

**COMET RIDGE USA INC  
DO NOT MAIL - 1776 LINCOLN ST  
DENVER, Colorado**

Vortex 12-53-3-1

**EXTREME 11**

## **Post Job Summary** **Plug to Abandon Service**

Prepared for:  
Date Prepared: 7/17/2013  
Version: 1

Service Supervisor: PICKELL, CHRISTOPHER

Submitted by: FINNEY, SEAN

**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	
Drill Pipe	4" DRILL PIPE	4.00	3.476	13.51	0.00	6,040.00	45.00
Casing	9 5/8" Casing	9.63	8.921	36.00	0.00	2,286.00	45.00
Open Hole Section	7 7/8" Intermediate Open Hole		7.875		2,286.00	6,040.00	0.00

# HALLIBURTON

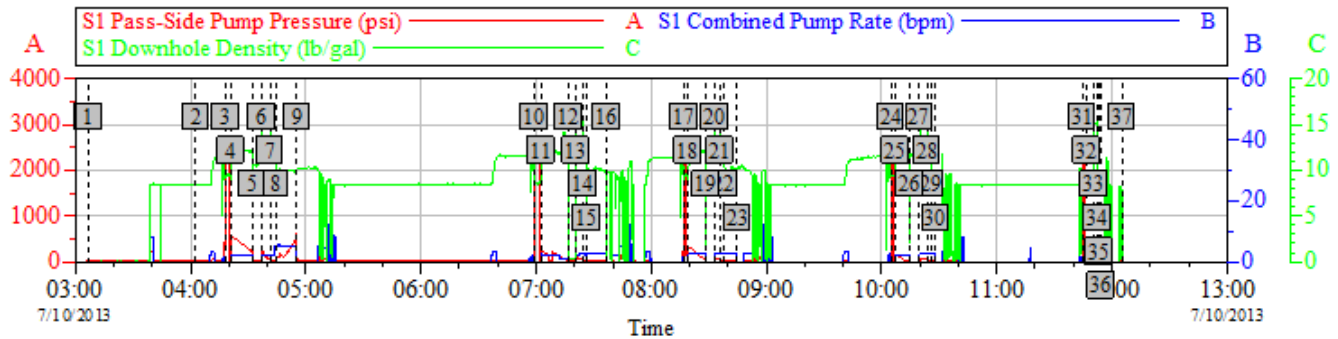
## ***Pumping Schedule***

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Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	TUNED SPACER III	12.00	2.00	120.0 bbl	120.0 bbl
1	2	Cement Slurry	Lead Cement	15.80	2.00	75.0 sacks	75.0 sacks
1	3	Cement Slurry	Tail Cement	15.80	2.00	120.0 sacks	120.0 sacks

# HALLIBURTON

## Data Acquisition



### Global Event Log

1 Starting Job	03:06:44	2 Start Job	04:02:39	3 Test Lines	04:18:07
4 Pump Tuned Spacer 12#	04:20:59	5 Shutdown	04:31:58	6 Pump Premium G 15.8#	04:37:07
7 Pump Tuned Spacer 12#	04:41:24	8 Pump Displacement	04:44:12	9 Shutdown	04:55:19
10 Test Lines	06:59:13	11 Pump Tuned Spacer 12#	07:02:36	12 Shutdown	07:16:47
13 Pump Premium G 15.8#	07:20:40	14 Pump Tuned Spacer 12#	07:24:30	15 Pump Displacement	07:26:22
16 Shutdown	07:36:33	17 Test Lines	08:17:14	18 Pump Tuned Spacer 12#	08:19:12
19 Shutdown	08:28:35	20 Pump Premium G 15.8#	08:32:53	21 Pump Tuned Spacer 12#	08:35:52
22 Pump Displacement	08:38:01	23 Shutdown	08:44:43	24 Test Lines	10:04:57
25 Pump Tuned Spacer 12#	10:07:12	26 Shutdown	10:14:50	27 Pump Premium G 15.8#	10:19:40
28 Pump Tuned Spacer 12#	10:23:42	29 Pump Displacement	10:25:37	30 Shutdown	10:28:06
31 Test Lines	11:44:40	32 Pump Water	11:46:46	33 Pump Premium G 15.8#	11:50:42
34 Pump Displacement	11:52:39	35 Shutdown	11:53:13	36 End Job	11:54:21
37 Ending Job	12:05:12				

Customer:

Well Description:

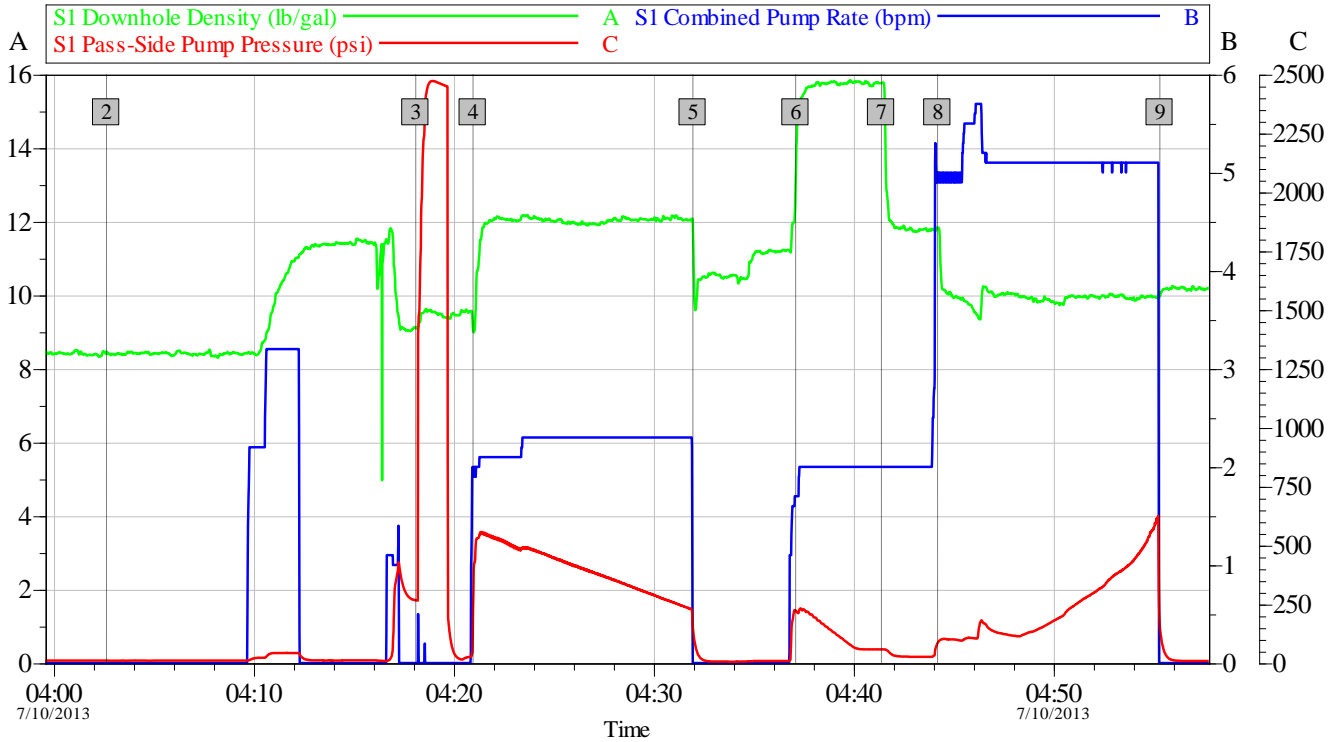
Job Date: 10-Jul-2013

UWI:

Sales Order #: 900580617

OptiCem v6.4.10  
17-Jul-13 11:13

# HALLIBURTON



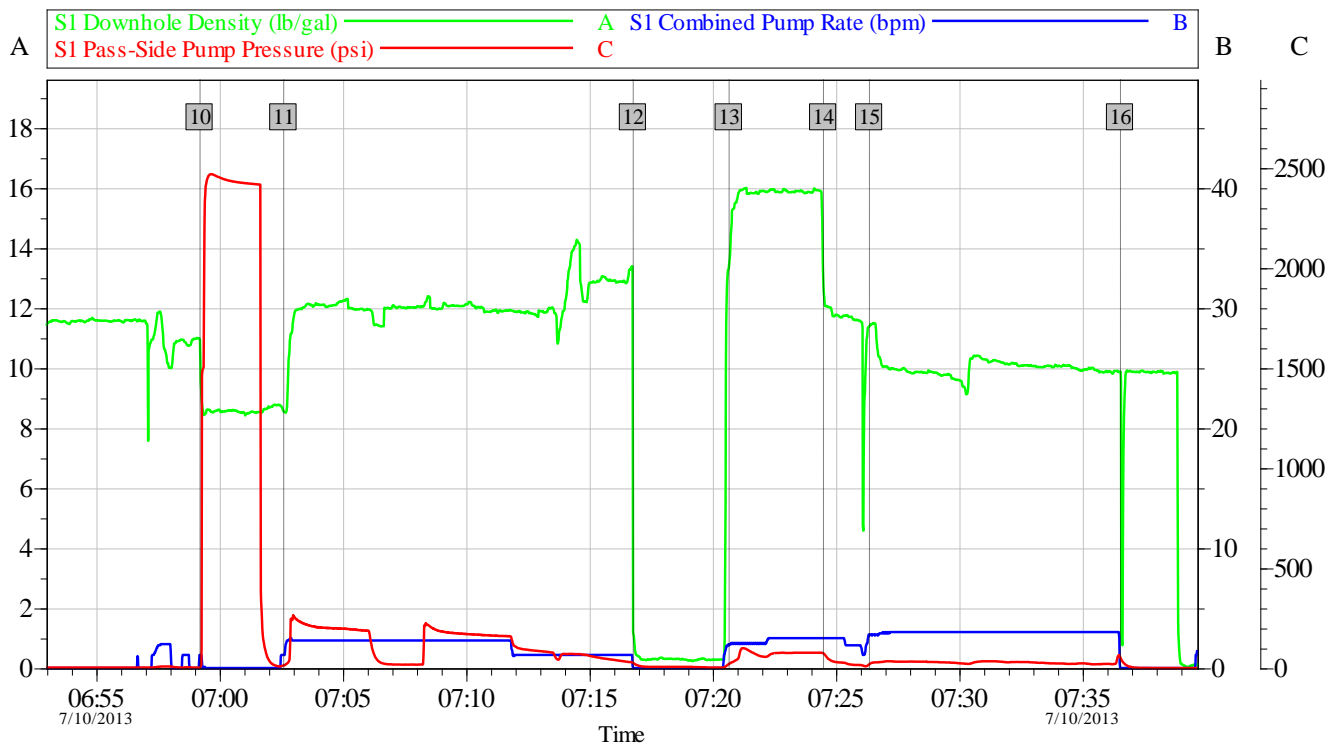
## Global Event Log

<b>2</b> Start Job	04:02:39	<b>3</b> Test Lines	04:18:07	<b>4</b> Pump Tuned Spacer 12#	04:20:59
<b>5</b> Shutdown	04:31:58	<b>6</b> Pump Premium G 15.8#	04:37:07	<b>7</b> Pump Tuned Spacer 12#	04:41:24
<b>8</b> Pump Displacement	04:44:12	<b>9</b> Shutdown	04:55:19		

Customer:	Job Date: 10-Jul-2013	Sales Order #: 900580617
Well Description:	UWI:	

OptiCem v6.4.10  
22-Jul-13 17:02

# HALLIBURTON



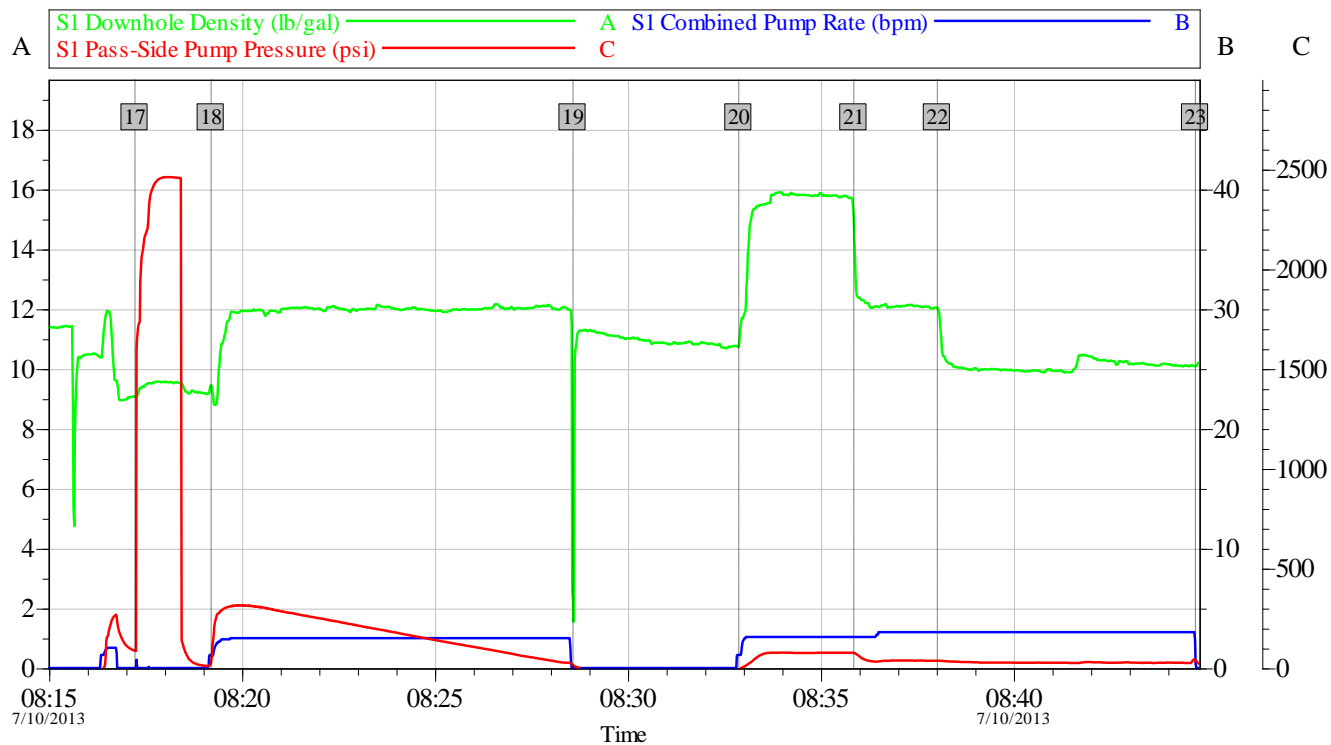
## Global Event Log

10	Test Lines	06:59:13	11	Pump Tuned Spacer 12#	07:02:36	12	Shutdown	07:16:47
13	Pump Premium G 15.8#	07:20:40	14	Pump Tuned Spacer 12#	07:24:30	15	Pump Displacement	07:26:22
16	Shutdown	07:36:33						

Customer:	Job Date: 10-Jul-2013	Sales Order #: 900580617
Well Description:	UWI:	

OptiCem v6.4.10  
22-Jul-13 17:03

# HALLIBURTON



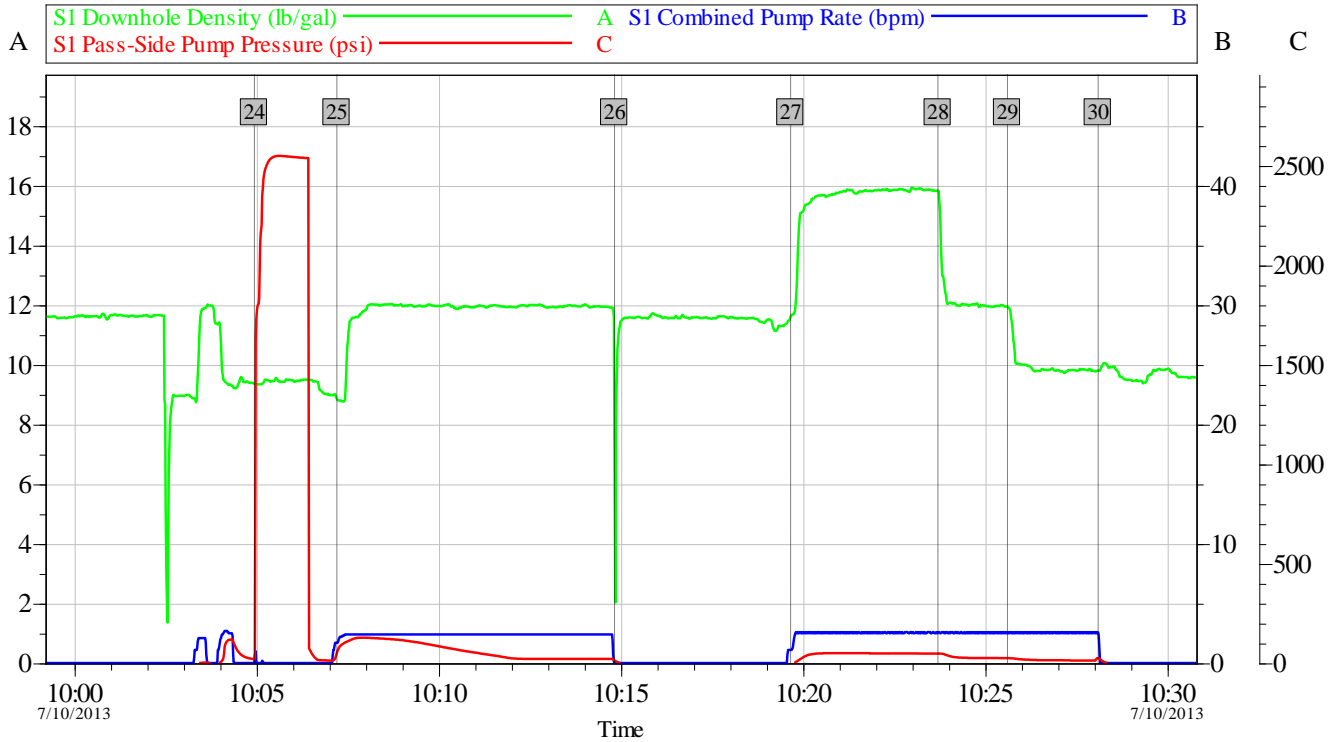
## Global Event Log

17	Test Lines	08:17:14	18	Pump Tuned Spacer 12#	08:19:12	19	Shutdown	08:28:35
20	Pump Premium G 15.8#	08:32:53	21	Pump Tuned Spacer 12#	08:35:52	22	Pump Displacement	08:38:01
23	Shutdown	08:44:43						

Customer:	Job Date: 10-Jul-2013	Sales Order #: 900580617
Well Description:	UWI:	

OptiCem v6.4.10  
 22-Jul-13 17:05

# HALLIBURTON



## Global Event Log

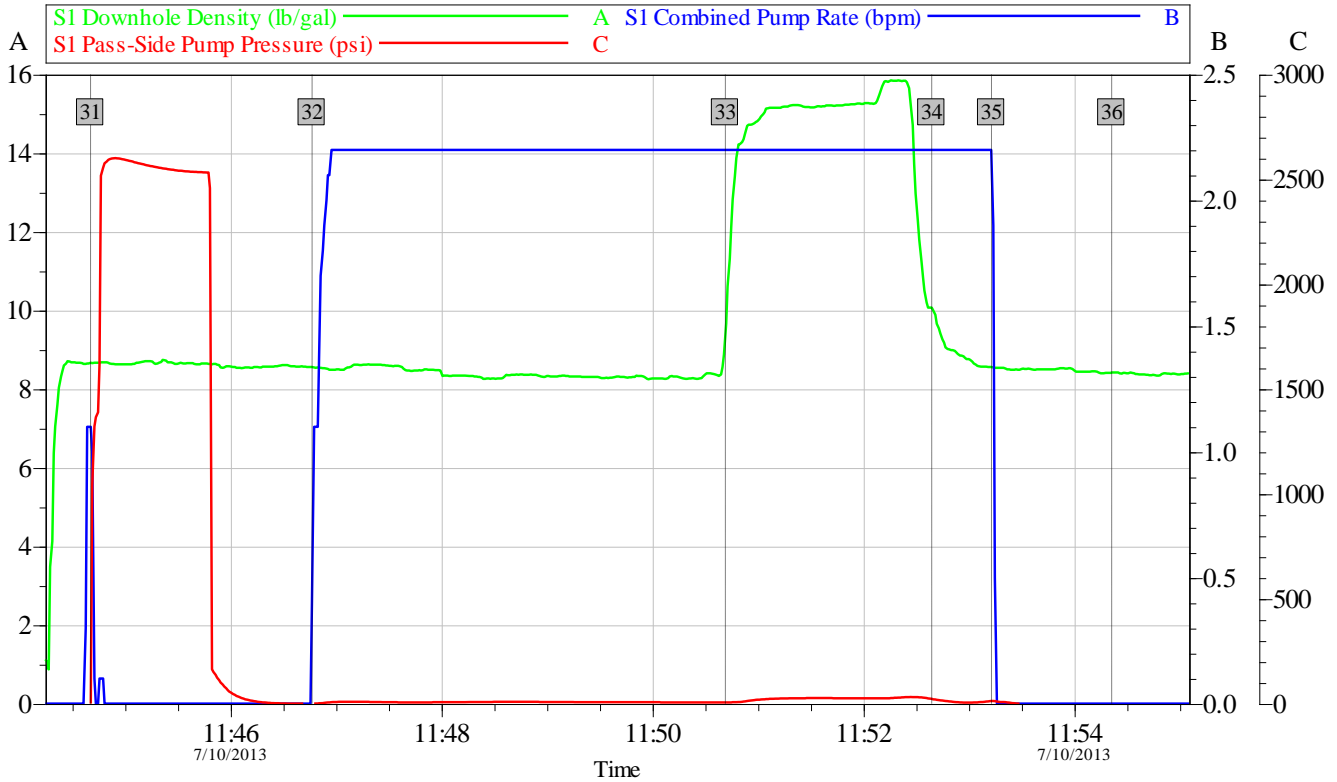
24	Test Lines	10:04:57	25	Pump Tuned Spacer 12#	10:07:12	26	Shutdown	10:14:50
27	Pump Premium G 15.8#	10:19:40	28	Pump Tuned Spacer 12#	10:23:42	29	Pump Displacement	10:25:37
30	Shutdown	10:28:06						

Customer:	Job Date: 10-Jul-2013	Sales Order #: 900580617
Well Description:	UWI:	

OptiCem v6.4.10  
22-Jul-13 17:06



# HALLIBURTON



Global Event Log					
31	Test Lines	11:44:40	32	Pump Water	11:46:46
33	Pump Premium G 15.8#	11:50:42	34	Pump Displacement	11:52:39
35	Shutdown	11:53:13	36	End Job	11:54:21

Customer:	Job Date: 10-Jul-2013	Sales Order #: 900580617
Well Description:	UWI:	

OptiCem v6.4.10  
22-Jul-13 17:07

## Service Supervisor Reports

### Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump	Pressure (psig)	Comments
07/10/2013 04:02		Start Job					FIRST PLUG. DRILL PIPE SET AT 5983 FT
07/10/2013 04:18		Test Lines	1	2		2500.0	PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
07/10/2013 04:20		Pump Spacer 1	2	24		500.0	PUMP TUNED SPACER 24 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 04:37		Pump Cement	2	8.2		125.0	PUMP PREMIUM G CEMENT 40 SKS 15.8 PPG 1.15 CUFT/SK 5 GAL/SK MIXED WITH RIG WATER
07/10/2013 04:41		Pump Spacer 2	2	6		100.0	PUMP TUNED SPACER 6 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 04:44		Pump Displacement	5	53		400.0	PUMP DISPLACEMENT USING 10 PPG WBM

# HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
07/10/2013 04:55		Shutdown							SHUTDOWN FOR RIG TO PULL OUT OF PLUG. PIPE PULLED DRY RIG PULLED 10 JOINTS ROUGHLY 450 FT UP AND CIRCULATED PIPE CLEAN. THEN PULLED UP TO 3736 FT FOR THE SECOND PLUG
07/10/2013 06:59		Test Lines	1	2			2500.0		PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
07/10/2013 07:02		Pump Spacer 1	2.5	24			250.0		PUMP TUNED SPACER 24 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 07:20		Pump Cement	2.5	8.2			100.0		PUMP PREMIUM G CEMENT 40 SKS 15.8 PPG 1.15 CUFT/SK 5 GAL/SK MIXED WITH RIG WATER
07/10/2013 07:24		Pump Spacer 2	2	6			75.0		PUMP TUNED SPACER 6 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 07:26		Pump Displacement	2.5	25			100.0		PUMP DISPLACEMENT USING 10 PPG WBM
07/10/2013 07:36		Shutdown							SHUTDOWN FOR RIG TO PULL OUT OF PLUG. PIPE PULLED DRY. RIG PULLED 10 JOINTS ROUGHLY 450 FT UP AND CIRCULATED PIPE CLEAN. THEN PULLED UP TO 3035 FT TO SET THE THIRD PLUG
07/10/2013 08:17		Test Lines	1	2			2500.0		PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
07/10/2013 08:19		Pump Spacer 1	2.2	24			250.0		PUMP TUNED SPACER 24 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 08:32		Pump Cement	2.2	8.2			100.0		PUMP PREMIUM G CEMENT 40 SKS 15.8 PPG 1.15 CUFT/SK 5 GAL/SK MIXED WITH RIG WATER
07/10/2013 08:35		Pump Spacer 2	2.3	6			75.0		PUMP TUNED SPACER 6 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 08:38		Pump Displacement	3	19			35.0		PUMP DISPLACEMENT USING 10 PPG WBM
07/10/2013 08:44		Shutdown							SHUTDOWN FOR RIG TO PULL OUT OF PLUG. PIPE PULLED DRY RIG PULLED 10 JOINTS ROUGHLY 450 FT UP AND CIRCULATED PIPE CLEAN. THEN PULLED UP TO 1325 FT TO SET THE FOURTH PLUG
07/10/2013 10:04		Test Lines	1	2			2500.0		PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
07/10/2013 10:07		Pump Spacer 1	2.5	24			75.0		PUMP TUNED SPACER 24 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 10:19		Pump Cement	2.5	10.2			75.0		PUMP PREMIUM G CEMENT 50 SKS 15.8 PPG 1.15 CUFT/SK 5 GAL/SK MIXED WITH RIG WATER
07/10/2013 10:23		Pump Spacer 2	2.5	6			50.0		PUMP TUNED SPACER 6 BBL 12 PPG 7.74 CUFT/SK 57.88 GAL/SK MIXED WITH RIG WATER
07/10/2013 10:25		Pump Displacement	2.5	6.5			35.0		PUMP DISPLACEMENT USING 10 PPG WBM
07/10/2013 10:28		Shutdown							SHUTDOWN FOR RIG TO PULL OUT OF PLUG. PIPE PULLED DRY RIG PULLED ALL THE WAY OUT OF HOLE TO CONFIRM NUMBER OF JOINTS IN HOLE FOR FIFTH PLUG. THEN RAN BACK IN THE HOLE WITH 128 FT OF PIPE TO SET THE FIFTH PLUG

# HALLIBURTON

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)		Comments
07/10/2013 11:44		Test Lines	1	2			2500.0		PRESSURE TEST LINES TO 2500 PSI. CHECK FOR VISIBLE LEAKS AND PRESSURE LOSS
07/10/2013 11:46		Pump Water	2.2	8			75.0		PUMP WATER TO CLEAR HOLE OF MUD
07/10/2013 11:50		Pump Cement	2.2	3.2			5.0		PUMP PREMIUM G CEMENT 15 SKS 15.8 PPG 1.15 CUFT/SK 5 GAL/SK MIXED WITH RIG WATER. 25 SKS HAD TO BE MIXED IN THE TUB TO ACHIEVE THE WEIGHT FOR 15 SKS
07/10/2013 11:52		Pump Displacement	2.2	2			12.0		PUMP DISPLACEMENT USING WATER
07/10/2013 11:53		Shutdown							SHUTDOWN FOR RIG TO PULL OUT OF HOLE. PIPE PULLED DRY.
07/10/2013 11:54		End Job							

## The Road to Excellence Starts with Safety

Sold To #: 352220	Ship To #: 3006542	Quote #:	Sales Order #: 900580617
Customer: COMET RIDGE USA INC		Customer Rep: Montoya, Chris	
Well Name: Vortex		Well #: 12-53-3-1	API/UWI #:
Field:	City (SAP): HUGO	County/Parish: Lincoln	State: Colorado
Contractor: EXTREME		Rig/Platform Name/Num: Extreme 11	
Job Purpose: Plug to Abandon Service			
Well Type: Exploratory / Wildcat		Job Type: Plug to Abandon Service	
Sales Person: FLING, MATTHEW		Srvc Supervisor: PICKELL, CHRISTOPHER	MBU ID Emp #: 396838

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
PICKELL, CHRISTOPHER Lee	0.0	396838	PRUDHOMME, JOSHUA	0.0	548040	REYNOLDS, SCOTT Arthur	0.0	522540
WILEY, JAMES A	0.0	440080						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10867419C	125 mile	11360865C	125 mile	11526488	125 mile	11605597	125 mile
11667703C	125 mile	11764054C	125 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	10 - Jul - 2013	02:30	MST
Job depth MD	5983. ft	Job Depth TVD	5983. ft		Job Started	10 - Jul - 2013	04:02	MST
Water Depth		Wk Ht Above Floor	5. ft		Job Completed	10 - Jul - 2013	11:54	MST
Perforation Depth (MD)	From	To			Departed Loc	10 - Jul - 2013	13:00	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
7 7/8" Intermediate Open Hole				7.875				2286.	6040.		
9 5/8" Casing	Unknown		9.625	8.921	36.		J-55	.	2286.		
4" DRILL PIPE	Unknown		4.	3.476	13.51		XT-38	.	6040.		

## Fluid Data

## Stage/Plug #: 1

Fluid #	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
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1	TUNED SPACER III	TUNED SPACER III - SBM (483826)	120.00	bbl	12.	7.74	57.88	2.5	
	35.35 gal/bbl	FRESH WATER							
	177.8583333 lbm/bbl	BARITE, BULK (100003681)							
2	Lead Cement	PLUGCEM (TM) SYSTEM (452969)	75.0	sacks	15.8	1.15	5.0	2.2	5.0
	5 Gal	FRESH WATER							
3	Tail Cement	PLUGCEM (TM) SYSTEM (452969)	120.0	sacks	15.8	1.15	4.96	2.2	4.96
	4.96 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		Frac Ring # 4 @
The Information Stated Herein Is Correct				Customer Representative Signature					

