

Well Name: **MLD 11-22**

Surface Location: MLD 5 Pad Sec.22-T4N-R68W
 North American Datum 1983 US State Plane 1983 Colorado Northern Zone

Ground Elevation: 4877.0

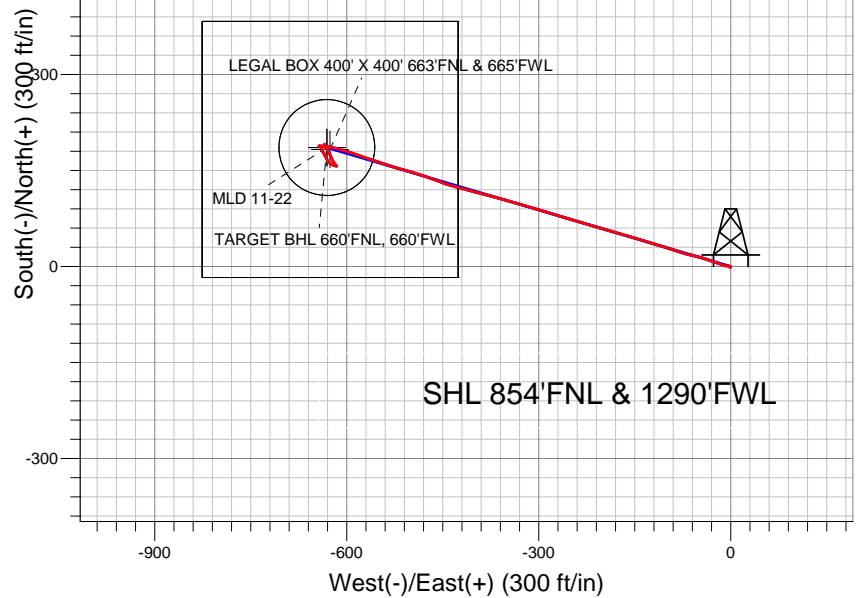
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1353937.37	3141067.88	40.303854	-104.994206

Original Well Elev WELL @ 4890.0ft (Original Well Elev)

Slot

Sundance Energy, Weld County, CO

Projected BHL 191'N & 635'W of
 surface 555'FNL & 657'FWL



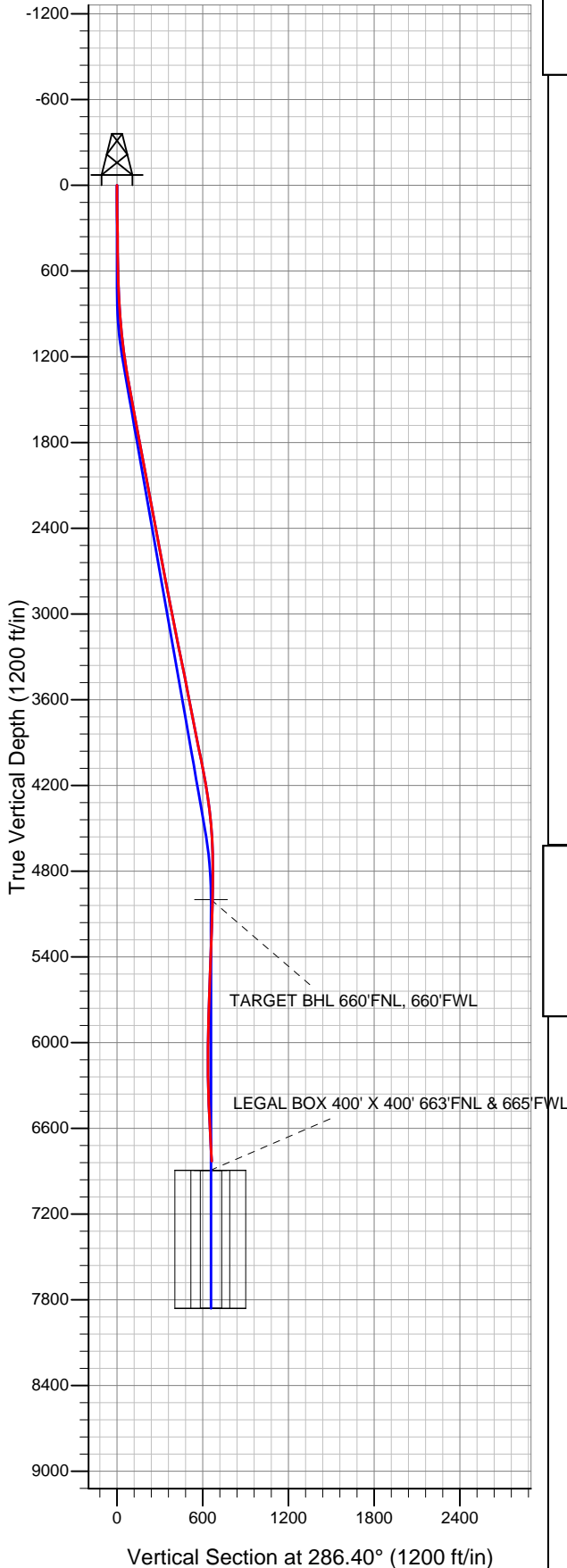
LEGEND

- MLD 11-22, Wellbore #1, Plan #2 (11-20-12) R V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
 6892'MD & 6831'TVD @ 663'VS
 4.7 deg Inc 334.0 deg AZ

Project: SEC.22-T4N-R68W
 Site: MLD 5 Pad Sec.22-T4N-R68W
 Well: MLD 11-22
 Plan: Wellbore #1





Directional

Sundance Energy, Weld County, CO

SEC.22-T4N-R68W

MLD 5 Pad Sec.22-T4N-R68W

MLD 11-22

Wellbore #1

Survey: Survey #1

Standard Survey Report

30 November, 2012

Survey	Wellbore Data									
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	94.0	1.00	208.70	94.0	-0.7	-0.4	0.2	1.06	1.06	0.00
	218.0	0.90	314.70	218.0	-1.0	-1.6	1.3	1.22	-0.08	85.48
	340.0	0.90	314.70	340.0	0.4	-3.0	2.9	0.00	0.00	0.00
	460.0	0.60	274.20	460.0	1.1	-4.3	4.4	0.49	-0.25	-33.75
	542.0	1.10	259.60	542.0	1.0	-5.5	5.5	0.66	0.61	-17.80
	610.0	1.20	265.50	609.9	0.8	-6.8	6.8	0.23	0.15	8.68
	735.0	2.40	289.50	734.9	1.6	-10.6	10.6	1.11	0.96	19.20
	860.0	3.40	289.70	859.7	3.7	-16.5	16.9	0.80	0.80	0.16
	984.0	5.40	289.00	983.3	6.8	-25.5	26.4	1.61	1.61	-0.56
	1,109.0	7.10	289.70	1,107.6	11.3	-38.4	40.0	1.36	1.36	0.56
	1,234.0	8.40	282.00	1,231.5	15.8	-54.6	56.8	1.33	1.04	-6.16
	1,359.0	9.80	285.30	1,354.9	20.6	-73.8	76.6	1.19	1.12	2.64

Company:	Sundance Energy, Weld County, CO	Local Co-ordinate Reference:	Well MLD 11-22
Project:	SEC.22-T4N-R68W	TVD Reference:	WELL @ 4890.0ft (Original Well Elev)
Site:	MLD 5 Pad Sec.22-T4N-R68W	MD Reference:	WELL @ 4890.0ft (Original Well Elev)
Well:	MLD 11-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,483.0	10.50	289.00	1,476.9	27.0	-94.6	98.4	0.77	0.56	2.98
1,608.0	10.60	287.40	1,599.8	34.2	-116.4	121.3	0.25	0.08	-1.28
1,733.0	10.30	286.50	1,722.8	40.8	-138.0	143.9	0.27	-0.24	-0.72
1,858.0	10.60	286.40	1,845.7	47.2	-159.8	166.6	0.24	0.24	-0.08
1,982.0	10.90	286.00	1,967.5	53.6	-182.0	189.7	0.25	0.24	-0.32
2,107.0	10.60	285.50	2,090.3	60.0	-204.4	213.1	0.25	-0.24	-0.40
2,232.0	10.50	287.20	2,213.2	66.4	-226.4	235.9	0.26	-0.08	1.36
2,357.0	10.10	286.90	2,336.2	73.0	-247.8	258.3	0.32	-0.32	-0.24
2,481.0	10.70	286.40	2,458.1	79.4	-269.2	280.7	0.49	0.48	-0.40
2,606.0	10.70	286.20	2,581.0	85.9	-291.5	303.9	0.03	0.00	-0.16
2,731.0	10.50	287.40	2,703.8	92.5	-313.5	326.9	0.24	-0.16	0.96
2,856.0	10.90	285.30	2,826.7	99.1	-335.8	350.1	0.45	0.32	-1.68
2,980.0	11.10	285.30	2,948.4	105.3	-358.6	373.7	0.16	0.16	0.00
3,105.0	11.40	285.30	3,071.0	111.7	-382.1	398.1	0.24	0.24	0.00
3,230.0	12.20	284.30	3,193.3	118.3	-406.8	423.7	0.66	0.64	-0.80
3,355.0	11.90	285.70	3,315.6	125.0	-432.0	449.8	0.34	-0.24	1.12
3,480.0	10.70	290.60	3,438.2	132.6	-455.3	474.2	1.23	-0.96	3.92
3,604.0	10.70	289.00	3,560.0	140.4	-477.0	497.2	0.24	0.00	-1.29
3,729.0	11.30	286.40	3,682.7	147.6	-499.7	521.0	0.62	0.48	-2.08
3,854.0	10.90	286.40	3,805.4	154.4	-522.8	545.1	0.32	-0.32	0.00
3,979.0	11.20	288.50	3,928.1	161.6	-545.6	569.0	0.40	0.24	1.68
4,103.0	11.60	288.70	4,049.6	169.4	-568.9	593.5	0.32	0.32	0.16
4,228.0	10.40	288.30	4,172.3	177.0	-591.5	617.4	0.96	-0.96	-0.32
4,353.0	8.00	285.30	4,295.7	182.8	-610.6	637.4	1.96	-1.92	-2.40
4,478.0	5.80	281.30	4,419.8	186.4	-625.2	652.3	1.80	-1.76	-3.20
4,602.0	4.00	274.80	4,543.3	188.0	-635.6	662.8	1.52	-1.45	-5.24
4,727.0	1.60	263.00	4,668.2	188.1	-641.7	668.7	1.96	-1.92	-9.44
4,852.0	0.30	293.80	4,793.1	188.0	-643.7	670.6	1.08	-1.04	24.64
4,977.0	1.20	91.60	4,918.1	188.1	-642.7	669.7	1.19	0.72	126.24
5,059.1	1.41	142.07	5,000.2	187.3	-641.2	668.0	1.37	0.25	61.49
TARGET BHL 660'FNL, 660'FWL									
5,101.0	1.80	157.30	5,042.1	186.3	-640.7	667.2	1.37	0.94	36.33
5,226.0	2.60	155.10	5,167.0	181.9	-638.7	664.1	0.64	0.64	-1.76
5,351.0	3.20	149.30	5,291.9	176.3	-635.7	659.7	0.53	0.48	-4.64
5,476.0	3.30	156.50	5,416.7	170.0	-632.5	654.8	0.34	0.08	5.76
5,600.0	2.30	144.70	5,540.5	164.7	-629.7	650.6	0.93	-0.81	-9.52
5,725.0	2.40	126.80	5,665.4	161.1	-626.1	646.1	0.59	0.08	-14.32
5,850.0	1.60	112.70	5,790.3	158.9	-622.4	641.9	0.75	-0.64	-11.28
5,975.0	1.80	103.40	5,915.3	157.7	-618.9	638.2	0.27	0.16	-7.44
6,099.0	0.90	118.80	6,039.2	156.8	-616.1	635.3	0.78	-0.73	12.42
6,224.0	0.90	310.50	6,164.2	157.0	-616.0	635.3	1.43	0.00	-134.64
6,349.0	2.30	319.60	6,289.2	159.5	-618.4	638.3	1.13	1.12	7.28
6,474.0	3.30	333.50	6,414.0	164.7	-621.6	642.8	0.96	0.80	11.12
6,599.0	4.00	335.80	6,538.8	171.9	-625.0	648.1	0.57	0.56	1.84
6,723.0	3.80	331.50	6,662.5	179.4	-628.8	653.8	0.29	-0.16	-3.47
6,846.0	4.70	334.00	6,785.1	187.5	-632.9	660.1	0.75	0.73	2.03
6,892.0	4.70	334.00	6,831.0	190.9	-634.6	662.7	0.00	0.00	0.00
TARGET CIRCLE 660'FNL & 660'FWL - LEGAL BOX 400' X 400' 663'FNL & 665'FWL									

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Site:	MLD 5 Pad Sec.22-T4N-R68W	MD Reference:	WELL @ 4890.0ft (Original Well Elev)
Well:	MLD 11-22	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Checked By: _____ Approved By: _____ Date: _____