

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 345242	Ship To #: 3684182	Quote #:	Sales Order #: 0903006056							
Customer: NOBLE ENERGY INC E-BUSINESS		Customer Rep: S. NIELSEN								
Well Name: WELLS RANCH	Well #: BB01-649	API/UWI #: 05-123-41972-00								
Field: WATTENBERG	City (SAP): KERSEY	County/Parish: WELD	State: COLORADO							
Legal Description: NW SW-5-5N-62W-2056FSL-426FWL										
Contractor: H & P DRLG		Rig/Platform Name/Num: H & P 321								
Job BOM: 7521										
Well Type: HORIZONTAL OIL										
Sales Person: HALAMERICA\HB45834		Srvc Supervisor: Joseph Scileppi								
Job										
Formation Name										
Formation Depth (MD)	Top	0	Bottom 1861							
Form Type			BHST 128 degF							
Job depth MD	1861ft		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	3	16	15.376	55			0	130	0	130
Casing	0	9.625	8.921	36	LTC	J-55	0	1851	0	1851
Open Hole Section			13.5				130	1861	130	1861
Tools and Accessories										
Type	Size in	Qty	Make	Depth ft	Type	Size in	Qty	Make		
Guide Shoe	9.625			1851	Top Plug	9.625	1	HES		
Float Shoe	9.625			45	Bottom Plug	9.625				
Float Collar	9.625			1851	SSR plug set	9.625				
Insert Float	9.625				Plug Container	9.625		HES		
Stage Tool	9.625				Centralizers	9.625				
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	Water	Water	50	bbl	8.34					
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	SwiftCem B1	SWIFTCEM (TM) SYSTEM		sack	13.5	1.74		5	9.2	
9.20 Gal			FRESH WATER							

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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/mi n	Total Mix Fluid Gal
3	SwiftCem B1	SWIFTCEM (TM) SYSTEM		sack	14.2	1.53		5	7.65
7.65 Gal		FRESH WATER							
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft ³ /sack	Mix Fluid Gal	Rate bbl/mi n	Total Mix Fluid Gal
4	Water Based Mud-8.5 #/gal		139.6	bbl	8.5			5	
Cement Left In Pipe	Amount	45 ft			Reason			Shoe Joint	
Mix Water: pH ##		Mix Water: ## ppm			Mix Water Temperature: ## °F °C				
		Chloride:							
Cement Temperature: ## °F °C	Plug Displaced by: ## lb/gal kg/m³ XXXX				Disp. Temperature: ## °F °C				
Plug Bumped? Yes/No	Bump Pressure: #### psi MPa				Floats Held? Yes/No				
Cement Returns: ## bbl m³	Returns Density: ## lb/gal kg/m³				Returns Temperature: ## °F °C				
Comment GOT 34 BBLs OF CMT BACK TO SURFACE									

2.0 Real-Time Job Summary

2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	Comb Pump Rate (bbl/min)	DH Density (ppg)	PS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	12/30/2015	00:30:00	USER				CALLOUT FOR ON LOCATION AT 0500
Event	2	Crew Leave Yard	Crew Leave Yard	12/30/2015	04:00:00	USER				PRE JOURNEY JSA W/ CREW
Event	3	Arrive At Loc	Arrive At Loc	12/30/2015	05:30:00	USER				UPON ARRIVAL MET W/ COMPANY REP TO DISCUSS JOB PROCEDURE, RIG HAD 3 JOINTS LEFT TO RUN
Event	4	Rig-Up Equipment	Rig-Up Equipment	12/30/2015	05:45:00	USER				HAZARD HUNT JSA W/ CREW
Event	5	Other	Other	12/30/2015	05:46:00	USER				FIELD MIX WATER ANALYSIS: SULFATE- <200, PH-7, HARDNESS-215, IRON-0, CHLORIDE-0, TEMP-76
Event	6	Pre-Job Safety Meeting	Pre-Job Safety Meeting	12/30/2015	08:05:00	USER				JSA W/ ALL INVOLVED PERSONNEL
Event	7	Start Job	Start Job	12/30/2015	08:17:24	COM5	0.00	8.45	7.00	
Event	8	Test Lines	Test Lines	12/30/2015	08:19:00	USER				TESTED LINES TO 3500 FOR 3 MIN, NO VISIBLE LEAKS
Event	9	Pump Spacer	Pump Spacer	12/30/2015	08:25:00	USER				PUMPED 50 BBLS OF FRESH WATER W/ DYE IN LAST 10 BBLS AT 3 BPM AND 80 PSI
Event	10	Pump Lead Cement	Pump Lead Cement	12/30/2015	08:54:22	COM5	0.00	8.98	67.00	PUMPED 550 SKS OR 170.4 BBS OF 13.5 LEAD CMT AT 6 BPM AND 197 PSI
Event	11	Check Weight	Check weight	12/30/2015	09:01:56	COM5	5.10	13.56	169.00	WEIGHT VERIFIED BY MUD SCALES
Event	12	Check Weight	Check weight	12/30/2015	09:22:12	COM5	6.00	13.52	198.00	WEIGHT VERIFIED BY MUD SCALES
Event	13	Pump Tail Cement	Pump Tail Cement	12/30/2015	09:28:47	COM5	6.00	13.81	199.00	PUMPED 75 SKS OR 20.4 BBLS OF 14.2 TAIL CMT AT 6 BPM AND 185 PSI
Event	14	Shutdown	Shutdown	12/30/2015	09:34:46	COM5	0.00	1.21	70.00	
Event	15	Drop Top Plug	Drop Top Plug	12/30/2015	09:42:49	COM5	0.00	-0.50	38.00	PLUG PRE LOADED AND WITNESSED BY COMPANY REP
Event	16	Pump Displacement	Pump Displacement	12/30/2015	09:42:54	COM5	0.00	-0.50	38.00	PUMPED 140 BBLS OF FRESH WATER AT 10 BPM AND 610 PSI

Event	17	Bump Plug	Bump Plug	12/30/2015	10:05:46	COM5	0.00	8.05	953.00	BUMPED PLUG AT 584 PSI AND FINAL PRESSURE WAS AT 992 PSI
Event	18	Pressure Up Well	Pressure Up Well	12/30/2015	10:06:00	COM5	0.00	8.05	930.00	1000 PSI CASING TEST FOR 3 MIN, PRESSURE FELL TO 806 BEFORE WE BLED OFF PRESSURE, COMPANY REP SAID IT WAS BECAUSE FLANGE ON WELLHEAD WAS LEAKING
Event	19	End Job	End Job	12/30/2015	10:15:21	COM5				