



**CRESTONE PEAK**  
RESOURCES

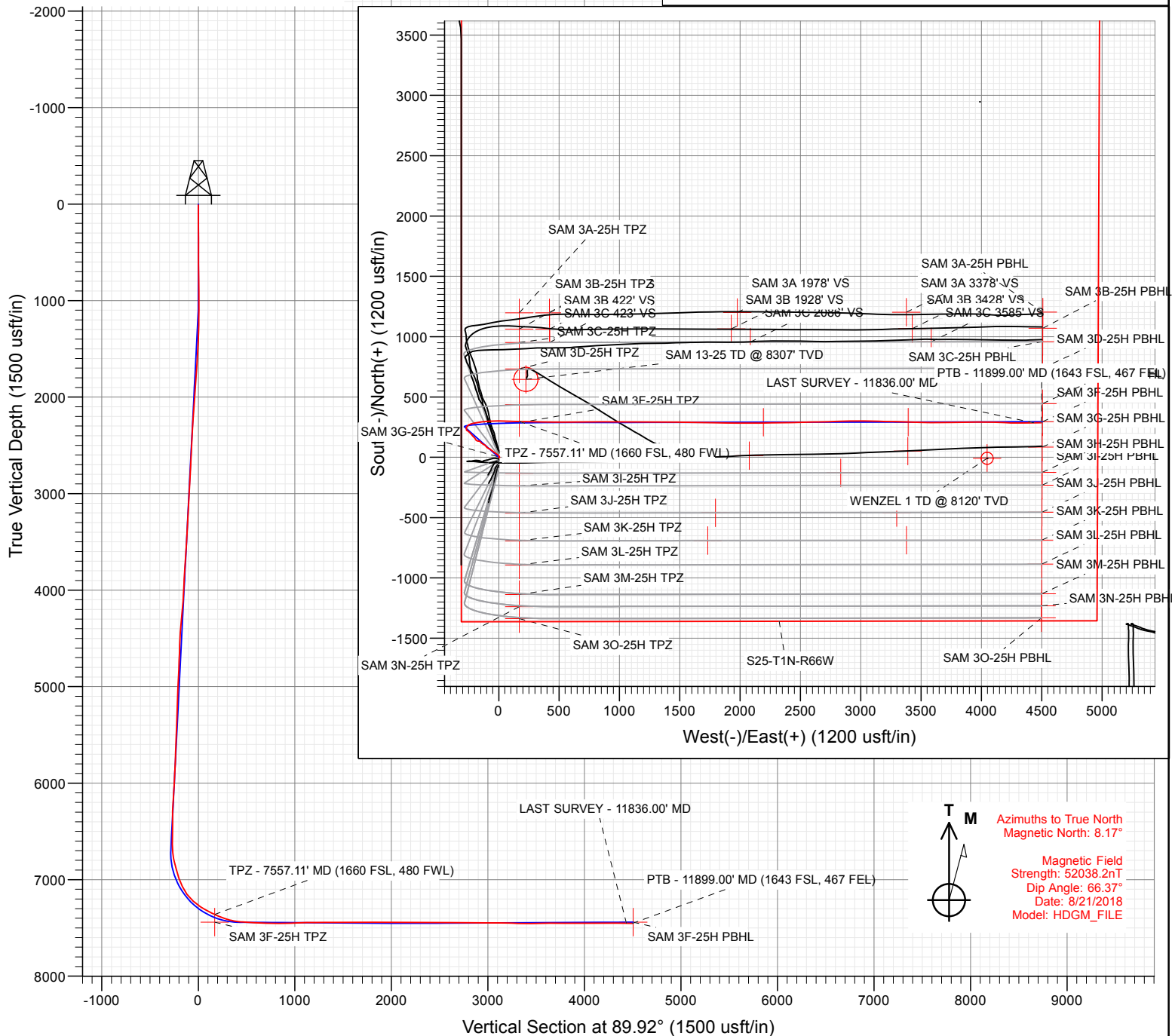
# SECTION DETAILS

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	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1194.73	3.89	311.63	1194.58	4.39	-4.95	2.00	311.63	-4.94	
4	6702.78	3.89	311.63	6689.91	252.90	-284.59	0.00	0.00	-284.21	
5	7859.51	89.63	89.91	7441.65	287.82	426.04	8.00	138.24	426.46	
6	9626.51	89.63	89.91	7453.00	290.51	2193.00	0.00	0.00	2193.43	SAM 3F 2193' TGT
7	9662.16	90.34	89.91	7453.01	290.56	2228.65	2.00	0.00	2229.08	
8	10824.75	90.34	89.91	7446.01	292.33	3391.22	0.00	0.00	3391.65	
9	10826.54	90.31	89.91	7446.00	292.34	3393.00	2.00	180.00	3393.43	SAM 3F 3393' TGT
10	11938.53	90.31	89.91	7440.00	294.03	4504.98	0.00	0.00	4505.41	SAM 3F-25H PBHL

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

FINAL  
SAM 3F-25H-M166  
383237 185140 413737 185253; LR  
23' KB @ 5109.00usft  
Ground Level @ 5086.00  
North American Datum 1983  
Well SAM 3F-25H-M166, True North

Type	Target	No Target (Freehand)	Azimuth	Origin Type	N/S	E/W	From TVD	0.00
Name	TVD	+N/-S	+E/-W	Latitude	Longitude			
SAM 3F-25H PBHL	7440.00	294.03	4504.98	40.019553	-104.717769			
SAM 3F-25H TPZ	7440.00	287.43	169.72	40.019546	-104.733248			
SAM 3F 3393' TGT	7446.00	292.34	3393.00	40.019559	-104.721739			
SAM 3F 2193' TGT	7453.00	290.51	2193.00	40.019554	-104.726024			



## WELL DETAILS: SAM 3F-25H-M166

+N/-S	+E/-W	Northing	Ground Level: Easting	5086.00	Latitude	Longitude
0.00	0.00	1250606.48	3214576.85		40.018757	-104.733854

**CATHEDRAL**





CRESTONE PEAK  
RESOURCES

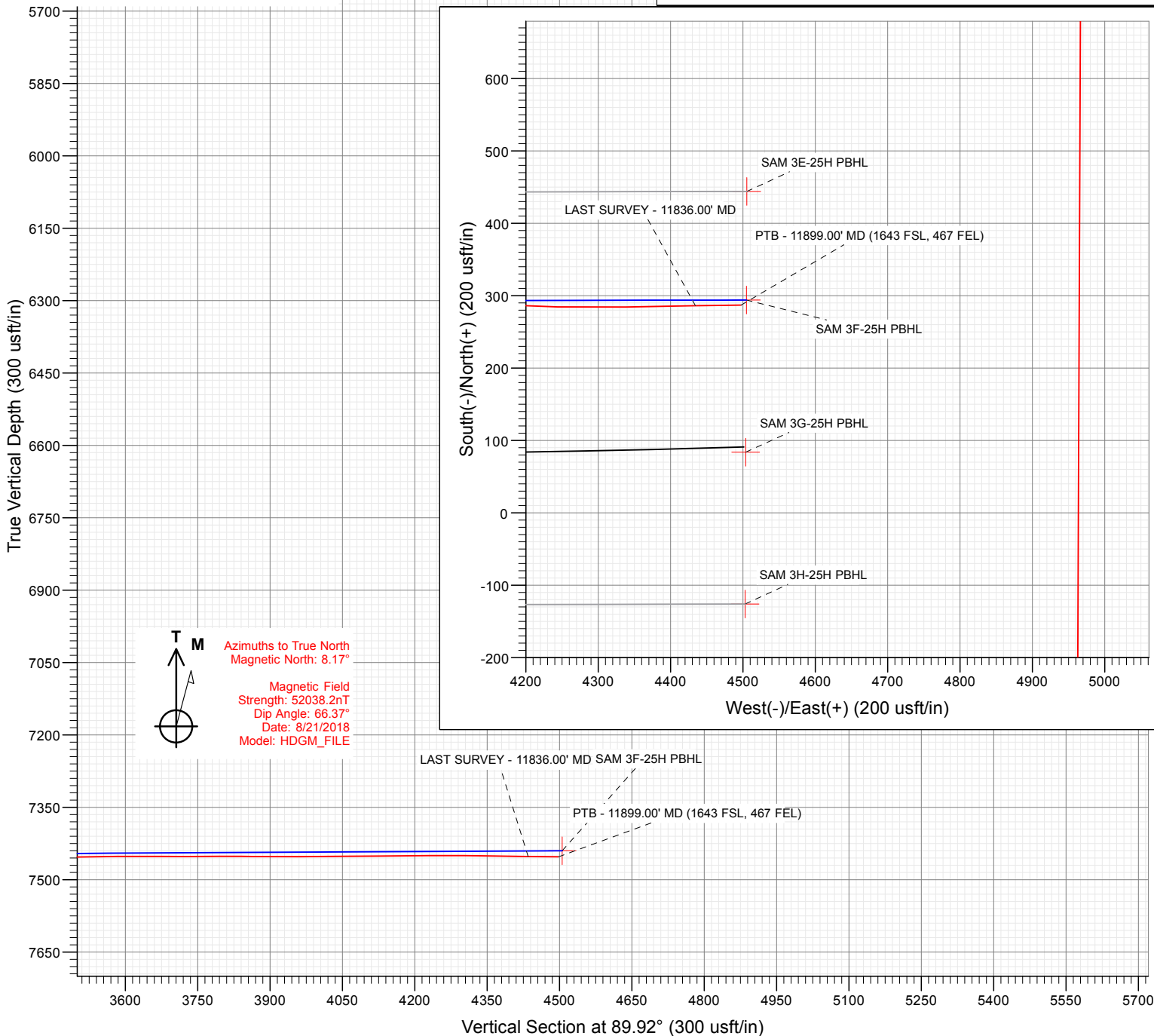
#### SECTION DETAILS

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	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
3	1194.73	3.89	311.63	1194.58	4.39	-4.95	2.00	311.63	-4.94	
4	6702.78	3.89	311.63	6689.91	252.90	-284.59	0.00	0.00	-284.21	
5	7859.51	89.63	89.91	7441.65	287.82	426.04	8.00	138.24	426.46	
6	9626.51	89.63	89.91	7453.00	290.51	2193.00	0.00	0.00	2193.43	SAM 3F 2193' TGT
7	9662.16	90.34	89.91	7453.01	290.56	2228.65	2.00	0.00	2229.08	
8	10824.75	90.34	89.91	7446.01	292.33	3391.22	0.00	0.00	3391.65	
9	10826.54	90.31	89.91	7446.00	292.34	3393.00	2.00	180.00	3393.43	SAM 3F 3393' TGT
10	11938.53	90.31	89.91	7440.00	294.03	4504.98	0.00	0.00	4505.41	SAM 3F-25H PBHL

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

FINAL  
SAM 3F-25H-M166  
383237 185140 413737 185253; LR  
23' KB @ 5109.00usft  
Ground Level @ 5086.00  
North American Datum 1983  
Well SAM 3F-25H-M166, True North

Type	Target	From	From	From	From	From	From	From	From	From
User	No Target (Freehand)	MD	MD	MD	MD	MD	MD	MD	MD	MD
Name		TVD	+N/-S	+E/-W	Latitude	Longitude				
SAM 3F-25H PBHL		7440.00	294.03	4504.98	40.019553	-104.717769				
SAM 3F-25H TP2		7440.00	287.43	169.72	40.019546	-104.733248				
SAM 3F-3393' TGT		7446.00	292.34	3393.00	40.019559	-104.721739				
SAM 3F 2193' TGT		7453.00	290.51	2193.00	40.019554	-104.726024				



#### WELL DETAILS: SAM 3F-25H-M166

+N/-S	+E/-W	Northing	Ground Level:	5086.00	Latitude	Longitude
0.00	0.00	1250606.48	Easting	3214576.85	40.018757	-104.733854



## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3F-25H-M166
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5109.00usft
<b>Site:</b>	S25-T1N-R66W (SAM)	<b>MD Reference:</b>	23' KB @ 5109.00usft
<b>Well:</b>	SAM 3F-25H-M166	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	USA EDM 5000 Multi Users DB

<b>Project</b>	DJ BASIN		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	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 3F-25H-M166					
Well Position	+N/-S	0.00 usft	Northing:	1,250,606.48 usft	Latitude:	40.018757
	+E/-W	0.00 usft	Easting:	3,214,576.85 usft	Longitude:	-104.733854
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,086.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM_FILE	8/21/2018	8.17	66.37	52,038.20000000

<b>Design</b>	FINAL				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	89.92	

<b>Survey Program</b>	<b>Date</b>	8/28/2018			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
169.00	2,373.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,459.00	11,899.00	Survey #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

<b>Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usf)</b>	<b>Build Rate (°/100u)</b>	<b>Formations / Comments</b>
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	
169.00	0.40	63.31	169.00	0.25	0.50	0.50	0.25	0.25	
236.00	0.48	108.14	236.00	0.27	0.97	0.97	0.51	0.12	
352.00	0.30	95.32	351.99	0.09	1.74	1.74	0.17	-0.16	
420.00	0.37	152.19	419.99	-0.12	2.02	2.02	0.48	0.10	
529.00	0.03	29.28	528.99	-0.41	2.19	2.19	0.36	-0.31	
587.00	0.30	111.21	586.99	-0.45	2.34	2.34	0.51	0.47	
670.00	0.77	121.94	669.99	-0.82	3.02	3.02	0.58	0.57	
753.00	0.74	125.28	752.98	-1.43	3.93	3.93	0.06	-0.04	
836.00	0.57	116.43	835.98	-1.92	4.74	4.73	0.24	-0.20	
918.00	0.42	122.81	917.97	-2.27	5.35	5.35	0.19	-0.18	
1,028.00	0.51	86.88	1,027.97	-2.46	6.18	6.18	0.27	0.08	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3F-25H-M166
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5109.00usft
<b>Site:</b>	S25-T1N-R66W (SAM)	<b>MD Reference:</b>	23' KB @ 5109.00usft
<b>Well:</b>	SAM 3F-25H-M166	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
1,113.00	0.97	347.16	1,112.96	-1.74	6.40	6.40	1.38	0.54	
1,194.00	1.83	336.79	1,193.94	0.12	5.74	5.74	1.10	1.06	
1,255.00	3.71	343.90	1,254.87	2.91	4.81	4.81	3.13	3.08	
1,338.00	4.11	330.03	1,337.67	8.07	2.58	2.59	1.23	0.48	
1,423.00	3.96	327.08	1,422.46	13.17	-0.54	-0.52	0.30	-0.18	
1,529.00	4.46	308.56	1,528.18	18.81	-5.75	-5.73	1.36	0.47	
1,613.00	4.76	306.71	1,611.91	22.93	-11.10	-11.07	0.40	0.36	
1,696.00	4.68	303.90	1,694.63	26.88	-16.67	-16.63	0.29	-0.10	
1,754.00	4.36	306.66	1,752.45	29.52	-20.40	-20.36	0.67	-0.55	
1,837.00	4.65	304.46	1,835.19	33.30	-25.71	-25.66	0.41	0.35	
1,923.00	4.97	304.77	1,920.89	37.40	-31.64	-31.59	0.37	0.37	
2,005.00	5.15	305.89	2,002.57	41.58	-37.54	-37.48	0.25	0.22	
2,089.00	5.18	306.06	2,086.23	46.02	-43.66	-43.59	0.04	0.04	
2,178.00	4.85	306.18	2,174.89	50.61	-49.95	-49.87	0.37	-0.37	
2,267.00	4.58	305.88	2,263.59	54.91	-55.86	-55.78	0.30	-0.30	
2,373.00	3.83	303.92	2,369.30	59.37	-62.23	-62.14	0.72	-0.71	
2,459.00	3.69	307.89	2,455.12	62.67	-66.80	-66.71	0.34	-0.16	
2,554.00	3.52	303.93	2,549.93	66.18	-71.63	-71.53	0.32	-0.18	
2,648.00	3.43	300.42	2,643.75	69.21	-76.45	-76.35	0.25	-0.10	
2,743.00	3.12	295.41	2,738.60	71.76	-81.24	-81.13	0.44	-0.33	
2,837.00	2.94	290.75	2,832.47	73.71	-85.80	-85.69	0.32	-0.19	
2,942.00	4.00	311.75	2,937.28	77.11	-91.05	-90.94	1.56	1.01	
3,037.00	3.43	306.66	3,032.08	81.01	-95.80	-95.68	0.69	-0.60	
3,131.00	5.36	316.15	3,125.80	85.85	-101.10	-100.97	2.19	2.05	
3,226.00	4.61	318.96	3,220.44	91.93	-106.68	-106.54	0.83	-0.79	
3,321.00	4.18	315.62	3,315.16	97.29	-111.61	-111.47	0.53	-0.45	
3,415.00	3.56	313.69	3,408.95	101.75	-116.12	-115.97	0.67	-0.66	
3,511.00	3.74	287.85	3,504.76	104.77	-121.25	-121.10	1.71	0.19	
3,605.00	5.80	296.73	3,598.43	107.85	-128.41	-128.25	2.32	2.19	
3,700.00	5.19	306.13	3,692.99	112.54	-136.17	-136.00	1.14	-0.64	
3,794.00	4.35	309.65	3,786.67	117.32	-142.35	-142.18	0.95	-0.89	
3,889.00	2.86	322.04	3,881.48	121.49	-146.58	-146.40	1.76	-1.57	
3,983.00	4.04	317.03	3,975.31	125.76	-150.28	-150.09	1.29	1.26	
4,077.00	4.09	311.75	4,069.07	130.42	-155.04	-154.85	0.40	0.05	
4,172.00	5.58	279.94	4,163.74	133.47	-162.12	-161.92	3.17	1.57	
4,267.00	5.36	274.49	4,258.31	134.62	-171.09	-170.89	0.59	-0.23	
4,362.00	6.15	291.36	4,352.84	136.82	-180.25	-180.05	1.96	0.83	
4,456.00	4.97	319.23	4,446.41	141.74	-187.60	-187.39	3.09	-1.26	
4,551.00	4.26	333.82	4,541.11	148.02	-191.85	-191.63	1.44	-0.75	
4,645.00	3.78	329.51	4,634.88	153.82	-194.96	-194.73	0.60	-0.51	
4,740.00	3.60	321.69	4,729.68	158.86	-198.40	-198.16	0.56	-0.19	
4,834.00	3.60	316.06	4,823.49	163.30	-202.28	-202.03	0.38	0.00	
4,929.00	3.38	309.38	4,918.32	167.23	-206.51	-206.26	0.49	-0.23	
5,023.00	3.56	314.13	5,012.15	171.02	-210.75	-210.49	0.36	0.19	
5,119.00	3.65	317.47	5,107.96	175.34	-214.95	-214.69	0.24	0.09	
5,213.00	3.47	323.53	5,201.78	179.84	-218.67	-218.40	0.44	-0.19	
5,308.00	3.16	326.34	5,296.62	184.33	-221.83	-221.55	0.37	-0.33	
5,402.00	2.29	321.95	5,390.51	187.96	-224.42	-224.14	0.95	-0.93	
5,497.00	3.34	313.34	5,485.39	191.36	-227.60	-227.32	1.19	1.11	
5,591.00	2.55	302.97	5,579.27	194.37	-231.35	-231.06	1.01	-0.84	
5,685.00	4.04	320.46	5,673.11	198.07	-235.21	-234.92	1.89	1.59	
5,780.00	2.96	326.08	5,767.94	202.68	-238.71	-238.41	1.19	-1.14	
5,874.00	3.65	308.68	5,861.78	206.57	-242.40	-242.09	1.29	0.73	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3F-25H-M166
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5109.00usft
<b>Site:</b>	S25-T1N-R66W (SAM)	<b>MD Reference:</b>	23' KB @ 5109.00usft
<b>Well:</b>	SAM 3F-25H-M166	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
5,969.00	3.21	306.48	5,956.61	210.04	-246.90	-246.59	0.48	-0.46	
6,051.00	5.05	310.35	6,038.39	213.74	-251.50	-251.18	2.27	2.24	
6,158.00	4.53	306.13	6,145.02	219.28	-258.50	-258.17	0.59	-0.49	
6,253.00	3.47	292.16	6,239.79	222.58	-264.19	-263.86	1.51	-1.12	
6,348.00	0.22	214.46	6,334.73	223.51	-266.96	-266.63	3.61	-3.42	
6,442.00	3.34	356.14	6,428.68	226.09	-267.24	-266.91	3.74	3.32	
6,537.00	4.31	352.36	6,523.47	232.39	-267.91	-267.56	1.05	1.02	
6,632.00	3.08	341.99	6,618.27	238.36	-269.17	-268.82	1.47	-1.29	
6,726.00	11.65	19.96	6,711.44	249.71	-266.70	-266.33	10.01	9.12	
6,820.00	16.88	56.78	6,802.69	266.15	-252.01	-251.61	10.87	5.56	
6,915.00	15.73	71.02	6,893.91	277.90	-228.28	-227.87	4.37	-1.21	
7,009.00	18.19	85.00	6,983.85	283.32	-201.60	-201.18	5.05	2.62	
7,103.00	26.46	78.32	7,070.74	288.85	-166.41	-165.98	9.19	8.80	
7,198.00	36.48	84.21	7,151.68	296.01	-117.45	-117.01	11.02	10.55	
7,293.00	47.81	88.51	7,222.02	299.78	-53.95	-53.51	12.30	11.93	
7,387.00	56.73	90.53	7,279.49	300.33	20.31	20.75	9.64	9.49	
7,482.00	62.67	91.24	7,327.40	299.05	102.28	102.73	6.29	6.25	
7,557.11	65.17	91.45	7,360.42	297.46	169.72	170.16	3.34	3.33	TPZ - 7557.11' MD (1660 FSL, 480 FWL)
7,577.00	65.83	91.50	7,368.67	297.00	187.81	188.25	3.34	3.33	
7,672.00	71.02	91.59	7,403.59	294.61	276.10	276.53	5.46	5.46	
7,766.00	79.85	90.80	7,427.20	292.73	366.96	367.40	9.43	9.39	
7,861.00	85.91	90.01	7,438.97	292.07	461.19	461.62	6.43	6.38	
7,955.00	87.54	89.83	7,444.34	292.20	555.03	555.46	1.74	1.73	
8,050.00	86.79	88.95	7,449.04	293.21	649.91	650.34	1.22	-0.79	
8,144.00	89.43	89.92	7,452.14	294.14	743.84	744.28	2.99	2.81	
8,239.00	89.47	89.74	7,453.05	294.42	838.84	839.27	0.19	0.04	
8,333.00	92.02	90.62	7,451.83	294.12	932.82	933.25	2.87	2.71	
8,428.00	92.86	90.18	7,447.79	293.46	1,027.73	1,028.16	1.00	0.88	
8,522.00	90.57	90.89	7,444.97	292.58	1,121.68	1,122.11	2.55	-2.44	
8,616.00	90.44	90.36	7,444.15	291.56	1,215.67	1,216.10	0.58	-0.14	
8,711.00	90.75	90.01	7,443.16	291.25	1,310.66	1,311.09	0.49	0.33	
8,805.00	89.21	87.81	7,443.19	293.04	1,404.63	1,405.07	2.86	-1.64	
8,900.00	90.40	91.68	7,443.51	293.46	1,499.61	1,500.05	4.26	1.25	
8,995.00	90.79	91.41	7,442.53	290.90	1,594.57	1,595.00	0.50	0.41	
9,090.00	91.23	90.80	7,440.85	289.07	1,689.54	1,689.97	0.79	0.46	
9,185.00	89.82	92.03	7,439.98	286.72	1,784.50	1,784.93	1.97	-1.48	
9,279.00	89.30	91.06	7,440.71	284.19	1,878.46	1,878.88	1.17	-0.55	
9,374.00	90.00	89.66	7,441.29	283.59	1,973.46	1,973.88	1.65	0.74	
9,469.00	89.12	90.71	7,442.02	283.29	2,068.45	2,068.87	1.44	-0.93	
9,563.00	89.21	89.13	7,443.38	283.42	2,162.44	2,162.86	1.68	0.10	
9,657.00	90.04	88.69	7,444.00	285.20	2,256.42	2,256.84	1.00	0.88	
9,752.00	89.47	89.66	7,444.41	286.57	2,351.41	2,351.83	1.18	-0.60	
9,846.00	89.91	88.69	7,444.92	287.93	2,445.39	2,445.82	1.13	0.47	
9,941.00	90.62	87.99	7,444.48	290.68	2,540.35	2,540.78	1.05	0.75	
10,035.00	88.86	89.22	7,444.90	292.97	2,634.32	2,634.75	2.28	-1.87	
10,130.00	89.39	88.78	7,446.35	294.62	2,729.29	2,729.73	0.73	0.56	
10,225.00	89.34	87.90	7,447.41	297.38	2,824.25	2,824.68	0.93	-0.05	
10,320.00	90.18	88.16	7,447.80	300.64	2,919.19	2,919.63	0.93	0.88	
10,414.00	90.62	90.89	7,447.15	301.42	3,013.17	3,013.62	2.94	0.47	
10,509.00	89.21	91.59	7,447.29	299.36	3,108.15	3,108.59	1.66	-1.48	
10,604.00	88.68	91.33	7,449.04	296.94	3,203.10	3,203.54	0.62	-0.56	
10,699.00	87.41	90.89	7,452.28	295.11	3,298.02	3,298.46	1.41	-1.34	
10,793.00	90.13	91.59	7,454.30	293.07	3,391.97	3,392.40	2.99	2.89	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3F-25H-M166
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 5109.00usft
<b>Site:</b>	S25-T1N-R66W (SAM)	<b>MD Reference:</b>	23' KB @ 5109.00usft
<b>Well:</b>	SAM 3F-25H-M166	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL	<b>Database:</b>	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
10,888.00	91.41	92.82	7,453.02	289.42	3,486.89	3,487.31	1.87	1.35	
10,983.00	90.18	89.92	7,451.70	287.15	3,581.84	3,582.26	3.32	-1.29	
11,077.00	89.60	88.51	7,451.88	288.43	3,675.83	3,676.25	1.62	-0.62	
11,172.00	90.57	90.62	7,451.74	289.16	3,770.82	3,771.24	2.44	1.02	
11,266.00	88.99	87.55	7,452.10	290.66	3,864.79	3,865.22	3.67	-1.68	
11,361.00	90.62	90.09	7,452.42	292.61	3,959.76	3,960.19	3.18	1.72	
11,455.00	90.40	91.68	7,451.59	291.16	4,053.74	4,054.17	1.71	-0.23	
11,551.00	90.66	92.20	7,450.70	287.91	4,149.68	4,150.11	0.61	0.27	
11,645.00	90.31	91.68	7,449.90	284.73	4,243.63	4,244.04	0.67	-0.37	
11,739.00	88.90	88.60	7,450.55	284.50	4,337.61	4,338.03	3.60	-1.50	
11,836.00	89.34	89.30	7,452.04	286.28	4,434.58	4,435.00	0.85	0.45	LAST SURVEY - 11836.00' MD
11,899.00	89.34	89.30	7,452.77	287.05	4,497.57	4,497.99	0.00	0.00	PTB - 11899.00' MD (1643 FSL, 467 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 3F 3393' TGT - actual wellpath misses target center by 8.32usft at 10794.17usft MD (7454.29 TVD, 293.04 N, 3393.14 E) - Point	0.00	0.00	7,446.00	292.34	3,393.00	1,250,928.12	3,217,967.20	40.019559	-104.721739
SAM 3F-25H TPZ - actual wellpath misses target center by 73.19usft at 7586.66usft MD (7372.58 TVD, 296.77 N, 196.64 E) - Point	0.00	0.50	7,440.00	287.43	169.72	1,250,895.36	3,214,744.08	40.019546	-104.733248
SAM 3F 2193' TGT - actual wellpath misses target center by 11.37usft at 9593.75usft MD (7443.74 TVD, 283.92 N, 2193.19 E) - Point	0.00	0.00	7,453.00	290.51	2,193.00	1,250,915.92	3,216,767.26	40.019554	-104.726024
SAM 3F-25H PBHL - actual wellpath misses target center by 16.33usft at 11899.00usft MD (7452.77 TVD, 287.05 N, 4497.57 E) - Point	0.00	0.51	7,440.00	294.03	4,504.98	1,250,939.42	3,219,079.12	40.019563	-104.717769

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,557.11	7,360.42	297.46	169.72	TPZ - 7557.11' MD (1660 FSL, 480 FWL)	
11,836.00	7,452.04	286.28	4,434.58	LAST SURVEY - 11836.00' MD	
11,899.00	7,452.77	287.05	4,497.57	PTB - 11899.00' MD (1643 FSL, 467 FEL)	

Checked By: _____	Approved By: _____	Date: _____
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