



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 1/7/2015
Invoice # 45104
API# 05-123-38078
Foreman: JASON

Customer: EnCana Oil & Gas (USA) Inc.

Well Name: FILE 3P-32H K268

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

Consultant: IRA
Rig Name & Number: PATERSON 326
Distance To Location: 31
Units On Location: 4031-3107, 4032-3211
Time Requested: 100
Time Arrived On Location: 1200
Time Left Location: 800

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 804
Total Depth (ft) : 859
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 120
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 35

Max Rate: 6
Max Pressure: 1500

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

Spacer Ahead Makeup
30 BBL W/ KCL, DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.14 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 91.58 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 321.37 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 432.09 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 76.95 bbls
(Total Slurry Volume) X (.1781)

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

Mix Water 47.71 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 61.46 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 634.93 PSI

Pressure of the fluids inside casing

Displacement: 327.71 psi

Shoe Joint: 34.81 psi

Total 362.52 psi

Differential Pressure: 272.41 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 159.17 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.



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

Customer
Well Name

EnCana Oil & Gas (USA) Inc.
FILE 3P-32H K268

INVOICE #
LOCATION
FOREMAN
Date

45104
Weld
JASON
1/7/2015

Treatment Report Page 2

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	500															
MIRU	1230															
CIRCULATE	531	0	613	0	0			0			0			0		
Drop Plug		10	619	50	10			10			10			10		
612		20	622	80	20			20			20			20		
		30	624	110	30			30			30			30		
		40	630	210	40			40			40			40		
M & P		50	633	290	50			50			50			50		
Time	Sacks	60	635	310	60			60			60			60		
0547-0609	340	70	636	310	70			70			70			70		
		80	BUMP	570	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	47.7	130			130			130			130			130		
Total Sacks	340	140			140			140			140			140		
bbl Returns	20	150			150			150			150			150		
Water Temp	50															

Notes:

PRESSURE TEST TO 2000 PSI AT 0528, PUMPED 30 BBL WATER WITH DYE IN THE 2ND 10 AT 0531, MIXED AND PUMPED 340 SKS AT 15.2, 76.9 BBL AT 0547, SHUT DOWN AT 0609, STARTED DISPLACEMENT AT 0613, PLUG LANDED AT 310 PSI AT 0636 AND PRESSURED UP TO 570 PSI, HELD FOR 2 MINUTES AND THEN PRESSURED UP TO 1500 PSI FOR CASING TEST, HELD FOR 15 MINUTES AND THEN RELEASED AND GOT .5 BBL BACK AND FLOATS HELD.

X

Work Preformed

X

Title

Co. Rep.

X

Date

1-7-15