

HALLIBURTON

*Cementing Job Summary**The Road to Excellence Starts with Safety*

Sold To #: 300466	Ship To #: 3751861	Quote #: 0022357125	Sales Order #: 0904351424							
Customer: ANADARKO PETROLEUM CORP-EBUS		Customer Rep: Jackie McInley								
Well Name: WAGNER	Well #: 26C-10HZ	API/UWI #: 05-123-43477-00								
Field: WATTENBERG	City (SAP): IONE	County/Parish: WELD	State: COLORADO							
Legal Description: SE NE-22-1N-67W-1654FNL-761FEL										
Contractor: PRECISION DRLG		Rig/Platform Name/Num: PRECISION 464								
Job BOM: 7525 7525										
Well Type: HORIZONTAL GAS										
Sales Person: HALAMERICA\HX41066		Srv Supervisor: Nicholas Roles								
Job										
Formation Name										
Formation Depth (MD)	Top	Bottom								
Form Type	BHST									
Job depth MD	14669ft	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
Drill Pipe		4	3.34	14			0	5754	0	5754
Casing		7	6.276	26	LTC	HCP110	0	5951	0	5951
Casing		4.5	4	11.6	LTC	HCP110	5754	14669	5754	7560
Open Hole Section			6.125				5951	14674	5951	7560
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft		Type	Size in	Qty	Make	
Guide Shoe	4.5					Top Plug	4.5		HES	
Float Shoe	4.5			14669		Bottom Plug	4.5		HES	
Float Collar	4.5					SSR plug set	4.5		HES	
Insert Float	4.5					Plug Container	4.5		HES	
Stage Tool	4.5					Centralizers	4.5		HES	
Fluid Data										
Stage/Plug #: 1										
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	
1	Tuned Spacer III	Tuned Spacer III	60	bbl	10.5	6.25		4		
0.70 gal/bbl		MUSOL A, 330 GAL TOTE - (790828)								
88.91 lbm/bbl		BARITE, BULK (100003681)								
37.58 gal/bbl		FRESH WATER								
0.70 gal/bbl		DUAL SPACER SURFACTANT B, 5 GAL PAIL (100003665)								
0.25 gal/bbl		D-AIR 3000L, 5 GAL PAIL (101007444)								

iCem® Service

(v. 4.4.18)

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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	EconoCem	ECONOCER (TM) SYSTEM	535	sack	13.5	1.68		4	7.98
7.99 Gal		FRESH WATER							
0.45 %		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
3	Displacement Fluid	Displacement Fluid	193	bbl	8.34			4	
Cement Left In Pipe Amount 45 ft Reason Shoe Joint									
Comment Got 5bbls cement to surface. Once clean, pumped additional 15bbls fresh water.									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	10/8/2017	19:00:00	USER				Called out by Service Coordinator for O/L at 0000
Event	2	Depart Yard Safety Meeting	Depart Yard Safety Meeting	10/8/2017	22:45:00	USER				Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	3	Depart from Service Center or Other Site	Depart from Service Center or Other Site	10/8/2017	23:00:00	USER				Journey Management prior to departure
Event	4	Arrive at Location from Service Center	Arrive at Location from Service Center	10/8/2017	23:30:00	USER				Upon arrival met with company man to discuss job details and calculations, performed hazard hunt and site assessment.
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	10/8/2017	23:45:00	USER				Discussed rigging up hazards and procedure according to HMS.
Event	6	Other	Other	10/9/2017	00:30:00	USER				Water test- PH-6, Chlor-0, Temp-65. Cement temp-70.
Event	7	Pre-Job Safety Meeting	Pre-Job Safety Meeting	10/9/2017	03:00:00	USER	0.07	0.00	-209.00	Held safety meeting with all job associated personnel to discuss job procedure, hazards and stop work authority. Rig circulated 3bottoms up and still had 1000+ units gas before job. Decided to cement through choke. Did see flair throughout job.

Event	8	Start Job	Start Job	10/9/2017	07:07:21	COM4	8.57	0.00	-209.00	TD-14674' 6.125" OH, TP-14669' 4.5" 11.6#, DP-4318.61' 4" 14#, HW-1435.82' 4" 28#, Inter-7" 26# 5951' FC-14619.84'.
Event	9	Test Lines	Test Lines	10/9/2017	07:12:48	COM4	8.68	0.00	-204.00	Pumped 5bbbls fresh water to fill lines at 2bpm 110psi, shut manifold, and performed 500psi k/o function test, followed with 5th gear stall at 1480psi, proceeded to bring pressure to 5000psi, held well and no leaks.
Event	10	Pump Spacer 1	Pump Spacer 1	10/9/2017	08:01:23	COM4	11.57	0.00	11.00	Pumped 60bbbls of 10.5# 6.25y 40.2g/s Tuned Spacer III with 45g Musol A, 45g Dual Spacer B and 10g D-air at 4bpm 410psi.
Event	11	Check Weight	Check weight	10/9/2017	08:26:52	COM4	10.89	3.50	931.00	Weight verified with pressurized mud scales.
Event	12	Pump Cement	Pump Cement	10/9/2017	08:40:44	COM4	12.33	3.90	983.00	Pumped 535sks or 160bbbls 13.5# 1.68y 7.98g/s Econocem at 4bpm 500psi.
Event	13	Check Weight	Check weight	10/9/2017	08:44:01	COM4	13.52	3.90	1001.00	Weight verified with pressurized mud scales.
Event	14	Check Weight	Check weight	10/9/2017	09:07:16	COM4	13.52	3.90	244.00	Weight verified with pressurized mud scales.
Event	15	Check Weight	Check weight	10/9/2017	09:09:57	COM4	13.44	3.90	236.00	Weight verified with pressurized mud scales.
Event	16	Shutdown	Shutdown	10/9/2017	09:24:46	COM4	13.43	0.00	75.00	Rig blew air through lines to pits, followed with 5bbbls fresh water through pumps.
Event	17	Drop Top Plug	Drop Top Plug	10/9/2017	09:38:16	COM4	8.29	0.00	-2.00	Dropped by Weatherford Tool hand, witnessed by company man and HES

										supervisor.
Event	18	Pump Displacement	Pump Displacement	10/9/2017	09:38:23	COM4	8.29	0.00	-2.00	Pumped 193bbbls fresh water at 4bpm with 10g MMCR in first 20bbbls, 5g biocide throughout.
Event	19	Bump Plug	Bump Plug	10/9/2017	10:28:08	COM4	8.34	0.00	2850.00	Stayed at 4bpm to land plug. Final Circulating-2250 psi, Bump Pressure3000psi. Held pressure for 5min casing test.
Event	20	Check Floats	Check Floats	10/9/2017	10:32:11	USER	8.34	0.00	3014.00	Released pressure and got 2bbbls back. Floats held.
Event	21	Pressure Up Well	Pressure Up Well	10/9/2017	11:01:30	COM4	8.37	0.00	3100.00	Performed backside test for 15min at 3000psi. Started at 3070psi, once complete, had 2960psi on backside.
Event	22	Other	Other	10/9/2017	11:24:55	COM4	8.20	0.00	1.00	Released DP off liner hanger and circulated DP/7" clean with fresh water.
Event	23	End Job	End Job	10/9/2017	11:55:25	COM4				Got 5bbbls cement to surface. Once clean, pumped additional 15bbbls fresh water.
Event	24	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	10/9/2017	11:55:26	USER				Discussed rigging down hazards and procedure according to HMS.
Event	25	Depart Location Safety Meeting	Depart Location Safety Meeting	10/9/2017	11:55:27	USER	8.26	0.00	14.00	Held meeting with all personnel in convoy to discuss directions and hazards associated with drive, all fit to drive.
Event	26	Depart Location for Service Center or Other Site	Depart Location for Service Center or Other Site	10/9/2017	11:55:28	USER	8.26	0.00	14.00	Pre journey management prior to departure.

3.0 Attachments

3.1 Anadarko Wagner 26C-10HZ Production Liner Job Chart

