



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/26/2014
Invoice #: 25090
API#: 05-123-40533
Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation

Well Name: Vollmar 3N-11HZ

County: Weld
State: Colorado
Sec: 14
Twp: 2N
Range: 67W

Consultant: Lester
Rig Name & Number: Major 42
Distance To Location: 21 Miles
Units On Location: 4023-3104/4027-3211
Time Requested: 745pm
Time Arrived On Location: 625pm
Time Left Location: 10:15pm

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft.) : 1,184
Total Depth (ft) : 1200
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 8

Max Rate: 7
Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 14.2
Cement Yield (cuft) : 1.49
Gallons Per Sack: 7.48
% Excess: 15%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 20
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30bbls H2O+Dye in 2nd 10bbls

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.55 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 0.00 cuft
(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 666.81 cuft
(Open Hole Squared) -(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 685.36 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 122.06 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 460 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 81.92 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 88.85 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 873.47 PSI

Pressure of the fluids inside casing

Displacement: 492.11 psi

Shoe Joint: 31.53 psi

Total 523.64 psi

Differential Pressure: 349.83 psi

Collapse PSI: 2020.00 psi

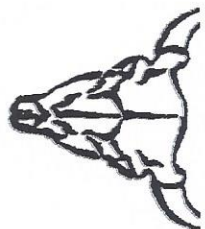
Burst PSI: 3520.00 psi

Total Water Needed: 220.77 bbls

X J R Case

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.



DESCRIPTION OF JOB EVENTS
Single Cement Surface Pipe

Customer
Well Name

Anadarko Petroleum Corporation
Vollmar 3N-11H2

INVOICE #
LOCATION
FOREMAN
Date

2000
Weld
Calvin Reimers
11/26/2014

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DESCRIPTION OF JOB EVENTS

Safety Meeting	821pm	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
	630pm	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
MIRU	837pm	0	915pm	50	0			0			0			0		
CIRCULATE		10	917pm	20	10			10			10			10		
Drop Plug		20	919pm	50	20			20			20			20		
		30	922pm	130	30			30			30			30		
		40	924pm	180	40			40			40			40		
		50	926pm	260	50			50			50			50		
M & P		60	927pm	330	60			60			60			60		
		70	929pm	350	70			70			70			70		
Time	Sacks	80	931pm	360	80			80			80			80		
845pm	460	90	935pm	350	90			90			90			90		
911pm		100	Bump	1360	100	937pm		100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
% Excess	15%	130			130			130			130			130		
Mixed bbls	81.92	140			140			140			140			140		
Total Sacks	460	150			150			150			150			150		
bbl Returns	20															
Water Temp	62.7															

Notes:

The day

1/2 bbl Back on Bleed Off

X
Work Performed

X
Title

X
Date

SERIES 2000

