



# **Ursa Operating Company, LLC**

**Rockies Region**

**Yater**

**YATER 42B-18-07-95**

**Wellbore #1**

**Design: Actual**

## **End of Well Report**

**31 August, 2015**



<b>Company:</b>	Ursa Operating Company, LLC	<b>Local Co-ordinate Reference:</b>	Well YATER 42B-18-07-95
<b>Project:</b>	Rockies Region	<b>TVD Reference:</b>	YATER 42B-18-07-95 @ 5536.0usft (CAPSTAR 321)
<b>Site:</b>	Yater	<b>MD Reference:</b>	YATER 42B-18-07-95 @ 5536.0usft (CAPSTAR 321)
<b>Well:</b>	YATER 42B-18-07-95	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<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		Yater				
Site Position:		Northing:	1,593,358.14	usft	Latitude:	39° 26' 7.071 N
From:	Lat/Long	Easting:	2,286,525.77	usft	Longitude:	108° 1' 35.041 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16	"	Grid Convergence:	-1.59 °

Well		YATER 42B-18-07-95, SHL LAT: 39.435400391 LONG: -108.026403313				
Well Position	+N/-S	0.0 usft	Northing:	1,593,395.59 usft	Latitude:	39° 26' 7.441 N
	+E/-W	0.0 usft	Easting:	2,286,525.94 usft	Longitude:	108° 1' 35.052 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	5,536.0 usft	Ground Level:	5,519.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/15/2015	9.84	65.57	51,814

Design		Actual			
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	311.76

Survey Program		Date	8/31/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
113.0	7,220.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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<b>Design:</b>	Actual	<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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
113.0	0.18	196.61	113.0	-0.1	-0.2	-0.1	0.16	0.16	0.00	
143.0	0.44	177.27	143.0	-0.2	-0.3	-0.1	0.92	0.87	-64.47	
175.0	0.62	177.37	175.0	-0.4	-0.6	0.0	0.56	0.56	0.31	
205.0	0.74	189.10	205.0	-0.6	-1.0	-0.1	0.61	0.40	39.10	
236.0	0.57	190.98	236.0	-0.8	-1.3	-0.1	0.55	-0.55	6.06	
267.0	0.26	228.69	267.0	-0.9	-1.5	-0.2	1.28	-1.00	121.65	
297.0	0.75	304.76	297.0	-0.7	-1.5	-0.4	2.44	1.63	253.57	
328.0	1.41	317.72	328.0	-0.1	-1.1	-0.8	2.26	2.13	41.81	
359.0	2.15	316.97	359.0	0.9	-0.4	-1.5	2.39	2.39	-2.42	
390.0	3.03	312.05	389.9	2.3	0.6	-2.5	2.93	2.84	-15.87	
451.0	5.36	313.55	450.8	6.7	3.7	-5.8	3.82	3.82	2.46	
482.0	6.55	315.48	481.6	10.0	5.9	-8.1	3.89	3.84	6.23	
512.0	7.87	313.90	511.4	13.7	8.6	-10.7	4.45	4.40	-5.27	
543.0	8.96	313.19	542.0	18.2	11.7	-14.0	3.53	3.52	-2.29	
574.0	10.28	310.38	572.6	23.4	15.1	-17.9	4.52	4.26	-9.06	
604.0	11.51	308.98	602.1	29.1	18.8	-22.3	4.19	4.10	-4.67	
635.0	12.57	311.30	632.4	35.6	22.9	-27.2	3.76	3.42	7.48	
665.0	13.62	311.52	661.6	42.4	27.4	-32.3	3.50	3.50	0.73	
695.0	14.71	310.56	690.7	49.7	32.2	-37.8	3.72	3.63	-3.20	
725.0	15.73	310.56	719.6	57.6	37.4	-43.8	3.40	3.40	0.00	
756.0	16.79	311.00	749.4	66.2	43.0	-50.4	3.44	3.42	1.42	
799.0	18.06	311.96	790.4	79.1	51.6	-60.0	3.03	2.95	2.23	
842.0	19.42	311.88	831.1	92.9	60.8	-70.3	3.16	3.16	-0.19	
884.0	20.69	311.37	870.6	107.3	70.4	-81.1	3.05	3.02	-1.21	
927.0	22.19	311.35	910.6	123.1	80.7	-92.9	3.49	3.49	-0.05	
969.0	23.66	312.08	949.3	139.4	91.6	-105.1	3.56	3.50	1.74	

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<b>Well:</b>	YATER 42B-18-07-95	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Actual	<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)	
1,012.0	25.27	312.27	988.4	157.2	103.6	-118.3	3.75	3.74	0.44	
1,055.0	26.63	312.89	1,027.1	176.0	116.3	-132.1	3.23	3.16	1.44	
1,097.0	28.13	312.40	1,064.4	195.3	129.4	-146.3	3.61	3.57	-1.17	
1,140.0	29.75	311.83	1,102.0	216.2	143.4	-161.8	3.82	3.77	-1.33	
1,183.0	30.67	311.70	1,139.2	237.8	157.8	-177.9	2.14	2.14	-0.30	
1,225.0	30.89	311.57	1,175.3	259.3	172.0	-194.0	0.55	0.52	-0.31	
1,268.0	30.94	311.52	1,212.1	281.4	186.7	-210.5	0.13	0.12	-0.12	
1,311.0	31.20	310.51	1,249.0	303.6	201.3	-227.3	1.35	0.60	-2.35	
1,354.0	31.54	310.39	1,285.7	325.9	215.8	-244.3	0.80	0.79	-0.28	
1,396.0	31.60	310.43	1,321.5	347.9	230.0	-261.0	0.15	0.14	0.10	
1,439.0	31.99	309.94	1,358.0	370.6	244.7	-278.3	1.09	0.91	-1.14	
1,482.0	31.99	309.84	1,394.5	393.3	259.3	-295.8	0.12	0.00	-0.23	
1,524.0	32.26	310.21	1,430.1	415.7	273.6	-312.9	0.80	0.64	0.88	
1,567.0	32.47	310.51	1,466.4	438.7	288.5	-330.5	0.61	0.49	0.70	
1,610.0	32.21	311.13	1,502.7	461.7	303.6	-347.9	0.98	-0.60	1.44	
1,652.0	32.18	312.39	1,538.3	484.0	318.5	-364.6	1.60	-0.07	3.00	
1,695.0	32.21	312.45	1,574.6	507.0	333.9	-381.5	0.10	0.07	0.14	
1,738.0	32.30	312.76	1,611.0	529.9	349.5	-398.4	0.44	0.21	0.72	
1,780.0	33.27	312.62	1,646.3	552.6	364.9	-415.1	2.32	2.31	-0.33	
1,820.0	33.44	312.45	1,679.7	574.6	379.7	-431.3	0.49	0.42	-0.42	
1,887.0	34.32	311.88	1,735.4	612.0	404.8	-459.0	1.40	1.31	-0.85	
1,972.0	33.10	310.37	1,806.1	659.2	435.8	-494.5	1.74	-1.44	-1.78	
2,058.0	33.93	311.48	1,877.8	706.6	467.0	-530.4	1.20	0.97	1.29	
2,143.0	35.68	313.11	1,947.6	755.1	499.6	-566.2	2.33	2.06	1.92	
2,229.0	34.67	312.32	2,017.9	804.7	533.2	-602.6	1.29	-1.17	-0.92	
2,314.0	33.33	311.46	2,088.3	852.2	565.0	-638.0	1.67	-1.58	-1.01	
2,400.0	32.78	310.91	2,160.4	899.1	595.9	-673.3	0.73	-0.64	-0.64	

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2,485.0	33.93	313.55	2,231.4	945.8	627.3	-707.9	2.18	1.35	3.11	
2,571.0	33.22	312.58	2,303.1	993.4	659.7	-742.7	1.03	-0.83	-1.13	
2,656.0	33.66	313.77	2,374.0	1,040.2	691.8	-776.8	0.93	0.52	1.40	
2,741.0	32.56	312.49	2,445.2	1,086.6	723.5	-810.7	1.53	-1.29	-1.51	
2,827.0	34.10	312.14	2,517.0	1,133.9	755.4	-845.6	1.80	1.79	-0.41	
2,912.0	33.88	311.52	2,587.5	1,181.4	787.0	-881.0	0.48	-0.26	-0.73	
2,997.0	32.87	311.88	2,658.5	1,228.1	818.1	-916.0	1.21	-1.19	0.42	
3,083.0	33.93	311.70	2,730.3	1,275.5	849.7	-951.2	1.24	1.23	-0.21	
3,168.0	33.46	310.70	2,801.0	1,322.6	880.8	-986.7	0.86	-0.55	-1.18	
3,253.0	32.60	311.48	2,872.3	1,369.0	911.2	-1,021.6	1.13	-1.01	0.92	
3,339.0	33.79	311.35	2,944.2	1,416.0	942.3	-1,057.0	1.39	1.38	-0.15	
3,424.0	35.07	312.45	3,014.3	1,464.1	974.4	-1,092.7	1.67	1.51	1.29	
3,510.0	34.45	312.18	3,085.0	1,513.1	1,007.5	-1,129.0	0.74	-0.72	-0.31	
3,595.0	33.68	312.14	3,155.4	1,560.7	1,039.4	-1,164.3	0.91	-0.91	-0.05	
3,681.0	32.21	311.35	3,227.6	1,607.5	1,070.6	-1,199.2	1.78	-1.71	-0.92	
3,766.0	33.13	311.70	3,299.1	1,653.4	1,101.0	-1,233.5	1.10	1.08	0.41	
3,851.0	32.17	311.44	3,370.7	1,699.2	1,131.4	-1,267.8	1.14	-1.13	-0.31	
3,937.0	32.54	311.96	3,443.3	1,745.3	1,162.0	-1,302.2	0.54	0.43	0.60	
4,022.0	32.83	311.48	3,514.9	1,791.2	1,192.6	-1,336.4	0.46	0.34	-0.56	
4,108.0	34.95	312.73	3,586.3	1,839.1	1,224.7	-1,372.0	2.59	2.47	1.45	
4,193.0	34.53	312.02	3,656.1	1,887.6	1,257.4	-1,407.8	0.69	-0.49	-0.84	
4,278.0	33.53	310.83	3,726.6	1,935.1	1,288.8	-1,443.4	1.41	-1.18	-1.40	
4,364.0	31.86	311.83	3,798.9	1,981.6	1,319.5	-1,478.3	2.04	-1.94	1.16	
4,449.0	29.79	314.42	3,871.9	2,025.1	1,349.3	-1,510.1	2.89	-2.44	3.05	
4,535.0	28.74	315.13	3,947.0	2,067.1	1,378.9	-1,540.0	1.29	-1.22	0.83	
4,620.0	26.85	312.89	4,022.1	2,106.7	1,406.4	-1,568.5	2.54	-2.22	-2.64	
4,705.0	26.98	311.88	4,097.9	2,145.1	1,432.4	-1,596.9	0.56	0.15	-1.19	

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Survey									
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4,791.0	25.53	313.01	4,175.1	2,183.2	1,458.0	-1,625.0	1.78	-1.69	1.31
4,876.0	24.65	312.97	4,252.0	2,219.2	1,482.6	-1,651.3	1.04	-1.04	-0.05
4,961.0	22.92	311.53	4,329.8	2,253.5	1,505.7	-1,676.7	2.15	-2.04	-1.69
5,047.0	20.96	314.34	4,409.6	2,285.6	1,527.5	-1,700.2	2.58	-2.28	3.27
5,132.0	16.73	314.37	4,490.0	2,313.0	1,546.7	-1,719.9	4.98	-4.98	0.04
5,218.0	15.38	310.60	4,572.7	2,336.8	1,562.8	-1,737.4	1.98	-1.57	-4.38
5,304.0	12.85	312.45	4,656.1	2,357.8	1,576.7	-1,753.1	2.99	-2.94	2.15
5,389.0	10.77	310.38	4,739.3	2,375.2	1,588.2	-1,766.1	2.50	-2.45	-2.44
5,474.0	7.88	314.87	4,823.1	2,388.9	1,597.4	-1,776.3	3.50	-3.40	5.28
5,560.0	5.14	314.95	4,908.6	2,398.7	1,604.3	-1,783.2	3.19	-3.19	0.09
5,645.0	3.02	332.88	4,993.3	2,404.6	1,609.0	-1,786.9	2.88	-2.49	21.09
5,730.0	2.29	340.53	5,078.3	2,408.1	1,612.6	-1,788.5	0.95	-0.86	9.00
5,816.0	1.95	340.84	5,164.2	2,410.9	1,615.6	-1,789.6	0.40	-0.40	0.36
5,901.0	1.45	323.21	5,249.2	2,413.2	1,617.8	-1,790.7	0.84	-0.59	-20.74
5,987.0	1.27	320.36	5,335.1	2,415.2	1,619.4	-1,791.9	0.22	-0.21	-3.31
6,072.0	1.05	299.04	5,420.1	2,416.9	1,620.5	-1,793.2	0.57	-0.26	-25.08
6,157.0	1.32	290.65	5,505.1	2,418.6	1,621.3	-1,794.8	0.38	0.32	-9.87
6,243.0	1.63	280.89	5,591.1	2,420.6	1,621.8	-1,796.9	0.46	0.36	-11.35
6,328.0	1.54	328.75	5,676.0	2,422.7	1,623.1	-1,798.7	1.52	-0.11	56.31
6,414.0	1.51	323.15	5,762.0	2,424.9	1,624.9	-1,800.0	0.18	-0.03	-6.51
6,499.0	1.05	299.13	5,847.0	2,426.8	1,626.2	-1,801.4	0.82	-0.54	-28.26
6,584.0	0.97	257.21	5,932.0	2,428.0	1,626.4	-1,802.7	0.85	-0.09	-49.32
6,669.0	1.61	246.31	6,017.0	2,428.9	1,625.8	-1,804.5	0.80	0.75	-12.82
6,755.0	1.85	243.28	6,102.9	2,429.9	1,624.7	-1,806.9	0.30	0.28	-3.52
6,840.0	0.48	254.48	6,187.9	2,430.6	1,624.0	-1,808.4	1.63	-1.61	13.18
6,926.0	0.66	249.39	6,273.9	2,431.0	1,623.7	-1,809.3	0.22	0.21	-5.92
7,011.0	1.05	238.14	6,358.9	2,431.5	1,623.1	-1,810.4	0.50	0.46	-13.24

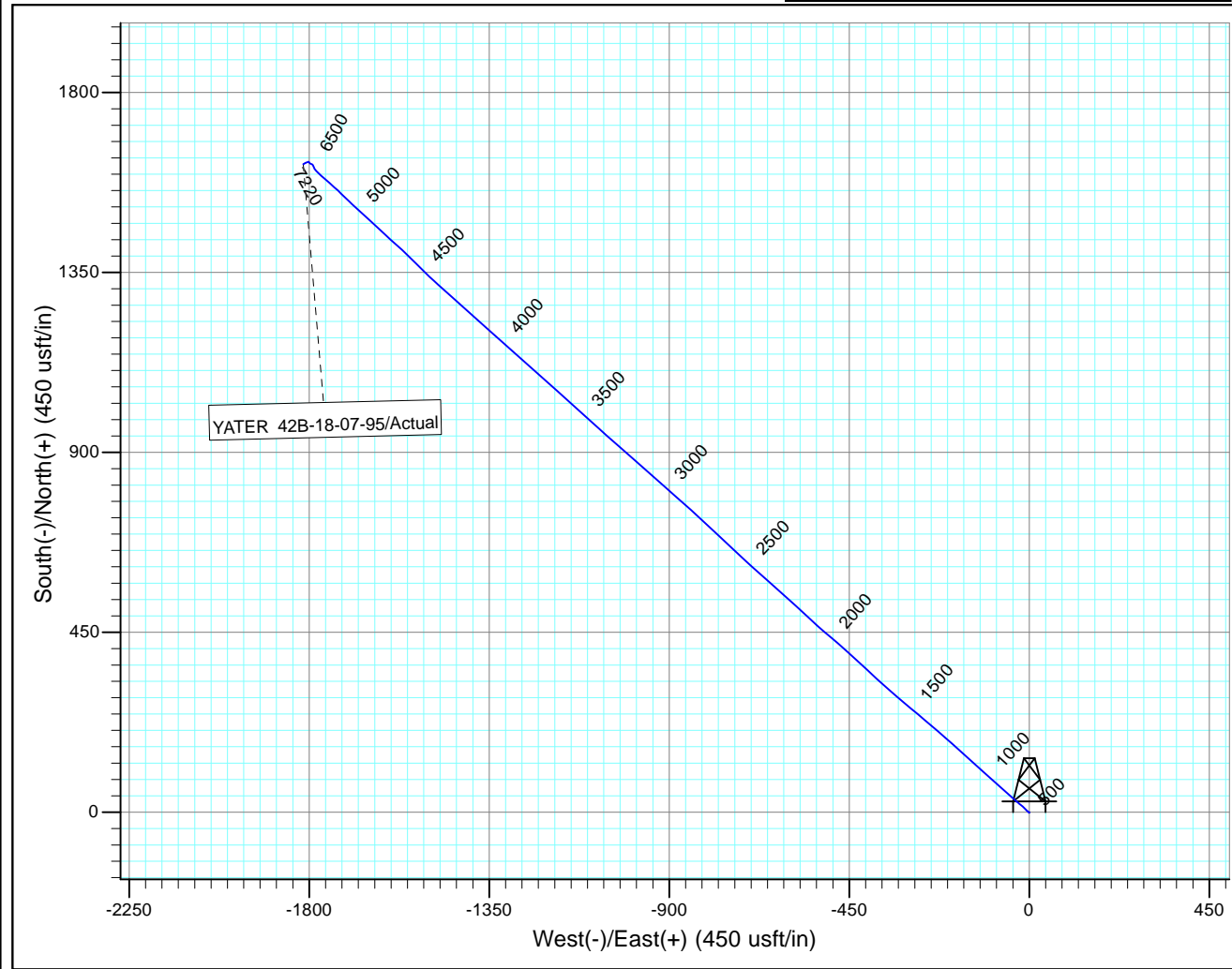
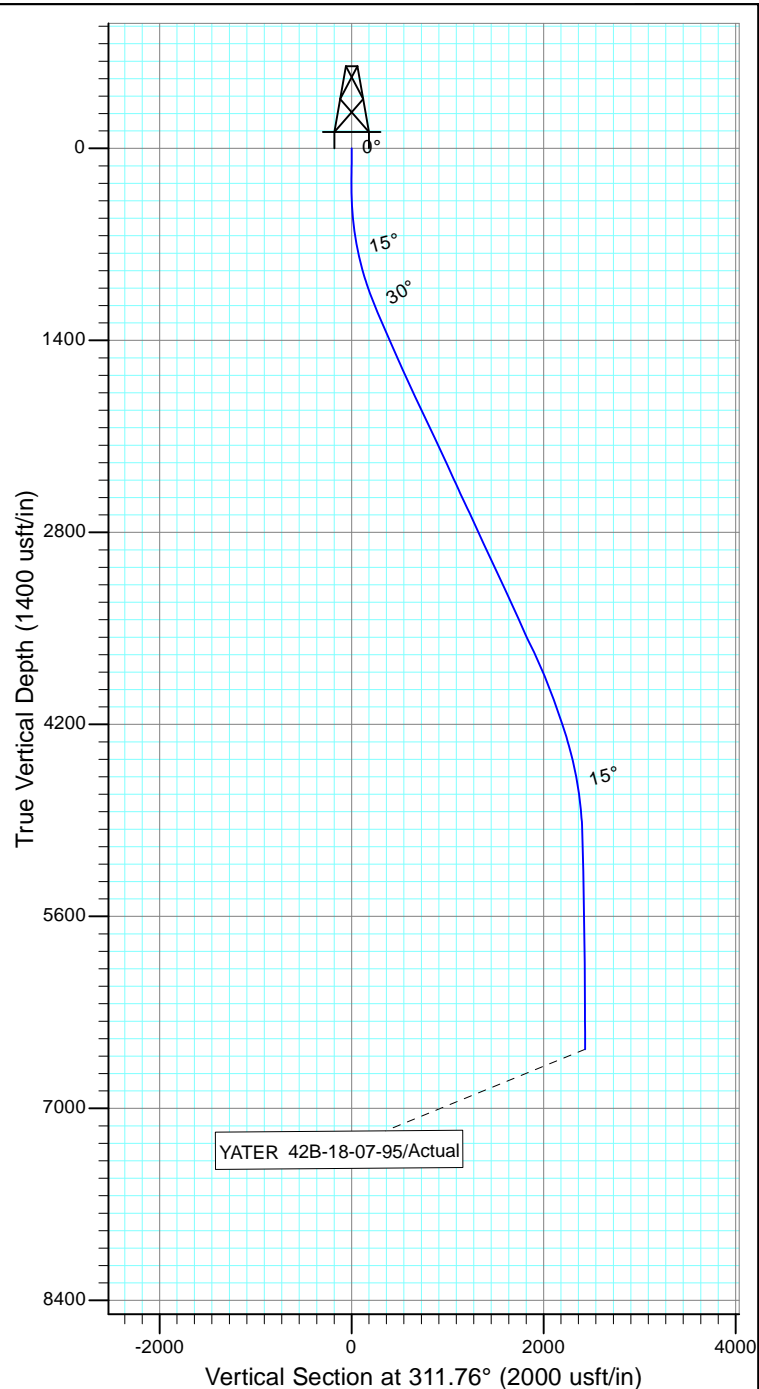
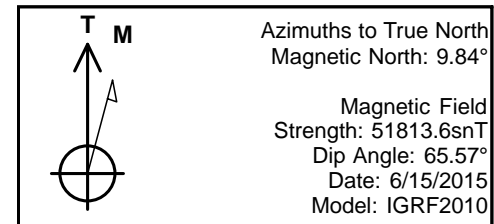
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<b>Well:</b>	YATER 42B-18-07-95	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
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Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
7,096.0	1.45	240.90	6,443.9	2,432.0	1,622.2	-1,812.0	0.48	0.47	3.25	
7,160.0	1.49	238.62	6,507.8	2,432.5	1,621.4	-1,813.4	0.11	0.06	-3.56	
7,220.0	1.49	238.62	6,567.8	2,433.0	1,620.6	-1,814.7	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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Project: Rockies Region  
Site: Yater  
Well: YATER 42B-18-07-95  
Wellbore: Wellbore #1  
Design: Actual



Design: Actual (YATER 42B-18-07-95/Wellbore #1)

Created By: Matthew Linton

Date: 7:26, August 31 2015

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