



Ursa Operating Company, LLC

Rio Blanco County, Colorado

BR C-240

BR C-240 FED 31B-25-2-98

Wellbore #1

Design: Actual

End of Well Report

05 January, 2019

Payzone Directional Service

End of Well Report

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well BR C-240 FED 31B-25-2-98
Project:	Rio Blanco County, Colorado	TVD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Site:	BR C-240	MD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Well:	BR C-240 FED 31B-25-2-98	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

Project	Rio Blanco County, Colorado		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site	BR C-240		
Site Position:		Northing:	1,203,233.71 usft
From:	Map	Easting:	2,203,189.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	39.856238800
		Longitude:	-108.338695300
		Grid Convergence:	-1.83 °

Well		BR C-240 FED 31B-25-2-98, SHL: Lat 39.856125605 Long -108.338611990				
Well Position	+N/-S	0.0 usft	Northing:	1,203,191.75 usft	Latitude:	39.856125605
	+E/-W	0.0 usft	Easting:	2,203,211.06 usft	Longitude:	-108.338611990
Position Uncertainty		0.0 usft	Wellhead Elevation:	6,325.5 usft	Ground Level:	6,304.5 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/17/2018	9.74	65.79	51,508

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	218.76

Survey Program	Date	1/5/2019		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
102.0	10,664.0	Actual (Wellbore #1)	MWD	MWD - Standard

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Well:	BR C-240 FED 31B-25-2-98	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	
102.0	0.44	208.51	102.0	0.4	-0.3	-0.2	0.43	0.43	0.00	
132.0	0.53	201.62	132.0	0.6	-0.6	-0.3	0.36	0.30	-22.97	
162.0	0.56	199.59	162.0	0.9	-0.8	-0.4	0.12	0.10	-6.77	
195.0	0.70	227.02	195.0	1.3	-1.1	-0.6	0.99	0.42	83.12	
224.0	1.19	234.71	224.0	1.7	-1.4	-1.0	1.74	1.69	26.52	
254.0	1.80	210.67	254.0	2.5	-2.0	-1.5	2.87	2.03	-80.13	
285.0	2.37	210.80	285.0	3.6	-3.0	-2.0	1.84	1.84	0.42	
316.0	3.19	207.10	315.9	5.1	-4.3	-2.8	2.71	2.65	-11.94	
327.0	3.47	205.39	326.9	5.7	-4.9	-3.0	2.70	2.55	-15.55	
358.0	4.35	208.95	357.8	7.8	-6.7	-4.0	2.94	2.84	11.48	
388.0	5.27	212.25	387.7	10.3	-8.9	-5.3	3.20	3.07	11.00	
419.0	6.68	211.59	418.6	13.5	-11.6	-7.0	4.55	4.55	-2.13	
450.0	7.91	216.12	449.3	17.4	-14.9	-9.2	4.38	3.97	14.61	
481.0	8.83	217.44	480.0	21.9	-18.5	-11.9	3.03	2.97	4.26	
511.0	9.98	219.46	509.6	26.8	-22.4	-15.0	3.99	3.83	6.73	
542.0	10.42	217.79	540.1	32.3	-26.6	-18.4	1.71	1.42	-5.39	
572.0	11.03	217.08	569.6	37.9	-31.1	-21.8	2.08	2.03	-2.37	
602.0	11.38	218.67	599.0	43.7	-35.7	-25.4	1.56	1.17	5.30	
694.0	12.35	218.31	689.0	62.6	-50.5	-37.1	1.06	1.05	-0.39	
785.0	12.35	217.17	777.9	82.1	-65.9	-49.0	0.27	0.00	-1.25	
876.0	12.57	216.51	866.8	101.7	-81.6	-60.8	0.29	0.24	-0.73	
970.0	13.58	218.62	958.3	123.0	-98.4	-73.8	1.19	1.07	2.24	
1,065.0	14.98	216.49	1,050.4	146.4	-117.0	-88.1	1.57	1.47	-2.24	
1,160.0	14.41	218.18	1,142.3	170.5	-136.2	-102.7	0.75	-0.60	1.78	
1,255.0	13.45	218.09	1,234.5	193.3	-154.2	-116.8	1.01	-1.01	-0.09	
1,350.0	13.84	222.45	1,326.8	215.7	-171.3	-131.3	1.16	0.41	4.59	

Payzone Directional Service

End of Well Report

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Project:	Rio Blanco County, Colorado	TVD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Site:	BR C-240	MD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Well:	BR C-240 FED 31B-25-2-98	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)
1,445.0	12.96	224.20	1,419.2	237.7	-187.3	-146.4	1.02	-0.93	1.84
1,539.0	11.82	220.56	1,511.0	257.8	-202.1	-160.0	1.47	-1.21	-3.87
1,634.0	11.73	219.02	1,604.0	277.2	-217.0	-172.4	0.34	-0.09	-1.62
1,729.0	13.25	218.31	1,696.8	297.7	-233.1	-185.2	1.61	1.60	-0.75
1,824.0	11.82	217.70	1,789.5	318.3	-249.3	-197.9	1.51	-1.51	-0.64
1,919.0	10.31	216.70	1,882.8	336.5	-263.8	-208.9	1.60	-1.59	-1.05
2,014.0	10.81	218.58	1,976.1	354.0	-277.6	-219.6	0.64	0.53	1.98
2,109.0	11.34	214.84	2,069.4	372.2	-292.3	-230.5	0.94	0.56	-3.94
2,203.0	12.61	220.16	2,161.3	391.7	-307.7	-242.4	1.79	1.35	5.66
2,298.0	13.49	223.68	2,253.9	413.1	-323.6	-256.7	1.25	0.93	3.71
2,393.0	13.27	221.96	2,346.3	435.0	-339.7	-271.7	0.48	-0.23	-1.81
2,488.0	12.70	222.13	2,438.9	456.3	-355.6	-285.9	0.60	-0.60	0.18
2,583.0	12.92	217.00	2,531.5	477.3	-371.8	-299.3	1.22	0.23	-5.40
2,678.0	12.74	217.00	2,624.1	498.4	-388.7	-312.0	0.19	-0.19	0.00
2,773.0	12.00	217.83	2,716.9	518.8	-404.8	-324.4	0.80	-0.78	0.87
2,867.0	12.79	218.75	2,808.7	539.0	-420.7	-336.9	0.87	0.84	0.98
2,962.0	12.17	217.66	2,901.5	559.5	-436.8	-349.6	0.70	-0.65	-1.15
3,057.0	12.74	219.19	2,994.3	580.0	-452.8	-362.3	0.69	0.60	1.61
3,152.0	13.23	221.08	3,086.8	601.3	-469.2	-376.1	0.68	0.52	1.99
3,247.0	12.70	223.15	3,179.4	622.6	-485.0	-390.4	0.74	-0.56	2.18
3,341.0	11.35	223.69	3,271.3	642.1	-499.2	-403.8	1.44	-1.44	0.57
3,436.0	11.43	221.65	3,364.5	660.8	-513.0	-416.6	0.43	0.08	-2.15
3,531.0	12.46	222.54	3,457.4	680.4	-527.6	-429.7	1.10	1.08	0.94
3,545.0	12.52	221.39	3,471.1	683.5	-529.8	-431.8	1.83	0.43	-8.21
Last PZD Surface Survey									
3,611.0	13.30	222.90	3,535.4	698.2	-540.8	-441.7	1.29	1.18	2.29
3,706.0	12.40	223.10	3,628.0	719.3	-556.2	-456.1	0.95	-0.95	0.21

Payzone Directional Service

End of Well Report

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Project:	Rio Blanco County, Colorado	TVD Reference:	BR C-24O FED 31B-25-2-98 @ 6325.5usft (EST KB)
Site:	BR C-24O	MD Reference:	BR C-24O FED 31B-25-2-98 @ 6325.5usft (EST KB)
Well:	BR C-24O FED 31B-25-2-98	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)	
3,801.0	10.70	222.10	3,721.1	738.2	-570.2	-469.0	1.80	-1.79	-1.05	
3,896.0	11.10	222.60	3,814.4	756.2	-583.5	-481.1	0.43	0.42	0.53	
3,990.0	12.40	225.90	3,906.4	775.2	-597.2	-494.4	1.56	1.38	3.51	
4,084.0	13.00	227.40	3,998.1	795.7	-611.3	-509.5	0.73	0.64	1.60	
4,179.0	12.90	227.70	4,090.7	816.7	-625.7	-525.2	0.13	-0.11	0.32	
4,273.0	13.90	227.40	4,182.1	838.2	-640.4	-541.2	1.07	1.06	-0.32	
4,368.0	14.70	223.50	4,274.2	861.5	-656.9	-557.9	1.32	0.84	-4.11	
4,462.0	15.40	220.90	4,365.0	885.9	-675.0	-574.3	1.03	0.74	-2.77	
4,557.0	16.00	217.00	4,456.4	911.6	-695.0	-590.5	1.28	0.63	-4.11	
4,652.0	16.10	212.10	4,547.7	937.8	-716.6	-605.3	1.43	0.11	-5.16	
4,746.0	14.70	210.20	4,638.4	962.5	-737.9	-618.3	1.58	-1.49	-2.02	
4,841.0	12.79	208.64	4,730.6	984.8	-757.6	-629.4	2.05	-2.01	-1.64	
4,935.0	12.84	209.16	4,822.3	1,005.3	-775.8	-639.5	0.13	0.05	0.55	
5,030.0	12.53	212.06	4,915.0	1,026.0	-793.8	-650.1	0.75	-0.33	3.05	
5,124.0	12.97	216.99	5,006.7	1,046.6	-810.8	-661.8	1.25	0.47	5.24	
5,218.0	13.45	221.47	5,098.2	1,068.1	-827.5	-675.4	1.20	0.51	4.77	
5,313.0	13.32	220.68	5,190.6	1,090.1	-844.0	-689.9	0.24	-0.14	-0.83	
5,407.0	13.14	218.74	5,282.1	1,111.6	-860.6	-703.6	0.51	-0.19	-2.06	
5,502.0	13.05	217.25	5,374.6	1,133.1	-877.5	-716.9	0.37	-0.09	-1.57	
5,596.0	13.54	215.93	5,466.1	1,154.7	-894.9	-729.7	0.61	0.52	-1.40	
5,691.0	14.15	215.58	5,558.4	1,177.4	-913.4	-743.0	0.65	0.64	-0.37	
5,786.0	12.48	210.31	5,650.8	1,199.1	-931.7	-755.0	2.17	-1.76	-5.55	
5,880.0	11.38	206.53	5,742.8	1,218.2	-948.7	-764.2	1.43	-1.17	-4.02	
5,950.6	10.09	204.76	5,812.1	1,231.1	-960.6	-769.9	1.88	-1.82	-2.51	
31B-25-2-98 TGT										
5,974.0	9.67	204.07	5,835.2	1,234.9	-964.2	-771.6	1.88	-1.81	-2.95	
6,069.0	5.63	194.93	5,929.3	1,246.9	-976.0	-776.0	4.43	-4.25	-9.62	

Payzone Directional Service

End of Well Report

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Design:	Actual	Database:	EDM 5000.1 Single User Db

Survey										
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6,163.0	2.29	184.99	6,023.1	1,252.7	-982.4	-777.4	3.61	-3.55	-10.57	
6,258.0	0.62	191.06	6,118.1	1,254.7	-984.8	-777.7	1.76	-1.76	6.39	
6,353.0	0.66	141.84	6,213.0	1,255.3	-985.7	-777.4	0.56	0.04	-51.81	
6,446.7	1.44	90.17	6,306.8	1,254.7	-986.1	-775.9	1.23	0.83	-55.11	
31B-25-2-98 VP										
6,448.0	1.45	89.90	6,308.0	1,254.7	-986.1	-775.9	1.23	1.10	-21.83	
6,542.0	2.46	88.23	6,402.0	1,252.6	-986.1	-772.7	1.08	1.07	-1.78	
6,637.0	4.00	76.27	6,496.8	1,248.7	-985.2	-767.4	1.76	1.62	-12.59	
6,731.0	3.90	69.20	6,590.6	1,243.3	-983.3	-761.2	0.53	-0.11	-7.52	
6,826.0	3.50	48.00	6,685.4	1,237.7	-980.2	-756.1	1.49	-0.42	-22.32	
6,920.0	2.10	28.40	6,779.3	1,233.2	-976.8	-753.1	1.78	-1.49	-20.85	
7,015.0	0.70	351.20	6,874.3	1,231.0	-974.7	-752.4	1.68	-1.47	-39.16	
7,109.0	0.50	256.40	6,968.3	1,231.0	-974.2	-752.9	0.95	-0.21	-100.85	
7,204.0	0.50	229.20	7,063.3	1,231.7	-974.6	-753.6	0.25	0.00	-28.63	
7,298.0	1.00	220.60	7,157.2	1,232.9	-975.4	-754.4	0.54	0.53	-9.15	
7,393.0	1.10	234.70	7,252.2	1,234.7	-976.6	-755.7	0.29	0.11	14.84	
7,487.0	1.20	240.70	7,346.2	1,236.4	-977.6	-757.3	0.17	0.11	6.38	
7,582.0	1.40	227.30	7,441.2	1,238.5	-978.9	-759.0	0.38	0.21	-14.11	
7,677.0	0.90	229.10	7,536.2	1,240.4	-980.2	-760.4	0.53	-0.53	1.89	
7,771.0	0.50	12.10	7,630.2	1,240.7	-980.2	-760.9	1.42	-0.43	152.13	
7,866.0	2.20	32.10	7,725.1	1,238.6	-978.3	-759.9	1.83	1.79	21.05	
7,960.0	3.60	29.40	7,819.0	1,233.9	-974.2	-757.5	1.50	1.49	-2.87	
8,055.0	1.50	349.00	7,913.9	1,230.1	-970.4	-756.2	2.78	-2.21	-42.53	
8,150.0	1.20	298.70	8,008.9	1,229.5	-968.7	-757.3	1.24	-0.32	-52.95	
8,244.0	2.15	271.39	8,102.9	1,230.7	-968.2	-760.0	1.29	1.01	-29.05	
8,339.0	2.99	266.29	8,197.8	1,233.5	-968.3	-764.2	0.92	0.88	-5.37	
8,433.0	2.68	255.92	8,291.6	1,236.9	-969.0	-768.8	0.64	-0.33	-11.03	

Payzone Directional Service

End of Well Report

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Design:	Actual	Database:	EDM 5000.1 Single User Db

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8,529.0	2.77	131.47	8,387.6	1,238.8	-971.0	-769.2	5.02	0.09	-129.64
8,623.0	5.54	111.43	8,481.3	1,237.5	-974.2	-763.3	3.28	2.95	-21.32
8,718.0	2.07	112.66	8,576.1	1,235.7	-976.5	-757.5	3.65	-3.65	1.29
8,812.0	0.57	152.30	8,670.1	1,235.4	-977.6	-755.7	1.78	-1.60	42.17
8,907.0	0.97	243.27	8,765.1	1,236.3	-978.4	-756.2	1.19	0.42	95.76
9,002.0	1.63	245.99	8,860.1	1,238.3	-979.3	-758.1	0.70	0.69	2.86
9,096.0	1.71	249.24	8,954.0	1,240.7	-980.4	-760.7	0.13	0.09	3.46
9,191.0	2.15	253.37	9,049.0	1,243.4	-981.4	-763.7	0.49	0.46	4.35
9,286.0	2.42	237.38	9,143.9	1,246.7	-983.0	-767.1	0.73	0.28	-16.83
9,380.0	2.77	246.17	9,237.8	1,250.6	-984.9	-770.8	0.56	0.37	9.35
9,475.0	3.56	255.04	9,332.7	1,255.0	-986.6	-775.8	0.98	0.83	9.34
9,569.0	3.91	258.29	9,426.5	1,259.9	-988.0	-781.7	0.44	0.37	3.46
9,601.0	3.69	257.33	9,458.4	1,261.5	-988.5	-783.8	0.72	-0.69	-3.00
9,632.0	3.69	257.50	9,489.3	1,263.1	-988.9	-785.8	0.04	0.00	0.55
9,663.0	3.65	255.57	9,520.3	1,264.6	-989.4	-787.7	0.42	-0.13	-6.23
9,757.0	3.34	257.68	9,614.1	1,269.2	-990.7	-793.3	0.36	-0.33	2.24
9,852.0	2.90	262.60	9,708.9	1,273.0	-991.6	-798.3	0.54	-0.46	5.18
9,946.0	3.20	261.50	9,802.8	1,276.7	-992.3	-803.3	0.33	0.32	-1.17
10,041.0	3.60	257.30	9,897.6	1,281.0	-993.3	-808.8	0.50	0.42	-4.42
10,135.0	3.10	248.00	9,991.5	1,285.5	-995.0	-814.1	0.78	-0.53	-9.89
10,230.0	2.50	248.01	10,086.4	1,289.5	-996.7	-818.4	0.63	-0.63	0.01
10,325.0	2.50	247.30	10,181.3	1,293.2	-998.3	-822.2	0.03	0.00	-0.75
10,420.0	2.30	255.20	10,276.2	1,296.5	-999.6	-826.0	0.41	-0.21	8.32
10,515.0	2.81	283.61	10,371.1	1,299.0	-999.5	-830.1	1.42	0.54	29.91
10,584.0	3.60	285.28	10,440.0	1,300.6	-998.5	-833.8	1.15	1.14	2.42
Last PZD Survey									

Payzone Directional Service

End of Well Report

Company:	Ursa Operating Company, LLC	Local Co-ordinate Reference:	Well BR C-240 FED 31B-25-2-98
Project:	Rio Blanco County, Colorado	TVD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Site:	BR C-240	MD Reference:	BR C-240 FED 31B-25-2-98 @ 6325.5usft (EST KB)
Well:	BR C-240 FED 31B-25-2-98	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Actual	Database:	EDM 5000.1 Single User Db

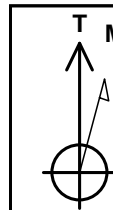
Survey									
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Build (°/100usft)	Turn (°/100usft)
10,664.0	3.60	285.28	10,519.8	1,302.6	-997.2	-838.6	0.00	0.00	0.00
Straight Line Projection to TD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,545.0	3,471.1	-529.8	-431.8	Last PZD Surface Survey
10,584.0	10,440.0	-998.5	-833.8	Last PZD Survey
10,664.0	10,519.8	-997.2	-838.6	Straight Line Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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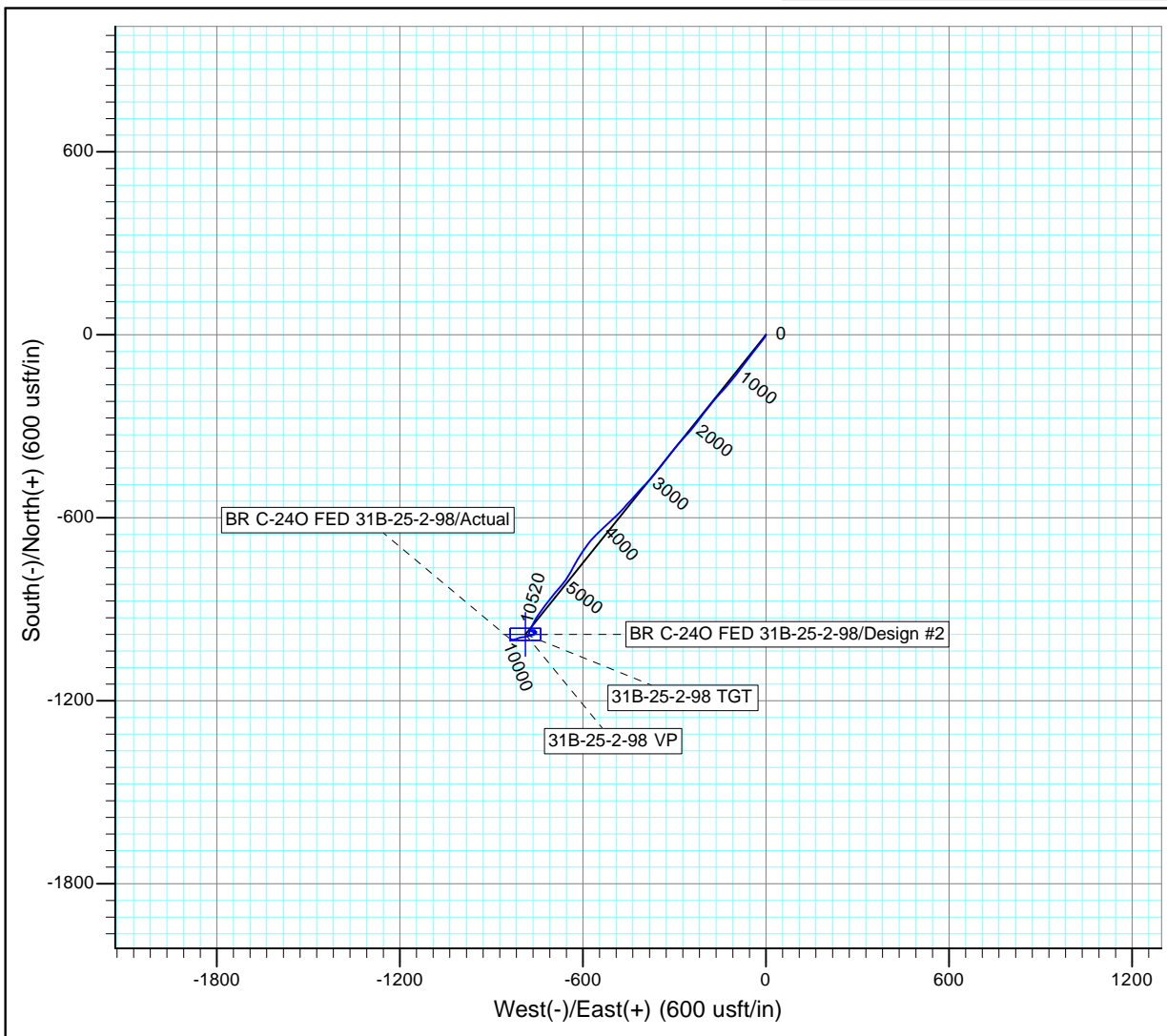
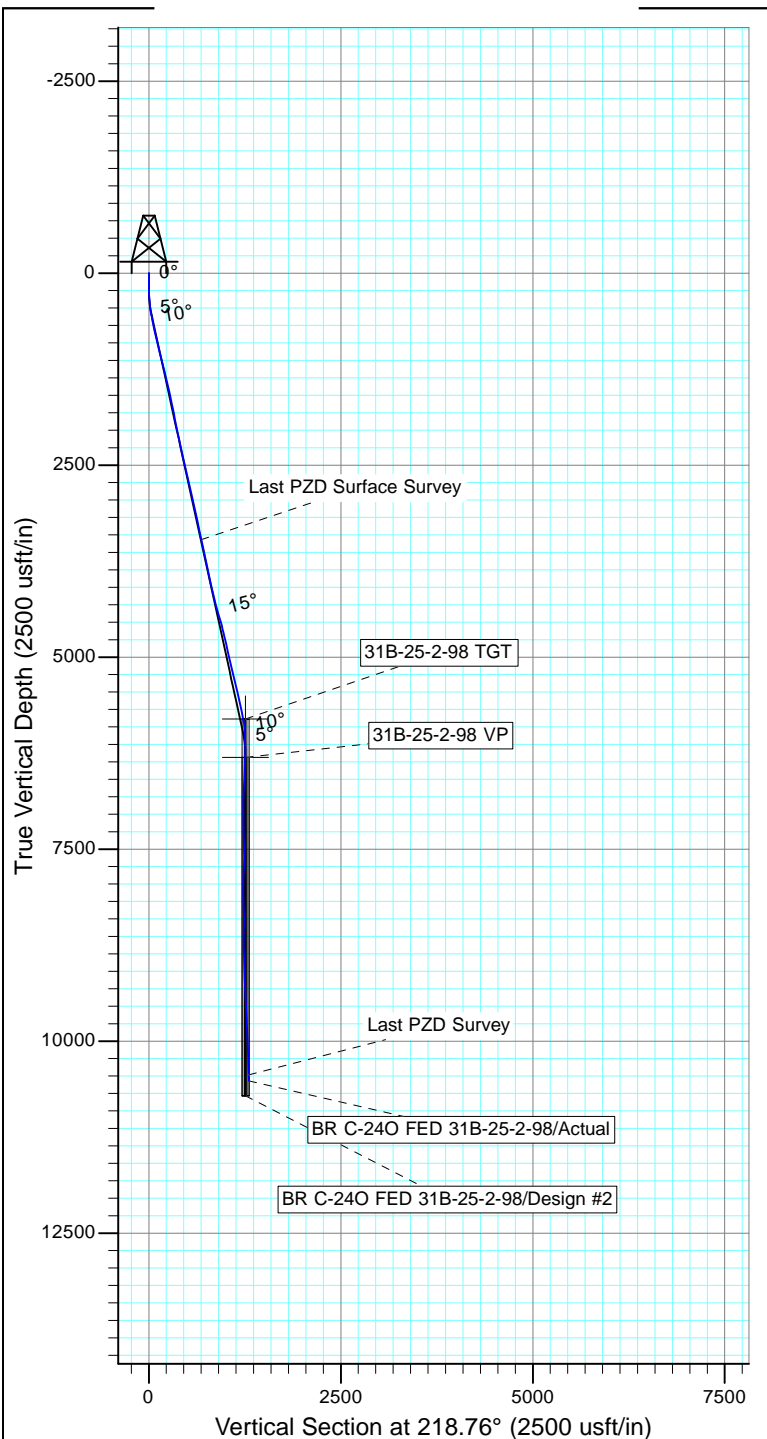


Project: Rio Blanco County, Colorado
Site: BR C-24O
Well: BR C-24O FED 31B-25-2-98
Wellbore: Wellbore #1
Design: Actual



Azimuths to True North
Magnetic North: 9.74°

Magnetic Field
Strength: 51508.1snT
Dip Angle: 65.79°
Date: 12/17/2018
Model: IGRF2015



Design: Actual (BR C-24O FED 31B-25-2-98/Wellbore #1)

Created By: Derek Stephens Date: 5:26, January 05 2019

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