



Bison Oil Well Cementing

Customer: NOBLE

Well Name: SULLIVAN USX AD 17-13

County: Weld
State: Colorado

Sec: 17
Twp: 7N
Range: 62W

Consultant: PETE
Rig Name & Number: LEED 714
Distance To Location: 37
Units On Location: 3
Time Requested: 1300
Time Arrived On Location: 1130
Time Left Location: 1530

Invoice # 80126
API# 05-123-26044
Foreman: JASON

ANNULAR FILL

Well Data

Density lb/gal	15.8	
Yield	1.15	
H2O gal/sk	5	
Pipe Size		
Pipe Weight		
Pipe Depth	1160	
Open Hole Diameter	10	
Top of Plug	0	
Bottom of Plug	1160	
Open Hole Total Depth	644	
Height of Plug	549	ft
ID	1.995	
Annulus	0.0775	bbl
Height of Cement In Annulus		ft
Height of Cement in String	1160.000	ft
OH Coverage	644	ft
bbls of Spacer Ahead	10	bbls
	129.03	ft

Note

-Minimum of 3bbls 350 ft Spacer Ahead Cement

Mud displacement 0.0000 bbls

Mud Displacement ft 0.0000 ft

(Total length of workstring) - (length of cement in workstring) - (length of spacer inside drill pipe)

(Drill Pipe Depth) X (ID of workstring squared) X .0009714 = bbls of mud displacement

X

Authorized To Proceed

Total bbls of Slurry	65.5000 bbls
.005454 X (diameter) squared of open hole X Length of Plug	
Workstring:	ft3/ft
ID Squared X .005454	
Annulus:	0.5454 ft3/ft
0.0775 bbl	
(Open Hole Diameter Squared - Casing Size Squared) X .005454	
Height of Plug in WS	ft3
ft3 of Slurry / WS + AV	
Sacks Needed:	320.0000 sk
cuft of Slurry/Cement Yield	
bbls Mix Water	38.0000 bbls
(H2O X SKs)/42 gal	
Gal/sk Mix Water	1599.0000 gal/sk
bbls X 42 gal	
Spacer Ahead Cement:	10.0000 bbls
	129.032 ft
Spacer Behind Cement:	0.5000 bbls
	1089.000 ft
bbls spacer behind cement	
Drill Pipe Size Squared X .0009714 X ft of Spacer Ahead	



**Bison Oil Well Cementing
Single Cement**

Customer
Well Name

Noble Energy Inc.
SULLIVAN USX AD 17-13

INVOICE #
LOCATION
FOREMAN
Date

80126
Weld
JASON KELEHER
4/16/2015

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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	1320															
MIRU	1130															
CIRCULATE	1335	0	1425	1110	0			0			0			0		
Drop Plug		10	1426	1150	10			10			10			10		
		20			20			20			20			20		
		30			30			30			30			30		
		40			40			40			40			40		
M & P		50			50			50			50			50		
Time	Sacks	60			60			60			60			60		
1342-1425	320	70			70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	0%	120			120			120			120			120		
Mixed bbls	38	130			130			130			130			130		
Total Sacks	320	140			140			140			140			140		
bbl Returns		150			150			150			150			150		
Water Temp	45															

Notes:

PERFORMED PRESSURE TEST TO 2000 PSI AT 1328, PUMPED 10 BBL WATER W/ DYE AT 1335, MIXED AND PUMPED 320 SKS AT 15.8, 65.5 BBL AT 1217,
DISPLACED .5 BBL AT 1425, SHUT DOWN AT 1426

X
Work Performed

X
Title

X
Date