



Crestone Peak Resources

Sec 2 T2N-R67W

Echeverria Pad

ECHEVERRIA 2D-2H-D267

Wellbore #1

Plan: Design #1 23Apr18 kjs

Standard Planning Report - Geographic

14 May, 2018



Crestone Peak Resources

Well Name:

ECHEVERRIA 2D-2H-D267

Project Name:

Sec 2 T2N-R67W

Pad Name:

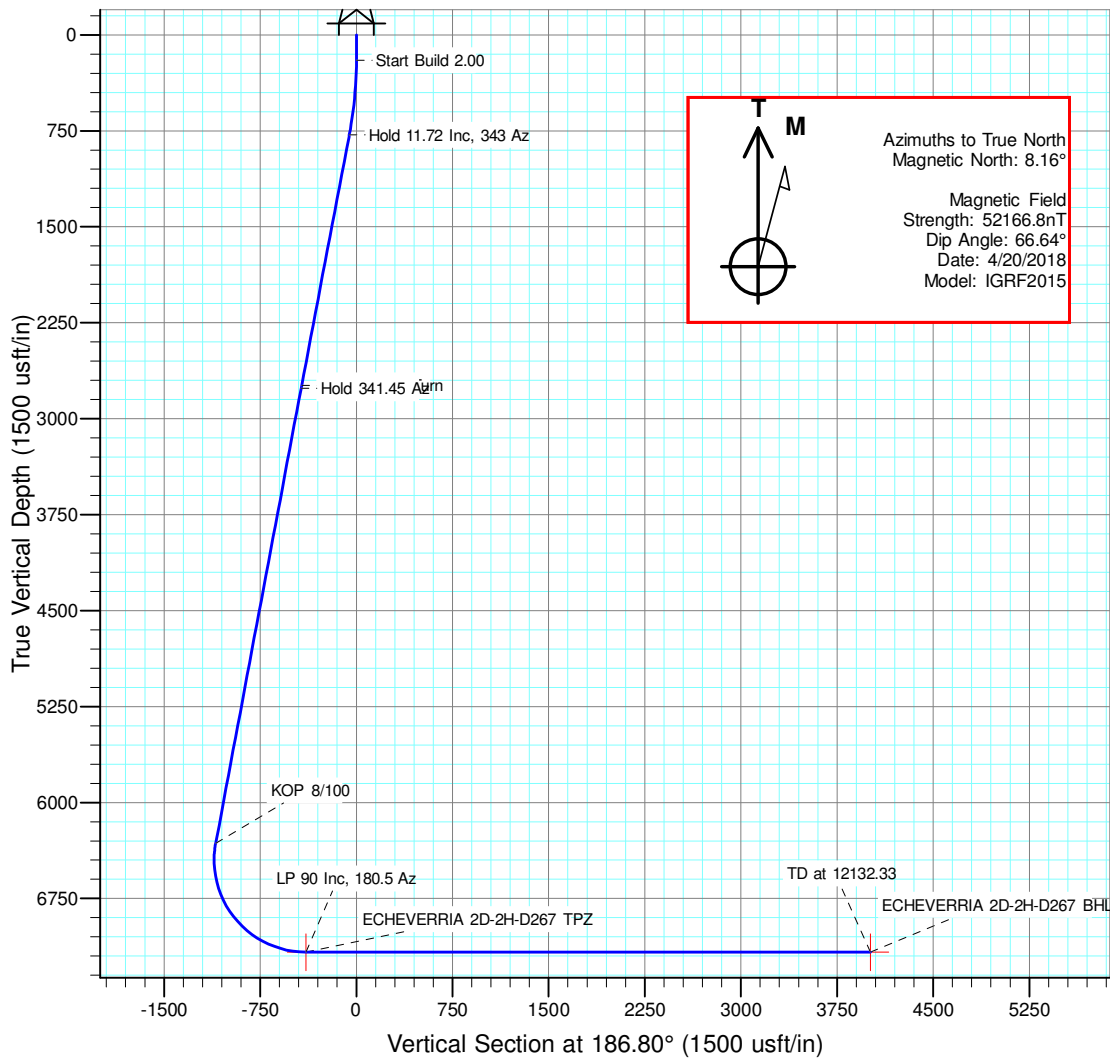
Echeverria Pad

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	Start Build 2.00
786.00	11.72	343.00	781.92	57.12	-17.46	-54.65	59.73	Hold 11.72 Inc, 343 Az
2786.00	11.72	343.00	2740.23	445.62	-136.24	-426.35	465.98	Begin 2/100 Turn
2808.14	11.72	341.45	2761.91	449.90	-137.63	-430.43	470.48	Hold 341.45 Az
6440.43	11.72	341.45	6318.46	1149.37	-372.41	-1097.19	1208.30	KOP 8/100
7703.59	90.00	180.50	7170.00	446.97	-436.21	-392.17	1947.90	LP 90 Inc, 180.5 Az
12132.31	90.00	180.50	7170.00	-3981.58	-474.86	4009.79	6376.61	TD at 12132.33

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
ECHEVERRIA 2D-2H-D267 BHL	7170.00	-3981.58	-474.86	1302164.58	3177038.93	40.16110099	-104.86656300	Point
ECHEVERRIA 2D-2H-D267 TPZ	7170.00	446.99	-436.21	1306593.31	3177045.86	40.17325799	-104.86642500	Point

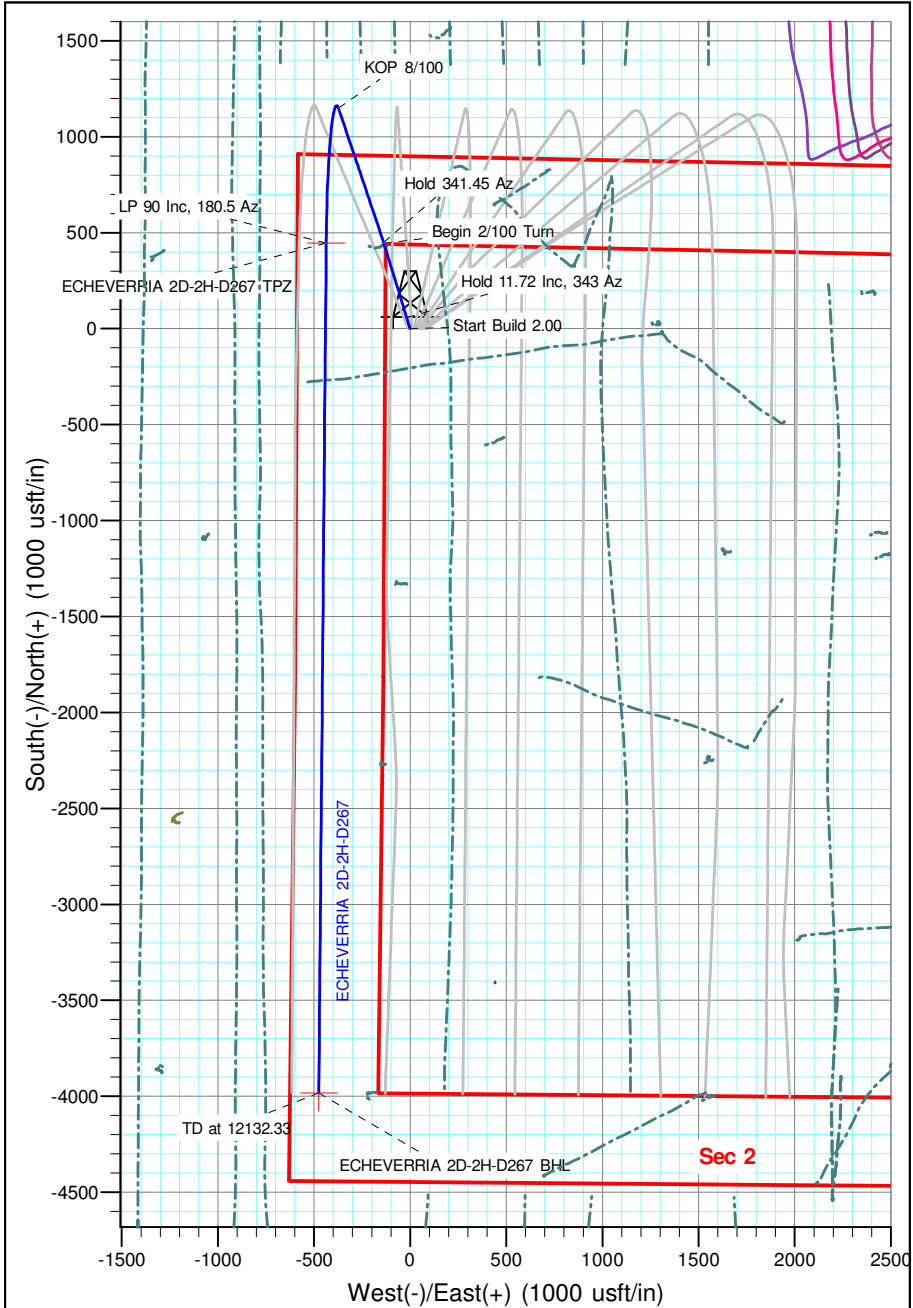


Geodetic Datum:

North American Datum 1983
US State Plane 1983, Colorado Northern Zone

Elevation:

Ground Elevation: 4882.00
KB Elevation: WELL @ 4905.00usft (Original Well Elev)



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Project	Sec 2 T2N-R67W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		Echeverria Pad			
Site Position:		Northing:	1,306,149.76 usft	Latitude:	40.17203200
From:	Lat/Long	Easting:	3,177,475.48 usft	Longitude:	-104.86489900
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.41 °

Well	ECHEVERRIA 2D-2H-D267					
Well Position	+N/-S	0.00 usft	Northing:	1,306,149.46 usft	Latitude:	40.17203096
	+E/-W	0.00 usft	Easting:	3,177,485.26 usft	Longitude:	-104.86486400
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,882.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/20/2018	8.16	66.64	52,166.80312839

Design	Design #1 23Apr18 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	186.80

Plan Survey Tool Program	Date	5/14/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,132.31 Design #1 23Apr18 kjs (Wellbore)	MWD	
			OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
786.00	11.72	343.00	781.92	57.12	-17.46	2.00	2.00	0.00	343.00	
2,786.00	11.72	343.00	2,740.23	445.62	-136.24	0.00	0.00	0.00	0.00	
2,801.78	11.72	341.45	2,755.68	448.67	-137.22	2.00	0.00	-9.85	-90.75	
6,440.20	11.72	341.45	6,318.24	1,149.33	-372.39	0.00	0.00	0.00	0.00	
7,703.57	90.00	180.50	7,170.00	446.99	-436.21	8.00	6.20	-12.74	-160.57	ECHEVERRIA 2D-2H
12,132.31	90.00	180.50	7,170.00	-3,981.58	-474.86	0.00	0.00	0.00	0.00	ECHEVERRIA 2D-2H

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,306,149.46	3,177,485.26	40.17203096	-104.86486400
100.00	0.00	0.00	100.00	0.00	0.00	1,306,149.46	3,177,485.26	40.17203096	-104.86486400
200.00	0.00	0.00	200.00	0.00	0.00	1,306,149.46	3,177,485.26	40.17203096	-104.86486400
Start Build 2.00									
300.00	2.00	343.00	299.98	1.67	-0.51	1,306,151.12	3,177,484.74	40.17203554	-104.86486582
400.00	4.00	343.00	399.84	6.67	-2.04	1,306,156.12	3,177,483.17	40.17204928	-104.86487130
500.00	6.00	343.00	499.45	15.01	-4.59	1,306,164.43	3,177,480.57	40.17207216	-104.86488042
600.00	8.00	343.00	598.70	26.66	-8.15	1,306,176.06	3,177,476.92	40.17210415	-104.86489317
700.00	10.00	343.00	697.47	41.62	-12.72	1,306,190.99	3,177,472.24	40.17214521	-104.86490953
786.00	11.72	343.00	781.92	57.12	-17.46	1,306,206.45	3,177,467.39	40.17218775	-104.86492649
Hold 11.72 Inc, 343 Az									
800.00	11.72	343.00	795.63	59.84	-18.29	1,306,209.16	3,177,466.54	40.17219521	-104.86492946
900.00	11.72	343.00	893.55	79.26	-24.23	1,306,228.54	3,177,460.46	40.17224854	-104.86495071
1,000.00	11.72	343.00	991.46	98.69	-30.17	1,306,247.93	3,177,454.38	40.17230186	-104.86497197
1,100.00	11.72	343.00	1,089.38	118.11	-36.11	1,306,267.31	3,177,448.31	40.17235519	-104.86499322
1,200.00	11.72	343.00	1,187.29	137.54	-42.05	1,306,286.69	3,177,442.23	40.17240851	-104.86501447
1,300.00	11.72	343.00	1,285.21	156.96	-47.99	1,306,306.07	3,177,436.15	40.17246184	-104.86503572
1,400.00	11.72	343.00	1,383.12	176.39	-53.93	1,306,325.45	3,177,430.07	40.17251516	-104.86505698
1,500.00	11.72	343.00	1,481.04	195.81	-59.87	1,306,344.84	3,177,423.99	40.17256849	-104.86507823
1,600.00	11.72	343.00	1,578.95	215.24	-65.80	1,306,364.22	3,177,417.92	40.17262181	-104.86509948
1,700.00	11.72	343.00	1,676.87	234.66	-71.74	1,306,383.60	3,177,411.84	40.17267514	-104.86512073
1,800.00	11.72	343.00	1,774.78	254.09	-77.68	1,306,402.98	3,177,405.76	40.17272846	-104.86514199
1,900.00	11.72	343.00	1,872.70	273.51	-83.62	1,306,422.37	3,177,399.68	40.17278179	-104.86516324
2,000.00	11.72	343.00	1,970.61	292.94	-89.56	1,306,441.75	3,177,393.60	40.17283511	-104.86518449
2,100.00	11.72	343.00	2,068.53	312.36	-95.50	1,306,461.13	3,177,387.53	40.17288844	-104.86520575
2,200.00	11.72	343.00	2,166.44	331.79	-101.44	1,306,480.51	3,177,381.45	40.17294176	-104.86522700
2,300.00	11.72	343.00	2,264.36	351.22	-107.38	1,306,499.89	3,177,375.37	40.17299509	-104.86524825
2,400.00	11.72	343.00	2,362.27	370.64	-113.32	1,306,519.28	3,177,369.29	40.17304841	-104.86526950
2,500.00	11.72	343.00	2,460.19	390.07	-119.26	1,306,538.66	3,177,363.21	40.17310174	-104.86529076
2,600.00	11.72	343.00	2,558.10	409.49	-125.19	1,306,558.04	3,177,357.14	40.17315506	-104.86531201
2,700.00	11.72	343.00	2,656.02	428.92	-131.13	1,306,577.42	3,177,351.06	40.17320839	-104.86533326
2,786.00	11.72	343.00	2,740.23	445.62	-136.24	1,306,594.09	3,177,345.83	40.17325425	-104.86535154
Begin 2/100 Turn									
2,800.00	11.72	341.62	2,753.93	448.33	-137.10	1,306,596.80	3,177,344.95	40.17326168	-104.86535463
2,801.78	11.72	341.45	2,755.68	448.67	-137.22	1,306,597.14	3,177,344.83	40.17326263	-104.86535504
2,808.14	11.72	341.45	2,761.91	449.90	-137.63	1,306,598.36	3,177,344.41	40.17326599	-104.86535652
Hold 341.45 Az									
2,900.00	11.72	341.45	2,851.85	467.59	-143.57	1,306,616.01	3,177,338.35	40.17331455	-104.86537776
3,000.00	11.72	341.45	2,949.76	486.85	-150.03	1,306,635.22	3,177,331.75	40.17336741	-104.86540089
3,100.00	11.72	341.45	3,047.68	506.10	-156.49	1,306,654.43	3,177,325.15	40.17342027	-104.86542402
3,200.00	11.72	341.45	3,145.59	525.36	-162.96	1,306,673.64	3,177,318.54	40.17347314	-104.86544716
3,300.00	11.72	341.45	3,243.51	544.62	-169.42	1,306,692.85	3,177,311.94	40.17352600	-104.86547029
3,400.00	11.72	341.45	3,341.43	563.87	-175.89	1,306,712.06	3,177,305.34	40.17357886	-104.86549342
3,500.00	11.72	341.45	3,439.34	583.13	-182.35	1,306,731.27	3,177,298.74	40.17363173	-104.86551655
3,600.00	11.72	341.45	3,537.26	602.39	-188.81	1,306,750.48	3,177,292.14	40.17368459	-104.86553968
3,700.00	11.72	341.45	3,635.17	621.65	-195.28	1,306,769.69	3,177,285.54	40.17373745	-104.86556281
3,800.00	11.72	341.45	3,733.09	640.90	-201.74	1,306,788.90	3,177,278.94	40.17379032	-104.86558594
3,900.00	11.72	341.45	3,831.00	660.16	-208.20	1,306,808.11	3,177,272.33	40.17384318	-104.86560907
4,000.00	11.72	341.45	3,928.92	679.42	-214.67	1,306,827.32	3,177,265.73	40.17389604	-104.86563220
4,100.00	11.72	341.45	4,026.83	698.67	-221.13	1,306,846.53	3,177,259.13	40.17394891	-104.86565533
4,200.00	11.72	341.45	4,124.75	717.93	-227.59	1,306,865.74	3,177,252.53	40.17400177	-104.86567847
4,300.00	11.72	341.45	4,222.66	737.19	-234.06	1,306,884.95	3,177,245.93	40.17405463	-104.86570160
4,400.00	11.72	341.45	4,320.58	756.45	-240.52	1,306,904.16	3,177,239.33	40.17410750	-104.86572473
4,500.00	11.72	341.45	4,418.49	775.70	-246.98	1,306,923.37	3,177,232.73	40.17416036	-104.86574786

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,600.00	11.72	341.45	4,516.41	794.96	-253.45	1,306,942.58	3,177,226.13	40.17421322	-104.86577099
4,700.00	11.72	341.45	4,614.32	814.22	-259.91	1,306,961.79	3,177,219.52	40.17426609	-104.86579412
4,800.00	11.72	341.45	4,712.24	833.48	-266.38	1,306,981.00	3,177,212.92	40.17431895	-104.86581725
4,900.00	11.72	341.45	4,810.15	852.73	-272.84	1,307,000.21	3,177,206.32	40.17437181	-104.86584039
5,000.00	11.72	341.45	4,908.07	871.99	-279.30	1,307,019.42	3,177,199.72	40.17442468	-104.86586352
5,100.00	11.72	341.45	5,005.98	891.25	-285.77	1,307,038.64	3,177,193.12	40.17447754	-104.86588665
5,200.00	11.72	341.45	5,103.90	910.50	-292.23	1,307,057.85	3,177,186.52	40.17453040	-104.86590978
5,300.00	11.72	341.45	5,201.81	929.76	-298.69	1,307,077.06	3,177,179.92	40.17458327	-104.86593291
5,400.00	11.72	341.45	5,299.73	949.02	-305.16	1,307,096.27	3,177,173.31	40.17463613	-104.86595604
5,500.00	11.72	341.45	5,397.64	968.28	-311.62	1,307,115.48	3,177,166.71	40.17468899	-104.86597917
5,600.00	11.72	341.45	5,495.56	987.53	-318.08	1,307,134.69	3,177,160.11	40.17474186	-104.86600231
5,700.00	11.72	341.45	5,593.47	1,006.79	-324.55	1,307,153.90	3,177,153.51	40.17479472	-104.86602544
5,800.00	11.72	341.45	5,691.39	1,026.05	-331.01	1,307,173.11	3,177,146.91	40.17484758	-104.86604857
5,900.00	11.72	341.45	5,789.30	1,045.30	-337.47	1,307,192.32	3,177,140.31	40.17490045	-104.86607170
6,000.00	11.72	341.45	5,887.22	1,064.56	-343.94	1,307,211.53	3,177,133.71	40.17495331	-104.86609483
6,100.00	11.72	341.45	5,985.14	1,083.82	-350.40	1,307,230.74	3,177,127.10	40.17500617	-104.86611797
6,200.00	11.72	341.45	6,083.05	1,103.08	-356.87	1,307,249.95	3,177,120.50	40.17505904	-104.86614110
6,300.00	11.72	341.45	6,180.97	1,122.33	-363.33	1,307,269.16	3,177,113.90	40.17511190	-104.86616423
6,400.00	11.72	341.45	6,278.88	1,141.59	-369.79	1,307,288.37	3,177,107.30	40.17516476	-104.86618736
6,440.20	11.72	341.45	6,318.24	1,149.33	-372.39	1,307,296.09	3,177,104.65	40.17518601	-104.86619666
6,440.43	11.72	341.45	6,318.46	1,149.37	-372.41	1,307,296.14	3,177,104.63	40.17518613	-104.86619671
KOP 8/100									
6,500.00	7.38	328.97	6,377.21	1,158.39	-376.31	1,307,305.12	3,177,100.67	40.17521087	-104.86621067
6,600.00	4.24	246.61	6,476.82	1,162.43	-383.02	1,307,309.11	3,177,093.93	40.17522197	-104.86623469
6,700.00	10.45	202.04	6,576.01	1,152.54	-389.82	1,307,299.18	3,177,087.19	40.17519482	-104.86625904
6,800.00	18.12	192.44	6,672.86	1,128.91	-396.59	1,307,275.50	3,177,080.60	40.17512995	-104.86628325
6,900.00	25.98	188.49	6,765.48	1,092.00	-403.18	1,307,238.54	3,177,074.27	40.17502862	-104.86630685
7,000.00	33.91	186.28	6,852.06	1,042.52	-409.48	1,307,189.02	3,177,068.33	40.17489281	-104.86632937
7,100.00	41.86	184.83	6,930.92	981.45	-415.35	1,307,127.91	3,177,062.89	40.17472515	-104.86635039
7,200.00	49.83	183.78	7,000.53	909.96	-420.69	1,307,056.39	3,177,058.06	40.17452892	-104.86636949
7,300.00	57.80	182.94	7,059.53	829.46	-425.39	1,306,975.85	3,177,053.94	40.17430792	-104.86638630
7,400.00	65.77	182.25	7,106.77	741.50	-429.36	1,306,887.87	3,177,050.61	40.17406647	-104.86640049
7,500.00	73.75	181.63	7,141.33	647.81	-432.51	1,306,794.15	3,177,048.12	40.17380926	-104.86641179
7,600.00	81.73	181.06	7,162.54	550.19	-434.80	1,306,696.52	3,177,046.53	40.17354129	-104.86641997
7,700.00	89.72	180.52	7,169.99	450.56	-436.18	1,306,596.88	3,177,045.87	40.17326779	-104.86642488
7,703.57	90.00	180.50	7,170.00	446.99	-436.21	1,306,593.31	3,177,045.86	40.17325799	-104.86642500
ECHEVERRIA 2D-2H-D267 TPZ									
7,703.59	90.00	180.50	7,170.00	446.97	-436.21	1,306,593.29	3,177,045.86	40.17325793	-104.86642500
LP 90 Inc, 180.5 Az									
7,800.00	90.00	180.50	7,170.00	350.56	-437.05	1,306,496.88	3,177,045.71	40.17299329	-104.86642800
7,900.00	90.00	180.50	7,170.00	250.57	-437.92	1,306,396.88	3,177,045.55	40.17271879	-104.86643112
8,000.00	90.00	180.50	7,170.00	150.57	-438.80	1,306,296.88	3,177,045.40	40.17244429	-104.86643424
8,100.00	90.00	180.50	7,170.00	50.58	-439.67	1,306,196.88	3,177,045.24	40.17216978	-104.86643735
8,200.00	90.00	180.50	7,170.00	-49.42	-440.54	1,306,096.88	3,177,045.09	40.17189528	-104.86644047
8,300.00	90.00	180.50	7,170.00	-149.42	-441.41	1,305,996.88	3,177,044.93	40.17162078	-104.86644359
8,400.00	90.00	180.50	7,170.00	-249.41	-442.29	1,305,896.88	3,177,044.77	40.17134628	-104.86644670
8,500.00	90.00	180.50	7,170.00	-349.41	-443.16	1,305,796.88	3,177,044.62	40.17107177	-104.86644982
8,600.00	90.00	180.50	7,170.00	-449.41	-444.03	1,305,696.88	3,177,044.46	40.17079727	-104.86645293
8,700.00	90.00	180.50	7,170.00	-549.40	-444.90	1,305,596.88	3,177,044.30	40.17052277	-104.86645605
8,800.00	90.00	180.50	7,170.00	-649.40	-445.78	1,305,496.88	3,177,044.15	40.17024827	-104.86645917
8,900.00	90.00	180.50	7,170.00	-749.39	-446.65	1,305,396.88	3,177,043.99	40.16997376	-104.86646228
9,000.00	90.00	180.50	7,170.00	-849.39	-447.52	1,305,296.88	3,177,043.83	40.16969926	-104.86646540
9,100.00	90.00	180.50	7,170.00	-949.39	-448.39	1,305,196.88	3,177,043.68	40.16942476	-104.86646852
9,200.00	90.00	180.50	7,170.00	-1,049.38	-449.27	1,305,096.88	3,177,043.52	40.16915026	-104.86647163

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,300.00	90.00	180.50	7,170.00	-1,149.38	-450.14	1,304,996.88	3,177,043.36	40.16887575	-104.86647475
9,400.00	90.00	180.50	7,170.00	-1,249.38	-451.01	1,304,896.88	3,177,043.21	40.16860125	-104.86647786
9,500.00	90.00	180.50	7,170.00	-1,349.37	-451.89	1,304,796.88	3,177,043.05	40.16832675	-104.86648098
9,600.00	90.00	180.50	7,170.00	-1,449.37	-452.76	1,304,696.88	3,177,042.90	40.16805225	-104.86648410
9,700.00	90.00	180.50	7,170.00	-1,549.36	-453.63	1,304,596.88	3,177,042.74	40.16777774	-104.86648721
9,800.00	90.00	180.50	7,170.00	-1,649.36	-454.50	1,304,496.89	3,177,042.58	40.16750324	-104.86649033
9,900.00	90.00	180.50	7,170.00	-1,749.36	-455.38	1,304,396.89	3,177,042.43	40.16722874	-104.86649344
10,000.00	90.00	180.50	7,170.00	-1,849.35	-456.25	1,304,296.89	3,177,042.27	40.16695423	-104.86649656
10,100.00	90.00	180.50	7,170.00	-1,949.35	-457.12	1,304,196.89	3,177,042.11	40.16667973	-104.86649968
10,200.00	90.00	180.50	7,170.00	-2,049.34	-457.99	1,304,096.89	3,177,041.96	40.16640523	-104.86650279
10,300.00	90.00	180.50	7,170.00	-2,149.34	-458.87	1,303,996.89	3,177,041.80	40.16613073	-104.86650591
10,400.00	90.00	180.50	7,170.00	-2,249.34	-459.74	1,303,896.89	3,177,041.64	40.16585622	-104.86650902
10,500.00	90.00	180.50	7,170.00	-2,349.33	-460.61	1,303,796.89	3,177,041.49	40.16558172	-104.86651214
10,600.00	90.00	180.50	7,170.00	-2,449.33	-461.48	1,303,696.89	3,177,041.33	40.16530722	-104.86651526
10,700.00	90.00	180.50	7,170.00	-2,549.33	-462.36	1,303,596.89	3,177,041.17	40.16503272	-104.86651837
10,800.00	90.00	180.50	7,170.00	-2,649.32	-463.23	1,303,496.89	3,177,041.02	40.16475821	-104.86652149
10,900.00	90.00	180.50	7,170.00	-2,749.32	-464.10	1,303,396.89	3,177,040.86	40.16448371	-104.86652460
11,000.00	90.00	180.50	7,170.00	-2,849.31	-464.98	1,303,296.89	3,177,040.71	40.16420921	-104.86652772
11,100.00	90.00	180.50	7,170.00	-2,949.31	-465.85	1,303,196.89	3,177,040.55	40.16393470	-104.86653083
11,200.00	90.00	180.50	7,170.00	-3,049.31	-466.72	1,303,096.89	3,177,040.39	40.16366020	-104.86653395
11,300.00	90.00	180.50	7,170.00	-3,149.30	-467.59	1,302,996.89	3,177,040.24	40.16338570	-104.86653707
11,400.00	90.00	180.50	7,170.00	-3,249.30	-468.47	1,302,896.89	3,177,040.08	40.16311120	-104.86654018
11,500.00	90.00	180.50	7,170.00	-3,349.30	-469.34	1,302,796.89	3,177,039.92	40.16283669	-104.86654330
11,600.00	90.00	180.50	7,170.00	-3,449.29	-470.21	1,302,696.89	3,177,039.77	40.16256219	-104.86654641
11,700.00	90.00	180.50	7,170.00	-3,549.29	-471.08	1,302,596.89	3,177,039.61	40.16228769	-104.86654953
11,800.00	90.00	180.50	7,170.00	-3,649.28	-471.96	1,302,496.89	3,177,039.45	40.16201318	-104.86655264
11,900.00	90.00	180.50	7,170.00	-3,749.28	-472.83	1,302,396.89	3,177,039.30	40.16173868	-104.86655576
12,000.00	90.00	180.50	7,170.00	-3,849.28	-473.70	1,302,296.89	3,177,039.14	40.16146418	-104.86655888
12,100.00	90.00	180.50	7,170.00	-3,949.27	-474.57	1,302,196.89	3,177,038.98	40.16118968	-104.86656199
12,132.31	90.00	180.50	7,170.00	-3,981.58	-474.86	1,302,164.58	3,177,038.93	40.16110099	-104.86656300
TD at 12132.33 - ECHEVERRIA 2D-2H-D267 BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
ECHEVERRIA 2D-2H-D: - plan hits target center - Point	0.00	0.41	7,170.00	-3,981.58	-474.86	1,302,164.58	3,177,038.93	40.16110099	-104.86656300
ECHEVERRIA 2D-2H-D: - plan hits target center - Point	0.00	0.41	7,170.00	446.99	-436.21	1,306,593.31	3,177,045.86	40.17325799	-104.86642500



Planning Report - Geographic

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Company:	Crestone Peak Resources	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Project:	Sec 2 T2N-R67W	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site:	Echeverria Pad	North Reference:	True
Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 23Apr18 kjs		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Start Build 2.00
786.00	781.92	57.12	-17.46	Hold 11.72 Inc, 343 Az
2,786.00	2,740.23	445.62	-136.24	Begin 2/100 Turn
2,808.14	2,761.91	449.90	-137.63	Hold 341.45 Az
6,440.43	6,318.46	1,149.37	-372.41	KOP 8/100
7,703.59	7,170.00	446.97	-436.21	LP 90 Inc, 180.5 Az
12,132.31	7,170.00	-3,981.58	-474.86	TD at 12132.33



Crestone Peak Resources

Sec 2 T2N-R67W

Echeverria Pad

ECHEVERRIA 2D-2H-D267

Wellbore #1

Design #1 23Apr18 kjs

Anticollision Summary Report

14 May, 2018

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Reference	Design #1 23Apr18 kjs		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 5/14/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	12,132.31	Design #1 23Apr18 kjs (Wellbore #1)	MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Echeverria Pad						
ECHEVERRIA 2C-2H-D267 - Wellbore #1 - Design #1 23	116.33	117.33	9.79	9.39	24.670	CC
ECHEVERRIA 2C-2H-D267 - Wellbore #1 - Design #1 23	400.00	400.71	10.44	8.01	4.292	ES
ECHEVERRIA 2C-2H-D267 - Wellbore #1 - Design #1 23	6,680.07	6,675.14	100.44	39.41	1.646	SF
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	200.00	200.00	10.06	9.07	10.131	CC
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	300.00	300.02	10.61	8.91	6.209	ES
ECHEVERRIA 2E-2H-D267 - Wellbore #1 - Design #1 23	12,132.21	12,196.16	354.06	190.39	2.163	SF
ECHEVERRIA 2F-2H-D267 - Wellbore #1 - Design #1 23	200.00	200.00	20.12	19.13	20.263	CC
ECHEVERRIA 2F-2H-D267 - Wellbore #1 - Design #1 23	300.00	299.98	20.70	18.99	12.108	ES
ECHEVERRIA 2F-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,331.58	781.24	619.69	4.836	SF
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	200.00	200.00	30.18	29.19	30.394	CC
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	300.00	299.98	30.74	29.03	17.980	ES
ECHEVERRIA 2G-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,207.38	1,022.75	857.10	6.174	SF
ECHEVERRIA 2H-2H-D267 - Wellbore #1 - Design #1 23	200.00	200.00	40.24	39.25	40.525	CC, ES
ECHEVERRIA 2H-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,156.65	1,349.43	1,183.57	8.136	SF
ECHEVERRIA 2I-2H-D267 - Wellbore #1 - Design #1 23A	200.00	199.00	50.02	49.03	50.559	CC, ES
ECHEVERRIA 2I-2H-D267 - Wellbore #1 - Design #1 23A	12,132.31	12,230.76	1,780.13	1,615.12	10.788	SF
ECHEVERRIA 2J-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	60.08	59.09	60.727	CC, ES
ECHEVERRIA 2J-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,257.61	2,009.34	1,843.66	12.128	SF
ECHEVERRIA 2K-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	70.14	69.15	70.895	CC, ES
ECHEVERRIA 2K-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,404.88	2,325.75	2,160.26	14.054	SF
ECHEVERRIA 2L-2H-D267 - Wellbore #1 - Design #1 23	200.00	199.00	80.20	79.21	81.063	CC, ES
ECHEVERRIA 2L-2H-D267 - Wellbore #1 - Design #1 23	12,132.31	12,424.80	2,455.16	2,292.00	15.047	SF

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	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						
Existing Wells (Echeverria)						
BARCLAY 28C-11HZ - KMG - MWD	12,132.31	17,339.00	2,819.94	2,576.20	11.570	CC, ES, SF
BBKB 15N-35HZ - KMG - MWD	7,047.03	12,400.00	596.61	517.44	7.535	CC, ES, SF
BBKB 16N-35HZ - KMG - MWD	7,032.40	12,431.00	1,183.19	1,068.45	10.312	CC, ES, SF
BBKB 16N-A35HZ - KMG - MWD	7,041.80	12,450.00	1,413.14	1,297.27	12.195	CC, ES, SF
BBKB 25E-3HZ - KMG - MWD	7,150.31	12,763.06	642.29	580.32	10.365	CC, ES, SF
BBKB 36E-35HZ - KMG - MWD	7,067.69	12,687.00	548.61	469.24	6.912	CC, ES
BBKB 36E-35HZ - KMG - MWD	7,100.00	12,687.00	550.21	470.20	6.877	SF
BBKB 36N-35HZ - KMG - MWD	7,081.59	12,677.00	552.25	496.07	9.830	CC, ES
BBKB 36N-35HZ - KMG - MWD	7,100.00	12,677.00	552.79	496.49	9.819	SF
BBKB 37C-35HZ - KMG - MWD	7,126.86	12,762.00	1,103.16	997.44	10.435	CC, ES, SF
BBKB 37N-35HZ - KMG - MWD	7,084.67	12,575.00	821.10	721.32	8.229	CC, ES, SF
BBKB 38C-35HZ - KMG - MWD	7,126.96	12,652.00	1,653.92	1,540.14	14.536	CC, ES, SF
BBKB 38N-35HZ - KMG - MWD	7,017.01	12,437.00	2,022.69	1,902.82	16.874	CC, ES
BBKB 38N-35HZ - KMG - MWD	7,100.00	12,437.00	2,025.36	1,905.22	16.858	SF
BUTTERBALL 40C-34HZ - KMG - MWD	7,699.98	12,624.39	442.26	334.76	4.114	SF
BUTTERBALL 40C-34HZ - KMG - MWD	12,132.31	8,192.69	385.00	293.20	4.194	CC, ES
BUTTERBALL 40N-34HZ - KMG - MWD	7,600.00	12,491.29	495.33	365.66	3.820	SF
BUTTERBALL 40N-34HZ - KMG - MWD	11,429.81	8,672.03	438.65	328.52	3.983	CC
BUTTERBALL 40N-34HZ - KMG - MWD	12,132.31	7,969.42	440.56	327.43	3.894	ES
BUTTERBALL 9N-34HZ - KMG - MWD	7,500.00	12,636.41	958.21	827.54	7.333	SF
BUTTERBALL 9N-34HZ - KMG - MWD	7,600.00	12,554.35	953.80	824.34	7.367	ES
BUTTERBALL 9N-34HZ - KMG - MWD	9,981.01	10,163.11	941.83	832.15	8.587	CC
ECHEVERRIA 0-2-2 - CPR - MWD	8,422.08	7,477.23	106.02	45.77	1.760	CC, ES, SF
ECHEVERRIA 1 - CPR - No Survey	11,546.46	7,154.00	911.31	824.95	10.553	CC, ES
ECHEVERRIA 1 - CPR - No Survey	11,600.00	7,154.00	912.88	826.00	10.507	SF
ECHEVERRIA 11-2 - CPR - Gyro	2,722.58	2,656.09	19.67	-1.53	0.928	Level 3, CC, ES, SF
ECHEVERRIA 1-2 - CPR - Gyro	210.13	169.56	746.88	745.93	784.213	CC, ES
ECHEVERRIA 1-2 - CPR - Gyro	8,800.00	7,154.06	842.16	782.63	14.147	SF
ECHEVERRIA 12-2 - CPR - Gyro	9,480.66	7,147.21	378.45	311.11	5.620	CC, ES, SF
ECHEVERRIA 13-2 - CPR - Gyro	10,408.41	7,150.33	330.10	249.68	4.104	CC, ES, SF
ECHEVERRIA 14-2 - CPR - Gyro	12,132.31	7,157.03	265.74	157.79	2.462	CC, ES, SF
ECHEVERRIA 2-0-2 - CPR - Gyro	1,564.40	1,444.81	690.68	679.50	61.728	CC
ECHEVERRIA 2-0-2 - CPR - Gyro	1,700.00	1,577.14	691.52	679.20	56.157	ES
ECHEVERRIA 2-0-2 - CPR - Gyro	7,300.00	7,049.88	1,146.04	1,091.55	21.030	SF
ECHEVERRIA 21-2 - CPR - Gyro	267.91	225.27	1,286.14	1,284.78	949.098	CC
ECHEVERRIA 21-2 - CPR - Gyro	300.00	254.55	1,286.22	1,284.65	817.799	ES
ECHEVERRIA 21-2 - CPR - Gyro	8,400.00	7,133.77	1,720.09	1,664.08	30.714	SF
ECHEVERRIA 22-2 - CPR - Gyro	100.00	41.43	2,030.34	2,030.13	9,624.285	CC
ECHEVERRIA 22-2 - CPR - Gyro	9,305.53	7,123.78	2,087.46	2,022.46	32.116	ES
ECHEVERRIA 22-2 - CPR - Gyro	9,800.00	7,121.05	2,145.23	2,075.26	30.661	SF
ECHEVERRIA 23-2 - CPR - Gyro	10,392.87	7,148.72	2,001.13	1,920.91	24.945	CC
ECHEVERRIA 23-2 - CPR - Gyro	10,400.00	7,148.76	2,001.15	1,920.83	24.916	ES
ECHEVERRIA 23-2 - CPR - Gyro	10,800.00	7,150.84	2,042.13	1,957.40	24.102	SF
ECHEVERRIA 24-2 - CPR - Gyro	12,132.31	7,147.45	1,988.74	1,880.70	18.407	CC, ES, SF
ECHEVERRIA 2-8-2 - CPR - MWD	12,132.31	7,250.62	1,248.20	1,140.53	11.593	CC, ES, SF
ECHEVERRIA 2A-2H - CPR - MWD	7,541.54	7,285.81	576.30	520.80	10.385	CC
ECHEVERRIA 2A-2H - CPR - MWD	12,113.66	11,870.00	654.60	488.11	3.932	ES, SF
ECHEVERRIA 2B-2H - CPR - MWD	942.41	906.28	911.58	905.20	142.793	CC
ECHEVERRIA 2B-2H - CPR - MWD	1,000.00	960.93	911.70	904.86	133.174	ES
ECHEVERRIA 2B-2H - CPR - MWD	12,132.31	11,854.01	1,638.82	1,473.46	9.910	SF
ECHEVERRIA 4-2-2 - CPR - MWD	285.16	261.96	1,309.72	1,308.14	830.289	CC
ECHEVERRIA 4-2-2 - CPR - MWD	300.00	273.42	1,309.73	1,308.06	784.526	ES
ECHEVERRIA 4-2-2 - CPR - MWD	9,400.00	7,207.86	2,519.43	2,452.21	37.479	SF

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

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	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						
Existing Wells (Echeverria)						
ECHEVERRIA 4-4-2 - CPR - MWD	10,049.40	7,119.25	2,400.94	2,326.48	32.242	CC
ECHEVERRIA 4-4-2 - CPR - MWD	10,100.00	7,119.24	2,401.48	2,326.36	31.970	ES
ECHEVERRIA 4-4-2 - CPR - MWD	10,700.00	7,119.14	2,487.53	2,405.97	30.501	SF
ECHEVERRIA C-2-320-W - CPR - MWD	9,961.20	7,299.32	1,123.71	1,048.98	15.038	CC, ES
ECHEVERRIA C-2-320-W - CPR - MWD	10,100.00	7,300.15	1,132.25	1,055.64	14.780	SF
ENDERSON 3-11 - KMG - Gyro	12,132.31	7,152.36	2,124.93	2,021.79	20.603	CC, ES, SF
GORDON RED V 10-1 - KMG - Gyro	12,132.31	7,200.43	1,260.71	1,190.32	17.910	CC, ES, SF
HSR-ENDERSON 4-11A - KMG - Gyro	12,132.31	7,171.38	937.56	870.87	14.058	CC, ES, SF
HSR-WITTEMEYER 7-2A - KMG - Gyro	100.00	38.06	2,751.10	2,750.89	10,000.000	CC
HSR-WITTEMEYER 7-2A - KMG - Gyro	200.00	128.65	2,751.67	2,750.89	3,547.559	ES
HSR-WITTEMEYER 7-2A - KMG - Gyro	10,400.00	7,100.00	3,067.57	2,991.31	40.229	SF
KIYOTA 4A-35H-O367 - CPR - MWD	6,963.93	7,509.00	2,456.95	2,398.83	42.271	CC, ES
KIYOTA 4A-35H-O367 - CPR - MWD	7,000.00	7,509.00	2,457.38	2,399.24	42.265	SF
KIYOTA 4B-35H-O367 - CPR - MWD	7,000.00	7,069.70	2,643.77	2,587.15	46.691	ES, SF
KIYOTA 4B-35H-O367 - CPR - MWD	7,004.29	7,070.58	2,643.77	2,587.15	46.696	CC
KIYOTA 4C-35H-O367 - CPR - MWD	6,900.00	7,179.00	2,708.75	2,652.24	47.934	SF
KIYOTA 4C-35H-O367 - CPR - MWD	6,927.29	7,179.00	2,708.58	2,652.08	47.940	CC, ES
KIYOTA 4D-35H-O367 - CPR - MWD	6,986.84	7,153.00	2,822.97	2,766.66	50.129	CC, ES, SF
MATSUSHIMA 35-13L - KMG - Gyro	6,532.70	6,376.15	625.51	573.16	11.948	CC, ES
MATSUSHIMA 35-13L - KMG - Gyro	6,600.00	6,445.72	627.25	574.42	11.873	SF
PANCOST 10-2 - KMG - MWD	10,467.71	7,267.44	2,992.05	2,907.55	35.407	CC
PANCOST 10-2 - KMG - MWD	10,500.00	7,267.62	2,992.22	2,907.24	35.208	ES
PANCOST 10-2 - KMG - MWD	11,400.00	7,272.85	3,133.93	3,037.96	32.656	SF
PANCOST 23-2 - KMG - MWD	11,313.06	7,266.30	2,481.38	2,385.71	25.936	CC, ES
PANCOST 23-2 - KMG - MWD	11,900.00	7,265.72	2,549.86	2,447.54	24.921	SF
PANCOST 36-2 - KMG - MWD	12,132.31	7,423.70	2,630.19	2,510.07	21.897	CC, ES, SF
PENNINGTON 28N-2HZ - KMG - MWD	12,132.31	7,499.00	2,667.30	2,557.35	24.257	CC, ES, SF
PENNINGTON 28N-2HZX - KMG - MWD	7,896.45	11,763.00	2,614.89	2,502.88	23.346	CC
PENNINGTON 28N-2HZX - KMG - MWD	7,900.00	11,763.00	2,614.89	2,502.88	23.345	ES
PENNINGTON 28N-2HZX - KMG - MWD	8,000.00	11,763.00	2,616.94	2,504.66	23.309	SF
RICHARDSON V 3-16 - KMG - Gyro	12,000.78	7,154.99	817.20	711.37	7.722	CC, ES
RICHARDSON V 3-16 - KMG - Gyro	12,100.00	7,154.26	823.20	715.75	7.661	SF
RICHARDSON V 3-1JI - KMG - Gyro	7,784.75	7,175.97	904.05	850.00	16.727	CC, ES, SF
RICHARDSON V 3-2 - KMG - No Survey	8,058.82	7,177.00	2,242.98	2,200.45	52.742	CC, ES
RICHARDSON V 3-2 - KMG - No Survey	9,100.00	7,177.00	2,472.85	2,423.19	49.793	SF
RICHARDSON V 3-8 - KMG - Gyro	9,245.22	7,176.42	613.91	549.46	9.525	CC, ES
RICHARDSON V 3-8 - KMG - Gyro	9,300.00	7,176.79	616.35	551.14	9.452	SF
RICHARDSON V 3-9 - KMG - Gyro	10,686.83	7,191.73	746.93	662.18	8.813	CC
RICHARDSON V 3-9 - KMG - Gyro	10,700.00	7,191.53	747.05	662.04	8.788	ES
RICHARDSON V 3-9 - KMG - Gyro	10,800.00	7,190.07	755.46	668.97	8.735	SF
ROLLIE J VINCENT 1 - Kauffman - Gyro	100.00	53.05	2,697.93	2,697.70	10,000.000	CC
ROLLIE J VINCENT 1 - Kauffman - Gyro	200.00	149.50	2,698.07	2,697.31	3,579.957	ES
ROLLIE J VINCENT 1 - Kauffman - Gyro	10,200.00	7,119.76	3,013.40	2,939.81	40.947	SF
VOLLMAR 28N-11HZ - KMG - MWD	12,132.31	12,881.00	2,228.97	2,033.13	11.381	CC, ES, SF
VOLLMAR 29C-11HZ - KMG - MWD	12,132.31	13,082.00	1,227.44	1,050.55	6.939	CC, ES, SF
VOLLMAR 3N-11HZ - KMG - MWD	12,132.31	12,934.00	1,523.68	1,336.44	8.137	CC, ES, SF
VOLLMAR 4N-11HZ - KMG - MWD	12,132.31	13,131.00	783.55	638.85	5.415	CC, ES, SF
VYNCKIER 15-2A7952 - KMG - Gyro	11,962.15	7,137.40	2,971.43	2,866.27	28.256	CC
VYNCKIER 15-2A7952 - KMG - Gyro	12,000.00	7,138.00	2,971.67	2,865.94	28.107	ES
VYNCKIER 15-2A7952 - KMG - Gyro	12,132.31	7,140.10	2,976.30	2,868.67	27.655	SF
WITTEMEYER HSR 2-2 - KMG - Gyro	200.73	138.87	2,421.80	2,420.97	2,927.349	CC, ES
WITTEMEYER HSR 2-2 - KMG - Gyro	8,900.00	7,114.75	2,949.90	2,890.85	49.957	SF

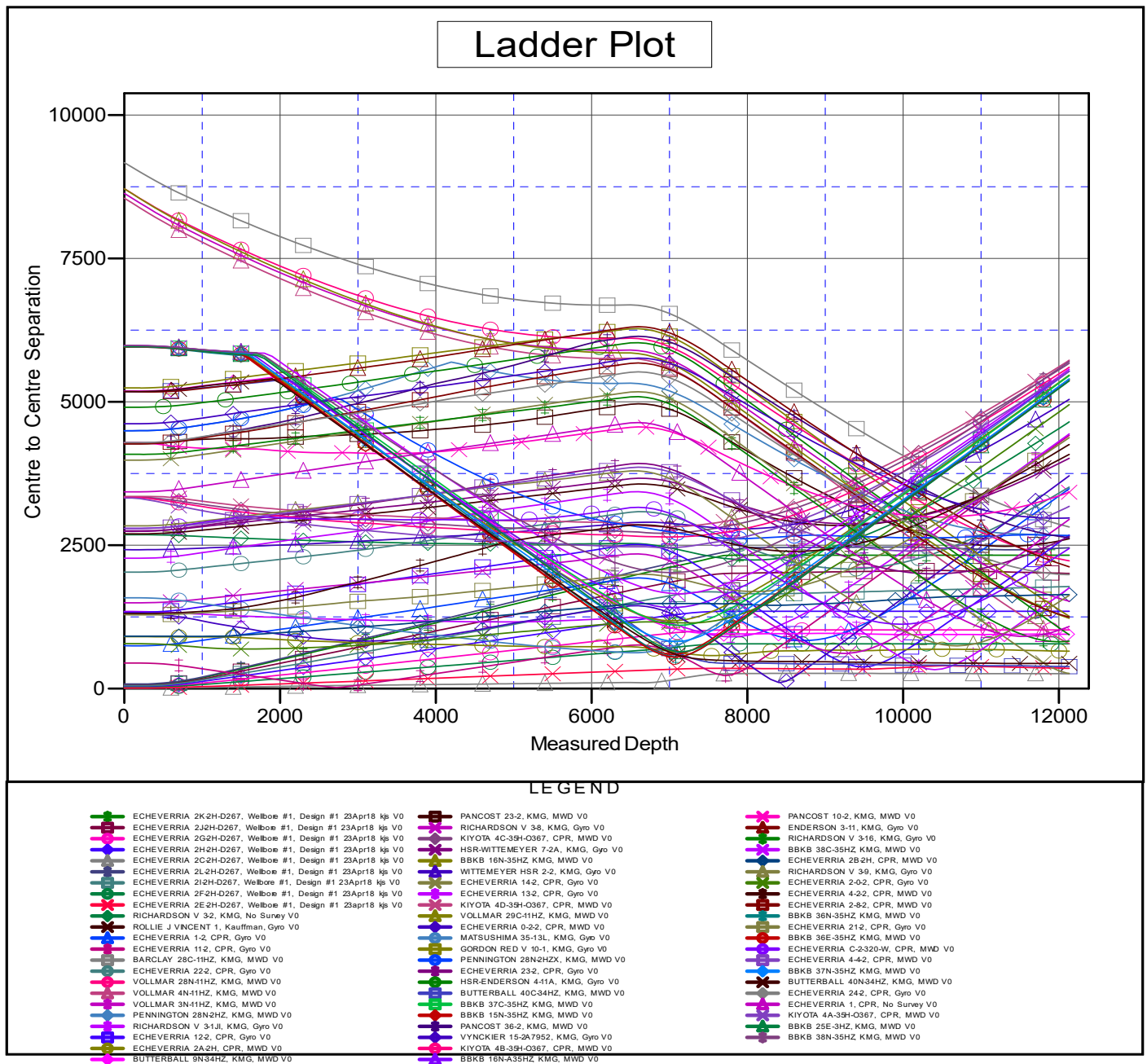
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4905.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.50000000

Coordinates are relative to: ECHEVERRIA 2D-2H-D267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.41°



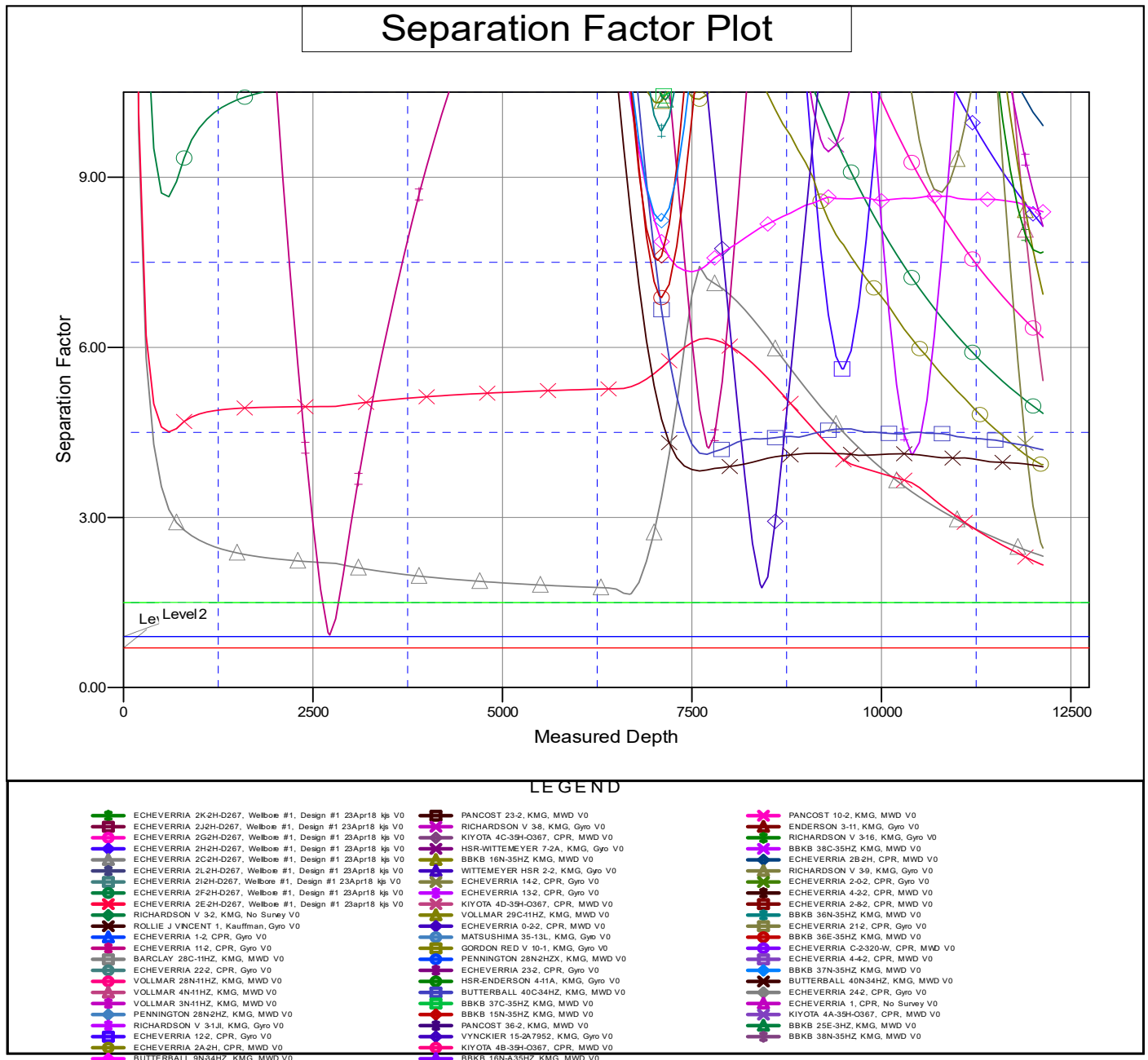
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Summary Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well ECHEVERRIA 2D-2H-D267
Project:	Sec 2 T2N-R67W	TVD Reference:	WELL @ 4905.00usft (Original Well Elev)
Reference Site:	Echeverria Pad	MD Reference:	WELL @ 4905.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	ECHEVERRIA 2D-2H-D267	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.15 Single User Db
Reference Design:	Design #1 23Apr18 kjs	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 4905.00usft (Original Well E
Offset Depths are relative to Offset Datum
Central Meridian is -105.50000000

Coordinates are relative to: ECHEVERRIA 2D-2H-D267
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