



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/18/2014
Invoice #: 12268
API#:
Foreman: monte

Customer: noble
Well Name: wr ae30-64-1hnc

County: weld
State: colorado
Sec: 29
Twp: 6n
Range: 62w

Consultant: Gary e (AKC)
Rig Name & Number: h&p 277
Distance To Location: 33.2
Units On Location: 4028-3102/4022-3205
Time Requested: 1:00pm
Time Arrived On Location: 11:45am
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 600
Total Depth (ft) : 646
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 124
Conductor ID : 15.6
Shoe Joint Length (ft) : 46
Landing Joint (ft) : 28

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 40%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 0.0
Fluid Ahead (bbls): 40.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10 fresh 10 dye 20 fresh

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement: 44.99 bbls (Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Shoe 19.97 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)		Pressure of cement in annulus	
cuft of Conductor 101.93 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Hydrostatic Pressure: 473.76 PSI	
cuft of Casing 350.45 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Pressure of the fluids inside casing	
Total Slurry Volume 472.35 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Displacement: 238.87 psi	
bbls of Slurry 84.13 bbls (Total Slurry Volume) X (.1781)		Shoe Joint: 36.32 psi	
Sacks Needed 372 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Total 275.20 psi	
Mix Water 52.16 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42		Differential Pressure: 198.56 psi	
		Collapse PSI: 2020.00 psi	
		Burst PSI: 3520.00 psi	
		Total Water Needed: 157.15 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.



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Single Cement Surface Pipe

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LOCATION
FOREMAN
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12268
weld
monte
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Customer
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noble
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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

	Safety Meeting MIRU CIRCULATE Drop Plug 2:10 M & P Time	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
	1:15	0	2:10	0	0			0			0			0		
	12:45	10	2:14	0	10			10			10			10		
	1:49	20	2:17	80	20			20			20			20		
		30	2:19	120	30			30			30			30		
		40	2:21	200	40			40			40			40		
		50	2:24	550	50			50			50			50		
		60			60			60			60			60		
		70			70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
		130			130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		
% Excess	0%															
Mixed bbls	52.16															
Total Sacks	372															
bbl Returns	14															
Water Temp	87															

Notes:

safty meeting. Miru, pressure test per company man. Circulate 40 bbls ahead with dye in 2nd 10, mix and pump 372 bbls at 15.2 lb at 40 excess, drop plug and displa
bump plug at 2:24 pm at 550 psi 14 bbls back. Raise to 1000 psi hold 15 min

X *Christopher K...*
Work Prepared

X *KBS*
Title

X *6-18-14*
Date