



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/8/2015
Invoice #: 55052
API#:
Foreman: Monte Bedeaux

Customer: EnCana Oil & Gas (USA) Inc.
Well Name: File 30-32H

County: Weld
State: Colorado
Sec: 32
Twp: 2n
Range: 68W

Consultant: Norman
Rig Name & Number: patterson 326
Distance To Location: 28.2
Units On Location: 4027-3106 4022-3213
Time Requested: 2:00am
Time Arrived On Location: 12:30am
Time Left Location: 6:34am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 796
Total Depth (ft) : 855
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 110
Conductor ID : 15.6
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 35

Max Rate: 5
Max Pressure: 2000

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:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10 fresh 10 dye 10 fresh

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.10 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 90.42 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 322.26 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 431.78 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 76.90 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 340 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 47.68 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 60.84 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 628.52 PSI

Pressure of the fluids inside casing

Displacement: 324.25 psi

Shoe Joint: 34.74 psi

Total 358.99 psi

Differential Pressure: 269.53 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 158.52 bbls

X

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.



Displacement Cementing
Single Cement Surface Pipe

Customer
Well Name

EnCana Oil & Gas (USA) Inc.
File 30-32H

INVOICE #
LOCATION
FOREMAN
Date

33032
Weld
Monte Bedeaux
1/8/2015

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU	3:35	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	1:30	0	4:40	0	0			0			0			0		
Drop Plug	4:02	10	4:44	100	10			10			10			10		
4:38		20	4:06	140	20			20			20			20		
		30	4:48	240	30			30			30			30		
		40	4:51	330	40			40			40			40		
M & P		50	4:53	370	50			50			50			50		
Time	Sacks	60	4:55	290	60			60			60			60		
4:08-4:38	340	70	4:56	780	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	50%	120			120			120			120			120		
Mixed bbls	47.68	130			130			130			130			130		
Total Sacks	340	140			140			140			140			140		
bbl Returns	26	150			150			150			150			150		
Water Temp	64															

Notes:

safty meeting, miru, pressure test per company man, circulate 30 bbls ahead with dye in 2nd 10, mix and pump 340 sks cement, drop plug and
displace 61.53 bbls h2o, bump plug at 4:56 am at 780 psi, hold 5 min. release pressure, rash up rig down

X

Work Preformed

X

Title

X

Date