
CHEVRON - MID-CONTINENT EBIZ

**SKR 598-08-BV-01
SKINNER RIDGE
Garfield County , Colorado**

Cement Surface Casing
20-Sep-2013

Post Job Report

The Road to Excellence Starts with Safety

Sold To #: 338668	Ship To #: 3096164	Quote #:	Sales Order #: 900754225
Customer: CHEVRON - MID-CONTINENT EBIZ		Customer Rep: Geiser, Greg	
Well Name: SKR		Well #: 598-08-BV-01	API/UWI #: 05-045-22103
Field: SKINNER RIDGE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Lat: N 39.622 deg. OR N 39 deg. 37 min. 18.21 secs.		Long: W 108.414 deg. OR W -109 deg. 35 min. 8.93 secs.	
Contractor: Ensign		Rig/Platform Name/Num: Ensign 122	
Job Purpose: Cement Surface Casing			
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: HIMES, JEFFREY	Srv Supervisor: ARNOLD, EDWARD		MBU ID Emp #: 439784

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ARNOLD, EDWARD John	10.5	439784	ATKINSON, STEPHAN Michael	10.5	513940	CAMPBELL, DAVID Arthur	10.5	544403
IVIE, KAYDEN Kurt	10.5	553536	LAULAINEN, ROGER Edward	10.5	524413	LINN, PAUL Andrew	10.5	479143

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10616651C	120 mile	10784064	120 mile	10784080	120 mile	10867094	120 mile
10897925	120 mile	10951249	120 mile	11006314	120 mile	11360883	120 mile
11808827	120 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
2013-09-19	2	0	2013-09-20	8.5	5			

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	19 - Sep - 2013	18:00	MST
Form Type		BHST	Job Started	19 - Sep - 2013	22:00	MST
Job depth MD	1042. ft	Job Depth TVD	Job Completed	19 - Sep - 2013	02:59	MST
Water Depth		Wk Ht Above Floor	Departed Loc	20 - Sep - 2013	07:09	MST
Perforation Depth (MD)	From	To		20 - Sep - 2013	08:30	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
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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			

Miscellaneous Materials

Gelling Agt		Conc		Surfactant		Conc		Acid Type		Qty		Conc	%
Treatment Fld		Conc		Inhibitor		Conc		Sand Type		Size		Qty	

Fluid Data

Fluid Data									
Stage/Plug #: 1									
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

Stage/Plug #: 1

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 with Dye		30.00	bbl	8.34	.0	.0	4	
	0.0625 lbm/bbl	RHODAMINE RED LIQUID DYE # 2 (101201084)							
	1 lbm/bbl	POLY-E-FLAKE (101216940)							
2	VariCem GJ1 Lead Cement	VARICEM (TM) CEMENT (452009)	193.0	sacks	12.3	2.38	13.75	6	13.75
	13.75 Gal	FRESH WATER							
3	VariCem GJ1 Tail Cement	VARICEM (TM) CEMENT (452009)	215.0	sacks	12.8	2.11	11.75	6	11.75
	11.75 Gal	FRESH WATER							
4	Displacement		62.00	bbl	.	.0	.0	6	
5	HalCem Top Out Cement	HALCEM (TM) SYSTEM (452986)	30.0	sacks	15.8	1.15	5.01	1	5.01
	5.01 Gal	FRESH WATER							
Calculated Values		Pressures		Volumes					
Displacement	62.7	Shut In: Instant		Lost Returns		Cement Slurry	162.5	Pad	
Top Of Cement	SURFACE	5 Min		Cement Returns	1	Actual Displacement	62.7	Treatment	
Frac Gradient		15 Min		Spacers	30	Load and Breakdown		Total Job	255.2
Rates									
Circulating	RIG	Mixing	6	Displacement	6	Avg. Job	6		
Cement Left In Pipe	Amount	42.9 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					

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Well Name: SKR	Well #: 598-08-BV-01	API/UWI #: 05-045-22103	
Field: SKINNER RIDGE	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Legal Description:			
Lat: N 39.622 deg. OR N 39 deg. 37 min. 18.21 secs.		Long: W 108.414 deg. OR W -109 deg. 35 min. 8.93 secs.	
Contractor: Ensign		Rig/Platform Name/Num: Ensign 122	
Job Purpose: Cement Surface Casing			Ticket Amount:
Well Type: Development Well		Job Type: Cement Surface Casing	
Sales Person: HIMES, JEFFREY		Srv Supervisor: ARNOLD, EDWARD	MBU ID Emp #: 439784

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	09/19/2013 18:00							
Pre-Convoy Safety Meeting	09/19/2013 19:45							Including entire cement crew.
Crew Leave Yard	09/19/2013 20:00							
Arrive At Loc	09/19/2013 22:00							Rig still Running casing.
Assessment Of Location Safety Meeting	09/19/2013 22:15							Water; PH 7.5; KCL 250; So4 <200; Fe 0; Calcium 120; Chlorides 0; Temp 65; TDS 320.
Pre-Rig Up Safety Meeting	09/20/2013 01:00							Including entire cement crew.
Rig-Up Equipment	09/20/2013 01:10							1 Elite # 4; 2 660 bulk truck; 1 hard line to floor; 1 line to upright; 1 line to rig tank. 8.625" compact head.
Rig-Up Completed	09/20/2013 02:10							
Pre-Job Safety Meeting	09/20/2013 02:30							Including everyone on location.
Start Job	09/20/2013 02:59							TD 1042; TP 1029; SJ 42.92; OH 12 1/4"; Casing 8.625" 24# J-55; Mud 8.7 ppg.
Pump Water	09/20/2013 03:09		2	2			32.0	Fill lines with fresh water.
Test Lines	09/20/2013 03:11					3305.0		Good pressure test, no leaks.
Pump Spacer 1	09/20/2013 03:17		4	30			125.0	20 BBL fresh water spacer with dye and Polly flake.
Activity Description	Date/Time	Cht	Rate bbl/min	Volume bbl		Pressure psig		Comments

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Quote # :

Sales Order # : 900754225

SUMMIT Version: 7.3.0106

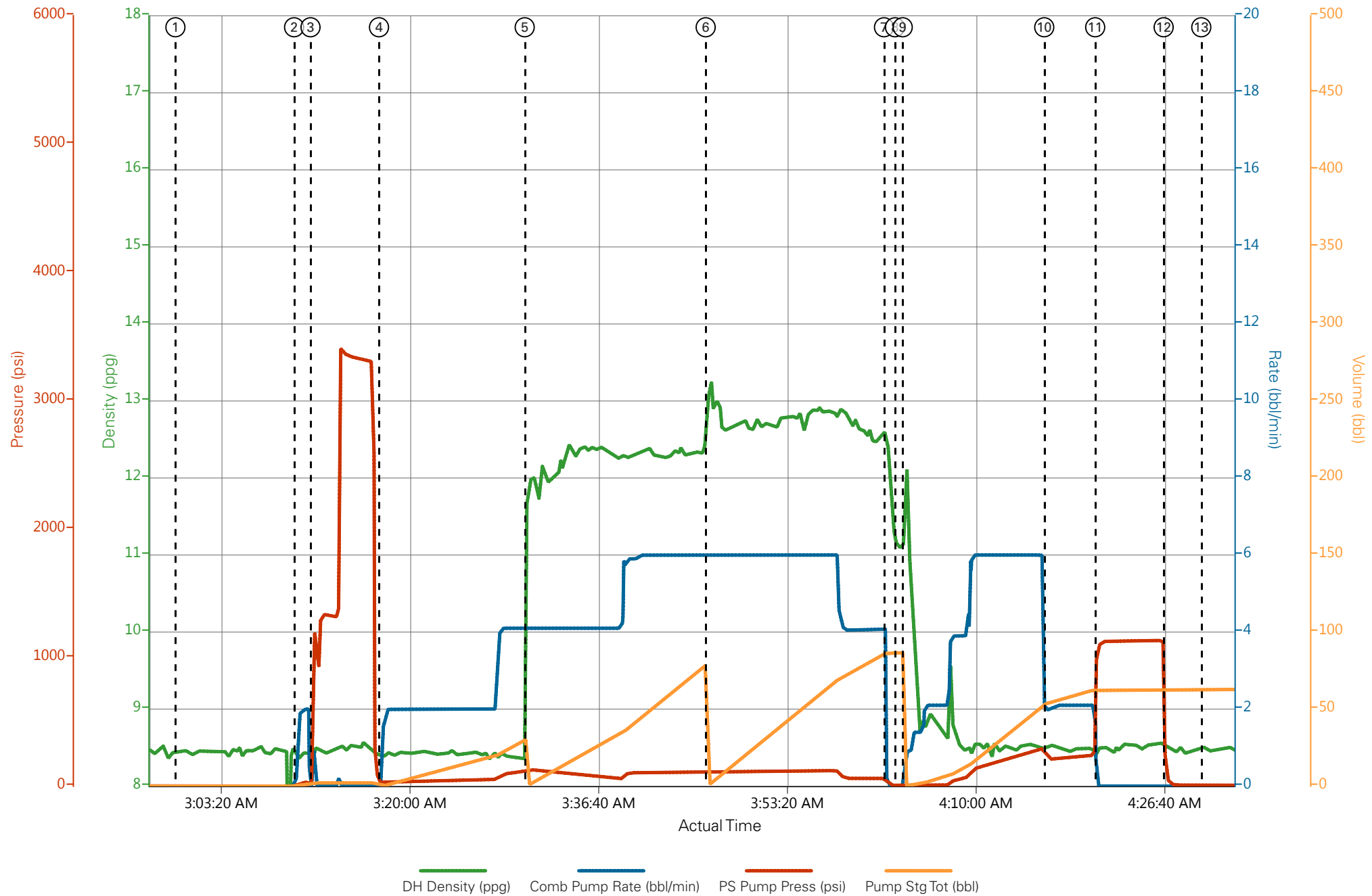
Thursday, October 10, 2013 12:35:00

		#		Stage	Total	Tubing	Casing	
Pump Lead Cement	09/20/2013 03:30		6	81.8			111.0	193 sks Lead Cement, 12.3 ppg, 2.38 cf3, 13.77 gal/sk.
Pump Tail Cement	09/20/2013 03:46		6	80.7			120.0	215 sks Tail Cement, 12.8 ppg, 2.11 cf3, 11.77 gal/sk.
Shutdown	09/20/2013 04:01							
Drop Plug	09/20/2013 04:02							Plug left container.
Pump Displacement	09/20/2013 04:03		6	52.7			304.0	Fresh water displacement.
Slow Rate	09/20/2013 04:16		2	10			235.0	Slow rate last 10 BBL's of displacement prior to bumping the plug.
Bump Plug	09/20/2013 04:20				62.7		1193. 0	Bumped plug, took 500 PSI over.
Check Floats	09/20/2013 04:26							Floats held, 1/2 BBL back. Lost returns at 50 BBL's gone. started to see watered down cement to surface at 40 BBL.'s gone for 10 BBL.'s.
End Job	09/20/2013 04:30							Wait on location for top out job.
Start Job	09/20/2013 06:40							Start Job on Top Out.
Pump Water	09/20/2013 06:46		0	1			20.0	Boost water ahead to ensure flow through lines.
Pump Cement	09/20/2013 06:54		0.5	5			20.0	5 BBL Top Out Cement, 15.8 ppg, 1.15 cf3, 5 gal/sk.
Pump Water	09/20/2013 07:05		0.5	1			20.0	Pump 1 BBL. of water behind to clear lines.
End Job	09/20/2013 07:09							End Job. Got 1 BBL of Good cement to Surface on top out job. Cement held. Bringing back Approx. 270 sks of Top Out Cement for weigh back. Tonnage And Cubic Footage charges adjusted to reflect.
Pre-Rig Down Safety Meeting	09/20/2013 07:15							Including entire cement crew.
Rig-Down Equipment	09/20/2013 07:30							
Rig-Down Completed	09/20/2013 08:15							

Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pre-Convoy Safety Meeting	09/20/2013 08:20							Including entire cement crew.
Crew Leave Location	09/20/2013 08:30							Crew leave location for Service Center or another location.
Other	09/20/2013 08:30							Thank You for using Halliburton. Ed Arnold and Crew.

CHEVRON - SKR 598-08-BV-01 - 8 5/8" SURFACE



- ① Start Job ③ Test Lines ⑤ Pump Lead Cement ⑦ Shutdown ⑨ Pump Displacement ⑪ Bump Plug ⑬ End Job
- ② Prime Pumps ④ Pump Spacer 1 ⑥ Pump Tail Cement ⑧ Drop Top Plug ⑩ Slow Rate ⑫ Check Floats

▼ **Halliburton** | iCem Service®

Created: 2013-09-20 02:21:04 , Version: 1.4.96

Edit

Customer: CHEVRON - MID-CONTINENT EBIZ

Job Date: 9/20/2013 2:23:05 AM

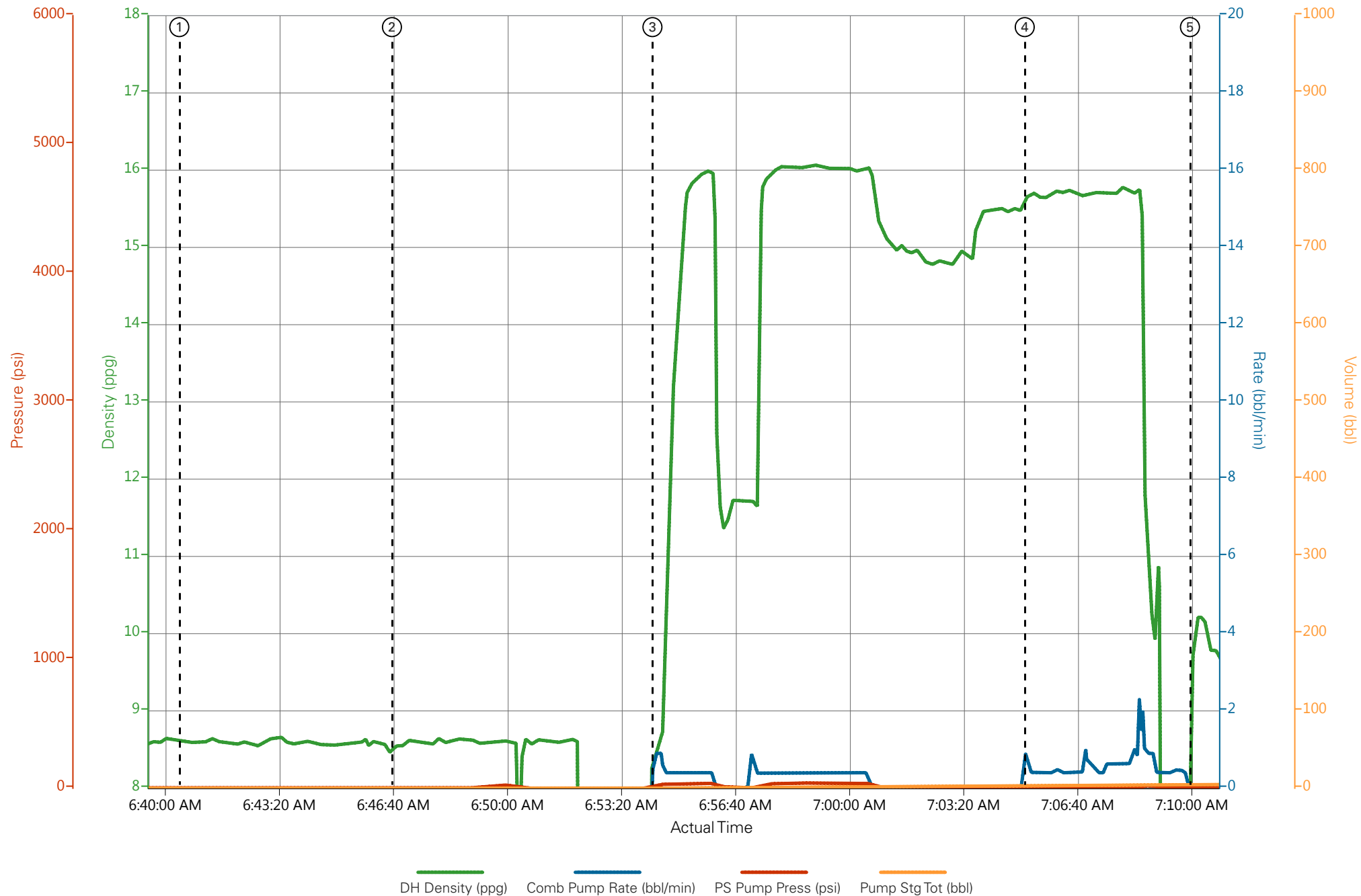
Well: SKR 598-08-BV-01

Representative: GREG GEISER

Sales Order #: 900754225

ELITE#4: ED ARNOLD / ANDREW LINN

CHEVRON - SKR 598-08-BV-01 - TOP OUT



① Start Job ② Boost Water Ahead ③ Pump Cement ④ Pump Water ⑤ End Job

▼ **Halliburton** | iCem Service®

Created: 2013-09-20 06:22:33 , Version: 1.4.96

Edit

Customer: CHEVRON - MID-CONTINENT EBIZ

Job Date: 09-20-2013

Well: SKR 598-08-BV-01

Representative: GREG GEISER

Sales Order #: 900754225

ELITE#4: ED ARNOLD / ANDREW LINN

HALLIBURTON

Water Analysis Report

Company: CHEVRON
Submitted by: ED ARNOLD
Attention: JOHN TROUT
Lease: SKR
Well #: 598-08-BV-01

Date: 9/20/2013
Date Rec.: 9/20/2013
S.O.#: 900754225
Job Type: SURFACE

Specific Gravity	<i>MAX</i>	<i>1</i>
pH	<i>8</i>	<i>7.5</i>
Potassium (K)	<i>5000</i>	<i>250 Mg / L</i>
Calcium (Ca)	<i>500</i>	<i>120 Mg / L</i>
Iron (FE2)	<i>300</i>	<i>0 Mg / L</i>
Chlorides (Cl)	<i>3000</i>	<i>0 Mg / L</i>
Sulfates (SO ₄)	<i>1500</i>	<i><200 Mg / L</i>
Chlorine (Cl ₂)		<i>0 Mg / L</i>
Temp	<i>40-80</i>	<i>65 Deg</i>
Total Dissolved Solids		<i>320 Mg / L</i>

Respectfully: ED ARNOLD
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 #: 900754225	Line Item: 10	Survey Conducted Date: 9/20/2013
Customer: CHEVRON - MID-CONTINENT EBIZ		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22103
Well Name: SKR		Well Number: 598-08-BV-01
Well Type: Development Well	Well Country: United States of America	
H2S Present:	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	9/20/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	EDWARD ARNOLD (HX46731)
Customer Participation	Did the customer participate in this survey? (Y/N)	No
Customer Representative	Enter the Customer representative name	
HSE	Was our HSE performance satisfactory? Circle Y or N	
Equipment	Were you satisfied with our Equipment? Circle Y or N	
Personnel	Were you satisfied with our people? Circle Y or N	
Customer Comment	Customer's Comment	

CUSTOMER SIGNATURE

Sales Order #: 900754225	Line Item: 10	Survey Conducted Date: 9/20/2013
Customer: CHEVRON - MID-CONTINENT EBIZ		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22103
Well Name: SKR		Well Number: 598-08-BV-01
Well Type: Development Well	Well Country: United States of America	
H2S Present:	Well State: Colorado	Well County: Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date	9/20/2013
The date the survey was conducted	

Cementing KPI Survey	
Type of Job	0
Select the type of job. (Cementing or Non-Cementing)	
Select the Maximum Deviation range for this Job	Vertical
What is the highest deviation for the job you just completed? This may not be the maximum well deviation.	
Total Operating Time (hours)	4.5
Total Operating Hours Including Rig-up, Pumping, Rig-down. Enter in decimal format.	
HSE Incident, Accident, Injury	No
HSE Incident, Accident, Injury. This should be recordable incidents only.	
Was the job purpose achieved?	Yes
Was the job delivered correctly as per customer agreed design?	
Operating Hours (Pumping Hours)	2
Total number of hours pumping fluid on this job. Enter in decimal format.	
Customer Non-Productive Rig Time (hrs)	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.	
Type of Rig Classification Job Was Performed	Drilling Rig (Portable)
Type Of Rig (classification) Job Was Performed On	
Number Of JSAs Performed	5
Number Of Jsas Performed	
Number of Unplanned Shutdowns	0
Unplanned shutdown is when injection stops for any period of time.	
Was this a Primary Cement Job (Yes / No)	Yes

Sales Order #: 900754225	Line Item: 10	Survey Conducted Date: 9/20/2013
Customer: CHEVRON - MID-CONTINENT EBIZ		Job Type (BOM): CMT SURFACE CASING BOM
Customer Representative:		API / UWI: (leave blank if unknown) 05-045-22103
Well Name: SKR		Well Number: 598-08-BV-01
Well Type: Development Well	Well Country: United States of America	
H2S Present:	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?	Top
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	92
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	95
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