0	14,796.3	6,878.5	253.7	225.8	-111.14	1,382.9	-3,645.0	6,104.3	5,655.1	449.14	13.591	
14,400.0	6,864.0	14,796.3	6,878.5	254.5	225.8	-111.14	1,382.9	-3,645.0	6,134.2	5,684.3	449.92	13.634	
14,468.5	6,864.0	14,796.3	6,878.5	256.4	225.8	-111.14	1,382.9	-3,645.0	6,202.7	5,751.0	451.70	13.732	
14,500.0	6,864.0	14,796.3	6,878.5	257.3	225.8	-111.14	1,382.9	-3,645.0	6,234.2	5,781.7	452.53	13.776	
14,566.9	6,864.0	14,796.3	6,878.5	259.1	225.8	-111.14	1,382.9	-3,645.0	6,301.1	5,846.8	454.27	13.871	
14,600.0	6,864.0	14,796.3	6,878.5	260.1	225.8	-111.14	1,382.9	-3,645.0	6,334.2	5,879.0	455.13	13.917	
14,665.3	6,864.0	14,796.3	6,878.5	261.9	225.8	-111.14	1,382.9	-3,645.0	6,399.5	5,942.7	456.84	14.008	
14,700.0	6,864.0	14,796.3	6,878.5	262.8	225.8	-111.14	1,382.9	-3,645.0	6,434.2	5,976.4	457.74	14.056	
14,763.7	6,864.0	14,796.3	6,878.5	264.6	225.8	-111.14	1,382.9	-3,645.0	6,497.9	6,038.5	459.41	14.144	
14,800.0	6,864.0	14,796.3	6,878.5	265.6	225.8	-111.14	1,382.9	-3,645.0	6,534.2	6,073.8	460.35	14.194	
14,862.2	6,864.0	14,796.3	6,878.5	267.3	225.8	-111.14	1,382.9	-3,645.0	6,596.3	6,134.4	461.97	14.279	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 0-MWMD													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		
14,900.0	6,864.0	14,796.3	6,878.5	268.3	225.8	-111.14	1,382.9	-3,645.0	6,634.2	6,171.2	462.96	14.330		
14,960.6	6,864.0	14,796.3	6,878.5	270.0	225.8	-111.14	1,382.9	-3,645.0	6,694.7	6,230.2	464.54	14.411		
15,000.0	6,864.0	14,796.3	6,878.5	271.1	225.8	-111.14	1,382.9	-3,645.0	6,734.1	6,268.6	465.57	14.464		
15,059.0	6,864.0	14,796.3	6,878.5	272.7	225.8	-111.14	1,382.9	-3,645.0	6,793.2	6,326.0	467.11	14.543		
15,100.0	6,864.0	14,796.3	6,878.5	273.9	225.8	-111.14	1,382.9	-3,645.0	6,834.1	6,365.9	468.18	14.597		
15,157.4	6,864.0	14,796.3	6,878.5	275.5	225.8	-111.14	1,382.9	-3,645.0	6,891.6	6,421.9	469.68	14.673		
15,200.0	6,864.0	14,796.3	6,878.5	276.6	225.8	-111.14	1,382.9	-3,645.0	6,934.1	6,463.3	470.79	14.729		
15,255.9	6,864.0	14,796.3	6,878.5	278.2	225.8	-111.14	1,382.9	-3,645.0	6,990.0	6,517.7	472.25	14.801		
15,300.0	6,864.0	14,796.3	6,878.5	279.4	225.8	-111.14	1,382.9	-3,645.0	7,034.1	6,560.7	473.41	14.859		
15,354.3	6,864.0	14,796.3	6,878.5	280.9	225.8	-111.14	1,382.9	-3,645.0	7,088.4	6,613.6	474.83	14.928		
15,400.0	6,864.0	14,796.3	6,878.5	282.2	225.8	-111.14	1,382.9	-3,645.0	7,134.1	6,658.1	476.02	14.987		
15,452.7	6,864.0	14,796.3	6,878.5	283.6	225.8	-111.14	1,382.9	-3,645.0	7,186.8	6,709.4	477.40	15.054		
15,500.0	6,864.0	14,796.3	6,878.5	284.9	225.8	-111.14	1,382.9	-3,645.0	7,234.1	6,755.5	478.63	15.114		
15,551.1	6,864.0	14,796.3	6,878.5	286.3	225.8	-111.14	1,382.9	-3,645.0	7,285.2	6,805.3	479.97	15.179		
15,600.0	6,864.0	14,796.3	6,878.5	287.7	225.8	-111.14	1,382.9	-3,645.0	7,334.1	6,852.8	481.25	15.240		
15,649.6	6,864.0	14,796.3	6,878.5	289.1	225.8	-111.14	1,382.9	-3,645.0	7,383.7	6,901.1	482.54	15.302		
15,700.0	6,864.0	14,796.3	6,878.5	290.5	225.8	-111.14	1,382.9	-3,645.0	7,434.1	6,950.2	483.86	15.364		
15,748.0	6,864.0	14,796.3	6,878.5	291.8	225.8	-111.14	1,382.9	-3,645.0	7,482.1	6,997.0	485.11	15.423		
15,800.0	6,864.0	14,796.3	6,878.5	293.2	225.8	-111.14	1,382.9	-3,645.0	7,534.1	7,047.6	486.47	15.487		
15,846.4	6,864.0	14,796.3	6,878.5	294.5	225.8	-111.14	1,382.9	-3,645.0	7,580.5	7,092.8	487.69	15.544		
15,900.0	6,864.0	14,796.3	6,878.5	296.0	225.8	-111.14	1,382.9	-3,645.0	7,634.1	7,145.0	489.09	15.609		
15,944.8	6,864.0	14,796.3	6,878.5	297.3	225.8	-111.14	1,382.9	-3,645.0	7,678.9	7,188.6	490.26	15.663		
16,000.0	6,864.0	14,796.3	6,878.5	298.8	225.8	-111.14	1,382.9	-3,645.0	7,734.1	7,242.4	491.70	15.729		
16,043.3	6,864.0	14,796.3	6,878.5	300.0	225.8	-111.14	1,382.9	-3,645.0	7,777.3	7,284.5	492.84	15.781		
16,100.0	6,864.0	14,796.3	6,878.5	301.6	225.8	-111.14	1,382.9	-3,645.0	7,834.0	7,339.7	494.32	15.848		
16,141.7	6,864.0	14,796.3	6,878.5	302.7	225.8	-111.14	1,382.9	-3,645.0	7,875.7	7,380.3	495.41	15.897		
16,200.0	6,864.0	14,796.3	6,878.5	304.3	225.8	-111.14	1,382.9	-3,645.0	7,934.0	7,437.1	496.94	15.966		
16,240.1	6,864.0	14,796.3	6,878.5	305.4	225.8	-111.14	1,382.9	-3,645.0	7,974.2	7,476.2	497.99	16.013		
16,300.0	6,864.0	14,796.3	6,878.5	307.1	225.8	-111.14	1,382.9	-3,645.0	8,034.0	7,534.5	499.55	16.082		
16,338.5	6,864.0	14,796.3	6,878.5	308.2	225.8	-111.14	1,382.9	-3,645.0	8,072.6	7,572.0	500.56	16.127		
16,400.0	6,864.0	14,796.3	6,878.5	309.9	225.8	-111.14	1,382.9	-3,645.0	8,134.0	7,631.9	502.17	16.198		
16,437.0	6,864.0	14,796.3	6,878.5	310.9	225.8	-111.14	1,382.9	-3,645.0	8,171.0	7,667.9	503.14	16.240		
16,500.0	6,864.0	14,796.3	6,878.5	312.7	225.8	-111.14	1,382.9	-3,645.0	8,234.0	7,729.2	504.79	16.312		
16,535.4	6,864.0	14,796.3	6,878.5	313.6	225.8	-111.14	1,382.9	-3,645.0	8,269.4	7,763.7	505.71	16.352		
16,600.0	6,864.0	14,796.3	6,878.5	315.4	225.8	-111.14	1,382.9	-3,645.0	8,334.0	7,826.6	507.41	16.425		
16,633.8	6,864.0	14,796.3	6,878.5	316.4	225.8	-111.14	1,382.9	-3,645.0	8,367.8	7,859.5	508.29	16.463		
16,700.0	6,864.0	14,796.3	6,878.5	318.2	225.8	-111.14	1,382.9	-3,645.0	8,434.0	7,924.0	510.02	16.536		
16,732.2	6,864.0	14,796.3	6,878.5	319.1	225.8	-111.14	1,382.9	-3,645.0	8,466.3	7,955.4	510.87	16.572		
16,800.0	6,864.0	14,796.3	6,878.5	321.0	225.8	-111.14	1,382.9	-3,645.0	8,534.0	8,021.4	512.64	16.647		
16,830.7	6,864.0	14,796.3	6,878.5	321.8	225.8	-111.14	1,382.9	-3,645.0	8,564.7	8,051.2	513.45	16.681		
16,900.0	6,864.0	14,796.3	6,878.5	323.8	225.8	-111.14	1,382.9	-3,645.0	8,634.0	8,118.7	515.26	16.757		
16,929.1	6,864.0	14,796.3	6,878.5	324.6	225.8	-111.14	1,382.9	-3,645.0	8,663.1	8,147.1	516.02	16.788		
17,000.0	6,864.0	14,796.3	6,878.5	326.5	225.8	-111.14	1,382.9	-3,645.0	8,734.0	8,216.1	517.88	16.865		
17,027.5	6,864.0	14,796.3	6,878.5	327.3	225.8	-111.14	1,382.9	-3,645.0	8,761.5	8,242.9	518.60	16.894		
17,100.0	6,864.0	14,796.3	6,878.5	329.3	225.8	-111.14	1,382.9	-3,645.0	8,834.0	8,313.5	520.50	16.972		
17,125.9	6,864.0	14,796.3	6,878.5	330.0	225.8	-111.14	1,382.9	-3,645.0	8,859.9	8,338.8	521.18	17.000		
17,200.0	6,864.0	14,796.3	6,878.5	332.1	225.8	-111.14	1,382.9	-3,645.0	8,934.0	8,410.9	523.12	17.078		
17,224.4	6,864.0	14,796.3	6,878.5	332.8	225.8	-111.14	1,382.9	-3,645.0	8,958.4	8,434.6	523.76	17.104		
17,300.0	6,864.0	14,796.3	6,878.5	334.9	225.8	-111.14	1,382.9	-3,645.0	9,034.0	8,508.2	525.74	17.183		
17,322.8	6,864.0	14,796.3	6,878.5	335.5	225.8	-111.14	1,382.9	-3,645.0	9,056.8	8,530.4	526.34	17.207		
17,400.0	6,864.0	14,796.3	6,878.5	337.7	225.8	-111.14	1,382.9	-3,645.0	9,134.0	8,605.6	528.36	17.287		
17,421.2	6,864.0	14,796.3	6,878.5	338.3	225.8	-111.14	1,382.9	-3,645.0	9,155.2	8,626.3	528.92	17.309		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - CARLSON C-15-16HN - Wellbore #1 - Design #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	
17,500.0	6,864.0	14,796.3	6,878.5	340.4	225.8	-111.14	1,382.9	-3,645.0	9,234.0	8,703.0	530.98	17.390	
17,519.6	6,864.0	14,796.3	6,878.5	341.0	225.8	-111.14	1,382.9	-3,645.0	9,253.6	8,722.1	531.50	17.410	
17,600.0	6,864.0	14,796.3	6,878.5	343.2	225.8	-111.14	1,382.9	-3,645.0	9,334.0	8,800.4	533.60	17.492	
17,618.1	6,864.0	14,796.3	6,878.5	343.7	225.8	-111.14	1,382.9	-3,645.0	9,352.0	8,818.0	534.08	17.511	
17,700.0	6,864.0	14,796.3	6,878.5	346.0	225.8	-111.14	1,382.9	-3,645.0	9,434.0	8,897.7	536.22	17.593	
17,716.5	6,864.0	14,796.3	6,878.5	346.5	225.8	-111.14	1,382.9	-3,645.0	9,450.5	8,913.8	536.66	17.610	
17,800.0	6,864.0	14,796.3	6,878.5	348.8	225.8	-111.14	1,382.9	-3,645.0	9,533.9	8,995.1	538.84	17.693	
17,814.9	6,864.0	14,796.3	6,878.5	349.2	225.8	-111.14	1,382.9	-3,645.0	9,548.9	9,009.6	539.24	17.708	
17,900.0	6,864.0	14,796.3	6,878.5	351.6	225.8	-111.14	1,382.9	-3,645.0	9,633.9	9,092.5	541.47	17.792	
17,913.3	6,864.0	14,796.3	6,878.5	351.9	225.8	-111.14	1,382.9	-3,645.0	9,647.3	9,105.5	541.82	17.805	
18,000.0	6,864.0	14,796.3	6,878.5	354.4	225.8	-111.14	1,382.9	-3,645.0	9,733.9	9,189.8	544.09	17.890	
18,011.8	6,864.0	14,796.3	6,878.5	354.7	225.8	-111.14	1,382.9	-3,645.0	9,745.7	9,201.3	544.40	17.902	
18,100.0	6,864.0	14,796.3	6,878.5	357.1	225.8	-111.14	1,382.9	-3,645.0	9,833.9	9,287.2	546.71	17.987	
18,110.2	6,864.0	14,796.3	6,878.5	357.4	225.8	-111.14	1,382.9	-3,645.0	9,844.1	9,297.2	546.98	17.997	
18,200.0	6,864.0	14,796.3	6,878.5	359.9	225.8	-111.14	1,382.9	-3,645.0	9,933.9	9,384.6	549.33	18.084	
18,208.6	6,864.0	14,796.3	6,878.5	360.2	225.8	-111.14	1,382.9	-3,645.0	9,942.6	9,393.0	549.56	18.092	

Anticollision Report



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Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												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	-134.49	-65.9	-67.1	95.6				
98.4	98.4	81.6	81.6	0.1	0.0	-134.63	-66.0	-66.9	94.0	93.9	0.14	666.238	
100.0	100.0	83.2	83.2	0.1	0.0	-134.63	-66.1	-66.9	94.0	93.9	0.14	653.676	
196.8	196.8	180.0	180.0	0.3	0.2	-135.03	-66.4	-66.3	93.8	93.3	0.50	187.279	
200.0	200.0	183.2	183.2	0.3	0.2	-135.04	-66.4	-66.3	93.8	93.3	0.51	182.824	
251.3	251.3	234.3	234.3	0.4	0.2	-135.25	-66.6	-66.0	93.8	93.1	0.68	137.569	
295.3	295.3	278.1	278.1	0.5	0.3	-135.40	-66.8	-65.9	93.8	93.0	0.81	115.286	
300.0	300.0	282.8	282.8	0.5	0.3	-135.41	-66.8	-65.9	93.8	93.0	0.83	113.323	
393.7	393.7	376.1	376.1	0.8	0.3	-135.62	-67.3	-65.9	94.2	93.1	1.10	85.735	
400.0	400.0	382.4	382.4	0.8	0.4	-135.63	-67.4	-65.9	94.3	93.1	1.12	84.384	
492.1	492.1	474.5	474.5	1.0	0.4	-135.74	-68.0	-66.2	94.9	93.5	1.38	68.957	
500.0	500.0	482.3	482.3	1.0	0.4	-135.74	-68.0	-66.3	95.0	93.6	1.40	67.908	
590.5	590.5	572.9	572.9	1.2	0.5	-135.77	-68.5	-66.7	95.6	94.0	1.65	58.072	
600.0	600.0	582.3	582.3	1.2	0.5	-135.77	-68.5	-66.7	95.7	94.0	1.67	57.217	
689.0	689.0	671.3	671.3	1.4	0.5	-135.74	-69.0	-67.2	96.3	94.4	1.91	50.370	
700.0	700.0	682.3	682.3	1.4	0.5	-135.75	-69.0	-67.3	96.4	94.5	1.94	49.648	
787.4	787.4	769.6	769.6	1.6	0.6	-135.75	-69.5	-67.7	97.1	94.9	2.17	44.658	
800.0	800.0	782.2	782.2	1.7	0.6	-135.75	-69.6	-67.8	97.2	95.0	2.21	44.029	
885.8	885.8	868.2	868.1	1.9	0.6	-135.70	-70.0	-68.3	97.8	95.4	2.43	40.211	
900.0	900.0	882.4	882.3	1.9	0.6	-135.69	-70.1	-68.4	97.9	95.5	2.47	39.645	
984.2	984.2	966.6	966.6	2.1	0.6	-135.58	-70.3	-68.9	98.5	95.8	2.69	36.615	
1,000.0	1,000.0	982.4	982.4	2.1	0.7	-135.54	-70.4	-69.0	98.6	95.9	2.73	36.104	
1,082.7	1,082.7	1,065.1	1,065.1	2.3	0.7	-67.87	-70.4	-69.7	98.7	95.7	2.98	33.129	
1,100.0	1,100.0	1,082.4	1,082.4	2.3	0.7	-68.10	-70.4	-69.9	98.6	95.5	3.02	32.607	
1,181.1	1,181.0	1,163.5	1,163.4	2.5	0.7	-69.91	-70.3	-70.7	97.6	94.4	3.23	30.246	
1,200.0	1,199.8	1,182.4	1,182.3	2.5	0.7	-70.50	-70.3	-70.9	97.3	94.0	3.27	29.709	
1,279.5	1,279.1	1,261.9	1,261.8	2.7	0.8	-73.77	-70.0	-71.8	95.6	92.1	3.48	27.462	
1,300.0	1,299.5	1,282.3	1,282.3	2.8	0.8	-74.81	-69.9	-72.0	95.1	91.5	3.53	26.904	
1,377.9	1,376.9	1,360.4	1,360.4	3.0	0.8	-79.63	-69.1	-72.9	92.9	89.2	3.74	24.811	
1,400.0	1,398.7	1,382.5	1,382.4	3.0	0.8	-81.24	-68.8	-73.2	92.2	88.4	3.80	24.250	
1,476.4	1,474.2	1,458.9	1,458.8	3.2	0.8	-87.77	-67.3	-73.8	90.1	86.1	4.03	22.367	
1,500.0	1,497.5	1,482.5	1,482.4	3.3	0.8	-90.13	-66.7	-74.0	89.6	85.5	4.10	21.853	
1,566.6	1,562.9	1,548.3	1,548.2	3.5	0.8	-97.54	-65.0	-74.1	88.7	84.4	4.32	20.562 CC	
1,574.8	1,571.0	1,556.4	1,556.3	3.5	0.8	-98.53	-64.8	-74.1	88.8	84.4	4.34	20.439 ES	
1,604.5	1,600.0	1,585.5	1,585.4	3.6	0.8	-102.22	-64.0	-74.0	89.1	84.6	4.44	20.071	
1,669.5	1,663.6	1,649.3	1,649.2	3.9	0.8	-110.45	-62.3	-73.8	91.1	86.5	4.66	19.563	
1,673.2	1,667.2	1,653.0	1,652.9	3.9	0.8	-110.91	-62.2	-73.8	91.3	86.7	4.67	19.546	
1,700.0	1,693.4	1,679.3	1,679.1	4.0	0.9	-114.25	-61.4	-73.6	92.8	88.0	4.76	19.479 SF	
1,771.6	1,763.1	1,748.9	1,748.7	4.3	0.9	-123.18	-59.3	-73.0	98.9	93.8	5.01	19.716	
1,800.0	1,790.5	1,776.3	1,776.1	4.4	0.9	-126.61	-58.5	-72.7	102.2	97.1	5.11	20.024	
1,870.1	1,858.1	1,843.4	1,843.2	4.7	0.9	-134.55	-56.6	-71.7	113.1	107.7	5.35	21.151	
1,900.0	1,886.8	1,871.9	1,871.7	4.8	0.9	-137.65	-55.8	-71.2	118.8	113.3	5.44	21.831	
1,968.5	1,952.2	1,936.8	1,936.5	5.2	0.9	-144.07	-54.1	-69.9	134.1	128.4	5.66	23.676	
2,000.0	1,982.0	1,966.4	1,966.1	5.4	0.9	-146.70	-53.2	-69.2	142.1	136.4	5.76	24.683	
2,066.9	2,045.2	2,028.6	2,028.2	5.7	0.9	-151.61	-51.5	-67.5	161.2	155.2	5.97	27.001	
2,100.0	2,076.2	2,058.8	2,058.4	5.9	0.9	-153.71	-50.7	-66.5	171.6	165.5	6.07	28.276	
2,165.3	2,137.1	2,118.1	2,117.6	6.4	0.9	-157.30	-49.3	-64.4	194.0	187.8	6.28	30.909	
2,200.0	2,169.1	2,149.3	2,148.9	6.6	1.0	-158.94	-48.7	-63.3	206.9	200.5	6.39	32.397	
2,263.8	2,227.7	2,206.3	2,205.8	7.1	1.0	-161.54	-47.7	-61.0	231.9	225.4	6.60	35.168	
2,300.0	2,260.7	2,238.6	2,238.1	7.4	1.0	-162.82	-47.2	-59.7	247.0	240.3	6.71	36.810	
2,362.2	2,316.9	2,293.5	2,292.9	7.9	1.0	-164.72	-46.4	-57.6	274.1	267.2	6.92	39.607	
2,400.0	2,350.8	2,326.3	2,325.7	8.2	1.0	-165.71	-46.1	-56.2	291.3	284.3	7.05	41.346	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,460.6	2,404.6	2,378.3	2,377.6	8.7	1.0	-167.09	-45.6	-54.1	320.1	312.8	7.26	44.095	
2,500.0	2,439.3	2,411.8	2,411.1	9.1	1.0	-167.88	-45.3	-52.6	339.5	332.1	7.40	45.913	
2,559.0	2,490.8	2,462.0	2,461.2	9.7	1.0	-168.94	-45.0	-50.4	369.7	362.1	7.61	48.575	
2,600.0	2,526.2	2,496.4	2,495.6	10.1	1.0	-169.59	-44.7	-48.9	391.3	383.5	7.76	50.439	
2,657.5	2,575.3	2,544.6	2,543.7	10.7	1.0	-170.42	-44.4	-46.8	422.5	414.5	7.97	52.986	
2,700.0	2,611.2	2,579.8	2,578.9	11.2	1.0	-170.98	-44.1	-45.2	446.2	438.1	8.13	54.881	
2,755.9	2,658.0	2,625.1	2,624.2	11.8	1.1	-171.62	-43.7	-43.2	478.2	469.9	8.35	57.283	
2,800.0	2,694.4	2,660.0	2,659.1	12.3	1.1	-172.08	-43.4	-41.6	504.2	495.7	8.52	59.185	
2,840.0	2,727.1	2,691.3	2,690.3	12.8	1.1	-172.46	-43.2	-40.2	528.2	519.6	8.68	60.872	
2,854.3	2,738.8	2,702.5	2,701.5	13.0	1.1	-172.61	-43.1	-39.7	537.0	528.2	8.74	61.457	
2,900.0	2,776.0	2,739.2	2,738.2	13.6	1.1	-173.09	-42.8	-38.0	564.7	555.8	8.92	63.273	
2,952.7	2,818.9	2,781.6	2,780.5	14.3	1.1	-173.59	-42.5	-36.1	596.8	587.6	9.15	65.245	
3,000.0	2,857.4	2,819.8	2,818.7	14.9	1.1	-174.00	-42.2	-34.4	625.4	616.1	9.34	66.936	
3,051.2	2,899.1	2,861.3	2,860.2	15.5	1.1	-174.39	-41.9	-32.7	656.5	646.9	9.56	68.654	
3,100.0	2,938.8	2,901.0	2,899.8	16.1	1.1	-174.74	-41.5	-31.0	686.0	676.2	9.77	70.219	
3,149.6	2,979.2	2,940.0	2,938.8	16.8	1.1	-175.04	-41.2	-29.5	716.0	706.1	9.99	71.699	
3,200.0	3,020.2	2,979.6	2,978.3	17.4	1.1	-175.32	-40.9	-27.9	746.6	736.4	10.21	73.142	
3,248.0	3,059.3	3,018.4	3,017.1	18.0	1.1	-175.57	-40.7	-26.4	775.7	765.3	10.42	74.439	
3,300.0	3,101.6	3,061.9	3,060.6	18.7	1.2	-175.83	-40.5	-24.8	807.1	796.5	10.65	75.775	
3,346.4	3,139.5	3,101.0	3,099.6	19.3	1.2	-176.04	-40.2	-23.4	835.1	824.3	10.86	76.896	
3,400.0	3,183.1	3,145.2	3,143.9	20.0	1.2	-176.27	-39.8	-21.9	867.3	856.2	11.10	78.133	
3,444.9	3,219.6	3,182.4	3,181.0	20.6	1.2	-176.44	-39.6	-20.8	894.3	882.9	11.30	79.108	
3,500.0	3,264.5	3,227.0	3,225.6	21.3	1.2	-176.62	-39.3	-19.5	927.3	915.7	11.56	80.241	
3,543.3	3,299.7	3,261.5	3,260.1	21.9	1.2	-176.75	-39.2	-18.6	953.2	941.5	11.76	81.078	
3,600.0	3,345.9	3,306.9	3,305.4	22.6	1.2	-176.89	-39.2	-17.4	987.2	975.2	12.02	82.129	
3,641.7	3,379.8	3,340.8	3,339.3	23.2	1.2	-176.99	-39.3	-16.5	1,012.2	1,000.0	12.22	82.854	
3,700.0	3,427.3	3,388.2	3,386.8	23.9	1.2	-177.11	-39.4	-15.4	1,047.1	1,034.6	12.49	83.825	
3,740.1	3,460.0	3,420.8	3,419.3	24.5	1.2	-177.19	-39.5	-14.7	1,071.1	1,058.4	12.68	84.459	
3,800.0	3,508.7	3,469.3	3,467.8	25.2	1.3	-177.29	-39.7	-13.6	1,106.9	1,093.9	12.97	85.366	
3,838.6	3,540.1	3,500.5	3,499.0	25.8	1.3	-177.35	-39.9	-12.9	1,129.9	1,116.8	13.15	85.922	
3,900.0	3,590.1	3,549.6	3,548.1	26.6	1.3	-177.45	-40.1	-11.9	1,166.6	1,153.2	13.45	86.769	
3,937.0	3,620.2	3,579.2	3,577.7	27.1	1.3	-177.50	-40.3	-11.3	1,188.8	1,175.1	13.62	87.256	
4,000.0	3,671.5	3,627.9	3,626.4	27.9	1.3	-177.58	-40.5	-10.2	1,226.4	1,212.5	13.93	88.054	
4,035.4	3,700.4	3,654.7	3,653.2	28.4	1.3	-177.63	-40.7	-9.6	1,247.7	1,233.6	14.10	88.485	
4,100.0	3,752.9	3,703.5	3,701.9	29.2	1.3	-177.69	-41.2	-8.4	1,286.5	1,272.1	14.41	89.249	
4,133.8	3,780.5	3,729.7	3,728.2	29.7	1.3	-177.73	-41.4	-7.8	1,306.9	1,292.3	14.58	89.628	
4,200.0	3,834.3	3,780.9	3,779.4	30.5	1.3	-177.80	-41.9	-6.5	1,346.7	1,331.8	14.91	90.350	
4,232.3	3,860.6	3,806.1	3,804.5	31.0	1.3	-177.83	-42.1	-5.8	1,366.2	1,351.1	15.06	90.689	
4,300.0	3,915.8	3,860.4	3,858.8	31.9	1.4	-177.90	-42.6	-4.3	1,407.1	1,391.7	15.40	91.379	
4,330.7	3,940.8	3,885.0	3,883.4	32.3	1.4	-177.93	-42.8	-3.6	1,425.6	1,410.0	15.55	91.679	
4,400.0	3,997.2	3,950.1	3,948.4	33.2	1.4	-178.01	-43.1	-1.9	1,467.3	1,451.4	15.89	92.320	
4,429.1	4,020.9	3,979.1	3,977.5	33.6	1.4	-178.05	-43.2	-1.4	1,484.6	1,468.6	16.04	92.569	
4,500.0	4,078.6	4,051.7	4,050.0	34.5	1.4	-178.14	-43.1	-0.3	1,526.5	1,510.1	16.39	93.157	
4,527.5	4,101.0	4,080.4	4,078.7	34.9	1.4	-178.18	-43.0	-0.1	1,542.6	1,526.1	16.52	93.370	
4,600.0	4,160.0	4,149.6	4,148.0	35.8	1.4	-178.26	-42.5	0.1	1,584.7	1,567.8	16.88	93.900	
4,626.0	4,181.1	4,173.7	4,172.0	36.2	1.4	-178.28	-42.3	0.1	1,599.6	1,582.6	17.00	94.078	
4,700.0	4,241.4	4,238.6	4,236.9	37.2	1.4	-178.35	-41.8	-0.2	1,642.2	1,624.8	17.37	94.553	
4,724.4	4,261.3	4,259.2	4,257.5	37.5	1.4	-178.37	-41.6	-0.3	1,656.2	1,638.7	17.49	94.701	
4,800.0	4,322.8	4,322.1	4,320.5	38.5	1.4	-178.42	-41.1	-0.6	1,699.6	1,681.7	17.86	95.140	
4,822.8	4,341.4	4,340.7	4,339.0	38.8	1.4	-178.44	-40.9	-0.7	1,712.7	1,694.7	17.98	95.265	
4,900.0	4,404.2	4,403.4	4,401.7	39.8	1.5	-178.49	-40.3	-1.0	1,757.0	1,738.6	18.36	95.678	
4,921.2	4,421.5	4,421.4	4,419.7	40.1	1.5	-178.51	-40.2	-1.1	1,769.1	1,750.7	18.47	95.784	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													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		
5,000.0	4,485.6	4,488.2	4,486.5	41.2	1.5	-178.56	-39.6	-1.6	1,814.3	1,795.4	18.87	96.164		
5,019.7	4,501.7	4,504.5	4,502.8	41.4	1.5	-178.57	-39.5	-1.7	1,825.5	1,806.6	18.97	96.255		
5,100.0	4,567.1	4,567.5	4,565.8	42.5	1.5	-178.62	-39.0	-2.1	1,871.6	1,852.2	19.37	96.624		
5,118.1	4,581.8	4,581.7	4,580.0	42.7	1.5	-178.63	-38.9	-2.2	1,882.0	1,862.5	19.46	96.705		
5,200.0	4,648.5	4,646.9	4,645.2	43.8	1.5	-178.67	-38.6	-2.6	1,929.0	1,909.1	19.88	97.055		
5,216.5	4,661.9	4,660.2	4,658.5	44.1	1.5	-178.67	-38.5	-2.7	1,938.5	1,918.5	19.96	97.122		
5,300.0	4,729.9	4,727.0	4,725.3	45.2	1.5	-178.71	-38.2	-3.0	1,986.5	1,966.1	20.38	97.455		
5,314.9	4,742.0	4,738.9	4,737.3	45.4	1.5	-178.72	-38.2	-3.1	1,995.1	1,974.7	20.46	97.513		
5,400.0	4,811.3	4,806.7	4,805.0	46.5	1.5	-178.75	-37.9	-3.4	2,044.1	2,023.2	20.89	97.834		
5,413.4	4,822.2	4,817.2	4,815.5	46.7	1.5	-178.76	-37.9	-3.4	2,051.8	2,030.9	20.96	97.883		
5,500.0	4,892.7	4,884.8	4,883.1	47.8	1.5	-178.79	-37.6	-3.6	2,101.8	2,080.4	21.40	98.195		
5,511.8	4,902.3	4,894.0	4,892.3	48.0	1.5	-178.79	-37.6	-3.6	2,108.6	2,087.2	21.46	98.237		
5,600.0	4,974.1	4,961.6	4,959.9	49.2	1.5	-178.83	-37.3	-3.7	2,159.7	2,137.8	21.92	98.541		
5,610.2	4,982.4	4,969.4	4,967.7	49.3	1.5	-178.83	-37.3	-3.7	2,165.6	2,143.6	21.97	98.575		
5,700.0	5,055.5	5,036.6	5,034.9	50.5	1.5	-178.86	-37.1	-3.6	2,217.7	2,195.3	22.43	98.875		
5,708.6	5,062.6	5,043.0	5,041.3	50.6	1.5	-178.87	-37.0	-3.6	2,222.8	2,200.3	22.47	98.904		
5,800.0	5,136.9	5,110.7	5,109.1	51.8	1.6	-178.90	-37.0	-3.3	2,276.1	2,253.1	22.94	99.200		
5,807.1	5,142.7	5,116.3	5,114.6	51.9	1.6	-178.90	-37.0	-3.3	2,280.2	2,257.2	22.98	99.221		
5,900.0	5,218.3	5,189.2	5,187.6	53.2	1.6	-178.93	-37.0	-2.9	2,334.6	2,311.1	23.46	99.494		
5,905.5	5,222.8	5,193.6	5,191.9	53.3	1.6	-178.93	-37.0	-2.8	2,337.8	2,314.3	23.49	99.510		
6,000.0	5,299.8	5,264.4	5,262.7	54.5	1.6	-178.96	-37.0	-2.3	2,393.2	2,369.2	23.98	99.785		
6,003.9	5,303.0	5,267.3	5,265.7	54.6	1.6	-178.96	-37.0	-2.3	2,395.5	2,371.5	24.00	99.797		
6,100.0	5,381.2	5,344.0	5,342.3	55.9	1.6	-178.99	-37.1	-1.5	2,452.0	2,427.5	24.51	100.055		
6,102.3	5,383.1	5,345.9	5,344.3	55.9	1.6	-178.99	-37.1	-1.5	2,453.4	2,428.9	24.52	100.061		
6,200.0	5,462.6	5,429.1	5,427.4	57.2	1.6	-179.03	-36.9	-0.7	2,510.7	2,485.7	25.03	100.295		
6,200.8	5,463.2	5,429.8	5,428.1	57.2	1.6	-179.03	-36.9	-0.7	2,511.2	2,486.2	25.04	100.297		
6,299.2	5,543.3	5,514.7	5,513.0	58.5	1.6	-179.07	-36.5	0.0	2,568.8	2,543.3	25.56	100.515		
6,300.0	5,544.0	5,515.4	5,513.7	58.5	1.6	-179.07	-36.5	0.0	2,569.3	2,543.7	25.56	100.517		
6,397.6	5,623.5	5,596.2	5,594.5	59.8	1.7	-179.11	-36.0	0.7	2,626.4	2,600.3	26.07	100.725		
6,400.0	5,625.4	5,598.2	5,596.5	59.9	1.7	-179.11	-36.0	0.7	2,627.8	2,601.7	26.09	100.730		
6,496.0	5,703.6	5,657.0	5,655.3	61.2	1.7	-179.14	-35.7	1.3	2,684.2	2,657.6	26.58	100.978		
6,500.0	5,706.8	5,659.4	5,657.7	61.2	1.7	-179.14	-35.7	1.3	2,686.5	2,659.9	26.60	100.989		
6,594.5	5,783.7	5,721.4	5,719.7	62.5	1.7	-179.16	-35.7	2.4	2,742.5	2,715.4	27.09	101.226		
6,600.0	5,788.2	5,725.8	5,724.0	62.5	1.7	-179.17	-35.7	2.5	2,745.8	2,718.7	27.12	101.237		
6,692.9	5,863.9	5,800.0	5,798.3	63.8	1.7	-179.19	-35.7	3.8	2,801.0	2,773.4	27.62	101.418		
6,700.0	5,869.6	5,805.4	5,803.7	63.9	1.7	-179.19	-35.7	3.9	2,805.3	2,777.6	27.66	101.433		
6,791.3	5,944.0	5,881.2	5,879.5	65.1	1.7	-179.22	-36.0	5.2	2,859.6	2,831.4	28.15	101.600		
6,800.0	5,951.0	5,888.4	5,886.7	65.2	1.7	-179.22	-36.1	5.3	2,864.7	2,836.5	28.19	101.615		
6,889.7	6,024.1	5,965.3	5,963.6	66.4	1.8	-179.23	-36.6	6.4	2,918.0	2,889.3	28.68	101.760		
6,900.0	6,032.5	5,974.2	5,972.4	66.6	1.8	-179.23	-36.6	6.6	2,924.0	2,895.3	28.73	101.775		
6,988.2	6,104.2	6,047.1	6,045.4	67.7	1.8	-179.25	-37.0	7.5	2,976.3	2,947.1	29.20	101.911		
7,000.0	6,113.9	6,056.7	6,054.9	67.9	1.8	-179.25	-37.1	7.6	2,983.3	2,954.0	29.27	101.930		
7,086.6	6,184.4	6,129.2	6,127.4	69.1	1.8	-179.26	-37.6	8.5	3,034.5	3,004.8	29.74	102.051		
7,100.0	6,195.3	6,141.0	6,139.2	69.2	1.8	-179.26	-37.6	8.7	3,042.4	3,012.6	29.81	102.067		
7,185.0	6,264.5	6,215.0	6,213.3	70.4	1.8	-179.27	-38.0	9.5	3,092.6	3,062.4	30.27	102.165		
7,200.0	6,276.7	6,227.4	6,225.6	70.6	1.8	-179.27	-38.1	9.6	3,101.5	3,071.1	30.35	102.184		
7,283.4	6,344.6	6,296.0	6,294.3	71.7	1.8	-179.29	-38.2	10.3	3,150.6	3,119.8	30.80	102.284		
7,300.0	6,358.1	6,309.7	6,307.9	71.9	1.8	-179.29	-38.3	10.5	3,160.4	3,129.5	30.89	102.303		
7,381.9	6,424.8	6,377.5	6,375.7	73.0	1.8	-179.31	-38.3	11.2	3,208.6	3,177.3	31.34	102.391		
7,400.0	6,439.5	6,392.5	6,390.7	73.2	1.8	-179.31	-38.4	11.3	3,219.3	3,187.9	31.44	102.410		
7,480.3	6,504.9	6,459.8	6,458.0	74.3	1.9	-179.32	-38.5	12.0	3,266.5	3,234.7	31.87	102.485		
7,492.5	6,514.8	6,470.1	6,468.3	74.5	1.9	-179.33	-38.5	12.1	3,273.7	3,241.8	31.94	102.496		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT													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		
7,500.0	6,520.9	6,476.3	6,474.6	74.6	1.9	-179.32	-38.5	12.1	3,278.2	3,246.1	32.02	102.381		
7,550.0	6,559.9	6,516.8	6,515.0	75.3	1.9	-179.28	-38.6	12.5	3,309.8	3,277.3	32.44	102.027		
7,578.7	6,581.0	6,538.9	6,537.1	75.8	1.9	-179.25	-38.6	12.7	3,329.4	3,296.8	32.60	102.139		
7,600.0	6,596.0	6,554.6	6,552.8	76.2	1.9	-179.22	-38.6	12.8	3,344.6	3,312.0	32.67	102.385		
7,650.0	6,628.9	6,589.0	6,587.3	77.1	1.9	-179.15	-38.7	13.0	3,382.5	3,349.8	32.69	103.462		
7,677.1	6,645.4	6,605.9	6,604.1	77.6	1.9	-179.10	-38.7	13.2	3,404.2	3,371.5	32.62	104.349		
7,700.0	6,658.5	6,618.8	6,617.0	78.1	1.9	-179.06	-38.8	13.2	3,423.0	3,390.5	32.51	105.280		
7,750.0	6,684.4	6,644.4	6,642.6	79.2	1.9	-178.92	-38.8	13.4	3,465.9	3,433.8	32.13	107.873		
7,775.6	6,696.2	6,656.0	6,654.2	79.7	1.9	-178.83	-38.8	13.5	3,488.7	3,456.8	31.86	109.511		
7,800.0	6,706.5	6,666.1	6,664.3	80.3	1.9	-178.73	-38.8	13.6	3,510.9	3,479.3	31.55	111.290		
7,848.3	6,724.1	6,683.3	6,681.5	81.5	1.9	-178.43	-38.9	13.7	3,556.0	3,525.2	30.81	115.408		
7,874.0	6,732.4	6,691.4	6,689.6	82.1	1.9	-178.44	-38.9	13.8	3,580.4	3,549.4	30.99	115.535		
7,900.0	6,740.9	6,699.7	6,697.9	82.7	1.9	-178.45	-38.9	13.8	3,605.0	3,573.8	31.17	115.662		
7,972.4	6,764.4	6,700.0	6,698.2	84.5	1.9	-178.45	-38.9	13.8	3,673.8	3,642.1	31.64	116.121		
8,000.0	6,773.3	6,700.0	6,698.2	85.2	1.9	-178.45	-38.9	13.8	3,700.0	3,668.2	31.82	116.293		
8,070.8	6,796.3	6,700.0	6,698.2	86.9	1.9	-178.45	-38.9	13.8	3,767.4	3,735.1	32.28	116.724		
8,100.0	6,805.7	6,700.0	6,698.2	87.6	1.9	-178.45	-38.9	13.8	3,795.2	3,762.7	32.47	116.899		
8,135.3	6,817.2	6,700.0	6,698.2	88.5	1.9	-178.45	-38.9	13.8	3,828.8	3,796.1	32.70	117.106		
8,150.0	6,821.8	6,700.0	6,698.2	88.8	1.9	-174.16	-38.9	13.8	3,842.9	3,809.1	33.83	113.598		
8,169.3	6,827.6	6,700.0	6,698.2	89.3	1.9	-167.92	-38.9	13.8	3,861.5	3,823.9	37.54	102.852		
8,200.0	6,835.9	6,700.0	6,698.2	90.1	1.9	-156.48	-38.9	13.8	3,891.2	3,843.0	48.20	80.735		
8,250.0	6,847.2	6,700.0	6,698.2	91.4	1.9	-135.09	-38.9	13.8	3,939.8	3,869.4	70.35	56.004		
8,267.7	6,850.5	6,700.0	6,698.2	91.8	1.9	-127.41	-38.9	13.8	3,957.0	3,879.9	77.14	51.295		
8,300.0	6,855.7	6,700.0	6,698.2	92.6	1.9	-114.42	-38.9	13.8	3,988.4	3,902.3	86.09	46.330		
8,350.0	6,861.2	6,700.0	6,698.2	93.9	1.9	-98.41	-38.9	13.8	4,036.6	3,944.8	91.77	43.986		
8,366.1	6,862.4	6,700.0	6,698.2	94.3	1.9	-94.35	-38.9	13.8	4,052.0	3,959.8	92.20	43.949		
8,400.0	6,863.8	6,700.0	6,698.2	95.1	1.9	-87.32	-38.9	13.8	4,084.1	3,992.2	91.91	44.434		
8,418.2	6,864.0	6,700.0	6,698.2	95.5	1.9	-84.25	-38.9	13.8	4,101.2	4,009.9	91.30	44.918		
8,464.5	6,864.0	6,700.0	6,698.2	96.6	1.9	-84.25	-38.9	13.8	4,144.4	4,051.9	92.47	44.817		
8,500.0	6,864.0	6,700.0	6,698.2	97.5	1.9	-84.25	-38.9	13.8	4,177.5	4,084.1	93.37	44.741		
8,563.0	6,864.0	6,700.0	6,698.2	99.0	1.9	-84.25	-38.9	13.8	4,236.4	4,141.4	94.98	44.605		
8,600.0	6,864.0	6,700.0	6,698.2	99.9	1.9	-84.25	-38.9	13.8	4,271.1	4,175.2	95.92	44.528		
8,661.4	6,864.0	6,700.0	6,698.2	101.4	1.9	-84.25	-38.9	13.8	4,328.7	4,231.2	97.49	44.400		
8,700.0	6,864.0	6,700.0	6,698.2	102.4	1.9	-84.25	-38.9	13.8	4,365.0	4,266.5	98.48	44.322		
8,759.8	6,864.0	6,700.0	6,698.2	103.8	1.9	-84.25	-38.9	13.8	4,421.3	4,321.3	100.02	44.202		
8,800.0	6,864.0	6,700.0	6,698.2	104.8	1.9	-84.25	-38.9	13.8	4,459.2	4,358.1	101.06	44.124		
8,858.2	6,864.0	6,700.0	6,698.2	106.3	1.9	-84.25	-38.9	13.8	4,514.1	4,411.6	102.57	44.012		
8,900.0	6,864.0	6,700.0	6,698.2	107.3	1.9	-84.25	-38.9	13.8	4,553.6	4,449.9	103.65	43.934		
8,956.7	6,864.0	6,700.0	6,698.2	108.7	1.9	-84.25	-38.9	13.8	4,607.2	4,502.1	105.12	43.828		
9,000.0	6,864.0	6,700.0	6,698.2	109.8	1.9	-84.25	-38.9	13.8	4,648.2	4,542.0	106.25	43.750		
9,055.1	6,864.0	6,700.0	6,698.2	111.2	1.9	-84.25	-38.9	13.8	4,700.5	4,592.8	107.68	43.651		
9,100.0	6,864.0	6,700.0	6,698.2	112.3	1.9	-84.25	-38.9	13.8	4,743.1	4,634.2	108.85	43.573		
9,153.5	6,864.0	6,700.0	6,698.2	113.7	1.9	-84.25	-38.9	13.8	4,793.9	4,683.7	110.26	43.480		
9,200.0	6,864.0	6,700.0	6,698.2	114.8	1.9	-84.25	-38.9	13.8	4,838.2	4,726.7	111.47	43.402		
9,251.9	6,864.0	6,700.0	6,698.2	116.2	1.9	-84.25	-38.9	13.8	4,887.6	4,774.8	112.84	43.316		
9,300.0	6,864.0	6,700.0	6,698.2	117.4	1.9	-84.25	-38.9	13.8	4,933.4	4,819.3	114.10	43.238		
9,350.4	6,864.0	6,700.0	6,698.2	118.7	1.9	-84.25	-38.9	13.8	4,981.5	4,866.1	115.43	43.157		
9,400.0	6,864.0	6,700.0	6,698.2	119.9	1.9	-84.25	-38.9	13.8	5,028.9	4,912.1	116.73	43.080		
9,448.8	6,864.0	6,700.0	6,698.2	121.2	1.9	-84.25	-38.9	13.8	5,075.5	4,957.5	118.02	43.004		
9,500.0	6,864.0	6,700.0	6,698.2	122.5	1.9	-84.25	-38.9	13.8	5,124.5	5,005.1	119.38	42.927		
9,547.2	6,864.0	6,700.0	6,698.2	123.7	1.9	-84.25	-38.9	13.8	5,169.7	5,049.1	120.63	42.857		
9,600.0	6,864.0	6,700.0	6,698.2	125.1	1.9	-84.25	-38.9	13.8	5,220.3	5,098.3	122.03	42.780		

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,645.6	6,864.0	6,700.0	6,698.2	126.2	1.9	-84.25	-38.9	13.8	5,264.1	5,140.8	123.24	42.714	
9,700.0	6,864.0	6,700.0	6,698.2	127.6	1.9	-84.25	-38.9	13.8	5,316.2	5,191.5	124.68	42.638	
9,744.1	6,864.0	6,700.0	6,698.2	128.8	1.9	-84.25	-38.9	13.8	5,358.6	5,232.7	125.86	42.577	
9,800.0	6,864.0	6,700.0	6,698.2	130.2	1.9	-84.25	-38.9	13.8	5,412.3	5,285.0	127.34	42.501	
9,842.5	6,864.0	6,700.0	6,698.2	131.3	1.9	-84.25	-38.9	13.8	5,453.2	5,324.7	128.48	42.444	
9,900.0	6,864.0	6,700.0	6,698.2	132.8	1.9	-84.25	-38.9	13.8	5,508.5	5,378.5	130.01	42.369	
9,940.9	6,864.0	6,700.0	6,698.2	133.9	1.9	-84.25	-38.9	13.8	5,548.0	5,416.9	131.11	42.316	
10,000.0	6,864.0	6,700.0	6,698.2	135.4	1.9	-84.25	-38.9	13.8	5,604.9	5,472.2	132.69	42.242	
10,039.3	6,864.0	6,700.0	6,698.2	136.5	1.9	-84.25	-38.9	13.8	5,642.9	5,509.1	133.74	42.193	
10,100.0	6,864.0	6,700.0	6,698.2	138.1	1.9	-84.25	-38.9	13.8	5,701.4	5,566.0	135.37	42.119	
10,137.8	6,864.0	6,700.0	6,698.2	139.0	1.9	-84.25	-38.9	13.8	5,737.9	5,601.5	136.38	42.073	
10,200.0	6,864.0	6,700.0	6,698.2	140.7	1.9	-84.25	-38.9	13.8	5,798.0	5,659.9	138.05	42.000	
10,236.2	6,864.0	6,700.0	6,698.2	141.6	1.9	-84.25	-38.9	13.8	5,833.0	5,694.0	139.02	41.957	
10,300.0	6,864.0	6,700.0	6,698.2	143.3	1.9	-84.25	-38.9	13.8	5,894.7	5,754.0	140.74	41.885	
10,334.6	6,864.0	6,700.0	6,698.2	144.2	1.9	-84.25	-38.9	13.8	5,928.2	5,786.6	141.67	41.846	
10,400.0	6,864.0	6,700.0	6,698.2	145.9	1.9	-84.25	-38.9	13.8	5,991.5	5,848.1	143.43	41.774	
10,433.0	6,864.0	6,700.0	6,698.2	146.8	1.9	-84.25	-38.9	13.8	6,023.6	5,879.2	144.32	41.737	
10,500.0	6,864.0	6,700.0	6,698.2	148.6	1.9	-84.25	-38.9	13.8	6,088.5	5,942.3	146.13	41.666	
10,531.5	6,864.0	6,700.0	6,698.2	149.4	1.9	-84.25	-38.9	13.8	6,119.0	5,972.0	146.98	41.633	
10,600.0	6,864.0	6,700.0	6,698.2	151.2	1.9	-84.25	-38.9	13.8	6,185.5	6,036.7	148.83	41.562	
10,629.9	6,864.0	6,700.0	6,698.2	152.0	1.9	-84.25	-38.9	13.8	6,214.5	6,064.9	149.63	41.532	
10,700.0	6,864.0	6,700.0	6,698.2	153.9	1.9	-84.25	-38.9	13.8	6,282.6	6,131.1	151.53	41.461	
10,728.3	6,864.0	6,700.0	6,698.2	154.6	1.9	-84.25	-38.9	13.8	6,310.1	6,157.8	152.30	41.433	
10,800.0	6,864.0	6,700.0	6,698.2	156.6	1.9	-84.25	-38.9	13.8	6,379.8	6,225.6	154.24	41.364	
10,826.7	6,864.0	6,700.0	6,698.2	157.3	1.9	-84.25	-38.9	13.8	6,405.8	6,250.9	154.96	41.338	
10,900.0	6,864.0	6,700.0	6,698.2	159.2	1.9	-84.25	-38.9	13.8	6,477.1	6,320.2	156.95	41.270	
10,925.2	6,864.0	6,700.0	6,698.2	159.9	1.9	-84.25	-38.9	13.8	6,501.6	6,344.0	157.63	41.246	
11,000.0	6,864.0	6,700.0	6,698.2	161.9	1.9	-84.25	-38.9	13.8	6,574.5	6,414.8	159.66	41.178	
11,023.6	6,864.0	6,700.0	6,698.2	162.5	1.9	-84.25	-38.9	13.8	6,597.5	6,437.2	160.30	41.157	
11,100.0	6,864.0	6,700.0	6,698.2	164.6	1.9	-84.25	-38.9	13.8	6,671.9	6,509.6	162.38	41.089	
11,122.0	6,864.0	6,700.0	6,698.2	165.2	1.9	-84.25	-38.9	13.8	6,693.4	6,530.4	162.98	41.070	
11,200.0	6,864.0	6,700.0	6,698.2	167.2	1.9	-84.25	-38.9	13.8	6,769.5	6,604.4	165.10	41.003	
11,220.4	6,864.0	6,700.0	6,698.2	167.8	1.9	-84.25	-38.9	13.8	6,789.4	6,623.8	165.65	40.986	
11,300.0	6,864.0	6,700.0	6,698.2	169.9	1.9	-84.25	-38.9	13.8	6,867.1	6,699.3	167.82	40.920	
11,318.9	6,864.0	6,700.0	6,698.2	170.4	1.9	-84.25	-38.9	13.8	6,885.5	6,717.2	168.33	40.904	
11,400.0	6,864.0	6,700.0	6,698.2	172.6	1.9	-84.25	-38.9	13.8	6,964.7	6,794.2	170.54	40.839	
11,417.3	6,864.0	6,700.0	6,698.2	173.1	1.9	-84.25	-38.9	13.8	6,981.6	6,810.6	171.01	40.825	
11,500.0	6,864.0	6,700.0	6,698.2	175.3	1.9	-84.25	-38.9	13.8	7,062.5	6,889.2	173.27	40.760	
11,515.7	6,864.0	6,700.0	6,698.2	175.7	1.9	-84.25	-38.9	13.8	7,077.8	6,904.1	173.70	40.748	
11,600.0	6,864.0	6,700.0	6,698.2	178.0	1.9	-84.25	-38.9	13.8	7,160.3	6,984.3	176.00	40.684	
11,614.1	6,864.0	6,700.0	6,698.2	178.4	1.9	-84.25	-38.9	13.8	7,174.1	6,997.7	176.38	40.673	
11,700.0	6,864.0	6,700.0	6,698.2	180.7	1.9	-84.25	-38.9	13.8	7,258.1	7,079.4	178.73	40.610	
11,712.6	6,864.0	6,700.0	6,698.2	181.0	1.9	-84.25	-38.9	13.8	7,270.4	7,091.4	179.07	40.601	
11,800.0	6,864.0	6,700.0	6,698.2	183.4	1.9	-84.25	-38.9	13.8	7,356.0	7,174.6	181.46	40.538	
11,811.0	6,864.0	6,700.0	6,698.2	183.7	1.9	-84.25	-38.9	13.8	7,366.8	7,185.0	181.76	40.530	
11,900.0	6,864.0	6,700.0	6,698.2	186.1	1.9	-84.25	-38.9	13.8	7,454.0	7,269.8	184.20	40.468	
11,909.4	6,864.0	6,700.0	6,698.2	186.4	1.9	-84.25	-38.9	13.8	7,463.2	7,278.8	184.45	40.461	
12,000.0	6,864.0	6,700.0	6,698.2	188.8	1.9	-84.25	-38.9	13.8	7,552.0	7,365.1	186.93	40.399	
12,007.8	6,864.0	6,700.0	6,698.2	189.0	1.9	-84.25	-38.9	13.8	7,559.7	7,372.6	187.15	40.394	
12,100.0	6,864.0	6,700.0	6,698.2	191.5	1.9	-84.25	-38.9	13.8	7,650.1	7,460.4	189.67	40.333	
12,106.3	6,864.0	6,700.0	6,698.2	191.7	1.9	-84.25	-38.9	13.8	7,656.3	7,466.4	189.84	40.329	
12,200.0	6,864.0	6,700.0	6,698.2	194.3	1.9	-84.25	-38.9	13.8	7,748.2	7,555.8	192.41	40.269	

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

Anticollision Report



Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Offset Design SW NW SEC. 15 T5N R65W 6th P.M. - EXIST VERT SANDUSKY #1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.0 usft
Survey Program: 100-GYD_CT												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,204.7	6,864.0	6,700.0	6,698.2	194.4	1.9	-84.25	-38.9	13.8	7,752.8	7,560.3	192.54	40.266	
12,300.0	6,864.0	6,700.0	6,698.2	197.0	1.9	-84.25	-38.9	13.8	7,846.4	7,651.2	195.16	40.206	
12,303.1	6,864.0	6,700.0	6,698.2	197.1	1.9	-84.25	-38.9	13.8	7,849.5	7,654.2	195.24	40.204	
12,400.0	6,864.0	6,700.0	6,698.2	199.7	1.9	-84.25	-38.9	13.8	7,944.6	7,746.7	197.90	40.145	
12,401.5	6,864.0	6,700.0	6,698.2	199.7	1.9	-84.25	-38.9	13.8	7,946.1	7,748.2	197.94	40.144	
12,500.0	6,864.0	6,700.0	6,698.2	202.4	1.9	-84.25	-38.9	13.8	8,042.9	7,842.2	200.64	40.085	
12,598.4	6,864.0	6,700.0	6,698.2	205.1	1.9	-84.25	-38.9	13.8	8,139.6	7,936.2	203.35	40.028	
12,600.0	6,864.0	6,700.0	6,698.2	205.1	1.9	-84.25	-38.9	13.8	8,141.2	7,937.8	203.39	40.027	
12,696.8	6,864.0	6,700.0	6,698.2	207.8	1.9	-84.25	-38.9	13.8	8,236.4	8,030.3	206.05	39.972	
12,700.0	6,864.0	6,700.0	6,698.2	207.9	1.9	-84.25	-38.9	13.8	8,239.5	8,033.4	206.14	39.970	
12,795.2	6,864.0	6,700.0	6,698.2	210.5	1.9	-84.25	-38.9	13.8	8,333.2	8,124.5	208.76	39.918	
12,800.0	6,864.0	6,700.0	6,698.2	210.6	1.9	-84.25	-38.9	13.8	8,337.9	8,129.0	208.89	39.915	
12,893.7	6,864.0	6,700.0	6,698.2	213.2	1.9	-84.25	-38.9	13.8	8,430.1	8,218.6	211.47	39.865	
12,900.0	6,864.0	6,700.0	6,698.2	213.3	1.9	-84.25	-38.9	13.8	8,436.3	8,224.7	211.64	39.862	
12,992.1	6,864.0	6,700.0	6,698.2	215.9	1.9	-84.25	-38.9	13.8	8,527.0	8,312.8	214.17	39.813	
13,000.0	6,864.0	6,700.0	6,698.2	216.1	1.9	-84.25	-38.9	13.8	8,534.8	8,320.4	214.39	39.809	
13,090.5	6,864.0	6,700.0	6,698.2	218.5	1.9	-84.25	-38.9	13.8	8,623.9	8,407.0	216.88	39.763	
13,100.0	6,864.0	6,700.0	6,698.2	218.8	1.9	-84.25	-38.9	13.8	8,633.3	8,416.1	217.15	39.758	
13,188.9	6,864.0	6,700.0	6,698.2	221.2	1.9	-84.25	-38.9	13.8	8,720.9	8,501.3	219.60	39.713	
13,200.0	6,864.0	6,700.0	6,698.2	221.5	1.9	-84.25	-38.9	13.8	8,731.8	8,511.9	219.90	39.708	
13,287.4	6,864.0	6,700.0	6,698.2	223.9	1.9	-84.25	-38.9	13.8	8,817.9	8,595.6	222.31	39.665	
13,300.0	6,864.0	6,700.0	6,698.2	224.3	1.9	-84.25	-38.9	13.8	8,830.3	8,607.7	222.66	39.659	
13,385.8	6,864.0	6,700.0	6,698.2	226.6	1.9	-84.25	-38.9	13.8	8,914.9	8,689.9	225.02	39.618	
13,400.0	6,864.0	6,700.0	6,698.2	227.0	1.9	-84.25	-38.9	13.8	8,928.9	8,703.5	225.41	39.612	
13,484.2	6,864.0	6,700.0	6,698.2	229.3	1.9	-84.25	-38.9	13.8	9,012.0	8,784.3	227.73	39.572	
13,500.0	6,864.0	6,700.0	6,698.2	229.8	1.9	-84.25	-38.9	13.8	9,027.5	8,799.4	228.17	39.565	
13,582.6	6,864.0	6,700.0	6,698.2	232.0	1.9	-84.25	-38.9	13.8	9,109.1	8,878.6	230.45	39.527	
13,600.0	6,864.0	6,700.0	6,698.2	232.5	1.9	-84.25	-38.9	13.8	9,126.2	8,895.3	230.93	39.520	
13,681.1	6,864.0	6,700.0	6,698.2	234.7	1.9	-84.25	-38.9	13.8	9,206.2	8,973.0	233.17	39.484	
13,700.0	6,864.0	6,700.0	6,698.2	235.3	1.9	-84.25	-38.9	13.8	9,224.9	8,991.2	233.69	39.475	
13,779.5	6,864.0	6,700.0	6,698.2	237.4	1.9	-84.25	-38.9	13.8	9,303.4	9,067.5	235.88	39.441	
13,800.0	6,864.0	6,700.0	6,698.2	238.0	1.9	-84.25	-38.9	13.8	9,323.6	9,087.1	236.45	39.432	
13,877.9	6,864.0	6,700.0	6,698.2	240.2	1.9	-84.25	-38.9	13.8	9,400.5	9,161.9	238.60	39.399	
13,900.0	6,864.0	6,700.0	6,698.2	240.8	1.9	-84.25	-38.9	13.8	9,422.3	9,183.1	239.21	39.389	
13,976.3	6,864.0	6,700.0	6,698.2	242.9	1.9	-84.25	-38.9	13.8	9,497.7	9,256.4	241.32	39.358	
14,000.0	6,864.0	6,700.0	6,698.2	243.5	1.9	-84.25	-38.9	13.8	9,521.1	9,279.1	241.97	39.348	
14,074.8	6,864.0	6,700.0	6,698.2	245.6	1.9	-84.25	-38.9	13.8	9,595.0	9,350.9	244.04	39.318	
14,100.0	6,864.0	6,700.0	6,698.2	246.3	1.9	-84.25	-38.9	13.8	9,619.9	9,375.1	244.73	39.307	
14,173.2	6,864.0	6,700.0	6,698.2	248.3	1.9	-84.25	-38.9	13.8	9,692.2	9,445.5	246.76	39.278	
14,200.0	6,864.0	6,700.0	6,698.2	249.0	1.9	-84.25	-38.9	13.8	9,718.7	9,471.2	247.50	39.268	
14,271.6	6,864.0	6,700.0	6,698.2	251.0	1.9	-84.25	-38.9	13.8	9,789.5	9,540.0	249.48	39.240	
14,300.0	6,864.0	6,700.0	6,698.2	251.8	1.9	-84.25	-38.9	13.8	9,817.5	9,567.3	250.26	39.229	
14,370.0	6,864.0	6,700.0	6,698.2	253.7	1.9	-84.25	-38.9	13.8	9,886.8	9,634.6	252.20	39.202	
14,400.0	6,864.0	6,700.0	6,698.2	254.5	1.9	-84.25	-38.9	13.8	9,916.4	9,663.4	253.03	39.191	
14,468.5	6,864.0	6,700.0	6,698.2	256.4	1.9	-84.25	-38.9	13.8	9,984.1	9,729.2	254.92	39.165	

Company:	EXTRACTION OIL & GAS	Local Co-ordinate Reference:	Well VT-GLENMERE 3-16-18
Project:	WELD COUNTY, COLORADO (NAD 83)	TVD Reference:	KB-EST @ 4663.0usft
Reference Site:	SW NW SEC. 15 T5N R65W 6th P.M.	MD Reference:	KB-EST @ 4663.0usft
Site Error:	0.0 usft	North Reference:	True
Reference Well:	VT-GLENMERE 3-16-18	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 #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB-EST @ 4663.0usft

Offset Depths are relative to Offset Datum

Central Meridian is -105.500000

Coordinates are relative to: VT-GLENMERE 3-16-18

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.55°

Separation Factor Plot

