

**HALLIBURTON**

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## **WILLIAMS PRODUCTION RMT INC - EBUS**

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**PA 512-7  
PARACHUTE  
Garfield County , Colorado**

### **Cement Surface Casing**

**29-Aug-2011**

### **Job Site Documents**

## The Road to Excellence Starts with Safety

Sold To #: 300721	Ship To #: 2873078	Quote #:	Sales Order #: 8407649		
Customer: WILLIAMS PRODUCTION RMT INC - EBUS	Customer Rep: TOWERS, RON				
Well Name: PA	Well #: 512-7	API/UWI #: 05-045-20162			
Field: PARACHUTE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado		
Lat: N 39.456 deg. OR N 39 deg. 27 min. 23.216 secs.		Long: W 108.044 deg. OR W -109 deg. 57 min. 22.129 secs.			
Contractor: NABORS 574	Rig/Platform Name/Num: Nabors 574				
Job Purpose: Cement Surface Casing					
Well Type: Development Well	Job Type: Cement Surface Casing				
Sales Person: KOHL, KYLE	Srvc Supervisor: PONDER, THOMAS	MBU ID Emp #: 427112			

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
MAGERS, MICHAEL Gerard	7	339439	PONDER, THOMAS Lynn	7	427112	SINCLAIR, DAN J	7	338784

## Equipment

HES Unit #	Distance-1 way						
10565341	60 mile	10804567	60 mile	10872429	60 mile	11259886	60 mile
11360883	60 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
08/29/2011	7	2						

TOTAL Total is the sum of each column separately

## Job

## Job Times

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone	
Formation Depth (MD)			On Location	28 - Aug - 2011	21:30	MST	
Form Type	BHST		On Location	29 - Aug - 2011	01:00	MST	
Job depth MD	1150. ft	Job Depth TVD	Job Started	29 - Aug - 2011	06:10	MST	
Water Depth		Wk Ht Above Floor	4. ft	Job Completed	29 - Aug - 2011	07:08	MST
Perforation Depth (MD)	From	To	Departed Loc	29 - Aug - 2011	08:00	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
OPEN HOLE				13.5				.		1180.	
SURFACE CASING	Unknown		9.625	9.001	32.3		H-40	.		1164.	

Sales/Rental/3<sup>rd</sup> Party (HES)

Description					Qty	Qty uom	Depth	Supplier
PLUG,CMTG, TOP, 9 5/8, HWE, 8.16 MIN/9.06 MA					1	EA		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer					Top Plug	9 5/8	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9 5/8	1	HES
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	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk

**HALLIBURTON*****Cementing Job Summary***

1	Water Spacer				20.00	bbl	8.34	.0	.0	.0	
2	Lead Cement	VERSACEM (TM) SYSTEM (452010)			160.0	sacks	12.3	2.38	13.75		13.75
	13.75 Gal	FRESH WATER									
3	Tail Cement	VERSACEM (TM) SYSTEM (452010)			160.0	sacks	12.8	2.11	11.75		11.75
	11.75 Gal	FRESH WATER									
4	Displacement Fluid				89.00	bbl	8.34	.0	.0	10.0	
<b>Calculated Values</b>		<b>Pressures</b>			<b>Volumes</b>						
Displacement	88.6	Shut In: Instant		Lost Returns		Cement Slurry	127.9	Pad			
Top Of Cement	SURFACE	5 Min		Cement Returns	16	Actual Displacement	88.6	Treatment			
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job			236
<b>Rates</b>											
Circulating	10	Mixing	8	Displacement		10	Avg. Job				8
Cement Left In Pipe	Amount	38 ft	Reason	Shoe Joint							
Frac Ring # 1 @	ID	Frac ring # 2 @	ID	Frac Ring # 3 @	ID	Frac Ring # 4 @	ID				
<i>The Information Stated Herein Is Correct</i>					<i>Customer Representative Signature</i>						

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Field: PARACHUTE		City (SAP): PARACHUTE		County/Parish: Garfield		State: Colorado			
Legal Description:									
Lat: N 39.456 deg. OR N 39 deg. 27 min. 23.216 secs.				Long: W 108.044 deg. OR W -109 deg. 57 min. 22.129 secs.					
Contractor: NABORS 574		Rig/Platform Name/Num: Nabors 574							
Job Purpose: Cement Surface Casing									
Ticket Amount:									
Well Type: Development Well		Job Type: Cement Surface Casing							
Sales Person: KOHL, KYLE		Srvc Supervisor: PONDER, THOMAS		MBU ID Emp #: 427112					
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments	
				Stage	Total	Tubing	Casing		
Call Out	08/28/2011 21:30								
Crew Leave Yard	08/28/2011 23:30							ALL HES PRESENT FOR PRE-COVOY SAFETY HUDDLE	
Arrive At Loc	08/29/2011 01:00							RIG WAS PULLING DRILL PIPE WHEN CREW ARRIVED ON LOCATION	
Assessment Of Location Safety Meeting	08/29/2011 05:00							TD- 1180', TP- 1164', SJ- 38', MUD- 10.4 PPG, HOLE- 13 1/2", SURFACE CASING- 9 5/8" 32.3# H-40	
Rig-Up Equipment	08/29/2011 05:15							RIG STARTED CIRCULATION ON BOTTOM @ 0500	
Safety Meeting	08/29/2011 06:00							ALL HES PRESENT, RIG CREW PRESENT	
Start Job	08/29/2011 06:10								
Other	08/29/2011 06:12		2	2			45.0	FILL LINES	
Test Lines	08/29/2011 06:14		0.1	0.1			5929.0		
Pump Spacer 1	08/29/2011 06:19		6	20			128.0	FRESH WATER	
Pump Lead Cement	08/29/2011 06:28		8	67.8			312.0	160 SKS 12.3 PPG 2.38 FT3/SK 13.75 GAL/SK	
Pump Tail Cement	08/29/2011 06:37		8	60.1			273.0	160 SKS 12.8 PPG 2.11 FT3/SK 11.75 GAL/SK	
Shutdown	08/29/2011 06:45								

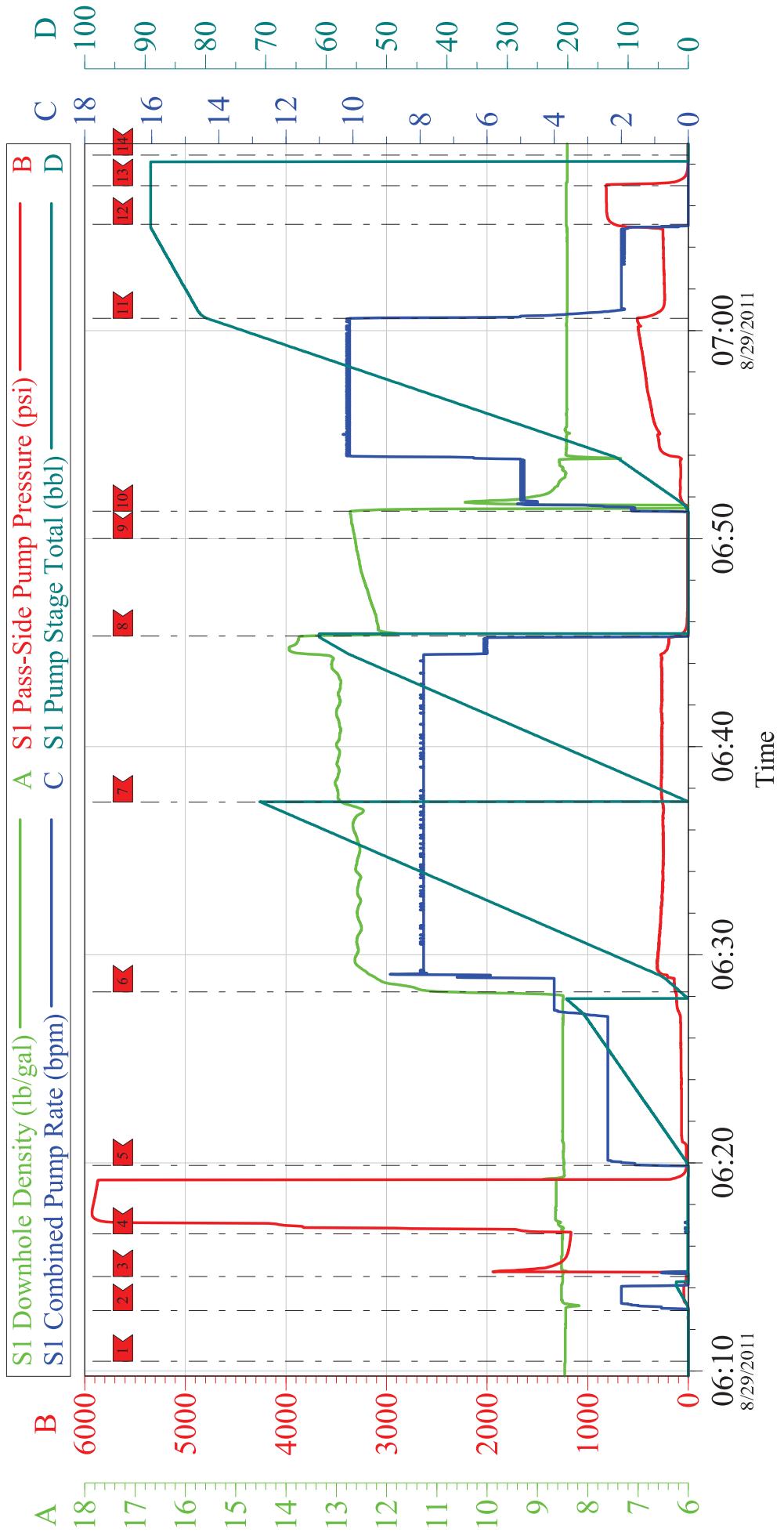
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Drop Plug	08/29/2011 06:50							PLUG DROP VERIFIED VIA TATTLE TELL BY CUSTOMER REP
Pump Displacement	08/29/2011 06:51		10	88.6			511.0	FRESH WATER, WASHED UP ON TOP OF THE PLUG AS [ER CUSTOMER REQUEST
Slow Rate	08/29/2011 07:00		2	78.6			236.0	GOOD RETURNS THROUGH OUT THE JOB, CIRCULATED 16 BBL CEMENT TO SURFACE
Bump Plug	08/29/2011 07:05		2	88.6			299.0	PLUG BUMPED
Check Floats	08/29/2011 07:06						818.0	FLOATS HELD, .5 BBL BACK TO THE DISPLACEMENT TANKS
End Job	08/29/2011 07:08							THANK YOU FOR CHOOSING HALLIBURTON, THOMAS PONDER AND CREW

## WILLIAMS PA 512-7, 9 5/8" SURFACE

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK	BBLS H2O REQ
1	Start Job						
6	Test Lines	5000.0		1120		Max Psi	
9	H2O Spacer	20.0					
14	LEAD	67.8	160	12.3	2.38	13.75	52.4
	TAIL	60.1	160	12.8	2.11	11.75	44.8
32	Drop Plug	0.0					
23	Displacement	88.6					
26	Bump Plug	244.0					
511	Check Floats	744.0					
2	End Job	0.0					
TOTAL PIPE	1164	OH ANN CAPACITY	101.27		BBL/FT	H2O REQ.	
SHOE JOINT	38.00	SJ CAPACITY	2.99	CSG CAP	0.0787	235.8	
FLOAT COLLAR	1126.00	Displacement	88.62	CSG & OH	0.0870		
CALCULATED DIFFERENTIAL PSI			244.0	XS CMT	23.7		
Collapse	1400	Burst	2270		SO#	8407649	
CALCULATED PSI LIFT PIPE OUT OF HOLE			84.5		Total Fluid	236.6	

# WILLIAMS

PA 512-7, 9.625 IN SURFACE



Local Event Log		
Maximum	SPPP	Maximum
1 START JOB	06:10:28 3.000	2 FILL LINES
4 HIGH TEST LINES	06:16:35 5929	5 PUMP H2O SPACER
7 PUMP TAIL CEMENT	06:37:21 276.0	8 SHUTDOWN
10 PUMP H2O DISPLACEMENT	06:51:19 511.0	11 SLOW RATE
13 CHECK FLOATS	07:06:57 818.0	12 END JOB
		13.000 45.00
		3 LOW TEST LINES
		6 PUMP LEAD CEMENT
		9 DROP PLUG
		12 BUMP PLUG
		13.000 5.000
		14.000 10.50
		15.000 10.50
		16.000 10.50
		17.000 10.50
		18.000 10.50
		19.000 10.50
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Customer: WILLIAMS  
Well Description: PA 512-7  
Company Rep: RON TOWERS

Job Date: 29-Aug-2011  
Job Type: SURFACE  
Cement Supervisor: THOMAS PONDER

Sales Order #: 8407649  
ADC Used: YES  
Elite #/Operator: ELITE #7 / DAN SINCLAIR

OptiCem v6.4.9  
29-Aug-11 07:11