

## 1.2 Cementing Job Summary

<b>Sold To #:</b> 345242		<b>Ship To #:</b> 3544144		<b>Quote #:</b>		<b>Sales Order #:</b> 0902001493				
<b>Customer:</b> NOBLE ENERGY INC E-BUSINESS				<b>Customer Rep:</b> Shane Heard						
<b>Well Name:</b> UPCHURCH STATE			<b>Well #:</b> LD02-77-1BHN		<b>API/UWI #:</b> 05-123-39817-00					
<b>Field:</b> WILDCAT		<b>City (SAP):</b> RAYMER		<b>County/Parish:</b> WELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> SE SW-2-9N-58W-615FSL-1567FWL										
<b>Contractor:</b> H & P DRLG				<b>Rig/Platform Name/Num:</b> H & P 326						
<b>Job BOM:</b> 7525										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HB21661				<b>Srv Supervisor:</b> Devin Birchell						
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>						
<b>Form Type</b>				<b>BHST</b>		240 degF				
<b>Job depth MD</b>		9682ft		<b>Job Depth TVD</b>						
<b>Water Depth</b>				<b>Wk Ht Above Floor</b>						
<b>Perforation Depth (MD)</b>				<b>To</b>						
<b>Well Data</b>										
	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Drill Pipe	3	4	3.34	14	BTC	P-110	0	6535	0	6465
Casing	3	7	6.276	26	BTC	P-110	0	7035	0	6465
Casing	3	4.5	4	11.6	BTC	P-110	6535	9689	6465	6496
Open Hole Section			6.125		BTC		7035	9689	6621	6496
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
Guide Shoe	4.5	1		9689		Top Plug	4.5	1	HES	
Float Shoe	4.5	1				Bottom Plug	4.5	1	HES	
Float Collar	4.5	1				SSR plug set	4.5	1	HES	
Insert Float	4.5	1				Plug Container	4.5	1	HES	
	4.5	1				Centralizers	4.5	1	HES	

## Fluid Data

## Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
1	Water Based Mud-10 #/gal		0	bbl	10			6	

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	11.5 lb/gal Tuned Spacer III	Tuned Spacer III	60	bbl	11.5	3.86	24.8	6	
145.18 lbm/bbl		31)							
36 gal/bbl									

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	Lead Cement no Super CBL	EXPANDACEM (TM) SYSTEM	100	sack	13.8	1.65		6	7.57
7.57 Gal									

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	Tail with Super CBL	EXPANDACEM (TM) SYSTEM	216	sack	13.8	1.65		6	7.58
7.58 Gal									

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
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5	Water	Water	114	bbl	8.33			6	
		Amount	42 ft						
Comment									

**1.6 Job Event Log**

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Truck 1 Pr (psi)	Truck 1 Dens (ppg)	Truck 1 Slry Rt (bbl/min)	Comment
Event	1	Call Out	Call Out	1/3/2015	03:30:45	USER				called cement crew out for noble energy upchurch state Id02-771bhn
Event	2	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/3/2015	06:50:12	USER				discussed route weather fallowing distance and other traffic
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	1/3/2015	07:00:42	USER				called journey and departed for location
Event	4	Arrive At Loc	Arrive At Loc	1/3/2015	09:00:52	USER				ended journey and talked to company rep and tool hand on rates pressures volumes depths
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	1/3/2015	09:20:14	USER				discussed spotting equipment swing path team lifting
Event	6	Rig-Up Equipment	Rig-Up Equipment	1/3/2015	09:30:21	USER				spot pump and rig up hoses and iron to red zone
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	1/3/2015	11:15:42	USER				discussed job procedures with rig and cement crews
Event	8	Rig-Up Completed	Rig-Up Completed	1/3/2015	13:45:25	USER	17.00	0.44	0.00	rigged up weatherfords cement head and tied in stand pipe
Event	9	Prime Pumps	Prime Pumps	1/3/2015	14:02:45	USER	25.00	8.32	1.00	primed pump and lines ready for pressure test
Event	10	Test Lines	Test Lines	1/3/2015	14:08:45	COM1	1303.00	8.36	0.00	test pump and lines to 4989 psi
Event	11	Pump Spacer 1	Pump Spacer 1	1/3/2015	14:21:03	COM1	21.00	8.33	0.00	pump 60 bbls tuned spacer III @ 11.5 ppg
Event	12	Pump Lead Cement	Pump Lead Cement	1/3/2015	14:34:53	USER	78.00	11.27	2.10	pump 29 bbls(100 sks) lead @ 13.8 ppg t:1.65 ft3/sk w: 7.57 gal/sk
Event	13	Pump Tail Cement	Pump Tail Cement	1/3/2015	14:42:55	COM1	327.00	13.85	4.50	pump 63 bbls(260 sks) lead @ 13.8 ppg t:1.65 ft3/sk w: 7.57 gal/sk

Event	14	Clean Lines	Clean Lines	1/3/2015	15:01:11	USER	22.00	12.85	0.00	clean pump and lines to haul off pit before dropping plug
Event	15	Drop Plug	Drop Plug	1/3/2015	15:05:42	USER	27.00	2.62	1.60	weatherford tool hand dropped plug
Event	16	Pump Displacement	Pump Displacement	1/3/2015	15:07:24	COM1	49.00	7.57	1.10	pump 10 bbls mmcr water and 104 bbls fresh water
Event	17	Bump Plug	Bump Plug	1/3/2015	15:36:23	COM1	1519.00	8.23	2.00	pump plug with 1468 psi and took pressure to 2415 psi
Event	18	Check Floats	Check Floats	1/3/2015	15:45:12	USER	567.00	8.23	0.00	checked floats, floats held with 1 bbl back to truck
Event	19	Set Tool	Set Tool	1/3/2015	15:45:13	USER	511.00	8.22	0.00	rig and tool hand do a push pull test and try to set liner
Event	20	Other	Other	1/3/2015	15:45:14	USER	423.00	8.23	0.00	rig and tool hand try to set liner and liner does not want to set
Event	21	Circulate Well	Circulate Well	1/3/2015	16:30:12	USER	39.00	8.25	0.00	liner would not set so rig will circulate cement off liner
Event	22	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	1/3/2015	16:40:14	USER	71.00	8.27	0.00	discuss swing path pinch points team lifting and hand placement
Event	23	Rig-Down Equipment	Rig-Down Equipment	1/3/2015	16:45:12	USER	73.00	8.26	0.00	rig down all iron and hoses
Event	24	Rig-Down Completed	Rig-Down Completed	1/3/2015	17:40:12	USER				walk around to ensure everything is properly put away
Event	25	Pre-Convoy Safety Meeting	Pre-Convoy Safety Meeting	1/3/2015	17:50:12	USER				discussed route weather fallowing distance and other traffic
Event	26	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	1/3/2015	18:00:12	USER				thank you for using halliburton energy services