



Ursa Operating Company, LLC

Rockies Region

Watson Ranch B

WATSON RANCH B 24AWI-17-07-95

Wellbore #1

Design: Actual

End of Well Report

02 June, 2015



Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well WATSON RANCH B 24AWI-17-07-95
Project:	Rockies Region	TVD Reference:	WATSON RANCH B 24AWI-17-07-95 @ 5602.0usft (Ca
Site:	Watson Ranch B	MD Reference:	WATSON RANCH B 24AWI-17-07-95 @ 5602.0usft (Ca
Well:	WATSON RANCH B 24AWI-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	Latitude:	39° 26' 0.219 N
From:	Lat/Long	Easting:	2,287,301.12 usft	Longitude:	108° 1' 24.909 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.59 °

Well		WATSON RANCH B 24AWI-17-07-95, SHL LAT: 39.433335301 LONG: -108.023363285				
Well Position	+N/-S	0.0 usft	Northing:	1,592,619.85 usft	Latitude:	39° 26' 0.007 N
	+E/-W	0.0 usft	Easting:	2,287,363.35 usft	Longitude:	108° 1' 24.108 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	5,602.0 usft	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	50.91

Survey Program		Date 6/2/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
129.0	7,400.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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Well:	WATSON RANCH B 24AWI-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	
129.0	1.62	174.15	129.0	-1.0	-1.8	0.2	1.26	1.26	0.00	
158.0	1.98	170.90	158.0	-1.5	-2.7	0.3	1.29	1.24	-11.21	
190.0	2.42	163.21	189.9	-2.0	-3.9	0.6	1.65	1.37	-24.03	
220.0	2.86	170.46	219.9	-2.6	-5.3	0.9	1.84	1.47	24.17	
250.0	2.42	165.67	249.9	-3.3	-6.6	1.2	1.64	-1.47	-15.97	
280.0	1.34	143.39	279.9	-3.5	-7.5	1.5	4.28	-3.60	-74.27	
310.0	0.70	70.30	309.9	-3.4	-7.7	1.9	4.40	-2.13	-243.63	
340.0	1.36	40.73	339.9	-2.9	-7.4	2.3	2.76	2.20	-98.57	
370.0	1.80	25.92	369.8	-2.1	-6.7	2.8	1.99	1.47	-49.37	
400.0	1.89	26.71	399.8	-1.2	-5.8	3.2	0.31	0.30	2.63	
430.0	2.15	28.56	429.8	-0.2	-4.9	3.7	0.89	0.87	6.17	
460.0	2.15	28.03	459.8	0.8	-3.9	4.2	0.07	0.00	-1.77	
490.0	2.24	24.12	489.8	1.9	-2.9	4.7	0.58	0.30	-13.03	
520.0	2.26	14.74	519.7	2.9	-1.8	5.1	1.23	0.07	-31.27	
550.0	2.02	5.66	549.7	3.7	-0.7	5.3	1.38	-0.80	-30.27	
580.0	1.19	2.01	579.7	4.3	0.2	5.4	2.79	-2.77	-12.17	
610.0	0.75	337.49	609.7	4.5	0.7	5.3	1.98	-1.47	-81.73	
640.0	0.75	319.78	639.7	4.6	1.0	5.1	0.77	0.00	-59.03	
670.0	0.85	266.69	669.7	4.4	1.1	4.8	2.40	0.33	-176.97	
700.0	1.01	258.08	699.7	4.0	1.1	4.3	0.71	0.53	-28.70	
730.0	1.10	255.09	729.7	3.5	0.9	3.7	0.35	0.30	-9.97	
760.0	1.32	246.26	759.7	2.9	0.7	3.2	0.96	0.73	-29.43	
790.0	1.36	253.60	789.7	2.2	0.5	2.5	0.59	0.13	24.47	
820.0	1.23	246.53	819.7	1.6	0.3	1.9	0.69	-0.43	-23.57	
850.0	1.41	245.69	849.7	0.9	0.0	1.2	0.60	0.60	-2.80	
880.0	1.36	241.56	879.7	0.2	-0.3	0.6	0.37	-0.17	-13.77	

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Well:	WATSON RANCH B 24AWI-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)	
910.0	1.36	246.22	909.6	-0.5	-0.7	-0.1	0.37	0.00	15.53	
940.0	1.45	244.46	939.6	-1.2	-1.0	-0.7	0.33	0.30	-5.87	
970.0	1.19	248.68	969.6	-1.8	-1.2	-1.4	0.92	-0.87	14.07	
1,000.0	0.48	277.68	999.6	-2.2	-1.3	-1.8	2.68	-2.37	96.67	
1,030.0	0.40	10.23	1,029.6	-2.2	-1.2	-1.9	2.13	-0.27	308.50	
1,060.0	0.62	22.05	1,059.6	-2.0	-1.0	-1.8	0.81	0.73	39.40	
1,090.0	0.74	33.77	1,089.6	-1.7	-0.7	-1.6	0.61	0.40	39.07	
1,120.0	0.57	42.92	1,119.6	-1.3	-0.4	-1.4	0.66	-0.57	30.50	
1,150.0	0.61	24.83	1,149.6	-1.1	-0.1	-1.3	0.63	0.13	-60.30	
1,180.0	0.68	40.37	1,179.6	-0.7	0.2	-1.1	0.63	0.23	51.80	
1,210.0	0.62	33.05	1,209.6	-0.4	0.4	-0.9	0.34	-0.20	-24.40	
1,240.0	0.36	38.42	1,239.6	-0.2	0.6	-0.7	0.88	-0.87	17.90	
1,270.0	0.48	65.34	1,269.6	0.1	0.8	-0.6	0.76	0.40	89.73	
1,300.0	0.40	54.40	1,299.6	0.3	0.9	-0.4	0.39	-0.27	-36.47	
1,330.0	0.57	56.55	1,329.6	0.5	1.0	-0.1	0.57	0.57	7.17	
1,360.0	0.40	70.39	1,359.6	0.8	1.1	0.1	0.68	-0.57	46.13	
1,390.0	0.57	52.33	1,389.6	1.0	1.3	0.3	0.76	0.57	-60.20	
1,420.0	0.48	66.22	1,419.6	1.3	1.4	0.5	0.52	-0.30	46.30	
1,450.0	0.53	63.89	1,449.6	1.6	1.5	0.8	0.18	0.17	-7.77	
1,480.0	0.53	81.64	1,479.6	1.8	1.6	1.0	0.55	0.00	59.17	
1,510.0	0.44	82.61	1,509.6	2.0	1.6	1.3	0.30	-0.30	3.23	
1,540.0	0.54	66.53	1,539.6	2.3	1.7	1.5	0.56	0.33	-53.60	
1,570.0	0.53	79.53	1,569.6	2.5	1.8	1.8	0.41	-0.03	43.33	
1,600.0	0.48	78.79	1,599.6	2.7	1.8	2.1	0.17	-0.17	-2.47	
1,630.0	0.40	74.83	1,629.6	3.0	1.9	2.3	0.29	-0.27	-13.20	
1,660.0	0.48	59.85	1,659.6	3.2	2.0	2.5	0.46	0.27	-49.93	
1,690.0	0.40	59.98	1,689.6	3.4	2.1	2.7	0.27	-0.27	0.43	

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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)	
1,785.0	0.80	109.06	1,784.6	4.1	2.0	3.6	0.65	0.42	51.66	
1,870.0	0.66	119.00	1,869.6	4.6	1.6	4.6	0.22	-0.16	11.69	
1,955.0	1.23	108.36	1,954.6	5.2	1.1	5.9	0.70	0.67	-12.52	
2,041.0	1.14	111.79	2,040.6	6.2	0.5	7.6	0.13	-0.10	3.99	
2,126.0	1.49	112.80	2,125.5	7.1	-0.3	9.4	0.41	0.41	1.19	
2,212.0	1.19	128.40	2,211.5	7.8	-1.3	11.1	0.55	-0.35	18.14	
2,297.0	1.10	126.55	2,296.5	8.2	-2.3	12.4	0.11	-0.11	-2.18	
2,383.0	1.41	128.53	2,382.5	8.6	-3.4	13.9	0.36	0.36	2.30	
2,468.0	0.88	124.14	2,467.5	9.1	-4.5	15.3	0.63	-0.62	-5.16	
2,553.0	0.80	121.31	2,552.4	9.4	-5.1	16.3	0.11	-0.09	-3.33	
2,639.0	0.53	28.34	2,638.4	10.0	-5.1	17.0	1.14	-0.31	-108.10	
2,724.0	1.20	359.72	2,723.4	10.9	-3.9	17.2	0.91	0.79	-33.67	
2,810.0	1.36	353.58	2,809.4	12.0	-1.9	17.1	0.24	0.19	-7.14	
2,895.0	1.23	359.42	2,894.4	13.2	0.0	17.0	0.22	-0.15	6.87	
2,981.0	0.92	345.93	2,980.4	14.0	1.6	16.8	0.46	-0.36	-15.69	
3,066.0	1.19	0.34	3,065.4	14.9	3.1	16.6	0.44	0.32	16.95	
3,151.0	1.01	6.94	3,150.3	16.0	4.7	16.7	0.26	-0.21	7.76	
3,237.0	0.97	4.56	3,236.3	17.0	6.2	16.9	0.07	-0.05	-2.77	
3,322.0	1.10	2.72	3,321.3	18.1	7.7	17.0	0.16	0.15	-2.16	
3,408.0	1.05	354.37	3,407.3	19.0	9.4	16.9	0.19	-0.06	-9.71	
3,493.0	1.14	332.97	3,492.3	19.7	10.9	16.5	0.49	0.11	-25.18	
3,578.0	0.83	332.88	3,577.3	20.0	12.2	15.8	0.36	-0.36	-0.11	
3,664.0	0.83	312.22	3,663.3	20.0	13.2	15.1	0.35	0.00	-24.02	
3,749.0	0.57	286.69	3,748.3	19.7	13.7	14.2	0.47	-0.31	-30.04	
3,835.0	0.88	252.06	3,834.3	18.8	13.6	13.2	0.61	0.36	-40.27	
3,920.0	1.16	246.78	3,919.2	17.4	13.1	11.8	0.35	0.33	-6.21	
4,005.0	1.28	240.26	4,004.2	15.6	12.3	10.1	0.22	0.14	-7.67	

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4,091.0	1.74	215.41	4,090.2	13.4	10.7	8.6	0.92	0.53	-28.90	
4,176.0	1.20	220.56	4,175.2	11.3	9.0	7.2	0.65	-0.64	6.06	
4,261.0	0.44	317.72	4,260.2	10.4	8.6	6.4	1.56	-0.89	114.31	
4,347.0	0.48	359.55	4,346.2	10.6	9.2	6.2	0.38	0.05	48.64	
4,433.0	0.31	343.60	4,432.2	10.9	9.7	6.1	0.23	-0.20	-18.55	
4,518.0	0.22	177.62	4,517.1	10.9	9.8	6.1	0.62	-0.11	-195.27	
4,604.0	0.48	166.76	4,603.1	10.6	9.3	6.2	0.31	0.30	-12.63	
4,689.0	0.48	185.66	4,688.1	10.2	8.6	6.2	0.19	0.00	22.24	
4,774.0	0.70	198.98	4,773.1	9.5	7.7	6.0	0.30	0.26	15.67	
4,860.0	0.53	198.32	4,859.1	8.8	6.9	5.7	0.20	-0.20	-0.77	
4,945.0	0.83	217.43	4,944.1	7.8	6.0	5.2	0.44	0.35	22.48	
5,031.0	1.05	213.30	5,030.1	6.5	4.8	4.4	0.27	0.26	-4.80	
5,116.0	0.88	238.18	5,115.1	5.1	3.9	3.4	0.53	-0.20	29.27	
5,201.0	0.88	265.82	5,200.1	3.9	3.5	2.2	0.49	0.00	32.52	
5,287.0	0.79	261.64	5,286.1	2.9	3.3	1.0	0.13	-0.10	-4.86	
5,372.0	0.57	258.68	5,371.1	2.0	3.2	0.0	0.26	-0.26	-3.48	
5,457.0	0.46	331.33	5,456.1	1.7	3.4	-0.6	0.73	-0.13	85.47	
5,543.0	0.62	349.58	5,542.1	1.9	4.1	-0.9	0.27	0.19	21.22	
5,628.0	0.40	321.28	5,627.1	2.2	4.8	-1.1	0.39	-0.26	-33.29	
5,714.0	0.88	2.45	5,713.1	2.6	5.7	-1.3	0.74	0.56	47.87	
5,799.0	0.75	7.73	5,798.1	3.4	6.9	-1.2	0.18	-0.15	6.21	
5,885.0	0.48	17.92	5,884.1	4.2	7.8	-1.0	0.34	-0.31	11.85	
5,970.0	0.26	278.03	5,969.1	4.3	8.2	-1.1	0.69	-0.26	-117.52	
6,055.0	0.82	251.13	6,054.0	3.6	8.0	-1.8	0.71	0.66	-31.65	
6,141.0	1.05	263.22	6,140.0	2.4	7.7	-3.2	0.35	0.27	14.06	
6,226.0	1.45	276.76	6,225.0	1.0	7.8	-5.0	0.58	0.47	15.93	
6,311.0	1.41	258.57	6,310.0	-0.7	7.7	-7.1	0.53	-0.05	-21.40	

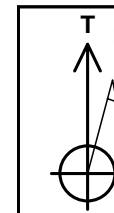
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6,397.0	1.45	252.63	6,396.0	-2.6	7.1	-9.2	0.18	0.05	-6.91	
6,482.0	1.80	252.81	6,480.9	-4.9	6.4	-11.5	0.41	0.41	0.21	
6,568.0	1.98	249.95	6,566.9	-7.5	5.5	-14.2	0.24	0.21	-3.33	
6,653.0	2.24	249.69	6,651.8	-10.5	4.4	-17.1	0.31	0.31	-0.31	
6,738.0	2.50	245.30	6,736.8	-13.9	3.1	-20.4	0.37	0.31	-5.16	
6,824.0	2.86	237.43	6,822.7	-17.8	1.1	-23.9	0.60	0.42	-9.15	
6,909.0	3.34	238.13	6,907.5	-22.4	-1.3	-27.8	0.57	0.56	0.82	
6,995.0	3.78	238.88	6,993.4	-27.7	-4.1	-32.3	0.51	0.51	0.87	
7,080.0	3.95	236.85	7,078.2	-33.4	-7.1	-37.2	0.26	0.20	-2.39	
7,165.0	4.39	233.03	7,162.9	-39.5	-10.7	-42.2	0.61	0.52	-4.49	
7,251.0	4.75	230.18	7,248.7	-46.4	-15.0	-47.6	0.49	0.42	-3.31	
7,343.0	5.05	225.52	7,340.3	-54.2	-20.2	-53.4	0.54	0.33	-5.07	
7,400.0	5.05	225.52	7,397.1	-59.2	-23.7	-57.0	0.00	0.00	0.00	

Checked By: _____	Approved By: _____	Date: _____
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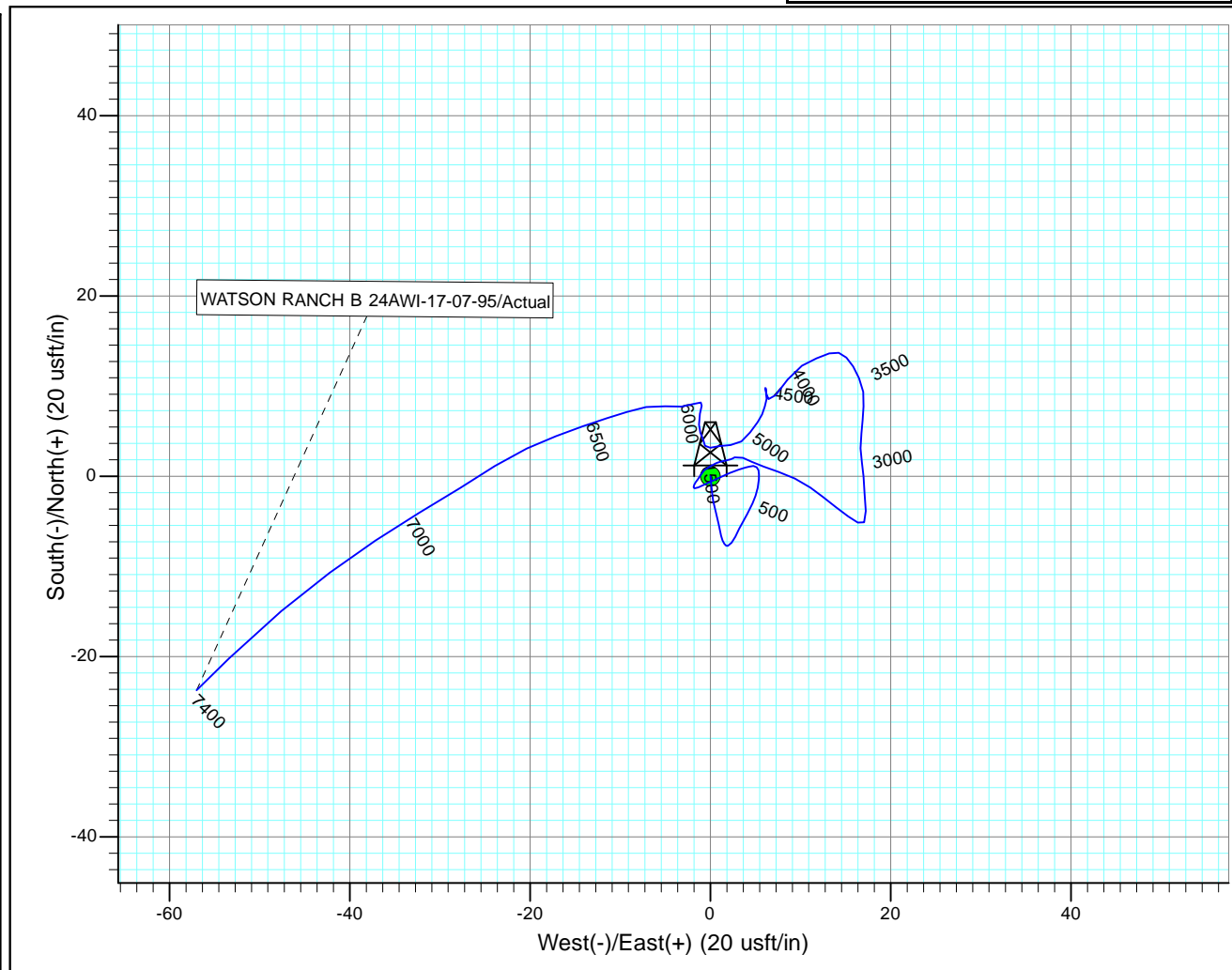
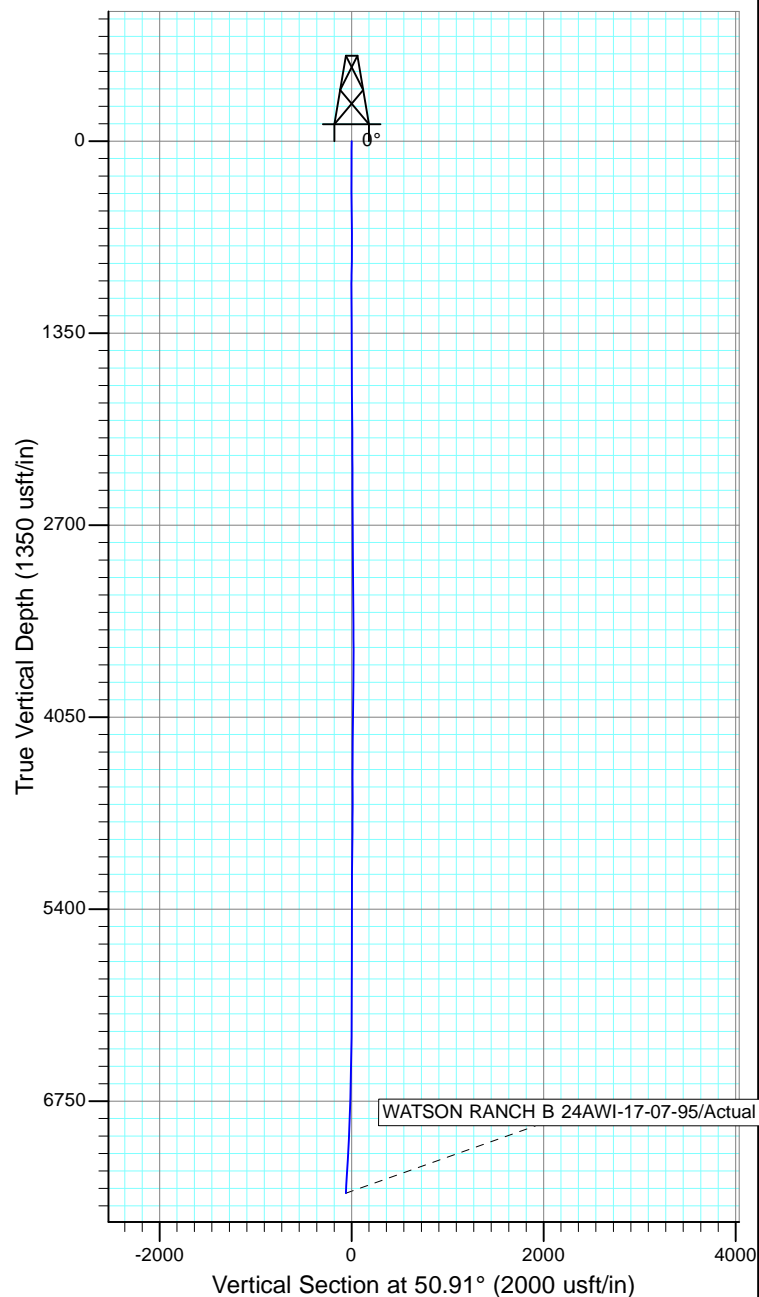


Project: Rockies Region
Site: Watson Ranch B
Well: WATSON RANCH B 24AWI-17-07-95
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.88°

Magnetic Field
Strength: 51841.0snT
Dip Angle: 65.58°
Date: 3/3/2015
Model: IGRF2010



Design: Actual (WATSON RANCH B 24AWI-17-07-95/Wellbore #1)

Created By: *Matthew Linton*

Date: 11:35, June 02 2015

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