



Ursa Operating Company, LLC

Rockies Region

Monument Ridge B

Monument Ridge B 34A-08-07-95

Wellbore #1

Design: Production

End of Well Report

04 February, 2016



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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 usft		Slot Radius:		13-3/16 "		Grid Convergence:		-1.59 °	

Well		Monument Ridge B 34A-08-07-95, SHL: 39.447517215 -108.012356004				
Well Position	+N-S	0.0 usft	Northing:	1,597,697.28 usft	Latitude:	39° 26' 51.062 N
	+E-W	0.0 usft	Easting:	2,290,614.02 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	273.49

Survey Program		Date	2/4/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
120.0	7,400.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
120.0	0.44	38.06	120.0	-0.3	0.4	0.3	0.37	0.37	0.00	
151.0	0.04	276.16	151.0	-0.3	0.5	0.3	1.49	-1.29	-393.23	
181.0	0.70	224.06	181.0	-0.2	0.3	0.2	2.25	2.20	-173.67	
211.0	0.92	224.92	211.0	0.1	0.0	-0.1	0.73	0.73	2.87	
240.0	0.83	233.14	240.0	0.4	-0.3	-0.4	0.53	-0.31	28.34	
271.0	1.27	279.54	271.0	0.9	-0.3	-0.9	2.97	1.42	149.68	
302.0	1.68	301.63	302.0	1.7	0.0	-1.7	2.24	1.32	71.26	
332.0	2.10	316.55	332.0	2.4	0.6	-2.4	2.15	1.40	49.73	
363.0	1.80	317.47	362.9	3.2	1.4	-3.1	0.97	-0.97	2.97	
394.0	1.67	318.52	393.9	3.9	2.0	-3.8	0.43	-0.42	3.39	
424.0	1.41	291.89	423.9	4.5	2.5	-4.4	2.51	-0.87	-88.77	
454.0	1.23	285.87	453.9	5.2	2.7	-5.1	0.76	-0.60	-20.07	
485.0	1.63	266.45	484.9	6.0	2.8	-5.8	2.01	1.29	-62.65	
516.0	1.89	273.83	515.9	6.9	2.8	-6.8	1.11	0.84	23.81	
546.0	2.06	275.30	545.9	8.0	2.9	-7.8	0.59	0.57	4.90	
577.0	2.70	277.42	576.8	9.2	3.0	-9.1	2.08	2.06	6.84	
608.0	3.30	282.88	607.8	10.8	3.3	-10.7	2.14	1.94	17.61	
638.0	3.78	281.04	637.7	12.7	3.7	-12.5	1.64	1.60	-6.13	
669.0	4.35	282.37	668.7	14.9	4.2	-14.6	1.86	1.84	4.29	
700.0	4.83	279.76	699.6	17.3	4.6	-17.1	1.69	1.55	-8.42	
730.0	5.01	280.55	729.5	19.9	5.1	-19.6	0.64	0.60	2.63	
760.0	5.41	279.94	759.3	22.6	5.6	-22.3	1.35	1.33	-2.03	
790.0	6.06	280.55	789.2	25.6	6.1	-25.2	2.18	2.17	2.03	
821.0	7.03	277.78	820.0	29.1	6.7	-28.7	3.29	3.13	-8.94	
852.0	7.95	277.56	850.7	33.1	7.2	-32.7	2.97	2.97	-0.71	
894.0	9.58	273.70	892.2	39.5	7.8	-39.1	4.12	3.88	-9.19	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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)	
937.0	11.16	270.36	934.5	47.2	8.1	-46.8	3.93	3.67	-7.77	
980.0	12.83	270.36	976.6	56.1	8.1	-55.8	3.88	3.88	0.00	
1,022.0	14.02	271.98	1,017.4	65.9	8.3	-65.5	2.97	2.83	3.86	
1,065.0	15.38	273.52	1,059.0	76.8	8.9	-76.4	3.29	3.16	3.58	
1,108.0	16.61	275.24	1,100.4	88.6	9.8	-88.2	3.07	2.86	4.00	
1,150.0	18.24	276.03	1,140.4	101.2	11.0	-100.7	3.92	3.88	1.88	
1,193.0	19.20	276.38	1,181.2	115.0	12.5	-114.4	2.25	2.23	0.81	
1,235.0	20.57	276.20	1,220.6	129.3	14.1	-128.6	3.27	3.26	-0.43	
1,278.0	22.46	274.80	1,260.6	145.0	15.6	-144.3	4.55	4.40	-3.26	
1,321.0	23.86	273.30	1,300.2	161.9	16.8	-161.2	3.53	3.26	-3.49	
1,363.0	25.22	272.03	1,338.4	179.4	17.6	-178.6	3.47	3.24	-3.02	
1,406.0	27.03	271.28	1,377.0	198.3	18.1	-197.6	4.28	4.21	-1.74	
1,449.0	27.99	272.60	1,415.1	218.1	18.8	-217.4	2.64	2.23	3.07	
1,492.0	29.22	273.26	1,452.9	238.7	19.8	-238.0	2.95	2.86	1.53	
1,534.0	28.87	273.39	1,489.6	259.1	21.0	-258.3	0.85	-0.83	0.31	
1,577.0	29.05	273.08	1,527.2	279.9	22.2	-279.1	0.55	0.42	-0.72	
1,620.0	29.58	272.03	1,564.7	301.0	23.1	-300.1	1.72	1.23	-2.44	
1,662.0	29.51	271.81	1,601.3	321.7	23.8	-320.8	0.31	-0.17	-0.52	
1,705.0	29.49	272.77	1,638.7	342.9	24.7	-342.0	1.10	-0.05	2.23	
1,748.0	29.84	273.08	1,676.0	364.1	25.8	-363.3	0.89	0.81	0.72	
1,830.0	30.06	272.77	1,747.1	405.1	27.8	-404.1	0.33	0.27	-0.38	
1,916.0	29.40	273.30	1,821.8	447.7	30.1	-446.7	0.83	-0.77	0.62	
2,002.0	29.18	274.31	1,896.8	489.8	32.9	-488.7	0.63	-0.26	1.17	
2,087.0	29.09	273.30	1,971.0	531.2	35.6	-530.0	0.59	-0.11	-1.19	
2,172.0	29.65	274.94	2,045.1	572.9	38.6	-571.6	1.15	0.66	1.93	
2,258.0	30.30	274.63	2,119.6	615.8	42.2	-614.4	0.78	0.76	-0.36	
2,343.0	29.14	273.17	2,193.4	658.0	45.1	-656.4	1.61	-1.36	-1.72	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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)	
2,429.0	28.96	274.93	2,268.6	699.7	48.0	-698.1	1.02	-0.21	2.05	
2,514.0	29.42	273.97	2,342.8	741.2	51.3	-739.4	0.77	0.54	-1.13	
2,599.0	28.39	272.16	2,417.2	782.2	53.5	-780.4	1.59	-1.21	-2.13	
2,685.0	28.30	273.52	2,492.9	823.1	55.5	-821.2	0.76	-0.10	1.58	
2,770.0	28.65	274.97	2,567.6	863.6	58.5	-861.6	0.91	0.41	1.71	
2,855.0	29.18	274.71	2,642.0	904.7	62.0	-902.6	0.64	0.62	-0.31	
2,941.0	30.63	274.97	2,716.6	947.5	65.6	-945.3	1.69	1.69	0.30	
3,027.0	29.84	274.58	2,790.9	990.8	69.2	-988.4	0.95	-0.92	-0.45	
3,112.0	30.89	273.70	2,864.2	1,033.8	72.3	-1,031.3	1.34	1.24	-1.04	
3,197.0	30.37	272.91	2,937.4	1,077.1	74.8	-1,074.5	0.77	-0.61	-0.93	
3,282.0	29.36	272.20	3,011.1	1,119.4	76.7	-1,116.8	1.26	-1.19	-0.84	
3,368.0	30.37	274.18	3,085.6	1,162.2	79.1	-1,159.6	1.64	1.17	2.30	
3,453.0	29.79	274.93	3,159.2	1,204.8	82.4	-1,202.0	0.81	-0.68	0.88	
3,539.0	30.50	275.54	3,233.6	1,248.0	86.4	-1,245.0	0.90	0.83	0.71	
3,624.0	29.75	275.59	3,307.1	1,290.6	90.5	-1,287.5	0.88	-0.88	0.06	
3,710.0	30.45	274.88	3,381.5	1,333.7	94.5	-1,330.5	0.91	0.81	-0.83	
3,795.0	30.19	274.01	3,454.9	1,376.6	97.8	-1,373.2	0.60	-0.31	-1.02	
3,881.0	28.11	272.75	3,530.0	1,418.5	100.3	-1,415.0	2.52	-2.42	-1.47	
3,966.0	28.92	274.14	3,604.7	1,459.1	102.7	-1,455.5	1.23	0.95	1.64	
4,052.0	29.49	274.36	3,679.7	1,501.1	105.8	-1,497.4	0.67	0.66	0.26	
4,137.0	27.47	272.25	3,754.4	1,541.6	108.2	-1,537.8	2.65	-2.38	-2.48	
4,222.0	26.24	271.68	3,830.3	1,580.0	109.5	-1,576.2	1.48	-1.45	-0.67	
4,308.0	25.53	271.37	3,907.6	1,617.5	110.5	-1,613.8	0.84	-0.83	-0.36	
4,393.0	24.35	270.58	3,984.7	1,653.3	111.1	-1,649.6	1.44	-1.39	-0.93	
4,478.0	22.10	272.25	4,062.8	1,686.8	111.9	-1,683.1	2.76	-2.65	1.96	
4,564.0	19.20	274.36	4,143.3	1,717.1	113.6	-1,713.4	3.48	-3.37	2.45	
4,649.0	15.25	274.83	4,224.5	1,742.3	115.6	-1,738.5	4.65	-4.65	0.55	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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)	
4,735.0	12.39	275.06	4,308.0	1,762.8	117.4	-1,758.9	3.33	-3.33	0.27	
4,820.0	9.71	274.71	4,391.4	1,779.1	118.8	-1,775.1	3.15	-3.15	-0.41	
4,906.0	6.81	275.37	4,476.5	1,791.4	119.9	-1,787.5	3.37	-3.37	0.77	
4,991.0	4.44	279.76	4,561.1	1,799.7	120.9	-1,795.7	2.83	-2.79	5.16	
5,076.0	3.82	274.18	4,645.8	1,805.8	121.7	-1,801.8	0.87	-0.73	-6.56	
5,162.0	3.56	267.77	4,731.7	1,811.4	121.8	-1,807.3	0.57	-0.30	-7.45	
5,247.0	2.99	262.40	4,816.5	1,816.2	121.4	-1,812.1	0.76	-0.67	-6.32	
5,333.0	2.94	257.44	4,902.4	1,820.5	120.6	-1,816.5	0.30	-0.06	-5.77	
5,418.0	2.72	254.63	4,987.3	1,824.5	119.6	-1,820.6	0.31	-0.26	-3.31	
5,503.0	2.29	254.01	5,072.2	1,828.0	118.6	-1,824.2	0.51	-0.51	-0.73	
5,589.0	3.30	253.57	5,158.1	1,832.0	117.4	-1,828.2	1.17	1.17	-0.51	
5,674.0	2.50	259.90	5,243.0	1,836.1	116.4	-1,832.4	1.01	-0.94	7.45	
5,760.0	1.23	275.72	5,329.0	1,838.8	116.2	-1,835.1	1.58	-1.48	18.40	
5,845.0	1.45	12.62	5,413.9	1,839.5	117.3	-1,835.8	2.37	0.26	114.00	
5,931.0	0.92	8.27	5,499.9	1,839.3	119.0	-1,835.5	0.62	-0.62	-5.06	
6,016.0	1.41	27.47	5,584.9	1,838.8	120.6	-1,834.9	0.73	0.58	22.59	
6,101.0	1.14	21.10	5,669.9	1,838.1	122.4	-1,834.1	0.36	-0.32	-7.49	
6,187.0	0.97	352.58	5,755.9	1,838.0	123.9	-1,833.9	0.63	-0.20	-33.16	
6,272.0	0.57	341.02	5,840.9	1,838.3	125.0	-1,834.1	0.50	-0.47	-13.60	
6,358.0	0.48	323.71	5,926.9	1,838.7	125.7	-1,834.5	0.21	-0.10	-20.13	
6,443.0	0.53	312.98	6,011.9	1,839.2	126.2	-1,835.0	0.13	0.06	-12.62	
6,529.0	0.66	294.00	6,097.9	1,840.0	126.7	-1,835.7	0.27	0.15	-22.07	
6,614.0	0.83	271.41	6,182.9	1,841.1	126.9	-1,836.8	0.40	0.20	-26.58	
6,699.0	1.08	254.33	6,267.8	1,842.5	126.7	-1,838.2	0.44	0.29	-20.09	
6,785.0	1.58	254.05	6,353.8	1,844.3	126.2	-1,840.1	0.58	0.58	-0.33	
6,870.0	2.07	248.21	6,438.8	1,846.8	125.3	-1,842.6	0.62	0.58	-6.87	
6,956.0	2.29	246.19	6,524.7	1,849.8	124.0	-1,845.6	0.27	0.26	-2.35	

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well Monument Ridge B 34A-08-07-95
Project:	Rockies Region	TVD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Site:	Monument Ridge B	MD Reference:	Monument Ridge B 34A-08-07-95 @ 5718.8usft (PLAN
Well:	Monument Ridge B 34A-08-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Production	Database:	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)	
7,041.0	2.55	250.36	6,609.6	1,853.0	122.7	-1,849.0	0.37	0.31	4.91	
7,126.0	2.53	242.20	6,694.6	1,856.4	121.2	-1,852.4	0.43	-0.02	-9.60	
7,212.0	2.90	239.16	6,780.5	1,859.8	119.2	-1,856.0	0.46	0.43	-3.53	
7,297.0	2.86	235.33	6,865.3	1,863.2	116.9	-1,859.6	0.23	-0.05	-4.51	
7,345.0	2.94	233.31	6,913.3	1,865.1	115.5	-1,861.5	0.27	0.17	-4.21	
Projection to Bit										
7,400.0	2.94	233.31	6,968.2	1,867.3	113.8	-1,863.8	0.00	0.00	0.00	

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
7,345.0	6,913.3	115.5	-1,861.5	Projection to Bit	

Checked By: _____ Approved By: _____ Date: _____

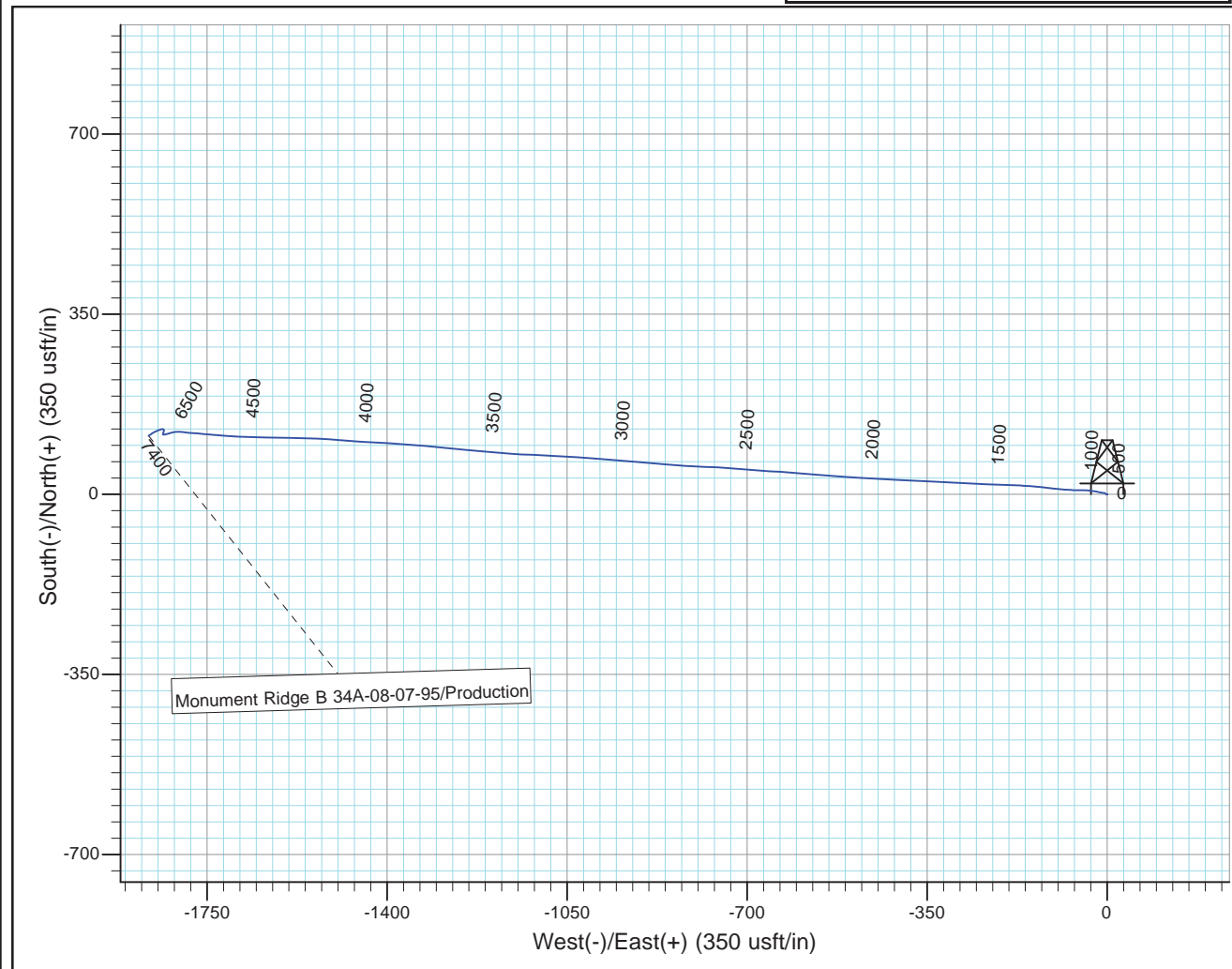
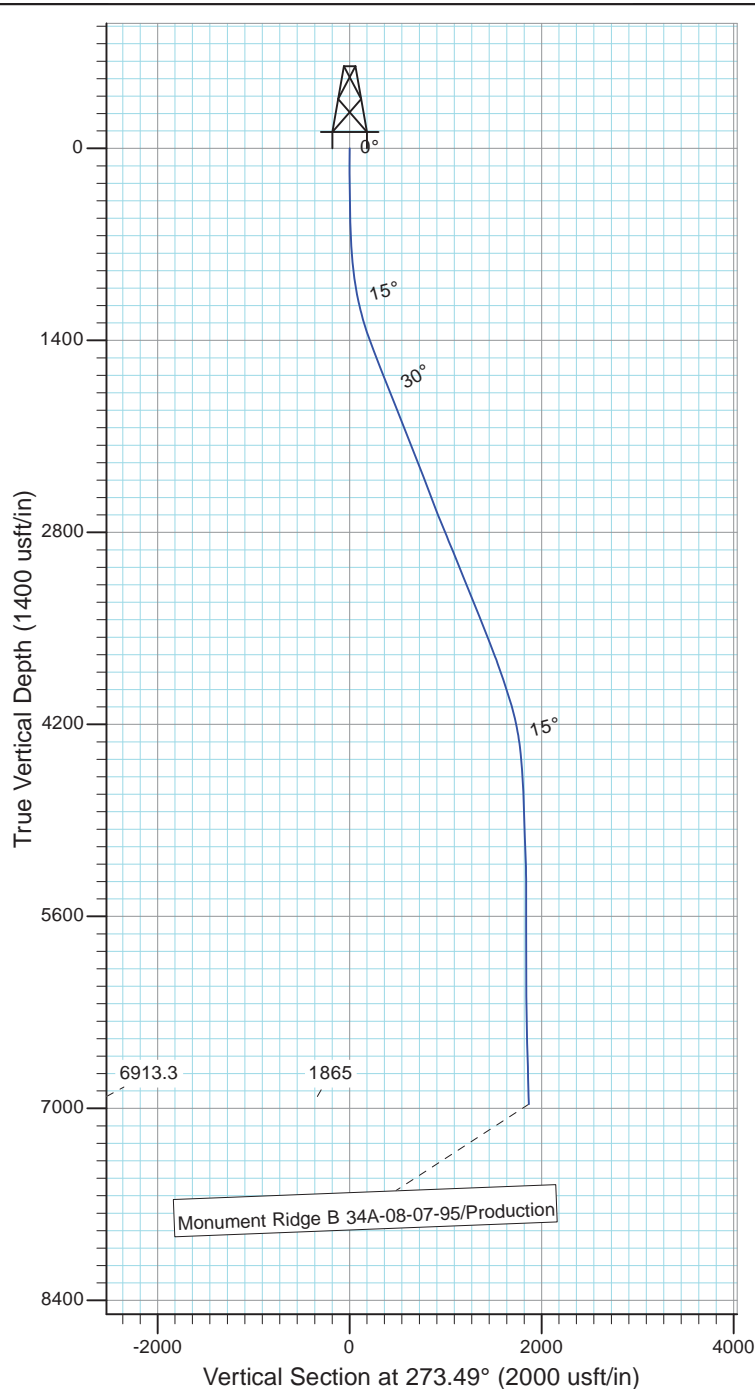


Project: Rockies Region
 Site: Monument Ridge B
 Well: Monument Ridge B 34A-08-07-95
 Wellbore: Wellbore #1
 Design: Production



Azimuths to True North
 Magnetic North: 9.85°

Magnetic Field
 Strength: 51663.6snT
 Dip Angle: 65.57°
 Date: 1/6/2016
 Model: IGRF2015



Design: Production (Monument Ridge B 34A-08-07-95/Wellbore #1)

Created By: *Matthew Linton*

Date: 14:14, February 04 20

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