



Ursa Operating Company, LLC

Rockies Region

Yater

YATER 22C-17-07-95

Wellbore #1

Design: Actual

End of Well Report

16 March, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well YATER 22C-17-07-95
Project:	Rockies Region	TVD Reference:	YATER 22C-17-07-95 @ 5536.0usft (Capstar 321)
Site:	Yater	MD Reference:	YATER 22C-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 22C-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	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 22C-17-07-95, SHL LAT: 39.435296075 LONG: -108.026479824				
Well Position	+N-S	0.0 usft	Northing:	1,593,358.22 usft	Latitude:	39° 26' 7.066 N
	+E-W	0.0 usft	Easting:	2,286,503.28 usft	Longitude:	108° 1' 35.327 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	33.07

Survey Program		Date	3/16/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
152.0	6,960.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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Site:	Yater	MD Reference:	YATER 22C-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 22C-17-07-95	North Reference:	True
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	
152.0	0.35	182.77	152.0	-0.4	-0.5	0.0	0.23	0.23	0.00	
180.0	0.40	177.98	180.0	-0.6	-0.6	0.0	0.21	0.18	-17.11	
209.0	0.44	188.35	209.0	-0.7	-0.9	0.0	0.30	0.14	35.76	
241.0	0.48	183.16	241.0	-1.0	-1.1	-0.1	0.18	0.12	-16.22	
271.0	0.40	152.44	271.0	-1.1	-1.3	0.0	0.82	-0.27	-102.40	
301.0	0.26	127.53	301.0	-1.2	-1.5	0.1	0.66	-0.47	-83.03	
331.0	0.31	116.76	331.0	-1.2	-1.5	0.2	0.24	0.17	-35.90	
361.0	0.44	83.36	361.0	-1.1	-1.6	0.4	0.83	0.43	-111.33	
391.0	0.75	57.39	391.0	-0.8	-1.4	0.7	1.34	1.03	-86.57	
421.0	1.31	50.15	421.0	-0.3	-1.1	1.1	1.91	1.87	-24.13	
451.0	2.24	46.02	451.0	0.6	-0.5	1.8	3.13	3.10	-13.77	
481.0	3.47	43.50	480.9	2.0	0.6	2.8	4.12	4.10	-8.40	
511.0	4.57	40.56	510.9	4.1	2.1	4.2	3.73	3.67	-9.80	
541.0	5.63	36.91	540.7	6.8	4.2	5.9	3.69	3.53	-12.17	
571.0	6.50	34.72	570.6	9.9	6.8	7.8	3.00	2.90	-7.30	
601.0	7.08	33.79	600.4	13.5	9.7	9.7	1.97	1.93	-3.10	
631.0	7.73	33.79	630.1	17.3	12.9	11.9	2.17	2.17	0.00	
661.0	8.17	33.92	659.8	21.5	16.4	14.2	1.47	1.47	0.43	
691.0	8.44	33.57	689.5	25.8	20.0	16.6	0.92	0.90	-1.17	
721.0	9.14	33.44	719.2	30.4	23.8	19.1	2.33	2.33	-0.43	
751.0	10.02	32.12	748.7	35.4	28.0	21.8	3.02	2.93	-4.40	
781.0	10.81	32.21	778.2	40.8	32.6	24.7	2.63	2.63	0.30	
811.0	11.87	32.12	807.7	46.7	37.6	27.9	3.53	3.53	-0.30	
841.0	12.83	33.22	837.0	53.1	43.0	31.3	3.29	3.20	3.67	
871.0	13.59	34.84	866.2	60.0	48.7	35.2	2.82	2.53	5.40	
901.0	14.55	35.59	895.3	67.3	54.6	39.4	3.26	3.20	2.50	

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Site:	Yater	MD Reference:	YATER 22C-17-07-95 @ 5536.0usft (Capstar 321)
Well:	YATER 22C-17-07-95	North Reference:	True
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)
931.0	15.86	35.64	924.2	75.1	61.0	44.0	4.37	4.37	0.17
961.0	17.01	35.33	953.0	83.6	67.9	48.9	3.84	3.83	-1.03
991.0	18.37	34.89	981.6	92.7	75.4	54.1	4.56	4.53	-1.47
1,021.0	19.60	33.31	1,009.9	102.5	83.5	59.6	4.44	4.10	-5.27
1,051.0	20.61	32.43	1,038.1	112.8	92.1	65.2	3.51	3.37	-2.93
1,081.0	21.53	32.03	1,066.1	123.6	101.3	70.9	3.10	3.07	-1.33
1,111.0	22.06	33.13	1,094.0	134.7	110.6	76.9	2.23	1.77	3.67
1,141.0	22.81	33.09	1,121.7	146.2	120.2	83.2	2.50	2.50	-0.13
1,171.0	23.64	32.83	1,149.3	158.0	130.2	89.6	2.79	2.77	-0.87
1,201.0	24.13	32.61	1,176.7	170.1	140.4	96.2	1.66	1.63	-0.73
1,231.0	25.09	31.68	1,204.0	182.6	151.0	102.8	3.45	3.20	-3.10
1,261.0	25.22	30.80	1,231.1	195.4	161.9	109.5	1.32	0.43	-2.93
1,291.0	25.09	30.67	1,258.3	208.1	172.8	116.0	0.47	-0.43	-0.43
1,321.0	24.79	31.38	1,285.5	220.8	183.7	122.5	1.41	-1.00	2.37
1,351.0	24.95	31.05	1,312.7	233.4	194.5	129.0	0.71	0.53	-1.10
1,381.0	25.36	31.02	1,339.9	246.1	205.4	135.6	1.37	1.37	-0.10
1,411.0	25.58	31.24	1,366.9	259.0	216.4	142.3	0.80	0.73	0.73
1,441.0	25.62	31.20	1,394.0	272.0	227.5	149.0	0.15	0.13	-0.13
1,471.0	26.10	31.07	1,421.0	285.0	238.7	155.8	1.61	1.60	-0.43
1,501.0	26.06	31.16	1,447.9	298.2	250.0	162.6	0.19	-0.13	0.30
1,531.0	26.24	31.60	1,474.9	311.4	261.3	169.5	0.88	0.60	1.47
1,561.0	26.06	32.03	1,501.8	324.7	272.5	176.4	0.87	-0.60	1.43
1,591.0	26.28	32.56	1,528.7	337.9	283.7	183.5	1.07	0.73	1.77
1,621.0	26.54	32.83	1,555.6	351.2	294.9	190.7	0.95	0.87	0.90
1,651.0	26.63	33.53	1,582.4	364.7	306.2	198.1	1.09	0.30	2.33
1,681.0	26.59	33.00	1,609.2	378.1	317.4	205.4	0.80	-0.13	-1.77
1,711.0	26.67	33.62	1,636.1	391.5	328.7	212.8	0.96	0.27	2.07

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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)	
1,741.0	27.07	33.44	1,662.8	405.1	340.0	220.3	1.36	1.33	-0.60	
1,771.0	27.03	33.18	1,689.5	418.7	351.4	227.8	0.42	-0.13	-0.87	
1,846.0	27.86	32.30	1,756.1	453.3	380.4	246.5	1.23	1.11	-1.17	
1,932.0	26.91	32.38	1,832.5	492.9	413.9	267.6	1.11	-1.10	0.09	
2,017.0	26.32	31.55	1,908.4	530.9	446.2	287.8	0.82	-0.69	-0.98	
2,103.0	26.02	34.28	1,985.6	568.8	478.0	308.4	1.44	-0.35	3.17	
2,188.0	25.18	34.19	2,062.3	605.6	508.4	329.1	0.99	-0.99	-0.11	
2,273.0	25.09	35.42	2,139.2	641.7	538.0	349.7	0.62	-0.11	1.45	
2,359.0	25.75	32.69	2,216.9	678.6	568.6	370.3	1.56	0.77	-3.17	
2,444.0	27.38	30.89	2,292.9	716.6	600.9	390.3	2.14	1.92	-2.12	
2,529.0	27.60	31.29	2,368.3	755.8	634.5	410.6	0.34	0.26	0.47	
2,615.0	26.59	31.16	2,444.9	794.9	668.0	430.9	1.18	-1.17	-0.15	
2,700.0	28.17	32.21	2,520.4	834.0	701.2	451.5	1.94	1.86	1.24	
2,786.0	27.64	31.68	2,596.4	874.2	735.4	472.7	0.68	-0.62	-0.62	
2,871.0	26.98	30.94	2,671.9	913.2	768.7	493.0	0.87	-0.78	-0.87	
2,956.0	27.47	32.17	2,747.5	952.1	801.8	513.4	0.88	0.58	1.45	
3,042.0	27.33	33.48	2,823.8	991.7	835.1	534.8	0.72	-0.16	1.52	
3,127.0	27.05	33.40	2,899.4	1,030.5	867.5	556.2	0.33	-0.33	-0.09	
3,213.0	27.82	33.39	2,975.8	1,070.1	900.6	578.0	0.90	0.90	-0.01	
3,298.0	26.91	33.14	3,051.3	1,109.2	933.3	599.5	1.08	-1.07	-0.29	
3,384.0	27.03	33.62	3,127.9	1,148.2	965.8	620.9	0.29	0.14	0.56	
3,469.0	27.29	33.09	3,203.5	1,187.0	998.2	642.3	0.42	0.31	-0.62	
3,555.0	26.37	32.52	3,280.3	1,225.8	1,030.9	663.3	1.11	-1.07	-0.66	
3,640.0	25.80	33.75	3,356.6	1,263.2	1,062.2	683.7	0.92	-0.67	1.45	
3,726.0	26.39	33.38	3,433.9	1,301.0	1,093.7	704.6	0.71	0.69	-0.43	
3,811.0	26.15	34.72	3,510.1	1,338.6	1,124.9	725.7	0.75	-0.28	1.58	
3,897.0	25.05	33.31	3,587.6	1,375.8	1,155.6	746.5	1.46	-1.28	-1.64	

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3,982.0	23.64	32.21	3,665.1	1,410.8	1,185.1	765.4	1.74	-1.66	-1.29	
4,068.0	21.75	33.35	3,744.4	1,444.0	1,213.0	783.4	2.26	-2.20	1.33	
4,153.0	20.21	32.83	3,823.8	1,474.4	1,238.5	800.0	1.82	-1.81	-0.61	
4,239.0	16.54	34.64	3,905.4	1,501.5	1,261.1	815.0	4.32	-4.27	2.10	
4,324.0	13.45	33.44	3,987.5	1,523.5	1,279.3	827.4	3.65	-3.64	-1.41	
4,409.0	10.42	34.28	4,070.6	1,541.1	1,293.9	837.1	3.57	-3.56	0.99	
4,495.0	8.35	34.72	4,155.5	1,555.1	1,305.4	845.1	2.41	-2.41	0.51	
4,580.0	6.33	40.25	4,239.8	1,565.9	1,314.1	851.6	2.51	-2.38	6.51	
4,665.0	4.48	44.56	4,324.4	1,573.8	1,320.0	857.0	2.23	-2.18	5.07	
4,751.0	2.99	44.25	4,410.2	1,579.3	1,324.0	860.9	1.73	-1.73	-0.36	
4,836.0	2.64	47.20	4,495.1	1,583.4	1,326.9	863.9	0.45	-0.41	3.47	
4,922.0	1.76	43.59	4,581.0	1,586.6	1,329.3	866.3	1.04	-1.02	-4.20	
5,007.0	1.59	43.13	4,666.0	1,589.0	1,331.1	868.0	0.20	-0.20	-0.54	
5,092.0	1.41	50.58	4,751.0	1,591.2	1,332.6	869.6	0.31	-0.21	8.76	
5,178.0	1.27	69.26	4,836.9	1,593.0	1,333.6	871.3	0.53	-0.16	21.72	
5,263.0	0.75	81.17	4,921.9	1,594.1	1,334.0	872.7	0.66	-0.61	14.01	
5,349.0	0.53	122.52	5,007.9	1,594.5	1,333.9	873.6	0.58	-0.26	48.08	
5,434.0	0.66	119.44	5,092.9	1,594.5	1,333.4	874.4	0.16	0.15	-3.62	
5,520.0	0.44	146.13	5,178.9	1,594.4	1,332.9	875.0	0.39	-0.26	31.03	
5,605.0	0.62	133.42	5,263.9	1,594.2	1,332.3	875.5	0.25	0.21	-14.95	
5,690.0	0.97	154.29	5,348.9	1,593.8	1,331.4	876.1	0.53	0.41	24.55	
5,775.0	0.94	294.09	5,433.9	1,593.3	1,331.0	875.8	2.11	-0.04	164.47	
5,861.0	0.80	265.98	5,519.9	1,592.8	1,331.2	874.6	0.52	-0.16	-32.69	
5,946.0	1.01	242.66	5,604.9	1,591.8	1,330.9	873.3	0.49	0.25	-27.44	
6,032.0	1.51	240.32	5,690.9	1,590.1	1,329.9	871.7	0.58	0.58	-2.72	
6,118.0	1.63	226.14	5,776.8	1,587.9	1,328.5	869.8	0.47	0.14	-16.49	
6,203.0	1.93	206.06	5,861.8	1,585.3	1,326.4	868.3	0.81	0.35	-23.62	

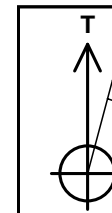
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6,288.0	1.89	210.41	5,946.7	1,582.5	1,323.9	867.0	0.18	-0.05	5.12	
6,374.0	0.57	180.48	6,032.7	1,580.7	1,322.3	866.2	1.66	-1.53	-34.80	
6,459.0	0.13	71.81	6,117.7	1,580.5	1,321.9	866.3	0.73	-0.52	-127.85	
6,545.0	0.40	344.22	6,203.7	1,580.7	1,322.2	866.3	0.48	0.31	-101.85	
6,630.0	0.48	309.33	6,288.7	1,581.0	1,322.7	866.0	0.32	0.09	-41.05	
6,716.0	0.58	287.48	6,374.7	1,580.9	1,323.1	865.3	0.26	0.12	-25.41	
6,801.0	0.97	270.97	6,459.7	1,580.4	1,323.2	864.1	0.52	0.46	-19.42	
6,886.0	1.14	258.53	6,544.7	1,579.4	1,323.1	862.6	0.33	0.20	-14.64	
6,903.0	1.11	259.82	6,561.7	1,579.2	1,323.0	862.3	0.23	-0.18	7.59	
6,960.0	1.11	259.82	6,618.7	1,578.4	1,322.8	861.2	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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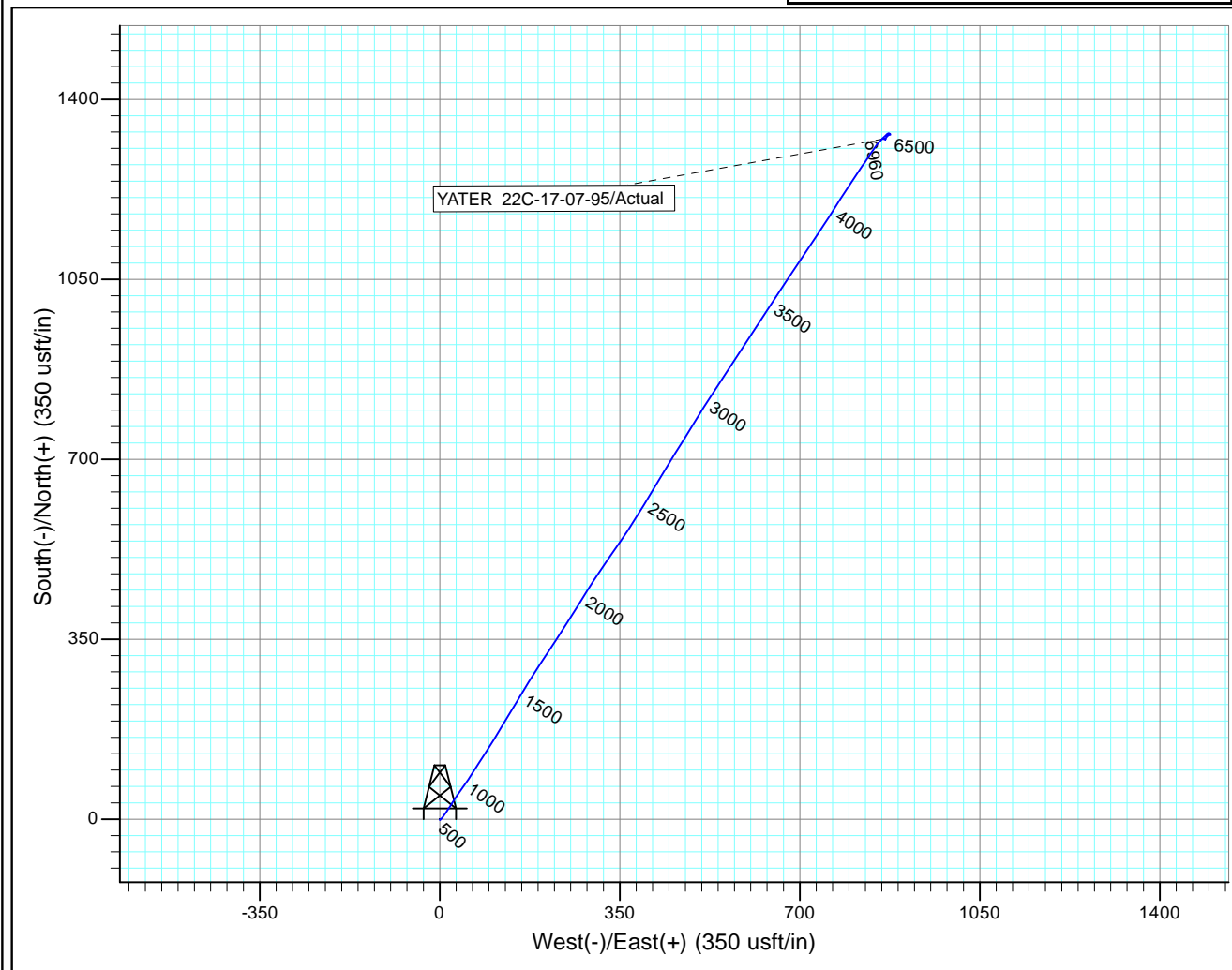
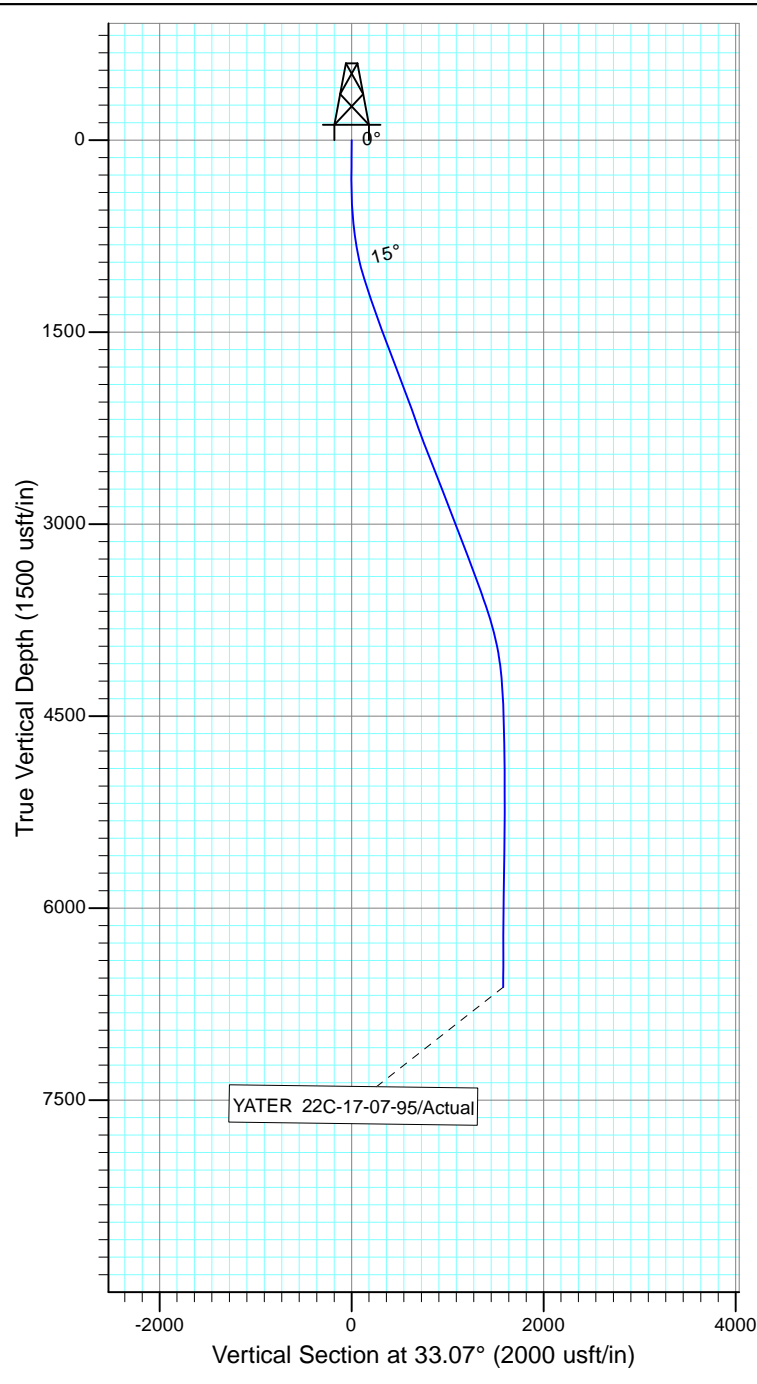


Project: Rockies Region
Site: Yater
Well: YATER 22C-17-07-95
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.93°

Magnetic Field
Strength: 51878.4snT
Dip Angle: 65.59°
Date: 10/23/2014
Model: IGRF2010



Design: Actual (YATER 22C-17-07-95/Wellbore #1)

Created By: Matthew Linton Date: 14:16, March 16 2015

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