



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/31/2014  
Invoice #: 35010  
API#  
Foreman: Kirk Kallhoff

Customer: EnCana Oil & Gas (USA) Inc.  
Well Name: jillson east rinn 3e-22h-m268

County: Weld  
State: Colorado  
Sec: 22  
Twp: 2n  
Range: 68w

Consultant: dave  
Rig Name & Number: ensign 124  
Distance To Location: 25  
Units On Location: 4030-3103/4007-3210  
Time Requested: 600 am  
Time Arrived On Location: 515 am  
Time Left Location: 10:30 PM

## WELL DATA

Casing Size OD (in) : 9.625  
Casing Weight (lb) : 40.00  
Casing Depth (ft) : 869  
Total Depth (ft) : 902  
Open Hole Diameter (in.) : 12.25  
Conductor Length (ft) : 100  
Conductor ID : 16  
Shoe Joint Length (ft) : 45  
Landing Joint (ft) : 20

Max Rate:  
Max Pressure:

## Cement Data

Cement Name: BFN III  
Cement Density (lb/gal) : 15.2  
Cement Yield (cuft) : 1.27  
Gallons Per Sack: 5.89  
% Excess: 40%  
Displacement Fluid lb/gal: 8.3  
BBL to Pit:  
Fluid Ahead (bbls): 30.0  
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.835

Casing Grade

J-55 only used

## Calculated Results

**cuft of Shoe** 19.16 cuft  
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

**cuft of Conductor** 89.10 cuft  
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

**cuft of Casing** 337.17 cuft  
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

**Total Slurry Volume** 445.42 cuft  
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

**bbls of Slurry** 79.33 bbls  
(Total Slurry Volume) X (.1781)

**Sacks Needed** 351 sk  
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

**Mix Water** 49.19 bbls  
(Sacks Needed) X (Gallons Per Sack) ÷ 42

**Displacement:** 64.00 bbls  
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

## Pressure of cement in annulus

**Hydrostatic Pressure:** 686.16 PSI

## Pressure of the fluids inside casing

**Displacement:** 355.29 psi

**Shoe Joint:** 35.53 psi

**Total** 390.83 psi

**Differential Pressure:** 295.34 psi

**Collapse PSI:** 2570.00 psi

**Burst PSI:** 3950.00 psi

**Total Water Needed:** 163.18 bbls

X   
Authorization To Proceed





**Bison Oil Well Cementing  
Single Cement Surface Pipe**

Customer  
Well Name

EnCana Oil & Gas (USA) Inc.  
jillson east rinn 3e-22h-m268

INVOICE #  
LOCATION  
FOREMAN  
Date

35010  
Weld  
Kirk Kallhoff  
7/31/2014

Treatment Report Page 2

**DESCRIPTION OF JOB EVENTS**

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	818am	0	914am	10	0			0			0			0		
Drop Plug	715am	10	917am	60	10			10			10			10		
	845am	20	919am	130	20			20			20			20		
914 am		30	922am	260	30			30			30			30		
		40	924am	350	40			40			40			40		
M & P		50	927am	400	50			50			50			50		
Time	Sacks	60	930am	400	60			60			60			60		
852 am	351	70			70			70			70			70		
911 am stop		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	40%	120			120			120			120			120		
Mixed bbls	49.2	130			130			130			130			130		
Total Sacks	351	140			140			140			140			140		
bbl Returns	26	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 934 am 510 psi 79.3 bbls slurry

casing test 1500 psi 15 min

X

Work Performed

*Michael Rourke*

X

Title

*CO MAN*

X

Date

*7-31-14*