
ANTERO RESOURCES

**VALLEY FARMS 11H
MAMM CREEK
Garfield County , Colorado**

Cement Surface Casing **24-Mar-2012**

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2880639	Quote #:	Sales Order #: 9377552
Customer: ANTERO RESOURCES		Customer Rep: Oaks, Beade	
Well Name: VALLEY FARMS	Well #: I1H	API/UWI #: 05-045-19496	
Field: MAMM CREEK	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Lat: N 39.527 deg. OR N 39 deg. 31 min. 35.81 secs.		Long: W 107.619 deg. OR W -108 deg. 22 min. 52.342 secs.	
Contractor: CRAIGS #2		Rig/Platform Name/Num: CRAIGS #2	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL	Srvc Supervisor: YOUNG, JEREMY	MBU ID Emp #: 418013	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BURKE, BRENDAN Patrick	15.5	487782	CASTILLO, FRANCISCO P	15.5	513620	GOWEN, WESLEY M	15.5	496205
YOUNG, JEREMY R	15.5	418013						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10011429	120 mile	10744648C	120 mile	10783473	120 mile	11018454	120 mile
11259881	120 mile	11808845	120 mile				

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
03/23/2012	12	4	03/24/2012	3.5	2			

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	23 - Mar - 2012	07:00	MST
Job depth MD	764.7 ft		Job Depth TVD	Job Started	23 - Mar - 2012	15:26	MST
Water Depth			Wk Ht Above Floor	Job Completed	24 - Mar - 2012	14:07	MST
Perforation Depth (MD)	From		To	Departed Loc	24 - Mar - 2012	15:30	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
17 1/2" OPEN HOLE				17.5				.	890.		
16" SURFACE CASING	Unknown		16.	15.124	75.		J-55	.	764.7		

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
R/A DENSOMETER W/CHART RECORDER,/,JOB,ZI	1	JOB		

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	16	1	HES
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	16	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

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density lbm/gal	Yield ft ³ /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Spacer	FRESH WATER	20.00	bbl	8.4	.0	.0	4	
2	Lead Cement	VARICEM (TM) CEMENT (452009)	240.0	sacks	12.8	2.72	14.86	4	14.86
	14.86 Gal	FRESH WATER							
3	Tail Cement	SWIFTCEM (TM) SYSTEM (452990)	395.0	sacks	15.6	1.58	6.66	4	6.66
	6.66 Gal	FRESH WATER							
4	Displacement	FRESH WATER	159.90	bbl	8.4	.0	.0	4	
5	Topout Cement	ECONOCCEM™ SYSTEM (452990)	85	Sacks	12.8	1.64	8.23	2.5	8.23
Calculated Values		Pressures		Volumes					
Displacement	169.9	Shut In: Instant		Lost Returns	YES	Cement Slurry	252.3	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	1	Actual Displacement	159.9	Treatment	
Frac Gradient		15 Min		Spacers	10	Load and Breakdown		Total Job	242.2
Rates									
Circulating		Mixing	4	Displacement	4	Avg. Job	4		
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					

The Road to Excellence Starts with Safety

Sold To #: 337854	Ship To #: 2880639	Quote #:	Sales Order #: 9377552
Customer: ANTERO RESOURCES		Customer Rep: Oaks, Beaudé	
Well Name: VALLEY FARMS	Well #: I1H	API/UWI #: 05-045-19496	
Field: MAMM CREEK	City (SAP): SILT	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat: N 39.527 deg. OR N 39 deg. 31 min. 35.81 secs.		Long: W 107.619 deg. OR W -108 deg. 22 min. 52.342 secs.	
Contractor: CRAIGS #2		Rig/Platform Name/Num: CRAIGS #2	
Job Purpose: Cement Surface Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: METLI, MARSHALL		Srvc Supervisor: YOUNG, JEREMY	MBU ID Emp #: 418013

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	03/23/2012 02:00							
Pre-Convoy Safety Meeting	03/23/2012 04:50							WITH ALL HES PERSONNEL
Crew Leave Yard	03/23/2012 05:00							
Arrive At Loc	03/23/2012 07:00							RIG WAS RUNNING CASING UPON HES ARRIVAL
Assessment Of Location Safety Meeting	03/23/2012 14:00							WITH ALL HES PERSONNEL
Other	03/23/2012 14:10							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	03/23/2012 14:20							WITH ALL HES PERSONNEL
Rig-Up Equipment	03/23/2012 14:30							
Pre-Job Safety Meeting	03/23/2012 15:10							WITH ALL PERSONNEL ON LOCATION
Start Job	03/23/2012 15:26							TD 890 FT, TP 764.71 FT, NO SHOE JOINT, HOLE 17 1/2 IN, AIR DRILLED HOLE, CSG 16 IN 75 LB/FT J-55
Test Lines	03/23/2012 15:26							TEST LINES TO 3000 PSI. PRESSURE HOLDING
Pump Spacer 1	03/23/2012 15:31		4	20			35.0	FRESH WATER
Pump Lead Cement	03/23/2012 15:46		4	116.3			83.0	240 SKS AT 12.8 PPG, 2.72 FT3/SK, 14.86 GAL/SK
Pump Tail Cement	03/23/2012 16:14		4	111.2			138.0	395 SKS AT 15.6 PPG, 1.58 FT3/SK, 6.66 GAL/SK

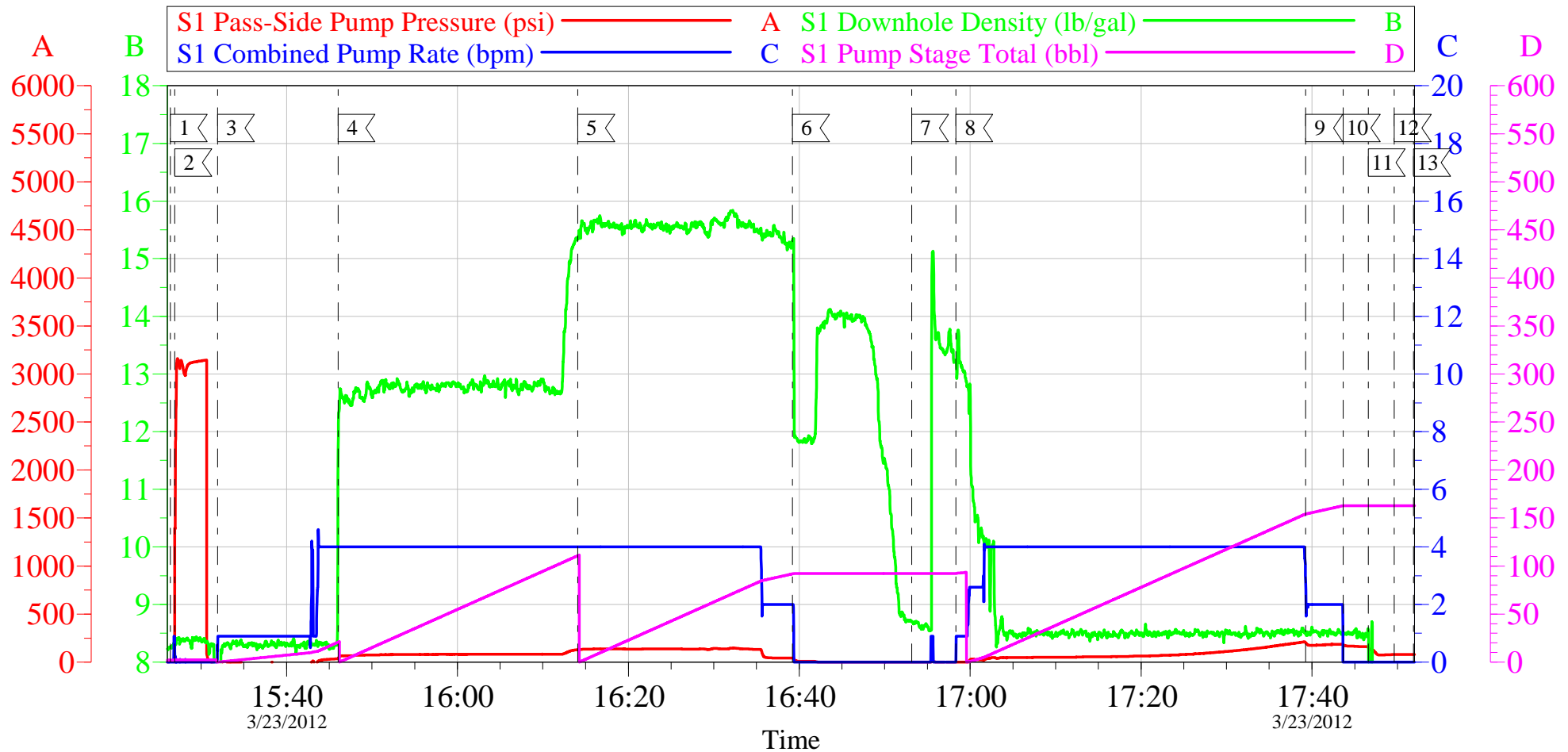
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shutdown	03/23/2012 16:39							
Drop Plug	03/23/2012 16:53							REMOVED CAP TO MANUALLY LAUNCH PLUG. BOTTOM PLUG USED INSTEAD OF TOP PLUG BY MISTAKE.
Pump Displacement	03/23/2012 16:58		4	149.9			210.0	FRESH WATER
Slow Rate	03/23/2012 17:39		2	10			190.0	SLOW RATE 20 BBLS PRIOR TO CALCULATED DISPLACEMENT
Shutdown	03/23/2012 17:43		2		159.9		160.0	SHUTDOWN 10 BBL BEFORE CALCULATED DISPLACEMENT DUE TO BOTTOM PLUG BEING USED BY MISTAKE TO LEAVE CEMENT IN PIPE AND ENSURE CASING WAS NOT OVER DISPLACED.
Check Floats	03/23/2012 17:46							FLOATS NOT HOLDING. RETURNED 0.5 BBL H2O TO PUMP BUT HAD AIR BLOWING BACK AS WELL
Shut In Well	03/23/2012 17:49							SHUT IN WELL TO ALLOW CEMENT TO SET UP.
End Job	03/23/2012 17:51							JOB WAS PUMPED OFFLINE THROUGH PLUG CONTAINER WITH QUICK LATCH. PIPE WAS STATIC DURING JOB. SAW CIRCULATION 20 BBL INTO TAIL CEMENT. HES DID NOT RETURN ANY CEMENT TO SURFACE.
Pre-Rig Down Safety Meeting	03/23/2012 17:55							WITH ALL HES PERSONNEL
Rig-Down Equipment	03/23/2012 18:00							

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pre-Convoy Safety Meeting	03/23/2012 18:50							WITH ALL HES PERSONNEL
Crew Leave Location	03/23/2012 19:00							CREW WAS RELEASED FROM LOCATION WHILE RIG WAITED ON CEMENT TO SET UP TO PROCEED WITH TOPOUT JOB.
Arrive At Loc	03/24/2012 12:00							CREW ARRIVED AT LOCATION AFTER BEING RELEASED THE PERVIOUS DAY
Assessment Of Location Safety Meeting	03/24/2012 12:30							WITH ALL HES PERSONNEL
Other	03/24/2012 12:40							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	03/24/2012 12:50							WITH ALL HES PERSONNEL
Rig-Up Equipment	03/24/2012 13:00							
Pre-Job Safety Meeting	03/24/2012 13:30							WITH ALL PERSONNEL ON LACATION
Start Job	03/24/2012 13:45							TOPOUT #1
Pump Water	03/24/2012 13:46		1	1		.0		PUMP WATER AHEAD TO ENSURE LINES ARE CLEAR
Shutdown	03/24/2012 13:47							SHUTDOWN TO MIX UP CEMENT
Pump Cement	03/24/2012 13:56		2.5	24.8		62.0		85 SKS AT 12.8 PPG, 1.64 FT3/SK, 8.23 GAL/SK
Shutdown	03/24/2012 14:06							
End Job	03/24/2012 14:07							HES RETURNED 1 BBL CEMENT TO SURFACE
Pre-Rig Down Safety Meeting	03/24/2012 14:15							WITH ALL HES PERSONNEL
Rig-Down Equipment	03/24/2012 14:20							
Pre-Convoy Safety Meeting	03/24/2012 15:20							WITH ALL HES PERSONNEL
Crew Leave Location	03/24/2012 15:30							CREW RETURNED 300 SKS TOPOUT CEMENT TO YARD
Activity Description	Date/Time	Cht	Rate bbl/ min	Volume bbl		Pressure psig		Comments

		#		Stage	Total	Tubing	Casing	
Comment	03/24/2012 15:31							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JEREMY YOUNG AND CREW

ANTERO - VALLEY FARMS 11H

16" SURFACE



Local Event Log

1 START JOB	15:26:25	2 TEST LINES	15:26:56	3 PUMP H2O SPACER	15:31:56
4 PUMP LEAD CEMENT	15:46:03	5 PUMP TAIL CEMENT	16:14:05	6 SHUTDOWN	16:39:12
7 DROP PLUG	16:53:09	8 PUMP DISPLACEMENT	16:58:20	9 SLOW RATE	17:39:17
10 SHUTDOWN	17:43:39	11 CHECK FLOATS	17:46:35	12 SHUT IN WELL	17:49:38
13 END JOB	17:51:53				

Customer: ANTERO
Well Description: VALLEY FARMS 11H
Company Rep: BEAUDE OAKS

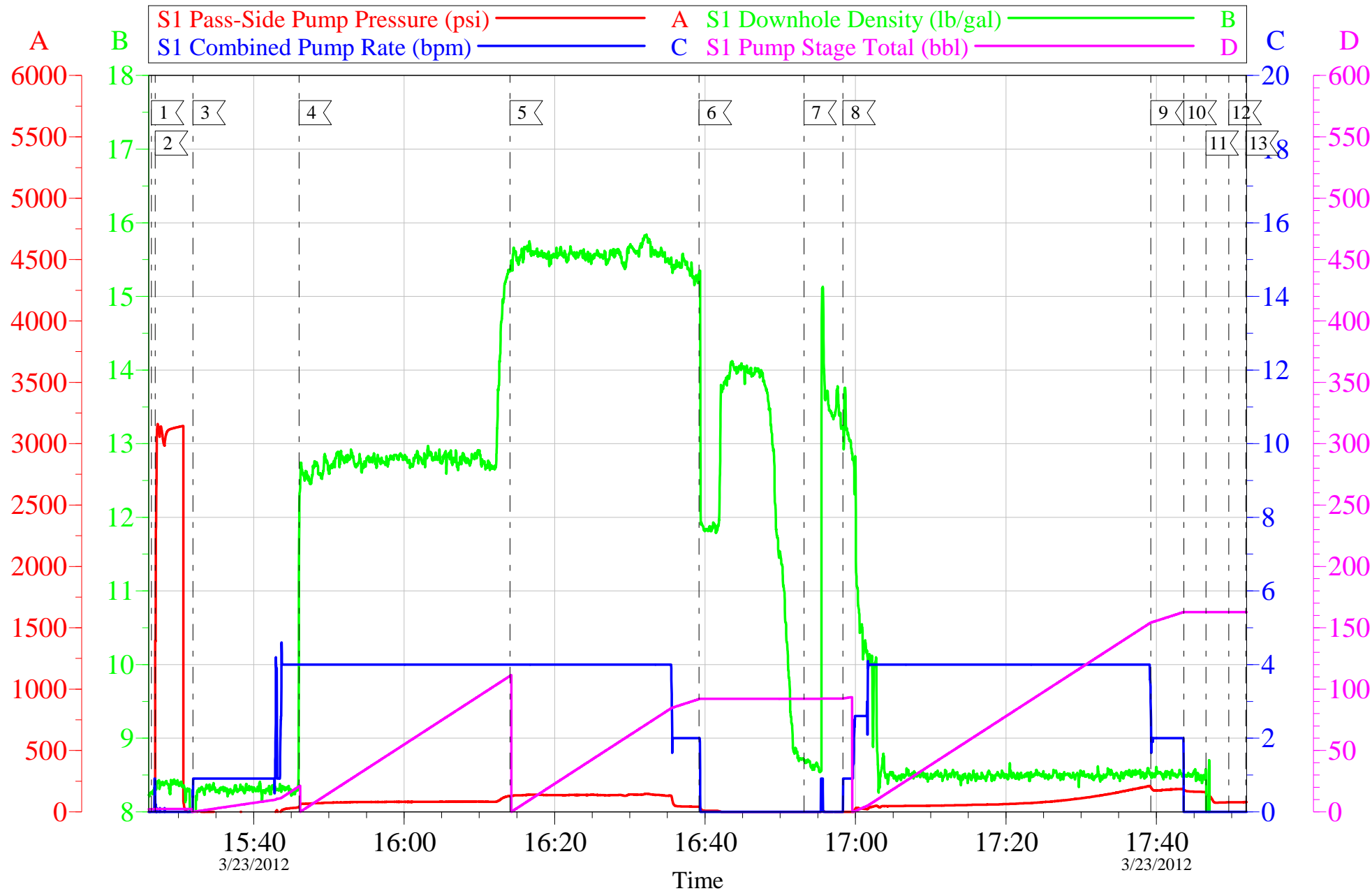
Job Date: 23-Mar-2012
Job Type: SURFACE
Cement Supervisor: JEREMY YOUNG

Sales Order #: 9377552
ADC Used: YES
Elite #6: BRENDAN BURKE

OptiCem v6.4.10
23-Mar-12 18:10

ANTERO - VALLEY FARMS I1H

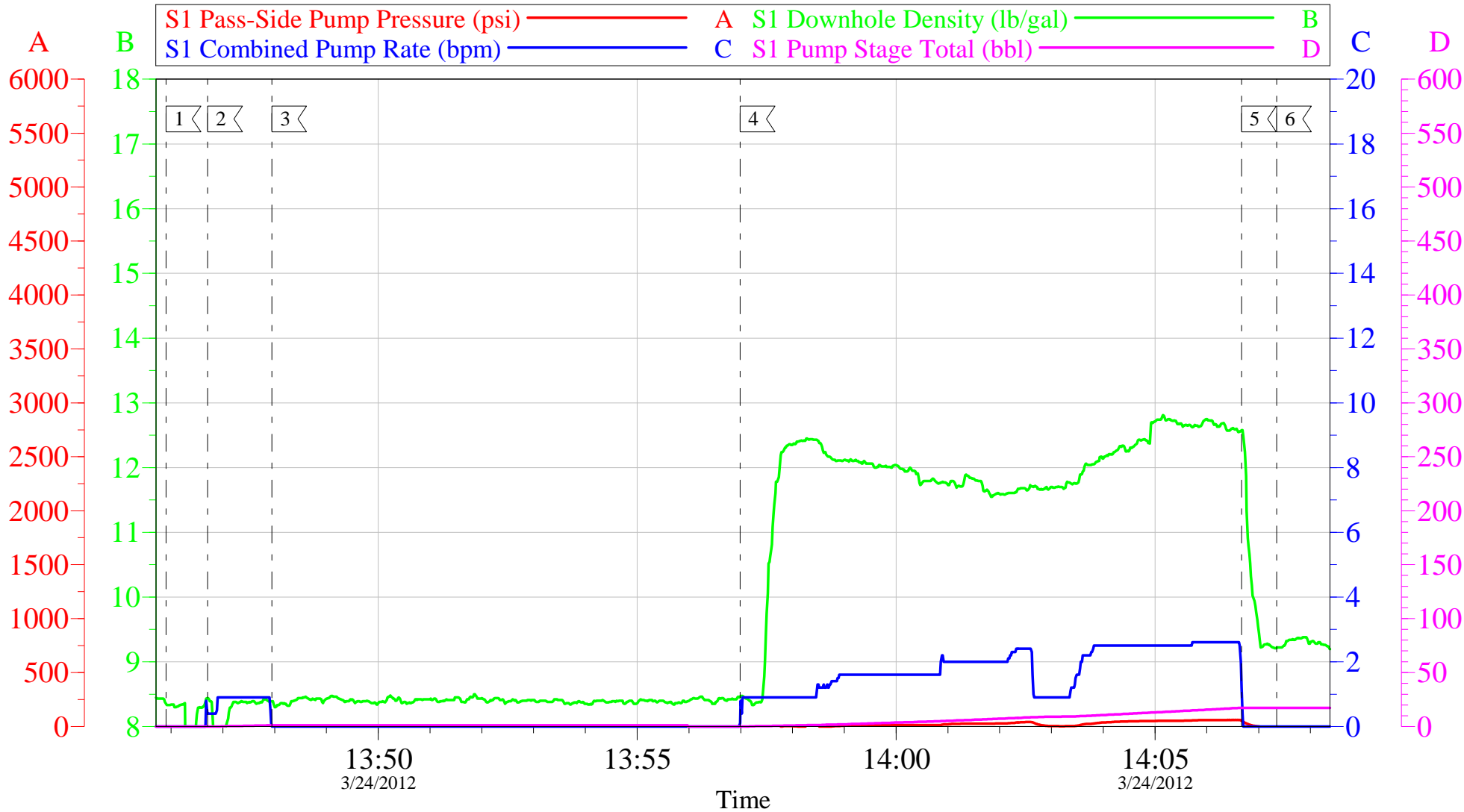
16" SURFACE



Customer:	ANTERO	Job Date:	23-Mar-2012	Sales Order #:	9377552
Well Description:	VALLEY FARMS I1H	Job Type:	SURFACE	ADC Used:	YES
Company Rep:	BEAUDE OAKS	Cement Supervisor:	JEREMY YOUNG	Elite #6:	BRENDAN BURKE

ANTERO - VALLEY FARMS I1H

TOPOUT #1



Local Event Log

1	START JOB	13:45:54	2	PUMP H2O AHEAD	13:46:42	3	SHUTDOWN	13:47:57
4	PUMP CEMENT	13:56:59	5	SHUTDOWN	14:06:40	6	END JOB	14:07:21

Customer: ANTERO
Well Description: VALLEY FARMS I1H
Company Rep: BEAUDE OAKS

Job Date: 24-Mar-2012
Job Type: TOPOUT
Cement Supervisor: JEREMY YOUNG

Sales Order #: 9377552
ADC Used: YES
Elite #6: BRENDAN BURKE

OptiCem v6.4.10
24-Mar-12 14:31

HALLIBURTON

Water Analysis Report

Company: ANTERO

Submitted by: JEREMY YOUNG

Attention: LAB

Lease: VALLEY FARMS

Well #: I1H

Date: 3/23/2012

Date Rec.:

S.O.#: 9377552

Job Type: SURFACE

Specific Gravity	<i>MAX</i>	1
pH	<i>8</i>	7
Potassium (K)	<i>5000</i>	200 Mg / L
Calcium (Ca)	<i>500</i>	250 Mg / L
Iron (FE2)	<i>300</i>	0 Mg / L
Chlorides (Cl)	<i>3000</i>	0 Mg / L
Sulfates (SO ₄)	<i>1500</i>	UNDER 200 Mg / L
Chlorine (Cl ₂)		0 Mg / L
Temp	<i>40-80</i>	62 Deg
Total Dissolved Solids		450 Mg / L

Respectfully: JEREMY YOUNG

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

NOTICE:

This report is limited to the described sample tested. Any person using or relying on this report agrees that Halliburton shall not be liable for any loss or damage whether due to act or omission resulting from such report or its use.

Sales Order #: 9377552	Line Item: 10	Survey Conducted Date: 3/24/2012
Customer: ANTERO RESOURCES		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: BEAUDE OAKS		API / UWI: (leave blank if unknown) 05-045-19496
Well Name: VALLEY FARMS		Well Number: I1H
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: Garfield

Dear Customer,

We hope that you were satisfied with the service quality of this job performed by Halliburton. It is the aim of our management and service personnel to deliver equipment and service of a standard unmatched in the service sector of the energy industry.

Please take the time to let us know if our performance met with your satisfaction. Please be as critical as possible to ensure we constantly improve our service. Your comments are of great value to us and are intended for the exclusive use of Halliburton.

CUSTOMER SATISFACTION SURVEY

CATEGORY	CUSTOMER SATISFACTION RESPONSE	
Survey Conducted Date	The date the survey was conducted	3/24/2012
Survey Interviewer	The survey interviewer is the person who initiated the survey.	JEREMY YOUNG (HX37077)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	BEAUDE OAKS
HSE	Was our HSE performance satisfactory? Circle Y or N	Yes
Equipment	Were you satisfied with our Equipment? Circle Y or N	Yes
Personnel	Were you satisfied with our people? Circle Y or N	Yes
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

Sales Order #: 9377552	Line Item: 10	Survey Conducted Date: 3/24/2012
Customer: ANTERO RESOURCES		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: BEAUDE OAKS		API / UWI: (leave blank if unknown) 05-045-19496
Well Name: VALLEY FARMS		Well Number: I1H
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	3/24/2012

Cementing KPI Survey	
Type of Job Select the type of job. (Cementing or Non-Cementing)	0
Select the Maximum Deviation range for this Job What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	Vertical
Total Operating Time (hours) Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	7
HSE Incident, Accident, Injury HSE Incident, Accident, Injury. This should be recordable incidents only.	No
Was the job purpose achieved? Was the job delivered correctly as per customer agreed design?	Yes
Operating Hours (Pumping Hours) Total number of hours pumping fluid on this job. Enter in decimal format.	2
Customer Non-Productive Rig Time (hrs) Lost time due to Halliburton in the start, execution, or completion of an ordered service or product, or delays in a follow-on service. Enter in decimal format. 0 if none.	0
Type of Rig Classification Job Was Performed Type Of Rig (classification) Job Was Performed On	Drilling Rig (Portable)
Number Of JSAs Performed Number Of Jsas Performed	10
Number of Unplanned Shutdowns Unplanned shutdown is when injection stops for any period of time.	0
Was this a Primary Cement Job (Yes / No)	Yes

Sales Order #: 9377552	Line Item: 10	Survey Conducted Date: 3/24/2012
Customer: ANTERO RESOURCES		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative: BEAUDE OAKS		API / UWI: (leave blank if unknown) 05-045-19496
Well Name: VALLEY FARMS		Well Number: I1H
Well Type: Development Well	Well Country: United States of America	
H2S Present: No	Well State: Colorado	Well County: Garfield

Primary Cement Job= Casing job, Liner job, or Tie-back job.	
Did We Run Wiper Plugs? Did We Run Top And Bottom Casing Wiper Plugs?	Bottom
Mixing Density of Job Stayed in Designed Density Range (0-100%) Density Range defined as +/- .20 ppg. Calculation: Total BBLs cement mixed at designed density divided by total BBLs of cement multiplied by 100	90
Was Automated Density Control Used? Was Automated Density Control (ADC) Used ?	Yes
Pump Rate (percent) of Job Stayed At Designed Pump Rate Pump Rate range defined as +/- 1bbl/min. Calculation: Total BBLs of fluid pumped at the designed rate divided by Total BBLs of fluid pumped, multiplied by 100	90
Nbr of Remedial Sqz Jobs Rqd - Competition Number Of Remedial Squeeze Jobs Required After Primary Job Performed By Competition	0
Nbr of Remedial Plug Jobs Rqd - HES Number Of Remedial Plug Jobs Needed After Primary Plug Pumped By HES	0
Nbr of Remedial Sqz Jobs Rqd - HES Number Of Remedial Squeeze Jobs Required After Primary Job Performed By HES	0