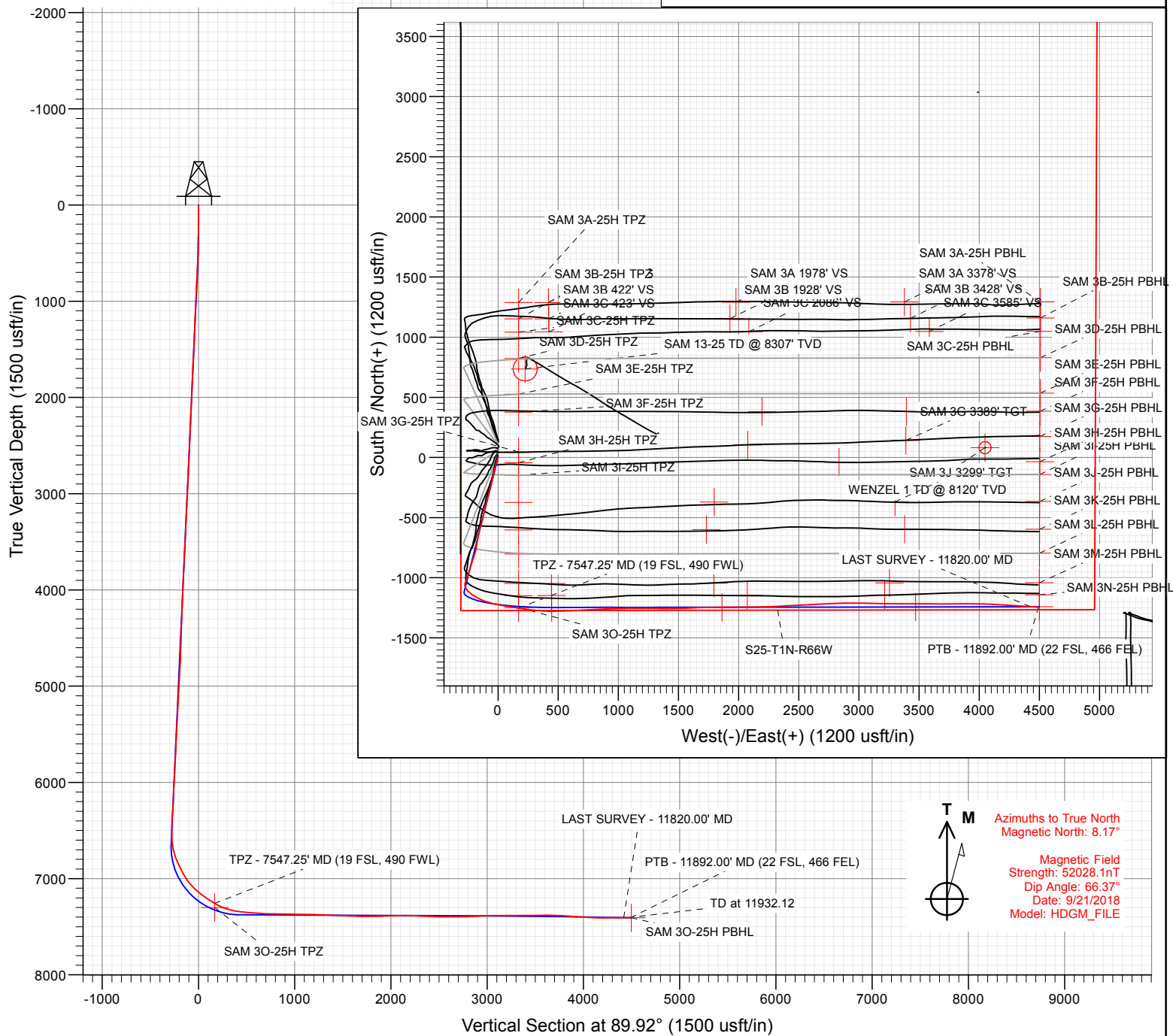




Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	727.90	10.56	194.17	724.92	-47.02	-11.88	2.00	194.17	-11.95	
4	6744.07	10.56	194.17	6639.24	-1115.81	-281.82	0.00	0.00	-283.47	
5	7898.43	89.76	89.91	7375.94	-1247.23	430.86	8.00	-104.07	429.01	
6	9329.43	89.76	89.91	7382.00	-1245.04	1861.85	0.00	0.00	1860.00	SAM 30 1860' VS
7	9331.25	89.72	89.91	7382.01	-1245.04	1863.67	2.00	-180.00	1861.82	
8	10907.83	89.72	89.91	7389.69	-1242.64	3440.23	0.00	0.00	3438.39	
9	10938.45	89.11	89.91	7390.00	-1242.59	3470.85	2.00	180.00	3469.00	SAM 30 3469' VS
10	11966.84	89.11	89.91	7406.00	-1241.02	4499.11	0.00	0.00	4497.27	SAM 30-25H PBH/L

FINAL
SAM 30-25H-M166
385437 185156 418237 185270
23' KB @ 5109.00usft
Ground Level @ 5086.00
North American Datum 1983
Well SAM 30-25H-M166, True North

Type User	Target No Target (Freehand)	Azimuth 89.92	Origin Type	N/S 0.0	E/W 0.00	From TVD 0.00
Name	TVD	Sid	+E-W	Latitude	Longitude	
SAM 30-25H TZP00	7300.61	-1247.62	170.58	40.015085	-104.733248	
SAM 30 444 VS	7376.00	-1247.20	445.85	40.015086	-104.732265	
SAM 30 1860 VS	7382.00	-1245.04	1861.85	40.015092	-104.727210	
SAM 30 3469 VS	7390.00	-1242.59	3470.85	40.015096	-104.724465	
SAM 30-25H PBHL	7406.00	-1241.02	4499.11	40.015102	-104.717794	



CATHEDRAL

WELL DETAILS: SAM 30-25H-M166

		Ground Level:		5086.00	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1250516.50	3214576.79	40.018510	-104.733857





CRESTONE PEAK
RESOURCES

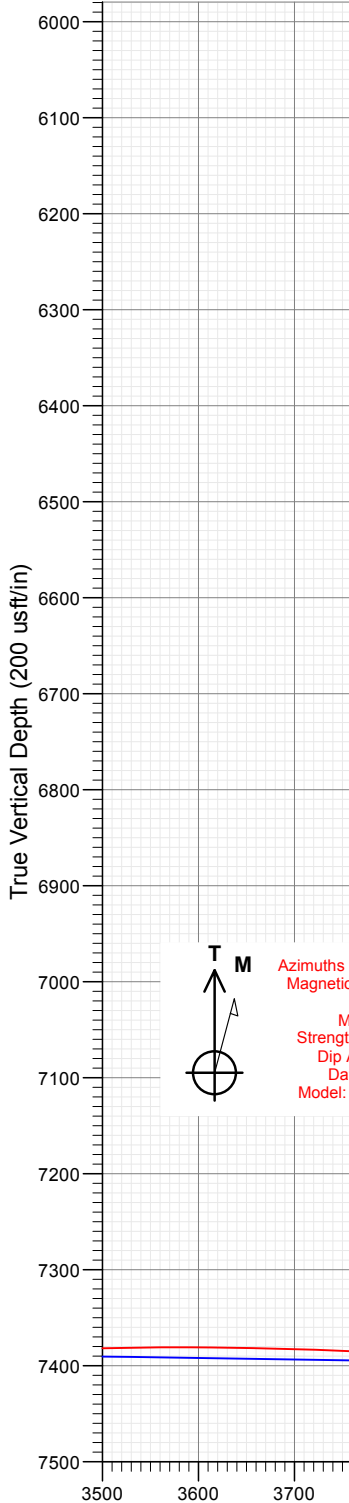
SECTION DETAILS

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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	727.90	10.56	194.17	724.92	-47.02	-11.88	2.00	194.17	-11.95	
4	6744.07	10.56	194.17	6639.24	-1115.81	-281.82	0.00	0.00	-283.47	
5	7898.43	89.76	89.91	7375.94	-1247.23	430.86	8.00	-104.07	429.01	
6	9329.43	89.76	89.91	7382.00	-1245.04	1861.85	0.00	0.00	1860.00	SAM 3O 1860' VS
7	9331.25	89.72	89.91	7382.01	-1245.04	1863.67	2.00	-180.00	1861.82	
8	10907.83	89.72	89.91	7389.69	-1242.64	3440.23	0.00	0.00	3438.39	
9	10938.45	89.11	89.91	7390.00	-1242.59	3470.85	2.00	180.00	3469.00	SAM 3O 3469' VS
10	11966.84	89.11	89.91	7406.00	-1241.02	4499.11	0.00	0.00	4497.27	SAM 3O-25H PBHL

Project: DJ BASIN
Site: S25-T1N-R66W (SAM)
Well: SAM 3O-25H-M166
Wellbore: OH
Design: FINAL

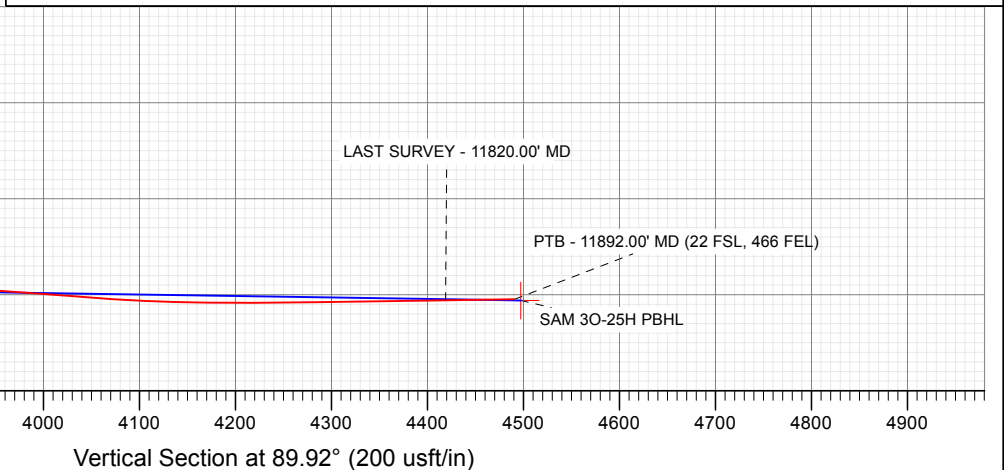
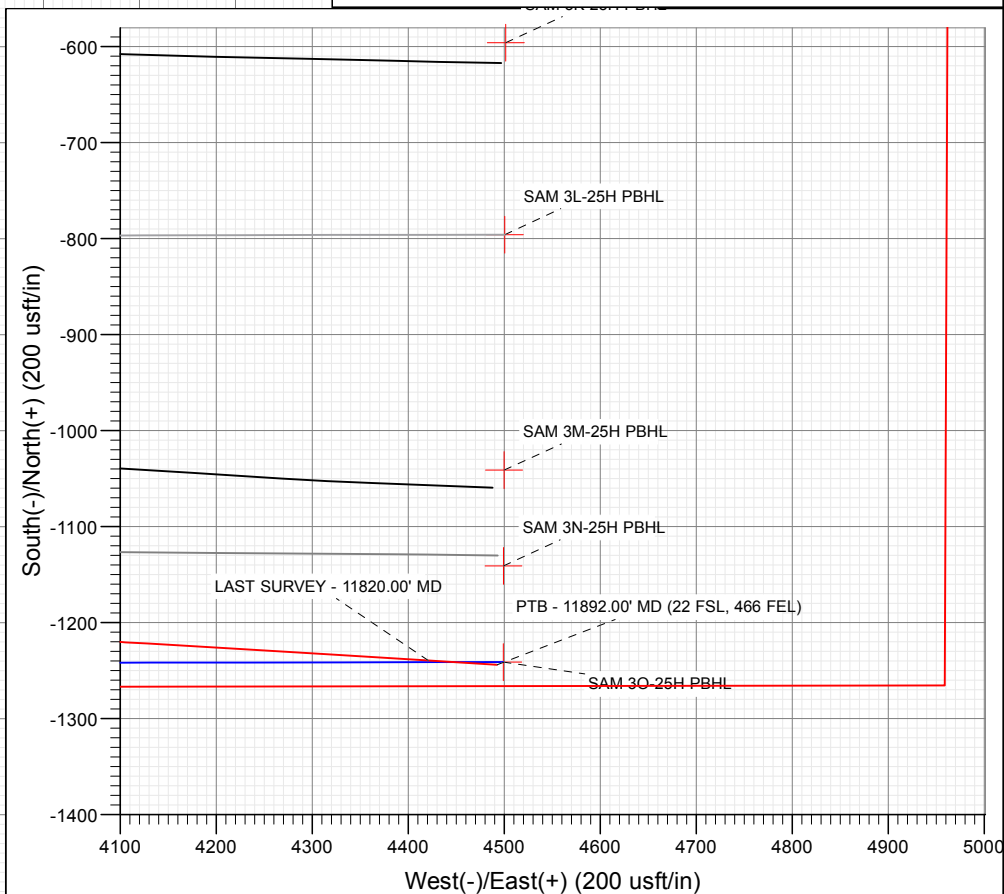
FINAL
SAM 3O-25H-M166
385437 185156 418237 185270
23 KB @ 5109.00usf
Ground Level @ 5086.00
North American Datum 1983
Well SAM 3O-25H-M166, True North

Name	Type	User	Target	No Target (Freehand)	Azimuth	TVD	Origin	Type	N/S	E/W	From	Latitude	Longitude
SAM 3O-25H TPZ					89.92	7300.60			0.00	0.00		40.015085	-104.733248
SAM 3O 444' VS						7300.60						40.015085	-104.733248
SAM 3O 1860' VS						7376.00						40.015086	-104.732265
SAM 3O 3469' VS						7382.00						40.015082	-104.727710
SAM 3O-25H PBHL						7390.00						40.015098	-104.721465
						7406.00						40.015102	-104.717794



Azimuths to True North
Magnetic North: 8.17°

Magnetic Field
Strength: 52028.1nT
Dip Angle: 66.37°
Date: 9/21/2018
Model: HDGM_FILE



WELL DETAILS: SAM 3O-25H-M166

+N/-S	+E/-W	Northing	Ground Level:	5086.00	Latitude	Longitude
0.00	0.00	1250516.50	Easting	3214576.79	40.018510	-104.733857

CATHEDRAL



Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well SAM 3O-25H-M166
Project:	DJ BASIN	TVD Reference:	23' KB @ 5109.00usft
Site:	S25-T1N-R66W (SAM)	MD Reference:	23' KB @ 5109.00usft
Well:	SAM 3O-25H-M166	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		S25-T1N-R66W (SAM)			
Site Position:		Northing:	1,251,849.37 usft	Latitude:	40.022061
From:	Lat/Long	Easting:	3,219,074.73 usft	Longitude:	-104.717756
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.51 °

Well	SAM 3O-25H-M166					
Well Position	+N/-S	0.00 usft	Northing:	1,250,516.50 usft	Latitude:	40.018510
	+E/-W	0.00 usft	Easting:	3,214,576.79 usft	Longitude:	-104.733857
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,086.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	9/21/2018	8.17	66.37	52,028.10000000

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	89.92	

Survey Program	Date	10/22/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
169.00	2,376.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,519.00	11,892.00	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		
169.00	0.51	206.20	169.00	-0.63	-0.31	-0.31	0.32	0.32		
260.00	1.37	203.83	259.98	-1.99	-0.93	-0.93	0.95	0.95		
352.00	2.39	191.70	351.93	-4.88	-1.76	-1.77	1.18	1.11		
413.00	3.41	193.10	412.86	-7.89	-2.43	-2.44	1.68	1.67		
474.00	4.62	198.79	473.70	-11.98	-3.64	-3.65	2.09	1.98		
556.00	6.52	200.29	555.31	-19.48	-6.31	-6.34	2.32	2.32		
639.00	8.05	199.40	637.64	-29.38	-9.88	-9.92	1.85	1.84		
720.00	9.68	198.55	717.67	-41.19	-13.93	-13.99	2.02	2.01		
803.00	11.19	195.34	799.30	-55.57	-18.28	-18.36	1.95	1.82		
886.00	10.05	194.02	880.87	-70.36	-22.17	-22.27	1.40	-1.37		
974.00	10.17	191.00	967.51	-85.44	-25.51	-25.63	0.62	0.14		

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well SAM 30-25H-M166
Project:	DJ BASIN	TVD Reference:	23' KB @ 5109.00usft
Site:	S25-T1N-R66W (SAM)	MD Reference:	23' KB @ 5109.00usft
Well:	SAM 30-25H-M166	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
1,061.00	11.65	192.72	1,052.93	-101.55	-28.91	-29.06	1.74	1.70	
1,142.00	11.40	192.73	1,132.30	-117.33	-32.47	-32.65	0.31	-0.31	
1,224.00	11.92	191.11	1,212.61	-133.55	-35.89	-36.09	0.75	0.63	
1,307.00	11.47	192.61	1,293.89	-150.01	-39.34	-39.57	0.65	-0.54	
1,390.00	10.23	192.80	1,375.40	-165.25	-42.78	-43.02	1.49	-1.49	
1,472.00	10.31	193.62	1,456.09	-179.49	-46.12	-46.39	0.20	0.10	
1,562.00	10.68	194.73	1,544.58	-195.38	-50.14	-50.43	0.47	0.41	
1,645.00	11.38	194.80	1,626.05	-210.73	-54.18	-54.50	0.84	0.84	
1,732.00	10.88	193.83	1,711.41	-227.01	-58.34	-58.68	0.61	-0.57	
1,818.00	10.38	193.81	1,795.93	-242.41	-62.13	-62.49	0.58	-0.58	
1,905.00	10.64	193.48	1,881.47	-257.83	-65.87	-66.25	0.31	0.30	
1,988.00	10.53	193.64	1,963.06	-272.65	-69.45	-69.85	0.14	-0.13	
2,071.00	10.37	193.80	2,044.69	-287.28	-73.02	-73.44	0.20	-0.19	
2,160.00	9.50	193.86	2,132.35	-302.19	-76.69	-77.13	0.98	-0.98	
2,246.00	10.56	195.69	2,217.03	-316.67	-80.52	-80.99	1.29	1.23	
2,336.00	9.36	195.17	2,305.68	-331.67	-84.66	-85.16	1.34	-1.33	
2,376.00	8.96	194.35	2,345.17	-337.83	-86.29	-86.79	1.05	-1.00	
2,519.00	8.35	194.95	2,486.54	-358.65	-91.73	-92.26	0.43	-0.43	
2,613.00	10.95	193.45	2,579.20	-373.93	-95.56	-96.12	2.78	2.77	
2,708.00	9.41	193.98	2,672.70	-390.24	-99.54	-100.12	1.62	-1.62	
2,802.00	9.98	192.84	2,765.36	-405.64	-103.21	-103.81	0.64	0.61	
2,897.00	14.07	193.19	2,858.25	-424.92	-107.67	-108.30	4.31	4.31	
2,991.00	12.35	193.45	2,949.76	-445.82	-112.62	-113.28	1.83	-1.83	
3,086.00	9.67	194.42	3,043.01	-463.43	-116.97	-117.66	2.83	-2.82	
3,180.00	10.51	194.86	3,135.55	-479.36	-121.13	-121.84	0.90	0.89	
3,275.00	11.96	193.54	3,228.73	-497.31	-125.66	-126.40	1.55	1.53	
3,370.00	10.46	193.54	3,321.91	-515.26	-129.98	-130.75	1.58	-1.58	
3,465.00	10.37	191.87	3,415.35	-532.01	-133.76	-134.55	0.33	-0.09	
3,560.00	10.95	197.85	3,508.71	-548.97	-138.29	-139.10	1.31	0.61	
3,654.00	12.00	193.80	3,600.83	-566.96	-143.35	-144.19	1.41	1.12	
3,748.00	10.11	193.80	3,693.08	-584.46	-147.65	-148.52	2.01	-2.01	
3,843.00	11.91	194.24	3,786.33	-602.06	-152.05	-152.95	1.90	1.89	
3,938.00	9.85	195.30	3,879.62	-619.40	-156.61	-157.53	2.18	-2.17	
4,032.00	9.76	192.14	3,972.25	-634.95	-160.41	-161.35	0.58	-0.10	
4,127.00	11.82	195.04	4,065.56	-652.22	-164.63	-165.59	2.24	2.17	
4,221.00	9.89	192.14	4,157.88	-669.41	-168.82	-169.81	2.13	-2.05	
4,316.00	10.20	186.33	4,251.42	-685.75	-171.46	-172.48	1.11	0.33	
4,411.00	12.53	187.65	4,344.55	-704.32	-173.76	-174.81	2.47	2.45	
4,528.00	11.78	189.76	4,458.93	-728.67	-177.48	-178.56	0.74	-0.64	
4,623.00	11.56	191.26	4,551.97	-747.57	-180.98	-182.09	0.39	-0.23	
4,717.00	9.27	188.18	4,644.41	-764.30	-183.90	-185.03	2.51	-2.44	
4,812.00	10.95	195.47	4,737.94	-780.57	-187.39	-188.55	2.22	1.77	
4,906.00	10.29	198.29	4,830.33	-797.15	-192.41	-193.59	0.89	-0.70	
5,001.00	8.84	200.92	4,924.01	-812.02	-197.68	-198.88	1.59	-1.53	
5,096.00	10.95	196.97	5,017.59	-827.47	-202.92	-204.15	2.33	2.22	
5,191.00	10.86	196.18	5,110.87	-844.70	-208.05	-209.30	0.18	-0.09	
5,286.00	9.27	196.00	5,204.41	-860.65	-212.65	-213.93	1.67	-1.67	
5,380.00	7.87	198.11	5,297.36	-874.04	-216.74	-218.03	1.53	-1.49	
5,474.00	8.57	204.26	5,390.39	-886.55	-221.62	-222.93	1.19	0.74	
5,569.00	10.59	195.39	5,484.07	-901.42	-226.84	-228.18	2.63	2.13	
5,663.00	9.27	195.21	5,576.66	-917.05	-231.12	-232.48	1.40	-1.40	
5,757.00	7.74	191.26	5,669.62	-930.57	-234.34	-235.72	1.74	-1.63	
5,852.00	11.38	199.43	5,763.29	-945.69	-238.71	-240.11	4.08	3.83	

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well SAM 30-25H-M166
Project:	DJ BASIN	TVD Reference:	23' KB @ 5109.00usft
Site:	S25-T1N-R66W (SAM)	MD Reference:	23' KB @ 5109.00usft
Well:	SAM 30-25H-M166	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
5,947.00	8.31	199.08	5,856.88	-961.02	-244.08	-245.50	3.23	-3.23	
6,042.00	8.75	200.22	5,950.83	-974.29	-248.82	-250.26	0.50	0.46	
6,136.00	9.67	198.90	6,043.62	-988.46	-253.85	-255.31	1.00	0.98	
6,231.00	6.42	193.37	6,137.67	-1,001.18	-257.66	-259.14	3.51	-3.42	
6,326.00	10.33	203.21	6,231.64	-1,014.18	-262.25	-263.75	4.37	4.12	
6,420.00	11.12	200.05	6,324.00	-1,030.45	-268.68	-270.20	1.05	0.84	
6,514.00	8.00	194.86	6,416.69	-1,045.29	-273.46	-275.01	3.44	-3.32	
6,609.00	7.74	180.01	6,510.80	-1,058.08	-275.16	-276.73	2.15	-0.27	
6,703.00	12.18	169.11	6,603.37	-1,074.15	-273.29	-274.88	5.11	4.72	
6,798.00	19.43	143.36	6,694.82	-1,096.73	-261.93	-263.56	10.45	7.63	
6,892.00	28.04	129.12	6,780.86	-1,123.29	-235.39	-237.06	10.94	9.16	
6,987.00	28.04	122.70	6,864.73	-1,149.44	-199.27	-200.97	3.18	0.00	
7,081.00	32.13	118.22	6,946.06	-1,173.21	-158.63	-160.37	4.96	4.35	
7,176.00	37.01	109.52	7,024.31	-1,194.74	-109.36	-111.13	7.30	5.14	
7,271.00	46.24	103.63	7,095.27	-1,212.42	-48.91	-50.71	10.54	9.72	
7,365.00	53.67	100.99	7,155.72	-1,227.66	21.35	19.53	8.19	7.90	
7,460.00	56.00	99.59	7,210.43	-1,241.52	97.76	95.92	2.73	2.45	
7,547.25	59.31	98.13	7,257.11	-1,252.85	170.58	168.72	4.05	3.79	TPZ - 7547.25' MD (19 FSL, 490 FWL)
7,555.00	59.60	98.00	7,261.05	-1,253.79	177.19	175.33	4.05	3.80	
7,649.00	68.48	97.39	7,302.15	-1,265.08	260.86	258.98	9.46	9.45	
7,744.00	77.80	94.93	7,329.68	-1,274.77	351.15	349.26	10.12	9.81	
7,838.00	83.56	89.92	7,344.91	-1,278.66	443.76	441.86	8.07	6.13	
7,933.00	85.80	88.16	7,353.71	-1,277.07	538.32	536.43	2.99	2.36	
8,027.00	85.63	87.55	7,360.74	-1,273.56	631.99	630.10	0.67	-0.18	
8,122.00	88.04	86.93	7,365.98	-1,269.00	726.73	724.85	2.62	2.54	
8,216.00	89.49	86.14	7,368.01	-1,263.32	820.53	818.66	1.76	1.54	
8,311.00	89.71	87.28	7,368.67	-1,257.87	915.37	913.51	1.22	0.23	
8,405.00	88.88	89.39	7,369.83	-1,255.13	1,009.32	1,007.46	2.41	-0.88	
8,500.00	89.14	88.86	7,371.47	-1,253.68	1,104.30	1,102.44	0.62	0.27	
8,594.00	88.26	90.71	7,373.60	-1,253.33	1,198.27	1,196.41	2.18	-0.94	
8,688.00	87.12	91.15	7,377.39	-1,254.85	1,292.18	1,290.31	1.30	-1.21	
8,783.00	87.69	90.01	7,381.69	-1,255.82	1,387.07	1,385.21	1.34	0.60	
8,878.00	88.44	88.95	7,384.90	-1,254.95	1,482.01	1,480.15	1.37	0.79	
8,972.00	88.44	88.16	7,387.46	-1,252.58	1,575.95	1,574.09	0.84	0.00	
9,068.00	87.11	87.11	7,391.19	-1,248.63	1,671.79	1,669.93	1.76	-1.39	
9,162.00	91.21	89.48	7,392.56	-1,245.83	1,765.71	1,763.86	5.04	4.36	
9,257.00	91.56	89.65	7,390.27	-1,245.11	1,860.68	1,858.83	0.41	0.37	
9,352.00	91.82	89.83	7,387.47	-1,244.68	1,955.64	1,953.79	0.33	0.27	
9,447.00	90.11	88.95	7,385.87	-1,243.67	2,050.61	2,048.77	2.02	-1.80	
9,541.00	90.86	90.09	7,385.07	-1,242.88	2,144.60	2,142.76	1.45	0.80	
9,635.00	87.96	88.25	7,386.04	-1,241.52	2,238.58	2,236.73	3.65	-3.09	
9,729.00	87.08	86.40	7,390.11	-1,237.14	2,332.38	2,330.54	2.18	-0.94	
9,824.00	88.26	86.40	7,393.97	-1,231.18	2,427.11	2,425.28	1.24	1.24	
9,918.00	89.27	88.51	7,395.99	-1,227.00	2,520.99	2,519.17	2.49	1.07	
10,013.00	89.76	86.75	7,396.80	-1,223.08	2,615.90	2,614.09	1.92	0.52	
10,108.00	90.20	86.58	7,396.83	-1,217.55	2,710.74	2,708.93	0.50	0.46	
10,203.00	91.96	87.90	7,395.04	-1,212.98	2,805.61	2,803.81	2.32	1.85	
10,297.00	94.20	89.65	7,389.99	-1,210.97	2,899.44	2,897.64	3.02	2.38	
10,392.00	91.08	90.97	7,385.62	-1,211.48	2,994.33	2,992.53	3.57	-3.28	
10,487.00	90.51	91.06	7,384.30	-1,213.17	3,089.30	3,087.50	0.61	-0.60	
10,582.00	89.98	90.80	7,383.89	-1,214.71	3,184.29	3,182.48	0.62	-0.56	
10,677.00	90.02	90.36	7,383.89	-1,215.67	3,279.28	3,277.48	0.47	0.04	
10,771.00	90.55	90.09	7,383.42	-1,216.04	3,373.28	3,371.47	0.63	0.56	

Survey Report

Company:	Crestone Peak Resources	Local Co-ordinate Reference:	Well SAM 3O-25H-M166
Project:	DJ BASIN	TVD Reference:	23' KB @ 5109.00usft
Site:	S25-T1N-R66W (SAM)	MD Reference:	23' KB @ 5109.00usft
Well:	SAM 3O-25H-M166	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
10,866.00	90.90	90.27	7,382.22	-1,216.34	3,468.27	3,466.46	0.41	0.37	
10,960.00	90.59	90.18	7,381.00	-1,216.71	3,562.26	3,560.45	0.34	-0.33	
11,055.00	88.66	90.80	7,381.62	-1,217.52	3,657.25	3,655.44	2.13	-2.03	
11,149.00	87.87	89.74	7,384.47	-1,217.96	3,751.21	3,749.40	1.41	-0.84	
11,244.00	86.73	88.95	7,388.94	-1,216.88	3,846.09	3,844.28	1.46	-1.20	
11,339.00	86.20	90.53	7,394.80	-1,216.45	3,940.91	3,939.10	1.75	-0.56	
11,433.00	85.32	91.32	7,401.75	-1,217.96	4,034.64	4,032.83	1.26	-0.94	
11,528.00	87.87	93.08	7,407.39	-1,221.60	4,129.39	4,127.57	3.26	2.68	
11,623.00	90.95	93.79	7,408.37	-1,227.29	4,224.20	4,222.37	3.33	3.24	
11,717.00	90.42	93.35	7,407.25	-1,233.14	4,318.01	4,316.18	0.73	-0.56	
11,820.00	90.99	93.61	7,405.98	-1,239.40	4,420.81	4,418.97	0.61	0.55	LAST SURVEY - 11820.00' MD
11,892.00	90.99	93.61	7,404.74	-1,243.93	4,492.66	4,490.81	0.00	0.00	PTB - 11892.00' MD (22 FSL, 466 FEL)

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
SAM 3O 444' VS - actual wellpath misses target center by 43.92usft at 7843.49usft MD (7345.52 TVD, -1278.65 N, 449.22 E) - Point	0.00	0.00	7,376.00	-1,247.20	445.85	1,249,273.19	3,215,033.40	40.015086	-104.732265
SAM 3O 1860' VS - actual wellpath misses target center by 8.23usft at 9258.41usft MD (7390.23 TVD, -1245.10 N, 1862.09 E) - Point	0.00	0.00	7,382.00	-1,245.04	1,861.85	1,249,287.59	3,216,449.32	40.015092	-104.727210
SAM 3O 3469' VS - actual wellpath misses target center by 27.38usft at 10868.58usft MD (7382.18 TVD, -1216.35 N, 3470.85 E) - Point	0.00	0.00	7,390.00	-1,242.59	3,470.85	1,249,303.94	3,218,058.24	40.015098	-104.721465
SAM 3O-25H PBHL - actual wellpath misses target center by 7.19usft at 11892.00usft MD (7404.74 TVD, -1243.93 N, 4492.66 E) - Point	0.00	0.51	7,406.00	-1,241.02	4,499.11	1,249,314.39	3,219,086.45	40.015102	-104.717794
SAM 3O-25H TPZ - actual wellpath misses target center by 38.42usft at 7565.69usft MD (7266.38 TVD, -1255.07 N, 186.37 E) - Point	0.00	0.50	7,300.60	-1,247.62	170.58	1,249,270.40	3,214,758.14	40.015085	-104.733248

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,547.25	7,257.11	-1,252.85	170.58	TPZ - 7547.25' MD (19 FSL, 490 FWL)	
11,820.00	7,405.98	-1,239.40	4,420.81	LAST SURVEY - 11820.00' MD	
11,892.00	7,404.74	-1,243.93	4,492.66	PTB - 11892.00' MD (22 FSL, 466 FEL)	

Checked By: _____ Approved By: _____ Date: _____