



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/11/2015
Invoice #: 72063
API#: 05-123-3805200
Foreman: AARON CARRASCO

Customer: EnCana Oil & Gas (USA) Inc.
Well Name: FILE 3D-32H

County: WELD
State: Colorado
Sec: 32
Twp: 2N
Range: 68W
Consultant: ROBERT
Rig Name & Number: PATTERSON #326
Distance To Location: 28 MILES
Units On Location: 3101 4029-
Time Requested: 11PM
Time Arrived On Location: 9PM
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 801
Total Depth (ft) : 844
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: 1000

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: 5.0
BBL to Pit:
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10 FRESH-10DYE-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 304.13 cuft
(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 434.13 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 77.32 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 342 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 47.94 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 61.23 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 632.47 PSI

Pressure of the fluids inside casing

Displacement: #N/A psi

Shoe Joint: 34.74 psi

Total #N/A psi

Differential Pressure: #N/A psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 159.17 bbls

X
Authorization To Proceed



DISON ON WELL CEMENTING
Single Cement Surface Pipe

Customer
Well Name

EnCana Oil & Gas (USA) Inc.
FILE 3D-32H

INVOICE #
LOCATION
FOREMAN
Date

72003
WELD
AARON CARRASCO
1/11/2015

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DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 12PM M & P Time Sacks 11:33PM	11:15PM 9PM 11:22PM 12PM M & P Time Sacks 11:33PM	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
		0	12PM	0	0			0			0			0		
		10	12:06AM	40	10			10			10			10		
		20	12:19AM	100	20			20			20			20		
		30	12:22AM	180	30			30			30			30		
		40	12:26AM	220	40			40			40			40		
		50	12:30AM	300	50			50			50			50		
		60	12:37AM	370	60			60			60			60		
		63	12:39AM	1000	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	48	130			130			130			130			130		
Total Sacks	342	140			140			140			140			140		
bbl Returns		150			150			150			150			150		
Water Temp	47															

Notes:

MIRU HAD SAFETY MEETING PRESS TESTED TO 1000 PSI THEN PUMPED SPACER 10BLS FRESH H2O 10 BLS OF H2O WITH BLUE DYE

WENT IN TO MIX MIXED & PUMPED 342 SKS OF CEMENT @ 15.2 LBS/GAL DROPEL PLUG DISP 62 BLS BUMPED PLUG @1000 PSI & HELD IT

FOR 5 MINS

X
Work Performed

X
Title

X
Date

1/13/15