

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 300466	Ship To #: 3747996	Quote #: 0022301871	Sales Order #: 0904016384							
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: Carlton Cooley								
Well Name: CAMENISCH	Well #: 29N-35HZ	API/UWI #: 05-123-43342-00								
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO							
Legal Description: SW SW-2-1N-67W-425FSL-854FWL										
Contractor: NABORS DRLG		Rig/Platform Name/Num: NABORS X22								
Job BOM: 7523 7523										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA/HX41066		Srv Supervisor: Steven Markovich								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type		BHST								
Job depth MD	13975ft	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		J-55	0	1874	0	1874
Casing		5.5	4.892	17	LTC	HCP110	0	13968	0	7454
Open Hole Section			8.5				1874	13975	0	7454
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	5.5			13968		Top Plug	5.5		HES	
Float Shoe	5.5					Bottom Plug	5.5		HES	
Float Collar	5.5					SSR plug set	5.5		HES	
Insert Float	5.5					Plug Container	5.5		HES	
Stage Tool	5.5					Centralizers	5.5		HES	
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	Tuned Spacer III	Tuned Spacer III	80	bbl	10.5	6.25				
88.91 lbm/bbl		BARITE, BULK (100003681)								
0.50 gal/bbl		MUSOL(R) A, BULK (100003696)								
37.58 gal/bbl		FRESH WATER								
0.50 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								
0.3750 lbm/bbl		TUF FIBER 594, 15 LB BOX (101350514)								

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Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
2	ElastiCem - Cap Cement	ELASTICEM (TM) SYSTEM	150	sack	13.2	1.573		8	7.51
	13.20 Gal	FRESH WATER							
	0.90 %	SCR-100 (100003749)							
	0.10 lbm	TUF FIBER 594, 15 LB BOX (101350514)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
3	ElastiCem	ELASTICEM (TM) SYSTEM	545	sack	13.2	1.571		8	7.53
	0.40 %	SCR-100 (100003749)							
	13.20 Gal	FRESH WATER							
	0.10 %	SUPER CBL, 50 LB PAIL (100003668)							
	0.10 lbm	TUF FIBER 594, 15 LB BOX (101350514)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
4	EconoCem	ECONOCER (TM) SYSTEM	1140	sack	13.5	1.68		8	7.98
	13.50 Gal	FRESH WATER							
	0.40 %	HR-5, 50 LB SK (100005050)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
5	Biocide Water and MMCR	Biocide Water and MMCR	20	bbl	8.34				
	0.50 gal/bbl	MICRO MATRIX CEMENT RETARDER, 5 GAL PAIL (100003781)							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal
6	Biocide Water	Biocide Water	302	bbl	8.34				
Comment Estimated Top of Tail cement 5661' Estimated Top of Lead cement 12140' Estimated Top of Cap Cement 13015'. Spacer to surface at 277bbls away giving us 45bbls of spacer to surface.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	DS Pump Press (psi)	Comb Pump Rate (bbl/min)	Comments
Event	1	Start Job	Start Job	5/8/2017	21:43:46	COM4	8.38	1.00	0.00	TD 13975' TP 13968' FC 13876' 5 1/2 17# CSG 8 1/2 OPH 9 5/8 36# SURF CSG 1874' Estimated Top of Tail cement 5661' Estimated top of Lead cement 12140' Estimated top of Cap cement 13015'
Event	2	Test Lines	Test Lines	5/8/2017	21:48:12	COM4	8.34	1408.00	0.00	500psi kick out test then bring up to 4000psi and hold for 3 mins
Event	3	Pump Spacer 1	Pump Spacer 1	5/8/2017	21:51:44	COM4	8.32	34.00	0.00	Pump 80bbls of 10.5ppg 6.25yield Tuned Spacer with 40 gallons dual surf b 40 gallons musol a and 2 boxes tuff fiber. 5bbl/min 317psi.
Event	4	Check Weight	Check Weight	5/8/2017	22:06:31	COM4	10.54	260.00	5.00	Weight verified with pressurized scales
Event	5	Pump Lead Cement	Pump Lead Cement	5/8/2017	22:08:38	COM4	12.60	261.00	5.00	Pump 41.9bbls (150sks) 13.2ppg 1.57yield Cap cement with 1 box of tuff fiber. 5bbl/min 270psi
Event	6	Check Weight	Check Weight	5/8/2017	22:16:24	COM4	13.19	201.00	5.00	Weight verified by pressurized scales
Event	7	Pump Cement	Pump Cement	5/8/2017	22:16:59	COM4	13.27	204.00	5.00	Pump 152.39bbls (545sks) 13.2ppg 1.57 Lead cement with 3 1/3 boxes of tuff fiber. 5bbl/min 267psi
Event	8	Pump Tail Cement	Pump Tail Cement	5/8/2017	22:49:26	COM4	13.32	246.00	5.00	Pump 341bbls (1140sks)

										13.5ppg 1.68yield Tail cement. 5bb/min 390psi
Event	9	Check Weight	Check Weight	5/8/2017	22:50:58	COM4	13.45	295.00	5.00	Weight verified by pressurized scales
Event	10	Shutdown	Shutdown	5/9/2017	00:00:40	USER	13.79	339.00	4.90	Shutdown and clean pumps and lines
Event	11	Drop Top Plug	Drop Top Plug	5/9/2017	00:14:32	COM4	-0.20	0.00	0.00	Plug drop verified by comapny rep
Event	12	Pump Displacement	Pump Displacement	5/9/2017	00:14:36	COM4	-0.20	0.00	0.00	Pump 322bbls. First 20 bbls with MMCR the next 302 with biocide. 8bbl/min until we caught cement at 58 away. Spacer to surface at 277 bringing 45bbls of spacer to surface.
Event	13	Bump Plug	Bump Plug	5/9/2017	01:18:45	COM4	8.36	2371.00	3.00	Pumped plug at 322 away at 2361psi brought pressure to 500 over and held. Then brought pressure up to 3000 psi for casing test
Event	14	Pressure Test	Pressure Test Casing	5/9/2017	01:20:15	USER	8.37	3000.00	0.20	Pressure test casing at 3000psi for 15 mins. Pressure went from 3000psi to 3302 in the 15 min period
Event	15	Check Floats	Check Floats	5/9/2017	01:35:01	USER	8.37	3289.00	0.00	Opened release line to check floats, floats held with 3bbls of water back to the truck.
Event	16	End Job	End Job	5/9/2017	01:36:25	COM4				Thank you Markovich and crew

3.0 Attachments

3.1 Anadarko Camenisch 29-35HZ Production Job Chart.png

