



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 10/5/2014
 Invoice # 25062
 API# 05-123-40169
 Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
Well Name: Summit 28C-29HZ

County: Weld
 State: Colorado
 Sec: 29
 Twp: 2N
 Range: 65W

Consultant: Allen
 Rig Name & Number: Major 42
 Distance To Location: 18 Miles
 Units On Location: 4023-3104/3105-3210
 Time Requested: 430pm
 Time Arrived On Location: 300pm
 Time Left Location: _____

WELL DATA

Casing Size OD (in) : 9.625
 Casing Weight (lb) : 36.00
 Casing Depth (ft.) : 1,094
 Total Depth (ft) : 1110
 Open Hole Diameter (in.) : 13.50
 Conductor Length (ft) : _____
 Conductor ID : _____
 Shoe Joint Length (ft) : 39
 Landing Joint (ft) : 8
 Max Rate: 7
 Max Pressure: 2500

Cement Data

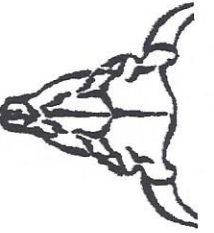
Cement Name: BFN III
 Cement Density (lb/gal) : 14.2
 Cement Yield (cuft) : 1.49
 Gallons Per Sack: 7.48
 % Excess: 16%
 Displacement Fluid lb/gal: 8.3
 BBL to Pit: _____
 Fluid Ahead (bbls): 30.0
 H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

30bbls H2O+Dye in 2nd 10bbls

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results		Displacement:	82.19 bbls
cuft of Shoe	16.95 cuft	<small>(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)</small>	
<small>(Casing ID Squared) X (.005454) X (Shoe Joint ft)</small>		Pressure of cement in annulus	
cuft of Conductor	0.00 cuft	Hydrostatic Pressure:	807.18 PSI
<small>(Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)</small>		Pressure of the fluids inside casing	
cuft of Casing	619.25 cuft	Displacement:	454.95 psi
<small>(Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)</small>		Shoe Joint:	28.81 psi
Total Slurry Volume	636.20 cuft	Total	483.76 psi
<small>(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)</small>		Differential Pressure:	323.42 psi
bbls of Slurry	113.31 bbls	Collapse PSI:	2020.00 psi
<small>(Total Slurry Volume) X (.1781)</small>		Burst PSI:	3520.00 psi
Sacks Needed	427 sk	Total Water Needed:	208.23 bbls
<small>(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)</small>			
Mix Water	76.04 bbls		
<small>(Sacks Needed) X (Gallons Per Sack) ÷ 42</small>			

Authorization To Proceed



BISON UII well Cementing
Single Cement Surface Pipe

Customer
 Well Name

Anadarko Petroleum Corporation
 Summit 28C-29HZ

INVOICE #
 LOCATION
 FOREMAN
 Date

250b2
 Weld
 Calvin Reimers
 10/5/2014

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	507pm														
MIRU	520pm														
CIRCULATE	600pm														
Drop Plug															
624pm															
M & P															
Time	Sacks														
605pm	427	70	638pm	360	70	70	70	60	60	70	70	60	60	70	70
622pm		80	641pm	310	80	80	80	80	80	80	80	80	80	80	80
		90	643pm	310	90	90	90	90	90	90	90	90	90	90	90
		100	Bump	1310	100	100	100	100	100	100	100	100	100	100	100
		110	Bump	1010	110	110	110	110	110	110	110	110	110	110	110
		120			120	120	120	120	120	120	120	120	120	120	120
% Excess	16%	120			130	130	130	130	130	130	130	130	130	130	130
Mixed bbls	76.04	130			140	140	140	140	140	140	140	140	140	140	140
Total Sacks	427	140			150	150	150	150	150	150	150	150	150	150	150
bbl Returns	24	150													
Water Temp	66.6														

Notes:

The day

1/2 bbl back on bleed off

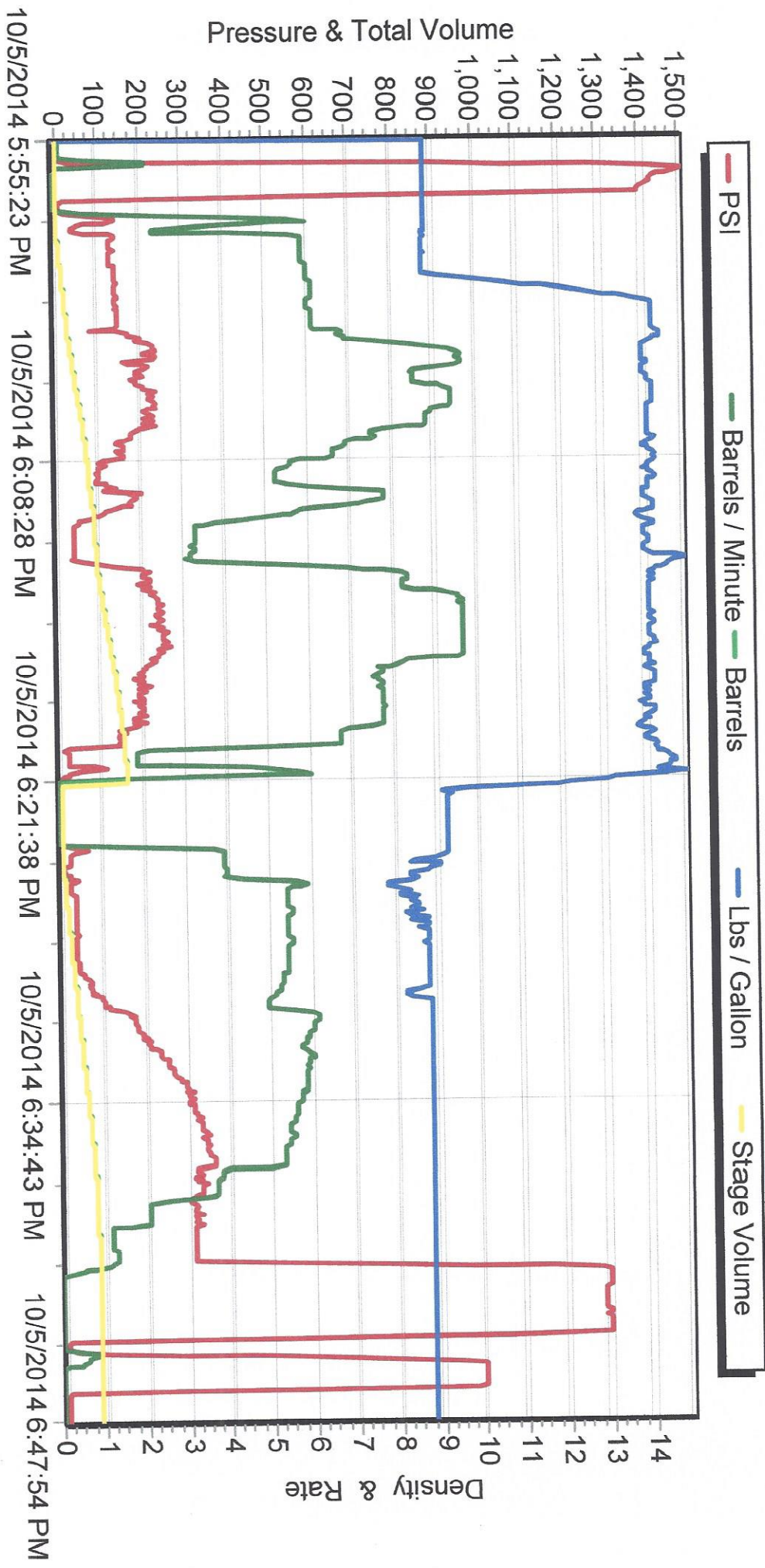
X *Alan Sears*

X Title

X Date

Work Performed

SERIES 2000



Release and Indemnification

Customer acknowledges and assumes the risks associated with oil well drilling, cementing and acidizing, including, without limitation, destabilization, loss of production, contamination, fracturing and loss of well control. Customer agrees to release Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from any and all liability for any and all damages whatsoever to property of any kind owned by, in the possession of, or leased by customer and those persons or entities customer has the ability to bind by contract. Customer also agrees to indemnify and hold harmless Bison Oil Well Cementing, Inc., Bison Energy Services, Inc., its agents, employees and assigns, from and against any and all liability, claims, costs, expenses, attorneys fees and damages whatsoever for claims, costs, expenses, attorneys fees and damages whatsoever for personal injury, illness, death, property damage and loss resulting from: loss or reduction of production, destabilization loss of oil well control, failure of or contamination by acid stimulation, hydraulic fracturing, cementing, pumping services, incompatible fluid or other processes to stimulate, complete or end production, and/or any other condition. Customer's release, indemnity and hold harmless obligation shall apply even if the liability and claims are caused by the sole, concurrent, active or passive negligence, fault, or strict liability of Bison Oil Well Cementing, Inc. and/or Bison Energy Services, Inc. or any defect in the data, products, supplies, materials or equipment furnished by Bison Oil Well Cementing, Inc. whether in the design, manufacturing, maintenance, or marketing thereof or from failure to warn of such defect. In the event that any portion of this release and indemnity is found by a court of competent jurisdiction to be inoperable or unenforceable, the remaining portions and provisions shall apply, and customer agrees that the contract price herein shall be the limit of Bison Oil Well Cementing, Inc.'s liability, if any.