



## **Ursa Operating Company, LLC**

**Rockies Region**

**Monument Ridge B**

**Monument Ridge B 24B-08-07-95**

**Wellbore #1**

**Design: Production**

## **End of Well Report**

**25 January, 2016**



<b>Company:</b>	Ursa Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well Monument Ridge B 24B-08-07-95
<b>Project:</b>	Rockies Region	<b>TVD Reference:</b>	Monument Ridge B 24B-08-07-95 @ 5718.8usft (PLAN
<b>Site:</b>	Monument Ridge B	<b>MD Reference:</b>	Monument Ridge B 24B-08-07-95 @ 5718.8usft (PLAN
<b>Well:</b>	Monument Ridge B 24B-08-07-95	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Production	<b>Database:</b>	EDM 5000.1 Single User Db

Project		Rockies Region	
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Monument Ridge B						
Site Position:		Northing:		1,596,716.56	usft	Latitude:		39° 26' 40.501 N
From:	Lat/Long	Easting:		2,287,433.43	usft	Longitude:		108° 1' 24.665 W
Position Uncertainty:	0.0	Slot Radius:		13-3/16	"	Grid Convergence:		-1.59 °

Well		Monument Ridge B 24B-08-07-95, SHL: 39.447462331 -108.012355999				
Well Position	+N-S	0.0 usft	Northing:	1,597,677.29 usft	Latitude:	39° 26' 50.864 N
	+E-W	0.0 usft	Easting:	2,290,613.47 usft	Longitude:	108° 0' 44.482 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,718.8 usft	Ground Level:	5,701.8 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/6/2016	9.85	65.57	51,664

Design		Production			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)		+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0		0.0	0.0	268.85

Survey Program		Date	1/25/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
89.0	7,990.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
89.0	0.48	282.75	89.0	0.4	0.1	-0.4	0.54	0.54	0.00	
118.0	0.53	281.58	118.0	0.6	0.1	-0.6	0.18	0.17	-4.03	
148.0	0.75	242.94	148.0	0.9	0.1	-0.9	1.57	0.73	-128.80	
179.0	0.85	228.39	179.0	1.3	-0.2	-1.3	0.73	0.32	-46.94	
208.0	0.88	210.72	208.0	1.6	-0.5	-1.6	0.92	0.10	-60.93	
238.0	0.66	179.00	238.0	1.7	-0.9	-1.7	1.57	-0.73	-105.73	
269.0	0.18	228.48	269.0	1.7	-1.1	-1.7	1.81	-1.55	159.61	
299.0	0.80	332.40	299.0	1.9	-0.9	-1.8	2.87	2.07	346.40	
330.0	1.89	321.47	330.0	2.3	-0.3	-2.3	3.60	3.52	-35.26	
361.0	2.68	319.27	361.0	3.0	0.6	-3.0	2.56	2.55	-7.10	
391.0	3.21	320.28	390.9	4.0	1.8	-4.0	1.78	1.77	3.37	
422.0	3.56	318.39	421.9	5.2	3.2	-5.2	1.18	1.13	-6.10	
452.0	3.91	317.07	451.8	6.5	4.6	-6.5	1.20	1.17	-4.40	
483.0	4.49	312.15	482.7	8.0	6.2	-8.2	2.20	1.87	-15.87	
513.0	5.01	310.04	512.6	9.9	7.8	-10.0	1.83	1.73	-7.03	
544.0	5.58	306.74	543.5	12.1	9.6	-12.3	2.08	1.84	-10.65	
575.0	6.50	306.81	574.3	14.7	11.6	-14.9	2.97	2.97	0.23	
605.0	7.38	304.64	604.1	17.6	13.7	-17.8	3.06	2.93	-7.23	
636.0	8.39	302.53	634.8	21.1	16.0	-21.4	3.39	3.26	-6.81	
667.0	9.54	298.75	665.4	25.2	18.5	-25.5	4.17	3.71	-12.19	
697.0	10.90	298.04	694.9	29.8	21.0	-30.2	4.55	4.53	-2.37	
728.0	12.22	297.03	725.3	35.3	23.9	-35.7	4.31	4.26	-3.26	
758.0	13.01	294.88	754.6	41.1	26.7	-41.6	3.06	2.63	-7.17	
788.0	13.89	291.67	783.8	47.4	29.5	-48.0	3.85	2.93	-10.70	
818.0	14.63	288.86	812.8	54.3	32.0	-55.0	3.38	2.47	-9.37	
849.0	15.47	284.82	842.8	62.0	34.4	-62.7	4.33	2.71	-13.03	

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<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Production	<b>Database:</b>	EDM 5000.1 Single User Db

Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)
892.0	16.39	279.63	884.1	73.4	36.8	-74.2	3.94	2.14	-12.07
935.0	17.71	276.29	925.2	85.9	38.6	-86.7	3.82	3.07	-7.77
977.0	18.94	273.43	965.1	99.0	39.7	-99.8	3.63	2.93	-6.81
1,020.0	20.04	273.04	1,005.6	113.3	40.5	-114.2	2.58	2.56	-0.91
1,063.0	21.45	272.42	1,045.8	128.5	41.2	-129.4	3.32	3.28	-1.44
1,105.0	22.50	270.84	1,084.8	144.2	41.7	-145.1	2.87	2.50	-3.76
1,148.0	23.76	272.51	1,124.3	161.1	42.2	-162.0	3.30	2.93	3.88
1,191.0	25.27	273.13	1,163.5	178.9	43.0	-179.8	3.56	3.51	1.44
1,233.0	27.07	272.69	1,201.2	197.4	44.0	-198.3	4.31	4.29	-1.05
1,276.0	28.87	271.41	1,239.1	217.5	44.7	-218.4	4.41	4.19	-2.98
1,319.0	30.55	271.79	1,276.5	238.8	45.3	-239.7	3.93	3.91	0.88
1,362.0	32.39	272.95	1,313.2	261.2	46.2	-262.2	4.50	4.28	2.70
1,404.0	34.02	272.25	1,348.3	284.1	47.3	-285.1	3.99	3.88	-1.67
1,447.0	35.74	272.00	1,383.6	308.7	48.2	-309.7	4.01	4.00	-0.58
1,490.0	36.65	269.57	1,418.3	334.1	48.5	-335.1	3.95	2.12	-5.65
1,532.0	37.69	268.78	1,451.7	359.4	48.1	-360.5	2.72	2.48	-1.88
1,575.0	39.29	268.29	1,485.4	386.2	47.5	-387.2	3.79	3.72	-1.14
1,618.0	41.35	268.20	1,518.2	414.0	46.6	-415.0	4.79	4.79	-0.21
1,660.0	43.07	268.97	1,549.3	442.2	45.9	-443.2	4.28	4.10	1.83
1,703.0	43.73	268.34	1,580.5	471.8	45.2	-472.8	1.84	1.53	-1.47
1,746.0	44.17	267.50	1,611.5	501.6	44.1	-502.6	1.70	1.02	-1.95
1,788.0	44.34	267.15	1,641.6	530.9	42.8	-531.9	0.71	0.40	-0.83
1,810.0	44.60	267.18	1,657.3	546.3	42.0	-547.3	1.19	1.18	0.14
1,916.0	45.13	267.11	1,732.4	621.1	38.3	-622.0	0.50	0.50	-0.07
2,001.0	43.64	265.13	1,793.1	680.4	34.3	-681.3	2.39	-1.75	-2.33
2,087.0	42.45	264.03	1,856.0	739.0	28.7	-739.7	1.64	-1.38	-1.28
2,172.0	41.84	265.52	1,919.0	795.9	23.5	-796.5	1.38	-0.72	1.75

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2,258.0	41.09	266.97	1,983.5	852.7	19.8	-853.3	1.42	-0.87	1.69	
2,343.0	41.37	268.79	2,047.4	908.8	17.7	-909.3	1.45	0.33	2.14	
2,428.0	41.79	268.64	2,111.0	965.2	16.5	-965.7	0.51	0.49	-0.18	
2,514.0	41.88	268.29	2,175.0	1,022.5	14.9	-1,023.0	0.29	0.10	-0.41	
2,599.0	40.72	268.59	2,238.9	1,078.6	13.4	-1,079.1	1.38	-1.36	0.35	
2,684.0	40.69	267.81	2,303.3	1,134.1	11.7	-1,134.5	0.60	-0.04	-0.92	
2,770.0	41.26	268.29	2,368.3	1,190.4	9.7	-1,190.9	0.76	0.66	0.56	
2,855.0	40.65	267.68	2,432.5	1,246.1	7.8	-1,246.6	0.86	-0.72	-0.72	
2,941.0	40.56	267.06	2,497.8	1,302.1	5.2	-1,302.5	0.48	-0.10	-0.72	
3,026.0	40.94	267.10	2,562.2	1,357.6	2.4	-1,357.9	0.45	0.45	0.05	
3,111.0	41.18	266.27	2,626.2	1,413.3	-0.8	-1,413.6	0.70	0.28	-0.98	
3,197.0	41.75	266.93	2,690.7	1,470.3	-4.2	-1,470.5	0.84	0.66	0.77	
3,282.0	41.84	267.33	2,754.1	1,526.9	-7.0	-1,527.0	0.33	0.11	0.47	
3,367.0	41.84	268.26	2,817.4	1,583.6	-9.2	-1,583.7	0.73	0.00	1.09	
3,453.0	41.75	267.28	2,881.5	1,640.9	-11.5	-1,641.0	0.77	-0.10	-1.14	
3,538.0	41.66	267.19	2,945.0	1,697.4	-14.2	-1,697.5	0.13	-0.11	-0.11	
3,624.0	41.66	268.64	3,009.2	1,754.5	-16.3	-1,754.6	1.12	0.00	1.69	
3,709.0	41.79	269.13	3,072.7	1,811.1	-17.4	-1,811.1	0.41	0.15	0.58	
3,794.0	42.19	269.65	3,135.8	1,868.0	-18.0	-1,868.0	0.62	0.47	0.61	
3,880.0	41.09	269.22	3,200.1	1,925.1	-18.5	-1,925.1	1.32	-1.28	-0.50	
3,965.0	41.73	268.15	3,263.9	1,981.3	-19.8	-1,981.3	1.12	0.75	-1.26	
4,051.0	41.57	269.22	3,328.1	2,038.5	-21.1	-2,038.5	0.85	-0.19	1.24	
4,136.0	41.53	268.56	3,391.7	2,094.9	-22.2	-2,094.8	0.52	-0.05	-0.78	
4,222.0	41.89	266.58	3,455.9	2,152.1	-24.7	-2,152.0	1.59	0.42	-2.30	
4,307.0	41.13	268.38	3,519.6	2,208.4	-27.1	-2,208.3	1.66	-0.89	2.12	
4,393.0	40.30	267.06	3,584.8	2,264.5	-29.4	-2,264.3	1.39	-0.97	-1.53	
4,478.0	40.65	267.55	3,649.4	2,319.6	-32.0	-2,319.4	0.56	0.41	0.58	

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4,564.0	40.42	266.83	3,714.8	2,375.5	-34.7	-2,375.3	0.61	-0.27	-0.84	
4,648.0	40.17	267.02	3,778.9	2,429.8	-37.6	-2,429.5	0.33	-0.30	0.23	
4,734.0	40.65	267.28	3,844.3	2,485.5	-40.4	-2,485.2	0.59	0.56	0.30	
4,820.0	41.00	269.30	3,909.4	2,541.7	-42.1	-2,541.4	1.59	0.41	2.35	
4,905.0	39.95	269.70	3,974.1	2,596.9	-42.5	-2,596.6	1.27	-1.24	0.47	
4,991.0	37.71	267.85	4,041.1	2,650.8	-43.7	-2,650.5	2.93	-2.60	-2.15	
5,076.0	34.58	267.19	4,109.7	2,700.9	-45.8	-2,700.5	3.71	-3.68	-0.78	
5,162.0	31.73	265.66	4,181.7	2,747.9	-48.7	-2,747.5	3.45	-3.31	-1.78	
5,247.0	30.89	263.90	4,254.3	2,792.0	-52.8	-2,791.5	1.46	-0.99	-2.07	
5,332.0	29.58	265.66	4,327.8	2,834.7	-56.7	-2,834.1	1.86	-1.54	2.07	
5,418.0	29.75	265.08	4,402.5	2,877.1	-60.1	-2,876.5	0.39	0.20	-0.67	
5,503.0	27.38	264.38	4,477.1	2,917.7	-63.8	-2,917.0	2.82	-2.79	-0.82	
5,589.0	25.75	266.10	4,554.0	2,956.0	-67.0	-2,955.3	2.10	-1.90	2.00	
5,674.0	24.70	269.96	4,630.9	2,992.3	-68.3	-2,991.5	2.30	-1.24	4.54	
5,759.0	23.05	272.56	4,708.7	3,026.6	-67.6	-3,025.9	2.30	-1.94	3.06	
5,845.0	20.65	272.42	4,788.5	3,058.6	-66.2	-3,057.8	2.79	-2.79	-0.16	
5,931.0	17.31	270.97	4,869.8	3,086.5	-65.3	-3,085.8	3.92	-3.88	-1.69	
6,016.0	15.47	270.67	4,951.3	3,110.5	-65.0	-3,109.8	2.17	-2.16	-0.35	
6,101.0	12.74	272.64	5,033.8	3,131.1	-64.4	-3,130.5	3.26	-3.21	2.32	
6,186.0	10.42	274.75	5,117.0	3,148.1	-63.3	-3,147.5	2.77	-2.73	2.48	
6,271.0	8.03	276.58	5,200.9	3,161.7	-62.0	-3,161.1	2.83	-2.81	2.15	
6,357.0	3.98	282.68	5,286.4	3,170.5	-60.7	-3,169.9	4.76	-4.71	7.09	
6,443.0	1.76	315.36	5,372.3	3,174.3	-59.1	-3,173.8	3.11	-2.58	38.00	
6,528.0	0.97	328.76	5,457.3	3,175.6	-57.5	-3,175.1	1.00	-0.93	15.76	
6,613.0	1.15	46.90	5,542.3	3,175.3	-56.3	-3,174.8	1.58	0.21	91.93	
6,699.0	0.62	47.25	5,628.3	3,174.3	-55.4	-3,173.9	0.62	-0.62	0.41	
6,784.0	0.31	54.15	5,713.3	3,173.8	-55.0	-3,173.3	0.37	-0.36	8.12	

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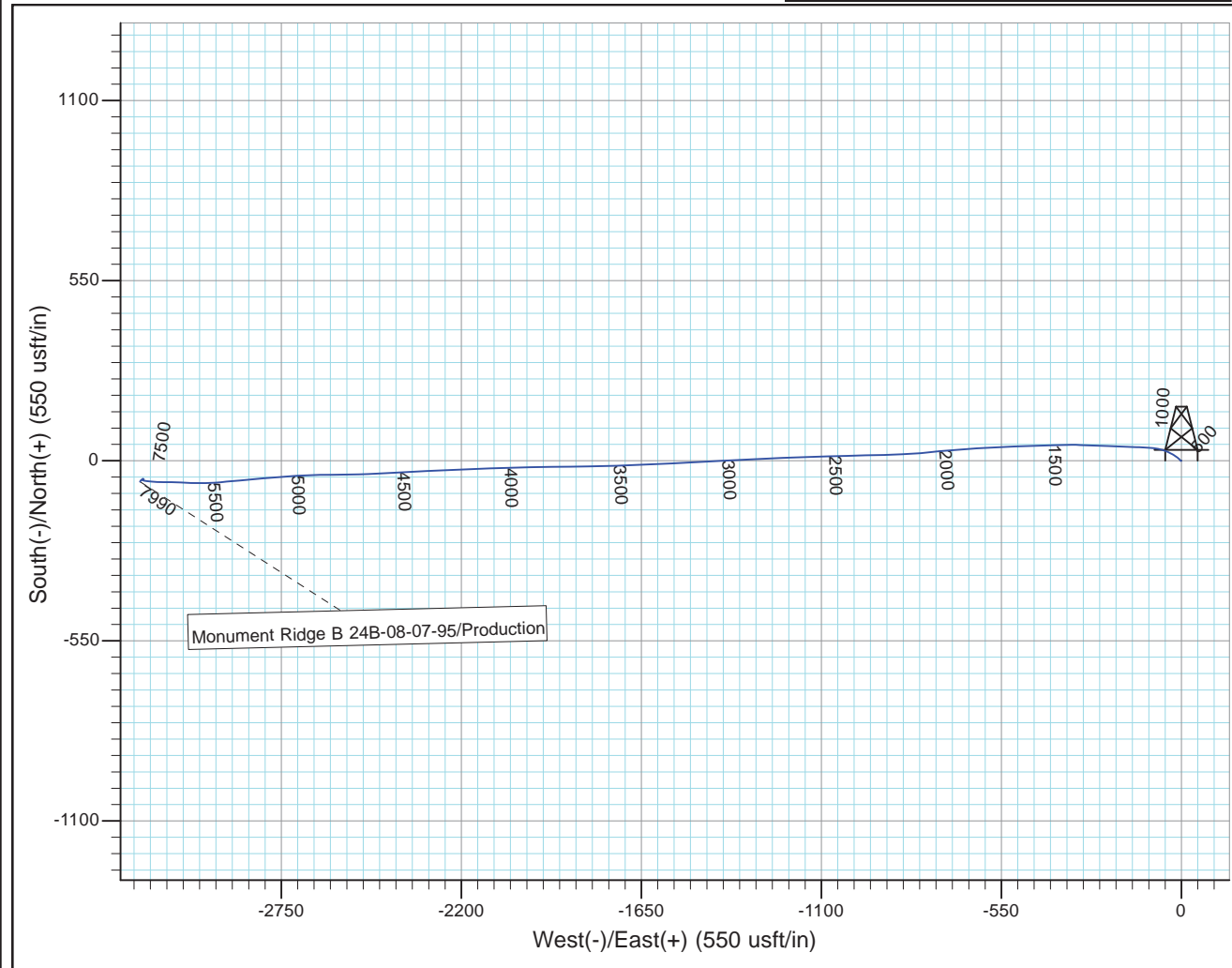
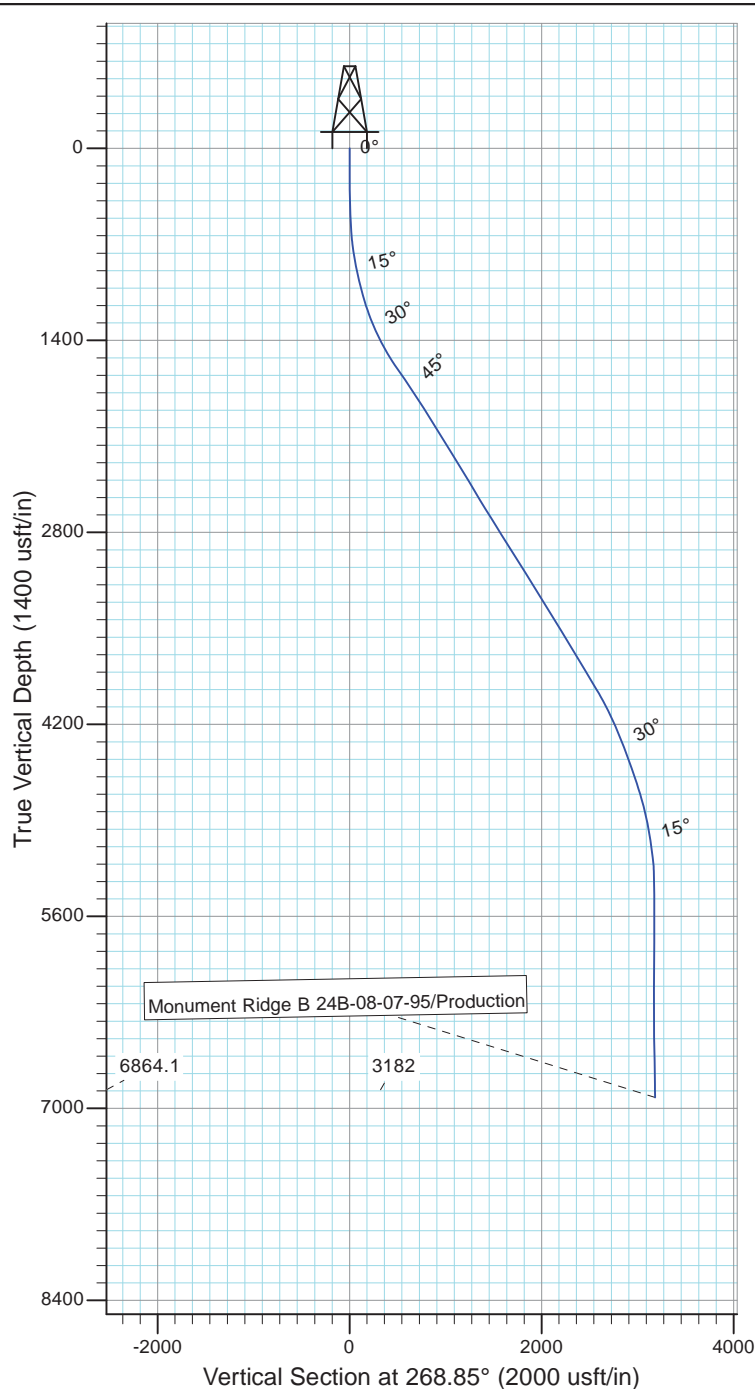
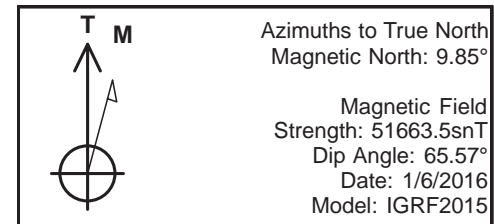
Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
6,870.0	0.26	97.70	5,799.3	3,173.4	-54.9	-3,172.9	0.25	-0.06	50.64	
6,955.0	0.53	128.11	5,884.3	3,172.9	-55.1	-3,172.4	0.39	0.32	35.78	
7,040.0	0.75	132.41	5,969.3	3,172.2	-55.8	-3,171.7	0.26	0.26	5.06	
7,126.0	0.57	158.87	6,055.3	3,171.7	-56.5	-3,171.2	0.41	-0.21	30.77	
7,211.0	0.22	79.42	6,140.3	3,171.4	-56.9	-3,170.8	0.67	-0.41	-93.47	
7,296.0	0.04	331.27	6,225.3	3,171.2	-56.8	-3,170.7	0.28	-0.21	-127.24	
7,382.0	0.13	311.45	6,311.3	3,171.3	-56.8	-3,170.8	0.11	0.10	-23.05	
7,467.0	0.40	297.91	6,396.3	3,171.6	-56.6	-3,171.1	0.32	0.32	-15.93	
7,553.0	0.88	265.22	6,482.3	3,172.5	-56.5	-3,172.0	0.68	0.56	-38.01	
7,638.0	1.71	255.68	6,567.2	3,174.4	-56.8	-3,173.9	1.01	0.98	-11.22	
7,723.0	1.76	240.26	6,652.2	3,176.8	-57.8	-3,176.3	0.55	0.06	-18.14	
7,809.0	1.86	228.29	6,738.2	3,179.0	-59.4	-3,178.5	0.45	0.12	-13.92	
7,894.0	1.76	217.27	6,823.1	3,180.9	-61.3	-3,180.3	0.43	-0.12	-12.96	
7,935.0	1.85	213.58	6,864.1	3,181.7	-62.4	-3,181.0	0.36	0.22	-9.00	
Projection to Bit										
7,990.0	1.85	213.58	6,919.1	3,182.7	-63.9	-3,182.0	0.00	0.00	0.00	

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,935.0	6,864.1	-62.4	-3,181.0	Projection to Bit

Checked By: _____	Approved By: _____	Date: _____
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Project: Rockies Region  
Site: Monument Ridge B  
Well: Monument Ridge B 24B-08-07-95  
Wellbore: Wellbore #1  
Design: Production



Design: Production (Monument Ridge B 24B-08-07-95/Wellbore #1)

Created By: Matthew Linton Date: 12:26, January 25 20

THIS SURVEY IS CORRECT TO THE BEST OF  
MY KNOWLEDGE AND IS SUPPORTED  
BY ACTUAL FIELD DATA