



Ursa Operating Company, LLC

Rockies Region

Watson Ranch B

WATSON RANCH B 33D-17-07-95

Wellbore #1

Design: Actual

End of Well Report

14 May, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well WATSON RANCH B 33D-17-07-95
Project:	Rockies Region	TVD Reference:	WATSON RANCH B 33D-17-07-95 @ 5602.0usft (Caps
Site:	Watson Ranch B	MD Reference:	WATSON RANCH B 33D-17-07-95 @ 5602.0usft (Caps
Well:	WATSON RANCH B 33D-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	Watson Ranch B		
Site Position:		Northing:	1,592,643.01 usft
From:	Lat/Long	Easting:	2,287,301.12 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39° 26' 0.219 N
		Longitude:	108° 1' 24.909 W
		Grid Convergence:	-1.59 °

Well	WATSON RANCH B 33D-17-07-95, SHL LAT: 39.43332315 LONG: -108.023584422		
Well Position	+N/-S	0.0 usft	Northing: 1,592,620.49 usft
	+E/-W	0.0 usft	Easting: 2,287,300.88 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	5,602.0 usft
		Latitude:	39° 25' 59.996 N
		Longitude:	108° 1' 24.904 W
		Ground Level:	5,585.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/3/2015	9.88	65.58	51,841

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	70.10

Survey Program	Date	5/14/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
42.0	6,935.0	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	
42.0	0.35	332.68	42.0	0.0	0.1	-0.1	0.83	0.83	0.00	
72.0	0.20	158.62	72.0	0.0	0.1	-0.1	1.83	-0.50	-580.20	
102.0	0.16	0.03	102.0	0.0	0.1	-0.1	1.18	-0.13	-528.63	
132.0	0.21	217.24	132.0	0.0	0.1	-0.1	1.17	0.17	-475.97	
162.0	0.26	297.24	162.0	-0.1	0.1	-0.2	1.02	0.17	266.67	
192.0	0.48	306.21	192.0	-0.3	0.2	-0.4	0.76	0.73	29.90	
222.0	0.43	263.92	222.0	-0.4	0.3	-0.6	1.11	-0.17	-140.97	
252.0	0.46	263.09	252.0	-0.7	0.3	-0.8	0.10	0.10	-2.77	
282.0	0.58	267.60	282.0	-0.9	0.2	-1.1	0.42	0.40	15.03	
312.0	0.71	266.58	312.0	-1.2	0.2	-1.4	0.44	0.43	-3.40	
342.0	0.88	258.82	342.0	-1.6	0.2	-1.8	0.67	0.57	-25.87	
372.0	1.27	263.10	372.0	-2.2	0.1	-2.4	1.33	1.30	14.27	
407.0	1.68	249.73	407.0	-3.1	-0.1	-3.2	1.52	1.17	-38.20	
437.0	1.59	241.79	437.0	-3.9	-0.5	-4.0	0.81	-0.30	-26.47	
467.0	0.66	215.99	467.0	-4.5	-0.8	-4.5	3.45	-3.10	-86.00	
497.0	0.14	125.35	497.0	-4.6	-1.0	-4.6	2.25	-1.73	-302.13	
527.0	0.85	28.40	527.0	-4.4	-0.8	-4.4	2.93	2.37	-323.17	
550.0	1.53	30.33	549.9	-4.1	-0.4	-4.2	2.96	2.96	8.39	
580.0	2.36	43.63	579.9	-3.2	0.4	-3.6	3.13	2.77	44.33	
610.0	3.52	54.18	609.9	-1.8	1.4	-2.4	4.25	3.87	35.17	
640.0	4.64	62.20	639.8	0.3	2.5	-0.6	4.18	3.73	26.73	
670.0	5.84	66.61	669.7	3.0	3.7	1.9	4.22	4.00	14.70	
700.0	7.08	67.10	699.5	6.4	5.0	5.0	4.14	4.13	1.63	
730.0	8.35	68.85	729.2	10.4	6.5	8.7	4.30	4.23	5.83	
760.0	9.62	68.33	758.9	15.1	8.2	13.1	4.24	4.23	-1.73	
790.0	10.55	68.46	788.4	20.4	10.1	18.0	3.10	3.10	0.43	

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Well:	WATSON RANCH B 33D-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)	
820.0	11.73	68.90	817.8	26.2	12.2	23.4	3.94	3.93	1.47	
850.0	12.79	68.63	847.1	32.5	14.6	29.3	3.54	3.53	-0.90	
880.0	13.93	67.58	876.3	39.5	17.1	35.8	3.88	3.80	-3.50	
910.0	15.07	68.01	905.4	47.0	20.0	42.7	3.82	3.80	1.43	
940.0	16.30	67.76	934.3	55.1	23.0	50.2	4.11	4.10	-0.83	
970.0	17.49	67.71	963.0	63.8	26.3	58.3	3.97	3.97	-0.17	
1,000.0	18.33	68.15	991.5	73.0	29.8	66.8	2.84	2.80	1.47	
1,030.0	18.81	68.74	1,019.9	82.6	33.3	75.7	1.72	1.60	1.97	
1,060.0	19.47	69.12	1,048.3	92.4	36.8	84.9	2.24	2.20	1.27	
1,090.0	20.26	68.59	1,076.5	102.6	40.5	94.4	2.70	2.63	-1.77	
1,120.0	20.65	68.85	1,104.6	113.1	44.3	104.2	1.33	1.30	0.87	
1,150.0	20.77	69.34	1,132.7	123.7	48.1	114.1	0.70	0.40	1.63	
1,180.0	21.27	69.16	1,160.7	134.4	51.9	124.2	1.68	1.67	-0.60	
1,210.0	22.06	68.90	1,188.6	145.5	55.9	134.5	2.65	2.63	-0.87	
1,240.0	22.76	68.17	1,216.3	156.9	60.1	145.1	2.51	2.33	-2.43	
1,270.0	22.94	68.28	1,243.9	168.6	64.4	156.0	0.62	0.60	0.37	
1,300.0	23.07	68.24	1,271.6	180.3	68.7	166.9	0.44	0.43	-0.13	
1,330.0	23.60	68.85	1,299.1	192.2	73.1	177.9	1.94	1.77	2.03	
1,360.0	24.48	69.12	1,326.5	204.4	77.5	189.3	2.96	2.93	0.90	
1,390.0	24.74	68.94	1,353.8	216.9	81.9	201.0	0.90	0.87	-0.60	
1,420.0	24.70	69.65	1,381.0	229.4	86.4	212.7	1.00	-0.13	2.37	
1,450.0	24.87	69.69	1,408.3	242.0	90.7	224.5	0.57	0.57	0.13	
1,480.0	25.28	69.46	1,435.4	254.7	95.2	236.4	1.40	1.37	-0.77	
1,510.0	25.62	68.90	1,462.5	267.6	99.8	248.5	1.39	1.13	-1.87	
1,540.0	25.71	69.56	1,489.6	280.6	104.4	260.6	1.00	0.30	2.20	
1,570.0	25.83	69.46	1,516.6	293.6	108.9	272.8	0.43	0.40	-0.33	
1,600.0	26.28	69.51	1,543.5	306.8	113.6	285.2	1.50	1.50	0.17	

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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)	
1,630.0	26.28	69.82	1,570.4	320.1	118.2	297.6	0.46	0.00	1.03	
1,660.0	26.19	70.74	1,597.3	333.4	122.6	310.1	1.39	-0.30	3.07	
1,690.0	26.72	70.13	1,624.2	346.7	127.1	322.7	1.99	1.77	-2.03	
1,720.0	26.89	70.09	1,651.0	360.3	131.7	335.4	0.57	0.57	-0.13	
1,750.0	26.97	70.43	1,677.7	373.8	136.3	348.2	0.58	0.27	1.13	
1,780.0	27.33	70.35	1,704.4	387.5	140.9	361.1	1.21	1.20	-0.27	
1,848.0	27.16	70.04	1,764.9	418.7	151.5	390.4	0.33	-0.25	-0.46	
1,933.0	26.55	70.16	1,840.7	457.1	164.5	426.5	0.72	-0.72	0.14	
2,018.0	25.66	69.21	1,917.0	494.5	177.5	461.6	1.16	-1.05	-1.12	
2,103.0	24.96	68.81	1,993.9	530.8	190.5	495.5	0.85	-0.82	-0.47	
2,188.0	24.61	68.16	2,071.0	566.4	203.6	528.7	0.52	-0.41	-0.76	
2,274.0	24.61	68.90	2,149.2	602.2	216.7	562.0	0.36	0.00	0.86	
2,359.0	23.38	70.92	2,226.9	636.8	228.6	594.5	1.74	-1.45	2.38	
2,444.0	23.92	69.42	2,304.7	670.9	240.2	626.5	0.95	0.64	-1.76	
2,529.0	23.77	71.45	2,382.5	705.2	251.7	658.9	0.98	-0.18	2.39	
2,615.0	24.65	70.30	2,460.9	740.5	263.2	692.2	1.16	1.02	-1.34	
2,700.0	23.95	70.17	2,538.4	775.5	275.0	725.1	0.83	-0.82	-0.15	
2,785.0	24.52	72.02	2,615.9	810.3	286.3	758.1	1.12	0.67	2.18	
2,871.0	24.62	71.62	2,694.1	846.1	297.5	792.1	0.23	0.12	-0.47	
2,956.0	23.51	71.93	2,771.7	880.7	308.3	825.0	1.31	-1.31	0.36	
3,041.0	24.17	71.54	2,849.5	915.1	319.1	857.7	0.80	0.78	-0.46	
3,127.0	24.74	71.58	2,927.8	950.7	330.4	891.4	0.66	0.66	0.05	
3,212.0	23.82	72.94	3,005.2	985.6	341.0	924.7	1.27	-1.08	1.60	
3,297.0	24.35	70.79	3,082.8	1,020.2	351.8	957.7	1.21	0.62	-2.53	
3,383.0	23.33	69.91	3,161.5	1,055.0	363.5	990.4	1.26	-1.19	-1.02	
3,468.0	23.47	70.66	3,239.5	1,088.8	374.9	1,022.2	0.39	0.16	0.88	
3,554.0	23.86	70.83	3,318.3	1,123.3	386.3	1,054.8	0.46	0.45	0.20	

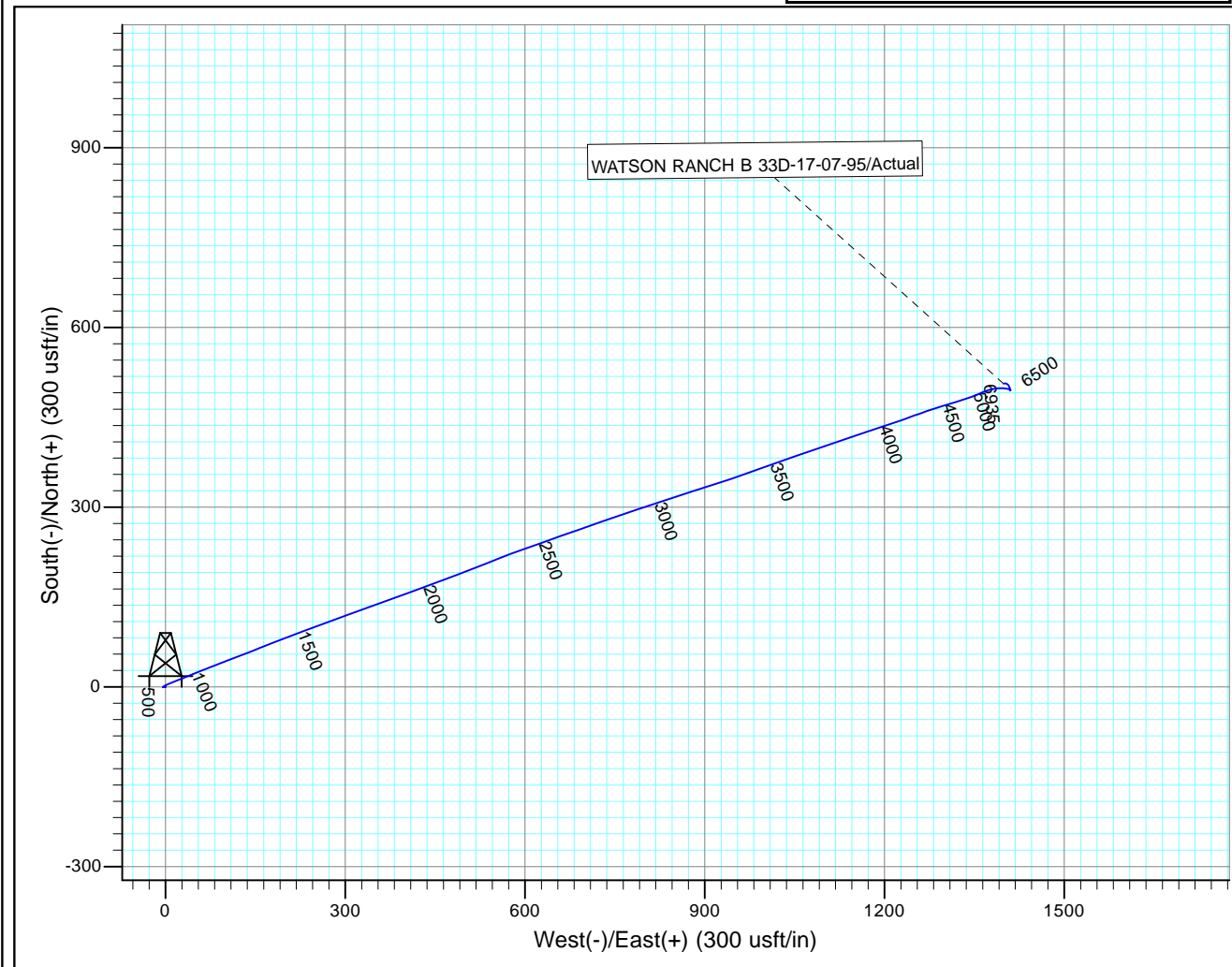
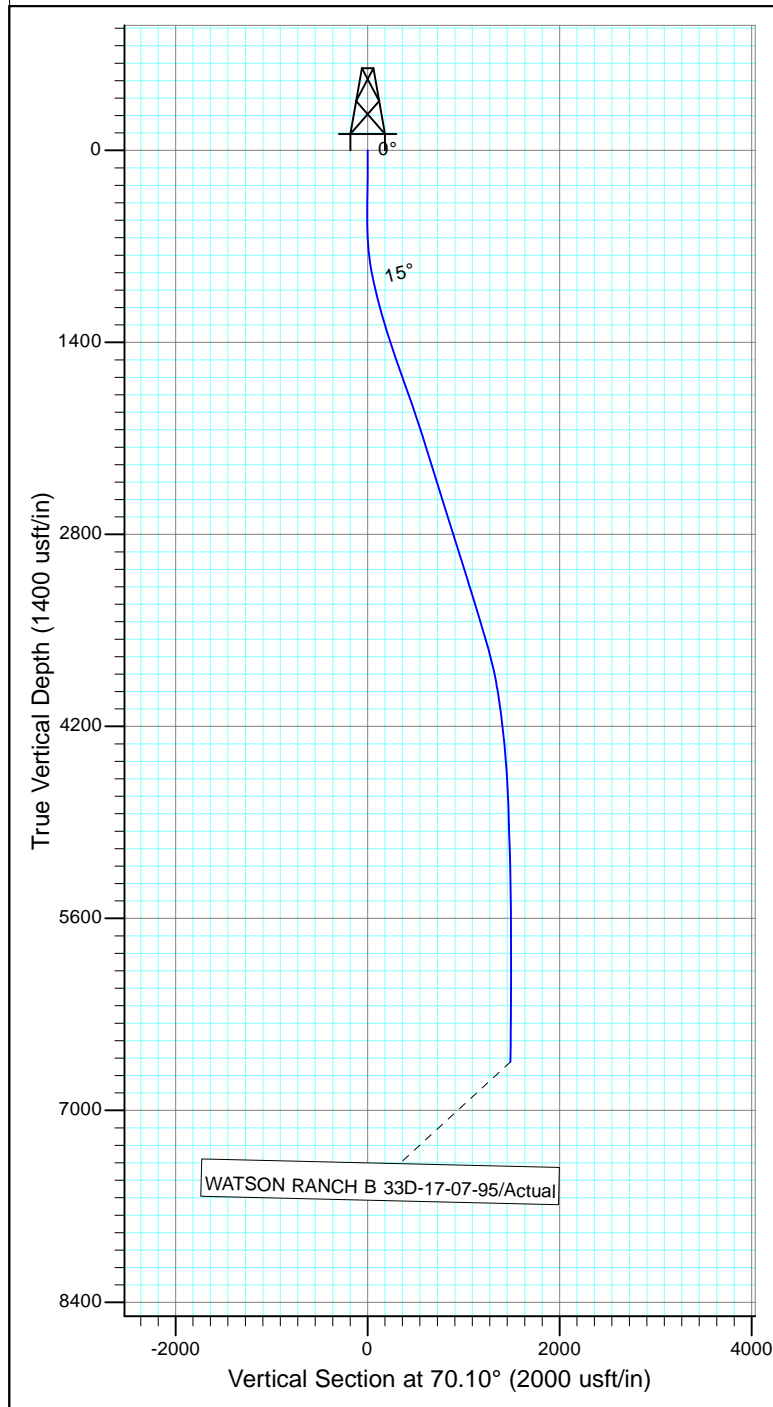
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3,639.0	23.91	70.57	3,396.0	1,157.7	397.7	1,087.3	0.14	0.06	-0.31	
3,724.0	23.73	71.65	3,473.8	1,192.0	408.8	1,119.7	0.56	-0.21	1.27	
3,810.0	22.37	70.96	3,552.9	1,225.7	419.6	1,151.6	1.61	-1.58	-0.80	
3,895.0	20.87	72.19	3,631.9	1,257.0	429.5	1,181.3	1.84	-1.76	1.45	
3,981.0	19.78	71.54	3,712.6	1,286.8	438.8	1,209.7	1.29	-1.27	-0.76	
4,066.0	17.71	69.82	3,793.0	1,314.1	447.8	1,235.5	2.52	-2.44	-2.02	
4,151.0	15.03	71.67	3,874.6	1,338.1	455.7	1,258.1	3.21	-3.15	2.18	
4,237.0	12.79	71.14	3,958.1	1,358.8	462.3	1,277.7	2.61	-2.60	-0.62	
4,322.0	11.07	71.71	4,041.2	1,376.3	467.9	1,294.4	2.03	-2.02	0.67	
4,407.0	10.15	72.02	4,124.8	1,392.0	472.8	1,309.2	1.08	-1.08	0.36	
4,493.0	9.05	74.04	4,209.6	1,406.3	477.0	1,322.9	1.34	-1.28	2.35	
4,578.0	8.39	74.26	4,293.6	1,419.2	480.5	1,335.3	0.78	-0.78	0.26	
4,663.0	8.04	67.40	4,377.7	1,431.3	484.5	1,346.8	1.22	-0.41	-8.07	
4,749.0	6.45	65.35	4,463.0	1,442.1	488.8	1,356.7	1.87	-1.85	-2.38	
4,834.0	4.39	68.24	4,547.6	1,450.1	492.0	1,364.1	2.44	-2.42	3.40	
4,920.0	4.14	72.34	4,633.4	1,456.5	494.1	1,370.1	0.46	-0.29	4.77	
5,005.0	3.59	73.94	4,718.2	1,462.2	495.8	1,375.6	0.66	-0.65	1.88	
5,091.0	3.16	76.41	4,804.1	1,467.3	497.1	1,380.5	0.53	-0.50	2.87	
5,176.0	2.77	80.98	4,888.9	1,471.6	498.0	1,384.8	0.54	-0.46	5.38	
5,261.0	2.24	87.53	4,973.9	1,475.2	498.4	1,388.5	0.71	-0.62	7.71	
5,347.0	2.08	92.50	5,059.8	1,478.3	498.4	1,391.7	0.29	-0.19	5.78	
5,432.0	2.72	86.96	5,144.7	1,481.6	498.4	1,395.3	0.80	0.75	-6.52	
5,518.0	2.46	91.75	5,230.6	1,485.3	498.5	1,399.2	0.39	-0.30	5.57	
5,603.0	1.93	99.84	5,315.6	1,488.2	498.2	1,402.4	0.72	-0.62	9.52	
5,689.0	1.76	104.19	5,401.5	1,490.6	497.6	1,405.1	0.26	-0.20	5.06	
5,774.0	1.63	113.68	5,486.5	1,492.5	496.8	1,407.5	0.36	-0.15	11.16	
5,860.0	1.49	122.25	5,572.5	1,494.1	495.7	1,409.5	0.32	-0.16	9.97	

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5,945.0	0.48	217.35	5,657.5	1,494.5	494.8	1,410.3	1.89	-1.19	111.88	
6,031.0	0.39	325.23	5,743.4	1,494.1	494.8	1,409.9	0.82	-0.10	125.44	
6,116.0	0.83	25.57	5,828.4	1,494.5	495.6	1,410.0	0.85	0.52	70.99	
6,201.0	0.53	324.84	5,913.4	1,494.8	496.5	1,410.0	0.86	-0.35	-71.45	
6,287.0	1.49	334.86	5,999.4	1,494.6	497.8	1,409.3	1.13	1.12	11.65	
6,372.0	1.80	338.46	6,084.4	1,494.5	500.0	1,408.3	0.38	0.36	4.24	
6,458.0	1.56	335.75	6,170.4	1,494.3	502.4	1,407.4	0.29	-0.28	-3.15	
6,543.0	1.27	316.31	6,255.3	1,493.9	504.1	1,406.2	0.65	-0.34	-22.87	
6,628.0	1.27	306.64	6,340.3	1,493.0	505.3	1,404.8	0.25	0.00	-11.38	
6,714.0	1.19	284.45	6,426.3	1,491.7	506.1	1,403.2	0.56	-0.09	-25.80	
6,799.0	1.32	272.41	6,511.3	1,490.1	506.4	1,401.4	0.35	0.15	-14.16	
6,878.0	1.41	264.41	6,590.2	1,488.3	506.3	1,399.5	0.27	0.11	-10.13	
6,935.0	1.41	264.41	6,647.2	1,486.9	506.2	1,398.1	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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Design: Actual (WATSON RANCH B 33D-17-07-95/Wellbore #1)

Created By: *Matthew Linton* Date: 8:07, May 14 2015

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