



Bison Oil Well Cementing Single Cement Surface Pipe

Date: _____
Invoice # 80288
API# 05-123-41507
Foreman: AARON CARRASCO

Customer: Noble Energy Inc.

Well Name: WELLS RANCH STATE A36-625

County: Weld
State: Colorado
Sec: 31
Twp: 6N
Range: 63W

Consultant: JEREMY
Rig Name & Number: 321 H&P
Distance To Location: 24 MILLES
Units On Location: 3101-4029-4035-3211
Time Requested: 2PM
Time Arrived On Location: 1PM
Time Left Location: _____

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 776
Total Depth (ft) : 821
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 35

Max Rate: _____
Max Pressure: _____

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.48
Gallons Per Sack: 7.40
% Excess: 30%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 15.0
Fluid Ahead (bbls): 60.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10 FRESH-10 DYE-40 FRESH

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.66 cuft

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

cuft of Conductor 89.10 cuft

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

cuft of Casing 429.50 cuft

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

Total Slurry Volume 537.26 cuft

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

bbls of Slurry 95.69 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 363 sk

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

Mix Water 63.96 bbls

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

Displacement: 59.37 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 572.46 PSI

Pressure of the fluids inside casing

Displacement: 316.06 psi

Shoe Joint: 31.72 psi

Total 347.78 psi

Differential Pressure: 224.68 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 203.33 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.



DISON Oil Well Cementing
Single Cement Surface Pipe

Customer
Well Name

Noble Energy Inc.
WELLS RANCH STATE A36-625

INVOICE #
LOCATION
FOREMAN
Date

80288
Weld
AARON CARRASCO

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting		Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
MIRU	2PM	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
CIRCULATE	2:57PM	0	3:36PM	0	0			0			0			0		
Drop Plug		10	3:39PM	50	10			10			10			10		
		20	3:42PM	60	20			20			20			20		
3:36PM		30	3:44PM	150	30			30			30			30		
		40	3:46PM	160	40			40			40			40		
M & P		50	3:50PM	190	50			50			50			50		
Time	Sacks	60	3:56PM	1000	60			60			60			60		
3:12PM	318	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		
% Excess	10%	120			120			120			120			120		
Mixed bbls	56	130			130			130			130			130		
Total Sacks	318	140			140			140			140			140		
bbl Returns	9	150			150			150			150			150		
Water Temp	70															

Notes:

X

Work Performed

X

Title

X

Date