



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 11/14/2014
 Invoice #: 25085
 API#: 05-123-38907
 Foreman: Calvin Reimers

Customer: Anadarko Petroleum Corporation
 Well Name: Barclay 26N-11HZ

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

Consultant: Ellis
 Rig Name & Number: Major 29
 Distance To Location: 18 Miles
 Units On Location: 4023-3104/4024-3203
 Time Requested: 1200am
 Time Arrived On Location: 1030pm
 Time Left Location: 3:30am

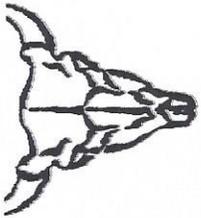
WELL DATA	
Casing Size OD (in) :	9.625
Casing Weight (lb) :	36.00
Casing Depth (ft.) :	1,332
Total Depth (ft) :	1348
Open Hole Diameter (in.) :	13.50
Conductor Length (ft) :	
Conductor ID :	
Shoe Joint Length (ft) :	39
Landing Joint (ft) :	8
Max Rate:	7
Max Pressure:	2500

Cement Data	
Cement Name:	BFN III
Cement Density (lb/gal) :	14.2
Cement Yield (cuft) :	1.49
Gallons Per Sack:	7.48
% Excess:	26%
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

Calculated Results	Displacement: 100.57 bbls
cuft of Shoe 17.14 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 0.00 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	
cuft of Casing 820.18 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of cement in annulus Hydrostatic Pressure: 982.93 PSI
Total Slurry Volume 837.31 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing Displacement: 557.49 psi Shoe Joint: 29.12 psi Total 586.62 psi
bbls of Slurry 149.13 bbls (Total Slurry Volume) X (.1781)	
Sacks Needed 562 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Differential Pressure: 396.31 psi
Mix Water 100.08 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Collapse PSI: 2020.00 psi Burst PSI: 3520.00 psi
	Total Water Needed: 250.65 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.



WISCONSIN OIL WELL SERVICES

Single Cement Surface Pipe

Customer
Well Name

Anadaiko Petroleum Corporation
Barclay 26N-11HZ

LOCATION
FOREMAN
Date

Weld
Calvin Reimers
11/14/2014

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	116am														
MIRU	1230am														
CIRCULATE	148am														
Drop Plug															
	217am														
M & P															
Time															
		sacks													
154am		540													
214am															
% Excess			26%												
Mixed bbls			100.08												
Total Sacks			562												
bbl Returns			20												
Water Temp			68.6												

Notes:

The day

1/2 bbl back on bleed off

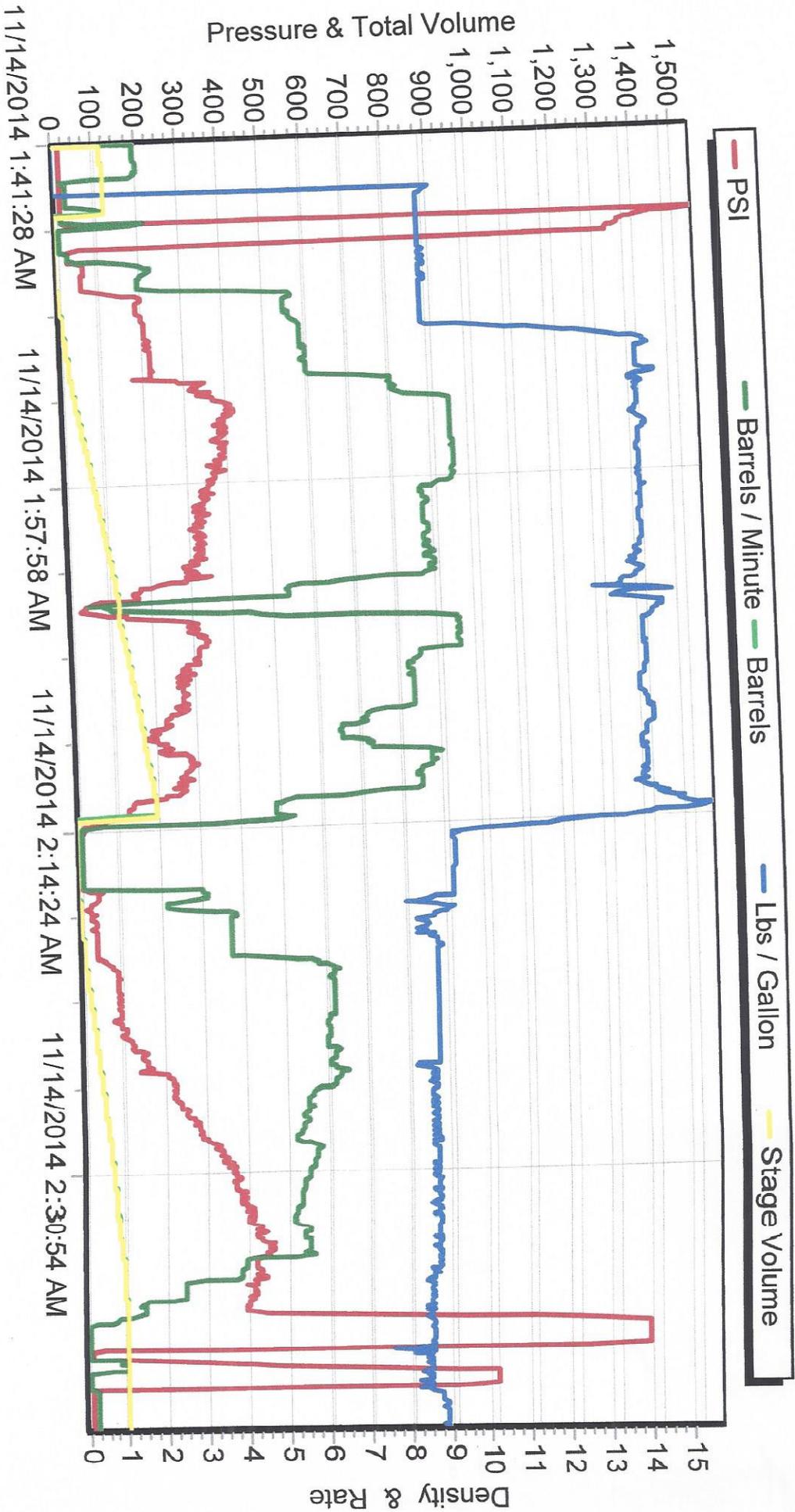
X *Edith D...* *11/14/2014*

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.