

SUBJECT TO CORRECTION



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/26/2016
Invoice #: 666038
API#: 05-123-42627
Foreman: Nick

Customer: Anadarko Petroleum Corporation
Well Name: Jaguar Fed 29N-14HZ

County: Weld
State: Colorado
Sec: 23
Twp: 1N
Range: 67W

Consultant: Rick Duran
Rig Name & Number: Extreme 24
Distance To Location: 34 miles
Units On Location: 4023,3104,4022,3215,4020,3214
Time Requested: 13:30
Time Arrived On Location: 13:05
Time Left Location:

WELL DATA		Cement Data	
Casing Size OD (in) :	9.625	Cement Name:	BFN III
Casing Weight (lb) :	36.00	Cement Density (lb/gal) :	14.2
Casing Depth (ft.) :	2,281	Cement Yield (cuft) :	1.49
Total Depth (ft) :	2291	Gallons Per Sack:	7.48
Open Hole Diameter (in.) :	13.50	% Excess:	15%
Conductor Length (ft) :	90	Displacement Fluid lb/gal:	8.3
Conductor ID :	15.25	BBL to Pit:	0.0
Shoe Joint Length (ft) :	43	Fluid Ahead (bbls):	30.0
Landing Joint (ft) :	0	H2O Wash Up (bbls):	20.0
Max Rate:	8	Spacer Ahead Makeup	
Max Pressure:	2000	Dye in the second 10 bbl	

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement:	173.02 bbls
cuft of Shoe 18.66 cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)		(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)	
cuft of Conductor 68.68 cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)		Pressure of cement in annulus	
cuft of Casing 1231.43 cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)		Hydrostatic Pressure: 1682.69 PSI	
Total Slurry Volume 1318.77 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)		Pressure of the fluids inside casing	
bbls of Slurry 234.87 bbls (Total Slurry Volume) X (.1781)		Displacement: 964.98 psi	
Sacks Needed 885 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)		Shoe Joint: 31.72 psi	
Mix Water 157.63 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42		Total 996.70 psi	
		Differential Pressure: 685.99 psi	
		Collapse PSI: 2020.00 psi	
		Burst PSI: 3520.00 psi	
		Total Water Needed: 380.64 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.



Anadarko Petroleum Corporation
Jaguar Fed 29N-14HZ

666038
Weld
Nick
11/26/2016

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Date _____

Jaguar Fed 29N-14HZ

