




Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/25/2014
Invoice #: 65031
API#: 05-123-39411
Foreman: Lee Sharp

Customer: EnCana Oil & Gas (USA) Inc.
Well Name: Minch 3E-4H-L368

County: Weld
State: Colorado
Sec: _____
Twp: _____
Range: _____
Consultant: Roy
Rig Name & Number: H & P 522
Distance To Location: 35
Units On Location: 4031-3104; 4024-3203
Time Requested: 7:30
Time Arrived On Location: 7:00 AM
Time Left Location: 1045

WELL DATA	Cement Data
Casing Size OD (in) : 8.835	Cement Name: BFN III
Casing Weight (lb) : 40.00	Cement Density (lb/gal) : 15.2
Casing Depth (ft.) : 871	Cement Yield (cuft) : 1.27
Total Depth (ft) : 878	Gallons Per Sack: 5.89
Open Hole Diameter (in.) : 12.25	% Excess: 30%
Conductor Length (ft) : 156	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit:
Shoe Joint Length (ft) : 48	Fluid Ahead (bbls): 30.0
Landing Joint (ft) : 0	H2O Wash Up (bbls): 20.0
Max Rate:	Spacer Ahead Makeup
Max Pressure:	10F+10D+10F=30bb

Casing ID	8.835	Casing Grade	J-55 only used
Calculated Results		Displacement: 62.37 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe	20.39	cuft	Pressure of cement in annulus
(Casing ID Squared) X (.005454) X (Shoe Joint ft)			Hydrostatic Pressure: 687.36 PSI
cuft of Conductor	119.05	cuft	Pressure of the fluids inside casing
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)			Displacement: 354.70 psi
cuft of Casing	290.90	cuft	Shoe Joint: 37.82 psi
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)			Total 392.52 psi
Total Slurry Volume	430.35	cuft	Differential Pressure: 294.84 psi
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)			Collapse PSI: 2570.00 psi
bbls of Slurry	76.64	bbls	Burst PSI: 3950.00 psi
(Total Slurry Volume) X (.1781)			Total Water Needed: 159.90 bbls
Sacks Needed	339	sk	
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)			
Mix Water	47.52	bbls	
(Sacks Needed) X (Gallons Per Sack) ÷ 42			
 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.			



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Well Name

EnCana Oil & Gas (USA) Inc.
Minch 3E-4H-L368

INVOICE #
LOCATION
FOREMAN
Date

65031
Weld
Lee Sharp
11/25/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting		8:30	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU		7:45	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE		8:47	0	9:12		0			0			0			0		
Drop Plug			10	9:16	80	10			10			10			10		
9:12			20	9:18	90	20			20			20			20		
			30	9:21	190	30			30			30			30		
			40	9:23	310	40			40			40			40		
M & P			50	9:25	370	50			50			50			50		
Time		Sacks	60	9:28	370	60			60			60			60		
8:51-9:09		339	70	9:29	Landed	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		30%	120			120			120			120			120		
Mixed bbls		47.52	130			130			130			130			130		
Total Sacks		339	140			140			140			140			140		
bbl Returns		13	150			150			150			150			150		
Water Temp		55															

Notes:

The day

Job went with no major issues rig had a small leak on well head. @ 9:33 we released pressure rig hand tightened loose fitting job continued with no further situations.

Plug land on calculated bumped @ 790 psi.

Casing test @ 9:36 1510psi Released at 9:52 1520psi

X

Work Performed

X

Title

X

Date