

---

# **OXY GRAND JUNCTION EBUSINESS**

---

**CC 697-05-80A  
GRAND VALLEY  
Garfield County , Colorado**

## **Cement Surface Casing** **26-May-2011**

### **Post Job Summary**

### The Road to Excellence Starts with Safety

Sold To #: 344034		Ship To #: 2855925		Quote #:		Sales Order #: 8190699	
Customer: OXY GRAND JUNCTION EBUSINESS				Customer Rep: COOMBS, HENRY			
Well Name: CC			Well #: 697-05-80A			API/UWI #: 05-045-18146	
Field: GRAND VALLEY		City (SAP): PARACHUTE		County/Parish: Garfield		State: Colorado	
Lat: N 39.542 deg. OR N 39 deg. 32 min. 31.603 secs.				Long: W 108.238 deg. OR W -109 deg. 45 min. 42.998 secs.			
Contractor: H&P 353			Rig/Platform Name/Num: H&P 353				
Job Purpose: Cement Surface Casing							
Well Type: Development Well			Job Type: Cement Surface Casing				
Sales Person: ROYSTER, JACOB			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 #
GOWAN, WESLEY	15	496205	MOAT, RYAN C	15	489025	RAMSEY, STANTON Michael	15	477609
SLAUGHTER, JESSE Dean	15	454315	YOUNG, JEREMY R	15	418013			

### Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10053558	120 mile	10744648C	120 mile	10784080	120 mile	10804579	120 mile
10951248	120 mile	10998508	120 mile	6543	120 mile		

### Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
05/25/2011	4	0	05/26/2011	11	8			

**TOTAL** Total is the sum of each column separately

### Job

Formation Name	Top	Bottom	Called Out	Date	Time	Time Zone
Formation Depth (MD)			On Location	25 - May - 2011	13:00	MST
Form Type		BHST	Job Started	25 - May - 2011	20:00	MST
Job depth MD	2698. ft	Job Depth TVD	Job Completed	26 - May - 2011	01:50	MST
Water Depth		Wk Ht Above Floor	Departed Loc	26 - May - 2011	08:23	MST
Perforation Depth (MD)	From	To		26 - May - 2011	11:00	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				14.75				.	2715.		
SURFACE CASING	Unknown		9.625	8.921	36.			.	2698.		

### 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	9.625	1	HES
Float Shoe					Bridge Plug					Bottom Plug			
Float Collar					Retainer					SSR plug set			
Insert Float										Plug Container	9.625	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 <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Total Mix Fluid Gal/sk
1	Water Spacer	FRESH WATER	20.00	bbl	8.33	.0	.0	4	
2	Gel Spacer	GEL WATER	20.00	bbl	8.4	.0	.0	5	
3	Water Spacer	FRESH WATER	20.00	bbl	8.33	.0	.0	6	
4	Lead Cement	VERSACEM (TM) SYSTEM (452010)	1025.0	sacks	12.3	2.33	12.62	6	12.62
		12.62 Gal	FRESH WATER						
5	Tail Cement	VERSACEM (TM) SYSTEM (452010)	175.0	sacks	12.8	2.07	10.67	6	10.67
		10.67 Gal	FRESH WATER						
6	Displacement	FRESH WATER	205.00	bbl	8.33	.0	.0	6	
7	Topout Cement	HALCEM (TM) SYSTEM (452986)	49.0	sacks	12.5	1.97	10.96	2	10.96
		10.96 Gal	FRESH WATER						
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
Displacement	205	Shut In: Instant		Lost Returns	YES	Cement Slurry	500.1	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	1	Actual Displacement	205	Treatment	
Frac Gradient		15 Min		Spacers	60	Load and Breakdown		Total Job	798.6
<b>Rates</b>									
Circulating		Mixing	6	Displacement	6	Avg. Job	6		
Cement Left In Pipe	Amount	46.3 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					

EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	Start Job					
6	Test Lines	3000 PSI				
9	H2O Spacer	20.0		8.33		
10	Gel Spacer	20.0		8.4		
9	H2O Spacer	20.0		8.33		
13	Lead Cement	425.3	1025	12.3	2.33	12.62
15	Tail Cement	64.5	175	12.8	2.07	10.67
	SHUTDOWN/DROP PLUG					
22	Displace with H2O	205.0		8.33		
23	Slow rate	195.0				
26	Land Plug	559 PSI	GO	500	PSI	OVER
	Release Psi / Job Over					
			Do Not Overdisplace			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		FLOAT COLLAR	BBL/FT	H2O REQ.
204.97	2698	46.32		2651.68	0.0773	770 BBL
PSI to Lift Pipe	1140 PSI	*****Use Mud Scales on Each Tier*****				
Total Displacement	204.97					
CALCULATED DIFFERENTIAL PSI		559 PSI		TOTAL FLUID PUMPED		785 BBL
Collapse		Burst			SO#	8190699

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 344034		<b>Ship To #:</b> 2855925		<b>Quote #:</b>		<b>Sales Order #:</b> 8190699	
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS				<b>Customer Rep:</b> COOMBS, HENRY			
<b>Well Name:</b> CC			<b>Well #:</b> 697-05-80A			<b>API/UWI #:</b> 05-045-18146	
<b>Field:</b> GRAND VALLEY		<b>City (SAP):</b> PARACHUTE		<b>County/Parish:</b> Garfield		<b>State:</b> Colorado	
<b>Legal Description:</b>							
<b>Lat:</b> N 39.542 deg. OR N 39 deg. 32 min. 31.603 secs.				<b>Long:</b> W 108.238 deg. OR W -109 deg. 45 min. 42.998 secs.			
<b>Contractor:</b> H&P 353			<b>Rig/Platform Name/Num:</b> H&P 353				
<b>Job Purpose:</b> Cement Surface Casing						<b>Ticket Amount:</b>	
<b>Well Type:</b> Development Well			<b>Job Type:</b> Cement Surface Casing				
<b>Sales Person:</b> ROYSTER, JACOB			<b>Srvc Supervisor:</b> YOUNG, JEREMY			<b>MBU ID Emp #:</b> 418013	

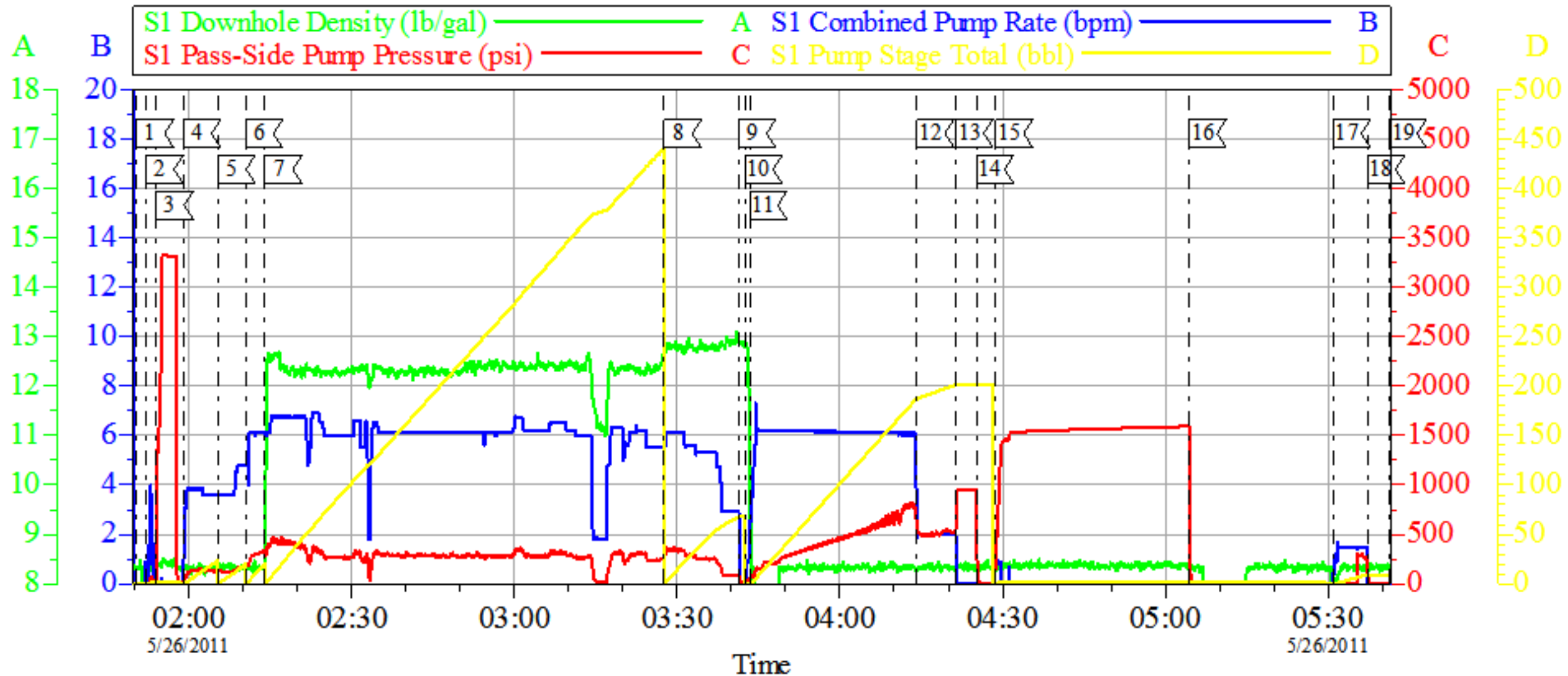
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	05/25/2011 13:00							TD 2715 FT, TP 2698 FT, SHOE 46.32 FT. HOLE 14 3/4 IN, MUD WT 9.5 PPG, CSG 9 5/8 IN 36 LB/FT
Pre-Convoy Safety Meeting	05/25/2011 15:50							WITH ALL HES PERSONNEL
Crew Leave Yard	05/25/2011 16:00							
Arrive At Loc	05/25/2011 20:00							RIG WAS RUNNING CASING UPON HES ARRIVAL
Assessment Of Location Safety Meeting	05/26/2011 00:00							WITH ALL HES PERSONNEL
Other	05/26/2011 00:05							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	05/26/2011 00:20							WITH ALL HES PERSONNEL
Rig-Up Equipment	05/26/2011 00:30							
Pre-Job Safety Meeting	05/26/2011 01:35							WITH ALL PERSONNEL ON LOCATION
Start Job	05/26/2011 01:50							
Other	05/26/2011 01:52		2	2			70.0	FILL LINES WITH FRESH WATER
Test Lines	05/26/2011 01:52							TEST LINES TO 3300 PSI. PRESSURE HOLDING
Pump Spacer 1	05/26/2011 01:58		4	20			145.0	FRESH WATER
Pump Spacer 2	05/26/2011 02:05		5	20			180.0	GEL WATER
Pump Spacer 1	05/26/2011 02:10		6	20			320.0	FRESH WATER

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Lead Cement	05/26/2011 02:13		6	425.3			400.0	1025 SKS AT 12.3 PPG, 2.33 FT <sup>3</sup> /SK, 12.62 GAL/SK. 7 BOXES OF TUFF FIBER ADDED TO LEAD CEMENT
Pump Tail Cement	05/26/2011 03:27		6	64.5			350.0	175 SKS AT 12.8 PPG, 2.07 FT <sup>3</sup> /SK, 10.67 GAL/SK
Shutdown	05/26/2011 03:41							
Drop Top Plug	05/26/2011 03:42							PLUG LAUNCHED
Pump Displacement	05/26/2011 03:43		6	185			800.0	FRESH WATER
Slow Rate	05/26/2011 04:14		2	20			540.0	SLOW RATE 20 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	05/26/2011 04:21		2		205		950.0	PLUG BUMPED
Check Floats	05/26/2011 04:25							FLOATS HOLDING. RETURN 1 BBL H <sub>2</sub> O TO PUMP
Pressure Test	05/26/2011 04:28						1500.0	PRESSURE TEST CASING TO 1500 PSI FOR 30 MIN AS PER COMPANY MANS REQUEST
Release Casing Pressure	05/26/2011 05:04							
Pump Water	05/26/2011 05:30		1.5	10			300.0	PUMP 10 BBL SUGAR WATER DOWN PARASITE STRING
End Job	05/26/2011 05:41							PIPE WAS STATIC DURING JOB. CIRCULATION WAS INTERMITTENT THROUGHOUT JOB. HES DID NOT RETURN CEMENT TO SURFACE DURING PRIMARY JOB
Start Job	05/26/2011 08:06							TOPOUT JOB #1. HES DUMPED 100 LB CALCIUM CHLORIDE DOWN BACKSIDE BEFORE TOPPING OUT AS PER COMPANY REP

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Water	05/26/2011 08:07		1	1.5			5.0	PUMP FRESH WATER AHEAD TO ENSURE LINE IS CLEAR
Shutdown	05/26/2011 08:08							SHUTDOWN TO MIX UP CEMENT
Pump Cement	05/26/2011 08:11		2	8.5			70.0	49 SKS AT 12.5 PPG, 1.97 FT3/SK, 10.96 GAL/SK
Shutdown	05/26/2011 08:15							SHUTDOWN TO WATCH FOR CEMENT FALL BACK
Resume	05/26/2011 08:17		2	1.8			70.0	RESUME PUMPING AFTER CEMENT FELL
Shutdown	05/26/2011 08:18				10.3			AFTER CEMENT WAS TO SURFACE, HES PUMPED REMAINING 7 BBL OF MIXED UP CEMENT TO PIT
Pump Water	05/26/2011 08:21		1.5	2			13.0	PUMP FRESH WATER BEHIND TO CLEAN LINES
Shutdown	05/26/2011 08:23							
End Job	05/26/2011 08:23							HES RETURNED 1 BBL OF TOPOUT CEMENT TO SURFACE
Pre-Rig Down Safety Meeting	05/26/2011 08:30							WITH ALL HES PERSONNEL
Rig-Down Equipment	05/26/2011 08:40							
Pre-Convoy Safety Meeting	05/26/2011 10:50							WITH ALL HES PERSONNEL
Crew Leave Location	05/26/2011 11:00							HES LEFT APPROX 301 SKS OF TOPOUT CEMENT ON LOCATION
Comment	05/26/2011 11:01							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JEREMY YOUNG AND CREW.

# OXY

## CC 697-05-80A, 9 5/8 SURFACE



1	START JOB	01:50:21	2	FILL LINES	01:52:02	3	TEST LINES	01:53:56
4	PUMP H2O SPACER 1	01:58:59	5	PUMP GEL SPACER	02:05:20	6	PUMP H2O SPACER 2	02:10:24
7	PUMP LEAD CEMENT	02:13:59	8	PUMP TAIL CEMENT	03:27:35	9	SHUTDOWN	03:41:17
10	DROP TOP PLUG	03:42:33	11	PUMP DISPLACEMENT	03:43:25	12	SLOW RATE	04:14:13
13	BUMP PLUG	04:21:22	14	CHECK FLOATS	04:25:11	15	PRESSURE TEST CASING	04:28:45
16	RELEASE PRESSURE	05:04:24	17	FLUSH PARASITE STRING	05:30:58	18	SHUTDOWN	05:37:19
19	END JOB	05:41:19						

Customer: OXY  
Well Description: CC 697-05-80A  
Customer Rep: HENRY COOMBS

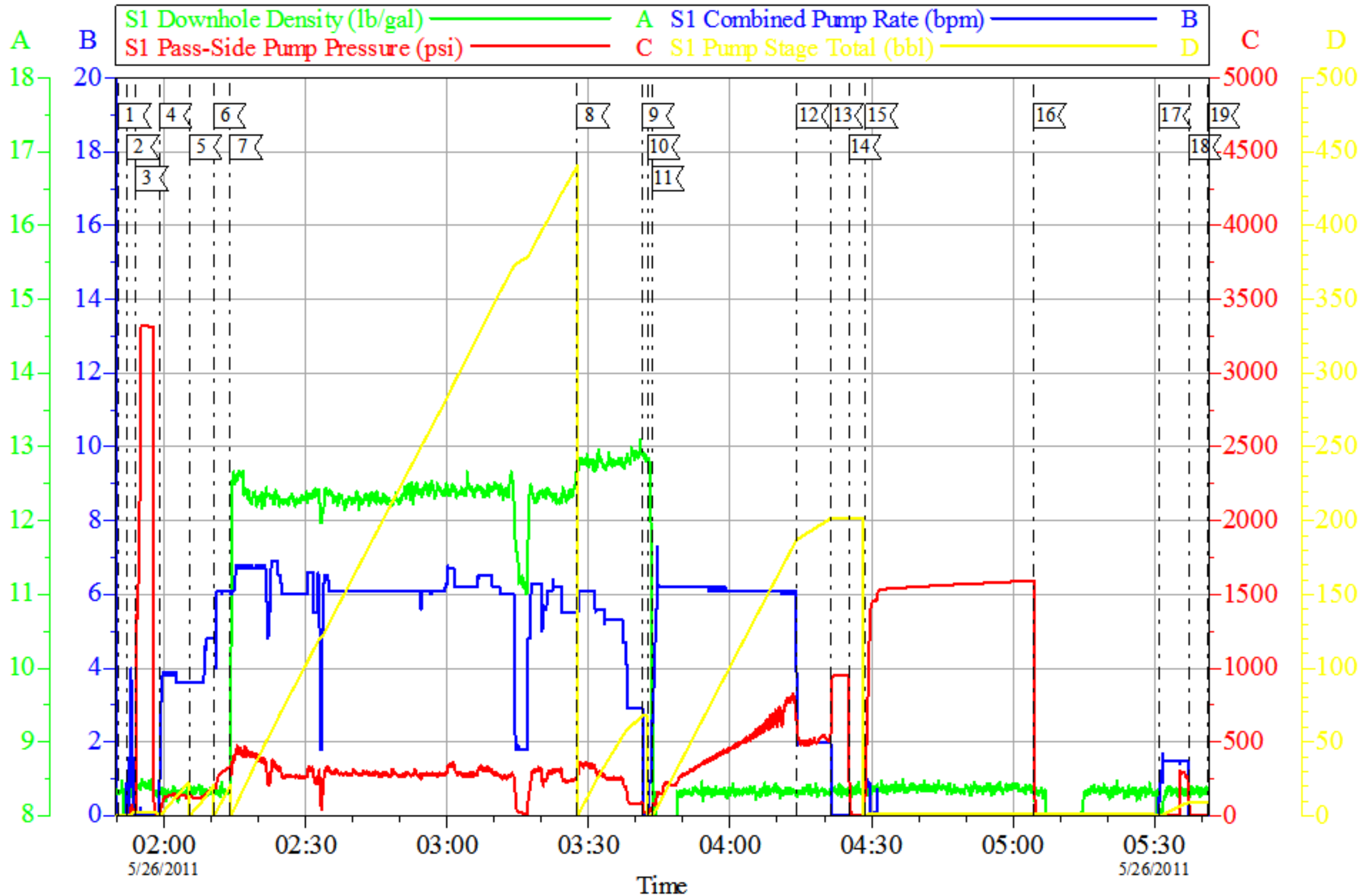
Job Date: 26-May-2011  
Job Type: SURFACE  
Service Supervisor: JEREMY YOUNG

Sales Order #: 8190699  
ADC Used: YES  
Pump #/Operator: 6/JESSE SLAUGHTER

OptiCem v6.4.9  
26-May-11 05:51

# OXY

## CC 697-05-80A, 9 5/8 SURFACE



Customer: OXY  
 Well Description: CC 697-05-80A  
 Customer Rep: HENRY COOMBS

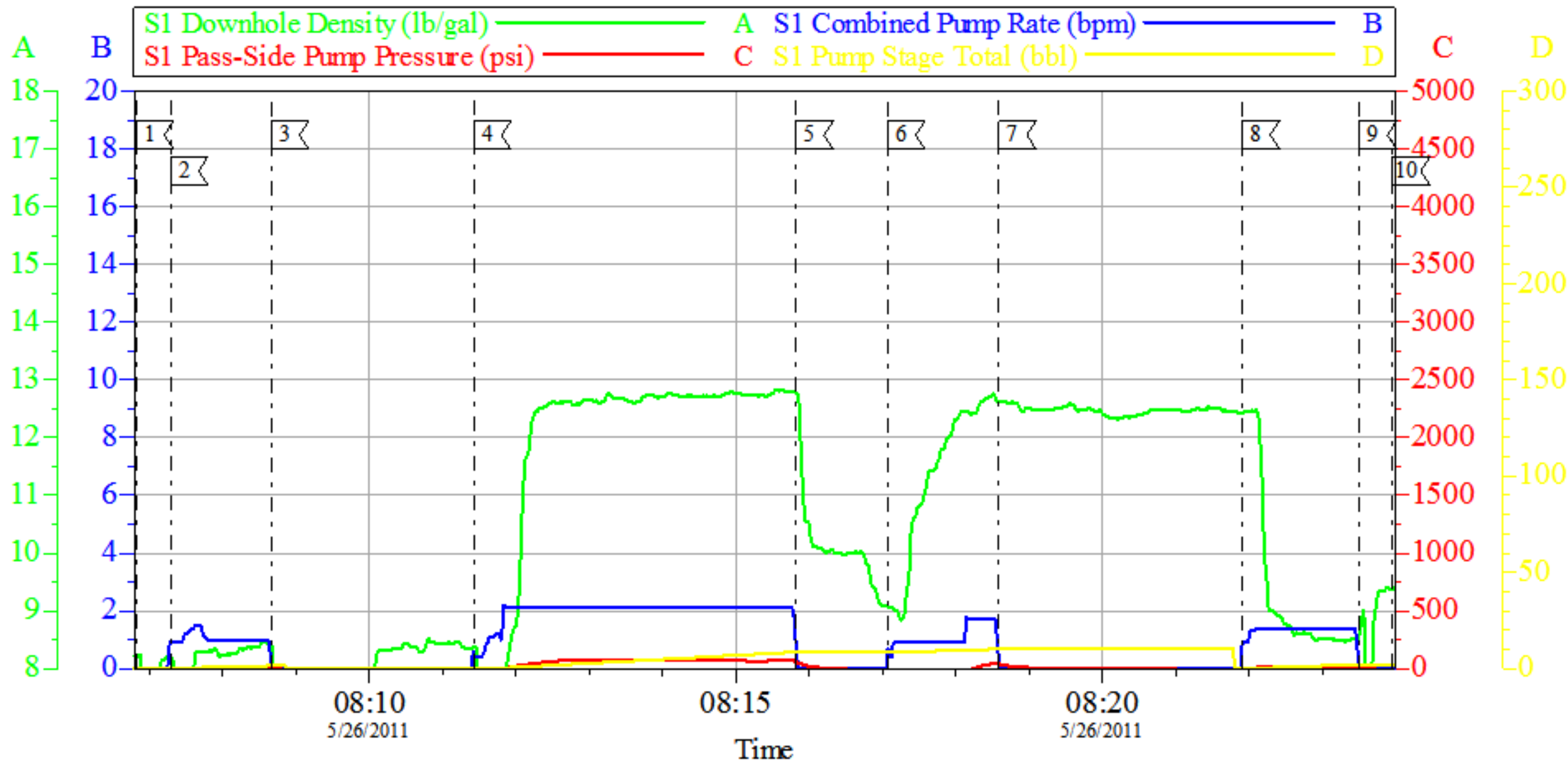
Job Date: 26-May-2011  
 Job Type: SURFACE  
 Service Supervisor: JEREMY YOUNG

Sales Order #: 8190699  
 ADC Used: YES  
 Pump #/Operator: 6/JESSE SLAUGHTER

OptiCem v6.4.9  
 26-May-11 05:53

# OXY

## CC 697-05-80A, TOPOUT #1



1	START JOB	08:06:49	2	PUMP WATER AHEAD	08:07:17
3	SHUTDOWN/MIX UP CEMENT	08:08:40	4	PUMP TOPOUT CEMENT	08:11:25
5	SHUTDOWN	08:15:49	6	RESUME PUMPING	08:17:04
7	SHUTDOWN	08:18:35	8	PUMP WATER BEHIND	08:21:54
9	SHUTDOWN	08:23:30	10	END JOB	08:23:57

Customer: OXY  
Well Description: CC 697-05-80A  
Customer Rep: HENRY COOMBS

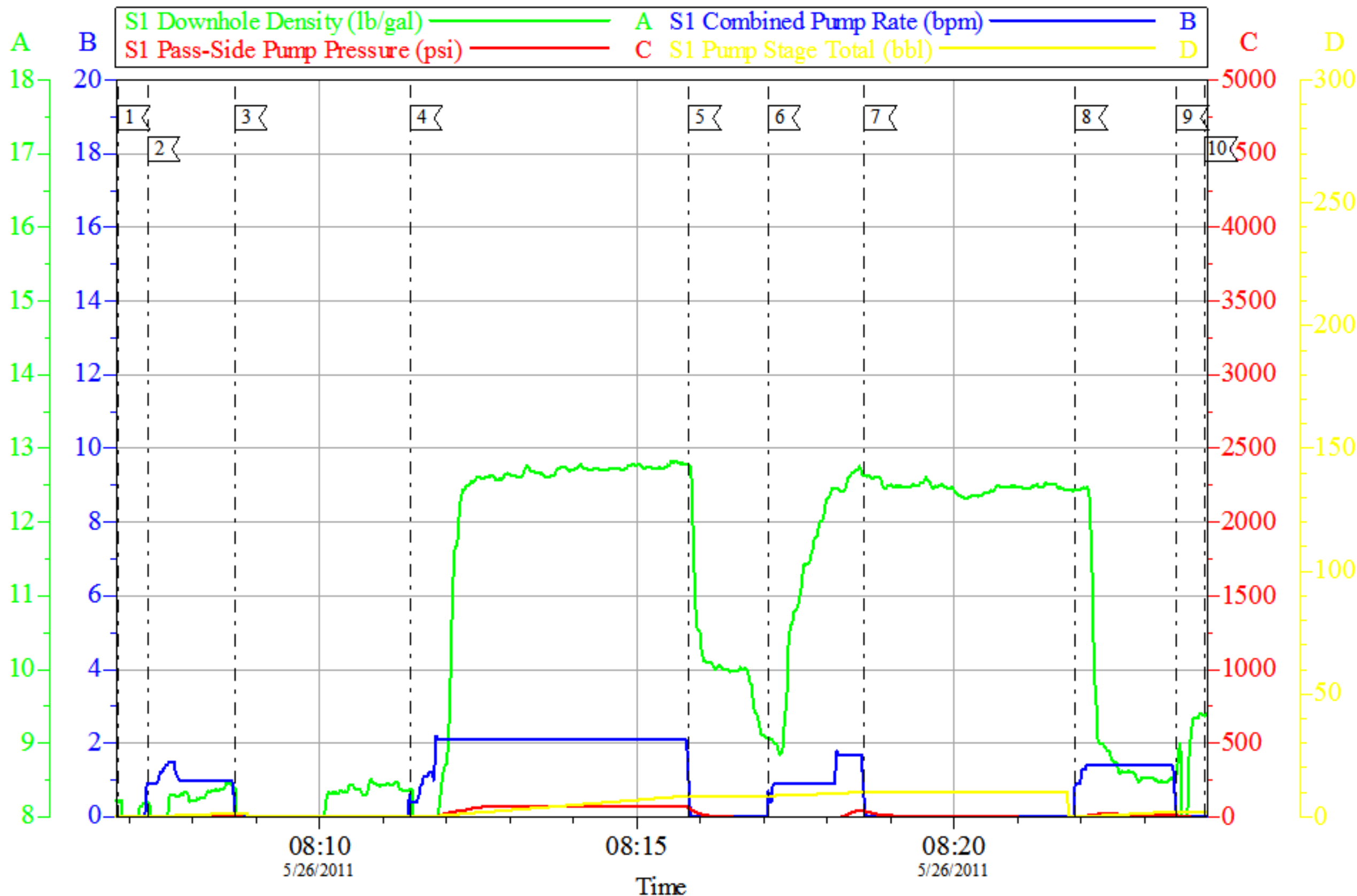
Job Date: 26-May-2011  
Job Type: TOPOUT  
Service Supervisor: JEREMY YOUNG

Sales Order #: 8190699  
ADC Used: YES  
Pump #/Operator: 6/JESSE SLAUGHTER

OptiCem v6.4.9  
26-May-11 08:46

# OXY

## CC 697-05-80A, TOPOUT #1



Customer: OXY  
Well Description: CC 697-05-80A  
Customer Rep: HENRY COOMBS

Job Date: 26-May-2011  
Job Type: TOPOUT  
Service Supervisor: JEREMY YOUNG

Sales Order #: 8190699  
ADC Used: YES  
Pump #/Operator: 6/JESSE SLAUGHTER

OptiCem v6.4.9  
26-May-11 08:48

# HALLIBURTON

## Water Analysis Report

Company: OXY  
Submitted by: JEREMY YOUNG  
Attention: LAB  
Lease: CC  
Well #: 697-05-80A

Date: 5/25/2011  
Date Rec.:   
S.O.#: 8190699  
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<b>1</b>
pH	<i>8</i>	<b>6.8</b>
Potassium (K)	<i>5000</i>	<b>250</b> Mg / L
Calcium (Ca)	<i>500</i>	<b>120</b> Mg / L
Iron (FE2)	<i>300</i>	<b>0</b> Mg / L
Chlorides (Cl)	<i>3000</i>	<b>0</b> Mg / L
Sulfates (SO <sub>4</sub> )	<i>1500</i>	<b>UNDER 200</b> Mg / L
Chlorine (Cl <sub>2</sub> )		<b>0</b> Mg / L
Temp	<i>40-80</i>	<b>60</b> Deg
Total Dissolved Solids		<b>650</b> 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 c

<b>Sales Order #:</b> 8190699	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/26/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> HENRY COOMBS		<b>API / UWI: (leave blank if unknown)</b> 05-045-18146
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-80A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> 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	5/26/2011
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	HENRY COOMBS
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	
Job DVA	Did we provide job DVA above our normal service today? Circle Y or N	No
Time	Please enter hours in decimal format to nearest quarter hour.	
Other	Enter short text for other efficiencies gained.	
Customer Initials	Customer's Initials	
Please provide details	Please describe how the job efficiencies were gained.	

CUSTOMER SIGNATURE

<b>Sales Order #:</b> 8190699	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/26/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> HENRY COOMBS		<b>API / UWI: (leave blank if unknown)</b> 05-045-18146
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-80A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

### KEY PERFORMANCE INDICATORS

General	
<b>Survey Conducted Date</b>	5/26/2011
The date the survey was conducted	

Cementing KPI Survey	
<b>Type of Job</b>	0
Select the type of job. (Cementing or Non-Cementing)	
<b>Select the Maximum Deviation range for this Job</b>	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
<b>Total Operating Time (hours)</b>	8
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
<b>HSE Incident, Accident, Injury</b>	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
<b>Was the job purpose achieved?</b>	Yes
Was the job delivered correctly as per customer agreed design?	
<b>Operating Hours (Pumping Hours)</b>	4.5
Total number of hours pumping fluid on this job. Enter in decimal format.	
<b>Customer Non-Productive Rig Time (hrs)</b>	0
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.	
<b>Type of Rig Classification Job Was Performed</b>	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
<b>Number Of JSAs Performed</b>	8
Number Of Jsas Performed	
<b>Number of Unplanned Shutdowns</b>	0
Unplanned shutdown is when injection stops for any period of time.	
<b>Was this a Primary Cement Job (Yes / No)</b>	Yes

<b>Sales Order #:</b> 8190699	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 5/26/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> HENRY COOMBS		<b>API / UWI: (leave blank if unknown)</b> 05-045-18146
<b>Well Name:</b> CC		<b>Well Number:</b> 697-05-80A
<b>Well Type:</b> Development Well	<b>Well Country:</b> United States of America	
<b>H2S Present:</b>	<b>Well State:</b> Colorado	<b>Well County:</b> Garfield

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