



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/9/2015
 Invoice #: 72061
 API#: 05-123-380800000
 Foreman: AARON CARRASCO

Customer: EnCana Oil & Gas (USA) Inc.

Well Name: FILE 3M-32H

County: WELD
 State: Colorado
 Sec: 32
 Twp: 2N
 Range: 68W

Consultant: NORMAN
 Rig Name & Number: PATTERSON #326
 Distance To Location: 28 MILES
 Units On Location: 3101 4029-
 Time Requested: 8AM
 Time Arrived On Location: 7AM
 Time Left Location:

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft) : 814	Cement Yield (cuft) : 1.27
Total Depth (ft) : 854	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 12.25	% Excess: 50%
Conductor Length (ft) : 110	Displacement Fluid lb/gal: 5.0
Conductor ID : 15.6	BBL to Pit:
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 35	H2O Wash Up (bbls): 20.0
Max Rate: 5	Spacer Ahead Makeup
Max Pressure: 1000	10 FRESH-10DYE-10 FRESH

Calculated Results	Displacement: 62.23 bbls
cuft of Shoe 19.10 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor 90.42 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus
cuft of Casing 330.72 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Hydrostatic Pressure: 642.73 PSI
Total Slurry Volume 440.24 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing
bbls of Slurry 78.41 bbls (Total Slurry Volume) X (.1781)	Displacement: #N/A psi
Sacks Needed 347 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Shoe Joint: 34.74 psi
Mix Water 48.61 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total #N/A psi
	Differential Pressure: #N/A psi
	Collapse PSI: 2020.00 psi
	Burst PSI: 3520.00 psi
	Total Water Needed: 160.85 bbls

X *[Signature]*
 Authorization To Proceed



DISON Oil Well Cementing
Single Cement Surface Pipe

Customer
 Well Name

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

INVOICE #
 LOCATION
 FOREMAN
 Date

72001
 WELD
 AARON CARRASCO
 1/9/2015

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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	9:07AM															
MIRU	7:2AM															
CIRCULATE	9:21AM	0	9:59AM	0	0			0			0			0		
Drop Plug		10	10:02AM	50	10			10			10			10		
	9:59AM	20	10:05AM	50	20			20			20			20		
		30	10:08AM	80	30			30			30			30		
		40	10:10AM	160	40			40			40			40		
M & P		50	10:14AM	240	50			50			50			50		
Time	Sacks	60	10:18AM	270	60			60			60			60		
9:37AM	347	63	10:20AM	290	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	48.6	130			130			130			130			130		
Total Sacks	347	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 349 SKS OF CEMENT @ 15.2 LBS/GAL DROPED PLUG PLUG DID NOT BUMP

X

Work Preformed

X

Title

X

Date