



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/20/2014
Invoice #: 65018
API#: 05-123-97750
Foreman: Lee Sharp

Customer: EnCana Oil & Gas (USA) Inc.

Well Name: Newnam 2A 32H C264

County: Weld
State: Colorado

Sec: _____
Twp: _____
Range: _____

Consultant: Kirby
Rig Name & Number: Ensign 124
Distance To Location: 26
Units On Location: 4023-3104;4017-
Time Requested: 7:00
Time Arrived On Location: 5:30PM
Time Left Location: 10:45

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft.) : 1,031
Total Depth (ft) : 1040
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 135
Conductor ID : 15.5
Shoe Joint Length (ft) : 46
Landing Joint (ft) : 0

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: 50%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 29.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10+10D+10=30

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.77 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 108.68 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X
(Conductor Length ft)
cuft of Casing 420.80 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing
Depth - Conductor Length)
Total Slurry Volume 549.24 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 97.82 bbls
(Total Slurry Volume) X (.1781)
Sacks Needed 432 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 60.65 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 74.64 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe
Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 813.88 PSI

Pressure of the fluids inside casing

Displacement: 424.42 psi

Shoe Joint: 36.66 psi

Total 461.08 psi

Differential Pressure: 352.80 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 185.29 bbls

x Kirby Buckett
Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.



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

Customer
Well Name

EnCana Oil & Gas (USA) Inc.
Newnam 2A 32H C264

INVOICE #
LOCATION
FOREMAN
Date

65018
Weld
Lee Sharp
10/20/2014

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DESCRIPTION OF JOB EVENTS

		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
Safety Meeting	8:20															
MIRU	6:15				0			0			0			0		
CIRCULATE	8:45	0	9:24		10			10			10			10		
Drop Plug		10	9:27	10	10			20			20			20		
9:24		20	9:30	30	20			30			30			30		
		30	9:34	120	30			40			40			40		
		40	9:36	320	40			50			50			50		
M & P		50	9:38	380	50			60			60			60		
Time	Sacks	60	9:40	360	60			70			70			70		
9:00-9:21	432	70	9:45	420	70			80			80			80		
		80	9:47	Landed	80			90			90			90		
		90			90			100			100			100		
		100			100			110			110			110		
		110			110			120			120			120		
% Excess	50%	120			120			130			130			130		
Mixed bbls	60.64	130			130			140			140			140		
Total Sacks	432	140			140			150			150			150		
bbl Returns	29	150			150											
Water Temp	67															

Notes:

Job went well no issues plug landed on calculate. Final lift@ 330 psi Land 850

Casing Test 9:50 @1480

End casing 10:05 1490

10:11 Kriby did not like flow back from floats preassured up to 800 psi holding.....10:19 still not holding

10:21 pressured up to 900 shut in at head.

X Kuby Bucklett
Work Performed

X Supervisor
Title

X 10/20/14
Date