



# **Ursa Operating Company, LLC**

**Rockies Region**

**Yater**

**YATER 11C-17-07-95**

**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 11C-17-07-95
<b>Project:</b>	Rockies Region	<b>TVD Reference:</b>	YATER 11C-17-07-95 @ 5536.0usft (CAPSTAR 321)
<b>Site:</b>	Yater	<b>MD Reference:</b>	YATER 11C-17-07-95 @ 5536.0usft (CAPSTAR 321)
<b>Well:</b>	YATER 11C-17-07-95	<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

<b>Project</b>	Rockies Region		
<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 Central Zone		

<b>Site</b>	Yater		
<b>Site Position:</b>		<b>Northing:</b>	1,593,358.14 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,286,525.77 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39° 26' 7.071 N
		<b>Longitude:</b>	108° 1' 35.041 W
		<b>Grid Convergence:</b>	-1.59 °

<b>Well</b>	YATER 11C-17-07-95, SHL LAT: 39.435297513 LONG: -108.026400223					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	1,593,358.11 usft	<b>Latitude:</b>	39° 26' 7.071 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	2,286,525.77 usft	<b>Longitude:</b>	108° 1' 35.041 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	5,536.0 usft	<b>Ground Level:</b>	5,519.0 usft

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

<b>Design</b>	Actual			
<b>Audit Notes:</b>				
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	
		<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	351.82

<b>Survey Program</b>	Date 8/31/2015			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
116.0	7,575.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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<b>Site:</b> Yater	<b>MD Reference:</b> YATER 11C-17-07-95 @ 5536.0usft (CAPSTAR 321)
<b>Well:</b> YATER 11C-17-07-95	<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)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
116.0	1.31	222.91	116.0	-0.8	-1.0	-0.9	1.13	1.13	0.00	
146.0	1.63	224.56	146.0	-1.3	-1.5	-1.4	1.08	1.07	5.50	
177.0	1.71	223.50	177.0	-1.9	-2.2	-2.1	0.28	0.26	-3.42	
207.0	1.85	217.35	207.0	-2.5	-2.9	-2.7	0.79	0.47	-20.50	
238.0	1.80	222.49	237.9	-3.1	-3.6	-3.3	0.55	-0.16	16.58	
269.0	1.85	217.92	268.9	-3.8	-4.4	-3.9	0.50	0.16	-14.74	
299.0	1.63	219.42	298.9	-4.4	-5.1	-4.5	0.75	-0.73	5.00	
330.0	1.10	245.78	329.9	-4.8	-5.6	-5.1	2.61	-1.71	85.03	
361.0	0.83	284.94	360.9	-4.8	-5.6	-5.5	2.24	-0.87	126.32	
391.0	1.49	331.96	390.9	-4.3	-5.2	-5.9	3.69	2.20	156.73	
421.0	2.50	345.10	420.9	-3.3	-4.3	-6.3	3.67	3.37	43.80	
452.0	3.34	350.77	451.8	-1.7	-2.7	-6.6	2.86	2.71	18.29	
483.0	4.44	354.85	482.8	0.4	-0.6	-6.9	3.66	3.55	13.16	
513.0	5.76	3.47	512.6	3.0	2.0	-6.9	5.08	4.40	28.73	
544.0	7.16	356.57	543.4	6.4	5.5	-6.9	5.16	4.52	-22.26	
574.0	8.75	5.31	573.2	10.5	9.7	-6.8	6.64	5.30	29.13	
605.0	10.20	4.96	603.7	15.5	14.7	-6.3	4.68	4.68	-1.13	
636.0	11.34	5.93	634.2	21.1	20.5	-5.8	3.72	3.68	3.13	
666.0	12.17	5.53	663.6	27.0	26.6	-5.2	2.78	2.77	-1.33	
696.0	13.32	5.88	692.8	33.5	33.2	-4.5	3.84	3.83	1.17	
726.0	14.28	5.09	721.9	40.4	40.3	-3.8	3.26	3.20	-2.63	
757.0	15.16	2.76	751.9	48.1	48.1	-3.3	3.42	2.84	-7.52	
800.0	16.13	359.07	793.3	59.6	59.7	-3.1	3.23	2.26	-8.58	
842.0	17.45	356.17	833.5	71.6	71.9	-3.6	3.72	3.14	-6.90	
885.0	18.24	354.06	874.5	84.8	85.0	-4.8	2.37	1.84	-4.91	
928.0	19.39	353.13	915.2	98.7	98.8	-6.3	2.76	2.67	-2.16	

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<b>Well:</b>	YATER 11C-17-07-95	<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)	
970.0	20.83	352.96	954.6	113.1	113.1	-8.1	3.43	3.43	-0.40	
1,013.0	21.84	352.66	994.7	128.7	128.6	-10.0	2.36	2.35	-0.70	
1,056.0	23.03	351.87	1,034.4	145.1	144.9	-12.2	2.85	2.77	-1.84	
1,099.0	24.39	352.88	1,073.8	162.4	162.0	-14.5	3.30	3.16	2.35	
1,141.0	26.02	352.92	1,111.8	180.3	179.8	-16.7	3.88	3.88	0.10	
1,184.0	27.73	352.53	1,150.1	199.7	199.0	-19.2	4.00	3.98	-0.91	
1,227.0	28.96	351.68	1,188.0	220.2	219.3	-22.0	3.01	2.86	-1.98	
1,269.0	30.19	352.00	1,224.5	240.9	239.8	-25.0	2.95	2.93	0.76	
1,312.0	31.38	351.58	1,261.5	262.9	261.6	-28.1	2.81	2.77	-0.98	
1,355.0	32.92	351.12	1,297.9	285.8	284.2	-31.5	3.63	3.58	-1.07	
1,398.0	34.37	350.50	1,333.7	309.6	307.7	-35.3	3.47	3.37	-1.44	
1,440.0	36.21	350.28	1,367.9	333.9	331.6	-39.4	4.39	4.38	-0.52	
1,483.0	37.79	350.11	1,402.3	359.7	357.1	-43.8	3.68	3.67	-0.40	
1,526.0	39.02	349.36	1,436.0	386.4	383.4	-48.6	3.06	2.86	-1.74	
1,568.0	40.30	350.02	1,468.3	413.2	409.8	-53.4	3.21	3.05	1.57	
1,611.0	40.08	349.71	1,501.2	440.9	437.1	-58.2	0.69	-0.51	-0.72	
1,654.0	40.43	350.06	1,534.0	468.7	464.4	-63.1	0.97	0.81	0.81	
1,697.0	41.22	350.81	1,566.5	496.8	492.2	-67.8	2.16	1.84	1.74	
1,739.0	41.09	351.25	1,598.1	524.4	519.5	-72.1	0.76	-0.31	1.05	
1,782.0	42.71	350.94	1,630.1	553.2	547.8	-76.6	3.80	3.77	-0.72	
1,824.0	43.68	350.11	1,660.8	581.9	576.2	-81.3	2.68	2.31	-1.98	
1,845.0	43.86	350.11	1,675.9	596.4	590.5	-83.8	0.86	0.86	0.00	
1,929.0	43.59	350.68	1,736.6	654.5	647.8	-93.5	0.57	-0.32	0.68	
2,014.0	42.89	350.50	1,798.5	712.7	705.2	-103.0	0.84	-0.82	-0.21	
2,099.0	41.62	350.50	1,861.5	769.8	761.6	-112.4	1.49	-1.49	0.00	
2,185.0	40.03	349.27	1,926.5	826.0	816.9	-122.3	2.07	-1.85	-1.43	
2,270.0	40.52	348.61	1,991.4	880.9	870.8	-132.8	0.76	0.58	-0.78	

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<b>Well:</b>	YATER 11C-17-07-95	<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)	
2,356.0	41.66	348.83	2,056.2	937.3	926.3	-143.9	1.34	1.33	0.26	
2,441.0	39.86	348.31	2,120.6	992.7	980.7	-154.9	2.15	-2.12	-0.61	
2,527.0	39.38	348.48	2,186.8	1,047.5	1,034.4	-165.9	0.57	-0.56	0.20	
2,612.0	40.65	349.10	2,251.9	1,102.0	1,088.0	-176.5	1.57	1.49	0.73	
2,698.0	42.14	349.10	2,316.4	1,158.8	1,143.8	-187.3	1.73	1.73	0.00	
2,783.0	40.78	348.92	2,380.1	1,215.1	1,199.1	-198.0	1.61	-1.60	-0.21	
2,869.0	41.79	350.68	2,444.8	1,271.8	1,254.9	-208.0	1.79	1.17	2.05	
2,954.0	41.09	350.02	2,508.5	1,328.0	1,310.4	-217.5	0.97	-0.82	-0.78	
3,040.0	42.41	349.27	2,572.6	1,385.2	1,366.7	-227.8	1.64	1.53	-0.87	
3,125.0	41.31	348.92	2,635.9	1,441.9	1,422.4	-238.5	1.32	-1.29	-0.41	
3,210.0	40.43	348.17	2,700.2	1,497.4	1,476.9	-249.5	1.19	-1.04	-0.88	
3,296.0	42.10	348.48	2,764.9	1,554.0	1,532.5	-261.0	1.96	1.94	0.36	
3,381.0	41.22	347.87	2,828.4	1,610.4	1,587.8	-272.6	1.14	-1.04	-0.72	
3,467.0	41.84	349.71	2,892.7	1,667.3	1,643.7	-283.7	1.59	0.72	2.14	
3,552.0	41.57	348.54	2,956.2	1,723.8	1,699.2	-294.3	0.97	-0.32	-1.38	
3,638.0	41.75	350.33	3,020.5	1,780.9	1,755.4	-304.8	1.40	0.21	2.08	
3,723.0	41.26	348.88	3,084.1	1,837.2	1,810.8	-315.0	1.27	-0.58	-1.71	
3,809.0	41.62	351.16	3,148.6	1,894.1	1,866.9	-324.8	1.80	0.42	2.65	
3,894.0	41.04	350.42	3,212.4	1,950.2	1,922.3	-333.8	0.89	-0.68	-0.87	
3,979.0	39.99	349.45	3,277.0	2,005.4	1,976.6	-343.5	1.44	-1.24	-1.14	
4,065.0	40.44	352.09	3,342.7	2,060.9	2,031.4	-352.4	2.05	0.52	3.07	
4,150.0	40.84	352.21	3,407.2	2,116.3	2,086.3	-359.9	0.48	0.47	0.14	
4,235.0	40.75	352.51	3,471.6	2,171.8	2,141.3	-367.3	0.25	-0.11	0.35	
4,321.0	40.78	352.22	3,536.7	2,228.0	2,197.0	-374.8	0.22	0.03	-0.34	
4,406.0	42.58	351.30	3,600.2	2,284.5	2,252.9	-382.9	2.24	2.12	-1.08	
4,491.0	41.40	350.50	3,663.4	2,341.3	2,309.1	-391.9	1.52	-1.39	-0.94	
4,577.0	39.16	349.36	3,729.0	2,396.9	2,363.8	-401.6	2.74	-2.60	-1.33	

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<b>Well:</b>	YATER 11C-17-07-95	<b>North Reference:</b>	True
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Survey										
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4,662.0	36.74	349.27	3,796.0	2,449.1	2,415.2	-411.3	2.85	-2.85	-0.11	
4,747.0	32.91	347.95	3,865.8	2,497.6	2,462.8	-420.8	4.59	-4.51	-1.55	
4,833.0	30.28	347.12	3,939.0	2,542.5	2,506.7	-430.5	3.10	-3.06	-0.97	
4,918.0	27.33	348.22	4,013.5	2,583.3	2,546.7	-439.3	3.53	-3.47	1.29	
5,003.0	24.79	346.94	4,089.8	2,620.6	2,583.2	-447.3	3.06	-2.99	-1.51	
5,089.0	22.72	346.33	4,168.5	2,655.1	2,616.9	-455.3	2.42	-2.41	-0.71	
5,174.0	19.20	351.47	4,247.9	2,685.4	2,646.7	-461.3	4.67	-4.14	6.05	
5,260.0	17.89	350.72	4,329.4	2,712.8	2,673.7	-465.5	1.55	-1.52	-0.87	
5,345.0	16.04	349.58	4,410.7	2,737.5	2,698.2	-469.7	2.21	-2.18	-1.34	
5,430.0	13.85	349.67	4,492.9	2,759.5	2,719.7	-473.7	2.58	-2.58	0.11	
5,516.0	12.00	348.61	4,576.7	2,778.7	2,738.6	-477.3	2.17	-2.15	-1.23	
5,601.0	8.86	351.41	4,660.3	2,794.0	2,753.8	-480.0	3.74	-3.69	3.29	
5,687.0	7.03	2.15	4,745.4	2,805.8	2,765.6	-480.8	2.73	-2.13	12.49	
5,772.0	5.71	4.92	4,829.9	2,815.1	2,775.0	-480.2	1.59	-1.55	3.26	
5,858.0	5.05	358.99	4,915.5	2,823.0	2,783.0	-479.9	1.00	-0.77	-6.90	
5,943.0	3.91	355.91	5,000.3	2,829.6	2,789.6	-480.2	1.37	-1.34	-3.62	
6,029.0	2.11	349.93	5,086.1	2,834.1	2,794.1	-480.7	2.12	-2.09	-6.95	
6,114.0	1.41	348.13	5,171.1	2,836.7	2,796.7	-481.2	0.83	-0.82	-2.12	
6,199.0	1.14	358.46	5,256.1	2,838.6	2,798.6	-481.4	0.42	-0.32	12.15	
6,284.0	0.97	7.34	5,341.1	2,840.1	2,800.1	-481.4	0.28	-0.20	10.45	
6,370.0	0.57	26.67	5,427.1	2,841.2	2,801.2	-481.1	0.55	-0.47	22.48	
6,456.0	0.48	2.37	5,513.1	2,841.9	2,802.0	-480.9	0.28	-0.10	-28.26	
6,541.0	0.31	345.98	5,598.1	2,842.5	2,802.6	-480.9	0.24	-0.20	-19.28	
6,627.0	0.18	312.58	5,684.1	2,842.8	2,802.9	-481.1	0.22	-0.15	-38.84	
6,712.0	0.26	291.91	5,769.1	2,843.0	2,803.0	-481.3	0.13	0.09	-24.32	
6,798.0	0.40	232.55	5,855.1	2,843.0	2,802.9	-481.8	0.41	0.16	-69.02	
6,883.0	1.10	225.30	5,940.0	2,842.3	2,802.2	-482.6	0.83	0.82	-8.53	

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6,969.0	1.93	221.04	6,026.0	2,840.9	2,800.5	-484.1	0.97	0.97	-4.95	
7,054.0	2.77	223.63	6,110.9	2,838.7	2,797.9	-486.5	1.00	0.99	3.05	
7,139.0	3.03	223.11	6,195.8	2,836.0	2,794.8	-489.4	0.31	0.31	-0.61	
7,225.0	3.43	222.10	6,281.7	2,832.9	2,791.2	-492.7	0.47	0.47	-1.17	
7,310.0	3.60	228.95	6,366.5	2,829.9	2,787.6	-496.4	0.53	0.20	8.06	
7,395.0	3.78	229.30	6,451.4	2,826.9	2,784.0	-500.5	0.21	0.21	0.41	
7,480.0	3.69	224.73	6,536.2	2,823.8	2,780.2	-504.6	0.37	-0.11	-5.38	
7,515.0	3.56	223.33	6,571.1	2,822.4	2,778.7	-506.1	0.45	-0.37	-4.00	
7,575.0	3.56	223.33	6,631.0	2,820.1	2,775.9	-508.7	0.00	0.00	0.00	

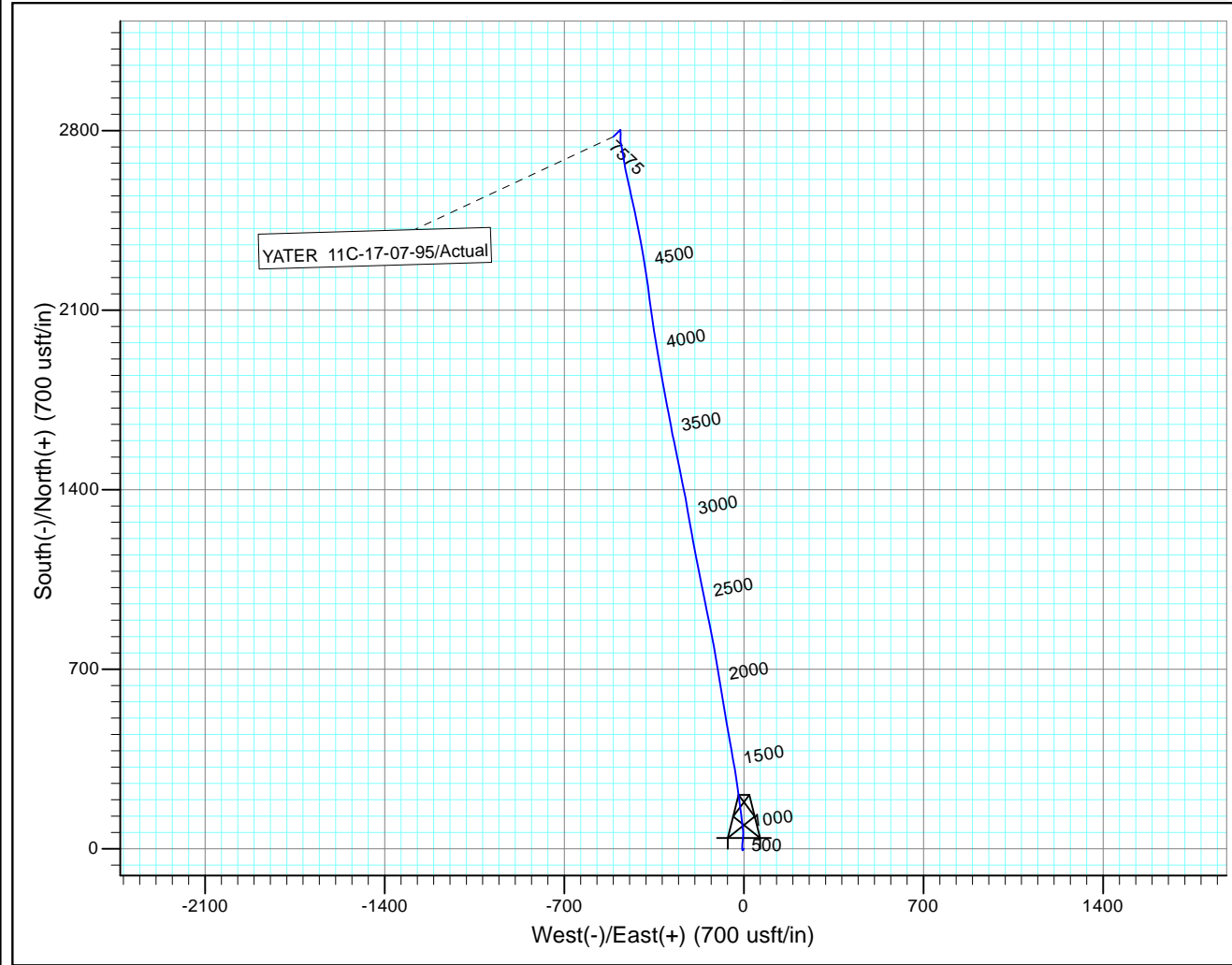
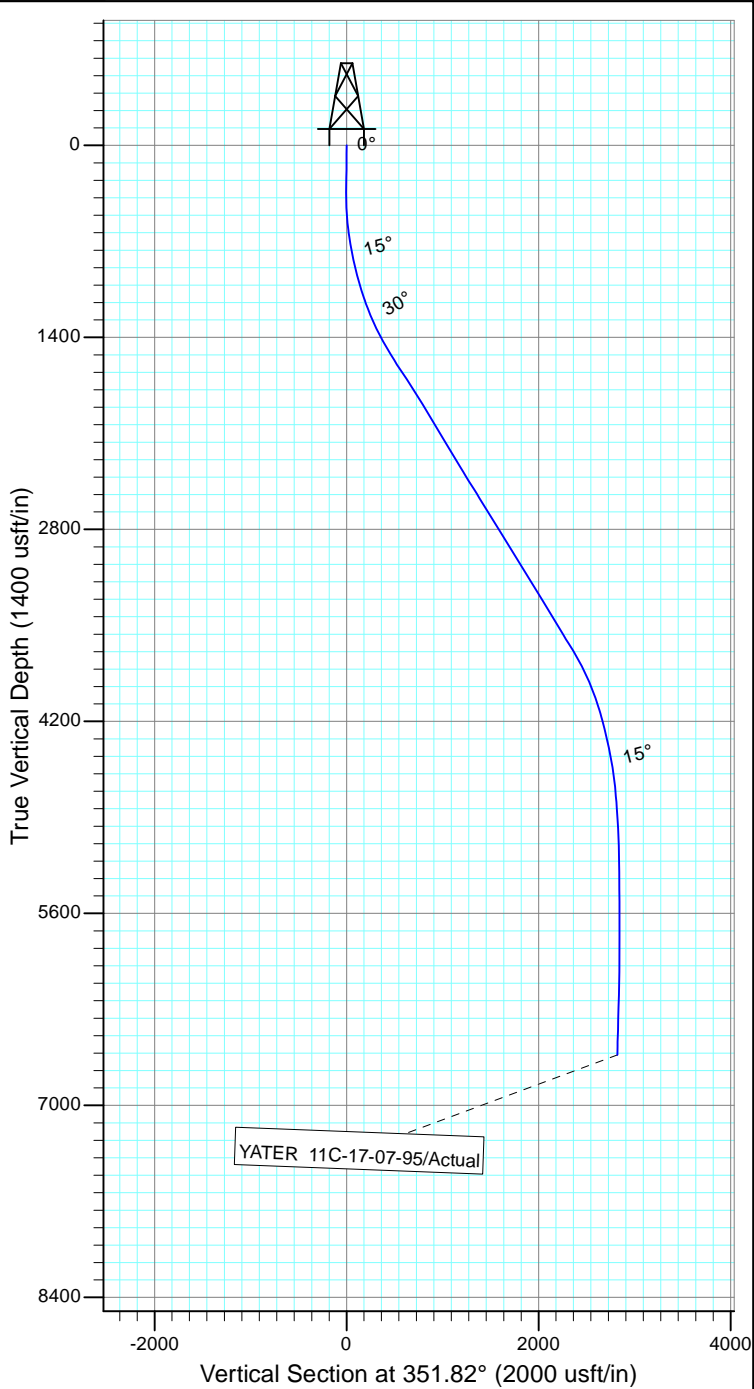
Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



Project: Rockies Region  
 Site: Yater  
 Well: YATER 11C-17-07-95  
 Wellbore: Wellbore #1  
 Design: Actual

Azimuths to True North  
 Magnetic North: 9.84°

Magnetic Field  
 Strength: 51813.5snT  
 Dip Angle: 65.57°  
 Date: 6/15/2015  
 Model: IGRF2010



Design: Actual (YATER 11C-17-07-95/Wellbore #1)

Created By: *Matthew Linton* Date: 6:51, August 31 2015

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