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# **OXY GRAND JUNCTION EBUSINESS**

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**CC 697-16-29b  
GRAND VALLEY  
Garfield County , Colorado**

**Cement Surface Casing  
09-Aug-2011**

**Post Job Report**

## The Road to Excellence Starts with Safety

Sold To #: 344034		Ship To #: 2870899		Quote #:		Sales Order #: 8370196	
Customer: OXY GRAND JUNCTION EBUSINESS				Customer Rep: Vallegas, Alex			
Well Name: CC			Well #: 697-16-29b			API/UWI #: 05-045-20574	
Field: GRAND VALLEY		City (SAP): PARACHUTE		County/Parish: Garfield		State: Colorado	
Lat: N 39.523 deg. OR N 39 deg. 31 min. 23.092 secs.				Long: W 108.225 deg. OR W -109 deg. 46 min. 28.942 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: CHASTAIN, DERICK			MBU ID Emp #: 455848	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BROWN, TRAVIS A	12	396848	CHASTAIN, DERICK Allan	12	455848	DEUSSEN, EDWARD Eric	12	485182
LESTER, LEVI William	12	474117	MUHLESTEIN, RYAN Herrick	12	453609			

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10744648C	120 mile	10783473	120 mile	10857016	120 mile	10867304	120 mile
10938658	120 mile	10938677	120 mile	10951244	120 mile	10973565	120 mile
10998054	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
8/8/2011	1	1	8/9/2011	11	11			

**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	08 - Aug - 2011	16:00	MST
Form Type		BHST	Job Started	08 - Aug - 2011	23:00	MST
Job depth MD	2715. ft	Job Depth TVD	Job Completed	09 - Aug - 2011	02:06	MST
Water Depth		Wk Ht Above Floor	Departed Loc	09 - Aug - 2011	09:14	MST
Perforation Depth (MD)	From	To		09 - Aug - 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.	.	2715.
SURFACE CASING	Unknown		9.625	8.921	36.		J-55	.	2697.	.	2697.

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		20.00	bbl	8.33	.0	.0	4	
2	Gel Spacer		20.00	bbl	.	.0	.0	4	
3	Water Spacer		20.00	bbl	.	.0	.0	4	
4	VersaCem Lead Cement	VERSACEM (TM) SYSTEM (452010)	1050.0	sacks	12.3	2.33	12.62	7	12.62
	12.62 Gal	FRESH WATER							
5	VariCemTail Cement	VERSACEM (TM) SYSTEM (452010)	150.0	sacks	12.8	2.07	10.67	7	10.67
	10.67 Gal	FRESH WATER							
6	Displacement		205.00	bbl	.	.0	.0	7	
7	Topout Cement	HALCEM (TM) SYSTEM (452986)	231.0	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	204.6	Shut In: Instant		Lost Returns	716	Cement Slurry	491	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	5	Actual Displacement	204.6	Treatment	
Frac Gradient		15 Min		Spacers	60	Load and Breakdown		Total Job	716
<b>Rates</b>									
Circulating	5	Mixing		7	Displacement	7	Avg. Job	7	
Cement Left In Pipe	Amount	49.9 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*

<b>Sold To #:</b> 344034	<b>Ship To #:</b> 2870899	<b>Quote #:</b>	<b>Sales Order #:</b> 8370196
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Customer Rep:</b> Vallegas, Alex	
<b>Well Name:</b> CC	<b>Well #:</b> 697-16-29b	<b>API/UWI #:</b> 05-045-20574	
<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 39.523 deg. OR N 39 deg. 31 min. 23.092 secs.		<b>Long:</b> W 108.225 deg. OR W -109 deg. 46 min. 28.942 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>Srv Supervisor:</b> CHASTAIN, DERICK	<b>MBU ID Emp #:</b> 455848

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	08/08/2011 16:00							
Pre-Convoy Safety Meeting	08/08/2011 20:00							WITH ALL HES PERSONNEL
Arrive at Location from Service Center	08/08/2011 23:00							RIG STILL RUNNING CASING
Assessment Of Location Safety Meeting	08/08/2011 23:10							WITH ALL HES PERSONNEL
Other	08/08/2011 23:30							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	08/09/2011 00:50							WITH ALL HES PERSONNEL
Rig-Up Equipment	08/09/2011 01:00							
Pre-Job Safety Meeting	08/09/2011 01:50							WITH ALL PERSONNEL ON LOCATION
Start Job	08/09/2011 02:06							TD 2715', TP 2697', SJ 49.86', FC 2647.14', CSG 9 5/8" 36# J-55. MUD: PPG 9.2, TEMP 91, YP 16, PV 16, PH 10.
Other	08/09/2011 02:06		2	2			44.0	FILL LINES
Test Lines	08/09/2011 02:09							STAGED TEST AT 1750 PSI THEN TESTED UP TO 3000 PSI. HELD PRESSURE FOR 2 MIN, NO LEAKS.
Pump Spacer 1	08/09/2011 02:15		4	20			85.0	FRESH H2O
Pump Gel - Start	08/09/2011 02:21		4	20			54.0	GEL SPACER
Pump Spacer 2	08/09/2011 02:26		4	20			80.0	FRESH H2O

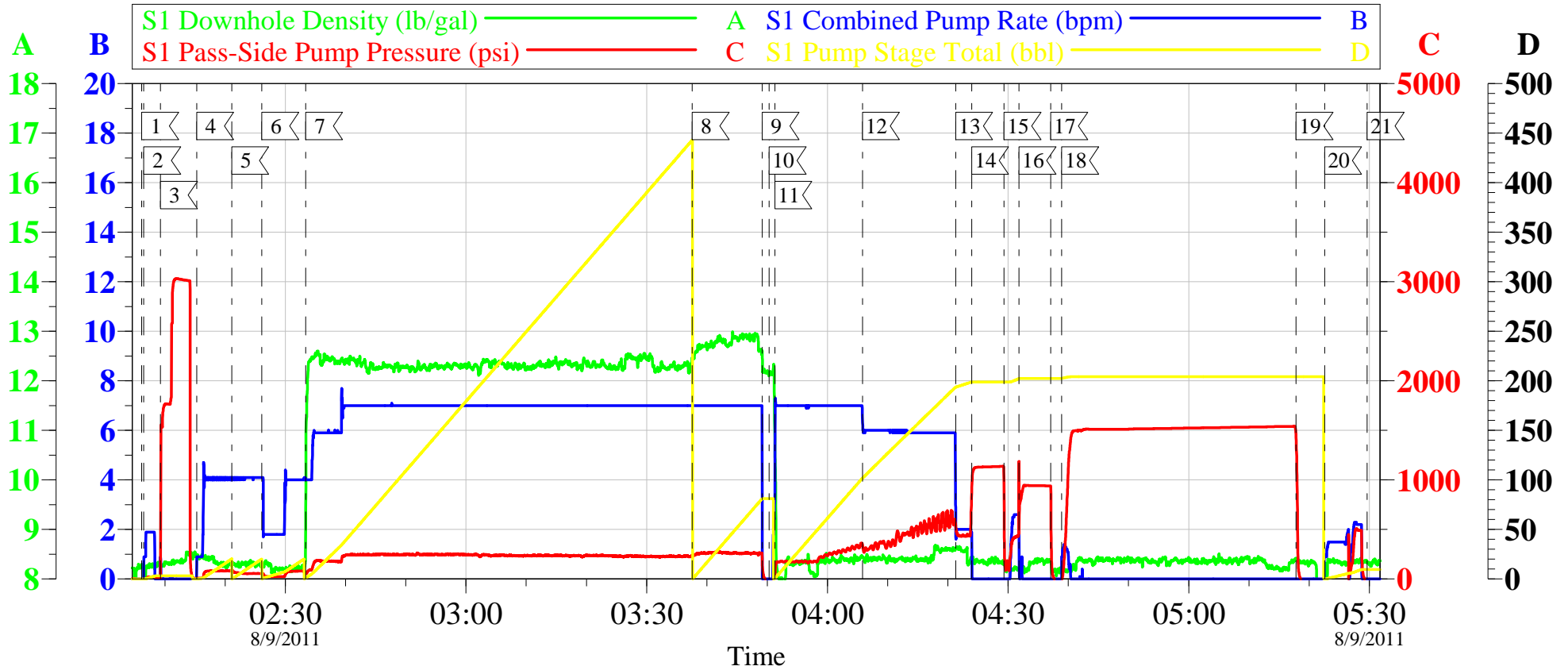
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Lead Cement	08/09/2011 02:33		4	435.7			260.0	1050 SKS, 12.3 PPG, 2.33 Y, 12.62 GAL/SK
Pump Tail Cement	08/09/2011 03:37		4	55.3			275.0	150 SKS, 12.8 PPG, 2.07 Y, 10.67 GAL/SK.
Shutdown	08/09/2011 03:49							
Drop Top Plug	08/09/2011 03:50							VERIFIED PLUG LAUNCHED
Pump Displacement	08/09/2011 03:51		7	204.6			380.0	FRESH H2O DISPLACEMENT
Slow Rate	08/09/2011 04:05		6	105			610.0	REQUESTED BY CO REP.
Slow Rate	08/09/2011 04:21		2	196.6			490.0	SLOW RATE 10 BBLS PRIOR TO CALCULATED DISPLACEMENT
Bump Plug	08/09/2011 04:23		2	204.6			1155.0	PLUG BUMPED
Check Floats	08/09/2011 04:29							FLOATS DID NOT HOLD. 4 BBL BACK.
Bump Plug	08/09/2011 04:31		3	204.6			950.0	REBUMPED PLUG
Check Floats	08/09/2011 04:37							FLOATS HELD. 1 BBL BACK.
Pressure Up Well	08/09/2011 04:38						1500.0	CASING TEST FOR 30 MIN.
Release Casing Pressure	08/09/2011 05:17							
Clean Lines	08/09/2011 05:22		2	10			400.0	PUMP FRESH H2O DOWN PARASITE
End Job	08/09/2011 05:29							NO RETURNS THROUGHOUT JOB
Start Job	08/09/2011 06:59							TOP-OUT #1. IRON RIGGED UP OFFLINE TO CELLAR
Establish Rate	08/09/2011 07:00		0.5	0.5			.0	INITIATE FLOW WITH 6X5
Pump Cement	08/09/2011 07:00		2.5	54			45.0	154 SKS, 12.5 PPG, 1.97 Y, 10.96 GAL/SK.
Clean Lines	08/09/2011 07:33		2	2			40.0	FOLLOWED CEMENT WITH SUGAR H2O. 10 LBS PER 10 BBLS
Shutdown	08/09/2011 07:34							
End Job	08/09/2011 07:35							HESITATED FOR 1 HR. WASHED TUB AND PUMPS BETWEEN TOP-OUTS

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Start Job	08/09/2011 08:39							TOP-OUT #2
Establish Rate	08/09/2011 08:39		0.5	0.5			.0	INITIATE FLOW WITH 6X5
Pump Cement	08/09/2011 08:40		2				15.0	77 SKS, 12.5 PPG, 1.97 Y, 10.96 GAL/SK
Shutdown	08/09/2011 08:53							
Pump Cement	08/09/2011 08:54		2				45.0	
Shutdown	08/09/2011 08:55							
Pump Cement	08/09/2011 08:58		2				45.0	
Shutdown	08/09/2011 09:00							
Pump Cement	08/09/2011 09:05		2				50.0	
Shutdown	08/09/2011 09:06							
Pump Cement	08/09/2011 09:07		2				50.0	
Shutdown	08/09/2011 09:08							
Pump Cement	08/09/2011 09:09		2		27		50.0	
Shutdown	08/09/2011 09:10							
Clean Lines	08/09/2011 09:13		2	2				FOLLOWED CEMENT WITH FRESH H2O
Shutdown	08/09/2011 09:13							5 BBL BACK TO SURFACE
End Job	08/09/2011 09:14							USED APROX 231 SKS TOTAL OF TOP-OUT CEMENT, 119 SKS LEFT ON LOCATION. 50 LBS SUGAR USED
Pre-Rig Down Safety Meeting	08/09/2011 09:20							WITH ALL HES PERSONNEL
Rig-Down Equipment	08/09/2011 09:30							
Pre-Convoy Safety Meeting	08/09/2011 10:50							WITH ALL HES PERSONNEL
Crew Leave Location	08/09/2011 11:00							LEFT LOCATION FREE OF DEBRESS
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

Comment	08/09/2011 11:01							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. DERICK CHASTAIN AND CREW
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# OXY

## CC 697-16-29B SURFACE



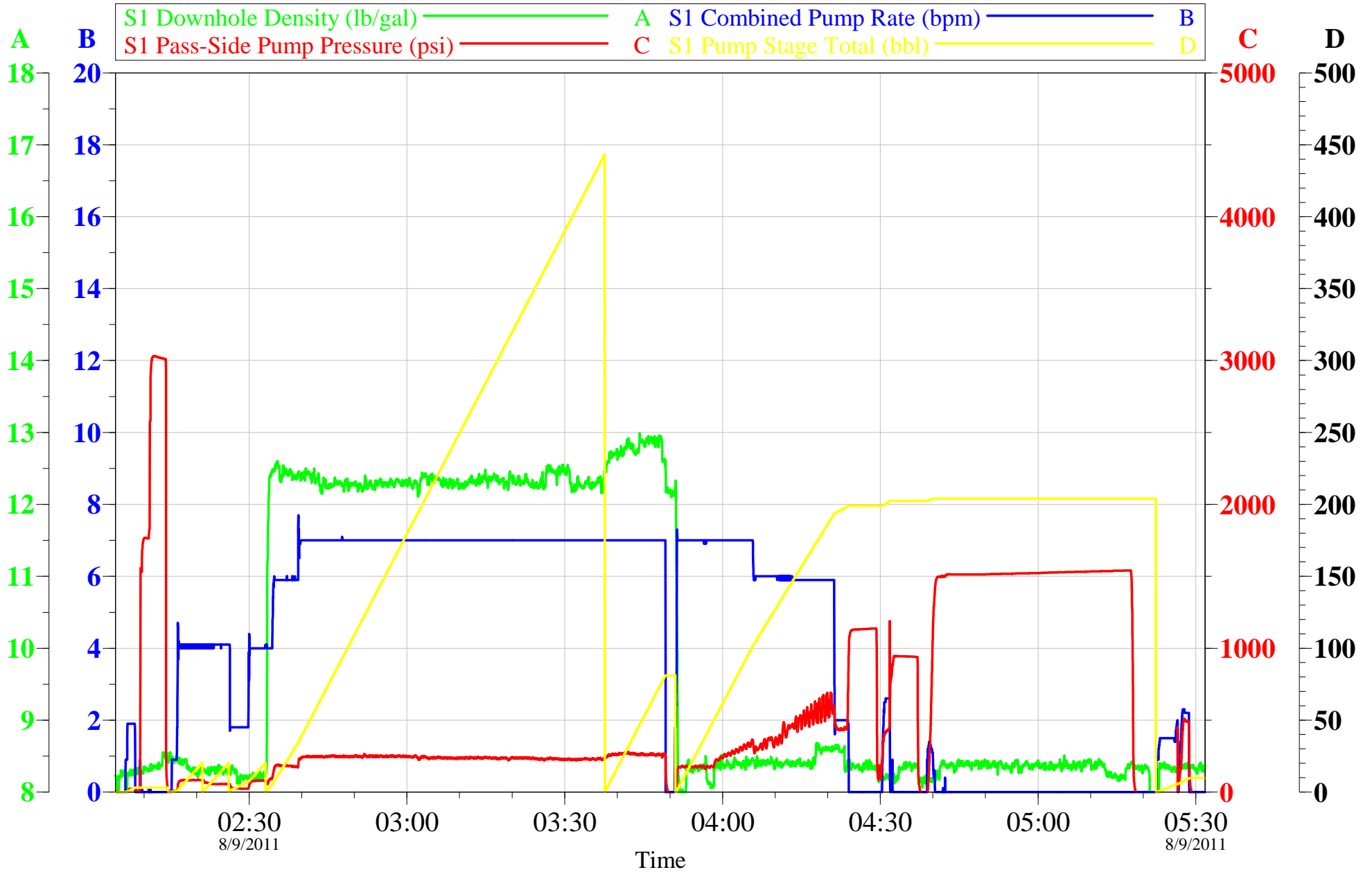
1 START JOB	02:06:08	2 FILL LINES	02:06:29	3 TEST LINES	02:09:15
4 PUMP H2O SPACER 1	02:15:17	5 PUMP GEL SPACER	02:21:05	6 PUMP H2O SPACER 2	02:26:06
7 PUMP LEAD CEMENT	02:33:23	8 PUMP TAIL CEMENT	03:37:33	9 SHUT DOWN	03:49:10
10 DROP PLUG	03:50:21	11 PUMP DISPLACEMENT	03:51:16	12 SLOW RATE	04:05:50
13 SLOW RATE	04:21:18	14 BUMP PLUG	04:23:57	15 CHECK FLOATS	04:29:20
16 BUMP PLUG	04:31:49	17 CHECK FLOATS	04:37:06	18 PRESSURE UP CASING	04:38:55
19 RELEASE PRESSURE	05:17:50	20 PUMP DOWN PARASITE	05:22:35	21 END JOB	05:29:39

Customer: OXY	Job Date: 09-Aug-2011	Sales Order #: 8370196
Well Description: CC 697-16-29B	Job Type: SURFACE	ADC Used: YES
Customer Rep: TERRY	Service Supervisor: DERICK CHASTAIN	Pump # 6 /Operator: ED DEUSSEN



# OXY

## CC 697-16-29B SURFACE

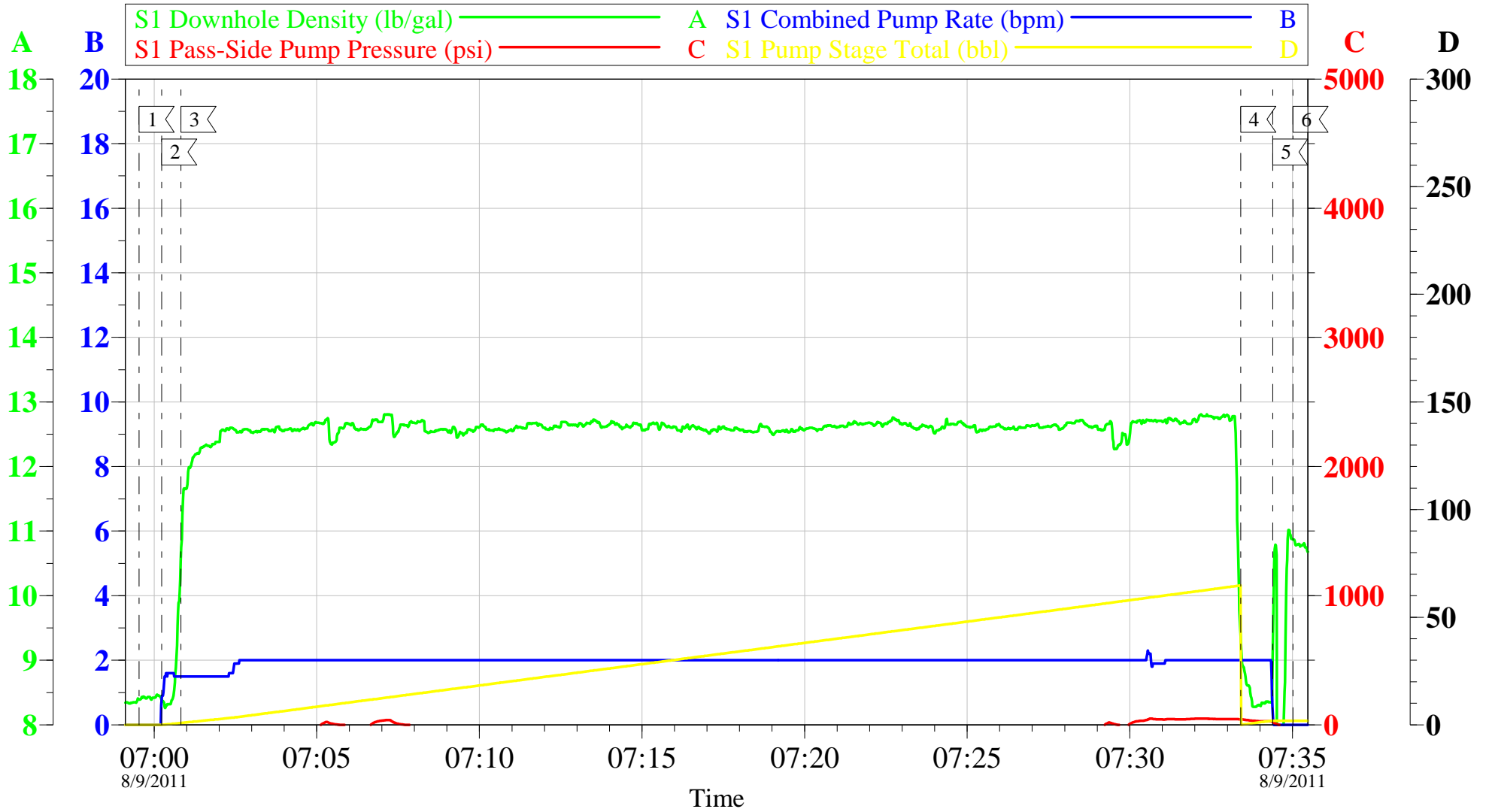


Customer: OXY	Job Date: 09-Aug-2011	Sales Order #: 8370196
Well Description: CC 697-16-29B	Job Type: SURFACE	ADC Used: YES
Customer Rep: TERRY	Service Supervisor: DERICK CHASTAIN	Pump # 6 /Operator: ED DEUSSEN

OptiCem v6.4.10  
09-Aug-11 05:52

# OXY

## CC 697-16-29B TOP-OUT #1



1 START JOB	06:59:32 2 ESTABLISH FLOW	07:00:14 3 PUMP TOP-OUT CEMENT 07:00:49
4 CLEAR LINES	07:33:25 5 SHUT DOWN	07:34:24 6 END JOB 07:35:01

Customer: OXY  
 Well Description: CC 697-16-29B  
 Customer Rep: TERRY

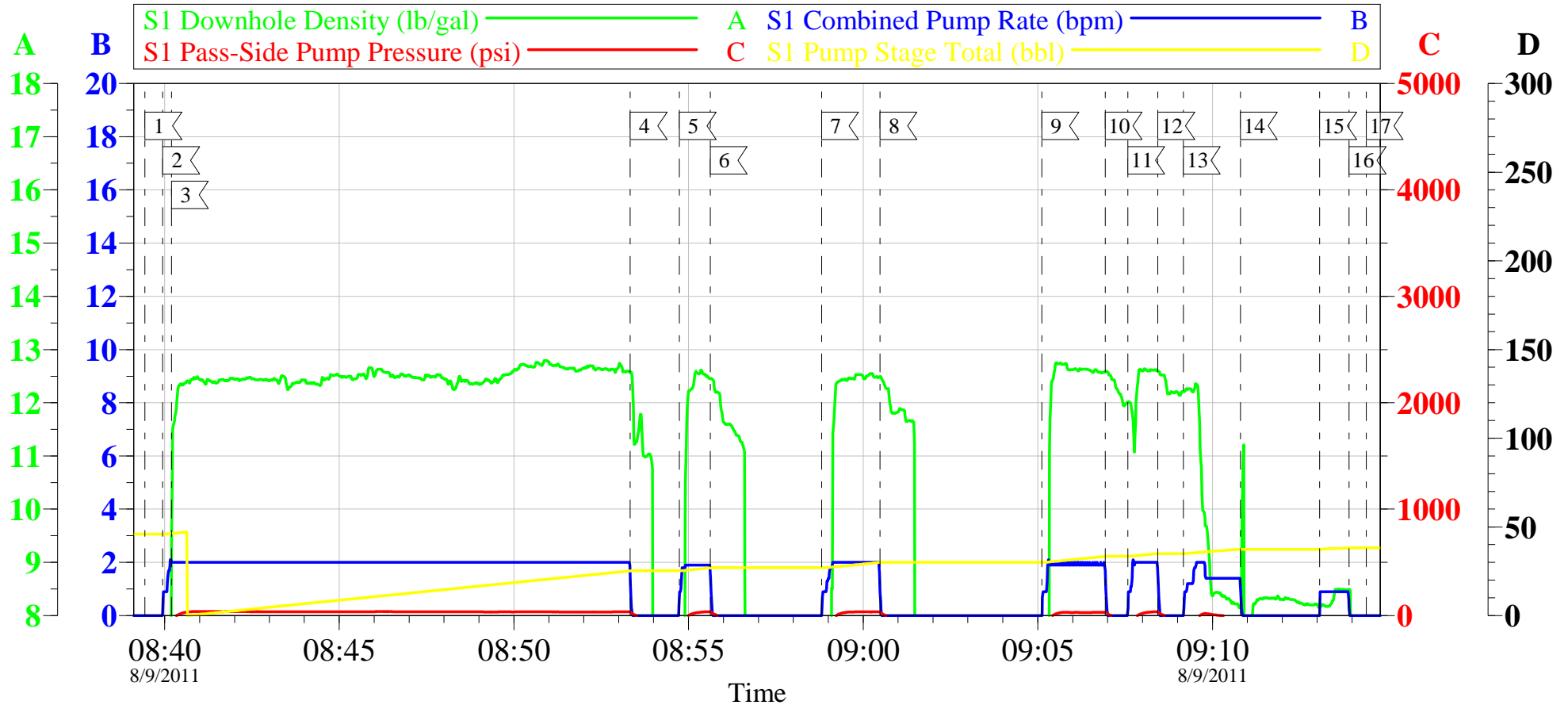
Job Date: 09-Aug-2011  
 Job Type: TOP-OUT  
 Service Supervisor: DERICK CHASTAIN

Sales Order #: 8370196  
 ADC Used: YES  
 Pump # 6 /Operator: ED DEUSSEN

OptiCem v6.4.10  
 09-Aug-11 08:13

# OXY

## CC 697-16-29B TOP-OUT #2



1 START JOB	08:39:26	2 ESTABLISH FLOW	08:39:57	3 PUMP CEMENT	08:40:12
4 SHUT DOWN	08:53:20	5 PUMP CEMENT	08:54:44	6 SHUT DOWN	08:55:37
7 PUMP CEMENT	08:58:49	8 SHUT DOWN	09:00:29	9 PUMP CEMENT	09:05:07
10 SHUT DOWN	09:06:56	11 PUMP CEMENT	09:07:35	12 SHUT DOWN	09:08:26
13 PUMP CEMENT	09:09:10	14 SHUT DOWN	09:10:48	15 CLEAR LINES	09:13:04
16 SHUT DOWN	09:13:55	17 END JOB	09:14:24		

Customer:	Job Date: 09-Aug-2011	Sales Order #: 8370196
Well Description:	Job Type:	ADC Used:
Customer Rep:	Service Supervisor:	Pump # 6 /Operator:

OptiCem v6.4.10  
09-Aug-11 09:31

# JOB PROCEDURE

## H&P 353

Pre-Planned Job Procedure Single Stage Surface						
EVENT #	EVENT	VOLUME	SACKS	WEIGHT	YIELD	GAL/ SK
1	START JOB					
	FILL LINES	2				
6	TEST LINES	3000 PSI				
9	H2O SPACER	20		8.34		
	GEL SPACER	20		8.4		
9	H2O SPACER	20		8.34		
14	LEAD CEMENT	435.7	1050	12.3	2.33	12.62
15	TAIL CEMENT	55.3	150	12.8	2.07	10.67
	SHUTDOWN			MUD WT.	9.2	
22	DROP PLUG			CASING	9.625	36
23	DISPLACE WITH H2O	204.6		OPEN HOLE	14.75	
	SLOW RATE	195				
26	BUMP PLUG	0	+500	DISP FLUID	8.33	
	CHECK FLOATS	500				
2	END JOB					
			Do Not Overdisplace			
DISPLACEMENT	TOTAL PIPE	SHOE JOINT LENGTH		ANN FACTOR	BBL/FT	H2O REQ.
204.60	2697	49.86		0.1214	0.0773	610
PSI TO LIFT		*****Use Mud Scales on Each Tier*****				
PSI TO LAND						
CEMENT TO SURFACE		159.8		TOTAL FLUID PUMPED		716
Collapse		Burst			SO#	8370197
HOT	424	TOT	2,273	CO REP	TERRY	

<b>Sales Order #:</b> 8370196	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/9/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20574
<b>Well Name:</b> CC		<b>Well Number:</b> 697-16-29b
<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	8/9/2011
Survey Interviewer	The survey interviewer is the person who initiated the survey.	DERICK CHASTAIN (HB23225)
Customer Participation	Did the customer participate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	ALEX VALLEGAS
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	GREAT JOB THANKS
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> 8370196	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/9/2011
<b>Customer:</b> OXY GRAND JUNCTION EBUSINESS		<b>Job Type (BOM):</b> CMT SURFACE CASING BOM
<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20574
<b>Well Name:</b> CC		<b>Well Number:</b> 697-16-29b
<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>	8/9/2011
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>	12
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>	10
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>	5
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> 8370196	<b>Line Item:</b> 10	<b>Survey Conducted Date:</b> 8/9/2011
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<b>Customer Representative:</b> ALEX VALLEGAS		<b>API / UWI: (leave blank if unknown)</b> 05-045-20574
<b>Well Name:</b> CC		<b>Well Number:</b> 697-16-29b
<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	98
<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	99
<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