



CRESTONE PEAK
RESOURCES

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	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	1418.49	20.37	116.55	1397.17	-80.08	160.25	2.00	116.55	-78.43	
4	6828.79	20.37	116.55	6469.14	-921.88	1844.84	0.00	0.00	-902.83	
5	8063.35	90.00	0.59	7252.00	-216.78	2113.45	8.00	-114.53	-195.00	
6	9543.35	90.00	0.59	7252.00	1263.15	2128.69	0.00	0.00	1285.00	RUEGGE 30 1285' VS
7	9546.38	90.06	0.59	7252.00	1266.18	2128.72	2.00	3.51	1288.03	
8	11320.65	90.06	0.59	7250.12	3040.35	2147.11	0.00	0.00	3062.30	
9	11344.35	90.53	0.59	7250.00	3064.05	2147.35	2.00	0.00	3086.00	RUEGGE 30 3086' VS
10	12416.07	90.53	0.59	7240.00	4135.67	2158.46	0.00	0.00	4157.67	RUEGGE 30-4H-N165 BHL

FINAL
RUEGGE 30-4H-N165
361037 185123 400437 185212
23' KB @ 4938.00usft
Ground Level @ 4915.00
North American Datum 1983
Well RUEGGE 30-4H-N165 - Slot RUEGGE 30-4H-N165 SHL, True North

Type	Target	Origin	Type	N/S	E/W	From TVD
User	No Target (Freehand)	0.59	Slot	0.00	0.00	0.00
Name	TVD	4N/-S	4E/-W	Latitude	Longitude	
RUEGGE 30-4H-N165 BHL	7240.00	4135.67	2158.46	40.086626	-104.662918	
RUEGGE 30 3086' VS	7250.00	3064.05	2147.35	40.083684	-104.662958	
RUEGGE 30 (255 VS)	7252.00	-276.76	2111.86	40.074513	-104.663086	
RUEGGE 30 1285' VS	7252.00	1263.15	2128.69	40.078741	-104.663025	
RUEGGE 30-4H-N165 TPZ	7282.00	-285.93	2112.56	40.074571	-104.663083	

Project: DJ BASIN
Site: S4-T1N-R65W (RUEGGE)
Well: RUEGGE 30-4H-N165
Wellbore: OH
Design: FINAL

True Vertical Depth (200 usft/in)

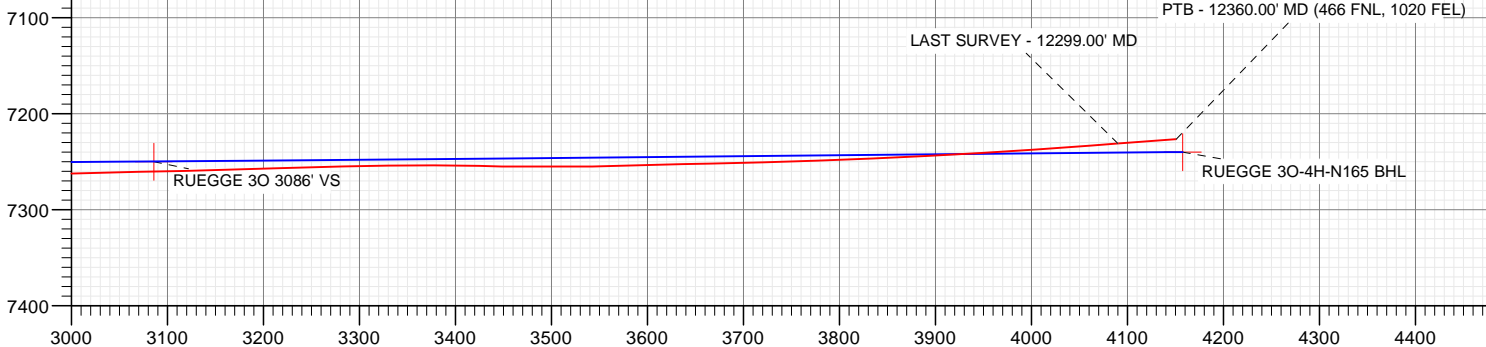
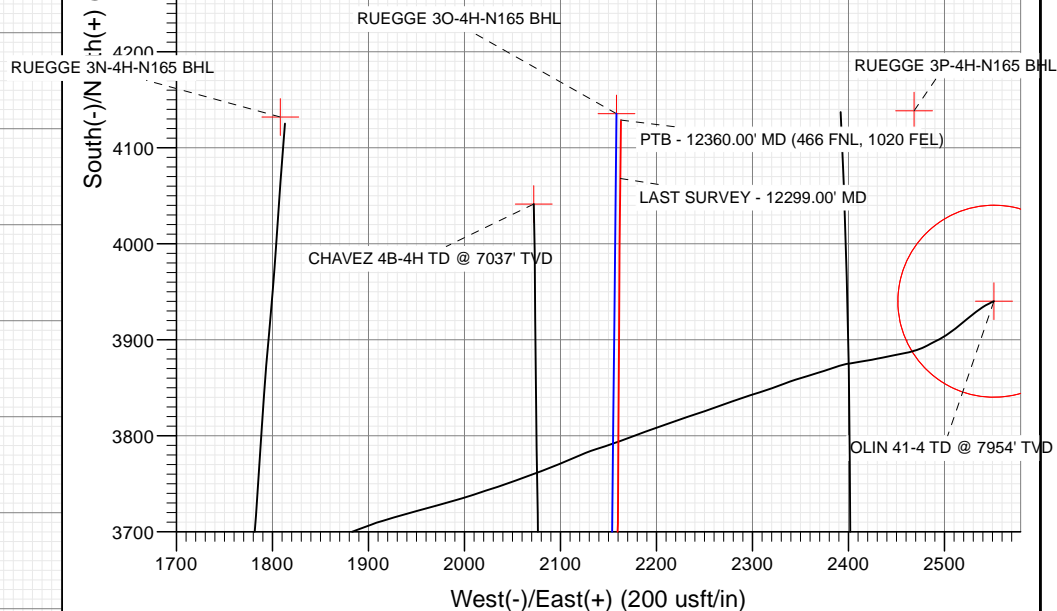


Azimuths to True North
Magnetic North: 8.17°

Magnetic Field
Strength: 52104.3nT
Dip Angle: 66.47°
Date: 7/13/2018
Model: HDGM_FILE

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

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



Vertical Section at 0.59° (200 usft/in)

WELL DETAILS: RUEGGE 30-4H-N165

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1271352.43	3232090.49	40.075273	-104.670632

CATHEDRAL



Cathedral Energy Services

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3O-4H-N165 - Slot RUEGGE 3O-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3O-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 3O-4H-N165 - Slot RUEGGE 3O-4H-N165 SHL					
Well Position	+N/-S	0.00 usft	Northing:	1,271,352.43 usft	Latitude:	40.075273
	+E/-W	0.00 usft	Easting:	3,232,090.49 usft	Longitude:	-104.670632
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	7/13/2018	8.17	66.47	52,104.30000000

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	7/23/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
139.00	2,458.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,559.00	12,360.00	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	
139.00	0.75	115.28	139.00	-0.36	0.76	-0.35	0.58	0.58	
231.00	0.16	128.82	230.99	-0.70	1.41	-0.68	0.65	-0.64	
322.00	0.51	101.39	321.99	-0.86	1.90	-0.84	0.41	0.38	
383.00	0.73	92.07	382.99	-0.93	2.56	-0.90	0.40	0.36	
475.00	1.96	103.59	474.96	-1.32	4.67	-1.27	1.36	1.34	
557.00	2.85	115.19	556.89	-2.51	7.88	-2.43	1.23	1.09	
643.00	4.27	111.76	642.72	-4.61	12.79	-4.48	1.67	1.65	
724.00	5.45	111.94	723.43	-7.17	19.16	-6.97	1.46	1.46	
785.00	7.11	118.51	784.06	-10.05	25.16	-9.79	2.96	2.72	
868.00	8.88	116.12	866.25	-15.32	35.43	-14.96	2.17	2.13	
950.00	11.44	112.87	946.96	-21.27	48.61	-20.77	3.20	3.12	

Cathedral Energy Services

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3O-4H-N165 - Slot RUEGGE 3O-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3O-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
1,032.00	12.88	111.94	1,027.12	-27.85	64.58	-27.18	1.77	1.76	
1,115.00	14.40	113.02	1,107.77	-35.34	82.66	-34.49	1.86	1.83	
1,198.00	14.98	114.48	1,188.06	-43.82	101.92	-42.77	0.83	0.70	
1,281.00	17.02	114.42	1,267.84	-53.29	122.75	-52.02	2.46	2.46	
1,363.00	19.06	116.39	1,345.81	-64.20	145.67	-62.70	2.60	2.49	
1,446.00	20.46	117.65	1,423.92	-76.96	170.66	-75.20	1.76	1.69	
1,529.00	21.47	120.04	1,501.42	-91.29	196.66	-89.26	1.59	1.22	
1,612.00	21.22	121.54	1,578.73	-106.76	222.61	-104.46	0.72	-0.30	
1,697.00	21.13	118.79	1,657.99	-122.18	249.15	-119.61	1.17	-0.11	
1,780.00	21.25	118.38	1,735.38	-136.54	275.50	-133.69	0.23	0.14	
1,861.00	19.58	116.70	1,811.29	-149.61	300.54	-146.51	2.18	-2.06	
1,943.00	20.58	117.23	1,888.31	-162.38	325.63	-159.02	1.24	1.22	
2,028.00	19.80	116.84	1,968.08	-175.72	351.76	-172.09	0.93	-0.92	
2,117.00	20.13	116.93	2,051.73	-189.46	378.86	-185.55	0.37	0.37	
2,207.00	20.51	115.85	2,136.13	-203.35	406.86	-199.15	0.59	0.42	
2,297.00	20.37	112.78	2,220.47	-216.29	435.49	-211.79	1.20	-0.16	
2,386.00	20.21	111.42	2,303.95	-227.90	464.08	-223.11	0.56	-0.18	
2,458.00	19.76	111.16	2,371.61	-236.83	487.01	-231.81	0.64	-0.62	
2,559.00	18.46	109.76	2,467.04	-248.40	517.98	-243.06	1.36	-1.29	
2,654.00	19.20	115.74	2,556.97	-260.27	546.21	-254.64	2.17	0.78	
2,749.00	19.91	119.61	2,646.49	-275.05	574.35	-269.12	1.55	0.75	
2,854.00	19.73	121.54	2,745.27	-293.16	605.00	-286.91	0.65	-0.17	
2,948.00	20.13	122.24	2,833.64	-310.08	632.20	-303.56	0.50	0.43	
3,043.00	23.29	123.65	2,921.89	-329.22	661.67	-322.39	3.37	3.33	
3,138.00	24.61	121.72	3,008.71	-350.03	694.13	-342.86	1.62	1.39	
3,232.00	22.50	119.25	3,094.88	-369.11	726.48	-361.61	2.48	-2.24	
3,327.00	23.56	119.52	3,182.31	-387.34	758.86	-379.51	1.12	1.12	
3,421.00	21.40	117.85	3,269.16	-404.61	790.37	-396.45	2.40	-2.30	
3,516.00	18.85	115.30	3,358.35	-419.27	819.58	-410.81	2.84	-2.68	
3,610.00	18.72	118.20	3,447.35	-432.89	846.60	-424.15	1.00	-0.14	
3,705.00	18.11	116.35	3,537.48	-446.65	873.27	-437.63	0.89	-0.64	
3,800.00	18.02	111.17	3,627.81	-458.51	900.20	-449.22	1.69	-0.09	
3,895.00	16.66	109.32	3,718.49	-468.32	926.76	-458.75	1.54	-1.43	
3,989.00	19.07	109.32	3,807.95	-477.86	953.97	-468.01	2.56	2.56	
4,084.00	21.67	109.50	3,897.00	-488.85	985.15	-478.68	2.74	2.74	
4,179.00	23.07	113.37	3,984.85	-502.09	1,018.78	-491.58	2.14	1.47	
4,273.00	22.19	113.45	4,071.62	-516.46	1,051.97	-505.60	0.94	-0.94	
4,368.00	24.92	114.07	4,158.69	-531.77	1,086.71	-520.55	2.89	2.87	
4,462.00	23.73	112.75	4,244.35	-547.16	1,122.23	-535.57	1.39	-1.27	
4,557.00	19.64	118.99	4,332.62	-562.30	1,153.84	-550.39	4.94	-4.31	
4,652.00	19.42	124.70	4,422.16	-579.03	1,180.80	-566.84	2.02	-0.23	
4,747.00	21.05	123.39	4,511.29	-597.41	1,208.03	-584.94	1.78	1.72	
4,841.00	19.20	121.72	4,599.55	-614.83	1,235.27	-602.07	2.06	-1.97	
4,936.00	20.35	121.54	4,688.95	-631.68	1,262.64	-618.65	1.21	1.21	
5,031.00	19.51	120.92	4,778.26	-648.47	1,290.33	-635.15	0.91	-0.88	
5,125.00	20.26	117.76	4,866.65	-664.12	1,318.20	-650.51	1.39	0.80	
5,219.00	18.37	114.16	4,955.36	-677.77	1,346.12	-663.87	2.38	-2.01	
5,314.00	19.12	113.98	5,045.32	-690.22	1,373.99	-676.03	0.79	0.79	
5,408.00	18.41	117.23	5,134.33	-703.26	1,401.26	-688.80	1.34	-0.76	
5,503.00	20.30	115.65	5,223.95	-717.26	1,429.45	-702.51	2.06	1.99	
5,598.00	21.71	114.86	5,312.64	-731.78	1,460.25	-716.71	1.51	1.48	
5,693.00	21.18	116.35	5,401.06	-746.79	1,491.58	-731.39	0.80	-0.56	
5,787.00	21.53	116.27	5,488.61	-761.96	1,522.26	-746.24	0.37	0.37	

Cathedral Energy Services

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3O-4H-N165 - Slot RUEGGE 3O-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3O-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
5,882.00	21.31	116.00	5,577.05	-777.24	1,553.41	-761.21	0.25	-0.23	
5,977.00	20.39	114.42	5,665.83	-791.65	1,583.99	-775.30	1.13	-0.97	
6,072.00	20.17	118.20	5,754.94	-806.23	1,613.50	-789.58	1.40	-0.23	
6,167.00	20.74	117.94	5,843.95	-821.86	1,642.79	-804.90	0.61	0.60	
6,262.00	21.49	117.32	5,932.57	-837.72	1,673.11	-820.45	0.82	0.79	
6,357.00	18.11	114.68	6,021.94	-851.88	1,702.00	-834.31	3.68	-3.56	
6,451.00	17.84	114.77	6,111.36	-864.01	1,728.35	-846.17	0.29	-0.29	
6,546.00	17.10	114.33	6,201.97	-875.86	1,754.29	-857.75	0.79	-0.78	
6,641.00	17.53	116.09	6,292.67	-887.91	1,779.86	-869.54	0.71	0.45	
6,735.00	16.48	111.87	6,382.56	-899.10	1,804.95	-880.47	1.72	-1.12	
6,830.00	15.73	93.94	6,473.89	-905.01	1,830.32	-886.12	5.27	-0.79	
6,925.00	21.31	77.77	6,563.99	-902.24	1,860.08	-883.03	7.93	5.87	
7,019.00	29.71	68.01	6,648.79	-889.87	1,898.46	-870.27	9.97	8.94	
7,114.00	36.65	55.18	6,728.35	-864.80	1,943.67	-844.74	10.36	7.31	
7,209.00	40.25	49.73	6,802.76	-828.75	1,990.40	-808.21	5.20	3.79	
7,303.00	43.15	46.22	6,872.95	-786.87	2,036.79	-765.85	3.96	3.09	
7,398.00	46.89	35.32	6,940.19	-736.00	2,080.38	-714.54	9.01	3.94	
7,492.00	51.33	22.75	7,001.85	-673.99	2,114.50	-652.18	11.14	4.72	
7,587.00	55.20	9.22	7,058.82	-601.04	2,135.16	-579.03	12.10	4.07	
7,681.00	61.88	2.45	7,107.90	-521.38	2,143.13	-499.28	9.39	7.11	
7,776.00	67.41	3.06	7,148.56	-435.66	2,147.27	-413.53	5.85	5.82	
7,870.00	71.24	1.83	7,181.75	-347.81	2,151.01	-325.65	4.25	4.07	
7,966.00	74.00	0.43	7,210.42	-256.23	2,152.80	-234.04	3.19	2.87	
7,966.31	74.00	0.43	7,210.51	-255.93	2,152.81	-233.75	0.00	0.00	TPZ - 7966.31 (460 FSL, 986 FEL)
8,060.00	74.71	0.07	7,235.77	-165.71	2,153.20	-143.53	0.84	0.76	
8,154.00	85.17	1.48	7,252.17	-73.29	2,154.47	-51.11	11.22	11.13	
8,249.00	85.34	1.66	7,260.03	21.34	2,157.06	43.55	0.26	0.18	
8,344.00	87.89	358.84	7,265.64	116.16	2,157.47	138.37	4.00	2.68	
8,438.00	91.19	357.70	7,266.39	210.10	2,154.64	232.28	3.71	3.51	
8,533.00	92.11	358.67	7,263.66	305.01	2,151.63	327.15	1.41	0.97	
8,627.00	92.59	358.84	7,259.80	398.91	2,149.59	421.02	0.54	0.51	
8,722.00	90.79	358.49	7,257.00	493.84	2,147.37	515.92	1.93	-1.89	
8,817.00	90.53	357.70	7,255.91	588.78	2,144.22	610.83	0.88	-0.27	
8,911.00	90.35	357.00	7,255.18	682.67	2,139.87	704.67	0.77	-0.19	
9,006.00	90.13	357.17	7,254.79	777.55	2,135.04	799.49	0.29	-0.23	
9,101.00	89.78	356.82	7,254.86	872.42	2,130.06	894.31	0.52	-0.37	
9,196.00	91.63	358.84	7,253.69	967.33	2,126.46	989.18	2.88	1.95	
9,290.00	91.23	2.10	7,251.35	1,061.29	2,127.23	1,083.14	3.49	-0.43	
9,384.00	91.01	2.62	7,249.51	1,155.19	2,131.10	1,177.07	0.60	-0.23	
9,480.00	90.75	2.62	7,248.03	1,251.08	2,135.49	1,273.00	0.27	-0.27	
9,574.00	90.70	2.54	7,246.84	1,344.98	2,139.72	1,366.94	0.10	-0.05	
9,669.00	90.40	2.89	7,245.93	1,439.87	2,144.22	1,461.87	0.49	-0.32	
9,764.00	89.03	0.69	7,246.40	1,534.81	2,147.19	1,556.84	2.73	-1.44	
9,858.00	90.13	1.48	7,247.09	1,628.79	2,148.97	1,650.83	1.44	1.17	
9,952.00	90.48	359.37	7,246.59	1,722.78	2,149.67	1,744.82	2.28	0.37	
10,047.00	89.25	356.91	7,246.82	1,817.72	2,146.58	1,839.73	2.90	-1.29	
10,142.00	90.40	358.58	7,247.11	1,912.64	2,142.85	1,934.60	2.13	1.21	
10,236.00	90.53	358.76	7,246.34	2,006.61	2,140.66	2,028.55	0.24	0.14	
10,331.00	91.06	357.88	7,245.03	2,101.56	2,137.88	2,123.46	1.08	0.56	
10,425.00	90.97	0.43	7,243.36	2,195.53	2,136.49	2,217.41	2.71	-0.10	
10,520.00	88.11	0.51	7,244.12	2,290.51	2,137.27	2,312.40	3.01	-3.01	
10,615.00	87.85	0.25	7,247.47	2,385.45	2,137.90	2,407.34	0.39	-0.27	
10,709.00	88.07	0.78	7,250.82	2,479.39	2,138.75	2,501.28	0.61	0.23	

Cathedral Energy Services

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well RUEGGE 3O-4H-N165 - Slot RUEGGE 3O-4
Project:	DJ BASIN	TVD Reference:	23' KB @ 4938.00usft
Site:	S4-T1N-R65W (RUEGGE)	MD Reference:	23' KB @ 4938.00usft
Well:	RUEGGE 3O-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
10,805.00	87.63	1.04	7,254.42	2,575.31	2,140.27	2,597.21	0.53	-0.46	
10,899.00	86.40	0.51	7,259.31	2,669.17	2,141.54	2,691.08	1.42	-1.31	
10,994.00	88.15	0.25	7,263.83	2,764.06	2,142.17	2,785.97	1.86	1.84	
11,088.00	90.79	1.39	7,264.70	2,858.03	2,143.51	2,879.95	3.06	2.81	
11,183.00	91.45	1.92	7,262.84	2,952.97	2,146.26	2,974.92	0.89	0.69	
11,278.00	91.27	1.74	7,260.59	3,047.90	2,149.29	3,069.87	0.27	-0.19	
11,373.00	91.54	1.83	7,258.26	3,142.82	2,152.25	3,164.82	0.30	0.28	
11,467.00	91.80	1.66	7,255.52	3,236.74	2,155.11	3,258.76	0.33	0.28	
11,562.00	90.26	0.95	7,253.81	3,331.70	2,157.27	3,353.73	1.78	-1.62	
11,657.00	88.24	359.72	7,255.06	3,426.68	2,157.83	3,448.72	2.49	-2.13	
11,751.00	91.80	0.95	7,255.02	3,520.66	2,158.38	3,542.70	4.01	3.79	
11,845.00	91.32	0.34	7,252.46	3,614.62	2,159.44	3,636.66	0.83	-0.51	
11,939.00	91.41	0.25	7,250.22	3,708.59	2,159.92	3,730.64	0.14	0.10	
12,034.00	92.42	0.51	7,247.05	3,803.54	2,160.55	3,825.58	1.10	1.06	
12,129.00	93.12	0.25	7,242.46	3,898.42	2,161.18	3,920.47	0.79	0.74	
12,224.00	94.00	0.43	7,236.56	3,993.24	2,161.74	4,015.28	0.95	0.93	
12,299.00	94.31	0.60	7,231.13	4,068.04	2,162.41	4,090.09	0.47	0.41	LAST SURVEY - 12299.00' MD
12,360.00	94.31	0.60	7,226.54	4,128.86	2,163.05	4,150.91	0.00	0.00	PTB - 12360.00' MD (466 FNL, 1020 FEL)

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RUEGGE 3O 1285' VS - hit/miss target - Shape - Point	0.00	0.00	7,252.00	1,263.15	2,128.69	1,272,635.43	3,234,207.27	40.078741	-104.663025
- actual wellpath misses target center by 8.42usft at 9491.70usft MD (7247.88 TVD, 1262.76 N, 2136.02 E)									
RUEGGE 3O 3086' VS - actual wellpath misses target center by 10.51usft at 11294.34usft MD (7260.22 TVD, 3064.22 N, 2149.79 E) - Point	0.00	0.00	7,250.00	3,064.05	2,147.35	1,274,436.43	3,234,209.09	40.083684	-104.662958
RUEGGE 3O-4H-N165 I - actual wellpath misses target center by 15.77usft at 12360.00usft MD (7226.54 TVD, 4128.86 N, 2163.05 E) - Point	0.00	0.00	7,240.00	4,135.67	2,158.46	1,275,508.10	3,234,210.17	40.086626	-104.662918
RUEGGE 3O-4H-N165 ^ - actual wellpath misses target center by 79.73usft at 7985.42usft MD (7215.75 TVD, -237.55 N, 2152.93 E) - Point	0.00	0.00	7,282.00	-255.93	2,112.56	1,271,116.27	3,234,205.35	40.074571	-104.663083
RUEGGE 3O (-255 VS) - actual wellpath misses target center by 61.27usft at 7958.06usft MD (7208.22 TVD, -263.85 N, 2152.74 E) - Point	0.00	0.00	7,252.00	-276.76	2,111.86	1,271,095.43	3,234,204.85	40.074513	-104.663086

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,966.31	7,210.51	-255.93	2,152.81	TPZ - 7966.31 (460 FSL, 986 FEL)
12,299.00	7,231.13	4,068.04	2,162.41	LAST SURVEY - 12299.00' MD
12,360.00	7,226.54	4,128.86	2,163.05	PTB - 12360.00' MD (466 FNL, 1020 FEL)

Checked By: _____ Approved By: _____ Date: _____