



# **Ursa Operating Company, LLC**

**Rio Blanco County, Colorado**

**Boies Ranch B-19N Pad**

**Boies Ranch B-19N 23C-19-2-97**

**Wellbore #1**

**Plan: Design #1**

## **Standard Planning Report**

**13 November, 2017**



<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Boies Ranch B-19N 23C-19-2-97
<b>Company:</b>	Ursa Operating Company, LLC	<b>TVD Reference:</b>	Boies Ranch B-19N 23C-19-2-97 @ 6325.8usft (Est KB)
<b>Project:</b>	Rio Blanco County, Colorado	<b>MD Reference:</b>	Boies Ranch B-19N 23C-19-2-97 @ 6325.8usft (Est KB)
<b>Site:</b>	Boies Ranch B-19N Pad	<b>North Reference:</b>	True
<b>Well:</b>	Boies Ranch B-19N 23C-19-2-97	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

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

<b>Site</b>	Boies Ranch B-19N Pad		
<b>Site Position:</b>		<b>Northing:</b>	1,203,643.43 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,206,000.33 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	39.857609622
		<b>Longitude:</b>	-108.328733084
		<b>Grid Convergence:</b>	-1.83 °

<b>Well</b>	Boies Ranch B-19N 23C-19-2-97, SHL: Lat 39.857512640 Long -108.328250360		
<b>Well Position</b>	<b>+N/-S</b>	-35.3 usft	<b>Northing:</b> 1,203,603.81 usft
	<b>+E/-W</b>	135.5 usft	<b>Easting:</b> 2,206,134.66 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	6,325.8 usft
		<b>Ground Level:</b>	6,304.8 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	9/25/2017	9.86	65.82	51,647

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.0	0.0	0.0	10.70	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,074.5	9.61	10.70	1,073.3	22.6	4.3	3.50	3.50	0.00	10.70	
5,964.6	9.61	10.70	5,894.7	824.7	155.9	0.00	0.00	0.00	0.00	
6,239.2	0.00	0.00	6,168.0	847.2	160.1	3.50	-3.50	0.00	180.00	BRB 19N 23C-19-2-9'
11,043.2	0.00	0.00	10,972.0	847.2	160.1	0.00	0.00	0.00	0.00	

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<b>Site:</b>	Boies Ranch B-19N Pad	<b>North Reference:</b>	True
<b>Well:</b>	Boies Ranch B-19N 23C-19-2-97	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
0.1	0.00	0.00	0.1	0.0	0.0	0.0	0.00	0.00	0.00	
SHL 39.857512640, -108.328250360										
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	
Start Build 3.50										
836.0	1.26	10.70	836.0	0.4	0.1	0.4	3.50	3.50	0.00	
Mahogany Bench										
893.1	3.26	10.70	893.0	2.6	0.5	2.6	3.50	3.50	0.00	
Dissolution Surface										
900.0	3.50	10.70	899.9	3.0	0.6	3.1	3.50	3.50	0.00	
1,000.0	7.00	10.70	999.5	12.0	2.3	12.2	3.50	3.50	0.00	
1,074.5	9.61	10.70	1,073.3	22.6	4.3	23.0	3.50	3.50	0.00	
Start 4890.1 hold at 1074.5 MD										
1,100.0	9.61	10.70	1,098.4	26.7	5.1	27.2	0.00	0.00	0.00	
1,200.0	9.61	10.70	1,197.0	43.1	8.2	43.9	0.00	0.00	0.00	
1,300.0	9.61	10.70	1,295.6	59.5	11.3	60.6	0.00	0.00	0.00	
1,400.0	9.61	10.70	1,394.1	76.0	14.4	77.3	0.00	0.00	0.00	
1,500.0	9.61	10.70	1,492.7	92.4	17.5	94.0	0.00	0.00	0.00	
1,600.0	9.61	10.70	1,591.3	108.8	20.6	110.7	0.00	0.00	0.00	
1,700.0	9.61	10.70	1,689.9	125.2	23.7	127.4	0.00	0.00	0.00	
1,800.0	9.61	10.70	1,788.5	141.6	26.8	144.1	0.00	0.00	0.00	
1,900.0	9.61	10.70	1,887.1	158.0	29.9	160.8	0.00	0.00	0.00	
2,000.0	9.61	10.70	1,985.7	174.4	33.0	177.5	0.00	0.00	0.00	
2,012.4	9.61	10.70	1,998.0	176.4	33.3	179.5	0.00	0.00	0.00	
Garden Gulch Mbr										
2,100.0	9.61	10.70	2,084.3	190.8	36.1	194.1	0.00	0.00	0.00	
2,182.8	9.61	10.70	2,166.0	204.4	38.6	208.0	0.00	0.00	0.00	
Wasatch										
2,200.0	9.61	10.70	2,182.9	207.2	39.2	210.8	0.00	0.00	0.00	
2,300.0	9.61	10.70	2,281.5	223.6	42.3	227.5	0.00	0.00	0.00	
2,400.0	9.61	10.70	2,380.1	240.0	45.4	244.2	0.00	0.00	0.00	
2,500.0	9.61	10.70	2,478.7	256.4	48.5	260.9	0.00	0.00	0.00	
2,600.0	9.61	10.70	2,577.3	272.8	51.6	277.6	0.00	0.00	0.00	
2,700.0	9.61	10.70	2,675.9	289.2	54.7	294.3	0.00	0.00	0.00	
2,800.0	9.61	10.70	2,774.5	305.6	57.8	311.0	0.00	0.00	0.00	
2,900.0	9.61	10.70	2,873.1	322.0	60.9	327.7	0.00	0.00	0.00	
3,000.0	9.61	10.70	2,971.7	338.4	64.0	344.4	0.00	0.00	0.00	
3,100.0	9.61	10.70	3,070.3	354.8	67.1	361.1	0.00	0.00	0.00	
3,200.0	9.61	10.70	3,168.9	371.2	70.2	377.8	0.00	0.00	0.00	
3,300.0	9.61	10.70	3,267.5	387.6	73.3	394.5	0.00	0.00	0.00	
3,400.0	9.61	10.70	3,366.1	404.0	76.4	411.1	0.00	0.00	0.00	
3,500.0	9.61	10.70	3,464.7	420.4	79.5	427.8	0.00	0.00	0.00	
3,535.8	9.61	10.70	3,500.0	426.3	80.6	433.8	0.00	0.00	0.00	
Surface Casing										

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<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
3,600.0	9.61	10.70	3,563.3	436.8	82.6	444.5	0.00	0.00	0.00	
3,700.0	9.61	10.70	3,661.9	453.2	85.7	461.2	0.00	0.00	0.00	
3,800.0	9.61	10.70	3,760.5	469.6	88.8	477.9	0.00	0.00	0.00	
3,900.0	9.61	10.70	3,859.1	486.0	91.9	494.6	0.00	0.00	0.00	
4,000.0	9.61	10.70	3,957.7	502.4	95.0	511.3	0.00	0.00	0.00	
4,100.0	9.61	10.70	4,056.3	518.8	98.1	528.0	0.00	0.00	0.00	
4,200.0	9.61	10.70	4,154.9	535.2	101.2	544.7	0.00	0.00	0.00	
4,300.0	9.61	10.70	4,253.5	551.6	104.3	561.4	0.00	0.00	0.00	
4,400.0	9.61	10.70	4,352.1	568.0	107.4	578.1	0.00	0.00	0.00	
4,500.0	9.61	10.70	4,450.7	584.4	110.5	594.8	0.00	0.00	0.00	
4,600.0	9.61	10.70	4,549.2	600.8	113.6	611.5	0.00	0.00	0.00	
4,658.6	9.61	10.70	4,607.0	610.4	115.4	621.2	0.00	0.00	0.00	
Ft Union										
4,700.0	9.61	10.70	4,647.8	617.2	116.7	628.2	0.00	0.00	0.00	
4,800.0	9.61	10.70	4,746.4	633.6	119.8	644.8	0.00	0.00	0.00	
4,900.0	9.61	10.70	4,845.0	650.0	122.9	661.5	0.00	0.00	0.00	
5,000.0	9.61	10.70	4,943.6	666.4	126.0	678.2	0.00	0.00	0.00	
5,100.0	9.61	10.70	5,042.2	682.8	129.1	694.9	0.00	0.00	0.00	
5,200.0	9.61	10.70	5,140.8	699.2	132.2	711.6	0.00	0.00	0.00	
5,300.0	9.61	10.70	5,239.4	715.6	135.3	728.3	0.00	0.00	0.00	
5,400.0	9.61	10.70	5,338.0	732.0	138.4	745.0	0.00	0.00	0.00	
5,500.0	9.61	10.70	5,436.6	748.4	141.5	761.7	0.00	0.00	0.00	
5,600.0	9.61	10.70	5,535.2	764.8	144.6	778.4	0.00	0.00	0.00	
5,700.0	9.61	10.70	5,633.8	781.2	147.7	795.1	0.00	0.00	0.00	
5,800.0	9.61	10.70	5,732.4	797.6	150.8	811.8	0.00	0.00	0.00	
5,900.0	9.61	10.70	5,831.0	814.1	153.9	828.5	0.00	0.00	0.00	
5,964.6	9.61	10.70	5,894.7	824.7	155.9	839.3	0.00	0.00	0.00	
Start Drop -3.50										
6,000.0	8.37	10.70	5,929.7	830.1	156.9	844.8	3.50	-3.50	0.00	
6,048.8	6.67	10.70	5,978.0	836.4	158.1	851.2	3.50	-3.50	0.00	
Ohio Creek										
6,100.0	4.87	10.70	6,029.0	841.4	159.0	856.3	3.50	-3.50	0.00	
6,200.0	1.37	10.70	6,128.8	846.8	160.1	861.8	3.50	-3.50	0.00	
6,239.2	0.00	0.00	6,168.0	847.2	160.1	862.2	3.50	-3.50	-27.32	
Back to Vertical - Start 4804.0 hold at 6239.2 MD - Williams Fork - Top of Gas										
6,300.0	0.00	0.00	6,228.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,328.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,428.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,528.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,628.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,728.8	847.2	160.1	862.2	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,828.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,928.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,028.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,128.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,228.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,328.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,428.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,528.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,628.8	847.2	160.1	862.2	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,728.8	847.2	160.1	862.2	0.00	0.00	0.00	

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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,900.0	0.00	0.00	7,828.8	847.2	160.1	862.2	0.00	0.00	0.00
8,000.0	0.00	0.00	7,928.8	847.2	160.1	862.2	0.00	0.00	0.00
8,100.0	0.00	0.00	8,028.8	847.2	160.1	862.2	0.00	0.00	0.00
8,200.0	0.00	0.00	8,128.8	847.2	160.1	862.2	0.00	0.00	0.00
8,300.0	0.00	0.00	8,228.8	847.2	160.1	862.2	0.00	0.00	0.00
8,400.0	0.00	0.00	8,328.8	847.2	160.1	862.2	0.00	0.00	0.00
8,500.0	0.00	0.00	8,428.8	847.2	160.1	862.2	0.00	0.00	0.00
8,600.0	0.00	0.00	8,528.8	847.2	160.1	862.2	0.00	0.00	0.00
8,700.0	0.00	0.00	8,628.8	847.2	160.1	862.2	0.00	0.00	0.00
8,800.0	0.00	0.00	8,728.8	847.2	160.1	862.2	0.00	0.00	0.00
8,900.0	0.00	0.00	8,828.8	847.2	160.1	862.2	0.00	0.00	0.00
9,000.0	0.00	0.00	8,928.8	847.2	160.1	862.2	0.00	0.00	0.00
9,100.0	0.00	0.00	9,028.8	847.2	160.1	862.2	0.00	0.00	0.00
9,200.0	0.00	0.00	9,128.8	847.2	160.1	862.2	0.00	0.00	0.00
9,300.0	0.00	0.00	9,228.8	847.2	160.1	862.2	0.00	0.00	0.00
9,348.2	0.00	0.00	9,277.0	847.2	160.1	862.2	0.00	0.00	0.00
<b>Cameo</b>									
9,400.0	0.00	0.00	9,328.8	847.2	160.1	862.2	0.00	0.00	0.00
9,500.0	0.00	0.00	9,428.8	847.2	160.1	862.2	0.00	0.00	0.00
9,600.0	0.00	0.00	9,528.8	847.2	160.1	862.2	0.00	0.00	0.00
9,700.0	0.00	0.00	9,628.8	847.2	160.1	862.2	0.00	0.00	0.00
9,800.0	0.00	0.00	9,728.8	847.2	160.1	862.2	0.00	0.00	0.00
9,893.2	0.00	0.00	9,822.0	847.2	160.1	862.2	0.00	0.00	0.00
<b>Rollins</b>									
9,900.0	0.00	0.00	9,828.8	847.2	160.1	862.2	0.00	0.00	0.00
10,000.0	0.00	0.00	9,928.8	847.2	160.1	862.2	0.00	0.00	0.00
10,037.2	0.00	0.00	9,966.0	847.2	160.1	862.2	0.00	0.00	0.00
<b>Cozzette</b>									
10,100.0	0.00	0.00	10,028.8	847.2	160.1	862.2	0.00	0.00	0.00
10,200.0	0.00	0.00	10,128.8	847.2	160.1	862.2	0.00	0.00	0.00
10,300.0	0.00	0.00	10,228.8	847.2	160.1	862.2	0.00	0.00	0.00
10,371.2	0.00	0.00	10,300.0	847.2	160.1	862.2	0.00	0.00	0.00
<b>Corcoran</b>									
10,400.0	0.00	0.00	10,328.8	847.2	160.1	862.2	0.00	0.00	0.00
10,500.0	0.00	0.00	10,428.8	847.2	160.1	862.2	0.00	0.00	0.00
10,600.0	0.00	0.00	10,528.8	847.2	160.1	862.2	0.00	0.00	0.00
10,700.0	0.00	0.00	10,628.8	847.2	160.1	862.2	0.00	0.00	0.00
10,800.0	0.00	0.00	10,728.8	847.2	160.1	862.2	0.00	0.00	0.00
10,900.0	0.00	0.00	10,828.8	847.2	160.1	862.2	0.00	0.00	0.00
11,000.0	0.00	0.00	10,928.8	847.2	160.1	862.2	0.00	0.00	0.00
11,043.2	0.00	0.00	10,972.0	847.2	160.1	862.2	0.00	0.00	0.00
<b>BHL 39.8598384, -108.3276799</b>									

<b>Database:</b>	EDM 5000.1 Single User Db	<b>Local Co-ordinate Reference:</b>	Well Boies Ranch B-19N 23C-19-2-97
<b>Company:</b>	Ursa Operating Company, LLC	<b>TVD Reference:</b>	Boies Ranch B-19N 23C-19-2-97 @ 6325.8usft (Est KB)
<b>Project:</b>	Rio Blanco County, Colorado	<b>MD Reference:</b>	Boies Ranch B-19N 23C-19-2-97 @ 6325.8usft (Est KB)
<b>Site:</b>	Boies Ranch B-19N Pad	<b>North Reference:</b>	True
<b>Well:</b>	Boies Ranch B-19N 23C-19-2-97	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #1		

#### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BRB 19N 23C-19-2-97 T - plan hits target center - Rectangle (sides W100.0 H40.0 D4,804.0)	0.00	0.00	6,168.0	847.2	160.1	1,204,445.47	2,206,321.74	39.859838400	-108.327679900

#### Formations

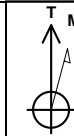
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
836.0	836.0	Mahogany Bench			
893.1	893.0	Dissolution Surface			
2,012.4	1,998.0	Garden Gulch Mbr			
2,182.8	2,166.0	Wasatch			
4,658.6	4,607.0	Ft Union			
6,048.8	5,978.0	Ohio Creek			
6,239.2	6,168.0	Williams Fork			
6,239.2	6,168.0	Top of Gas			
9,348.2	9,277.0	Cameo			
9,893.2	9,822.0	Rollins			
10,037.2	9,966.0	Cozzette			
10,371.2	10,300.0	Corcoran			

#### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
0.1	0.1	0.0	0.0	SHL 39.857512640, -108.328250360
800.0	800.0	0.0	0.0	Start Build 3.50
1,074.5	1,073.3	22.6	4.3	Start 4890.1 hold at 1074.5 MD
3,535.8	3,500.0	426.3	80.6	Surface Casing
5,964.6	5,894.7	824.7	155.9	Start Drop -3.50
6,239.2	6,168.0	847.2	160.1	Back to Vertical
6,239.2	6,168.0	847.2	160.1	Start 4804.0 hold at 6239.2 MD
11,043.2	10,972.0	847.2	160.1	BHL 39.8598384, -108.3276799
11,043.2	10,972.0	847.2	160.1	TD at 11043.2



Well Name:Boies Ranch B-19N 23C-19-2-97  
Surface Location: Boies Ranch B-19N Pad  
North American Datum 1983 US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 6304.8  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.0 0.0 1203603.81 2206134.66 39.857512640 -108.328250360  
Est KB Boies Ranch B-19N 23C-19-2-97 @ 6325.8usft (Est KB)



Azimuths to True North  
Magnetic North: 9.87°  
Magnetic Field  
Strength: 51647.1nT  
Dip Angle: 65.82°  
Date: 9/25/2015  
Model: IGRF2015

Boies Ranch B-19N Pad  
Boies Ranch B-19N 23C-19-2-97  
Design #1  
10:49, November 13 2017

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BRB 19N 23C-19-2-97 TGT	6168.0	847.2	160.1	1204445.48	2206321.74	39.859838400	-108.327679900	Rectangle (Sides: L40.0 W100.0)

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	800.0	0.00	0.00	800.0	0.0	0.0	0.00	0.00	0.0	
3	1074.5	9.61	10.70	1073.3	22.6	4.3	3.50	10.70	23.0	
4	5964.6	9.61	10.70	5894.7	824.7	155.9	0.00	0.00	839.3	
5	6239.2	0.00	0.00	6168.0	847.2	160.1	3.50	180.00	862.2	BRB 19N 23C-19-2-97 TGT
6	11043.2	0.00	0.00	10972.0	847.2	160.1	0.00	0.00	862.2	

#### ANNOTATIONS

TVD	MD	Annotation
0.1	0.1	SHL 39.857512640, -108.328250360
800.0	800.0	Start Build 3.50
1073.3	1074.5	Start 4890.1 hold at 1074.5 MD
3500.0	3535.8	Surface Casing
5894.7	5964.6	Start Drop -3.50
6168.0	6239.2	Back to Vertical
6168.0	6239.2	Start 4804.0 hold at 6239.2 MD
10972.0	11043.2	BHL 39.8598384, -108.3276799
10972.0	11043.2	TD at 11043.2

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
836.0	836.0	Mahogany Bench		
893.0	893.1	Dissolution Surface		
1998.0	2012.4	Garden Gulch Mbr		
2166.0	2182.8	Wasatch		
4607.0	4658.6	Ft Union		
5978.0	6048.8	Ohio Creek		
6168.0	6239.2	Top of Gas		
6168.0	6239.2	Williams Fork		
9277.0	9348.2	Cameo		
9822.0	9893.2	Rollins		
9966.0	10037.2	Cozzette		
10300.0	10371.2	Corcoran		

