



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/12/2014
Invoice #: 12207
API#: 05-123-38686
Foreman: Calvin Reimers

Customer: Noble

Well Name: Wells Ranch State AE 30-62-1BHNA

County: Weld
State: Colorado
Sec: 29
Twp: 6N
Range: 62W

Consultant: Johnny
Rig Name & Number: H&P 343
Distance To Location: 34 Miles
Units On Location: 3104/3204
Time Requested: 1130am
Time Arrived On Location: 1230pm
Time Left Location: 845pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 595
Total Depth (ft) : 630
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 16
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 29

Max Rate: 7
Max Pressure: 2500

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: 13.0
Fluid Ahead (bbls): 40.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10bbls H2O+KCL+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.16 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 260.55 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 368.80 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 78.82 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 348 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 48.87 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 44.82 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 470.17 PSI

Pressure of the fluids inside casing

Displacement: 237.71 psi

Shoe Joint: 34.85 psi

Total 272.57 psi

Differential Pressure: 197.60 psi

Collapse PSI: #N/A psi

Burst PSI: #N/A psi

Total Water Needed: 153.69 bbls

X
Authorized 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
Wells Ranch State AE 30-62-1BHNA

INVOICE #
LOCATION
FOREMAN
Date

12207
Weld
Calvin Reimers
4/12/2014

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	640pm															
MIRU	605pm															
CIRCULATE	701pm	0	730pm	100	0			0			0			0		
Drop Plug		10	733pm	130	10			10			10			10		
729pm		20	735pm	200	20			20			20			20		
		30	737pm	260	30			30			30			30		
		40	739pm	260	40			40			40			40		
M & P		50	742pm	230	50			50			50			50		
Time	Sacks	60	Bump	400	60			60			60			60		
708pm	348	70			70			70			70			70		
726pm		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	20%	120			120			120			120			120		
Mixed bbls	48.87	130			130			130			130			130		
Total Sacks	348	140			140			140			140			140		
bbl Returns	13	150			150			150			150			150		
Water Temp	65															

Notes:

The day

Float Held

1/2 bbl back on bleed off

Casing PSI Test 744pm 1010psi to 759pm 1050psi

X

Work performed

X

Title

X

Date