

**MINERAL RESOURCES INC
PO BOX 328
GREELEY, Colorado**

DT-Forbes 5-5-6

Precision 706

Post Job Summary **Cement Surface Casing**

Date Prepared: 2/10/2014
Version: 1

Service Supervisor: BIRCHELL, DEVIN

Submitted by: ONUORAH, THEODORE

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD		Excess %
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Open Hole Section	12 1/4" Open Hole Section		12.250		0.00	1,047.00	40.00
Casing	9 5/8" Surface Casing	9.63	8.921	36.00	0.00	1,047.00	

HALLIBURTON

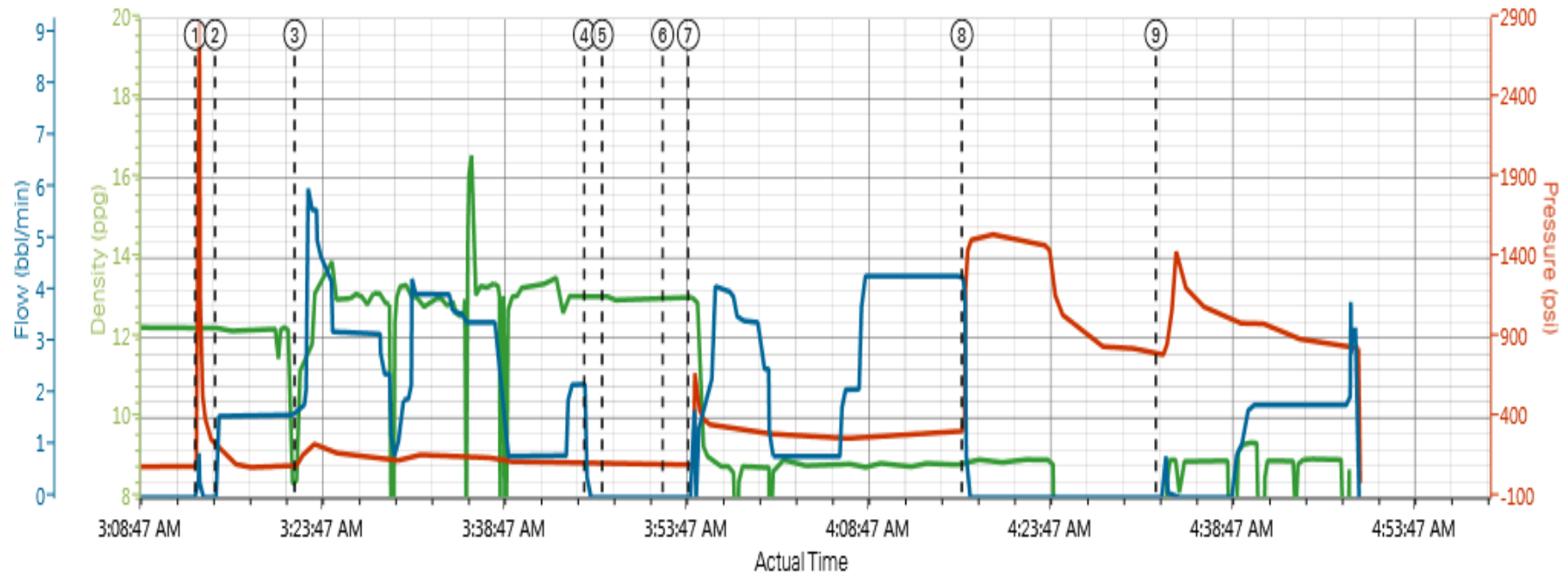
Pumping Schedule

Stage/ Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume
1	1	Spacer	Fresh Water Spacer	8.33	1.5	10 bbl.
1	2	Cement Slurry	Swift Cem B2	13.00	4	215 sks
1	3	Displacement	Fresh Water	8.33	4	77 bbl.

HALLIBURTON

Data Acquisition

Custom Results



- | | | |
|----------------------------------|---------------------------------|-----------------------------|
| ① Test Lines 12.28;100;0.9 | ④ Shutdown 13.01;125;0 | ⑦ Drop Top Plug 13.08;104;0 |
| ② Pump Spacer 1 12.23;201;1.6 | ⑤ Clean Lines 13.05;118;0 | ⑧ Bump Plug 8.9;1224;3 |
| ③ Pump Lead Cement 10.76;110;1.7 | ⑥ Pump Displacement 12.96;107;0 | ⑨ End Job 0.33;801;0 |

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
02/05/2014 09:00		Call Out						Called out for Mineral Resources DT-Forbes 5-5-6 Surface
02/05/2014 12:50		Pre-Convoy Safety Meeting						Discuss road and weather conditions, fatigue and following distance
02/05/2014 13:00		Depart from Service Center or Other Site						Call journey management, Depart for location
02/05/2014 14:30		Arrive At Loc						Close journey, talk with compan rep on valumes, rates, and depth, rig still running casing
02/05/2014 18:30		Casing on Bottom						Casing on bottom rig will circulate until HES is rigged up
02/05/2014 18:50		Pre-Rig Up Safety Meeting						Discussed rig up, line of fire, slips, and pinch points
02/05/2014 19:00		Rig-Up Equipment						Rig up ground line, and suction hoses
02/05/2014 21:50		Pre-Job Safety Meeting						Discuss pump schedule, procedure, high pressure iron, and emergency plan
02/05/2014 22:10		Other						Stop circulating rig crew blew out top drive, rigged up cement head and tied into stand pipe
02/05/2014 22:20		Other						Tried to prime up pump, vick clamp broke release line was froze
02/06/2014 01:50		Other						Replacement Pump Showed Up
02/06/2014 03:13		Pressure Test					2780.0	Pressure test pump and lines to 2780 psi
02/06/2014 03:15		Pump Spacer	1.5	10			109.0	Pump 10 bbls Fresh Water Spacer With Red Die
02/06/2014 03:21		Pump Lead Cement	4	74			179.0	Pump cement at 13 ppg Y: 1.94ft^3/sk W: 10.66gal/sk (215sks)
02/06/2014 03:45		Shutdown						Shutdown to drop top plug
02/06/2014 03:54		Drop Top Plug						Dropped top plug, washed pump and lines on plug
02/06/2014 03:54		Pump Displacement - Start	4					Pump displacement 77 bbls water
02/06/2014 03:56		Returns To Surface		6				Returns seen at surface with 6 bbls displacement away
02/06/2014 04:11		Spacer Returns to Surface		51			298.0	With 51 bbls displacement away spacer returns to surface (10 bbls)
02/06/2014 04:13		Cement Returns to Surface		61			307.0	With 61 bbls displacement away cement returns to surface (16 bbls)
02/06/2014 04:16		Bump Plug		77			321.0	Bumped plug with 77 bbls with 321 psi took pressure to 1433 psi
02/06/2014 04:25		Check Floats					1526.0	Checked floats, floats held with 1.5 bbls back to truck
02/06/2014 04:30		Pre-Rig Down Safety Meeting						Discussed trapped pressure, slips, trips, falls, and overhead loads
02/06/2014 04:35		Rig-Down Equipment						Begin rigging down all iron and suction hoses
02/06/2014 05:35		Pre-Convoy Safety Meeting						Discussed fatigue, wildlife, weather, and journey management
02/06/2014 05:40		Depart Location for Service Center or Other Site						Depart for Halliburton Service Center

The Road to Excellence Starts with Safety

Sold To #: 345252		Ship To #: 3206537		Quote #:		Sales Order #: 901090307	
Customer: MINERAL RESOURCES INC				Customer Rep: Bengue, Red			
Well Name: DT-Forbes		Well #: 5-5-6		API/UWI #: 05-123-38297			
Field: WATTENBERG		City (SAP): GREELEY		County/Parish: Weld		State: Colorado	
Lat: N 40.435 deg. OR N 40 deg. 26 min. 5.532 secs.				Long: W 104.684 deg. OR W -105 deg. 18 min. 56.592 secs.			
Contractor: Precision		Rig/Platform Name/Num: Precision 706					
Job Purpose: Cement Surface Casing							
Well Type: Development Well		Job Type: Cement Surface Casing					
Sales Person: GREGORY, JON		Srv Supervisor: BIRCHELL, DEVIN			MBU ID Emp #: 466993		
Job Personnel							
HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs
ALVAREZ, BRANDON Paul	0.0	555850	BIRCHELL, DEVIN Ray	0.0	466993	MILLER, GEOFFREY Alan	0.0
Equipment							
HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11036295C	30 mile	11341988C	30 mile	12010171	30 mile		
Job				Job Times			
Formation Name				Date			
Formation Depth (MD) Top				Time			
Bottom				Time Zone			
Form Type				Called Out			
Job depth MD				On Location			
Water Depth				Job Started			
Perforation Depth (MD) From				Job Completed			
To				Departed Loc			
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				
12 1/4" Open Hole Section			12.25				
9 5/8" Surface Casing	Unknown		9.625	8.921	36.	STC	J-55
Sales/Rental/3rd Party (HES)							
Description				Qty	Qty uom	Depth	Supplier
ZI FUEL SURCHG-CARS/PICKUPS<1 1/2TON				60	MI		
MILEAGE FOR CEMENTING CREW,ZI				60	MI		
CLR,FLT,TROPHY SEAL, 9-5/8 8RD				1	EA		
SHOE,FLT,TROPHY SEAL,9 5/8 8RD				1	EA		
PLUG,CMTG,TOP,9 5/8,HWE,8.16 MIN/9.06 MA				1	EA		
CNTRLZR, 9 5/8x13 3/4,#500-0963-1375				19	EA		
Description				Qty	Qty uom	Depth	Supplier
COLLAR-STOP-9 5/8"-FRICTION-HINGED				1	EA		
KIT,HALL WELD-A				1	EA		
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	Fresh Water	Spacer	10	bbl	8.33	.0	.0	1.5	
2	SwitCem B2	SWIFTCem (TM) SYSTEM (452990)	215	sacks	13.	1.94	10.66	4	10.66
10.66 Gal		FRESH WATER							
Calculated Values		Pressures		Volumes					
<i>Displacement</i>		Shut In: Instant		Lost Returns		<i>Cement Slurry</i>		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					

