

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 15-T4S-R65W

LONE TREE 4-65 15-16 2BH

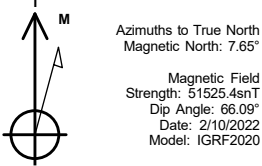
OWB

Plan: PROPOSAL 1

Standard Planning Report

11 February, 2022

Project: ARAPAHOE COUNTY
Site: SEC 15-T4S-R65W
Well: LONE TREE 4-65 15-16 2BH
Wellbore: OWB
Design: PROPOSAL 1



WELL DETAILS: LONE TREE 4-65 15-16 2BH

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1683380.17	3241109.43	39.706558°N	104.643033°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	696.56	8.93	128.66	694.75	-21.70	27.12	2.00	128.66	-25.25	
4	7394.03	8.93	128.66	7311.02	-671.19	839.07	0.00	0.00	-780.98	
5	8363.33	90.00	269.67	7950.00	-737.64	270.67	10.00	140.67	-209.04	LP-LT 4-65
6	18253.56	90.00	269.67	7950.00	-794.47	-9619.39	0.00	0.00	9652.14	PBHL-LT 4-

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	Start Build 2.00
696.56	8.93	128.66	694.75	-21.70	27.12	-25.25	34.73	Start 6697.47 hold at 696.56 MD
7394.03	8.93	128.66	7311.02	-671.19	839.07	-780.98	1074.50	Start DLS 10.00 TFO 140.67
8363.33	90.00	269.67	7950.00	-737.64	270.67	-209.04	1665.25	Start 9890.22 hold at 8363.33 MD
18253.56	90.00	269.67	7950.00	-794.47	-9619.39	9652.14	11555.48	TD at 18253.56

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP-LT 4-65 2BH	7950.00	-737.64	270.67	1682645.13	3241387.05	39.704533°N	104.642071°W	Point
PBHL-LT 4-65 2BH	7950.00	-794.47	-9619.39	1682495.00	3231498.05	39.704372°N	104.677221°W	Point
- plan hits target center								

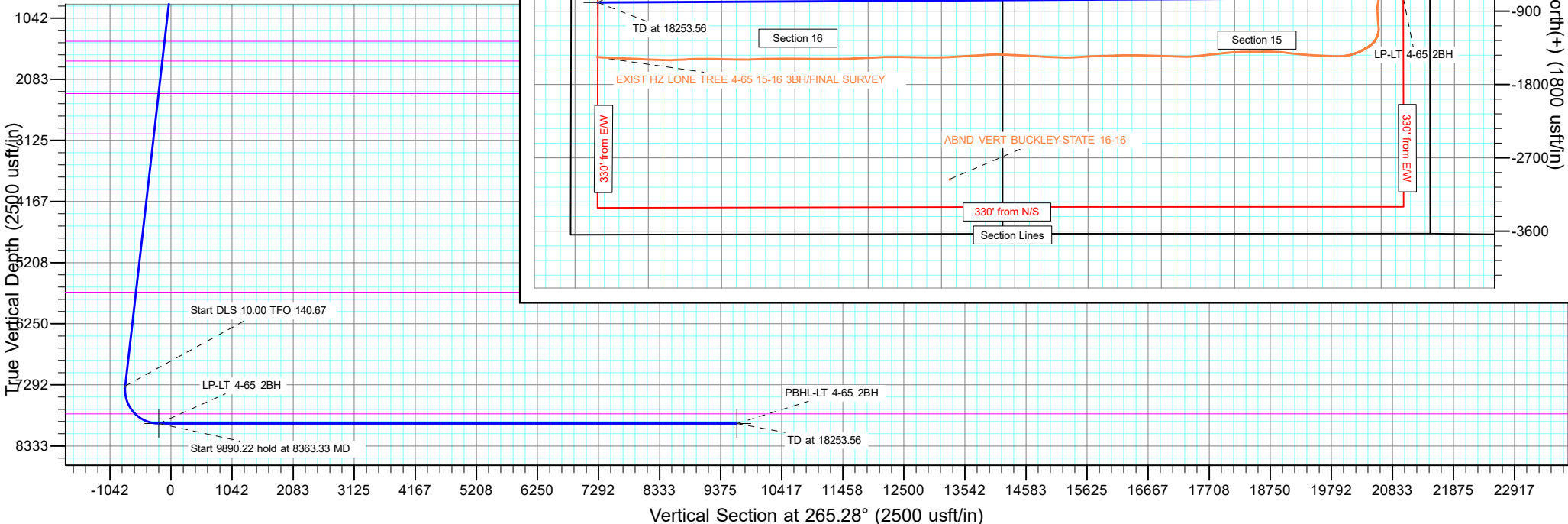
PROJECT DETAILS: ARAPAHOE COUNTY

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone
System Datum: Mean Sea Level

SHL:
1669' FNL, 600' FEL
Sec 15-T4S-R65W

LP:
2410' FNL, 330' FEL
Sec 15-T4S-R65W

BHL:
2410' FNL, 330' FWL
Sec 16-T4S-R65W



Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Project	ARAPAHOE COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		SEC 15-T4S-R65W			
Site Position:		Northing:	1,685,061.36 usft	Latitude:	39.711158°N
From:	Lat/Long	Easting:	3,241,690.88 usft	Longitude:	104.640910°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well	LONE TREE 4-65 15-16 2BH					
Well Position	+N/-S	-1,675.63 usft	Northing:	1,683,380.17 usft	Latitude:	39.706558°N
	+E/-W	-597.32 usft	Easting:	3,241,109.43 usft	Longitude:	104.643033°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,693.40 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	2/10/2022	7.65	66.09	51,525.38796151

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	265.28

Plan Survey Tool Program	Date	2/11/2022		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,253.56 PROPOSAL 1 (OWB)	MWD OWSG	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
696.56	8.93	128.66	694.75	-21.70	27.12	2.00	2.00	0.00	128.66	
7,394.03	8.93	128.66	7,311.02	-671.19	839.07	0.00	0.00	0.00	0.00	
8,363.33	90.00	269.67	7,950.00	-737.64	270.67	10.00	8.36	14.55	140.67	LP-LT 4-65 2BH
18,253.56	90.00	269.67	7,950.00	-794.47	-9,619.39	0.00	0.00	0.00	0.00	PBHL-LT 4-65 2BH

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
300.00	1.00	128.66	300.00	-0.27	0.34	-0.32	2.00	2.00	0.00
400.00	3.00	128.66	399.93	-2.45	3.07	-2.85	2.00	2.00	0.00
500.00	5.00	128.66	499.68	-6.81	8.51	-7.92	2.00	2.00	0.00
600.00	7.00	128.66	599.13	-13.34	16.68	-15.52	2.00	2.00	0.00
696.56	8.93	128.66	694.75	-21.70	27.12	-25.25	2.00	2.00	0.00
Start 6697.47 hold at 696.56 MD									
700.00	8.93	128.66	698.15	-22.03	27.54	-25.63	0.00	0.00	0.00
800.00	8.93	128.66	796.94	-31.73	39.66	-36.92	0.00	0.00	0.00
900.00	8.93	128.66	895.73	-41.43	51.79	-48.20	0.00	0.00	0.00
1,000.00	8.93	128.66	994.51	-51.12	63.91	-59.49	0.00	0.00	0.00
1,100.00	8.93	128.66	1,093.30	-60.82	76.03	-70.77	0.00	0.00	0.00
1,200.00	8.93	128.66	1,192.09	-70.52	88.16	-82.05	0.00	0.00	0.00
1,300.00	8.93	128.66	1,290.88	-80.22	100.28	-93.34	0.00	0.00	0.00
1,400.00	8.93	128.66	1,389.67	-89.91	112.40	-104.62	0.00	0.00	0.00
1,444.88	8.93	128.66	1,434.00	-94.27	117.84	-109.69	0.00	0.00	0.00
Laramie									
1,500.00	8.93	128.66	1,488.45	-99.61	124.53	-115.91	0.00	0.00	0.00
1,600.00	8.93	128.66	1,587.24	-109.31	136.65	-127.19	0.00	0.00	0.00
1,700.00	8.93	128.66	1,686.03	-119.01	148.77	-138.47	0.00	0.00	0.00
1,787.03	8.93	128.66	1,772.00	-127.45	159.32	-148.29	0.00	0.00	0.00
Fox Hills									
1,800.00	8.93	128.66	1,784.82	-128.70	160.90	-149.76	0.00	0.00	0.00
1,900.00	8.93	128.66	1,883.60	-138.40	173.02	-161.04	0.00	0.00	0.00
2,000.00	8.93	128.66	1,982.39	-148.10	185.14	-172.32	0.00	0.00	0.00
2,100.00	8.93	128.66	2,081.18	-157.80	197.27	-183.61	0.00	0.00	0.00
2,200.00	8.93	128.66	2,179.97	-167.49	209.39	-194.89	0.00	0.00	0.00
2,300.00	8.93	128.66	2,278.75	-177.19	221.51	-206.18	0.00	0.00	0.00
2,346.81	8.93	128.66	2,325.00	-181.73	227.19	-211.46	0.00	0.00	0.00
Upper Pierre aquifer									
2,400.00	8.93	128.66	2,377.54	-186.89	233.64	-217.46	0.00	0.00	0.00
2,500.00	8.93	128.66	2,476.33	-196.59	245.76	-228.74	0.00	0.00	0.00
2,600.00	8.93	128.66	2,575.12	-206.29	257.88	-240.03	0.00	0.00	0.00
2,700.00	8.93	128.66	2,673.90	-215.98	270.01	-251.31	0.00	0.00	0.00
2,800.00	8.93	128.66	2,772.69	-225.68	282.13	-262.60	0.00	0.00	0.00
2,900.00	8.93	128.66	2,871.48	-235.38	294.25	-273.88	0.00	0.00	0.00
3,000.00	8.93	128.66	2,970.27	-245.08	306.37	-285.16	0.00	0.00	0.00
3,043.26	8.93	128.66	3,013.00	-249.27	311.62	-290.04	0.00	0.00	0.00
Base of Upper Pierre aquifer									
3,100.00	8.93	128.66	3,069.05	-254.77	318.50	-296.45	0.00	0.00	0.00
3,200.00	8.93	128.66	3,167.84	-264.47	330.62	-307.73	0.00	0.00	0.00
3,300.00	8.93	128.66	3,266.63	-274.17	342.74	-319.01	0.00	0.00	0.00
3,400.00	8.93	128.66	3,365.42	-283.87	354.87	-330.30	0.00	0.00	0.00
3,500.00	8.93	128.66	3,464.20	-293.56	366.99	-341.58	0.00	0.00	0.00
3,600.00	8.93	128.66	3,562.99	-303.26	379.11	-352.87	0.00	0.00	0.00
3,700.00	8.93	128.66	3,661.78	-312.96	391.24	-364.15	0.00	0.00	0.00
3,800.00	8.93	128.66	3,760.57	-322.66	403.36	-375.43	0.00	0.00	0.00
3,900.00	8.93	128.66	3,859.35	-332.35	415.48	-386.72	0.00	0.00	0.00
4,000.00	8.93	128.66	3,958.14	-342.05	427.61	-398.00	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,100.00	8.93	128.66	4,056.93	-351.75	439.73	-409.29	0.00	0.00	0.00
4,200.00	8.93	128.66	4,155.72	-361.45	451.85	-420.57	0.00	0.00	0.00
4,300.00	8.93	128.66	4,254.50	-371.15	463.98	-431.85	0.00	0.00	0.00
4,400.00	8.93	128.66	4,353.29	-380.84	476.10	-443.14	0.00	0.00	0.00
4,500.00	8.93	128.66	4,452.08	-390.54	488.22	-454.42	0.00	0.00	0.00
4,600.00	8.93	128.66	4,550.87	-400.24	500.35	-465.70	0.00	0.00	0.00
4,700.00	8.93	128.66	4,649.65	-409.94	512.47	-476.99	0.00	0.00	0.00
4,800.00	8.93	128.66	4,748.44	-419.63	524.59	-488.27	0.00	0.00	0.00
4,900.00	8.93	128.66	4,847.23	-429.33	536.72	-499.56	0.00	0.00	0.00
5,000.00	8.93	128.66	4,946.02	-439.03	548.84	-510.84	0.00	0.00	0.00
5,100.00	8.93	128.66	5,044.81	-448.73	560.96	-522.12	0.00	0.00	0.00
5,200.00	8.93	128.66	5,143.59	-458.42	573.09	-533.41	0.00	0.00	0.00
5,300.00	8.93	128.66	5,242.38	-468.12	585.21	-544.69	0.00	0.00	0.00
5,400.00	8.93	128.66	5,341.17	-477.82	597.33	-555.98	0.00	0.00	0.00
5,500.00	8.93	128.66	5,439.96	-487.52	609.46	-567.26	0.00	0.00	0.00
5,600.00	8.93	128.66	5,538.74	-497.21	621.58	-578.54	0.00	0.00	0.00
5,700.00	8.93	128.66	5,637.53	-506.91	633.70	-589.83	0.00	0.00	0.00
5,779.43	8.93	128.66	5,716.00	-514.61	643.33	-598.79	0.00	0.00	0.00
Terry ("Sussex") - Hygiene ("Shannon") - Mitten - Mitten Marker 1 - Teepee Buttes - Mitten Marker 2 - Sharon Springs									
5,800.00	8.93	128.66	5,736.32	-516.61	645.82	-601.11	0.00	0.00	0.00
5,900.00	8.93	128.66	5,835.11	-526.31	657.95	-612.39	0.00	0.00	0.00
6,000.00	8.93	128.66	5,933.89	-536.00	670.07	-623.68	0.00	0.00	0.00
6,100.00	8.93	128.66	6,032.68	-545.70	682.19	-634.96	0.00	0.00	0.00
6,200.00	8.93	128.66	6,131.47	-555.40	694.32	-646.25	0.00	0.00	0.00
6,300.00	8.93	128.66	6,230.26	-565.10	706.44	-657.53	0.00	0.00	0.00
6,400.00	8.93	128.66	6,329.04	-574.80	718.56	-668.81	0.00	0.00	0.00
6,500.00	8.93	128.66	6,427.83	-584.49	730.69	-680.10	0.00	0.00	0.00
6,600.00	8.93	128.66	6,526.62	-594.19	742.81	-691.38	0.00	0.00	0.00
6,700.00	8.93	128.66	6,625.41	-603.89	754.93	-702.67	0.00	0.00	0.00
6,800.00	8.93	128.66	6,724.19	-613.59	767.06	-713.95	0.00	0.00	0.00
6,900.00	8.93	128.66	6,822.98	-623.28	779.18	-725.23	0.00	0.00	0.00
7,000.00	8.93	128.66	6,921.77	-632.98	791.30	-736.52	0.00	0.00	0.00
7,100.00	8.93	128.66	7,020.56	-642.68	803.43	-747.80	0.00	0.00	0.00
7,200.00	8.93	128.66	7,119.34	-652.38	815.55	-759.08	0.00	0.00	0.00
7,300.00	8.93	128.66	7,218.13	-662.07	827.67	-770.37	0.00	0.00	0.00
7,394.03	8.93	128.66	7,311.02	-671.19	839.07	-780.98	0.00	0.00	0.00
Start DLS 10.00 TFO 140.67									
7,400.00	8.48	131.23	7,316.92	-671.77	839.77	-781.62	10.00	-7.59	43.00
7,450.00	5.80	166.36	7,366.55	-676.66	843.14	-784.58	10.00	-5.35	70.27
7,500.00	6.73	212.75	7,416.28	-681.58	842.15	-783.19	10.00	1.86	92.77
7,550.00	10.33	236.83	7,465.74	-686.50	836.81	-777.46	10.00	7.21	48.16
7,600.00	14.77	247.64	7,514.54	-691.38	827.15	-767.44	10.00	8.87	21.62
7,650.00	19.47	253.43	7,562.31	-696.19	813.26	-753.20	10.00	9.41	11.59
7,700.00	24.29	257.02	7,608.70	-700.88	795.24	-734.85	10.00	9.64	7.17
7,750.00	29.17	259.47	7,653.34	-705.42	773.23	-712.54	10.00	9.76	4.90
7,800.00	34.08	261.27	7,695.91	-709.77	747.38	-686.42	10.00	9.82	3.60
7,850.00	39.01	262.66	7,736.06	-713.91	717.91	-656.71	10.00	9.86	2.79
7,900.00	43.96	263.79	7,773.51	-717.80	685.03	-623.62	10.00	9.89	2.25
7,916.19	45.56	264.11	7,785.00	-719.01	673.70	-612.23	10.00	9.90	1.99
Niobrara									
7,950.00	48.91	264.72	7,807.96	-721.42	648.99	-587.41	10.00	9.91	1.83
8,000.00	53.87	265.53	7,839.15	-724.73	610.07	-548.35	10.00	9.92	1.61
8,050.00	58.84	266.24	7,866.84	-727.70	568.57	-506.74	10.00	9.93	1.42

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,100.00	63.80	266.88	7,890.83	-730.33	524.80	-462.90	10.00	9.94	1.28	
8,150.00	68.78	267.47	7,910.93	-732.58	479.09	-417.16	10.00	9.94	1.17	
8,200.00	73.75	268.02	7,926.99	-734.43	431.79	-369.87	10.00	9.95	1.10	
8,250.00	78.72	268.54	7,938.88	-735.89	383.26	-321.39	10.00	9.95	1.04	
8,300.00	83.70	269.05	7,946.52	-736.93	333.88	-272.09	10.00	9.95	1.01	
8,350.00	88.67	269.54	7,949.85	-737.54	284.01	-222.34	10.00	9.95	0.99	
8,363.33	90.00	269.67	7,950.00	-737.64	270.67	-209.04	10.00	9.95	0.98	
Start 9890.22 hold at 8363.33 MD										
8,400.00	90.00	269.67	7,950.00	-737.85	234.01	-172.48	0.00	0.00	0.00	
8,500.00	90.00	269.67	7,950.00	-738.42	134.01	-72.78	0.00	0.00	0.00	
8,600.00	90.00	269.67	7,950.00	-739.00	34.01	26.93	0.00	0.00	0.00	
8,700.00	90.00	269.67	7,950.00	-739.57	-65.99	126.64	0.00	0.00	0.00	
8,800.00	90.00	269.67	7,950.00	-740.15	-165.98	226.34	0.00	0.00	0.00	
8,900.00	90.00	269.67	7,950.00	-740.72	-265.98	326.05	0.00	0.00	0.00	
9,000.00	90.00	269.67	7,950.00	-741.29	-365.98	425.75	0.00	0.00	0.00	
9,100.00	90.00	269.67	7,950.00	-741.87	-465.98	525.46	0.00	0.00	0.00	
9,200.00	90.00	269.67	7,950.00	-742.44	-565.98	625.17	0.00	0.00	0.00	
9,300.00	90.00	269.67	7,950.00	-743.02	-665.98	724.87	0.00	0.00	0.00	
9,400.00	90.00	269.67	7,950.00	-743.59	-765.97	824.58	0.00	0.00	0.00	
9,500.00	90.00	269.67	7,950.00	-744.17	-865.97	924.29	0.00	0.00	0.00	
9,600.00	90.00	269.67	7,950.00	-744.74	-965.97	1,023.99	0.00	0.00	0.00	
9,700.00	90.00	269.67	7,950.00	-745.32	-1,065.97	1,123.70	0.00	0.00	0.00	
9,800.00	90.00	269.67	7,950.00	-745.89	-1,165.97	1,223.41	0.00	0.00	0.00	
9,900.00	90.00	269.67	7,950.00	-746.47	-1,265.97	1,323.11	0.00	0.00	0.00	
10,000.00	90.00	269.67	7,950.00	-747.04	-1,365.96	1,422.82	0.00	0.00	0.00	
10,100.00	90.00	269.67	7,950.00	-747.62	-1,465.96	1,522.52	0.00	0.00	0.00	
10,200.00	90.00	269.67	7,950.00	-748.19	-1,565.96	1,622.23	0.00	0.00	0.00	
10,300.00	90.00	269.67	7,950.00	-748.77	-1,665.96	1,721.94	0.00	0.00	0.00	
10,400.00	90.00	269.67	7,950.00	-749.34	-1,765.96	1,821.64	0.00	0.00	0.00	
10,500.00	90.00	269.67	7,950.00	-749.92	-1,865.96	1,921.35	0.00	0.00	0.00	
10,600.00	90.00	269.67	7,950.00	-750.49	-1,965.95	2,021.06	0.00	0.00	0.00	
10,700.00	90.00	269.67	7,950.00	-751.06	-2,065.95	2,120.76	0.00	0.00	0.00	
10,800.00	90.00	269.67	7,950.00	-751.64	-2,165.95	2,220.47	0.00	0.00	0.00	
10,900.00	90.00	269.67	7,950.00	-752.21	-2,265.95	2,320.18	0.00	0.00	0.00	
11,000.00	90.00	269.67	7,950.00	-752.79	-2,365.95	2,419.88	0.00	0.00	0.00	
11,100.00	90.00	269.67	7,950.00	-753.36	-2,465.95	2,519.59	0.00	0.00	0.00	
11,200.00	90.00	269.67	7,950.00	-753.94	-2,565.94	2,619.29	0.00	0.00	0.00	
11,300.00	90.00	269.67	7,950.00	-754.51	-2,665.94	2,719.00	0.00	0.00	0.00	
11,400.00	90.00	269.67	7,950.00	-755.09	-2,765.94	2,818.71	0.00	0.00	0.00	
11,500.00	90.00	269.67	7,950.00	-755.66	-2,865.94	2,918.41	0.00	0.00	0.00	
11,600.00	90.00	269.67	7,950.00	-756.24	-2,965.94	3,018.12	0.00	0.00	0.00	
11,700.00	90.00	269.67	7,950.00	-756.81	-3,065.94	3,117.83	0.00	0.00	0.00	
11,800.00	90.00	269.67	7,950.00	-757.39	-3,165.93	3,217.53	0.00	0.00	0.00	
11,900.00	90.00	269.67	7,950.00	-757.96	-3,265.93	3,317.24	0.00	0.00	0.00	
12,000.00	90.00	269.67	7,950.00	-758.54	-3,365.93	3,416.94	0.00	0.00	0.00	
12,100.00	90.00	269.67	7,950.00	-759.11	-3,465.93	3,516.65	0.00	0.00	0.00	
12,200.00	90.00	269.67	7,950.00	-759.69	-3,565.93	3,616.36	0.00	0.00	0.00	
12,300.00	90.00	269.67	7,950.00	-760.26	-3,665.93	3,716.06	0.00	0.00	0.00	
12,400.00	90.00	269.67	7,950.00	-760.83	-3,765.92	3,815.77	0.00	0.00	0.00	
12,500.00	90.00	269.67	7,950.00	-761.41	-3,865.92	3,915.48	0.00	0.00	0.00	
12,600.00	90.00	269.67	7,950.00	-761.98	-3,965.92	4,015.18	0.00	0.00	0.00	
12,700.00	90.00	269.67	7,950.00	-762.56	-4,065.92	4,114.89	0.00	0.00	0.00	
12,800.00	90.00	269.67	7,950.00	-763.13	-4,165.92	4,214.60	0.00	0.00	0.00	
12,900.00	90.00	269.67	7,950.00	-763.71	-4,265.92	4,314.30	0.00	0.00	0.00	

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,000.00	90.00	269.67	7,950.00	-764.28	-4,365.91	4,414.01	0.00	0.00	0.00
13,100.00	90.00	269.67	7,950.00	-764.86	-4,465.91	4,513.71	0.00	0.00	0.00
13,200.00	90.00	269.67	7,950.00	-765.43	-4,565.91	4,613.42	0.00	0.00	0.00
13,300.00	90.00	269.67	7,950.00	-766.01	-4,665.91	4,713.13	0.00	0.00	0.00
13,400.00	90.00	269.67	7,950.00	-766.58	-4,765.91	4,812.83	0.00	0.00	0.00
13,500.00	90.00	269.67	7,950.00	-767.16	-4,865.91	4,912.54	0.00	0.00	0.00
13,600.00	90.00	269.67	7,950.00	-767.73	-4,965.90	5,012.25	0.00	0.00	0.00
13,700.00	90.00	269.67	7,950.00	-768.31	-5,065.90	5,111.95	0.00	0.00	0.00
13,800.00	90.00	269.67	7,950.00	-768.88	-5,165.90	5,211.66	0.00	0.00	0.00
13,900.00	90.00	269.67	7,950.00	-769.45	-5,265.90	5,311.37	0.00	0.00	0.00
14,000.00	90.00	269.67	7,950.00	-770.03	-5,365.90	5,411.07	0.00	0.00	0.00
14,100.00	90.00	269.67	7,950.00	-770.60	-5,465.90	5,510.78	0.00	0.00	0.00
14,200.00	90.00	269.67	7,950.00	-771.18	-5,565.89	5,610.48	0.00	0.00	0.00
14,300.00	90.00	269.67	7,950.00	-771.75	-5,665.89	5,710.19	0.00	0.00	0.00
14,400.00	90.00	269.67	7,950.00	-772.33	-5,765.89	5,809.90	0.00	0.00	0.00
14,500.00	90.00	269.67	7,950.00	-772.90	-5,865.89	5,909.60	0.00	0.00	0.00
14,600.00	90.00	269.67	7,950.00	-773.48	-5,965.89	6,009.31	0.00	0.00	0.00
14,700.00	90.00	269.67	7,950.00	-774.05	-6,065.89	6,109.02	0.00	0.00	0.00
14,800.00	90.00	269.67	7,950.00	-774.63	-6,165.88	6,208.72	0.00	0.00	0.00
14,900.00	90.00	269.67	7,950.00	-775.20	-6,265.88	6,308.43	0.00	0.00	0.00
15,000.00	90.00	269.67	7,950.00	-775.78	-6,365.88	6,408.13	0.00	0.00	0.00
15,100.00	90.00	269.67	7,950.00	-776.35	-6,465.88	6,507.84	0.00	0.00	0.00
15,200.00	90.00	269.67	7,950.00	-776.93	-6,565.88	6,607.55	0.00	0.00	0.00
15,300.00	90.00	269.67	7,950.00	-777.50	-6,665.88	6,707.25	0.00	0.00	0.00
15,400.00	90.00	269.67	7,950.00	-778.08	-6,765.87	6,806.96	0.00	0.00	0.00
15,500.00	90.00	269.67	7,950.00	-778.65	-6,865.87	6,906.67	0.00	0.00	0.00
15,600.00	90.00	269.67	7,950.00	-779.22	-6,965.87	7,006.37	0.00	0.00	0.00
15,700.00	90.00	269.67	7,950.00	-779.80	-7,065.87	7,106.08	0.00	0.00	0.00
15,800.00	90.00	269.67	7,950.00	-780.37	-7,165.87	7,205.79	0.00	0.00	0.00
15,900.00	90.00	269.67	7,950.00	-780.95	-7,265.87	7,305.49	0.00	0.00	0.00
16,000.00	90.00	269.67	7,950.00	-781.52	-7,365.86	7,405.20	0.00	0.00	0.00
16,100.00	90.00	269.67	7,950.00	-782.10	-7,465.86	7,504.90	0.00	0.00	0.00
16,200.00	90.00	269.67	7,950.00	-782.67	-7,565.86	7,604.61	0.00	0.00	0.00
16,300.00	90.00	269.67	7,950.00	-783.25	-7,665.86	7,704.32	0.00	0.00	0.00
16,400.00	90.00	269.67	7,950.00	-783.82	-7,765.86	7,804.02	0.00	0.00	0.00
16,500.00	90.00	269.67	7,950.00	-784.40	-7,865.86	7,903.73	0.00	0.00	0.00
16,600.00	90.00	269.67	7,950.00	-784.97	-7,965.86	8,003.44	0.00	0.00	0.00
16,700.00	90.00	269.67	7,950.00	-785.55	-8,065.85	8,103.14	0.00	0.00	0.00
16,800.00	90.00	269.67	7,950.00	-786.12	-8,165.85	8,202.85	0.00	0.00	0.00
16,900.00	90.00	269.67	7,950.00	-786.70	-8,265.85	8,302.56	0.00	0.00	0.00
17,000.00	90.00	269.67	7,950.00	-787.27	-8,365.85	8,402.26	0.00	0.00	0.00
17,100.00	90.00	269.67	7,950.00	-787.84	-8,465.85	8,501.97	0.00	0.00	0.00
17,200.00	90.00	269.67	7,950.00	-788.42	-8,565.85	8,601.67	0.00	0.00	0.00
17,300.00	90.00	269.67	7,950.00	-788.99	-8,665.84	8,701.38	0.00	0.00	0.00
17,400.00	90.00	269.67	7,950.00	-789.57	-8,765.84	8,801.09	0.00	0.00	0.00
17,500.00	90.00	269.67	7,950.00	-790.14	-8,865.84	8,900.79	0.00	0.00	0.00
17,600.00	90.00	269.67	7,950.00	-790.72	-8,965.84	9,000.50	0.00	0.00	0.00
17,700.00	90.00	269.67	7,950.00	-791.29	-9,065.84	9,100.21	0.00	0.00	0.00
17,800.00	90.00	269.67	7,950.00	-791.87	-9,165.84	9,199.91	0.00	0.00	0.00
17,900.00	90.00	269.67	7,950.00	-792.44	-9,265.83	9,299.62	0.00	0.00	0.00
18,000.00	90.00	269.67	7,950.00	-793.02	-9,365.83	9,399.32	0.00	0.00	0.00
18,100.00	90.00	269.67	7,950.00	-793.59	-9,465.83	9,499.03	0.00	0.00	0.00
18,200.00	90.00	269.67	7,950.00	-794.17	-9,565.83	9,598.74	0.00	0.00	0.00
18,253.56	90.00	269.67	7,950.00	-794.47	-9,619.39	9,652.14	0.00	0.00	0.00

Planning Report

Database:	EDT_32Bit_ODBC	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5718.40usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5718.40usft
Site:	SEC 15-T4S-R65W	North Reference:	True
Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
TD at 18253.56									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LP-LT 4-65 2BH - plan hits target center - Point	0.00	0.00	7,950.00	-737.64	270.67	1,682,645.12	3,241,387.05	39.704533°N	104.642071°W
PBHL-LT 4-65 2BH - plan hits target center - Point	0.00	0.00	7,950.00	-794.47	-9,619.39	1,682,495.00	3,231,498.05	39.704372°N	104.677221°W

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,444.88	1,434.00	Laramie				
1,787.03	1,772.00	Fox Hills				
2,346.81	2,325.00	Upper Pierre aquifer				
3,043.26	3,013.00	Base of Upper Pierre aquifer				
5,779.43	5,716.00	Terry ("Sussex")				
5,779.43	5,716.00	Hygiene ("Shannon")				
5,779.43	5,716.00	Mitten				
5,779.43	5,716.00	Mitten Marker 1				
5,779.43	5,716.00	Tepee Buttes				
5,779.43	5,716.00	Mitten Marker 2				
5,779.43	5,716.00	Sharon Springs				
7,916.19	7,785.00	Niobrara				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
250.00	250.00	0.00	0.00	Start Build 2.00	
696.56	694.75	-21.70	27.12	Start 6697.47 hold at 696.56 MD	
7,394.03	7,311.02	-671.19	839.07	Start DLS 10.00 TFO 140.67	
8,363.33	7,950.00	-737.64	270.67	Start 9890.22 hold at 8363.33 MD	
18,253.56	7,950.00	-794.47	-9,619.39	TD at 18253.56	

CRESTONE PEAK RESOURCES

**ARAPAHOE COUNTY
SEC 15-T4S-R65W
LONE TREE 4-65 15-16 2BH**

**OWB
PROPOSAL 1**

Anticollision Report

11 February, 2022

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference	PROPOSAL 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	2/11/2022		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,253.56	PROPOSAL 1 (OWB)	MWD OWSG	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC 15-T4S-R65W						
ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #	13,945.02	7,921.60	2,192.73	1,894.62	7.355	CC
ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #	14,000.00	7,921.60	2,193.42	1,893.79	7.320	ES
ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #	14,200.00	7,921.60	2,207.50	1,903.21	7.254	SF
ABND VERT STATE-SMITH 1-16 - OWB - Design #1	17,914.46	7,868.60	1,710.37	1,307.59	4.246	CC, ES
ABND VERT STATE-SMITH 1-16 - OWB - Design #1	18,000.00	7,868.60	1,712.51	1,308.02	4.234	SF
EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL	1,218.67	1,209.44	157.36	148.71	18.197	CC
EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL	18,253.56	17,542.00	669.94	137.16	1.257	Level 3, ES, SF
EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FI	6,494.35	6,421.24	331.82	288.80	7.713	CC
EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FI	6,500.00	6,426.67	331.82	288.76	7.705	ES
EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FI	7,200.00	7,119.08	350.89	302.76	7.291	SF
LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1	206.23	211.83	150.07	149.02	142.854	CC
LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1	250.00	255.38	150.08	148.71	110.068	ES
LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1	18,253.56	18,221.72	2,011.28	1,460.78	3.654	SF
LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1	250.00	254.80	100.17	98.81	73.578	CC, ES
LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1	18,253.56	18,230.53	1,339.79	788.98	2.432	SF
LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1	251.13	255.55	49.90	48.54	36.491	CC
LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1	300.00	304.52	50.11	48.41	29.349	ES
LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1	18,250.06	18,143.86	674.56	127.35	1.233	Level 2, SF
LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1	250.00	250.00	49.90	48.56	37.124	CC
LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1	300.00	299.22	50.02	48.34	29.666	ES
LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1	18,253.56	18,477.86	1,249.07	697.71	2.265	SF
LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1	250.00	249.90	99.81	98.47	74.268	CC
LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1	300.00	298.32	99.93	98.25	59.379	ES
LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1	18,253.56	18,570.58	1,850.53	1,299.08	3.356	SF
LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1	250.00	249.90	150.08	148.73	111.673	CC
LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1	300.00	297.51	150.20	148.52	89.398	ES
LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1	18,253.56	18,840.55	2,448.96	1,897.15	4.438	SF
PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSA	206.40	211.60	124.94	123.89	118.959	CC
PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSA	250.00	254.99	124.95	123.59	91.725	ES
PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSA	7,850.00	7,850.00	1,974.44	1,913.75	32.534	SF
PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSA	250.00	254.30	75.04	73.68	55.189	CC, ES
PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSA	7,919.93	7,949.69	1,213.13	1,152.40	19.977	SF
PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSA	643.08	645.37	20.05	15.96	4.896	CC, ES
PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSA	8,026.25	7,971.08	144.35	82.83	2.346	SF
PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSA	250.00	250.00	24.77	23.43	18.427	CC
PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSA	300.00	299.58	24.92	23.23	14.768	ES
PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSA	600.00	596.61	33.80	29.99	8.890	SF

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC 15-T4S-R65W						
PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSA	250.00	250.00	75.04	73.69	55.822	CC
PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSA	300.00	298.75	75.18	73.50	44.638	ES
PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSA	900.00	880.21	110.38	104.31	18.175	SF
PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSA	250.00	249.90	124.95	123.60	92.974	CC
PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSA	300.00	297.84	125.09	123.41	74.405	ES
PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSA	1,100.00	1,056.25	191.01	183.46	25.288	SF
PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSA	250.00	249.90	174.85	173.50	130.104	CC
PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSA	300.00	297.05	174.98	173.30	104.251	ES
PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSA	1,300.00	1,222.90	282.41	273.42	31.400	SF

Offset Design SEC 15-T4S-R65W - ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY													Offset Well Error:	0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-119.21	-2,962.40	-5,298.31	6,070.32					
100.00	100.00	71.60	71.60	0.13	0.56	-119.21	-2,962.40	-5,298.31	6,070.25	6,069.56	0.70	8,711.956		
200.00	200.00	171.60	171.60	0.49	2.04	-119.21	-2,962.40	-5,298.31	6,070.25	6,067.73	2.53	2,401.252		
250.00	250.00	221.60	221.60	0.67	2.91	-119.21	-2,962.40	-5,298.31	6,070.25	6,066.67	3.58	1,695.671		
300.00	300.00	271.60	271.60	0.85	3.78	112.13	-2,962.40	-5,298.31	6,070.42	6,065.79	4.63	1,312.514		
400.00	399.93	371.53	371.53	1.19	5.52	112.14	-2,962.40	-5,298.31	6,071.73	6,065.02	6.71	904.478		
500.00	499.68	471.28	471.28	1.55	7.27	112.15	-2,962.40	-5,298.31	6,074.37	6,065.56	8.81	689.236		
600.00	599.13	570.73	570.73	1.93	9.00	112.17	-2,962.40	-5,298.31	6,078.33	6,067.41	10.92	556.388		
696.56	694.75	666.35	666.35	2.31	10.67	112.19	-2,962.40	-5,298.31	6,083.42	6,070.45	12.98	468.829		
700.00	698.15	669.75	669.75	2.33	10.73	112.19	-2,962.40	-5,298.31	6,083.63	6,070.58	13.05	466.179		
800.00	796.94	768.54	768.54	2.74	12.45	112.33	-2,962.40	-5,298.31	6,089.57	6,074.39	15.19	401.024		
900.00	895.73	867.33	867.33	3.17	14.18	112.46	-2,962.40	-5,298.31	6,095.55	6,078.22	17.33	351.785		
1,000.00	994.51	966.11	966.11	3.60	15.90	112.60	-2,962.40	-5,298.31	6,101.56	6,082.08	19.47	313.308		
1,100.00	1,093.30	1,064.90	1,064.90	4.04	17.63	112.73	-2,962.40	-5,298.31	6,107.60	6,085.98	21.62	282.434		
1,200.00	1,192.09	1,163.69	1,163.69	4.48	19.35	112.86	-2,962.40	-5,298.31	6,113.68	6,089.90	23.78	257.122		
1,300.00	1,290.88	1,262.48	1,262.48	4.92	21.07	112.99	-2,962.40	-5,298.31	6,119.79	6,093.86	25.93	236.000		
1,400.00	1,389.67	1,361.27	1,361.27	5.36	22.80	113.13	-2,962.40	-5,298.31	6,125.93	6,097.85	28.09	218.111		
1,500.00	1,488.45	1,460.05	1,460.05	5.80	24.52	113.26	-2,962.40	-5,298.31	6,132.11	6,101.87	30.24	202.767		
1,600.00	1,587.24	1,558.84	1,558.84	6.24	26.25	113.39	-2,962.40	-5,298.31	6,138.32	6,105.92	32.40	189.463		
1,700.00	1,686.03	1,657.63	1,657.63	6.69	27.97	113.52	-2,962.40	-5,298.31	6,144.56	6,110.01	34.56	177.818		
1,800.00	1,784.82	1,756.42	1,756.42	7.13	29.70	113.65	-2,962.40	-5,298.31	6,150.84	6,114.13	36.71	167.541		
1,900.00	1,883.60	1,855.20	1,855.20	7.57	31.42	113.78	-2,962.40	-5,298.31	6,157.15	6,118.28	38.87	158.404		
2,000.00	1,982.39	1,953.99	1,953.99	8.02	33.14	113.91	-2,962.40	-5,298.31	6,163.49	6,122.46	41.03	150.229		
2,100.00	2,081.18	2,052.78	2,052.78	8.46	34.87	114.04	-2,962.40	-5,298.31	6,169.86	6,126.68	43.18	142.871		
2,200.00	2,179.97	2,151.57	2,151.57	8.91	36.59	114.18	-2,962.40	-5,298.31	6,176.27	6,130.93	45.34	136.214		
2,300.00	2,278.75	2,250.35	2,250.35	9.36	38.32	114.30	-2,962.40	-5,298.31	6,182.71	6,135.21	47.50	130.163		
2,400.00	2,377.54	2,349.14	2,349.14	9.80	40.04	114.43	-2,962.40	-5,298.31	6,189.18	6,139.52	49.66	124.638		
2,500.00	2,476.33	2,447.93	2,447.93	10.25	41.76	114.56	-2,962.40	-5,298.31	6,195.68	6,143.87	51.81	119.574		
2,600.00	2,575.12	2,546.72	2,546.72	10.69	43.49	114.69	-2,962.40	-5,298.31	6,202.22	6,148.25	53.97	114.915		
2,700.00	2,673.90	2,645.50	2,645.50	11.14	45.21	114.82	-2,962.40	-5,298.31	6,208.79	6,152.66	56.13	110.616		
2,800.00	2,772.69	2,744.29	2,744.29	11.59	46.94	114.95	-2,962.40	-5,298.31	6,215.38	6,157.10	58.29	106.635		
2,900.00	2,871.48	2,843.08	2,843.08	12.03	48.66	115.08	-2,962.40	-5,298.31	6,222.01	6,161.57	60.44	102.939		
3,000.00	2,970.27	2,941.87	2,941.87	12.48	50.39	115.21	-2,962.40	-5,298.31	6,228.68	6,166.08	62.60	99.499		
3,100.00	3,069.05	3,040.65	3,040.65	12.93	52.11	115.33	-2,962.40	-5,298.31	6,235.37	6,170.61	64.76	96.289		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
3,200.00	3,167.84	3,139.44	3,139.44	13.37	53.83	115.46	-2,962.40	-5,298.31	6,242.10	6,175.18	66.91	93.286		
3,300.00	3,266.63	3,238.23	3,238.23	13.82	55.56	115.59	-2,962.40	-5,298.31	6,248.85	6,179.78	69.07	90.472		
3,400.00	3,365.42	3,337.02	3,337.02	14.27	57.28	115.72	-2,962.40	-5,298.31	6,255.64	6,184.41	71.23	87.828		
3,500.00	3,464.20	3,435.80	3,435.80	14.71	59.01	115.84	-2,962.40	-5,298.31	6,262.46	6,189.08	73.38	85.341		
3,600.00	3,562.99	3,534.59	3,534.59	15.16	60.73	115.97	-2,962.40	-5,298.31	6,269.31	6,193.77	75.54	82.996		
3,700.00	3,661.78	3,633.38	3,633.38	15.61	62.45	116.10	-2,962.40	-5,298.31	6,276.19	6,198.50	77.69	80.782		
3,800.00	3,760.57	3,732.17	3,732.17	16.05	64.18	116.22	-2,962.40	-5,298.31	6,283.10	6,203.25	79.85	78.688		
3,900.00	3,859.35	3,830.95	3,830.95	16.50	65.90	116.35	-2,962.40	-5,298.31	6,290.04	6,208.04	82.00	76.705		
4,000.00	3,958.14	3,929.74	3,929.74	16.95	67.63	116.47	-2,962.40	-5,298.31	6,297.02	6,212.86	84.16	74.823		
4,100.00	4,056.93	4,028.53	4,028.53	17.40	69.35	116.60	-2,962.40	-5,298.31	6,304.02	6,217.71	86.31	73.037		
4,200.00	4,155.72	4,127.32	4,127.32	17.84	71.08	116.72	-2,962.40	-5,298.31	6,311.05	6,222.59	88.47	71.337		
4,300.00	4,254.50	4,226.10	4,226.10	18.29	72.80	116.85	-2,962.40	-5,298.31	6,318.12	6,227.50	90.62	69.720		
4,400.00	4,353.29	4,324.89	4,324.89	18.74	74.52	116.97	-2,962.40	-5,298.31	6,325.21	6,232.44	92.78	68.177		
4,500.00	4,452.08	4,423.68	4,423.68	19.19	76.25	117.10	-2,962.40	-5,298.31	6,332.34	6,237.41	94.93	66.705		
4,600.00	4,550.87	4,522.47	4,522.47	19.63	77.97	117.22	-2,962.40	-5,298.31	6,339.49	6,242.41	97.08	65.299		
4,700.00	4,649.65	4,621.25	4,621.25	20.08	79.70	117.34	-2,962.40	-5,298.31	6,346.68	6,247.44	99.24	63.955		
4,800.00	4,748.44	4,720.04	4,720.04	20.53	81.42	117.47	-2,962.40	-5,298.31	6,353.89	6,252.50	101.39	62.668		
4,900.00	4,847.23	4,818.83	4,818.83	20.97	83.14	117.59	-2,962.40	-5,298.31	6,361.14	6,257.59	103.54	61.435		
5,000.00	4,946.02	4,917.62	4,917.62	21.42	84.87	117.71	-2,962.40	-5,298.31	6,368.41	6,262.71	105.70	60.252		
5,100.00	5,044.81	5,016.41	5,016.41	21.87	86.59	117.83	-2,962.40	-5,298.31	6,375.71	6,267.86	107.85	59.118		
5,200.00	5,143.59	5,115.19	5,115.19	22.32	88.32	117.96	-2,962.40	-5,298.31	6,383.04	6,273.04	110.00	58.028		
5,300.00	5,242.38	5,213.98	5,213.98	22.76	90.04	118.08	-2,962.40	-5,298.31	6,390.41	6,278.25	112.15	56.980		
5,400.00	5,341.17	5,312.77	5,312.77	23.21	91.77	118.20	-2,962.40	-5,298.31	6,397.80	6,283.49	114.30	55.972		
5,500.00	5,439.96	5,411.56	5,411.56	23.66	93.49	118.32	-2,962.40	-5,298.31	6,405.22	6,288.76	116.46	55.001		
5,600.00	5,538.74	5,510.34	5,510.34	24.11	95.21	118.44	-2,962.40	-5,298.31	6,412.67	6,294.06	118.61	54.067		
5,700.00	5,637.53	5,609.13	5,609.13	24.55	96.94	118.56	-2,962.40	-5,298.31	6,420.14	6,299.39	120.76	53.165		
5,800.00	5,736.32	5,707.92	5,707.92	25.00	98.66	118.68	-2,962.40	-5,298.31	6,427.65	6,304.74	122.91	52.296		
5,900.00	5,835.11	5,806.71	5,806.71	25.45	100.39	118.80	-2,962.40	-5,298.31	6,435.19	6,310.13	125.06	51.457		
6,000.00	5,933.89	5,905.49	5,905.49	25.90	102.11	118.92	-2,962.40	-5,298.31	6,442.75	6,315.54	127.21	50.647		
6,100.00	6,032.68	6,004.28	6,004.28	26.34	103.83	119.04	-2,962.40	-5,298.31	6,450.34	6,320.98	129.36	49.864		
6,200.00	6,131.47	6,103.07	6,103.07	26.79	105.56	119.16	-2,962.40	-5,298.31	6,457.96	6,326.46	131.51	49.106		
6,300.00	6,230.26	6,201.86	6,201.86	27.24	107.28	119.28	-2,962.40	-5,298.31	6,465.61	6,331.96	133.66	48.374		
6,400.00	6,329.04	6,300.64	6,300.64	27.69	109.01	119.40	-2,962.40	-5,298.31	6,473.29	6,337.48	135.81	47.665		
6,500.00	6,427.83	6,400.57	6,399.43	28.13	110.75	119.52	-2,962.40	-5,298.31	6,481.00	6,343.02	137.98	46.971		
6,600.00	6,526.62	6,501.78	6,498.22	28.58	112.52	119.64	-2,962.40	-5,298.31	6,488.73	6,348.56	140.17	46.292		
6,700.00	6,625.41	6,602.99	6,597.01	29.03	114.28	119.75	-2,962.40	-5,298.31	6,496.49	6,354.13	142.36	45.634		
6,800.00	6,724.19	6,704.21	6,695.79	29.48	116.05	119.87	-2,962.40	-5,298.31	6,504.28	6,359.73	144.55	44.997		
6,900.00	6,822.98	6,805.42	6,794.58	29.93	117.82	119.99	-2,962.40	-5,298.31	6,512.10	6,365.36	146.74	44.378		
7,000.00	6,921.77	6,906.63	6,893.37	30.37	119.58	120.11	-2,962.40	-5,298.31	6,519.94	6,371.01	148.93	43.778		
7,100.00	7,020.56	7,007.84	6,992.16	30.82	121.35	120.22	-2,962.40	-5,298.31	6,527.82	6,376.69	151.12	43.196		
7,200.00	7,119.34	7,109.06	7,090.94	31.27	123.12	120.34	-2,962.40	-5,298.31	6,535.71	6,382.40	153.31	42.630		
7,300.00	7,218.13	7,189.73	7,189.73	31.72	124.52	120.46	-2,962.40	-5,298.31	6,543.64	6,388.50	155.14	42.178		
7,394.03	7,311.02	7,282.62	7,282.62	32.14	126.15	120.56	-2,962.40	-5,298.31	6,551.12	6,393.96	157.16	41.684		
7,400.00	7,316.92	7,288.52	7,288.52	32.16	126.25	118.05	-2,962.40	-5,298.31	6,551.57	6,394.28	157.29	41.653		
7,450.00	7,366.55	7,338.15	7,338.15	32.36	127.12	83.26	-2,962.40	-5,298.31	6,553.02	6,394.66	158.35	41.382		
7,500.00	7,416.28	7,387.88	7,387.88	32.53	127.98	37.07	-2,962.40	-5,298.31	6,550.37	6,390.98	159.40	41.095		
7,550.00	7,465.74	7,437.34	7,437.34	32.65	128.85	13.02	-2,962.40	-5,298.31	6,543.66	6,383.25	160.41	40.794		
7,600.00	7,514.54	7,486.14	7,486.14	32.75	129.70	2.09	-2,962.40	-5,298.31	6,532.91	6,371.52	161.39	40.480		
7,650.00	7,562.31	7,533.91	7,533.91	32.83	130.53	-4.01	-2,962.40	-5,298.31	6,518.22	6,355.88	162.33	40.153		
7,700.00	7,608.70	7,580.30	7,580.30	32.89	131.34	-8.09	-2,962.40	-5,298.31	6,499.69	6,336.45	163.24	39.817		
7,750.00	7,653.34	7,624.94	7,624.94	32.93	132.12	-11.26	-2,962.40	-5,298.31	6,477.47	6,313.37	164.10	39.474		
7,800.00	7,695.91	7,667.51	7,667.51	32.95	132.86	-14.04	-2,962.40	-5,298.31	6,451.73	6,286.83	164.90	39.125		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INCL-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
7,850.00	7,736.06	7,707.66	7,707.66	32.95	133.56	-16.74	-2,962.40	-5,298.31	6,422.67	6,257.02	165.65	38.772		
7,900.00	7,773.51	7,745.11	7,745.11	32.95	134.22	-19.56	-2,962.40	-5,298.31	6,390.51	6,224.17	166.34	38.419		
7,950.00	7,807.96	7,779.56	7,779.56	32.94	134.82	-22.70	-2,962.40	-5,298.31	6,355.51	6,188.55	166.96	38.067		
8,000.00	7,839.15	7,810.75	7,810.75	32.92	135.36	-26.34	-2,962.40	-5,298.31	6,317.93	6,150.42	167.51	37.717		
8,050.00	7,866.84	7,838.44	7,838.44	32.90	135.85	-30.72	-2,962.40	-5,298.31	6,278.08	6,110.09	167.99	37.372		
8,100.00	7,890.83	7,862.43	7,862.43	32.88	136.27	-36.12	-2,962.40	-5,298.31	6,236.25	6,067.86	168.39	37.034		
8,150.00	7,910.93	7,882.53	7,882.53	32.87	136.62	-42.87	-2,962.40	-5,298.31	6,192.78	6,024.06	168.72	36.704		
8,200.00	7,926.99	7,901.41	7,898.59	32.87	136.95	-51.32	-2,962.40	-5,298.31	6,148.00	5,978.98	169.03	36.373		
8,250.00	7,938.88	7,910.48	7,910.48	32.89	137.10	-61.67	-2,962.40	-5,298.31	6,102.27	5,933.12	169.15	36.075		
8,300.00	7,946.52	7,918.12	7,918.12	32.94	137.24	-73.72	-2,962.40	-5,298.31	6,055.93	5,886.68	169.26	35.780		
8,350.00	7,949.85	7,921.45	7,921.45	33.03	137.30	-86.60	-2,962.40	-5,298.31	6,009.35	5,840.07	169.28	35.499		
8,363.33	7,950.00	7,921.60	7,921.60	33.06	137.30	-90.00	-2,962.40	-5,298.31	5,996.94	5,827.66	169.28	35.426		
8,400.00	7,950.00	7,921.60	7,921.60	33.16	137.30	-90.00	-2,962.40	-5,298.31	5,962.82	5,793.56	169.26	35.228		
8,500.00	7,950.00	7,921.60	7,921.60	33.64	137.30	-90.00	-2,962.40	-5,298.31	5,869.95	5,700.71	169.24	34.685		
8,600.00	7,950.00	7,921.60	7,921.60	34.42	137.30	-90.00	-2,962.40	-5,298.31	5,777.31	5,608.06	169.25	34.135		
8,700.00	7,950.00	7,921.60	7,921.60	35.49	137.30	-90.00	-2,962.40	-5,298.31	5,684.91	5,515.61	169.30	33.579		
8,800.00	7,950.00	7,921.60	7,921.60	36.77	137.30	-90.00	-2,962.40	-5,298.31	5,592.79	5,423.39	169.40	33.016		
8,900.00	7,950.00	7,921.60	7,921.60	38.23	137.30	-90.00	-2,962.40	-5,298.31	5,500.93	5,331.39	169.54	32.446		
9,000.00	7,950.00	7,921.60	7,921.60	39.83	137.30	-90.00	-2,962.40	-5,298.31	5,409.37	5,239.63	169.74	31.869		
9,100.00	7,950.00	7,921.60	7,921.60	41.56	137.30	-90.00	-2,962.40	-5,298.31	5,318.11	5,148.11	169.99	31.284		
9,200.00	7,950.00	7,921.60	7,921.60	43.39	137.30	-90.00	-2,962.40	-5,298.31	5,227.16	5,056.85	170.31	30.692		
9,300.00	7,950.00	7,921.60	7,921.60	45.30	137.30	-90.00	-2,962.40	-5,298.31	5,136.56	4,965.87	170.69	30.093		
9,400.00	7,950.00	7,921.60	7,921.60	47.29	137.30	-90.00	-2,962.40	-5,298.31	5,046.31	4,875.17	171.14	29.487		
9,500.00	7,950.00	7,921.60	7,921.60	49.35	137.30	-90.00	-2,962.40	-5,298.31	4,956.43	4,784.77	171.66	28.874		
9,600.00	7,950.00	7,921.60	7,921.60	51.47	137.30	-90.00	-2,962.40	-5,298.31	4,866.95	4,694.69	172.26	28.254		
9,700.00	7,950.00	7,921.60	7,921.60	53.63	137.30	-90.00	-2,962.40	-5,298.31	4,777.89	4,604.95	172.94	27.627		
9,800.00	7,950.00	7,921.60	7,921.60	55.85	137.30	-90.00	-2,962.40	-5,298.31	4,689.27	4,515.56	173.71	26.995		
9,900.00	7,950.00	7,921.60	7,921.60	58.10	137.30	-90.00	-2,962.40	-5,298.31	4,601.11	4,426.54	174.57	26.357		
10,000.00	7,950.00	7,921.60	7,921.60	60.39	137.30	-90.00	-2,962.40	-5,298.31	4,513.45	4,337.93	175.52	25.715		
10,100.00	7,950.00	7,921.60	7,921.60	62.71	137.30	-90.00	-2,962.40	-5,298.31	4,426.31	4,249.74	176.57	25.069		
10,200.00	7,950.00	7,921.60	7,921.60	65.05	137.30	-90.00	-2,962.40	-5,298.31	4,339.72	4,162.01	177.72	24.419		
10,300.00	7,950.00	7,921.60	7,921.60	67.43	137.30	-90.00	-2,962.40	-5,298.31	4,253.73	4,074.75	178.97	23.767		
10,400.00	7,950.00	7,921.60	7,921.60	69.82	137.30	-90.00	-2,962.40	-5,298.31	4,168.36	3,988.02	180.34	23.114		
10,500.00	7,950.00	7,921.60	7,921.60	72.24	137.30	-90.00	-2,962.40	-5,298.31	4,083.65	3,901.84	181.81	22.461		
10,600.00	7,950.00	7,921.60	7,921.60	74.68	137.30	-90.00	-2,962.40	-5,298.31	3,999.65	3,816.25	183.40	21.808		
10,700.00	7,950.00	7,921.60	7,921.60	77.13	137.30	-90.00	-2,962.40	-5,298.31	3,916.40	3,731.29	185.11	21.157		
10,800.00	7,950.00	7,921.60	7,921.60	79.60	137.30	-90.00	-2,962.40	-5,298.31	3,833.95	3,647.01	186.94	20.509		
10,900.00	7,950.00	7,921.60	7,921.60	82.08	137.30	-90.00	-2,962.40	-5,298.31	3,752.36	3,563.46	188.90	19.865		
11,000.00	7,950.00	7,921.60	7,921.60	84.57	137.30	-90.00	-2,962.40	-5,298.31	3,671.67	3,480.69	190.98	19.225		
11,100.00	7,950.00	7,921.60	7,921.60	87.08	137.30	-90.00	-2,962.40	-5,298.31	3,591.96	3,398.76	193.20	18.592		
11,200.00	7,950.00	7,921.60	7,921.60	89.59	137.30	-90.00	-2,962.40	-5,298.31	3,513.28	3,317.74	195.55	17.966		
11,300.00	7,950.00	7,921.60	7,921.60	92.12	137.30	-90.00	-2,962.40	-5,298.31	3,435.72	3,237.68	198.04	17.349		
11,400.00	7,950.00	7,921.60	7,921.60	94.66	137.30	-90.00	-2,962.40	-5,298.31	3,359.34	3,158.68	200.66	16.741		
11,500.00	7,950.00	7,921.60	7,921.60	97.20	137.30	-90.00	-2,962.40	-5,298.31	3,284.23	3,080.79	203.44	16.144		
11,600.00	7,950.00	7,921.60	7,921.60	99.75	137.30	-90.00	-2,962.40	-5,298.31	3,210.48	3,004.13	206.35	15.558		
11,700.00	7,950.00	7,921.60	7,921.60	102.31	137.30	-90.00	-2,962.40	-5,298.31	3,138.18	2,928.76	209.41	14.986		
11,800.00	7,950.00	7,921.60	7,921.60	104.87	137.30	-90.00	-2,962.40	-5,298.31	3,067.43	2,854.81	212.62	14.427		
11,900.00	7,950.00	7,921.60	7,921.60	107.44	137.30	-90.00	-2,962.40	-5,298.31	2,998.36	2,782.38	215.98	13.883		
12,000.00	7,950.00	7,921.60	7,921.60	110.02	137.30	-90.00	-2,962.40	-5,298.31	2,931.07	2,711.58	219.48	13.354		
12,100.00	7,950.00	7,921.60	7,921.60	112.60	137.30	-90.00	-2,962.40	-5,298.31	2,865.68	2,642.55	223.13	12.843		
12,200.00	7,950.00	7,921.60	7,921.60	115.19	137.30	-90.00	-2,962.40	-5,298.31	2,802.34	2,575.43	226.92	12.350		
12,300.00	7,950.00	7,921.60	7,921.60	117.78	137.30	-90.00	-2,962.40	-5,298.31	2,741.19	2,510.35	230.84	11.875		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INCL-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,400.00	7,950.00	7,921.60	7,921.60	120.38	137.30	-90.00	-2,962.40	-5,298.31	2,682.37	2,447.49	234.89	11.420		
12,500.00	7,950.00	7,921.60	7,921.60	122.98	137.30	-90.00	-2,962.40	-5,298.31	2,626.05	2,387.00	239.05	10.985		
12,600.00	7,950.00	7,921.60	7,921.60	125.58	137.30	-90.00	-2,962.40	-5,298.31	2,572.38	2,329.06	243.32	10.572		
12,700.00	7,950.00	7,921.60	7,921.60	128.19	137.30	-90.00	-2,962.40	-5,298.31	2,521.53	2,273.86	247.67	10.181		
12,800.00	7,950.00	7,921.60	7,921.60	130.80	137.30	-90.00	-2,962.40	-5,298.31	2,473.68	2,221.59	252.10	9.812		
12,900.00	7,950.00	7,921.60	7,921.60	133.41	137.30	-90.00	-2,962.40	-5,298.31	2,429.01	2,172.45	256.56	9.468		
13,000.00	7,950.00	7,921.60	7,921.60	136.03	137.30	-90.00	-2,962.40	-5,298.31	2,387.70	2,126.65	261.05	9.147		
13,100.00	7,950.00	7,921.60	7,921.60	138.65	137.30	-90.00	-2,962.40	-5,298.31	2,349.92	2,084.39	265.52	8.850		
13,200.00	7,950.00	7,921.60	7,921.60	141.27	137.30	-90.00	-2,962.40	-5,298.31	2,315.84	2,045.88	269.96	8.579		
13,300.00	7,950.00	7,921.60	7,921.60	143.90	137.30	-90.00	-2,962.40	-5,298.31	2,285.63	2,011.32	274.31	8.332		
13,400.00	7,950.00	7,921.60	7,921.60	146.52	137.30	-90.00	-2,962.40	-5,298.31	2,259.45	1,980.89	278.56	8.111		
13,500.00	7,950.00	7,921.60	7,921.60	149.15	137.30	-90.00	-2,962.40	-5,298.31	2,237.43	1,954.78	282.65	7.916		
13,600.00	7,950.00	7,921.60	7,921.60	151.78	137.30	-90.00	-2,962.40	-5,298.31	2,219.70	1,933.15	286.55	7.746		
13,700.00	7,950.00	7,921.60	7,921.60	154.42	137.30	-90.00	-2,962.40	-5,298.31	2,206.37	1,916.14	290.23	7.602		
13,800.00	7,950.00	7,921.60	7,921.60	157.05	137.30	-90.00	-2,962.40	-5,298.31	2,197.52	1,903.86	293.66	7.483		
13,900.00	7,950.00	7,921.60	7,921.60	159.69	137.30	-90.00	-2,962.40	-5,298.31	2,193.19	1,896.39	296.80	7.390		
13,945.02	7,950.00	7,921.60	7,921.60	160.88	137.30	-90.00	-2,962.40	-5,298.31	2,192.73	1,894.62	298.11	7.355	CC	
14,000.00	7,950.00	7,921.60	7,921.60	162.33	137.30	-90.00	-2,962.40	-5,298.31	2,193.42	1,893.79	299.63	7.320	ES	
14,100.00	7,950.00	7,921.60	7,921.60	164.97	137.30	-90.00	-2,962.40	-5,298.31	2,198.20	1,896.07	302.13	7.276		
14,200.00	7,950.00	7,921.60	7,921.60	167.61	137.30	-90.00	-2,962.40	-5,298.31	2,207.50	1,903.21	304.30	7.254	SF	
14,300.00	7,950.00	7,921.60	7,921.60	170.26	137.30	-90.00	-2,962.40	-5,298.31	2,221.28	1,915.16	306.12	7.256		
14,400.00	7,950.00	7,921.60	7,921.60	172.90	137.30	-90.00	-2,962.40	-5,298.31	2,239.43	1,931.84	307.60	7.280		
14,500.00	7,950.00	7,921.60	7,921.60	175.55	137.30	-90.00	-2,962.40	-5,298.31	2,261.87	1,953.13	308.74	7.326		
14,600.00	7,950.00	7,921.60	7,921.60	178.20	137.30	-90.00	-2,962.40	-5,298.31	2,288.46	1,978.90	309.56	7.393		
14,700.00	7,950.00	7,921.60	7,921.60	180.85	137.30	-90.00	-2,962.40	-5,298.31	2,319.06	2,008.99	310.07	7.479		
14,800.00	7,950.00	7,921.60	7,921.60	183.50	137.30	-90.00	-2,962.40	-5,298.31	2,353.52	2,043.22	310.30	7.585		
14,900.00	7,950.00	7,921.60	7,921.60	186.15	137.30	-90.00	-2,962.40	-5,298.31	2,391.66	2,081.40	310.26	7.708		
15,000.00	7,950.00	7,921.60	7,921.60	188.80	137.30	-90.00	-2,962.40	-5,298.31	2,433.32	2,123.33	309.99	7.850		
15,100.00	7,950.00	7,921.60	7,921.60	191.46	137.30	-90.00	-2,962.40	-5,298.31	2,478.31	2,168.81	309.50	8.007		
15,200.00	7,950.00	7,921.60	7,921.60	194.11	137.30	-90.00	-2,962.40	-5,298.31	2,526.47	2,217.64	308.82	8.181		
15,300.00	7,950.00	7,921.60	7,921.60	196.77	137.30	-90.00	-2,962.40	-5,298.31	2,577.60	2,269.62	307.98	8.369		
15,400.00	7,950.00	7,921.60	7,921.60	199.42	137.30	-90.00	-2,962.40	-5,298.31	2,631.54	2,324.54	307.00	8.572		
15,500.00	7,950.00	7,921.60	7,921.60	202.08	137.30	-90.00	-2,962.40	-5,298.31	2,688.13	2,382.22	305.90	8.787		
15,600.00	7,950.00	7,921.60	7,921.60	204.74	137.30	-90.00	-2,962.40	-5,298.31	2,747.18	2,442.48	304.71	9.016		
15,700.00	7,950.00	7,921.60	7,921.60	207.40	137.30	-90.00	-2,962.40	-5,298.31	2,808.56	2,505.13	303.43	9.256		
15,800.00	7,950.00	7,921.60	7,921.60	210.06	137.30	-90.00	-2,962.40	-5,298.31	2,872.11	2,570.02	302.09	9.508		
15,900.00	7,950.00	7,921.60	7,921.60	212.72	137.30	-90.00	-2,962.40	-5,298.31	2,937.69	2,636.99	300.70	9.770		
16,000.00	7,950.00	7,921.60	7,921.60	215.38	137.30	-90.00	-2,962.40	-5,298.31	3,005.16	2,705.89	299.27	10.042		
16,100.00	7,950.00	7,921.60	7,921.60	218.05	137.30	-90.00	-2,962.40	-5,298.31	3,074.41	2,776.59	297.82	10.323		
16,200.00	7,950.00	7,921.60	7,921.60	220.71	137.30	-90.00	-2,962.40	-5,298.31	3,145.31	2,848.95	296.36	10.613		
16,300.00	7,950.00	7,921.60	7,921.60	223.37	137.30	-90.00	-2,962.40	-5,298.31	3,217.76	2,922.87	294.89	10.912		
16,400.00	7,950.00	7,921.60	7,921.60	226.04	137.30	-90.00	-2,962.40	-5,298.31	3,291.65	2,998.23	293.42	11.218		
16,500.00	7,950.00	7,921.60	7,921.60	228.70	137.30	-90.00	-2,962.40	-5,298.31	3,366.90	3,074.94	291.96	11.532		
16,600.00	7,950.00	7,921.60	7,921.60	231.37	137.30	-90.00	-2,962.40	-5,298.31	3,443.40	3,152.89	290.51	11.853		
16,700.00	7,950.00	7,921.60	7,921.60	234.04	137.30	-90.00	-2,962.40	-5,298.31	3,521.08	3,232.00	289.08	12.180		
16,800.00	7,950.00	7,921.60	7,921.60	236.70	137.30	-90.00	-2,962.40	-5,298.31	3,599.86	3,312.19	287.66	12.514		
16,900.00	7,950.00	7,921.60	7,921.60	239.37	137.30	-90.00	-2,962.40	-5,298.31	3,679.67	3,393.40	286.27	12.854		
17,000.00	7,950.00	7,921.60	7,921.60	242.04	137.30	-90.00	-2,962.40	-5,298.31	3,760.45	3,475.54	284.91	13.199		
17,100.00	7,950.00	7,921.60	7,921.60	244.71	137.30	-90.00	-2,962.40	-5,298.31	3,842.13	3,558.56	283.57	13.549		
17,200.00	7,950.00	7,921.60	7,921.60	247.38	137.30	-90.00	-2,962.40	-5,298.31	3,924.66	3,642.40	282.26	13.904		
17,300.00	7,950.00	7,921.60	7,921.60	250.05	137.30	-90.00	-2,962.40	-5,298.31	4,007.99	3,727.00	280.98	14.264		
17,400.00	7,950.00	7,921.60	7,921.60	252.72	137.30	-90.00	-2,962.40	-5,298.31	4,092.06	3,812.33	279.73	14.629		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT BUCKLEY-STATE 16-16 - OWB - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
17,500.00	7,950.00	7,921.60	7,921.60	255.39	137.30	-90.00	-2,962.40	-5,298.31	4,176.84	3,898.33	278.51	14.997	
17,600.00	7,950.00	7,921.60	7,921.60	258.06	137.30	-90.00	-2,962.40	-5,298.31	4,262.27	3,984.95	277.32	15.370	
17,700.00	7,950.00	7,921.60	7,921.60	260.73	137.30	-90.00	-2,962.40	-5,298.31	4,348.33	4,072.17	276.16	15.746	
17,800.00	7,950.00	7,921.60	7,921.60	263.40	137.30	-90.00	-2,962.40	-5,298.31	4,434.97	4,159.94	275.03	16.126	
17,900.00	7,950.00	7,921.60	7,921.60	266.07	137.30	-90.00	-2,962.40	-5,298.31	4,522.16	4,248.24	273.93	16.509	
18,000.00	7,950.00	7,921.60	7,921.60	268.74	137.30	-90.00	-2,962.40	-5,298.31	4,609.87	4,337.02	272.85	16.895	
18,100.00	7,950.00	7,921.60	7,921.60	271.42	137.30	-90.00	-2,962.40	-5,298.31	4,698.08	4,426.27	271.81	17.284	
18,200.00	7,950.00	7,921.60	7,921.60	274.09	137.30	-90.00	-2,962.40	-5,298.31	4,786.75	4,515.95	270.79	17.677	
18,253.56	7,950.00	7,921.60	7,921.60	275.52	137.30	-90.00	-2,962.40	-5,298.31	4,834.42	4,564.15	270.26	17.888	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT STATE-SMITH 1-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-84.36	917.82	-9,290.13	9,335.71					
100.00	100.00	18.60	18.60	0.13	0.15	-84.36	917.82	-9,290.13	9,335.35	9,335.07	0.28	N/A		
200.00	200.00	118.60	118.60	0.49	1.11	-84.36	917.82	-9,290.13	9,335.35	9,333.75	1.60	5,823.936		
250.00	250.00	168.60	168.60	0.67	1.98	-84.36	917.82	-9,290.13	9,335.35	9,332.70	2.65	3,516.367		
300.00	300.00	218.60	218.60	0.85	2.86	146.98	917.82	-9,290.13	9,335.72	9,332.02	3.70	2,523.033		
400.00	399.93	318.53	318.53	1.19	4.60	146.96	917.82	-9,290.13	9,338.65	9,332.86	5.79	1,613.203		
500.00	499.68	418.28	418.28	1.55	6.34	146.92	917.82	-9,290.13	9,344.50	9,336.61	7.89	1,184.712		
600.00	599.13	517.73	517.73	1.93	8.08	146.86	917.82	-9,290.13	9,353.27	9,343.28	9.99	936.229		
696.56	694.75	613.35	613.35	2.31	9.75	146.78	917.82	-9,290.13	9,364.50	9,352.48	12.02	778.862		
700.00	698.15	616.75	616.75	2.33	9.80	146.78	917.82	-9,290.13	9,364.95	9,352.85	12.10	773.978		
800.00	796.94	715.54	715.54	2.74	11.53	146.83	917.82	-9,290.13	9,377.99	9,363.79	14.20	660.397		
900.00	895.73	814.33	814.33	3.17	13.25	146.89	917.82	-9,290.13	9,391.03	9,374.73	16.31	575.909		
1,000.00	994.51	913.11	913.11	3.60	14.98	146.94	917.82	-9,290.13	9,404.09	9,385.67	18.42	510.653		
1,100.00	1,093.30	1,011.90	1,011.90	4.04	16.70	146.99	917.82	-9,290.13	9,417.15	9,396.62	20.53	458.757		
1,200.00	1,192.09	1,110.69	1,110.69	4.48	18.43	147.04	917.82	-9,290.13	9,430.22	9,407.58	22.64	416.513		
1,300.00	1,290.88	1,209.48	1,209.48	4.92	20.15	147.09	917.82	-9,290.13	9,443.29	9,418.54	24.76	381.463		
1,400.00	1,389.67	1,308.27	1,308.27	5.36	21.87	147.14	917.82	-9,290.13	9,456.38	9,429.51	26.87	351.919		
1,500.00	1,488.45	1,407.05	1,407.05	5.80	23.60	147.19	917.82	-9,290.13	9,469.47	9,440.48	28.99	326.679		
1,600.00	1,587.24	1,505.84	1,505.84	6.24	25.32	147.24	917.82	-9,290.13	9,482.57	9,451.47	31.10	304.870		
1,700.00	1,686.03	1,604.63	1,604.63	6.69	27.05	147.29	917.82	-9,290.13	9,495.67	9,462.45	33.22	285.836		
1,800.00	1,784.82	1,703.42	1,703.42	7.13	28.77	147.34	917.82	-9,290.13	9,508.79	9,473.45	35.34	269.081		
1,900.00	1,883.60	1,802.20	1,802.20	7.57	30.49	147.40	917.82	-9,290.13	9,521.91	9,484.45	37.46	254.218		
2,000.00	1,982.39	1,900.99	1,900.99	8.02	32.22	147.45	917.82	-9,290.13	9,535.04	9,495.46	39.57	240.946		
2,100.00	2,081.18	2,000.22	1,999.78	8.46	33.95	147.50	917.82	-9,290.13	9,548.17	9,506.47	41.70	228.978		
2,200.00	2,179.97	2,101.43	2,098.57	8.91	35.72	147.54	917.82	-9,290.13	9,561.31	9,517.45	43.86	218.000		
2,300.00	2,278.75	2,202.65	2,197.35	9.36	37.48	147.59	917.82	-9,290.13	9,574.46	9,528.44	46.02	208.052		
2,400.00	2,377.54	2,303.86	2,296.14	9.80	39.25	147.64	917.82	-9,290.13	9,587.62	9,539.44	48.18	198.996		
2,500.00	2,476.33	2,405.07	2,394.93	10.25	41.02	147.69	917.82	-9,290.13	9,600.78	9,550.44	50.34	190.717		
2,600.00	2,575.12	2,506.28	2,493.72	10.69	42.78	147.74	917.82	-9,290.13	9,613.95	9,561.45	52.50	183.120		
2,700.00	2,673.90	2,607.50	2,592.50	11.14	44.55	147.79	917.82	-9,290.13	9,627.13	9,572.47	54.66	176.123		
2,800.00	2,772.69	2,708.71	2,691.29	11.59	46.32	147.84	917.82	-9,290.13	9,640.31	9,583.49	56.82	169.659		
2,900.00	2,871.48	2,809.92	2,790.08	12.03	48.08	147.89	917.82	-9,290.13	9,653.51	9,594.52	58.98	163.668		
3,000.00	2,970.27	2,888.87	2,888.87	12.48	49.46	147.94	917.82	-9,290.13	9,666.70	9,605.95	60.75	159.113		
3,100.00	3,069.05	2,987.65	2,987.65	12.93	51.18	147.99	917.82	-9,290.13	9,679.91	9,617.04	62.87	153.963		
3,200.00	3,167.84	3,086.44	3,086.44	13.37	52.91	148.04	917.82	-9,290.13	9,693.12	9,628.13	64.99	149.149		
3,300.00	3,266.63	3,185.23	3,185.23	13.82	54.63	148.08	917.82	-9,290.13	9,706.34	9,639.23	67.11	144.639		
3,400.00	3,365.42	3,284.02	3,284.02	14.27	56.36	148.13	917.82	-9,290.13	9,719.57	9,650.34	69.23	140.405		
3,500.00	3,464.20	3,382.80	3,382.80	14.71	58.08	148.18	917.82	-9,290.13	9,732.80	9,661.46	71.34	136.422		
3,600.00	3,562.99	3,481.59	3,481.59	15.16	59.81	148.23	917.82	-9,290.13	9,746.04	9,672.58	73.46	132.670		
3,700.00	3,661.78	3,580.38	3,580.38	15.61	61.53	148.28	917.82	-9,290.13	9,759.28	9,683.71	75.58	129.128		
3,800.00	3,760.57	3,679.17	3,679.17	16.05	63.25	148.32	917.82	-9,290.13	9,772.54	9,694.84	77.70	125.779		
3,900.00	3,859.35	3,777.95	3,777.95	16.50	64.98	148.37	917.82	-9,290.13	9,785.80	9,705.98	79.81	122.608		
4,000.00	3,958.14	3,876.74	3,876.74	16.95	66.70	148.42	917.82	-9,290.13	9,799.06	9,717.13	81.93	119.602		
4,100.00	4,056.93	3,975.53	3,975.53	17.40	68.43	148.47	917.82	-9,290.13	9,812.34	9,728.29	84.05	116.746		
4,200.00	4,155.72	4,074.32	4,074.32	17.84	70.15	148.51	917.82	-9,290.13	9,825.61	9,739.45	86.17	114.032		
4,300.00	4,254.50	4,173.10	4,173.10	18.29	71.87	148.56	917.82	-9,290.13	9,838.90	9,750.62	88.28	111.448		
4,400.00	4,353.29	4,271.89	4,271.89	18.74	73.60	148.61	917.82	-9,290.13	9,852.19	9,761.79	90.40	108.985		
4,500.00	4,452.08	4,370.68	4,370.68	19.19	75.32	148.65	917.82	-9,290.13	9,865.49	9,772.97	92.52	106.634		
4,600.00	4,550.87	4,469.47	4,469.47	19.63	77.05	148.70	917.82	-9,290.13	9,878.80	9,784.16	94.63	104.390		
4,700.00	4,649.65	4,568.25	4,568.25	20.08	78.77	148.75	917.82	-9,290.13	9,892.11	9,795.36	96.75	102.243		
4,800.00	4,748.44	4,667.04	4,667.04	20.53	80.50	148.79	917.82	-9,290.13	9,905.43	9,806.56	98.87	100.189		
4,900.00	4,847.23	4,765.83	4,765.83	20.97	82.22	148.84	917.82	-9,290.13	9,918.75	9,817.77	100.98	98.221		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT STATE-SMITH 1-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,864.62	4,864.62	21.42	83.94	148.89	917.82	-9,290.13	9,932.08	9,828.98	103.10	96.334		
5,100.00	5,044.81	4,963.41	4,963.41	21.87	85.67	148.93	917.82	-9,290.13	9,945.42	9,840.20	105.22	94.522		
5,200.00	5,143.59	5,062.19	5,062.19	22.32	87.39	148.98	917.82	-9,290.13	9,958.76	9,851.43	107.33	92.783		
5,300.00	5,242.38	5,160.98	5,160.98	22.76	89.12	149.02	917.82	-9,290.13	9,972.12	9,862.66	109.45	91.111		
5,400.00	5,341.17	5,259.77	5,259.77	23.21	90.84	149.07	917.82	-9,290.13	9,985.47	9,873.90	111.57	89.502		
5,500.00	5,439.96	5,358.56	5,358.56	23.66	92.56	149.12	917.82	-9,290.13	9,998.83	9,885.15	113.68	87.954		
8,050.00	7,866.84	7,785.44	7,785.44	32.90	134.92	24.44	917.82	-9,290.13	9,995.08	9,830.10	164.98	60.582		
8,100.00	7,890.83	7,809.43	7,809.43	32.88	135.34	26.95	917.82	-9,290.13	9,952.34	9,786.89	165.45	60.153		
8,150.00	7,910.93	7,829.53	7,829.53	32.87	135.69	30.67	917.82	-9,290.13	9,907.64	9,741.79	165.85	59.739		
8,200.00	7,926.99	7,845.59	7,845.59	32.87	135.97	36.32	917.82	-9,290.13	9,861.32	9,695.15	166.17	59.344		
8,250.00	7,938.88	7,857.48	7,857.48	32.89	136.18	45.25	917.82	-9,290.13	9,813.73	9,647.30	166.42	58.969		
8,300.00	7,946.52	7,865.12	7,865.12	32.94	136.31	59.87	917.82	-9,290.13	9,765.23	9,598.63	166.60	58.615		
8,350.00	7,949.85	7,868.45	7,868.45	33.03	136.37	82.72	917.82	-9,290.13	9,716.19	9,549.48	166.71	58.283		
8,363.33	7,950.00	7,868.60	7,868.60	33.06	136.37	90.00	917.82	-9,290.13	9,703.06	9,536.34	166.72	58.199		
8,400.00	7,950.00	7,868.60	7,868.60	33.16	136.37	90.00	917.82	-9,290.13	9,666.97	9,500.22	166.76	57.970		
8,500.00	7,950.00	7,868.60	7,868.60	33.64	136.37	90.00	917.82	-9,290.13	9,568.57	9,401.70	166.87	57.342		
8,600.00	7,950.00	7,868.60	7,868.60	34.42	136.37	90.00	917.82	-9,290.13	9,470.20	9,303.21	166.99	56.712		
8,700.00	7,950.00	7,868.60	7,868.60	35.49	136.37	90.00	917.82	-9,290.13	9,371.86	9,204.74	167.12	56.078		
8,800.00	7,950.00	7,868.60	7,868.60	36.77	136.37	90.00	917.82	-9,290.13	9,273.56	9,106.29	167.26	55.443		
8,900.00	7,950.00	7,868.60	7,868.60	38.23	136.37	90.00	917.82	-9,290.13	9,175.29	9,007.87	167.42	54.804		
9,000.00	7,950.00	7,868.60	7,868.60	39.83	136.37	90.00	917.82	-9,290.13	9,077.06	8,909.47	167.59	54.163		
9,100.00	7,950.00	7,868.60	7,868.60	41.56	136.37	90.00	917.82	-9,290.13	8,978.87	8,811.10	167.77	53.519		
9,200.00	7,950.00	7,868.60	7,868.60	43.39	136.37	90.00	917.82	-9,290.13	8,880.72	8,712.76	167.97	52.872		
9,300.00	7,950.00	7,868.60	7,868.60	45.30	136.37	90.00	917.82	-9,290.13	8,782.62	8,614.44	168.18	52.222		
9,400.00	7,950.00	7,868.60	7,868.60	47.29	136.37	90.00	917.82	-9,290.13	8,684.55	8,516.15	168.40	51.570		
9,500.00	7,950.00	7,868.60	7,868.60	49.35	136.37	90.00	917.82	-9,290.13	8,586.53	8,417.89	168.64	50.915		
9,600.00	7,950.00	7,868.60	7,868.60	51.47	136.37	90.00	917.82	-9,290.13	8,488.56	8,319.66	168.90	50.257		
9,700.00	7,950.00	7,868.60	7,868.60	53.63	136.37	90.00	917.82	-9,290.13	8,390.64	8,221.46	169.18	49.597		
9,800.00	7,950.00	7,868.60	7,868.60	55.85	136.37	90.00	917.82	-9,290.13	8,292.76	8,123.29	169.47	48.934		
9,900.00	7,950.00	7,868.60	7,868.60	58.10	136.37	90.00	917.82	-9,290.13	8,194.94	8,025.16	169.78	48.268		
10,000.00	7,950.00	7,868.60	7,868.60	60.39	136.37	90.00	917.82	-9,290.13	8,097.17	7,927.06	170.11	47.600		
10,100.00	7,950.00	7,868.60	7,868.60	62.71	136.37	90.00	917.82	-9,290.13	7,999.45	7,828.99	170.46	46.929		
10,200.00	7,950.00	7,868.60	7,868.60	65.05	136.37	90.00	917.82	-9,290.13	7,901.79	7,730.97	170.83	46.256		
10,300.00	7,950.00	7,868.60	7,868.60	67.43	136.37	90.00	917.82	-9,290.13	7,804.19	7,632.98	171.22	45.580		
10,400.00	7,950.00	7,868.60	7,868.60	69.82	136.37	90.00	917.82	-9,290.13	7,706.66	7,535.03	171.63	44.903		
10,500.00	7,950.00	7,868.60	7,868.60	72.24	136.37	90.00	917.82	-9,290.13	7,609.18	7,437.12	172.07	44.223		
10,600.00	7,950.00	7,868.60	7,868.60	74.68	136.37	90.00	917.82	-9,290.13	7,511.77	7,339.25	172.52	43.540		
10,700.00	7,950.00	7,868.60	7,868.60	77.13	136.37	90.00	917.82	-9,290.13	7,414.44	7,241.43	173.01	42.856		
10,800.00	7,950.00	7,868.60	7,868.60	79.60	136.37	90.00	917.82	-9,290.13	7,317.17	7,143.65	173.52	42.170		
10,900.00	7,950.00	7,868.60	7,868.60	82.08	136.37	90.00	917.82	-9,290.13	7,219.98	7,045.93	174.05	41.482		
11,000.00	7,950.00	7,868.60	7,868.60	84.57	136.37	90.00	917.82	-9,290.13	7,122.86	6,948.25	174.61	40.793		
11,100.00	7,950.00	7,868.60	7,868.60	87.08	136.37	90.00	917.82	-9,290.13	7,025.83	6,850.63	175.20	40.102		
11,200.00	7,950.00	7,868.60	7,868.60	89.59	136.37	90.00	917.82	-9,290.13	6,928.88	6,753.06	175.82	39.409		
11,300.00	7,950.00	7,868.60	7,868.60	92.12	136.37	90.00	917.82	-9,290.13	6,832.02	6,655.55	176.47	38.715		
11,400.00	7,950.00	7,868.60	7,868.60	94.66	136.37	90.00	917.82	-9,290.13	6,735.25	6,558.10	177.15	38.020		
11,500.00	7,950.00	7,868.60	7,868.60	97.20	136.37	90.00	917.82	-9,290.13	6,638.58	6,460.72	177.86	37.324		
11,600.00	7,950.00	7,868.60	7,868.60	99.75	136.37	90.00	917.82	-9,290.13	6,542.01	6,363.39	178.61	36.627		
11,700.00	7,950.00	7,868.60	7,868.60	102.31	136.37	90.00	917.82	-9,290.13	6,445.54	6,266.14	179.39	35.930		
11,800.00	7,950.00	7,868.60	7,868.60	104.87	136.37	90.00	917.82	-9,290.13	6,349.18	6,168.97	180.21	35.232		
11,900.00	7,950.00	7,868.60	7,868.60	107.44	136.37	90.00	917.82	-9,290.13	6,252.93	6,071.86	181.07	34.534		
12,000.00	7,950.00	7,868.60	7,868.60	110.02	136.37	90.00	917.82	-9,290.13	6,156.81	5,974.84	181.96	33.835		
12,100.00	7,950.00	7,868.60	7,868.60	112.60	136.37	90.00	917.82	-9,290.13	6,060.81	5,877.90	182.90	33.137		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT STATE-SMITH 1-16 - OWB - Design #1													Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
12,200.00	7,950.00	7,868.60	7,868.60	115.19	136.37	90.00	917.82	-9,290.13	5,964.94	5,781.06	183.88	32.439		
12,300.00	7,950.00	7,868.60	7,868.60	117.78	136.37	90.00	917.82	-9,290.13	5,869.21	5,684.30	184.91	31.742		
12,400.00	7,950.00	7,868.60	7,868.60	120.38	136.37	90.00	917.82	-9,290.13	5,773.62	5,587.64	185.98	31.045		
12,500.00	7,950.00	7,868.60	7,868.60	122.98	136.37	90.00	917.82	-9,290.13	5,678.19	5,491.09	187.10	30.349		
12,600.00	7,950.00	7,868.60	7,868.60	125.58	136.37	90.00	917.82	-9,290.13	5,582.91	5,394.65	188.27	29.655		
12,700.00	7,950.00	7,868.60	7,868.60	128.19	136.37	90.00	917.82	-9,290.13	5,487.81	5,298.32	189.49	28.961		
12,800.00	7,950.00	7,868.60	7,868.60	130.80	136.37	90.00	917.82	-9,290.13	5,392.88	5,202.11	190.76	28.270		
12,900.00	7,950.00	7,868.60	7,868.60	133.41	136.37	90.00	917.82	-9,290.13	5,298.13	5,106.04	192.10	27.581		
13,000.00	7,950.00	7,868.60	7,868.60	136.03	136.37	90.00	917.82	-9,290.13	5,203.59	5,010.10	193.49	26.893		
13,100.00	7,950.00	7,868.60	7,868.60	138.65	136.37	90.00	917.82	-9,290.13	5,109.25	4,914.30	194.95	26.208		
13,200.00	7,950.00	7,868.60	7,868.60	141.27	136.37	90.00	917.82	-9,290.13	5,015.13	4,818.66	196.47	25.526		
13,300.00	7,950.00	7,868.60	7,868.60	143.90	136.37	90.00	917.82	-9,290.13	4,921.24	4,723.19	198.06	24.847		
13,400.00	7,950.00	7,868.60	7,868.60	146.52	136.37	90.00	917.82	-9,290.13	4,827.60	4,627.88	199.72	24.172		
13,500.00	7,950.00	7,868.60	7,868.60	149.15	136.37	90.00	917.82	-9,290.13	4,734.22	4,532.76	201.46	23.500		
13,600.00	7,950.00	7,868.60	7,868.60	151.78	136.37	90.00	917.82	-9,290.13	4,641.12	4,437.84	203.28	22.832		
13,700.00	7,950.00	7,868.60	7,868.60	154.42	136.37	90.00	917.82	-9,290.13	4,548.31	4,343.13	205.18	22.168		
13,800.00	7,950.00	7,868.60	7,868.60	157.05	136.37	90.00	917.82	-9,290.13	4,455.80	4,248.64	207.16	21.509		
13,900.00	7,950.00	7,868.60	7,868.60	159.69	136.37	90.00	917.82	-9,290.13	4,363.63	4,154.39	209.24	20.854		
14,000.00	7,950.00	7,868.60	7,868.60	162.33	136.37	90.00	917.82	-9,290.13	4,271.81	4,060.39	211.42	20.205		
14,100.00	7,950.00	7,868.60	7,868.60	164.97	136.37	90.00	917.82	-9,290.13	4,180.37	3,966.67	213.70	19.562		
14,200.00	7,950.00	7,868.60	7,868.60	167.61	136.37	90.00	917.82	-9,290.13	4,089.33	3,873.25	216.08	18.925		
14,300.00	7,950.00	7,868.60	7,868.60	170.26	136.37	90.00	917.82	-9,290.13	3,998.72	3,780.13	218.58	18.294		
14,400.00	7,950.00	7,868.60	7,868.60	172.90	136.37	90.00	917.82	-9,290.13	3,908.56	3,687.36	221.20	17.670		
14,500.00	7,950.00	7,868.60	7,868.60	175.55	136.37	90.00	917.82	-9,290.13	3,818.89	3,594.95	223.94	17.053		
14,600.00	7,950.00	7,868.60	7,868.60	178.20	136.37	90.00	917.82	-9,290.13	3,729.75	3,502.93	226.82	16.444		
14,700.00	7,950.00	7,868.60	7,868.60	180.85	136.37	90.00	917.82	-9,290.13	3,641.17	3,411.34	229.83	15.843		
14,800.00	7,950.00	7,868.60	7,868.60	183.50	136.37	90.00	917.82	-9,290.13	3,553.20	3,320.21	232.99	15.250		
14,900.00	7,950.00	7,868.60	7,868.60	186.15	136.37	90.00	917.82	-9,290.13	3,465.89	3,229.58	236.31	14.667		
15,000.00	7,950.00	7,868.60	7,868.60	188.80	136.37	90.00	917.82	-9,290.13	3,379.27	3,139.48	239.79	14.093		
15,100.00	7,950.00	7,868.60	7,868.60	191.46	136.37	90.00	917.82	-9,290.13	3,293.41	3,049.98	243.44	13.529		
15,200.00	7,950.00	7,868.60	7,868.60	194.11	136.37	90.00	917.82	-9,290.13	3,208.38	2,961.11	247.27	12.975		
15,300.00	7,950.00	7,868.60	7,868.60	196.77	136.37	90.00	917.82	-9,290.13	3,124.23	2,872.94	251.29	12.433		
15,400.00	7,950.00	7,868.60	7,868.60	199.42	136.37	90.00	917.82	-9,290.13	3,041.04	2,785.53	255.51	11.902		
15,500.00	7,950.00	7,868.60	7,868.60	202.08	136.37	90.00	917.82	-9,290.13	2,958.89	2,698.95	259.93	11.383		
15,600.00	7,950.00	7,868.60	7,868.60	204.74	136.37	90.00	917.82	-9,290.13	2,877.87	2,613.29	264.58	10.877		
15,700.00	7,950.00	7,868.60	7,868.60	207.40	136.37	90.00	917.82	-9,290.13	2,798.07	2,528.63	269.44	10.385		
15,800.00	7,950.00	7,868.60	7,868.60	210.06	136.37	90.00	917.82	-9,290.13	2,719.62	2,445.08	274.54	9.906		
15,900.00	7,950.00	7,868.60	7,868.60	212.72	136.37	90.00	917.82	-9,290.13	2,642.62	2,362.74	279.88	9.442		
16,000.00	7,950.00	7,868.60	7,868.60	215.38	136.37	90.00	917.82	-9,290.13	2,567.21	2,281.75	285.45	8.993		
16,100.00	7,950.00	7,868.60	7,868.60	218.05	136.37	90.00	917.82	-9,290.13	2,493.52	2,202.25	291.27	8.561		
16,200.00	7,950.00	7,868.60	7,868.60	220.71	136.37	90.00	917.82	-9,290.13	2,421.73	2,124.39	297.34	8.145		
16,300.00	7,950.00	7,868.60	7,868.60	223.37	136.37	90.00	917.82	-9,290.13	2,351.99	2,048.35	303.64	7.746		
16,400.00	7,950.00	7,868.60	7,868.60	226.04	136.37	90.00	917.82	-9,290.13	2,284.51	1,974.34	310.17	7.365		
16,500.00	7,950.00	7,868.60	7,868.60	228.70	136.37	90.00	917.82	-9,290.13	2,219.48	1,902.56	316.91	7.003		
16,600.00	7,950.00	7,868.60	7,868.60	231.37	136.37	90.00	917.82	-9,290.13	2,157.12	1,833.28	323.84	6.661		
16,700.00	7,950.00	7,868.60	7,868.60	234.04	136.37	90.00	917.82	-9,290.13	2,097.69	1,766.75	330.93	6.339		
16,800.00	7,950.00	7,868.60	7,868.60	236.70	136.37	90.00	917.82	-9,290.13	2,041.42	1,703.29	338.14	6.037		
16,900.00	7,950.00	7,868.60	7,868.60	239.37	136.37	90.00	917.82	-9,290.13	1,988.59	1,643.19	345.40	5.757		
17,000.00	7,950.00	7,868.60	7,868.60	242.04	136.37	90.00	917.82	-9,290.13	1,939.49	1,586.83	352.66	5.500		
17,100.00	7,950.00	7,868.60	7,868.60	244.71	136.37	90.00	917.82	-9,290.13	1,894.39	1,534.55	359.84	5.265		
17,200.00	7,950.00	7,868.60	7,868.60	247.38	136.37	90.00	917.82	-9,290.13	1,853.60	1,486.75	366.85	5.053		
17,300.00	7,950.00	7,868.60	7,868.60	250.05	136.37	90.00	917.82	-9,290.13	1,817.40	1,443.82	373.58	4.865		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - ABND VERT STATE-SMITH 1-16 - OWB - Design #1												Offset Site Error:	0.00 usft
Survey Program: 0-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
17,400.00	7,950.00	7,868.60	7,868.60	252.72	136.37	90.00	917.82	-9,290.13	1,786.07	1,406.13	379.94	4.701	
17,500.00	7,950.00	7,868.60	7,868.60	255.39	136.37	90.00	917.82	-9,290.13	1,759.87	1,374.06	385.82	4.561	
17,600.00	7,950.00	7,868.60	7,868.60	258.06	136.37	90.00	917.82	-9,290.13	1,739.04	1,347.95	391.09	4.447	
17,700.00	7,950.00	7,868.60	7,868.60	260.73	136.37	90.00	917.82	-9,290.13	1,723.76	1,328.09	395.68	4.356	
17,800.00	7,950.00	7,868.60	7,868.60	263.40	136.37	90.00	917.82	-9,290.13	1,714.20	1,314.72	399.48	4.291	
17,900.00	7,950.00	7,868.60	7,868.60	266.07	136.37	90.00	917.82	-9,290.13	1,710.43	1,308.00	402.43	4.250	
17,914.46	7,950.00	7,868.60	7,868.60	266.46	136.37	90.00	917.82	-9,290.13	1,710.37	1,307.59	402.78	4.246	CC, ES
18,000.00	7,950.00	7,868.60	7,868.60	268.74	136.37	90.00	917.82	-9,290.13	1,712.51	1,308.02	404.49	4.234	SF
18,100.00	7,950.00	7,868.60	7,868.60	271.42	136.37	90.00	917.82	-9,290.13	1,720.41	1,314.75	405.65	4.241	
18,200.00	7,950.00	7,868.60	7,868.60	274.09	136.37	90.00	917.82	-9,290.13	1,734.04	1,328.12	405.92	4.272	
18,253.56	7,950.00	7,868.60	7,868.60	275.52	136.37	90.00	917.82	-9,290.13	1,743.66	1,337.95	405.71	4.298	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 94-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-199.99	0.00	199.99					
100.00	100.00	100.26	100.26	0.13	0.13	-179.98	-199.82	-0.07	199.82	199.56	0.27	749.665		
200.00	200.00	200.02	200.02	0.49	0.50	-179.89	-199.57	-0.38	199.57	198.58	1.00	200.557		
250.00	250.00	250.02	250.02	0.67	0.68	-179.83	-199.47	-0.60	199.47	198.11	1.35	147.417		
300.00	300.00	300.01	300.00	0.85	0.86	51.68	-199.36	-0.81	199.09	197.39	1.70	116.791		
400.00	399.93	399.85	399.85	1.19	1.22	52.64	-199.17	-1.26	196.77	194.36	2.41	81.764		
500.00	499.68	499.43	499.42	1.55	1.57	54.50	-199.03	-1.74	192.49	189.37	3.12	61.677		
600.00	599.13	599.02	599.01	1.93	1.93	57.36	-198.95	-2.22	186.57	182.72	3.85	48.473		
696.56	694.75	694.98	694.97	2.31	2.27	61.17	-198.61	-2.50	179.37	174.80	4.57	39.253		
700.00	698.15	698.38	698.37	2.33	2.28	61.33	-198.59	-2.51	179.10	174.50	4.60	38.961		
800.00	796.94	797.07	797.06	2.74	2.64	65.97	-198.20	-2.90	171.83	166.47	5.36	32.058		
900.00	895.73	895.74	895.73	3.17	2.99	71.00	-197.77	-3.33	165.78	159.64	6.14	27.006		
1,000.00	994.51	993.96	993.95	3.60	3.34	76.27	-197.52	-3.66	161.24	154.31	6.92	23.285		
1,100.00	1,093.30	1,092.38	1,092.37	4.04	3.69	81.73	-197.64	-3.97	158.50	150.78	7.71	20.548		
1,200.00	1,192.09	1,191.01	1,190.99	4.48	4.03	87.29	-197.92	-4.25	157.39	148.89	8.50	18.514		
1,218.67	1,210.54	1,209.44	1,209.42	4.56	4.09	88.33	-197.99	-4.30	157.36	148.71	8.65	18.197 CC		
1,300.00	1,290.88	1,289.79	1,289.78	4.92	4.37	92.88	-198.24	-4.55	157.86	148.58	9.29	16.998		
1,400.00	1,389.67	1,388.34	1,388.32	5.36	4.72	98.40	-198.55	-4.96	159.93	149.86	10.07	15.886		
1,500.00	1,488.45	1,487.17	1,487.15	5.80	5.07	103.78	-198.83	-5.46	163.53	152.69	10.84	15.085		
1,600.00	1,587.24	1,585.78	1,585.77	6.24	5.42	108.88	-199.11	-5.98	168.55	156.95	11.60	14.529		
1,700.00	1,686.03	1,684.31	1,684.29	6.69	5.77	113.66	-199.41	-6.62	174.97	162.62	12.35	14.168		
1,800.00	1,784.82	1,783.04	1,783.01	7.13	6.12	118.14	-199.61	-7.37	182.60	169.51	13.09	13.952		
1,900.00	1,883.60	1,881.87	1,881.84	7.57	6.48	122.24	-199.82	-8.07	191.22	177.41	13.82	13.839		
2,000.00	1,982.39	1,980.63	1,980.60	8.02	6.83	125.96	-200.03	-8.73	200.71	186.17	14.54	13.804		
2,100.00	2,081.18	2,079.44	2,079.41	8.46	7.18	129.35	-200.22	-9.37	210.95	195.69	15.26	13.827		
2,200.00	2,179.97	2,178.29	2,178.26	8.91	7.54	132.42	-200.42	-9.95	221.80	205.83	15.97	13.889		
2,300.00	2,278.75	2,277.64	2,277.61	9.36	7.89	135.21	-200.61	-10.44	233.13	216.46	16.67	13.981		
2,400.00	2,377.54	2,377.34	2,377.30	9.80	8.22	137.77	-200.65	-10.52	244.54	227.17	17.37	14.079		
2,500.00	2,476.33	2,476.35	2,476.31	10.25	8.55	140.11	-200.62	-10.42	256.22	238.16	18.05	14.194		
2,600.00	2,575.12	2,575.13	2,575.09	10.69	8.89	142.18	-200.80	-10.23	268.16	249.42	18.74	14.310		
2,700.00	2,673.90	2,673.25	2,673.22	11.14	9.23	144.10	-200.83	-10.24	280.65	261.22	19.43	14.442		
2,800.00	2,772.69	2,772.15	2,772.11	11.59	9.58	145.89	-200.73	-10.35	293.54	273.41	20.13	14.580		
2,900.00	2,871.48	2,871.10	2,871.06	12.03	9.92	147.53	-200.65	-10.34	306.56	285.73	20.83	14.718		
3,000.00	2,970.27	2,969.80	2,969.76	12.48	10.27	149.02	-200.66	-10.37	319.85	298.32	21.53	14.858		
3,100.00	3,069.05	3,068.43	3,068.40	12.93	10.61	150.39	-200.62	-10.40	333.33	311.10	22.23	14.997		
3,200.00	3,167.84	3,166.99	3,166.95	13.37	10.96	151.65	-200.58	-10.51	347.07	324.14	22.93	15.136		
3,300.00	3,266.63	3,265.42	3,265.38	13.82	11.31	152.82	-200.53	-10.68	361.02	337.38	23.64	15.274		
3,400.00	3,365.42	3,364.99	3,364.95	14.27	11.66	153.92	-200.40	-10.83	375.11	350.76	24.34	15.410		
3,500.00	3,464.20	3,462.89	3,462.86	14.71	12.00	154.94	-200.27	-10.86	389.20	364.17	25.03	15.547		
3,600.00	3,562.99	3,562.14	3,562.10	15.16	12.35	155.88	-200.17	-11.08	403.58	377.84	25.74	15.679		
3,700.00	3,661.78	3,661.66	3,661.62	15.61	12.70	156.72	-200.42	-11.17	417.85	391.40	26.45	15.798		
3,800.00	3,760.57	3,761.35	3,761.31	16.05	13.04	157.52	-200.61	-11.06	432.02	404.87	27.15	15.911		
3,900.00	3,859.35	3,858.47	3,858.44	16.50	13.37	158.26	-200.65	-10.99	446.34	418.50	27.84	16.031		
4,000.00	3,958.14	3,957.80	3,957.76	16.95	13.72	158.97	-200.68	-11.06	460.88	432.33	28.55	16.144		
4,100.00	4,056.93	4,056.84	4,056.80	17.40	14.05	159.64	-200.69	-11.03	475.40	446.16	29.24	16.257		
4,200.00	4,155.72	4,155.33	4,155.29	17.84	14.39	160.28	-200.66	-11.00	489.99	460.05	29.94	16.366		
4,300.00	4,254.50	4,254.31	4,254.27	18.29	14.73	160.88	-200.61	-10.97	504.64	473.99	30.64	16.469		
4,400.00	4,353.29	4,353.17	4,353.13	18.74	15.06	161.45	-200.55	-10.90	519.30	487.96	31.34	16.569		
4,500.00	4,452.08	4,451.77	4,451.73	19.19	15.40	161.99	-200.49	-10.86	534.04	502.00	32.04	16.666		
4,600.00	4,550.87	4,550.56	4,550.52	19.63	15.75	162.51	-200.33	-10.76	548.81	516.06	32.75	16.758		
4,700.00	4,649.65	4,651.17	4,651.13	20.08	16.09	163.01	-200.18	-10.68	563.64	530.17	33.47	16.842		
4,800.00	4,748.44	4,754.89	4,754.84	20.53	16.45	163.36	-201.55	-10.28	577.66	543.45	34.21	16.887		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 94-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,847.23	4,855.18	4,855.03	20.97	16.80	163.38	-206.04	-10.69	591.25	556.31	34.94	16.923		
5,000.00	4,946.02	4,956.09	4,955.76	21.42	17.15	163.26	-211.93	-11.47	604.67	568.99	35.68	16.947		
5,100.00	5,044.81	5,063.65	5,063.06	21.87	17.53	163.05	-219.29	-11.88	617.37	580.90	36.46	16.931		
5,200.00	5,143.59	5,178.04	5,177.04	22.32	17.92	162.75	-228.96	-10.62	628.10	590.82	37.28	16.849		
5,300.00	5,242.38	5,295.02	5,293.41	22.76	18.33	162.43	-240.11	-6.55	636.25	598.17	38.08	16.707		
5,400.00	5,341.17	5,412.59	5,409.93	23.21	18.74	161.96	-254.23	-0.01	641.56	602.68	38.88	16.501		
5,500.00	5,439.96	5,526.77	5,522.19	23.66	19.15	161.04	-273.73	7.11	644.48	604.80	39.68	16.243		
5,600.00	5,538.74	5,629.65	5,622.35	24.11	19.53	159.80	-296.37	13.39	645.98	605.49	40.49	15.955		
5,700.00	5,637.53	5,730.70	5,719.96	24.55	19.91	158.27	-321.94	18.61	647.62	606.29	41.33	15.670		
5,800.00	5,736.32	5,831.26	5,816.41	25.00	20.31	156.52	-349.99	23.38	649.37	607.17	42.20	15.388		
5,900.00	5,835.11	5,937.44	5,918.06	25.45	20.73	154.65	-380.16	29.11	650.96	607.85	43.11	15.101		
6,000.00	5,933.89	6,025.66	6,002.30	25.90	21.10	153.04	-405.95	33.58	653.27	609.28	43.99	14.851		
6,100.00	6,032.68	6,106.92	6,079.56	26.34	21.45	151.42	-431.02	35.85	658.14	613.30	44.85	14.675		
6,200.00	6,131.47	6,185.14	6,153.23	26.79	21.79	149.66	-457.28	35.53	666.42	620.74	45.68	14.590		
6,300.00	6,230.26	6,263.24	6,226.06	27.24	22.15	147.75	-485.34	32.76	678.39	631.91	46.48	14.596		
6,400.00	6,329.04	6,342.66	6,299.31	27.69	22.52	145.70	-515.64	27.86	693.86	646.59	47.27	14.679		
6,500.00	6,427.83	6,424.75	6,374.36	28.13	22.91	143.54	-548.21	21.18	712.41	664.34	48.07	14.819		
6,600.00	6,526.62	6,509.54	6,451.23	28.58	23.34	141.30	-583.10	13.23	733.51	684.61	48.91	14.998		
6,700.00	6,625.41	6,591.06	6,524.07	29.03	23.76	139.08	-618.69	4.70	757.14	707.46	49.68	15.240		
6,800.00	6,724.19	6,670.76	6,594.12	29.48	24.20	136.86	-655.54	-4.52	783.52	733.10	50.42	15.541		
6,900.00	6,822.98	6,752.27	6,664.91	29.93	24.67	134.59	-694.67	-14.71	812.54	761.37	51.17	15.880		
7,000.00	6,921.77	6,845.62	6,745.37	30.37	25.22	132.09	-740.50	-26.53	843.44	791.30	52.15	16.174		
7,100.00	7,020.56	6,956.18	6,840.60	30.82	25.91	129.27	-795.36	-38.51	874.30	820.84	53.46	16.353		
7,200.00	7,119.34	7,118.05	6,978.86	31.27	26.97	125.12	-879.04	-46.21	902.02	846.33	55.69	16.197		
7,300.00	7,218.13	7,223.00	7,068.08	31.72	27.68	122.45	-934.27	-44.32	925.66	868.78	56.89	16.272		
7,394.03	7,311.02	7,318.00	7,148.78	32.14	28.35	120.14	-984.34	-42.35	949.29	891.34	57.95	16.382		
7,400.00	7,316.92	7,325.03	7,154.76	32.16	28.39	117.48	-988.04	-42.12	950.75	892.72	58.03	16.384		
7,450.00	7,366.55	7,379.24	7,200.82	32.36	28.78	81.63	-1,016.54	-40.01	960.62	901.99	58.63	16.384		
7,500.00	7,416.28	7,429.30	7,243.37	32.53	29.14	34.43	-1,042.81	-37.72	966.65	907.52	59.13	16.348		
7,550.00	7,465.74	7,474.51	7,281.82	32.65	29.46	9.46	-1,066.48	-35.48	968.99	909.48	59.51	16.282		
7,600.00	7,514.54	7,516.79	7,317.80	32.75	29.77	-2.37	-1,088.60	-33.45	967.97	908.15	59.82	16.181		
7,650.00	7,562.31	7,541.00	7,338.41	32.83	29.95	-8.83	-1,101.25	-32.32	963.87	904.09	59.78	16.125		
7,700.00	7,608.70	7,573.10	7,365.87	32.89	30.18	-13.49	-1,117.86	-31.48	957.14	897.32	59.82	16.000		
7,750.00	7,653.34	7,595.70	7,385.33	32.93	30.34	-16.87	-1,129.34	-31.65	948.24	888.59	59.65	15.898		
7,800.00	7,695.91	7,618.19	7,404.79	32.95	30.51	-19.77	-1,140.58	-32.45	937.15	877.73	59.42	15.771		
7,850.00	7,736.06	7,635.00	7,419.39	32.95	30.63	-22.21	-1,148.85	-33.46	923.99	864.96	59.02	15.655		
7,900.00	7,773.51	7,635.00	7,419.39	32.95	30.63	-23.85	-1,148.85	-33.46	909.47	851.32	58.15	15.640		
7,950.00	7,807.96	7,668.27	7,447.99	32.94	30.88	-26.93	-1,165.58	-36.48	892.43	834.36	58.07	15.368		
8,000.00	7,839.15	7,681.87	7,459.48	32.92	30.98	-29.23	-1,172.67	-38.10	874.43	816.97	57.46	15.218		
8,050.00	7,866.84	7,694.64	7,470.15	32.90	31.08	-31.58	-1,179.47	-39.82	855.15	798.34	56.81	15.053		
8,100.00	7,890.83	7,729.00	7,498.29	32.88	31.34	-35.38	-1,198.36	-45.44	835.46	778.65	56.82	14.705		
8,150.00	7,910.93	7,729.00	7,498.29	32.87	31.34	-37.25	-1,198.36	-45.44	813.65	757.83	55.82	14.577		
8,200.00	7,926.99	7,729.00	7,498.29	32.87	31.34	-39.15	-1,198.36	-45.44	791.46	736.64	54.82	14.437		
8,250.00	7,938.88	7,729.00	7,498.29	32.89	31.34	-41.08	-1,198.36	-45.44	769.05	715.17	53.87	14.275		
8,300.00	7,946.52	7,729.00	7,498.29	32.94	31.34	-43.02	-1,198.36	-45.44	746.56	693.55	53.01	14.083		
8,350.00	7,949.85	7,751.06	7,515.92	33.03	31.51	-46.84	-1,210.84	-49.93	723.51	670.33	53.18	13.605		
8,363.33	7,950.00	7,752.67	7,517.19	33.06	31.52	-47.52	-1,211.75	-50.29	717.48	664.39	53.09	13.514		
8,400.00	7,950.00	7,757.09	7,520.68	33.16	31.56	-47.90	-1,214.27	-51.30	701.68	648.77	52.90	13.264		
8,500.00	7,950.00	7,770.81	7,531.43	33.64	31.67	-49.09	-1,222.11	-54.67	666.64	613.81	52.84	12.617		
8,600.00	7,950.00	7,787.61	7,544.41	34.42	31.80	-50.54	-1,231.75	-59.23	644.74	591.10	53.64	12.019		
8,700.00	7,950.00	7,808.60	7,560.31	35.49	31.97	-52.33	-1,243.86	-65.62	637.07	581.67	55.40	11.499		
8,702.74	7,950.00	7,809.24	7,560.79	35.52	31.97	-52.39	-1,244.24	-65.83	637.07	581.60	55.47	11.486		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 94-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	7,950.00	7,853.40	7,593.27	36.77	32.31	-56.08	-1,269.45	-81.88	643.59	584.98	58.61	10.980		
8,900.00	7,950.00	7,972.95	7,676.58	38.23	33.17	-65.12	-1,328.66	-143.34	659.73	595.99	63.74	10.350		
9,000.00	7,950.00	8,056.26	7,729.14	39.83	33.72	-70.48	-1,362.35	-198.40	680.00	612.81	67.19	10.121		
9,100.00	7,950.00	8,146.67	7,776.66	41.56	34.32	-75.26	-1,397.95	-266.46	707.22	636.88	70.34	10.055		
9,200.00	7,950.00	8,498.47	7,856.73	43.39	36.56	-82.56	-1,454.22	-597.13	718.49	644.13	74.36	9.662		
9,300.00	7,950.00	8,604.99	7,857.42	45.30	37.31	-82.56	-1,448.97	-703.52	712.93	635.48	77.45	9.206		
9,400.00	7,950.00	8,697.02	7,858.18	47.29	38.13	-82.57	-1,445.14	-795.46	708.09	627.32	80.77	8.767		
9,500.00	7,950.00	8,825.94	7,859.28	49.35	39.52	-82.57	-1,437.28	-924.13	701.39	617.16	84.23	8.327		
9,600.00	7,950.00	8,949.87	7,860.28	51.47	41.07	-82.51	-1,424.71	-1,047.40	690.63	602.83	87.80	7.866		
9,700.00	7,950.00	9,045.70	7,860.70	53.63	42.44	-82.42	-1,413.49	-1,142.58	678.40	586.72	91.68	7.400		
9,800.00	7,950.00	9,126.91	7,861.02	55.85	43.72	-82.35	-1,405.33	-1,223.37	667.84	572.02	95.81	6.970		
9,900.00	7,950.00	9,206.46	7,861.91	58.10	45.09	-82.35	-1,399.75	-1,302.72	660.16	560.09	100.07	6.597		
10,000.00	7,950.00	9,279.00	7,862.75	60.39	46.42	-82.39	-1,397.08	-1,375.19	655.88	551.47	104.41	6.282		
10,040.01	7,950.00	9,306.04	7,863.05	61.31	46.94	-82.41	-1,397.01	-1,402.23	655.49	549.33	106.15	6.175		
10,100.00	7,950.00	9,354.50	7,863.54	62.71	47.88	-82.46	-1,398.04	-1,450.68	656.27	547.51	108.76	6.034		
10,200.00	7,950.00	9,467.42	7,864.57	65.05	50.17	-82.56	-1,399.67	-1,563.58	657.01	543.74	113.27	5.801		
10,284.54	7,950.00	9,550.60	7,865.42	67.06	51.91	-82.63	-1,399.74	-1,646.75	656.50	539.39	117.11	5.606		
10,300.00	7,950.00	9,562.78	7,865.54	67.43	52.17	-82.64	-1,399.86	-1,658.94	656.53	538.73	117.81	5.573		
10,400.00	7,950.00	9,642.72	7,866.21	69.82	53.89	-82.72	-1,402.10	-1,738.84	658.62	536.29	122.33	5.384		
10,500.00	7,950.00	9,725.47	7,867.11	72.24	55.72	-82.84	-1,406.74	-1,821.46	663.48	536.62	126.86	5.230		
10,600.00	7,950.00	9,809.36	7,868.12	74.68	57.60	-83.00	-1,413.54	-1,905.06	670.81	539.43	131.38	5.106		
10,700.00	7,950.00	9,895.77	7,869.03	77.13	59.58	-83.16	-1,422.40	-1,991.00	680.29	544.37	135.92	5.005		
10,800.00	7,950.00	9,998.20	7,870.13	79.60	61.97	-83.36	-1,433.74	-2,092.80	690.60	549.83	140.77	4.906		
10,900.00	7,950.00	10,097.86	7,871.46	82.08	64.31	-83.56	-1,444.39	-2,191.88	700.50	554.90	145.60	4.811		
11,000.00	7,950.00	10,223.57	7,873.01	84.57	67.29	-83.79	-1,456.36	-2,317.00	709.42	558.54	150.88	4.702		
11,100.00	7,950.00	10,406.70	7,875.24	87.08	71.66	-83.98	-1,459.21	-2,499.98	710.57	554.55	156.02	4.554		
11,200.00	7,950.00	10,514.67	7,876.45	89.59	74.24	-84.03	-1,453.17	-2,607.78	704.29	543.40	160.89	4.377		
11,300.00	7,950.00	10,597.41	7,877.45	92.12	76.24	-84.07	-1,449.38	-2,690.43	699.03	533.00	166.03	4.210		
11,400.00	7,950.00	10,678.91	7,878.41	94.66	78.23	-84.13	-1,447.68	-2,771.90	696.27	525.14	171.12	4.069		
11,500.00	7,950.00	10,781.38	7,879.54	97.20	80.75	-84.21	-1,447.13	-2,874.37	695.06	518.90	176.16	3.946		
11,600.00	7,950.00	10,894.42	7,880.51	99.75	83.55	-84.27	-1,444.81	-2,987.37	692.36	511.20	181.15	3.822		
11,700.00	7,950.00	10,986.91	7,881.47	102.31	85.85	-84.33	-1,442.60	-3,079.83	689.30	503.03	186.27	3.701		
11,767.70	7,950.00	11,036.78	7,882.03	104.04	87.10	-84.37	-1,442.32	-3,129.69	688.46	498.71	189.75	3.628		
11,800.00	7,950.00	11,060.86	7,882.28	104.87	87.70	-84.39	-1,442.63	-3,153.77	688.65	497.28	191.37	3.599		
11,900.00	7,950.00	11,147.33	7,883.14	107.44	89.88	-84.48	-1,445.30	-3,240.20	691.02	494.64	196.38	3.519		
12,000.00	7,950.00	11,263.45	7,884.40	110.02	92.82	-84.61	-1,448.94	-3,356.25	693.55	491.93	201.62	3.440		
12,100.00	7,950.00	11,347.80	7,885.38	112.60	94.96	-84.70	-1,451.09	-3,440.56	695.41	488.76	206.65	3.365		
12,200.00	7,950.00	11,452.13	7,886.79	115.19	97.62	-84.84	-1,454.95	-3,544.81	698.42	486.57	211.85	3.297		
12,300.00	7,950.00	11,534.01	7,887.88	117.78	99.71	-84.95	-1,458.53	-3,626.60	702.09	485.29	216.80	3.238		
12,400.00	7,950.00	11,629.97	7,889.11	120.38	102.17	-85.09	-1,464.51	-3,722.36	707.61	485.71	221.90	3.189		
12,500.00	7,950.00	11,758.87	7,891.11	122.98	105.48	-85.28	-1,470.41	-3,851.11	711.56	484.13	227.44	3.129		
12,600.00	7,950.00	11,916.43	7,893.47	125.58	109.52	-85.45	-1,467.84	-4,008.58	709.37	477.08	232.29	3.054		
12,700.00	7,950.00	12,036.08	7,895.17	128.19	112.58	-85.53	-1,458.84	-4,127.88	701.14	464.12	237.02	2.958		
12,800.00	7,950.00	12,107.71	7,896.13	130.80	114.42	-85.58	-1,454.39	-4,199.37	694.13	451.28	242.85	2.858		
12,900.00	7,950.00	12,197.61	7,897.33	133.41	116.74	-85.65	-1,450.90	-4,289.19	689.57	441.36	248.21	2.778		
13,000.00	7,950.00	12,306.77	7,898.83	136.03	119.56	-85.74	-1,446.77	-4,398.26	685.14	431.82	253.31	2.705		
13,100.00	7,950.00	12,408.07	7,900.22	138.65	122.18	-85.83	-1,442.02	-4,499.44	679.79	421.26	258.52	2.629		
13,200.00	7,950.00	12,511.64	7,901.67	141.27	124.87	-85.91	-1,436.42	-4,602.85	673.71	410.02	263.70	2.555		
13,300.00	7,950.00	12,589.00	7,902.77	143.90	126.88	-85.98	-1,433.07	-4,680.12	668.85	399.57	269.28	2.484		
13,365.04	7,950.00	12,636.11	7,903.44	145.60	128.10	-86.04	-1,432.45	-4,727.22	667.67	394.91	272.76	2.448		
13,400.00	7,950.00	12,658.55	7,903.74	146.52	128.69	-86.06	-1,432.80	-4,749.66	668.00	393.46	274.54	2.433		
13,500.00	7,950.00	12,736.94	7,904.76	149.15	130.74	-86.17	-1,436.46	-4,827.95	671.87	392.40	279.47	2.404		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ LONE TREE 4-65 15-16 3BH - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 94-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,600.00	7,950.00	12,838.09	7,906.09	151.78	133.38	-86.31	-1,442.67	-4,928.89	677.35	392.59	284.76	2.379		
13,700.00	7,950.00	12,936.49	7,907.45	154.42	135.96	-86.45	-1,447.91	-5,027.15	682.01	392.02	290.00	2.352		
13,800.00	7,950.00	13,029.79	7,908.60	157.05	138.40	-86.58	-1,453.77	-5,120.25	687.64	392.53	295.10	2.330		
13,900.00	7,950.00	13,137.86	7,910.10	159.69	141.23	-86.73	-1,460.74	-5,228.09	693.45	392.88	300.57	2.307		
14,000.00	7,950.00	13,251.10	7,911.79	162.33	144.20	-86.89	-1,465.91	-5,341.20	697.35	391.26	306.09	2.278		
14,100.00	7,950.00	13,364.52	7,913.43	164.97	147.18	-87.04	-1,468.92	-5,454.57	699.34	387.83	311.51	2.245		
14,200.00	7,950.00	13,474.79	7,915.05	167.61	150.08	-87.17	-1,469.87	-5,564.82	699.55	382.71	316.84	2.208		
14,300.00	7,950.00	13,585.32	7,916.66	170.26	152.99	-87.30	-1,469.48	-5,675.33	698.56	376.46	322.10	2.169		
14,400.00	7,950.00	13,694.40	7,918.22	172.90	155.86	-87.41	-1,467.17	-5,784.38	695.79	368.48	327.32	2.126		
14,500.00	7,950.00	13,793.07	7,919.55	175.55	158.46	-87.51	-1,464.57	-5,883.00	692.53	359.89	332.64	2.082		
14,600.00	7,950.00	13,881.24	7,920.57	178.20	160.79	-87.59	-1,463.04	-5,971.15	690.20	352.14	338.05	2.042		
14,658.26	7,950.00	13,930.27	7,920.91	179.74	162.08	-87.62	-1,462.99	-6,020.18	689.79	348.63	341.16	2.022		
14,700.00	7,950.00	13,964.49	7,921.19	180.85	162.99	-87.64	-1,463.39	-6,054.40	690.01	346.67	343.34	2.010		
14,800.00	7,950.00	14,050.06	7,922.09	183.50	165.25	-87.72	-1,465.87	-6,139.93	692.28	343.80	348.48	1.987		
14,900.00	7,950.00	14,139.95	7,922.70	186.15	167.62	-87.78	-1,469.95	-6,229.73	696.21	342.63	353.57	1.969		
15,000.00	7,950.00	14,237.85	7,923.31	188.80	170.21	-87.85	-1,475.51	-6,327.47	701.28	342.46	358.82	1.954		
15,100.00	7,950.00	14,350.03	7,924.26	191.46	173.17	-87.94	-1,480.82	-6,439.51	705.42	341.04	364.38	1.936		
15,200.00	7,950.00	14,460.54	7,925.19	194.11	176.09	-88.02	-1,484.07	-6,549.96	707.74	337.91	369.83	1.914		
15,300.00	7,950.00	14,574.68	7,926.23	196.77	179.12	-88.11	-1,485.59	-6,664.09	708.48	333.26	375.22	1.888		
15,353.19	7,950.00	14,625.58	7,926.66	198.18	180.47	-88.14	-1,485.83	-6,714.99	708.41	330.36	378.04	1.874		
15,400.00	7,950.00	14,670.77	7,926.99	199.42	181.66	-88.17	-1,486.15	-6,760.18	708.46	327.93	380.53	1.862		
15,500.00	7,950.00	14,756.55	7,927.42	202.08	183.94	-88.21	-1,487.76	-6,845.94	709.73	323.99	385.74	1.840		
15,600.00	7,950.00	14,874.79	7,927.79	204.74	187.07	-88.24	-1,489.93	-6,964.16	711.04	319.88	391.17	1.818		
15,700.00	7,950.00	14,994.61	7,928.16	207.40	190.25	-88.26	-1,487.57	-7,083.94	708.33	312.00	396.33	1.787		
15,800.00	7,950.00	15,090.02	7,928.42	210.06	192.78	-88.28	-1,485.57	-7,179.34	705.64	303.92	401.72	1.757		
15,900.00	7,950.00	15,183.45	7,928.68	212.72	195.26	-88.30	-1,484.04	-7,272.75	703.44	296.33	407.11	1.728		
16,000.00	7,950.00	15,275.31	7,929.02	215.38	197.70	-88.32	-1,483.81	-7,364.61	702.59	290.12	412.47	1.703		
16,057.52	7,950.00	15,330.42	7,929.23	216.92	199.17	-88.34	-1,484.01	-7,419.71	702.46	286.93	415.54	1.690		
16,100.00	7,950.00	15,367.27	7,929.36	218.05	200.15	-88.35	-1,484.37	-7,456.57	702.62	284.84	417.78	1.682		
16,200.00	7,950.00	15,455.79	7,929.62	220.71	202.50	-88.37	-1,486.31	-7,545.06	704.23	281.24	422.99	1.665		
16,300.00	7,950.00	15,548.88	7,930.01	223.37	204.97	-88.41	-1,489.68	-7,638.09	707.25	279.06	428.19	1.652		
16,400.00	7,950.00	15,660.03	7,930.26	226.04	207.92	-88.44	-1,493.67	-7,749.17	710.31	276.61	433.69	1.638		
16,500.00	7,950.00	15,792.32	7,930.53	228.70	211.44	-88.46	-1,493.84	-7,881.45	709.88	270.91	438.96	1.617		
16,600.00	7,950.00	15,880.42	7,930.80	231.37	213.79	-88.48	-1,492.49	-7,969.53	707.78	263.36	444.43	1.593		
16,700.00	7,950.00	15,997.24	7,931.57	234.04	216.90	-88.54	-1,490.86	-8,086.34	705.85	256.30	449.55	1.570		
16,800.00	7,950.00	16,098.52	7,932.52	236.70	219.59	-88.61	-1,487.52	-8,187.55	701.95	247.08	454.86	1.543		
16,900.00	7,950.00	16,177.00	7,933.26	239.37	221.68	-88.66	-1,486.48	-8,266.02	699.98	239.50	460.47	1.520		
16,940.96	7,950.00	16,213.77	7,933.61	240.46	222.66	-88.69	-1,486.67	-8,302.79	699.93	237.27	462.67	1.513		
17,000.00	7,950.00	16,270.88	7,934.16	242.04	224.18	-88.74	-1,487.09	-8,359.89	700.02	234.20	465.82	1.503		
17,100.00	7,950.00	16,353.46	7,934.95	244.71	226.38	-88.80	-1,488.83	-8,442.45	701.53	230.57	470.96	1.490 Level 3		
17,200.00	7,950.00	16,442.54	7,935.81	247.38	228.75	-88.88	-1,492.58	-8,531.44	705.14	229.11	476.03	1.481 Level 3		
17,300.00	7,950.00	16,538.91	7,936.75	250.05	231.32	-88.96	-1,497.63	-8,627.68	709.78	228.53	481.25	1.475 Level 3		
17,400.00	7,950.00	16,680.73	7,938.19	252.72	235.09	-89.08	-1,501.58	-8,769.42	712.12	224.96	487.16	1.462 Level 3		
17,500.00	7,950.00	16,804.20	7,939.47	255.39	238.39	-89.18	-1,498.21	-8,892.83	708.65	216.55	492.10	1.440 Level 3		
17,600.00	7,950.00	16,914.01	7,940.69	258.06	241.31	-89.27	-1,493.38	-9,002.52	703.67	206.56	497.11	1.416 Level 3		
17,700.00	7,950.00	17,009.80	7,941.67	260.73	243.86	-89.35	-1,488.49	-9,098.18	697.99	195.38	502.61	1.389 Level 3		
17,800.00	7,950.00	17,103.70	7,942.71	263.40	246.37	-89.43	-1,484.57	-9,191.99	693.23	185.07	508.16	1.364 Level 3		
17,900.00	7,950.00	17,205.82	7,943.81	266.07	249.09	-89.52	-1,480.67	-9,294.03	688.83	175.39	513.43	1.342 Level 3		
18,000.00	7,950.00	17,313.29	7,945.05	268.74	251.96	-89.61	-1,475.71	-9,401.38	683.63	165.13	518.50	1.318 Level 3		
18,100.00	7,950.00	17,415.86	7,946.13	271.42	254.70	-89.71	-1,470.04	-9,503.79	677.52	153.80	523.72	1.294 Level 3		
18,200.00	7,950.00	17,505.01	7,947.06	274.09	257.07	-89.78	-1,465.81	-9,592.83	672.19	142.69	529.50	1.269 Level 3		
18,253.56	7,950.00	17,542.00	7,947.43	275.52	258.06	-89.81	-1,464.33	-9,629.79	669.94	137.16	532.77	1.257 Level 3, ES, SF		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 2310-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	2,218.00	2,217.98	0.00	0.00	117.63	-497.68	950.94	2,467.08					
100.00	100.00	2,218.00	2,217.98	0.13	0.00	117.63	-497.68	950.94	2,377.44	2,375.39	2.05	1,158.226		
200.00	200.00	2,218.00	2,217.98	0.49	0.00	117.63	-497.68	950.94	2,288.65	2,286.60	2.05	1,115.777		
250.00	250.00	2,218.00	2,217.98	0.67	0.00	117.63	-497.68	950.94	2,244.62	2,242.56	2.06	1,091.034		
300.00	300.00	2,218.00	2,217.98	0.85	0.00	-11.39	-497.68	950.94	2,200.63	2,198.55	2.08	1,059.519		
400.00	399.93	2,218.00	2,217.98	1.19	0.00	-12.16	-497.68	950.94	2,112.20	2,110.06	2.14	987.531		
500.00	499.68	2,218.00	2,217.98	1.55	0.00	-13.01	-497.68	950.94	2,023.20	2,020.98	2.23	908.026		
600.00	599.13	2,218.00	2,217.98	1.93	0.00	-13.95	-497.68	950.94	1,933.68	1,931.35	2.33	828.351		
696.56	694.75	2,218.00	2,217.98	2.31	0.00	-14.95	-497.68	950.94	1,846.78	1,844.33	2.45	752.875		
700.00	698.15	2,218.00	2,217.98	2.33	0.00	-14.95	-497.68	950.94	1,843.67	1,841.20	2.47	746.267		
800.00	796.94	2,218.00	2,217.98	2.74	0.00	-14.95	-497.68	950.94	1,754.01	1,751.43	2.58	678.884		
900.00	895.73	2,218.00	2,217.98	3.17	0.00	-14.95	-497.68	950.94	1,665.53	1,662.81	2.72	611.900		
1,000.00	994.51	2,218.00	2,217.98	3.60	0.00	-14.95	-497.68	950.94	1,578.42	1,575.54	2.89	546.542		
1,100.00	1,093.30	2,218.00	2,217.98	4.04	0.00	-14.95	-497.68	950.94	1,492.94	1,489.85	3.09	483.910		
1,200.00	1,192.09	2,218.00	2,217.98	4.48	0.00	-14.95	-497.68	950.94	1,409.36	1,406.04	3.32	424.926		
1,300.00	1,290.88	2,218.00	2,217.98	4.92	0.00	-14.95	-497.68	950.94	1,328.05	1,324.47	3.59	370.302		
1,400.00	1,389.67	2,218.00	2,217.98	5.36	0.00	-14.95	-497.68	950.94	1,249.46	1,245.57	3.90	320.538		
1,500.00	1,488.45	2,218.00	2,217.98	5.80	0.00	-14.95	-497.68	950.94	1,174.14	1,169.88	4.26	275.932		
1,600.00	1,587.24	2,218.00	2,217.98	6.24	0.00	-14.95	-497.68	950.94	1,102.74	1,098.08	4.66	236.609		
1,700.00	1,686.03	2,218.00	2,217.98	6.69	0.00	-14.95	-497.68	950.94	1,036.08	1,030.96	5.12	202.548		
1,800.00	1,784.82	2,218.00	2,217.98	7.13	0.00	-14.95	-497.68	950.94	975.14	969.52	5.62	173.614		
1,900.00	1,883.60	2,218.00	2,217.98	7.57	0.00	-14.95	-497.68	950.94	921.05	914.89	6.16	149.587		
2,000.00	1,982.39	2,218.00	2,217.98	8.02	0.00	-14.95	-497.68	950.94	875.08	868.36	6.72	130.184		
2,100.00	2,081.18	2,218.00	2,217.98	8.46	0.00	-14.95	-497.68	950.94	838.57	831.28	7.29	115.082		
2,200.00	2,179.97	2,218.00	2,217.98	8.91	0.00	-14.95	-497.68	950.94	812.79	804.97	7.82	103.935		
2,300.00	2,278.75	2,271.66	2,271.64	9.36	0.10	-15.09	-497.96	951.05	796.95	788.61	8.35	95.483		
2,400.00	2,377.54	2,374.14	2,374.12	9.80	0.39	-15.40	-498.05	951.42	782.32	773.31	9.02	86.776		
2,500.00	2,476.33	2,480.36	2,480.29	10.25	0.76	-15.95	-495.16	952.11	766.90	757.13	9.76	78.545		
2,600.00	2,575.12	2,580.67	2,580.48	10.69	1.12	-16.64	-490.38	952.87	750.86	740.35	10.51	71.456		
2,700.00	2,673.90	2,690.16	2,689.82	11.14	1.52	-17.47	-484.52	953.08	734.22	722.94	11.28	65.091		
2,800.00	2,772.69	2,792.55	2,792.04	11.59	1.89	-18.26	-478.71	952.15	716.57	704.53	12.04	59.531		
2,900.00	2,871.48	2,892.00	2,891.31	12.03	2.25	-19.08	-472.92	950.82	698.61	685.82	12.79	54.616		
3,000.00	2,970.27	2,988.33	2,987.47	12.48	2.61	-19.91	-467.37	949.57	680.84	667.29	13.54	50.271		
3,100.00	3,069.05	3,086.34	3,085.31	12.93	2.97	-20.79	-461.72	948.36	663.28	648.98	14.30	46.373		
3,200.00	3,167.84	3,180.35	3,179.16	13.37	3.31	-21.70	-456.26	947.36	646.03	630.97	15.06	42.895		
3,300.00	3,266.63	3,266.98	3,265.67	13.82	3.63	-22.54	-451.94	947.56	630.40	614.59	15.81	39.875		
3,400.00	3,365.42	3,363.52	3,362.12	14.27	3.98	-23.48	-447.75	948.55	615.89	599.31	16.58	37.154		
3,500.00	3,464.20	3,461.98	3,460.50	14.71	4.34	-24.45	-443.93	949.69	601.78	584.44	17.35	34.686		
3,600.00	3,562.99	3,565.25	3,563.69	15.16	4.71	-25.51	-439.83	950.26	587.26	569.13	18.13	32.385		
3,700.00	3,661.78	3,663.26	3,661.62	15.61	5.07	-26.56	-435.93	950.48	572.61	553.69	18.91	30.273		
3,800.00	3,760.57	3,760.41	3,758.71	16.05	5.42	-27.60	-432.54	950.82	558.38	538.68	19.70	28.348		
3,900.00	3,859.35	3,858.47	3,856.71	16.50	5.77	-28.70	-429.27	951.20	544.41	523.92	20.49	26.576		
4,000.00	3,958.14	3,958.26	3,956.44	16.95	6.13	-29.90	-425.78	951.72	530.76	509.47	21.28	24.938		
4,100.00	4,056.93	4,059.14	4,057.23	17.40	6.50	-31.22	-421.67	951.65	516.69	494.60	22.09	23.390		
4,200.00	4,155.72	4,156.69	4,154.72	17.84	6.85	-32.54	-417.99	951.51	502.85	479.95	22.90	21.958		
4,300.00	4,254.50	4,254.92	4,252.89	18.29	7.20	-33.90	-414.64	951.47	489.44	465.72	23.72	20.636		
4,400.00	4,353.29	4,352.46	4,350.34	18.74	7.56	-35.41	-410.62	951.50	476.34	451.79	24.55	19.406		
4,500.00	4,452.08	4,449.58	4,447.40	19.19	7.91	-36.94	-407.03	951.78	463.85	438.47	25.38	18.276		
4,600.00	4,550.87	4,548.51	4,546.28	19.63	8.27	-38.52	-403.86	952.17	451.84	425.62	26.22	17.231		
4,700.00	4,649.65	4,647.48	4,645.16	20.08	8.63	-40.33	-399.63	952.37	440.02	412.94	27.08	16.248		
4,800.00	4,748.44	4,747.06	4,744.64	20.53	8.99	-42.26	-395.23	952.39	428.49	400.54	27.95	15.329		
4,900.00	4,847.23	4,845.16	4,842.64	20.97	9.35	-44.26	-391.00	952.22	417.28	388.44	28.83	14.472		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 2310-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,943.04	4,940.46	21.42	9.70	-46.27	-387.38	952.23	406.69	376.98	29.72	13.685		
5,100.00	5,044.81	5,041.29	5,038.67	21.87	10.05	-48.27	-384.51	952.43	396.71	366.11	30.60	12.963		
5,200.00	5,143.59	5,140.15	5,137.48	22.32	10.41	-50.38	-381.68	952.61	387.21	355.72	31.50	12.294		
5,300.00	5,242.38	5,240.89	5,238.19	22.76	10.77	-52.65	-378.77	952.45	377.96	345.56	32.40	11.666		
5,400.00	5,341.17	5,339.63	5,336.89	23.21	11.13	-54.95	-376.27	952.02	368.94	335.63	33.30	11.078		
5,500.00	5,439.96	5,437.28	5,434.48	23.66	11.48	-57.46	-372.93	951.30	360.54	326.31	34.23	10.534		
5,600.00	5,538.74	5,528.59	5,525.64	24.11	11.81	-60.20	-367.78	951.02	354.09	318.93	35.16	10.071		
5,700.00	5,637.53	5,622.11	5,618.87	24.55	12.16	-63.34	-360.42	951.50	350.26	314.17	36.10	9.703		
5,800.00	5,736.32	5,719.59	5,715.96	25.00	12.53	-66.79	-351.76	952.27	348.38	311.34	37.05	9.404		
5,900.00	5,835.11	5,824.85	5,820.88	25.45	12.92	-70.48	-343.34	952.22	346.69	308.67	38.01	9.121		
6,000.00	5,933.89	5,928.80	5,924.62	25.90	13.31	-74.02	-336.92	950.96	344.33	305.40	38.94	8.843		
6,100.00	6,032.68	6,032.81	6,028.54	26.34	13.68	-77.31	-333.07	949.35	341.45	301.62	39.83	8.573		
6,200.00	6,131.47	6,134.91	6,130.63	26.79	14.03	-80.16	-332.29	948.09	337.91	297.24	40.67	8.308		
6,300.00	6,230.26	6,233.88	6,229.60	27.24	14.36	-82.85	-332.39	947.12	334.79	293.30	41.49	8.070		
6,400.00	6,329.04	6,330.84	6,326.55	27.69	14.68	-85.48	-332.63	946.42	332.51	290.23	42.28	7.864		
6,494.35	6,422.25	6,421.24	6,416.95	28.11	14.99	-87.89	-332.54	946.56	331.82	288.80	43.02	7.713 CC		
6,500.00	6,427.83	6,426.67	6,422.39	28.13	15.01	-88.03	-332.52	946.59	331.82	288.76	43.06	7.705 ES		
6,600.00	6,526.62	6,523.08	6,518.79	28.58	15.35	-90.58	-331.93	947.37	332.64	288.80	43.83	7.589		
6,700.00	6,625.41	6,625.74	6,621.43	29.03	15.69	-93.19	-331.44	948.61	334.27	289.68	44.60	7.496		
6,800.00	6,724.19	6,723.97	6,719.66	29.48	16.02	-95.69	-331.89	949.08	335.39	290.07	45.32	7.400		
6,900.00	6,822.98	6,817.71	6,813.40	29.93	16.35	-98.10	-331.22	949.85	338.33	292.30	46.03	7.351		
7,000.00	6,921.77	6,919.18	6,914.85	30.37	16.71	-100.69	-329.73	950.85	342.68	295.93	46.75	7.330		
7,100.00	7,020.56	7,019.80	7,015.47	30.82	17.06	-103.18	-329.28	951.40	346.58	299.13	47.45	7.304		
7,200.00	7,119.34	7,119.08	7,114.74	31.27	17.40	-105.53	-329.19	952.19	350.89	302.76	48.13	7.291 SF		
7,300.00	7,218.13	7,217.82	7,213.48	31.72	17.73	-107.75	-329.25	953.24	355.73	306.94	48.79	7.291		
7,394.03	7,311.02	7,299.46	7,294.49	32.14	18.00	-108.31	-330.74	961.83	362.14	312.75	49.39	7.332		
7,400.00	7,316.92	7,304.58	7,299.50	32.16	18.02	-110.84	-330.94	962.93	362.68	313.24	49.43	7.337		
7,450.00	7,366.55	7,349.19	7,342.49	32.36	18.17	-145.09	-333.12	974.60	368.42	318.62	49.80	7.398		
7,500.00	7,416.28	7,384.53	7,376.14	32.53	18.28	169.48	-334.60	985.30	377.15	327.13	50.02	7.540		
7,550.00	7,465.74	7,417.50	7,407.29	32.65	18.39	146.31	-335.16	996.05	389.66	339.52	50.14	7.772		
7,600.00	7,514.54	7,450.77	7,438.34	32.75	18.50	136.46	-335.23	1,008.00	406.01	355.79	50.23	8.084		
7,650.00	7,562.31	7,485.33	7,470.17	32.83	18.62	131.73	-335.36	1,021.45	425.92	375.60	50.32	8.464		
7,700.00	7,608.70	7,513.84	7,496.15	32.89	18.71	128.58	-335.61	1,033.22	449.41	399.13	50.28	8.938		
7,750.00	7,653.34	7,535.00	7,515.18	32.93	18.79	125.53	-335.69	1,042.46	476.81	426.75	50.07	9.523		
7,800.00	7,695.91	7,549.88	7,528.40	32.95	18.85	121.97	-335.62	1,049.28	508.00	458.28	49.73	10.216		
7,850.00	7,736.06	7,566.00	7,542.55	32.95	18.91	118.35	-335.37	1,057.00	542.61	493.12	49.48	10.966		
7,900.00	7,773.51	7,566.00	7,542.55	32.95	18.91	112.10	-335.37	1,057.00	580.00	531.11	48.89	11.863		
7,950.00	7,807.96	7,577.08	7,552.16	32.94	18.96	106.66	-335.11	1,062.50	619.61	570.91	48.71	12.722		
8,000.00	7,839.15	7,580.83	7,555.41	32.92	18.97	99.41	-335.01	1,064.39	660.97	612.53	48.43	13.647		
8,050.00	7,866.84	7,582.19	7,556.57	32.90	18.98	91.14	-334.97	1,065.08	703.51	655.30	48.21	14.591		
8,100.00	7,890.83	7,581.37	7,555.86	32.88	18.98	82.20	-334.99	1,064.66	746.78	698.73	48.05	15.543		
8,150.00	7,910.93	7,578.60	7,553.48	32.87	18.96	73.16	-335.07	1,063.26	790.33	742.40	47.93	16.488		
8,200.00	7,926.99	7,574.07	7,549.57	32.87	18.95	64.59	-335.19	1,060.99	833.78	785.91	47.87	17.416		
8,250.00	7,938.88	7,566.00	7,542.55	32.89	18.91	56.71	-335.37	1,057.00	876.77	828.95	47.82	18.335		
8,300.00	7,946.52	7,566.00	7,542.55	32.94	18.91	50.76	-335.37	1,057.00	919.03	871.04	47.99	19.150		
8,350.00	7,949.85	7,552.65	7,530.84	33.03	18.86	44.86	-335.59	1,050.58	960.17	912.21	47.97	20.017		
8,363.33	7,950.00	7,550.28	7,528.75	33.06	18.85	43.57	-335.61	1,049.47	970.95	922.96	47.99	20.231		
8,400.00	7,950.00	7,543.79	7,523.01	33.16	18.83	43.18	-335.66	1,046.46	1,000.63	952.56	48.07	20.817		
8,500.00	7,950.00	7,525.72	7,506.86	33.64	18.76	42.12	-335.67	1,038.35	1,083.24	1,034.99	48.25	22.450		
8,600.00	7,950.00	7,503.00	7,486.31	34.42	18.68	40.83	-335.51	1,028.66	1,167.90	1,119.55	48.35	24.156		
8,700.00	7,950.00	7,486.29	7,471.06	35.49	18.62	39.92	-335.37	1,021.84	1,254.15	1,205.64	48.51	25.856		
8,800.00	7,950.00	7,472.00	7,457.95	36.77	18.57	39.17	-335.29	1,016.15	1,341.69	1,293.03	48.66	27.570		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FINAL SURVEY													Offset Site Error:	0.00 usft
Survey Program: 2310-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	7,447.80	7,435.59	38.23	18.49	37.93	-335.23	1,006.89	1,430.30	1,381.59	48.71	29.366		
9,000.00	7,950.00	7,440.00	7,428.34	39.83	18.46	37.54	-335.23	1,004.01	1,519.98	1,471.09	48.89	31.091		
9,100.00	7,950.00	7,421.45	7,411.00	41.56	18.40	36.63	-335.18	997.41	1,610.51	1,561.56	48.96	32.896		
9,200.00	7,950.00	7,409.00	7,399.29	43.39	18.36	36.05	-335.08	993.20	1,701.92	1,652.85	49.07	34.687		
9,300.00	7,950.00	7,397.74	7,388.65	45.30	18.33	35.54	-334.92	989.52	1,794.02	1,744.85	49.17	36.487		
9,400.00	7,950.00	7,377.00	7,368.99	47.29	18.26	34.65	-334.36	982.95	1,886.75	1,837.55	49.20	38.347		
9,500.00	7,950.00	7,377.00	7,368.99	49.35	18.26	34.65	-334.36	982.95	1,979.92	1,930.57	49.35	40.119		
9,600.00	7,950.00	7,362.27	7,354.97	51.47	18.21	34.05	-333.77	978.46	2,073.58	2,024.17	49.41	41.969		
9,700.00	7,950.00	7,346.00	7,339.44	53.63	18.16	33.42	-332.95	973.68	2,167.69	2,118.23	49.45	43.834		
9,800.00	7,950.00	7,346.00	7,339.44	55.85	18.16	33.42	-332.95	973.68	2,262.14	2,212.57	49.57	45.638		
9,900.00	7,950.00	7,346.00	7,339.44	58.10	18.16	33.42	-332.95	973.68	2,357.04	2,307.38	49.67	47.455		
10,000.00	7,950.00	7,329.13	7,323.26	60.39	18.10	32.79	-332.05	969.01	2,452.12	2,402.42	49.70	49.340		
10,100.00	7,950.00	7,314.00	7,308.64	62.71	18.05	32.24	-331.34	965.14	2,547.65	2,497.92	49.73	51.228		
10,200.00	7,950.00	7,314.00	7,308.64	65.05	18.05	32.24	-331.34	965.14	2,643.33	2,593.52	49.82	53.063		
10,300.00	7,950.00	7,314.00	7,308.64	67.43	18.05	32.24	-331.34	965.14	2,739.32	2,689.43	49.89	54.904		
10,400.00	7,950.00	7,314.00	7,308.64	69.82	18.05	32.24	-331.34	965.14	2,835.59	2,785.63	49.96	56.753		
10,500.00	7,950.00	7,314.00	7,308.64	72.24	18.05	32.24	-331.34	965.14	2,932.11	2,882.08	50.03	58.607		
10,600.00	7,950.00	7,314.00	7,308.64	74.68	18.05	32.24	-331.34	965.14	3,028.86	2,978.76	50.09	60.466		
10,700.00	7,950.00	7,314.00	7,308.64	77.13	18.05	32.24	-331.34	965.14	3,125.80	3,075.65	50.15	62.329		
10,800.00	7,950.00	7,314.00	7,308.64	79.60	18.05	32.24	-331.34	965.14	3,222.94	3,172.73	50.21	64.195		
10,900.00	7,950.00	7,314.00	7,308.64	82.08	18.05	32.24	-331.34	965.14	3,320.25	3,269.99	50.26	66.064		
11,000.00	7,950.00	7,314.00	7,308.64	84.57	18.05	32.24	-331.34	965.14	3,417.71	3,367.40	50.31	67.935		
11,100.00	7,950.00	7,314.00	7,308.64	87.08	18.05	32.24	-331.34	965.14	3,515.31	3,464.95	50.36	69.808		
11,200.00	7,950.00	7,314.00	7,308.64	89.59	18.05	32.24	-331.34	965.14	3,613.05	3,562.64	50.40	71.682		
11,300.00	7,950.00	7,314.00	7,308.64	92.12	18.05	32.24	-331.34	965.14	3,710.90	3,660.45	50.45	73.557		
11,400.00	7,950.00	7,314.00	7,308.64	94.66	18.05	32.24	-331.34	965.14	3,808.87	3,758.38	50.49	75.433		
11,500.00	7,950.00	7,314.00	7,308.64	97.20	18.05	32.24	-331.34	965.14	3,906.94	3,856.40	50.54	77.308		
11,600.00	7,950.00	7,314.00	7,308.64	99.75	18.05	32.24	-331.34	965.14	4,005.11	3,954.53	50.58	79.184		
11,700.00	7,950.00	7,314.00	7,308.64	102.31	18.05	32.24	-331.34	965.14	4,103.36	4,052.74	50.62	81.059		
11,800.00	7,950.00	7,314.00	7,308.64	104.87	18.05	32.24	-331.34	965.14	4,201.70	4,151.03	50.66	82.933		
11,900.00	7,950.00	7,314.00	7,308.64	107.44	18.05	32.24	-331.34	965.14	4,300.11	4,249.40	50.70	84.807		
12,000.00	7,950.00	7,314.00	7,308.64	110.02	18.05	32.24	-331.34	965.14	4,398.59	4,347.85	50.75	86.679		
12,100.00	7,950.00	7,314.00	7,308.64	112.60	18.05	32.24	-331.34	965.14	4,497.15	4,446.36	50.79	88.549		
12,200.00	7,950.00	7,314.00	7,308.64	115.19	18.05	32.24	-331.34	965.14	4,595.76	4,544.93	50.83	90.418		
12,300.00	7,950.00	7,314.00	7,308.64	117.78	18.05	32.24	-331.34	965.14	4,694.43	4,643.56	50.87	92.285		
12,400.00	7,950.00	7,314.00	7,308.64	120.38	18.05	32.24	-331.34	965.14	4,793.16	4,742.25	50.91	94.150		
12,500.00	7,950.00	7,314.00	7,308.64	122.98	18.05	32.24	-331.34	965.14	4,891.94	4,840.99	50.95	96.013		
12,600.00	7,950.00	7,271.80	7,267.29	125.58	17.91	30.73	-329.88	957.01	4,988.33	4,937.39	50.94	97.918		
12,700.00	7,950.00	7,270.81	7,266.30	128.19	17.91	30.69	-329.85	956.88	5,087.09	5,036.11	50.99	99.775		
12,800.00	7,950.00	7,269.85	7,265.35	130.80	17.91	30.66	-329.83	956.75	5,185.90	5,134.87	51.03	101.629		
12,900.00	7,950.00	7,268.92	7,264.43	133.41	17.90	30.63	-329.81	956.62	5,284.75	5,233.68	51.07	103.480		
13,000.00	7,950.00	7,268.03	7,263.55	136.03	17.90	30.60	-329.79	956.51	5,383.63	5,332.52	51.11	105.328		
13,100.00	7,950.00	7,267.17	7,262.69	138.65	17.90	30.57	-329.77	956.40	5,482.56	5,431.41	51.16	107.173		
13,200.00	7,950.00	7,266.33	7,261.86	141.27	17.90	30.54	-329.75	956.29	5,581.52	5,530.32	51.20	109.015		
13,300.00	7,950.00	7,265.53	7,261.06	143.90	17.89	30.51	-329.73	956.19	5,680.52	5,629.28	51.24	110.853		
13,400.00	7,950.00	7,223.00	7,218.66	146.52	17.75	29.06	-329.25	953.31	5,781.92	5,730.67	51.24	112.830		
13,500.00	7,950.00	7,223.00	7,218.66	149.15	17.75	29.06	-329.25	953.31	5,880.89	5,829.60	51.29	114.657		
13,600.00	7,950.00	7,223.00	7,218.66	151.78	17.75	29.06	-329.25	953.31	5,979.90	5,928.56	51.34	116.481		
13,700.00	7,950.00	7,223.00	7,218.66	154.42	17.75	29.06	-329.25	953.31	6,078.94	6,027.56	51.39	118.301		
13,800.00	7,950.00	7,223.00	7,218.66	157.05	17.75	29.06	-329.25	953.31	6,178.02	6,126.58	51.43	120.117		
13,900.00	7,950.00	7,223.00	7,218.66	159.69	17.75	29.06	-329.25	953.31	6,277.12	6,225.64	51.48	121.930		
14,000.00	7,950.00	7,223.00	7,218.66	162.33	17.75	29.06	-329.25	953.31	6,376.25	6,324.72	51.53	123.738		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - EXIST HZ PROSPER FARMS 4-65 13-14 1H - OWB - FINAL SURVEY											Offset Site Error:		0.00 usft
Survey Program: 2310-MWD OWSG											Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	7,950.00	7,223.00	7,218.66	164.97	17.75	29.06	-329.25	953.31	6,475.40	6,423.83	51.58	125.542	
14,200.00	7,950.00	7,223.00	7,218.66	167.61	17.75	29.06	-329.25	953.31	6,574.59	6,522.96	51.63	127.343	
14,300.00	7,950.00	7,223.00	7,218.66	170.26	17.75	29.06	-329.25	953.31	6,673.79	6,622.11	51.68	129.139	
14,400.00	7,950.00	7,223.00	7,218.66	172.90	17.75	29.06	-329.25	953.31	6,773.02	6,721.29	51.73	130.930	
14,500.00	7,950.00	7,223.00	7,218.66	175.55	17.75	29.06	-329.25	953.31	6,872.28	6,820.49	51.78	132.717	
14,600.00	7,950.00	7,223.00	7,218.66	178.20	17.75	29.06	-329.25	953.31	6,971.55	6,919.72	51.83	134.500	
14,700.00	7,950.00	7,223.00	7,218.66	180.85	17.75	29.06	-329.25	953.31	7,070.84	7,018.96	51.89	136.278	
14,800.00	7,950.00	7,223.00	7,218.66	183.50	17.75	29.06	-329.25	953.31	7,170.16	7,118.22	51.94	138.051	
14,900.00	7,950.00	7,223.00	7,218.66	186.15	17.75	29.06	-329.25	953.31	7,269.49	7,217.50	51.99	139.820	
15,000.00	7,950.00	7,223.00	7,218.66	188.80	17.75	29.06	-329.25	953.31	7,368.84	7,316.79	52.05	141.584	
15,100.00	7,950.00	7,223.00	7,218.66	191.46	17.75	29.06	-329.25	953.31	7,468.21	7,416.11	52.10	143.342	
15,200.00	7,950.00	7,223.00	7,218.66	194.11	17.75	29.06	-329.25	953.31	7,567.59	7,515.44	52.16	145.096	
15,300.00	7,950.00	7,223.00	7,218.66	196.77	17.75	29.06	-329.25	953.31	7,666.99	7,614.78	52.21	146.845	
15,400.00	7,950.00	7,223.00	7,218.66	199.42	17.75	29.06	-329.25	953.31	7,766.41	7,714.14	52.27	148.589	
15,500.00	7,950.00	7,223.00	7,218.66	202.08	17.75	29.06	-329.25	953.31	7,865.84	7,813.52	52.32	150.327	
15,600.00	7,950.00	7,223.00	7,218.66	204.74	17.75	29.06	-329.25	953.31	7,965.29	7,912.90	52.38	152.061	
15,700.00	7,950.00	7,223.00	7,218.66	207.40	17.75	29.06	-329.25	953.31	8,064.74	8,012.30	52.44	153.789	
15,800.00	7,950.00	7,223.00	7,218.66	210.06	17.75	29.06	-329.25	953.31	8,164.22	8,111.72	52.50	155.511	
15,900.00	7,950.00	7,223.00	7,218.66	212.72	17.75	29.06	-329.25	953.31	8,263.70	8,211.14	52.56	157.229	
16,000.00	7,950.00	7,223.00	7,218.66	215.38	17.75	29.06	-329.25	953.31	8,363.20	8,310.58	52.62	158.940	
16,100.00	7,950.00	7,223.00	7,218.66	218.05	17.75	29.06	-329.25	953.31	8,462.71	8,410.03	52.68	160.647	
16,200.00	7,950.00	7,223.00	7,218.66	220.71	17.75	29.06	-329.25	953.31	8,562.23	8,509.49	52.74	162.348	
16,300.00	7,950.00	7,223.00	7,218.66	223.37	17.75	29.06	-329.25	953.31	8,661.76	8,608.96	52.80	164.043	
16,400.00	7,950.00	7,223.00	7,218.66	226.04	17.75	29.06	-329.25	953.31	8,761.30	8,708.44	52.86	165.732	
16,500.00	7,950.00	7,223.00	7,218.66	228.70	17.75	29.06	-329.25	953.31	8,860.85	8,807.93	52.93	167.416	
16,600.00	7,950.00	7,223.00	7,218.66	231.37	17.75	29.06	-329.25	953.31	8,960.42	8,907.42	52.99	169.094	
16,700.00	7,950.00	7,223.00	7,218.66	234.04	17.75	29.06	-329.25	953.31	9,059.99	9,006.93	53.05	170.766	
16,800.00	7,950.00	7,223.00	7,218.66	236.70	17.75	29.06	-329.25	953.31	9,159.57	9,106.45	53.12	172.433	
16,900.00	7,950.00	7,223.00	7,218.66	239.37	17.75	29.06	-329.25	953.31	9,259.16	9,205.97	53.19	174.093	
17,000.00	7,950.00	7,223.00	7,218.66	242.04	17.75	29.06	-329.25	953.31	9,358.76	9,305.51	53.25	175.748	
17,100.00	7,950.00	7,223.00	7,218.66	244.71	17.75	29.06	-329.25	953.31	9,458.37	9,405.05	53.32	177.397	
17,200.00	7,950.00	7,223.00	7,218.66	247.38	17.75	29.06	-329.25	953.31	9,557.98	9,504.60	53.38	179.039	
17,300.00	7,950.00	7,223.00	7,218.66	250.05	17.75	29.06	-329.25	953.31	9,657.60	9,604.15	53.45	180.676	
17,400.00	7,950.00	7,223.00	7,218.66	252.72	17.75	29.06	-329.25	953.31	9,757.24	9,703.72	53.52	182.307	
17,500.00	7,950.00	7,223.00	7,218.66	255.39	17.75	29.06	-329.25	953.31	9,856.88	9,803.29	53.59	183.932	
17,600.00	7,950.00	7,223.00	7,218.66	258.06	17.75	29.06	-329.25	953.31	9,956.52	9,902.86	53.66	185.550	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	5.60	5.60	0.00	0.01	-0.11	150.07	-0.28	150.07					
100.00	100.00	105.60	105.60	0.13	0.15	-0.11	150.07	-0.28	150.07	149.79	0.29	519.417		
200.00	200.00	205.60	205.60	0.49	0.51	-0.11	150.07	-0.28	150.07	149.07	1.01	149.198		
206.23	206.23	211.83	211.83	0.52	0.54	-0.11	150.07	-0.28	150.07	149.02	1.05	142.854 CC		
250.00	250.00	255.38	255.38	0.67	0.69	-0.11	150.08	-0.28	150.08	148.71	1.36	110.068 ES		
300.00	300.00	303.42	303.42	0.85	0.86	-128.76	150.46	0.03	150.75	149.04	1.71	88.210		
400.00	399.93	399.34	399.27	1.19	1.21	-128.85	153.09	2.18	155.67	153.27	2.40	64.818		
500.00	499.68	494.74	494.45	1.55	1.56	-129.06	158.17	6.32	165.35	162.24	3.11	53.151		
600.00	599.13	589.33	588.54	1.93	1.91	-129.33	165.64	12.40	179.76	175.93	3.83	46.904		
696.56	694.75	679.59	677.98	2.31	2.26	-129.60	175.00	20.02	198.09	193.55	4.54	43.608		
700.00	698.15	682.79	681.15	2.33	2.28	-129.62	175.37	20.33	198.82	194.25	4.57	43.481		
800.00	796.94	775.12	772.19	2.74	2.66	-129.88	187.28	30.03	221.32	216.01	5.31	41.677		
900.00	895.73	870.09	865.39	3.17	3.07	-129.71	201.41	41.54	245.69	239.62	6.07	40.464		
1,000.00	994.51	967.03	960.49	3.60	3.51	-129.54	215.99	53.41	270.24	263.38	6.86	39.404		
1,100.00	1,093.30	1,063.97	1,055.59	4.04	3.95	-129.40	230.56	65.28	294.78	287.13	7.65	38.549		
1,200.00	1,192.09	1,160.91	1,150.68	4.48	4.40	-129.28	245.14	77.16	319.33	310.88	8.45	37.811		
1,300.00	1,290.88	1,257.84	1,245.78	4.92	4.85	-129.17	259.71	89.03	343.87	334.62	9.25	37.187		
1,400.00	1,389.67	1,354.78	1,340.88	5.36	5.30	-129.09	274.29	100.90	368.42	358.37	10.05	36.651		
1,500.00	1,488.45	1,451.72	1,435.98	5.80	5.76	-129.01	288.86	112.77	392.97	382.11	10.86	36.186		
1,600.00	1,587.24	1,548.66	1,531.08	6.24	6.21	-128.94	303.44	124.65	417.52	405.85	11.67	35.780		
1,700.00	1,686.03	1,645.60	1,626.18	6.69	6.67	-128.88	318.01	136.52	442.07	429.59	12.48	35.422		
1,800.00	1,784.82	1,742.54	1,721.27	7.13	7.13	-128.82	332.59	148.39	466.61	453.32	13.29	35.104		
1,900.00	1,883.60	1,839.48	1,816.37	7.57	7.59	-128.77	347.17	160.27	491.16	477.06	14.11	34.821		
2,000.00	1,982.39	1,936.42	1,911.47	8.02	8.05	-128.73	361.74	172.14	515.71	500.79	14.92	34.566		
2,100.00	2,081.18	2,033.35	2,006.57	8.46	8.51	-128.69	376.32	184.01	540.27	524.53	15.73	34.336		
2,200.00	2,179.97	2,130.29	2,101.67	8.91	8.97	-128.65	390.89	195.89	564.82	548.27	16.55	34.127		
2,300.00	2,278.75	2,227.23	2,196.77	9.36	9.43	-128.62	405.47	207.76	589.37	572.00	17.37	33.937		
2,400.00	2,377.54	2,324.17	2,291.87	9.80	9.89	-128.58	420.04	219.63	613.92	595.73	18.18	33.763		
2,500.00	2,476.33	2,421.11	2,386.96	10.25	10.35	-128.56	434.62	231.51	638.47	619.47	19.00	33.603		
2,600.00	2,575.12	2,518.05	2,482.06	10.69	10.81	-128.53	449.19	243.38	663.02	643.20	19.82	33.456		
2,700.00	2,673.90	2,614.99	2,577.16	11.14	11.28	-128.50	463.77	255.25	687.57	666.94	20.64	33.320		
2,800.00	2,772.69	2,711.93	2,672.26	11.59	11.74	-128.48	478.35	267.13	712.12	690.67	21.45	33.193		
2,900.00	2,871.48	2,808.87	2,767.36	12.03	12.20	-128.46	492.92	279.00	736.68	714.40	22.27	33.076		
3,000.00	2,970.27	2,905.80	2,862.46	12.48	12.66	-128.44	507.50	290.87	761.23	738.14	23.09	32.967		
3,100.00	3,069.05	3,002.74	2,957.56	12.93	13.13	-128.42	522.07	302.74	785.78	761.87	23.91	32.865		
3,200.00	3,167.84	3,100.32	3,052.65	13.37	13.59	-128.40	536.65	314.62	810.33	785.60	24.73	32.765		
3,300.00	3,266.63	3,203.38	3,147.75	13.82	14.09	-128.39	551.22	326.49	834.88	809.31	25.58	32.642		
3,400.00	3,365.42	3,293.56	3,242.85	14.27	14.52	-128.37	565.80	338.36	859.44	833.07	26.37	32.595		
3,500.00	3,464.20	3,409.50	3,337.95	14.71	15.07	-128.35	580.37	350.24	883.99	856.72	27.27	32.418		
3,600.00	3,562.99	3,487.44	3,433.05	15.16	15.44	-128.34	594.95	362.11	908.54	880.53	28.01	32.440		
3,700.00	3,661.78	3,584.38	3,528.15	15.61	15.91	-128.33	609.53	373.98	933.09	904.27	28.83	32.369		
3,800.00	3,760.57	3,681.32	3,623.24	16.05	16.37	-128.31	624.10	385.86	957.64	928.00	29.65	32.302		
3,900.00	3,859.35	3,778.25	3,718.34	16.50	16.83	-128.30	638.68	397.73	982.20	951.73	30.47	32.238		
4,000.00	3,958.14	3,875.19	3,813.44	16.95	17.30	-128.29	653.25	409.60	1,006.75	975.46	31.29	32.177		
4,100.00	4,056.93	3,972.13	3,908.54	17.40	17.76	-128.28	667.83	421.48	1,031.30	999.19	32.11	32.120		
4,200.00	4,155.72	4,069.07	4,003.64	17.84	18.22	-128.27	682.40	433.35	1,055.85	1,022.93	32.93	32.065		
4,300.00	4,254.50	4,166.01	4,098.74	18.29	18.69	-128.26	696.98	445.22	1,080.41	1,046.66	33.75	32.013		
4,400.00	4,353.29	4,262.95	4,193.84	18.74	19.15	-128.25	711.55	457.09	1,104.96	1,070.39	34.57	31.963		
4,500.00	4,452.08	4,359.89	4,288.93	19.19	19.62	-128.24	726.13	468.97	1,129.51	1,094.12	35.39	31.915		
4,600.00	4,550.87	4,456.83	4,384.03	19.63	20.08	-128.23	740.71	480.84	1,154.06	1,117.85	36.21	31.870		
4,700.00	4,649.65	4,553.76	4,479.13	20.08	20.54	-128.22	755.28	492.71	1,178.62	1,141.58	37.03	31.826		
4,800.00	4,748.44	4,650.70	4,574.23	20.53	21.01	-128.22	769.86	504.59	1,203.17	1,165.32	37.85	31.785		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,847.23	4,747.64	4,669.33	20.97	21.47	-128.21	784.43	516.46	1,227.72	1,189.05	38.68	31.744		
5,000.00	4,946.02	4,844.58	4,764.43	21.42	21.94	-128.20	799.01	528.33	1,252.28	1,212.78	39.50	31.706		
5,100.00	5,044.81	4,941.52	4,859.53	21.87	22.40	-128.19	813.58	540.21	1,276.83	1,236.51	40.32	31.669		
5,200.00	5,143.59	5,038.46	4,954.62	22.32	22.86	-128.19	828.16	552.08	1,301.38	1,260.24	41.14	31.633		
5,300.00	5,242.38	5,135.40	5,049.72	22.76	23.33	-128.18	842.73	563.95	1,325.93	1,283.97	41.96	31.599		
5,400.00	5,341.17	5,232.34	5,144.82	23.21	23.79	-128.17	857.31	575.83	1,350.49	1,307.70	42.78	31.566		
5,500.00	5,439.96	5,329.28	5,239.92	23.66	24.26	-128.17	871.89	587.70	1,375.04	1,331.43	43.60	31.534		
5,600.00	5,538.74	5,426.21	5,335.02	24.11	24.72	-128.16	886.46	599.57	1,399.59	1,355.17	44.43	31.503		
5,700.00	5,637.53	5,523.15	5,430.12	24.55	25.19	-128.16	901.04	611.44	1,424.14	1,378.90	45.25	31.474		
5,800.00	5,736.32	5,620.09	5,525.21	25.00	25.65	-128.15	915.61	623.32	1,448.70	1,402.63	46.07	31.445		
5,900.00	5,835.11	5,717.03	5,620.31	25.45	26.11	-128.15	930.19	635.19	1,473.25	1,426.36	46.89	31.417		
6,000.00	5,933.89	5,813.97	5,715.41	25.90	26.58	-128.14	944.76	647.06	1,497.80	1,450.09	47.71	31.391		
6,100.00	6,032.68	5,910.91	5,810.51	26.34	27.04	-128.14	959.34	658.94	1,522.36	1,473.82	48.54	31.365		
6,200.00	6,131.47	6,007.85	5,905.61	26.79	27.51	-128.13	973.91	670.81	1,546.91	1,497.55	49.36	31.340		
6,300.00	6,230.26	6,104.79	6,000.71	27.24	27.97	-128.13	988.49	682.68	1,571.46	1,521.28	50.18	31.315		
6,400.00	6,329.04	6,201.73	6,095.81	27.69	28.43	-128.12	1,003.07	694.56	1,596.01	1,545.01	51.00	31.292		
6,500.00	6,427.83	6,301.34	6,190.90	28.13	28.91	-128.12	1,017.64	706.43	1,620.57	1,568.73	51.84	31.262		
6,600.00	6,526.62	6,404.40	6,286.00	28.58	29.41	-128.11	1,032.22	718.30	1,645.12	1,592.43	52.69	31.224		
6,700.00	6,625.41	6,492.54	6,381.10	29.03	29.83	-128.11	1,046.79	730.18	1,669.67	1,616.20	53.47	31.225		
6,800.00	6,724.19	6,589.48	6,476.20	29.48	30.29	-128.10	1,061.37	742.05	1,694.23	1,639.93	54.30	31.204		
6,900.00	6,822.98	6,686.42	6,571.30	29.93	30.76	-128.10	1,075.94	753.92	1,718.78	1,663.66	55.12	31.183		
7,000.00	6,921.77	6,783.36	6,666.40	30.37	31.22	-128.10	1,090.52	765.80	1,743.33	1,687.39	55.94	31.163		
7,100.00	7,020.56	6,880.30	6,761.50	30.82	31.69	-128.09	1,105.09	777.67	1,767.89	1,711.12	56.76	31.144		
7,200.00	7,119.34	6,977.24	6,856.59	31.27	32.15	-128.09	1,119.67	789.54	1,792.44	1,734.85	57.59	31.125		
7,300.00	7,218.13	7,074.18	6,951.69	31.72	32.61	-128.09	1,134.25	801.41	1,816.99	1,758.58	58.41	31.107		
7,394.03	7,311.02	7,165.32	7,041.11	32.14	33.05	-128.08	1,147.95	812.58	1,840.08	1,780.89	59.19	31.090		
7,400.00	7,316.92	7,171.11	7,046.79	32.16	33.08	-130.77	1,148.82	813.29	1,841.54	1,782.31	59.23	31.089		
7,450.00	7,366.55	7,219.48	7,094.24	32.36	33.31	-166.84	1,156.09	819.21	1,853.86	1,794.24	59.62	31.094		
7,500.00	7,416.28	7,267.41	7,141.25	32.53	33.54	145.97	1,163.30	825.08	1,866.18	1,806.22	59.96	31.122		
7,550.00	7,465.74	7,314.53	7,187.48	32.65	33.77	121.21	1,170.38	830.85	1,878.47	1,818.20	60.27	31.169		
7,600.00	7,514.54	7,360.48	7,232.57	32.75	33.99	109.85	1,177.29	836.48	1,890.70	1,830.16	60.54	31.233		
7,650.00	7,562.31	7,407.71	7,279.03	32.83	34.20	103.60	1,184.41	840.81	1,902.85	1,842.07	60.78	31.307		
7,700.00	7,608.70	7,456.79	7,327.55	32.89	34.39	99.61	1,191.81	841.23	1,914.84	1,853.84	60.99	31.394		
7,750.00	7,653.34	7,507.75	7,377.75	32.93	34.56	96.80	1,199.45	837.22	1,926.57	1,865.39	61.18	31.489		
7,800.00	7,695.91	7,560.81	7,429.44	32.95	34.69	94.70	1,207.28	828.27	1,937.95	1,876.61	61.34	31.594		
7,850.00	7,736.06	7,616.25	7,482.33	32.95	34.81	93.08	1,215.27	813.79	1,948.89	1,887.41	61.48	31.698		
7,900.00	7,773.51	7,674.32	7,535.99	32.95	34.89	91.79	1,223.33	793.17	1,959.29	1,897.67	61.62	31.798		
7,950.00	7,807.96	7,735.29	7,589.80	32.94	34.95	90.76	1,231.38	765.72	1,969.04	1,907.30	61.74	31.890		
8,000.00	7,839.15	7,799.37	7,642.92	32.92	34.97	89.95	1,239.29	730.82	1,978.04	1,916.16	61.88	31.966		
8,050.00	7,866.84	7,866.73	7,694.24	32.90	34.96	89.30	1,246.87	687.91	1,986.18	1,924.15	62.03	32.017		
8,100.00	7,890.83	7,937.43	7,742.36	32.88	34.91	88.80	1,253.91	636.67	1,993.35	1,931.12	62.23	32.032		
8,150.00	7,910.93	8,011.36	7,785.62	32.87	34.84	88.42	1,260.17	577.11	1,999.45	1,936.95	62.49	31.994		
8,200.00	7,926.99	8,088.25	7,822.19	32.87	34.74	88.14	1,265.36	509.74	2,004.36	1,941.51	62.85	31.890		
8,250.00	7,938.88	8,167.58	7,850.24	32.89	34.62	87.94	1,269.22	435.70	2,008.00	1,944.67	63.33	31.705		
8,300.00	7,946.52	8,248.64	7,868.18	32.94	34.50	87.80	1,271.50	356.75	2,010.31	1,946.36	63.95	31.438		
8,350.00	7,949.85	8,330.52	7,874.96	33.03	34.40	87.71	1,272.06	275.22	2,011.24	1,946.55	64.69	31.090		
8,363.33	7,950.00	8,346.62	7,875.00	33.06	34.38	87.70	1,271.98	259.12	2,011.26	1,946.39	64.88	31.001		
8,400.00	7,950.00	8,383.29	7,875.00	33.16	34.36	87.70	1,271.77	222.45	2,011.26	1,945.89	65.37	30.767		
8,500.00	7,950.00	8,483.29	7,875.00	33.64	34.44	87.70	1,271.19	122.45	2,011.26	1,944.27	67.00	30.021		
8,600.00	7,950.00	8,583.29	7,875.00	34.42	34.93	87.70	1,270.62	22.46	2,011.26	1,942.26	69.00	29.150		
8,700.00	7,950.00	8,683.29	7,875.00	35.49	35.94	87.70	1,270.04	-77.54	2,011.26	1,939.91	71.35	28.189		
8,800.00	7,950.00	8,783.29	7,875.00	36.77	37.25	87.70	1,269.47	-177.54	2,011.26	1,937.24	74.02	27.172		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	8,883.29	7,875.00	38.23	38.75	87.70	1,268.89	-277.54	2,011.26	1,934.29	76.97	26.130		
9,000.00	7,950.00	8,983.29	7,875.00	39.83	40.39	87.70	1,268.32	-377.54	2,011.26	1,931.08	80.18	25.085		
9,100.00	7,950.00	9,083.29	7,875.00	41.56	42.14	87.70	1,267.74	-477.54	2,011.26	1,927.65	83.61	24.056		
9,200.00	7,950.00	9,183.29	7,875.00	43.39	43.99	87.70	1,267.17	-577.53	2,011.26	1,924.03	87.23	23.056		
9,300.00	7,950.00	9,283.29	7,875.00	45.30	45.91	87.70	1,266.59	-677.53	2,011.26	1,920.23	91.03	22.094		
9,400.00	7,950.00	9,383.29	7,875.00	47.29	47.91	87.70	1,266.02	-777.53	2,011.26	1,916.27	94.98	21.175		
9,500.00	7,950.00	9,483.29	7,875.00	49.35	49.97	87.70	1,265.44	-877.53	2,011.26	1,912.19	99.07	20.301		
9,600.00	7,950.00	9,583.29	7,875.00	51.47	52.09	87.70	1,264.87	-977.53	2,011.26	1,907.98	103.28	19.474		
9,700.00	7,950.00	9,683.29	7,875.00	53.63	54.25	87.70	1,264.29	-1,077.53	2,011.26	1,903.67	107.59	18.694		
9,800.00	7,950.00	9,783.29	7,875.00	55.85	56.46	87.70	1,263.72	-1,177.52	2,011.26	1,899.27	111.99	17.959		
9,900.00	7,950.00	9,883.29	7,875.00	58.10	58.71	87.70	1,263.14	-1,277.52	2,011.26	1,894.78	116.47	17.268		
10,000.00	7,950.00	9,983.29	7,875.00	60.39	60.99	87.70	1,262.57	-1,377.52	2,011.26	1,890.22	121.03	16.618		
10,100.00	7,950.00	10,083.29	7,875.00	62.71	63.30	87.70	1,261.99	-1,477.52	2,011.26	1,885.60	125.65	16.006		
10,200.00	7,950.00	10,183.29	7,875.00	65.05	65.65	87.70	1,261.42	-1,577.52	2,011.26	1,880.92	130.34	15.431		
10,300.00	7,950.00	10,283.29	7,875.00	67.43	68.01	87.70	1,260.84	-1,677.52	2,011.25	1,876.19	135.07	14.891		
10,400.00	7,950.00	10,383.29	7,875.00	69.82	70.40	87.70	1,260.27	-1,777.51	2,011.25	1,871.41	139.85	14.382		
10,500.00	7,950.00	10,483.29	7,875.00	72.24	72.81	87.70	1,259.69	-1,877.51	2,011.25	1,866.58	144.67	13.902		
10,600.00	7,950.00	10,583.29	7,875.00	74.68	75.24	87.70	1,259.12	-1,977.51	2,011.25	1,861.72	149.53	13.451		
10,700.00	7,950.00	10,683.29	7,875.00	77.13	77.69	87.70	1,258.54	-2,077.51	2,011.25	1,856.83	154.42	13.024		
10,800.00	7,950.00	10,783.29	7,875.00	79.60	80.15	87.70	1,257.96	-2,177.51	2,011.25	1,851.90	159.35	12.622		
10,900.00	7,950.00	10,883.29	7,875.00	82.08	82.62	87.70	1,257.39	-2,277.51	2,011.25	1,846.95	164.30	12.241		
11,000.00	7,950.00	10,983.29	7,875.00	84.57	85.11	87.70	1,256.81	-2,377.50	2,011.25	1,841.97	169.28	11.881		
11,100.00	7,950.00	11,083.29	7,875.00	87.08	87.61	87.70	1,256.24	-2,477.50	2,011.25	1,836.97	174.29	11.540		
11,200.00	7,950.00	11,183.29	7,875.00	89.59	90.12	87.70	1,255.66	-2,577.50	2,011.25	1,831.94	179.31	11.217		
11,300.00	7,950.00	11,283.29	7,875.00	92.12	92.64	87.70	1,255.09	-2,677.50	2,011.25	1,826.89	184.36	10.910		
11,400.00	7,950.00	11,383.29	7,875.00	94.66	95.17	87.70	1,254.51	-2,777.50	2,011.25	1,821.83	189.42	10.618		
11,500.00	7,950.00	11,483.29	7,875.00	97.20	97.71	87.70	1,253.94	-2,877.50	2,011.25	1,816.75	194.50	10.341		
11,600.00	7,950.00	11,583.29	7,875.00	99.75	100.25	87.70	1,253.36	-2,977.49	2,011.25	1,811.65	199.60	10.077		
11,700.00	7,950.00	11,683.29	7,875.00	102.31	102.80	87.70	1,252.79	-3,077.49	2,011.25	1,806.54	204.71	9.825		
11,800.00	7,950.00	11,783.29	7,875.00	104.87	105.36	87.70	1,252.21	-3,177.49	2,011.25	1,801.42	209.83	9.585		
11,900.00	7,950.00	11,883.29	7,875.00	107.44	107.93	87.70	1,251.64	-3,277.49	2,011.25	1,796.28	214.97	9.356		
12,000.00	7,950.00	11,983.29	7,875.00	110.02	110.50	87.70	1,251.06	-3,377.49	2,011.25	1,791.13	220.12	9.137		
12,100.00	7,950.00	12,083.29	7,875.00	112.60	113.08	87.70	1,250.49	-3,477.49	2,011.25	1,785.97	225.28	8.928		
12,200.00	7,950.00	12,183.29	7,875.00	115.19	115.66	87.70	1,249.91	-3,577.48	2,011.25	1,780.80	230.44	8.728		
12,300.00	7,950.00	12,283.29	7,875.00	117.78	118.25	87.70	1,249.34	-3,677.48	2,011.25	1,775.62	235.62	8.536		
12,400.00	7,950.00	12,383.29	7,875.00	120.38	120.84	87.70	1,248.76	-3,777.48	2,011.25	1,770.44	240.81	8.352		
12,500.00	7,950.00	12,483.29	7,875.00	122.98	123.43	87.70	1,248.19	-3,877.48	2,011.25	1,765.24	246.01	8.176		
12,600.00	7,950.00	12,583.29	7,875.00	125.58	126.03	87.70	1,247.61	-3,977.48	2,011.25	1,760.04	251.21	8.006		
12,700.00	7,950.00	12,683.29	7,875.00	128.19	128.64	87.70	1,247.04	-4,077.48	2,011.25	1,754.83	256.42	7.844		
12,800.00	7,950.00	12,783.29	7,875.00	130.80	131.24	87.70	1,246.46	-4,177.47	2,011.25	1,749.61	261.64	7.687		
12,900.00	7,950.00	12,883.29	7,875.00	133.41	133.85	87.70	1,245.89	-4,277.47	2,011.25	1,744.39	266.86	7.537		
13,000.00	7,950.00	12,983.29	7,875.00	136.03	136.47	87.70	1,245.31	-4,377.47	2,011.25	1,739.16	272.09	7.392		
13,100.00	7,950.00	13,083.29	7,875.00	138.65	139.08	87.70	1,244.74	-4,477.47	2,011.24	1,733.92	277.33	7.252		
13,200.00	7,950.00	13,183.29	7,875.00	141.27	141.70	87.70	1,244.16	-4,577.47	2,011.24	1,728.68	282.57	7.118		
13,300.00	7,950.00	13,283.29	7,875.00	143.90	144.32	87.70	1,243.59	-4,677.47	2,011.24	1,723.43	287.81	6.988		
13,400.00	7,950.00	13,383.29	7,875.00	146.52	146.95	87.70	1,243.01	-4,777.46	2,011.24	1,718.18	293.06	6.863		
13,500.00	7,950.00	13,483.29	7,875.00	149.15	149.57	87.70	1,242.44	-4,877.46	2,011.24	1,712.92	298.32	6.742		
13,600.00	7,950.00	13,583.29	7,875.00	151.78	152.20	87.70	1,241.86	-4,977.46	2,011.24	1,707.66	303.58	6.625		
13,700.00	7,950.00	13,683.29	7,875.00	154.42	154.83	87.70	1,241.29	-5,077.46	2,011.24	1,702.40	308.84	6.512		
13,800.00	7,950.00	13,783.29	7,875.00	157.05	157.47	87.70	1,240.71	-5,177.46	2,011.24	1,697.13	314.11	6.403		
13,900.00	7,950.00	13,883.29	7,875.00	159.69	160.10	87.70	1,240.14	-5,277.46	2,011.24	1,691.86	319.38	6.297		
14,000.00	7,950.00	13,983.29	7,875.00	162.33	162.74	87.70	1,239.56	-5,377.45	2,011.24	1,686.59	324.66	6.195		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1AH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	7,950.00	14,083.29	7,875.00	164.97	165.37	87.70	1,238.99	-5,477.45	2,011.24	1,681.31	329.93	6.096	
14,200.00	7,950.00	14,183.29	7,875.00	167.61	168.01	87.70	1,238.41	-5,577.45	2,011.24	1,676.02	335.22	6.000	
14,300.00	7,950.00	14,283.29	7,875.00	170.26	170.66	87.70	1,237.84	-5,677.45	2,011.24	1,670.74	340.50	5.907	
14,400.00	7,950.00	14,383.29	7,875.00	172.90	173.30	87.70	1,237.26	-5,777.45	2,011.24	1,665.45	345.79	5.816	
14,500.00	7,950.00	14,483.29	7,875.00	175.55	175.94	87.70	1,236.69	-5,877.45	2,011.24	1,660.16	351.08	5.729	
14,600.00	7,950.00	14,583.29	7,875.00	178.20	178.59	87.70	1,236.11	-5,977.44	2,011.24	1,654.87	356.37	5.644	
14,700.00	7,950.00	14,683.29	7,875.00	180.85	181.24	87.70	1,235.54	-6,077.44	2,011.24	1,649.57	361.67	5.561	
14,800.00	7,950.00	14,783.29	7,875.00	183.50	183.88	87.70	1,234.96	-6,177.44	2,011.24	1,644.27	366.96	5.481	
14,900.00	7,950.00	14,883.29	7,875.00	186.15	186.53	87.70	1,234.39	-6,277.44	2,011.24	1,638.97	372.26	5.403	
15,000.00	7,950.00	14,983.29	7,875.00	188.80	189.19	87.70	1,233.81	-6,377.44	2,011.24	1,633.67	377.57	5.327	
15,100.00	7,950.00	15,083.29	7,875.00	191.46	191.84	87.70	1,233.24	-6,477.44	2,011.24	1,628.37	382.87	5.253	
15,200.00	7,950.00	15,183.29	7,875.00	194.11	194.49	87.70	1,232.66	-6,577.43	2,011.24	1,623.06	388.18	5.181	
15,300.00	7,950.00	15,283.29	7,875.00	196.77	197.14	87.70	1,232.09	-6,677.43	2,011.24	1,617.75	393.49	5.111	
15,400.00	7,950.00	15,383.29	7,875.00	199.42	199.80	87.70	1,231.51	-6,777.43	2,011.24	1,612.44	398.80	5.043	
15,500.00	7,950.00	15,483.29	7,875.00	202.08	202.45	87.70	1,230.94	-6,877.43	2,011.24	1,607.13	404.11	4.977	
15,600.00	7,950.00	15,583.29	7,875.00	204.74	205.11	87.70	1,230.36	-6,977.43	2,011.24	1,601.81	409.42	4.912	
15,700.00	7,950.00	15,683.29	7,875.00	207.40	207.77	87.70	1,229.79	-7,077.43	2,011.24	1,596.50	414.74	4.849	
15,800.00	7,950.00	15,783.29	7,875.00	210.06	210.43	87.70	1,229.21	-7,177.42	2,011.23	1,591.18	420.06	4.788	
15,900.00	7,950.00	15,883.29	7,875.00	212.72	213.09	87.70	1,228.64	-7,277.42	2,011.23	1,585.86	425.38	4.728	
16,000.00	7,950.00	15,983.29	7,875.00	215.38	215.75	87.70	1,228.06	-7,377.42	2,011.23	1,580.54	430.70	4.670	
16,100.00	7,950.00	16,083.29	7,875.00	218.05	218.41	87.70	1,227.49	-7,477.42	2,011.23	1,575.22	436.02	4.613	
16,200.00	7,950.00	16,183.29	7,875.00	220.71	221.07	87.70	1,226.91	-7,577.42	2,011.23	1,569.89	441.34	4.557	
16,300.00	7,950.00	16,283.29	7,875.00	223.37	223.73	87.70	1,226.34	-7,677.42	2,011.23	1,564.57	446.67	4.503	
16,400.00	7,950.00	16,383.29	7,875.00	226.04	226.40	87.70	1,225.76	-7,777.41	2,011.23	1,559.24	451.99	4.450	
16,500.00	7,950.00	16,483.29	7,875.00	228.70	229.06	87.70	1,225.19	-7,877.41	2,011.23	1,553.91	457.32	4.398	
16,600.00	7,950.00	16,583.29	7,875.00	231.37	231.72	87.70	1,224.61	-7,977.41	2,011.23	1,548.58	462.65	4.347	
16,700.00	7,950.00	16,683.29	7,875.00	234.04	234.39	87.70	1,224.04	-8,077.41	2,011.23	1,543.25	467.98	4.298	
16,800.00	7,950.00	16,783.29	7,875.00	236.70	237.05	87.70	1,223.46	-8,177.41	2,011.23	1,537.92	473.31	4.249	
16,900.00	7,950.00	16,883.29	7,875.00	239.37	239.72	87.70	1,222.89	-8,277.41	2,011.23	1,532.59	478.64	4.202	
17,000.00	7,950.00	16,983.29	7,875.00	242.04	242.39	87.70	1,222.31	-8,377.40	2,011.23	1,527.26	483.97	4.156	
17,100.00	7,950.00	17,083.29	7,875.00	244.71	245.05	87.70	1,221.74	-8,477.40	2,011.23	1,521.92	489.31	4.110	
17,200.00	7,950.00	17,183.29	7,875.00	247.38	247.72	87.70	1,221.16	-8,577.40	2,011.23	1,516.59	494.64	4.066	
17,300.00	7,950.00	17,283.29	7,875.00	250.05	250.39	87.70	1,220.59	-8,677.40	2,011.23	1,511.25	499.98	4.023	
17,400.00	7,950.00	17,383.29	7,875.00	252.72	253.06	87.70	1,220.01	-8,777.40	2,011.23	1,505.92	505.31	3.980	
17,500.00	7,950.00	17,483.29	7,875.00	255.39	255.73	87.70	1,219.44	-8,877.40	2,011.23	1,500.58	510.65	3.939	
17,600.00	7,950.00	17,583.29	7,875.00	258.06	258.40	87.70	1,218.86	-8,977.40	2,011.23	1,495.24	515.99	3.898	
17,700.00	7,950.00	17,683.29	7,875.00	260.73	261.07	87.70	1,218.29	-9,077.39	2,011.23	1,489.90	521.33	3.858	
17,800.00	7,950.00	17,783.29	7,875.00	263.40	263.74	87.70	1,217.71	-9,177.39	2,011.23	1,484.56	526.67	3.819	
17,900.00	7,950.00	17,883.29	7,875.00	266.07	266.41	87.70	1,217.14	-9,277.39	2,011.23	1,479.22	532.01	3.780	
18,000.00	7,950.00	17,983.29	7,875.00	268.74	269.08	87.70	1,216.56	-9,377.39	2,011.23	1,473.88	537.35	3.743	
18,100.00	7,950.00	18,083.29	7,875.00	271.42	271.75	87.70	1,215.99	-9,477.39	2,011.23	1,468.53	542.69	3.706	
18,200.00	7,950.00	18,183.29	7,875.00	274.09	274.42	87.70	1,215.41	-9,577.39	2,011.23	1,463.19	548.04	3.670	
18,240.60	7,950.00	18,223.89	7,875.00	275.18	275.51	87.70	1,215.18	-9,617.99	2,011.23	1,461.02	550.20	3.655	
18,253.56	7,950.00	18,221.72	7,875.00	275.52	275.45	87.70	1,215.19	-9,615.82	2,011.28	1,460.78	550.50	3.654 SF	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	4.80	4.80	0.00	0.01	-0.16	100.17	-0.28	100.17				
100.00	100.00	104.80	104.80	0.13	0.15	-0.16	100.17	-0.28	100.17	99.89	0.29	350.185	
200.00	200.00	204.80	204.80	0.49	0.51	-0.16	100.17	-0.28	100.17	99.17	1.00	99.874	
250.00	250.00	254.80	254.80	0.67	0.69	-0.16	100.17	-0.28	100.17	98.81	1.36	73.578 CC, ES	
300.00	300.00	303.89	303.89	0.85	0.86	-128.75	100.42	0.16	100.70	98.99	1.71	58.931	
400.00	399.93	402.11	402.04	1.19	1.21	-128.46	102.12	3.25	104.61	102.21	2.40	43.501	
500.00	499.68	500.00	499.68	1.55	1.57	-128.00	105.44	9.26	112.35	109.23	3.12	35.984	
600.00	599.13	597.35	596.49	1.93	1.94	-127.44	110.33	18.13	123.90	120.04	3.86	32.097	
696.56	694.75	708.31	689.99	2.31	2.38	-126.97	116.42	29.17	138.47	133.80	4.66	29.689	
700.00	698.15	704.92	693.35	2.33	2.36	-126.98	116.65	29.58	139.03	134.36	4.67	29.788	
800.00	796.94	806.26	791.07	2.74	2.77	-127.14	123.24	41.52	155.35	149.89	5.46	28.459	
900.00	895.73	907.60	888.78	3.17	3.19	-127.27	129.83	53.46	171.66	165.40	6.26	27.417	
1,000.00	994.51	1,008.94	986.49	3.60	3.61	-127.38	136.41	65.40	187.98	180.91	7.07	26.586	
1,100.00	1,093.30	1,089.72	1,084.20	4.04	3.94	-127.47	143.00	77.34	204.30	196.50	7.80	26.186	
1,200.00	1,192.09	1,188.38	1,181.91	4.48	4.36	-127.54	149.59	89.28	220.62	212.01	8.61	25.626	
1,300.00	1,290.88	1,287.04	1,279.63	4.92	4.77	-127.61	156.18	101.22	236.94	227.52	9.42	25.155	
1,400.00	1,389.67	1,385.70	1,377.34	5.36	5.18	-127.67	162.76	113.16	253.26	243.03	10.23	24.753	
1,500.00	1,488.45	1,484.36	1,475.05	5.80	5.60	-127.72	169.35	125.10	269.58	258.53	11.04	24.407	
1,600.00	1,587.24	1,583.02	1,572.76	6.24	6.01	-127.76	175.94	137.04	285.90	274.04	11.86	24.106	
1,700.00	1,686.03	1,681.67	1,670.47	6.69	6.43	-127.80	182.52	148.98	302.22	289.54	12.68	23.842	
1,800.00	1,784.82	1,780.33	1,768.19	7.13	6.85	-127.84	189.11	160.92	318.54	305.05	13.49	23.608	
1,900.00	1,883.60	1,878.99	1,865.90	7.57	7.26	-127.87	195.70	172.86	334.86	320.55	14.31	23.400	
2,000.00	1,982.39	1,977.65	1,963.61	8.02	7.68	-127.90	202.29	184.79	351.18	336.05	15.13	23.213	
2,100.00	2,081.18	2,076.31	2,061.32	8.46	8.10	-127.93	208.87	196.73	367.50	351.55	15.95	23.045	
2,200.00	2,179.97	2,174.97	2,159.04	8.91	8.51	-127.95	215.46	208.67	383.82	367.05	16.77	22.893	
2,300.00	2,278.75	2,273.63	2,256.75	9.36	8.93	-127.97	222.05	220.61	400.14	382.56	17.59	22.754	
2,400.00	2,377.54	2,372.29	2,354.46	9.80	9.35	-127.99	228.64	232.55	416.46	398.06	18.41	22.627	
2,500.00	2,476.33	2,470.95	2,452.17	10.25	9.77	-128.01	235.22	244.49	432.78	413.56	19.23	22.511	
2,600.00	2,575.12	2,569.61	2,549.88	10.69	10.18	-128.03	241.81	256.43	449.10	429.06	20.05	22.404	
2,700.00	2,673.90	2,668.27	2,647.60	11.14	10.60	-128.05	248.40	268.37	465.42	444.56	20.87	22.305	
2,800.00	2,772.69	2,766.92	2,745.31	11.59	11.02	-128.06	254.99	280.31	481.75	460.06	21.69	22.214	
2,900.00	2,871.48	2,865.58	2,843.02	12.03	11.44	-128.08	261.57	292.25	498.07	475.56	22.51	22.129	
3,000.00	2,970.27	2,964.24	2,940.73	12.48	11.86	-128.09	268.16	304.19	514.39	491.06	23.33	22.049	
3,100.00	3,069.05	3,062.90	3,038.45	12.93	12.27	-128.10	274.75	316.13	530.71	506.56	24.15	21.976	
3,200.00	3,167.84	3,161.56	3,136.16	13.37	12.69	-128.11	281.33	328.07	547.03	522.06	24.97	21.906	
3,300.00	3,266.63	3,260.22	3,233.87	13.82	13.11	-128.13	287.92	340.01	563.35	537.56	25.79	21.841	
3,400.00	3,365.42	3,358.88	3,331.58	14.27	13.53	-128.14	294.51	351.94	579.67	553.06	26.61	21.780	
3,500.00	3,464.20	3,457.54	3,429.29	14.71	13.95	-128.15	301.10	363.88	595.99	568.56	27.44	21.723	
3,600.00	3,562.99	3,556.20	3,527.01	15.16	14.37	-128.16	307.68	375.82	612.31	584.06	28.26	21.669	
3,700.00	3,661.78	3,654.86	3,624.72	15.61	14.79	-128.16	314.27	387.76	628.64	599.56	29.08	21.618	
3,800.00	3,760.57	3,753.51	3,722.43	16.05	15.20	-128.17	320.86	399.70	644.96	615.05	29.90	21.569	
3,900.00	3,859.35	3,852.17	3,820.14	16.50	15.62	-128.18	327.45	411.64	661.28	630.55	30.72	21.524	
4,000.00	3,958.14	3,950.83	3,917.86	16.95	16.04	-128.19	334.03	423.58	677.60	646.05	31.55	21.480	
4,100.00	4,056.93	4,049.49	4,015.57	17.40	16.46	-128.20	340.62	435.52	693.92	661.55	32.37	21.439	
4,200.00	4,155.72	4,148.15	4,113.28	17.84	16.88	-128.20	347.21	447.46	710.24	677.05	33.19	21.399	
4,300.00	4,254.50	4,246.81	4,210.99	18.29	17.30	-128.21	353.79	459.40	726.56	692.55	34.01	21.362	
4,400.00	4,353.29	4,345.47	4,308.70	18.74	17.71	-128.22	360.38	471.34	742.88	708.05	34.83	21.326	
4,500.00	4,452.08	4,444.13	4,406.42	19.19	18.13	-128.22	366.97	483.28	759.20	723.55	35.66	21.292	
4,600.00	4,550.87	4,542.79	4,504.13	19.63	18.55	-128.23	373.56	495.22	775.53	739.05	36.48	21.259	
4,700.00	4,649.65	4,641.45	4,601.84	20.08	18.97	-128.23	380.14	507.16	791.85	754.55	37.30	21.228	
4,800.00	4,748.44	4,740.11	4,699.55	20.53	19.39	-128.24	386.73	519.09	808.17	770.04	38.12	21.198	
4,900.00	4,847.23	4,838.76	4,797.26	20.97	19.81	-128.24	393.32	531.03	824.49	785.54	38.95	21.169	

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,000.00	4,946.02	4,937.42	4,894.98	21.42	20.23	-128.25	399.91	542.97	840.81	801.04	39.77	21.142	
5,100.00	5,044.81	5,036.08	4,992.69	21.87	20.65	-128.25	406.49	554.91	857.13	816.54	40.59	21.115	
5,200.00	5,143.59	5,134.74	5,090.40	22.32	21.06	-128.26	413.08	566.85	873.45	832.04	41.42	21.090	
5,300.00	5,242.38	5,233.40	5,188.11	22.76	21.48	-128.26	419.67	578.79	889.78	847.54	42.24	21.066	
5,400.00	5,341.17	5,332.06	5,285.83	23.21	21.90	-128.27	426.26	590.73	906.10	863.04	43.06	21.042	
5,500.00	5,439.96	5,430.72	5,383.54	23.66	22.32	-128.27	432.84	602.67	922.42	878.53	43.88	21.019	
5,600.00	5,538.74	5,529.38	5,481.25	24.11	22.74	-128.28	439.43	614.61	938.74	894.03	44.71	20.998	
5,700.00	5,637.53	5,628.04	5,578.96	24.55	23.16	-128.28	446.02	626.55	955.06	909.53	45.53	20.976	
5,800.00	5,736.32	5,726.70	5,676.67	25.00	23.58	-128.28	452.60	638.49	971.38	925.03	46.35	20.956	
5,900.00	5,835.11	5,825.36	5,774.39	25.45	24.00	-128.29	459.19	650.43	987.70	940.53	47.18	20.936	
6,000.00	5,933.89	5,924.01	5,872.10	25.90	24.41	-128.29	465.78	662.37	1,004.02	956.03	48.00	20.917	
6,100.00	6,032.68	6,022.67	5,969.81	26.34	24.83	-128.29	472.37	674.31	1,020.35	971.52	48.82	20.899	
6,200.00	6,131.47	6,121.33	6,067.52	26.79	25.25	-128.30	478.95	686.24	1,036.67	987.02	49.65	20.881	
6,300.00	6,230.26	6,219.99	6,165.24	27.24	25.67	-128.30	485.54	698.18	1,052.99	1,002.52	50.47	20.864	
6,400.00	6,329.04	6,318.65	6,262.95	27.69	26.09	-128.30	492.13	710.12	1,069.31	1,018.02	51.29	20.847	
6,500.00	6,427.83	6,417.31	6,360.66	28.13	26.51	-128.31	498.72	722.06	1,085.63	1,033.52	52.12	20.831	
6,600.00	6,526.62	6,515.97	6,458.37	28.58	26.93	-128.31	505.30	734.00	1,101.95	1,049.01	52.94	20.816	
6,700.00	6,625.41	6,614.63	6,556.08	29.03	27.35	-128.31	511.89	745.94	1,118.27	1,064.51	53.76	20.800	
6,800.00	6,724.19	6,713.29	6,653.80	29.48	27.77	-128.31	518.48	757.88	1,134.60	1,080.01	54.59	20.786	
6,900.00	6,822.98	6,811.95	6,751.51	29.93	28.18	-128.32	525.07	769.82	1,150.92	1,095.51	55.41	20.771	
7,000.00	6,921.77	6,910.61	6,849.22	30.37	28.60	-128.32	531.65	781.76	1,167.24	1,111.01	56.23	20.757	
7,100.00	7,020.56	7,009.26	6,946.93	30.82	29.02	-128.32	538.24	793.70	1,183.56	1,126.50	57.06	20.744	
7,200.00	7,119.34	7,107.92	7,044.65	31.27	29.44	-128.32	544.83	805.64	1,199.88	1,142.00	57.88	20.730	
7,300.00	7,218.13	7,206.58	7,142.36	31.72	29.86	-128.33	551.41	817.58	1,216.20	1,157.50	58.70	20.718	
7,394.03	7,311.02	7,299.35	7,234.23	32.14	30.25	-128.33	557.61	828.80	1,231.55	1,172.07	59.48	20.706	
7,400.00	7,316.92	7,305.24	7,240.07	32.16	30.28	-130.97	558.00	829.52	1,232.52	1,173.00	59.53	20.705	
7,450.00	7,366.55	7,354.48	7,288.83	32.36	30.49	-166.56	561.29	835.47	1,240.72	1,180.80	59.92	20.706	
7,500.00	7,416.28	7,403.58	7,337.54	32.53	30.69	146.76	564.57	840.70	1,248.95	1,188.68	60.27	20.722	
7,550.00	7,465.74	7,453.24	7,387.05	32.65	30.86	122.40	567.88	842.07	1,257.17	1,196.60	60.57	20.756	
7,600.00	7,514.54	7,503.50	7,437.10	32.75	31.00	111.33	571.20	839.08	1,265.32	1,204.50	60.81	20.807	
7,650.00	7,562.31	7,554.42	7,487.34	32.83	31.11	105.29	574.51	831.58	1,273.33	1,212.32	61.01	20.872	
7,700.00	7,608.70	7,606.02	7,537.37	32.89	31.21	101.48	577.78	819.46	1,281.15	1,219.98	61.17	20.945	
7,750.00	7,653.34	7,658.33	7,586.77	32.93	31.27	98.83	580.98	802.61	1,288.71	1,227.42	61.29	21.027	
7,800.00	7,695.91	7,711.37	7,635.09	32.95	31.32	96.87	584.08	781.00	1,295.95	1,234.56	61.38	21.112	
7,850.00	7,736.06	7,765.15	7,681.83	32.95	31.34	95.34	587.04	754.61	1,302.81	1,241.35	61.46	21.197	
7,900.00	7,773.51	7,819.66	7,726.48	32.95	31.36	94.13	589.84	723.50	1,309.24	1,247.71	61.53	21.278	
7,950.00	7,807.96	7,874.89	7,768.50	32.94	31.37	93.13	592.44	687.79	1,315.18	1,253.57	61.60	21.349	
8,000.00	7,839.15	7,930.81	7,807.36	32.92	31.37	92.32	594.80	647.67	1,320.57	1,258.87	61.70	21.404	
8,050.00	7,866.84	7,987.38	7,842.51	32.90	31.38	91.65	596.89	603.43	1,325.37	1,263.54	61.83	21.436	
8,100.00	7,890.83	8,044.53	7,873.44	32.88	31.41	91.10	598.68	555.43	1,329.54	1,267.53	62.01	21.439	
8,150.00	7,910.93	8,102.19	7,899.64	32.87	31.47	90.66	600.13	504.12	1,333.04	1,270.77	62.27	21.407	
8,200.00	7,926.99	8,160.26	7,920.71	32.87	31.57	90.32	601.23	450.04	1,335.83	1,273.22	62.61	21.335	
8,250.00	7,938.88	8,218.65	7,936.27	32.89	31.72	90.06	601.94	393.80	1,337.89	1,274.85	63.05	21.221	
8,300.00	7,946.52	8,277.23	7,946.07	32.94	31.94	89.89	602.26	336.07	1,339.20	1,275.63	63.57	21.066	
8,350.00	7,949.85	8,335.88	7,949.94	33.03	32.21	89.80	602.19	277.57	1,339.75	1,275.57	64.18	20.874	
8,363.33	7,950.00	8,351.51	7,949.96	33.06	32.29	89.79	602.10	261.94	1,339.77	1,275.42	64.36	20.818	
8,373.89	7,950.00	8,361.03	7,950.00	33.08	32.36	89.79	602.05	252.42	1,339.77	1,275.27	64.50	20.772	
8,400.00	7,950.00	8,387.14	7,950.00	33.16	32.52	89.79	601.90	226.31	1,339.77	1,274.92	64.85	20.659	
8,500.00	7,950.00	8,487.14	7,950.00	33.64	33.29	89.79	601.32	126.31	1,339.77	1,273.29	66.48	20.152	
8,600.00	7,950.00	8,587.14	7,950.00	34.42	34.28	89.79	600.75	26.31	1,339.77	1,271.28	68.50	19.560	
8,700.00	7,950.00	8,687.14	7,950.00	35.49	35.46	89.79	600.17	-73.69	1,339.77	1,268.91	70.86	18.907	
8,800.00	7,950.00	8,787.14	7,950.00	36.77	36.80	89.79	599.60	-173.69	1,339.77	1,266.23	73.55	18.217	

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	8,887.14	7,950.00	38.23	38.30	89.79	599.02	-273.68	1,339.77	1,263.26	76.51	17.510		
9,000.00	7,950.00	8,987.14	7,950.00	39.83	39.92	89.79	598.45	-373.68	1,339.77	1,260.03	79.74	16.802		
9,100.00	7,950.00	9,087.14	7,950.00	41.56	41.65	89.79	597.87	-473.68	1,339.77	1,256.59	83.18	16.106		
9,200.00	7,950.00	9,187.14	7,950.00	43.39	43.48	89.79	597.30	-573.68	1,339.77	1,252.94	86.83	15.430		
9,300.00	7,950.00	9,287.14	7,950.00	45.30	45.40	89.79	596.72	-673.68	1,339.77	1,249.13	90.64	14.781		
9,400.00	7,950.00	9,387.14	7,950.00	47.29	47.39	89.79	596.15	-773.68	1,339.77	1,245.16	94.61	14.161		
9,500.00	7,950.00	9,487.14	7,950.00	49.35	49.45	89.79	595.57	-873.68	1,339.77	1,241.05	98.71	13.572		
9,600.00	7,950.00	9,587.14	7,950.00	51.47	51.56	89.79	595.00	-973.67	1,339.77	1,236.83	102.94	13.016		
9,700.00	7,950.00	9,687.14	7,950.00	53.63	53.73	89.79	594.42	-1,073.67	1,339.77	1,232.51	107.26	12.491		
9,800.00	7,950.00	9,787.14	7,950.00	55.85	55.94	89.79	593.85	-1,173.67	1,339.77	1,228.09	111.68	11.997		
9,900.00	7,950.00	9,887.14	7,950.00	58.10	58.20	89.79	593.27	-1,273.67	1,339.77	1,223.59	116.18	11.532		
10,000.00	7,950.00	9,987.14	7,950.00	60.39	60.48	89.79	592.70	-1,373.67	1,339.77	1,219.02	120.75	11.096		
10,100.00	7,950.00	10,087.14	7,950.00	62.71	62.80	89.79	592.12	-1,473.67	1,339.77	1,214.39	125.38	10.685		
10,200.00	7,950.00	10,187.14	7,950.00	65.05	65.15	89.79	591.55	-1,573.66	1,339.77	1,209.69	130.08	10.300		
10,300.00	7,950.00	10,287.14	7,950.00	67.43	67.53	89.79	590.97	-1,673.66	1,339.77	1,204.95	134.82	9.937		
10,400.00	7,950.00	10,387.14	7,950.00	69.82	69.92	89.79	590.40	-1,773.66	1,339.77	1,200.16	139.61	9.596		
10,500.00	7,950.00	10,487.14	7,950.00	72.24	72.34	89.79	589.82	-1,873.66	1,339.77	1,195.32	144.44	9.275		
10,600.00	7,950.00	10,587.14	7,950.00	74.68	74.78	89.79	589.25	-1,973.66	1,339.77	1,190.45	149.31	8.973		
10,700.00	7,950.00	10,687.14	7,950.00	77.13	77.23	89.79	588.67	-2,073.66	1,339.77	1,185.55	154.22	8.687		
10,800.00	7,950.00	10,787.14	7,950.00	79.60	79.70	89.79	588.10	-2,173.65	1,339.77	1,180.61	159.15	8.418		
10,900.00	7,950.00	10,887.14	7,950.00	82.08	82.18	89.79	587.52	-2,273.65	1,339.77	1,175.65	164.12	8.163		
11,000.00	7,950.00	10,987.14	7,950.00	84.57	84.67	89.79	586.95	-2,373.65	1,339.77	1,170.66	169.11	7.923		
11,100.00	7,950.00	11,087.14	7,950.00	87.08	87.18	89.79	586.37	-2,473.65	1,339.77	1,165.65	174.12	7.695		
11,200.00	7,950.00	11,187.14	7,950.00	89.59	89.70	89.79	585.80	-2,573.65	1,339.77	1,160.61	179.15	7.478		
11,300.00	7,950.00	11,287.14	7,950.00	92.12	92.22	89.79	585.22	-2,673.65	1,339.77	1,155.56	184.21	7.273		
11,400.00	7,950.00	11,387.14	7,950.00	94.66	94.76	89.79	584.65	-2,773.64	1,339.76	1,150.49	189.28	7.078		
11,500.00	7,950.00	11,487.14	7,950.00	97.20	97.30	89.79	584.07	-2,873.64	1,339.76	1,145.40	194.37	6.893		
11,600.00	7,950.00	11,587.14	7,950.00	99.75	99.85	89.79	583.50	-2,973.64	1,339.76	1,140.29	199.47	6.717		
11,700.00	7,950.00	11,687.14	7,950.00	102.31	102.41	89.79	582.92	-3,073.64	1,339.76	1,135.18	204.59	6.549		
11,800.00	7,950.00	11,787.14	7,950.00	104.87	104.98	89.79	582.35	-3,173.64	1,339.76	1,130.04	209.72	6.388		
11,900.00	7,950.00	11,887.14	7,950.00	107.44	107.55	89.79	581.77	-3,273.64	1,339.76	1,124.90	214.86	6.235		
12,000.00	7,950.00	11,987.14	7,950.00	110.02	110.13	89.79	581.20	-3,373.63	1,339.76	1,119.74	220.02	6.089		
12,100.00	7,950.00	12,087.14	7,950.00	112.60	112.71	89.79	580.62	-3,473.63	1,339.76	1,114.58	225.18	5.950		
12,200.00	7,950.00	12,187.14	7,950.00	115.19	115.30	89.79	580.05	-3,573.63	1,339.76	1,109.40	230.36	5.816		
12,300.00	7,950.00	12,287.14	7,950.00	117.78	117.89	89.79	579.47	-3,673.63	1,339.76	1,104.22	235.55	5.688		
12,400.00	7,950.00	12,387.14	7,950.00	120.38	120.49	89.79	578.90	-3,773.63	1,339.76	1,099.02	240.74	5.565		
12,500.00	7,950.00	12,487.14	7,950.00	122.98	123.09	89.79	578.32	-3,873.63	1,339.76	1,093.82	245.94	5.447		
12,600.00	7,950.00	12,587.14	7,950.00	125.58	125.69	89.79	577.75	-3,973.62	1,339.76	1,088.61	251.15	5.335		
12,700.00	7,950.00	12,687.14	7,950.00	128.19	128.30	89.79	577.17	-4,073.62	1,339.76	1,083.39	256.37	5.226		
12,800.00	7,950.00	12,787.14	7,950.00	130.80	130.91	89.79	576.60	-4,173.62	1,339.76	1,078.17	261.59	5.122		
12,900.00	7,950.00	12,887.14	7,950.00	133.41	133.53	89.79	576.02	-4,273.62	1,339.76	1,072.94	266.82	5.021		
13,000.00	7,950.00	12,987.14	7,950.00	136.03	136.14	89.79	575.45	-4,373.62	1,339.76	1,067.71	272.06	4.925		
13,100.00	7,950.00	13,087.14	7,950.00	138.65	138.76	89.79	574.87	-4,473.62	1,339.76	1,062.46	277.30	4.832		
13,200.00	7,950.00	13,187.14	7,950.00	141.27	141.39	89.79	574.30	-4,573.61	1,339.76	1,057.22	282.54	4.742		
13,300.00	7,950.00	13,287.14	7,950.00	143.90	144.01	89.79	573.72	-4,673.61	1,339.76	1,051.97	287.79	4.655		
13,400.00	7,950.00	13,387.14	7,950.00	146.52	146.64	89.79	573.15	-4,773.61	1,339.76	1,046.71	293.05	4.572		
13,500.00	7,950.00	13,487.14	7,950.00	149.15	149.27	89.79	572.57	-4,873.61	1,339.76	1,041.45	298.31	4.491		
13,600.00	7,950.00	13,587.14	7,950.00	151.78	151.90	89.79	572.00	-4,973.61	1,339.76	1,036.18	303.58	4.413		
13,700.00	7,950.00	13,687.14	7,950.00	154.42	154.54	89.79	571.42	-5,073.61	1,339.76	1,030.91	308.85	4.338		
13,800.00	7,950.00	13,787.14	7,950.00	157.05	157.17	89.79	570.85	-5,173.60	1,339.76	1,025.64	314.12	4.265		
13,900.00	7,950.00	13,887.14	7,950.00	159.69	159.81	89.79	570.27	-5,273.60	1,339.76	1,020.36	319.40	4.195		
14,000.00	7,950.00	13,987.14	7,950.00	162.33	162.45	89.79	569.70	-5,373.60	1,339.76	1,015.08	324.68	4.126		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 1BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,950.00	14,087.14	7,950.00	164.97	165.09	89.79	569.12	-5,473.60	1,339.76	1,009.80	329.96	4.060		
14,200.00	7,950.00	14,187.14	7,950.00	167.61	167.73	89.79	568.55	-5,573.60	1,339.76	1,004.51	335.25	3.996		
14,300.00	7,950.00	14,287.14	7,950.00	170.26	170.38	89.79	567.97	-5,673.60	1,339.76	999.22	340.54	3.934		
14,400.00	7,950.00	14,387.14	7,950.00	172.90	173.02	89.79	567.40	-5,773.59	1,339.76	993.93	345.83	3.874		
14,500.00	7,950.00	14,487.14	7,950.00	175.55	175.67	89.79	566.82	-5,873.59	1,339.76	988.63	351.12	3.816		
14,600.00	7,950.00	14,587.14	7,950.00	178.20	178.32	89.79	566.25	-5,973.59	1,339.76	983.34	356.42	3.759		
14,700.00	7,950.00	14,687.14	7,950.00	180.85	180.97	89.79	565.67	-6,073.59	1,339.76	978.04	361.72	3.704		
14,800.00	7,950.00	14,787.14	7,950.00	183.50	183.62	89.79	565.10	-6,173.59	1,339.76	972.73	367.02	3.650		
14,900.00	7,950.00	14,887.14	7,950.00	186.15	186.27	89.79	564.52	-6,273.59	1,339.76	967.43	372.33	3.598		
15,000.00	7,950.00	14,987.14	7,950.00	188.80	188.93	89.79	563.95	-6,373.58	1,339.76	962.12	377.64	3.548		
15,100.00	7,950.00	15,087.14	7,950.00	191.46	191.58	89.79	563.37	-6,473.58	1,339.76	956.81	382.95	3.499		
15,200.00	7,950.00	15,187.14	7,950.00	194.11	194.24	89.79	562.80	-6,573.58	1,339.76	951.50	388.26	3.451		
15,300.00	7,950.00	15,287.14	7,950.00	196.77	196.89	89.79	562.22	-6,673.58	1,339.76	946.18	393.57	3.404		
15,400.00	7,950.00	15,387.14	7,950.00	199.42	199.55	89.79	561.65	-6,773.58	1,339.75	940.87	398.89	3.359		
15,500.00	7,950.00	15,487.14	7,950.00	202.08	202.21	89.79	561.07	-6,873.58	1,339.75	935.55	404.20	3.315		
15,600.00	7,950.00	15,587.14	7,950.00	204.74	204.87	89.79	560.50	-6,973.57	1,339.75	930.23	409.52	3.272		
15,700.00	7,950.00	15,687.14	7,950.00	207.40	207.53	89.79	559.92	-7,073.57	1,339.75	924.91	414.84	3.230		
15,800.00	7,950.00	15,787.14	7,950.00	210.06	210.19	89.79	559.35	-7,173.57	1,339.75	919.59	420.16	3.189		
15,900.00	7,950.00	15,887.14	7,950.00	212.72	212.85	89.79	558.77	-7,273.57	1,339.75	914.27	425.49	3.149		
16,000.00	7,950.00	15,987.14	7,950.00	215.38	215.51	89.79	558.20	-7,373.57	1,339.75	908.94	430.81	3.110		
16,100.00	7,950.00	16,087.14	7,950.00	218.05	218.18	89.79	557.62	-7,473.57	1,339.75	903.62	436.14	3.072		
16,200.00	7,950.00	16,187.14	7,950.00	220.71	220.84	89.79	557.05	-7,573.56	1,339.75	898.29	441.47	3.035		
16,300.00	7,950.00	16,287.14	7,950.00	223.37	223.50	89.79	556.47	-7,673.56	1,339.75	892.96	446.79	2.999		
16,400.00	7,950.00	16,387.14	7,950.00	226.04	226.17	89.79	555.90	-7,773.56	1,339.75	887.63	452.12	2.963		
16,500.00	7,950.00	16,487.14	7,950.00	228.70	228.83	89.79	555.32	-7,873.56	1,339.75	882.30	457.46	2.929		
16,600.00	7,950.00	16,587.14	7,950.00	231.37	231.50	89.79	554.75	-7,973.56	1,339.75	876.96	462.79	2.895		
16,700.00	7,950.00	16,687.14	7,950.00	234.04	234.17	89.79	554.17	-8,073.56	1,339.75	871.63	468.12	2.862		
16,800.00	7,950.00	16,787.14	7,950.00	236.70	236.83	89.79	553.60	-8,173.55	1,339.75	866.29	473.46	2.830		
16,900.00	7,950.00	16,887.14	7,950.00	239.37	239.50	89.79	553.02	-8,273.55	1,339.75	860.96	478.79	2.798		
17,000.00	7,950.00	16,987.14	7,950.00	242.04	242.17	89.79	552.45	-8,373.55	1,339.75	855.62	484.13	2.767		
17,100.00	7,950.00	17,087.14	7,950.00	244.71	244.84	89.79	551.87	-8,473.55	1,339.75	850.28	489.47	2.737		
17,200.00	7,950.00	17,187.14	7,950.00	247.38	247.51	89.79	551.30	-8,573.55	1,339.75	844.94	494.81	2.708		
17,300.00	7,950.00	17,287.14	7,950.00	250.05	250.18	89.79	550.72	-8,673.55	1,339.75	839.60	500.15	2.679		
17,400.00	7,950.00	17,387.14	7,950.00	252.72	252.85	89.79	550.15	-8,773.54	1,339.75	834.26	505.49	2.650		
17,500.00	7,950.00	17,487.14	7,950.00	255.39	255.52	89.79	549.57	-8,873.54	1,339.75	828.92	510.83	2.623		
17,600.00	7,950.00	17,587.14	7,950.00	258.06	258.19	89.79	549.00	-8,973.54	1,339.75	823.58	516.17	2.596		
17,700.00	7,950.00	17,687.14	7,950.00	260.73	260.86	89.79	548.43	-9,073.54	1,339.75	818.23	521.52	2.569		
17,800.00	7,950.00	17,787.14	7,950.00	263.40	263.53	89.79	547.85	-9,173.54	1,339.75	812.89	526.86	2.543		
17,900.00	7,950.00	17,887.14	7,950.00	266.07	266.21	89.79	547.28	-9,273.54	1,339.75	807.54	532.20	2.517		
18,000.00	7,950.00	17,987.14	7,950.00	268.74	268.88	89.79	546.70	-9,373.53	1,339.75	802.20	537.55	2.492		
18,100.00	7,950.00	18,087.14	7,950.00	271.42	271.55	89.79	546.13	-9,473.53	1,339.75	796.85	542.90	2.468		
18,200.00	7,950.00	18,187.14	7,950.00	274.09	274.22	89.79	545.55	-9,573.53	1,339.75	791.50	548.24	2.444		
18,244.94	7,950.00	18,232.08	7,950.00	275.29	275.43	89.79	545.29	-9,618.47	1,339.75	789.10	550.65	2.433		
18,253.56	7,950.00	18,230.53	7,950.00	275.52	275.38	89.79	545.30	-9,616.91	1,339.79	788.98	550.81	2.432 SF		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	4.40	4.40	0.00	0.01	-0.32	49.90	-0.28	49.91					
100.00	100.00	104.40	104.40	0.13	0.15	-0.32	49.90	-0.28	49.91	49.62	0.28	175.337		
200.00	200.00	204.40	204.40	0.49	0.51	-0.32	49.90	-0.28	49.91	48.90	1.00	49.827		
250.00	250.00	254.41	254.41	0.67	0.69	-0.32	49.90	-0.28	49.91	48.55	1.36	36.703		
251.13	251.13	255.55	255.55	0.68	0.69	-128.97	49.90	-0.28	49.90	48.54	1.37	36.491 CC		
300.00	300.00	304.52	304.52	0.85	0.86	-128.78	49.84	0.23	50.11	48.41	1.71	29.349 ES		
400.00	399.93	404.71	404.63	1.19	1.21	-127.75	49.39	3.86	51.85	49.45	2.40	21.587		
500.00	499.68	504.81	504.47	1.55	1.58	-126.05	48.51	10.96	55.37	52.25	3.12	17.731		
600.00	599.13	604.77	603.86	1.93	1.96	-123.94	47.20	21.49	60.73	56.86	3.87	15.678		
696.56	694.75	701.06	699.42	2.31	2.33	-123.16	45.74	33.27	67.72	63.09	4.63	14.631		
700.00	698.15	704.50	702.83	2.33	2.35	-123.18	45.69	33.69	68.00	63.34	4.66	14.600		
800.00	796.94	804.16	801.73	2.74	2.75	-123.69	44.18	45.88	76.16	70.71	5.45	13.966		
900.00	895.73	903.83	900.64	3.17	3.15	-124.11	42.66	58.07	84.32	78.07	6.26	13.473		
1,000.00	994.51	1,003.49	999.54	3.60	3.55	-124.45	41.15	70.26	92.49	85.42	7.07	13.082		
1,100.00	1,093.30	1,103.15	1,098.45	4.04	3.96	-124.73	39.64	82.45	100.67	92.78	7.89	12.765		
1,200.00	1,192.09	1,202.82	1,197.35	4.48	4.37	-124.97	38.12	94.64	108.84	100.13	8.71	12.503		
1,300.00	1,290.88	1,302.48	1,296.26	4.92	4.78	-125.18	36.61	106.83	117.01	107.49	9.53	12.284		
1,400.00	1,389.67	1,402.15	1,395.16	5.36	5.19	-125.36	35.10	119.02	125.19	114.84	10.35	12.098		
1,500.00	1,488.45	1,501.81	1,494.07	5.80	5.60	-125.52	33.59	131.21	133.37	122.20	11.17	11.938		
1,600.00	1,587.24	1,601.48	1,592.97	6.24	6.01	-125.66	32.07	143.40	141.55	129.55	12.00	11.799		
1,700.00	1,686.03	1,701.14	1,691.88	6.69	6.42	-125.79	30.56	155.59	149.73	136.91	12.82	11.677		
1,800.00	1,784.82	1,800.81	1,790.78	7.13	6.83	-125.90	29.05	167.78	157.91	144.26	13.65	11.570		
1,900.00	1,883.60	1,900.47	1,889.68	7.57	7.24	-126.00	27.53	179.97	166.09	151.61	14.47	11.474		
2,000.00	1,982.39	2,000.13	1,988.59	8.02	7.65	-126.09	26.02	192.16	174.27	158.97	15.30	11.389		
2,100.00	2,081.18	2,100.20	2,087.49	8.46	8.07	-126.18	24.51	204.35	182.45	166.32	16.13	11.311		
2,200.00	2,179.97	2,200.54	2,186.40	8.91	8.48	-126.25	22.99	216.54	190.63	173.67	16.96	11.239		
2,300.00	2,278.75	2,300.87	2,285.30	9.36	8.90	-126.32	21.48	228.73	198.82	181.02	17.79	11.175		
2,400.00	2,377.54	2,401.21	2,384.21	9.80	9.31	-126.39	19.97	240.92	207.00	188.38	18.62	11.115		
2,500.00	2,476.33	2,501.54	2,483.11	10.25	9.73	-126.45	18.46	253.11	215.18	195.73	19.45	11.061		
2,600.00	2,575.12	2,601.88	2,582.02	10.69	10.14	-126.50	16.94	265.30	223.37	203.08	20.29	11.011		
2,700.00	2,673.90	2,702.22	2,680.92	11.14	10.56	-126.55	15.43	277.49	231.55	210.43	21.12	10.965		
2,800.00	2,772.69	2,802.55	2,779.83	11.59	10.97	-126.60	13.92	289.68	239.73	217.78	21.95	10.923		
2,900.00	2,871.48	2,902.89	2,878.73	12.03	11.39	-126.64	12.40	301.87	247.92	225.14	22.78	10.883		
3,000.00	2,970.27	3,003.22	2,977.64	12.48	11.80	-126.69	10.89	314.06	256.10	232.49	23.61	10.846		
3,100.00	3,069.05	3,103.56	3,076.54	12.93	12.22	-126.73	9.38	326.25	264.28	239.84	24.44	10.812		
3,200.00	3,167.84	3,203.89	3,175.44	13.37	12.64	-126.76	7.87	338.44	272.47	247.19	25.28	10.780		
3,300.00	3,266.63	3,304.23	3,274.35	13.82	13.05	-126.80	6.35	350.63	280.65	254.54	26.11	10.750		
3,400.00	3,365.42	3,404.56	3,373.25	14.27	13.47	-126.83	4.84	362.82	288.84	261.90	26.94	10.722		
3,500.00	3,464.20	3,504.90	3,472.16	14.71	13.88	-126.86	3.33	375.01	297.02	269.25	27.77	10.695		
3,600.00	3,562.99	3,605.24	3,571.06	15.16	14.30	-126.89	1.81	387.20	305.20	276.60	28.60	10.670		
3,700.00	3,661.78	3,705.57	3,669.97	15.61	14.71	-126.92	0.30	399.39	313.39	283.95	29.44	10.647		
3,800.00	3,760.57	3,805.91	3,768.87	16.05	15.13	-126.94	-1.21	411.58	321.57	291.30	30.27	10.624		
3,900.00	3,859.35	3,906.24	3,867.78	16.50	15.55	-126.97	-2.73	423.77	329.76	298.66	31.10	10.603		
4,000.00	3,958.14	4,006.58	3,966.68	16.95	15.96	-126.99	-4.24	435.96	337.94	306.01	31.93	10.583		
4,100.00	4,056.93	4,106.91	4,065.59	17.40	16.38	-127.02	-5.75	448.15	346.13	313.36	32.77	10.564		
4,200.00	4,155.72	4,207.25	4,164.49	17.84	16.79	-127.04	-7.26	460.34	354.31	320.71	33.60	10.546		
4,300.00	4,254.50	4,307.58	4,263.39	18.29	17.21	-127.06	-8.78	472.53	362.50	328.07	34.43	10.528		
4,400.00	4,353.29	4,407.92	4,362.30	18.74	17.62	-127.08	-10.29	484.72	370.68	335.42	35.26	10.512		
4,500.00	4,452.08	4,508.26	4,461.20	19.19	18.04	-127.10	-11.80	496.91	378.87	342.77	36.10	10.496		
4,600.00	4,550.87	4,608.59	4,560.11	19.63	18.46	-127.11	-13.32	509.10	387.05	350.12	36.93	10.481		
4,700.00	4,649.65	4,708.93	4,659.01	20.08	18.87	-127.13	-14.83	521.28	395.24	357.48	37.76	10.467		
4,800.00	4,748.44	4,809.26	4,757.92	20.53	19.29	-127.15	-16.34	533.47	403.42	364.83	38.59	10.453		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,847.23	4,909.60	4,856.82	20.97	19.70	-127.16	-17.85	545.66	411.61	372.18	39.43	10.440		
5,000.00	4,946.02	5,009.93	4,955.73	21.42	20.12	-127.18	-19.37	557.85	419.79	379.53	40.26	10.427		
5,100.00	5,044.81	5,089.73	5,054.63	21.87	20.45	-127.19	-20.88	570.04	427.98	386.97	41.01	10.437		
5,200.00	5,143.59	5,189.39	5,153.54	22.32	20.86	-127.21	-22.39	582.23	436.16	394.33	41.84	10.425		
5,300.00	5,242.38	5,289.06	5,252.44	22.76	21.28	-127.22	-23.91	594.42	444.35	401.68	42.67	10.415		
5,400.00	5,341.17	5,388.72	5,351.34	23.21	21.69	-127.24	-25.42	606.61	452.53	409.04	43.50	10.404		
5,500.00	5,439.96	5,488.39	5,450.25	23.66	22.10	-127.25	-26.93	618.80	460.72	416.39	44.33	10.394		
5,600.00	5,538.74	5,588.05	5,549.15	24.11	22.52	-127.26	-28.45	630.99	468.90	423.75	45.16	10.384		
5,700.00	5,637.53	5,687.72	5,648.06	24.55	22.93	-127.27	-29.96	643.18	477.09	431.10	45.99	10.375		
5,800.00	5,736.32	5,787.38	5,746.96	25.00	23.34	-127.28	-31.47	655.37	485.27	438.46	46.82	10.366		
5,900.00	5,835.11	5,887.05	5,845.87	25.45	23.76	-127.29	-32.98	667.56	493.46	445.81	47.65	10.357		
6,000.00	5,933.89	5,986.71	5,944.77	25.90	24.17	-127.31	-34.50	679.75	501.64	453.17	48.48	10.348		
6,100.00	6,032.68	6,086.37	6,043.68	26.34	24.58	-127.32	-36.01	691.94	509.83	460.52	49.31	10.340		
6,200.00	6,131.47	6,186.04	6,142.58	26.79	25.00	-127.33	-37.52	704.13	518.01	467.88	50.14	10.332		
6,300.00	6,230.26	6,285.70	6,241.49	27.24	25.41	-127.34	-39.04	716.32	526.20	475.23	50.97	10.324		
6,400.00	6,329.04	6,385.37	6,340.39	27.69	25.82	-127.35	-40.55	728.51	534.38	482.59	51.80	10.317		
6,500.00	6,427.83	6,485.03	6,439.29	28.13	26.24	-127.35	-42.06	740.70	542.57	489.94	52.63	10.310		
6,600.00	6,526.62	6,584.70	6,538.20	28.58	26.65	-127.36	-43.58	752.89	550.75	497.30	53.46	10.303		
6,700.00	6,625.41	6,684.36	6,637.10	29.03	27.06	-127.37	-45.09	765.08	558.94	504.65	54.29	10.296		
6,800.00	6,724.19	6,784.03	6,736.01	29.48	27.48	-127.38	-46.60	777.27	567.13	512.01	55.12	10.289		
6,900.00	6,822.98	6,883.69	6,834.91	29.93	27.89	-127.39	-48.11	789.46	575.31	519.36	55.95	10.283		
7,000.00	6,921.77	6,983.35	6,933.82	30.37	28.30	-127.40	-49.63	801.65	583.50	526.72	56.78	10.277		
7,100.00	7,020.56	7,083.02	7,032.72	30.82	28.72	-127.40	-51.14	813.84	591.68	534.07	57.61	10.271		
7,200.00	7,119.34	7,182.68	7,131.63	31.27	29.13	-127.41	-52.65	826.03	599.87	541.43	58.44	10.265		
7,300.00	7,218.13	7,282.35	7,230.53	31.72	29.54	-127.42	-54.17	838.22	608.05	548.78	59.27	10.259		
7,394.03	7,311.02	7,377.57	7,325.54	32.14	29.86	-128.14	-55.66	842.24	615.62	555.70	59.92	10.257		
7,400.00	7,316.92	7,383.51	7,331.48	32.16	29.88	-130.82	-55.76	841.97	616.10	556.15	59.95	10.277		
7,450.00	7,366.55	7,432.84	7,380.57	32.36	30.00	-166.85	-56.57	837.33	620.19	560.02	60.17	10.307		
7,500.00	7,416.28	7,481.51	7,428.43	32.53	30.09	145.88	-57.39	828.63	624.39	564.06	60.33	10.350		
7,550.00	7,465.74	7,529.55	7,474.79	32.65	30.16	120.94	-58.20	816.09	628.66	568.22	60.44	10.402		
7,600.00	7,514.54	7,577.01	7,519.39	32.75	30.22	109.30	-59.01	799.93	632.96	572.45	60.51	10.461		
7,650.00	7,562.31	7,623.93	7,562.02	32.83	30.26	102.72	-59.80	780.38	637.25	576.71	60.54	10.526		
7,700.00	7,608.70	7,670.35	7,602.49	32.89	30.29	98.40	-60.58	757.68	641.48	580.93	60.55	10.594		
7,750.00	7,653.34	7,716.30	7,640.60	32.93	30.31	95.27	-61.34	732.05	645.62	585.07	60.55	10.663		
7,800.00	7,695.91	7,761.84	7,676.23	32.95	30.34	92.85	-62.07	703.72	649.62	589.08	60.53	10.732		
7,850.00	7,736.06	7,806.99	7,709.22	32.95	30.36	90.91	-62.78	672.92	653.44	592.91	60.52	10.797		
7,900.00	7,773.51	7,851.79	7,739.47	32.95	30.40	89.30	-63.45	639.88	657.03	596.51	60.53	10.855		
7,950.00	7,807.96	7,896.29	7,766.85	32.94	30.44	87.96	-64.09	604.83	660.38	599.82	60.56	10.904		
8,000.00	7,839.15	7,940.51	7,791.30	32.92	30.51	86.83	-64.69	568.00	663.43	602.80	60.63	10.941		
8,050.00	7,866.84	7,984.50	7,812.73	32.90	30.59	85.89	-65.26	529.60	666.16	605.40	60.76	10.964		
8,100.00	7,890.83	8,028.28	7,831.06	32.88	30.70	85.10	-65.78	489.87	668.55	607.60	60.95	10.969		
8,150.00	7,910.93	8,071.88	7,846.26	32.87	30.84	84.47	-66.26	449.01	670.56	609.35	61.21	10.955		
8,200.00	7,926.99	8,115.35	7,858.28	32.87	31.00	83.97	-66.69	407.25	672.18	610.64	61.55	10.922		
8,250.00	7,938.88	8,158.70	7,867.07	32.89	31.20	83.60	-67.08	364.81	673.40	611.43	61.96	10.868		
8,300.00	7,946.52	8,201.97	7,872.63	32.94	31.42	83.36	-67.41	321.90	674.19	611.73	62.45	10.795		
8,350.00	7,949.85	8,245.20	7,874.93	33.03	31.67	83.25	-67.70	278.75	674.55	611.52	63.02	10.703		
8,363.33	7,950.00	8,257.13	7,875.00	33.06	31.74	83.24	-67.77	266.82	674.57	611.38	63.19	10.676		
8,400.00	7,950.00	8,306.21	7,875.00	33.16	32.08	83.24	-67.98	230.16	674.57	610.80	63.77	10.578		
8,500.00	7,950.00	8,406.21	7,875.00	33.64	32.92	83.24	-68.55	130.16	674.57	609.16	65.41	10.313		
8,600.00	7,950.00	8,506.21	7,875.00	34.42	33.96	83.24	-69.13	30.16	674.57	607.13	67.44	10.003		
8,700.00	7,950.00	8,606.21	7,875.00	35.49	35.17	83.24	-69.70	-69.84	674.57	604.76	69.82	9.662		
8,800.00	7,950.00	8,706.21	7,875.00	36.77	36.55	83.24	-70.28	-169.83	674.57	602.06	72.51	9.303		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	8,806.21	7,875.00	38.23	38.06	83.24	-70.85	-269.83	674.57	599.08	75.49	8.936		
9,000.00	7,950.00	8,906.21	7,875.00	39.83	39.71	83.24	-71.43	-369.83	674.57	595.85	78.72	8.569		
9,100.00	7,950.00	9,006.21	7,875.00	41.56	41.46	83.24	-72.00	-469.83	674.57	592.40	82.17	8.209		
9,200.00	7,950.00	9,106.21	7,875.00	43.39	43.31	83.24	-72.57	-569.83	674.57	588.75	85.82	7.860		
9,300.00	7,950.00	9,206.21	7,875.00	45.30	45.24	83.24	-73.15	-669.83	674.57	584.93	89.64	7.526		
9,400.00	7,950.00	9,306.21	7,875.00	47.29	47.25	83.24	-73.72	-769.82	674.57	580.96	93.61	7.206		
9,500.00	7,950.00	9,406.21	7,875.00	49.35	49.32	83.24	-74.30	-869.82	674.57	576.86	97.71	6.904		
9,600.00	7,950.00	9,506.21	7,875.00	51.47	51.45	83.24	-74.87	-969.82	674.57	572.65	101.92	6.618		
9,700.00	7,950.00	9,606.21	7,875.00	53.63	53.63	83.24	-75.45	-1,069.82	674.57	568.33	106.24	6.349		
9,800.00	7,950.00	9,706.21	7,875.00	55.85	55.86	83.24	-76.02	-1,169.82	674.57	563.92	110.65	6.097		
9,900.00	7,950.00	9,806.21	7,875.00	58.10	58.12	83.24	-76.60	-1,269.82	674.57	559.43	115.14	5.859		
10,000.00	7,950.00	9,906.21	7,875.00	60.39	60.42	83.24	-77.17	-1,369.81	674.57	554.87	119.70	5.636		
10,100.00	7,950.00	10,006.21	7,875.00	62.71	62.76	83.24	-77.75	-1,469.81	674.57	550.25	124.32	5.426		
10,200.00	7,950.00	10,106.21	7,875.00	65.05	65.11	83.24	-78.32	-1,569.81	674.57	545.57	129.00	5.229		
10,300.00	7,950.00	10,206.21	7,875.00	67.43	67.50	83.24	-78.90	-1,669.81	674.57	540.84	133.72	5.044		
10,400.00	7,950.00	10,306.21	7,875.00	69.82	69.90	83.24	-79.47	-1,769.81	674.57	536.07	138.50	4.871		
10,500.00	7,950.00	10,406.21	7,875.00	72.24	72.33	83.24	-80.05	-1,869.81	674.57	531.26	143.31	4.707		
10,600.00	7,950.00	10,506.21	7,875.00	74.68	74.78	83.24	-80.62	-1,969.80	674.57	526.40	148.16	4.553		
10,700.00	7,950.00	10,606.21	7,875.00	77.13	77.24	83.24	-81.20	-2,069.80	674.57	521.52	153.05	4.408		
10,800.00	7,950.00	10,706.21	7,875.00	79.60	79.71	83.24	-81.77	-2,169.80	674.57	516.61	157.96	4.270		
10,900.00	7,950.00	10,806.21	7,875.00	82.08	82.20	83.24	-82.35	-2,269.80	674.57	511.66	162.90	4.141		
11,000.00	7,950.00	10,906.21	7,875.00	84.57	84.70	83.24	-82.92	-2,369.80	674.57	506.70	167.87	4.018		
11,100.00	7,950.00	11,006.21	7,875.00	87.08	87.22	83.24	-83.50	-2,469.80	674.57	501.71	172.86	3.902		
11,200.00	7,950.00	11,106.21	7,875.00	89.59	89.74	83.24	-84.07	-2,569.79	674.57	496.69	177.87	3.792		
11,300.00	7,950.00	11,206.21	7,875.00	92.12	92.27	83.24	-84.65	-2,669.79	674.57	491.66	182.90	3.688		
11,400.00	7,950.00	11,306.21	7,875.00	94.66	94.81	83.24	-85.22	-2,769.79	674.57	486.62	187.95	3.589		
11,500.00	7,950.00	11,406.21	7,875.00	97.20	97.36	83.24	-85.80	-2,869.79	674.57	481.55	193.01	3.495		
11,600.00	7,950.00	11,506.21	7,875.00	99.75	99.92	83.24	-86.37	-2,969.79	674.57	476.47	198.09	3.405		
11,700.00	7,950.00	11,606.21	7,875.00	102.31	102.48	83.24	-86.95	-3,069.79	674.57	471.38	203.19	3.320		
11,800.00	7,950.00	11,706.21	7,875.00	104.87	105.05	83.24	-87.52	-3,169.78	674.57	466.28	208.29	3.239		
11,900.00	7,950.00	11,806.21	7,875.00	107.44	107.63	83.24	-88.10	-3,269.78	674.57	461.16	213.41	3.161		
12,000.00	7,950.00	11,906.21	7,875.00	110.02	110.21	83.24	-88.67	-3,369.78	674.57	456.03	218.54	3.087		
12,100.00	7,950.00	12,006.21	7,875.00	112.60	112.80	83.24	-89.24	-3,469.78	674.57	450.89	223.68	3.016		
12,200.00	7,950.00	12,106.21	7,875.00	115.19	115.39	83.24	-89.82	-3,569.78	674.57	445.74	228.83	2.948		
12,300.00	7,950.00	12,206.21	7,875.00	117.78	117.99	83.24	-90.39	-3,669.78	674.57	440.58	233.98	2.883		
12,400.00	7,950.00	12,306.21	7,875.00	120.38	120.59	83.24	-90.97	-3,769.77	674.57	435.42	239.15	2.821		
12,500.00	7,950.00	12,406.21	7,875.00	122.98	123.19	83.24	-91.54	-3,869.77	674.57	430.24	244.32	2.761		
12,600.00	7,950.00	12,506.21	7,875.00	125.58	125.80	83.24	-92.12	-3,969.77	674.57	425.06	249.51	2.704		
12,700.00	7,950.00	12,606.21	7,875.00	128.19	128.41	83.24	-92.69	-4,069.77	674.57	419.87	254.69	2.649		
12,800.00	7,950.00	12,706.21	7,875.00	130.80	131.02	83.24	-93.27	-4,169.77	674.56	414.68	259.89	2.596		
12,900.00	7,950.00	12,806.21	7,875.00	133.41	133.64	83.24	-93.84	-4,269.77	674.56	409.48	265.09	2.545		
13,000.00	7,950.00	12,906.21	7,875.00	136.03	136.26	83.24	-94.42	-4,369.77	674.56	404.27	270.30	2.496		
13,100.00	7,950.00	13,006.21	7,875.00	138.65	138.88	83.24	-94.99	-4,469.76	674.56	399.06	275.51	2.448		
13,200.00	7,950.00	13,106.21	7,875.00	141.27	141.51	83.24	-95.57	-4,569.76	674.56	393.84	280.73	2.403		
13,300.00	7,950.00	13,206.21	7,875.00	143.90	144.14	83.24	-96.14	-4,669.76	674.56	388.62	285.95	2.359		
13,400.00	7,950.00	13,306.21	7,875.00	146.52	146.77	83.24	-96.72	-4,769.76	674.56	383.39	291.18	2.317		
13,500.00	7,950.00	13,406.21	7,875.00	149.15	149.40	83.24	-97.29	-4,869.76	674.56	378.16	296.41	2.276		
13,600.00	7,950.00	13,506.21	7,875.00	151.78	152.04	83.24	-97.87	-4,969.76	674.56	372.92	301.64	2.236		
13,700.00	7,950.00	13,606.21	7,875.00	154.42	154.67	83.24	-98.44	-5,069.75	674.56	367.68	306.88	2.198		
13,800.00	7,950.00	13,706.21	7,875.00	157.05	157.31	83.24	-99.02	-5,169.75	674.56	362.44	312.13	2.161		
13,900.00	7,950.00	13,806.21	7,875.00	159.69	159.95	83.24	-99.59	-5,269.75	674.56	357.19	317.37	2.125		
14,000.00	7,950.00	13,906.21	7,875.00	162.33	162.59	83.24	-100.17	-5,369.75	674.56	351.94	322.62	2.091		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 2AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,950.00	14,006.21	7,875.00	164.97	165.24	83.24	-100.74	-5,469.75	674.56	346.69	327.88	2.057		
14,200.00	7,950.00	14,106.21	7,875.00	167.61	167.88	83.24	-101.32	-5,569.75	674.56	341.43	333.13	2.025		
14,300.00	7,950.00	14,206.21	7,875.00	170.26	170.53	83.24	-101.89	-5,669.74	674.56	336.17	338.39	1.993		
14,400.00	7,950.00	14,306.21	7,875.00	172.90	173.18	83.24	-102.47	-5,769.74	674.56	330.91	343.65	1.963		
14,500.00	7,950.00	14,406.21	7,875.00	175.55	175.82	83.24	-103.04	-5,869.74	674.56	325.64	348.92	1.933		
14,600.00	7,950.00	14,493.79	7,875.00	178.20	178.15	83.24	-103.62	-5,969.74	674.56	320.70	353.86	1.906		
14,700.00	7,950.00	14,606.21	7,875.00	180.85	181.13	83.24	-104.19	-6,069.74	674.56	315.11	359.46	1.877		
14,800.00	7,950.00	14,706.21	7,875.00	183.50	183.78	83.24	-104.77	-6,169.74	674.56	309.83	364.73	1.849		
14,900.00	7,950.00	14,806.21	7,875.00	186.15	186.43	83.24	-105.34	-6,269.73	674.56	304.56	370.00	1.823		
15,000.00	7,950.00	14,906.21	7,875.00	188.80	189.09	83.24	-105.91	-6,369.73	674.56	299.28	375.28	1.797		
15,100.00	7,950.00	15,006.21	7,875.00	191.46	191.74	83.24	-106.49	-6,469.73	674.56	294.00	380.56	1.773		
15,200.00	7,950.00	15,106.21	7,875.00	194.11	194.40	83.24	-107.06	-6,569.73	674.56	288.72	385.84	1.748		
15,300.00	7,950.00	15,206.21	7,875.00	196.77	197.06	83.24	-107.64	-6,669.73	674.56	283.44	391.12	1.725		
15,400.00	7,950.00	15,306.21	7,875.00	199.42	199.72	83.24	-108.21	-6,769.73	674.56	278.16	396.41	1.702		
15,500.00	7,950.00	15,406.21	7,875.00	202.08	202.38	83.24	-108.79	-6,869.72	674.56	272.87	401.69	1.679		
15,600.00	7,950.00	15,506.21	7,875.00	204.74	205.04	83.24	-109.36	-6,969.72	674.56	267.58	406.98	1.657		
15,700.00	7,950.00	15,606.21	7,875.00	207.40	207.70	83.24	-109.94	-7,069.72	674.56	262.29	412.27	1.636		
15,800.00	7,950.00	15,706.21	7,875.00	210.06	210.36	83.24	-110.51	-7,169.72	674.56	257.00	417.56	1.615		
15,900.00	7,950.00	15,806.21	7,875.00	212.72	213.02	83.24	-111.09	-7,269.72	674.56	251.71	422.85	1.595		
16,000.00	7,950.00	15,906.21	7,875.00	215.38	215.69	83.24	-111.66	-7,369.72	674.56	246.42	428.14	1.576		
16,100.00	7,950.00	16,006.21	7,875.00	218.05	218.35	83.24	-112.24	-7,469.71	674.56	241.12	433.44	1.556		
16,200.00	7,950.00	16,106.21	7,875.00	220.71	221.02	83.24	-112.81	-7,569.71	674.56	235.82	438.74	1.538		
16,300.00	7,950.00	16,206.21	7,875.00	223.37	223.68	83.24	-113.39	-7,669.71	674.56	230.53	444.03	1.519		
16,400.00	7,950.00	16,306.21	7,875.00	226.04	226.35	83.24	-113.96	-7,769.71	674.56	225.23	449.33	1.501		
16,500.00	7,950.00	16,406.21	7,875.00	228.70	229.01	83.24	-114.54	-7,869.71	674.56	219.93	454.63	1.484 Level 3		
16,600.00	7,950.00	16,506.21	7,875.00	231.37	231.68	83.24	-115.11	-7,969.71	674.56	214.63	459.93	1.467 Level 3		
16,700.00	7,950.00	16,606.21	7,875.00	234.04	234.35	83.24	-115.69	-8,069.70	674.56	209.32	465.24	1.450 Level 3		
16,800.00	7,950.00	16,706.21	7,875.00	236.70	237.02	83.24	-116.26	-8,169.70	674.56	204.02	470.54	1.434 Level 3		
16,900.00	7,950.00	16,806.21	7,875.00	239.37	239.69	83.24	-116.84	-8,269.70	674.56	198.72	475.84	1.418 Level 3		
17,000.00	7,950.00	16,906.21	7,875.00	242.04	242.35	83.24	-117.41	-8,369.70	674.56	193.41	481.15	1.402 Level 3		
17,100.00	7,950.00	17,006.21	7,875.00	244.71	245.02	83.24	-117.99	-8,469.70	674.56	188.10	486.46	1.387 Level 3		
17,200.00	7,950.00	17,106.21	7,875.00	247.38	247.69	83.24	-118.56	-8,569.70	674.56	182.80	491.76	1.372 Level 3		
17,300.00	7,950.00	17,206.21	7,875.00	250.05	250.37	83.24	-119.14	-8,669.69	674.56	177.49	497.07	1.357 Level 3		
17,400.00	7,950.00	17,306.21	7,875.00	252.72	253.04	83.24	-119.71	-8,769.69	674.56	172.18	502.38	1.343 Level 3		
17,500.00	7,950.00	17,406.21	7,875.00	255.39	255.71	83.24	-120.29	-8,869.69	674.56	166.87	507.69	1.329 Level 3		
17,600.00	7,950.00	17,506.21	7,875.00	258.06	258.38	83.24	-120.86	-8,969.69	674.56	161.56	513.00	1.315 Level 3		
17,700.00	7,950.00	17,606.21	7,875.00	260.73	261.05	83.24	-121.44	-9,069.69	674.56	156.25	518.31	1.301 Level 3		
17,800.00	7,950.00	17,706.21	7,875.00	263.40	263.73	83.24	-122.01	-9,169.69	674.56	150.93	523.62	1.288 Level 3		
17,900.00	7,950.00	17,806.21	7,875.00	266.07	266.40	83.24	-122.58	-9,269.68	674.56	145.62	528.94	1.275 Level 3		
18,000.00	7,950.00	17,906.21	7,875.00	268.74	269.07	83.24	-123.16	-9,369.68	674.56	140.31	534.25	1.263 Level 3		
18,100.00	7,950.00	18,006.21	7,875.00	271.42	271.75	83.24	-123.73	-9,469.68	674.56	134.99	539.57	1.250 Level 3		
18,200.00	7,950.00	18,093.79	7,875.00	274.09	274.09	83.24	-124.31	-9,569.68	674.56	130.01	544.55	1.239 Level 2		
18,250.06	7,950.00	18,143.86	7,875.00	275.43	275.43	83.24	-124.60	-9,619.74	674.56	127.35	547.21	1.233 Level 2, SF		
18,253.56	7,950.00	18,142.12	7,875.00	275.52	275.38	83.24	-124.59	-9,618.01	674.58	127.38	547.20	1.233 Level 2		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-49.90	0.00	49.90				
100.00	100.00	100.00	100.00	0.13	0.13	-180.00	-49.90	0.00	49.90	49.64	0.27	185.620	
200.00	200.00	200.00	200.00	0.49	0.49	-180.00	-49.90	0.00	49.90	48.92	0.99	50.624	
250.00	250.00	250.00	250.00	0.67	0.67	-180.00	-49.90	0.00	49.90	48.56	1.34	37.124 CC	
300.00	300.00	299.22	299.22	0.85	0.84	51.52	-50.29	0.18	50.02	48.34	1.69	29.666 ES	
400.00	399.93	397.65	397.58	1.19	1.18	52.92	-53.36	1.60	50.98	48.61	2.36	21.561	
500.00	499.68	496.02	495.72	1.55	1.53	55.55	-59.48	4.44	52.98	49.91	3.06	17.287	
600.00	599.13	594.30	593.48	1.93	1.90	59.13	-68.65	8.70	56.17	52.38	3.79	14.831	
696.56	694.75	689.09	687.37	2.31	2.27	63.12	-80.37	14.14	60.54	56.03	4.52	13.404	
700.00	698.15	692.47	690.71	2.33	2.29	63.27	-80.84	14.35	60.73	56.18	4.54	13.368	
800.00	796.94	790.47	787.27	2.74	2.70	66.28	-96.01	21.40	67.53	62.19	5.33	12.661	
900.00	895.73	888.15	882.89	3.17	3.15	67.03	-114.11	29.79	77.02	70.88	6.14	12.543	
1,000.00	994.51	985.28	977.24	3.60	3.63	66.20	-135.03	39.50	89.08	82.13	6.95	12.813	
1,100.00	1,093.30	1,081.64	1,070.01	4.04	4.15	64.41	-158.64	50.45	103.75	96.00	7.76	13.376	
1,200.00	1,192.09	1,180.16	1,164.37	4.48	4.70	62.50	-184.32	62.37	119.93	111.34	8.59	13.960	
1,300.00	1,290.88	1,278.77	1,258.82	4.92	5.27	61.05	-210.03	74.30	136.22	126.78	9.43	14.440	
1,400.00	1,389.67	1,377.38	1,353.27	5.36	5.84	59.91	-235.74	86.23	152.56	142.29	10.28	14.845	
1,500.00	1,488.45	1,476.00	1,447.73	5.80	6.43	58.99	-261.46	98.16	168.96	157.84	11.12	15.190	
1,600.00	1,587.24	1,574.61	1,542.18	6.24	7.01	58.24	-287.17	110.09	185.39	173.42	11.97	15.487	
1,700.00	1,686.03	1,673.23	1,636.63	6.69	7.60	57.60	-312.88	122.02	201.85	189.03	12.82	15.745	
1,800.00	1,784.82	1,771.84	1,731.08	7.13	8.19	57.06	-338.59	133.95	218.32	204.65	13.67	15.972	
1,900.00	1,883.60	1,870.45	1,825.54	7.57	8.78	56.60	-364.30	145.89	234.82	220.30	14.52	16.172	
2,000.00	1,982.39	1,969.07	1,919.99	8.02	9.38	56.20	-390.01	157.82	251.32	235.95	15.37	16.350	
2,100.00	2,081.18	2,067.68	2,014.44	8.46	9.98	55.85	-415.73	169.75	267.84	251.62	16.22	16.509	
2,200.00	2,179.97	2,166.30	2,108.89	8.91	10.57	55.54	-441.44	181.68	284.37	267.29	17.08	16.652	
2,300.00	2,278.75	2,264.91	2,203.35	9.36	11.17	55.26	-467.15	193.61	300.90	282.97	17.93	16.782	
2,400.00	2,377.54	2,363.52	2,297.80	9.80	11.77	55.01	-492.86	205.54	317.44	298.65	18.78	16.899	
2,500.00	2,476.33	2,462.14	2,392.25	10.25	12.37	54.79	-518.57	217.47	333.98	314.34	19.64	17.007	
2,600.00	2,575.12	2,560.75	2,486.70	10.69	12.97	54.59	-544.29	229.40	350.53	330.04	20.49	17.105	
2,700.00	2,673.90	2,659.37	2,581.16	11.14	13.58	54.40	-570.00	241.33	367.08	345.74	21.35	17.196	
2,800.00	2,772.69	2,757.98	2,675.61	11.59	14.18	54.23	-595.71	253.26	383.64	361.44	22.20	17.279	
2,900.00	2,871.48	2,856.59	2,770.06	12.03	14.78	54.08	-621.42	265.19	400.20	377.14	23.06	17.357	
3,000.00	2,970.27	2,955.21	2,864.51	12.48	15.38	53.94	-647.13	277.12	416.76	392.85	23.91	17.428	
3,100.00	3,069.05	3,053.82	2,958.97	12.93	15.98	53.80	-672.84	289.05	433.32	408.56	24.77	17.495	
3,200.00	3,167.84	3,152.44	3,053.42	13.37	16.59	53.68	-698.56	300.98	449.89	424.27	25.62	17.557	
3,300.00	3,266.63	3,251.05	3,147.87	13.82	17.19	53.57	-724.27	312.91	466.46	439.98	26.48	17.616	
3,400.00	3,365.42	3,349.66	3,242.32	14.27	17.79	53.46	-749.98	324.85	483.03	455.69	27.34	17.670	
3,500.00	3,464.20	3,448.28	3,336.78	14.71	18.40	53.37	-775.69	336.78	499.60	471.41	28.19	17.721	
3,600.00	3,562.99	3,546.89	3,431.23	15.16	19.00	53.27	-801.40	348.71	516.17	487.12	29.05	17.769	
3,700.00	3,661.78	3,645.51	3,525.68	15.61	19.61	53.19	-827.12	360.64	532.74	502.84	29.90	17.815	
3,800.00	3,760.57	3,744.12	3,620.13	16.05	20.21	53.11	-852.83	372.57	549.32	518.56	30.76	17.858	
3,900.00	3,859.35	3,842.73	3,714.59	16.50	20.82	53.03	-878.54	384.50	565.89	534.28	31.62	17.898	
4,000.00	3,958.14	3,941.35	3,809.04	16.95	21.42	52.96	-904.25	396.43	582.47	550.00	32.47	17.936	
4,100.00	4,056.93	4,039.96	3,903.49	17.40	22.03	52.89	-929.96	408.36	599.05	565.72	33.33	17.973	
4,200.00	4,155.72	4,138.58	3,997.94	17.84	22.63	52.83	-955.68	420.29	615.63	581.44	34.19	18.007	
4,300.00	4,254.50	4,237.19	4,092.40	18.29	23.23	52.77	-981.39	432.22	632.20	597.16	35.04	18.040	
4,400.00	4,353.29	4,335.80	4,186.85	18.74	23.84	52.71	-1,007.10	444.15	648.78	612.88	35.90	18.071	
4,500.00	4,452.08	4,434.42	4,281.30	19.19	24.45	52.65	-1,032.81	456.08	665.36	628.61	36.76	18.101	
4,600.00	4,550.87	4,533.03	4,375.75	19.63	25.05	52.60	-1,058.52	468.01	681.94	644.33	37.62	18.129	
4,700.00	4,649.65	4,631.65	4,470.21	20.08	25.66	52.55	-1,084.23	479.94	698.53	660.05	38.47	18.156	
4,800.00	4,748.44	4,730.26	4,564.66	20.53	26.26	52.50	-1,109.95	491.87	715.11	675.78	39.33	18.182	
4,900.00	4,847.23	4,828.87	4,659.11	20.97	26.87	52.46	-1,135.66	503.81	731.69	691.50	40.19	18.207	

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,927.49	4,753.56	21.42	27.47	52.41	-1,161.37	515.74	748.27	707.23	41.04	18.231		
5,100.00	5,044.81	5,026.10	4,848.02	21.87	28.08	52.37	-1,187.08	527.67	764.86	722.95	41.90	18.253		
5,200.00	5,143.59	5,124.72	4,942.47	22.32	28.68	52.33	-1,212.79	539.60	781.44	738.68	42.76	18.275		
5,300.00	5,242.38	5,223.33	5,036.92	22.76	29.29	52.30	-1,238.51	551.53	798.02	754.40	43.62	18.296		
5,400.00	5,341.17	5,321.94	5,131.37	23.21	29.89	52.26	-1,264.22	563.46	814.61	770.13	44.47	18.316		
5,500.00	5,439.96	5,420.56	5,225.83	23.66	30.50	52.22	-1,289.93	575.39	831.19	785.86	45.33	18.335		
5,600.00	5,538.74	5,519.17	5,320.28	24.11	31.11	52.19	-1,315.64	587.32	847.77	801.58	46.19	18.354		
5,700.00	5,637.53	5,617.79	5,414.73	24.55	31.71	52.16	-1,341.35	599.25	864.36	817.31	47.05	18.372		
5,800.00	5,736.32	5,716.40	5,509.18	25.00	32.32	52.13	-1,367.06	611.18	880.94	833.04	47.91	18.389		
5,900.00	5,835.11	5,815.01	5,603.64	25.45	32.92	52.10	-1,392.78	623.11	897.53	848.77	48.76	18.406		
6,000.00	5,933.89	5,913.63	5,698.09	25.90	33.53	52.07	-1,418.49	635.04	914.12	864.49	49.62	18.422		
6,100.00	6,032.68	6,012.24	5,792.54	26.34	34.13	52.04	-1,444.20	646.97	930.70	880.22	50.48	18.437		
6,200.00	6,131.47	6,110.86	5,886.99	26.79	34.74	52.01	-1,469.91	658.90	947.29	895.95	51.34	18.452		
6,300.00	6,230.26	6,209.47	5,981.45	27.24	35.35	51.99	-1,495.62	670.83	963.87	911.68	52.20	18.467		
6,400.00	6,329.04	6,308.08	6,075.90	27.69	35.95	51.96	-1,521.34	682.76	980.46	927.41	53.05	18.481		
6,500.00	6,427.83	6,406.70	6,170.35	28.13	36.56	51.94	-1,547.05	694.70	997.05	943.14	53.91	18.494		
6,600.00	6,526.62	6,505.31	6,264.80	28.58	37.16	51.91	-1,572.76	706.63	1,013.63	958.86	54.77	18.507		
6,700.00	6,625.41	6,603.93	6,359.26	29.03	37.77	51.89	-1,598.47	718.56	1,030.22	974.59	55.63	18.520		
6,800.00	6,724.19	6,702.54	6,453.71	29.48	38.38	51.87	-1,624.18	730.49	1,046.81	990.32	56.49	18.532		
6,900.00	6,822.98	6,801.15	6,548.16	29.93	38.98	51.85	-1,649.89	742.42	1,063.39	1,006.05	57.34	18.544		
7,000.00	6,921.77	6,900.23	6,642.61	30.37	39.59	51.83	-1,675.61	754.35	1,079.98	1,021.78	58.20	18.555		
7,100.00	7,020.56	7,001.62	6,737.07	30.82	40.22	51.81	-1,701.32	766.28	1,096.57	1,037.49	59.08	18.562		
7,200.00	7,119.34	7,103.01	6,831.52	31.27	40.84	51.79	-1,727.03	778.21	1,113.16	1,053.21	59.95	18.569		
7,300.00	7,218.13	7,204.39	6,925.97	31.72	41.46	51.77	-1,752.74	790.14	1,129.74	1,068.93	60.82	18.576		
7,394.03	7,311.02	7,288.33	7,014.78	32.14	41.98	51.75	-1,776.92	801.36	1,145.34	1,083.76	61.58	18.598		
7,400.00	7,316.92	7,305.78	7,020.42	32.16	42.08	49.31	-1,778.45	802.07	1,146.33	1,084.64	61.69	18.583		
7,450.00	7,366.55	7,343.44	7,067.56	32.36	42.32	15.11	-1,791.29	808.03	1,154.56	1,092.56	62.00	18.621		
7,500.00	7,416.28	7,407.76	7,114.30	32.53	42.71	-30.56	-1,804.01	813.93	1,162.68	1,100.34	62.35	18.649		
7,550.00	7,465.74	7,440.24	7,160.28	32.65	42.91	-54.13	-1,816.53	819.74	1,170.70	1,108.25	62.45	18.745		
7,600.00	7,514.54	7,487.09	7,205.15	32.75	43.20	-64.61	-1,828.74	825.40	1,178.69	1,116.14	62.55	18.844		
7,650.00	7,562.31	7,532.42	7,248.57	32.83	43.48	-70.22	-1,840.56	830.89	1,186.73	1,124.16	62.57	18.967		
7,700.00	7,608.70	7,575.89	7,290.20	32.89	43.75	-73.71	-1,851.89	836.15	1,194.97	1,132.45	62.52	19.113		
7,750.00	7,653.34	7,617.17	7,329.74	32.93	44.00	-76.12	-1,862.66	841.14	1,203.55	1,141.13	62.42	19.283		
7,800.00	7,695.91	7,663.68	7,374.45	32.95	44.27	-78.05	-1,874.83	844.95	1,212.52	1,150.19	62.34	19.452		
7,850.00	7,736.06	7,713.16	7,422.18	32.95	44.53	-79.62	-1,887.83	844.86	1,221.77	1,159.48	62.29	19.615		
7,900.00	7,773.51	7,766.16	7,473.08	32.95	44.77	-80.96	-1,901.70	840.04	1,231.21	1,168.94	62.28	19.770		
7,950.00	7,807.96	7,823.44	7,527.36	32.94	44.99	-82.18	-1,916.49	829.37	1,240.76	1,178.44	62.31	19.912		
8,000.00	7,839.15	7,885.96	7,585.10	32.92	45.19	-83.34	-1,932.24	811.38	1,250.26	1,187.86	62.40	20.035		
8,050.00	7,866.84	7,954.87	7,646.12	32.90	45.35	-84.49	-1,948.89	784.14	1,259.56	1,197.01	62.55	20.138		
8,100.00	7,890.83	8,031.47	7,709.69	32.88	45.47	-85.64	-1,966.25	745.21	1,268.42	1,205.68	62.74	20.217		
8,150.00	7,910.93	8,117.09	7,774.10	32.87	45.55	-86.79	-1,983.85	691.74	1,276.57	1,213.57	63.00	20.262		
8,200.00	7,926.99	8,212.81	7,836.10	32.87	45.57	-87.90	-2,000.82	620.96	1,283.66	1,220.28	63.38	20.253		
8,250.00	7,938.88	8,318.93	7,890.48	32.89	45.52	-88.89	-2,015.74	531.25	1,289.28	1,225.31	63.97	20.155		
8,300.00	7,946.52	8,434.26	7,930.41	32.94	45.40	-89.62	-2,026.73	423.82	1,293.04	1,228.16	64.88	19.930		
8,350.00	7,949.85	8,555.67	7,949.16	33.03	45.20	-89.98	-2,031.98	304.21	1,294.59	1,228.41	66.19	19.560		
8,363.33	7,950.00	8,588.48	7,950.00	33.06	45.15	-90.00	-2,032.24	271.42	1,294.61	1,228.01	66.59	19.441		
8,400.00	7,950.00	8,624.41	7,950.00	33.16	45.08	-90.00	-2,032.28	235.49	1,294.44	1,227.36	67.07	19.299		
8,500.00	7,950.00	8,724.41	7,950.00	33.64	44.92	-90.00	-2,032.40	135.49	1,293.98	1,225.34	68.64	18.851		
8,600.00	7,950.00	8,824.41	7,950.00	34.42	44.78	-90.00	-2,032.51	35.49	1,293.52	1,222.93	70.59	18.325		
8,700.00	7,950.00	8,924.40	7,950.00	35.49	44.66	-90.00	-2,032.63	-64.51	1,293.06	1,220.18	72.88	17.743		
8,800.00	7,950.00	9,024.40	7,950.00	36.77	44.56	-90.00	-2,032.74	-164.51	1,292.60	1,217.11	75.48	17.124		
8,900.00	7,950.00	9,124.40	7,950.00	38.23	44.48	-90.00	-2,032.86	-264.51	1,292.14	1,213.76	78.37	16.487		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	7,950.00	9,224.40	7,950.00	39.83	44.49	-90.00	-2,032.97	-364.50	1,291.68	1,210.16	81.52	15.845		
9,100.00	7,950.00	9,324.40	7,950.00	41.56	44.74	-90.00	-2,033.08	-464.50	1,291.21	1,206.33	84.89	15.211		
9,200.00	7,950.00	9,424.40	7,950.00	43.39	45.84	-90.00	-2,033.20	-564.50	1,290.75	1,202.30	88.45	14.592		
9,300.00	7,950.00	9,524.40	7,950.00	45.30	47.56	-90.00	-2,033.31	-664.50	1,290.29	1,198.09	92.20	13.995		
9,400.00	7,950.00	9,624.40	7,950.00	47.29	49.46	-90.00	-2,033.43	-764.50	1,289.83	1,193.73	96.10	13.422		
9,500.00	7,950.00	9,724.40	7,950.00	49.35	51.46	-90.00	-2,033.54	-864.50	1,289.37	1,189.24	100.14	12.876		
9,600.00	7,950.00	9,824.39	7,950.00	51.47	53.53	-90.00	-2,033.65	-964.50	1,288.91	1,184.62	104.30	12.358		
9,700.00	7,950.00	9,924.39	7,950.00	53.63	55.65	-90.00	-2,033.77	-1,064.50	1,288.45	1,179.89	108.56	11.868		
9,800.00	7,950.00	10,024.39	7,950.00	55.85	57.81	-90.00	-2,033.88	-1,164.50	1,287.99	1,175.06	112.93	11.406		
9,900.00	7,950.00	10,124.39	7,950.00	58.10	60.02	-90.00	-2,034.00	-1,264.49	1,287.53	1,170.16	117.37	10.969		
10,000.00	7,950.00	10,224.39	7,950.00	60.39	62.27	-90.00	-2,034.11	-1,364.49	1,287.07	1,165.17	121.90	10.559		
10,100.00	7,950.00	10,324.39	7,950.00	62.71	64.55	-90.00	-2,034.23	-1,464.49	1,286.61	1,160.12	126.49	10.172		
10,200.00	7,950.00	10,424.39	7,950.00	65.05	66.85	-90.00	-2,034.34	-1,564.49	1,286.15	1,155.01	131.14	9.808		
10,300.00	7,950.00	10,524.39	7,950.00	67.43	69.19	-90.00	-2,034.45	-1,664.49	1,285.69	1,149.85	135.84	9.465		
10,400.00	7,950.00	10,624.39	7,950.00	69.82	71.55	-90.00	-2,034.57	-1,764.49	1,285.23	1,144.63	140.60	9.141		
10,500.00	7,950.00	10,724.39	7,950.00	72.24	73.93	-90.00	-2,034.68	-1,864.49	1,284.77	1,139.38	145.39	8.836		
10,600.00	7,950.00	10,824.38	7,950.00	74.68	76.33	-90.00	-2,034.80	-1,964.49	1,284.31	1,134.08	150.23	8.549		
10,700.00	7,950.00	10,924.38	7,950.00	77.13	78.75	-90.00	-2,034.91	-2,064.49	1,283.85	1,128.74	155.10	8.277		
10,800.00	7,950.00	11,024.38	7,950.00	79.60	81.18	-90.00	-2,035.03	-2,164.48	1,283.39	1,123.38	160.01	8.021		
10,900.00	7,950.00	11,124.38	7,950.00	82.08	83.63	-90.00	-2,035.14	-2,264.48	1,282.93	1,117.98	164.94	7.778		
11,000.00	7,950.00	11,224.38	7,950.00	84.57	86.09	-90.00	-2,035.25	-2,364.48	1,282.47	1,112.56	169.91	7.548		
11,100.00	7,950.00	11,324.38	7,950.00	87.08	88.57	-90.00	-2,035.37	-2,464.48	1,282.01	1,107.11	174.90	7.330		
11,200.00	7,950.00	11,424.38	7,950.00	89.59	91.06	-90.00	-2,035.48	-2,564.48	1,281.55	1,101.64	179.91	7.123		
11,300.00	7,950.00	11,524.38	7,950.00	92.12	93.56	-90.00	-2,035.60	-2,664.48	1,281.09	1,096.15	184.94	6.927		
11,400.00	7,950.00	11,624.38	7,950.00	94.66	96.07	-90.00	-2,035.71	-2,764.48	1,280.62	1,090.64	189.99	6.741		
11,500.00	7,950.00	11,724.37	7,950.00	97.20	98.58	-90.00	-2,035.83	-2,864.48	1,280.16	1,085.11	195.06	6.563		
11,600.00	7,950.00	11,824.37	7,950.00	99.75	101.11	-90.00	-2,035.94	-2,964.48	1,279.70	1,079.56	200.14	6.394		
11,700.00	7,950.00	11,924.37	7,950.00	102.31	103.64	-90.00	-2,036.05	-3,064.47	1,279.24	1,074.00	205.24	6.233		
11,800.00	7,950.00	12,024.37	7,950.00	104.87	106.19	-90.00	-2,036.17	-3,164.47	1,278.78	1,068.43	210.36	6.079		
11,900.00	7,950.00	12,124.37	7,950.00	107.44	108.74	-90.00	-2,036.28	-3,264.47	1,278.32	1,062.84	215.48	5.932		
12,000.00	7,950.00	12,224.37	7,950.00	110.02	111.29	-90.00	-2,036.40	-3,364.47	1,277.86	1,057.24	220.62	5.792		
12,100.00	7,950.00	12,324.37	7,950.00	112.60	113.85	-90.00	-2,036.51	-3,464.47	1,277.40	1,051.63	225.77	5.658		
12,200.00	7,950.00	12,424.37	7,950.00	115.19	116.42	-90.00	-2,036.63	-3,564.47	1,276.94	1,046.01	230.94	5.529		
12,300.00	7,950.00	12,524.37	7,950.00	117.78	118.99	-90.00	-2,036.74	-3,664.47	1,276.48	1,040.37	236.11	5.406		
12,400.00	7,950.00	12,624.37	7,950.00	120.38	121.57	-90.00	-2,036.85	-3,764.47	1,276.02	1,034.73	241.29	5.288		
12,500.00	7,950.00	12,724.36	7,950.00	122.98	124.15	-90.00	-2,036.97	-3,864.47	1,275.56	1,029.08	246.48	5.175		
12,600.00	7,950.00	12,824.36	7,950.00	125.58	126.74	-90.00	-2,037.08	-3,964.46	1,275.10	1,023.42	251.67	5.066		
12,700.00	7,950.00	12,924.36	7,950.00	128.19	129.33	-90.00	-2,037.20	-4,064.46	1,274.64	1,017.76	256.88	4.962		
12,800.00	7,950.00	13,024.36	7,950.00	130.80	131.92	-90.00	-2,037.31	-4,164.46	1,274.18	1,012.09	262.09	4.862		
12,900.00	7,950.00	13,124.36	7,950.00	133.41	134.52	-90.00	-2,037.43	-4,264.46	1,273.72	1,006.41	267.31	4.765		
13,000.00	7,950.00	13,224.36	7,950.00	136.03	137.12	-90.00	-2,037.54	-4,364.46	1,273.26	1,000.72	272.54	4.672		
13,100.00	7,950.00	13,324.36	7,950.00	138.65	139.73	-90.00	-2,037.65	-4,464.46	1,272.80	995.03	277.77	4.582		
13,200.00	7,950.00	13,424.36	7,950.00	141.27	142.34	-90.00	-2,037.77	-4,564.46	1,272.34	989.33	283.01	4.496		
13,300.00	7,950.00	13,524.36	7,950.00	143.90	144.95	-90.00	-2,037.88	-4,664.46	1,271.88	983.63	288.25	4.412		
13,400.00	7,950.00	13,624.35	7,950.00	146.52	147.56	-90.00	-2,038.00	-4,764.46	1,271.42	977.92	293.50	4.332		
13,500.00	7,950.00	13,724.35	7,950.00	149.15	150.18	-90.00	-2,038.11	-4,864.45	1,270.96	972.21	298.75	4.254		
13,600.00	7,950.00	13,824.35	7,950.00	151.78	152.80	-90.00	-2,038.22	-4,964.45	1,270.50	966.49	304.01	4.179		
13,700.00	7,950.00	13,924.35	7,950.00	154.42	155.42	-90.00	-2,038.34	-5,064.45	1,270.03	960.77	309.27	4.107		
13,800.00	7,950.00	14,024.35	7,950.00	157.05	158.04	-90.00	-2,038.45	-5,164.45	1,269.57	955.04	314.53	4.036		
13,900.00	7,950.00	14,124.35	7,950.00	159.69	160.67	-90.00	-2,038.57	-5,264.45	1,269.11	949.31	319.80	3.968		
14,000.00	7,950.00	14,224.35	7,950.00	162.33	163.30	-90.00	-2,038.68	-5,364.45	1,268.65	943.58	325.08	3.903		
14,100.00	7,950.00	14,324.35	7,950.00	164.97	165.93	-90.00	-2,038.80	-5,464.45	1,268.19	937.84	330.35	3.839		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 3CH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.00	7,950.00	14,424.35	7,950.00	167.61	168.56	-90.00	-2,038.91	-5,564.45	1,267.73	932.10	335.63	3.777		
14,300.00	7,950.00	14,524.34	7,950.00	170.26	171.20	-90.00	-2,039.02	-5,664.45	1,267.27	926.35	340.92	3.717		
14,400.00	7,950.00	14,624.34	7,950.00	172.90	173.83	-90.00	-2,039.14	-5,764.44	1,266.81	920.61	346.20	3.659		
14,500.00	7,950.00	14,724.34	7,950.00	175.55	176.47	-90.00	-2,039.25	-5,864.44	1,266.35	914.86	351.49	3.603		
14,600.00	7,950.00	14,824.34	7,950.00	178.20	179.11	-90.00	-2,039.37	-5,964.44	1,265.89	909.10	356.79	3.548		
14,700.00	7,950.00	14,924.34	7,950.00	180.85	181.75	-90.00	-2,039.48	-6,064.44	1,265.43	903.35	362.08	3.495		
14,800.00	7,950.00	15,024.34	7,950.00	183.50	184.39	-90.00	-2,039.60	-6,164.44	1,264.97	897.59	367.38	3.443		
14,900.00	7,950.00	15,124.34	7,950.00	186.15	187.03	-90.00	-2,039.71	-6,264.44	1,264.51	891.83	372.68	3.393		
15,000.00	7,950.00	15,224.34	7,950.00	188.80	189.68	-90.00	-2,039.82	-6,364.44	1,264.05	886.07	377.98	3.344		
15,100.00	7,950.00	15,324.34	7,950.00	191.46	192.32	-90.00	-2,039.94	-6,464.44	1,263.59	880.30	383.29	3.297		
15,200.00	7,950.00	15,424.34	7,950.00	194.11	194.97	-90.00	-2,040.05	-6,564.43	1,263.13	874.54	388.59	3.251		
15,300.00	7,950.00	15,524.33	7,950.00	196.77	197.62	-90.00	-2,040.17	-6,664.43	1,262.67	868.77	393.90	3.206		
15,400.00	7,950.00	15,624.33	7,950.00	199.42	200.27	-90.00	-2,040.28	-6,764.43	1,262.21	862.99	399.21	3.162		
15,500.00	7,950.00	15,724.33	7,950.00	202.08	202.92	-90.00	-2,040.40	-6,864.43	1,261.75	857.22	404.52	3.119		
15,600.00	7,950.00	15,824.33	7,950.00	204.74	205.57	-90.00	-2,040.51	-6,964.43	1,261.29	851.45	409.84	3.078		
15,700.00	7,950.00	15,924.33	7,950.00	207.40	208.22	-90.00	-2,040.62	-7,064.43	1,260.83	845.67	415.16	3.037		
15,800.00	7,950.00	16,024.33	7,950.00	210.06	210.88	-90.00	-2,040.74	-7,164.43	1,260.37	839.89	420.47	2.997		
15,900.00	7,950.00	16,124.33	7,950.00	212.72	213.53	-90.00	-2,040.85	-7,264.43	1,259.90	834.11	425.79	2.959		
16,000.00	7,950.00	16,224.33	7,950.00	215.38	216.19	-90.00	-2,040.97	-7,364.43	1,259.44	828.33	431.12	2.921		
16,100.00	7,950.00	16,324.33	7,950.00	218.05	218.84	-90.00	-2,041.08	-7,464.42	1,258.98	822.55	436.44	2.885		
16,200.00	7,950.00	16,424.32	7,950.00	220.71	221.50	-90.00	-2,041.20	-7,564.42	1,258.52	816.76	441.76	2.849		
16,300.00	7,950.00	16,524.32	7,950.00	223.37	224.16	-90.00	-2,041.31	-7,664.42	1,258.06	810.97	447.09	2.814		
16,400.00	7,950.00	16,624.32	7,950.00	226.04	226.82	-90.00	-2,041.42	-7,764.42	1,257.60	805.19	452.42	2.780		
16,500.00	7,950.00	16,724.32	7,950.00	228.70	229.48	-90.00	-2,041.54	-7,864.42	1,257.14	799.40	457.74	2.746		
16,600.00	7,950.00	16,824.32	7,950.00	231.37	232.14	-90.00	-2,041.65	-7,964.42	1,256.68	793.61	463.07	2.714		
16,700.00	7,950.00	16,924.32	7,950.00	234.04	234.80	-90.00	-2,041.77	-8,064.42	1,256.22	787.82	468.40	2.682		
16,800.00	7,950.00	17,024.32	7,950.00	236.70	237.46	-90.00	-2,041.88	-8,164.42	1,255.76	782.02	473.74	2.651		
16,900.00	7,950.00	17,124.32	7,950.00	239.37	240.12	-90.00	-2,042.00	-8,264.42	1,255.30	776.23	479.07	2.620		
17,000.00	7,950.00	17,224.32	7,950.00	242.04	242.78	-90.00	-2,042.11	-8,364.41	1,254.84	770.44	484.40	2.590		
17,100.00	7,950.00	17,324.32	7,950.00	244.71	245.45	-90.00	-2,042.22	-8,464.41	1,254.38	764.64	489.74	2.561		
17,200.00	7,950.00	17,424.31	7,950.00	247.38	248.11	-90.00	-2,042.34	-8,564.41	1,253.92	758.84	495.08	2.533		
17,300.00	7,950.00	17,524.31	7,950.00	250.05	250.78	-90.00	-2,042.45	-8,664.41	1,253.46	753.04	500.41	2.505		
17,400.00	7,950.00	17,624.31	7,950.00	252.72	253.44	-90.00	-2,042.57	-8,764.41	1,253.00	747.25	505.75	2.477		
17,500.00	7,950.00	17,724.31	7,950.00	255.39	256.11	-90.00	-2,042.68	-8,864.41	1,252.54	741.45	511.09	2.451		
17,600.00	7,950.00	17,824.31	7,950.00	258.06	258.78	-90.00	-2,042.79	-8,964.41	1,252.08	735.64	516.43	2.424		
17,700.00	7,950.00	17,924.31	7,950.00	260.73	261.44	-90.00	-2,042.91	-9,064.41	1,251.62	729.84	521.77	2.399		
17,800.00	7,950.00	18,024.31	7,950.00	263.40	264.11	-90.00	-2,043.02	-9,164.41	1,251.16	724.04	527.12	2.374		
17,900.00	7,950.00	18,124.31	7,950.00	266.07	266.78	-90.00	-2,043.14	-9,264.40	1,250.70	718.24	532.46	2.349		
18,000.00	7,950.00	18,224.31	7,950.00	268.74	269.45	-90.00	-2,043.25	-9,364.40	1,250.24	712.43	537.80	2.325		
18,100.00	7,950.00	18,324.30	7,950.00	271.42	272.11	-90.00	-2,043.37	-9,464.40	1,249.78	706.63	543.15	2.301		
18,200.00	7,950.00	18,424.30	7,950.00	274.09	274.78	-90.00	-2,043.48	-9,564.40	1,249.31	700.82	548.49	2.278		
18,253.56	7,950.00	18,477.86	7,950.00	275.52	276.21	-90.00	-2,043.54	-9,617.96	1,249.07	697.71	551.36	2.265 SF		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	-0.10	0.00	0.00	180.00	-99.81	0.00	99.81					
100.00	100.00	100.10	99.90	0.13	0.13	180.00	-99.81	0.00	99.81	99.54	0.27	370.746		
200.00	200.00	200.10	199.90	0.49	0.49	180.00	-99.81	0.00	99.81	98.82	0.99	101.211		
250.00	250.00	249.90	249.90	0.67	0.67	180.00	-99.81	0.00	99.81	98.47	1.34	74.268 CC		
300.00	300.00	298.32	298.31	0.85	0.84	51.45	-100.19	0.14	99.93	98.25	1.68	59.379 ES		
400.00	399.93	395.12	395.06	1.19	1.17	52.30	-103.26	1.26	100.94	98.58	2.36	42.856		
500.00	499.68	491.86	491.57	1.55	1.51	53.94	-109.40	3.49	103.02	99.98	3.05	33.798		
600.00	599.13	588.48	587.69	1.93	1.87	56.26	-118.58	6.82	106.31	102.55	3.76	28.271		
696.56	694.75	681.62	679.98	2.31	2.24	59.02	-130.31	11.09	110.76	106.29	4.47	24.763		
700.00	698.15	684.94	683.27	2.33	2.26	59.13	-130.78	11.26	110.95	106.45	4.50	24.667		
800.00	796.94	781.21	778.17	2.74	2.66	61.70	-145.96	16.78	117.99	112.73	5.27	22.408		
900.00	895.73	877.14	872.15	3.17	3.10	63.18	-164.07	23.36	128.06	122.01	6.05	21.169		
1,000.00	994.51	972.53	964.90	3.60	3.57	63.72	-184.99	30.97	140.98	134.14	6.84	20.602		
1,100.00	1,093.30	1,067.17	1,056.13	4.04	4.07	63.53	-208.60	39.55	156.67	149.03	7.64	20.514		
1,200.00	1,192.09	1,160.86	1,145.59	4.48	4.60	62.82	-234.75	49.06	175.09	166.66	8.43	20.768		
1,300.00	1,290.88	1,253.42	1,233.02	4.92	5.17	61.78	-263.28	59.43	196.25	187.04	9.22	21.296		
1,400.00	1,389.67	1,348.40	1,321.91	5.36	5.78	60.57	-294.75	70.88	219.68	209.65	10.03	21.900		
1,500.00	1,488.45	1,445.46	1,412.66	5.80	6.43	59.55	-327.11	82.64	243.39	232.52	10.88	22.375		
1,600.00	1,587.24	1,542.53	1,503.41	6.24	7.09	58.71	-359.47	94.41	267.16	255.44	11.73	22.781		
1,700.00	1,686.03	1,639.60	1,594.17	6.69	7.75	58.00	-391.83	106.17	290.98	278.40	12.58	23.130		
1,800.00	1,784.82	1,736.66	1,684.92	7.13	8.42	57.41	-424.19	117.94	314.83	301.40	13.43	23.435		
1,900.00	1,883.60	1,833.73	1,775.67	7.57	9.09	56.89	-456.56	129.70	338.71	324.42	14.29	23.702		
2,000.00	1,982.39	1,930.79	1,866.42	8.02	9.76	56.45	-488.92	141.47	362.61	347.47	15.15	23.939		
2,100.00	2,081.18	2,027.86	1,957.18	8.46	10.44	56.06	-521.28	153.23	386.53	370.53	16.01	24.149		
2,200.00	2,179.97	2,124.92	2,047.93	8.91	11.12	55.71	-553.64	165.00	410.47	393.60	16.87	24.338		
2,300.00	2,278.75	2,221.99	2,138.68	9.36	11.80	55.40	-586.00	176.76	434.41	416.69	17.73	24.508		
2,400.00	2,377.54	2,319.05	2,229.44	9.80	12.48	55.13	-618.36	188.53	458.37	439.79	18.59	24.662		
2,500.00	2,476.33	2,416.12	2,320.19	10.25	13.16	54.88	-650.72	200.30	482.34	462.89	19.45	24.802		
2,600.00	2,575.12	2,513.18	2,410.94	10.69	13.85	54.66	-683.08	212.06	506.31	486.00	20.31	24.930		
2,700.00	2,673.90	2,610.25	2,501.69	11.14	14.53	54.45	-715.44	223.83	530.29	509.12	21.17	25.048		
2,800.00	2,772.69	2,707.32	2,592.45	11.59	15.22	54.27	-747.80	235.59	554.28	532.25	22.03	25.155		
2,900.00	2,871.48	2,804.38	2,683.20	12.03	15.91	54.10	-780.16	247.36	578.27	555.37	22.90	25.255		
3,000.00	2,970.27	2,901.45	2,773.95	12.48	16.59	53.94	-812.52	259.12	602.27	578.51	23.76	25.347		
3,100.00	3,069.05	3,001.49	2,864.71	12.93	17.30	53.79	-844.88	270.89	626.27	601.63	24.64	25.418		
3,200.00	3,167.84	3,104.42	2,955.46	13.37	18.03	53.66	-877.24	282.65	650.27	624.74	25.53	25.470		
3,300.00	3,266.63	3,192.64	3,046.21	13.82	18.66	53.53	-909.60	294.42	674.28	647.93	26.35	25.587		
3,400.00	3,365.42	3,289.71	3,136.96	14.27	19.35	53.42	-941.96	306.18	698.29	671.07	27.22	25.656		
3,500.00	3,464.20	3,386.77	3,227.72	14.71	20.04	53.31	-974.32	317.95	722.30	694.22	28.08	25.721		
3,600.00	3,562.99	3,483.84	3,318.47	15.16	20.73	53.21	-1,006.69	329.72	746.32	717.37	28.95	25.782		
3,700.00	3,661.78	3,580.91	3,409.22	15.61	21.42	53.11	-1,039.05	341.48	770.33	740.52	29.81	25.840		
3,800.00	3,760.57	3,677.97	3,499.98	16.05	22.11	53.02	-1,071.41	353.25	794.35	763.67	30.68	25.894		
3,900.00	3,859.35	3,775.04	3,590.73	16.50	22.80	52.94	-1,103.77	365.01	818.37	786.83	31.54	25.945		
4,000.00	3,958.14	3,872.10	3,681.48	16.95	23.49	52.86	-1,136.13	376.78	842.39	809.98	32.41	25.993		
4,100.00	4,056.93	3,969.17	3,772.23	17.40	24.18	52.78	-1,168.49	388.54	866.42	833.14	33.27	26.039		
4,200.00	4,155.72	4,066.23	3,862.99	17.84	24.87	52.71	-1,200.85	400.31	890.44	856.30	34.14	26.082		
4,300.00	4,254.50	4,163.30	3,953.74	18.29	25.56	52.64	-1,233.21	412.07	914.47	879.46	35.01	26.123		
4,400.00	4,353.29	4,260.36	4,044.49	18.74	26.25	52.58	-1,265.57	423.84	938.49	902.62	35.87	26.162		
4,500.00	4,452.08	4,357.43	4,135.24	19.19	26.94	52.52	-1,297.93	435.60	962.52	925.78	36.74	26.200		
4,600.00	4,550.87	4,454.49	4,226.00	19.63	27.63	52.46	-1,330.29	447.37	986.55	948.95	37.60	26.235		
4,700.00	4,649.65	4,551.56	4,316.75	20.08	28.33	52.41	-1,362.65	459.13	1,010.58	972.11	38.47	26.269		
4,800.00	4,748.44	4,648.63	4,407.50	20.53	29.02	52.36	-1,395.01	470.90	1,034.61	995.27	39.34	26.301		
4,900.00	4,847.23	4,745.69	4,498.26	20.97	29.71	52.31	-1,427.37	482.67	1,058.64	1,018.44	40.20	26.332		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,842.76	4,589.01	21.42	30.40	52.26	-1,459.73	494.43	1,082.67	1,041.60	41.07	26.361		
5,100.00	5,044.81	4,939.82	4,679.76	21.87	31.09	52.21	-1,492.09	506.20	1,106.71	1,064.77	41.94	26.389		
5,200.00	5,143.59	5,036.89	4,770.51	22.32	31.79	52.17	-1,524.45	517.96	1,130.74	1,087.94	42.80	26.416		
5,300.00	5,242.38	5,133.95	4,861.27	22.76	32.48	52.13	-1,556.81	529.73	1,154.77	1,111.10	43.67	26.442		
5,400.00	5,341.17	5,231.02	4,952.02	23.21	33.17	52.09	-1,589.18	541.49	1,178.81	1,134.27	44.54	26.467		
5,500.00	5,439.96	5,328.08	5,042.77	23.66	33.86	52.05	-1,621.54	553.26	1,202.84	1,157.44	45.41	26.491		
5,600.00	5,538.74	5,425.15	5,133.53	24.11	34.55	52.01	-1,653.90	565.02	1,226.88	1,180.61	46.27	26.514		
5,700.00	5,637.53	5,522.21	5,224.28	24.55	35.25	51.97	-1,686.26	576.79	1,250.92	1,203.77	47.14	26.536		
5,800.00	5,736.32	5,619.28	5,315.03	25.00	35.94	51.94	-1,718.62	588.55	1,274.95	1,226.94	48.01	26.557		
5,900.00	5,835.11	5,716.35	5,405.78	25.45	36.63	51.91	-1,750.98	600.32	1,298.99	1,250.11	48.88	26.577		
6,000.00	5,933.89	5,813.41	5,496.54	25.90	37.32	51.87	-1,783.34	612.09	1,323.03	1,273.28	49.74	26.597		
6,100.00	6,032.68	5,910.48	5,587.29	26.34	38.02	51.84	-1,815.70	623.85	1,347.06	1,296.45	50.61	26.616		
6,200.00	6,131.47	6,007.54	5,678.04	26.79	38.71	51.81	-1,848.06	635.62	1,371.10	1,319.62	51.48	26.634		
6,300.00	6,230.26	6,104.61	5,768.80	27.24	39.40	51.79	-1,880.42	647.38	1,395.14	1,342.79	52.35	26.652		
6,400.00	6,329.04	6,201.67	5,859.55	27.69	40.10	51.76	-1,912.78	659.15	1,419.18	1,365.96	53.22	26.669		
6,500.00	6,427.83	6,301.26	5,950.30	28.13	40.81	51.73	-1,945.14	670.91	1,443.22	1,389.12	54.10	26.679		
6,600.00	6,526.62	6,404.20	6,041.05	28.58	41.54	51.71	-1,977.50	682.68	1,467.26	1,412.27	54.99	26.681		
6,700.00	6,625.41	6,507.13	6,131.81	29.03	42.28	51.68	-2,009.86	694.44	1,491.30	1,435.41	55.89	26.684		
6,800.00	6,724.19	6,589.93	6,222.56	29.48	42.87	51.66	-2,042.22	706.21	1,515.34	1,458.65	56.69	26.731		
6,900.00	6,822.98	6,687.00	6,313.31	29.93	43.56	51.63	-2,074.58	717.97	1,539.38	1,481.82	57.56	26.745		
7,000.00	6,921.77	6,784.07	6,404.07	30.37	44.25	51.61	-2,106.94	729.74	1,563.42	1,504.99	58.43	26.759		
7,100.00	7,020.56	6,881.13	6,494.82	30.82	44.94	51.59	-2,139.31	741.51	1,587.46	1,528.16	59.29	26.773		
7,200.00	7,119.34	6,978.20	6,585.57	31.27	45.64	51.57	-2,171.67	753.27	1,611.50	1,551.34	60.16	26.786		
7,300.00	7,218.13	7,075.26	6,676.32	31.72	46.33	51.55	-2,204.03	765.04	1,635.54	1,574.51	61.03	26.798		
7,394.03	7,311.02	7,166.53	6,761.66	32.14	46.98	51.53	-2,234.45	776.10	1,658.14	1,596.30	61.85	26.810		
7,400.00	7,316.92	7,172.33	6,767.08	32.16	47.02	49.13	-2,236.39	776.80	1,659.58	1,597.68	61.90	26.811		
7,450.00	7,366.55	7,220.77	6,812.37	32.36	47.37	15.37	-2,252.54	782.67	1,671.54	1,609.26	62.28	26.838		
7,500.00	7,416.28	7,268.79	6,857.26	32.53	47.71	-29.80	-2,268.55	788.49	1,683.37	1,620.79	62.58	26.899		
7,550.00	7,465.74	7,316.02	6,901.42	32.65	48.05	-52.83	-2,284.29	794.22	1,695.02	1,632.22	62.80	26.991		
7,600.00	7,514.54	7,362.10	6,944.51	32.75	48.38	-62.73	-2,299.66	799.80	1,706.49	1,643.54	62.95	27.109		
7,650.00	7,562.31	7,406.69	6,986.19	32.83	48.70	-67.73	-2,314.52	805.21	1,717.81	1,654.78	63.03	27.253		
7,700.00	7,608.70	7,449.43	7,026.16	32.89	49.00	-70.61	-2,328.77	810.39	1,729.02	1,665.96	63.06	27.420		
7,750.00	7,653.34	7,490.02	7,064.11	32.93	49.29	-72.42	-2,342.30	815.31	1,740.19	1,677.16	63.03	27.609		
7,800.00	7,695.91	7,528.13	7,099.74	32.95	49.56	-73.61	-2,355.01	819.93	1,751.39	1,688.42	62.96	27.816		
7,850.00	7,736.06	7,563.49	7,132.80	32.95	49.82	-74.39	-2,366.80	824.21	1,762.71	1,699.84	62.86	28.040		
7,900.00	7,773.51	7,604.19	7,163.02	32.95	50.11	-74.86	-2,377.57	828.13	1,774.23	1,711.44	62.79	28.258		
7,950.00	7,807.96	7,624.85	7,190.17	32.94	50.25	-75.07	-2,387.25	831.65	1,786.03	1,723.40	62.63	28.518		
8,000.00	7,839.15	7,650.40	7,214.06	32.92	50.44	-75.05	-2,395.77	834.75	1,798.19	1,735.67	62.52	28.763		
8,050.00	7,866.84	7,672.26	7,234.49	32.90	50.59	-74.80	-2,403.06	837.40	1,810.75	1,748.32	62.43	29.004		
8,100.00	7,890.83	7,690.25	7,251.32	32.88	50.72	-74.32	-2,409.06	839.58	1,823.75	1,761.37	62.38	29.236		
8,150.00	7,910.93	7,704.26	7,264.41	32.87	50.82	-73.62	-2,413.73	841.28	1,837.20	1,774.82	62.38	29.453		
8,200.00	7,926.99	7,723.78	7,282.68	32.87	50.96	-72.99	-2,420.24	843.49	1,851.07	1,788.56	62.50	29.616		
8,250.00	7,938.88	7,734.00	7,294.01	32.89	51.00	-72.05	-2,424.28	844.23	1,865.18	1,800.30	64.87	28.750		
8,300.00	7,946.52	7,734.60	7,304.60	32.94	51.07	-72.02	-2,438.76	845.71	1,879.50	1,814.22	65.28	28.789		
8,350.00	7,949.85	7,734.60	7,304.60	33.03	51.10	-72.02	-2,452.98	846.71	1,893.85	1,829.12	64.73	29.257		
8,363.33	7,950.00	7,734.60	7,304.60	33.06	51.13	-72.02	-2,467.20	847.71	1,908.19	1,843.44	64.18	29.725		
8,400.00	7,950.00	7,734.60	7,304.60	33.16	51.16	-72.02	-2,481.42	848.71	1,922.51	1,857.76	63.63	30.193		
8,500.00	7,950.00	7,734.60	7,304.60	33.26	51.19	-72.02	-2,495.64	849.71	1,936.83	1,872.08	63.08	30.661		
8,600.00	7,950.00	7,734.60	7,304.60	33.36	51.22	-72.02	-2,509.86	850.71	1,951.15	1,886.40	62.53	31.129		
8,700.00	7,950.00	7,734.60	7,304.60	33.46	51.25	-72.02	-2,524.08	851.71	1,965.47	1,899.92	61.98	31.597		
8,800.00	7,950.00	7,734.60	7,304.60	33.56	51.28	-72.02	-2,538.30	852.71	1,979.79	1,913.44	61.43	32.065		
8,900.00	7,950.00	7,734.60	7,304.60	33.66	51.31	-72.02	-2,552.52	853.71	1,994.11	1,926.96	60.88	32.533		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	7,950.00	9,317.12	7,875.00	39.83	52.20	-87.73	-2,632.92	-363.82	1,893.11	1,810.09	83.02	22.803		
9,100.00	7,950.00	9,417.12	7,875.00	41.56	52.25	-87.73	-2,633.03	-463.82	1,892.65	1,806.30	86.35	21.918		
9,200.00	7,950.00	9,517.11	7,875.00	43.39	52.38	-87.73	-2,633.15	-563.82	1,892.19	1,802.31	89.88	21.053		
9,300.00	7,950.00	9,617.11	7,875.00	45.30	52.69	-87.73	-2,633.26	-663.82	1,891.73	1,798.15	93.58	20.215		
9,400.00	7,950.00	9,717.11	7,875.00	47.29	53.29	-87.73	-2,633.37	-763.82	1,891.27	1,793.83	97.44	19.410		
9,500.00	7,950.00	9,817.11	7,875.00	49.35	54.34	-87.73	-2,633.49	-863.81	1,890.81	1,789.37	101.44	18.640		
9,600.00	7,950.00	9,917.11	7,875.00	51.47	55.83	-87.73	-2,633.60	-963.81	1,890.34	1,784.79	105.56	17.908		
9,700.00	7,950.00	10,017.11	7,875.00	53.63	57.60	-87.73	-2,633.72	-1,063.81	1,889.88	1,780.10	109.79	17.214		
9,800.00	7,950.00	10,117.11	7,875.00	55.85	59.56	-87.73	-2,633.83	-1,163.81	1,889.42	1,775.31	114.11	16.557		
9,900.00	7,950.00	10,217.11	7,875.00	58.10	61.62	-87.73	-2,633.94	-1,263.81	1,888.96	1,770.44	118.53	15.937		
10,000.00	7,950.00	10,317.11	7,875.00	60.39	63.76	-87.73	-2,634.06	-1,363.81	1,888.50	1,765.49	123.02	15.352		
10,100.00	7,950.00	10,417.11	7,875.00	62.71	65.95	-87.73	-2,634.17	-1,463.81	1,888.04	1,760.47	127.57	14.800		
10,200.00	7,950.00	10,517.10	7,875.00	65.05	68.19	-87.73	-2,634.29	-1,563.81	1,887.58	1,755.39	132.19	14.279		
10,300.00	7,950.00	10,617.10	7,875.00	67.43	70.46	-87.73	-2,634.40	-1,663.81	1,887.12	1,750.26	136.87	13.788		
10,400.00	7,950.00	10,717.10	7,875.00	69.82	72.77	-87.72	-2,634.52	-1,763.80	1,886.66	1,745.07	141.59	13.325		
10,500.00	7,950.00	10,817.10	7,875.00	72.24	75.11	-87.72	-2,634.63	-1,863.80	1,886.20	1,739.84	146.36	12.887		
10,600.00	7,950.00	10,917.10	7,875.00	74.68	77.47	-87.72	-2,634.74	-1,963.80	1,885.74	1,734.57	151.17	12.474		
10,700.00	7,950.00	11,017.10	7,875.00	77.13	79.85	-87.72	-2,634.86	-2,063.80	1,885.28	1,729.26	156.02	12.083		
10,800.00	7,950.00	11,117.10	7,875.00	79.60	82.25	-87.72	-2,634.97	-2,163.80	1,884.82	1,723.92	160.90	11.714		
10,900.00	7,950.00	11,217.10	7,875.00	82.08	84.67	-87.72	-2,635.09	-2,263.80	1,884.36	1,718.55	165.82	11.364		
11,000.00	7,950.00	11,317.10	7,875.00	84.57	87.11	-87.72	-2,635.20	-2,363.80	1,883.90	1,713.15	170.76	11.033		
11,100.00	7,950.00	11,417.09	7,875.00	87.08	89.56	-87.72	-2,635.32	-2,463.80	1,883.44	1,707.72	175.72	10.718		
11,200.00	7,950.00	11,517.09	7,875.00	89.59	92.02	-87.72	-2,635.43	-2,563.79	1,882.98	1,702.27	180.71	10.420		
11,300.00	7,950.00	11,617.09	7,875.00	92.12	94.50	-87.72	-2,635.54	-2,663.79	1,882.52	1,696.80	185.73	10.136		
11,400.00	7,950.00	11,717.09	7,875.00	94.66	96.98	-87.72	-2,635.66	-2,763.79	1,882.06	1,691.31	190.76	9.866		
11,500.00	7,950.00	11,817.09	7,875.00	97.20	99.48	-87.72	-2,635.77	-2,863.79	1,881.60	1,685.80	195.81	9.609		
11,600.00	7,950.00	11,917.09	7,875.00	99.75	101.99	-87.72	-2,635.89	-2,963.79	1,881.14	1,680.27	200.87	9.365		
11,700.00	7,950.00	12,017.09	7,875.00	102.31	104.50	-87.72	-2,636.00	-3,063.79	1,880.68	1,674.73	205.96	9.131		
11,800.00	7,950.00	12,117.09	7,875.00	104.87	107.03	-87.72	-2,636.12	-3,163.79	1,880.22	1,669.17	211.05	8.909		
11,900.00	7,950.00	12,217.09	7,875.00	107.44	109.56	-87.72	-2,636.23	-3,263.79	1,879.76	1,663.60	216.17	8.696		
12,000.00	7,950.00	12,317.09	7,875.00	110.02	112.10	-87.72	-2,636.34	-3,363.79	1,879.30	1,658.01	221.29	8.492		
12,100.00	7,950.00	12,417.08	7,875.00	112.60	114.65	-87.72	-2,636.46	-3,463.78	1,878.84	1,652.42	226.43	8.298		
12,200.00	7,950.00	12,517.08	7,875.00	115.19	117.20	-87.71	-2,636.57	-3,563.78	1,878.38	1,646.81	231.57	8.111		
12,300.00	7,950.00	12,617.08	7,875.00	117.78	119.76	-87.71	-2,636.69	-3,663.78	1,877.92	1,641.19	236.73	7.933		
12,400.00	7,950.00	12,717.08	7,875.00	120.38	122.32	-87.71	-2,636.80	-3,763.78	1,877.46	1,635.57	241.90	7.761		
12,500.00	7,950.00	12,817.08	7,875.00	122.98	124.89	-87.71	-2,636.91	-3,863.78	1,877.00	1,629.93	247.07	7.597		
12,600.00	7,950.00	12,917.08	7,875.00	125.58	127.46	-87.71	-2,637.03	-3,963.78	1,876.54	1,624.29	252.26	7.439		
12,700.00	7,950.00	13,017.08	7,875.00	128.19	130.04	-87.71	-2,637.14	-4,063.78	1,876.08	1,618.63	257.45	7.287		
12,800.00	7,950.00	13,117.08	7,875.00	130.80	132.63	-87.71	-2,637.26	-4,163.78	1,875.62	1,612.97	262.65	7.141		
12,900.00	7,950.00	13,217.08	7,875.00	133.41	135.21	-87.71	-2,637.37	-4,263.78	1,875.16	1,607.31	267.86	7.001		
13,000.00	7,950.00	13,317.07	7,875.00	136.03	137.80	-87.71	-2,637.49	-4,363.77	1,874.70	1,601.63	273.07	6.865		
13,100.00	7,950.00	13,417.07	7,875.00	138.65	140.40	-87.71	-2,637.60	-4,463.77	1,874.24	1,595.95	278.29	6.735		
13,200.00	7,950.00	13,517.07	7,875.00	141.27	143.00	-87.71	-2,637.71	-4,563.77	1,873.78	1,590.27	283.51	6.609		
13,300.00	7,950.00	13,617.07	7,875.00	143.90	145.60	-87.71	-2,637.83	-4,663.77	1,873.32	1,584.58	288.75	6.488		
13,400.00	7,950.00	13,717.07	7,875.00	146.52	148.20	-87.71	-2,637.94	-4,763.77	1,872.86	1,578.88	293.98	6.371		
13,500.00	7,950.00	13,817.07	7,875.00	149.15	150.81	-87.71	-2,638.06	-4,863.77	1,872.40	1,573.18	299.22	6.258		
13,600.00	7,950.00	13,917.07	7,875.00	151.78	153.42	-87.71	-2,638.17	-4,963.77	1,871.94	1,567.47	304.47	6.148		
13,700.00	7,950.00	14,017.07	7,875.00	154.42	156.03	-87.71	-2,638.29	-5,063.77	1,871.48	1,561.76	309.72	6.042		
13,800.00	7,950.00	14,117.07	7,875.00	157.05	158.65	-87.71	-2,638.40	-5,163.77	1,871.02	1,556.04	314.98	5.940		
13,900.00	7,950.00	14,217.07	7,875.00	159.69	161.27	-87.71	-2,638.51	-5,263.76	1,870.56	1,550.32	320.24	5.841		
14,000.00	7,950.00	14,317.06	7,875.00	162.33	163.89	-87.70	-2,638.63	-5,363.76	1,870.10	1,544.60	325.50	5.745		
14,100.00	7,950.00	14,417.06	7,875.00	164.97	166.51	-87.70	-2,638.74	-5,463.76	1,869.64	1,538.87	330.77	5.652		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.00	7,950.00	14,517.06	7,875.00	167.61	169.14	-87.70	-2,638.86	-5,563.76	1,869.18	1,533.14	336.04	5.562		
14,300.00	7,950.00	14,617.06	7,875.00	170.26	171.76	-87.70	-2,638.97	-5,663.76	1,868.72	1,527.41	341.31	5.475		
14,400.00	7,950.00	14,717.06	7,875.00	172.90	174.39	-87.70	-2,639.09	-5,763.76	1,868.26	1,521.67	346.59	5.390		
14,500.00	7,950.00	14,817.06	7,875.00	175.55	177.02	-87.70	-2,639.20	-5,863.76	1,867.80	1,515.93	351.87	5.308		
14,600.00	7,950.00	14,917.06	7,875.00	178.20	179.66	-87.70	-2,639.31	-5,963.76	1,867.34	1,510.19	357.15	5.228		
14,700.00	7,950.00	15,017.06	7,875.00	180.85	182.29	-87.70	-2,639.43	-6,063.76	1,866.88	1,504.44	362.44	5.151		
14,800.00	7,950.00	15,117.06	7,875.00	183.50	184.92	-87.70	-2,639.54	-6,163.75	1,866.42	1,498.69	367.73	5.076		
14,900.00	7,950.00	15,217.05	7,875.00	186.15	187.56	-87.70	-2,639.66	-6,263.75	1,865.96	1,492.94	373.02	5.002		
15,000.00	7,950.00	15,317.05	7,875.00	188.80	190.20	-87.70	-2,639.77	-6,363.75	1,865.50	1,487.19	378.31	4.931		
15,100.00	7,950.00	15,417.05	7,875.00	191.46	192.84	-87.70	-2,639.88	-6,463.75	1,865.04	1,481.43	383.61	4.862		
15,200.00	7,950.00	15,517.05	7,875.00	194.11	195.48	-87.70	-2,640.00	-6,563.75	1,864.58	1,475.67	388.91	4.794		
15,300.00	7,950.00	15,617.05	7,875.00	196.77	198.13	-87.70	-2,640.11	-6,663.75	1,864.12	1,469.91	394.21	4.729		
15,400.00	7,950.00	15,717.05	7,875.00	199.42	200.77	-87.70	-2,640.23	-6,763.75	1,863.66	1,464.15	399.51	4.665		
15,500.00	7,950.00	15,817.05	7,875.00	202.08	203.41	-87.70	-2,640.34	-6,863.75	1,863.20	1,458.38	404.82	4.603		
15,600.00	7,950.00	15,917.05	7,875.00	204.74	206.06	-87.70	-2,640.46	-6,963.75	1,862.74	1,452.62	410.12	4.542		
15,700.00	7,950.00	16,017.05	7,875.00	207.40	208.71	-87.69	-2,640.57	-7,063.74	1,862.28	1,446.85	415.43	4.483		
15,800.00	7,950.00	16,117.05	7,875.00	210.06	211.36	-87.69	-2,640.68	-7,163.74	1,861.82	1,441.08	420.74	4.425		
15,900.00	7,950.00	16,217.04	7,875.00	212.72	214.01	-87.69	-2,640.80	-7,263.74	1,861.36	1,435.31	426.05	4.369		
16,000.00	7,950.00	16,317.04	7,875.00	215.38	216.66	-87.69	-2,640.91	-7,363.74	1,860.90	1,429.53	431.37	4.314		
16,100.00	7,950.00	16,417.04	7,875.00	218.05	219.31	-87.69	-2,641.03	-7,463.74	1,860.44	1,423.76	436.68	4.260		
16,200.00	7,950.00	16,517.04	7,875.00	220.71	221.96	-87.69	-2,641.14	-7,563.74	1,859.98	1,417.98	442.00	4.208		
16,300.00	7,950.00	16,617.04	7,875.00	223.37	224.62	-87.69	-2,641.26	-7,663.74	1,859.52	1,412.20	447.32	4.157		
16,400.00	7,950.00	16,717.04	7,875.00	226.04	227.27	-87.69	-2,641.37	-7,763.74	1,859.06	1,406.42	452.64	4.107		
16,500.00	7,950.00	16,817.04	7,875.00	228.70	229.93	-87.69	-2,641.48	-7,863.74	1,858.60	1,400.64	457.96	4.058		
16,600.00	7,950.00	16,917.04	7,875.00	231.37	232.58	-87.69	-2,641.60	-7,963.73	1,858.14	1,394.86	463.28	4.011		
16,700.00	7,950.00	17,017.04	7,875.00	234.04	235.24	-87.69	-2,641.71	-8,063.73	1,857.68	1,389.07	468.60	3.964		
16,800.00	7,950.00	17,117.03	7,875.00	236.70	237.90	-87.69	-2,641.83	-8,163.73	1,857.22	1,383.29	473.93	3.919		
16,900.00	7,950.00	17,217.03	7,875.00	239.37	240.56	-87.69	-2,641.94	-8,263.73	1,856.76	1,377.50	479.25	3.874		
17,000.00	7,950.00	17,317.03	7,875.00	242.04	243.21	-87.69	-2,642.05	-8,363.73	1,856.30	1,371.72	484.58	3.831		
17,100.00	7,950.00	17,417.03	7,875.00	244.71	245.87	-87.69	-2,642.17	-8,463.73	1,855.84	1,365.93	489.91	3.788		
17,200.00	7,950.00	17,517.03	7,875.00	247.38	248.54	-87.69	-2,642.28	-8,563.73	1,855.38	1,360.14	495.24	3.746		
17,300.00	7,950.00	17,617.03	7,875.00	250.05	251.20	-87.69	-2,642.40	-8,663.73	1,854.92	1,354.35	500.57	3.706		
17,400.00	7,950.00	17,717.03	7,875.00	252.72	253.86	-87.69	-2,642.51	-8,763.73	1,854.46	1,348.55	505.90	3.666		
17,500.00	7,950.00	17,817.03	7,875.00	255.39	256.52	-87.68	-2,642.63	-8,863.72	1,854.00	1,342.76	511.23	3.627		
17,600.00	7,950.00	17,917.03	7,875.00	258.06	259.18	-87.68	-2,642.74	-8,963.72	1,853.54	1,336.97	516.57	3.588		
17,700.00	7,950.00	18,017.03	7,875.00	260.73	261.85	-87.68	-2,642.85	-9,063.72	1,853.08	1,331.17	521.90	3.551		
17,800.00	7,950.00	18,117.02	7,875.00	263.40	264.51	-87.68	-2,642.97	-9,163.72	1,852.62	1,325.38	527.24	3.514		
17,900.00	7,950.00	18,217.02	7,875.00	266.07	267.18	-87.68	-2,643.08	-9,263.72	1,852.16	1,319.58	532.57	3.478		
18,000.00	7,950.00	18,317.02	7,875.00	268.74	269.84	-87.68	-2,643.20	-9,363.72	1,851.70	1,313.79	537.91	3.442		
18,100.00	7,950.00	18,417.02	7,875.00	271.42	272.51	-87.68	-2,643.31	-9,463.72	1,851.24	1,307.99	543.25	3.408		
18,200.00	7,950.00	18,517.02	7,875.00	274.09	275.17	-87.68	-2,643.43	-9,563.72	1,850.78	1,302.19	548.59	3.374		
18,253.56	7,950.00	18,570.58	7,875.00	275.52	276.60	-87.68	-2,643.49	-9,617.27	1,850.53	1,299.08	551.45	3.356 SF		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	-0.10	0.00	0.00	179.89	-150.08	0.28	150.08					
100.00	100.00	100.10	99.90	0.13	0.13	179.89	-150.08	0.28	150.08	149.81	0.27	557.472		
200.00	200.00	200.10	199.90	0.49	0.49	179.89	-150.08	0.28	150.08	149.09	0.99	152.185		
250.00	250.00	249.90	249.90	0.67	0.67	179.89	-150.08	0.28	150.08	148.73	1.34	111.673 CC		
300.00	300.00	297.51	297.51	0.85	0.83	51.31	-150.46	0.39	150.20	148.52	1.68	89.398 ES		
400.00	399.93	392.70	392.64	1.19	1.16	51.94	-153.48	1.30	151.21	148.87	2.35	64.431		
500.00	499.68	487.81	487.53	1.55	1.50	53.16	-159.53	3.10	153.29	150.26	3.03	50.537		
600.00	599.13	582.78	582.03	1.93	1.85	54.92	-168.58	5.80	156.55	152.81	3.74	41.890		
696.56	694.75	674.31	672.76	2.31	2.21	57.07	-180.13	9.25	160.94	156.50	4.44	36.258		
700.00	698.15	677.57	675.98	2.33	2.23	57.15	-180.60	9.38	161.12	156.66	4.46	36.102		
800.00	796.94	772.15	769.27	2.74	2.62	59.32	-195.55	13.85	168.12	162.91	5.22	32.238		
900.00	895.73	866.40	861.65	3.17	3.05	60.86	-213.38	19.16	178.29	172.31	5.98	29.807		
1,000.00	994.51	960.11	952.86	3.60	3.50	61.80	-233.98	25.31	191.46	184.70	6.76	28.331		
1,100.00	1,093.30	1,053.09	1,042.61	4.04	3.99	62.20	-257.24	32.25	207.51	199.97	7.54	27.534		
1,200.00	1,192.09	1,145.16	1,130.66	4.48	4.51	62.18	-283.01	39.93	226.36	218.05	8.32	27.220		
1,300.00	1,290.88	1,236.14	1,216.78	4.92	5.06	61.84	-311.12	48.32	247.98	238.89	9.09	27.272		
1,400.00	1,389.67	1,325.86	1,300.75	5.36	5.64	61.27	-341.41	57.35	272.33	262.47	9.86	27.617		
1,500.00	1,488.45	1,414.20	1,382.42	5.80	6.24	60.55	-373.66	66.97	299.40	288.78	10.62	28.198		
1,600.00	1,587.24	1,504.10	1,464.50	6.24	6.90	59.72	-408.79	77.45	328.99	317.59	11.40	28.866		
1,700.00	1,686.03	1,599.32	1,551.21	6.69	7.62	58.93	-446.52	88.70	359.19	346.95	12.25	29.332		
1,800.00	1,784.82	1,705.46	1,637.91	7.13	8.43	58.27	-484.25	99.95	389.46	376.30	13.15	29.608		
1,900.00	1,883.60	1,789.77	1,724.61	7.57	9.07	57.71	-521.97	111.21	419.76	405.80	13.95	30.080		
2,000.00	1,982.39	1,884.99	1,811.31	8.02	9.81	57.22	-559.70	122.46	450.09	435.28	14.81	30.385		
2,100.00	2,081.18	1,980.21	1,898.02	8.46	10.55	56.79	-597.43	133.72	480.45	464.77	15.67	30.654		
2,200.00	2,179.97	2,075.44	1,984.72	8.91	11.30	56.42	-635.16	144.97	510.83	494.29	16.53	30.894		
2,300.00	2,278.75	2,170.66	2,071.42	9.36	12.05	56.08	-672.89	156.22	541.23	523.83	17.40	31.108		
2,400.00	2,377.54	2,265.88	2,158.12	9.80	12.80	55.79	-710.62	167.48	571.64	553.38	18.26	31.302		
2,500.00	2,476.33	2,361.11	2,244.82	10.25	13.55	55.52	-748.35	178.73	602.07	582.94	19.13	31.476		
2,600.00	2,575.12	2,456.33	2,331.53	10.69	14.30	55.27	-786.08	189.98	632.50	612.51	19.99	31.635		
2,700.00	2,673.90	2,551.55	2,418.23	11.14	15.06	55.05	-823.81	201.24	662.95	642.09	20.86	31.780		
2,800.00	2,772.69	2,646.77	2,504.93	11.59	15.82	54.85	-861.54	212.49	693.40	671.67	21.73	31.912		
2,900.00	2,871.48	2,742.00	2,591.63	12.03	16.57	54.67	-899.27	223.75	723.86	701.27	22.60	32.034		
3,000.00	2,970.27	2,837.22	2,678.33	12.48	17.33	54.50	-937.00	235.00	754.33	730.87	23.47	32.147		
3,100.00	3,069.05	2,932.44	2,765.04	12.93	18.09	54.34	-974.73	246.25	784.80	760.47	24.33	32.251		
3,200.00	3,167.84	3,027.67	2,851.74	13.37	18.85	54.20	-1,012.46	257.51	815.28	790.08	25.20	32.347		
3,300.00	3,266.63	3,122.89	2,938.44	13.82	19.61	54.06	-1,050.18	268.76	845.76	819.69	26.07	32.437		
3,400.00	3,365.42	3,218.11	3,025.14	14.27	20.37	53.94	-1,087.91	280.01	876.25	849.30	26.94	32.521		
3,500.00	3,464.20	3,313.33	3,111.85	14.71	21.13	53.82	-1,125.64	291.27	906.74	878.92	27.82	32.599		
3,600.00	3,562.99	3,408.56	3,198.55	15.16	21.89	53.72	-1,163.37	302.52	937.23	908.55	28.69	32.672		
3,700.00	3,661.78	3,503.78	3,285.25	15.61	22.66	53.61	-1,201.10	313.77	967.73	938.17	29.56	32.740		
3,800.00	3,760.57	3,601.00	3,371.95	16.05	23.43	53.52	-1,238.83	325.03	998.23	967.79	30.44	32.794		
3,900.00	3,859.35	3,705.77	3,458.65	16.50	24.27	53.43	-1,276.56	336.28	1,028.73	997.37	31.36	32.804		
4,000.00	3,958.14	3,789.45	3,545.36	16.95	24.94	53.34	-1,314.29	347.54	1,059.23	1,027.06	32.17	32.923		
4,100.00	4,056.93	3,884.67	3,632.06	17.40	25.71	53.26	-1,352.02	358.79	1,089.73	1,056.69	33.05	32.977		
4,200.00	4,155.72	3,979.90	3,718.76	17.84	26.47	53.19	-1,389.75	370.04	1,120.24	1,086.32	33.92	33.028		
4,300.00	4,254.50	4,075.12	3,805.46	18.29	27.24	53.12	-1,427.48	381.30	1,150.75	1,115.96	34.79	33.076		
4,400.00	4,353.29	4,170.34	3,892.17	18.74	28.00	53.05	-1,465.21	392.55	1,181.26	1,145.59	35.66	33.122		
4,500.00	4,452.08	4,265.56	3,978.87	19.19	28.76	52.98	-1,502.94	403.80	1,211.77	1,175.23	36.54	33.166		
4,600.00	4,550.87	4,360.79	4,065.57	19.63	29.53	52.92	-1,540.66	415.06	1,242.28	1,204.87	37.41	33.207		
4,700.00	4,649.65	4,456.01	4,152.27	20.08	30.29	52.86	-1,578.39	426.31	1,272.80	1,234.51	38.28	33.246		
4,800.00	4,748.44	4,551.23	4,238.97	20.53	31.06	52.81	-1,616.12	437.57	1,303.31	1,264.15	39.16	33.284		
4,900.00	4,847.23	4,646.46	4,325.68	20.97	31.82	52.75	-1,653.85	448.82	1,333.83	1,293.80	40.03	33.320		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,741.68	4,412.38	21.42	32.59	52.70	-1,691.58	460.07	1,364.34	1,323.44	40.91	33.354		
5,100.00	5,044.81	4,836.90	4,499.08	21.87	33.35	52.65	-1,729.31	471.33	1,394.86	1,353.08	41.78	33.386		
5,200.00	5,143.59	4,932.13	4,585.78	22.32	34.12	52.61	-1,767.04	482.58	1,425.38	1,382.73	42.65	33.417		
5,300.00	5,242.38	5,027.35	4,672.49	22.76	34.88	52.56	-1,804.77	493.83	1,455.90	1,412.37	43.53	33.447		
5,400.00	5,341.17	5,122.57	4,759.19	23.21	35.65	52.52	-1,842.50	505.09	1,486.42	1,442.02	44.40	33.476		
5,500.00	5,439.96	5,217.79	4,845.89	23.66	36.41	52.48	-1,880.23	516.34	1,516.94	1,471.66	45.28	33.503		
5,600.00	5,538.74	5,313.02	4,932.59	24.11	37.18	52.44	-1,917.96	527.59	1,547.46	1,501.31	46.15	33.529		
5,700.00	5,637.53	5,408.24	5,019.29	24.55	37.94	52.40	-1,955.69	538.85	1,577.99	1,530.96	47.03	33.554		
5,800.00	5,736.32	5,503.46	5,106.00	25.00	38.71	52.37	-1,993.42	550.10	1,608.51	1,560.61	47.90	33.578		
5,900.00	5,835.11	5,601.31	5,192.70	25.45	39.50	52.33	-2,031.15	561.36	1,639.03	1,590.24	48.79	33.592		
6,000.00	5,933.89	5,706.09	5,279.40	25.90	40.34	52.30	-2,068.87	572.61	1,669.56	1,619.84	49.72	33.582		
6,100.00	6,032.68	5,789.13	5,366.10	26.34	41.01	52.26	-2,106.60	583.86	1,700.08	1,649.55	50.53	33.645		
6,200.00	6,131.47	5,884.36	5,452.80	26.79	41.77	52.23	-2,144.33	595.12	1,730.61	1,679.20	51.41	33.666		
6,300.00	6,230.26	5,979.58	5,539.51	27.24	42.54	52.20	-2,182.06	606.37	1,761.13	1,708.85	52.28	33.686		
6,400.00	6,329.04	6,074.80	5,626.21	27.69	43.30	52.17	-2,219.79	617.62	1,791.66	1,738.50	53.16	33.705		
6,500.00	6,427.83	6,170.02	5,712.91	28.13	44.07	52.15	-2,257.52	628.88	1,822.18	1,768.15	54.03	33.723		
6,600.00	6,526.62	6,265.25	5,799.61	28.58	44.84	52.12	-2,295.25	640.13	1,852.71	1,797.80	54.91	33.741		
6,700.00	6,625.41	6,360.47	5,886.32	29.03	45.60	52.09	-2,332.98	651.39	1,883.24	1,827.45	55.79	33.758		
6,800.00	6,724.19	6,455.69	5,973.02	29.48	46.37	52.07	-2,370.71	662.64	1,913.77	1,857.10	56.66	33.775		
6,900.00	6,822.98	6,550.92	6,059.72	29.93	47.13	52.04	-2,408.44	673.89	1,944.29	1,886.75	57.54	33.790		
7,000.00	6,921.77	6,646.14	6,146.42	30.37	47.90	52.02	-2,446.17	685.15	1,974.82	1,916.41	58.42	33.806		
7,100.00	7,020.56	6,741.36	6,233.12	30.82	48.67	51.99	-2,483.90	696.40	2,005.35	1,946.06	59.29	33.821		
7,200.00	7,119.34	6,836.58	6,319.83	31.27	49.43	51.97	-2,521.63	707.65	2,035.88	1,975.71	60.17	33.835		
7,300.00	7,218.13	6,931.81	6,406.53	31.72	50.20	51.95	-2,559.36	718.91	2,066.41	2,005.36	61.05	33.849		
7,394.03	7,311.02	7,021.34	6,488.05	32.14	50.92	51.93	-2,594.83	729.49	2,095.11	2,033.24	61.87	33.861		
7,400.00	7,316.92	7,027.03	6,493.23	32.16	50.96	49.58	-2,597.08	730.16	2,096.94	2,035.01	61.92	33.863		
7,450.00	7,366.55	7,074.55	6,536.50	32.36	51.35	16.20	-2,615.91	735.78	2,112.12	2,049.80	62.32	33.893		
7,500.00	7,416.28	7,121.67	6,579.40	32.53	51.73	-28.58	-2,634.58	741.35	2,127.11	2,064.47	62.63	33.962		
7,550.00	7,465.74	7,168.02	6,621.60	32.65	52.10	-51.20	-2,652.95	746.82	2,141.82	2,078.95	62.88	34.065		
7,600.00	7,514.54	7,213.24	6,662.78	32.75	52.46	-60.68	-2,670.87	752.17	2,156.22	2,093.17	63.05	34.196		
7,650.00	7,562.31	7,257.00	6,702.63	32.83	52.82	-65.26	-2,688.20	757.34	2,170.29	2,107.12	63.17	34.354		
7,700.00	7,608.70	7,301.03	6,740.83	32.89	53.17	-67.73	-2,704.83	762.30	2,184.02	2,120.77	63.25	34.530		
7,750.00	7,653.34	7,338.81	6,777.12	32.93	53.47	-69.15	-2,720.62	767.01	2,197.43	2,134.17	63.26	34.738		
7,800.00	7,695.91	7,376.24	6,811.19	32.95	53.78	-69.98	-2,735.45	771.43	2,210.54	2,147.30	63.24	34.957		
7,850.00	7,736.06	7,410.96	6,842.81	32.95	54.05	-70.44	-2,749.21	775.53	2,223.39	2,160.21	63.18	35.189		
7,900.00	7,773.51	7,442.71	6,871.71	32.95	54.31	-70.64	-2,761.79	779.29	2,236.02	2,172.91	63.11	35.429		
7,950.00	7,807.96	7,471.25	6,897.70	32.94	54.54	-70.63	-2,773.09	782.66	2,248.47	2,185.44	63.03	35.670		
8,000.00	7,839.15	7,503.64	6,920.56	32.92	54.80	-70.46	-2,783.04	785.63	2,260.77	2,197.78	63.00	35.888		
8,050.00	7,866.84	7,517.85	6,940.13	32.90	54.92	-70.13	-2,791.56	788.17	2,272.96	2,210.05	62.90	36.134		
8,100.00	7,890.83	7,535.56	6,956.26	32.88	55.06	-69.66	-2,798.57	790.26	2,285.03	2,222.16	62.87	36.343		
8,150.00	7,910.93	7,549.35	6,968.81	32.87	55.17	-69.04	-2,804.04	791.89	2,297.00	2,234.12	62.88	36.529		
8,200.00	7,926.99	7,559.12	6,977.71	32.87	55.25	-68.28	-2,807.91	793.04	2,308.84	2,245.91	62.93	36.686		
8,250.00	7,938.88	7,564.79	6,982.87	32.89	55.29	-67.40	-2,810.16	793.71	2,320.52	2,257.48	63.04	36.812		
8,300.00	7,946.52	7,566.32	6,984.26	32.94	55.31	-66.39	-2,810.76	793.90	2,331.98	2,268.80	63.19	36.905		
8,350.00	7,949.85	7,563.70	6,981.88	33.03	55.28	-65.27	-2,809.72	793.59	2,343.15	2,279.77	63.39	36.965		
8,363.33	7,950.00	7,562.30	6,980.60	33.06	55.27	-64.96	-2,809.17	793.42	2,346.07	2,282.62	63.45	36.976		
8,400.00	7,950.00	7,558.05	6,976.73	33.16	55.24	-64.85	-2,807.49	792.92	2,354.32	2,290.68	63.64	36.994		
8,500.00	7,950.00	7,546.46	6,966.18	33.64	55.15	-64.56	-2,802.89	791.55	2,379.52	2,315.16	64.36	36.974		
8,600.00	7,950.00	7,534.87	6,955.63	34.42	55.05	-64.27	-2,798.30	790.18	2,408.55	2,343.23	65.32	36.874		
8,700.00	7,950.00	7,523.28	6,945.07	35.49	54.96	-63.99	-2,793.71	788.81	2,441.28	2,374.80	66.48	36.722		
8,800.00	7,950.00	7,511.69	6,934.52	36.77	54.87	-63.70	-2,789.12	787.44	2,477.56	2,409.76	67.80	36.541		
8,900.00	7,950.00	9,487.08	7,950.00	38.23	60.77	-90.00	-3,232.41	-263.04	2,491.69	2,410.70	80.98	30.768		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	7,950.00	9,587.08	7,950.00	39.83	60.76	-90.00	-3,232.52	-363.04	2,491.23	2,407.19	84.04	29.643		
9,100.00	7,950.00	9,687.08	7,950.00	41.56	60.78	-90.00	-3,232.64	-463.04	2,490.77	2,403.45	87.32	28.524		
9,200.00	7,950.00	9,787.08	7,950.00	43.39	60.85	-90.00	-3,232.76	-563.04	2,490.32	2,399.51	90.80	27.425		
9,300.00	7,950.00	9,887.08	7,950.00	45.30	60.97	-90.00	-3,232.88	-663.04	2,489.86	2,395.39	94.47	26.357		
9,400.00	7,950.00	9,987.08	7,950.00	47.29	61.18	-90.00	-3,232.99	-763.04	2,489.40	2,391.12	98.28	25.329		
9,500.00	7,950.00	10,087.08	7,950.00	49.35	61.50	-90.00	-3,233.11	-863.04	2,488.95	2,386.70	102.24	24.343		
9,600.00	7,950.00	10,187.08	7,950.00	51.47	62.00	-90.00	-3,233.23	-963.04	2,488.49	2,382.16	106.33	23.404		
9,700.00	7,950.00	10,287.08	7,950.00	53.63	62.75	-90.00	-3,233.35	-1,063.04	2,488.03	2,377.51	110.52	22.511		
9,800.00	7,950.00	10,387.08	7,950.00	55.85	63.79	-90.00	-3,233.47	-1,163.03	2,487.58	2,372.76	114.82	21.666		
9,900.00	7,950.00	10,487.07	7,950.00	58.10	65.15	-90.00	-3,233.58	-1,263.03	2,487.12	2,367.92	119.20	20.865		
10,000.00	7,950.00	10,587.07	7,950.00	60.39	66.78	-90.00	-3,233.70	-1,363.03	2,486.66	2,363.00	123.66	20.109		
10,100.00	7,950.00	10,687.07	7,950.00	62.71	68.60	-90.00	-3,233.82	-1,463.03	2,486.21	2,358.01	128.19	19.394		
10,200.00	7,950.00	10,787.07	7,950.00	65.05	70.57	-90.00	-3,233.94	-1,563.03	2,485.75	2,352.96	132.79	18.720		
10,300.00	7,950.00	10,887.07	7,950.00	67.43	72.64	-90.00	-3,234.06	-1,663.03	2,485.29	2,347.85	137.44	18.083		
10,400.00	7,950.00	10,987.07	7,950.00	69.82	74.78	-90.00	-3,234.17	-1,763.03	2,484.83	2,342.69	142.14	17.481		
10,500.00	7,950.00	11,087.07	7,950.00	72.24	76.99	-90.00	-3,234.29	-1,863.03	2,484.38	2,337.48	146.89	16.913		
10,600.00	7,950.00	11,187.07	7,950.00	74.68	79.24	-90.00	-3,234.41	-1,963.03	2,483.92	2,332.23	151.69	16.375		
10,700.00	7,950.00	11,287.07	7,950.00	77.13	81.53	-90.00	-3,234.53	-2,063.02	2,483.46	2,326.95	156.52	15.867		
10,800.00	7,950.00	11,387.07	7,950.00	79.60	83.86	-90.00	-3,234.65	-2,163.02	2,483.01	2,321.62	161.38	15.386		
10,900.00	7,950.00	11,487.06	7,950.00	82.08	86.21	-90.00	-3,234.76	-2,263.02	2,482.55	2,316.27	166.28	14.930		
11,000.00	7,950.00	11,587.06	7,950.00	84.57	88.58	-90.00	-3,234.88	-2,363.02	2,482.09	2,310.89	171.21	14.498		
11,100.00	7,950.00	11,687.06	7,950.00	87.08	90.98	-90.00	-3,235.00	-2,463.02	2,481.64	2,305.48	176.16	14.087		
11,200.00	7,950.00	11,787.06	7,950.00	89.59	93.39	-90.00	-3,235.12	-2,563.02	2,481.18	2,300.04	181.14	13.698		
11,300.00	7,950.00	11,887.06	7,950.00	92.12	95.82	-90.00	-3,235.23	-2,663.02	2,480.72	2,294.58	186.14	13.327		
11,400.00	7,950.00	11,987.06	7,950.00	94.66	98.27	-90.00	-3,235.35	-2,763.02	2,480.27	2,289.11	191.16	12.975		
11,500.00	7,950.00	12,087.06	7,950.00	97.20	100.73	-90.00	-3,235.47	-2,863.02	2,479.81	2,283.61	196.20	12.639		
11,600.00	7,950.00	12,187.06	7,950.00	99.75	103.20	-90.00	-3,235.59	-2,963.01	2,479.35	2,278.09	201.26	12.319		
11,700.00	7,950.00	12,287.06	7,950.00	102.31	105.68	-90.00	-3,235.71	-3,063.01	2,478.90	2,272.56	206.33	12.014		
11,800.00	7,950.00	12,387.05	7,950.00	104.87	108.18	-90.00	-3,235.82	-3,163.01	2,478.44	2,267.02	211.42	11.723		
11,900.00	7,950.00	12,487.05	7,950.00	107.44	110.68	-90.00	-3,235.94	-3,263.01	2,477.98	2,261.46	216.53	11.444		
12,000.00	7,950.00	12,587.05	7,950.00	110.02	113.19	-90.00	-3,236.06	-3,363.01	2,477.53	2,255.88	221.64	11.178		
12,100.00	7,950.00	12,687.05	7,950.00	112.60	115.71	-90.00	-3,236.18	-3,463.01	2,477.07	2,250.29	226.77	10.923		
12,200.00	7,950.00	12,787.05	7,950.00	115.19	118.24	-90.00	-3,236.30	-3,563.01	2,476.61	2,244.70	231.92	10.679		
12,300.00	7,950.00	12,887.05	7,950.00	117.78	120.78	-90.00	-3,236.41	-3,663.01	2,476.16	2,239.09	237.07	10.445		
12,400.00	7,950.00	12,987.05	7,950.00	120.38	123.32	-90.00	-3,236.53	-3,763.01	2,475.70	2,233.47	242.23	10.221		
12,500.00	7,950.00	13,087.05	7,950.00	122.98	125.87	-90.00	-3,236.65	-3,863.00	2,475.24	2,227.84	247.40	10.005		
12,600.00	7,950.00	13,187.05	7,950.00	125.58	128.42	-90.00	-3,236.77	-3,963.00	2,474.78	2,222.20	252.58	9.798		
12,700.00	7,950.00	13,287.05	7,950.00	128.19	130.98	-90.00	-3,236.88	-4,063.00	2,474.33	2,216.56	257.77	9.599		
12,800.00	7,950.00	13,387.04	7,950.00	130.80	133.55	-90.00	-3,237.00	-4,163.00	2,473.87	2,210.91	262.96	9.408		
12,900.00	7,950.00	13,487.04	7,950.00	133.41	136.12	-90.00	-3,237.12	-4,263.00	2,473.41	2,205.25	268.17	9.223		
13,000.00	7,950.00	13,587.04	7,950.00	136.03	138.69	-90.00	-3,237.24	-4,363.00	2,472.96	2,199.58	273.38	9.046		
13,100.00	7,950.00	13,687.04	7,950.00	138.65	141.27	-90.00	-3,237.36	-4,463.00	2,472.50	2,193.90	278.60	8.875		
13,200.00	7,950.00	13,787.04	7,950.00	141.27	143.85	-90.00	-3,237.47	-4,563.00	2,472.04	2,188.22	283.82	8.710		
13,300.00	7,950.00	13,887.04	7,950.00	143.90	146.44	-90.00	-3,237.59	-4,663.00	2,471.59	2,182.54	289.05	8.551		
13,400.00	7,950.00	13,987.04	7,950.00	146.52	149.03	-90.00	-3,237.71	-4,762.99	2,471.13	2,176.85	294.28	8.397		
13,500.00	7,950.00	14,087.04	7,950.00	149.15	151.62	-90.00	-3,237.83	-4,862.99	2,470.67	2,171.15	299.52	8.249		
13,600.00	7,950.00	14,187.04	7,950.00	151.78	154.22	-90.00	-3,237.95	-4,962.99	2,470.22	2,165.45	304.77	8.105		
13,700.00	7,950.00	14,287.03	7,950.00	154.42	156.82	-90.00	-3,238.06	-5,062.99	2,469.76	2,159.74	310.02	7.966		
13,800.00	7,950.00	14,387.03	7,950.00	157.05	159.42	-90.00	-3,238.18	-5,162.99	2,469.30	2,154.03	315.27	7.832		
13,900.00	7,950.00	14,487.03	7,950.00	159.69	162.03	-90.00	-3,238.30	-5,262.99	2,468.85	2,148.32	320.53	7.702		
14,000.00	7,950.00	14,587.03	7,950.00	162.33	164.64	-90.00	-3,238.42	-5,362.99	2,468.39	2,142.60	325.79	7.577		
14,100.00	7,950.00	14,687.03	7,950.00	164.97	167.25	-90.00	-3,238.54	-5,462.99	2,467.93	2,136.87	331.06	7.455		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - LONE TREE 4-65 15-16 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.00	7,950.00	14,787.03	7,950.00	167.61	169.86	-90.00	-3,238.65	-5,562.99	2,467.48	2,131.15	336.33	7.336		
14,300.00	7,950.00	14,887.03	7,950.00	170.26	172.48	-90.00	-3,238.77	-5,662.98	2,467.02	2,125.41	341.60	7.222		
14,400.00	7,950.00	14,987.03	7,950.00	172.90	175.10	-90.00	-3,238.89	-5,762.98	2,466.56	2,119.68	346.88	7.111		
14,500.00	7,950.00	15,087.03	7,950.00	175.55	177.72	-90.00	-3,239.01	-5,862.98	2,466.11	2,113.94	352.16	7.003		
14,600.00	7,950.00	15,187.03	7,950.00	178.20	180.34	-90.00	-3,239.12	-5,962.98	2,465.65	2,108.20	357.45	6.898		
14,700.00	7,950.00	15,287.02	7,950.00	180.85	182.97	-90.00	-3,239.24	-6,062.98	2,465.19	2,102.46	362.73	6.796		
14,800.00	7,950.00	15,387.02	7,950.00	183.50	185.59	-90.00	-3,239.36	-6,162.98	2,464.73	2,096.71	368.02	6.697		
14,900.00	7,950.00	15,487.02	7,950.00	186.15	188.22	-90.00	-3,239.48	-6,262.98	2,464.28	2,090.97	373.31	6.601		
15,000.00	7,950.00	15,587.02	7,950.00	188.80	190.85	-90.00	-3,239.60	-6,362.98	2,463.82	2,085.21	378.61	6.508		
15,100.00	7,950.00	15,687.02	7,950.00	191.46	193.48	-90.00	-3,239.71	-6,462.98	2,463.36	2,079.46	383.90	6.417		
15,200.00	7,950.00	15,787.02	7,950.00	194.11	196.12	-90.00	-3,239.83	-6,562.97	2,462.91	2,073.70	389.20	6.328		
15,300.00	7,950.00	15,887.02	7,950.00	196.77	198.75	-90.00	-3,239.95	-6,662.97	2,462.45	2,067.95	394.50	6.242		
15,400.00	7,950.00	15,987.02	7,950.00	199.42	201.39	-90.00	-3,240.07	-6,762.97	2,461.99	2,062.19	399.81	6.158		
15,500.00	7,950.00	16,087.02	7,950.00	202.08	204.02	-90.00	-3,240.19	-6,862.97	2,461.54	2,056.42	405.11	6.076		
15,600.00	7,950.00	16,187.02	7,950.00	204.74	206.66	-90.00	-3,240.30	-6,962.97	2,461.08	2,050.66	410.42	5.996		
15,700.00	7,950.00	16,287.01	7,950.00	207.40	209.30	-90.00	-3,240.42	-7,062.97	2,460.62	2,044.89	415.73	5.919		
15,800.00	7,950.00	16,387.01	7,950.00	210.06	211.95	-90.00	-3,240.54	-7,162.97	2,460.17	2,039.12	421.04	5.843		
15,900.00	7,950.00	16,487.01	7,950.00	212.72	214.59	-90.00	-3,240.66	-7,262.97	2,459.71	2,033.35	426.36	5.769		
16,000.00	7,950.00	16,587.01	7,950.00	215.38	217.23	-90.00	-3,240.77	-7,362.97	2,459.25	2,027.58	431.67	5.697		
16,100.00	7,950.00	16,687.01	7,950.00	218.05	219.88	-90.00	-3,240.89	-7,462.96	2,458.80	2,021.81	436.99	5.627		
16,200.00	7,950.00	16,787.01	7,950.00	220.71	222.52	-90.00	-3,241.01	-7,562.96	2,458.34	2,016.03	442.31	5.558		
16,300.00	7,950.00	16,887.01	7,950.00	223.37	225.17	-90.00	-3,241.13	-7,662.96	2,457.88	2,010.25	447.63	5.491		
16,400.00	7,950.00	16,987.01	7,950.00	226.04	227.82	-90.00	-3,241.25	-7,762.96	2,457.43	2,004.48	452.95	5.425		
16,500.00	7,950.00	17,087.01	7,950.00	228.70	230.47	-90.00	-3,241.36	-7,862.96	2,456.97	1,998.70	458.27	5.361		
16,600.00	7,950.00	17,187.00	7,950.00	231.37	233.12	-90.00	-3,241.48	-7,962.96	2,456.51	1,992.92	463.60	5.299		
16,700.00	7,950.00	17,287.00	7,950.00	234.04	235.77	-90.00	-3,241.60	-8,062.96	2,456.06	1,987.13	468.92	5.238		
16,800.00	7,950.00	17,387.00	7,950.00	236.70	238.42	-90.00	-3,241.72	-8,162.96	2,455.60	1,981.35	474.25	5.178		
16,900.00	7,950.00	17,487.00	7,950.00	239.37	241.08	-90.00	-3,241.84	-8,262.96	2,455.14	1,975.56	479.58	5.119		
17,000.00	7,950.00	17,587.00	7,950.00	242.04	243.73	-90.00	-3,241.95	-8,362.95	2,454.69	1,969.78	484.91	5.062		
17,100.00	7,950.00	17,687.00	7,950.00	244.71	246.38	-90.00	-3,242.07	-8,462.95	2,454.23	1,963.99	490.24	5.006		
17,200.00	7,950.00	17,787.00	7,950.00	247.38	249.04	-90.00	-3,242.19	-8,562.95	2,453.77	1,958.20	495.57	4.951		
17,300.00	7,950.00	17,887.00	7,950.00	250.05	251.70	-90.00	-3,242.31	-8,662.95	2,453.31	1,952.41	500.90	4.898		
17,400.00	7,950.00	17,987.00	7,950.00	252.72	254.35	-90.00	-3,242.43	-8,762.95	2,452.86	1,946.62	506.24	4.845		
17,500.00	7,950.00	18,087.00	7,950.00	255.39	257.01	-90.00	-3,242.54	-8,862.95	2,452.40	1,940.83	511.57	4.794		
17,600.00	7,950.00	18,186.99	7,950.00	258.06	259.67	-90.00	-3,242.66	-8,962.95	2,451.94	1,935.04	516.91	4.743		
17,700.00	7,950.00	18,286.99	7,950.00	260.73	262.33	-90.00	-3,242.78	-9,062.95	2,451.49	1,929.24	522.25	4.694		
17,800.00	7,950.00	18,386.99	7,950.00	263.40	264.99	-90.00	-3,242.90	-9,162.95	2,451.03	1,923.45	527.58	4.646		
17,900.00	7,950.00	18,486.99	7,950.00	266.07	267.65	-90.00	-3,243.01	-9,262.94	2,450.57	1,917.65	532.92	4.598		
18,000.00	7,950.00	18,586.99	7,950.00	268.74	270.31	-90.00	-3,243.13	-9,362.94	2,450.12	1,911.86	538.26	4.552		
18,100.00	7,950.00	18,686.99	7,950.00	271.42	272.97	-90.00	-3,243.25	-9,462.94	2,449.66	1,906.06	543.60	4.506		
18,200.00	7,950.00	18,786.99	7,950.00	274.09	275.63	-90.00	-3,243.37	-9,562.94	2,449.20	1,900.26	548.94	4.462		
18,253.56	7,950.00	18,840.55	7,950.00	275.52	277.06	-90.00	-3,243.43	-9,616.50	2,448.96	1,897.15	551.80	4.438 SF		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	5.20	5.20	0.00	0.01	-0.13	124.94	-0.28	124.94					
100.00	100.00	105.20	105.20	0.13	0.15	-0.13	124.94	-0.28	124.94	124.66	0.29	434.597		
200.00	200.00	205.20	205.20	0.49	0.51	-0.13	124.94	-0.28	124.94	123.94	1.00	124.392		
206.40	206.40	211.60	211.60	0.52	0.53	-0.13	124.94	-0.28	124.94	123.89	1.05	118.959 CC		
250.00	250.00	254.99	254.99	0.67	0.69	-0.13	124.95	-0.28	124.95	123.59	1.36	91.725 ES		
300.00	300.00	303.00	302.99	0.85	0.86	-128.85	125.41	-0.13	125.70	123.99	1.71	73.574		
400.00	399.93	398.77	398.70	1.19	1.21	-129.44	128.61	0.93	131.24	128.83	2.40	54.591		
500.00	499.68	493.86	493.56	1.55	1.56	-130.48	134.79	2.98	142.16	139.05	3.11	45.672		
600.00	599.13	587.84	587.05	1.93	1.90	-131.76	143.83	5.98	158.48	154.65	3.83	41.411		
696.56	694.75	677.14	675.56	2.31	2.25	-133.03	155.11	9.72	179.33	174.81	4.52	39.661		
700.00	698.15	680.30	678.68	2.33	2.27	-133.09	155.56	9.87	180.17	175.61	4.55	39.578		
800.00	796.94	774.78	771.94	2.74	2.65	-134.44	169.90	14.62	205.41	200.13	5.27	38.940		
900.00	895.73	871.38	867.26	3.17	3.06	-135.49	184.79	19.55	230.97	224.95	6.02	38.390		
1,000.00	994.51	967.98	962.58	3.60	3.47	-136.34	199.68	24.49	256.58	249.82	6.76	37.936		
1,100.00	1,093.30	1,064.58	1,057.90	4.04	3.88	-137.03	214.56	29.42	282.24	274.72	7.52	37.552		
1,200.00	1,192.09	1,161.18	1,153.22	4.48	4.30	-137.61	229.45	34.36	307.93	299.66	8.27	37.222		
1,300.00	1,290.88	1,257.78	1,248.54	4.92	4.72	-138.09	244.34	39.29	333.64	324.61	9.03	36.940		
1,400.00	1,389.67	1,354.38	1,343.86	5.36	5.14	-138.51	259.23	44.23	359.38	349.58	9.79	36.696		
1,500.00	1,488.45	1,450.98	1,439.18	5.80	5.56	-138.87	274.12	49.16	385.13	374.57	10.56	36.483		
1,600.00	1,587.24	1,547.59	1,534.50	6.24	5.99	-139.19	289.01	54.10	410.89	399.57	11.32	36.295		
1,700.00	1,686.03	1,644.19	1,629.82	6.69	6.41	-139.47	303.90	59.03	436.66	424.57	12.09	36.129		
1,800.00	1,784.82	1,740.79	1,725.14	7.13	6.84	-139.72	318.78	63.97	462.44	449.59	12.85	35.981		
1,900.00	1,883.60	1,837.39	1,820.46	7.57	7.26	-139.94	333.67	68.90	488.23	474.61	13.62	35.847		
2,000.00	1,982.39	1,933.99	1,915.78	8.02	7.69	-140.14	348.56	73.83	514.02	499.63	14.39	35.727		
2,100.00	2,081.18	2,030.59	2,011.10	8.46	8.11	-140.32	363.45	78.77	539.82	524.67	15.16	35.619		
2,200.00	2,179.97	2,127.19	2,106.42	8.91	8.54	-140.48	378.34	83.70	565.62	549.70	15.92	35.520		
2,300.00	2,278.75	2,223.80	2,201.74	9.36	8.96	-140.63	393.23	88.64	591.43	574.74	16.69	35.429		
2,400.00	2,377.54	2,320.40	2,297.05	9.80	9.39	-140.77	408.11	93.57	617.24	599.78	17.46	35.346		
2,500.00	2,476.33	2,417.00	2,392.37	10.25	9.82	-140.90	423.00	98.51	643.06	624.83	18.23	35.269		
2,600.00	2,575.12	2,513.60	2,487.69	10.69	10.24	-141.01	437.89	103.44	668.88	649.87	19.00	35.198		
2,700.00	2,673.90	2,610.20	2,583.01	11.14	10.67	-141.12	452.78	108.38	694.69	674.92	19.77	35.133		
2,800.00	2,772.69	2,706.80	2,678.33	11.59	11.10	-141.22	467.67	113.31	720.52	699.97	20.54	35.072		
2,900.00	2,871.48	2,803.40	2,773.65	12.03	11.52	-141.31	482.56	118.25	746.34	725.02	21.32	35.015		
3,000.00	2,970.27	2,900.01	2,868.97	12.48	11.95	-141.40	497.45	123.18	772.16	750.08	22.09	34.961		
3,100.00	3,069.05	2,996.61	2,964.29	12.93	12.38	-141.48	512.33	128.12	797.99	775.13	22.86	34.912		
3,200.00	3,167.84	3,093.21	3,059.61	13.37	12.81	-141.56	527.22	133.05	823.82	800.19	23.63	34.865		
3,300.00	3,266.63	3,189.81	3,154.93	13.82	13.23	-141.63	542.11	137.98	849.65	825.25	24.40	34.821		
3,400.00	3,365.42	3,286.41	3,250.25	14.27	13.66	-141.70	557.00	142.92	875.48	850.31	25.17	34.780		
3,500.00	3,464.20	3,383.01	3,345.57	14.71	14.09	-141.76	571.89	147.85	901.31	875.37	25.94	34.740		
3,600.00	3,562.99	3,479.61	3,440.89	15.16	14.52	-141.82	586.78	152.79	927.14	900.43	26.72	34.703		
3,700.00	3,661.78	3,576.21	3,536.21	15.61	14.94	-141.88	601.66	157.72	952.98	925.49	27.49	34.668		
3,800.00	3,760.57	3,672.82	3,631.53	16.05	15.37	-141.93	616.55	162.66	978.81	950.55	28.26	34.635		
3,900.00	3,859.35	3,769.42	3,726.85	16.50	15.80	-141.98	631.44	167.59	1,004.65	975.61	29.03	34.604		
4,000.00	3,958.14	3,866.02	3,822.17	16.95	16.23	-142.03	646.33	172.53	1,030.48	1,000.68	29.81	34.574		
4,100.00	4,056.93	3,962.62	3,917.49	17.40	16.66	-142.08	661.22	177.46	1,056.32	1,025.74	30.58	34.545		
4,200.00	4,155.72	4,059.22	4,012.81	17.84	17.08	-142.12	676.11	182.40	1,082.16	1,050.81	31.35	34.518		
4,300.00	4,254.50	4,155.82	4,108.13	18.29	17.51	-142.16	690.99	187.33	1,107.99	1,075.87	32.12	34.491		
4,400.00	4,353.29	4,252.42	4,203.44	18.74	17.94	-142.20	705.88	192.27	1,133.83	1,100.94	32.90	34.467		
4,500.00	4,452.08	4,349.03	4,298.76	19.19	18.37	-142.24	720.77	197.20	1,159.67	1,126.00	33.67	34.443		
4,600.00	4,550.87	4,445.63	4,394.08	19.63	18.79	-142.28	735.66	202.14	1,185.51	1,151.07	34.44	34.420		
4,700.00	4,649.65	4,542.23	4,489.40	20.08	19.22	-142.31	750.55	207.07	1,211.35	1,176.13	35.22	34.398		
4,800.00	4,748.44	4,638.83	4,584.72	20.53	19.65	-142.34	765.44	212.00	1,237.19	1,201.20	35.99	34.377		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,847.23	4,735.43	4,680.04	20.97	20.08	-142.38	780.33	216.94	1,263.03	1,226.27	36.76	34.356		
5,000.00	4,946.02	4,832.03	4,775.36	21.42	20.51	-142.41	795.21	221.87	1,288.87	1,251.33	37.54	34.337		
5,100.00	5,044.81	4,928.63	4,870.68	21.87	20.94	-142.44	810.10	226.81	1,314.71	1,276.40	38.31	34.318		
5,200.00	5,143.59	5,025.23	4,966.00	22.32	21.36	-142.46	824.99	231.74	1,340.55	1,301.47	39.08	34.300		
5,300.00	5,242.38	5,121.84	5,061.32	22.76	21.79	-142.49	839.88	236.68	1,366.39	1,326.54	39.86	34.282		
5,400.00	5,341.17	5,218.44	5,156.64	23.21	22.22	-142.52	854.77	241.61	1,392.24	1,351.60	40.63	34.265		
5,500.00	5,439.96	5,315.04	5,251.96	23.66	22.65	-142.54	869.66	246.55	1,418.08	1,376.67	41.40	34.249		
5,600.00	5,538.74	5,411.64	5,347.28	24.11	23.08	-142.57	884.54	251.48	1,443.92	1,401.74	42.18	34.233		
5,700.00	5,637.53	5,508.24	5,442.60	24.55	23.50	-142.59	899.43	256.42	1,469.76	1,426.81	42.95	34.218		
5,800.00	5,736.32	5,604.84	5,537.92	25.00	23.93	-142.61	914.32	261.35	1,495.61	1,451.88	43.73	34.203		
5,900.00	5,835.11	5,701.44	5,633.24	25.45	24.36	-142.64	929.21	266.29	1,521.45	1,476.95	44.50	34.189		
6,000.00	5,933.89	5,801.95	5,728.56	25.90	24.81	-142.66	944.10	271.22	1,547.29	1,502.00	45.29	34.163		
6,100.00	6,032.68	5,905.35	5,823.88	26.34	25.27	-142.68	958.99	276.15	1,573.14	1,527.04	46.09	34.130		
6,200.00	6,131.47	6,008.75	5,919.20	26.79	25.72	-142.70	973.88	281.09	1,598.98	1,552.08	46.89	34.097		
6,300.00	6,230.26	6,087.85	6,014.52	27.24	26.07	-142.72	988.76	286.02	1,624.82	1,577.22	47.60	34.135		
6,400.00	6,329.04	6,184.45	6,109.83	27.69	26.50	-142.74	1,003.65	290.96	1,650.67	1,602.29	48.37	34.123		
6,500.00	6,427.83	6,281.05	6,205.15	28.13	26.93	-142.75	1,018.54	295.89	1,676.51	1,627.36	49.15	34.111		
6,600.00	6,526.62	6,377.65	6,300.47	28.58	27.36	-142.77	1,033.43	300.83	1,702.36	1,652.43	49.92	34.099		
6,700.00	6,625.41	6,474.26	6,395.79	29.03	27.79	-142.79	1,048.32	305.76	1,728.20	1,677.50	50.70	34.087		
6,800.00	6,724.19	6,570.86	6,491.11	29.48	28.22	-142.81	1,063.21	310.70	1,754.04	1,702.57	51.47	34.076		
6,900.00	6,822.98	6,667.46	6,586.43	29.93	28.64	-142.82	1,078.09	315.63	1,779.89	1,727.64	52.25	34.065		
7,000.00	6,921.77	6,764.06	6,681.75	30.37	29.07	-142.84	1,092.98	320.57	1,805.73	1,752.71	53.02	34.055		
7,100.00	7,020.56	6,860.66	6,777.07	30.82	29.50	-142.85	1,107.87	325.50	1,831.58	1,777.78	53.80	34.044		
7,200.00	7,119.34	6,957.26	6,872.39	31.27	29.93	-142.87	1,122.76	330.44	1,857.42	1,802.85	54.58	34.034		
7,300.00	7,218.13	7,053.86	6,967.71	31.72	30.36	-142.88	1,137.65	335.37	1,883.27	1,827.92	55.35	34.024		
7,394.03	7,311.02	7,144.69	7,057.34	32.14	30.76	-142.89	1,151.65	340.01	1,907.57	1,851.49	56.08	34.015		
7,400.00	7,316.92	7,150.47	7,063.03	32.16	30.79	-145.59	1,152.54	340.31	1,909.11	1,852.98	56.13	34.014		
7,450.00	7,366.55	7,201.14	7,110.78	32.36	31.01	178.37	1,160.00	342.78	1,921.40	1,864.89	56.51	34.004		
7,500.00	7,416.28	7,247.12	7,158.40	32.53	31.21	131.32	1,167.43	345.24	1,932.61	1,875.77	56.84	34.003		
7,550.00	7,465.74	7,305.11	7,205.53	32.65	31.47	106.81	1,174.80	347.68	1,942.71	1,885.52	57.19	33.970		
7,600.00	7,514.54	7,341.79	7,251.82	32.75	31.63	95.79	1,182.02	350.08	1,951.68	1,894.24	57.44	33.980		
7,650.00	7,562.31	7,387.48	7,296.90	32.83	31.84	90.00	1,189.07	352.41	1,959.54	1,901.84	57.70	33.961		
7,700.00	7,608.70	7,448.70	7,357.29	32.89	32.11	86.86	1,198.49	355.92	1,966.33	1,908.27	58.06	33.866		
7,750.00	7,653.34	7,750.00	7,490.31	32.93	33.58	86.84	1,218.96	384.77	1,970.39	1,910.58	59.81	32.943		
7,800.00	7,695.91	7,800.00	7,581.30	32.95	33.87	87.49	1,232.67	425.46	1,972.58	1,912.27	60.31	32.708		
7,850.00	7,736.06	7,850.00	7,624.66	32.95	34.15	87.55	1,239.09	452.25	1,974.44	1,913.75	60.69	32.534 SF		
7,900.00	7,773.51	7,781.56	7,658.88	32.95	33.78	87.70	1,244.11	477.07	1,976.54	1,916.22	60.32	32.768		
7,950.00	7,807.96	7,788.69	7,664.38	32.94	33.82	87.01	1,244.91	481.52	1,979.05	1,918.68	60.37	32.782		
8,000.00	7,839.15	7,787.32	7,663.33	32.92	33.81	86.18	1,244.76	480.66	1,982.02	1,921.65	60.36	32.835		
8,050.00	7,866.84	7,780.44	7,658.00	32.90	33.77	85.25	1,243.99	476.38	1,985.41	1,925.09	60.33	32.910		
8,100.00	7,890.83	7,769.81	7,649.68	32.88	33.71	84.27	1,242.77	469.89	1,989.17	1,928.89	60.29	32.995		
8,150.00	7,910.93	7,756.54	7,639.12	32.87	33.64	83.27	1,241.22	462.00	1,993.22	1,932.96	60.25	33.080		
8,200.00	7,926.99	7,741.33	7,626.80	32.87	33.56	82.26	1,239.42	453.27	1,997.45	1,937.20	60.25	33.155		
8,250.00	7,938.88	7,724.68	7,613.06	32.89	33.47	81.26	1,237.39	444.09	2,001.77	1,941.51	60.27	33.214		
8,300.00	7,946.52	7,706.93	7,598.12	32.94	33.38	80.30	1,235.18	434.75	2,006.09	1,945.77	60.33	33.254		
8,350.00	7,949.85	7,688.32	7,582.17	33.03	33.28	79.38	1,232.80	425.48	2,010.30	1,949.88	60.42	33.272		
8,363.33	7,950.00	7,683.24	7,577.76	33.06	33.26	79.15	1,232.15	423.03	2,011.40	1,950.94	60.45	33.272		
8,400.00	7,950.00	7,669.81	7,566.01	33.16	33.19	78.81	1,230.39	416.77	2,014.65	1,954.09	60.56	33.267		
8,500.00	7,950.00	7,638.53	7,538.11	33.64	33.03	78.00	1,226.20	403.27	2,026.38	1,965.36	61.02	33.211		
8,600.00	7,950.00	7,613.40	7,515.19	34.42	32.90	77.35	1,222.74	393.56	2,042.37	1,980.71	61.67	33.119		
8,700.00	7,950.00	7,600.00	7,502.81	35.49	32.83	76.99	1,220.87	388.79	2,062.72	2,000.18	62.54	32.984		
8,800.00	7,950.00	7,575.73	7,480.12	36.77	32.71	76.34	1,217.42	380.92	2,087.31	2,023.90	63.40	32.921		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	7,561.32	7,466.49	38.23	32.64	75.95	1,215.34	376.70	2,116.14	2,051.73	64.41	32.853		
9,000.00	7,950.00	7,550.00	7,455.72	39.83	32.59	75.64	1,213.69	373.64	2,149.07	2,083.58	65.49	32.818		
9,100.00	7,950.00	7,550.00	7,455.72	41.56	32.59	75.64	1,213.69	373.64	2,186.01	2,119.35	66.66	32.791		
9,200.00	7,950.00	7,529.16	7,435.74	43.39	32.49	75.07	1,210.63	368.56	2,226.58	2,158.91	67.67	32.902		
9,300.00	7,950.00	7,521.04	7,427.91	45.30	32.45	74.84	1,209.42	366.78	2,270.82	2,202.06	68.77	33.021		
9,400.00	7,950.00	7,500.00	7,407.52	47.29	32.35	74.26	1,206.28	362.69	2,318.59	2,248.86	69.73	33.250		
9,500.00	7,950.00	7,500.00	7,407.52	49.35	32.35	74.26	1,206.28	362.69	2,369.35	2,298.52	70.83	33.453		
9,600.00	7,950.00	7,500.00	7,407.52	51.47	32.35	74.26	1,206.28	362.69	2,423.18	2,351.30	71.88	33.713		
9,700.00	7,950.00	7,500.00	7,407.52	53.63	32.35	74.26	1,206.28	362.69	2,479.87	2,407.00	72.88	34.029		
9,800.00	7,950.00	7,500.00	7,407.52	55.85	32.35	74.26	1,206.28	362.69	2,539.24	2,465.41	73.82	34.396		
9,900.00	7,950.00	7,500.00	7,407.52	58.10	32.35	74.26	1,206.28	362.69	2,601.10	2,526.38	74.72	34.812		
10,000.00	7,950.00	7,500.00	7,407.52	60.39	32.35	74.26	1,206.28	362.69	2,665.27	2,589.71	75.56	35.272		
10,100.00	7,950.00	7,480.11	7,388.11	62.71	32.25	73.71	1,203.28	359.53	2,731.30	2,655.08	76.22	35.835		
10,200.00	7,950.00	7,476.82	7,384.89	65.05	32.24	73.62	1,202.78	359.07	2,799.51	2,722.57	76.94	36.385		
10,300.00	7,950.00	7,473.78	7,381.92	67.43	32.23	73.53	1,202.32	358.66	2,869.58	2,791.96	77.62	36.970		
10,400.00	7,950.00	7,470.97	7,379.16	69.82	32.21	73.45	1,201.89	358.30	2,941.36	2,863.11	78.26	37.587		
10,500.00	7,950.00	7,450.00	7,358.56	72.24	32.12	72.87	1,198.69	356.04	3,015.01	2,936.29	78.72	38.300		
10,600.00	7,950.00	7,450.00	7,358.56	74.68	32.12	72.87	1,198.69	356.04	3,089.81	3,010.51	79.30	38.966		
10,700.00	7,950.00	7,450.00	7,358.56	77.13	32.12	72.87	1,198.69	356.04	3,166.00	3,086.17	79.83	39.658		
10,800.00	7,950.00	7,450.00	7,358.56	79.60	32.12	72.87	1,198.69	356.04	3,243.48	3,163.15	80.33	40.375		
10,900.00	7,950.00	7,450.00	7,358.56	82.08	32.12	72.87	1,198.69	356.04	3,322.17	3,241.37	80.80	41.114		
11,000.00	7,950.00	7,450.00	7,358.56	84.57	32.12	72.87	1,198.69	356.04	3,401.98	3,320.74	81.24	41.875		
11,100.00	7,950.00	7,450.00	7,358.56	87.08	32.12	72.87	1,198.69	356.04	3,482.83	3,401.17	81.65	42.655		
11,200.00	7,950.00	7,450.00	7,358.56	89.59	32.12	72.87	1,198.69	356.04	3,564.65	3,482.61	82.04	43.453		
11,300.00	7,950.00	7,450.00	7,358.56	92.12	32.12	72.87	1,198.69	356.04	3,647.37	3,564.98	82.39	44.267		
11,400.00	7,950.00	7,450.00	7,358.56	94.66	32.12	72.87	1,198.69	356.04	3,730.95	3,648.22	82.73	45.097		
11,500.00	7,950.00	7,450.00	7,358.56	97.20	32.12	72.87	1,198.69	356.04	3,815.31	3,732.26	83.05	45.942		
11,600.00	7,950.00	7,450.00	7,358.56	99.75	32.12	72.87	1,198.69	356.04	3,900.41	3,817.07	83.34	46.799		
11,700.00	7,950.00	7,450.00	7,358.56	102.31	32.12	72.87	1,198.69	356.04	3,986.21	3,902.59	83.62	47.669		
11,800.00	7,950.00	7,450.00	7,358.56	104.87	32.12	72.87	1,198.69	356.04	4,072.65	3,988.77	83.88	48.551		
11,900.00	7,950.00	7,450.00	7,358.56	107.44	32.12	72.87	1,198.69	356.04	4,159.70	4,075.57	84.13	49.443		
12,000.00	7,950.00	7,450.00	7,358.56	110.02	32.12	72.87	1,198.69	356.04	4,247.32	4,162.96	84.36	50.345		
12,100.00	7,950.00	7,450.00	7,358.56	112.60	32.12	72.87	1,198.69	356.04	4,335.48	4,250.90	84.58	51.256		
12,200.00	7,950.00	7,450.00	7,358.56	115.19	32.12	72.87	1,198.69	356.04	4,424.14	4,339.35	84.79	52.176		
12,300.00	7,950.00	7,450.00	7,358.56	117.78	32.12	72.87	1,198.69	356.04	4,513.27	4,428.29	84.99	53.104		
12,400.00	7,950.00	7,439.82	7,348.54	120.38	32.07	72.59	1,197.13	355.21	4,602.76	4,517.65	85.11	54.079		
12,500.00	7,950.00	7,438.95	7,347.68	122.98	32.07	72.56	1,197.00	355.15	4,692.75	4,607.47	85.28	55.025		
12,600.00	7,950.00	7,438.11	7,346.85	125.58	32.06	72.54	1,196.87	355.09	4,783.13	4,697.68	85.45	55.978		
12,700.00	7,950.00	7,427.77	7,336.65	128.19	32.02	72.25	1,195.28	354.47	4,873.97	4,788.43	85.54	56.978		
12,800.00	7,950.00	7,427.77	7,336.65	130.80	32.02	72.25	1,195.28	354.47	4,965.07	4,879.37	85.69	57.940		
12,900.00	7,950.00	7,427.77	7,336.65	133.41	32.02	72.25	1,195.28	354.47	5,056.50	4,970.66	85.84	58.906		
13,000.00	7,950.00	7,427.77	7,336.65	136.03	32.02	72.25	1,195.28	354.47	5,148.25	5,062.27	85.98	59.878		
13,100.00	7,950.00	7,427.77	7,336.65	138.65	32.02	72.25	1,195.28	354.47	5,240.31	5,154.19	86.11	60.854		
13,200.00	7,950.00	7,427.77	7,336.65	141.27	32.02	72.25	1,195.28	354.47	5,332.65	5,246.41	86.24	61.835		
13,300.00	7,950.00	7,427.77	7,336.65	143.90	32.02	72.25	1,195.28	354.47	5,425.26	5,338.90	86.36	62.820		
13,400.00	7,950.00	7,427.77	7,336.65	146.52	32.02	72.25	1,195.28	354.47	5,518.13	5,431.65	86.48	63.808		
13,500.00	7,950.00	7,427.77	7,336.65	149.15	32.02	72.25	1,195.28	354.47	5,611.25	5,524.65	86.59	64.801		
13,600.00	7,950.00	7,427.77	7,336.65	151.78	32.02	72.25	1,195.28	354.47	5,704.59	5,617.89	86.70	65.796		
13,700.00	7,950.00	7,427.77	7,336.65	154.42	32.02	72.25	1,195.28	354.47	5,798.16	5,711.36	86.81	66.795		
13,800.00	7,950.00	7,427.77	7,336.65	157.05	32.02	72.25	1,195.28	354.47	5,891.94	5,805.04	86.91	67.796		
13,900.00	7,950.00	7,427.77	7,336.65	159.69	32.02	72.25	1,195.28	354.47	5,985.93	5,898.92	87.00	68.800		
14,000.00	7,950.00	7,427.77	7,336.65	162.33	32.02	72.25	1,195.28	354.47	6,080.10	5,993.00	87.10	69.807		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1AH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	7,950.00	7,427.77	7,336.65	164.97	32.02	72.25	1,195.28	354.47	6,174.46	6,087.27	87.19	70.816	
14,200.00	7,950.00	7,427.77	7,336.65	167.61	32.02	72.25	1,195.28	354.47	6,268.99	6,181.71	87.28	71.827	
14,300.00	7,950.00	7,427.41	7,336.30	170.26	32.01	72.24	1,195.22	354.45	6,363.69	6,276.33	87.36	72.842	
14,400.00	7,950.00	7,422.21	7,331.17	172.90	31.99	72.10	1,194.42	354.19	6,458.55	6,371.13	87.42	73.883	
14,500.00	7,950.00	7,417.01	7,326.04	175.55	31.97	71.95	1,193.62	353.92	6,553.56	6,466.09	87.47	74.928	
14,600.00	7,950.00	7,411.82	7,320.91	178.20	31.94	71.81	1,192.82	353.66	6,648.70	6,561.19	87.51	75.974	
14,700.00	7,950.00	7,406.62	7,315.79	180.85	31.92	71.66	1,192.02	353.39	6,743.99	6,656.43	87.56	77.022	
14,800.00	7,950.00	7,401.42	7,310.66	183.50	31.90	71.52	1,191.22	353.12	6,839.40	6,751.80	87.60	78.073	
14,900.00	7,950.00	7,396.23	7,305.53	186.15	31.88	71.37	1,190.41	352.86	6,934.95	6,847.30	87.65	79.125	
15,000.00	7,950.00	7,391.03	7,300.40	188.80	31.85	71.23	1,189.61	352.59	7,030.61	6,942.92	87.69	80.178	
15,100.00	7,950.00	7,385.83	7,295.28	191.46	31.83	71.09	1,188.81	352.33	7,126.38	7,038.66	87.73	81.234	
15,200.00	7,950.00	7,380.64	7,290.15	194.11	31.81	70.94	1,188.01	352.06	7,222.27	7,134.50	87.77	82.291	
15,300.00	7,950.00	7,375.44	7,285.02	196.77	31.78	70.80	1,187.21	351.80	7,318.26	7,230.46	87.80	83.349	
15,400.00	7,950.00	7,370.24	7,279.89	199.42	31.76	70.66	1,186.41	351.53	7,414.36	7,326.52	87.84	84.408	
15,500.00	7,950.00	7,365.05	7,274.76	202.08	31.74	70.51	1,185.61	351.27	7,510.55	7,422.68	87.87	85.469	
15,600.00	7,950.00	7,359.85	7,269.64	204.74	31.71	70.37	1,184.81	351.00	7,606.84	7,518.93	87.91	86.531	
15,700.00	7,950.00	7,354.65	7,264.51	207.40	31.69	70.23	1,184.01	350.74	7,703.22	7,615.28	87.94	87.594	
15,800.00	7,950.00	7,349.46	7,259.38	210.06	31.67	70.08	1,183.21	350.47	7,799.69	7,711.71	87.98	88.657	
15,900.00	7,950.00	7,344.26	7,254.25	212.72	31.65	69.94	1,182.41	350.20	7,896.24	7,808.23	88.01	89.722	
16,000.00	7,950.00	7,339.06	7,249.13	215.38	31.62	69.80	1,181.60	349.94	7,992.87	7,904.84	88.04	90.788	
16,100.00	7,950.00	7,333.87	7,244.00	218.05	31.60	69.65	1,180.80	349.67	8,089.59	8,001.52	88.07	91.854	
16,200.00	7,950.00	7,328.67	7,238.87	220.71	31.58	69.51	1,180.00	349.41	8,186.37	8,098.27	88.10	92.921	
16,300.00	7,950.00	7,323.47	7,233.74	223.37	31.55	69.37	1,179.20	349.14	8,283.23	8,195.10	88.13	93.988	
16,400.00	7,950.00	7,318.28	7,228.61	226.04	31.53	69.23	1,178.40	348.88	8,380.17	8,292.01	88.16	95.057	
16,500.00	7,950.00	7,313.08	7,223.49	228.70	31.51	69.09	1,177.60	348.61	8,477.17	8,388.98	88.19	96.125	
16,600.00	7,950.00	7,307.88	7,218.36	231.37	31.48	68.94	1,176.80	348.35	8,574.23	8,486.01	88.22	97.194	
16,700.00	7,950.00	7,302.69	7,213.23	234.04	31.46	68.80	1,176.00	348.08	8,671.36	8,583.11	88.25	98.264	
16,800.00	7,950.00	7,297.49	7,208.10	236.70	31.44	68.66	1,175.20	347.82	8,768.55	8,680.28	88.27	99.334	
16,900.00	7,950.00	7,307.71	7,202.98	239.37	31.48	68.52	1,174.40	347.55	8,865.80	8,777.43	88.37	100.329	
17,000.00	7,950.00	7,287.10	7,197.85	242.04	31.39	68.38	1,173.59	347.28	8,963.11	8,874.78	88.33	101.474	
17,100.00	7,950.00	7,281.90	7,192.72	244.71	31.37	68.24	1,172.79	347.02	9,060.47	8,972.11	88.36	102.545	
17,200.00	7,950.00	7,276.70	7,187.59	247.38	31.35	68.10	1,171.99	346.75	9,157.89	9,069.50	88.38	103.616	
17,300.00	7,950.00	7,271.51	7,182.46	250.05	31.32	67.96	1,171.19	346.49	9,255.35	9,166.94	88.41	104.687	
17,400.00	7,950.00	7,266.31	7,177.34	252.72	31.30	67.82	1,170.39	346.22	9,352.87	9,264.44	88.44	105.757	
17,500.00	7,950.00	7,261.11	7,172.21	255.39	31.28	67.68	1,169.59	345.96	9,450.44	9,361.98	88.46	106.828	
17,600.00	7,950.00	7,255.92	7,167.08	258.06	31.25	67.53	1,168.79	345.69	9,548.06	9,459.57	88.49	107.899	
17,700.00	7,950.00	7,250.72	7,161.95	260.73	31.23	67.39	1,167.99	345.43	9,645.72	9,557.20	88.52	108.970	
17,800.00	7,950.00	7,245.52	7,156.83	263.40	31.21	67.25	1,167.19	345.16	9,743.43	9,654.88	88.54	110.041	
17,900.00	7,950.00	7,240.33	7,151.70	266.07	31.18	67.12	1,166.39	344.90	9,841.18	9,752.61	88.57	111.111	
18,000.00	7,950.00	7,235.13	7,146.57	268.74	31.16	66.98	1,165.59	344.63	9,938.97	9,850.37	88.60	112.181	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	4.30	4.30	0.00	0.01	-0.21	75.04	-0.28	75.04					
100.00	100.00	104.30	104.30	0.13	0.15	-0.21	75.04	-0.28	75.04	74.76	0.28	263.975		
200.00	200.00	204.30	204.30	0.49	0.51	-0.21	75.04	-0.28	75.04	74.04	1.00	74.949		
250.00	250.00	254.30	254.30	0.67	0.69	-0.21	75.04	-0.28	75.04	73.68	1.36	55.189 CC, ES		
300.00	300.00	303.26	303.26	0.85	0.86	-128.86	75.41	0.05	75.69	73.98	1.71	44.312		
400.00	399.93	401.18	401.11	1.19	1.21	-129.01	78.00	2.39	80.51	78.10	2.41	33.441		
500.00	499.68	500.65	499.05	1.55	1.58	-129.39	82.93	6.86	89.89	86.76	3.13	28.726		
600.00	599.13	598.56	597.98	1.93	1.94	-130.86	88.46	11.87	102.06	98.20	3.86	26.468		
696.56	694.75	706.03	693.12	2.31	2.33	-133.14	93.78	16.68	116.10	111.48	4.62	25.137		
700.00	698.15	702.63	696.51	2.33	2.32	-133.24	93.97	16.86	116.64	112.02	4.62	25.229		
800.00	796.94	804.05	794.81	2.74	2.70	-135.75	99.47	21.83	132.56	127.18	5.38	24.651		
900.00	895.73	905.47	893.11	3.17	3.08	-137.71	104.96	26.80	148.66	142.53	6.14	24.232		
1,000.00	994.51	1,006.90	991.41	3.60	3.46	-139.30	110.46	31.78	164.91	158.02	6.89	23.918		
1,100.00	1,093.30	1,108.32	1,089.71	4.04	3.84	-140.60	115.95	36.75	181.26	173.60	7.66	23.675		
1,200.00	1,192.09	1,209.74	1,188.01	4.48	4.22	-141.68	121.45	41.73	197.68	189.26	8.42	23.483		
1,300.00	1,290.88	1,288.84	1,286.31	4.92	4.52	-142.60	126.94	46.70	214.16	205.06	9.10	23.542		
1,400.00	1,389.67	1,387.42	1,384.61	5.36	4.89	-143.38	132.44	51.68	230.69	220.84	9.85	23.422		
1,500.00	1,488.45	1,486.00	1,482.91	5.80	5.26	-144.06	137.93	56.65	247.25	236.65	10.60	23.321		
1,600.00	1,587.24	1,584.58	1,581.21	6.24	5.63	-144.66	143.43	61.63	263.84	252.49	11.35	23.237		
1,700.00	1,686.03	1,683.16	1,679.51	6.69	6.01	-145.18	148.92	66.60	280.46	268.35	12.11	23.164		
1,800.00	1,784.82	1,781.74	1,777.81	7.13	6.38	-145.65	154.42	71.57	297.09	284.23	12.86	23.101		
1,900.00	1,883.60	1,880.32	1,876.11	7.57	6.75	-146.07	159.91	76.55	313.75	300.14	13.61	23.047		
2,000.00	1,982.39	1,978.90	1,974.41	8.02	7.12	-146.44	165.41	81.52	330.42	316.05	14.37	22.999		
2,100.00	2,081.18	2,077.47	2,072.71	8.46	7.49	-146.78	170.90	86.50	347.10	331.98	15.12	22.956		
2,200.00	2,179.97	2,176.05	2,171.01	8.91	7.86	-147.09	176.40	91.47	363.79	347.92	15.87	22.918		
2,300.00	2,278.75	2,274.63	2,269.31	9.36	8.23	-147.37	181.89	96.45	380.49	363.87	16.63	22.884		
2,400.00	2,377.54	2,373.21	2,367.61	9.80	8.61	-147.63	187.39	101.42	397.20	379.82	17.38	22.853		
2,500.00	2,476.33	2,471.79	2,465.91	10.25	8.98	-147.86	192.89	106.39	413.92	395.78	18.13	22.825		
2,600.00	2,575.12	2,570.37	2,564.21	10.69	9.35	-148.08	198.38	111.37	430.64	411.75	18.89	22.800		
2,700.00	2,673.90	2,668.95	2,662.51	11.14	9.72	-148.28	203.88	116.34	447.37	427.73	19.64	22.777		
2,800.00	2,772.69	2,767.53	2,760.81	11.59	10.09	-148.47	209.37	121.32	464.10	443.71	20.40	22.756		
2,900.00	2,871.48	2,866.11	2,859.11	12.03	10.47	-148.64	214.87	126.29	480.84	459.69	21.15	22.736		
3,000.00	2,970.27	2,964.69	2,957.41	12.48	10.84	-148.81	220.36	131.27	497.58	475.68	21.90	22.718		
3,100.00	3,069.05	3,063.27	3,055.71	12.93	11.21	-148.96	225.86	136.24	514.33	491.67	22.66	22.701		
3,200.00	3,167.84	3,161.84	3,154.01	13.37	11.58	-149.10	231.35	141.22	531.08	507.67	23.41	22.686		
3,300.00	3,266.63	3,260.42	3,252.31	13.82	11.95	-149.23	236.85	146.19	547.83	523.67	24.16	22.671		
3,400.00	3,365.42	3,359.00	3,350.61	14.27	12.32	-149.36	242.34	151.16	564.59	539.67	24.92	22.658		
3,500.00	3,464.20	3,457.58	3,448.91	14.71	12.70	-149.48	247.84	156.14	581.34	555.67	25.67	22.645		
3,600.00	3,562.99	3,556.16	3,547.21	15.16	13.07	-149.59	253.33	161.11	598.10	571.68	26.43	22.633		
3,700.00	3,661.78	3,654.74	3,645.51	15.61	13.44	-149.70	258.83	166.09	614.86	587.68	27.18	22.622		
3,800.00	3,760.57	3,753.32	3,743.81	16.05	13.81	-149.80	264.32	171.06	631.63	603.69	27.93	22.611		
3,900.00	3,859.35	3,851.90	3,842.11	16.50	14.18	-149.89	269.82	176.04	648.39	619.70	28.69	22.601		
4,000.00	3,958.14	3,950.48	3,940.41	16.95	14.56	-149.98	275.31	181.01	665.16	635.72	29.44	22.592		
4,100.00	4,056.93	4,049.06	4,038.71	17.40	14.93	-150.07	280.81	185.98	681.93	651.73	30.20	22.583		
4,200.00	4,155.72	4,147.63	4,137.01	17.84	15.30	-150.15	286.30	190.96	698.70	667.75	30.95	22.575		
4,300.00	4,254.50	4,246.21	4,235.31	18.29	15.67	-150.23	291.80	195.93	715.47	683.76	31.70	22.567		
4,400.00	4,353.29	4,344.79	4,333.61	18.74	16.04	-150.30	297.30	200.91	732.24	699.78	32.46	22.559		
4,500.00	4,452.08	4,443.37	4,431.91	19.19	16.42	-150.37	302.79	205.88	749.01	715.80	33.21	22.552		
4,600.00	4,550.87	4,541.95	4,530.21	19.63	16.79	-150.44	308.29	210.86	765.79	731.82	33.97	22.545		
4,700.00	4,649.65	4,640.53	4,628.51	20.08	17.16	-150.50	313.78	215.83	782.57	747.84	34.72	22.538		
4,800.00	4,748.44	4,739.11	4,726.81	20.53	17.53	-150.57	319.28	220.81	799.34	763.87	35.48	22.532		
4,900.00	4,847.23	4,837.69	4,825.11	20.97	17.90	-150.63	324.77	225.78	816.12	779.89	36.23	22.526		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,936.27	4,923.41	21.42	18.28	-150.68	330.27	230.75	832.90	795.91	36.98	22.520		
5,100.00	5,044.81	5,034.85	5,021.71	21.87	18.65	-150.74	335.76	235.73	849.68	811.94	37.74	22.515		
5,200.00	5,143.59	5,133.43	5,120.01	22.32	19.02	-150.79	341.26	240.70	866.46	827.96	38.49	22.509		
5,300.00	5,242.38	5,232.00	5,218.31	22.76	19.39	-150.84	346.75	245.68	883.24	843.99	39.25	22.504		
5,400.00	5,341.17	5,330.58	5,316.61	23.21	19.76	-150.89	352.25	250.65	900.02	860.02	40.00	22.499		
5,500.00	5,439.96	5,429.16	5,414.91	23.66	20.14	-150.94	357.74	255.63	916.80	876.04	40.76	22.494		
5,600.00	5,538.74	5,527.74	5,513.21	24.11	20.51	-150.98	363.24	260.60	933.58	892.07	41.51	22.490		
5,700.00	5,637.53	5,626.32	5,611.51	24.55	20.88	-151.03	368.73	265.57	950.36	908.10	42.27	22.485		
5,800.00	5,736.32	5,724.90	5,709.81	25.00	21.25	-151.07	374.23	270.55	967.15	924.13	43.02	22.481		
5,900.00	5,835.11	5,823.48	5,808.11	25.45	21.62	-151.11	379.72	275.52	983.93	940.16	43.78	22.477		
6,000.00	5,933.89	5,922.06	5,906.41	25.90	22.00	-151.15	385.22	280.50	1,000.72	956.19	44.53	22.473		
6,100.00	6,032.68	6,020.64	6,004.71	26.34	22.37	-151.19	390.71	285.47	1,017.50	972.22	45.28	22.469		
6,200.00	6,131.47	6,119.22	6,103.01	26.79	22.74	-151.22	396.21	290.45	1,034.29	988.25	46.04	22.465		
6,300.00	6,230.26	6,217.80	6,201.31	27.24	23.11	-151.26	401.71	295.42	1,051.07	1,004.28	46.79	22.462		
6,400.00	6,329.04	6,316.37	6,299.61	27.69	23.48	-151.29	407.20	300.40	1,067.86	1,020.31	47.55	22.458		
6,500.00	6,427.83	6,414.95	6,397.91	28.13	23.86	-151.33	412.70	305.37	1,084.64	1,036.34	48.30	22.455		
6,600.00	6,526.62	6,513.53	6,496.21	28.58	24.23	-151.36	418.19	310.34	1,101.43	1,052.37	49.06	22.451		
6,700.00	6,625.41	6,612.11	6,594.51	29.03	24.60	-151.39	423.69	315.32	1,118.22	1,068.40	49.81	22.448		
6,800.00	6,724.19	6,710.69	6,692.81	29.48	24.97	-151.42	429.18	320.29	1,135.00	1,084.44	50.57	22.445		
6,900.00	6,822.98	6,809.27	6,791.11	29.93	25.34	-151.45	434.68	325.27	1,151.79	1,100.47	51.32	22.442		
7,000.00	6,921.77	6,907.85	6,889.41	30.37	25.72	-151.48	440.17	330.24	1,168.58	1,116.50	52.08	22.439		
7,100.00	7,020.56	7,006.43	6,987.71	30.82	26.09	-151.51	445.67	335.22	1,185.37	1,132.54	52.83	22.436		
7,200.00	7,119.34	7,105.01	7,086.01	31.27	26.46	-151.54	451.16	340.19	1,202.16	1,148.57	53.59	22.433		
7,300.00	7,218.13	7,203.59	7,184.31	31.72	26.83	-151.56	456.66	345.16	1,218.95	1,164.60	54.34	22.430		
7,394.03	7,311.02	7,303.72	7,276.74	32.14	27.21	-151.59	461.83	349.84	1,234.73	1,179.65	55.08	22.416		
7,400.00	7,316.92	7,302.17	7,282.61	32.16	27.20	-154.22	462.15	350.14	1,235.72	1,180.62	55.10	22.427		
7,450.00	7,366.55	7,351.55	7,331.86	32.36	27.39	170.31	464.91	352.63	1,243.10	1,187.63	55.47	22.411		
7,500.00	7,416.28	7,400.82	7,380.98	32.53	27.58	123.93	467.65	355.12	1,248.80	1,192.98	55.82	22.372		
7,550.00	7,465.74	7,594.98	7,570.95	32.65	28.39	102.77	477.92	389.41	1,251.49	1,194.50	56.99	21.958		
7,600.00	7,514.54	7,600.00	7,733.62	32.75	28.35	98.30	485.85	480.78	1,245.78	1,188.89	56.90	21.895		
7,650.00	7,562.31	7,909.35	7,823.49	32.83	30.19	98.68	489.68	569.59	1,237.60	1,178.65	58.95	20.994		
7,700.00	7,608.70	7,950.90	7,848.31	32.89	30.50	98.03	490.62	602.88	1,229.65	1,170.05	59.60	20.632		
7,750.00	7,653.34	7,967.03	7,857.29	32.93	30.63	97.26	490.94	616.28	1,223.01	1,162.93	60.08	20.356		
7,800.00	7,695.91	7,969.75	7,858.77	32.95	30.66	96.36	490.99	618.56	1,218.02	1,157.61	60.41	20.162		
7,850.00	7,736.06	7,964.66	7,856.00	32.95	30.61	95.32	490.89	614.30	1,214.77	1,154.16	60.61	20.042		
7,900.00	7,773.51	7,954.66	7,850.44	32.95	30.53	94.16	490.70	605.98	1,213.26	1,152.55	60.71	19.984		
7,919.93	7,787.61	7,949.69	7,847.62	32.94	30.49	93.66	490.60	601.89	1,213.13	1,152.40	60.73	19.977 SF		
7,950.00	7,807.96	7,941.37	7,842.83	32.94	30.43	92.88	490.42	595.09	1,213.42	1,152.69	60.73	19.980		
8,000.00	7,839.15	7,925.80	7,833.60	32.92	30.31	91.50	490.07	582.55	1,215.15	1,154.45	60.70	20.020		
8,050.00	7,866.84	7,908.57	7,823.00	32.90	30.18	90.01	489.66	568.98	1,218.32	1,157.70	60.62	20.097		
8,100.00	7,890.83	7,890.11	7,811.19	32.88	30.05	88.45	489.20	554.80	1,222.78	1,162.25	60.53	20.201		
8,150.00	7,910.93	7,870.71	7,798.29	32.87	29.92	86.83	488.67	540.32	1,228.36	1,167.92	60.44	20.323		
8,200.00	7,926.99	7,850.58	7,784.41	32.87	29.78	85.17	488.09	525.76	1,234.90	1,174.53	60.36	20.458		
8,250.00	7,938.88	7,829.88	7,769.60	32.89	29.65	83.49	487.45	511.30	1,242.21	1,181.90	60.31	20.595		
8,300.00	7,946.52	7,808.71	7,753.93	32.94	29.52	81.82	486.77	497.09	1,250.13	1,189.84	60.30	20.733		
8,350.00	7,949.85	7,787.18	7,737.47	33.03	29.39	80.17	486.03	483.23	1,258.48	1,198.16	60.32	20.864		
8,363.33	7,950.00	7,781.38	7,732.95	33.06	29.36	79.73	485.83	479.61	1,260.76	1,200.43	60.33	20.898		
8,400.00	7,950.00	7,765.96	7,720.74	33.16	29.27	79.18	485.27	470.20	1,267.41	1,207.03	60.38	20.991		
8,500.00	7,950.00	7,728.90	7,690.43	33.64	29.06	77.80	483.85	448.94	1,289.48	1,228.83	60.65	21.260		
8,600.00	7,950.00	7,700.00	7,665.87	34.42	28.90	76.69	482.67	433.75	1,317.37	1,256.27	61.10	21.562		
8,700.00	7,950.00	7,671.88	7,641.27	35.49	28.76	75.59	481.47	420.18	1,351.03	1,289.44	61.60	21.933		
8,800.00	7,950.00	7,650.00	7,621.69	36.77	28.65	74.72	480.50	410.47	1,390.29	1,328.11	62.18	22.358		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	7,630.61	7,604.05	38.23	28.56	73.94	479.61	402.50	1,434.84	1,372.05	62.79	22.853		
9,000.00	7,950.00	7,614.09	7,588.80	39.83	28.48	73.27	478.84	396.18	1,484.32	1,420.93	63.39	23.415		
9,100.00	7,950.00	7,600.00	7,575.66	41.56	28.41	72.69	478.17	391.13	1,538.34	1,474.36	63.98	24.044		
9,200.00	7,950.00	7,600.00	7,575.66	43.39	28.41	72.69	478.17	391.13	1,596.66	1,532.01	64.65	24.697		
9,300.00	7,950.00	7,575.72	7,552.75	45.30	28.30	71.70	476.98	383.21	1,658.44	1,593.40	65.05	25.496		
9,400.00	7,950.00	7,565.70	7,543.19	47.29	28.25	71.28	476.48	380.22	1,723.76	1,658.25	65.52	26.309		
9,500.00	7,950.00	7,550.00	7,528.13	49.35	28.18	70.64	475.69	375.88	1,792.17	1,726.28	65.90	27.197		
9,600.00	7,950.00	7,550.00	7,528.13	51.47	28.18	70.64	475.69	375.88	1,863.24	1,796.89	66.35	28.083		
9,700.00	7,950.00	7,550.00	7,528.13	53.63	28.18	70.64	475.69	375.88	1,936.86	1,870.11	66.75	29.018		
9,800.00	7,950.00	7,550.00	7,528.13	55.85	28.18	70.64	475.69	375.88	2,012.76	1,945.66	67.10	29.996		
9,900.00	7,950.00	7,528.52	7,507.33	58.10	28.09	69.75	474.59	370.62	2,090.25	2,022.97	67.28	31.068		
10,000.00	7,950.00	7,522.94	7,501.90	60.39	28.06	69.52	474.30	369.38	2,169.74	2,102.21	67.53	32.130		
10,100.00	7,950.00	7,500.00	7,479.45	62.71	27.96	68.58	473.09	364.84	2,251.10	2,183.45	67.65	33.278		
10,200.00	7,950.00	7,500.00	7,479.45	65.05	27.96	68.58	473.09	364.84	2,333.45	2,265.58	67.88	34.377		
10,300.00	7,950.00	7,500.00	7,479.45	67.43	27.96	68.58	473.09	364.84	2,417.14	2,349.05	68.09	35.501		
10,400.00	7,950.00	7,500.00	7,479.45	69.82	27.96	68.58	473.09	364.84	2,502.02	2,433.75	68.27	36.649		
10,500.00	7,950.00	7,500.00	7,479.45	72.24	27.96	68.58	473.09	364.84	2,587.99	2,519.55	68.44	37.817		
10,600.00	7,950.00	7,500.00	7,479.45	74.68	27.96	68.58	473.09	364.84	2,674.93	2,606.35	68.58	39.003		
10,700.00	7,950.00	7,500.00	7,479.45	77.13	27.96	68.58	473.09	364.84	2,762.75	2,694.04	68.71	40.206		
10,800.00	7,950.00	7,500.00	7,479.45	79.60	27.96	68.58	473.09	364.84	2,851.38	2,782.54	68.83	41.424		
10,900.00	7,950.00	7,500.00	7,479.45	82.08	27.96	68.58	473.09	364.84	2,940.73	2,871.79	68.94	42.655		
11,000.00	7,950.00	7,500.00	7,479.45	84.57	27.96	68.58	473.09	364.84	3,030.75	2,961.71	69.04	43.899		
11,100.00	7,950.00	7,500.00	7,479.45	87.08	27.96	68.58	473.09	364.84	3,121.38	3,052.25	69.13	45.153		
11,200.00	7,950.00	7,500.00	7,479.45	89.59	27.96	68.58	473.09	364.84	3,212.57	3,143.36	69.21	46.417		
11,300.00	7,950.00	7,478.00	7,457.76	92.12	27.88	67.67	471.91	361.34	3,303.80	3,234.60	69.20	47.742		
11,400.00	7,950.00	7,475.83	7,455.62	94.66	27.87	67.58	471.79	361.04	3,395.87	3,326.60	69.26	49.027		
11,500.00	7,950.00	7,473.78	7,453.58	97.20	27.86	67.50	471.68	360.76	3,488.36	3,419.04	69.32	50.320		
11,600.00	7,950.00	7,471.82	7,451.65	99.75	27.85	67.42	471.58	360.50	3,581.26	3,511.88	69.38	51.619		
11,700.00	7,950.00	7,450.00	7,429.99	102.31	27.76	66.53	470.39	358.09	3,674.90	3,605.54	69.35	52.987		
11,800.00	7,950.00	7,450.00	7,429.99	104.87	27.76	66.53	470.39	358.09	3,768.43	3,699.02	69.41	54.291		
11,900.00	7,950.00	7,450.00	7,429.99	107.44	27.76	66.53	470.39	358.09	3,862.29	3,792.82	69.46	55.600		
12,000.00	7,950.00	7,450.00	7,429.99	110.02	27.76	66.53	470.39	358.09	3,956.45	3,886.93	69.52	56.914		
12,100.00	7,950.00	7,450.00	7,429.99	112.60	27.76	66.53	470.39	358.09	4,050.89	3,981.32	69.56	58.233		
12,200.00	7,950.00	7,450.00	7,429.99	115.19	27.76	66.53	470.39	358.09	4,145.58	4,075.98	69.61	59.555		
12,300.00	7,950.00	7,450.00	7,429.99	117.78	27.76	66.53	470.39	358.09	4,240.53	4,170.87	69.65	60.880		
12,400.00	7,950.00	7,450.00	7,429.99	120.38	27.76	66.53	470.39	358.09	4,335.70	4,266.00	69.70	62.208		
12,500.00	7,950.00	7,450.00	7,429.99	122.98	27.76	66.53	470.39	358.09	4,431.08	4,361.34	69.74	63.539		
12,600.00	7,950.00	7,450.00	7,429.99	125.58	27.76	66.53	470.39	358.09	4,526.66	4,456.89	69.78	64.873		
12,700.00	7,950.00	7,450.00	7,429.99	128.19	27.76	66.53	470.39	358.09	4,622.43	4,552.62	69.82	66.208		
12,800.00	7,950.00	7,450.00	7,429.99	130.80	27.76	66.53	470.39	358.09	4,718.38	4,648.52	69.85	67.545		
12,900.00	7,950.00	7,450.00	7,429.99	133.41	27.76	66.53	470.39	358.09	4,814.49	4,744.60	69.89	68.884		
13,000.00	7,950.00	7,450.00	7,429.99	136.03	27.76	66.53	470.39	358.09	4,910.75	4,840.83	69.93	70.225		
13,100.00	7,950.00	7,450.00	7,429.99	138.65	27.76	66.53	470.39	358.09	5,007.17	4,937.20	69.97	71.566		
13,200.00	7,950.00	7,450.00	7,429.99	141.27	27.76	66.53	470.39	358.09	5,103.72	5,033.71	70.00	72.909		
13,300.00	7,950.00	7,450.00	7,429.99	143.90	27.76	66.53	470.39	358.09	5,200.40	5,130.36	70.04	74.252		
13,400.00	7,950.00	7,450.00	7,429.99	146.52	27.76	66.53	470.39	358.09	5,297.20	5,227.13	70.07	75.596		
13,500.00	7,950.00	7,450.00	7,429.99	149.15	27.76	66.53	470.39	358.09	5,394.12	5,324.01	70.11	76.940		
13,600.00	7,950.00	7,450.00	7,429.99	151.78	27.76	66.53	470.39	358.09	5,491.15	5,421.01	70.14	78.285		
13,700.00	7,950.00	7,450.00	7,429.99	154.42	27.76	66.53	470.39	358.09	5,588.29	5,518.11	70.18	79.629		
13,800.00	7,950.00	7,450.00	7,429.99	157.05	27.76	66.53	470.39	358.09	5,685.52	5,615.31	70.21	80.974		
13,900.00	7,950.00	7,450.00	7,429.99	159.69	27.76	66.53	470.39	358.09	5,782.85	5,712.60	70.25	82.319		
14,000.00	7,950.00	7,450.00	7,429.99	162.33	27.76	66.53	470.39	358.09	5,880.27	5,809.98	70.29	83.663		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 1BH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	7,950.00	7,450.00	7,429.99	164.97	27.76	66.53	470.39	358.09	5,977.77	5,907.45	70.32	85.007	
14,200.00	7,950.00	7,450.00	7,429.99	167.61	27.76	66.53	470.39	358.09	6,075.36	6,005.00	70.36	86.350	
14,300.00	7,950.00	7,450.00	7,429.99	170.26	27.76	66.53	470.39	358.09	6,173.02	6,102.63	70.39	87.693	
14,400.00	7,950.00	7,450.00	7,429.99	172.90	27.76	66.53	470.39	358.09	6,270.75	6,200.32	70.43	89.035	
14,500.00	7,950.00	7,450.00	7,429.99	175.55	27.76	66.53	470.39	358.09	6,368.56	6,298.09	70.47	90.376	
14,600.00	7,950.00	7,450.00	7,429.99	178.20	27.76	66.53	470.39	358.09	6,466.43	6,395.93	70.50	91.716	
14,700.00	7,950.00	7,438.82	7,418.86	180.85	27.72	66.08	469.77	357.17	6,564.26	6,493.74	70.51	93.095	
14,800.00	7,950.00	7,438.23	7,418.28	183.50	27.72	66.05	469.74	357.13	6,662.24	6,591.69	70.55	94.436	
14,900.00	7,950.00	7,437.66	7,417.71	186.15	27.72	66.03	469.70	357.09	6,760.29	6,689.70	70.59	95.775	
15,000.00	7,950.00	7,437.10	7,417.16	188.80	27.71	66.01	469.67	357.05	6,858.39	6,787.76	70.62	97.113	
15,100.00	7,950.00	7,426.28	7,406.37	191.46	27.67	65.57	469.07	356.40	6,956.64	6,886.01	70.63	98.491	
15,200.00	7,950.00	7,426.28	7,406.37	194.11	27.67	65.57	469.07	356.40	7,054.83	6,984.16	70.67	99.825	
15,300.00	7,950.00	7,426.28	7,406.37	196.77	27.67	65.57	469.07	356.40	7,153.08	7,082.37	70.71	101.157	
15,400.00	7,950.00	7,426.28	7,406.37	199.42	27.67	65.57	469.07	356.40	7,251.37	7,180.62	70.75	102.488	
15,500.00	7,950.00	7,426.28	7,406.37	202.08	27.67	65.57	469.07	356.40	7,349.71	7,278.92	70.80	103.817	
15,600.00	7,950.00	7,426.28	7,406.37	204.74	27.67	65.57	469.07	356.40	7,448.10	7,377.26	70.84	105.144	
15,700.00	7,950.00	7,426.28	7,406.37	207.40	27.67	65.57	469.07	356.40	7,546.52	7,475.64	70.88	106.470	
15,800.00	7,950.00	7,426.28	7,406.37	210.06	27.67	65.57	469.07	356.40	7,644.99	7,574.07	70.92	107.794	
15,900.00	7,950.00	7,426.28	7,406.37	212.72	27.67	65.57	469.07	356.40	7,743.50	7,672.53	70.97	109.116	
16,000.00	7,950.00	7,426.28	7,406.37	215.38	27.67	65.57	469.07	356.40	7,842.04	7,771.03	71.01	110.436	
16,100.00	7,950.00	7,426.28	7,406.37	218.05	27.67	65.57	469.07	356.40	7,940.62	7,869.57	71.05	111.754	
16,200.00	7,950.00	7,426.28	7,406.37	220.71	27.67	65.57	469.07	356.40	8,039.24	7,968.14	71.10	113.071	
16,300.00	7,950.00	7,426.28	7,406.37	223.37	27.67	65.57	469.07	356.40	8,137.89	8,066.74	71.14	114.385	
16,400.00	7,950.00	7,426.28	7,406.37	226.04	27.67	65.57	469.07	356.40	8,236.57	8,165.38	71.19	115.697	
16,500.00	7,950.00	7,426.28	7,406.37	228.70	27.67	65.57	469.07	356.40	8,335.28	8,264.05	71.24	117.007	
16,600.00	7,950.00	7,426.28	7,406.37	231.37	27.67	65.57	469.07	356.40	8,434.03	8,362.74	71.28	118.315	
16,700.00	7,950.00	7,426.28	7,406.37	234.04	27.67	65.57	469.07	356.40	8,532.80	8,461.47	71.33	119.621	
16,800.00	7,950.00	7,426.28	7,406.37	236.70	27.67	65.57	469.07	356.40	8,631.60	8,560.22	71.38	120.924	
16,900.00	7,950.00	7,426.28	7,406.37	239.37	27.67	65.57	469.07	356.40	8,730.43	8,659.00	71.43	122.225	
17,000.00	7,950.00	7,426.28	7,406.37	242.04	27.67	65.57	469.07	356.40	8,829.28	8,757.81	71.48	123.524	
17,100.00	7,950.00	7,426.28	7,406.37	244.71	27.67	65.57	469.07	356.40	8,928.17	8,856.64	71.53	124.820	
17,200.00	7,950.00	7,426.28	7,406.37	247.38	27.67	65.57	469.07	356.40	9,027.07	8,955.49	71.58	126.114	
17,300.00	7,950.00	7,426.28	7,406.37	250.05	27.67	65.57	469.07	356.40	9,126.00	9,054.37	71.63	127.405	
17,400.00	7,950.00	7,426.28	7,406.37	252.72	27.67	65.57	469.07	356.40	9,224.95	9,153.27	71.68	128.694	
17,500.00	7,950.00	7,426.28	7,406.37	255.39	27.67	65.57	469.07	356.40	9,323.93	9,252.19	71.73	129.981	
17,600.00	7,950.00	7,426.28	7,406.37	258.06	27.67	65.57	469.07	356.40	9,422.92	9,351.14	71.79	131.265	
17,700.00	7,950.00	7,426.95	7,407.04	260.73	27.67	65.60	469.11	356.44	9,521.94	9,450.10	71.84	132.543	
17,800.00	7,950.00	7,421.87	7,401.97	263.40	27.65	65.39	468.83	356.18	9,620.98	9,549.09	71.88	133.846	
17,900.00	7,950.00	7,416.79	7,396.91	266.07	27.64	65.19	468.54	355.92	9,720.03	9,648.11	71.92	135.148	
18,000.00	7,950.00	7,411.71	7,391.84	268.74	27.62	64.99	468.26	355.67	9,819.10	9,747.14	71.96	136.446	
18,100.00	7,950.00	7,406.63	7,386.78	271.42	27.60	64.78	467.98	355.41	9,918.19	9,846.18	72.01	137.743	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.30	-0.30	0.00	0.00	0.00	25.13	0.00	25.13					
100.00	100.00	100.30	99.70	0.13	0.14	0.00	25.13	0.00	25.13	24.86	0.27	93.099		
200.00	200.00	200.30	199.70	0.49	0.49	0.00	25.13	0.00	25.13	24.14	0.99	25.464		
250.00	250.00	249.70	249.70	0.67	0.67	0.00	25.13	0.00	25.13	23.79	1.34	18.709		
300.00	300.00	300.10	300.10	0.85	0.84	-129.05	24.73	0.17	25.00	23.31	1.69	14.803		
400.00	399.93	400.89	400.82	1.19	1.19	-132.32	21.48	1.56	24.01	21.63	2.38	10.108		
500.00	499.68	501.61	501.29	1.55	1.55	-139.66	14.98	4.34	22.26	19.19	3.08	7.232		
600.00	599.13	602.23	601.34	1.93	1.93	-152.61	5.25	8.51	20.46	16.67	3.79	5.403		
643.08	641.85	645.37	644.13	2.10	2.09	-160.18	0.16	10.68	20.05	15.96	4.10	4.896 CC, ES		
696.56	694.75	701.28	697.02	2.31	2.32	-170.26	-6.21	13.41	20.84	16.35	4.49	4.640		
700.00	698.15	702.15	700.43	2.33	2.32	-170.90	-6.62	13.58	20.95	16.44	4.51	4.645		
800.00	796.94	801.88	799.31	2.74	2.72	173.52	-18.54	18.68	24.93	19.66	5.27	4.730		
900.00	895.73	901.61	898.19	3.17	3.13	162.77	-30.46	23.78	30.21	24.14	6.06	4.982		
1,000.00	994.51	1,001.34	997.08	3.60	3.54	155.39	-42.38	28.88	36.22	29.34	6.88	5.267		
1,100.00	1,093.30	1,101.07	1,095.96	4.04	3.96	150.17	-54.30	33.98	42.66	34.96	7.70	5.538		
1,200.00	1,192.09	1,200.79	1,194.84	4.48	4.37	146.34	-66.22	39.07	49.37	40.83	8.54	5.783		
1,300.00	1,290.88	1,300.52	1,293.72	4.92	4.79	143.43	-78.13	44.17	56.24	46.86	9.37	5.999		
1,400.00	1,389.67	1,400.25	1,392.60	5.36	5.21	141.16	-90.05	49.27	63.22	53.00	10.21	6.189		
1,500.00	1,488.45	1,500.02	1,491.49	5.80	5.63	139.35	-101.97	54.37	70.28	59.22	11.06	6.356		
1,600.00	1,587.24	1,600.29	1,590.37	6.24	6.05	137.87	-113.89	59.47	77.40	65.49	11.90	6.503		
1,700.00	1,686.03	1,700.57	1,689.25	6.69	6.47	136.63	-125.81	64.56	84.56	71.81	12.75	6.633		
1,800.00	1,784.82	1,800.84	1,788.13	7.13	6.89	135.59	-137.73	69.66	91.75	78.15	13.60	6.748		
1,900.00	1,883.60	1,901.11	1,887.01	7.57	7.31	134.71	-149.64	74.76	98.97	84.53	14.44	6.852		
2,000.00	1,982.39	2,001.38	1,985.90	8.02	7.74	133.94	-161.56	79.86	106.21	90.92	15.29	6.945		
2,100.00	2,081.18	2,101.65	2,084.78	8.46	8.16	132.27	-173.48	84.96	113.47	97.32	16.14	7.029		
2,200.00	2,179.97	2,201.92	2,183.66	8.91	8.58	132.68	-185.40	90.06	120.74	103.74	16.99	7.106		
2,300.00	2,278.75	2,302.20	2,282.54	9.36	9.01	132.16	-197.32	95.15	128.02	110.18	17.84	7.176		
2,400.00	2,377.54	2,402.47	2,381.42	9.80	9.43	131.69	-209.24	100.25	135.31	116.62	18.69	7.239		
2,500.00	2,476.33	2,502.74	2,480.31	10.25	9.85	131.27	-221.15	105.35	142.61	123.07	19.54	7.298		
2,600.00	2,575.12	2,603.01	2,579.19	10.69	10.28	130.90	-233.07	110.45	149.91	129.52	20.39	7.352		
2,700.00	2,673.90	2,703.28	2,678.07	11.14	10.70	130.55	-244.99	115.55	157.22	135.98	21.24	7.401		
2,800.00	2,772.69	2,803.56	2,776.95	11.59	11.12	130.24	-256.91	120.64	164.54	142.45	22.09	7.448		
2,900.00	2,871.48	2,903.83	2,875.83	12.03	11.55	129.96	-268.83	125.74	171.86	148.92	22.94	7.490		
3,000.00	2,970.27	3,004.10	2,974.72	12.48	11.97	129.70	-280.75	130.84	179.18	155.39	23.79	7.530		
3,100.00	3,069.05	3,104.37	3,073.60	12.93	12.40	129.45	-292.66	135.94	186.51	161.87	24.65	7.568		
3,200.00	3,167.84	3,204.64	3,172.48	13.37	12.82	129.23	-304.58	141.04	193.84	168.35	25.50	7.603		
3,300.00	3,266.63	3,304.91	3,271.36	13.82	13.24	129.02	-316.50	146.13	201.18	174.83	26.35	7.635		
3,400.00	3,365.42	3,405.19	3,370.25	14.27	13.67	128.83	-328.42	151.23	208.51	181.31	27.20	7.666		
3,500.00	3,464.20	3,505.46	3,469.13	14.71	14.09	128.65	-340.34	156.33	215.85	187.80	28.05	7.695		
3,600.00	3,562.99	3,594.27	3,568.01	15.16	14.47	128.49	-352.26	161.43	223.19	194.34	28.85	7.735		
3,700.00	3,661.78	3,706.00	3,666.89	15.61	14.94	128.33	-364.17	166.53	230.54	200.78	29.75	7.748		
3,800.00	3,760.57	3,806.27	3,765.77	16.05	15.37	128.18	-376.09	171.63	237.88	207.27	30.61	7.772		
3,900.00	3,859.35	3,906.55	3,864.66	16.50	15.79	128.04	-388.01	176.72	245.23	213.77	31.46	7.795		
4,000.00	3,958.14	4,006.82	3,963.54	16.95	16.21	127.91	-399.93	181.82	252.57	220.26	32.31	7.817		
4,100.00	4,056.93	4,107.09	4,062.42	17.40	16.64	127.79	-411.85	186.92	259.92	226.76	33.16	7.838		
4,200.00	4,155.72	4,207.36	4,161.30	17.84	17.06	127.67	-423.77	192.02	267.27	233.25	34.01	7.858		
4,300.00	4,254.50	4,307.63	4,260.18	18.29	17.49	127.56	-435.68	197.12	274.62	239.75	34.87	7.876		
4,400.00	4,353.29	4,407.90	4,359.07	18.74	17.91	127.46	-447.60	202.21	281.97	246.25	35.72	7.894		
4,500.00	4,452.08	4,508.18	4,457.95	19.19	18.34	127.36	-459.52	207.31	289.32	252.75	36.57	7.911		
4,600.00	4,550.87	4,608.45	4,556.83	19.63	18.76	127.27	-471.44	212.41	296.67	259.25	37.42	7.928		
4,700.00	4,649.65	4,708.72	4,655.71	20.08	19.19	127.18	-483.36	217.51	304.03	265.75	38.27	7.943		
4,800.00	4,748.44	4,808.99	4,754.59	20.53	19.61	127.09	-495.28	222.61	311.38	272.26	39.13	7.958		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,847.23	4,909.26	4,853.48	20.97	20.03	127.01	-507.19	227.71	318.74	278.76	39.98	7.973		
5,000.00	4,946.02	5,009.54	4,952.36	21.42	20.46	126.93	-519.11	232.80	326.09	285.26	40.83	7.986		
5,100.00	5,044.81	5,109.81	5,051.24	21.87	20.88	126.86	-531.03	237.90	333.45	291.77	41.68	8.000		
5,200.00	5,143.59	5,189.92	5,150.12	22.32	21.22	126.79	-542.95	243.00	340.80	298.35	42.45	8.028		
5,300.00	5,242.38	5,289.65	5,249.01	22.76	21.65	126.72	-554.87	248.10	348.16	304.86	43.30	8.041		
5,400.00	5,341.17	5,389.38	5,347.89	23.21	22.07	126.65	-566.79	253.20	355.52	311.37	44.15	8.053		
5,500.00	5,439.96	5,489.11	5,446.77	23.66	22.49	126.59	-578.70	258.29	362.88	317.88	45.00	8.064		
5,600.00	5,538.74	5,588.83	5,545.65	24.11	22.91	126.53	-590.62	263.39	370.24	324.39	45.85	8.075		
5,700.00	5,637.53	5,688.56	5,644.53	24.55	23.33	126.47	-602.54	268.49	377.59	330.89	46.70	8.086		
5,800.00	5,736.32	5,788.29	5,743.42	25.00	23.76	126.42	-614.46	273.59	384.95	337.40	47.55	8.096		
5,900.00	5,835.11	5,888.02	5,842.30	25.45	24.18	126.37	-626.38	278.69	392.31	343.91	48.40	8.106		
6,000.00	5,933.89	5,987.75	5,941.18	25.90	24.60	126.31	-638.30	283.78	399.67	350.42	49.25	8.115		
6,100.00	6,032.68	6,087.47	6,040.06	26.34	25.02	126.26	-650.21	288.88	407.03	356.93	50.10	8.124		
6,200.00	6,131.47	6,187.20	6,138.94	26.79	25.45	126.22	-662.13	293.98	414.39	363.44	50.95	8.133		
6,300.00	6,230.26	6,286.93	6,237.83	27.24	25.87	126.17	-674.05	299.08	421.75	369.95	51.80	8.142		
6,400.00	6,329.04	6,386.66	6,336.71	27.69	26.29	126.13	-685.97	304.18	429.11	376.46	52.65	8.150		
6,500.00	6,427.83	6,486.39	6,435.59	28.13	26.71	126.08	-697.89	309.28	436.48	382.98	53.50	8.158		
6,600.00	6,526.62	6,586.12	6,534.47	28.58	27.14	126.04	-709.81	314.37	443.84	389.49	54.35	8.166		
6,700.00	6,625.41	6,685.84	6,633.35	29.03	27.56	126.00	-721.72	319.47	451.20	396.00	55.20	8.174		
6,800.00	6,724.19	6,785.57	6,732.24	29.48	27.98	125.96	-733.64	324.57	458.56	402.51	56.05	8.181		
6,900.00	6,822.98	6,885.30	6,831.12	29.93	28.40	125.92	-745.56	329.67	465.92	409.02	56.90	8.188		
7,000.00	6,921.77	6,985.03	6,930.00	30.37	28.83	125.89	-757.48	334.77	473.29	415.53	57.75	8.195		
7,100.00	7,020.56	7,084.76	7,028.88	30.82	29.25	125.85	-769.40	339.86	480.65	422.05	58.60	8.202		
7,200.00	7,119.34	7,184.48	7,127.77	31.27	29.67	125.82	-781.32	344.96	488.01	428.56	59.45	8.208		
7,300.00	7,218.13	7,284.21	7,226.65	31.72	30.09	125.78	-793.23	350.06	495.37	435.07	60.30	8.215		
7,394.03	7,311.02	7,377.98	7,319.62	32.14	30.49	125.75	-804.44	354.85	502.30	441.19	61.10	8.221		
7,400.00	7,316.92	7,383.94	7,325.53	32.16	30.52	123.22	-805.15	355.16	502.71	441.55	61.15	8.220		
7,450.00	7,366.55	7,433.91	7,375.07	32.36	30.73	88.27	-811.12	357.71	503.78	442.20	61.57	8.182		
7,500.00	7,416.28	7,553.25	7,492.80	32.53	31.25	41.21	-825.40	369.79	499.71	437.65	62.05	8.053		
7,550.00	7,465.74	7,791.02	7,708.22	32.65	32.44	10.54	-852.51	462.45	476.07	418.54	57.53	8.275		
7,600.00	7,514.54	7,600.00	7,780.75	32.75	31.48	-9.08	-862.06	523.92	438.30	385.00	53.30	8.223		
7,650.00	7,562.31	7,979.49	7,841.04	32.83	33.55	-34.43	-870.27	593.77	395.39	344.76	50.64	7.808		
7,700.00	7,608.70	8,008.82	7,857.57	32.89	33.75	-54.73	-872.59	617.89	350.75	300.50	50.25	6.980		
7,750.00	7,653.34	8,020.47	7,863.79	32.93	33.83	-70.52	-873.47	627.70	306.33	255.24	51.08	5.997		
7,800.00	7,695.91	8,021.76	7,864.47	32.95	33.84	-80.90	-873.57	628.79	263.45	210.62	52.83	4.987		
7,850.00	7,736.06	8,016.52	7,861.70	32.95	33.80	-86.62	-873.18	624.36	223.56	168.23	55.32	4.041		
7,900.00	7,773.51	8,006.94	7,856.54	32.95	33.74	-88.68	-872.44	616.31	188.63	130.30	58.33	3.234		
7,950.00	7,807.96	7,994.33	7,849.55	32.94	33.65	-87.75	-871.46	605.87	161.64	100.53	61.11	2.645		
8,000.00	7,839.15	7,979.53	7,841.06	32.92	33.55	-84.26	-870.27	593.81	146.47	84.31	62.16	2.356		
8,026.25	7,854.14	7,971.08	7,836.08	32.91	33.50	-81.51	-869.58	587.02	144.35	82.83	61.53	2.346 SF		
8,050.00	7,866.84	7,963.10	7,831.28	32.90	33.45	-78.55	-868.92	580.68	146.05	85.76	60.29	2.423		
8,100.00	7,890.83	7,945.43	7,820.33	32.88	33.33	-71.07	-867.41	566.89	159.66	102.86	56.80	2.811		
8,150.00	7,910.93	7,926.78	7,808.34	32.87	33.22	-62.54	-865.77	552.71	183.37	129.48	53.89	3.403		
8,200.00	7,926.99	7,907.37	7,795.36	32.87	33.10	-53.79	-864.02	538.37	213.07	160.72	52.34	4.071		
8,250.00	7,938.88	7,887.33	7,781.48	32.89	32.98	-45.59	-862.15	524.05	245.85	193.96	51.89	4.738		
8,300.00	7,946.52	7,866.78	7,766.73	32.94	32.86	-38.38	-860.19	509.88	279.97	227.85	52.12	5.371		
8,350.00	7,949.85	7,850.00	7,754.32	33.03	32.77	-32.83	-858.54	498.71	314.41	261.34	53.07	5.924		
8,363.33	7,950.00	7,840.16	7,746.89	33.06	32.71	-30.86	-857.56	492.33	323.49	270.55	52.94	6.111		
8,400.00	7,950.00	7,825.08	7,735.29	33.16	32.63	-29.16	-856.04	482.81	349.05	295.53	53.52	6.522		
8,500.00	7,950.00	7,788.52	7,706.19	33.64	32.42	-25.41	-852.25	461.02	423.31	368.20	55.11	7.682		
8,600.00	7,950.00	7,750.00	7,674.09	34.42	32.22	-22.02	-848.11	440.15	502.80	446.67	56.14	8.957		
8,700.00	7,950.00	7,731.36	7,658.08	35.49	32.12	-20.55	-846.06	430.84	585.85	528.22	57.63	10.167		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,800.00	7,950.00	7,700.00	7,630.47	36.77	31.96	-18.33	-842.55	416.37	671.96	613.69	58.27	11.531		
8,900.00	7,950.00	7,700.00	7,630.47	38.23	31.96	-18.33	-842.55	416.37	760.19	700.65	59.54	12.768		
9,000.00	7,950.00	7,672.31	7,605.48	39.83	31.82	-16.59	-839.39	404.89	849.91	790.04	59.87	14.196		
9,100.00	7,950.00	7,650.00	7,584.96	41.56	31.71	-15.32	-836.82	396.52	941.26	881.03	60.22	15.630		
9,200.00	7,950.00	7,650.00	7,584.96	43.39	31.71	-15.32	-836.82	396.52	1,033.61	972.77	60.84	16.989		
9,300.00	7,950.00	7,632.47	7,568.61	45.30	31.62	-14.40	-834.77	390.52	1,126.87	1,065.79	61.08	18.449		
9,400.00	7,950.00	7,621.98	7,558.75	47.29	31.57	-13.88	-833.54	387.17	1,220.93	1,159.58	61.35	19.900		
9,500.00	7,950.00	7,600.00	7,537.89	49.35	31.47	-12.85	-830.96	380.75	1,315.84	1,254.39	61.45	21.413		
9,600.00	7,950.00	7,600.00	7,537.89	51.47	31.47	-12.85	-830.96	380.75	1,410.91	1,349.17	61.74	22.851		
9,700.00	7,950.00	7,600.00	7,537.89	53.63	31.47	-12.85	-830.96	380.75	1,506.62	1,444.64	61.98	24.307		
9,800.00	7,950.00	7,600.00	7,537.89	55.85	31.47	-12.85	-830.96	380.75	1,602.86	1,540.68	62.18	25.778		
9,900.00	7,950.00	7,600.00	7,537.89	58.10	31.47	-12.85	-830.96	380.75	1,699.52	1,637.18	62.34	27.260		
10,000.00	7,950.00	7,576.89	7,515.71	60.39	31.36	-11.86	-828.22	374.87	1,795.95	1,733.61	62.33	28.811		
10,100.00	7,950.00	7,571.44	7,510.45	62.71	31.33	-11.64	-827.57	373.61	1,892.98	1,830.54	62.43	30.320		
10,200.00	7,950.00	7,550.00	7,489.64	65.05	31.23	-10.82	-825.01	369.16	1,990.54	1,928.12	62.43	31.886		
10,300.00	7,950.00	7,550.00	7,489.64	67.43	31.23	-10.82	-825.01	369.16	2,087.87	2,025.33	62.54	33.385		
10,400.00	7,950.00	7,550.00	7,489.64	69.82	31.23	-10.82	-825.01	369.16	2,185.43	2,122.80	62.64	34.891		
10,500.00	7,950.00	7,550.00	7,489.64	72.24	31.23	-10.82	-825.01	369.16	2,283.21	2,220.49	62.72	36.401		
10,600.00	7,950.00	7,550.00	7,489.64	74.68	31.23	-10.82	-825.01	369.16	2,381.17	2,318.37	62.80	37.914		
10,700.00	7,950.00	7,550.00	7,489.64	77.13	31.23	-10.82	-825.01	369.16	2,479.30	2,416.42	62.88	39.432		
10,800.00	7,950.00	7,550.00	7,489.64	79.60	31.23	-10.82	-825.01	369.16	2,577.57	2,514.62	62.94	40.952		
10,900.00	7,950.00	7,550.00	7,489.64	82.08	31.23	-10.82	-825.01	369.16	2,675.96	2,612.96	63.00	42.474		
11,000.00	7,950.00	7,550.00	7,489.64	84.57	31.23	-10.82	-825.01	369.16	2,774.47	2,711.41	63.06	43.998		
11,100.00	7,950.00	7,550.00	7,489.64	87.08	31.23	-10.82	-825.01	369.16	2,873.09	2,809.97	63.11	45.523		
11,200.00	7,950.00	7,550.00	7,489.64	89.59	31.23	-10.82	-825.01	369.16	2,971.79	2,908.63	63.16	47.049		
11,300.00	7,950.00	7,528.92	7,469.02	92.12	31.14	-10.07	-822.49	365.56	3,070.13	3,006.98	63.14	48.624		
11,400.00	7,950.00	7,526.59	7,466.73	94.66	31.13	-10.00	-822.21	365.21	3,168.89	3,105.71	63.18	50.155		
11,500.00	7,950.00	7,524.38	7,464.56	97.20	31.12	-9.92	-821.95	364.88	3,267.71	3,204.49	63.22	51.687		
11,600.00	7,950.00	7,522.28	7,462.50	99.75	31.11	-9.85	-821.70	364.58	3,366.60	3,303.34	63.26	53.218		
11,700.00	7,950.00	7,500.00	7,440.55	102.31	31.01	-9.14	-819.03	361.86	3,465.96	3,402.73	63.24	54.810		
11,800.00	7,950.00	7,500.00	7,440.55	104.87	31.01	-9.14	-819.03	361.86	3,564.88	3,501.60	63.28	56.334		
11,900.00	7,950.00	7,500.00	7,440.55	107.44	31.01	-9.14	-819.03	361.86	3,663.86	3,600.53	63.33	57.857		
12,000.00	7,950.00	7,500.00	7,440.55	110.02	31.01	-9.14	-819.03	361.86	3,762.89	3,699.52	63.37	59.380		
12,100.00	7,950.00	7,500.00	7,440.55	112.60	31.01	-9.14	-819.03	361.86	3,861.97	3,798.56	63.41	60.902		
12,200.00	7,950.00	7,500.00	7,440.55	115.19	31.01	-9.14	-819.03	361.86	3,961.09	3,897.64	63.45	62.424		
12,300.00	7,950.00	7,500.00	7,440.55	117.78	31.01	-9.14	-819.03	361.86	4,060.26	3,996.77	63.50	63.944		
12,400.00	7,950.00	7,500.00	7,440.55	120.38	31.01	-9.14	-819.03	361.86	4,159.47	4,095.94	63.54	65.463		
12,500.00	7,950.00	7,500.00	7,440.55	122.98	31.01	-9.14	-819.03	361.86	4,258.72	4,195.14	63.58	66.981		
12,600.00	7,950.00	7,500.00	7,440.55	125.58	31.01	-9.14	-819.03	361.86	4,358.00	4,294.38	63.62	68.497		
12,700.00	7,950.00	7,500.00	7,440.55	128.19	31.01	-9.14	-819.03	361.86	4,457.31	4,393.65	63.66	70.012		
12,800.00	7,950.00	7,500.00	7,440.55	130.80	31.01	-9.14	-819.03	361.86	4,556.66	4,492.95	63.71	71.525		
12,900.00	7,950.00	7,500.00	7,440.55	133.41	31.01	-9.14	-819.03	361.86	4,656.03	4,592.28	63.75	73.037		
13,000.00	7,950.00	7,500.00	7,440.55	136.03	31.01	-9.14	-819.03	361.86	4,755.43	4,691.64	63.79	74.546		
13,100.00	7,950.00	7,500.00	7,440.55	138.65	31.01	-9.14	-819.03	361.86	4,854.85	4,791.01	63.83	76.054		
13,200.00	7,950.00	7,500.00	7,440.55	141.27	31.01	-9.14	-819.03	361.86	4,954.29	4,890.42	63.88	77.559		
13,300.00	7,950.00	7,500.00	7,440.55	143.90	31.01	-9.14	-819.03	361.86	5,053.76	4,989.84	63.92	79.063		
13,400.00	7,950.00	7,500.00	7,440.55	146.52	31.01	-9.14	-819.03	361.86	5,153.25	5,089.29	63.96	80.564		
13,500.00	7,950.00	7,500.00	7,440.55	149.15	31.01	-9.14	-819.03	361.86	5,252.76	5,188.75	64.01	82.063		
13,600.00	7,950.00	7,500.00	7,440.55	151.78	31.01	-9.14	-819.03	361.86	5,352.28	5,288.23	64.05	83.559		
13,700.00	7,950.00	7,500.00	7,440.55	154.42	31.01	-9.14	-819.03	361.86	5,451.83	5,387.73	64.10	85.053		
13,800.00	7,950.00	7,500.00	7,440.55	157.05	31.01	-9.14	-819.03	361.86	5,551.39	5,487.24	64.14	86.545		
13,900.00	7,950.00	7,500.00	7,440.55	159.69	31.01	-9.14	-819.03	361.86	5,650.96	5,586.77	64.19	88.034		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 2BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	7,950.00	7,500.00	7,440.55	162.33	31.01	-9.14	-819.03	361.86	5,750.55	5,686.31	64.24	89.520		
14,100.00	7,950.00	7,500.00	7,440.55	164.97	31.01	-9.14	-819.03	361.86	5,850.16	5,785.87	64.29	91.003		
14,200.00	7,950.00	7,500.00	7,440.55	167.61	31.01	-9.14	-819.03	361.86	5,949.77	5,885.44	64.33	92.484		
14,300.00	7,950.00	7,500.00	7,440.55	170.26	31.01	-9.14	-819.03	361.86	6,049.40	5,985.02	64.38	93.962		
14,400.00	7,950.00	7,500.00	7,440.55	172.90	31.01	-9.14	-819.03	361.86	6,149.04	6,084.61	64.43	95.437		
14,500.00	7,950.00	7,500.00	7,440.55	175.55	31.01	-9.14	-819.03	361.86	6,248.70	6,184.22	64.48	96.909		
14,600.00	7,950.00	7,500.00	7,440.55	178.20	31.01	-9.14	-819.03	361.86	6,348.36	6,283.83	64.53	98.378		
14,700.00	7,950.00	7,500.00	7,440.55	180.85	31.01	-9.14	-819.03	361.86	6,448.04	6,383.46	64.58	99.844		
14,800.00	7,950.00	7,486.02	7,426.73	183.50	30.95	-8.72	-817.35	360.59	6,547.54	6,482.94	64.60	101.355		
14,900.00	7,950.00	7,485.41	7,426.12	186.15	30.95	-8.70	-817.28	360.54	6,647.21	6,582.56	64.65	102.817		
15,000.00	7,950.00	7,484.81	7,425.53	188.80	30.94	-8.69	-817.21	360.50	6,746.90	6,682.20	64.70	104.277		
15,100.00	7,950.00	7,484.22	7,424.95	191.46	30.94	-8.67	-817.14	360.45	6,846.60	6,781.84	64.75	105.733		
15,200.00	7,950.00	7,470.29	7,411.15	194.11	30.88	-8.28	-815.47	359.57	6,946.47	6,881.69	64.78	107.238		
15,300.00	7,950.00	7,470.29	7,411.15	196.77	30.88	-8.28	-815.47	359.57	7,046.16	6,981.33	64.83	108.686		
15,400.00	7,950.00	7,470.29	7,411.15	199.42	30.88	-8.28	-815.47	359.57	7,145.87	7,080.98	64.89	110.130		
15,500.00	7,950.00	7,470.29	7,411.15	202.08	30.88	-8.28	-815.47	359.57	7,245.58	7,180.64	64.94	111.570		
15,600.00	7,950.00	7,470.29	7,411.15	204.74	30.88	-8.28	-815.47	359.57	7,345.30	7,280.31	65.00	113.008		
15,700.00	7,950.00	7,470.29	7,411.15	207.40	30.88	-8.28	-815.47	359.57	7,445.03	7,379.98	65.06	114.442		
15,800.00	7,950.00	7,470.29	7,411.15	210.06	30.88	-8.28	-815.47	359.57	7,544.77	7,479.66	65.11	115.872		
15,900.00	7,950.00	7,470.29	7,411.15	212.72	30.88	-8.28	-815.47	359.57	7,644.51	7,579.34	65.17	117.299		
16,000.00	7,950.00	7,470.29	7,411.15	215.38	30.88	-8.28	-815.47	359.57	7,744.26	7,679.03	65.23	118.722		
16,100.00	7,950.00	7,470.29	7,411.15	218.05	30.88	-8.28	-815.47	359.57	7,844.02	7,778.73	65.29	120.141		
16,200.00	7,950.00	7,470.29	7,411.15	220.71	30.88	-8.28	-815.47	359.57	7,943.78	7,878.43	65.35	121.557		
16,300.00	7,950.00	7,470.29	7,411.15	223.37	30.88	-8.28	-815.47	359.57	8,043.55	7,978.14	65.41	122.969		
16,400.00	7,950.00	7,470.29	7,411.15	226.04	30.88	-8.28	-815.47	359.57	8,143.32	8,077.85	65.47	124.378		
16,500.00	7,950.00	7,470.29	7,411.15	228.70	30.88	-8.28	-815.47	359.57	8,243.10	8,177.57	65.53	125.782		
16,600.00	7,950.00	7,470.29	7,411.15	231.37	30.88	-8.28	-815.47	359.57	8,342.88	8,277.29	65.60	127.183		
16,700.00	7,950.00	7,470.29	7,411.15	234.04	30.88	-8.28	-815.47	359.57	8,442.67	8,377.01	65.66	128.580		
16,800.00	7,950.00	7,470.29	7,411.15	236.70	30.88	-8.28	-815.47	359.57	8,542.47	8,476.74	65.72	129.973		
16,900.00	7,950.00	7,470.29	7,411.15	239.37	30.88	-8.28	-815.47	359.57	8,642.27	8,576.48	65.79	131.362		
17,000.00	7,950.00	7,470.29	7,411.15	242.04	30.88	-8.28	-815.47	359.57	8,742.07	8,676.22	65.85	132.748		
17,100.00	7,950.00	7,470.29	7,411.15	244.71	30.88	-8.28	-815.47	359.57	8,841.88	8,775.96	65.92	134.129		
17,200.00	7,950.00	7,470.29	7,411.15	247.38	30.88	-8.28	-815.47	359.57	8,941.69	8,875.71	65.99	135.507		
17,300.00	7,950.00	7,470.29	7,411.15	250.05	30.88	-8.28	-815.47	359.57	9,041.51	8,975.45	66.05	136.880		
17,400.00	7,950.00	7,470.29	7,411.15	252.72	30.88	-8.28	-815.47	359.57	9,141.33	9,075.21	66.12	138.249		
17,500.00	7,950.00	7,470.29	7,411.15	255.39	30.88	-8.28	-815.47	359.57	9,241.15	9,174.96	66.19	139.615		
17,600.00	7,950.00	7,470.29	7,411.15	258.06	30.88	-8.28	-815.47	359.57	9,340.98	9,274.72	66.26	140.976		
17,700.00	7,950.00	7,470.29	7,411.15	260.73	30.88	-8.28	-815.47	359.57	9,440.81	9,374.49	66.33	142.333		
17,800.00	7,950.00	7,470.29	7,411.15	263.40	30.88	-8.28	-815.47	359.57	9,540.65	9,474.25	66.40	143.687		
17,900.00	7,950.00	7,470.29	7,411.15	266.07	30.88	-8.28	-815.47	359.57	9,640.49	9,574.02	66.47	145.036		
18,000.00	7,950.00	7,470.29	7,411.15	268.74	30.88	-8.28	-815.47	359.57	9,740.33	9,673.79	66.54	146.380		
18,100.00	7,950.00	7,470.29	7,411.15	271.42	30.88	-8.28	-815.47	359.57	9,840.18	9,773.56	66.61	147.721		
18,200.00	7,950.00	7,470.29	7,411.15	274.09	30.88	-8.28	-815.47	359.57	9,940.02	9,873.34	66.69	149.058		
18,253.56	7,950.00	7,470.29	7,411.15	275.52	30.88	-8.28	-815.47	359.57	9,993.50	9,926.78	66.72	149.772		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-24.77	0.00	24.77					
100.00	100.00	100.00	100.00	0.13	0.13	-180.00	-24.77	0.00	24.77	24.50	0.27	92.133		
200.00	200.00	200.00	200.00	0.49	0.49	-180.00	-24.77	0.00	24.77	23.78	0.99	25.127		
250.00	250.00	250.00	250.00	0.67	0.67	-180.00	-24.77	0.00	24.77	23.43	1.34	18.427 CC		
300.00	300.00	299.58	299.58	0.85	0.84	51.86	-25.18	0.11	24.92	23.23	1.69	14.768 ES		
400.00	399.93	398.72	398.65	1.19	1.18	55.81	-28.50	0.99	26.16	23.79	2.37	11.051		
500.00	499.68	497.75	497.44	1.55	1.53	62.60	-35.12	2.75	28.98	25.91	3.07	9.436		
600.00	599.13	596.61	595.76	1.93	1.90	70.45	-45.01	5.38	33.80	29.99	3.80	8.890 SF		
696.56	694.75	691.83	690.08	2.31	2.28	77.58	-57.63	8.73	40.64	36.09	4.55	8.941		
700.00	698.15	695.23	693.44	2.33	2.30	77.82	-58.14	8.86	40.93	36.35	4.57	8.951		
800.00	796.94	793.57	790.31	2.74	2.72	82.03	-74.46	13.20	50.70	45.32	5.38	9.422		
900.00	895.73	907.65	887.10	3.17	3.23	82.95	-93.51	18.26	62.54	56.27	6.28	9.964		
1,000.00	994.51	1,008.38	984.32	3.60	3.71	83.42	-112.93	23.42	74.59	67.45	7.13	10.454		
1,100.00	1,093.30	1,090.89	1,081.54	4.04	4.10	83.76	-132.34	28.57	86.64	78.72	7.92	10.935		
1,200.00	1,192.09	1,209.84	1,178.75	4.48	4.67	84.01	-151.76	33.73	98.69	89.81	8.88	11.116		
1,300.00	1,290.88	1,289.43	1,275.97	4.92	5.06	84.21	-171.18	38.89	110.75	101.08	9.67	11.459		
1,400.00	1,389.67	1,388.70	1,373.18	5.36	5.54	84.37	-190.59	44.05	122.80	112.26	10.54	11.649		
1,500.00	1,488.45	1,487.97	1,470.40	5.80	6.03	84.51	-210.01	49.20	134.86	123.44	11.42	11.807		
1,600.00	1,587.24	1,587.24	1,567.62	6.24	6.52	84.62	-229.42	54.36	146.91	134.61	12.30	11.941		
1,700.00	1,686.03	1,686.51	1,664.83	6.69	7.00	84.71	-248.84	59.52	158.97	145.78	13.19	12.055		
1,800.00	1,784.82	1,785.78	1,762.05	7.13	7.49	84.79	-268.25	64.67	171.03	156.96	14.07	12.153		
1,900.00	1,883.60	1,885.05	1,859.27	7.57	7.99	84.86	-287.67	69.83	183.09	168.13	14.96	12.239		
2,000.00	1,982.39	1,984.32	1,956.48	8.02	8.48	84.92	-307.08	74.99	195.14	179.30	15.85	12.314		
2,100.00	2,081.18	2,083.59	2,053.70	8.46	8.97	84.97	-326.50	80.15	207.20	190.47	16.74	12.381		
2,200.00	2,179.97	2,182.86	2,150.92	8.91	9.46	85.02	-345.92	85.30	219.26	201.63	17.63	12.440		
2,300.00	2,278.75	2,282.13	2,248.13	9.36	9.95	85.07	-365.33	90.46	231.32	212.80	18.52	12.493		
2,400.00	2,377.54	2,381.40	2,345.35	9.80	10.45	85.10	-384.75	95.62	243.38	223.97	19.41	12.541		
2,500.00	2,476.33	2,480.67	2,442.56	10.25	10.94	85.14	-404.16	100.77	255.44	235.14	20.30	12.585		
2,600.00	2,575.12	2,579.94	2,539.78	10.69	11.44	85.17	-423.58	105.93	267.49	246.31	21.19	12.625		
2,700.00	2,673.90	2,679.21	2,637.00	11.14	11.93	85.20	-442.99	111.09	279.55	257.47	22.08	12.661		
2,800.00	2,772.69	2,778.48	2,734.21	11.59	12.42	85.23	-462.41	116.25	291.61	268.64	22.97	12.694		
2,900.00	2,871.48	2,877.75	2,831.43	12.03	12.92	85.25	-481.82	121.40	303.67	279.81	23.86	12.725		
3,000.00	2,970.27	2,977.02	2,928.65	12.48	13.41	85.27	-501.24	126.56	315.73	290.97	24.76	12.753		
3,100.00	3,069.05	3,076.29	3,025.86	12.93	13.91	85.30	-520.65	131.72	327.79	302.14	25.65	12.779		
3,200.00	3,167.84	3,175.56	3,123.08	13.37	14.40	85.31	-540.07	136.88	339.85	313.30	26.54	12.804		
3,300.00	3,266.63	3,274.83	3,220.29	13.82	14.90	85.33	-559.49	142.03	351.91	324.47	27.44	12.826		
3,400.00	3,365.42	3,374.10	3,317.51	14.27	15.39	85.35	-578.90	147.19	363.97	335.64	28.33	12.847		
3,500.00	3,464.20	3,473.37	3,414.73	14.71	15.89	85.37	-598.32	152.35	376.02	346.80	29.22	12.867		
3,600.00	3,562.99	3,572.64	3,511.94	15.16	16.38	85.38	-617.73	157.50	388.08	357.97	30.12	12.886		
3,700.00	3,661.78	3,671.91	3,609.16	15.61	16.88	85.40	-637.15	162.66	400.14	369.13	31.01	12.903		
3,800.00	3,760.57	3,771.18	3,706.38	16.05	17.37	85.41	-656.56	167.82	412.20	380.30	31.91	12.920		
3,900.00	3,859.35	3,870.45	3,803.59	16.50	17.87	85.42	-675.98	172.98	424.26	391.46	32.80	12.935		
4,000.00	3,958.14	3,969.72	3,900.81	16.95	18.37	85.43	-695.39	178.13	436.32	402.63	33.69	12.950		
4,100.00	4,056.93	4,068.99	3,998.02	17.40	18.86	85.44	-714.81	183.29	448.38	413.79	34.59	12.964		
4,200.00	4,155.72	4,168.26	4,095.24	17.84	19.36	85.45	-734.23	188.45	460.44	424.96	35.48	12.977		
4,300.00	4,254.50	4,267.53	4,192.46	18.29	19.85	85.46	-753.64	193.60	472.50	436.12	36.38	12.989		
4,400.00	4,353.29	4,366.80	4,289.67	18.74	20.35	85.47	-773.06	198.76	484.56	447.29	37.27	13.001		
4,500.00	4,452.08	4,466.07	4,386.89	19.19	20.84	85.48	-792.47	203.92	496.62	458.45	38.17	13.012		
4,600.00	4,550.87	4,565.34	4,484.11	19.63	21.34	85.49	-811.89	209.08	508.68	469.62	39.06	13.023		
4,700.00	4,649.65	4,664.61	4,581.32	20.08	21.84	85.50	-831.30	214.23	520.73	480.78	39.96	13.033		
4,800.00	4,748.44	4,763.88	4,678.54	20.53	22.33	85.51	-850.72	219.39	532.79	491.94	40.85	13.043		
4,900.00	4,847.23	4,863.15	4,775.76	20.97	22.83	85.52	-870.13	224.55	544.85	503.11	41.75	13.052		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,962.42	4,872.97	21.42	23.32	85.52	-889.55	229.70	556.91	514.27	42.64	13.061		
5,100.00	5,044.81	5,061.69	4,970.19	21.87	23.82	85.53	-908.97	234.86	568.97	525.44	43.54	13.069		
5,200.00	5,143.59	5,160.96	5,067.40	22.32	24.32	85.54	-928.38	240.02	581.03	536.60	44.43	13.077		
5,300.00	5,242.38	5,260.23	5,164.62	22.76	24.81	85.54	-947.80	245.18	593.09	547.77	45.33	13.085		
5,400.00	5,341.17	5,359.50	5,261.84	23.21	25.31	85.55	-967.21	250.33	605.15	558.93	46.22	13.093		
5,500.00	5,439.96	5,458.78	5,359.05	23.66	25.80	85.55	-986.63	255.49	617.21	570.09	47.12	13.100		
5,600.00	5,538.74	5,558.05	5,456.27	24.11	26.30	85.56	-1,006.04	260.65	629.27	581.26	48.01	13.107		
5,700.00	5,637.53	5,657.32	5,553.49	24.55	26.80	85.57	-1,025.46	265.80	641.33	592.42	48.91	13.113		
5,800.00	5,736.32	5,756.59	5,650.70	25.00	27.29	85.57	-1,044.87	270.96	653.39	603.59	49.80	13.120		
5,900.00	5,835.11	5,855.86	5,747.92	25.45	27.79	85.58	-1,064.29	276.12	665.45	614.75	50.70	13.126		
6,000.00	5,933.89	5,955.13	5,845.13	25.90	28.29	85.58	-1,083.70	281.28	677.51	625.91	51.59	13.132		
6,100.00	6,032.68	6,054.40	5,942.35	26.34	28.78	85.59	-1,103.12	286.43	689.57	637.08	52.49	13.138		
6,200.00	6,131.47	6,153.67	6,039.57	26.79	29.28	85.59	-1,122.54	291.59	701.63	648.24	53.38	13.143		
6,300.00	6,230.26	6,252.94	6,136.78	27.24	29.77	85.59	-1,141.95	296.75	713.68	659.41	54.28	13.148		
6,400.00	6,329.04	6,352.21	6,234.00	27.69	30.27	85.60	-1,161.37	301.91	725.74	670.57	55.17	13.154		
6,500.00	6,427.83	6,451.48	6,331.22	28.13	30.77	85.60	-1,180.78	307.06	737.80	681.73	56.07	13.158		
6,600.00	6,526.62	6,550.75	6,428.43	28.58	31.26	85.61	-1,200.20	312.22	749.86	692.90	56.97	13.163		
6,700.00	6,625.41	6,650.02	6,525.65	29.03	31.76	85.61	-1,219.61	317.38	761.92	704.06	57.86	13.168		
6,800.00	6,724.19	6,749.29	6,622.87	29.48	32.26	85.61	-1,239.03	322.53	773.98	715.22	58.76	13.172		
6,900.00	6,822.98	6,848.56	6,720.08	29.93	32.75	85.62	-1,258.44	327.69	786.04	726.39	59.65	13.177		
7,000.00	6,921.77	6,947.83	6,817.30	30.37	33.25	85.62	-1,277.86	332.85	798.10	737.55	60.55	13.181		
7,100.00	7,020.56	7,047.10	6,914.51	30.82	33.75	85.62	-1,297.28	338.01	810.16	748.71	61.45	13.185		
7,200.00	7,119.34	7,146.37	7,011.73	31.27	34.24	85.63	-1,316.69	343.16	822.22	759.88	62.34	13.189		
7,300.00	7,218.13	7,245.64	7,108.95	31.72	34.74	85.63	-1,336.11	348.32	834.28	771.04	63.24	13.193		
7,394.03	7,311.02	7,338.98	7,200.36	32.14	35.21	85.63	-1,354.36	353.17	845.62	781.54	64.08	13.196		
7,400.00	7,316.92	7,344.91	7,206.16	32.16	35.23	83.15	-1,355.52	353.48	846.32	782.19	64.13	13.196		
7,450.00	7,366.55	7,405.36	7,254.87	32.36	35.54	48.49	-1,365.25	356.06	850.81	786.22	64.58	13.174		
7,500.00	7,416.28	7,444.26	7,303.46	32.53	35.73	2.13	-1,374.95	358.64	852.80	787.94	64.86	13.148		
7,550.00	7,465.74	7,530.01	7,387.30	32.65	36.17	-23.00	-1,391.72	364.84	852.19	786.81	65.38	13.035		
7,600.00	7,514.54	7,742.96	7,584.52	32.75	37.32	-41.23	-1,431.74	430.65	842.75	777.45	65.30	12.905		
7,650.00	7,562.31	7,650.00	7,660.45	32.83	36.82	-53.19	-1,447.45	482.34	826.76	763.32	63.44	13.032		
7,700.00	7,608.70	7,925.92	7,725.25	32.89	38.39	-64.10	-1,461.04	542.57	809.49	745.37	64.12	12.625		
7,750.00	7,653.34	7,957.16	7,745.45	32.93	38.58	-70.28	-1,465.33	566.01	793.02	729.01	64.01	12.389		
7,800.00	7,695.91	7,970.76	7,753.85	32.95	38.66	-74.34	-1,467.12	576.56	778.53	714.56	63.98	12.169		
7,850.00	7,736.06	7,973.76	7,755.67	32.95	38.68	-76.92	-1,467.51	578.91	766.56	702.68	63.88	11.999		
7,900.00	7,773.51	7,969.97	7,753.37	32.95	38.66	-78.40	-1,467.02	575.93	757.38	693.71	63.67	11.895		
7,950.00	7,807.96	7,961.61	7,748.23	32.94	38.60	-79.05	-1,465.92	569.43	751.12	687.79	63.33	11.861		
8,000.00	7,839.15	7,950.04	7,740.96	32.92	38.53	-79.02	-1,464.37	560.57	747.77	684.91	62.87	11.895		
8,034.16	7,858.46	7,940.76	7,735.00	32.90	38.48	-78.67	-1,463.10	553.56	747.13	684.62	62.51	11.953		
8,050.00	7,866.84	7,936.14	7,732.00	32.90	38.45	-78.43	-1,462.47	550.12	747.26	684.94	62.32	11.990		
8,100.00	7,890.83	7,920.50	7,721.62	32.88	38.35	-77.39	-1,460.27	538.62	749.43	687.68	61.74	12.137		
8,150.00	7,910.93	7,903.52	7,710.01	32.87	38.25	-75.96	-1,457.82	526.48	754.05	692.88	61.17	12.326		
8,200.00	7,926.99	7,885.50	7,697.30	32.87	38.15	-74.21	-1,455.15	513.98	760.88	700.21	60.67	12.542		
8,250.00	7,938.88	7,866.65	7,683.61	32.89	38.03	-72.21	-1,452.27	501.35	769.62	709.36	60.26	12.772		
8,300.00	7,946.52	7,850.00	7,671.18	32.94	37.94	-70.18	-1,449.68	490.59	779.99	719.98	60.00	12.999		
8,350.00	7,949.85	7,827.07	7,653.57	33.03	37.80	-67.65	-1,446.01	476.37	791.65	731.82	59.83	13.232		
8,363.33	7,950.00	7,821.64	7,649.32	33.06	37.77	-67.01	-1,445.12	473.11	794.94	735.13	59.81	13.290		
8,400.00	7,950.00	7,807.18	7,637.85	33.16	37.69	-66.15	-1,442.74	464.63	804.68	744.85	59.82	13.451		
8,500.00	7,950.00	7,772.43	7,609.46	33.64	37.49	-64.06	-1,436.87	445.49	837.15	776.96	60.19	13.909		
8,600.00	7,950.00	7,750.00	7,590.54	34.42	37.36	-62.69	-1,432.98	434.08	877.99	816.94	61.05	14.382		
8,700.00	7,950.00	7,718.89	7,563.61	35.49	37.19	-60.77	-1,427.45	419.52	926.38	864.46	61.93	14.960		
8,800.00	7,950.00	7,700.00	7,546.90	36.77	37.08	-59.60	-1,424.03	411.42	981.62	918.55	63.07	15.565		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	7,680.02	7,528.94	38.23	36.97	-58.36	-1,420.36	403.46	1,042.76	978.61	64.15	16.255		
9,000.00	7,950.00	7,664.42	7,514.73	39.83	36.89	-57.40	-1,417.47	397.70	1,108.99	1,043.77	65.23	17.002		
9,100.00	7,950.00	7,650.00	7,501.47	41.56	36.81	-56.51	-1,414.77	392.72	1,179.55	1,113.34	66.21	17.815		
9,200.00	7,950.00	7,650.00	7,501.47	43.39	36.81	-56.51	-1,414.77	392.72	1,253.92	1,186.64	67.27	18.639		
9,300.00	7,950.00	7,628.07	7,481.07	45.30	36.69	-55.16	-1,410.63	385.81	1,331.11	1,263.19	67.92	19.598		
9,400.00	7,950.00	7,618.54	7,472.14	47.29	36.64	-54.58	-1,408.82	383.06	1,411.08	1,342.45	68.63	20.560		
9,500.00	7,950.00	7,600.00	7,454.62	49.35	36.54	-53.45	-1,405.27	378.14	1,493.41	1,424.27	69.14	21.599		
9,600.00	7,950.00	7,600.00	7,454.62	51.47	36.54	-53.45	-1,405.27	378.14	1,577.45	1,507.67	69.78	22.605		
9,700.00	7,950.00	7,600.00	7,454.62	53.63	36.54	-53.45	-1,405.27	378.14	1,663.25	1,592.91	70.34	23.646		
9,800.00	7,950.00	7,600.00	7,454.62	55.85	36.54	-53.45	-1,405.27	378.14	1,750.56	1,679.74	70.82	24.718		
9,900.00	7,950.00	7,600.00	7,454.62	58.10	36.54	-53.45	-1,405.27	378.14	1,839.16	1,767.92	71.24	25.815		
10,000.00	7,950.00	7,577.76	7,433.41	60.39	36.42	-52.11	-1,400.99	373.01	1,928.35	1,856.93	71.42	26.999		
10,100.00	7,950.00	7,572.85	7,428.69	62.71	36.39	-51.82	-1,400.04	371.99	2,018.78	1,947.06	71.72	28.148		
10,200.00	7,950.00	7,568.31	7,424.34	65.05	36.37	-51.55	-1,399.16	371.08	2,110.03	2,038.04	71.98	29.313		
10,300.00	7,950.00	7,550.00	7,406.68	67.43	36.27	-50.48	-1,395.61	367.78	2,202.21	2,130.10	72.11	30.541		
10,400.00	7,950.00	7,550.00	7,406.68	69.82	36.27	-50.48	-1,395.61	367.78	2,294.71	2,222.36	72.35	31.716		
10,500.00	7,950.00	7,550.00	7,406.68	72.24	36.27	-50.48	-1,395.61	367.78	2,387.83	2,315.25	72.58	32.901		
10,600.00	7,950.00	7,550.00	7,406.68	74.68	36.27	-50.48	-1,395.61	367.78	2,481.47	2,408.70	72.78	34.097		
10,700.00	7,950.00	7,550.00	7,406.68	77.13	36.27	-50.48	-1,395.61	367.78	2,575.60	2,502.64	72.96	35.302		
10,800.00	7,950.00	7,550.00	7,406.68	79.60	36.27	-50.48	-1,395.61	367.78	2,670.15	2,597.03	73.12	36.515		
10,900.00	7,950.00	7,550.00	7,406.68	82.08	36.27	-50.48	-1,395.61	367.78	2,765.09	2,691.81	73.28	37.735		
11,000.00	7,950.00	7,550.00	7,406.68	84.57	36.27	-50.48	-1,395.61	367.78	2,860.37	2,786.95	73.42	38.961		
11,100.00	7,950.00	7,550.00	7,406.68	87.08	36.27	-50.48	-1,395.61	367.78	2,955.96	2,882.41	73.55	40.192		
11,200.00	7,950.00	7,550.00	7,406.68	89.59	36.27	-50.48	-1,395.61	367.78	3,051.84	2,978.17	73.67	41.429		
11,300.00	7,950.00	7,550.00	7,406.68	92.12	36.27	-50.48	-1,395.61	367.78	3,147.97	3,074.19	73.78	42.669		
11,400.00	7,950.00	7,550.00	7,406.68	94.66	36.27	-50.48	-1,395.61	367.78	3,244.33	3,170.45	73.88	43.913		
11,500.00	7,950.00	7,550.00	7,406.68	97.20	36.27	-50.48	-1,395.61	367.78	3,340.91	3,266.93	73.98	45.160		
11,600.00	7,950.00	7,528.63	7,385.96	99.75	36.16	-49.24	-1,391.45	364.66	3,437.23	3,363.29	73.94	46.488		
11,700.00	7,950.00	7,528.84	7,384.21	102.31	36.15	-49.14	-1,391.10	364.44	3,534.11	3,460.09	74.02	47.748		
11,800.00	7,950.00	7,525.13	7,382.55	104.87	36.14	-49.04	-1,390.77	364.23	3,631.15	3,557.06	74.09	49.010		
11,900.00	7,950.00	7,523.50	7,380.97	107.44	36.13	-48.95	-1,390.45	364.03	3,728.34	3,654.18	74.16	50.274		
12,000.00	7,950.00	7,521.95	7,379.46	110.02	36.12	-48.86	-1,390.14	363.85	3,825.67	3,751.44	74.23	51.539		
12,100.00	7,950.00	7,500.00	7,358.03	112.60	36.01	-47.62	-1,385.86	361.73	3,923.54	3,849.37	74.17	52.901		
12,200.00	7,950.00	7,500.00	7,358.03	115.19	36.01	-47.62	-1,385.86	361.73	4,021.07	3,946.83	74.24	54.163		
12,300.00	7,950.00	7,500.00	7,358.03	117.78	36.01	-47.62	-1,385.86	361.73	4,118.71	4,044.40	74.31	55.426		
12,400.00	7,950.00	7,500.00	7,358.03	120.38	36.01	-47.62	-1,385.86	361.73	4,216.46	4,142.09	74.38	56.690		
12,500.00	7,950.00	7,500.00	7,358.03	122.98	36.01	-47.62	-1,385.86	361.73	4,314.32	4,239.88	74.44	57.955		
12,600.00	7,950.00	7,500.00	7,358.03	125.58	36.01	-47.62	-1,385.86	361.73	4,412.27	4,337.77	74.51	59.220		
12,700.00	7,950.00	7,500.00	7,358.03	128.19	36.01	-47.62	-1,385.86	361.73	4,510.32	4,435.75	74.57	60.485		
12,800.00	7,950.00	7,500.00	7,358.03	130.80	36.01	-47.62	-1,385.86	361.73	4,608.44	4,533.81	74.63	61.751		
12,900.00	7,950.00	7,500.00	7,358.03	133.41	36.01	-47.62	-1,385.86	361.73	4,706.65	4,631.96	74.69	63.016		
13,000.00	7,950.00	7,500.00	7,358.03	136.03	36.01	-47.62	-1,385.86	361.73	4,804.93	4,730.18	74.75	64.282		
13,100.00	7,950.00	7,500.00	7,358.03	138.65	36.01	-47.62	-1,385.86	361.73	4,903.28	4,828.48	74.81	65.547		
13,200.00	7,950.00	7,500.00	7,358.03	141.27	36.01	-47.62	-1,385.86	361.73	5,001.70	4,926.83	74.86	66.813		
13,300.00	7,950.00	7,500.00	7,358.03	143.90	36.01	-47.62	-1,385.86	361.73	5,100.17	5,025.25	74.92	68.077		
13,400.00	7,950.00	7,500.00	7,358.03	146.52	36.01	-47.62	-1,385.86	361.73	5,198.71	5,123.73	74.97	69.342		
13,500.00	7,950.00	7,500.00	7,358.03	149.15	36.01	-47.62	-1,385.86	361.73	5,297.30	5,222.27	75.03	70.605		
13,600.00	7,950.00	7,500.00	7,358.03	151.78	36.01	-47.62	-1,385.86	361.73	5,395.94	5,320.86	75.08	71.868		
13,700.00	7,950.00	7,500.00	7,358.03	154.42	36.01	-47.62	-1,385.86	361.73	5,494.63	5,419.49	75.13	73.130		
13,800.00	7,950.00	7,500.00	7,358.03	157.05	36.01	-47.62	-1,385.86	361.73	5,593.37	5,518.18	75.19	74.392		
13,900.00	7,950.00	7,500.00	7,358.03	159.69	36.01	-47.62	-1,385.86	361.73	5,692.15	5,616.91	75.24	75.652		
14,000.00	7,950.00	7,500.00	7,358.03	162.33	36.01	-47.62	-1,385.86	361.73	5,790.97	5,715.68	75.29	76.911		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	7,950.00	7,500.00	7,358.03	164.97	36.01	-47.62	-1,385.86	361.73	5,889.83	5,814.49	75.35	78.170		
14,200.00	7,950.00	7,500.00	7,358.03	167.61	36.01	-47.62	-1,385.86	361.73	5,988.73	5,913.33	75.40	79.427		
14,300.00	7,950.00	7,500.00	7,358.03	170.26	36.01	-47.62	-1,385.86	361.73	6,087.67	6,012.22	75.45	80.683		
14,400.00	7,950.00	7,500.00	7,358.03	172.90	36.01	-47.62	-1,385.86	361.73	6,186.64	6,111.14	75.50	81.937		
14,500.00	7,950.00	7,500.00	7,358.03	175.55	36.01	-47.62	-1,385.86	361.73	6,285.64	6,210.09	75.56	83.190		
14,600.00	7,950.00	7,500.00	7,358.03	178.20	36.01	-47.62	-1,385.86	361.73	6,384.68	6,309.07	75.61	84.442		
14,700.00	7,950.00	7,500.00	7,358.03	180.85	36.01	-47.62	-1,385.86	361.73	6,483.74	6,408.08	75.66	85.692		
14,800.00	7,950.00	7,500.00	7,358.03	183.50	36.01	-47.62	-1,385.86	361.73	6,582.84	6,507.12	75.72	86.941		
14,900.00	7,950.00	7,500.00	7,358.03	186.15	36.01	-47.62	-1,385.86	361.73	6,681.95	6,606.19	75.77	88.188		
15,000.00	7,950.00	7,500.00	7,358.03	188.80	36.01	-47.62	-1,385.86	361.73	6,781.10	6,705.28	75.82	89.434		
15,100.00	7,950.00	7,500.00	7,358.03	191.46	36.01	-47.62	-1,385.86	361.73	6,880.27	6,804.39	75.88	90.678		
15,200.00	7,950.00	7,500.00	7,358.03	194.11	36.01	-47.62	-1,385.86	361.73	6,979.46	6,903.53	75.93	91.920		
15,300.00	7,950.00	7,500.00	7,358.03	196.77	36.01	-47.62	-1,385.86	361.73	7,078.68	7,002.70	75.98	93.161		
15,400.00	7,950.00	7,492.99	7,351.17	199.42	35.98	-47.23	-1,384.48	361.22	7,177.87	7,101.87	76.00	94.448		
15,500.00	7,950.00	7,492.51	7,350.71	202.08	35.97	-47.20	-1,384.39	361.19	7,277.12	7,201.07	76.05	95.688		
15,600.00	7,950.00	7,492.05	7,350.26	204.74	35.97	-47.18	-1,384.30	361.16	7,376.40	7,300.29	76.10	96.927		
15,700.00	7,950.00	7,485.17	7,343.52	207.40	35.94	-46.80	-1,382.95	360.76	7,475.73	7,399.61	76.12	98.210		
15,800.00	7,950.00	7,485.17	7,343.52	210.06	35.94	-46.80	-1,382.95	360.76	7,575.03	7,498.86	76.18	99.442		
15,900.00	7,950.00	7,485.17	7,343.52	212.72	35.94	-46.80	-1,382.95	360.76	7,674.35	7,598.12	76.23	100.673		
16,000.00	7,950.00	7,485.17	7,343.52	215.38	35.94	-46.80	-1,382.95	360.76	7,773.69	7,697.41	76.29	101.901		
16,100.00	7,950.00	7,485.17	7,343.52	218.05	35.94	-46.80	-1,382.95	360.76	7,873.05	7,796.71	76.34	103.127		
16,200.00	7,950.00	7,485.17	7,343.52	220.71	35.94	-46.80	-1,382.95	360.76	7,972.42	7,896.02	76.40	104.351		
16,300.00	7,950.00	7,485.17	7,343.52	223.37	35.94	-46.80	-1,382.95	360.76	8,071.81	7,995.35	76.46	105.572		
16,400.00	7,950.00	7,485.17	7,343.52	226.04	35.94	-46.80	-1,382.95	360.76	8,171.22	8,094.70	76.52	106.792		
16,500.00	7,950.00	7,485.17	7,343.52	228.70	35.94	-46.80	-1,382.95	360.76	8,270.63	8,194.06	76.57	108.009		
16,600.00	7,950.00	7,485.17	7,343.52	231.37	35.94	-46.80	-1,382.95	360.76	8,370.06	8,293.43	76.63	109.225		
16,700.00	7,950.00	7,485.17	7,343.52	234.04	35.94	-46.80	-1,382.95	360.76	8,469.51	8,392.82	76.69	110.437		
16,800.00	7,950.00	7,485.17	7,343.52	236.70	35.94	-46.80	-1,382.95	360.76	8,568.97	8,492.22	76.75	111.648		
16,900.00	7,950.00	7,485.17	7,343.52	239.37	35.94	-46.80	-1,382.95	360.76	8,668.44	8,591.63	76.81	112.856		
17,000.00	7,950.00	7,485.17	7,343.52	242.04	35.94	-46.80	-1,382.95	360.76	8,767.92	8,691.05	76.87	114.062		
17,100.00	7,950.00	7,485.17	7,343.52	244.71	35.94	-46.80	-1,382.95	360.76	8,867.41	8,790.48	76.93	115.266		
17,200.00	7,950.00	7,485.17	7,343.52	247.38	35.94	-46.80	-1,382.95	360.76	8,966.92	8,889.93	76.99	116.467		
17,300.00	7,950.00	7,485.17	7,343.52	250.05	35.94	-46.80	-1,382.95	360.76	9,066.43	8,989.38	77.05	117.666		
17,400.00	7,950.00	7,488.91	7,347.18	252.72	35.95	-47.01	-1,383.69	360.96	9,165.96	9,088.83	77.13	118.831		
17,500.00	7,950.00	7,483.82	7,342.21	255.39	35.93	-46.73	-1,382.69	360.69	9,265.50	9,188.33	77.17	120.068		
17,600.00	7,950.00	7,478.74	7,337.23	258.06	35.90	-46.45	-1,381.70	360.43	9,365.04	9,287.84	77.20	121.303		
17,700.00	7,950.00	7,473.66	7,332.25	260.73	35.88	-46.17	-1,380.70	360.17	9,464.59	9,387.36	77.24	122.536		
17,800.00	7,950.00	7,468.58	7,327.27	263.40	35.85	-45.90	-1,379.71	359.90	9,564.15	9,486.88	77.27	123.768		
17,900.00	7,950.00	7,463.49	7,322.30	266.07	35.83	-45.63	-1,378.72	359.64	9,663.72	9,586.41	77.31	124.998		
18,000.00	7,950.00	7,458.41	7,317.32	268.74	35.80	-45.36	-1,377.72	359.37	9,763.29	9,685.94	77.35	126.226		
18,100.00	7,950.00	7,453.33	7,312.34	271.42	35.78	-45.09	-1,376.73	359.11	9,862.86	9,785.48	77.39	127.451		
18,200.00	7,950.00	7,448.25	7,307.36	274.09	35.75	-44.82	-1,375.73	358.85	9,962.45	9,885.02	77.42	128.675		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-75.04	0.00	75.04					
100.00	100.00	100.00	100.00	0.13	0.13	-180.00	-75.04	0.00	75.04	74.77	0.27	279.107		
200.00	200.00	200.00	200.00	0.49	0.49	-180.00	-75.04	0.00	75.04	74.05	0.99	76.120		
250.00	250.00	250.00	250.00	0.67	0.67	-180.00	-75.04	0.00	75.04	73.69	1.34	55.822 CC		
300.00	300.00	298.75	298.74	0.85	0.84	51.53	-75.45	0.08	75.18	73.50	1.68	44.638 ES		
400.00	399.93	396.20	396.13	1.19	1.17	53.03	-78.70	0.72	76.38	74.02	2.36	32.384		
500.00	499.68	493.53	493.23	1.55	1.52	55.87	-85.19	1.99	78.92	75.86	3.05	25.848		
600.00	599.13	590.66	589.86	1.93	1.88	59.76	-94.89	3.88	83.07	79.30	3.77	22.051		
696.56	694.75	684.19	682.53	2.31	2.25	64.17	-107.27	6.30	88.91	84.43	4.48	19.831		
700.00	698.15	687.52	685.83	2.33	2.26	64.34	-107.76	6.40	89.16	84.65	4.51	19.776		
800.00	796.94	784.08	780.99	2.74	2.67	68.34	-123.76	9.53	98.14	92.86	5.28	18.578		
900.00	895.73	880.21	875.14	3.17	3.11	70.76	-142.79	13.25	110.38	104.31	6.07	18.175 SF		
1,000.00	994.51	975.68	967.95	3.60	3.58	71.90	-164.76	17.55	125.57	118.70	6.87	18.267		
1,100.00	1,093.30	1,072.15	1,061.01	4.04	4.08	72.16	-189.69	22.42	143.26	135.57	7.69	18.624		
1,200.00	1,192.09	1,170.50	1,155.77	4.48	4.62	72.27	-215.54	27.48	161.34	152.80	8.55	18.881		
1,300.00	1,290.88	1,268.85	1,250.52	4.92	5.16	72.37	-241.39	32.53	179.43	170.02	9.41	19.078		
1,400.00	1,389.67	1,367.20	1,345.28	5.36	5.71	72.44	-267.24	37.59	197.51	187.24	10.27	19.231		
1,500.00	1,488.45	1,465.55	1,440.04	5.80	6.26	72.51	-293.09	42.64	215.60	204.46	11.14	19.354		
1,600.00	1,587.24	1,563.90	1,534.80	6.24	6.82	72.56	-318.94	47.70	233.68	221.67	12.01	19.453		
1,700.00	1,686.03	1,662.25	1,629.56	6.69	7.38	72.61	-344.79	52.75	251.76	238.88	12.89	19.534		
1,800.00	1,784.82	1,760.61	1,724.32	7.13	7.94	72.65	-370.64	57.81	269.85	256.08	13.77	19.602		
1,900.00	1,883.60	1,858.96	1,819.07	7.57	8.50	72.68	-396.49	62.86	287.93	273.29	14.65	19.660		
2,000.00	1,982.39	1,957.31	1,913.83	8.02	9.06	72.71	-422.34	67.92	306.02	290.49	15.53	19.709		
2,100.00	2,081.18	2,055.66	2,008.59	8.46	9.63	72.74	-448.19	72.97	324.10	307.70	16.41	19.751		
2,200.00	2,179.97	2,154.01	2,103.35	8.91	10.20	72.76	-474.04	78.03	342.19	324.90	17.29	19.788		
2,300.00	2,278.75	2,252.36	2,198.11	9.36	10.76	72.79	-499.89	83.08	360.28	342.10	18.18	19.820		
2,400.00	2,377.54	2,350.71	2,292.86	9.80	11.33	72.81	-525.74	88.14	378.36	359.30	19.06	19.848		
2,500.00	2,476.33	2,449.06	2,387.62	10.25	11.90	72.82	-551.59	93.19	396.45	376.50	19.95	19.873		
2,600.00	2,575.12	2,547.41	2,482.38	10.69	12.47	72.84	-577.44	98.25	414.53	393.70	20.84	19.895		
2,700.00	2,673.90	2,645.76	2,577.14	11.14	13.04	72.86	-603.29	103.30	432.62	410.89	21.72	19.916		
2,800.00	2,772.69	2,744.11	2,671.90	11.59	13.61	72.87	-629.14	108.36	450.70	428.09	22.61	19.934		
2,900.00	2,871.48	2,842.47	2,766.66	12.03	14.18	72.88	-654.99	113.42	468.79	445.29	23.50	19.950		
3,000.00	2,970.27	2,940.82	2,861.41	12.48	14.75	72.89	-680.84	118.47	486.87	462.49	24.39	19.965		
3,100.00	3,069.05	3,039.17	2,956.17	12.93	15.32	72.91	-706.69	123.53	504.96	479.68	25.28	19.978		
3,200.00	3,167.84	3,137.52	3,050.93	13.37	15.89	72.92	-732.54	128.58	523.04	496.88	26.16	19.991		
3,300.00	3,266.63	3,235.87	3,145.69	13.82	16.46	72.93	-758.39	133.64	541.13	514.08	27.05	20.002		
3,400.00	3,365.42	3,334.22	3,240.45	14.27	17.03	72.93	-784.24	138.69	559.22	531.27	27.94	20.013		
3,500.00	3,464.20	3,432.57	3,335.21	14.71	17.61	72.94	-810.09	143.75	577.30	548.47	28.83	20.022		
3,600.00	3,562.99	3,530.92	3,429.96	15.16	18.18	72.95	-835.94	148.80	595.39	565.66	29.72	20.031		
3,700.00	3,661.78	3,629.27	3,524.72	15.61	18.75	72.96	-861.79	153.86	613.47	582.86	30.61	20.040		
3,800.00	3,760.57	3,727.62	3,619.48	16.05	19.32	72.96	-887.64	158.91	631.56	600.05	31.50	20.047		
3,900.00	3,859.35	3,825.97	3,714.24	16.50	19.90	72.97	-913.49	163.97	649.64	617.25	32.39	20.055		
4,000.00	3,958.14	3,924.33	3,809.00	16.95	20.47	72.98	-939.34	169.02	667.73	634.44	33.28	20.061		
4,100.00	4,056.93	4,022.68	3,903.75	17.40	21.04	72.98	-965.19	174.08	685.82	651.64	34.18	20.067		
4,200.00	4,155.72	4,121.03	3,998.51	17.84	21.61	72.99	-991.04	179.13	703.90	668.83	35.07	20.073		
4,300.00	4,254.50	4,219.38	4,093.27	18.29	22.19	72.99	-1,016.89	184.19	721.99	686.03	35.96	20.079		
4,400.00	4,353.29	4,317.73	4,188.03	18.74	22.76	73.00	-1,042.74	189.24	740.07	703.22	36.85	20.084		
4,500.00	4,452.08	4,416.08	4,282.79	19.19	23.33	73.00	-1,068.59	194.30	758.16	720.42	37.74	20.089		
4,600.00	4,550.87	4,514.43	4,377.55	19.63	23.90	73.01	-1,094.44	199.35	776.24	737.61	38.63	20.094		
4,700.00	4,649.65	4,612.78	4,472.30	20.08	24.48	73.01	-1,120.29	204.41	794.33	754.81	39.52	20.098		
4,800.00	4,748.44	4,711.13	4,567.06	20.53	25.05	73.02	-1,146.14	209.47	812.42	772.00	40.41	20.102		
4,900.00	4,847.23	4,809.48	4,661.82	20.97	25.62	73.02	-1,171.99	214.52	830.50	789.19	41.31	20.106		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,907.84	4,756.58	21.42	26.20	73.03	-1,197.84	219.58	848.59	806.39	42.20	20.109		
5,100.00	5,044.81	5,006.19	4,851.34	21.87	26.77	73.03	-1,223.69	224.63	866.67	823.58	43.09	20.113		
5,200.00	5,143.59	5,104.54	4,946.09	22.32	27.34	73.03	-1,249.54	229.69	884.76	840.78	43.98	20.116		
5,300.00	5,242.38	5,202.89	5,040.85	22.76	27.92	73.04	-1,275.39	234.74	902.84	857.97	44.87	20.119		
5,400.00	5,341.17	5,301.24	5,135.61	23.21	28.49	73.04	-1,301.24	239.80	920.93	875.16	45.77	20.122		
5,500.00	5,439.96	5,400.41	5,230.37	23.66	29.07	73.04	-1,327.09	244.85	939.02	892.35	46.66	20.123		
5,600.00	5,538.74	5,497.94	5,325.13	24.11	29.64	73.05	-1,352.94	249.91	957.10	909.55	47.55	20.128		
5,700.00	5,637.53	5,596.29	5,419.89	24.55	30.21	73.05	-1,378.79	254.96	975.19	926.74	48.44	20.130		
5,800.00	5,736.32	5,694.64	5,514.64	25.00	30.78	73.05	-1,404.64	260.02	993.27	943.94	49.34	20.133		
5,900.00	5,835.11	5,807.01	5,609.40	25.45	31.44	73.05	-1,430.49	265.07	1,011.36	961.06	50.29	20.109		
6,000.00	5,933.89	5,908.66	5,704.16	25.90	32.03	73.06	-1,456.34	270.13	1,029.44	978.24	51.20	20.106		
6,100.00	6,032.68	5,989.70	5,798.92	26.34	32.50	73.06	-1,482.19	275.18	1,047.53	995.52	52.01	20.139		
6,200.00	6,131.47	6,088.05	5,893.68	26.79	33.08	73.06	-1,508.04	280.24	1,065.62	1,012.71	52.91	20.141		
6,300.00	6,230.26	6,186.40	5,988.44	27.24	33.65	73.06	-1,533.89	285.29	1,083.70	1,029.90	53.80	20.143		
6,400.00	6,329.04	6,284.75	6,083.19	27.69	34.22	73.07	-1,559.74	290.35	1,101.79	1,047.09	54.69	20.145		
6,500.00	6,427.83	6,383.10	6,177.95	28.13	34.80	73.07	-1,585.59	295.40	1,119.87	1,064.29	55.59	20.147		
6,600.00	6,526.62	6,481.45	6,272.71	28.58	35.37	73.07	-1,611.44	300.46	1,137.96	1,081.48	56.48	20.149		
6,700.00	6,625.41	6,579.80	6,367.47	29.03	35.94	73.07	-1,637.29	305.52	1,156.04	1,098.67	57.37	20.150		
6,800.00	6,724.19	6,678.15	6,462.23	29.48	36.52	73.07	-1,663.14	310.57	1,174.13	1,115.87	58.26	20.152		
6,900.00	6,822.98	6,776.50	6,556.98	29.93	37.09	73.08	-1,688.99	315.63	1,192.22	1,133.06	59.16	20.153		
7,000.00	6,921.77	6,874.85	6,651.74	30.37	37.67	73.08	-1,714.84	320.68	1,210.30	1,150.25	60.05	20.155		
7,100.00	7,020.56	6,973.20	6,746.50	30.82	38.24	73.08	-1,740.69	325.74	1,228.39	1,167.44	60.94	20.156		
7,200.00	7,119.34	7,071.56	6,841.26	31.27	38.81	73.08	-1,766.55	330.79	1,246.47	1,184.64	61.84	20.157		
7,300.00	7,218.13	7,169.91	6,936.02	31.72	39.39	73.08	-1,792.40	335.85	1,264.56	1,201.83	62.73	20.159		
7,394.03	7,311.02	7,262.38	7,025.12	32.14	39.93	73.09	-1,816.70	340.60	1,281.56	1,217.99	63.57	20.160		
7,400.00	7,316.92	7,268.26	7,030.78	32.16	39.96	70.65	-1,818.25	340.90	1,282.63	1,219.01	63.62	20.160		
7,450.00	7,366.55	7,317.53	7,078.25	32.36	40.25	36.40	-1,831.20	343.43	1,290.65	1,226.63	64.02	20.160		
7,500.00	7,416.28	7,366.69	7,125.61	32.53	40.53	-9.44	-1,844.12	345.96	1,296.99	1,232.66	64.33	20.161		
7,550.00	7,465.74	7,415.36	7,172.50	32.65	40.82	-33.30	-1,856.91	348.46	1,301.66	1,237.10	64.56	20.162		
7,600.00	7,514.54	7,463.16	7,218.56	32.75	41.10	-44.18	-1,869.47	350.92	1,304.72	1,240.00	64.72	20.160		
7,650.00	7,562.31	7,509.74	7,263.44	32.83	41.37	-50.32	-1,881.72	353.31	1,306.28	1,241.47	64.80	20.158		
7,700.00	7,608.70	7,554.74	7,306.79	32.89	41.63	-54.49	-1,893.54	355.63	1,306.47	1,241.65	64.82	20.155		
7,750.00	7,653.34	7,602.19	7,348.29	32.93	41.91	-57.73	-1,904.86	357.84	1,305.48	1,240.69	64.79	20.149		
7,800.00	7,695.91	7,638.64	7,387.63	32.95	42.12	-60.48	-1,915.59	359.94	1,303.52	1,238.86	64.66	20.160		
7,850.00	7,736.06	7,676.90	7,424.49	32.95	42.34	-62.94	-1,925.65	361.91	1,300.82	1,236.32	64.50	20.169		
7,900.00	7,773.51	7,749.77	7,494.31	32.95	42.78	-66.52	-1,944.75	369.91	1,297.17	1,232.61	64.56	20.094		
7,950.00	7,807.96	7,800.59	7,542.13	32.94	43.09	-69.53	-1,957.89	380.90	1,292.83	1,228.43	64.39	20.077		
8,000.00	7,839.15	7,832.47	7,571.58	32.92	43.29	-71.75	-1,966.01	390.02	1,288.72	1,224.61	64.11	20.102		
8,050.00	7,866.84	7,851.08	7,588.53	32.90	43.40	-73.27	-1,970.69	396.12	1,285.39	1,221.61	63.77	20.155		
8,100.00	7,890.83	7,860.36	7,596.90	32.88	43.46	-74.21	-1,973.01	399.38	1,283.12	1,219.68	63.44	20.226		
8,150.00	7,910.93	7,862.93	7,599.21	32.87	43.47	-74.67	-1,973.65	400.30	1,282.04	1,218.92	63.13	20.309		
8,168.12	7,917.22	7,862.57	7,598.89	32.87	43.47	-74.73	-1,973.56	400.17	1,281.96	1,218.93	63.03	20.339		
8,200.00	7,926.99	7,860.58	7,597.10	32.87	43.46	-74.73	-1,973.06	399.46	1,282.21	1,219.35	62.87	20.396		
8,250.00	7,938.88	7,854.54	7,591.66	32.89	43.42	-74.45	-1,971.56	397.32	1,283.60	1,220.93	62.67	20.481		
8,300.00	7,946.52	7,845.69	7,583.64	32.94	43.37	-73.88	-1,969.34	394.30	1,286.15	1,223.58	62.56	20.558		
8,350.00	7,949.85	7,834.64	7,573.57	33.03	43.30	-73.09	-1,966.56	390.70	1,289.75	1,227.20	62.54	20.622		
8,363.33	7,950.00	7,831.39	7,570.59	33.06	43.28	-72.84	-1,965.73	389.68	1,290.87	1,228.32	62.55	20.637		
8,400.00	7,950.00	7,822.70	7,562.61	33.16	43.23	-72.47	-1,963.53	387.04	1,294.53	1,231.91	62.62	20.673		
8,500.00	7,950.00	7,800.00	7,541.59	33.64	43.09	-71.50	-1,957.74	380.75	1,309.36	1,246.28	63.08	20.759		
8,600.00	7,950.00	7,786.76	7,529.21	34.42	43.00	-70.93	-1,954.33	377.47	1,331.19	1,267.24	63.96	20.814		
8,700.00	7,950.00	7,773.82	7,517.06	35.49	42.93	-70.37	-1,950.99	374.56	1,359.80	1,294.69	65.11	20.885		
8,800.00	7,950.00	7,763.11	7,506.95	36.77	42.86	-69.91	-1,948.21	372.37	1,394.83	1,328.36	66.47	20.986		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
8,900.00	7,950.00	7,750.00	7,494.53	38.23	42.78	-69.34	-1,944.81	369.95	1,435.86	1,367.95	67.91	21.144		
9,000.00	7,950.00	7,750.00	7,494.53	39.83	42.78	-69.34	-1,944.81	369.95	1,482.39	1,412.88	69.51	21.326		
9,100.00	7,950.00	7,750.00	7,494.53	41.56	42.78	-69.34	-1,944.81	369.95	1,534.04	1,462.94	71.10	21.576		
9,200.00	7,950.00	7,734.02	7,479.31	43.39	42.68	-68.64	-1,940.64	367.40	1,590.10	1,517.62	72.48	21.938		
9,300.00	7,950.00	7,728.96	7,474.48	45.30	42.65	-68.42	-1,939.31	366.69	1,650.34	1,576.45	73.89	22.335		
9,400.00	7,950.00	7,724.47	7,470.19	47.29	42.63	-68.22	-1,938.14	366.09	1,714.27	1,639.06	75.21	22.792		
9,500.00	7,950.00	7,720.47	7,466.36	49.35	42.60	-68.05	-1,937.09	365.59	1,781.49	1,705.05	76.44	23.306		
9,600.00	7,950.00	7,716.88	7,462.92	51.47	42.58	-67.89	-1,936.15	365.16	1,851.65	1,774.08	77.57	23.870		
9,700.00	7,950.00	7,700.00	7,446.72	53.63	42.48	-67.15	-1,931.72	363.45	1,924.60	1,846.12	78.48	24.524		
9,800.00	7,950.00	7,700.00	7,446.72	55.85	42.48	-67.15	-1,931.72	363.45	1,999.65	1,920.20	79.45	25.168		
9,900.00	7,950.00	7,700.00	7,446.72	58.10	42.48	-67.15	-1,931.72	363.45	2,076.80	1,996.46	80.34	25.850		
10,000.00	7,950.00	7,700.00	7,446.72	60.39	42.48	-67.15	-1,931.72	363.45	2,155.84	2,074.69	81.15	26.567		
10,100.00	7,950.00	7,700.00	7,446.72	62.71	42.48	-67.15	-1,931.72	363.45	2,236.55	2,154.67	81.88	27.315		
10,200.00	7,950.00	7,700.00	7,446.72	65.05	42.48	-67.15	-1,931.72	363.45	2,318.76	2,236.22	82.55	28.090		
10,300.00	7,950.00	7,700.00	7,446.72	67.43	42.48	-67.15	-1,931.72	363.45	2,402.33	2,319.17	83.15	28.890		
10,400.00	7,950.00	7,700.00	7,446.72	69.82	42.48	-67.15	-1,931.72	363.45	2,487.10	2,403.40	83.71	29.712		
10,500.00	7,950.00	7,700.00	7,446.72	72.24	42.48	-67.15	-1,931.72	363.45	2,572.98	2,488.76	84.21	30.554		
10,600.00	7,950.00	7,700.00	7,446.72	74.68	42.48	-67.15	-1,931.72	363.45	2,659.83	2,575.16	84.67	31.413		
10,700.00	7,950.00	7,700.00	7,446.72	77.13	42.48	-67.15	-1,931.72	363.45	2,747.59	2,662.49	85.10	32.288		
10,800.00	7,950.00	7,691.67	7,438.71	79.60	42.43	-66.79	-1,929.53	362.79	2,836.08	2,750.67	85.41	33.206		
10,900.00	7,950.00	7,690.41	7,437.50	82.08	42.42	-66.74	-1,929.20	362.70	2,925.36	2,839.61	85.76	34.113		
11,000.00	7,950.00	7,689.23	7,436.36	84.57	42.42	-66.68	-1,928.89	362.62	3,015.31	2,929.24	86.07	35.031		
11,100.00	7,950.00	7,688.12	7,435.29	87.08	42.41	-66.64	-1,928.60	362.54	3,105.87	3,019.51	86.37	35.960		
11,200.00	7,950.00	7,679.74	7,427.23	89.59	42.36	-66.27	-1,926.40	362.05	3,197.05	3,110.47	86.58	36.928		
11,300.00	7,950.00	7,679.74	7,427.23	92.12	42.36	-66.27	-1,926.40	362.05	3,288.67	3,201.83	86.84	37.872		
11,400.00	7,950.00	7,679.74	7,427.23	94.66	42.36	-66.27	-1,926.40	362.05	3,380.77	3,293.69	87.08	38.823		
11,500.00	7,950.00	7,679.74	7,427.23	97.20	42.36	-66.27	-1,926.40	362.05	3,473.30	3,386.00	87.31	39.782		
11,600.00	7,950.00	7,679.74	7,427.23	99.75	42.36	-66.27	-1,926.40	362.05	3,566.24	3,478.72	87.52	40.748		
11,700.00	7,950.00	7,679.74	7,427.23	102.31	42.36	-66.27	-1,926.40	362.05	3,659.55	3,571.84	87.72	41.720		
11,800.00	7,950.00	7,679.74	7,427.23	104.87	42.36	-66.27	-1,926.40	362.05	3,753.21	3,665.30	87.90	42.697		
11,900.00	7,950.00	7,679.74	7,427.23	107.44	42.36	-66.27	-1,926.40	362.05	3,847.18	3,759.10	88.08	43.679		
12,000.00	7,950.00	7,684.84	7,432.14	110.02	42.39	-66.49	-1,927.74	362.31	3,941.45	3,853.16	88.29	44.642		
12,100.00	7,950.00	7,679.85	7,427.33	112.60	42.36	-66.28	-1,926.43	362.06	4,036.00	3,947.60	88.40	45.656		
12,200.00	7,950.00	7,674.86	7,422.53	115.19	42.33	-66.06	-1,925.12	361.80	4,130.80	4,042.30	88.50	46.674		
12,300.00	7,950.00	7,669.87	7,417.72	117.78	42.30	-65.84	-1,923.80	361.55	4,225.84	4,137.24	88.60	47.697		
12,400.00	7,950.00	7,664.89	7,412.91	120.38	42.27	-65.62	-1,922.49	361.29	4,321.09	4,232.40	88.69	48.724		
12,500.00	7,950.00	7,659.90	7,408.11	122.98	42.25	-65.41	-1,921.18	361.03	4,416.55	4,327.78	88.77	49.754		
12,600.00	7,950.00	7,654.91	7,403.30	125.58	42.22	-65.19	-1,919.87	360.78	4,512.19	4,423.35	88.84	50.788		
12,700.00	7,950.00	7,649.92	7,398.49	128.19	42.19	-64.98	-1,918.56	360.52	4,608.02	4,519.11	88.91	51.826		
12,800.00	7,950.00	7,644.93	7,393.69	130.80	42.16	-64.76	-1,917.25	360.26	4,704.02	4,615.04	88.98	52.866		
12,900.00	7,950.00	7,639.94	7,388.88	133.41	42.13	-64.55	-1,915.94	360.01	4,800.17	4,711.13	89.04	53.910		
13,000.00	7,950.00	7,634.95	7,384.08	136.03	42.10	-64.33	-1,914.63	359.75	4,896.48	4,807.38	89.10	54.956		
13,100.00	7,950.00	7,629.96	7,379.27	138.65	42.07	-64.12	-1,913.31	359.49	4,992.92	4,903.77	89.15	56.005		
13,200.00	7,950.00	7,624.97	7,374.46	141.27	42.04	-63.90	-1,912.00	359.24	5,089.49	5,000.29	89.20	57.056		
13,300.00	7,950.00	7,619.99	7,369.66	143.90	42.01	-63.69	-1,910.69	358.98	5,186.20	5,096.95	89.25	58.109		
13,400.00	7,950.00	7,615.00	7,364.85	146.52	41.98	-63.47	-1,909.38	358.72	5,283.02	5,193.72	89.29	59.165		
13,500.00	7,950.00	7,610.01	7,360.04	149.15	41.95	-63.26	-1,908.07	358.47	5,379.95	5,290.61	89.33	60.222		
13,600.00	7,950.00	7,605.02	7,355.24	151.78	41.93	-63.05	-1,906.76	358.21	5,476.98	5,387.61	89.37	61.282		
13,700.00	7,950.00	7,600.03	7,350.43	154.42	41.90	-62.83	-1,905.45	357.96	5,574.12	5,484.71	89.41	62.343		
13,800.00	7,950.00	7,604.96	7,345.62	157.05	41.92	-62.62	-1,904.14	357.70	5,671.35	5,581.85	89.50	63.367		
13,900.00	7,950.00	7,599.05	7,340.82	159.69	41.84	-62.41	-1,902.82	357.44	5,768.67	5,679.20	89.48	64.471		
14,000.00	7,950.00	7,585.06	7,336.01	162.33	41.81	-62.20	-1,901.51	357.19	5,866.08	5,776.57	89.51	65.536		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 3BH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	7,950.00	7,580.07	7,331.20	164.97	41.78	-61.98	-1,900.20	356.93	5,963.57	5,874.03	89.54	66.604	
14,200.00	7,950.00	7,575.09	7,326.40	167.61	41.75	-61.77	-1,898.89	356.67	6,061.14	5,971.57	89.57	67.672	
14,300.00	7,950.00	7,570.10	7,321.59	170.26	41.72	-61.56	-1,897.58	356.42	6,158.78	6,069.19	89.59	68.742	
14,400.00	7,950.00	7,565.11	7,316.78	172.90	41.69	-61.35	-1,896.27	356.16	6,256.49	6,166.88	89.62	69.813	
14,500.00	7,950.00	7,560.12	7,311.98	175.55	41.66	-61.14	-1,894.96	355.90	6,354.27	6,264.63	89.64	70.884	
14,600.00	7,950.00	7,555.13	7,307.17	178.20	41.63	-60.93	-1,893.65	355.65	6,452.12	6,362.45	89.67	71.957	
14,700.00	7,950.00	7,550.14	7,302.36	180.85	41.61	-60.72	-1,892.33	355.39	6,550.02	6,460.33	89.69	73.031	
14,800.00	7,950.00	7,545.15	7,297.56	183.50	41.58	-60.51	-1,891.02	355.13	6,647.99	6,558.28	89.71	74.105	
14,900.00	7,950.00	7,540.16	7,292.75	186.15	41.55	-60.31	-1,889.71	354.88	6,746.01	6,656.27	89.73	75.180	
15,000.00	7,950.00	7,535.17	7,287.94	188.80	41.52	-60.10	-1,888.40	354.62	6,844.08	6,754.33	89.75	76.256	
15,100.00	7,950.00	7,530.19	7,283.14	191.46	41.49	-59.89	-1,887.09	354.37	6,942.20	6,852.43	89.77	77.333	
15,200.00	7,950.00	7,525.20	7,278.33	194.11	41.46	-59.68	-1,885.78	354.11	7,040.38	6,950.59	89.79	78.410	
15,300.00	7,950.00	7,520.21	7,273.52	196.77	41.43	-59.48	-1,884.47	353.85	7,138.60	7,048.79	89.81	79.487	
15,400.00	7,950.00	7,515.22	7,268.72	199.42	41.40	-59.27	-1,883.16	353.60	7,236.87	7,147.04	89.83	80.566	
15,500.00	7,950.00	7,510.23	7,263.91	202.08	41.37	-59.06	-1,881.84	353.34	7,335.17	7,245.33	89.84	81.644	
15,600.00	7,950.00	7,505.24	7,259.10	204.74	41.34	-58.86	-1,880.53	353.08	7,433.53	7,343.67	89.86	82.723	
15,700.00	7,950.00	7,500.25	7,254.30	207.40	41.31	-58.65	-1,879.22	352.83	7,531.92	7,442.04	89.88	83.802	
15,800.00	7,950.00	7,504.74	7,249.49	210.06	41.34	-58.45	-1,877.91	352.57	7,630.35	7,540.40	89.95	84.831	
15,900.00	7,950.00	7,509.73	7,244.68	212.72	41.37	-58.24	-1,876.60	352.31	7,728.82	7,638.79	90.02	85.856	
16,000.00	7,950.00	7,485.29	7,239.88	215.38	41.23	-58.04	-1,875.29	352.06	7,827.32	7,737.39	89.93	87.041	
16,100.00	7,950.00	7,480.30	7,235.07	218.05	41.20	-57.83	-1,873.98	351.80	7,925.86	7,835.91	89.94	88.120	
16,200.00	7,950.00	7,475.31	7,230.26	220.71	41.17	-57.63	-1,872.67	351.54	8,024.43	7,934.47	89.96	89.200	
16,300.00	7,950.00	7,470.32	7,225.46	223.37	41.14	-57.43	-1,871.35	351.29	8,123.03	8,033.05	89.98	90.280	
16,400.00	7,950.00	7,465.33	7,220.65	226.04	41.11	-57.23	-1,870.04	351.03	8,221.66	8,131.67	89.99	91.360	
16,500.00	7,950.00	7,460.34	7,215.84	228.70	41.08	-57.02	-1,868.73	350.78	8,320.33	8,230.32	90.01	92.440	
16,600.00	7,950.00	7,455.35	7,211.04	231.37	41.05	-56.82	-1,867.42	350.52	8,419.02	8,328.99	90.02	93.520	
16,700.00	7,950.00	7,450.36	7,206.23	234.04	41.02	-56.62	-1,866.11	350.26	8,517.74	8,427.70	90.04	94.600	
16,800.00	7,950.00	7,445.37	7,201.42	236.70	40.99	-56.42	-1,864.80	350.01	8,616.48	8,526.43	90.06	95.680	
16,900.00	7,950.00	7,440.39	7,196.62	239.37	40.96	-56.22	-1,863.49	349.75	8,715.25	8,625.18	90.07	96.759	
17,000.00	7,950.00	7,435.40	7,191.81	242.04	40.94	-56.02	-1,862.18	349.49	8,814.05	8,723.96	90.09	97.838	
17,100.00	7,950.00	7,430.41	7,187.00	244.71	40.91	-55.82	-1,860.86	349.24	8,912.87	8,822.76	90.10	98.917	
17,200.00	7,950.00	7,425.42	7,182.20	247.38	40.88	-55.62	-1,859.55	348.98	9,011.71	8,921.59	90.12	99.996	
17,300.00	7,950.00	7,420.43	7,177.39	250.05	40.85	-55.43	-1,858.24	348.72	9,110.58	9,020.44	90.14	101.074	
17,400.00	7,950.00	7,415.44	7,172.58	252.72	40.82	-55.23	-1,856.93	348.47	9,209.47	9,119.31	90.15	102.153	
17,500.00	7,950.00	7,410.45	7,167.78	255.39	40.79	-55.03	-1,855.62	348.21	9,308.38	9,218.20	90.17	103.230	
17,600.00	7,950.00	7,405.46	7,162.97	258.06	40.76	-54.83	-1,854.31	347.95	9,407.30	9,317.12	90.19	104.307	
17,700.00	7,950.00	7,400.47	7,158.16	260.73	40.73	-54.64	-1,853.00	347.70	9,506.25	9,416.05	90.21	105.384	
17,800.00	7,950.00	7,404.52	7,153.36	263.40	40.76	-54.44	-1,851.69	347.44	9,605.22	9,514.95	90.27	106.400	
17,900.00	7,950.00	7,409.50	7,148.55	266.07	40.78	-54.25	-1,850.37	347.19	9,704.21	9,613.86	90.35	107.408	
18,000.00	7,950.00	7,385.51	7,143.74	268.74	40.64	-54.05	-1,849.06	346.93	9,803.21	9,712.95	90.26	108.612	
18,100.00	7,950.00	7,380.52	7,138.94	271.42	40.62	-53.86	-1,847.75	346.67	9,902.24	9,811.96	90.28	109.687	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	-0.10	0.00	0.00	179.87	-124.95	0.28	124.95					
100.00	100.00	100.10	99.90	0.13	0.13	179.87	-124.95	0.28	124.95	124.68	0.27	464.126		
200.00	200.00	200.10	199.90	0.49	0.49	179.87	-124.95	0.28	124.95	123.96	0.99	126.703		
250.00	250.00	249.90	249.90	0.67	0.67	179.87	-124.95	0.28	124.95	123.60	1.34	92.974 CC		
300.00	300.00	297.84	297.83	0.85	0.84	51.33	-125.34	0.34	125.09	123.41	1.68	74.405 ES		
400.00	399.93	393.66	393.60	1.19	1.16	52.28	-128.51	0.83	126.23	123.88	2.35	53.719		
500.00	499.68	489.35	489.07	1.55	1.50	54.11	-134.82	1.81	128.62	125.58	3.04	42.340		
600.00	599.13	584.84	584.08	1.93	1.86	56.72	-144.26	3.27	132.46	128.71	3.74	35.388		
696.56	694.75	676.77	675.19	2.31	2.22	59.82	-156.30	5.14	137.77	133.32	4.45	30.987		
700.00	698.15	680.04	678.43	2.33	2.23	59.94	-156.78	5.21	137.99	133.52	4.47	30.869		
800.00	796.94	774.93	772.00	2.74	2.63	63.08	-172.34	7.63	146.34	141.12	5.22	28.008		
900.00	895.73	869.40	864.58	3.17	3.06	65.42	-190.86	10.49	158.11	152.12	5.99	26.379		
1,000.00	994.51	963.23	955.89	3.60	3.52	66.98	-212.23	13.81	173.06	166.29	6.77	25.553		
1,100.00	1,093.30	1,056.25	1,045.65	4.04	4.00	67.88	-236.33	17.54	191.01	183.46	7.55	25.288 SF		
1,200.00	1,192.09	1,148.27	1,133.62	4.48	4.52	68.25	-262.98	21.67	211.82	203.49	8.34	25.410		
1,300.00	1,290.88	1,239.36	1,219.81	4.92	5.06	68.22	-292.10	26.18	235.42	226.30	9.12	25.821		
1,400.00	1,389.67	1,336.21	1,310.99	5.36	5.68	68.05	-324.39	31.19	260.29	250.32	9.97	26.109		
1,500.00	1,488.45	1,433.07	1,402.16	5.80	6.29	67.91	-356.68	36.19	285.16	274.33	10.83	26.335		
1,600.00	1,587.24	1,529.92	1,493.34	6.24	6.92	67.79	-388.97	41.19	310.03	298.34	11.69	26.517		
1,700.00	1,686.03	1,626.78	1,584.52	6.69	7.56	67.69	-421.25	46.20	334.90	322.34	12.56	26.665		
1,800.00	1,784.82	1,723.64	1,675.70	7.13	8.19	67.61	-453.54	51.20	359.78	346.35	13.43	26.787		
1,900.00	1,883.60	1,820.49	1,766.88	7.57	8.83	67.53	-485.83	56.20	384.65	370.35	14.30	26.890		
2,000.00	1,982.39	1,917.35	1,858.05	8.02	9.48	67.47	-518.12	61.21	409.53	394.35	15.18	26.977		
2,100.00	2,081.18	2,014.20	1,949.23	8.46	10.12	67.41	-550.41	66.21	434.40	418.34	16.06	27.052		
2,200.00	2,179.97	2,111.06	2,040.41	8.91	10.77	67.35	-582.70	71.21	459.28	442.34	16.94	27.116		
2,300.00	2,278.75	2,207.91	2,131.59	9.36	11.42	67.31	-614.99	76.22	484.15	466.34	17.82	27.173		
2,400.00	2,377.54	2,304.77	2,222.77	9.80	12.07	67.27	-647.28	81.22	509.03	490.33	18.70	27.222		
2,500.00	2,476.33	2,401.63	2,313.94	10.25	12.72	67.23	-679.57	86.22	533.91	514.33	19.58	27.266		
2,600.00	2,575.12	2,501.52	2,405.12	10.69	13.40	67.19	-711.86	91.23	558.79	538.31	20.48	27.285		
2,700.00	2,673.90	2,595.34	2,496.30	11.14	14.03	67.16	-744.15	96.23	583.66	562.31	21.35	27.339		
2,800.00	2,772.69	2,707.81	2,587.48	11.59	14.79	67.13	-776.44	101.23	608.54	586.23	22.31	27.278		
2,900.00	2,871.48	2,789.05	2,678.65	12.03	15.34	67.10	-808.73	106.24	633.42	610.30	23.12	27.398		
3,000.00	2,970.27	2,885.90	2,769.83	12.48	15.99	67.08	-841.01	111.24	658.30	634.29	24.00	27.424		
3,100.00	3,069.05	2,982.76	2,861.01	12.93	16.65	67.06	-873.30	116.24	683.17	658.28	24.89	27.447		
3,200.00	3,167.84	3,079.62	2,952.19	13.37	17.30	67.04	-905.59	121.25	708.05	682.27	25.78	27.468		
3,300.00	3,266.63	3,176.47	3,043.37	13.82	17.96	67.02	-937.88	126.25	732.93	706.27	26.66	27.487		
3,400.00	3,365.42	3,273.33	3,134.54	14.27	18.62	67.00	-970.17	131.25	757.81	730.26	27.55	27.505		
3,500.00	3,464.20	3,370.18	3,225.72	14.71	19.27	66.98	-1,002.46	136.26	782.69	754.25	28.44	27.521		
3,600.00	3,562.99	3,467.04	3,316.90	15.16	19.93	66.96	-1,034.75	141.26	807.56	778.24	29.33	27.537		
3,700.00	3,661.78	3,563.89	3,408.08	15.61	20.59	66.95	-1,067.04	146.26	832.44	802.23	30.22	27.551		
3,800.00	3,760.57	3,660.75	3,499.25	16.05	21.24	66.93	-1,099.33	151.27	857.32	826.22	31.10	27.563		
3,900.00	3,859.35	3,757.61	3,590.43	16.50	21.90	66.92	-1,131.62	156.27	882.20	850.21	31.99	27.576		
4,000.00	3,958.14	3,854.46	3,681.61	16.95	22.56	66.91	-1,163.91	161.27	907.08	874.20	32.88	27.587		
4,100.00	4,056.93	3,951.32	3,772.79	17.40	23.22	66.89	-1,196.20	166.28	931.96	898.19	33.77	27.597		
4,200.00	4,155.72	4,048.17	3,863.97	17.84	23.88	66.88	-1,228.48	171.28	956.84	922.18	34.66	27.607		
4,300.00	4,254.50	4,145.03	3,955.14	18.29	24.53	66.87	-1,260.77	176.28	981.71	946.17	35.55	27.616		
4,400.00	4,353.29	4,241.88	4,046.32	18.74	25.19	66.86	-1,293.06	181.29	1,006.59	970.15	36.44	27.625		
4,500.00	4,452.08	4,338.74	4,137.50	19.19	25.85	66.85	-1,325.35	186.29	1,031.47	994.14	37.33	27.633		
4,600.00	4,550.87	4,435.60	4,228.68	19.63	26.51	66.84	-1,357.64	191.29	1,056.35	1,018.13	38.22	27.640		
4,700.00	4,649.65	4,532.45	4,319.86	20.08	27.17	66.83	-1,389.93	196.30	1,081.23	1,042.12	39.11	27.647		
4,800.00	4,748.44	4,629.31	4,411.03	20.53	27.83	66.82	-1,422.22	201.30	1,106.11	1,066.11	40.00	27.654		
4,900.00	4,847.23	4,726.16	4,502.21	20.97	28.49	66.81	-1,454.51	206.30	1,130.99	1,090.10	40.89	27.660		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,823.02	4,593.39	21.42	29.15	66.81	-1,486.80	211.31	1,155.87	1,114.09	41.78	27.666		
5,100.00	5,044.81	4,919.87	4,684.57	21.87	29.80	66.80	-1,519.09	216.31	1,180.74	1,138.07	42.67	27.672		
5,200.00	5,143.59	5,016.73	4,775.74	22.32	30.46	66.79	-1,551.38	221.31	1,205.62	1,162.06	43.56	27.677		
5,300.00	5,242.38	5,113.58	4,866.92	22.76	31.12	66.78	-1,583.67	226.32	1,230.50	1,186.05	44.45	27.682		
5,400.00	5,341.17	5,210.44	4,958.10	23.21	31.78	66.78	-1,615.95	231.32	1,255.38	1,210.04	45.34	27.687		
5,500.00	5,439.96	5,307.30	5,049.28	23.66	32.44	66.77	-1,648.24	236.32	1,280.26	1,234.03	46.23	27.691		
5,600.00	5,538.74	5,404.15	5,140.46	24.11	33.10	66.77	-1,680.53	241.33	1,305.14	1,258.01	47.12	27.696		
5,700.00	5,637.53	5,501.01	5,231.63	24.55	33.76	66.76	-1,712.82	246.33	1,330.02	1,282.00	48.02	27.700		
5,800.00	5,736.32	5,602.14	5,322.81	25.00	34.45	66.75	-1,745.11	251.33	1,354.90	1,305.97	48.93	27.692		
5,900.00	5,835.11	5,705.28	5,413.99	25.45	35.15	66.75	-1,777.40	256.34	1,379.78	1,329.93	49.85	27.679		
6,000.00	5,933.89	5,808.43	5,505.17	25.90	35.85	66.74	-1,809.69	261.34	1,404.65	1,353.88	50.77	27.666		
6,100.00	6,032.68	5,888.43	5,596.34	26.34	36.40	66.74	-1,841.98	266.35	1,429.53	1,377.95	51.58	27.714		
6,200.00	6,131.47	5,985.29	5,687.52	26.79	37.06	66.73	-1,874.27	271.35	1,454.41	1,401.94	52.47	27.717		
6,300.00	6,230.26	6,082.14	5,778.70	27.24	37.72	66.73	-1,906.56	276.35	1,479.29	1,425.93	53.37	27.720		
6,400.00	6,329.04	6,179.00	5,869.88	27.69	38.38	66.72	-1,938.85	281.36	1,504.17	1,449.91	54.26	27.723		
6,500.00	6,427.83	6,275.85	5,961.06	28.13	39.04	66.72	-1,971.14	286.36	1,529.05	1,473.90	55.15	27.726		
6,600.00	6,526.62	6,372.71	6,052.23	28.58	39.70	66.71	-2,003.42	291.36	1,553.93	1,497.89	56.04	27.728		
6,700.00	6,625.41	6,469.56	6,143.41	29.03	40.36	66.71	-2,035.71	296.37	1,578.81	1,521.87	56.93	27.730		
6,800.00	6,724.19	6,566.42	6,234.59	29.48	41.02	66.71	-2,068.00	301.37	1,603.69	1,545.86	57.83	27.733		
6,900.00	6,822.98	6,663.28	6,325.77	29.93	41.68	66.70	-2,100.29	306.37	1,628.57	1,569.85	58.72	27.735		
7,000.00	6,921.77	6,760.13	6,416.95	30.37	42.34	66.70	-2,132.58	311.38	1,653.44	1,593.83	59.61	27.737		
7,100.00	7,020.56	6,856.99	6,508.12	30.82	43.00	66.69	-2,164.87	316.38	1,678.32	1,617.82	60.50	27.739		
7,200.00	7,119.34	6,953.84	6,599.30	31.27	43.66	66.69	-2,197.16	321.38	1,703.20	1,641.81	61.40	27.741		
7,300.00	7,218.13	7,050.70	6,690.48	31.72	44.32	66.69	-2,229.45	326.39	1,728.08	1,665.79	62.29	27.743		
7,394.03	7,311.02	7,141.77	6,776.21	32.14	44.94	66.68	-2,259.81	331.09	1,751.47	1,688.35	63.13	27.744		
7,400.00	7,316.92	7,147.56	6,781.66	32.16	44.98	64.29	-2,261.74	331.39	1,752.95	1,689.77	63.18	27.744		
7,450.00	7,366.55	7,203.92	6,827.34	32.36	45.36	30.47	-2,277.92	333.90	1,764.65	1,701.03	63.62	27.738		
7,500.00	7,416.28	7,244.49	6,872.91	32.53	45.64	-14.88	-2,294.05	336.40	1,775.10	1,711.21	63.90	27.781		
7,550.00	7,465.74	7,307.59	6,918.02	32.65	46.07	-38.17	-2,310.03	338.87	1,784.28	1,720.07	64.21	27.787		
7,600.00	7,514.54	7,339.47	6,962.33	32.75	46.28	-48.43	-2,325.72	341.30	1,792.19	1,727.87	64.31	27.866		
7,650.00	7,562.31	7,385.33	7,005.49	32.83	46.60	-53.90	-2,341.01	343.67	1,798.86	1,734.43	64.42	27.923		
7,700.00	7,608.70	7,429.63	7,047.20	32.89	46.90	-57.34	-2,355.78	345.96	1,804.36	1,739.89	64.47	27.987		
7,750.00	7,653.34	7,472.03	7,087.11	32.93	47.19	-59.82	-2,369.91	348.15	1,808.79	1,744.33	64.46	28.059		
7,800.00	7,695.91	7,512.22	7,124.94	32.95	47.46	-61.78	-2,383.31	350.23	1,812.27	1,747.87	64.41	28.138		
7,850.00	7,736.06	7,549.88	7,160.40	32.95	47.72	-63.42	-2,395.86	352.17	1,814.94	1,750.63	64.31	28.223		
7,900.00	7,773.51	7,584.73	7,193.20	32.95	47.96	-64.86	-2,407.48	353.97	1,816.93	1,752.76	64.17	28.312		
7,950.00	7,807.96	7,616.50	7,223.11	32.94	48.17	-66.14	-2,418.07	355.61	1,818.42	1,754.39	64.02	28.404		
8,000.00	7,839.15	7,644.95	7,249.90	32.92	48.37	-67.27	-2,427.56	357.08	1,819.54	1,755.69	63.86	28.494		
8,050.00	7,866.84	7,669.87	7,273.36	32.90	48.54	-68.26	-2,435.87	358.37	1,820.47	1,756.77	63.70	28.579		
8,100.00	7,890.83	7,691.07	7,293.31	32.88	48.68	-69.09	-2,442.93	359.47	1,821.34	1,757.78	63.56	28.655		
8,150.00	7,910.93	7,708.38	7,309.61	32.87	48.80	-69.74	-2,448.70	360.36	1,822.27	1,758.81	63.45	28.718		
8,200.00	7,926.99	7,721.67	7,322.12	32.87	48.89	-70.21	-2,453.13	361.05	1,823.37	1,759.98	63.39	28.764		
8,250.00	7,938.88	7,730.85	7,330.76	32.89	48.95	-70.49	-2,456.19	361.52	1,824.72	1,761.34	63.38	28.791		
8,300.00	7,946.52	7,735.83	7,335.45	32.94	48.99	-70.56	-2,457.86	361.78	1,826.38	1,762.95	63.42	28.797		
8,350.00	7,949.85	7,736.59	7,336.17	33.03	48.99	-70.43	-2,458.11	361.82	1,828.35	1,764.83	63.53	28.781		
8,363.33	7,950.00	7,736.08	7,335.68	33.06	48.99	-70.36	-2,457.94	361.79	1,828.94	1,765.37	63.56	28.774		
8,400.00	7,950.00	7,734.26	7,333.97	33.16	48.98	-70.30	-2,457.33	361.70	1,830.93	1,767.23	63.69	28.745		
8,500.00	7,950.00	7,729.28	7,329.28	33.64	48.94	-70.14	-2,455.67	361.44	1,840.06	1,775.76	64.30	28.617		
8,600.00	7,950.00	7,724.31	7,324.60	34.42	48.91	-69.99	-2,454.01	361.18	1,854.54	1,789.31	65.23	28.432		
8,700.00	7,950.00	7,719.33	7,319.92	35.49	48.87	-69.83	-2,452.35	360.93	1,874.24	1,807.81	66.43	28.215		
8,800.00	7,950.00	7,714.36	7,315.24	36.77	48.84	-69.68	-2,450.70	360.67	1,898.99	1,831.14	67.85	27.989		
8,900.00	7,950.00	7,709.39	7,310.55	38.23	48.81	-69.52	-2,449.04	360.41	1,928.60	1,859.16	69.43	27.777		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	7,950.00	7,704.41	7,305.87	39.83	48.77	-69.36	-2,447.38	360.16	1,962.85	1,891.72	71.13	27.596		
9,100.00	7,950.00	7,699.44	7,301.19	41.56	48.74	-69.21	-2,445.72	359.90	2,001.50	1,928.61	72.89	27.459		
9,200.00	7,950.00	7,694.46	7,296.51	43.39	48.70	-69.05	-2,444.06	359.64	2,044.31	1,969.63	74.68	27.375		
9,300.00	7,950.00	7,689.49	7,291.82	45.30	48.67	-68.90	-2,442.41	359.38	2,091.01	2,014.56	76.45	27.350		
9,400.00	7,950.00	7,684.52	7,287.14	47.29	48.64	-68.74	-2,440.75	359.13	2,141.36	2,063.17	78.20	27.384		
9,500.00	7,950.00	7,679.54	7,282.46	49.35	48.60	-68.59	-2,439.09	358.87	2,195.10	2,115.22	79.89	27.478		
9,600.00	7,950.00	7,674.57	7,277.78	51.47	48.57	-68.43	-2,437.43	358.61	2,251.99	2,170.49	81.51	27.630		
9,700.00	7,950.00	7,669.59	7,273.09	53.63	48.53	-68.28	-2,435.77	358.36	2,311.80	2,228.75	83.05	27.837		
9,800.00	7,950.00	7,664.62	7,268.41	55.85	48.50	-68.12	-2,434.11	358.10	2,374.30	2,289.80	84.50	28.097		
9,900.00	7,950.00	7,659.64	7,263.73	58.10	48.47	-67.96	-2,432.46	357.84	2,439.29	2,353.42	85.88	28.405		
10,000.00	7,950.00	7,654.67	7,259.04	60.39	48.43	-67.81	-2,430.80	357.59	2,506.58	2,419.42	87.16	28.757		
10,100.00	7,950.00	7,649.70	7,254.36	62.71	48.40	-67.65	-2,429.14	357.33	2,575.98	2,487.62	88.36	29.152		
10,200.00	7,950.00	7,644.72	7,249.68	65.05	48.37	-67.50	-2,427.48	357.07	2,647.33	2,557.85	89.48	29.584		
10,300.00	7,950.00	7,639.75	7,245.00	67.43	48.33	-67.34	-2,425.82	356.82	2,720.48	2,629.96	90.53	30.052		
10,400.00	7,950.00	7,634.77	7,240.31	69.82	48.30	-67.19	-2,424.16	356.56	2,795.29	2,703.79	91.49	30.552		
10,500.00	7,950.00	7,629.80	7,235.63	72.24	48.26	-67.03	-2,422.51	356.30	2,871.61	2,779.22	92.39	31.081		
10,600.00	7,950.00	7,624.83	7,230.95	74.68	48.23	-66.88	-2,420.85	356.04	2,949.35	2,856.13	93.22	31.638		
10,700.00	7,950.00	7,619.85	7,226.27	77.13	48.20	-66.72	-2,419.19	355.79	3,028.38	2,934.39	93.99	32.219		
10,800.00	7,950.00	7,614.88	7,221.58	79.60	48.16	-66.57	-2,417.53	355.53	3,108.62	3,013.91	94.71	32.823		
10,900.00	7,950.00	7,609.90	7,216.90	82.08	48.13	-66.41	-2,415.87	355.27	3,189.96	3,094.59	95.37	33.448		
11,000.00	7,950.00	7,604.93	7,212.22	84.57	48.09	-66.26	-2,414.22	355.02	3,272.33	3,176.35	95.98	34.093		
11,100.00	7,950.00	7,599.95	7,207.54	87.08	48.06	-66.10	-2,412.56	354.76	3,355.65	3,259.10	96.55	34.755		
11,200.00	7,950.00	7,605.02	7,202.85	89.59	48.09	-65.95	-2,410.90	354.50	3,439.86	3,342.72	97.14	35.412		
11,300.00	7,950.00	7,609.99	7,198.17	92.12	48.13	-65.79	-2,409.24	354.25	3,524.88	3,427.19	97.69	36.084		
11,400.00	7,950.00	7,585.03	7,193.49	94.66	47.96	-65.64	-2,407.58	353.99	3,610.66	3,512.64	98.02	36.836		
11,500.00	7,950.00	7,580.06	7,188.81	97.20	47.92	-65.48	-2,405.92	353.73	3,697.15	3,598.71	98.44	37.557		
11,600.00	7,950.00	7,575.08	7,184.12	99.75	47.89	-65.33	-2,404.27	353.47	3,784.30	3,685.47	98.83	38.291		
11,700.00	7,950.00	7,570.11	7,179.44	102.31	47.86	-65.17	-2,402.61	353.22	3,872.06	3,772.87	99.19	39.035		
11,800.00	7,950.00	7,565.14	7,174.76	104.87	47.82	-65.02	-2,400.95	352.96	3,960.40	3,860.87	99.53	39.791		
11,900.00	7,950.00	7,560.16	7,170.08	107.44	47.79	-64.86	-2,399.29	352.70	4,049.27	3,949.43	99.84	40.556		
12,000.00	7,950.00	7,555.19	7,165.39	110.02	47.75	-64.71	-2,397.63	352.45	4,138.65	4,038.51	100.14	41.330		
12,100.00	7,950.00	7,550.21	7,160.71	112.60	47.72	-64.56	-2,395.97	352.19	4,228.50	4,128.09	100.41	42.113		
12,200.00	7,950.00	7,545.24	7,156.03	115.19	47.69	-64.40	-2,394.32	351.93	4,318.78	4,218.12	100.66	42.904		
12,300.00	7,950.00	7,540.26	7,151.35	117.78	47.65	-64.25	-2,392.66	351.68	4,409.48	4,308.59	100.90	43.703		
12,400.00	7,950.00	7,535.29	7,146.66	120.38	47.62	-64.09	-2,391.00	351.42	4,500.57	4,399.45	101.12	44.509		
12,500.00	7,950.00	7,530.32	7,141.98	122.98	47.59	-63.94	-2,389.34	351.16	4,592.03	4,490.70	101.32	45.321		
12,600.00	7,950.00	7,525.34	7,137.30	125.58	47.55	-63.79	-2,387.68	350.91	4,683.82	4,582.31	101.51	46.140		
12,700.00	7,950.00	7,520.37	7,132.62	128.19	47.52	-63.63	-2,386.02	350.65	4,775.95	4,674.25	101.69	46.965		
12,800.00	7,950.00	7,515.39	7,127.93	130.80	47.48	-63.48	-2,384.37	350.39	4,868.37	4,766.52	101.86	47.795		
12,900.00	7,950.00	7,510.42	7,123.25	133.41	47.45	-63.33	-2,382.71	350.13	4,961.09	4,859.08	102.02	48.631		
13,000.00	7,950.00	7,505.45	7,118.57	136.03	47.42	-63.17	-2,381.05	349.88	5,054.08	4,951.92	102.16	49.471		
13,100.00	7,950.00	7,500.47	7,113.89	138.65	47.38	-63.02	-2,379.39	349.62	5,147.33	5,045.03	102.30	50.317		
13,200.00	7,950.00	7,504.50	7,109.20	141.27	47.41	-62.87	-2,377.73	349.36	5,240.82	5,138.34	102.48	51.138		
13,300.00	7,950.00	7,509.48	7,104.52	143.90	47.44	-62.71	-2,376.08	349.11	5,334.55	5,231.88	102.67	51.960		
13,400.00	7,950.00	7,485.55	7,099.84	146.52	47.28	-62.56	-2,374.42	348.85	5,428.49	5,325.83	102.66	52.879		
13,500.00	7,950.00	7,480.57	7,095.16	149.15	47.25	-62.41	-2,372.76	348.59	5,522.64	5,419.88	102.76	53.741		
13,600.00	7,950.00	7,475.60	7,090.47	151.78	47.21	-62.26	-2,371.10	348.34	5,616.99	5,514.13	102.86	54.607		
13,700.00	7,950.00	7,470.63	7,085.79	154.42	47.18	-62.10	-2,369.44	348.08	5,711.53	5,608.57	102.95	55.476		
13,800.00	7,950.00	7,465.65	7,081.11	157.05	47.14	-61.95	-2,367.78	347.82	5,806.24	5,703.20	103.04	56.349		
13,900.00	7,950.00	7,460.68	7,076.43	159.69	47.11	-61.80	-2,366.13	347.56	5,901.13	5,798.00	103.12	57.225		
14,000.00	7,950.00	7,455.70	7,071.74	162.33	47.08	-61.65	-2,364.47	347.31	5,996.17	5,892.98	103.20	58.103		
14,100.00	7,950.00	7,450.73	7,067.06	164.97	47.04	-61.49	-2,362.81	347.05	6,091.38	5,988.11	103.27	58.985		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4AH - OWB - PROPOSAL 1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
14,200.00	7,950.00	7,445.76	7,062.38	167.61	47.01	-61.34	-2,361.15	346.79	6,186.73	6,083.39	103.34	59.870	
14,300.00	7,950.00	7,440.78	7,057.69	170.26	46.98	-61.19	-2,359.49	346.54	6,282.22	6,178.82	103.40	60.757	
14,400.00	7,950.00	7,435.81	7,053.01	172.90	46.94	-61.04	-2,357.83	346.28	6,377.84	6,274.38	103.46	61.646	
14,500.00	7,950.00	7,430.83	7,048.33	175.55	46.91	-60.89	-2,356.18	346.02	6,473.60	6,370.08	103.51	62.538	
14,600.00	7,950.00	7,425.86	7,043.65	178.20	46.87	-60.74	-2,354.52	345.77	6,569.47	6,465.90	103.57	63.432	
14,700.00	7,950.00	7,420.89	7,038.96	180.85	46.84	-60.58	-2,352.86	345.51	6,665.47	6,561.85	103.62	64.329	
14,800.00	7,950.00	7,415.91	7,034.28	183.50	46.81	-60.43	-2,351.20	345.25	6,761.57	6,657.91	103.66	65.227	
14,900.00	7,950.00	7,410.94	7,029.60	186.15	46.77	-60.28	-2,349.54	345.00	6,857.78	6,754.08	103.71	66.128	
15,000.00	7,950.00	7,405.96	7,024.92	188.80	46.74	-60.13	-2,347.88	344.74	6,954.10	6,850.36	103.75	67.030	
15,100.00	7,950.00	7,400.99	7,020.23	191.46	46.70	-59.98	-2,346.23	344.48	7,050.52	6,946.73	103.78	67.934	
15,200.00	7,950.00	7,403.99	7,015.55	194.11	46.72	-59.83	-2,344.57	344.22	7,147.03	7,043.16	103.87	68.806	
15,300.00	7,950.00	7,408.96	7,010.87	196.77	46.76	-59.68	-2,342.91	343.97	7,243.63	7,139.66	103.97	69.670	
15,400.00	7,950.00	7,386.07	7,006.19	199.42	46.60	-59.53	-2,341.25	343.71	7,340.32	7,236.43	103.89	70.657	
15,500.00	7,950.00	7,381.09	7,001.50	202.08	46.57	-59.38	-2,339.59	343.45	7,437.10	7,333.18	103.92	71.568	
15,600.00	7,950.00	7,376.12	6,996.82	204.74	46.53	-59.23	-2,337.94	343.20	7,533.95	7,430.01	103.94	72.480	
15,700.00	7,950.00	7,371.14	6,992.14	207.40	46.50	-59.08	-2,336.28	342.94	7,630.88	7,526.91	103.97	73.394	
15,800.00	7,950.00	7,366.17	6,987.46	210.06	46.47	-58.93	-2,334.62	342.68	7,727.89	7,623.90	104.00	74.309	
15,900.00	7,950.00	7,361.20	6,982.77	212.72	46.43	-58.78	-2,332.96	342.43	7,824.97	7,720.95	104.02	75.226	
16,000.00	7,950.00	7,356.22	6,978.09	215.38	46.40	-58.63	-2,331.30	342.17	7,922.12	7,818.08	104.04	76.143	
16,100.00	7,950.00	7,351.25	6,973.41	218.05	46.36	-58.48	-2,329.64	341.91	8,019.34	7,915.27	104.06	77.062	
16,200.00	7,950.00	7,346.27	6,968.73	220.71	46.33	-58.33	-2,327.99	341.65	8,116.62	8,012.54	104.08	77.982	
16,300.00	7,950.00	7,341.30	6,964.04	223.37	46.30	-58.18	-2,326.33	341.40	8,213.96	8,109.86	104.10	78.903	
16,400.00	7,950.00	7,336.32	6,959.36	226.04	46.26	-58.04	-2,324.67	341.14	8,311.37	8,207.25	104.12	79.825	
16,500.00	7,950.00	7,331.35	6,954.68	228.70	46.23	-57.89	-2,323.01	340.88	8,408.83	8,304.69	104.14	80.748	
16,600.00	7,950.00	7,326.38	6,950.00	231.37	46.20	-57.74	-2,321.35	340.63	8,506.35	8,402.19	104.15	81.672	
16,700.00	7,950.00	7,321.40	6,945.31	234.04	46.16	-57.59	-2,319.69	340.37	8,603.92	8,499.75	104.17	82.597	
16,800.00	7,950.00	7,316.43	6,940.63	236.70	46.13	-57.44	-2,318.04	340.11	8,701.54	8,597.36	104.18	83.523	
16,900.00	7,950.00	7,311.45	6,935.95	239.37	46.09	-57.30	-2,316.38	339.86	8,799.22	8,695.02	104.20	84.449	
17,000.00	7,950.00	7,306.48	6,931.27	242.04	46.06	-57.15	-2,314.72	339.60	8,896.94	8,792.73	104.21	85.377	
17,100.00	7,950.00	7,301.51	6,926.58	244.71	46.03	-57.00	-2,313.06	339.34	8,994.71	8,890.49	104.22	86.305	
17,200.00	7,950.00	7,303.47	6,921.90	247.38	46.04	-56.85	-2,311.40	339.09	9,092.53	8,988.25	104.28	87.195	
17,300.00	7,950.00	7,308.44	6,917.22	250.05	46.07	-56.71	-2,309.75	338.83	9,190.39	9,086.03	104.35	88.069	
17,400.00	7,950.00	7,286.58	6,912.54	252.72	45.92	-56.56	-2,308.09	338.57	9,288.29	9,184.04	104.25	89.093	
17,500.00	7,950.00	7,281.61	6,907.85	255.39	45.89	-56.41	-2,306.43	338.31	9,386.24	9,281.97	104.26	90.024	
17,600.00	7,950.00	7,276.63	6,903.17	258.06	45.86	-56.27	-2,304.77	338.06	9,484.22	9,379.95	104.27	90.955	
17,700.00	7,950.00	7,271.66	6,898.49	260.73	45.82	-56.12	-2,303.11	337.80	9,582.25	9,477.96	104.28	91.887	
17,800.00	7,950.00	7,266.69	6,893.81	263.40	45.79	-55.97	-2,301.45	337.54	9,680.31	9,576.02	104.29	92.819	
17,900.00	7,950.00	7,261.71	6,889.12	266.07	45.75	-55.83	-2,299.80	337.29	9,778.41	9,674.11	104.30	93.752	
18,000.00	7,950.00	7,256.74	6,884.44	268.74	45.72	-55.68	-2,298.14	337.03	9,876.54	9,772.23	104.31	94.685	
18,100.00	7,950.00	7,251.76	6,879.76	271.42	45.69	-55.54	-2,296.48	336.77	9,974.71	9,870.39	104.32	95.618	

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	-0.10	0.00	0.00	179.91	-174.85	0.28	174.85					
100.00	100.00	100.10	99.90	0.13	0.13	179.91	-174.85	0.28	174.85	174.58	0.27	649.482		
200.00	200.00	200.10	199.90	0.49	0.49	179.91	-174.85	0.28	174.85	173.86	0.99	177.303		
250.00	250.00	249.90	249.90	0.67	0.67	179.91	-174.85	0.28	174.85	173.50	1.34	130.104 CC		
300.00	300.00	297.05	297.05	0.85	0.83	51.34	-175.23	0.33	174.98	173.30	1.68	104.251 ES		
400.00	399.93	391.29	391.24	1.19	1.15	52.03	-178.30	0.72	176.08	173.74	2.34	75.191		
500.00	499.68	485.41	485.15	1.55	1.49	53.38	-184.44	1.51	178.35	175.33	3.02	58.983		
600.00	599.13	579.32	578.59	1.93	1.84	55.33	-193.60	2.69	181.96	178.23	3.72	48.887		
696.56	694.75	669.71	668.21	2.31	2.19	57.70	-205.29	4.19	186.90	182.48	4.42	42.324		
700.00	698.15	672.93	671.39	2.33	2.21	57.79	-205.76	4.25	187.11	182.67	4.44	42.142		
800.00	796.94	766.23	763.44	2.74	2.60	60.33	-220.86	6.18	194.95	189.77	5.18	37.623		
900.00	895.73	859.12	854.54	3.17	3.01	62.38	-238.84	8.49	206.24	200.30	5.94	34.746		
1,000.00	994.51	951.41	944.43	3.60	3.46	63.95	-259.59	11.15	220.78	214.08	6.70	32.961		
1,100.00	1,093.30	1,042.92	1,032.84	4.04	3.93	65.04	-283.00	14.15	238.40	230.94	7.46	31.941		
1,200.00	1,192.09	1,133.47	1,119.53	4.48	4.44	65.73	-308.90	17.47	258.98	250.75	8.23	31.474		
1,300.00	1,290.88	1,222.90	1,204.30	4.92	4.97	66.09	-337.14	21.09	282.41	273.42	8.99	31.400 SF		
1,400.00	1,389.67	1,311.05	1,286.96	5.36	5.53	66.18	-367.53	24.99	308.61	298.86	9.75	31.640		
1,500.00	1,488.45	1,397.80	1,367.34	5.80	6.11	66.07	-399.88	29.14	337.50	327.00	10.50	32.128		
1,600.00	1,587.24	1,509.67	1,452.27	6.24	6.91	65.84	-436.28	33.81	368.35	356.93	11.42	32.255		
1,700.00	1,686.03	1,585.41	1,539.52	6.69	7.46	65.63	-473.78	38.62	399.29	387.11	12.19	32.769		
1,800.00	1,784.82	1,680.49	1,626.76	7.13	8.16	65.45	-511.28	43.43	430.25	417.20	13.05	32.974		
1,900.00	1,883.60	1,775.57	1,714.00	7.57	8.86	65.30	-548.78	48.23	461.20	447.29	13.91	33.145		
2,000.00	1,982.39	1,870.65	1,801.24	8.02	9.57	65.16	-586.27	53.04	492.16	477.38	14.78	33.289		
2,100.00	2,081.18	1,965.73	1,888.48	8.46	10.28	65.04	-623.77	57.85	523.13	507.47	15.66	33.411		
2,200.00	2,179.97	2,060.81	1,975.73	8.91	11.00	64.94	-661.27	62.66	554.09	537.56	16.53	33.516		
2,300.00	2,278.75	2,155.89	2,062.97	9.36	11.71	64.84	-698.77	67.47	585.05	567.64	17.41	33.607		
2,400.00	2,377.54	2,250.97	2,150.21	9.80	12.43	64.76	-736.26	72.28	616.02	597.73	18.29	33.686		
2,500.00	2,476.33	2,346.05	2,237.45	10.25	13.15	64.68	-773.76	77.09	646.99	627.82	19.17	33.756		
2,600.00	2,575.12	2,441.14	2,324.70	10.69	13.88	64.61	-811.26	81.90	677.95	657.91	20.05	33.818		
2,700.00	2,673.90	2,536.22	2,411.94	11.14	14.60	64.54	-848.75	86.70	708.92	687.99	20.93	33.873		
2,800.00	2,772.69	2,631.30	2,499.18	11.59	15.32	64.49	-886.25	91.51	739.89	718.08	21.81	33.922		
2,900.00	2,871.48	2,726.38	2,586.42	12.03	16.05	64.43	-923.75	96.32	770.86	748.17	22.70	33.966		
3,000.00	2,970.27	2,821.46	2,673.67	12.48	16.78	64.38	-961.25	101.13	801.83	778.25	23.58	34.006		
3,100.00	3,069.05	2,916.54	2,760.91	12.93	17.50	64.34	-998.74	105.94	832.81	808.34	24.46	34.042		
3,200.00	3,167.84	3,011.62	2,848.15	13.37	18.23	64.29	-1,036.24	110.75	863.78	838.43	25.35	34.075		
3,300.00	3,266.63	3,106.70	2,935.39	13.82	18.96	64.25	-1,073.74	115.56	894.75	868.51	26.24	34.105		
3,400.00	3,365.42	3,201.78	3,022.63	14.27	19.69	64.22	-1,111.24	120.37	925.72	898.60	27.12	34.132		
3,500.00	3,464.20	3,303.14	3,109.88	14.71	20.47	64.18	-1,148.73	125.17	956.69	928.66	28.04	34.119		
3,600.00	3,562.99	3,408.06	3,197.12	15.16	21.27	64.15	-1,186.23	129.98	987.67	958.69	28.98	34.085		
3,700.00	3,661.78	3,487.03	3,284.36	15.61	21.88	64.12	-1,223.73	134.79	1,018.64	988.86	29.78	34.202		
3,800.00	3,760.57	3,582.11	3,371.60	16.05	22.61	64.09	-1,261.22	139.60	1,049.62	1,018.94	30.67	34.222		
3,900.00	3,859.35	3,677.19	3,458.85	16.50	23.34	64.06	-1,298.72	144.41	1,080.59	1,049.03	31.56	34.240		
4,000.00	3,958.14	3,772.27	3,546.09	16.95	24.07	64.04	-1,336.22	149.22	1,111.56	1,079.12	32.45	34.257		
4,100.00	4,056.93	3,867.35	3,633.33	17.40	24.80	64.01	-1,373.72	154.03	1,142.54	1,109.20	33.34	34.273		
4,200.00	4,155.72	3,962.43	3,720.57	17.84	25.53	63.99	-1,411.21	158.84	1,173.51	1,139.29	34.23	34.288		
4,300.00	4,254.50	4,057.51	3,807.82	18.29	26.26	63.97	-1,448.71	163.64	1,204.49	1,169.37	35.11	34.302		
4,400.00	4,353.29	4,152.59	3,895.06	18.74	26.99	63.95	-1,486.21	168.45	1,235.46	1,199.46	36.00	34.314		
4,500.00	4,452.08	4,247.67	3,982.30	19.19	27.72	63.93	-1,523.70	173.26	1,266.44	1,229.54	36.89	34.326		
4,600.00	4,550.87	4,342.75	4,069.54	19.63	28.46	63.91	-1,561.20	178.07	1,297.41	1,259.63	37.78	34.338		
4,700.00	4,649.65	4,437.84	4,156.78	20.08	29.19	63.89	-1,598.70	182.88	1,328.39	1,289.71	38.67	34.348		
4,800.00	4,748.44	4,532.92	4,244.03	20.53	29.92	63.88	-1,636.20	187.69	1,359.36	1,319.80	39.56	34.358		
4,900.00	4,847.23	4,628.00	4,331.27	20.97	30.65	63.86	-1,673.69	192.50	1,390.34	1,349.88	40.45	34.368		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,946.02	4,723.08	4,418.51	21.42	31.39	63.84	-1,711.19	197.31	1,421.31	1,379.97	41.35	34.376		
5,100.00	5,044.81	4,818.16	4,505.75	21.87	32.12	63.83	-1,748.69	202.11	1,452.29	1,410.05	42.24	34.385		
5,200.00	5,143.59	4,913.24	4,593.00	22.32	32.85	63.81	-1,786.19	206.92	1,483.26	1,440.14	43.13	34.392		
5,300.00	5,242.38	5,008.32	4,680.24	22.76	33.58	63.80	-1,823.68	211.73	1,514.24	1,470.22	44.02	34.400		
5,400.00	5,341.17	5,103.40	4,767.48	23.21	34.32	63.79	-1,861.18	216.54	1,545.22	1,500.31	44.91	34.407		
5,500.00	5,439.96	5,198.48	4,854.72	23.66	35.05	63.78	-1,898.68	221.35	1,576.19	1,530.39	45.80	34.413		
5,600.00	5,538.74	5,306.44	4,941.97	24.11	35.88	63.76	-1,936.17	226.16	1,607.17	1,560.41	46.76	34.372		
5,700.00	5,637.53	5,388.64	5,029.21	24.55	36.51	63.75	-1,973.67	230.97	1,638.14	1,590.56	47.59	34.425		
5,800.00	5,736.32	5,483.73	5,116.45	25.00	37.25	63.74	-2,011.17	235.77	1,669.12	1,620.64	48.48	34.431		
5,900.00	5,835.11	5,578.81	5,203.69	25.45	37.98	63.73	-2,048.67	240.58	1,700.10	1,650.73	49.37	34.436		
6,000.00	5,933.89	5,673.89	5,290.93	25.90	38.71	63.72	-2,086.16	245.39	1,731.07	1,680.81	50.26	34.441		
6,100.00	6,032.68	5,768.97	5,378.18	26.34	39.45	63.71	-2,123.66	250.20	1,762.05	1,710.89	51.15	34.445		
6,200.00	6,131.47	5,864.05	5,465.42	26.79	40.18	63.70	-2,161.16	255.01	1,793.03	1,740.98	52.05	34.450		
6,300.00	6,230.26	5,959.13	5,552.66	27.24	40.91	63.69	-2,198.66	259.82	1,824.00	1,771.06	52.94	34.454		
6,400.00	6,329.04	6,054.21	5,639.90	27.69	41.65	63.68	-2,236.15	264.63	1,854.98	1,801.14	53.83	34.458		
6,500.00	6,427.83	6,149.29	5,727.15	28.13	42.38	63.67	-2,273.65	269.44	1,885.95	1,831.23	54.73	34.461		
6,600.00	6,526.62	6,244.37	5,814.39	28.58	43.11	63.66	-2,311.15	274.24	1,916.93	1,861.31	55.62	34.465		
6,700.00	6,625.41	6,339.45	5,901.63	29.03	43.85	63.66	-2,348.64	279.05	1,947.91	1,891.39	56.51	34.468		
6,800.00	6,724.19	6,434.53	5,988.87	29.48	44.58	63.65	-2,386.14	283.86	1,978.88	1,921.48	57.41	34.471		
6,900.00	6,822.98	6,529.62	6,076.11	29.93	45.31	63.64	-2,423.64	288.67	2,009.86	1,951.56	58.30	34.474		
7,000.00	6,921.77	6,624.70	6,163.36	30.37	46.05	63.63	-2,461.14	293.48	2,040.84	1,981.64	59.19	34.477		
7,100.00	7,020.56	6,719.78	6,250.60	30.82	46.78	63.63	-2,498.63	298.29	2,071.81	2,011.73	60.09	34.479		
7,200.00	7,119.34	6,814.86	6,337.84	31.27	47.51	63.62	-2,536.13	303.10	2,102.79	2,041.81	60.98	34.482		
7,300.00	7,218.13	6,909.94	6,425.08	31.72	48.25	63.61	-2,573.63	307.91	2,133.77	2,071.89	61.88	34.484		
7,394.03	7,311.02	7,000.66	6,507.12	32.14	48.95	63.60	-2,608.89	312.43	2,162.89	2,100.17	62.72	34.482		
7,400.00	7,316.92	7,005.02	6,512.33	32.16	48.98	61.25	-2,611.13	312.71	2,164.74	2,101.97	62.77	34.486		
7,450.00	7,366.55	7,052.66	6,556.04	32.36	49.35	27.81	-2,629.91	315.12	2,179.62	2,116.45	63.17	34.503		
7,500.00	7,416.28	7,100.18	6,599.64	32.53	49.72	-17.13	-2,648.65	317.53	2,193.48	2,129.98	63.50	34.543		
7,550.00	7,465.74	7,147.23	6,642.81	32.65	50.08	-39.99	-2,667.21	319.91	2,206.22	2,142.47	63.76	34.604		
7,600.00	7,514.54	7,206.56	6,685.21	32.75	50.54	-49.79	-2,685.43	322.24	2,217.83	2,153.82	64.02	34.645		
7,650.00	7,562.31	7,238.47	6,726.53	32.83	50.78	-54.78	-2,703.19	324.52	2,228.30	2,164.21	64.09	34.771		
7,700.00	7,608.70	7,281.97	6,766.44	32.89	51.12	-57.73	-2,720.35	326.72	2,237.63	2,173.47	64.17	34.873		
7,750.00	7,653.34	7,323.61	6,804.65	32.93	51.44	-59.71	-2,736.77	328.83	2,245.88	2,181.69	64.20	34.985		
7,800.00	7,695.91	7,363.08	6,840.86	32.95	51.75	-61.16	-2,752.33	330.82	2,253.11	2,188.93	64.18	35.106		
7,850.00	7,736.06	7,400.06	6,874.80	32.95	52.03	-62.31	-2,766.92	332.69	2,259.38	2,195.26	64.13	35.232		
7,900.00	7,773.51	7,434.29	6,906.21	32.95	52.30	-63.27	-2,780.42	334.42	2,264.80	2,200.75	64.05	35.361		
7,950.00	7,807.96	7,465.51	6,934.85	32.94	52.54	-64.09	-2,792.73	336.00	2,269.46	2,205.50	63.95	35.488		
8,000.00	7,839.15	7,506.54	6,960.50	32.92	52.85	-64.80	-2,803.75	337.42	2,273.44	2,209.53	63.91	35.573		
8,050.00	7,866.84	7,517.95	6,982.97	32.90	52.94	-65.41	-2,813.41	338.66	2,276.86	2,213.11	63.75	35.717		
8,100.00	7,890.83	7,538.78	7,002.08	32.88	53.10	-65.91	-2,821.62	339.71	2,279.80	2,216.13	63.67	35.809		
8,150.00	7,910.93	7,555.80	7,017.70	32.87	53.23	-66.31	-2,828.34	340.57	2,282.34	2,218.73	63.61	35.879		
8,200.00	7,926.99	7,568.87	7,029.69	32.87	53.33	-66.59	-2,833.49	341.23	2,284.56	2,220.96	63.60	35.923		
8,250.00	7,938.88	7,577.90	7,037.98	32.89	53.40	-66.75	-2,837.05	341.69	2,286.50	2,222.87	63.62	35.938		
8,300.00	7,946.52	7,582.83	7,042.50	32.94	53.44	-66.79	-2,838.99	341.94	2,288.19	2,224.49	63.70	35.921		
8,350.00	7,949.85	7,583.60	7,043.20	33.03	53.45	-66.70	-2,839.30	341.98	2,289.66	2,225.84	63.83	35.874		
8,363.33	7,950.00	7,583.10	7,042.75	33.06	53.44	-66.66	-2,839.10	341.95	2,290.02	2,226.15	63.87	35.856		
8,400.00	7,950.00	7,581.33	7,041.12	33.16	53.43	-66.61	-2,838.40	341.86	2,291.26	2,227.25	64.01	35.796		
8,500.00	7,950.00	7,576.50	7,036.69	33.64	53.39	-66.49	-2,836.50	341.62	2,297.60	2,232.99	64.62	35.558		
8,600.00	7,950.00	7,571.67	7,032.26	34.42	53.36	-66.37	-2,834.59	341.37	2,308.26	2,242.74	65.52	35.230		
8,700.00	7,950.00	7,566.84	7,027.83	35.49	53.32	-66.25	-2,832.69	341.13	2,323.17	2,256.48	66.68	34.838		
8,800.00	7,950.00	7,562.01	7,023.39	36.77	53.28	-66.13	-2,830.78	340.88	2,342.24	2,274.17	68.07	34.408		
8,900.00	7,950.00	7,557.18	7,018.96	38.23	53.24	-66.01	-2,828.88	340.64	2,365.38	2,295.75	69.64	33.966		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,000.00	7,950.00	7,552.35	7,014.53	39.83	53.21	-65.89	-2,826.97	340.40	2,392.48	2,321.13	71.35	33.533		
9,100.00	7,950.00	7,547.51	7,010.10	41.56	53.17	-65.77	-2,825.07	340.15	2,423.39	2,350.23	73.15	33.127		
9,200.00	7,950.00	7,542.68	7,005.66	43.39	53.13	-65.64	-2,823.16	339.91	2,457.97	2,382.94	75.03	32.761		
9,300.00	7,950.00	7,537.85	7,001.23	45.30	53.09	-65.52	-2,821.26	339.66	2,496.07	2,419.13	76.93	32.444		
9,400.00	7,950.00	7,533.02	6,996.80	47.29	53.06	-65.40	-2,819.35	339.42	2,537.53	2,458.68	78.85	32.182		
9,500.00	7,950.00	7,528.19	6,992.37	49.35	53.02	-65.28	-2,817.45	339.17	2,582.20	2,501.45	80.75	31.977		
9,600.00	7,950.00	7,523.36	6,987.93	51.47	52.98	-65.16	-2,815.54	338.93	2,629.90	2,547.28	82.62	31.832		
9,700.00	7,950.00	7,518.53	6,983.50	53.63	52.95	-65.04	-2,813.64	338.69	2,680.47	2,596.03	84.44	31.744		
9,800.00	7,950.00	7,513.70	6,979.07	55.85	52.91	-64.92	-2,811.73	338.44	2,733.76	2,647.56	86.20	31.713		
9,900.00	7,950.00	7,508.87	6,974.64	58.10	52.87	-64.80	-2,809.83	338.20	2,789.61	2,701.71	87.90	31.735		
10,000.00	7,950.00	7,504.04	6,970.20	60.39	52.83	-64.68	-2,807.92	337.95	2,847.87	2,758.34	89.53	31.809		
10,100.00	7,950.00	7,500.79	6,965.77	62.71	52.81	-64.56	-2,806.02	337.71	2,908.39	2,817.30	91.09	31.928		
10,200.00	7,950.00	7,505.62	6,961.34	65.05	52.85	-64.44	-2,804.11	337.46	2,971.04	2,878.42	92.62	32.076		
10,300.00	7,950.00	7,489.54	6,956.91	67.43	52.72	-64.32	-2,802.21	337.22	3,035.68	2,941.72	93.96	32.308		
10,400.00	7,950.00	7,484.71	6,952.47	69.82	52.68	-64.20	-2,800.30	336.97	3,102.20	3,006.91	95.29	32.556		
10,500.00	7,950.00	7,479.88	6,948.04	72.24	52.65	-64.08	-2,798.40	336.73	3,170.46	3,073.92	96.54	32.841		
10,600.00	7,950.00	7,475.05	6,943.61	74.68	52.61	-63.96	-2,796.49	336.49	3,240.37	3,142.65	97.72	33.160		
10,700.00	7,950.00	7,470.22	6,939.18	77.13	52.57	-63.84	-2,794.59	336.24	3,311.81	3,212.98	98.83	33.509		
10,800.00	7,950.00	7,465.39	6,934.74	79.60	52.54	-63.72	-2,792.68	336.00	3,384.69	3,284.81	99.88	33.888		
10,900.00	7,950.00	7,460.56	6,930.31	82.08	52.50	-63.59	-2,790.78	335.75	3,458.92	3,358.06	100.86	34.294		
11,000.00	7,950.00	7,455.73	6,925.88	84.57	52.46	-63.47	-2,788.87	335.51	3,534.42	3,432.64	101.78	34.725		
11,100.00	7,950.00	7,450.90	6,921.45	87.08	52.42	-63.35	-2,786.97	335.26	3,611.10	3,508.45	102.65	35.179		
11,200.00	7,950.00	7,446.07	6,917.01	89.59	52.39	-63.23	-2,785.06	335.02	3,688.89	3,585.43	103.46	35.654		
11,300.00	7,950.00	7,441.24	6,912.58	92.12	52.35	-63.11	-2,783.16	334.78	3,767.72	3,663.50	104.23	36.149		
11,400.00	7,950.00	7,436.41	6,908.15	94.66	52.31	-62.99	-2,781.25	334.53	3,847.53	3,742.59	104.94	36.663		
11,500.00	7,950.00	7,431.58	6,903.72	97.20	52.27	-62.87	-2,779.35	334.29	3,928.26	3,822.65	105.61	37.194		
11,600.00	7,950.00	7,426.74	6,899.28	99.75	52.24	-62.75	-2,777.44	334.04	4,009.85	3,903.61	106.24	37.742		
11,700.00	7,950.00	7,421.91	6,894.85	102.31	52.20	-62.63	-2,775.54	333.80	4,092.26	3,985.42	106.84	38.304		
11,800.00	7,950.00	7,417.08	6,890.42	104.87	52.16	-62.51	-2,773.63	333.55	4,175.42	4,068.03	107.39	38.881		
11,900.00	7,950.00	7,412.25	6,885.99	107.44	52.13	-62.39	-2,771.73	333.31	4,259.31	4,151.40	107.91	39.470		
12,000.00	7,950.00	7,407.42	6,881.55	110.02	52.09	-62.27	-2,769.82	333.07	4,343.87	4,235.47	108.40	40.073		
12,100.00	7,950.00	7,402.59	6,877.12	112.60	52.05	-62.15	-2,767.92	332.82	4,429.07	4,320.21	108.86	40.686		
12,200.00	7,950.00	7,402.24	6,872.69	115.19	52.05	-62.03	-2,766.01	332.58	4,514.87	4,405.55	109.32	41.300		
12,300.00	7,950.00	7,407.07	6,868.26	117.78	52.09	-61.91	-2,764.11	332.33	4,601.24	4,491.45	109.79	41.909		
12,400.00	7,950.00	7,388.10	6,863.82	120.38	51.94	-61.79	-2,762.20	332.09	4,688.15	4,578.07	110.07	42.591		
12,500.00	7,950.00	7,383.27	6,859.39	122.98	51.90	-61.67	-2,760.29	331.84	4,775.56	4,665.13	110.43	43.244		
12,600.00	7,950.00	7,378.44	6,854.96	125.58	51.86	-61.55	-2,758.39	331.60	4,863.46	4,752.69	110.77	43.907		
12,700.00	7,950.00	7,373.61	6,850.53	128.19	51.83	-61.43	-2,756.48	331.36	4,951.81	4,840.72	111.08	44.577		
12,800.00	7,950.00	7,368.78	6,846.09	130.80	51.79	-61.31	-2,754.58	331.11	5,040.59	4,929.21	111.38	45.255		
12,900.00	7,950.00	7,363.94	6,841.66	133.41	51.75	-61.19	-2,752.67	330.87	5,129.78	5,018.11	111.66	45.941		
13,000.00	7,950.00	7,359.11	6,837.23	136.03	51.72	-61.07	-2,750.77	330.62	5,219.35	5,107.43	111.92	46.633		
13,100.00	7,950.00	7,354.28	6,832.80	138.65	51.68	-60.95	-2,748.86	330.38	5,309.30	5,197.12	112.17	47.332		
13,200.00	7,950.00	7,349.45	6,828.36	141.27	51.64	-60.83	-2,746.96	330.13	5,399.59	5,287.18	112.40	48.037		
13,300.00	7,950.00	7,344.62	6,823.93	143.90	51.60	-60.72	-2,745.05	329.89	5,490.21	5,377.59	112.62	48.748		
13,400.00	7,950.00	7,339.79	6,819.50	146.52	51.57	-60.60	-2,743.15	329.65	5,581.15	5,468.32	112.83	49.465		
13,500.00	7,950.00	7,334.96	6,815.07	149.15	51.53	-60.48	-2,741.24	329.40	5,672.40	5,559.37	113.03	50.186		
13,600.00	7,950.00	7,330.13	6,810.63	151.78	51.49	-60.36	-2,739.34	329.16	5,763.93	5,650.72	113.21	50.913		
13,700.00	7,950.00	7,325.30	6,806.20	154.42	51.45	-60.24	-2,737.43	328.91	5,855.73	5,742.34	113.38	51.645		
13,800.00	7,950.00	7,320.47	6,801.77	157.05	51.42	-60.12	-2,735.53	328.67	5,947.79	5,834.24	113.55	52.382		
13,900.00	7,950.00	7,315.64	6,797.34	159.69	51.38	-60.00	-2,733.62	328.42	6,040.10	5,926.40	113.70	53.123		
14,000.00	7,950.00	7,310.81	6,792.90	162.33	51.34	-59.88	-2,731.72	328.18	6,132.65	6,018.80	113.85	53.868		
14,100.00	7,950.00	7,305.98	6,788.47	164.97	51.30	-59.76	-2,729.81	327.94	6,225.42	6,111.44	113.98	54.617		

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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

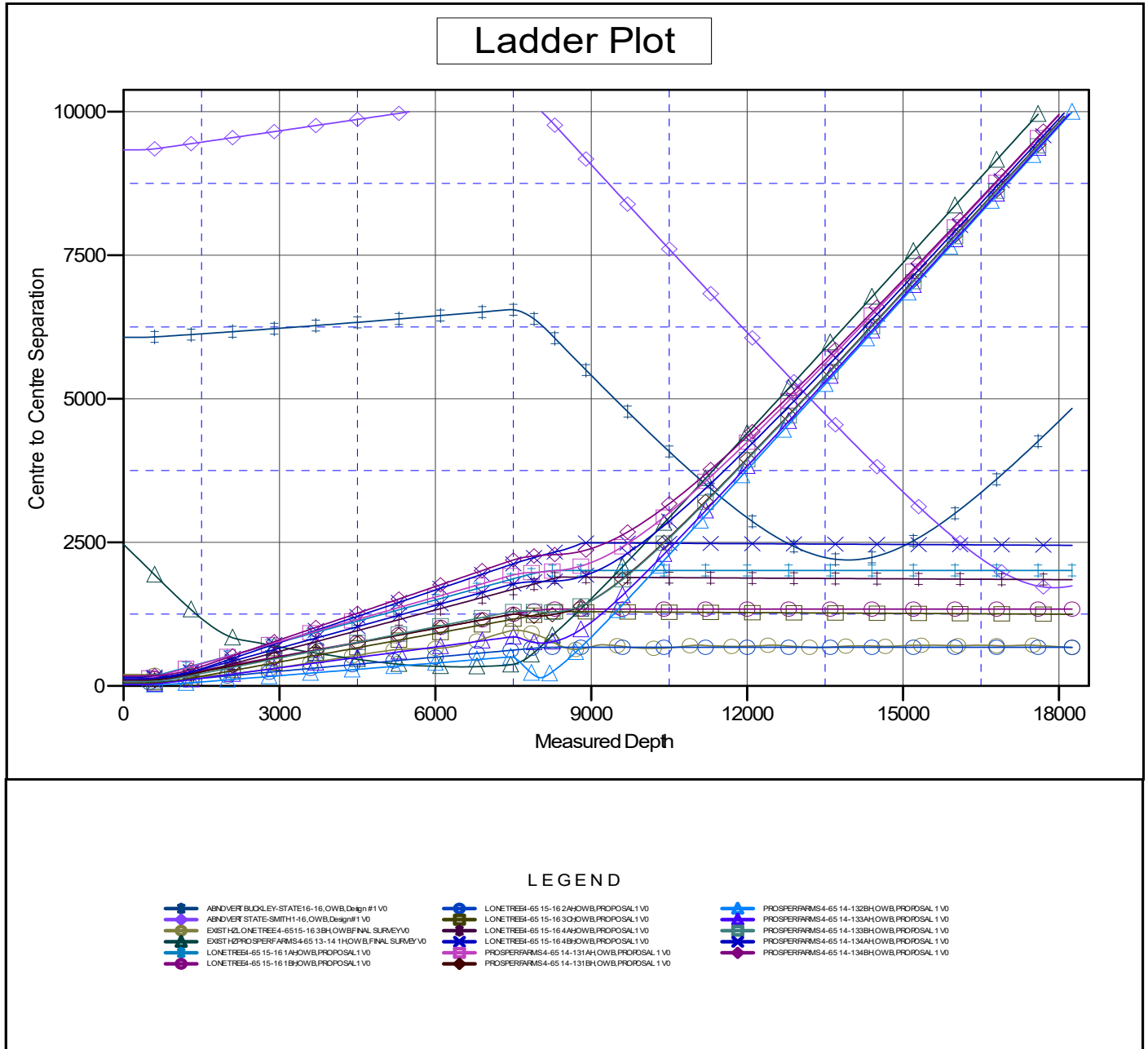
Offset Design SEC 15-T4S-R65W - PROSPER FARMS 4-65 14-13 4BH - OWB - PROPOSAL 1													Offset Site Error:	0.00 usft
Survey Program: 0-MWD OWSG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.00	7,950.00	7,301.14	6,784.04	167.61	51.27	-59.64	-2,727.91	327.69	6,318.42	6,204.30	114.11	55.370		
14,300.00	7,950.00	7,303.69	6,779.61	170.26	51.29	-59.52	-2,726.00	327.45	6,411.61	6,297.33	114.29	56.101		
14,400.00	7,950.00	7,308.52	6,775.17	172.90	51.32	-59.41	-2,724.10	327.20	6,505.01	6,390.54	114.47	56.827		
14,500.00	7,950.00	7,286.65	6,770.74	175.55	51.16	-59.29	-2,722.19	326.96	6,598.60	6,484.14	114.46	57.651		
14,600.00	7,950.00	7,281.82	6,766.31	178.20	51.12	-59.17	-2,720.29	326.71	6,692.37	6,577.81	114.56	58.418		
14,700.00	7,950.00	7,276.99	6,761.87	180.85	51.08	-59.05	-2,718.38	326.47	6,786.31	6,671.66	114.66	59.189		
14,800.00	7,950.00	7,272.16	6,757.44	183.50	51.04	-58.93	-2,716.48	326.22	6,880.42	6,765.68	114.75	59.962		
14,900.00	7,950.00	7,267.33	6,753.01	186.15	51.01	-58.81	-2,714.57	325.98	6,974.69	6,859.86	114.83	60.738		
15,000.00	7,950.00	7,262.50	6,748.58	188.80	50.97	-58.69	-2,712.67	325.74	7,069.12	6,954.21	114.91	61.517		
15,100.00	7,950.00	7,257.67	6,744.14	191.46	50.93	-58.58	-2,710.76	325.49	7,163.69	7,048.71	114.99	62.299		
15,200.00	7,950.00	7,252.84	6,739.71	194.11	50.89	-58.46	-2,708.86	325.25	7,258.41	7,143.35	115.06	63.083		
15,300.00	7,950.00	7,248.01	6,735.28	196.77	50.86	-58.34	-2,706.95	325.00	7,353.26	7,238.13	115.13	63.870		
15,400.00	7,950.00	7,243.18	6,730.85	199.42	50.82	-58.22	-2,705.05	324.76	7,448.25	7,333.06	115.19	64.659		
15,500.00	7,950.00	7,238.34	6,726.41	202.08	50.78	-58.10	-2,703.14	324.51	7,543.36	7,428.11	115.25	65.451		
15,600.00	7,950.00	7,233.51	6,721.98	204.74	50.75	-57.98	-2,701.24	324.27	7,638.59	7,523.28	115.31	66.244		
15,700.00	7,950.00	7,228.68	6,717.55	207.40	50.71	-57.87	-2,699.33	324.03	7,733.94	7,618.58	115.36	67.040		
15,800.00	7,950.00	7,223.85	6,713.12	210.06	50.67	-57.75	-2,697.43	323.78	7,829.40	7,713.99	115.41	67.838		
15,900.00	7,950.00	7,219.02	6,708.68	212.72	50.63	-57.63	-2,695.52	323.54	7,924.98	7,809.52	115.46	68.638		
16,000.00	7,950.00	7,214.19	6,704.25	215.38	50.60	-57.51	-2,693.62	323.29	8,020.65	7,905.15	115.50	69.440		
16,100.00	7,950.00	7,209.36	6,699.82	218.05	50.56	-57.40	-2,691.71	323.05	8,116.43	8,000.89	115.55	70.244		
16,200.00	7,950.00	7,204.53	6,695.39	220.71	50.52	-57.28	-2,689.81	322.80	8,212.31	8,096.72	115.59	71.049		
16,300.00	7,950.00	7,200.30	6,690.95	223.37	50.49	-57.16	-2,687.90	322.56	8,308.28	8,192.65	115.63	71.854		
16,400.00	7,950.00	7,205.13	6,686.52	226.04	50.53	-57.04	-2,686.00	322.32	8,404.34	8,288.61	115.73	72.618		
16,500.00	7,950.00	7,209.96	6,682.09	228.70	50.56	-56.93	-2,684.09	322.07	8,500.49	8,384.65	115.84	73.383		
16,600.00	7,950.00	7,185.21	6,677.66	231.37	50.37	-56.81	-2,682.18	321.83	8,596.73	8,481.01	115.72	74.289		
16,700.00	7,950.00	7,180.38	6,673.22	234.04	50.34	-56.69	-2,680.28	321.58	8,693.04	8,577.29	115.75	75.102		
16,800.00	7,950.00	7,175.54	6,668.79	236.70	50.30	-56.57	-2,678.37	321.34	8,789.44	8,673.66	115.78	75.917		
16,900.00	7,950.00	7,170.71	6,664.36	239.37	50.26	-56.46	-2,676.47	321.09	8,885.91	8,770.11	115.80	76.734		
17,000.00	7,950.00	7,165.88	6,659.93	242.04	50.22	-56.34	-2,674.56	320.85	8,982.46	8,866.64	115.82	77.552		
17,100.00	7,950.00	7,161.05	6,655.49	244.71	50.19	-56.22	-2,672.66	320.61	9,079.08	8,963.24	115.85	78.372		
17,200.00	7,950.00	7,156.22	6,651.06	247.38	50.15	-56.11	-2,670.75	320.36	9,175.77	9,059.91	115.87	79.192		
17,300.00	7,950.00	7,151.39	6,646.63	250.05	50.11	-55.99	-2,668.85	320.12	9,272.53	9,156.65	115.89	80.014		
17,400.00	7,950.00	7,146.56	6,642.20	252.72	50.07	-55.87	-2,666.94	319.87	9,369.36	9,253.45	115.90	80.837		
17,500.00	7,950.00	7,141.73	6,637.76	255.39	50.04	-55.76	-2,665.04	319.63	9,466.24	9,350.32	115.92	81.661		
17,600.00	7,950.00	7,136.90	6,633.33	258.06	50.00	-55.64	-2,663.13	319.38	9,563.19	9,447.26	115.94	82.487		
17,700.00	7,950.00	7,132.07	6,628.90	260.73	49.96	-55.52	-2,661.23	319.14	9,660.20	9,544.25	115.95	83.313		
17,800.00	7,950.00	7,127.24	6,624.47	263.40	49.93	-55.41	-2,659.32	318.90	9,757.27	9,641.30	115.96	84.141		
17,900.00	7,950.00	7,122.41	6,620.03	266.07	49.89	-55.29	-2,657.42	318.65	9,854.39	9,738.42	115.98	84.969		
18,000.00	7,950.00	7,117.58	6,615.60	268.74	49.85	-55.18	-2,655.51	318.41	9,951.57	9,835.58	115.99	85.799		

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5718.40usft
Offset Depths are relative to Offset Datum
Central Meridian is 105.500000°W

Coordinates are relative to: LONE TREE 4-65 15-16 2BH
Coordinate System is US State Plane 1983, Colorado Central Zone
Grid Convergence at Surface is: 0.54°



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

Anticollision Report

Company:	CRESTONE PEAK RESOURCES	Local Co-ordinate Reference:	Well LONE TREE 4-65 15-16 2BH
Project:	ARAPAHOE COUNTY	TVD Reference:	KB 25' @ 5718.40usft
Reference Site:	SEC 15-T4S-R65W	MD Reference:	KB 25' @ 5718.40usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	LONE TREE 4-65 15-16 2BH	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDT_32Bit_ODBC
Reference Design:	PROPOSAL 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 25' @ 5718.40usft

Offset Depths are relative to Offset Datum

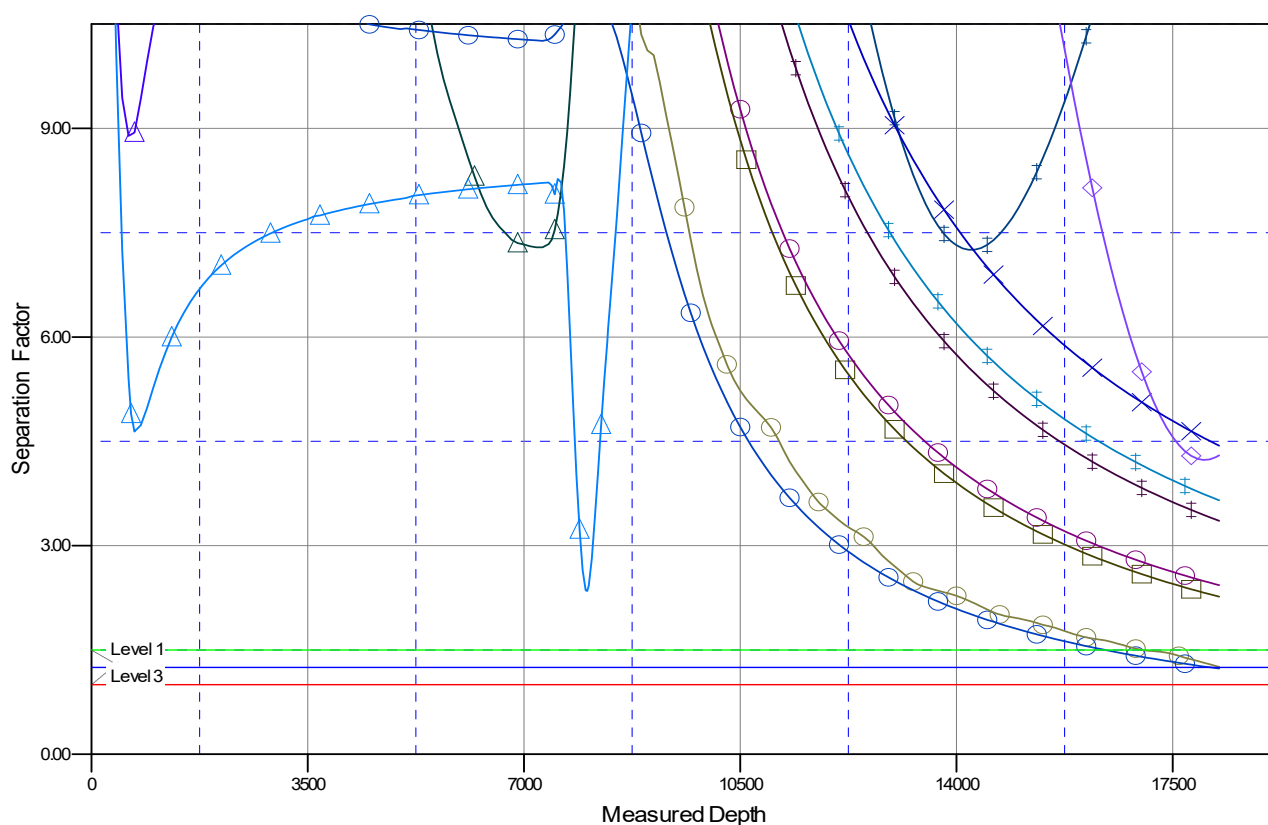
Central Meridian is 105.500000°W

Coordinates are relative to: LONE TREE 4-65 15-16 2BH

Coordinate System is US State Plane 1983, Colorado Central Zone

Grid Convergence at Surface is: 0.54°

Separation Factor Plot



LEGEND

ABNDVERT BUCKLEY STATE 16-16, OWB, Design #1 V0	LONETREE4-65 15-16 2AHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-132BHOWB, PROPOSAL 1 V0
ABNDVERT STATE-SMITH 14-16, OWB, Design #1 V0	LONETREE4-65 15-16 3AHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-133AHOWB, PROPOSAL 1 V0
EXIST H2 LONETREE 4-65 15-16 3BH, LOWB, FINAL SURVEY V0	LONETREE4-65 15-16 4AHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-133BHOWB, PROPOSAL 1 V0
EXIST H2 PROSPERFARMS 4-65 13-14 1HOWB, FINAL SURVEY V0	LONETREE4-65 15-16 4BHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-134AHOWB, PROPOSAL 1 V0
LONETREE4-65 15-16 1AHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-131AHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-134BHOWB, PROPOSAL 1 V0
LONETREE4-65 15-16 1BHOWB, PROPOSAL 1 V0	PROSPERFARMS 4-65 14-131BHOWB, PROPOSAL 1 V0	