

**COMET RIDGE USA INC  
600,17TH ST STE 600 S  
DENVER, Colorado**

Hully Gully 13-54-1-3

**EXTREME 11**

## **Post Job Summary** **Cement Multiple Stages**

Prepared for: KEVIN O'CONNELL  
Date Prepared: 8/28/2013  
Version: 1

Service Supervisor: OTERI, VAUGHN

Submitted by: PLIENESS, RYAN

**HALLIBURTON**

# HALLIBURTON

## Wellbore Geometry

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Job Tubulars					MD		Shoe Joint Length ft
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	
Open Hole Section	8-3/4" Open Hole		8.750		610.00	5,920.00	
Casing	7" Intermediate String	7.00	6.366	23.00	0.00	5,918.00	45.00
Casing	9-5/8" Surface Casing	9.63	8.921	36.00	0.00	610.00	45.00
Cement Stage Tool	Multiple Stage Cementer		.000		3,828.00	3,830.00	0.00

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## Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Surface Volume	Downhole Volume
1	1	Spacer	Clean Spacer III w/ LCM	10.50	30.0 bbl	30.0 bbl
1	2	Cement Slurry	First Stage Cement	12.50	205.0 sacks	205.0 sacks
1	3	Spacer	fresh water displacement	8.20	74.0 bbl	74.0 bbl
1	4	Spacer	Clean Spacer III w/ LCM	10.50	10.0 bbl	10.0 bbl
1	5	Spacer	fresh water displacement	0.00	142.0 bbl	142.0 bbl
2	1	Spacer	Water Spacer	8.33	10.0 bbl	10.0 bbl
2	2	Spacer	SUPER FLUSH 101	10.00	10.0 bbl	10.0 bbl
2	3	Spacer	Water Spacer	8.33	10.0 bbl	10.0 bbl
2	4	Cement Slurry	Second Stage Lead Cement	10.00	249.0 sacks	249.0 sacks
2	5	Cement Slurry	Second Stage Tail Cement	12.50	63.0 sacks	63.0 sacks
2	6	Cement Slurry	Premium G Cement	15.80	50.0 sacks	50.0 sacks

## Fluids Pumped

**Stage/Plug # 1      Fluid 1:**      Clean Spacer III w/ LCM

Fluid Density: 10.50 lbm/gal  
 Fluid Volume: 30.00 bbl  
 Pump Rate: 0.00 bbl/min

**Stage/Plug # 1      Fluid 2:**      First Stage Cement  
 ECONOCEM (TM) SYSTEM

Fluid Weight: 12.50 lbm/gal  
 Slurry Yield: 1.98 ft<sup>3</sup>/sack  
 Total Mixing Fluid: 10.62 Gal  
 Surface Volume: 205.0 sacks  
      Sacks: 205.0 sacks  
 Calculated Fill: 1,895.12 ft  
 Calculated Top of Fluid: 3,800.00 ft  
 Pump Rate: 3.00 bbl/min

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<b>Stage/Plug # 1</b>	<b>Fluid 3:</b>	fresh water displacement	Fluid Density: 8.20 lbm/gal Fluid Volume: 74.00 bbl
<b>Stage/Plug # 1</b>	<b>Fluid 4:</b>	Clean Spacer III w/ LCM	Fluid Density: 10.50 lbm/gal Fluid Volume: 10.00 bbl
<b>Stage/Plug # 1</b>	<b>Fluid 5:</b>	fresh water displacement	Fluid Density: 0.00 lbm/gal Fluid Volume: 142.00 bbl
<b>Stage/Plug # 2</b>	<b>Fluid 1:</b>	Water Spacer	Fluid Density: 8.33 lbm/gal Fluid Volume: 10.00 bbl
<b>Stage/Plug # 2</b>	<b>Fluid 2:</b>	SUPER FLUSH 101	Fluid Density: 10.00 lbm/gal Fluid Volume: 10.00 bbl
<b>Stage/Plug # 2</b>	<b>Fluid 3:</b>	Water Spacer	Fluid Density: 8.33 lbm/gal Fluid Volume: 10.00 bbl
<b>Stage/Plug # 2</b>	<b>Fluid 4:</b>	Second Stage Lead Cement TUNED LIGHT (TM) SYSTEM	Fluid Weight: 10.00 lbm/gal Slurry Yield: 2.29 ft <sup>3</sup> /sack Total Mixing Fluid: 8.51 Gal Surface Volume: 249.0 sacks Sacks: 249.0 sacks Calculated Fill: 2,622.67 ft Calculated Top of Fluid: 323.00 ft
<b>Stage/Plug # 2</b>	<b>Fluid 5:</b>	Second Stage Tail Cement SWIFTECEM (TM) SYSTEM	Fluid Weight: 12.50 lbm/gal Slurry Yield: 2.17 ft <sup>3</sup> /sack Total Mixing Fluid: 12.37 Gal Surface Volume: 63.0 sacks Sacks: 63.0 sacks Calculated Fill: 600.00 ft Calculated Top of Fluid: 2,945.67 ft

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**Stage/Plug # 2      Fluid 6:**      Premium G Cement  
HALCEM (TM) SYSTEM

Fluid Weight:	15.80 lbm/gal
Slurry Yield:	1.15 ft <sup>3</sup> /sack
Total Mixing Fluid:	4.99 Gal
Surface Volume:	50.0 sacks
Sacks:	50.0 sacks
Calculated Fill:	254.33 ft
Calculated Top of Fluid:	3,545.67 ft



# HALLIBURTON

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
08/13/2013 01:00		Arrive At Loc					first crew arrive on location 0100 on 08-13-2013
08/13/2013 01:00		Wait on Customer or Customer Sub-Contractor Equip					rig running casing unable to get past bridge @ ~1900'
08/14/2013 09:00		Wait on Customer or Customer Sub-Contractor Equipm					customer released hes from location @ 0900 hours 8-14-13
08/14/2013 09:01		Other					Customer Rep. decided to pull casing hes released until further notice
08/14/2013 09:05		Other					HES on Location for a total of 32 HRS. 24 HRS of Standby Time When HES Leaves Location
08/17/2013 05:00		Depart from Service Center or Other Site					Journey Management Meeting with HES Crew Prior to Departing Yard
08/17/2013 07:30		Arrive At Loc					2nd Crew Arrives at Location 0730 hrs, 8-17-13
08/17/2013 07:31		Wait on Customer or Customer Sub-Contractor Equip					Rig Running Casing. Approx. 4000' of Casing Left to Run in Hole
08/17/2013 16:45		Safety Meeting - Pre Rig-Up					Pre-Rig Up Safety Meeting With HES Crew Prior to Rigging up (Water Provided By Rig, Tested Ok for Mixing Cement)
08/17/2013 17:18		Test Lines					Pressure Test Lines to 5000 PSI
08/17/2013 17:30		Pump Spacer	3	30		90.0	Mix and Pump 30 bbls Clean Spacer III @ 10.5 lb/gal (Density Verified by Pressurized Scales)
08/17/2013 17:55		Pump Cement	5	72.65		135.0	Mix and Pump 205 sks EconoCem Cement @ 12.5 lb/gal (Density Verified By Pressurized Scales)
08/17/2013 18:13		Drop Plug					Shut-Down, Tool Rep. Drops 1st Stage Shut-Off Plug
08/17/2013 18:15		Pump Displacement	7	74		110.0	Pump Fresh Water Displacement
08/17/2013 18:31		Pump Displacement	6	10		30.0	Mix and Pump 10 bbls Clean Spacer III @ 10.5 lb/gal (Density Verified by Pressurized Scales)
08/17/2013 18:35		Pump Displacement	6	147.6			Pump Remainder Mud Displacement
08/17/2013 18:45		Slow Rate	3				Slow Pump Rate to 3 BPM to allow Plug to Pass through MSC
08/17/2013 19:02		Pump Displacement - End	3	231.6		400.0	Shut-Down, Did Not Land Plug
08/17/2013 19:05		Check Floats					Check Floats, Floats Holding (Returned 1 bbl back to Displacement Tanks)
08/17/2013 19:09		Drop Opening Device For Multiple Stage Cementer					Remove Cap from Plug Container, Tool Rep Drops Opening Device for MSC, Wait 20 Mins. for Device to Fall
08/17/2013 19:30		Open Multiple Stage Cementer				950.0	Pressure Up, Open MSC (MSC Opens at 950 PSI)
08/17/2013 19:31		Circulate Well	5	5		220.0	Pump Fresh Water, Unable to Establish Circulation
08/17/2013 19:35		Other					Shut-Down, Turn Over to Rig Pumps for 5 Hours
08/18/2013 00:30		Test Lines					Pressure Test Lines to 5000 PSI
08/18/2013 00:33		Pump Spacer	1	10		30.0	Pump Fresh Water Spacer
08/18/2013 00:42		Pump Spacer	1	10		40.0	Pump 10 bbls Super Flush 101
08/18/2013 00:52		Pump Spacer	1	10		35.0	Pump Fresh Water Spacer
08/18/2013 00:59		Pump Lead Cement	4	101.55		125.0	Mix and Pump 249 sks Tuned Light Cement @ 10 lb/gal (Mixed on Batch Mixer (Mixed in 3 Batches) Density Verified By Pressurized Scales

# HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
08/18/2013 01:26		Pump Cement	5	24.34			220.0	Mix and Pump 63 sks SwiftCem @ 12.5 lb/gal (Mixed on Pump Truck) Density Verified By Pressurized Scales
08/18/2013 01:36		Pump Tail Cement	5	10.24			225.0	Mix and Pump 50 sks Class G Cement @ 15.8 lb/gal (Density Verified By Pressurized Scales)
08/18/2013 01:46		Drop Plug						Remove Cap, Tool Rep. Drops Closing Plug By Hand
08/18/2013 01:47		Pump Displacement - Start	8	0			50.0	Pump Fresh Water Displacement
08/18/2013 02:09		Pump Displacement - End	3	150.5			325.0	
08/18/2013 02:10		Close Multiple Stage Cements	3	150.5			1770.0	Pressure Up to 1770 PSI, Close MSC
08/18/2013 02:15		Release Casing Pressure					.0	Bleed Pressure back to Pump Truck
08/18/2013 02:16		Other						No Returns Throughout Entire Job
08/18/2013 02:26		Other						Crew on Location 8-13, 8-14 for a total of 32 HRS, Crew on Location 8-17, 8-18 for a total of 20 Hrs. 43 Hrs of Standby Time Charged
08/18/2013 02:45		Other						Wet and Dry Samples of Cement Left on Location
08/18/2013 03:00		End Job						
08/18/2013 03:00		Safety Meeting - Pre Rig-Down						Pre-Rig Down Safety Meeting with HES Crew Prior to Rigging Down
08/18/2013 03:30		Safety Meeting - Departing Location						Journey Management Meeting With HES Crew Prior to Departing Location



## The Road to Excellence Starts with Safety

Sold To #: 352220	Ship To #: 3007625	Quote #:	Sales Order #: 900660843
Customer: COMET RIDGE USA INC		Customer Rep: Bengé, Red	
Well Name: Hully Gully		Well #: 13-54-1-3	API/UWI #: 05-073-06537
Field: WILD CAT	City (SAP): HUGO	County/Parish: Lincoln	State: Colorado
Lat: N 38.938 deg. OR N 38 deg. 56 min. 18.384 secs.		Long: W 103.402 deg. OR W -104 deg. 35 min. 53.304 secs.	
Contractor: EXTREME		Rig/Platform Name/Num: Extreme 11	
Job Purpose: Cement Multiple Stages			
Well Type: Exploratory / Wildcat		Job Type: Cement Multiple Stages	
Sales Person: PLIENESS, RYAN		Srv Supervisor: OTERI, VAUGHN	MBU ID Emp #: 443828

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BARNES, BRIAN L	0.0	485204	CHISLUM, DENNIS	20.0	512130	Da Costa, charles	0.0	551308
LANGE, TIMOTHY Paul	0.0	520811	MARKOVICH, STEVEN Michael	20.0	502964	MAYFIELD, BYRON L	0.0	528751
MCBRIDE, NATHAN Charles	20.0	313810	OTERI, VAUGHN Steeves	0.0	443828	SINCLAIR, RICHARD	0.0	368195
sullivan, elliot	0.0	528573	WHEELER, JUSTIN W	0.0	196470			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11019824	132 mile	11360865C	132 mile	11398319	132 mile	11398490	132 mile
11542577	132 mile	11562546C	132 mile	11764054C	132 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				Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom	Called Out	17 - Aug - 2013	01:30 MST
Form Type		BHST		On Location	17 - Aug - 2013	07:30 MST
Job depth MD	5918. ft	Job Depth TVD	5918. ft	Job Started	17 - Aug - 2013	00:00 MST
Water Depth		Wk Ht Above Floor		Job Completed	18 - Aug - 2013	02:45 MST
Perforation Depth (MD)	From		To	Departed Loc	18 - Aug - 2013	03:30 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
Multiple Stage Cementer	Used			.				3828.	3830.		
8-3/4" Open Hole				8.75				610.	5920.		
7" Intermediate String	Unknown		7.	6.366	23.		L-80	.	5918.		
9-5/8" Surface Casing	Unknown		9.625	8.921	36.		J-55	.	610.		

## 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							
<b>Miscellaneous Materials</b>																	
Gelling Agt			Conc		Surfactant		Conc			Acid Type		Qty	Conc %				
Treatment Fld			Conc		Inhibitor		Conc			Sand Type		Size	Qty				
<b>Fluid Data</b>																	
<b>Stage/Plug #: 1</b>																	
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	Clean Spacer III w/ LCM			30.00	bbl	10.5	.0	.0	.0								
	1.83 lbm/bbl	SA-1015, 50 LB SACK (102077046)															
	0.25 lbm/bbl	POLY-E-FLAKE (101216940)															
2	First Stage Cement	ECONOCEM (TM) SYSTEM (452992)		205.0	sacks	12.5	1.98	10.62	3.0	10.62							
	0.25 lbm	POLY-E-FLAKE (101216940)															
	10.618 Gal	FRESH WATER															
3	fresh water displacement			74.00	bbl	8.2	.0	.0	.0								
4	Clean Spacer III w/ LCM			10.00	bbl	10.5	.0	.0	.0								
	1.83 lbm/bbl	SA-1015, 50 LB SACK (102077046)															
	0.25 lbm/bbl	POLY-E-FLAKE (101216940)															
5	fresh water displacement			142.00	bbl	.	.0	.0	.0								
<b>Stage/Plug #: 2</b>																	
Fluid #	Stage Type	Fluid Name		Qty	Qty uom	Mixing Density uom	Yield uom	Mix Fluid uom	Rate uom	Total Mix Fluid uom							
1	Water Spacer			10.00	bbl	8.33	.0	.0	.0								
2	SUPER FLUSH 101	SUPER FLUSH 101 - SBM (12199)		10.00	bbl	10.	.0	.0	.0								
3	Water Spacer			10.00	bbl	8.33	.0	.0	.0								
4	Second Stage Lead Cement	TUNED LIGHT (TM) SYSTEM (452984)		249.0	sacks	10.	2.29	8.51	4.0	8.51							
	0.25 lbm	POLY-E-FLAKE (101216940)															
	8.51 Gal	FRESH WATER															
5	Second Stage Tail Cement	SWIFTCES (TM) SYSTEM (452990)		63.0	sacks	12.5	2.17	12.37		12.37							
	12.373 Gal	FRESH WATER															
6	Premium G Cement	HALCEM (TM) SYSTEM (452986)		50.0	sacks	15.8	1.15	4.99		4.99							
	4.989 Gal	FRESH WATER															
<b>Calculated Values</b>				<b>Pressures</b>				<b>Volumes</b>									
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									

<b>Rates</b>											
Circulating		Mixing		Displacement		Avg. Job					
Cement Left In Pipe	Amount	45 ft	Reason	Shoe Joint							
Frac Ring # 1 @	ID		Frac ring # 2 @	ID		Frac Ring # 3 @	ID				
The Information Stated Herein Is Correct				Customer Representative Signature							

