



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/26/2014
Invoice # 12119
API#
Foreman: monte

Customer: Noble

Well Name: wr ae30=65hnc

County: weld
State: colorado

Sec: 29
Twp: 6n
Range: 62w

Consultant: jim
Rig Name & Number: &p 321
Distance To Location: 33.6
Units On Location: 4028-3102 4031-3214
Time Requested: 6:00am
Time Arrived On Location: 5:30
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 582
Total Depth (ft) : 633
Open Hole Diameter (in.) : 13.75
Conductor Length (ft) : 100
Conductor ID : 15.5
Shoe Joint Length (ft) : 45
Landing Joint (ft) : 34

Max Rate:
Max Pressure:

Cement Data

Cement Name: bfn111
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 20%
Displacement Fluid lb/gal:
BBL to Pit:
Fluid Ahead (bbls): 40.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

10fresh 10dye 20fresh

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 19.39 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 253.48 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 353.38 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 75.52 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 334 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 46.83 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 44.17 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 459.55 PSI

Pressure of the fluids inside casing

Displacement: #N/A psi

Shoe Joint: 35.28 psi

Total #N/A psi

Differential Pressure: #N/A psi

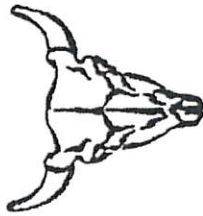
Collapse PSI: #N/A psi

Burst PSI: #N/A psi

Total Water Needed: 150.99 bbls

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

INVOICE #
LOCATION
FOREMAN
Date

12119
weld
monte
4/26/2014

Customer
Well Name

Noble
wr ae30=65hnc

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	6:30															
MIRU	5:36															
CIRCULATE	6:50	0	7:15	10	0			0			0			0		
Drop Plug		10	7:15	70	10			10			10			10		
		20	7:20	100	20			20			20			20		
	7:13	30	7:25	130	30			30			30			30		
		40	7:25	370	40			40			40			40		
		44	7:25	370	50			50			50			50		
		50	7:29	640	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	20%															
Mixed bbls	46.83															
Total Sacks	334															
bbl Returns	15															
Water Temp	51															

Notes:

safety meeting, miru, pressure test per company man, circulate 40 bbls h2o ahead with dye in 2nd 10, mix and pump 334 sks cement, drop plug and displace 44.17 bbls h2o
bump plug at 7:29 am at psi, 640 bbls 15 back 20 % excess

S. J. O'Neil
Work Performed

X ~~STES~~ WSS
Title

X 4-26-14
Date