



END OF WELL REPORT

Prepared For:

**EnCana Oil & Gas (USA) Inc
Rodman Bruntz 2D-26H
Ensign 124
Weld County, CO**

Prepared By:

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Rocky Mountain Region***

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Project: DJ Wattenberg
Site: S26-T2N-R66W (Rodman Bruntz)
Well: Rodman Bruntz 2D-26H
Wellbore: Hz
Design: Plan 7



T **M**
Azimuths to True North
Magnetic North: 8.61°

Magnetic Field
Strength: 52812.3snT
Dip Angle: 66.77°
Date: 1/21/2013
Model: IGRF2010

WELL DETAILS: Rodman Bruntz 2D-26H

WELL @ 5111.00ft (Original Well Elev) 5098.00
Northing Easting Latitude Longitude
1285597.17 3210701.18 40° 6' 53.640 N 104° 44' 47.868 W

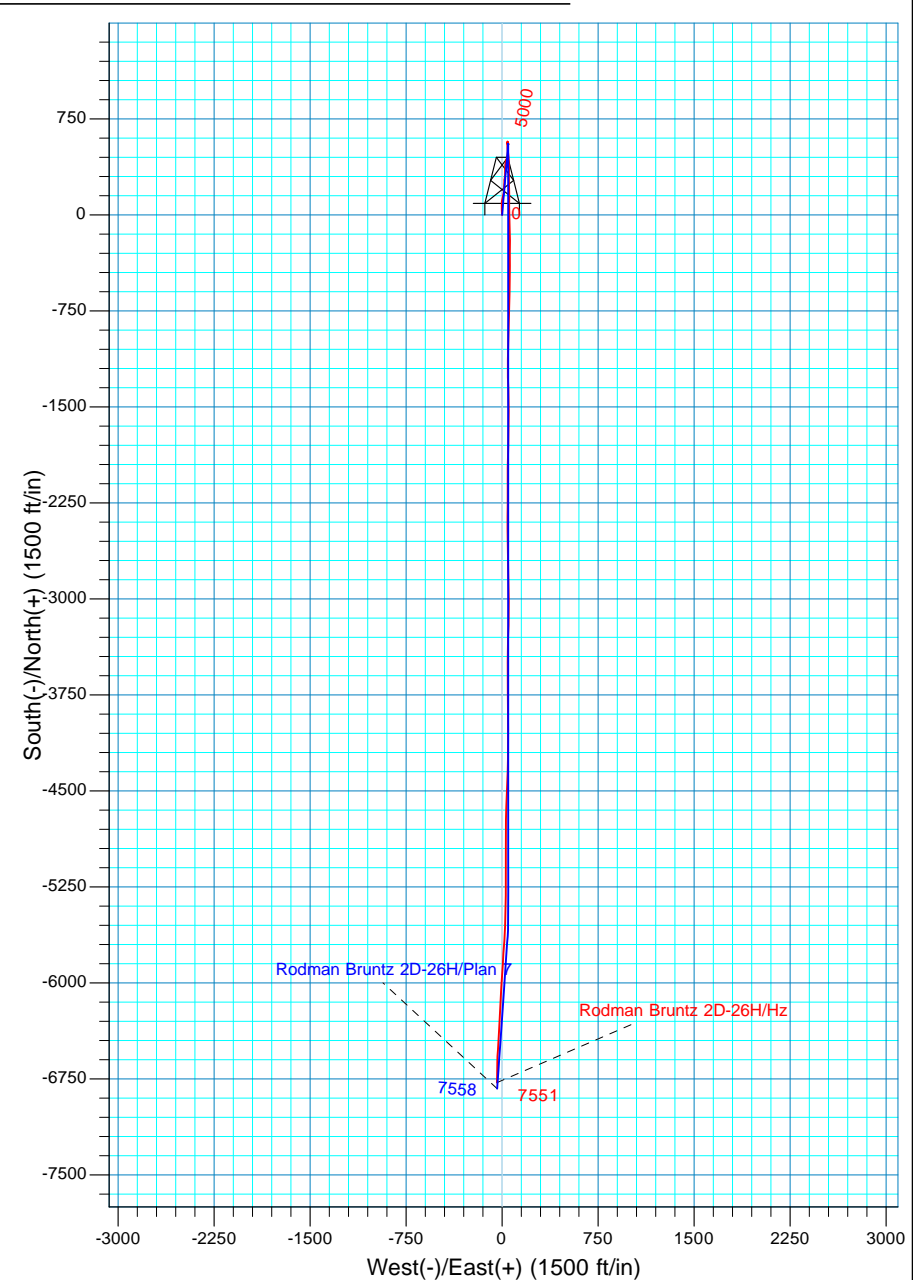
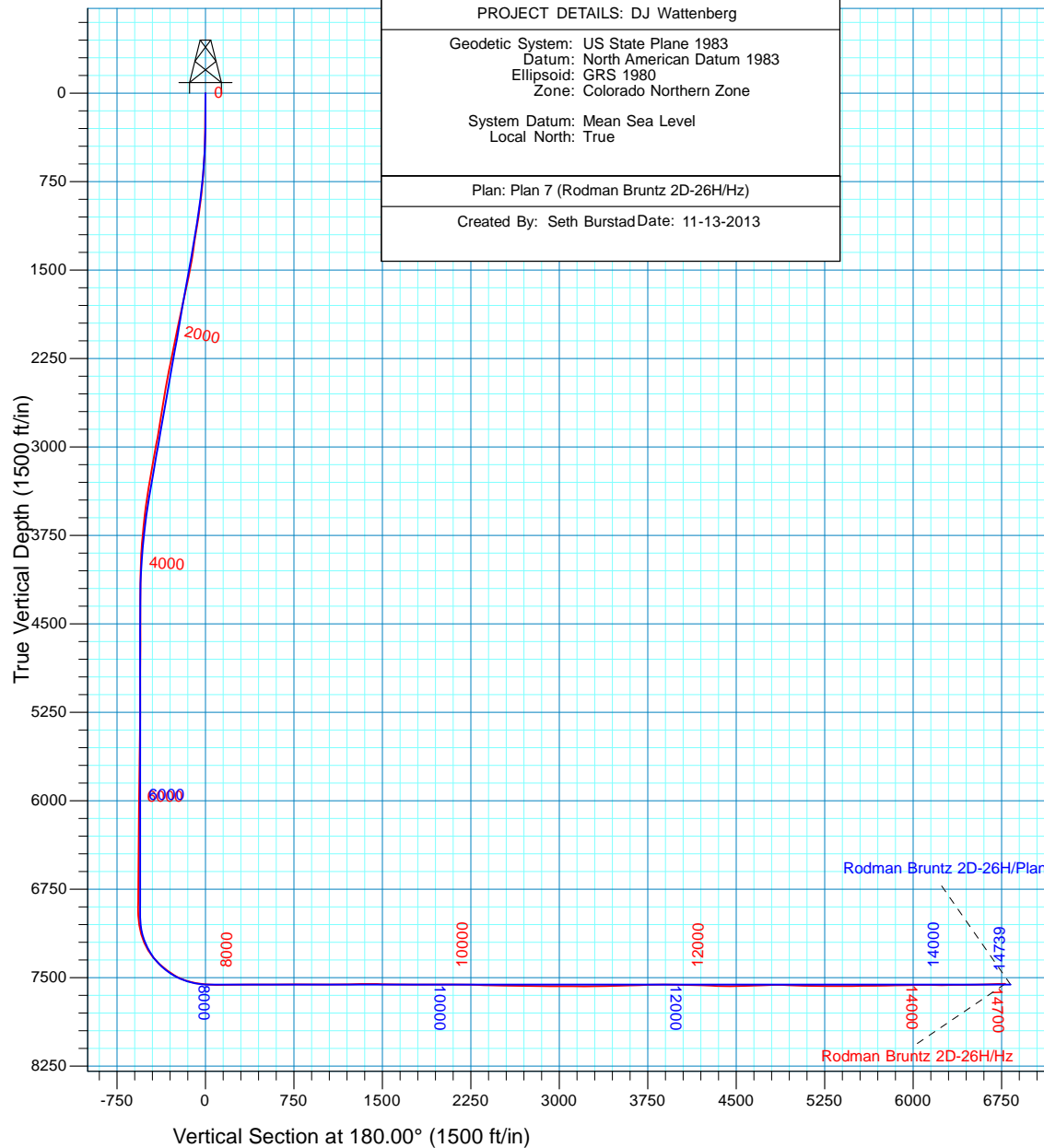
PROJECT DETAILS: DJ Wattenberg

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level
Local North: True

Plan: Plan 7 (Rodman Bruntz 2D-26H/Hz)

Created By: Seth Burstad Date: 11-13-2013





EnCana Oil & Gas (USA) Inc

DJ Wattenberg

S26-T2N-R66W (Rodman Bruntz)

Rodman Bruntz 2D-26H

Hz

Design: Hz

Standard Survey Report

14 November, 2013





Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.00ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.00ft (Original Well Elev)
Well:	Rodman Bruntz 2D-26H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Casper District

Project	DJ Wattenberg		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site		S26-T2N-R66W (Rodman Bruntz)			
Site Position:		Northing:	1,285,915.36 usft	Latitude:	40° 6' 56.916 N
From:	Lat/Long	Easting:	3,209,123.83 usft	Longitude:	104° 45' 8.136 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.48 °

Well	Rodman Bruntz 2D-26H					
Well Position	+N/-S	0.00 ft	Northing:	1,285,597.17 usft	Latitude:	40° 6' 53.640 N
	+E/-W	0.00 ft	Easting:	3,210,701.18 usft	Longitude:	104° 44' 47.868 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,098.00 ft

Wellbore	Hz				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/21/2013	8.61	66.77	52,812

Design	Hz				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	180.00	

Survey Program	Date	11/14/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
341.00	1,264.00	Survey #1 - Surface (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	
1,357.00	7,861.00	Survey #2 - Intermediate (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	
8,025.00	14,700.00	Survey #3 - Production (Hz)	SDI MWD	SDI MWD - Standard ver 1.0.1	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
341.00	0.87	354.85	340.99	2.58	-0.23	-2.58	0.26	0.26	0.00
First SDI MWD Survey									
496.00	2.51	354.62	495.91	7.13	-0.66	-7.13	1.06	1.06	-0.15
682.00	4.42	349.83	681.57	18.24	-2.30	-18.24	1.04	1.03	-2.58
713.00	5.04	358.96	712.46	20.78	-2.54	-20.78	3.14	2.00	29.45
806.00	5.80	1.51	805.04	29.56	-2.49	-29.56	0.86	0.82	2.74
899.00	6.51	355.92	897.51	39.52	-2.74	-39.52	1.00	0.76	-6.01
992.00	8.18	358.67	989.74	51.39	-3.27	-51.39	1.83	1.80	2.96



Scientific Drilling International
Survey Report



Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.00ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.00ft (Original Well Elev)
Well:	Rodman Bruntz 2D-26H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Casper District

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)	
1,085.00	8.75	3.17	1,081.73	65.07	-3.03	-65.07	0.94	0.61	4.84	
1,178.00	8.96	358.68	1,173.62	79.37	-2.81	-79.37	0.78	0.23	-4.83	
1,264.00	8.62	359.59	1,258.61	92.51	-3.01	-92.51	0.43	-0.40	1.06	
1,357.00	9.26	9.38	1,350.49	106.86	-1.84	-106.86	1.77	0.69	10.53	
1,450.00	9.80	11.33	1,442.20	122.01	0.94	-122.01	0.68	0.58	2.10	
1,543.00	11.57	17.31	1,533.59	138.67	5.27	-138.67	2.24	1.90	6.43	
1,636.00	12.23	9.88	1,624.60	157.28	9.73	-157.28	1.79	0.71	-7.99	
1,729.00	12.36	6.52	1,715.46	176.88	12.55	-176.88	0.78	0.14	-3.61	
1,822.00	12.43	3.19	1,806.30	196.76	14.24	-196.76	0.77	0.08	-3.58	
1,915.00	11.67	0.65	1,897.25	216.16	14.90	-216.16	1.00	-0.82	-2.73	
2,010.00	11.60	4.89	1,990.30	235.28	15.83	-235.28	0.90	-0.07	4.46	
2,105.00	11.92	3.96	2,083.30	254.59	17.32	-254.59	0.39	0.34	-0.98	
2,200.00	11.55	1.13	2,176.32	273.88	18.18	-273.88	0.72	-0.39	-2.98	
2,295.00	11.75	6.93	2,269.37	292.99	19.54	-292.99	1.25	0.21	6.11	
2,390.00	11.04	5.73	2,362.49	311.65	21.61	-311.65	0.79	-0.75	-1.26	
2,484.00	10.45	4.28	2,454.84	329.10	23.15	-329.10	0.69	-0.63	-1.54	
2,580.00	9.87	1.00	2,549.34	346.01	23.94	-346.01	0.85	-0.60	-3.42	
2,674.00	9.29	0.44	2,642.03	361.66	24.14	-361.66	0.62	-0.62	-0.60	
2,769.00	9.19	1.37	2,735.80	376.91	24.38	-376.91	0.19	-0.11	0.98	
2,864.00	8.84	2.15	2,829.62	391.79	24.84	-391.79	0.39	-0.37	0.82	
3,054.00	11.15	16.43	3,016.75	424.00	30.58	-424.00	1.77	1.22	7.52	
3,243.00	10.15	13.46	3,202.50	457.73	39.63	-457.73	0.60	-0.53	-1.57	
3,433.00	9.07	357.54	3,389.86	488.98	42.88	-488.98	1.50	-0.57	-8.38	
3,623.00	6.75	4.15	3,578.05	515.08	43.05	-515.08	1.31	-1.22	3.48	
3,813.00	5.10	354.51	3,767.03	534.63	43.05	-534.63	1.01	-0.87	-5.07	
4,003.00	2.75	30.75	3,956.60	546.95	44.57	-546.95	1.74	-1.24	19.07	
4,193.00	0.55	83.08	4,146.51	550.98	47.81	-550.98	1.29	-1.16	27.54	
4,383.00	0.56	88.60	4,336.50	551.11	49.64	-551.11	0.03	0.01	2.91	
4,572.00	0.43	327.56	4,525.50	551.74	50.18	-551.74	0.46	-0.07	-64.04	
4,762.00	0.47	305.87	4,715.49	552.79	49.17	-552.79	0.09	0.02	-11.42	
4,951.00	0.56	283.85	4,904.49	553.47	47.64	-553.47	0.11	0.05	-11.65	
5,141.00	1.02	278.65	5,094.47	553.95	45.07	-553.95	0.24	0.24	-2.74	
5,331.00	1.27	262.86	5,284.43	553.94	41.31	-553.94	0.21	0.13	-8.31	
5,521.00	0.98	12.35	5,474.41	555.26	39.57	-555.26	0.97	-0.15	57.63	
5,710.00	1.12	352.35	5,663.38	558.67	39.67	-558.67	0.21	0.07	-10.58	
5,900.00	1.26	351.95	5,853.34	562.58	39.13	-562.58	0.07	0.07	-0.21	
6,090.00	2.03	105.29	6,043.29	563.76	42.08	-563.76	1.46	0.41	59.65	
6,280.00	0.40	12.96	6,233.25	563.52	45.48	-563.52	1.10	-0.86	-48.59	
6,469.00	1.10	343.41	6,422.23	565.90	45.11	-565.90	0.41	0.37	-15.63	
6,659.00	0.80	334.91	6,612.21	568.85	44.02	-568.85	0.17	-0.16	-4.47	
6,849.00	0.10	347.26	6,802.20	570.22	43.42	-570.22	0.37	-0.37	6.50	
6,944.00	1.66	322.43	6,897.19	571.39	42.57	-571.39	1.65	1.64	-26.14	
6,975.00	1.42	263.56	6,928.18	571.70	41.91	-571.70	4.93	-0.77	-189.90	

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Well:	Rodman Bruntz 2D-26H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Casper District

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)	
7,007.00	2.09	208.36	6,960.16	571.14	41.24	-571.14	5.41	2.09	-172.50	
7,039.00	4.54	188.52	6,992.11	569.38	40.78	-569.38	8.34	7.66	-62.00	
7,070.00	7.28	183.35	7,022.94	566.20	40.48	-566.20	9.00	8.84	-16.68	
7,102.00	10.00	179.83	7,054.57	561.40	40.37	-561.40	8.66	8.50	-11.00	
7,134.00	12.63	177.28	7,085.95	555.12	40.54	-555.12	8.36	8.22	-7.97	
7,165.00	14.43	174.86	7,116.09	547.89	41.05	-547.89	6.09	5.81	-7.81	
7,197.00	17.38	176.34	7,146.86	539.15	41.71	-539.15	9.30	9.22	4.63	
7,229.00	20.06	176.10	7,177.16	528.90	42.39	-528.90	8.38	8.38	-0.75	
7,260.00	22.63	175.50	7,206.04	517.65	43.22	-517.65	8.32	8.29	-1.94	
7,292.00	26.49	173.69	7,235.14	504.41	44.49	-504.41	12.29	12.06	-5.66	
7,323.00	30.38	174.56	7,262.39	489.73	45.99	-489.73	12.62	12.55	2.81	
7,355.00	34.97	175.06	7,289.32	472.53	47.55	-472.53	14.37	14.34	1.56	
7,387.00	38.30	174.98	7,314.99	453.51	49.21	-453.51	10.41	10.41	-0.25	
7,418.00	41.92	175.65	7,338.70	433.61	50.83	-433.61	11.76	11.68	2.16	
7,450.00	44.92	176.97	7,361.94	411.66	52.24	-411.66	9.79	9.38	4.13	
7,482.00	46.83	179.02	7,384.22	388.71	53.04	-388.71	7.53	5.97	6.41	
7,513.00	49.65	181.14	7,404.87	365.59	53.00	-365.59	10.43	9.10	6.84	
7,545.00	50.99	181.48	7,425.30	340.97	52.43	-340.97	4.27	4.19	1.06	
7,576.00	53.55	179.46	7,444.27	316.46	52.24	-316.46	9.73	8.26	-6.52	
7,608.00	55.76	178.60	7,462.78	290.36	52.68	-290.36	7.25	6.91	-2.69	
7,640.00	59.33	178.07	7,479.95	263.38	53.47	-263.38	11.24	11.16	-1.66	
7,671.00	63.72	178.75	7,494.72	236.14	54.22	-236.14	14.29	14.16	2.19	
7,703.00	66.36	179.83	7,508.23	207.14	54.58	-207.14	8.80	8.25	3.38	
7,735.00	70.17	180.31	7,520.07	177.42	54.54	-177.42	11.99	11.91	1.50	
7,766.00	73.22	179.86	7,529.81	147.99	54.50	-147.99	9.93	9.84	-1.45	
7,798.00	76.24	179.42	7,538.24	117.12	54.69	-117.12	9.53	9.44	-1.38	
7,829.00	78.96	179.02	7,544.89	86.85	55.11	-86.85	8.86	8.77	-1.29	
7,861.00	82.54	179.05	7,550.04	55.28	55.64	-55.28	11.19	11.19	0.09	
Last Survey in 8 3/4" Hole										
8,025.00	90.13	178.68	7,560.51	-108.23	58.88	108.23	4.63	4.63	-0.23	
First Survey in 6" Hole										
8,118.00	89.87	179.35	7,560.51	-201.22	60.48	201.22	0.77	-0.28	0.72	
8,211.00	91.04	181.40	7,559.77	-294.21	59.87	294.21	2.54	1.26	2.20	
8,303.00	90.60	179.23	7,558.46	-386.19	59.37	386.19	2.41	-0.48	-2.36	
8,396.00	90.03	180.93	7,557.94	-479.19	59.24	479.19	1.93	-0.61	1.83	
8,489.00	90.54	180.83	7,557.48	-572.17	57.81	572.17	0.56	0.55	-0.11	
8,582.00	91.07	180.82	7,556.18	-665.15	56.47	665.15	0.57	0.57	-0.01	
8,675.00	89.09	182.40	7,556.05	-758.11	53.86	758.11	2.72	-2.13	1.70	
8,768.00	89.26	181.30	7,557.38	-851.05	50.85	851.05	1.20	0.18	-1.18	
8,861.00	89.20	181.06	7,558.63	-944.02	48.94	944.02	0.27	-0.06	-0.26	
8,954.00	90.54	181.35	7,558.85	-1,037.00	46.98	1,037.00	1.47	1.44	0.31	
9,047.00	92.08	180.82	7,556.72	-1,129.96	45.22	1,129.96	1.75	1.66	-0.57	
9,140.00	90.47	180.22	7,554.65	-1,222.93	44.38	1,222.93	1.85	-1.73	-0.65	
9,233.00	90.30	179.08	7,554.03	-1,315.92	44.95	1,315.92	1.24	-0.18	-1.23	

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Well:	Rodman Bruntz 2D-26H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Casper District

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)
9,326.00	90.00	177.38	7,553.78	-1,408.87	47.82	1,408.87	1.86	-0.32	-1.83
9,419.00	88.69	178.14	7,554.84	-1,501.79	51.45	1,501.79	1.63	-1.41	0.82
9,514.00	88.69	180.70	7,557.02	-1,596.75	52.42	1,596.75	2.69	0.00	2.69
9,608.00	89.66	182.41	7,558.37	-1,690.71	49.86	1,690.71	2.09	1.03	1.82
9,703.00	89.87	181.67	7,558.76	-1,785.64	46.48	1,785.64	0.81	0.22	-0.78
9,798.00	90.30	180.78	7,558.62	-1,880.62	44.45	1,880.62	1.04	0.45	-0.94
9,893.00	90.44	179.97	7,558.01	-1,975.62	43.83	1,975.62	0.87	0.15	-0.85
9,988.00	89.33	180.08	7,558.20	-2,070.61	43.79	2,070.61	1.17	-1.17	0.12
10,083.00	89.87	180.60	7,558.86	-2,165.61	43.22	2,165.61	0.79	0.57	0.55
10,178.00	89.23	180.34	7,559.61	-2,260.60	42.45	2,260.60	0.73	-0.67	-0.27
10,273.00	87.75	179.98	7,562.11	-2,355.57	42.18	2,355.57	1.60	-1.56	-0.38
10,368.00	88.56	180.00	7,565.17	-2,450.52	42.20	2,450.52	0.85	0.85	0.02
10,463.00	88.86	179.57	7,567.31	-2,545.49	42.55	2,545.49	0.55	0.32	-0.45
10,558.00	89.33	178.61	7,568.81	-2,640.47	44.06	2,640.47	1.13	0.49	-1.01
10,653.00	89.53	177.95	7,569.75	-2,735.42	46.91	2,735.42	0.73	0.21	-0.69
10,747.00	89.23	179.76	7,570.77	-2,829.39	48.79	2,829.39	1.95	-0.32	1.93
10,842.00	89.77	179.77	7,571.60	-2,924.39	49.18	2,924.39	0.57	0.57	0.01
10,937.00	90.10	178.79	7,571.71	-3,019.38	50.37	3,019.38	1.09	0.35	-1.03
11,032.00	89.26	180.80	7,572.24	-3,114.37	50.71	3,114.37	2.29	-0.88	2.12
11,127.00	90.03	181.29	7,572.83	-3,209.35	48.98	3,209.35	0.96	0.81	0.52
11,222.00	90.84	181.65	7,572.10	-3,304.31	46.55	3,304.31	0.93	0.85	0.38
11,317.00	91.11	181.29	7,570.49	-3,399.27	44.11	3,399.27	0.47	0.28	-0.38
11,412.00	91.41	180.40	7,568.40	-3,494.24	42.71	3,494.24	0.99	0.32	-0.94
11,506.00	91.85	180.24	7,565.72	-3,588.20	42.18	3,588.20	0.50	0.47	-0.17
11,601.00	91.14	178.58	7,563.25	-3,683.15	43.16	3,683.15	1.90	-0.75	-1.75
11,696.00	92.42	178.39	7,560.30	-3,778.07	45.67	3,778.07	1.36	1.35	-0.20
11,791.00	89.33	179.10	7,558.84	-3,873.03	47.75	3,873.03	3.34	-3.25	0.75
11,886.00	89.43	180.63	7,559.87	-3,968.02	47.98	3,968.02	1.61	0.11	1.61
11,981.00	89.29	181.21	7,560.93	-4,063.00	46.45	4,063.00	0.63	-0.15	0.61
12,076.00	89.16	180.52	7,562.22	-4,157.98	45.02	4,157.98	0.74	-0.14	-0.73
12,170.00	86.27	180.38	7,565.97	-4,251.89	44.28	4,251.89	3.08	-3.07	-0.15
12,265.00	88.76	180.73	7,570.08	-4,346.79	43.36	4,346.79	2.65	2.62	0.37
12,360.00	90.20	182.61	7,570.95	-4,441.74	40.59	4,441.74	2.49	1.52	1.98
12,455.00	91.21	182.97	7,569.78	-4,536.62	35.97	4,536.62	1.13	1.06	0.38
12,550.00	91.68	181.73	7,567.38	-4,631.51	32.07	4,631.51	1.40	0.49	-1.31
12,645.00	92.59	181.77	7,563.84	-4,726.40	29.17	4,726.40	0.96	0.96	0.04
12,740.00	90.77	179.90	7,561.06	-4,821.34	27.79	4,821.34	2.75	-1.92	-1.97
12,834.00	87.34	179.29	7,562.61	-4,915.31	28.45	4,915.31	3.71	-3.65	-0.65
12,929.00	88.06	179.03	7,566.42	-5,010.22	29.85	5,010.22	0.81	0.76	-0.27
13,024.00	89.26	180.84	7,568.64	-5,105.19	29.95	5,105.19	2.29	1.26	1.91
13,119.00	89.33	180.63	7,569.81	-5,200.17	28.73	5,200.17	0.23	0.07	-0.22
13,214.00	89.87	180.17	7,570.47	-5,295.17	28.07	5,295.17	0.75	0.57	-0.48
13,309.00	90.27	181.46	7,570.36	-5,390.16	26.72	5,390.16	1.42	0.42	1.36



Scientific Drilling International
Survey Report



Company:	EnCana Oil & Gas (USA) Inc	Local Co-ordinate Reference:	Well Rodman Bruntz 2D-26H
Project:	DJ Wattenberg	TVD Reference:	WELL @ 5111.00ft (Original Well Elev)
Site:	S26-T2N-R66W (Rodman Bruntz)	MD Reference:	WELL @ 5111.00ft (Original Well Elev)
Well:	Rodman Bruntz 2D-26H	North Reference:	True
Wellbore:	Hz	Survey Calculation Method:	Minimum Curvature
Design:	Hz	Database:	Casper District

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)	
13,404.00	90.67	180.80	7,569.58	-5,485.13	24.85	5,485.13	0.81	0.42	-0.69	
13,498.00	89.66	182.19	7,569.31	-5,579.10	22.39	5,579.10	1.83	-1.07	1.48	
13,593.00	90.97	183.84	7,568.79	-5,673.96	17.40	5,673.96	2.22	1.38	1.74	
13,688.00	91.54	184.20	7,566.71	-5,768.70	10.74	5,768.70	0.71	0.60	0.38	
13,783.00	90.91	183.89	7,564.67	-5,863.44	4.04	5,863.44	0.74	-0.66	-0.33	
13,878.00	91.31	183.65	7,562.83	-5,958.22	-2.20	5,958.22	0.49	0.42	-0.25	
13,973.00	90.60	182.58	7,561.25	-6,053.06	-7.37	6,053.06	1.35	-0.75	-1.13	
14,068.00	89.30	183.73	7,561.33	-6,147.92	-12.59	6,147.92	1.83	-1.37	1.21	
14,163.00	89.90	182.99	7,562.00	-6,242.75	-18.16	6,242.75	1.00	0.63	-0.78	
14,258.00	90.84	182.51	7,561.38	-6,337.64	-22.72	6,337.64	1.11	0.99	-0.51	
14,353.00	89.70	183.64	7,560.94	-6,432.50	-27.82	6,432.50	1.69	-1.20	1.19	
14,447.00	91.21	183.12	7,560.19	-6,526.33	-33.36	6,526.33	1.70	1.61	-0.55	
14,542.00	92.22	181.68	7,557.35	-6,621.20	-37.33	6,621.20	1.85	1.06	-1.52	
14,637.00	92.12	180.74	7,553.75	-6,716.11	-39.34	6,716.11	0.99	-0.11	-0.99	
Last SDI MWD Survey										
14,700.00	92.12	180.74	7,551.42	-6,779.06	-40.15	6,779.06	0.00	0.00	0.00	
Projection to TD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
341.00	340.99	2.58	-0.23	First SDI MWD Survey	
7,861.00	7,550.04	55.28	55.64	Last Survey in 8 3/4" Hole	
8,025.00	7,560.51	-108.23	58.88	First Survey in 6" Hole	
14,637.00	7,553.75	-6,716.11	-39.34	Last SDI MWD Survey	
14,700.00	7,551.42	-6,779.06	-40.15	Projection to TD	

Checked By: _____ Approved By: _____ Date: _____

JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H
Lead Directional : Steven Schlamp (10800)

Report Time: 2400 1 of 14
API JOB # 0512337758000
WORK ORDER# 77032
FIELD: Wattenberg
Township: 2N
Range/Section 99W 26
Company Man Mike Roane / Rich Borner
2nd Dir Hand : Kevin Hoshall (10931)

From Thursday, October 31, 2013 at 0000 to Thursday, October 31, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS										
Start Depth	0.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP	
End Depth	0.00	1	817	131.00	1.42	1,015.00	4.08	1.50	7.00	1,146.00	163.71	
Below Rot Hrs.	24.00											
Total Drilled:	0.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 1				
Avg. Total ROP:	NA											
Slide Footage:	0.00	WOB:	0	Weight:	0	Bit No:	1	Baker Q506FX 8" Titan 1 Drill Motor Crossover 6 1/2" NMPC 6 1/2" NMDC 6 1/2" EF NM Support Sub 6 1/2" Gap Sub 6 1/2" NMDC 6 1/2" NMPC Crossover				
Slide Hours	0.00	Rot Wt:	0	Visc:	0	Model	Baker Q506FX					
Avg. Slide ROP:	NA	Pick UP:	0	Chlorides:	0	SN.:	7028080					
Rotate Footage:	0.00	Slack Off:	0	YP:	0	MFG.	BAKER					
Rotary Hours	0.00	SPP:	0	PV:	0	Type	PDC					
Avg. Rot ROP:	NA	Flow:	0 - 0	PH:	0	IADC						
Circ Hours	0.00	SPM:	0	GAS:	0	JETS	6-15					
Ream Hours	0.00	Rot. RPM	-	SAND:	0	TFA:	1.035					
Rotary Hrs%:	NA	Mot RPM:	-	WL:	0	Hole ID:	12.25					
Slide Hrs%:	NA	Incl. In:	0	SOLID:	0	Bit Hrs:	5.50					
Rotary Ftg%:	NA	Azm. In:	0	BHT°:	0	Bit Ftg:	1146.00					
Slide Ftg%:	NA	Incl. Out:	8.96	Flow T°:	0	PUMPS						
Casing		Azm. Out:	358.68	Oil %:	0							
Size	Lb/Ft	MD	COST BREAKDOWN									
								Effic.	95.00%	95.00%		
								Gal/Stk	0.00	0.00		
								BBL/Stk	0.000	0.000		

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	23:10	23.17	0	0	0	.00	Other	Pre-Spud
23:10	23:25	0.25	0	0	0	.00	Other	Pre-Spud Safety Meeting
23:25	24:00	0.58	0	0	0	.00	Change BHA	P/U BHA #1

JOB NO.:	77032	Report Time:	2400	2 of 14
Company:	EnCana Oil & Gas (USA) Inc.	API JOB #	0512337758000	
LOCATION:		WORK ORDER#	77032	
RIG NAME:	Ensign 124	FIELD:	Wattenberg	
STATE:	Colorado	Township:	2N	
COUNTY:	Weld	Range/Section	99W	26
WELL NAME:	Rodman Bruntz 2D-26H	Company Man	Mike Roane / Rich Borner	
Lead Directional :	Steven Schlamp (10800)	2nd Dir Hand :	Kevin Hoshall (10931)	

From Friday, November 01, 2013 at 0000 to Friday, November 01, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	95.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	1241.00	1	817	131.00	1.42	1,015.00	4.08	1.50	7.00	1,146.00	163.71
Below Rot Hrs.	11.50										
Total Drilled:	1146.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 1			
Avg. Total ROP:	208.36	WOB: 15		Weight: 0		Bit No: 1		Baker Q506FX 8" Titan 1 Drill Motor Crossover 6 1/2" NMPC 6 1/2" NMDC 6 1/2" EF NM Support Sub 6 1/2" Gap Sub 6 1/2" NMDC 6 1/2" NMPC Crossover			
Slide Footage:	131.00	Rot Wt: 65		Visc: 0		Model Baker Q506FX					
Slide Hours	1.42	Pick UP: 65		Chlorides: 0		SN.: 7028080					
Avg. Slide ROP:	92.47	Slack Off: 65		YP: 0		MFG. BAKER					
Rotate Footage:	1015.00	SPP: 2000		PV: 0		Type PDC					
Rotary Hours	4.08	Flow: 0 - 670		PH: 0		IADC					
Avg. Rot ROP:	248.57	SPM: 160		GAS: 0		JETS 6-15					
Circ Hours	1.50	Rot. RPM 30 - 50		SAND: 0		TFA: 1.035					
Ream Hours	0.00	Mot RPM: 40 - 50		WL: 0		Hole ID: 12.25					
Rotary Hrs%:	74.24	Incl. In: 0		SOLID: 0		Bit Hrs: 5.50					
Slide Hrs%:	25.76	Azm. In: 0		BHT°: 0		Bit Ftg: 1146.00					
Rotary Ftg%:	88.57	Incl. Out: 8.96		Flow T°: 0		PUMPS					
Slide Ftg%:	11.43	Azm. Out: 358.68		Oil %: 0		Liner 0 0					
CASING		COST BREAKDOWN					Stroke 0 0				
Size	Lb/Ft	MD						Effic. 95.00% 95.00%			
								Gal/Stk 0.00 0.00			
								BBL/Stk 0.000 0.000			

GENERAL COMMENT

Experienced significant magnetic interference with MWD through surface. We were not able to get reliable surveys till 750'. Much of the problems was due to similar KOP's with existing well and 8' off center well head placement.

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:25	0.42	0	0	0	.00	Other	P/U Motor
00:25	00:35	0.17	95	126	31	186.00	Drilling	Drilling
00:35	01:50	1.25	126	126	0	.00	Other	P/U Collars, MWD
01:50	02:15	0.42	126	218	92	220.80	Drilling	Drilling - (WOB:5;GPM :510;RPM:40)
02:15	02:25	0.17	218	218	0	.00	Survey & Conn.	Survey & Conn.@0' Inc 0° Azm 0°
02:25	02:30	0.08	218	224	6	72.00	Sliding	Sliding
02:30	02:45	0.25	224	311	87	348.00	Drilling	Drilling - (WOB:15;GPM :600;RPM:40)
02:45	02:50	0.08	311	311	0	.00	Survey & Conn.	Survey & Conn.@0' Inc 0° Azm 0°
02:50	02:55	0.08	311	317	6	72.00	Sliding	Sliding - (WOB:5;GPM :510;TFO:20M)
02:55	03:10	0.25	317	404	87	348.00	Drilling	Drilling - (WOB:15;GPM :600;RPM:40)
03:10	03:15	0.08	404	404	0	.00	Survey & Conn.	Survey & Conn.@341' Inc 0.87° Azm 354.85°
03:15	03:20	0.08	404	414	10	120.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
03:20	03:35	0.25	414	497	83	332.00	Drilling	Drilling - (WOB:15;GPM :600;RPM:40)
03:35	03:45	0.17	497	497	0	.00	Survey & Conn.	Survey & Conn.@496' Inc 2.51° Azm 354.62°

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
03:45	03:50	0.08	497	507	10	120.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
03:50	04:05	0.25	507	590	83	332.00	Drilling	Drilling - (WOB:15;GPM :600;RPM:40)
04:05	04:10	0.08	590	590	0	.00	Survey & Conn.	Survey & Conn.@496' Inc 2.51° Azm 354.62°
04:10	04:15	0.08	590	600	10	120.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
04:15	04:30	0.25	600	683	83	332.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
04:30	04:40	0.17	683	683	0	.00	Survey & Conn.	Survey & Conn.@682' Inc 4.41° Azm 349.83°
04:40	04:45	0.08	683	695	12	144.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
04:45	05:00	0.25	695	745	50	200.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
05:00	05:20	0.33	745	745	0	.00	Circulating	Discuss MWD w/ Co-Hand
05:20	05:25	0.08	745	753	8	96.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
05:25	05:30	0.08	753	776	23	276.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
05:30	05:35	0.08	776	776	0	.00	Survey & Conn.	Survey & Conn.@713' Inc 5.04° Azm 358.96°
05:35	05:40	0.08	776	784	8	96.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
05:40	05:55	0.25	784	869	85	340.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
05:55	06:00	0.08	869	869	0	.00	Survey & Conn.	Survey & Conn.@806' Inc 5.8° Azm 1.51°
06:00	06:05	0.08	869	885	16	192.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
06:05	06:25	0.33	885	962	77	231.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
06:25	06:40	0.25	962	982	20	80.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
06:40	07:05	0.42	982	1055	73	175.20	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
07:05	07:10	0.08	1055	1055	0	.00	Survey & Conn.	Survey & Conn.@992' Inc 8.18° Azm 358.67°
07:10	07:20	0.17	1055	1055	0	.00	Sliding	Sliding - (WOB:15;GPM :600;TFO:0)
07:20	07:40	0.33	1055	1148	93	279.00	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
07:40	07:55	0.25	1148	1173	25	100.00	Sliding	Sliding - (WOB:15;GPM :670;TFO:0)
07:55	08:30	0.58	1173	1241	68	116.57	Drilling	Drilling - (WOB:15;GPM :670;RPM:50)
08:30	08:35	0.08	1241	1241	0	.00	Survey & Conn.	Survey & Conn.@1178' Inc 8.96° Azm 358.68°
08:35	09:45	1.17	1241	1241	0	.00	Circulating	Circulating hole clean
09:45	10:35	0.83	1241	1241	0	.00	POOH	POOH
10:35	10:45	0.17	1241	1241	0	.00	Other	Safety meeting w. rig crew & review JSA
10:45	11:30	0.75	1241	1241	0	.00	Other	L/O EM tools & rack NMDC into derrick / LO Motor
11:30	24:00	12.50	1241	1241	0	.00	Standby	Standby for Intermediate BHA

JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H
Lead Directional : Steven Schlamp (10800)

Report Time: 2400 3 of 14
API JOB # 0512337758000
WORK ORDER# 77032
FIELD: Wattenberg
Township: 2N
Range/Section 99W 26
Company Man Mike Roane / Rich Borner
2nd Dir Hand : Kevin Hoshall (10931)

From Saturday, November 02, 2013 at 0000 to Saturday, November 02, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS										
Start Depth	1241.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP	
End Depth	1251.00	1	817	131.00	1.42	1,015.00	4.08	1.50	7.00	1,146.00	163.71	
Below Rot Hrs.	24.00	2	650-HB21-024	0.00	0.00	10.00	1.25	.25	1.50	10.00	0.00	
Total Drilled:	10.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 2				
Avg. Total ROP:	8.00	WOB: 10		Weight: 0		Bit No: 2		SDi611				
Slide Footage:	0.00	Rot Wt: 65		Visc: 0		Model SDi611		6 1/2" Drill Motor				
Slide Hours	0.00	Pick UP: 65		Chlorides: 0		SN.: JH4960		6 1/2" NMPC				
Avg. Slide ROP:	NA	Slack Off: 65		YP: 0		MFG. SMITH		6 1/2" NMDC				
Rotate Footage:	10.00	SPP: 1300		PV: 0		Type PDC		6 1/2" Pulser Sub				
Rotary Hours	1.25	Flow: 460 - 670		PH: 0		IADC		6 1/2" NMDC				
Avg. Rot ROP:	8.00	SPM: 110		GAS: 0		JETS 6-14		6 1/2" NMPC				
Circ Hours	0.25	Rot. RPM 30 - 30		SAND: 0		TFA: 0.902		Crossover				
Ream Hours	0.00	Mot RPM: -		WL: 0		Hole ID: 8.75		60 Jnts HWDP				
Rotary Hrs%:	100.00	Incl. In: 8.96		SOLID: 0		Bit Hrs: 16.33						
Slide Hrs%:	.00	Az. In: 358.68		BHT°: 0		Bit Ftg: 5361.00						
Rotary Ftg%:	100.00	Incl. Out: 8.96		Flow T°: 0		PUMPS						
Slide Ftg%:	.00	Az. Out: 358.68		Oil %: 0		Liner 0 0						
CASING		COST BREAKDOWN				Stroke 0 0						
Size	Lb/Ft	MD					Effic. 95.00% 95.00%					
							Gal/Stk 0.00 0.00					
							BBL/Stk 0.000 0.000					

JOB NO.:	77032	Report Time:	2400	4 of 14
Company:	EnCana Oil & Gas (USA) Inc.	API JOB #	0512337758000	
LOCATION:		WORK ORDER#	77032	
RIG NAME:	Ensign 124	FIELD:	Wattenberg	
STATE:	Colorado	Township:	2N	
COUNTY:	Weld	Range/Section	99W	26
WELL NAME:	Rodman Bruntz 2D-26H	Company Man	Mike Roane / Rich Borner	
Lead Directional :	Steven Schlamp (10800)	2nd Dir Hand :	Kevin Hoshall (10931)	

From Sunday, November 03, 2013 at 0000 to Sunday, November 03, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	1251.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	6602.00	2	650-HB21-024	153.00	2.08	5,208.00	14.25	2.83	19.17	5,361.00	279.70
Below Rot Hrs.	24.00										
Total Drilled:	5351.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 2			
Avg. Total ROP:	329.29	WOB:	26	Weight:	0	Bit No:	2	SDi611 6 1/2" Drill Motor 6 1/2" NMPC 6 1/2" NMDC 6 1/2" Pulser Sub 6 1/2" NMDC 6 1/2" NMPC Crossover 60 Jnts HWDP			
Slide Footage:	153.00	Rot Wt:	131	Visc:	0	Model	SDi611				
Slide Hours	2.08	Pick UP:	155	Chlorides:	0	SN.:	JH4960				
Avg. Slide ROP:	73.44	Slack Off:	121	YP:	0	MFG.	SMITH				
Rotate Footage:	5198.00	SPP:	3600	PV:	0	Type	PDC				
Rotary Hours	14.17	Flow:	460 - 600	PH:	0	IADC					
Avg. Rot ROP:	366.92	SPM:	130	GAS:	0	JETS	6-14				
Circ Hours	1.42	Rot. RPM	50 - 60	SAND:	0	TFA:	0.902				
Ream Hours	0.00	Mot RPM:	50 - 60	WL:	0	Hole ID:	8.75				
Rotary Hrs%:	87.18	Incl. In:	8.96	SOLID:	0	Bit Hrs:	16.33				
Slide Hrs%:	12.82	Azm. In:	358.68	BHT°:	0	Bit Ftg:	5361.00				
Rotary Ftg%:	97.14	Incl. Out:	1.1	Flow T°:	0	PUMPS					
Slide Ftg%:	2.86	Azm. Out:	343.41	Oil %:	0	Liner	0	0			
CASING		COST BREAKDOWN									
Size	Lb/Ft	MD									

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
01:35	01:40	0.08	1705	1705	0	.00	Survey & Conn.	Survey & Conn.@1636' Inc 12.23° Azm 9.88°
01:40	01:45	0.08	1705	1798	93	1116.00	Drilling	Drilling - (WOB:25;GPM :600;RPM:50)
01:45	01:55	0.17	1798	1798	0	.00	Survey & Conn.	Survey & Conn.@1729' Inc 12.36° Azm 6.52°
01:55	02:05	0.17	1798	1891	93	558.00	Drilling	Drilling - (WOB:25;GPM :600;RPM:50)
02:05	02:15	0.17	1891	1891	0	.00	Survey & Conn.	Survey & Conn.@1822' Inc 12.43° Azm 3.19°
02:15	02:30	0.25	1891	1984	93	372.00	Drilling	Drilling - (WOB:25;GPM :600;RPM:50)
02:30	02:40	0.17	1984	1984	0	.00	Survey & Conn.	Survey & Conn.@1915' Inc 11.67° Azm 0.65°
02:40	02:45	0.08	1984	1990	6	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
02:45	02:50	0.08	1990	2079	89	1068.00	Drilling	Drilling - (WOB:25;GPM :600;RPM:50)
02:50	02:55	0.08	2079	2079	0	.00	Survey & Conn.	Survey & Conn.@2010' Inc 11.6° Azm 4.89°
02:55	03:00	0.08	2079	2083	4	48.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
03:00	03:10	0.17	2083	2174	91	546.00	Drilling	Drilling - (WOB:25;GPM :600;RPM:50)
03:10	03:20	0.17	2174	2174	0	.00	Survey & Conn.	Survey & Conn.@2105' Inc 11.92° Azm 3.96°
03:20	03:25	0.08	2174	2269	95	1140.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
03:25	03:35	0.17	2269	2269	0	.00	Survey & Conn.	Survey & Conn.@2200' Inc 11.55° Azm 1.13°
03:35	03:40	0.08	2269	2275	6	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
03:40	03:45	0.08	2275	2364	89	1068.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
03:45	03:50	0.08	2364	2364	0	.00	Survey & Conn.	Survey & Conn.@2295' Inc 11.75° Azm 6.93°
03:50	04:00	0.17	2364	2459	95	570.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
04:00	04:10	0.17	2459	2459	0	.00	Survey & Conn.	Survey & Conn.@2390' Inc 11.04° Azm 5.73°
04:10	04:15	0.08	2459	2553	94	1128.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
04:15	04:20	0.08	2553	2553	0	.00	Survey & Conn.	Survey & Conn.@2484' Inc 10.45° Azm 4.28°
04:20	04:30	0.17	2553	2649	96	576.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
04:30	04:40	0.17	2649	2649	0	.00	Survey & Conn.	Survey & Conn.@2580' Inc 9.87° Azm 1°
04:40	04:45	0.08	2649	2655	6	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
04:45	04:55	0.17	2655	2743	88	528.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
04:55	05:00	0.08	2743	2743	0	.00	Survey & Conn.	Survey & Conn.@2674' Inc 9.29° Azm 0.44°
05:00	05:05	0.08	2743	2751	8	96.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
05:05	05:15	0.17	2751	2838	87	522.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
05:15	05:30	0.25	2838	2838	0	.00	Survey & Conn.	Survey & Conn.@2769' Inc 9.19° Azm 1.37°
05:30	05:55	0.42	2838	2838	0	.00	Circulating	Blind Shakers
05:55	06:00	0.08	2838	2848	10	120.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
06:00	06:10	0.17	2848	2933	85	510.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
06:10	06:15	0.08	2933	2933	0	.00	Survey & Conn.	Survey & Conn.@2864' Inc 8.84° Azm 2.15°
06:15	06:20	0.08	2933	2945	12	144.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
06:20	06:30	0.17	2945	3028	83	498.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
06:30	06:35	0.08	3028	3028	0	.00	Survey & Conn.	Survey & Conn.@2864' Inc 8.84° Azm 2.15°
06:35	07:00	0.42	3028	3123	95	228.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
07:00	07:05	0.08	3123	3123	0	.00	Survey & Conn.	Survey & Conn.@3054' Inc 11.15° Azm 16.43°
07:05	07:35	0.50	3123	3312	189	378.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
07:35	07:40	0.08	3312	3312	0	.00	Survey & Conn.	Survey & Conn.@3243' Inc 10.15° Azm 13.46°
07:40	07:50	0.17	3312	3325	13	78.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
07:50	08:40	0.83	3325	3502	177	212.40	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
08:40	08:45	0.08	3502	3502	0	.00	Survey & Conn.	Survey & Conn.@3433' Inc 9.07° Azm 357.54°
08:45	08:55	0.17	3502	3510	8	48.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
08:55	09:30	0.58	3510	3692	182	312.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
09:30	09:35	0.08	3692	3692	0	.00	Survey & Conn.	Survey & Conn.@3623' Inc 6.75° Azm 4.15°
09:35	09:40	0.08	3692	3700	8	96.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
09:40	10:10	0.50	3700	3882	182	364.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
10:10	10:15	0.08	3882	3882	0	.00	Survey & Conn.	Survey & Conn.@3813' Inc 5.1° Azm 354.51°
10:15	10:25	0.17	3882	3894	12	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
10:25	10:55	0.50	3894	4072	178	356.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
10:55	11:00	0.08	4072	4072	0	.00	Survey & Conn.	Survey & Conn.@4003' Inc 2.75° Azm 30.75°
11:00	11:10	0.17	4072	4082	10	60.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
11:10	11:50	0.67	4082	4262	180	270.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
11:50	11:55	0.08	4262	4262	0	.00	Survey & Conn.	Survey & Conn.@4193' Inc 0.55° Azm 83.08°
11:55	12:25	0.50	4262	4452	190	380.00	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
12:25	12:30	0.08	4452	4452	0	.00	Survey & Conn.	Survey & Conn.@4383' Inc 0.56° Azm 88.6°
12:30	13:20	0.83	4452	4641	189	226.80	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
13:20	13:25	0.08	4641	4641	0	.00	Survey & Conn.	Survey & Conn.@4572' Inc 0.43° Azm 327.56°
13:25	14:00	0.58	4641	4831	190	325.71	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
14:00	14:05	0.08	4831	4831	0	.00	Survey & Conn.	Survey & Conn.@4762' Inc 0.47° Azm 305.87°
14:05	14:45	0.67	4831	5020	189	283.50	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
14:45	14:50	0.08	5020	5020	0	.00	Survey & Conn.	Survey & Conn.@4951' Inc 0.56° Azm 283.85°
14:50	15:25	0.58	5020	5210	190	325.71	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
15:25	15:30	0.08	5210	5210	0	.00	Survey & Conn.	Survey & Conn.@5141' Inc 1.02° Azm 278.65°
15:30	16:05	0.58	5210	5400	190	325.71	Drilling	Drilling - (WOB:26;GPM :600;RPM:50)
16:05	16:20	0.25	5400	5400	0	.00	Circulating	Rig Service
16:20	16:25	0.08	5400	5400	0	.00	Survey & Conn.	Survey & Conn.@5331' Inc 1.27° Azm 262.86°
16:25	16:40	0.25	5400	5408	8	32.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0))
16:40	17:10	0.50	5408	5590	182	364.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:60)
17:10	17:15	0.08	5590	5590	0	.00	Survey & Conn.	Survey & Conn.@5521' Inc 0.98° Azm 12.35°
17:15	17:55	0.67	5590	5779	189	283.50	Drilling	Drilling - (WOB:26;GPM :540;RPM:60)
17:55	18:00	0.08	5779	5779	0	.00	Survey & Conn.	Survey & Conn.@5710' Inc 1.12° Azm 352.35°
18:00	18:30	0.50	5779	5969	190	380.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:60)
18:30	18:40	0.17	5969	5969	0	.00	Survey & Conn.	Survey & Conn.@5900' Inc 1.26° Azm 351.95°
18:40	18:50	0.17	5969	5981	12	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:0)
18:50	19:30	0.67	5981	6159	178	267.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:60)
19:30	19:40	0.17	6159	6159	0	.00	Survey & Conn.	Survey & Conn.@6090' Inc 2.03° Azm 105.29°
19:40	20:10	0.50	6159	6349	190	380.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:60)
20:10	20:25	0.25	6349	6349	0	.00	Survey & Conn.	Survey & Conn.@6280' Inc 0.4° Azm 12.96°
20:25	21:05	0.67	6349	6538	189	283.50	Drilling	Drilling - (WOB:26;GPM :540;RPM:50)
21:05	21:15	0.17	6538	6538	0	.00	Survey & Conn.	Survey & Conn.@6469' Inc 1.1° Azm 343.41°
21:15	21:25	0.17	6538	6602	64	384.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:50)
21:25	22:05	0.67	6602	6602	0	.00	Circulating	Circulating
22:05	24:00	1.92	6602	6602	0	.00	POOH	POOH

JOB NO.: 77032 Company: EnCana Oil & Gas (USA) Inc. LOCATION: RIG NAME: Ensign 124 STATE: Colorado COUNTY: Weld WELL NAME: Rodman Bruntz 2D-26H Lead Directional : Steven Schlamp (10800)		Report Time: 2400 API JOB # 0512337758000 WORK ORDER# 77032 FIELD: Wattenberg Township: 2N Range/Section 99W 26 Company Man Mike Roane / Rich Borner 2nd Dir Hand : Kevin Hoshall (10931)									
From Monday, November 04, 2013 at 0000 to Monday, November 04, 2013 at 2400											
DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	6602.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	7292.00	2	650-HB21-024	153.00	2.08	5,208.00	14.25	2.83	19.17	5,361.00	279.70
Below Rot Hrs.	24.00	3	650M6086	234.00	5.08	456.00	3.33	2.67	11.08	690.00	0.00
Total Drilled:	690.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 3			
Avg. Total ROP:	81.98	WOB:	15	Weight:	0	Bit No:	3	SDi611 6.5" Drill Motor 6 1/2" NMPC 6 1/2" NMDC 6 1/2" Pulser Sub 6 1/2" NMDC 6 1/2" NMPC Crossover 60 Jnts HWDP			
Slide Footage:	234.00	Rot Wt:	131	Visc:	0	Model	SDi611				
Slide Hours	5.08	Pick UP:	165	Chlorides:	0	SN.:	JH3962				
Avg. Slide ROP:	46.03	Slack Off:	115	YP:	0	MFG.	SMITH				
Rotate Footage:	456.00	SPP:	3500	PV:	0	Type	PDC				
Rotary Hours	3.33	Flow:	500 - 600	PH:	0	IADC					
Avg. Rot ROP:	136.80	SPM:	120	GAS:	0	JETS	6-14				
Circ Hours	2.67	Rot. RPM	30 - 50	SAND:	0	TFA:	0.902				
Ream Hours	0.00	Mot RPM:	30 - 50	WL:	0	Hole ID:	8 3/4				
Rotary Hrs%:	39.60	Incl. In:	1.1	SOLID:	0	Bit Hrs:	32.42				
Slide Hrs%:	60.40	Azm. In:	343.41	BHT°:	0	Bit Ftg:	1337.00				
Rotary Ftg%:	66.09	Incl. Out:	17.38	Flow T°:	0	PUMPS					
Slide Ftg%:	33.91	Azm. Out:	176.34	Oil %:	0	Liner	0	0			
CASING				COST BREAKDOWN							
Size	Lb/Ft	MD									
GENERAL COMMENT											
- Drilled ahead to 6602', when the the pumps pressured up and blew 2 nails in succession. - Decision was made to POOH, and examine the motor and bit for possible issues. - When motor came to surface											
Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT			
00:00	04:35	4.58	6602	6602	0	.00	POOH	POOH			
04:35	07:30	2.92	6602	6602	0	.00	Change BHA	Change out Motor, MWD tool & Bit			
07:30	08:40	1.17	6602	6602	0	.00	TIH	TIH out of surface casing & install rotating head			
08:40	08:50	0.17	6602	6602	0	.00	Circulating	Surface test MWD & Motor			
08:50	11:30	2.67	6602	6602	0	.00	TIH	TIH 6300'			
11:30	13:05	1.58	6602	6602	0	.00	Circulating	Ream to bottom & circulate hole clean			
13:05	13:10	0.08	6602	6610	8	96.00	Drilling	Drilling - (WOB:26;GPM :540;RPM:50)			
13:10	13:30	0.33	6610	6618	8	24.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175))			
13:30	14:20	0.83	6618	6722	104	124.80	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)			
14:20	14:25	0.08	6722	6722	0	.00	Survey & Conn.	Survey & Conn.@6659' Inc 0.8° Azm 334.91°			
14:25	15:25	1.00	6722	6736	14	14.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)			
15:25	16:25	1.00	6736	6912	176	176.00	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)			
16:25	16:30	0.08	6912	6912	0	.00	Survey & Conn.	Survey & Conn.@6849' Inc 0.1° Azm 347.26°			

Winserve II Daily Report for Monday,
November 04, 2013

License: NP2245

Daily Report for JOB#: 77032 - Page 1 of 2

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
16:30	16:55	0.42	6912	6975	63	151.20	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)
16:55	17:10	0.25	6975	6975	0	.00	Circulating	SPR
17:10	17:50	0.67	6975	6975	0	.00	Circulating	Trough KOP
17:50	18:20	0.50	6975	6995	20	40.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
18:20	18:30	0.17	6995	7007	12	72.00	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)
18:30	18:40	0.17	7007	7007	0	.00	Survey & Conn.	Survey & Conn.@6944' Inc 1.66° Azm 322.43°
18:40	19:05	0.42	7007	7027	20	48.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
19:05	19:10	0.08	7027	7038	11	132.00	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)
19:10	19:20	0.17	7038	7038	0	.00	Survey & Conn.	Survey & Conn.@6975' Inc 1.42° Azm 263.56°
19:20	19:40	0.33	7038	7058	20	60.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
19:40	19:50	0.17	7058	7070	12	72.00	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)
19:50	19:55	0.08	7070	7070	0	.00	Survey & Conn.	Survey & Conn.@7007' Inc 2.09° Azm 208.36°
19:55	20:15	0.33	7070	7090	20	60.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
20:15	20:20	0.08	7090	7102	12	144.00	Drilling	Drilling - (WOB:15;GPM :540;RPM:50)
20:20	20:35	0.25	7102	7102	0	.00	Survey & Conn.	Survey & Conn.@7039' Inc 4.54° Azm 188.52°
20:35	21:00	0.42	7102	7124	22	52.80	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
21:00	21:05	0.08	7124	7133	9	108.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
21:05	21:15	0.17	7133	7133	0	.00	Survey & Conn.	Survey & Conn.@7070' Inc 7.28° Azm 183.35°
21:15	21:35	0.33	7133	7150	17	51.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
21:35	21:40	0.08	7150	7165	15	180.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
21:40	21:45	0.08	7165	7165	0	.00	Survey & Conn.	Survey & Conn.@7102' Inc 10° Azm 179.83°
21:45	22:05	0.33	7165	7187	22	66.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
22:05	22:10	0.08	7187	7197	10	120.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
22:10	22:30	0.33	7197	7197	0	.00	Survey & Conn.	Survey & Conn.@7134' Inc 12.63° Azm 177.28°
22:30	22:50	0.33	7197	7220	23	69.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
22:50	22:55	0.08	7220	7228	8	96.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
22:55	23:00	0.08	7228	7228	0	.00	Survey & Conn.	Survey & Conn.@7165' Inc 14.43° Azm 174.86°
23:00	23:20	0.33	7228	7252	24	72.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
23:20	23:25	0.08	7252	7260	8	96.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
23:25	23:30	0.08	7260	7260	0	.00	Survey & Conn.	Survey & Conn.@7197' Inc 17.38° Azm 176.34°
23:30	23:55	0.42	7260	7284	24	57.60	Sliding	Sliding - (WOB:25;GPM :600;TFO:175)
23:55	24:00	0.08	7284	7292	8	96.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)

JOB NO.:	77032	Report Time:	2400	6 of 14
Company:	EnCana Oil & Gas (USA) Inc.	API JOB #	0512337758000	
LOCATION:		WORK ORDER#	77032	
RIG NAME:	Ensign 124	FIELD:	Wattenberg	
STATE:	Colorado	Township:	2N	
COUNTY:	Weld	Range/Section	99W	26
WELL NAME:	Rodman Bruntz 2D-26H	Company Man	Mike Roane / Rich Borner	
Lead Directional :	Steven Schlamp (10800)	2nd Dir Hand :	Kevin Hoshall (10931)	

From Tuesday, November 05, 2013 at 0000 to Tuesday, November 05, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	7292.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	7798.00	3	650M6086	667.00	27.33	670.00	5.08	9.08	41.50	1,337.00	32.74
Below Rot Hrs.	22.92										
Total Drilled:	506.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 3			
Avg. Total ROP:	29.91	WOB: 15		Weight: 0		Bit No: 3		SDi611 6.5" Drill Motor 6 1/2" NMPC 6 1/2" NMDC 6 1/2" Pulser Sub 6 1/2" NMDC 6 1/2" NMPC Crossover 60 Jnts HWDP			
Slide Footage:	332.00	Rot Wt: 131		Visc: 0		Model SDi611					
Slide Hours	15.92	Pick UP: 165		Chlorides: 0		SN.: JH3962					
Avg. Slide ROP:	20.86	Slack Off: 115		YP: 0		MFG. SMITH					
Rotate Footage:	174.00	SPP: 3500		PV: 0		Type PDC					
Rotary Hours	1.00	Flow: 500 - 600		PH: 0		IADC					
Avg. Rot ROP:	174.00	SPM: 120		GAS: 0		JETS 6-14					
Circ Hours	1.08	Rot. RPM 30 - 30		SAND: 0		TFA: 0.902					
Ream Hours	0.00	Mot RPM: 30 - 30		WL: 0		Hole ID: 8 3/4					
Rotary Hrs%:	5.91	Incl. In: 17.38		SOLID: 0		Bit Hrs: 32.42					
Slide Hrs%:	94.09	Azm. In: 176.34		BHT°: 0		Bit Ftg: 1337.00					
Rotary Ftg%:	34.39	Incl. Out: 70.17		Flow T°: 0		PUMPS					
Slide Ftg%:	65.61	Azm. Out: 180.31		Oil %: 0		Liner 0 0					
COST BREAKDOWN						Stroke 0 0					
						Effic. 95.00% 95.00%					
						Gal/Stk 0.00 0.00					
						BBL/Stk 0.000 0.000					
COST BREAKDOWN											

GENERAL COMMENT

- Landing point changed to 7553'TVD as per Co Man @ 0840
- Significant pressure flucuations during normal drilling operations.

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:15	0.25	7292	7292	0	.00	Survey & Conn.	Survey & Conn. @7229' Inc 20.06° Azm 176.1°
00:15	00:35	0.33	7292	7318	26	78.00	Sliding	Sliding - (WOB:25;GPM :600;TFO:175))
00:35	00:40	0.08	7318	7323	5	60.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
00:40	00:50	0.17	7323	7323	0	.00	Survey & Conn.	Survey & Conn. @7260' Inc 22.63° Azm 175.5°
00:50	01:15	0.42	7323	7355	32	76.80	Sliding	Sliding - (WOB:15;GPM :500;RPM:30)
01:15	01:25	0.17	7355	7355	0	.00	Survey & Conn.	Survey & Conn. @7292' Inc 26.49° Azm 173.69°
01:25	01:45	0.33	7355	7375	20	60.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
01:45	01:50	0.08	7375	7386	11	132.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
01:50	02:05	0.25	7386	7386	0	.00	Survey & Conn.	Survey & Conn. @7323' Inc 30.38° Azm 174.56°
02:05	02:25	0.33	7386	7403	17	51.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
02:25	02:30	0.08	7403	7418	15	180.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
02:30	02:40	0.17	7418	7418	0	.00	Survey & Conn.	Survey & Conn. @7355' Inc 34.97° Azm 175.06°
02:40	03:10	0.50	7418	7435	17	34.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
03:10	03:20	0.17	7435	7450	15	90.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
03:20	03:40	0.33	7450	7450	0	.00	Survey & Conn.	Survey & Conn.@7387' Inc 38.3° Azm 174.98°
03:40	04:05	0.42	7450	7475	25	60.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
04:05	04:10	0.08	7475	7481	6	72.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
04:10	04:35	0.42	7481	7481	0	.00	Survey & Conn.	Survey & Conn.@7418' Inc 41.92° Azm 175.65°
04:35	05:45	1.17	7481	7496	15	12.86	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
05:45	06:05	0.33	7496	7513	17	51.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
06:05	06:10	0.08	7513	7513	0	.00	MWD Survey	MWD Survey@7450' Inc 44.92° Azm 176.97°
06:10	07:15	1.08	7513	7527	14	12.92	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
07:15	07:30	0.25	7527	7545	18	72.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
07:30	09:10	1.67	7545	7565	20	12.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
09:10	09:35	0.42	7565	7576	11	26.40	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
09:35	09:45	0.17	7576	7576	0	.00	Survey & Conn.	Survey & Conn.@7513' Inc 49.65° Azm 181.14°
09:45	10:20	0.58	7576	7588	12	20.57	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
10:20	10:35	0.25	7588	7608	20	80.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
10:35	10:45	0.17	7608	7608	0	.00	MWD Survey	MWD Survey@7545' Inc 50.99° Azm 181.48°
10:45	11:35	0.83	7608	7633	25	30.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0))
11:35	11:45	0.17	7633	7639	6	36.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
11:45	11:55	0.17	7639	7639	0	.00	MWD Survey	MWD Survey@7576' Inc 53.55° Azm 179.46°
11:55	13:10	1.25	7639	7665	26	20.80	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
13:10	13:15	0.08	7665	7671	6	72.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
13:15	13:45	0.50	7671	7671	0	.00	Circulating	Rig Service
13:45	13:55	0.17	7671	7671	0	.00	Survey & Conn.	Survey & Conn.@7608' Inc 55.76° Azm 178.6°
13:55	15:20	1.42	7671	7691	20	14.12	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
15:20	15:40	0.33	7691	7703	12	36.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
15:40	15:50	0.17	7703	7703	0	.00	MWD Survey	MWD Survey@7640' Inc 59.33° Azm 178.07°
15:50	18:00	2.17	7703	7728	25	11.54	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
18:00	18:10	0.17	7728	7734	6	36.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
18:10	18:20	0.17	7734	7734	0	.00	Survey & Conn.	Survey & Conn.@7671' Inc 63.72° Azm 178.75°
18:20	19:45	1.42	7734	7750	16	11.29	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
19:45	20:05	0.33	7750	7766	16	48.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
20:05	20:30	0.42	7766	7766	0	.00	Survey & Conn.	Survey & Conn.@7703' Inc 66.36° Azm 179.83°
20:30	22:30	2.00	7766	7788	22	11.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
20:40	22:55	2.25	7798	7798	0	.00	Survey & Conn.	Survey & Conn.@7735' Inc 70.17° Azm 180.31°
22:30	20:40	-1.83	7788	7798	10	-5.45	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)

JOB NO.: 77032		Report Time: 2400		7 of 14	
Company: EnCana Oil & Gas (USA) Inc.		API JOB # 0512337758000			
LOCATION:		WORK ORDER# 77032			
RIG NAME: Ensign 124		FIELD: Wattenberg			
STATE: Colorado		Township: 2N			
COUNTY: Weld		Range/Section 99W 26			
WELL NAME: Rodman Bruntz 2D-26H		Company Man Mike Roane / Rich Borner			
Lead Directional : Steven Schlamp (10800)		2nd Dir Hand : Kevin Hoshall (10931)			

From Wednesday, November 06, 2013 at 0000 to Wednesday, November 06, 2013 at 2400											
DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	7798.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	7939.00	3	650M6086	667.00	27.33	670.00	5.08	9.08	41.50	1,337.00	32.74
Below Rot Hrs.	24.00										
Total Drilled:	141.00										
Avg. Total ROP:	19.91										
Slide Footage:	101.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 3			
Slide Hours	6.33	WOB: 15		Weight: 0		Bit No: 3		SDi611 6.5" Drill Motor 6 1/2" NMPC 6 1/2" NMDC 6 1/2" Pulser Sub 6 1/2" NMDC 6 1/2" NMPC Crossover 60 Jnts HWDP			
Avg. Slide ROP:	15.95	Rot Wt: 131		Visc: 0		Model SDi611					
Rotate Footage:	40.00	Pick UP: 165		Chlorides: 0		SN.: JH3962					
Rotary Hours	0.75	Slack Off: 115		YP: 0		MFG. SMITH					
Avg. Rot ROP:	53.33	SPP: 3500		PV: 0		Type PDC					
Circ Hours	5.33	Flow: 500 - 500		PH: 0		IADC					
Ream Hours	0.00	SPM: 120		GAS: 0		JETS 6-14					
Rotary Hrs%:	10.59	Rot. RPM 30 - 30		SAND: 0		TFA: 0.902					
Slide Hrs%:	89.41	Mot RPM: 30 - 30		WL: 0		Hole ID: 8 3/4					
Rotary Ftg%:	28.37	Incl. In: 70.17		SOLID: 0		Bit Hrs: 32.42					
Slide Ftg%:	71.63	Azm. In: 180.31		BHT°: 0		Bit Ftg: 1337.00					
CASING		Incl. Out: 82.54		Flow T°: 0		PUMPS					
Size	Lb/Ft	MD	Azm. Out: 179.08		Oil %: 0		Liner 0 0				
						Stroke 0 0					
						Effic. 95.00% 95.00%					
						Gal/Stk 0.00 0.00					
						BBL/Stk 0.000 0.000					
COST BREAKDOWN											
GENERAL COMMENT											

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:40	0.67	7798	7816	18	27.00	Sliding	Sliding - (WOB:15;GPM :500;TFO:0))
00:40	00:55	0.25	7816	7829	13	52.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
00:55	01:10	0.25	7829	7829	0	.00	Survey & Conn.	Survey & Conn. @7766' Inc 73.22° Azm 179.86°
01:10	02:00	0.83	7829	7851	22	26.40	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
02:00	02:05	0.08	7851	7861	10	120.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
02:05	02:25	0.33	7861	7861	0	.00	Survey & Conn.	Survey & Conn. @7798' Inc 76.24° Azm 179.42°
02:25	05:05	2.67	7861	7892	31	11.63	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
05:05	05:20	0.25	7892	7892	0	.00	Survey & Conn.	Survey & Conn. @7829' Inc 78.96° Azm 179.02°
05:20	07:30	2.17	7892	7922	30	13.85	Sliding	Sliding - (WOB:15;GPM :500;TFO:0)
07:30	07:35	0.08	7922	7922	0	.00	MWD Survey	MWD Survey @7861' Inc 82.54° Azm 179.05°
07:35	08:00	0.42	7922	7939	17	40.80	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
08:00	13:15	5.25	7939	7939	0	.00	Circulating	Circulate hole clean
13:15	19:05	5.83	7939	7939	0	.00	POOH	POOH
19:05	19:50	0.75	7939	7939	0	.00	Change BHA	L/D BHA #3

Winserve II Daily Report for Wednesday,
November 06, 2013
License: NP2245

Daily Report for JOB#: 77032 - Page 1 of 2

JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H
Lead Directional : Steven Schlamp (10800)

Report Time: 2400 8 of 14
API JOB # 0512337758000
WORK ORDER# 77032
FIELD: Wattenberg
Township: 2N
Range/Section 99W 26
Company Man Mike Roane / Rich Borner
2nd Dir Hand : Kevin Hoshall (10931)

From Thursday, November 07, 2013 at 0000 to Thursday, November 07, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS										
Start Depth	0.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP	
End Depth	0.00											
Below Rot Hrs.	24.00											
Total Drilled:	0.00	Drilling Parameters		Mud Record		Bit Record			Current BHA # 0			
Avg. Total ROP:	NA	WOB: 15 Rot Wt: 131 Pick UP: 165 Slack Off: 115 SPP: 3500 Flow: 500 - 500 SPM: 120 Rot. RPM - Mot RPM: - Incl. In: 82.54 Azm. In: 179.08 Incl. Out: 82.54 Azm. Out: 179.08		Weight: 0 Visc: 0 Chlorides: 0 YP: 0 PV: 0 PH: 0 GAS: 0 SAND: 0 WL: 0 SOLID: 0 BHT°: 0 Flow T°: 0 Oil %: 0		Bit No: Model SN.: MFG. Type IADC JETS TFA: Hole ID: N/A Bit Hrs: Bit Ftg:						
Slide Footage:	0.00											
Slide Hours	0.00											
Avg. Slide ROP:	NA											
Rotate Footage:	0.00											
Rotary Hours	0.00											
Avg. Rot ROP:	NA											
Circ Hours	0.00											
Ream Hours	0.00											
Rotary Hrs%:	NA											
Slide Hrs%:	NA											
Rotary Ftg%:	NA											
Slide Ftg%:	NA											
Casing												
Size	Lb/Ft	MD										
			COST BREAKDOWN			Effic. 95.00% 95.00%						
						Gal/Stk 0.00 0.00						
						BBL/Stk 0.000 0.000						

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	24:00	24.00	7939	7939	0	.00	Other	Csg / Cmt Ops

JOB NO.:	77032	Report Time:	2400	9 of 14
Company:	EnCana Oil & Gas (USA) Inc.	API JOB #	0512337758000	
LOCATION:		WORK ORDER#	77032	
RIG NAME:	Ensign 124	FIELD:	Wattenberg	
STATE:	Colorado	Township:	2N	
COUNTY:	Weld	Range/Section	99W	26
WELL NAME:	Rodman Bruntz 2D-26H	Company Man	Mike Roane / Rich Borner	
Lead Directional :	Steven Schlamp (10800)	2nd Dir Hand :	Kevin Hoshall (10931)	

From Friday, November 08, 2013 at 0000 to Friday, November 08, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	7939.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	8645.00	4	475-M5-168	650.00	20.82	6,111.00	53.80	15.20	89.82	6,761.00	80.94
Below Rot Hrs.	24.00										
Total Drilled:	706.00	<div>Drilling Parameters</div> <div>WOB: 10</div> <div>Rot Wt: 112</div> <div>Pick UP: 122</div> <div>Slack Off: 103</div> <div>SPP: 3200</div> <div>Flow: 260 - 500</div> <div>SPM: 67</div> <div>Rot. RPM 30 - 70</div> <div>Mot RPM: -</div> <div>Incl. In: 82.54</div> <div>Azm. In: 179.08</div> <div>Incl. Out: 91.07</div> <div>Azm. Out: 180.82</div>		<div>Mud Record</div> <div>Weight: 0</div> <div>Visc: 0</div> <div>Chlorides: 0</div> <div>YP: 0</div> <div>PV: 0</div> <div>PH: 0</div> <div>GAS: 0</div> <div>SAND: 0</div> <div>WL: 0</div> <div>SOLID: 0</div> <div>BHT°: 0</div> <div>Flow T°: 0</div> <div>Oil %: 0</div>		<div>Bit Record</div> <div>Bit No: 4</div> <div>Model VS513D</div> <div>SN.: 4006251</div> <div>MFG. Varel</div> <div>Type PDC</div> <div>IADC</div> <div>JETS 5-20</div> <div>TFA: 1.533</div> <div>Hole ID: 6 1/8</div> <div>Bit Hrs: 74.62</div> <div>Bit Ftg: 6761.00</div>		<div>Current BHA # 4</div> <div>VS513D</div> <div>Wenzel Drill Motor</div> <div>4 3/4" NMPC</div> <div>4 3/4" NMDC</div> <div>4 3/4" Pulser Sub</div> <div>4 3/4" NMDC</div> <div>Crossover</div> <div>31 Stands (93jnts.) 4" XT39</div> <div>NOV Shock Sub/Agitator</div> <div>48 Stands (144jnts.) 4" XT39</div> <div>60 Jnts HWDP</div>			
Avg. Total ROP:	161.06										
Slide Footage:	51.00										
Slide Hours	0.82										
Avg. Slide ROP:	62.45										
Rotate Footage:	655.00										
Rotary Hours	3.57										
Avg. Rot ROP:	183.64										
Circ Hours	5.37										
Ream Hours	0.00										
Rotary Hrs%:	81.37										
Slide Hrs%:	18.63										
Rotary Ftg%:	92.78										
Slide Ftg%:	7.22										
CASING											
Size	Lb/Ft	MD									
			COST BREAKDOWN								

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	01:00	1.00	7939	7939	0	.00		Csg/ Cmt Ops
01:00	02:00	1.00	7939	7939	0	.00	Change BHA	P/U BHA #4
02:00	10:15	8.25	7939	7939	0	.00	TIH	Single in to tag cement
10:15	12:00	1.75	7939	7939	0	.00	Other	Slip & Cut drill line
12:00	12:30	0.50	7939	7939	0	.00	Other	Rig Service
12:30	14:40	2.17	7939	7939	0	.00	Circulating	TIH to tag cement @7828'MD
14:40	16:00	1.33	7939	7939	0	.00	Circulating	Drill cement & float equipment
16:00	16:05	0.08	7939	7949	10	120.00	Drilling	Drilling - (WOB:15;GPM :500;RPM:30)
16:05	17:50	1.75	7949	7949	0	.00	Other	F.I.T.
17:50	18:15	0.42	7949	7995	46	110.40	Drilling	Drilling - (WOB:5;GPM :260;RPM:30)
18:15	18:22	0.12	7995	7995	0	.00	MWD Survey	MWD Survey@7861' Inc 82.54° Azm 179.05°
18:22	19:00	0.63	7995	8088	93	146.84	Drilling	Drilling - (WOB:10;GPM :279;RPM:45)
19:00	19:22	0.37	8088	8088	0	.00	MWD Survey	MWD Survey@8025' Inc 90.13° Azm 178.68°
19:22	19:35	0.22	8088	8101	13	60.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:90R))

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
19:35	20:00	0.42	8101	8181	80	192.00	Drilling	Drilling - (WOB:10;GPM :279;RPM:45)
20:00	20:14	0.23	8181	8181	0	.00	MWD Survey	MWD Survey@8118' Inc 89.87° Azm 179.35°
20:14	20:28	0.23	8181	8197	16	68.57	Sliding	Sliding - (WOB:12;GPM :279;TFO:70R))
20:28	20:53	0.42	8197	8274	77	184.80	Drilling	Drilling - (WOB:10;GPM :279;RPM:60)
20:53	21:04	0.18	8274	8274	0	.00	MWD Survey	MWD Survey@8211' Inc 91.04° Azm 181.4°
21:04	21:26	0.37	8274	8366	92	250.91	Drilling	Drilling - (WOB:10;GPM :279;RPM:60)
21:26	21:50	0.40	8366	8366	0	.00	MWD Survey	MWD Survey@8303' Inc 90.6° Azm 179.23°
21:50	22:12	0.37	8366	8388	22	60.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:90R))
22:12	22:33	0.35	8388	8459	71	202.86	Drilling	Drilling - (WOB:10;GPM :279;RPM:60)
22:33	22:43	0.17	8459	8459	0	.00	MWD Survey	MWD Survey@8396' Inc 90.03° Azm 180.93°
22:43	23:08	0.42	8459	8552	93	223.20	Drilling	Drilling - (WOB:10;GPM :279;RPM:60)
23:08	23:18	0.17	8552	8552	0	.00	MWD Survey	MWD Survey@8489' Inc 90.54° Azm 180.83°
23:18	23:46	0.47	8552	8645	93	199.29	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
23:46	24:00	0.23	8645	8645	0	.00	MWD Survey	MWD Survey@8582' Inc 91.07° Azm 180.82°

JOB NO.: 77032

Company: EnCana Oil & Gas (USA) Inc.

LOCATION:

RIG NAME: Ensign 124

STATE: Colorado

COUNTY: Weld

WELL NAME: Rodman Bruntz 2D-26H

Lead Directional : Steven Schlamp (10800)

From Saturday, November 09, 2013 at 0000 to Saturday, November 09, 2013 at 2400

ASSEMBLY TOTALS

Start Depth	8645.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	10716.00	4	475-M5-168	650.00	20.82	6,111.00	53.80	15.20	89.82	6,761.00	80.94
Below Rot Hrs.	24.00										
Total Drilled:	2071.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 4			
Avg. Total ROP:	117.34										
Slide Footage:	213.00	WOB:	11	Weight:	0	Bit No:	4	VS513D Wenzel Drill Motor 4 3/4" NMPC 4 3/4" NMDC 4 3/4" Pulser Sub 4 3/4" NMDC Crossover 31 Stands (93jnts.) 4" XT39 NOV Shock Sub/Agitator 48 Stands (144jnts.) 4" XT39 60 Jnts HWDP			
Slide Hours	2.75	Rot Wt:	116	Visc:	0	Model	VS513D				
Avg. Slide ROP:	77.45	Pick UP:	140	Chlorides:	0	SN.:	4006251				
Rotate Footage:	1858.00	Slack Off:	105	YP:	0	MFG.	Varel				
Rotary Hours	14.90	SPP:	3200	PV:	0	Type	PDC				
Avg. Rot ROP:	124.70	Flow:	279 - 279	PH:	0	IADC					
Circ Hours	3.62	SPM:	67	GAS:	0	JETS	5-20				
Ream Hours	0.00	Rot. RPM	70 - 80	SAND:	0	TFA:	1.533				
Rotary Hrs%:	84.42	Mot RPM:	0 - 70	WL:	0	Hole ID:	6 1/8				
Slide Hrs%:	15.58	Incl. In:	91.07	SOLID:	0	Bit Hrs:	74.62				
Rotary Ftg%:	89.72	Azm. In:	180.82	BHT°:	0	Bit Ftg:	6761.00				
Slide Ftg%:	10.28	Incl. Out:	89.33	Flow T°:	0	PUMPS					
CASING		Azm. Out:	178.61	Oil %:	0	Liner	0	0			
Size	Lb/Ft	MD	COST BREAKDOWN			Stroke	0	0			
						Effic.	95.00%	95.00%			
						Gal/Stk	0.00	0.00			
						BBL/Stk	0.000	0.000			

Size	Lb/Ft	MD
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COST BREAKDOWN

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:15	0.25	8645	8758	113	452.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:90R)
00:15	01:25	1.17	8758	8758	0	.00	MWD Survey	MWD Survey@8675' Inc 89.09° Azm 182.4°
01:25	01:48	0.38	8758	8831	73	190.43	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
01:48	01:55	0.12	8831	8831	0	.00	MWD Survey	MWD Survey@8768' Inc 89.26° Azm 181.3°
01:55	02:16	0.35	8831	8941	110	314.29	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
02:16	02:34	0.30	8941	8949	8	26.67	Sliding	Sliding - (WOB:12;GPM :279;TFO:360))
02:34	03:19	0.75	8949	8970	21	28.00	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
03:19	03:40	0.35	8970	8974	4	11.43	Sliding	Sliding - (WOB:12;GPM :279;TFO:360))
03:40	04:15	0.58	8974	9017	43	73.71	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
04:15	04:40	0.42	9017	9017	0	.00	MWD Survey	MWD Survey@8954' Inc 90.54° Azm 181.35°
04:40	05:38	0.97	9017	9110	93	96.21	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
05:38	05:50	0.20	9110	9110	0	.00	MWD Survey	MWD Survey@9047' Inc 92.08° Azm 180.82°
05:50	06:04	0.23	9110	9117	7	30.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:180))
06:04	06:35	0.52	9117	9203	86	166.45	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
06:35	06:52	0.28	9203	9203	0	.00	Survey & Conn.	Survey & Conn.@9140' Inc 90.47° Azm 180.22°
06:52	07:21	0.48	9203	9296	93	192.41	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
07:21	07:40	0.32	9296	9296	0	.00	Survey & Conn.	Survey & Conn.@9233' Inc 90.3° Azm 179.08°
07:40	08:03	0.38	9296	9389	93	242.61	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
08:03	08:18	0.25	9389	9389	0	.00	Survey & Conn.	Survey & Conn.@9326' Inc 90° Azm 177.38°
08:18	08:38	0.33	9389	9404	15	45.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:90))
08:38	09:04	0.43	9404	9482	78	180.00	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
09:04	09:15	0.18	9482	9482	0	.00	Survey & Conn.	Survey & Conn.@9419' Inc 88.69° Azm 178.14°
09:15	09:32	0.28	9482	9500	18	63.53	Sliding	Sliding - (WOB:12;GPM :279;TFO:80))
09:32	10:09	0.62	9500	9577	77	124.86	Drilling	Drilling - (WOB:10;GPM :279;RPM:70)
10:09	10:27	0.30	9577	9577	0	.00	Survey & Conn.	Survey & Conn.@9514' Inc 88.69° Azm 180.7°
10:27	10:45	0.30	9577	9591	14	46.67	Sliding	Sliding - (WOB:12;GPM :279;TFO:65))
10:45	11:21	0.60	9591	9671	80	133.33	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
11:21	11:39	0.30	9671	9671	0	.00	Survey & Conn.	Survey & Conn.@9608' Inc 89.66° Azm 182.41°
11:39	13:09	1.50	9671	9766	95	63.33	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
13:09	13:25	0.27	9766	9766	0	.00	Survey & Conn.	Survey & Conn.@9703' Inc 89.87° Azm 181.67°
13:25	14:01	0.60	9766	9861	95	158.33	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
14:01	14:25	0.40	9861	9861	0	.00	Rig Service-Inhole	Rig Service-Inhole
14:25	14:34	0.15	9861	9861	0	.00	Survey & Conn.	Survey & Conn.@9798' Inc 90.3° Azm 180.78°
14:34	15:20	0.77	9861	9956	95	123.91	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
15:20	15:31	0.18	9956	9956	0	.00	Survey & Conn.	Survey & Conn.@9893' Inc 90.44° Azm 179.97°
15:31	15:37	0.10	9956	9968	12	120.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:140))
15:37	16:07	0.50	9968	10051	83	166.00	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
16:07	16:20	0.22	10051	10051	0	.00	Survey & Conn.	Survey & Conn.@9988' Inc 89.33° Azm 180.08°
16:20	16:48	0.47	10051	10146	95	203.57	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
16:48	17:05	0.28	10146	10146	0	.00	Survey & Conn.	Survey & Conn.@10083' Inc 89.87° Azm 180.6°
17:05	17:25	0.33	10146	10160	14	42.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:180))
17:25	18:15	0.83	10160	10241	81	97.20	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
18:15	18:30	0.25	10241	10241	0	.00	MWD Survey	MWD Survey@10178' Inc 89.23° Azm 180.34°
18:30	18:46	0.27	10241	10249	8	30.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:150))
18:46	19:46	1.00	10249	10336	87	87.00	Drilling	Drilling - (WOB:10;GPM :279;RPM:80)
19:46	20:00	0.23	10336	10336	0	.00	MWD Survey	MWD Survey@10273' Inc 87.75° Azm 179.98°
20:00	20:34	0.57	10336	10431	95	167.65	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
20:34	20:46	0.20	10431	10431	0	.00	MWD Survey	MWD Survey@10368' Inc 88.56° Azm 180°
20:46	22:11	1.42	10431	10526	95	67.06	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
22:11	22:24	0.22	10526	10526	0	.00	MWD Survey	MWD Survey@10463' Inc 88.86° Azm 179.57°
22:24	23:05	0.68	10526	10621	95	139.02	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
23:05	23:30	0.42	10621	10621	0	.00	MWD Survey	MWD Survey@10558' Inc 89.33° Azm 178.61°
23:30	24:00	0.50	10621	10716	95	190.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
04:55	05:21	0.43	11105	11117	12	27.69	Sliding	Sliding - (WOB:12;GPM :279;TFO:55R))
05:21	06:00	0.65	11117	11190	73	112.31	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
06:00	06:15	0.25	11190	11190	0	.00	Survey & Conn.	Survey & Conn.@11127' Inc 90.03° Azm 181.29°
06:15	06:32	0.28	11190	11197	7	24.71	Sliding	Sliding - (WOB:12;GPM :279;TFO:45))
06:32	07:15	0.72	11197	11285	88	122.79	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
07:15	07:28	0.22	11285	11285	0	.00	Survey & Conn.	Survey & Conn.@11222' Inc 90.84° Azm 181.65°
07:28	08:04	0.60	11285	11380	95	158.33	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
08:04	08:17	0.22	11380	11380	0	.00	Survey & Conn.	Survey & Conn.@11317' Inc 91.11° Azm 181.29°
08:17	08:50	0.55	11380	11475	95	172.73	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
08:50	09:04	0.23	11475	11475	0	.00	Survey & Conn.	Survey & Conn.@11412' Inc 91.41° Azm 180.4°
09:04	09:42	0.63	11475	11569	94	148.42	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
09:42	09:55	0.22	11569	11569	0	.00	Survey & Conn.	Survey & Conn.@11506' Inc 91.85° Azm 180.24°
09:55	10:53	0.97	11569	11664	95	98.28	Drilling	Drilling - (WOB:11;GPM :279;RPM:70)
10:53	11:08	0.25	11664	11664	0	.00	Survey & Conn.	Survey & Conn.@11601' Inc 91.14° Azm 178.58°
11:08	12:06	0.97	11664	11759	95	98.28	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
12:06	12:21	0.25	11759	11759	0	.00	Survey & Conn.	Survey & Conn.@11696' Inc 92.42° Azm 178.39°
12:21	13:38	1.28	11759	11783	24	18.70	Sliding	Sliding - (WOB:12;GPM :279;TFO:150))
13:38	14:20	0.70	11783	11854	71	101.43	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
14:20	14:47	0.45	11854	11854	0	.00	Rig Service-Inhole	Rig Service-Inhole
14:47	15:00	0.22	11854	11854	0	.00	Survey & Conn.	Survey & Conn.@11791' Inc 89.33° Azm 179.1°
15:00	15:21	0.35	11854	11871	17	48.57	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
15:21	16:17	0.93	11871	11894	23	24.64	Sliding	Sliding - (WOB:12;GPM :279;TFO:140))
16:17	16:44	0.45	11894	11949	55	122.22	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
16:44	16:59	0.25	11949	11949	0	.00	Survey & Conn.	Survey & Conn.@11886' Inc 89.43° Azm 180.63°
16:59	17:59	1.00	11949	12044	95	95.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
17:59	18:11	0.20	12044	12044	0	.00	Survey & Conn.	Survey & Conn.@11981' Inc 89.29° Azm 181.21°
18:11	18:23	0.20	12044	12079	35	175.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:85)
18:23	20:00	1.62	12079	12099	20	12.37	Sliding	Sliding - (WOB:12;GPM :279;TFO:150R))
20:00	20:30	0.50	12099	12139	40	80.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
20:30	20:40	0.17	12139	12139	0	.00	Survey & Conn.	Survey & Conn.@12076' Inc 89.16° Azm 180.52°
20:40	21:15	0.58	12139	12233	94	161.14	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
21:15	21:30	0.25	12233	12233	0	.00	Survey & Conn.	Survey & Conn.@12170' Inc 86.27° Azm 180.38°
21:30	22:12	0.70	12233	12253	20	28.57	Sliding	Sliding - (WOB:12;GPM :279;TFO:40R))
22:12	22:40	0.47	12253	12328	75	160.71	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
22:40	22:48	0.13	12328	12328	0	.00	Survey & Conn.	Survey & Conn.@12265' Inc 88.76° Azm 180.73°
22:48	22:57	0.15	12328	12348	20	133.33	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
22:57	23:34	0.62	12348	12358	10	16.22	Sliding	Sliding - (WOB:12;GPM :279;TFO:40R))
23:34	24:00	0.43	12358	12423	65	150.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
06:22	06:32	0.17	12897	12917	20	120.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
06:32	07:00	0.47	12917	12917	0	.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:180))
07:00	07:25	0.42	12917	12992	75	180.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
07:25	07:35	0.17	12992	12992	0	.00	Survey & Conn.	Survey & Conn.@12929' Inc 88.06° Azm 179.03°
07:35	07:44	0.15	12992	13012	20	133.33	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
07:44	08:35	0.85	13012	13012	0	.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:45))
08:35	09:10	0.58	13012	13087	75	128.57	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
09:10	09:20	0.17	13087	13087	0	.00	Survey & Conn.	Survey & Conn.@13024' Inc 89.26° Azm 180.84°
09:20	10:00	0.67	13087	13182	95	142.50	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
10:00	10:15	0.25	13182	13182	0	.00	Survey & Conn.	Survey & Conn.@13119' Inc 89.33° Azm 180.63°
10:15	10:45	0.50	13182	13277	95	190.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
10:45	11:00	0.25	13277	13277	0	.00	Survey & Conn.	Survey & Conn.@13214' Inc 89.87° Azm 180.17°
11:00	12:15	1.25	13277	13289	12	9.60	Sliding	Sliding - (WOB:12;GPM :279;TFO:45)
12:15	12:50	0.58	13289	13372	83	142.29	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
12:50	13:20	0.50	13372	13372	0	.00	Rig Service-Inhole	Rig Service-Inhole
13:20	13:30	0.17	13372	13372	0	.00	Survey & Conn.	Survey & Conn.@13309' Inc 90.27° Azm 181.46°
13:30	14:10	0.67	13372	13467	95	142.50	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
14:10	14:20	0.17	13467	13467	0	.00	Survey & Conn.	Survey & Conn.@13404' Inc 90.67° Azm 180.8°
14:20	15:50	1.50	13467	13482	15	10.00	Sliding	Sliding - (WOB:12;GPM :279;TFO:45)
15:50	16:20	0.50	13482	13561	79	158.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
16:20	16:30	0.17	13561	13561	0	.00	Survey & Conn.	Survey & Conn.@13498' Inc 89.66° Azm 182.19°
16:30	17:35	1.08	13561	13571	10	9.23	Sliding	Sliding - (WOB:12;GPM :279;TFO:45)
17:35	18:26	0.85	13571	13656	85	100.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
18:26	18:34	0.13	13656	13656	0	.00	Survey & Conn.	Survey & Conn.@13593' Inc 90.97° Azm 183.84°
18:34	19:18	0.73	13656	13751	95	129.55	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
19:18	19:30	0.20	13751	13751	0	.00	Survey & Conn.	Survey & Conn.@13688' Inc 91.54° Azm 184.2°
19:30	19:34	0.07	13751	13761	10	150.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
19:34	20:00	0.43	13761	13768	7	16.15	Sliding	Sliding - (WOB:12;GPM :279;TFO:180))
20:00	20:39	0.65	13768	13846	78	120.00	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
20:39	20:48	0.15	13846	13846	0	.00	Survey & Conn.	Survey & Conn.@13783' Inc 90.91° Azm 183.89°
20:48	21:13	0.42	13846	13892	46	110.40	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
21:13	22:20	1.12	13892	13905	13	11.64	Sliding	Sliding - (WOB:12;GPM :279;TFO:180))
22:20	22:54	0.57	13905	13941	36	63.53	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
22:54	23:02	0.13	13941	13941	0	.00	Survey & Conn.	Survey & Conn.@13878' Inc 91.31° Azm 183.65°
23:02	23:49	0.78	13941	14036	95	121.28	Drilling	Drilling - (WOB:11;GPM :279;RPM:80)
23:49	24:00	0.18	14036	14036	0	.00	Survey & Conn.	Survey & Conn.@13973' Inc 90.6° Azm 182.58°

JOB NO.:	77032	Report Time:	2400	13 of 14
Company:	EnCana Oil & Gas (USA) Inc.	API JOB #	0512337758000	
LOCATION:		WORK ORDER#	77032	
RIG NAME:	Ensign 124	FIELD:	Wattenberg	
STATE:	Colorado	Township:	2N	
COUNTY:	Weld	Range/Section	99W	26
WELL NAME:	Rodman Bruntz 2D-26H	Company Man	Mike Roane / Rich Borner	
Lead Directional :	Kevin Hoshall (10931)	2nd Dir Hand :	Dustin Smith (10319)	

From Tuesday, November 12, 2013 at 0000 to Tuesday, November 12, 2013 at 2400

DAILY TOTALS			ASSEMBLY TOTALS									
Start Depth	14036.00		BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	14700.00		4	475-M5-168	650.00	20.82	6,111.00	53.80	15.20	89.82	6,761.00	80.94
Below Rot Hrs.	24.00											
Total Drilled:	664.00		<div>Drilling Parameters</div> <div>WOB: 11</div> <div>Rot Wt: 116</div> <div>Pick UP: 200</div> <div>Slack Off: 90</div> <div>SPP: 3200</div> <div>Flow: 279 - 279</div> <div>SPM: 67</div> <div>Rot. RPM 80 - 80</div> <div>Mot RPM: -</div> <div>Incl. In: 91.31</div> <div>Azm. In: 183.65</div> <div>Incl. Out: 92.12</div> <div>Azm. Out: 180.74</div>		<div>Mud Record</div> <div>Weight: 0</div> <div>Visc: 0</div> <div>Chlorides: 0</div> <div>YP: 0</div> <div>PV: 0</div> <div>PH: 0</div> <div>GAS: 0</div> <div>SAND: 0</div> <div>WL: 0</div> <div>SOLID: 0</div> <div>BHT°: 0</div> <div>Flow T°: 0</div> <div>Oil %: 0</div>		<div>Bit Record</div> <div>Bit No: 4</div> <div>Model VS513D</div> <div>SN.: 4006251</div> <div>MFG. Varel</div> <div>Type PDC</div> <div>IADC</div> <div>JETS 5-20</div> <div>TFA: 1.533</div> <div>Hole ID: 6 1/8</div> <div>Bit Hrs: 74.62</div> <div>Bit Ftg: 6761.00</div>		<div>Current BHA # 4</div> <div>VS513D</div> <div>Wenzel Drill Motor</div> <div>4 3/4" NMPC</div> <div>4 3/4" NMDC</div> <div>4 3/4" Pulser Sub</div> <div>4 3/4" NMDC</div> <div>Crossover</div> <div>31 Stands (93jnts.) 4" XT39</div> <div>NOV Shock Sub/Agitator</div> <div>48 Stands (144jnts.) 4" XT39</div> <div>60 Jnts HWDP</div>			
Avg. Total ROP:	51.34											
Slide Footage:	35.00											
Slide Hours	1.75											
Avg. Slide ROP:	20.00											
Rotate Footage:	629.00											
Rotary Hours	11.18											
Avg. Rot ROP:	56.24											
Circ Hours	5.92											
Ream Hours	0.00											
Rotary Hrs%:	86.47											
Slide Hrs%:	13.53											
Rotary Ftg%:	94.73											
Slide Ftg%:	5.27											
CASING												
Size	Lb/Ft	MD										
			COST BREAKDOWN									
							</					

GENERAL COMMENT

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
00:00	00:10	0.17	14036	14046	10	60.00	Drilling	Drilling - (WOB:11; :279;RPM:80)
00:10	01:05	0.92	14046	14066	20	21.82	Sliding	Sliding - (WOB:12; :279;TFO:135R))
01:05	01:45	0.67	14066	14131	65	97.50	Drilling	Drilling - (WOB:11; :279;RPM:80)
01:45	02:11	0.43	14131	14131	0	.00	Survey & Conn.	Survey & Conn.@14068' Inc 89.3° Azm 183.73°
02:11	02:54	0.72	14131	14226	95	132.56	Drilling	Drilling - (WOB:11; :279;RPM:80)
02:54	03:04	0.17	14226	14226	0	.00	Survey & Conn.	Survey & Conn.@14163' Inc 89.9° Azm 182.99°
03:04	03:44	0.67	14226	14292	66	99.00	Drilling	Drilling - (WOB:11; :279;RPM:80)
03:44	04:34	0.83	14292	14307	15	18.00	Sliding	Sliding - (WOB:12; :279;TFO:135R))
04:34	04:45	0.18	14307	14321	14	76.36	Drilling	Drilling - (WOB:11; :279;RPM:80)
04:45	04:53	0.13	14321	14321	0	.00	Survey & Conn.	Survey & Conn.@14258' Inc 90.84° Azm 182.51°
04:53	05:55	1.03	14321	14416	95	91.94	Drilling	Drilling - (WOB:11; :279;RPM:80)
05:55	06:10	0.25	14416	14416	0	.00	Survey & Conn.	Survey & Conn.@14353' Inc 89.7° Azm 183.64°
06:10	07:40	1.50	14416	14510	94	62.67	Drilling	Drilling - (WOB:11; :279;RPM:80)
07:40	07:55	0.25	14510	14510	0	.00	Survey & Conn.	Survey & Conn.@14447' Inc 91.21° Azm 183.12°

Start Time	End Time	Hours	Start Depth	End Depth	Delta Depth	ROP	Activity Code	COMMENT
07:55	10:40	2.75	14510	14605	95	34.55	Drilling	Drilling - (WOB:11; :279;RPM:80)
10:40	10:50	0.17	14605	14605	0	.00	Survey & Conn.	Survey & Conn.@14542' Inc 92.22° Azm 181.68°
10:50	14:20	3.50	14605	14700	95	27.14	Drilling	Drilling - (WOB:11; :279;RPM:80)
14:20	14:50	0.50	14700	14700	0	.00	Rig Service-Inhole	Rig Service
14:50	20:15	5.42	14700	14700	0	.00	Circulating	Circulating
20:15	24:00	3.75	14700	14700	0	.00	POOH	POOH

JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H
Lead Directional : Kevin Hoshall (10931)

Report Time: 2400 **14 of 14**
API JOB # 0512337758000
WORK ORDER# 77032
FIELD: Wattenberg
Township: 2N
Range/Section 99W 26
Company Man Mike Roane / Rich Borner
2nd Dir Hand : Dustin Smith (10319)

From Wednesday, November 13, 2013 at 0000 to Wednesday, November 13, 2013 at 2400

DAILY TOTALS		ASSEMBLY TOTALS									
Start Depth	14036.00	BHA #	Motor SN / R.S. SN	Slide Ftg	Slide Hrs	Rotate Ftg	Rotate Hrs	Circ Hrs	D & C Hrs	BHA Ftg	Avg ROP
End Depth	14700.00	4	475-M5-168	650.00	20.82	6,111.00	53.80	15.20	89.82	6,761.00	80.94
Below Rot Hrs.	24.00										
Total Drilled:	664.00	Drilling Parameters		Mud Record		Bit Record		Current BHA # 4			
Avg. Total ROP:	51.34										
Slide Footage:	35.00										
Slide Hours	1.75										
Avg. Slide ROP:	20.00										
Rotate Footage:	629.00										
Rotary Hours	11.18										
Avg. Rot ROP:	56.24										
Circ Hours	5.92										
Ream Hours	0.00										
Rotary Hrs%:	86.47										
Slide Hrs%:	13.53										
Rotary Ftg%:	94.73										
Slide Ftg%:	5.27										
CASING											
Size	Lb/Ft	MD									
COST BREAKDOWN											

BHA # 1

JOB NO.: 77032 Work Order: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
SECT. RANGE: 26 99W
Lead DD: Steven Schlamp (10800)
Co. Man: Mike Roane / Rich Borner
BHA TYPE: Steerable Assembly
BHA WT: 15152 Wt @ Jars: N/A

Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 31-Oct-13 @ 23:25	SDI Titan TD	SO/PU: 56 - 65 / 56-65
Date Out: 02-Nov-13 @ 18:50	MFG.: SDI	Rot Strg Wt: 56-65
Hrs In Hole: 30.92	Pad OD: 8.25	WOB: 5 - 15
Start Depth: 95.00	NB Stab: 0	TORQ: 3000 - 7000
End Depth: 1241.00	Bit to Bend: 5	SPP: 500 - 2000
Total Drilled: 1146.00	Bent Hsg/Sub°: 2.25 / 2.25	Motor RPM: 82 - 107
Avg. Total ROP: 208.36	Lobe/Stage: 7/8 / 4	Rotary RPM: 30 - 50
Circ Hrs: Tot/Only 7.00 / 1.50	Rev/GAL: 0.16	Flow Rate: 440 - 670
Percent Slide: 11.43	Rotor Jet: 0	Avg Diff:
Percent Hrs: 25.76	Prop BUR:	Stall Pres.:
Slide Hours: 1.42	Act BUR:	Off Bot Pres.:
Total Sliding: 131.00		
Avg. Slide ROP: 92.47		
Percent Rotary: 88.57		
Percent Hrs: 74.24		
Rotary Hours: 4.08		
Total Rotary: 1015.00		
Avg. Rotary ROP: 248.57		
Reason POOH:		

MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 0	Last Casing O.D.
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @: Hanger @:

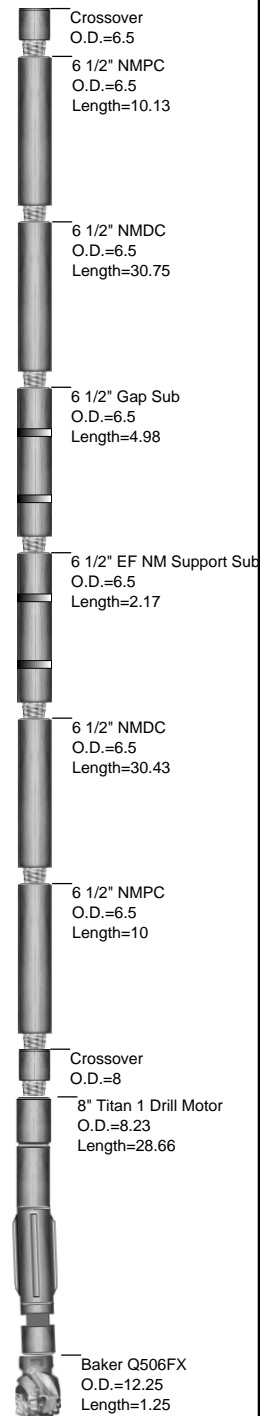
INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

- SDI Titan TD 7/8 4.0stg Mud Motor 2.25FBH
- Speed Ratio is 0.16rev/gal
- TFO: 70.71

- Bit to Sensor - 61.14'
- Bit to Survey - 63'

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
Baker Q506FX	7028080		12.25	1.25	1.25	6 5/8 REGP	
8" Titan 1 Drill Motor	817		8.23	28.66	29.91	6 5/8 REGB	
Crossover	1-859		8	4.05	33.96	4 1/2 XHB	
6 1/2" NMPC	125-004		6.5	10.00	43.96	4 1/2 XHB	
6 1/2" NMDC	122-038		6.5	30.43	74.39	4 1/2 XHB	
6 1/2" EF NM Support Sub	8-549		6.5	2.17	76.56	4 1/2 XHB	
6 1/2" Gap Sub	69.966		6.5	4.98	81.54	4 1/2 XHB	
6 1/2" NMDC	122-428		6.5	30.75	112.29	4 1/2 XHB	
6 1/2" NMPC	125-353		6.5	10.13	122.42	4 1/2 XHB	
Crossover	SD 108283		6.5	3.59	126.01	XT 39B	



JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Country
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
Range 99W

MOTOR INFORMATION

Desc: SDI Titan TD
Bent Hsg/Sub: $\frac{2.2}{5}$ / $\frac{2.2}{5}$ **Bit to Bend:** 5
Pad OD: 8.25 **NB Stab:**

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
1	1-Nov	Drilling	00:25	00:35	0.17	95	126	31	5	186.0	30	3000	440	500		0.32	0.00	0.26	
1	1-Nov	Drilling	01:50	02:15	0.42	126	218	92	5	220.8	40	4000	510	650		0.56	0.00	0.26	
1	1-Nov	Sliding	02:25	02:30	0.08	218	224	6	5	72.0	40	4000	510	650	20M	0.57	0.00	0.26	
1	1-Nov	Drilling	02:30	02:45	0.25	224	311	87	15	348.0	40	5000	600	1000		0.79	0.00	0.26	
1	1-Nov	Sliding	02:50	02:55	0.08	311	317	6	15	72.0	40	5000	600	1000		0.81	0.00	0.26	
1	1-Nov	Drilling	02:55	03:10	0.25	317	404	87	15	348.0	40	5000	600	1000		1.54	354.70	1.06	
1	1-Nov	Sliding	03:15	03:20	0.08	404	414	10	15	120.0	40	5000	600	1000		1.64	354.68	1.06	
1	1-Nov	Drilling	03:20	03:35	0.25	414	497	83	15	332.0	40	5000	600	1000		2.52	354.58	1.03	
1	1-Nov	Sliding	03:45	03:50	0.08	497	507	10	15	120.0	40	5000	600	1000		2.62	354.14	1.03	
1	1-Nov	Drilling	03:50	04:05	0.25	507	590	83	15	332.0	40	5000	600	1000		3.47	351.54	1.03	
1	1-Nov	Sliding	04:10	04:15	0.08	590	600	10	15	120.0	40	5000	600	1000		3.57	351.31	1.03	
1	1-Nov	Drilling	04:15	04:30	0.25	600	683	83	15	332.0	50	7000	670	2000		4.43	350.16	3.16	
1	1-Nov	Sliding	04:40	04:45	0.08	683	695	12	15	144.0	50	7000	600	2000		4.66	353.96	3.16	
1	1-Nov	Drilling	04:45	05:00	0.25	695	745	50	15	200.0	50	7000	670	2000		5.30	359.92	0.86	
1	1-Nov	Sliding	05:20	05:25	0.08	745	753	8	15	96.0	50	7000	600	2000		5.37	0.15	0.86	
1	1-Nov	Drilling	05:25	05:30	0.08	753	776	23	15	276.0	50	7000	670	2000		5.55	0.76	0.86	
1	1-Nov	Sliding	05:35	05:40	0.08	776	784	8	15	96.0	50	7000	600	2000		5.62	0.97	0.86	
1	1-Nov	Drilling	05:40	05:55	0.25	784	869	85	15	340.0	50	7000	670	2000		6.27	357.58	1.00	
1	1-Nov	Sliding	06:00	06:05	0.08	869	885	16	15	192.0	50	7000	600	2000		6.40	356.68	1.00	
1	1-Nov	Drilling	06:05	06:25	0.33	885	962	77	15	231.0	50	7000	670	2000		7.64	357.91	1.83	
1	1-Nov	Sliding	06:25	06:40	0.25	962	982	20	15	80.0	50	7000	600	2000		8.00	358.43	1.83	
1	1-Nov	Drilling	06:40	07:05	0.42	982	1055	73	15	175.2	50	7000	670	2000		8.56	1.78	0.94	
1	1-Nov	Sliding	07:10	07:20	0.17	1055	1055	0	15	0.0	50	7000	670	2000		8.56	1.78	0.94	
1	1-Nov	Drilling	07:20	07:40	0.33	1055	1148	93	15	279.0	50	7000	670	2000		8.89	0.11	0.78	
1	1-Nov	Sliding	07:40	07:55	0.25	1148	1173	25	15	100.0	50	7000	670	2000		8.95	358.92	0.78	
1	1-Nov	Drilling	07:55	08:30	0.58	1173	1241	68	15	116.6	50	7000	670	2000		8.71	359.34	0.43	

Slide Report for BHA # 1

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
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Total Drilled: 1146 **Avg. Total ROP:** 208.36 **DEPTH% - TIME %**

Total Rotary Drilled: 1015 **Avg. Rotary ROP:** 248.57 **Percent Rotary:** 88.57 - 74.24

Total Drilled Sliding: 131 **Avg. Slide ROP:** 92.47 **Percent Slide:** 11.43 - 25.76

BHA # 2

JOB NO.: 77032 Work Order: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
SECT. RANGE: 26 99W
Lead DD: Steven Schlamp (10800)
Co. Man: Mike Roane / Rich Borner
BHA TYPE: Steerable Assembly
BHA WT: 51564 Wt @ Jars: N/A

Time and Depths		MOTOR DATA	Drilling Parameters	
Date In:	02-Nov-13 @ 18:50	Wenzel 6 1/2 Drill Motor	SO/PU:	65 - 121 / 65-155
Date Out:	04-Nov-13 @ 04:35	MFG.: Wenzel	Rot Strg Wt:	65-131
Hrs In Hole:	33.75	Pad OD: 7.70	WOB:	10 - 26
Start Depth:	1241.00	NB Stab: 0	TORQ:	4000 - 12000
End Depth:	6602.00	Bit to Bend: 2.63	SPP:	1300 - 3600
Total Drilled:	5361.00	Bent Hsg/Sub°: 1.95 /	Motor RPM:	174
Avg. Total ROP:	306.34	Lobe/Stage: 7:8 / 6	Rotary RPM:	30 - 60
Circ Hrs: Tot/Only	19.17 / 1.67	Rev/GAL: 0.29	Flow Rate:	460 - 670
Percent Slide:	2.85	Rotor Jet: 0	Avg Diff:	
Percent Hrs:	11.90	Prop BUR: 8	Stall Pres.:	
Slide Hours:	2.08	Act BUR:	Off Bot Pres.:	
Total Sliding:	153.00			
Avg. Slide ROP:	73.44			
Percent Rotary:	97.15			
Percent Hrs:	88.10			
Rotary Hours:	15.42			
Total Rotary:	5208.00			
Avg. Rotary ROP:	337.82			
Reason POOH:				

MWD Spacing	Gamma: 0	Restiv: 0	Sensor: 0	Last Casing	O.D. 9 5/8
	GYRO: 0	DNSC: 1241	Sonic: 0	Shoe @:	1231 Hanger @:

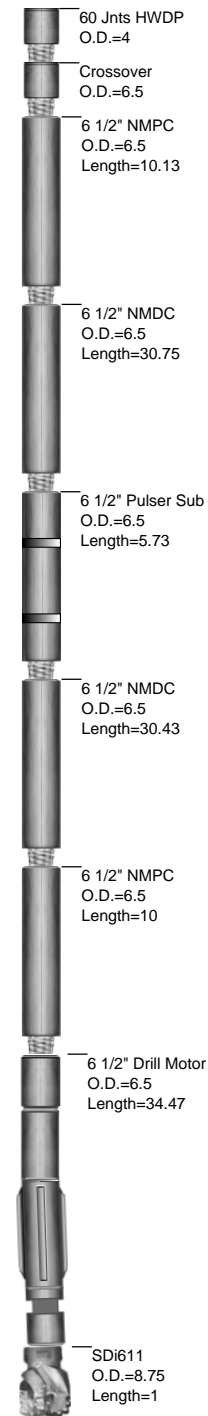
INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

- 6 1/2" Wenzel Drill Motor 7:8 config, 6.0 Stage
- Speed Ratio is 0.29 rev/gal
- TFO: 217.24 deg

- Bit to Sensor - 67.30'
- Bit to Survey - 69'
- Bit to Gamma - 58.05'

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
SDi611	JH4960		8.75	1.00	1.00	4 1/2 REGP	
6 1/2" Drill Motor	650-HB21-024		6.5	34.47	35.47	4 1/2 XHB	Wenzel
6 1/2" NMPC	125-004		6.5	10.00	45.47	4 1/2 XHB	
6 1/2" NMDC	122-038		6.5	30.43	75.90	4 1/2 XHB	
6 1/2" Pulser Sub	129-092		6.5	5.73	81.63	4 1/2 XHB	SDI
6 1/2" NMDC	122-428		6.5	30.75	112.38	4 1/2 XHB	
6 1/2" NMPC	125-353		6.5	10.13	122.51	4 1/2 XHB	
Crossover	SD 108283		6.5	3.59	126.10	XT 39B	
60 Jnts HWDP	RIG789	2 7/8	4	1,858.75	1984.85	XT 39B	Other



JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Country
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
Range 99W

MOTOR INFORMATION

Desc: Wenzel 6 1/2 Drill Motor
Bent Hsg/Sub: 1.9 / 0 **Bit to Bend:** 2.63
Pad OD: 7.70 **NB Stab:**

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	2-Nov	Drilling	23:40	23:45	0.08	1241	1251	10	10	120.0	30	4000	460	1300		8.67	359.45	0.43	
2	3-Nov	Drilling	00:05	00:15	0.17	1251	1333	82	25	492.0	50	6000	600	2500		9.07	6.99	1.77	
2	3-Nov	Sliding	00:20	00:25	0.08	1333	1341	8	25	96.0	50	6000	600	2500		9.13	7.80	1.77	
2	3-Nov	Drilling	00:25	00:35	0.17	1341	1426	85	25	510.0	50	6000	600	2500		9.66	10.85	0.68	
2	3-Nov	Sliding	00:40	00:45	0.08	1426	1434	8	25	96.0	50	6000	600	2500		9.71	11.01	0.68	
2	3-Nov	Drilling	00:45	00:55	0.17	1434	1519	85	25	510.0	50	6000	600	2500		11.10	15.95	2.24	
2	3-Nov	Sliding	01:05	01:10	0.08	1519	1527	8	25	96.0	50	6000	600	2500		11.26	16.41	2.24	
2	3-Nov	Drilling	01:10	01:20	0.17	1527	1612	85	25	510.0	50	6000	600	2500		12.04	11.72	1.79	
2	3-Nov	Sliding	01:25	01:30	0.08	1612	1618	6	25	72.0	50	6000	600	2500		12.09	11.25	1.79	
2	3-Nov	Drilling	01:30	01:35	0.08	1618	1705	87	25	1044.0	50	6000	600	2500		12.32	7.38	0.78	
2	3-Nov	Drilling	01:40	01:45	0.08	1705	1798	93	25	1116.0	50	6000	600	2500		12.41	4.05	0.77	
2	3-Nov	Drilling	01:55	02:05	0.17	1798	1891	93	25	558.0	50	6000	600	2500		11.86	1.34	1.00	
2	3-Nov	Drilling	02:15	02:30	0.25	1891	1984	93	25	372.0	50	6000	600	2500		11.61	3.72	0.90	
2	3-Nov	Sliding	02:40	02:45	0.08	1984	1990	6	25	72.0	50	6000	600	2500		11.61	3.99	0.90	
2	3-Nov	Drilling	02:45	02:50	0.08	1990	2079	89	25	1068.0	50	6000	600	2500		11.83	4.21	0.39	
2	3-Nov	Sliding	02:55	03:00	0.08	2079	2083	4	25	48.0	50	6000	600	2500		11.85	4.17	0.39	
2	3-Nov	Drilling	03:00	03:10	0.17	2083	2174	91	25	546.0	50	6000	600	2500		11.65	1.92	0.72	
2	3-Nov	Drilling	03:20	03:25	0.08	2174	2269	95	26	1140.0	50	8000	600	2800		11.68	5.36	1.25	
2	3-Nov	Sliding	03:35	03:40	0.08	2269	2275	6	25	72.0	50	8000	600	2800		11.70	5.73	1.25	
2	3-Nov	Drilling	03:40	03:45	0.08	2275	2364	89	26	1068.0	50	8000	600	2800		11.23	6.07	0.79	
2	3-Nov	Drilling	03:50	04:00	0.17	2364	2459	95	26	570.0	50	8000	600	2800		10.61	4.68	0.69	
2	3-Nov	Drilling	04:10	04:15	0.08	2459	2553	94	26	1128.0	50	8000	600	2800		10.03	1.96	0.85	
2	3-Nov	Drilling	04:20	04:30	0.17	2553	2649	96	26	576.0	50	8000	600	2800		9.44	0.60	0.62	
2	3-Nov	Sliding	04:40	04:45	0.08	2649	2655	6	25	72.0	50	8000	600	2800		9.41	0.56	0.62	
2	3-Nov	Drilling	04:45	04:55	0.17	2655	2743	88	26	528.0	50	8000	600	2800		9.22	1.11	0.19	
2	3-Nov	Sliding	05:00	05:05	0.08	2743	2751	8	25	96.0	50	8000	600	2800		9.21	1.19	0.19	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
2	3-Nov	Drilling	05:05	05:15	0.17	2751	2838	87	26	522.0	50	8000	600	2800		8.94	1.93	0.39	
2	3-Nov	Sliding	05:55	06:00	0.08	2838	2848	10	25	120.0	50	8000	600	2800		8.90	2.01	0.39	
2	3-Nov	Drilling	06:00	06:10	0.17	2848	2933	85	26	510.0	50	8000	600	2800		9.61	8.11	1.77	
2	3-Nov	Sliding	06:15	06:20	0.08	2933	2945	12	25	144.0	50	8000	600	2800		9.75	9.05	1.77	
2	3-Nov	Drilling	06:20	06:30	0.17	2945	3028	83	26	498.0	50	8000	600	2800		10.80	14.84	1.77	
2	3-Nov	Drilling	06:35	07:00	0.42	3028	3123	95	26	228.0	50	8000	600	2800		10.78	15.41	0.60	
2	3-Nov	Drilling	07:05	07:35	0.50	3123	3312	189	26	378.0	50	8000	600	2800		9.68	8.10	1.50	
2	3-Nov	Sliding	07:40	07:50	0.17	3312	3325	13	25	78.0	50	8000	600	2800		9.60	7.03	1.50	
2	3-Nov	Drilling	07:50	08:40	0.83	3325	3502	177	26	212.4	50	8000	600	2800		8.22	359.51	1.31	
2	3-Nov	Sliding	08:45	08:55	0.17	3502	3510	8	25	48.0	50	8000	600	2800		8.12	359.77	1.31	
2	3-Nov	Drilling	08:55	09:30	0.58	3510	3692	182	26	312.0	50	8000	600	2800		6.13	1.25	1.01	
2	3-Nov	Sliding	09:35	09:40	0.08	3692	3700	8	25	96.0	50	8000	600	2800		6.06	0.87	1.01	
2	3-Nov	Drilling	09:40	10:10	0.50	3700	3882	182	26	364.0	50	8000	600	2800		4.10	2.80	1.74	
2	3-Nov	Sliding	10:15	10:25	0.17	3882	3894	12	25	72.0	50	8000	600	2800		3.93	4.67	1.74	
2	3-Nov	Drilling	10:25	10:55	0.50	3894	4072	178	26	356.0	50	8000	600	2800		1.88	35.58	1.29	
2	3-Nov	Sliding	11:00	11:10	0.17	4072	4082	10	25	60.0	50	8000	600	2800		1.76	36.67	1.29	
2	3-Nov	Drilling	11:10	11:50	0.67	4082	4262	180	26	270.0	50	8000	600	2800		0.55	85.11	0.03	
2	3-Nov	Drilling	11:55	12:25	0.50	4262	4452	190	26	380.0	50	8000	600	2800		0.31	62.50	0.46	
2	3-Nov	Drilling	12:30	13:20	0.83	4452	4641	189	26	226.8	50	8000	600	2800		0.44	319.26	0.09	
2	3-Nov	Drilling	13:25	14:00	0.58	4641	4831	190	26	325.7	50	8000	600	2800		0.49	296.94	0.11	
2	3-Nov	Drilling	14:05	14:45	0.67	4831	5020	189	26	283.5	50	8000	600	2800		0.73	281.20	0.24	
2	3-Nov	Drilling	14:50	15:25	0.58	5020	5210	190	26	325.7	50	8000	600	2800		1.10	272.10	0.21	
2	3-Nov	Drilling	15:30	16:05	0.58	5210	5400	190	26	325.7	50	8000	600	2800		0.77	288.79	0.97	
2	3-Nov	Sliding	16:25	16:40	0.25	5400	5408	8	25	32.0	50	8000	600	2800		0.73	293.87	0.97	
2	3-Nov	Drilling	16:40	17:10	0.50	5408	5590	182	26	364.0	60	11000	540	3500		1.02	4.44	0.21	
2	3-Nov	Drilling	17:15	17:55	0.67	5590	5779	189	26	283.5	60	11000	540	3500		1.17	352.19	0.07	
2	3-Nov	Drilling	18:00	18:30	0.50	5779	5969	190	26	380.0	60	11000	540	3500		0.85	44.93	1.46	
2	3-Nov	Sliding	18:40	18:50	0.17	5969	5981	12	25	72.0	60	11000	600	3500		0.88	56.39	1.46	
2	3-Nov	Drilling	18:50	19:30	0.67	5981	6159	178	26	267.0	60	11000	540	3500		1.30	98.85	1.10	
2	3-Nov	Drilling	19:40	20:10	0.50	6159	6349	190	26	380.0	60	11000	540	3500		0.63	354.79	0.41	
2	3-Nov	Drilling	20:25	21:05	0.67	6349	6538	189	26	283.5	50	12000	540	3600		0.99	340.92	0.17	
2	3-Nov	Drilling	21:15	21:25	0.17	6538	6602	64	26	384.0	50	12000	540	3600		0.89	338.06	0.17	

Slide Report for BHA # 2

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
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Total Drilled: 5361 **Avg. Total ROP:** 306.34 **DEPTH% - TIME %**

Total Rotary Drilled: 5208 **Avg. Rotary ROP:** 337.82 **Percent Rotary:** 97.15 - 88.10

Total Drilled Sliding: 153 **Avg. Slide ROP:** 73.44 **Percent Slide:** 2.85 - 11.90

BHA # 3

JOB NO.: 77032 Work Order: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
SECT. RANGE: 26 99W
Lead DD: Steven Schlamp (10800)
Co. Man: Mike Roane / Rich Borner
BHA TYPE: Steerable Assembly
BHA WT: 324654 Wt @ Jars: N/A

Time and Depths		MOTOR DATA	Drilling Parameters	
Date In:	04-Nov-13 @ 04:35	Wenzel Drill Motor	SO/PU:	115 - 121 / 155-165
Date Out:	06-Nov-13 @ 19:50	MFG.: Wenzel	Rot Strg Wt:	131-131
Hrs In Hole:	62.17	Pad OD:	WOB:	15 - 26
Start Depth:	6602.00	NB Stab:	TORQ:	12000 - 12000
End Depth:	7939.00	Bit to Bend:	SPP:	3400 - 3600
Total Drilled:	1337.00	Bent Hsg/Sub°: 2.12 /	Motor RPM:	145 - 174
Avg. Total ROP:	41.24	Lobe/Stage: 6:7 / 5	Rotary RPM:	30 - 50
Circ Hrs: Tot/Only	41.50 / 9.08	Rev/GAL:	Flow Rate:	500 - 600
Percent Slide:	49.89	Rotor Jet:	Avg Diff:	
Percent Hrs:	84.32	Prop BUR:	Stall Pres.:	
Slide Hours:	27.33	Act BUR:	Off Bot Pres.:	
Total Sliding:	667.00	Mud Data		Bit Record
Avg. Slide ROP:	24.40	Type		SMITH / SDi611
Percent Rotary:	50.11	WT:	0	Run #: 3
Percent Hrs:	15.68	Vis:	0	Type Bit: PDC
Rotary Hours:	5.08	WL:	0	IADC#: TFA: 0.902
Total Rotary:	670.00	SOL:	0	JETS: 6-14
Avg. Rotary ROP:	131.80	Oil %:	0	Bit Drop: 0 PSI @ 600 GPM
Reason POOH:		Chlor:	0	Cond.: New

MWD Spacing	Gamma: 51.95	Restiv: 0	Sensor: 63	Last Casing	O.D.
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @:	Hanger @:

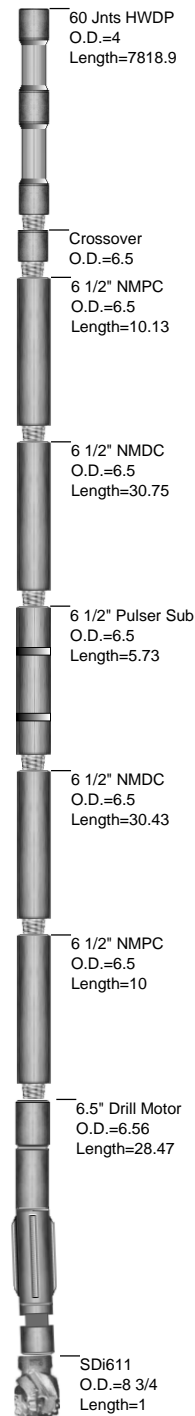
INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

6 1/2" Wenzel Drill Motor
6:7 config, 5.0 stage
0.29 Rev/Gal
TFO : 4.46

Bit to Sensor - 61.30'
Bit to Survey - 63'
Bit to Gamma - 51.95'

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
SDi611	JH3962		8 3/4	1.00	1.00	4 1/2 REGP	SMITH
6.5" Drill Motor	650M6086		6.56	28.47	29.47	4 1/2 XHB	Wenzel
6 1/2" NMPC	125-004		6.5	10.00	39.47	4 1/2 XHB	SDI
6 1/2" NMDC	122-038		6.5	30.43	69.90	4 1/2 XHB	SDI
6 1/2" Pulser Sub	129-092		6.5	5.73	75.63	4 1/2 XHB	SDI
6 1/2" NMDC	122-428		6.5	30.75	106.38	4 1/2 XHB	SDI
6 1/2" NMPC	125-353		6.5	10.13	116.51	4 1/2 XHB	SDI
Crossover	SD 108283		6.5	3.59	120.10	XT 39B	Stabil-Drill
60 Jnts HWDP	Rig	2.75	4	7,818.90	7939.00	XT 39B	Rig



JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Country
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
Range 99W

MOTOR INFORMATION

Desc: Wenzel Drill Motor
Bent Hsg/Sub: 2.1 / 0 **Bit to Bend:** 4.72
Pad OD: 7.72 **NB Stab:**

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	4-Nov	Drilling	13:05	13:10	0.08	6602	6610	8	26	96.0	50	12000	540	3600		0.88	337.66	0.17	
3	4-Nov	Sliding	13:10	13:30	0.33	6610	6618	8	25	24.0	50	12000	600	3600	175	0.86	337.24	0.17	
3	4-Nov	Drilling	13:30	14:20	0.83	6618	6722	104	15	124.8	50	12000	540	3400		0.57	335.63	0.37	
3	4-Nov	Sliding	14:25	15:25	1.00	6722	6736	14	25	14.0	50	12000	600	3400	175	0.52	335.87	0.37	
3	4-Nov	Drilling	15:25	16:25	1.00	6736	6912	176	15	176.0	50	12000	540	3400		1.13	323.15	1.65	
3	4-Nov	Drilling	16:30	16:55	0.42	6912	6975	63	15	151.2	50	12000	540	3400		1.42	263.56	4.93	
3	4-Nov	Sliding	17:50	18:20	0.50	6975	6995	20	25	40.0	50	12000	600	3400	175	1.67	223.56	5.41	
3	4-Nov	Drilling	18:20	18:30	0.17	6995	7007	12	15	72.0	50	12000	540	3400		2.09	208.36	5.41	
3	4-Nov	Sliding	18:40	19:05	0.42	7007	7027	20	25	48.0	50	12000	600	3400	175	3.58	192.78	8.34	
3	4-Nov	Drilling	19:05	19:10	0.08	7027	7038	11	15	132.0	50	12000	540	3400		4.46	188.81	8.34	
3	4-Nov	Sliding	19:20	19:40	0.33	7038	7058	20	25	60.0	50	12000	600	3400	175	6.21	184.81	9.00	
3	4-Nov	Drilling	19:40	19:50	0.17	7058	7070	12	15	72.0	50	12000	540	3400		7.28	183.35	9.00	
3	4-Nov	Sliding	19:55	20:15	0.33	7070	7090	20	25	60.0	50	12000	600	3400	175	8.98	180.90	8.66	
3	4-Nov	Drilling	20:15	20:20	0.08	7090	7102	12	15	144.0	50	12000	540	3400		10.00	179.83	8.66	
3	4-Nov	Sliding	20:35	21:00	0.42	7102	7124	22	25	52.8	50	12000	600	3400	175	11.81	177.96	8.36	
3	4-Nov	Drilling	21:00	21:05	0.08	7124	7133	9	15	108.0	30	12000	500	3500		12.55	177.34	8.36	
3	4-Nov	Sliding	21:15	21:35	0.33	7133	7150	17	25	51.0	30	12000	600	3500	175	13.56	175.95	6.09	
3	4-Nov	Drilling	21:35	21:40	0.08	7150	7165	15	15	180.0	30	12000	500	3500		14.43	174.86	6.09	
3	4-Nov	Sliding	21:45	22:05	0.33	7165	7187	22	25	66.0	30	12000	600	3500	175	16.46	175.93	9.30	
3	4-Nov	Drilling	22:05	22:10	0.08	7187	7197	10	15	120.0	30	12000	500	3500		17.38	176.34	9.30	
3	4-Nov	Sliding	22:30	22:50	0.33	7197	7220	23	25	69.0	30	12000	600	3500	175	19.31	176.16	8.38	
3	4-Nov	Drilling	22:50	22:55	0.08	7220	7228	8	15	96.0	30	12000	500	3500		19.98	176.11	8.38	
3	4-Nov	Sliding	23:00	23:20	0.33	7228	7252	24	25	72.0	30	12000	600	3500	175	21.97	175.64	8.32	
3	4-Nov	Drilling	23:20	23:25	0.08	7252	7260	8	15	96.0	30	12000	500	3500		22.63	175.50	8.32	
3	4-Nov	Sliding	23:30	23:55	0.42	7260	7284	24	25	57.6	30	12000	600	3500	175	25.52	174.09	12.29	
3	4-Nov	Drilling	23:55	24:00	0.08	7284	7292	8	15	96.0	30	12000	500	3500		26.49	173.69	12.29	

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	5-Nov	Sliding	00:15	00:35	0.33	7292	7318	26	25	78.0	30	12000	600	3500		29.75	174.43	12.62	
3	5-Nov	Drilling	00:35	00:40	0.08	7318	7323	5	15	60.0	30	12000	500	3500		30.38	174.56	12.62	
3	5-Nov	Sliding	00:50	01:15	0.42	7323	7355	32	15	76.8	30	12000	500	3500		34.97	175.06	14.37	
3	5-Nov	Sliding	01:25	01:45	0.33	7355	7375	20	15	60.0	30	12000	500	3500		37.05	175.01	10.41	
3	5-Nov	Drilling	01:45	01:50	0.08	7375	7386	11	15	132.0	30	12000	500	3500		38.20	174.98	10.41	
3	5-Nov	Sliding	02:05	02:25	0.33	7386	7403	17	15	51.0	30	12000	500	3500		40.17	175.34	11.76	
3	5-Nov	Drilling	02:25	02:30	0.08	7403	7418	15	15	180.0	30	12000	500	3500		41.92	175.65	11.76	
3	5-Nov	Sliding	02:40	03:10	0.50	7418	7435	17	15	34.0	30	12000	500	3500		43.51	176.37	9.79	
3	5-Nov	Drilling	03:10	03:20	0.17	7435	7450	15	15	90.0	30	12000	500	3500		44.92	176.97	9.79	
3	5-Nov	Sliding	03:40	04:05	0.42	7450	7475	25	15	60.0	30	12000	500	3500		46.41	178.58	7.53	
3	5-Nov	Drilling	04:05	04:10	0.08	7475	7481	6	15	72.0	30	12000	500	3500		46.77	178.96	7.53	
3	5-Nov	Sliding	04:35	05:45	1.17	7481	7496	15	15	12.9	30	12000	500	3500		48.10	180.00	10.43	
3	5-Nov	Drilling	05:45	06:05	0.33	7496	7513	17	15	51.0	30	12000	500	3500		49.65	181.14	10.43	
3	5-Nov	Sliding	06:10	07:15	1.08	7513	7527	14	15	12.9	30	12000	500	3500		50.24	181.29	4.27	
3	5-Nov	Drilling	07:15	07:30	0.25	7527	7545	18	15	72.0	30	12000	500	3500		50.99	181.48	4.27	
3	5-Nov	Sliding	07:30	09:10	1.67	7545	7565	20	15	12.0	30	12000	500	3500		52.64	180.16	9.73	
3	5-Nov	Drilling	09:10	09:35	0.42	7565	7576	11	15	26.4	30	12000	500	3500		53.55	179.46	9.73	
3	5-Nov	Sliding	09:45	10:20	0.58	7576	7588	12	15	20.6	30	12000	500	3500		54.38	179.13	7.25	
3	5-Nov	Drilling	10:20	10:35	0.25	7588	7608	20	15	80.0	30	12000	500	3500		55.76	178.60	7.25	
3	5-Nov	Sliding	10:45	11:35	0.83	7608	7633	25	15	30.0	30	12000	500	3500		58.55	178.18	11.24	
3	5-Nov	Drilling	11:35	11:45	0.17	7633	7639	6	15	36.0	30	12000	500	3500		59.22	178.09	11.24	
3	5-Nov	Sliding	11:55	13:10	1.25	7639	7665	26	15	20.8	30	12000	500	3500		62.87	178.62	14.29	
3	5-Nov	Drilling	13:10	13:15	0.08	7665	7671	6	15	72.0	30	12000	500	3500		63.72	178.75	14.29	
3	5-Nov	Sliding	13:55	15:20	1.42	7671	7691	20	15	14.1	30	12000	500	3500		65.37	179.43	8.80	
3	5-Nov	Drilling	15:20	15:40	0.33	7691	7703	12	15	36.0	30	12000	500	3500		66.36	179.83	8.80	
3	5-Nov	Sliding	15:50	18:00	2.17	7703	7728	25	15	11.5	30	12000	500	3500		69.34	180.21	11.99	
3	5-Nov	Drilling	18:00	18:10	0.17	7728	7734	6	15	36.0	30	12000	500	3500		70.05	180.30	11.99	
3	5-Nov	Sliding	18:20	19:45	1.42	7734	7750	16	15	11.3	30	12000	500	3500		71.65	180.09	9.93	
3	5-Nov	Drilling	19:45	20:05	0.33	7750	7766	16	15	48.0	30	12000	500	3500		73.22	179.86	9.93	
3	5-Nov	Sliding	20:30	22:30	2.00	7766	7788	22	15	11.0	30	12000	500	3500		75.30	179.56	9.53	
3	5-Nov	Drilling	22:30	20:40	-1.83	7788	7798	10	15	-5.5	30	12000	500	3500		76.24	179.42	9.53	
3	6-Nov	Sliding	00:00	00:40	0.67	7798	7816	18	15	27.0	30	12000	500	3500		77.82	179.19	8.86	
3	6-Nov	Drilling	00:40	00:55	0.25	7816	7829	13	15	52.0	30	12000	500	3500		78.96	179.02	8.86	
3	6-Nov	Sliding	01:10	02:00	0.83	7829	7851	22	15	26.4	30	12000	500	3500		81.42	179.04	11.19	
3	6-Nov	Drilling	02:00	02:05	0.08	7851	7861	10	15	120.0	30	12000	500	3500		82.54	179.05	11.19	

Slide Report for BHA # 3

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
3	6-Nov	Sliding	02:25	05:05	2.67	7861	7892	31	15	11.6	30	12000	500	3500		83.97	178.98	4.63	
3	6-Nov	Sliding	05:20	07:30	2.17	7892	7922	30	15	13.8	30	12000	500	3500		85.36	178.91	4.63	
3	6-Nov	Drilling	07:35	08:00	0.42	7922	7939	17	15	40.8	30	12000	500	3500		86.15	178.87	4.63	

Total Drilled: 1337 **Avg. Total ROP:** 41.24 **DEPTH% - TIME %**

Total Rotary Drilled: 670 **Avg. Rotary ROP:** 131.80 **Percent Rotary:** 50.11 - 15.68

Total Drilled Sliding: 667 **Avg. Slide ROP:** 24.40 **Percent Slide:** 49.89 - 84.32

BHA # 4

JOB NO.: 77032 Work Order: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Weld
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
SECT. RANGE: 26 99W
Lead DD: Kevin Hoshall (10931)
Co. Man: Mike Roane / Rich Borner
BHA TYPE:
BHA WT: 151256 Wt @ Jars: N/A

Time and Depths	MOTOR DATA	Drilling Parameters
Date In: 08-Nov-13 @ 01:00	Wenzel 4 3/4 Mudmotor	SO/PU: 0 - 115 / 0-200
Date Out: 13-Nov-13 @ 13:05	MFG.: Wenzel	Rot Strg Wt: 0-131
Hrs In Hole: 132.08	Pad OD: 5 3/16	WOB: 5 - 15
Start Depth: 7939.00	NB Stab: 0	TORQ: 7000 - 15000
End Depth: 14700.00	Bit to Bend: 4.95	SPP: 2800 - 3500
Total Drilled: 6761.00	Bent Hsg/Sub°: 1.5 / 1.5	Motor RPM: No Rev/Gal Input
Avg. Total ROP: 90.61	Lobe/Stage: 5:6 / 8.3	Rotary RPM: 30 - 85
Circ Hrs: Tot/Only 91.67 / 17.05	Rev/GAL: 0	Flow Rate: 260 - 500
Percent Slide: 9.61	Rotor Jet: 0	Avg Diff:
Percent Hrs: 27.90	Prop BUR: 0	Stall Pres.:
Slide Hours: 20.82	Act BUR:	Off Bot Pres.:
Total Sliding: 650.00		
Avg. Slide ROP: 31.22		
Percent Rotary: 90.39		
Percent Hrs: 72.10		
Rotary Hours: 53.80		
Total Rotary: 6111.00		
Avg. Rotary ROP: 113.59		
Reason POOH:		

MWD Spacing	Gamma: 51.47	Restiv: 0	Sensor: 60.72	Last Casing	O.D. 7
	GYRO: 0	DNSC: 0	Sonic: 0	Shoe @:	7929 Hanger @:

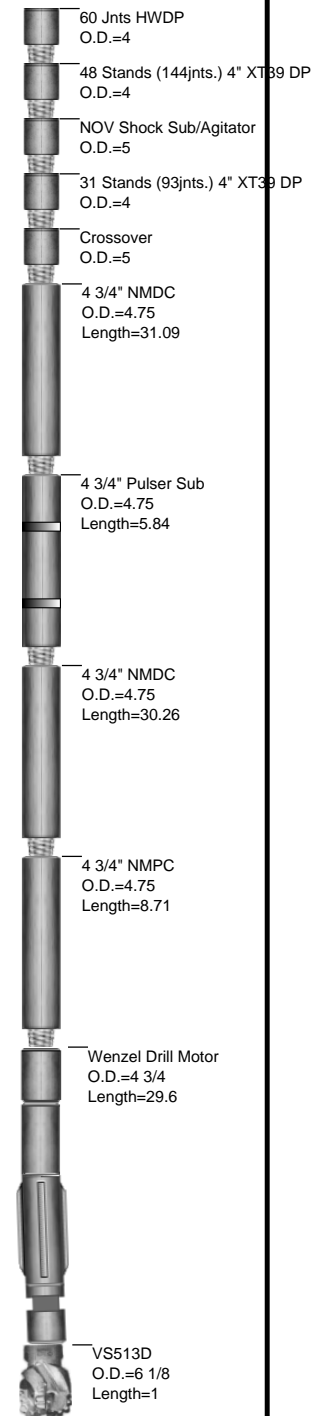
INC IN: .0 INC OUT: .0 AZM IN: .00 AZM OUT: .00

4 3/4" Wenzel Drill Motor
5:6 Config, 8.3 Stage
1.04 Rev/Gal
TFO :

Bit to Sensor : 60.72'
Bit to Survey : 63'
Bit to Gamma : 51.47'

BHA Detail

Description	Serial #	I.D.	O.D.	Length	Sum	Top Conn	MFG.
VS513D	4006251		6 1/8	1.00	1.00	3 1/2 REGP	Varel
Wenzel Drill Motor	475-M5-168		4 3/4	29.60	30.60	3 1/2 REGB	Wenzel
4 3/4" NMPC	17-081	2.75	4.75	8.71	39.31	3 1/2 IFB	SDI
4 3/4" NMDC	121-190	2.75	4.75	30.26	69.57	3 1/2 IFB	SDI
4 3/4" Pulser Sub	65-163	2.75	4.75	5.84	75.41	3 1/2 IFB	SDI
4 3/4" NMDC	121-536	2.75	4.75	31.09	106.50	3 1/2 IFB	SDI
Crossover	SD 111679	2.75	5	1.80	108.30	XT 39B	Stabil-Drill
31 Stands (93jnts.) 4" XT39 DP	RIG123	3 1/4	4	2,908.68	3016.98	XT 39B	Other
NOV Shock Sub/Agitator	BW1379395-4	2	5	22.04	3039.02	XT 39B	Other
48 Stands (144jnts.) 4" XT39 DP	RIG456	3 1/4	4	4,458.38	7497.40	XT 39B	Other
60 Jnts HWDP	RIG789	2 7/8	4	1,858.75	9356.15	XT 39B	Other



JOB NO.: 77032
Company: EnCana Oil & Gas (USA) Inc.
LOCATION:
RIG NAME: Ensign 124
STATE: Colorado
COUNTY: Country
WELL NAME: Rodman Bruntz 2D-26H

FIELD: Wattenberg
Township: 2N
Range 99W

MOTOR INFORMATION

Desc: Wenzel 4 3/4 Mudmotor
Bent Hsg/Sub: 1.5 / 1.5 **Bit to Bend:** 4.95
Pad OD: 5 3/16 **NB Stab:**

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	8-Nov	Drilling	16:00	16:05	0.08	7939	7949	10	5	120.0	30	7000	260	2800		86.61	178.85	4.63	
4	8-Nov	Drilling	17:50	18:15	0.42	7949	7995	46	5	110.4	30	7000	260	2800		88.74	178.75	4.63	
4	8-Nov	Drilling	18:22	19:00	0.63	7995	8088	93	10	146.8	45	7000	279	3200		89.95	179.13	0.77	
4	8-Nov	Sliding	19:22	19:35	0.22	8088	8101	13	12	60.0		7000	279	3200	90R	89.92	179.23	0.77	
4	8-Nov	Drilling	19:35	20:00	0.42	8101	8181	80	10	192.0	45	7000	279	3200		90.66	180.74	2.54	
4	8-Nov	Sliding	20:14	20:28	0.23	8181	8197	16	12	68.6		7000	279	3200	70R	90.86	181.09	2.54	
4	8-Nov	Drilling	20:28	20:53	0.42	8197	8274	77	10	184.8	60	7000	279	3200		90.74	179.91	2.41	
4	8-Nov	Drilling	21:04	21:26	0.37	8274	8366	92	10	250.9	60	7000	279	3200		90.21	180.38	1.93	
4	8-Nov	Sliding	21:50	22:12	0.37	8366	8388	22	12	60.0		7000	279	3200	90R	90.08	180.78	1.93	
4	8-Nov	Drilling	22:12	22:33	0.35	8388	8459	71	10	202.9	60	7000	279	3200		90.38	180.86	0.56	
4	8-Nov	Drilling	22:43	23:08	0.42	8459	8552	93	10	223.2	60	7000	279	3200		90.90	180.82	0.57	
4	8-Nov	Drilling	23:18	23:46	0.47	8552	8645	93	10	199.3	70	7000	279	3200		89.73	181.89	2.72	
4	9-Nov	Sliding	00:00	00:15	0.25	8645	8758	113	12	452.0	70	7000	279	3200	90R	89.24	181.42	1.20	
4	9-Nov	Drilling	01:25	01:48	0.38	8758	8831	73	10	190.4	70	7000	279	3200		89.22	181.14	0.27	
4	9-Nov	Drilling	01:55	02:16	0.35	8831	8941	110	10	314.3	70	7000	279	3200		90.35	181.31	1.47	
4	9-Nov	Sliding	02:16	02:34	0.30	8941	8949	8	12	26.7		7000	279	3200	360	90.47	181.33	1.47	
4	9-Nov	Drilling	02:34	03:19	0.75	8949	8970	21	10	28.0	70	7000	279	3200		90.80	181.26	1.75	
4	9-Nov	Sliding	03:19	03:40	0.35	8970	8974	4	12	11.4		7000	279	3200	360	90.87	181.24	1.75	
4	9-Nov	Drilling	03:40	04:15	0.58	8974	9017	43	10	73.7	70	7000	279	3200		91.58	180.99	1.75	
4	9-Nov	Drilling	04:40	05:38	0.97	9017	9110	93	10	96.2	70	7000	279	3200		90.99	180.41	1.85	
4	9-Nov	Sliding	05:50	06:04	0.23	9110	9117	7	12	30.0		7000	279	3200	180	90.87	180.37	1.85	
4	9-Nov	Drilling	06:04	06:35	0.52	9117	9203	86	10	166.5	70	7000	279	3200		90.35	179.45	1.24	
4	9-Nov	Drilling	06:52	07:21	0.48	9203	9296	93	10	192.4	70	7000	279	3200		90.10	177.93	1.86	
4	9-Nov	Drilling	07:40	08:03	0.38	9296	9389	93	10	242.6	70	7000	279	3200		89.11	177.89	1.63	
4	9-Nov	Sliding	08:18	08:38	0.33	9389	9404	15	12	45.0	0	7000	279	3200	90	88.90	178.02	1.63	
4	9-Nov	Drilling	08:38	09:04	0.43	9404	9482	78	10	180.0	70	7000	279	3200		88.69	179.84	2.69	

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	9-Nov	Sliding	09:15	09:32	0.28	9482	9500	18	12	63.5	0	7000	279	3200	80	88.69	180.32	2.69	
4	9-Nov	Drilling	09:32	10:09	0.62	9500	9577	77	10	124.9	70	7000	279	3200		89.34	181.85	2.09	
4	9-Nov	Sliding	10:27	10:45	0.30	9577	9591	14	12	46.7	0	7000	279	3200	65	89.48	182.10	2.09	
4	9-Nov	Drilling	10:45	11:21	0.60	9591	9671	80	10	133.3	80	7000	279	3200		89.80	181.92	0.81	
4	9-Nov	Drilling	11:39	13:09	1.50	9671	9766	95	10	63.3	80	7000	279	3200		90.16	181.08	1.04	
4	9-Nov	Drilling	13:25	14:01	0.60	9766	9861	95	10	158.3	80	7000	279	3200		90.39	180.24	0.87	
4	9-Nov	Drilling	14:34	15:20	0.77	9861	9956	95	10	123.9	80	7000	279	3200		89.70	180.04	1.17	
4	9-Nov	Sliding	15:31	15:37	0.10	9956	9968	12	12	120.0	0	7000	279	3200	140	89.56	180.06	1.17	
4	9-Nov	Drilling	15:37	16:07	0.50	9968	10051	83	10	166.0	80	7000	279	3200		89.69	180.42	0.79	
4	9-Nov	Drilling	16:20	16:48	0.47	10051	10146	95	10	203.6	80	7000	279	3200		89.45	180.43	0.73	
4	9-Nov	Sliding	17:05	17:25	0.33	10146	10160	14	12	42.0	0	7000	279	3200	180	89.35	180.39	0.73	
4	9-Nov	Drilling	17:25	18:15	0.83	10160	10241	81	10	97.2	80	7000	279	3200		88.25	180.10	1.60	
4	9-Nov	Sliding	18:30	18:46	0.27	10241	10249	8	12	30.0		7000	279	3200	150	88.12	180.07	1.60	
4	9-Nov	Drilling	18:46	19:46	1.00	10249	10336	87	10	87.0	80	7000	279	3200		88.29	179.99	0.85	
4	9-Nov	Drilling	20:00	20:34	0.57	10336	10431	95	11	167.6	80	7000	279	3200		88.76	179.71	0.55	
4	9-Nov	Drilling	20:46	22:11	1.42	10431	10526	95	11	67.1	80	7000	279	3200		89.17	178.93	1.13	
4	9-Nov	Drilling	22:24	23:05	0.68	10526	10621	95	11	139.0	80	7000	279	3200		89.46	178.17	0.73	
4	9-Nov	Drilling	23:30	24:00	0.50	10621	10716	95	11	190.0	80	7000	279	3200		89.33	179.16	1.95	
4	10-Nov	Drilling	00:15	00:24	0.15	10716	10630	-86	11	-573.3	80	7000	279	3200		89.48	178.11	0.73	
4	10-Nov	Sliding	00:24	01:10	0.77	10630	10754	124	12	161.7		7000	279	3200	90R	89.27	179.76	0.57	
4	10-Nov	Drilling	01:10	01:32	0.37	10754	10810	56	11	152.7	80	7000	279	3200		89.59	179.77	0.57	
4	10-Nov	Drilling	01:43	02:16	0.55	10810	10905	95	11	172.7	80	7000	279	3200		89.99	179.12	1.09	
4	10-Nov	Drilling	02:27	03:05	0.63	10905	11000	95	11	150.0	70	7000	279	3200		89.54	180.12	2.29	
4	10-Nov	Drilling	03:22	03:27	0.08	11000	11010	10	11	120.0	70	7000	279	3200		89.45	180.33	2.29	
4	10-Nov	Sliding	03:27	04:02	0.58	11010	11031	21	12	36.0		7000	279	3200	90R	89.27	180.78	2.29	
4	10-Nov	Drilling	04:02	04:29	0.45	11031	11095	64	11	142.2	70	7000	279	3200		89.77	181.13	0.96	
4	10-Nov	Drilling	04:47	04:55	0.13	11095	11105	10	11	75.0	70	7000	279	3200		89.85	181.18	0.96	
4	10-Nov	Sliding	04:55	05:21	0.43	11105	11117	12	12	27.7		7000	279	3200	55R	89.95	181.24	0.96	
4	10-Nov	Drilling	05:21	06:00	0.65	11117	11190	73	11	112.3	70	7000	279	3200		90.57	181.53	0.93	
4	10-Nov	Sliding	06:15	06:32	0.28	11190	11197	7	12	24.7		7000	279	3200	45	90.63	181.56	0.93	
4	10-Nov	Drilling	06:32	07:15	0.72	11197	11285	88	11	122.8	70	7000	279	3200		91.02	181.41	0.47	
4	10-Nov	Drilling	07:28	08:04	0.60	11285	11380	95	11	158.3	70	7000	279	3200		91.31	180.70	0.99	
4	10-Nov	Drilling	08:17	08:50	0.55	11380	11475	95	11	172.7	70	7000	279	3200		91.70	180.29	0.50	
4	10-Nov	Drilling	09:04	09:42	0.63	11475	11569	94	11	148.4	70	7000	279	3200		91.38	179.14	1.90	
4	10-Nov	Drilling	09:55	10:53	0.97	11569	11664	95	11	98.3	70	7000	279	3200		91.99	178.45	1.36	

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	10-Nov	Drilling	11:08	12:06	0.97	11664	11759	95	11	98.3	85	7000	279	3200		90.37	178.86	3.34	
4	10-Nov	Sliding	12:21	13:38	1.28	11759	11783	24	12	18.7		7000	279	3200	150	89.59	179.04	3.34	
4	10-Nov	Drilling	13:38	14:20	0.70	11783	11854	71	11	101.4	85	7000	279	3200		89.40	180.11	1.61	
4	10-Nov	Drilling	15:00	15:21	0.35	11854	11871	17	11	48.6	85	7000	279	3200		89.41	180.39	1.61	
4	10-Nov	Sliding	15:21	16:17	0.93	11871	11894	23	12	24.6		7000	279	3200	140	89.42	180.68	0.63	
4	10-Nov	Drilling	16:17	16:44	0.45	11894	11949	55	11	122.2	85	7000	279	3200		89.34	181.01	0.63	
4	10-Nov	Drilling	16:59	17:59	1.00	11949	12044	95	11	95.0	85	7000	279	3200		89.20	180.75	0.74	
4	10-Nov	Drilling	18:11	18:23	0.20	12044	12079	35	11	175.0	85	7000	279	3200		89.07	180.52	3.08	
4	10-Nov	Sliding	18:23	20:00	1.62	12079	12099	20	12	12.4		7000	279	3200	150R	88.45	180.49	3.08	
4	10-Nov	Drilling	20:00	20:30	0.50	12099	12139	40	11	80.0	80	7000	279	3200		87.22	180.43	3.08	
4	10-Nov	Drilling	20:40	21:15	0.58	12139	12233	94	11	161.1	80	7000	279	3200		87.92	180.61	2.65	
4	10-Nov	Sliding	21:30	22:12	0.70	12233	12253	20	12	28.6		7000	279	3200	40R	88.45	180.69	2.65	
4	10-Nov	Drilling	22:12	22:40	0.47	12253	12328	75	11	160.7	80	7000	279	3200		89.71	181.98	2.49	
4	10-Nov	Drilling	22:48	22:57	0.15	12328	12348	20	11	133.3	80	7000	279	3200		90.02	182.37	2.49	
4	10-Nov	Sliding	22:57	23:34	0.62	12348	12358	10	12	16.2		7000	279	3200	40R	90.17	182.57	2.49	
4	10-Nov	Drilling	23:34	24:00	0.43	12358	12423	65	11	150.0	80	7000	279	3200		90.87	182.85	1.13	
4	11-Nov	Drilling	00:12	00:40	0.47	12423	12518	95	11	203.6	80	7000	279	3200		91.52	182.15	1.40	
4	11-Nov	Drilling	00:49	01:28	0.65	12518	12613	95	11	146.2	80	7000	279	3200		92.28	181.76	0.96	
4	11-Nov	Drilling	01:39	02:10	0.52	12613	12678	65	11	125.8	80	7000	279	3200		91.96	181.12	2.75	
4	11-Nov	Sliding	02:10	02:46	0.60	12678	12693	15	12	25.0		7000	279	3200	180	91.67	180.82	2.75	
4	11-Nov	Drilling	02:46	03:02	0.27	12693	12708	15	11	56.3	80	7000	279	3200		91.38	180.53	2.75	
4	11-Nov	Drilling	03:12	04:17	1.08	12708	12803	95	11	87.7	80	7000	279	3200		88.47	179.49	3.71	
4	11-Nov	Sliding	04:32	05:31	0.98	12803	12821	18	12	18.3		7000	279	3200	180	87.81	179.37	3.71	
4	11-Nov	Drilling	05:31	06:06	0.58	12821	12897	76	11	130.3	80	7000	279	3200		87.82	179.12	0.81	
4	11-Nov	Drilling	06:22	06:32	0.17	12897	12917	20	11	120.0	80	7000	279	3200		87.97	179.06	0.81	
4	11-Nov	Sliding	06:32	07:00	0.47	12917	12917	0	12	0.0		7000	279	3200	45	87.97	179.06	0.81	
4	11-Nov	Drilling	07:00	07:25	0.42	12917	12992	75	11	180.0	80	7000	279	3200		88.86	180.23	2.29	
4	11-Nov	Drilling	07:35	07:44	0.15	12992	13012	20	11	133.3	80	7000	279	3200		89.11	180.61	2.29	
4	11-Nov	Sliding	07:44	08:35	0.85	13012	13012	0	12	0.0		7000	279	3200	45	89.11	180.61	2.29	
4	11-Nov	Drilling	08:35	09:10	0.58	13012	13087	75	11	128.6	80	7000	279	3200		89.31	180.70	0.23	
4	11-Nov	Drilling	09:20	10:00	0.67	13087	13182	95	11	142.5	80	7000	279	3200		89.69	180.32	0.75	
4	11-Nov	Drilling	10:15	10:45	0.50	13182	13277	95	11	190.0	80	7000	279	3200		90.14	181.03	1.42	
4	11-Nov	Sliding	11:00	12:15	1.25	13277	13289	12	12	9.6	80	7000	279	3200	45	90.19	181.19	1.42	
4	11-Nov	Drilling	12:15	12:50	0.58	13289	13372	83	11	142.3	80	7000	279	3200		90.54	181.02	0.81	
4	11-Nov	Drilling	13:30	14:10	0.67	13372	13467	95	11	142.5	80	7000	279	3200		89.99	181.73	1.83	

Slide Report for BHA # 4

Note: Surveys listed are interpolated from the actual surveys

#	Date	Drill Mode	Start Time	End Time	Hours	Start MD	End MD	Depth Drilled	WOB	ROP	RPM	Surf. Torque	Flow Rate	SPP	TFO	INC	AZM	DLS	Note
4	11-Nov	Sliding	14:20	15:50	1.50	13467	13482	15	12	10.0	80	7000	279	3200	45	89.83	181.95	1.83	
4	11-Nov	Drilling	15:50	16:20	0.50	13482	13561	79	11	158.0	80	7000	279	3200		90.53	183.28	2.22	
4	11-Nov	Sliding	16:30	17:35	1.08	13561	13571	10	12	9.2	80	7000	279	3200	45	90.67	183.46	2.22	
4	11-Nov	Drilling	17:35	18:26	0.85	13571	13656	85	11	100.0	80	7000	279	3200		91.35	184.08	0.71	
4	11-Nov	Drilling	18:34	19:18	0.73	13656	13751	95	11	129.5	80	7000	279	3200		91.12	183.99	0.74	
4	11-Nov	Drilling	19:30	19:34	0.07	13751	13761	10	11	150.0	80	7000	279	3200		91.06	183.96	0.74	
4	11-Nov	Sliding	19:34	20:00	0.43	13761	13768	7	12	16.2		15000	279	3200	180	91.01	183.94	0.74	
4	11-Nov	Drilling	20:00	20:39	0.65	13768	13846	78	11	120.0	80	15000	279	3200		91.18	183.73	0.49	
4	11-Nov	Drilling	20:48	21:13	0.42	13846	13892	46	11	110.4	80	15000	279	3200		91.21	183.49	1.35	
4	11-Nov	Sliding	21:13	22:20	1.12	13892	13905	13	12	11.6		15000	279	3200	180	91.11	183.35	1.35	
4	11-Nov	Drilling	22:20	22:54	0.57	13905	13941	36	11	63.5	80	15000	279	3200		90.84	182.94	1.35	
4	11-Nov	Drilling	23:02	23:49	0.78	13941	14036	95	11	121.3	80	15000	279	3200		89.74	183.34	1.83	
4	12-Nov	Drilling	00:00	00:10	0.17	14036	14046	10	11	60.0	80	15000	279	3200		89.60	183.46	1.83	
4	12-Nov	Sliding	00:10	01:05	0.92	14046	14066	20	12	21.8		15000	279	3200	135R	89.33	183.71	1.83	
4	12-Nov	Drilling	01:05	01:45	0.67	14066	14131	65	11	97.5	80	15000	279	3200		89.70	183.24	1.00	
4	12-Nov	Drilling	02:11	02:54	0.72	14131	14226	95	11	132.6	80	15000	279	3200		90.52	182.67	1.11	
4	12-Nov	Drilling	03:04	03:44	0.67	14226	14292	66	11	99.0	80	15000	279	3200		90.43	182.91	1.69	
4	12-Nov	Sliding	03:44	04:34	0.83	14292	14307	15	12	18.0		15000	279	3200	135R	90.25	183.09	1.69	
4	12-Nov	Drilling	04:34	04:45	0.18	14307	14321	14	11	76.4	80	15000	279	3200		90.08	183.26	1.69	
4	12-Nov	Drilling	04:53	05:55	1.03	14321	14416	95	11	91.9	80	15000	279	3200		90.71	183.29	1.70	
4	12-Nov	Drilling	06:10	07:40	1.50	14416	14510	94	11	62.7	80	15000	279	3200		91.88	182.17	1.85	
4	12-Nov	Drilling	07:55	10:40	2.75	14510	14605	95	11	34.5	80	15000	279	3200		92.15	181.06	0.99	
4	12-Nov	Drilling	10:50	14:20	3.50	14605	14700	95	11	27.1	80	15000	279	3200		92.12	180.74	0.00	

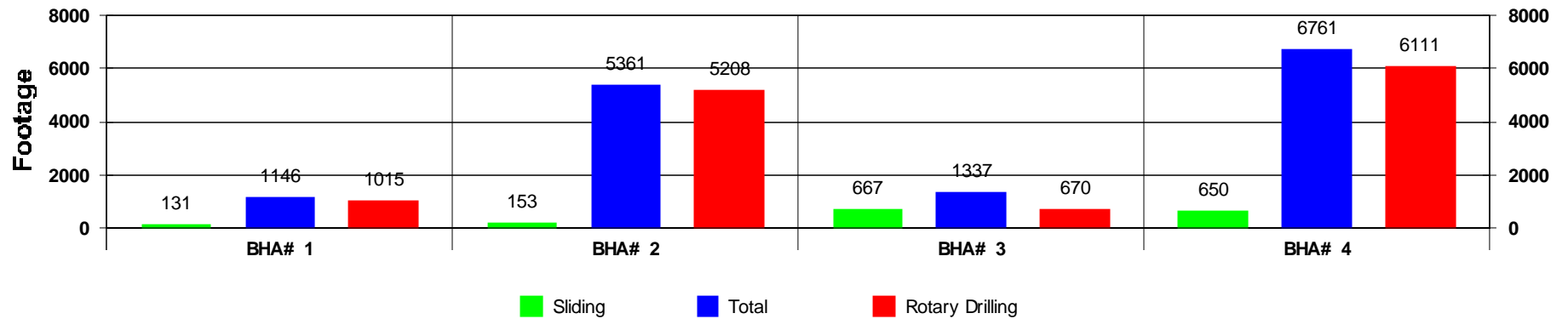
Total Drilled: 6761 **Avg. Total ROP:** 90.61 **DEPTH% - TIME %**

Total Rotary Drilled: 6111 **Avg. Rotary ROP:** 113.59 **Percent Rotary:** 90.39 - 72.10

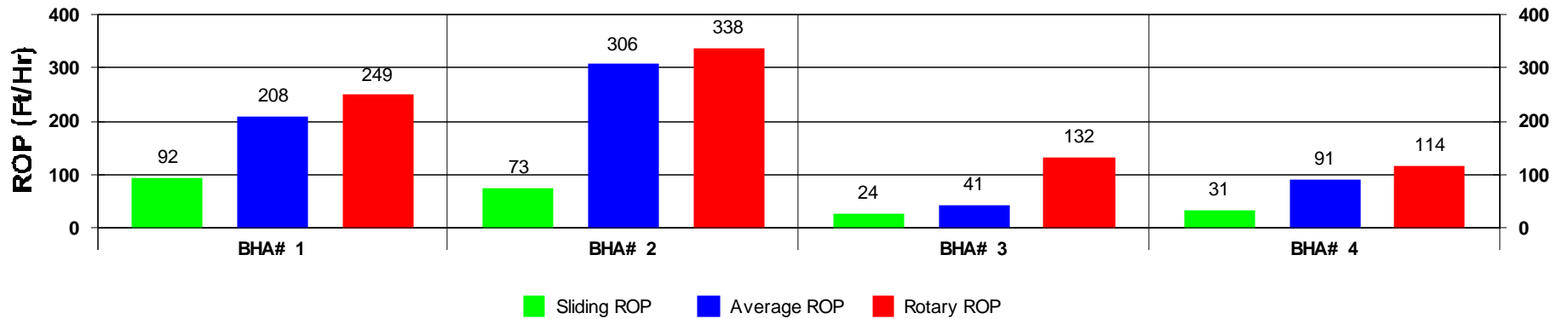
Total Drilled Sliding: 650 **Avg. Slide ROP:** 31.22 **Percent Slide:** 9.61 - 27.90

JOB NO.:	77032	FIELD:	Wattenberg
Company:	EnCana Oil & Gas (USA) Inc.	Township:	2N
LOCATION:		SECTRANGE:	26 99W
RIG NAME:	Ensign 124	COMMENT	
STATE:	Colorado		
COUNTY:	Weld		
WELL NAME:	Rodman Bruntz 2D-26H		

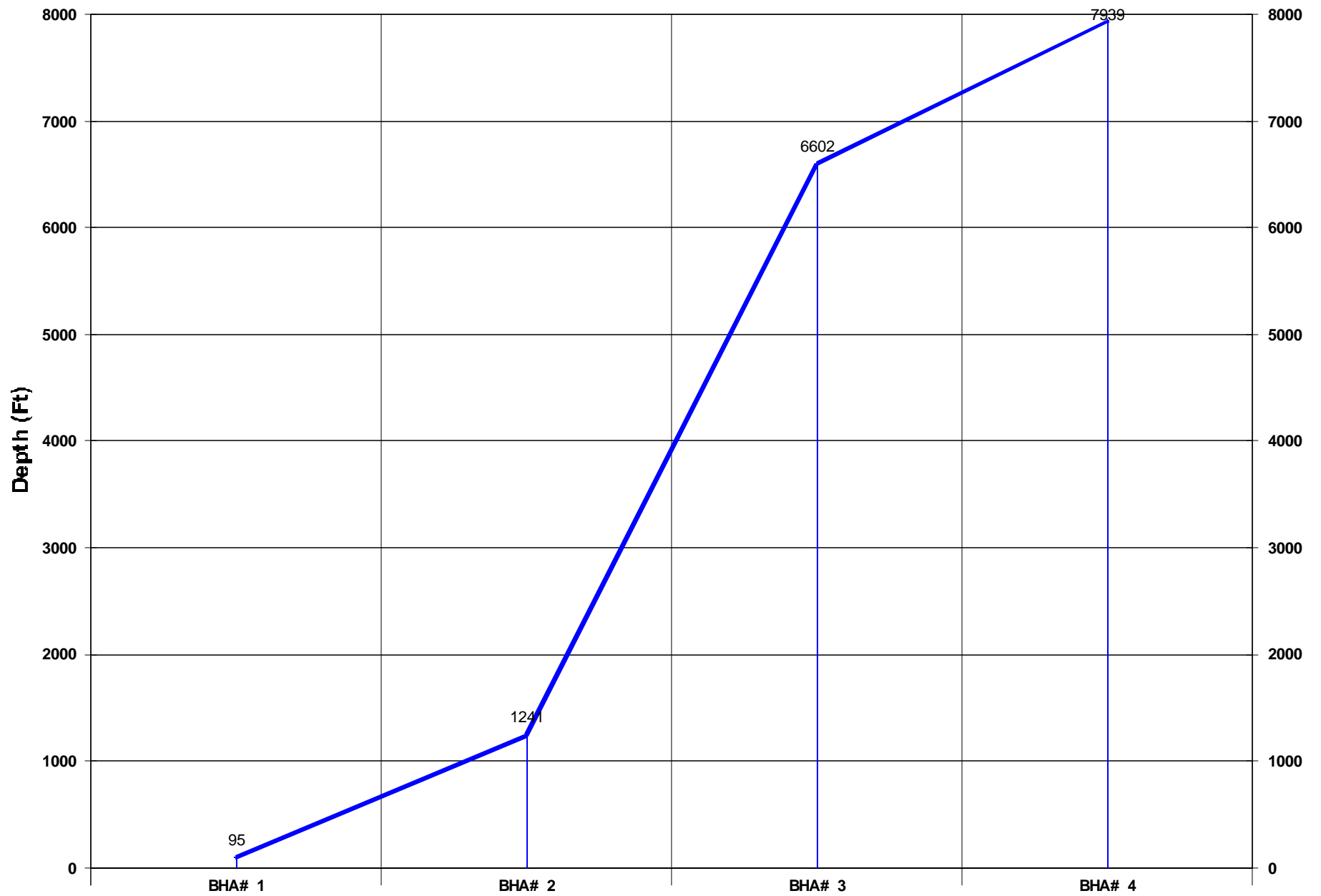
Footage Drilled with BHA



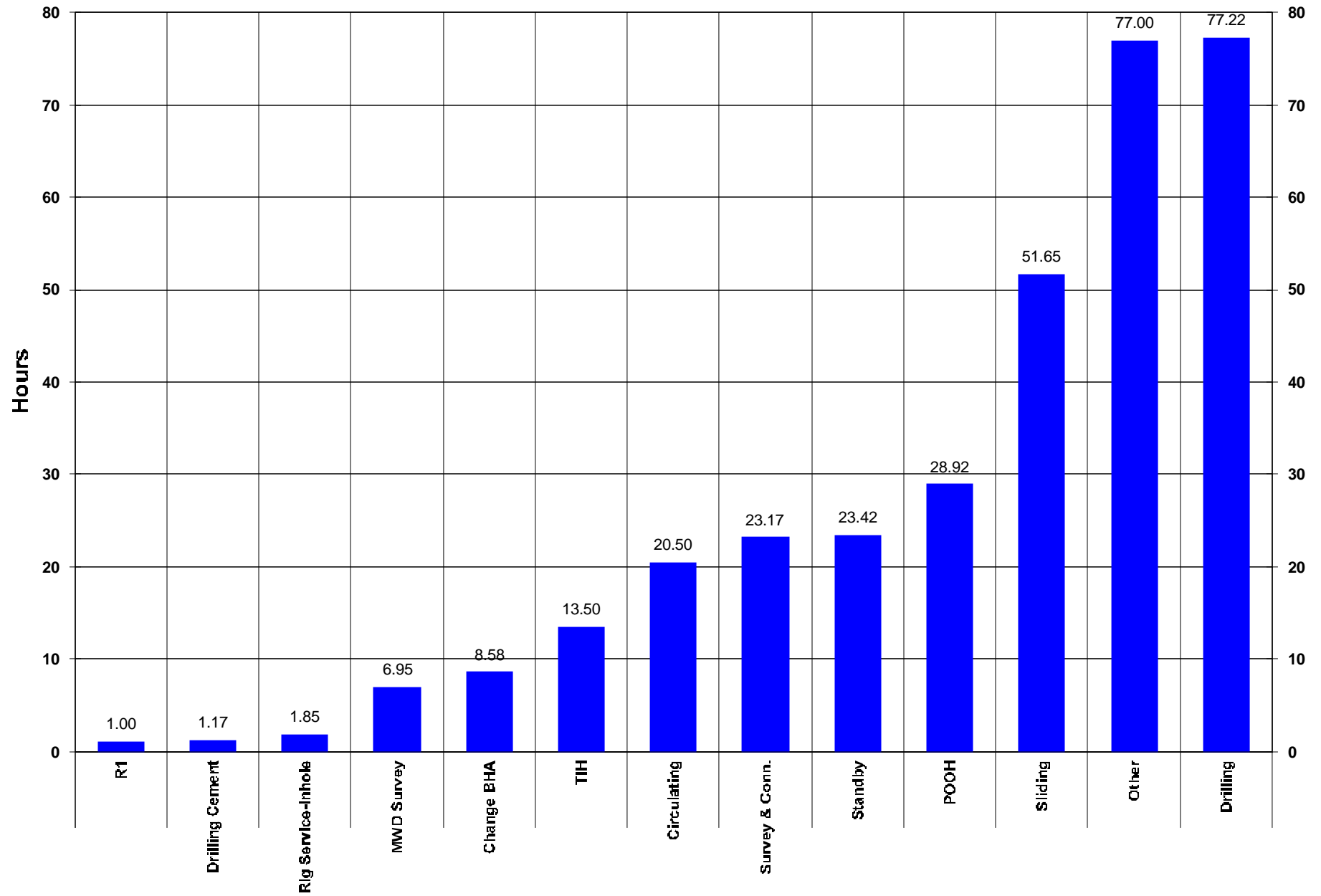
ROP vs BHA



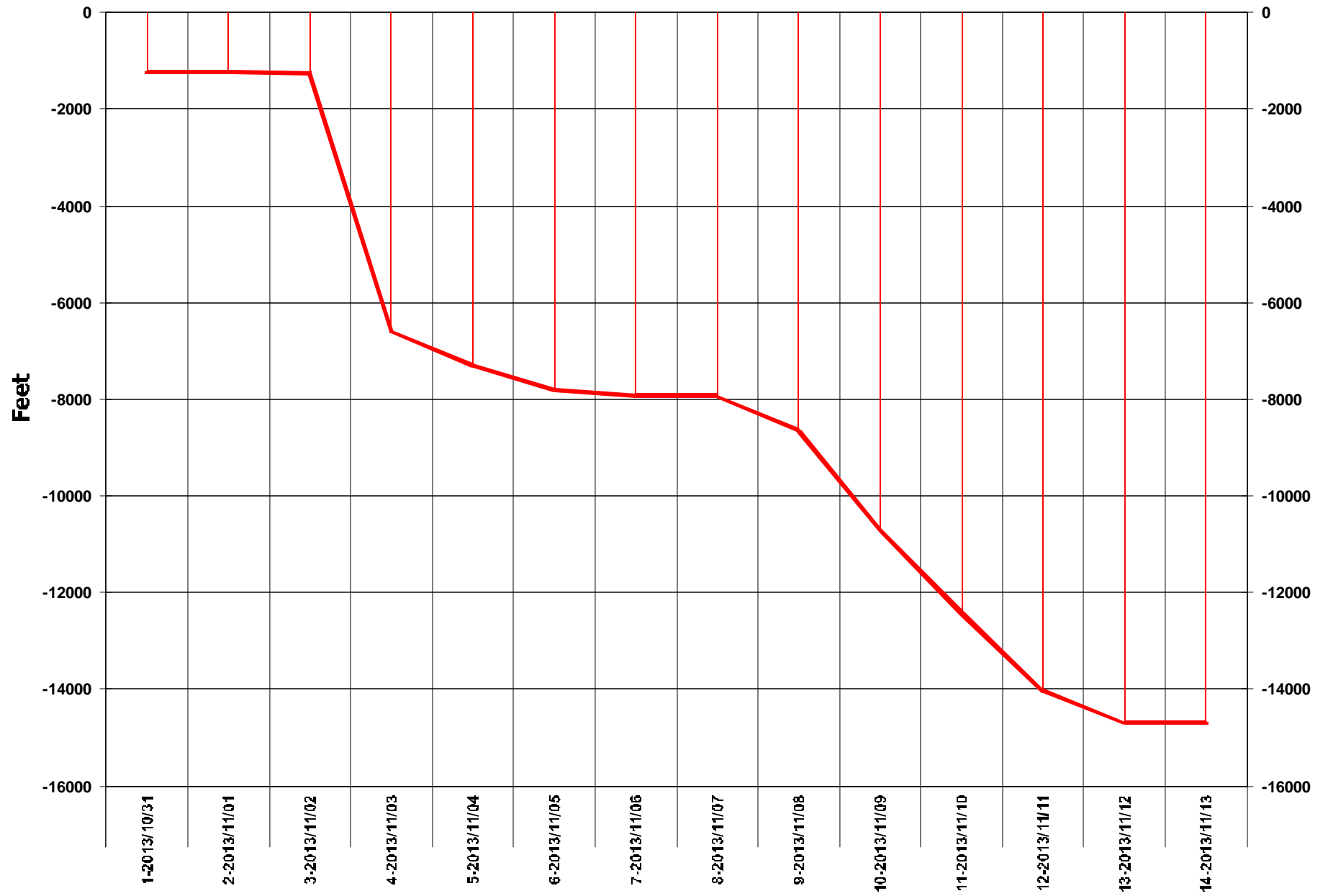
Depth vs BHA



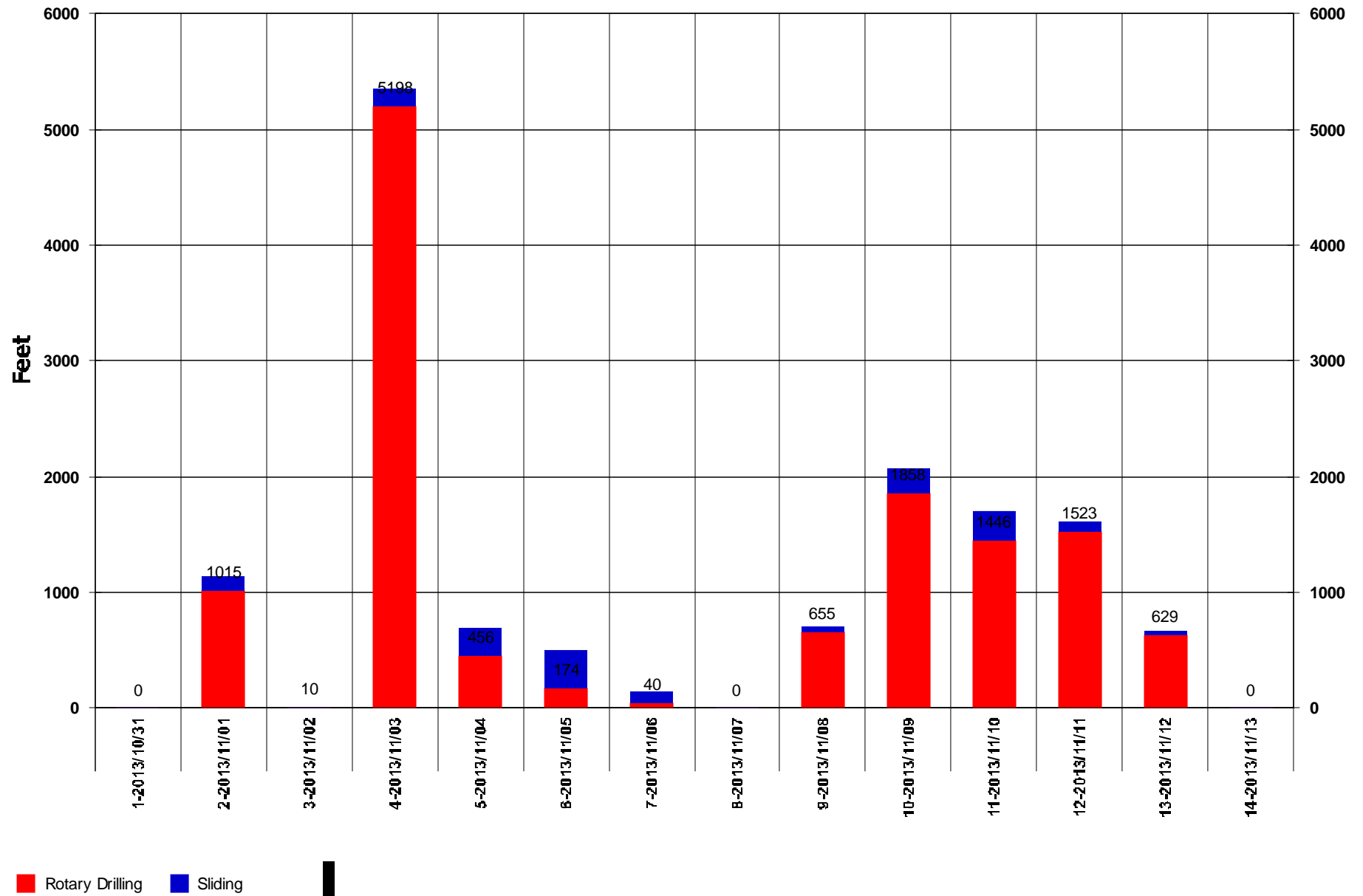
Activity Histogram



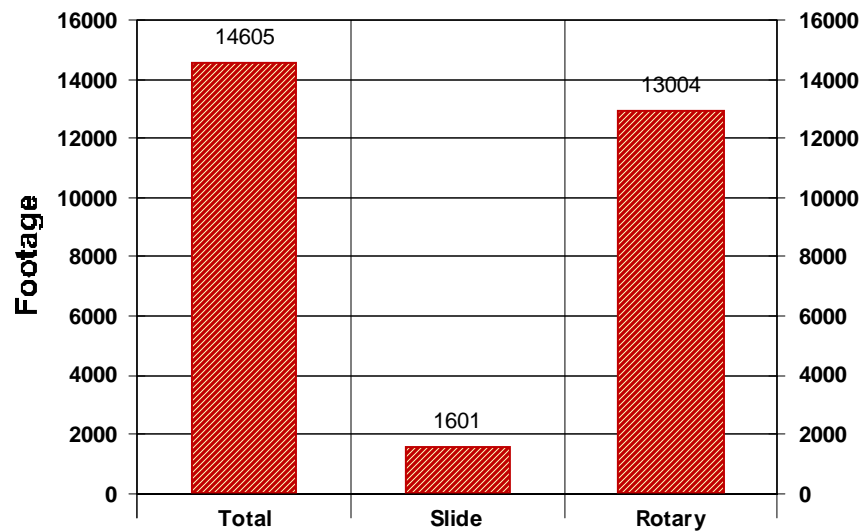
Measured Depth vs Days



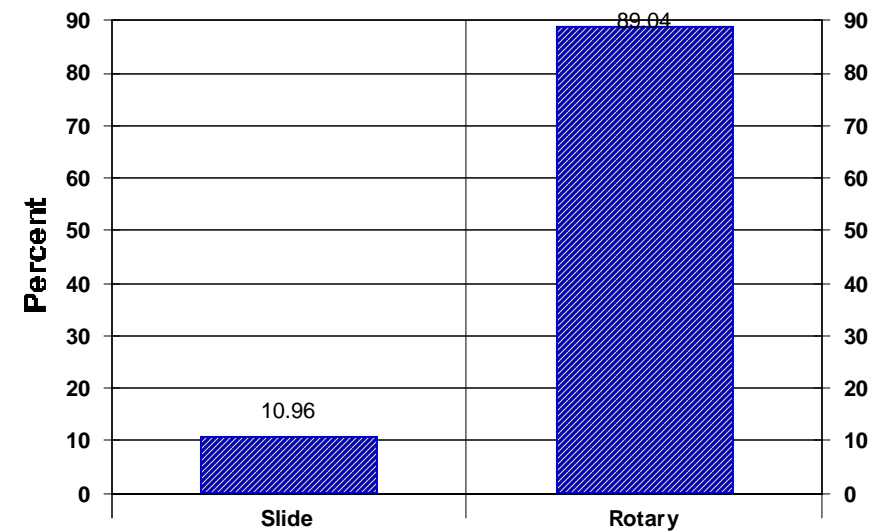
Daily Footage



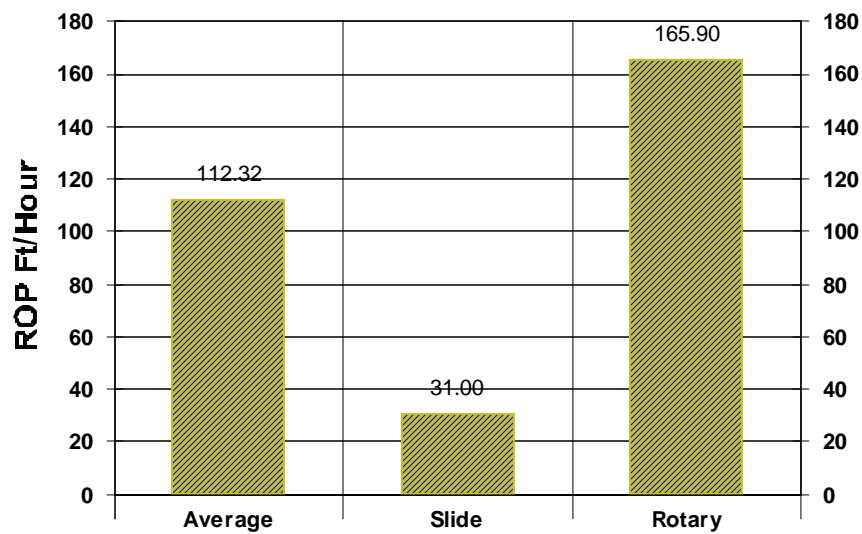
Footage Drilled Totals



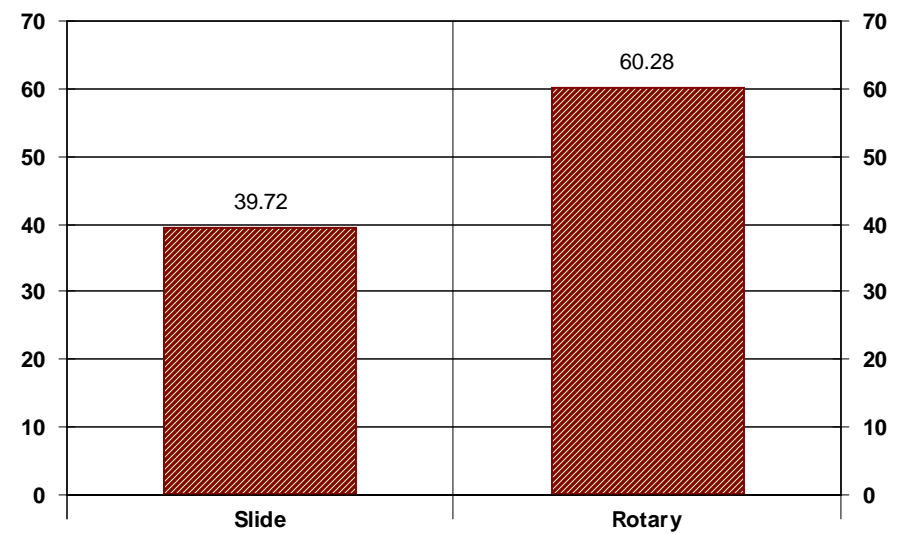
Footage Percent



Rate of Penetration Totals



Time Percent





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