



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/8/2014
Invoice #: 12147
API#: 05-123-38692
Foreman: LEE SHARP

Customer: NOBLE
Well Name: WELL RANCAE30-63-1HNC

County: WELD
State: Colorado
Sec: 29
Twp: 6N
Range: 62W
Consultant: KEVIN CAMPBELL
Rig Name & Number: H&P 277
Distance To Location: 33
Units On Location: 4022-3106 4018
Time Requested: 8:30
Time Arrived On Location: 8:20
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 610
Total Depth (ft) : 644
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 15.5
Shoe Joint Length (ft) : 50
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: 20%
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

40=10F+10D+20F

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 21.60 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 80.51 cuft

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

cuft of Casing 322.04 cuft

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

Total Slurry Volume 424.15 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 75.54 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 334 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 46.84 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 45.50 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 481.91 PSI

Pressure of the fluids inside casing

Displacement: 241.70 psi

Shoe Joint: 39.29 psi

Total 280.99 psi

Differential Pressure: 200.92 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 152.34 bbls

X *Kevin Campbell*
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

NOBLE
WELL RANCHAE30-63-1HNC

INVOICE #
LOCATION
FOREMAN
Date

Treatn

DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4		
MIRU	12:10	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	12:31	0	1:02	80	0			0			0		
Drop Plug		10	1:03	190	10			10			10		
12:54		20	1:05	260	20			20			20		
		30	1:07	240	30			30			30		
		40	1:09	230	40			40			40		
M & P		50	1:14	680	50			50			50		
Time	Sacks	60	1:16	1010	60			60			60		
12:39	359	70			70			70			70		
		80			80			80			80		
		90			90			90			90		
		100			100			100			100		
		110			110			110			110		
% Excess	-1%	120			120			120			120		
Mixed bbls	50	130			130			130			130		
Total Sacks	357	140			140			140			140		
bbl Returns	17	150			150			150			150		
Water Temp	70												

Notes:

The day JOB COMPLETED WITH NO ISSUES

CASIING Psi TEST 1:16-1:30 BEGINNING 1010 ENDING PSI 1030 FLOATS HELD AT 1:31PM

REQUESTED TIME 8:30 ALOTED WAIT TIME 4 HOURS ENDING AT 12:30 DEPART SITE TIME 2:30 ACRUDE 2 HOURS WAIT TIME.

X

Work Performed

Kari Ghill

X

Title

WSS