



CRESTONE PEAK  
RESOURCES

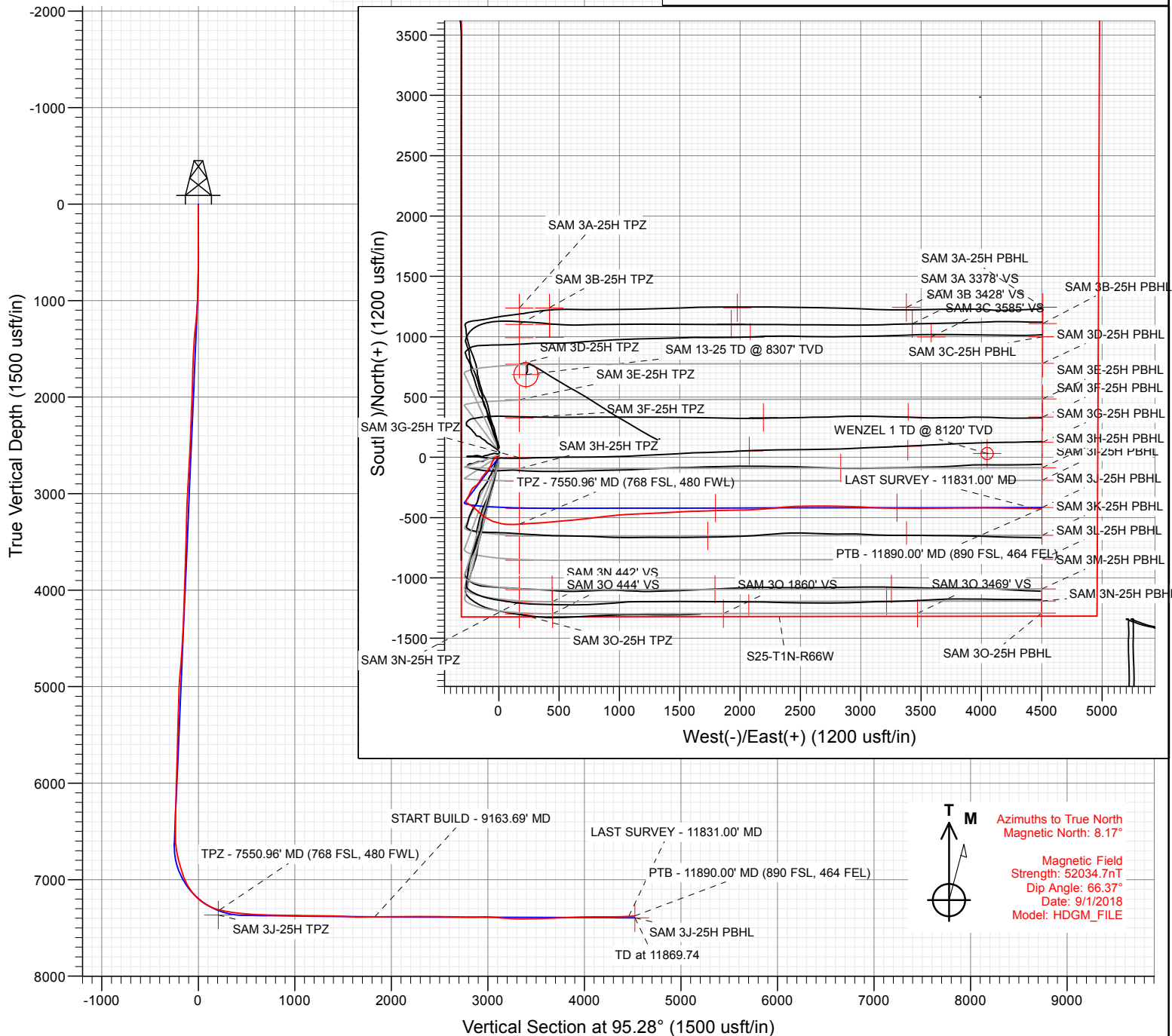
#### SECTION DETAILS

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	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
3	932.14	4.64	217.14	931.88	-7.49	-5.67	2.00	217.14	-4.96	
4	6638.40	4.64	217.14	6619.42	-375.71	-284.51	0.00	0.00	-248.71	
5	7789.69	89.30	89.91	7369.10	-422.52	422.11	8.00	-127.18	459.22	
6	9163.69	89.30	89.91	7386.00	-420.43	1796.00	0.00	0.00	1827.08	SAM 3J 1796' TGT
7	9191.56	89.85	89.91	7386.21	-420.39	1823.88	2.00	0.00	1854.84	
8	10662.15	89.85	89.91	7389.98	-418.14	3294.45	0.00	0.00	3318.96	
9	10666.69	89.76	89.91	7390.00	-418.14	3299.00	2.00	-180.00	3323.49	SAM 3J 3299' TGT
10	11869.74	89.76	89.91	7395.00	-416.31	4502.03	0.00	0.00	4521.24	SAM 3J-25H PBHL

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

FINAL  
SAM 3J-25H-M166  
389307 185147 414037 185256; LR  
23 KB @ 5109.00usft  
Ground Level @ 5086.00  
North American Datum 1983  
Well SAM 3J-25H-M166, True North

Type	Target	No Target (Freeland)	Azimuth	Origin Type	N/S	E/W	From TVD	
Name			95.28	Spot				
SAM 3J-25H TPZ			7366.00	+N/-S	+E/-W	Latitude		Longitude
SAM 3J 1796' TGT			7386.00	-422.91	170.01	40.017487		-104.733568
SAM 3J 3299' TGT			7390.00	-420.43	1796.00	40.017494		-104.727443
SAM 3J-25H PBHL			7395.00	-418.14	3299.00	40.017489		-104.722076
				-416.31	4502.03	40.017504		-104.717781



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

+N/-S	+E/-W	Northing	Ground Level:	5086.00	Latitude	Longitude
0.00	0.00	1250566.77	Easting	3214576.91	40.018648	-104.733855

CATHEDRAL





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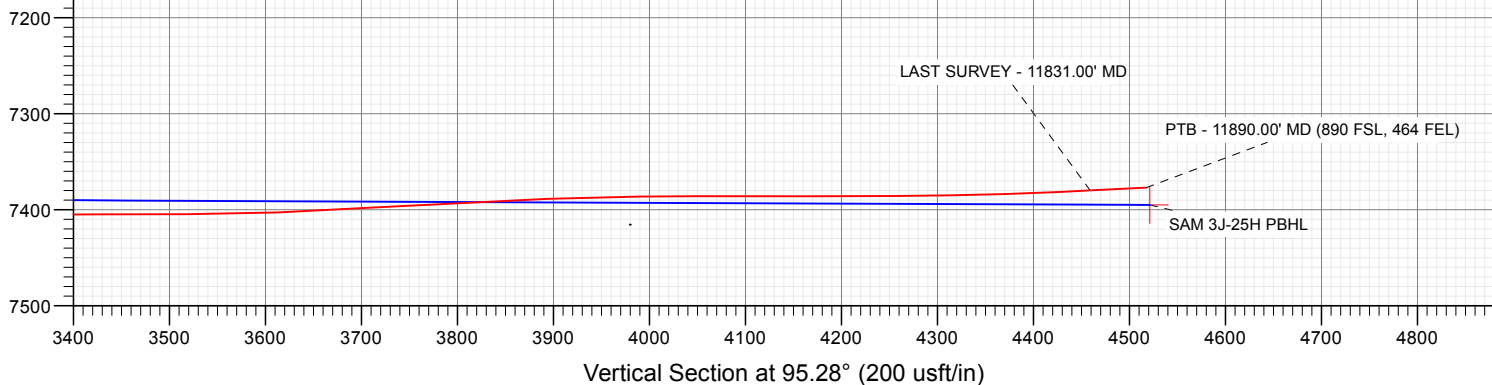
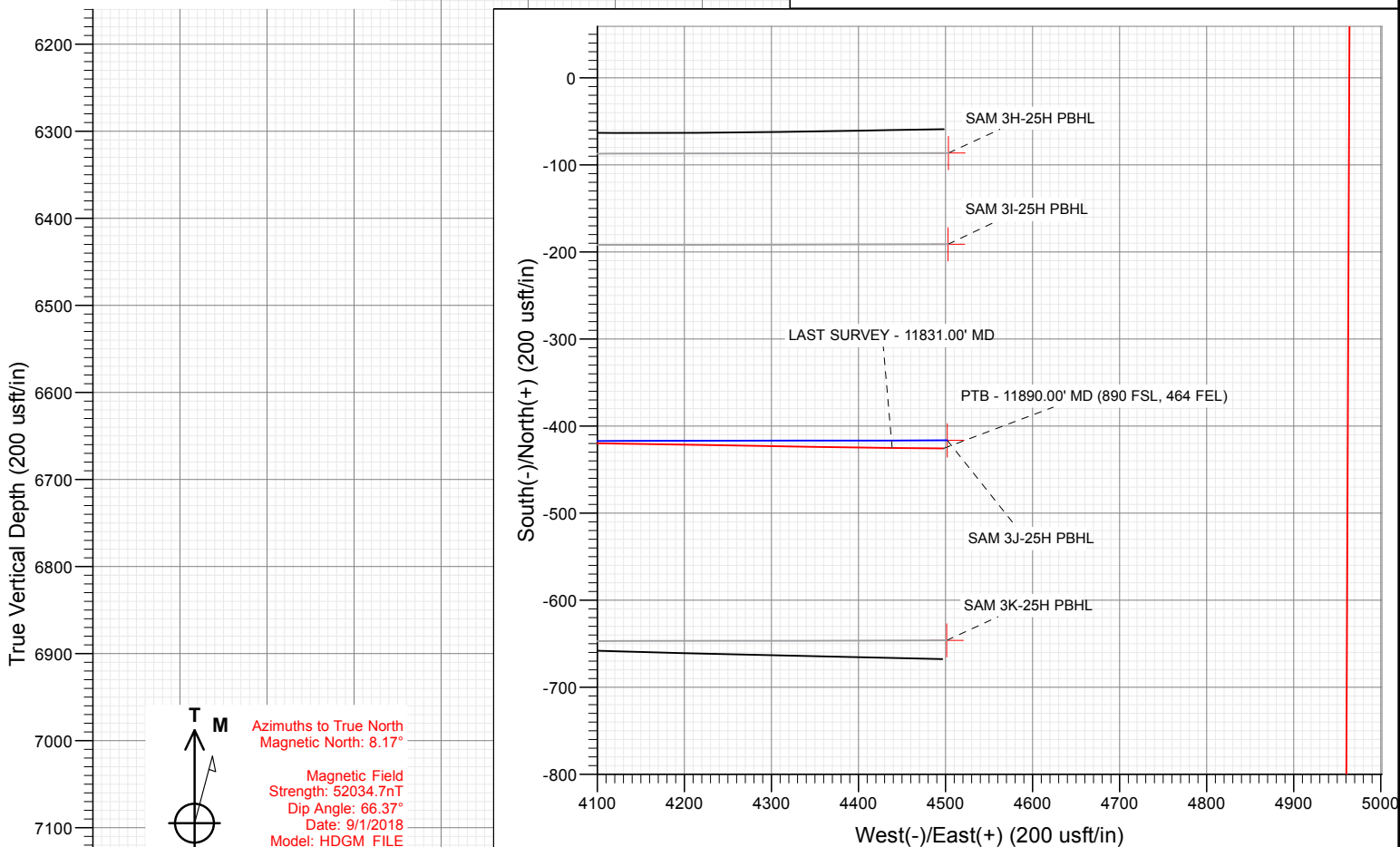
#### SECTION DETAILS

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	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	
3	932.14	4.64	217.14	931.88	-7.49	-5.67	2.00	217.14	-4.96	
4	6638.40	4.64	217.14	6619.42	-375.71	-284.51	0.00	0.00	-248.71	
5	7789.69	89.30	89.91	7369.10	-422.52	422.11	8.00	-127.18	459.22	
6	9163.69	89.30	89.91	7386.00	-420.43	1796.00	0.00	0.00	1827.08	SAM 3J 1796' TGT
7	9191.56	89.85	89.91	7386.21	-420.39	1823.88	2.00	0.00	1854.84	
8	10662.15	89.85	89.91	7389.98	-418.14	3294.45	0.00	0.00	3318.96	
9	10666.69	89.76	89.91	7390.00	-418.14	3299.00	2.00	-180.00	3323.49	SAM 3J 3299' TGT
10	11869.74	89.76	89.91	7395.00	-416.31	4502.03	0.00	0.00	4521.24	SAM 3J-25H PBHL

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

FINAL  
SAM 3J-25H-M166  
389337 185147 414037 185256; LR  
23' KB @ 5109.00usft  
Ground Level @ 5086.00  
North American Datum 1983  
Well SAM 3J-25H-M166, True North

Name	Type	Target	No Target (Freehand)	Azimuth	95.28	Origin Type	N/S	E/W	From TVD	0.00
SAM 3J-25H TPZ				7366.00	-422.91	170.01	40.017487	-104.733548		
SAM 3J 1796' TGT				7386.00	-420.43	1796.00	40.017494	-104.727443		
SAM 3J 3299' TGT				7390.00	-418.14	3299.00	40.017489	-104.722076		
SAM 3J-25H PBHL				7395.00	-416.31	4502.03	40.017504	-104.717781		



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

+N/-S	+E/-W	Northing	Ground Level:	5086.00	Latitude	Longitude
0.00	0.00	1250566.77	Easting	3214576.91	40.018648	-104.733855

CATHEDRAL



## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3J-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 3J-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 3J-25H-M166					
Well Position	+N/-S	0.00 usft	Northing:	1,250,566.77 usft	Latitude:	40.018648
	+E/-W	0.00 usft	Easting:	3,214,576.91 usft	Longitude:	-104.733855
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	9/1/2018	8.17	66.37	52,034.70000000

<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	95.28	

<b>Survey Program</b>	<b>Date</b>	10/22/2018			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
138.00	2,378.00	Survey #1 (OH)	VESSI_GYROFLEX	VESSI Gyroflex Gyro	
2,458.00	11,890.00	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	
138.00	0.21	265.74	138.00	-0.02	-0.23	-0.23	0.16	0.16	
230.00	0.27	342.24	230.00	0.18	-0.47	-0.48	0.33	0.07	
321.00	0.19	38.25	321.00	0.50	-0.44	-0.48	0.25	-0.09	
413.00	0.21	69.38	413.00	0.68	-0.19	-0.25	0.12	0.02	
499.00	0.43	192.22	499.00	0.42	-0.11	-0.15	0.66	0.26	
580.00	0.27	199.87	580.00	-0.06	-0.24	-0.23	0.21	-0.20	
663.00	0.38	231.27	662.99	-0.41	-0.52	-0.48	0.25	0.13	
746.00	1.83	227.04	745.98	-1.49	-1.70	-1.56	1.75	1.75	
829.00	1.91	233.90	828.93	-3.21	-3.79	-3.48	0.29	0.10	
911.00	1.80	332.74	910.91	-2.87	-5.49	-5.20	3.44	-0.13	
997.00	3.04	275.85	996.84	-1.43	-8.37	-8.21	2.96	1.44	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3J-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 3J-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
1,083.00	2.98	278.13	1,082.72	-0.89	-12.85	-12.72	0.16	-0.07	
1,164.00	5.29	264.42	1,163.51	-0.95	-18.66	-18.49	3.08	2.85	
1,225.00	7.58	245.59	1,224.12	-2.89	-25.12	-24.75	5.06	3.75	
1,308.00	9.80	223.15	1,306.19	-10.31	-34.94	-33.84	4.83	2.67	
1,392.00	8.22	211.71	1,389.16	-20.63	-42.99	-40.91	2.84	-1.88	
1,475.00	7.59	209.56	1,471.37	-30.45	-48.81	-45.80	0.84	-0.76	
1,558.00	7.85	209.27	1,553.62	-40.16	-54.29	-50.36	0.32	0.31	
1,641.00	6.94	202.70	1,635.93	-49.73	-58.99	-54.16	1.50	-1.10	
1,723.00	4.93	197.40	1,717.48	-57.66	-61.96	-56.39	2.54	-2.45	
1,806.00	4.61	196.23	1,800.19	-64.27	-63.96	-57.77	0.40	-0.39	
1,892.00	5.23	212.73	1,885.88	-70.89	-67.04	-60.23	1.79	0.72	
1,975.00	5.78	217.29	1,968.50	-77.39	-71.62	-64.19	0.85	0.66	
2,058.00	4.88	212.30	2,051.14	-83.70	-76.04	-68.01	1.22	-1.08	
2,147.00	5.09	207.35	2,139.80	-90.41	-79.87	-71.22	0.54	0.24	
2,237.00	4.26	212.10	2,229.50	-96.79	-83.49	-74.22	1.02	-0.92	
2,327.00	4.45	213.78	2,319.24	-102.52	-87.20	-77.40	0.25	0.21	
2,378.00	4.75	210.55	2,370.08	-105.98	-89.38	-79.24	0.78	0.59	
2,458.00	4.75	221.05	2,449.81	-111.34	-93.24	-82.59	1.09	0.00	
2,552.00	4.31	219.82	2,543.51	-116.98	-98.05	-86.87	0.48	-0.47	
2,646.00	3.91	222.11	2,637.27	-122.07	-102.46	-90.80	0.46	-0.43	
2,741.00	6.68	220.08	2,731.86	-128.71	-108.19	-95.89	2.92	2.92	
2,846.00	6.42	219.73	2,836.17	-137.89	-115.88	-102.70	0.25	-0.25	
2,940.00	5.63	220.26	2,929.65	-145.45	-122.22	-108.31	0.84	-0.84	
3,035.00	4.70	220.44	3,024.26	-151.97	-127.75	-113.23	0.98	-0.98	
3,130.00	3.47	219.91	3,119.02	-157.14	-132.12	-117.10	1.30	-1.29	
3,224.00	3.21	222.46	3,212.86	-161.26	-135.73	-120.31	0.32	-0.28	
3,319.00	2.42	209.27	3,307.75	-164.98	-138.50	-122.73	1.07	-0.83	
3,413.00	2.86	196.27	3,401.65	-168.96	-140.13	-123.99	0.79	0.47	
3,509.00	5.41	215.16	3,497.39	-174.96	-143.41	-126.70	2.98	2.66	
3,604.00	4.44	214.90	3,592.04	-181.64	-148.09	-130.75	1.02	-1.02	
3,698.00	3.43	212.53	3,685.82	-186.99	-151.68	-133.83	1.09	-1.07	
3,792.00	3.12	216.92	3,779.67	-191.41	-154.73	-136.46	0.42	-0.33	
3,887.00	2.94	200.84	3,874.53	-195.75	-157.15	-138.47	0.91	-0.19	
3,981.00	3.65	209.89	3,968.38	-200.60	-159.50	-140.36	0.93	0.76	
4,076.00	5.45	214.72	4,063.08	-206.93	-163.58	-143.84	1.94	1.89	
4,171.00	4.53	219.91	4,157.72	-213.51	-168.55	-148.19	1.08	-0.97	
4,265.00	3.60	221.84	4,251.48	-218.56	-172.90	-152.06	1.00	-0.99	
4,360.00	2.64	214.46	4,346.34	-222.59	-176.13	-154.90	1.09	-1.01	
4,455.00	4.75	218.85	4,441.13	-227.45	-179.84	-158.14	2.24	2.22	
4,549.00	5.85	231.86	4,534.73	-233.44	-186.05	-163.78	1.73	1.17	
4,643.00	5.67	239.16	4,628.26	-238.78	-193.80	-171.01	0.80	-0.19	
4,738.00	5.41	233.44	4,722.82	-243.86	-201.43	-178.13	0.64	-0.27	
4,832.00	7.25	232.92	4,816.24	-250.07	-209.72	-185.82	1.96	1.96	
4,927.00	6.46	216.92	4,910.57	-257.96	-217.71	-193.05	2.17	-0.83	
5,022.00	5.80	218.24	5,005.03	-266.00	-223.90	-198.47	0.71	-0.69	
5,117.00	6.20	201.01	5,099.51	-274.56	-228.71	-202.47	1.93	0.42	
5,211.00	4.88	204.53	5,193.07	-282.94	-232.19	-205.16	1.45	-1.40	
5,306.00	3.87	208.48	5,287.79	-289.43	-235.39	-207.76	1.11	-1.06	
5,401.00	3.52	206.46	5,382.60	-294.86	-238.22	-210.08	0.39	-0.37	
5,495.00	5.27	200.66	5,476.32	-301.49	-241.03	-212.26	1.92	1.86	
5,589.00	4.61	203.30	5,569.97	-308.99	-244.05	-214.58	0.74	-0.70	
5,684.00	3.87	206.55	5,664.71	-315.37	-246.99	-216.92	0.82	-0.78	
5,778.00	4.75	205.58	5,758.44	-321.72	-250.09	-219.42	0.94	0.94	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3J-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 3J-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
5,873.00	5.54	209.36	5,853.06	-329.26	-254.04	-222.66	0.90	0.83	
5,968.00	4.22	210.86	5,947.71	-336.26	-258.08	-226.04	1.40	-1.39	
6,062.00	2.94	205.93	6,041.53	-341.40	-260.91	-228.38	1.40	-1.36	
6,157.00	3.30	219.47	6,136.39	-345.70	-263.71	-230.78	0.86	0.38	
6,252.00	4.61	207.25	6,231.16	-351.20	-267.20	-233.74	1.63	1.38	
6,346.00	3.96	198.55	6,324.90	-357.64	-269.96	-235.90	0.98	-0.69	
6,441.00	3.38	188.09	6,419.70	-363.52	-271.40	-236.79	0.93	-0.61	
6,535.00	2.37	183.61	6,513.58	-368.20	-271.91	-236.87	1.10	-1.07	
6,630.00	2.51	153.55	6,608.50	-372.03	-271.10	-235.72	1.34	0.15	
6,724.00	11.91	122.26	6,701.67	-379.06	-261.96	-225.97	10.48	10.00	
6,818.00	15.86	121.91	6,792.91	-391.04	-242.85	-205.83	4.20	4.20	
6,913.00	18.15	124.81	6,883.75	-406.35	-219.68	-181.35	2.57	2.41	
7,007.00	26.28	133.78	6,970.72	-429.15	-192.58	-152.27	9.35	8.65	
7,102.00	33.57	132.99	7,053.00	-461.65	-158.14	-114.98	7.68	7.67	
7,196.00	41.22	125.25	7,127.67	-497.32	-113.74	-67.50	9.54	8.14	
7,291.00	49.22	112.42	7,194.67	-529.22	-54.71	-5.78	12.73	8.42	
7,385.00	58.84	100.03	7,249.96	-549.90	18.15	68.67	14.75	10.23	
7,480.00	68.03	89.39	7,292.50	-556.54	102.59	153.37	13.91	9.67	
7,550.96	76.10	86.93	7,314.33	-554.34	170.01	220.30	11.84	11.37	TPZ - 7550.96' MD (768 FSL, 480 FWL)
7,575.00	78.84	86.14	7,319.55	-552.92	193.43	243.49	11.84	11.40	
7,669.00	81.26	86.49	7,335.79	-546.97	285.82	334.94	2.60	2.57	
7,764.00	84.51	85.70	7,347.56	-540.55	379.85	427.99	3.52	3.42	
7,859.00	84.81	84.91	7,356.40	-532.81	474.12	521.14	0.89	0.32	
7,953.00	87.89	84.73	7,362.38	-524.34	567.54	613.38	3.28	3.28	
8,048.00	88.15	84.38	7,365.66	-515.33	662.05	706.67	0.46	0.27	
8,142.00	88.81	83.24	7,368.16	-505.20	755.47	798.76	1.40	0.70	
8,237.00	89.56	82.80	7,369.51	-493.66	849.76	891.58	0.92	0.79	
8,331.00	88.90	85.17	7,370.77	-483.81	943.22	983.74	2.62	-0.70	
8,426.00	89.96	84.82	7,371.72	-475.52	1,037.85	1,077.21	1.18	1.12	
8,520.00	88.51	87.99	7,372.97	-469.63	1,131.65	1,170.06	3.71	-1.54	
8,614.00	89.17	87.63	7,374.87	-466.04	1,225.56	1,263.24	0.80	0.70	
8,709.00	89.87	87.11	7,375.67	-461.68	1,320.45	1,357.34	0.92	0.74	
8,803.00	87.06	87.02	7,378.19	-456.87	1,414.29	1,450.33	2.99	-2.99	
8,898.00	86.70	86.84	7,383.36	-451.79	1,509.01	1,544.18	0.42	-0.38	
8,993.00	89.12	88.25	7,386.82	-447.72	1,603.85	1,638.25	2.95	2.55	
9,088.00	90.13	87.90	7,387.44	-444.53	1,698.79	1,732.49	1.13	1.06	
9,183.00	91.45	87.72	7,386.14	-440.90	1,793.71	1,826.68	1.40	1.39	
9,277.00	91.41	90.27	7,383.79	-439.25	1,887.66	1,920.07	2.71	-0.04	
9,372.00	89.96	88.34	7,382.65	-438.10	1,982.64	2,014.54	2.54	-1.53	
9,467.00	90.75	88.07	7,382.06	-435.12	2,077.59	2,108.82	0.88	0.83	
9,561.00	89.43	86.05	7,381.92	-430.30	2,171.46	2,201.84	2.57	-1.40	
9,655.00	89.30	84.82	7,382.96	-422.82	2,265.15	2,294.45	1.32	-0.14	
9,750.00	90.26	84.56	7,383.32	-414.03	2,359.75	2,387.83	1.05	1.01	
9,844.00	89.82	87.46	7,383.26	-407.49	2,453.51	2,480.60	3.12	-0.47	
9,939.00	88.59	89.83	7,384.58	-405.24	2,548.46	2,574.94	2.81	-1.29	
10,033.00	89.21	89.22	7,386.38	-404.47	2,642.44	2,668.45	0.93	0.66	
10,128.00	89.47	91.41	7,387.48	-404.99	2,737.43	2,763.08	2.32	0.27	
10,223.00	91.67	91.15	7,386.53	-407.11	2,832.39	2,857.84	2.33	2.32	
10,318.00	90.09	91.15	7,385.07	-409.02	2,927.36	2,952.58	1.66	-1.66	
10,412.00	85.65	92.73	7,388.56	-412.19	3,021.22	3,046.33	5.01	-4.72	
10,507.00	84.77	92.29	7,396.50	-416.34	3,115.79	3,140.88	1.03	-0.93	
10,602.00	87.32	91.85	7,403.05	-419.76	3,210.50	3,235.50	2.72	2.68	
10,697.00	90.22	91.68	7,405.09	-422.69	3,305.42	3,330.29	3.06	3.05	

## Survey Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SAM 3J-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 3J-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
10,791.00	90.13	90.53	7,404.80	-424.50	3,399.40	3,424.04	1.23	-0.10	
10,886.00	89.91	89.48	7,404.77	-424.51	3,494.40	3,518.63	1.13	-0.23	
10,981.00	92.46	89.22	7,402.80	-423.43	3,589.36	3,613.10	2.70	2.68	
11,075.00	93.21	88.69	7,398.15	-421.72	3,683.23	3,706.41	0.98	0.80	
11,170.00	92.73	89.39	7,393.23	-420.13	3,778.09	3,800.72	0.89	-0.51	
11,264.00	92.77	89.04	7,388.72	-418.84	3,871.97	3,894.09	0.37	0.04	
11,359.00	90.26	90.45	7,386.21	-418.42	3,966.93	3,988.60	3.03	-2.64	
11,453.00	90.04	90.62	7,385.96	-419.30	4,060.92	4,082.28	0.30	-0.23	
11,549.00	89.82	90.89	7,386.08	-420.56	4,156.91	4,177.98	0.36	-0.23	
11,643.00	90.66	90.89	7,385.69	-422.02	4,250.90	4,271.70	0.89	0.89	
11,737.00	91.76	91.15	7,383.70	-423.70	4,344.86	4,365.42	1.20	1.17	
11,831.00	92.81	90.45	7,379.95	-425.01	4,438.78	4,459.05	1.34	1.12	LAST SURVEY - 11831.00' MD
11,890.00	92.81	90.45	7,377.06	-425.47	4,497.71	4,517.77	0.00	0.00	PTB - 11890.00' MD (890 FSL, 464 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 3J 1796' TGT - actual wellpath misses target center by 20.37usft at 9185.65usft MD (7386.07 TVD, -440.80 N, 1796.36 E) - Point	0.00	0.00	7,386.00	-420.43	1,796.00	1,250,161.88	3,216,376.48	40.017494	-104.727443
SAM 3J 3299' TGT - actual wellpath misses target center by 15.72usft at 10690.12usft MD (7405.10 TVD, -422.48 N, 3298.54 E) - Point	0.00	0.00	7,390.00	-418.14	3,299.00	1,250,177.15	3,217,879.40	40.017499	-104.722076
SAM 3J-25H TPZ - actual wellpath misses target center by 139.94usft at 7569.93usft MD (7318.54 TVD, -553.25 N, 188.47 E) - Point	0.00	0.50	7,366.00	-422.91	170.01	1,250,145.35	3,214,750.57	40.017487	-104.733248
SAM 3J-25H PBHL - actual wellpath misses target center by 20.60usft at 11890.00usft MD (7377.06 TVD, -425.47 N, 4497.71 E) - Point	0.00	0.51	7,395.00	-416.31	4,502.03	1,250,189.38	3,219,082.37	40.017504	-104.717781

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,550.96	7,314.33	-554.34	170.01	TPZ - 7550.96' MD (768 FSL, 480 FWL)	
11,831.00	7,379.95	-425.01	4,438.78	LAST SURVEY - 11831.00' MD	
11,890.00	7,377.06	-425.47	4,497.71	PTB - 11890.00' MD (890 FSL, 464 FEL)	

Checked By: _____	Approved By: _____	Date: _____
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