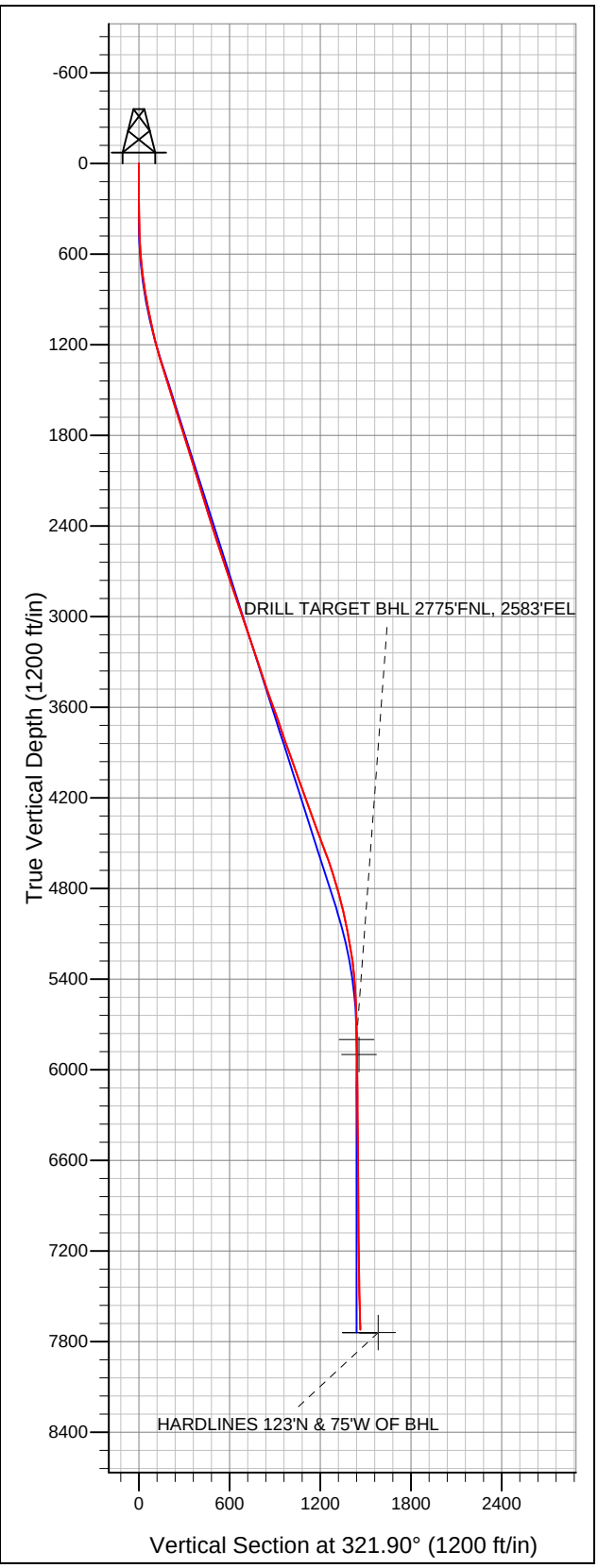
ENSIGN Directional

Well Name: Slater 4-4-28

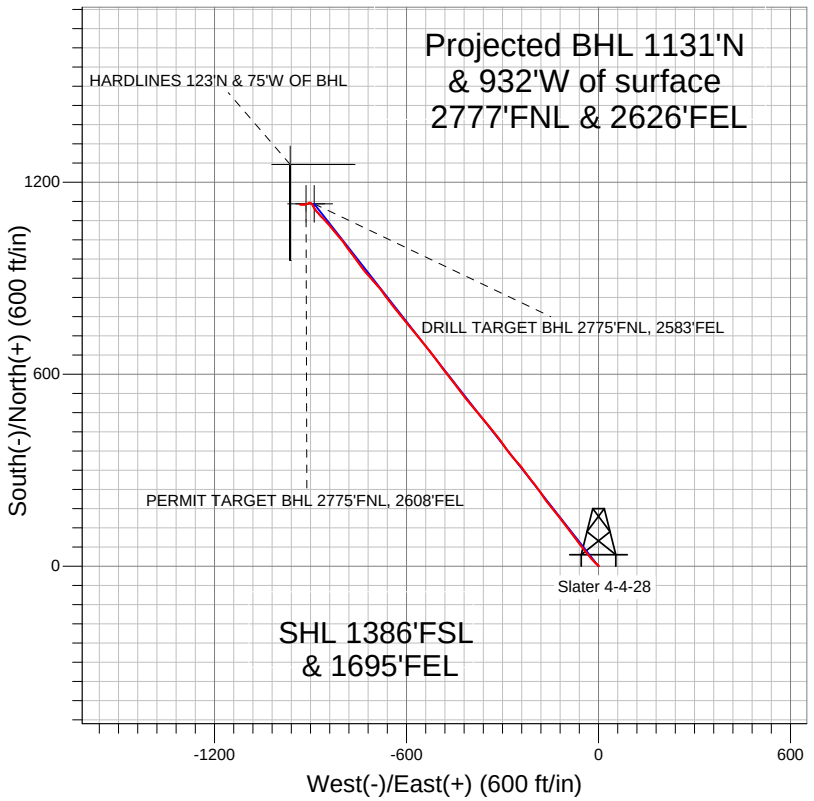
Surface Location: Slater 34-28 Pad Sec.28-T3N-R68W
North American Datum 1983 US State Plane 1983Colorado Northern Zone
Ground Elevation: 4962.0

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude	Slot
0.0	0.0	1313655.89	3138441.43	40.193320	-105.004430	

Original Well Elev WELL @ 4975.0ft (Original Well Elev)



EnCana Oil & Gas Weld County CO



LEGEND

- Survey #1
- Slater 4-4-28, Wellbore #1, Plan #1 (1-17-12) R V0
- Wellbore #1

Final Survey Plot

Projected Final Survey -
7939'MD & 7721'TVD @ 1465'VS
2.60 deg Inc 276.60 deg AZ

Project: SEC.28-T3N-R68W
Site: Slater 34-28 Pad Sec.28-T3N-R68W
Well: Slater 4-4-28
Plan: Wellbore #1

EnCana Oil & Gas Weld County CO

SEC.28-T3N-R68W
Slater 34-28 Pad Sec.28-T3N-R68W
Slater 4-4-28

Wellbore #1

Survey: Survey #1

Standard Survey Report

25 January, 2012

Ensign Directional
Survey Report

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Slater 4-4-28
Project:	SEC.28-T3N-R68W	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	Slater 34-28 Pad Sec.28-T3N-R68W	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Well:	Slater 4-4-28	**North Reference:**	True
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	Landmark

Project SEC.28-T3N-R68W, Weld County, CO

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site Slater 34-28 Pad Sec.28-T3N-R68W

Site Position:		**Northing:**	1,313,615.83 ft	**Latitude:**	40.193210
From:	Lat/Long	**Easting:**	3,138,441.66 ft	**Longitude:**	-105.004430
Position Uncertainty:	0.0 ft	**Slot Radius:**	"	**Grid Convergence:**	0.32 °

Well Slater 4-4-28

Well Position	**+N/-S**	0.0 ft	**Northing:**	1,313,655.89 ft	**Latitude:**	40.193320
	+E/-W	0.0 ft	**Easting:**	3,138,441.43 ft	**Longitude:**	-105.004430
Position Uncertainty		0.0 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,962.0 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/14/2011	8.91	66.83	52,943

Design Wellbore #1

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	321.90

Survey Program **Date** 1/25/2012

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
139.0	7,939.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
139.0	0.30	48.40	139.0	0.2	0.3	0.0	0.22	0.22	0.00
230.0	0.40	50.00	230.0	0.6	0.7	0.0	0.11	0.11	1.76
322.0	0.60	322.60	322.0	1.2	0.6	0.5	0.77	0.22	-95.00
413.0	1.30	329.00	413.0	2.5	-0.2	2.0	0.78	0.77	7.03
505.0	2.60	307.10	504.9	4.6	-2.4	5.1	1.60	1.41	-23.80
595.0	4.30	310.90	594.8	8.1	-6.6	10.4	1.90	1.89	4.22
687.0	6.20	314.90	686.4	13.8	-12.7	18.7	2.10	2.07	4.35
779.0	8.00	319.20	777.7	22.2	-20.4	30.0	2.04	1.96	4.67
871.0	9.80	320.30	868.6	33.0	-29.6	44.2	1.97	1.96	1.20
965.0	11.40	320.40	960.9	46.4	-40.6	61.5	1.70	1.70	0.11
1,089.0	11.90	324.40	1,082.4	66.2	-55.9	86.6	0.77	0.40	3.23
1,182.0	13.70	323.60	1,173.1	82.9	-68.0	107.1	1.94	1.94	-0.86

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Slater 4-4-28
Project:	SEC.28-T3N-R68W	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	Slater 34-28 Pad Sec.28-T3N-R68W	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Well:	Slater 4-4-28	**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)
1,275.0	15.60	320.70	1,263.1	101.4	-82.4	130.7	2.19	2.04	-3.12
1,368.0	17.70	324.00	1,352.1	122.5	-98.7	157.3	2.48	2.26	3.55
1,461.0	17.80	322.10	1,440.7	145.2	-115.7	185.6	0.63	0.11	-2.04
1,554.0	17.70	321.50	1,529.3	167.5	-133.2	214.0	0.22	-0.11	-0.65
1,647.0	16.30	320.50	1,618.2	188.6	-150.3	241.2	1.54	-1.51	-1.08
1,740.0	17.80	324.70	1,707.1	210.3	-166.9	268.4	2.09	1.61	4.52
1,833.0	17.80	326.20	1,795.7	233.7	-183.0	296.8	0.49	0.00	1.61
1,926.0	17.50	320.70	1,884.3	256.3	-199.7	324.9	1.82	-0.32	-5.91
2,018.0	16.50	323.50	1,972.3	277.5	-216.3	351.8	1.40	-1.09	3.04
2,111.0	17.30	323.30	2,061.3	299.2	-232.4	378.9	0.86	0.86	-0.22
2,204.0	17.50	318.70	2,150.0	320.8	-249.9	406.7	1.49	0.22	-4.95
2,297.0	16.30	318.50	2,239.0	341.1	-267.8	433.6	1.29	-1.29	-0.22
2,390.0	16.90	324.90	2,328.1	361.9	-284.2	460.2	2.07	0.65	6.88
2,483.0	18.90	323.60	2,416.6	385.1	-300.9	488.7	2.19	2.15	-1.40
2,576.0	17.80	321.40	2,504.9	408.3	-318.7	518.0	1.40	-1.18	-2.37
2,669.0	18.40	322.40	2,593.3	431.1	-336.5	546.9	0.73	0.65	1.08
2,762.0	18.00	319.90	2,681.7	453.7	-354.7	575.9	0.94	-0.43	-2.69
2,855.0	18.80	319.20	2,769.9	476.0	-373.8	605.3	0.89	0.86	-0.75
2,948.0	18.80	320.20	2,857.9	498.9	-393.2	635.2	0.35	0.00	1.08
3,041.0	18.90	320.30	2,946.0	522.0	-412.4	665.2	0.11	0.11	0.11
3,134.0	19.50	323.10	3,033.8	546.0	-431.3	695.8	1.18	0.65	3.01
3,227.0	18.20	323.40	3,121.8	570.1	-449.3	725.9	1.40	-1.40	0.32
3,320.0	18.60	321.80	3,210.0	593.4	-467.1	755.2	0.69	0.43	-1.72
3,413.0	19.10	323.00	3,298.0	617.2	-485.5	785.3	0.68	0.54	1.29
3,506.0	17.40	324.20	3,386.4	640.6	-502.8	814.4	1.87	-1.83	1.29
3,598.0	19.40	322.20	3,473.7	663.9	-520.2	843.4	2.28	2.17	-2.17
3,691.0	20.20	320.60	3,561.2	688.5	-539.8	874.9	1.04	0.86	-1.72
3,784.0	19.80	320.50	3,648.6	713.0	-560.0	906.7	0.43	-0.43	-0.11
3,877.0	18.40	320.70	3,736.4	736.6	-579.4	937.1	1.51	-1.51	0.22
3,970.0	19.30	320.40	3,824.4	759.8	-598.5	967.1	0.97	0.97	-0.32
4,063.0	19.30	320.90	3,912.2	783.5	-617.9	997.9	0.18	0.00	0.54
4,156.0	19.00	322.40	4,000.1	807.4	-636.9	1,028.4	0.62	-0.32	1.61
4,249.0	21.10	322.20	4,087.4	832.7	-656.4	1,060.3	2.26	2.26	-0.22
4,342.0	19.90	324.50	4,174.5	858.8	-675.8	1,092.8	1.55	-1.29	2.47
4,435.0	19.40	317.50	4,262.1	883.1	-695.5	1,124.0	2.59	-0.54	-7.53
4,528.0	19.30	318.40	4,349.9	905.9	-716.1	1,154.8	0.34	-0.11	0.97
4,621.0	20.70	322.40	4,437.3	930.5	-736.3	1,186.6	2.10	1.51	4.30
4,714.0	21.20	324.70	4,524.1	957.2	-756.1	1,219.8	1.03	0.54	2.47
4,807.0	19.60	322.50	4,611.3	983.3	-775.3	1,252.2	1.91	-1.72	-2.37
4,900.0	17.60	324.40	4,699.4	1,007.1	-793.0	1,281.8	2.25	-2.15	2.04
4,993.0	15.80	319.50	4,788.5	1,028.2	-809.4	1,308.5	2.46	-1.94	-5.27
5,086.0	14.90	321.40	4,878.2	1,047.1	-825.1	1,333.1	1.11	-0.97	2.04
5,178.0	12.70	319.00	4,967.5	1,064.0	-839.1	1,355.1	2.47	-2.39	-2.61
5,271.0	10.90	315.60	5,058.6	1,078.0	-851.9	1,374.0	2.07	-1.94	-3.66
5,364.0	10.30	315.70	5,150.0	1,090.3	-863.9	1,391.0	0.65	-0.65	0.11
5,457.0	8.60	320.00	5,241.7	1,101.5	-874.2	1,406.2	1.98	-1.83	4.62
5,550.0	6.70	320.00	5,333.9	1,111.0	-882.1	1,418.6	2.04	-2.04	0.00
5,643.0	4.00	330.60	5,426.5	1,118.0	-887.2	1,427.2	3.08	-2.90	11.40
5,736.0	3.30	328.50	5,519.3	1,123.1	-890.2	1,433.1	0.77	-0.75	-2.26
5,829.0	2.30	337.40	5,612.2	1,127.1	-892.3	1,437.6	1.17	-1.08	9.57
5,922.0	0.70	326.30	5,705.1	1,129.3	-893.4	1,439.9	1.74	-1.72	-11.94
6,015.0	0.70	338.00	5,798.1	1,130.3	-893.9	1,441.0	0.15	0.00	12.58
6,016.9	0.70	337.82	5,800.0	1,130.3	-893.9	1,441.1	0.17	-0.12	-9.65

DRILL TARGET BHL 2775'FNL, 2583'FEL

Company:	EnCana Oil & Gas Weld County CO	**Local Co-ordinate Reference:**	Well Slater 4-4-28
Project:	SEC.28-T3N-R68W	**TVD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Site:	Slater 34-28 Pad Sec.28-T3N-R68W	**MD Reference:**	WELL @ 4975.0ft (Original Well Elev)
Well:	Slater 4-4-28	**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)
6,108.0	0.60	327.50	5,891.1	1,131.2	-894.4	1,442.1	0.17	-0.11	-11.32
6,117.1	0.64	324.48	5,900.2	1,131.3	-894.4	1,442.2	0.61	0.49	-33.22
PERMIT TARGET BHL 2775'FNL, 2608'FEL									
6,201.0	1.10	309.10	5,984.1	1,132.2	-895.3	1,443.4	0.61	0.54	-18.33
6,294.0	0.60	296.90	6,077.1	1,133.0	-896.4	1,444.7	0.57	-0.54	-13.12
6,387.0	0.70	358.60	6,170.1	1,133.8	-896.9	1,445.6	0.72	0.11	66.34
6,480.0	0.20	254.00	6,263.1	1,134.3	-897.1	1,446.2	0.83	-0.54	-112.47
6,573.0	0.70	285.60	6,356.1	1,134.4	-897.8	1,446.7	0.58	0.54	33.98
6,665.0	0.50	292.70	6,448.1	1,134.7	-898.7	1,447.5	0.23	-0.22	7.72
6,758.0	0.70	276.90	6,541.1	1,135.0	-899.6	1,448.2	0.28	0.22	-16.99
6,851.0	0.70	319.30	6,634.1	1,135.5	-900.5	1,449.2	0.54	0.00	45.59
6,944.0	0.70	319.30	6,727.1	1,136.3	-901.3	1,450.3	0.00	0.00	0.00
7,037.0	1.10	258.00	6,820.1	1,136.6	-902.5	1,451.3	1.05	0.43	-65.91
7,130.0	0.60	229.00	6,913.0	1,136.1	-903.8	1,451.7	0.69	-0.54	-31.18
7,223.0	1.50	242.80	7,006.0	1,135.2	-905.2	1,451.9	1.00	0.97	14.84
7,316.0	2.00	243.10	7,099.0	1,133.9	-907.8	1,452.4	0.54	0.54	0.32
7,409.0	2.40	246.40	7,191.9	1,132.4	-911.0	1,453.2	0.45	0.43	3.55
7,502.0	2.20	256.00	7,284.8	1,131.2	-914.5	1,454.4	0.47	-0.22	10.32
7,595.0	2.10	265.40	7,377.8	1,130.6	-917.9	1,456.1	0.39	-0.11	10.11
7,688.0	2.10	270.00	7,470.7	1,130.5	-921.3	1,458.1	0.18	0.00	4.95
7,781.0	2.40	269.50	7,563.6	1,130.4	-925.0	1,460.3	0.32	0.32	-0.54
7,874.0	2.60	270.50	7,656.6	1,130.4	-929.0	1,462.8	0.22	0.22	1.08
7,939.0	2.60	276.60	7,721.5	1,130.6	-932.0	1,464.8	0.43	0.00	9.38
HARDLINES 123'N & 75'W OF BHL									

Checked By: _____ Approved By: _____ Date: _____