

HALLIBURTON

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
08/17/2012 21:32		Start Job					
08/17/2012 21:32		Pump Spacer 1	2.5	26		200.0	13.5#/GAL TUNED SPACER
08/17/2012 21:40		Shutdown					SHUTDOWN TO MIX CEMENT
08/17/2012 21:52		Pump Cement	3.5	25		100.0	15.8#/GAL CEMENT, 92SKS, 140.4CUFT, 1.52CUFT/SK, 6.21CUFT/SK, MIXED WITH WATER PROVIDED BY RIG
08/17/2012 22:00		Pump Spacer 1	3.5	2		75.0	13.5#/GAL TUNED SPACER TO BALANCE
08/17/2012 22:01		Pump Displacement	4.5	83		50.0	MUD TO BALANCE
08/17/2012 22:20		Shutdown					SHUTDOWN WAIT ON RIG TO PULL TO NEXT DEPTH FOR PLUG 2
08/18/2012 00:08		Resume					
08/18/2012 00:09		Pump Spacer 1	3	26		275.0	13.5#/GAL TUNED SPACER
08/18/2012 00:21		Shutdown					SHUTDOWN TO MIX CEMENT
08/18/2012 00:27		Pump Cement	4	25		200.0	15.8#/GAL CEMENT, 92SKS, 140.4CUFT, 1.52CUFT/SK, 6.21CUFT/SK, MIXED WITH WATER PROVIDED BY RIG
08/18/2012 00:34		Pump Spacer 1	4	2		200.0	13.5#/GAL TUNED SPACER TO BALANCE
08/18/2012 00:34		Pump Displacement	5.5	70		49.0	MUD TO BALANCE
08/18/2012 00:50		Shutdown					SHUTDOWN WAIT ON RIG TO PULL TO NEXT DEPTH FOR PLUG 3
08/18/2012 02:26		Resume					
08/18/2012 02:27		Pump Spacer 1	3	26		275.0	13.5#/GAL TUNED SPACER
08/18/2012 02:36		Shutdown					SHUTDOWN TO MIX CEMENT
08/18/2012 02:41		Pump Cement	4	25		200.0	15.8#/GAL CEMENT, 92SKS, 140.4CUFT, 1.52CUFT/SK, 6.21CUFT/SK, MIXED WITH WATER PROVIDED BY RIG
08/18/2012 02:53		Pump Spacer 1	4	2		175.0	13.5#/GAL TUNED SPACER TO BALANCE
08/18/2012 02:54		Pump Displacement	5	62		58.0	MUD TO BALANCE
08/18/2012 03:08		Shutdown					SHUTDOWN WAIT ON RIG TO PULL TO NEXT DEPTH FOR PLUG 4
08/18/2012 05:51		Resume					
08/18/2012 05:51		Pump Spacer 1	3	24.5		300.0	13.5#/GAL TUNED SPACER
08/18/2012 05:58		Shutdown					SHUTDOWN TO MIX CEMENT
08/18/2012 06:05		Pump Cement	3.5	41.8		200.0	17.5#/GAL 250SKS, 235CUFT, .94CUFT/SK, 3.33GAL/SK, MIXED WITH WATER PROVIDED BY RIG
08/18/2012 06:21		Pump Spacer 1	3.5	3		125.0	13.5#/GAL TUNED SPACER TO BALANCE
08/18/2012 06:22		Pump Displacement	4.5	55.4		.0	MUD TO BALANCE
08/18/2012 06:34		Shutdown					SHUTDOWN WAIT ON RIG TO PULL TO NEXT DEPTH FOR PLUG 5
08/18/2012 11:32		Resume					
08/18/2012 11:33		Pump Spacer 1	3	12		25.0	PUMP WATER SPACER
08/18/2012 11:37		Pump Cement	3	20.1		20.0	15.8#/GAL, 98SKS, 112.7CUFT, 1.15CUFT/SK, 5GAL/SK, MIXED WITH WATER PROVIDED BY RIG
08/18/2012 11:44		Pump Spacer 1	3	1		20.0	PUMP WATER TO BALANCE
08/18/2012 11:44		Pump Displacement	3	3.2		20.0	MUD TO BALANCE
08/18/2012 11:46		Shutdown					SHUTDOWN WAIT ON RIG TO PULL TO NEXT DEPTH FOR PLUG 6
08/18/2012 14:08		Resume					
08/18/2012 14:09		Pump Cement	2	25		10.0	15.8#/GAL, 122SKS, 140.3CUFT, 1.15CUFT/SK, 5GAL/SK, MIXED WITH WATER PROVIDED BY RIG
08/18/2012 14:18		Other					CEMENT TO SURFACE, 4BBL TO SURFACE
08/18/2012 14:19		End Job					

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The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 2943993	Quote #:	Sales Order #: 9752039
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep:	
Well Name: Walcker		Well #: AC17-09	API/UWI #:
Field: WATTENBERG	City (SAP): EATON	County/Parish: Weld	State: Colorado
Contractor: Ensign		Rig/Platform Name/Num: Ensign 136	
Job Purpose: Plug Service - Whipstock			
Well Type: Development Well		Job Type: Plug Service - Whipstock	
Sales Person: FLING, MATTHEW		Srvc Supervisor: ROSALES, MATTHEW	MBU ID Emp #: 392095

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
CHAVEZ, JEROME Christophe	21.0	458298	HOLLOWAY, DUSTIN Craig	21.0	504032	KUNERT, RANDY Joe	16.0	477850
LANGE, TIMOTHY Paul	16.0	520811	ROSALES, MATTHEW John	21.0	392095	SANSONI, NICHOLAS Sterling J	21.0	502962

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248053C	55 mile	10867419C	55 mile	10867419C	55 mile	11532305	55 mile
11605598	55 mile	11645063	55 mile	11808819	55 mile	11812069C	55 mile
11923776C	55 mile	5707C	55 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

TOTAL Total is the sum of each column separately

Job

Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Called Out	Date	Time	Time Zone
Form Type			BHST	On Location	17 - Aug - 2012	12:00	MST
Job depth MD	8800. ft		Job Depth TVD	Job Started	17 - Aug - 2012	18:00	MST
Water Depth			Wk Ht Above Floor	Job Completed	17 - Aug - 2012	21:30	MST
Perforation Depth (MD)	From	To	3. ft	Job Completed	18 - Aug - 2012	14:19	MST
				Departed Loc	18 - Aug - 2012	15:00	MST

Well Data

Description	New / Used	Max pressure psig	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
Cement Plug									300.		
Cement Plug								600.	850.		
Cement Plug	Unknown							5797.	6300.		
Cement Plug	Unknown							6470.	6770.		
Cement Plug	Unknown							7220.	7520.		
Cement Plug	Unknown							8500.	8800.		
Open Hole				7.875				729.	8930.		
Surface Casing	Used		9.625	8.921	36.		J-55		729.		
Drill Pipe	New		4.	4.	14.37				8140.		
Description	New / Used	Max pressure	Size in	ID in	Weight lbm/ft	Thread	Grade	Top MD ft	Bottom MD ft	Top TVD ft	Bottom TVD ft
2 7/8" Stinger	Unknown		2.875	2.441	6.5			8141.	8800.		

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Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug			
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container			
Stage Tool										Centralizers			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	26.00	bbl	13.5	8.43	55.95	.0	
	37.58 gal/bbl	FRESH WATER							
	87.7 lbm/bbl	BARITE, 100 LB SK (100003680)							
2	PLUGCEM 15.8#	PLUGCEM (TM) SYSTEM (452969)	92.0	sacks	15.8	1.52	6.21		6.21
	6.209 Gal	FRESH WATER							
3	TUNED SPACER III	TUNED SPACER III - SBM (483826)	2.00	bbl	13.5	8.43	55.95	.0	
	37.58 gal/bbl	FRESH WATER							
	87.7 lbm/bbl	BARITE, 100 LB SK (100003680)							

Stage/Plug #: 2

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	TUNED SPACER III		26.00	bbl	13.5	9.7	72.54	.0	
2	PLUGCEM 15.8#	PLUGCEM (TM) SYSTEM (452969)	92.0	sacks	15.8	1.52	6.21		6.21
	6.209 Gal	FRESH WATER							
3	TUNED SPACER III		2.00	bbl	9.7	72.54	.0	.0	

Stage/Plug #: 3

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	TUNED SPACER III		26.00	bbl	9.7	72.54	.0	.0	

Stage/Plug #: 3

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
2	PLUGCEM 15.8#	PLUGCEM (TM) SYSTEM (452969)	92.0	sacks	15.8	1.52	6.21		6.21

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft3/sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
	6.209 Gal	FRESH WATER							
3	TUNED SPACER III		2.00	bbl	13.5	9.7	72.54	.0	

Stage/Plug #: 4

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Stage/Plug #: 3									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	TUNED SPACER III		25.00	bbl	13.5	9.7	72.54	.0	
2	PLUGCEM 17.5#	PLUGCEM (TM) SYSTEM (452969)	250.0	sacks	17.5	.94	3.33		3.33
3.325 Gal		FRESH WATER							
3	TUNED SPACER III		3.00	bbl	13.5	9.7	72.54	.0	
Stage/Plug #: 5									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	15.8# Cement	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	98.0	sacks	15.8	1.15	4.99		4.99
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
4.989 Gal		FRESH WATER							
Stage/Plug #: 6									
Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom
1	15.8# Cement	CMT - PREMIUM - CLASS G, 94 LB SK (100003685)	122.0	sacks	15.8	1.15	4.99		4.99
94 lbm		CMT - PREMIUM - CLASS G REG OR TYPE V, BULK (100003685)							
4.989 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement		Shut In: Instant		Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min		Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min		Spacers		Load and Breakdown		Total Job	
Rates									
Circulating		Mixing		Displacement		Avg. Job			
Cement Left In Pipe		Amount	0 ft	Reason	Shoe Joint				
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID		
The Information Stated Herein Is Correct				Customer Representative Signature					