

Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/4/2014
Invoice # 45068
API# 05-123-36459
Foreman: JASON KELEHER

Customer: Anadarko Petroleum Corporation

Well Name: BUFFALO 13C-15HZ

County: Weld
State: Colorado
Sec: 15
Twp: 1N
Range: 68W

Consultant: TOBY
Rig Name & Number: MAJORS 42
Distance To Location: 30
Units On Location: 4031-3106/ 4024-320
Time Requested: 1900
Time Arrived: 1830
Time Left Location: 2230

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 1,308
Total Depth (ft) : 1318
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 42
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: 22.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
30 BBL WATER, DYE IN 2ND 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.23 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 734.51 cuft
(Open Hole Squared) -(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 752.74 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 134.06 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 505 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 89.97 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 98.49 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 964.91 PSI

Pressure of the fluids inside casing

Displacement: 545.88 psi

Shoe Joint: 30.98 psi

Total 576.86 psi

Differential Pressure: 388.05 psi

Collapse PSI: 2020.00 psi

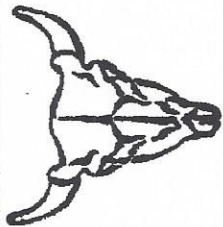
Burst PSI: 3520.00 psi

Total Water Needed: 238.46 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.



**Bison Oil Well Cementing
Single Cement Surface Pipe**

Customer
Well Name

Anadarko Petroleum Corporation
BUFFALO 13C-15HZ

INVOICE #
LOCATION
FOREMAN
Date

45068
Weld
JASON KELEHER
11/4/2014

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	1930															
MIRU	1845															
CIRCULATE	1959	0	2039	0	0			0			0			0		
Drop Plug		10	2041	20	10			10			10			10		
		20	2044	40	20			20			20			20		
2038		30	2048	80	30			30			30			30		
		40	2050	150	40			40			40			40		
		50	2052	240	50			50			50			50		
M & P		60	2054	330	60			60			60			60		
Time	Sacks															
2007-2036	505	70	2056	390	70			70			70			70		
		80	2058	440	80			80			80			80		
		90	2101	450	90			90			90			90		
		100	2104	420	100			100			100			100		
		110	BUMP	1430	110			110			110			110		
% Excess	15%	120			120			120			120			120		
Mixed bbls	89.9	130			130			130			130			130		
Total Sacks	505	140			140			140			140			140		
bbl Returns	22	150			150			150			150			150		
Water Temp	50															

Notes:

PERFORMED PRESSURE TEST TO 2000 PSI AT 1957, PUMPED 30 BBL WATER WITH DYE IN THE 2ND 10 AT 1959, MIXED AND PUMPED 505 SKS AT 14.2,
134 BBL AT 2007, SHUT DOWN AT 2036, STARTED DISPLACEMENT AT 2039, PLUG LANDED AT 420 PSI AT 2104 AND PRESSURED UP TO 1430 PSI
FOR 2 MINUTES AND RELEASED, CHECKED FLOATS AND GOT .5 BBL BACK, REPRESSURED UP TO 1000 PSI FOR 2 MINUTES AND RELEASED.

X

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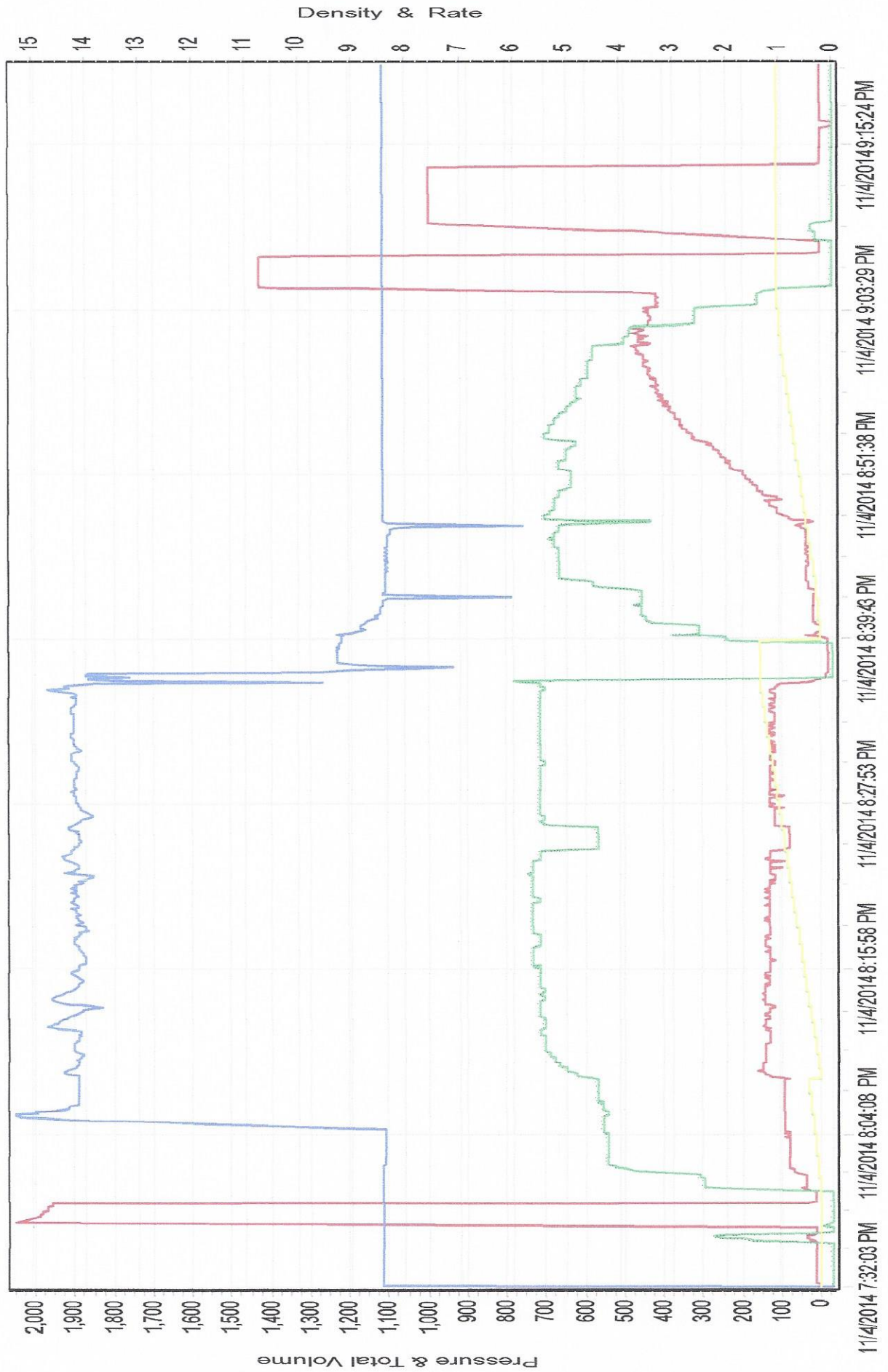
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Work Prepared

Title

Date

BUFFALO 13C-15HZ SURFACE





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