

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3630438	Quote #:	Sales Order #: 0903470075
Customer: NOBLE ENERGY INC - EBUS		Customer Rep: Charles Collver	
Well Name: REAGAN		Well #: LD06-685	API/UWI #: 05-123-40818-00
Field: WILDCAT	City (SAP): RAYMER	County/Parish: WELD	State: COLORADO
Legal Description: NE NE-5-9N-58W-660FNL-330FEL			
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 517	
Job BOM: 7523			
Well Type: HORIZONTAL OIL			
Sales Person: HALAMERICA\HB61755		Srvc Supervisor: Vaughn Oteri	

Job

Formation Name			
Formation Depth (MD)	Top		Bottom
Form Type			BHST 230 degF
Job depth MD	16320ft		Job Depth TVD
Water Depth			Wk Ht Above Floor
Perforation Depth (MD)	From		To

Well Data

Description	New / Used	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Casing		9.625	8.921	36			0	1932	0	1932
Casing		5.5	4.778	20			0	16310	0	5117
Open Hole Section			8.5				1932	16320	1932	5117

Tools and Accessories

Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make
Guide Shoe	5.5				Top Plug	5.5	1	HES
Float Shoe	5.5			16310	Bottom Plug	5.5	2	HES
Float Collar	5.5			16264	SSR plug set	5.5		
Insert Float	5.5				Plug Container	5.5		
Stage Tool	5.5				Centralizers	5.5		

Fluid Data

Stage/Plug #: 1										
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
1	11 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11	4.72		6		

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft3/sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	11 lb/gal Tuned Spacer III	Tuned Spacer III	40	bbl	11	4.72		6	
Fluid # Stage Type Fluid Name Qty Qty UoM Mixing Density lbm/gal Yield ft3/sack Mix Fluid Gal Rate bbl/min Total Mix Fluid Gal									
3	Elasticem w/o CBL	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.57		8	7.53
7.53 Gal		FRESH WATER							
Fluid # Stage Type Fluid Name Qty Qty UoM Mixing Density lbm/gal Yield ft3/sack Mix Fluid Gal Rate bbl/min Total Mix Fluid Gal									
4	ElastiCem W/ CBL	ELASTICEM (TM) SYSTEM	486	sack	13.2	1.6		8	7.69
7.69 Gal		FRESH WATER							
Fluid # Stage Type Fluid Name Qty Qty UoM Mixing Density lbm/gal Yield ft3/sack Mix Fluid Gal Rate bbl/min Total Mix Fluid Gal									
5	EconoCem	ECONOCEM (TM) SYSTEM	1428	sack	13.5	1.68		8	7.98
Fluid # Stage Type Fluid Name Qty Qty UoM Mixing Density lbm/gal Yield ft3/sack Mix Fluid Gal Rate bbl/min Total Mix Fluid Gal									
6	Displacement	Displacement	359	bbl	8.33			10	
Cement Left In Pipe Amount 42 ft Reason Shoe Joint									
Comment No spacer back to surface									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comments
Event	1	Call Out	Call Out	8/17/2016	21:30:00	USER	Call out from Arc Hub
Event	2	Arrive At Loc	Arrive At Loc	8/18/2016	02:00:00	USER	Requested on location @0330 Arrived on location @0200 Met with company rep to discuss job process and concerns advised that we were early they still had 2000 feet of pipe to run in
Event	3	Other	Other	8/18/2016	02:10:20	USER	TD-16320 TP-16310 FC-16264 OH-8.5 Casing - 5.5 20# Surf set at1932 mud 9.8ppg
Event	4	Start Job	Start Job	8/18/2016	07:39:00	COM4	Held pre-job safety meeting with all hands on loction to discuss job process and hazards
Event	5	Test Lines	Test Lines	8/18/2016	07:41:35	COM4	Pressure tested pumps and lines with fresh water 4690psi
Event	6	Test Lines	Test Lines	8/18/2016	07:45:20	COM4	Pressure tested to the rigs IBOP 3320psi
Event	7	Drop Bottom Plug	Drop Bottom Plug	8/18/2016	07:46:00	USER	Released plug witnessed by company rep
Event	8	Check Weight	Check weight	8/18/2016	07:51:26	COM4	Confrim weight of 11.0ppg on scales
Event	9	Pump Spacer 1	Pump Spacer 1	8/18/2016	07:59:25	COM4	Mixed 40bbl of 11.0ppg tuned spacer with surfactants,Mixed 40bbl of 11.0ppg Tuned spacer III with out surfactants at 6.0bpm 500psi
Event	10	Drop Bottom Plug	Drop Bottom Plug	8/18/2016	08:19:00	USER	Released plug witnessed by company rep
Event	11	Pump Cement	Pump Cement	8/18/2016	08:23:00	USER	Mixed 150sks or 42bbl of 13.2ppg y-1.57 g/sk-7.53 Elasticem w/oCBL at 8.0bpm 542psi

Event	12	Pump Cement	Pump Cement	8/18/2016	08:35:00	USER	Mixed 486sk or 138bbl of 13.2ppg y-1.6 g/sk7.69 Elasticem with CBL at 8.0bpm 542psi
Event	13	Pump Cement	Pump Cement	8/18/2016	08:53:00	USER	Mixed 1428sk or 427bbl of 13.5bbl y-1.68 g/sk7.98 of Econocem at 8.0bpm 499psi
Event	14	Shutdown	Slowed rate	8/18/2016	09:25:00	USER	Slowed rate due to Water screens Plugged up with salamanders
Event	15	Other	Slowed rate	8/18/2016	09:35:00	USER	Slowed rate due to Water screens Plugged up with salamanders
Event	16	Shutdown	Shutdown	8/18/2016	09:54:00	USER	Shut down so that rig can blow lines clean
Event	17	Clean Lines	Clean Lines	8/18/2016	09:54:01	USER	Washed pumps and lines with fresh water
Event	18	Drop Top Plug	Drop Top Plug	8/18/2016	09:55:00	USER	Released plug witnessed by company rep
Event	19	Bump Plug	Bump Plug	8/18/2016	10:48:00	USER	Bumped plug 500psi over final pump pressure
Event	20	Other	Other	8/18/2016	10:53:00	USER	Released pressure back to pump truck to check floats 4.5bbl back floats held good
Event	21	End Job	End Job	8/18/2016	10:55:00	USER	No spacer back to surface
Event	22	Pump Displacement	Pump Displacement	8/18/2016	11:25:13	USER	Pumped 359bbl of fresh water to displace cement