



CRESTONE PEAK
RESOURCES

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	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1743.32	26.87	107.44	1694.63	-92.70	294.99	2.00	107.44	-89.65	
4	6887.80	26.87	107.44	6283.83	-789.63	2512.92	0.00	0.00	-763.71	
5	8106.21	90.00	0.72	7012.00	-84.00	2875.07	8.00	-105.01	-54.39	
6	9748.61	90.00	0.72	7012.00	1558.27	2895.66	0.00	0.00	1588.00	RUEGGE 3Q-4H-N165 1588' VS
7	9761.45	90.25	0.65	7011.97	1571.11	2895.82	2.00	-15.15	1600.85	
8	11134.89	90.25	0.65	7006.03	2944.45	2911.43	0.00	0.00	2974.27	
9	11147.62	90.00	0.59	7006.00	2957.18	2911.57	2.00	-166.89	2987.00	RUEGGE 3Q 2987' VS
10	12331.12	90.00	0.59	7006.00	4140.61	2923.83	0.00	0.00	4170.50	RUEGGE 3Q-4H-N165 BHL

FINAL
RUEGGE 3Q-4H-N165
361237 185125 400637 185214
23 KB @ 4938.00bbl
Ground Level @ 4915.00
North American Datum 1983
Well RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4H-N165 SHL, True North

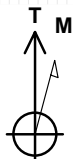
Type	Target	Azimuth	Origin	N/S	E/W	From
User	No Target (Freehand)	0.59	Slot	0.00	0.00	TVD
Name						
RUEGGE 3Q 2987' VS		7006.00	2957.18	2911.57	40.083399	-104.660156
RUEGGE 3Q-4H-N165 BHL		7006.00	4140.61	2923.83	40.086648	-104.660112
RUEGGE 3Q-4H-N165 (-100' VS)		7012.00	-189.00	2873.75	40.074762	-104.660293
RUEGGE 3Q-4H-N165 1588' VS		7012.00	1558.27	2895.66	40.079559	-104.660214
RUEGGE 3Q-4H-N165 TPZ		7012.00	-280.19	2895.64	40.074567	-104.660322
RUEGGE 3Q-4H-N165 2987' VS		7006.00	2957.18	2911.57	40.083399	-104.660156

Project: DJ BASIN
Site: S4-T1N-R65W (RUEGGE)
Well: RUEGGE 3Q-4H-N165
Wellbore: OH
Design: FINAL

True Vertical Depth (200 usft/in)

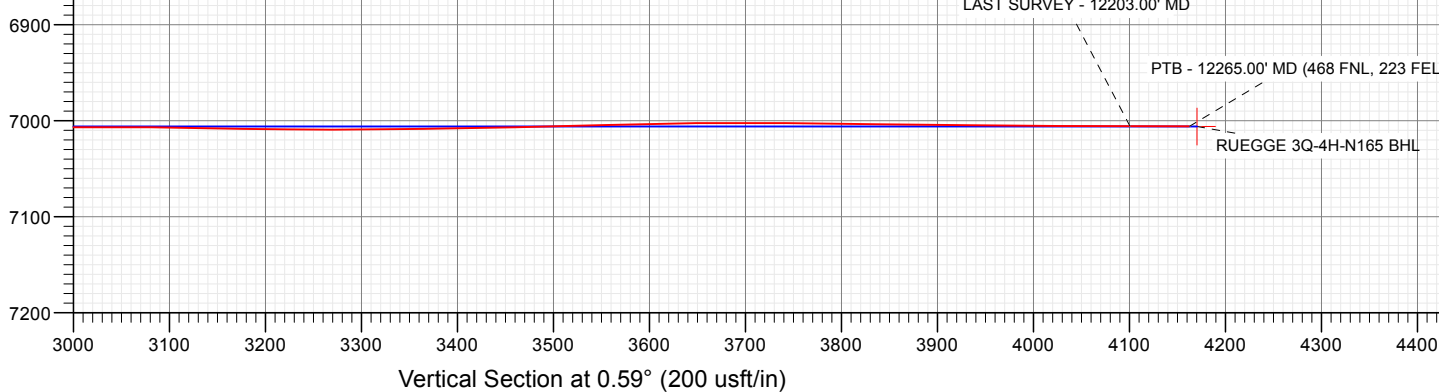
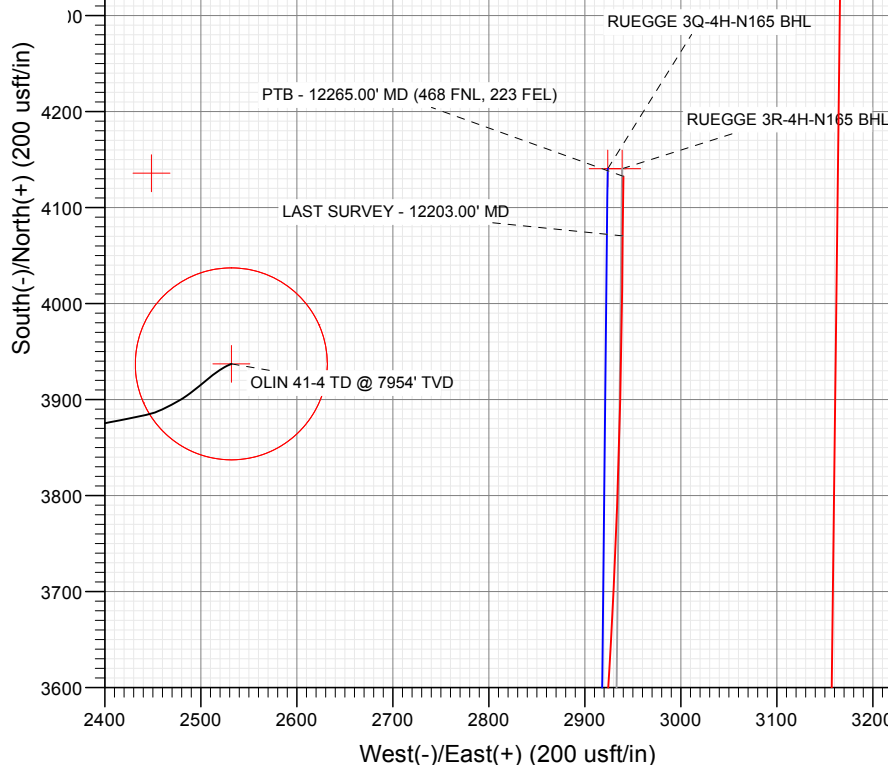
South(-)/North(+) (200 usft/in)

West(-)/East(+) (200 usft/in)



Azimuths to True North
Magnetic North: 8.15°

Magnetic Field
Strength: 52098.4nT
Dip Angle: 66.47°
Date: 7/31/2018
Model: HDGM_FILE



Vertical Section at 0.59° (200 usft/in)

WELL DETAILS: RUEGGE 3Q-4H-N165

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1271355.55	3232110.24	40.075281	-104.670562

CATHEDRAL



Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3Q-4H-N165	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Project	DJ BASIN		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S4-T1N-R65W (RUEGGE)			
Site Position:		Northing:	1,271,333.68 usft	Latitude:	40.075225
From:	Map	Easting:	3,231,971.96 usft	Longitude:	-104.671056
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.54 °

Well		RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4H-N165 SHL				
Well Position	+N/-S	0.00 usft	Northing:	1,271,355.55 usft	Latitude:	40.075281
	+E/-W	0.00 usft	Easting:	3,232,110.24 usft	Longitude:	-104.670562
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,915.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	7/31/2018	8.15	66.47	52,098.40000000

Design	FINAL				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	0.59	

Survey Program	Date	7/26/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
170.00	2,479.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,559.00	12,265.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	
170.00	0.27	37.11	170.00	0.30	0.23	0.30	0.17	0.17	
261.00	0.40	33.68	261.00	0.74	0.53	0.74	0.14	0.14	
353.00	0.35	349.71	353.00	1.28	0.66	1.29	0.31	-0.05	
445.00	1.67	102.79	444.98	1.26	1.92	1.28	2.00	1.43	
527.00	2.79	100.60	526.92	0.63	5.05	0.68	1.37	1.37	
612.00	5.43	101.39	611.69	-0.55	11.02	-0.43	3.11	3.11	
694.00	5.78	105.17	693.30	-2.39	18.81	-2.20	0.62	0.43	
755.00	7.15	109.20	753.91	-4.45	25.36	-4.18	2.36	2.25	
838.00	8.91	113.33	836.10	-8.69	36.14	-8.32	2.23	2.12	
920.00	10.92	110.06	916.87	-13.87	49.27	-13.36	2.54	2.45	
1,002.00	11.59	106.21	997.29	-18.83	64.48	-18.17	1.23	0.82	

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3Q-4H-N165	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,085.00	12.71	102.53	1,078.43	-23.14	81.40	-22.30	1.64	1.35	
1,168.00	14.24	102.65	1,159.15	-27.36	100.27	-26.33	1.84	1.84	
1,251.00	16.39	107.88	1,239.20	-33.19	121.38	-31.94	3.08	2.59	
1,333.00	18.86	108.29	1,317.34	-40.90	144.98	-39.41	3.02	3.01	
1,416.00	20.99	106.08	1,395.37	-49.23	172.00	-47.46	2.72	2.57	
1,499.00	23.32	103.52	1,472.24	-57.19	202.26	-55.11	3.04	2.81	
1,582.00	26.55	106.15	1,547.49	-66.19	236.07	-63.76	4.11	3.89	
1,668.00	29.64	108.98	1,623.36	-78.46	274.65	-75.63	3.91	3.59	
1,749.00	28.98	112.96	1,693.99	-92.63	311.66	-89.42	2.54	-0.81	
1,830.00	29.87	114.56	1,764.54	-108.67	348.07	-105.08	1.47	1.10	
1,911.00	28.56	115.54	1,835.24	-125.40	383.89	-121.44	1.72	-1.62	
2,001.00	25.75	116.93	1,915.31	-143.54	420.74	-139.20	3.20	-3.12	
2,091.00	24.55	112.07	1,996.79	-159.42	455.50	-154.72	2.65	-1.33	
2,180.00	25.70	106.80	2,077.37	-171.94	491.12	-166.88	2.83	1.29	
2,270.00	27.13	101.94	2,157.99	-181.83	529.88	-176.37	2.88	1.59	
2,359.00	27.18	101.89	2,237.18	-190.22	569.63	-184.34	0.06	0.06	
2,479.00	26.26	97.26	2,344.37	-199.22	622.79	-192.80	1.90	-0.77	
2,559.00	24.87	93.33	2,416.54	-202.43	657.14	-195.66	2.74	-1.74	
2,654.00	25.84	98.86	2,502.40	-206.78	697.55	-199.59	2.69	1.02	
2,749.00	25.01	103.87	2,588.21	-214.79	737.50	-207.18	2.43	-0.87	
2,854.00	25.62	111.70	2,683.15	-228.51	780.16	-220.46	3.24	0.58	
2,948.00	25.49	116.09	2,767.97	-244.92	817.21	-236.49	2.02	-0.14	
3,043.00	27.69	116.71	2,852.91	-263.83	855.29	-255.01	2.33	2.32	
3,137.00	30.37	114.95	2,935.10	-283.68	896.35	-274.43	2.99	2.85	
3,232.00	33.09	110.38	3,015.90	-302.84	942.45	-293.12	3.82	2.86	
3,326.00	30.94	109.94	3,095.60	-320.02	989.23	-309.82	2.30	-2.29	
3,421.00	27.86	109.41	3,178.36	-335.73	1,033.13	-325.08	3.25	-3.24	
3,516.00	27.11	109.85	3,262.63	-350.46	1,074.43	-339.38	0.82	-0.79	
3,610.00	23.82	109.23	3,347.49	-363.99	1,112.51	-352.51	3.51	-3.50	
3,702.00	25.05	105.46	3,431.25	-375.30	1,148.82	-363.45	2.16	1.34	
3,800.00	25.49	106.60	3,519.88	-386.85	1,189.03	-374.59	0.67	0.45	
3,895.00	25.84	104.40	3,605.51	-397.84	1,228.67	-385.17	1.07	0.37	
3,989.00	27.03	102.20	3,689.68	-407.45	1,269.39	-394.36	1.64	1.27	
4,084.00	25.62	104.93	3,774.83	-417.31	1,310.34	-403.79	1.96	-1.48	
4,179.00	24.96	104.84	3,860.72	-427.73	1,349.56	-413.81	0.70	-0.69	
4,273.00	27.25	106.95	3,945.13	-439.09	1,389.33	-424.76	2.63	2.44	
4,368.00	29.75	108.97	4,028.61	-453.09	1,432.43	-438.32	2.82	2.63	
4,462.00	29.31	108.88	4,110.40	-468.12	1,476.25	-452.89	0.47	-0.47	
4,557.00	28.48	109.32	4,193.57	-483.14	1,519.63	-467.46	0.90	-0.87	
4,652.00	24.83	108.88	4,278.46	-497.09	1,559.89	-481.00	3.85	-3.84	
4,747.00	25.44	108.62	4,364.47	-510.06	1,598.10	-493.58	0.65	0.64	
4,841.00	28.70	108.71	4,448.16	-523.75	1,638.63	-506.85	3.47	3.47	
4,936.00	26.28	110.03	4,532.43	-538.27	1,680.00	-520.94	2.63	-2.55	
5,031.00	24.13	106.33	4,618.38	-550.94	1,718.40	-533.21	2.80	-2.26	
5,125.00	23.56	104.31	4,704.36	-560.98	1,755.04	-542.88	1.06	-0.61	
5,219.00	26.10	103.70	4,789.66	-570.53	1,793.34	-552.03	2.72	2.70	
5,314.00	26.72	106.95	4,874.75	-581.70	1,834.07	-562.79	1.66	0.65	
5,408.00	27.25	107.13	4,958.52	-594.20	1,874.85	-574.86	0.57	0.56	
5,503.00	27.47	105.81	5,042.89	-606.58	1,916.72	-586.81	0.68	0.23	
5,598.00	24.52	101.85	5,128.28	-616.60	1,957.11	-596.41	3.60	-3.11	
5,692.00	24.83	102.29	5,213.69	-624.81	1,995.48	-604.22	0.38	0.33	
5,787.00	25.01	104.75	5,299.85	-634.16	2,034.39	-613.18	1.11	0.19	
5,881.00	22.54	108.18	5,385.87	-644.85	2,070.73	-623.49	3.01	-2.63	

Survey Report

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Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3Q-4H-N165	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
5,977.00	20.87	113.28	5,475.07	-657.35	2,103.93	-635.65	2.62	-1.74	
6,071.00	19.16	110.20	5,563.39	-669.29	2,133.79	-647.29	2.14	-1.82	
6,166.00	27.03	108.62	5,650.71	-681.59	2,168.93	-659.22	8.31	8.28	
6,261.00	35.64	108.18	5,731.78	-697.15	2,215.77	-674.29	9.07	9.06	
6,356.00	30.89	102.73	5,811.21	-711.17	2,265.90	-687.80	5.90	-5.00	
6,451.00	31.86	101.06	5,892.32	-721.35	2,314.29	-697.48	1.37	1.02	
6,546.00	31.55	101.32	5,973.14	-731.04	2,363.27	-706.66	0.36	-0.33	
6,641.00	24.92	97.55	6,056.79	-738.56	2,407.53	-713.72	7.22	-6.98	
6,735.00	21.40	102.73	6,143.21	-744.94	2,443.91	-719.73	4.32	-3.74	
6,830.00	21.31	105.72	6,231.69	-753.44	2,477.43	-727.88	1.15	-0.09	
6,925.00	24.70	103.87	6,319.13	-762.87	2,513.33	-736.95	3.65	3.57	
7,019.00	28.52	87.88	6,403.26	-766.76	2,554.89	-740.41	8.60	4.06	
7,114.00	33.18	68.19	6,485.01	-756.23	2,601.83	-729.40	11.65	4.91	
7,208.00	39.86	55.80	6,560.61	-729.67	2,650.75	-702.34	10.56	7.11	
7,303.00	45.70	47.45	6,630.37	-689.51	2,701.06	-661.66	8.56	6.15	
7,398.00	50.71	36.37	6,693.77	-636.79	2,748.01	-608.46	10.16	5.27	
7,492.00	58.27	24.16	6,748.47	-570.77	2,786.10	-542.05	13.26	8.04	
7,587.00	62.40	21.34	6,795.48	-494.65	2,817.97	-465.61	5.05	4.35	
7,681.00	63.15	18.09	6,838.49	-415.98	2,846.15	-386.65	3.18	0.80	
7,775.00	67.85	14.40	6,877.48	-333.88	2,870.02	-304.31	6.14	5.00	
7,856.11	70.78	13.12	6,906.13	-260.19	2,888.06	-230.44	3.90	3.61	TPZ - 7856.0' MD (460 FSL, 230 FEL)
7,870.00	71.28	12.91	6,910.64	-247.39	2,891.02	-217.61	3.90	3.62	
7,965.00	74.36	8.25	6,938.71	-158.21	2,907.65	-128.26	5.70	3.24	
8,060.00	79.41	356.38	6,960.34	-65.97	2,911.28	-35.99	13.27	5.32	
8,154.00	81.48	352.69	6,975.94	26.28	2,902.44	56.17	4.45	2.20	
8,249.00	84.07	354.45	6,987.89	119.92	2,891.89	149.70	3.29	2.73	
8,344.00	88.37	356.56	6,994.15	214.40	2,884.47	244.09	5.04	4.53	
8,438.00	88.33	355.86	6,996.86	308.15	2,878.26	337.78	0.75	-0.04	
8,533.00	87.67	356.91	7,000.18	402.91	2,872.27	432.46	1.30	-0.69	
8,627.00	89.60	358.76	7,002.41	496.80	2,868.72	526.32	2.84	2.05	
8,722.00	89.96	2.54	7,002.78	591.78	2,869.80	621.30	4.00	0.38	
8,817.00	89.96	2.97	7,002.85	686.67	2,874.37	716.23	0.45	0.00	
8,911.00	90.48	3.50	7,002.49	780.52	2,879.67	810.13	0.79	0.55	
9,006.00	88.64	1.31	7,003.21	875.42	2,883.66	905.07	3.01	-1.94	
9,101.00	88.55	1.04	7,005.54	970.37	2,885.61	1,000.04	0.30	-0.09	
9,195.00	88.55	0.78	7,007.92	1,064.33	2,887.10	1,094.00	0.28	0.00	
9,290.00	88.95	0.60	7,010.00	1,159.30	2,888.24	1,188.98	0.46	0.42	
9,384.00	88.86	0.43	7,011.79	1,253.28	2,889.09	1,282.96	0.20	-0.10	
9,479.00	89.17	0.07	7,013.42	1,348.26	2,889.50	1,377.95	0.50	0.33	
9,574.00	89.30	359.46	7,014.69	1,443.26	2,889.11	1,472.93	0.66	0.14	
9,669.00	89.56	358.93	7,015.64	1,538.24	2,887.78	1,567.90	0.62	0.27	
9,763.00	89.78	1.83	7,016.18	1,632.23	2,888.40	1,661.88	3.09	0.23	
9,858.00	91.27	2.97	7,015.31	1,727.14	2,892.38	1,756.83	1.97	1.57	
9,952.00	91.67	1.83	7,012.90	1,821.02	2,896.31	1,850.75	1.28	0.43	
10,047.00	92.72	1.22	7,009.26	1,915.92	2,898.84	1,945.66	1.28	1.11	
10,142.00	91.49	2.62	7,005.77	2,010.79	2,902.02	2,040.57	1.96	-1.29	
10,236.00	87.94	1.57	7,006.24	2,104.71	2,905.46	2,134.52	3.94	-3.78	
10,331.00	87.10	1.39	7,010.35	2,199.59	2,907.91	2,229.42	0.90	-0.88	
10,425.00	89.65	1.04	7,013.01	2,293.52	2,909.90	2,323.37	2.74	2.71	
10,520.00	89.69	0.60	7,013.56	2,388.51	2,911.26	2,418.36	0.47	0.04	
10,614.00	90.44	0.34	7,013.45	2,482.51	2,912.03	2,512.36	0.84	0.80	
10,709.00	90.84	359.99	7,012.39	2,577.50	2,912.30	2,607.35	0.56	0.42	
10,804.00	91.14	359.28	7,010.75	2,672.49	2,911.70	2,702.33	0.81	0.32	

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3Q-4H-N165	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
10,899.00	91.45	359.11	7,008.60	2,767.45	2,910.36	2,797.27	0.37	0.33	
10,994.00	89.87	358.93	7,007.51	2,862.43	2,908.74	2,892.23	1.67	-1.66	
11,088.00	90.88	358.93	7,006.89	2,956.41	2,906.98	2,986.19	1.07	1.07	
11,183.00	89.08	0.60	7,006.93	3,051.40	2,906.59	3,081.17	2.58	-1.89	
11,278.00	89.03	1.92	7,008.49	3,146.36	2,908.68	3,176.15	1.39	-0.05	
11,372.00	90.04	1.31	7,009.26	3,240.32	2,911.33	3,270.13	1.26	1.07	
11,467.00	90.84	1.48	7,008.53	3,335.29	2,913.64	3,365.11	0.86	0.84	
11,562.00	91.23	1.83	7,006.81	3,430.23	2,916.39	3,460.08	0.55	0.41	
11,656.00	91.58	2.97	7,004.51	3,524.12	2,920.32	3,554.01	1.27	0.37	
11,751.00	90.92	3.41	7,002.43	3,618.95	2,925.61	3,648.88	0.83	-0.69	
11,845.00	89.08	2.62	7,002.43	3,712.82	2,930.55	3,742.80	2.13	-1.96	
11,939.00	89.34	1.92	7,003.73	3,806.73	2,934.28	3,836.75	0.79	0.28	
12,034.00	89.39	1.22	7,004.78	3,901.69	2,936.88	3,931.73	0.74	0.05	
12,129.00	89.78	0.87	7,005.47	3,996.67	2,938.61	4,026.72	0.55	0.41	
12,203.00	89.82	0.60	7,005.73	4,070.67	2,939.56	4,100.72	0.37	0.05	LAST SURVEY - 12203.00' MD
12,265.00	89.82	0.60	7,005.92	4,132.66	2,940.21	4,162.72	0.00	0.00	PTB - 12265.00' MD (468 FNL, 223 FEL)

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3Q-4H-N165 - Slot RUEGGE 3Q-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3Q-4H-N165	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	FINAL	Database:	USA EDM 5000 Multi Users DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
RUEGGE 3Q-4H-N165 -	0.00	0.00	7,012.00	-260.19	2,865.64	1,271,122.18	3,234,978.19	40.074567	-104.660322
- actual wellpath misses target center by 104.19usft at 7883.50usft MD (6914.93 TVD, -234.89 N, 2893.81 E)									
- Point									
RUEGGE 3Q-4H-N165 -	0.00	0.00	7,012.00	1,558.27	2,895.66	1,272,940.84	3,234,991.20	40.079559	-104.660214
- actual wellpath misses target center by 8.99usft at 9689.06usft MD (7015.78 TVD, 1558.30 N, 2887.51 E)									
- Point									
RUEGGE 3Q-4H-N165 (0.00	0.00	7,012.00	-189.00	2,873.75	1,271,193.44	3,234,985.64	40.074762	-104.660293
- actual wellpath misses target center by 85.26usft at 7951.81usft MD (6935.11 TVD, -170.76 N, 2905.76 E)									
- Point									
RUEGGE 3Q-4H-N165 ;	0.00	0.00	7,022.00	2,195.22	2,903.65	1,273,577.84	3,234,993.23	40.081307	-104.660185
- actual wellpath misses target center by 12.57usft at 10327.03usft MD (7010.15 TVD, 2195.63 N, 2907.81 E)									
- Point									
RUEGGE 3Q 2987' VS	0.00	0.00	7,006.00	2,957.18	2,911.57	1,274,339.84	3,234,994.02	40.083399	-104.660156
- actual wellpath misses target center by 4.68usft at 11088.75usft MD (7006.88 TVD, 2957.16 N, 2906.97 E)									
- Point									
RUEGGE 3Q-4H-N165 I	0.00	0.00	7,006.00	4,140.61	2,923.83	1,275,523.33	3,234,995.21	40.086648	-104.660112
- actual wellpath misses target center by 18.21usft at 12265.00usft MD (7005.92 TVD, 4132.66 N, 2940.21 E)									
- Point									

Design Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
7,856.11	6,906.13	-260.19	2,888.06	TPZ - 7856.0' MD (460 FSL, 230 FEL)
12,203.00	7,005.73	4,070.67	2,939.56	LAST SURVEY - 12203.00' MD
12,265.00	7,005.92	4,132.66	2,940.21	PTB - 12265.00' MD (468 FNL, 223 FEL)

Checked By: _____	Approved By: _____	Date: _____
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