



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 12C-17-07-95

Wellbore #1

Design: Actual

End of Well Report

23 March, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 12C-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 12C-17-07-95 @ 5536.0usft (Capstar 321)
Site:	Yater	MD Reference:	YATER 12C-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 12C-17-07-95	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	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		Yater			
Site Position:		Northing:		1,593,358.14	usft
From:	Lat/Long	Easting:		2,286,525.77	usft
Position Uncertainty:		0.0	usft	Slot Radius:	
				13-3/16	"
				Grid Convergence:	
				-1.59 °	

Well		YATER 12C-17-07-95, SHL LAT: 39.435261783 LONG: -108.026478795				
Well Position	+N-S	0.0 usft	Northing:	1,593,345.72 usft	Latitude:	39° 26' 6.942 N
	+E-W	0.0 usft	Easting:	2,286,503.22 usft	Longitude:	108° 1' 35.324 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	10/23/2014	9.93	65.59	51,878

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	341.99

Survey Program		Date	3/23/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
122.0	6,969.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	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	
122.0	0.57	327.92	122.0	0.6	0.5	-0.3	0.47	0.47	0.00	
152.0	0.66	335.61	152.0	0.9	0.8	-0.5	0.41	0.30	25.63	
180.0	0.57	349.80	180.0	1.2	1.1	-0.6	0.63	-0.32	50.68	
209.0	0.65	353.49	209.0	1.5	1.4	-0.6	0.31	0.28	12.72	
241.0	0.62	355.38	241.0	1.9	1.7	-0.6	0.11	-0.09	5.91	
271.0	0.53	359.81	271.0	2.1	2.0	-0.7	0.33	-0.30	14.77	
301.0	0.60	358.03	301.0	2.4	2.3	-0.7	0.24	0.23	-5.93	
331.0	0.57	350.90	331.0	2.7	2.6	-0.7	0.26	-0.10	-23.77	
361.0	0.70	345.98	361.0	3.1	3.0	-0.8	0.47	0.43	-16.40	
391.0	0.70	351.78	391.0	3.4	3.3	-0.8	0.24	0.00	19.33	
421.0	0.53	345.28	421.0	3.7	3.6	-0.9	0.61	-0.57	-21.67	
451.0	0.62	359.34	451.0	4.0	3.9	-0.9	0.56	0.30	46.87	
481.0	0.83	347.74	481.0	4.4	4.3	-1.0	0.85	0.70	-38.67	
511.0	1.32	328.45	511.0	5.0	4.8	-1.2	2.01	1.63	-64.30	
541.0	2.15	329.32	541.0	5.8	5.6	-1.7	2.77	2.77	2.90	
571.0	2.20	326.14	570.9	6.9	6.6	-2.3	0.44	0.17	-10.60	
601.0	2.94	331.92	600.9	8.3	7.7	-3.0	2.61	2.47	19.27	
631.0	3.82	336.36	630.9	10.0	9.3	-3.7	3.06	2.93	14.80	
661.0	4.62	335.37	660.8	12.2	11.3	-4.6	2.68	2.67	-3.30	
691.0	5.32	338.04	690.7	14.8	13.7	-5.7	2.46	2.33	8.90	
721.0	6.42	342.16	720.5	17.9	16.6	-6.7	3.92	3.67	13.73	
751.0	7.60	341.37	750.3	21.5	20.1	-7.8	3.95	3.93	-2.63	
781.0	8.79	340.09	780.0	25.8	24.1	-9.2	4.01	3.97	-4.27	
811.0	9.80	340.97	809.6	30.6	28.7	-10.9	3.40	3.37	2.93	
841.0	10.68	342.16	839.1	36.0	33.7	-12.5	3.02	2.93	3.97	
871.0	12.00	343.39	868.5	41.9	39.4	-14.3	4.47	4.40	4.10	

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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	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)	
901.0	13.40	341.85	897.8	48.5	45.7	-16.3	4.80	4.67	-5.13	
931.0	14.15	343.04	926.9	55.6	52.5	-18.4	2.67	2.50	3.97	
961.0	15.03	343.69	955.9	63.2	59.7	-20.6	2.98	2.93	2.17	
991.0	16.08	344.79	984.8	71.2	67.5	-22.8	3.64	3.50	3.67	
1,021.0	17.09	346.60	1,013.6	79.7	75.8	-24.9	3.78	3.37	6.03	
1,051.0	18.41	345.98	1,042.2	88.9	84.6	-27.0	4.44	4.40	-2.07	
1,081.0	19.25	345.06	1,070.6	98.5	94.0	-29.5	2.97	2.80	-3.07	
1,111.0	20.26	343.96	1,098.8	108.7	103.8	-32.2	3.59	3.37	-3.67	
1,141.0	21.18	342.29	1,126.9	119.3	113.9	-35.3	3.64	3.07	-5.57	
1,171.0	22.32	342.55	1,154.7	130.4	124.5	-38.6	3.81	3.80	0.87	
1,201.0	23.33	342.60	1,182.4	142.0	135.6	-42.1	3.37	3.37	0.17	
1,231.0	24.52	343.52	1,209.8	154.2	147.3	-45.6	4.16	3.97	3.07	
1,261.0	25.51	342.90	1,237.0	166.9	159.4	-49.3	3.41	3.30	-2.07	
1,291.0	26.06	342.82	1,264.0	179.9	171.9	-53.2	1.84	1.83	-0.27	
1,321.0	26.46	343.52	1,290.9	193.2	184.6	-57.0	1.69	1.33	2.33	
1,351.0	26.90	342.86	1,317.7	206.6	197.5	-60.9	1.77	1.47	-2.20	
1,381.0	27.03	342.90	1,344.4	220.2	210.5	-64.9	0.44	0.43	0.13	
1,411.0	27.11	343.84	1,371.2	233.9	223.6	-68.8	1.45	0.27	3.13	
1,441.0	27.47	343.83	1,397.8	247.6	236.8	-72.6	1.20	1.20	-0.03	
1,471.0	27.29	342.73	1,424.5	261.4	250.0	-76.6	1.79	-0.60	-3.67	
1,501.0	27.25	340.97	1,451.1	275.2	263.1	-80.9	2.69	-0.13	-5.87	
1,531.0	27.38	340.66	1,477.8	288.9	276.1	-85.4	0.64	0.43	-1.03	
1,561.0	26.32	340.27	1,504.5	302.5	288.8	-89.9	3.58	-3.53	-1.30	
1,591.0	25.49	339.09	1,531.5	315.6	301.1	-94.5	3.26	-2.77	-3.93	
1,621.0	25.18	339.39	1,558.6	328.4	313.1	-99.0	1.12	-1.03	1.00	
1,651.0	25.22	339.45	1,585.8	341.2	325.1	-103.5	0.16	0.13	0.20	
1,681.0	25.27	339.96	1,612.9	354.0	337.1	-108.0	0.74	0.17	1.70	

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Design:	Actual	Database:	EDM 5000.1 Single User Db

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)	
1,711.0	25.58	339.57	1,640.0	366.8	349.2	-112.4	1.17	1.03	-1.30	
1,741.0	25.71	339.48	1,667.1	379.8	361.3	-117.0	0.45	0.43	-0.30	
1,771.0	25.67	339.50	1,694.1	392.8	373.5	-121.5	0.14	-0.13	0.07	
1,845.0	25.75	340.84	1,760.8	424.9	403.7	-132.4	0.79	0.11	1.81	
1,930.0	26.02	342.99	1,837.2	462.0	439.0	-143.9	1.15	0.32	2.53	
2,016.0	26.63	343.04	1,914.3	500.1	475.5	-155.1	0.71	0.71	0.06	
2,101.0	27.86	344.79	1,989.9	539.0	512.8	-165.8	1.73	1.45	2.06	
2,186.0	26.77	344.64	2,065.4	577.9	550.5	-176.1	1.28	-1.28	-0.18	
2,271.0	27.47	343.52	2,141.1	616.7	587.7	-186.7	1.02	0.82	-1.32	
2,357.0	26.76	342.90	2,217.6	655.9	625.3	-198.1	0.89	-0.83	-0.72	
2,442.0	27.86	341.19	2,293.1	694.9	662.3	-210.1	1.59	1.29	-2.01	
2,528.0	26.76	340.88	2,369.6	734.3	699.7	-222.9	1.29	-1.28	-0.36	
2,613.0	27.51	342.55	2,445.2	773.1	736.5	-235.1	1.26	0.88	1.96	
2,699.0	26.76	342.38	2,521.7	812.3	773.9	-246.9	0.88	-0.87	-0.20	
2,784.0	27.69	343.43	2,597.3	851.2	811.0	-258.3	1.23	1.09	1.24	
2,869.0	27.12	343.27	2,672.8	890.3	848.5	-269.5	0.68	-0.67	-0.19	
2,955.0	28.17	344.05	2,749.0	930.2	886.8	-280.7	1.29	1.22	0.91	
3,040.0	27.82	344.13	2,824.0	970.0	925.2	-291.7	0.41	-0.41	0.09	
3,126.0	27.16	343.61	2,900.3	1,009.7	963.3	-302.7	0.82	-0.77	-0.60	
3,211.0	28.08	342.16	2,975.6	1,049.1	1,001.0	-314.3	1.34	1.08	-1.71	
3,297.0	27.38	341.72	3,051.7	1,089.1	1,039.0	-326.7	0.85	-0.81	-0.51	
3,382.0	27.38	344.83	3,127.2	1,128.2	1,076.4	-338.0	1.68	0.00	3.66	
3,467.0	26.10	344.40	3,203.1	1,166.4	1,113.3	-348.1	1.52	-1.51	-0.51	
3,553.0	25.14	342.99	3,280.7	1,203.6	1,149.0	-358.5	1.32	-1.12	-1.64	
3,638.0	25.53	344.62	3,357.5	1,239.9	1,183.9	-368.7	0.94	0.46	1.92	
3,724.0	25.61	344.93	3,435.1	1,277.0	1,219.8	-378.4	0.18	0.09	0.36	
3,809.0	25.36	342.82	3,511.8	1,313.5	1,254.9	-388.6	1.11	-0.29	-2.48	

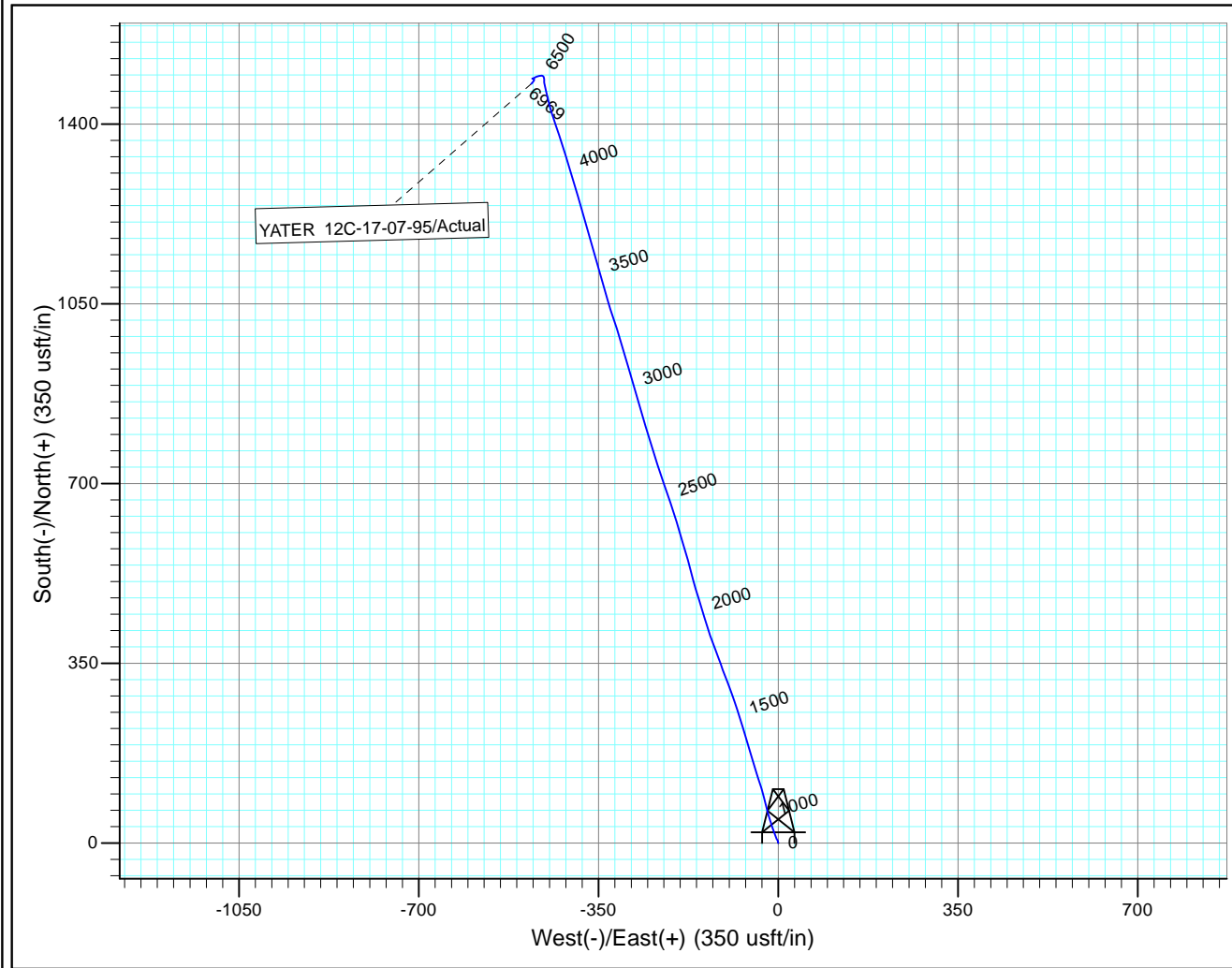
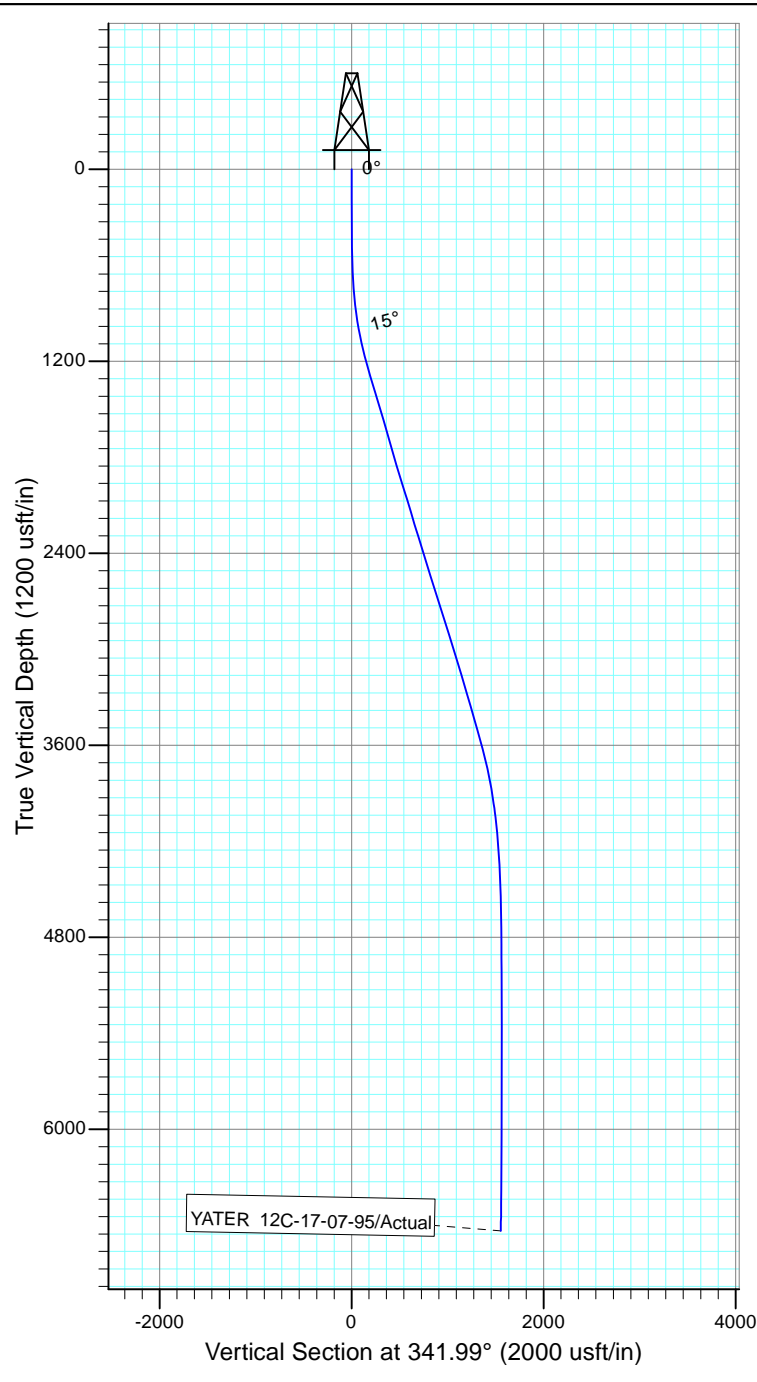
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Survey										
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3,894.0	25.18	343.12	3,588.7	1,349.8	1,289.6	-399.2	0.26	-0.21	0.35	
3,980.0	22.85	342.99	3,667.2	1,384.8	1,323.1	-409.4	2.71	-2.71	-0.15	
4,065.0	19.56	342.60	3,746.5	1,415.5	1,352.4	-418.5	3.87	-3.87	-0.46	
4,151.0	16.96	341.81	3,828.1	1,442.5	1,378.1	-426.7	3.04	-3.02	-0.92	
4,236.0	14.81	340.88	3,909.9	1,465.8	1,400.1	-434.1	2.55	-2.53	-1.09	
4,321.0	12.83	342.16	3,992.4	1,486.1	1,419.4	-440.6	2.36	-2.33	1.51	
4,407.0	10.72	345.89	4,076.6	1,503.6	1,436.2	-445.5	2.61	-2.45	4.34	
4,492.0	8.66	347.03	4,160.4	1,517.8	1,450.1	-448.8	2.43	-2.42	1.34	
4,578.0	6.99	345.94	4,245.6	1,529.5	1,461.5	-451.6	1.95	-1.94	-1.27	
4,663.0	5.63	345.54	4,330.1	1,538.8	1,470.6	-453.9	1.60	-1.60	-0.47	
4,749.0	4.31	350.81	4,415.7	1,546.2	1,477.8	-455.4	1.62	-1.53	6.13	
4,834.0	2.42	0.00	4,500.6	1,551.1	1,482.8	-455.9	2.31	-2.22	10.81	
4,919.0	2.15	358.68	4,585.5	1,554.3	1,486.2	-456.0	0.32	-0.32	-1.55	
5,005.0	1.49	353.85	4,671.5	1,557.0	1,488.9	-456.1	0.79	-0.77	-5.62	
5,090.0	1.10	337.67	4,756.4	1,558.9	1,490.8	-456.6	0.62	-0.46	-19.04	
5,175.0	1.05	324.58	4,841.4	1,560.4	1,492.1	-457.3	0.29	-0.06	-15.40	
5,261.0	1.01	313.15	4,927.4	1,561.8	1,493.3	-458.3	0.24	-0.05	-13.29	
5,346.0	0.83	288.41	5,012.4	1,562.9	1,494.0	-459.5	0.51	-0.21	-29.11	
5,431.0	1.01	273.78	5,097.4	1,563.5	1,494.3	-460.8	0.35	0.21	-17.21	
5,517.0	0.88	263.41	5,183.4	1,563.9	1,494.2	-462.2	0.25	-0.15	-12.06	
5,602.0	0.97	253.26	5,268.4	1,564.1	1,494.0	-463.5	0.22	0.11	-11.94	
5,687.0	1.19	252.60	5,353.4	1,564.1	1,493.5	-465.1	0.26	0.26	-0.78	
5,773.0	1.58	262.84	5,439.3	1,564.3	1,493.1	-467.1	0.54	0.45	11.91	
5,858.0	1.63	250.71	5,524.3	1,564.5	1,492.5	-469.4	0.40	0.06	-14.27	
5,944.0	1.63	241.48	5,610.3	1,564.3	1,491.5	-471.6	0.30	0.00	-10.73	
6,029.0	1.80	253.37	5,695.2	1,564.1	1,490.6	-474.0	0.46	0.20	13.99	
6,115.0	2.25	239.05	5,781.2	1,563.7	1,489.3	-476.7	0.78	0.52	-16.65	

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6,200.0	1.05	266.35	5,866.1	1,563.6	1,488.4	-478.9	1.65	-1.41	32.12	
6,285.0	0.88	95.05	5,951.1	1,563.5	1,488.3	-479.0	2.26	-0.20	-201.53	
6,371.0	0.88	101.42	6,037.1	1,562.9	1,488.1	-477.7	0.11	0.00	7.41	
6,456.0	0.83	106.21	6,122.1	1,562.2	1,487.8	-476.5	0.10	-0.06	5.64	
6,541.0	0.75	137.46	6,207.1	1,561.4	1,487.2	-475.5	0.51	-0.09	36.76	
6,627.0	0.75	172.31	6,293.1	1,560.3	1,486.3	-475.1	0.52	0.00	40.52	
6,712.0	1.36	209.88	6,378.1	1,559.1	1,484.8	-475.5	1.05	0.72	44.20	
6,798.0	1.98	220.56	6,464.0	1,557.6	1,482.8	-477.0	0.80	0.72	12.42	
6,883.0	1.89	217.92	6,549.0	1,556.1	1,480.6	-478.8	0.15	-0.11	-3.11	
6,912.0	2.02	218.45	6,578.0	1,555.5	1,479.8	-479.4	0.45	0.45	1.83	
6,969.0	2.02	218.45	6,634.9	1,554.4	1,478.2	-480.7	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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Design: Actual (YATER 12C-17-07-95/Wellbore #1)

Created By: *Matthew Linton* Date: 10:57, March 23 2014

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