HALLIBURTON

CHEVRON - MID-CONTINENT EBIZ

SKR 598-08-BV-04
SKINNER RIDGE
Garfield County , Colorado

Cement Surface Casing

03-Oct-2013

Post Job Report

HALLIBURTON

Cementing Job Summary

The Road to Excellence Starts with Safety

Sold To #: 338668	**Ship To #:** 3097912	**Quote #:**	**Sales Order #:** 900793492
Customer: CHEVRON - MID-CONTINENT EBIZ		**Customer Rep:** Geiser, Greg	
Well Name: SKR	**Well #:** 598-08-BV-04		**API/UWI #:**
Field: SKINNER RIDGE	**City (SAP):** PARACHUTE	**County/Parish:** Garfield	**State:** Colorado
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	**Srvc Supervisor:** KEANE, JOHN	**MBU ID Emp #:** 486519	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BANKS, BRENT A	21	371353	CAMPBELL, DAVID Arthur	21	544403	KEANE, JOHN Donovon	21	486519
SMITH, DUSTIN Michael	21	418015	SOMOZA, RAMON Manuel	21	554555			

Equipment

HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*	HES Unit #	*Distance-1 way*
10616651C	120 mile	10867531	120 mile	10989685	120 mile	11021972	120 mile
11027039	120 mile	11259881	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
10/03/2013	18	.5	10/04/2013	4	2.5			
TOTAL		*Total is the sum of each column separately*						

Job

Formation Name			
Formation Depth (MD)	**Top**		**Bottom**
Form Type		**BHST**	
Job depth MD	1032.3 ft	**Job Depth TVD**	1032.3 ft
Water Depth		**Wk Ht Above Floor**	4. ft
Perforation Depth (MD)	*From*		**To**

Job Times

	Date	Time	Time Zone
Called Out	03 - Oct - 2013	01:30	MST
On Location	03 - Oct - 2013	05:15	MST
Job Started	03 - Oct - 2013	23:43	MST
Job Completed	03 - Oct - 2013	02:43	MST
Departed Loc	03 - Oct - 2013	04:15	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

Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
CMT CASING EQUIPMENT BOM	1	JOB		
SHOE,FLT,8-5/8 8 RD,2-3/4 SUPER SEAL	1	EA		
CLR,FLT,8-5/8 8RD 24-44PPF,2-3/4SSII	1	EA		
CENTRALIZER ASSY - API - 8-5/8 CSG X	13	EA		
CLAMP - LIMIT - 8-5/8 - HINGED -	2	EA		
KIT,HALL WELD-A	3	EA		

Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					**Packer**					**Top Plug**	8.625	1	HES
Float Shoe					**Bridge Plug**					**Bottom Plug**			
Float Collar					**Retainer**					**SSR plug set**			
Insert Float										**Plug Container**	8.625	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

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Cementing Job Summary

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**
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**	**4**	**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**		**63.00**	**bbl**	**.**	**.0**	**.0**	**5**	
5	**HalCem Top Out Cement**	**HALCEM (TM) SYSTEM (452986)**	**42.0**	**sacks**	**15.8**	**1.15**	**5.01**		**5.01**
5.01 Gal		FRESH WATER							

Calculated Values		**Pressures**		**Volumes**					
Displacement	63	**Shut In: Instant**		**Lost Returns**	0	*Cement Slurry*	162.6	**Pad**	
Top Of Cement	SURFACE	**5 Min**		**Cement Returns**	53	**Actual Displacement**	63	**Treatment**	
Frac Gradient		**15 Min**		**Spacers**	20	**Load and Breakdown**		**Total Job**	**256**

Rates												
Circulating	*6*	*Mixing*	5	*Displacement*	5	**Avg. Job**	5					
Cement Left In Pipe	**Amount**	***39 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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Cementing Job Log

The Road to Excellence Starts with Safety

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Well Name: SKR	**Well #:** 598-08-BV-04		**API/UWI #:**
Field: SKINNER RIDGE	**City (SAP):** PARACHUTE	**County/Parish:** Garfield	**State:** Colorado
Legal Description:			
Lat:		**Long:**	
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	**Srvc Supervisor:** KEANE, JOHN		**MBU ID Emp #:** 486519

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	10/03/2013 01:30							
Pre-Convoy Safety Meeting	10/03/2013 03:30							WITH HES
Arrive At Loc	10/03/2013 05:15							
Assessment Of Location Safety Meeting	10/03/2013 05:30							WITH HES
Pre-Rig Up Safety Meeting	10/03/2013 22:00							WITH HES
Rig-Up Equipment	10/03/2013 22:15							
Pre-Job Safety Meeting	10/03/2013 23:30							WITH HES, CHEVRON, AND ESIGN 122
Start Job	10/03/2013 23:43							TP 1032.36 FT, TD 1045, HOLE 12.25 IN, CSG 8.625 IN 24 LB/FT J-55, SHOE 39.51 FT, MWT 9.05 LB/GAL, PV/YP 20/22, RIG CIRCULATING AT 6 BBL/MIN
Pump Water	10/03/2013 23:48		2	2			50.0	FILL LINES
Test Lines	10/03/2013 23:51							LOW TEST AT 1671 PSI, HIGH TEST AT 3655 PSI, PRESSURE HOLDING
Pump Spacer	10/03/2013 23:56		4	20			42.0	FRESH WATER WITH 5 LBS RED RHODAMINE DYE AND 25 LBS POL-E-FLAKE
Activity Description	**Date/Time**	**Cht #**	**Rate bbl/ min**	**Volume bbl**		**Pressure psig**		**Comments**
				Stage	**Total**	**Tubing**	**Casing**	

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Cementing Job Log

Pump Lead Cement	10/04/2013 00:03		4	81.8			72.0	MIXED AT 12.3 LB/GAL, 193 SKS, 2.38 FT3/SK, 13.77 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
Pump Tail Cement	10/04/2013 00:22		6	80.8			120.0	MIXED AT 12.8 LB/GAL, 215 SKS, 2.11 FT3/SK, 11.77 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
Shutdown	10/04/2013 00:37						38.0	
Drop Plug	10/04/2013 00:38							PLUG LAUNCHED
Pump Displacement	10/04/2013 00:39		5	53			300.0	FRESH WATER
Slow Rate	10/04/2013 00:51		2	10			247.0	SLOWED AT 53 BBL AWAY
Bump Plug	10/04/2013 00:56			63			270.0	PLUG BUMPED AT CALCULATED DISPLACEMENT
Check Floats	10/04/2013 01:02							FLOATS HOLDING, .5 BBL RETURNED TO THE TRUCK
Comment	10/04/2013 02:00							RIGGED UP HES EQUIPMENT TO TOP OUT WELL OFFLINE, USED 42 SKS, 8.BBL OF CEMENT TO TOP OUT
Pump Cement	10/04/2013 02:29						50.0	MIXED AT 15.8 LB/GAL, 42 SKS, 1.15 FT3/SK, 5.01 GAL/SK, DENSITY VERIFIED USING PRESSURIZED MUD SCALES
End Job	10/04/2013 02:43							GOOD CIRCULATION THROUGOUT THE JOB, PIPE WAS STATIC DURING THE JOB, NO DERRICK CHARGE, RIG USED 100 LBS OF SUGAR, 13 ADD HOURS CHARGED, 53 BBL CEMENT CIRCULATED TO SURFACE
Pre-Rig Down Safety Meeting	10/04/2013 02:55							WITH HES
Rig-Down Equipment	10/04/2013 03:00							

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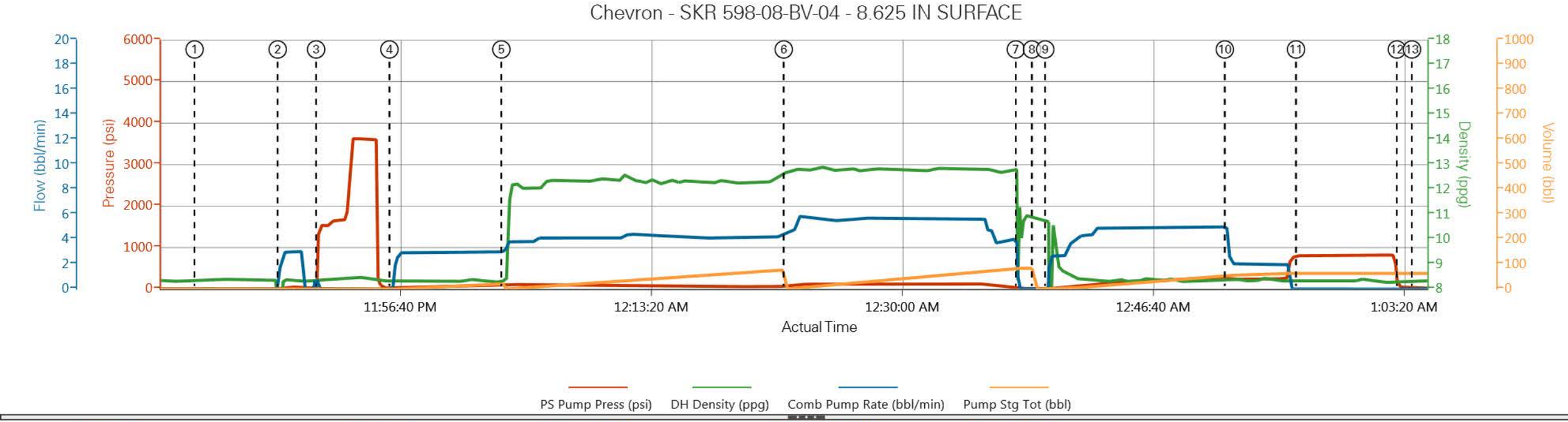
Cementing Job Log

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pre-Convoy Safety Meeting	10/04/2013 04:00							WITH HES
Crew Leave Location	10/04/2013 04:15							
Comment	10/04/2013 04:16							THANKS FOR USING HALLIBURTON, JOHN KEANE AND CREW



① Start Job 5;8.38;0;0
② Fill Lines 6;2.54;1.8;0.3
③ Test Lines 1472;8.36;0.1;4.6
④ Fresh Water Spacer 13;8.33;0;0
⑤ Pump Lead Cement 73;8.38;3;0.1
⑥ Pump Tail Cement 72;12.67;4.6;0.6
⑦ Shutdown 38;10.86;0;83.4
⑧ Drop Plug 11;10.88;0;0
⑨ Pump Displacement 10;10.73;0;0
⑩ Slow Rate 290;8.37;4.5;54.7
⑪ Bump Plug 806;8.33;0;63.1
⑫ Check Floats 59;8.29;0;63.1
⑬ End Job 11;8.27;0;63.1

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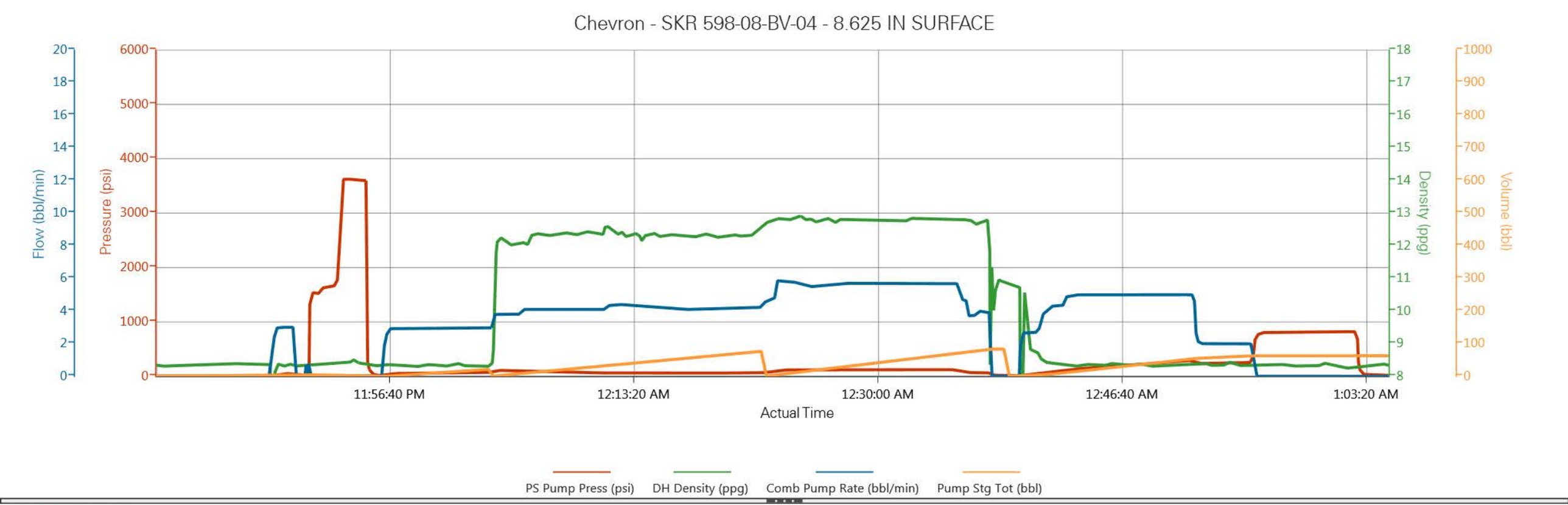
Created: 2013-10-03 16:13:44, Version: 2.0.606 Edit

Customer: CHEVRON - MID-CONTINENT EBIZ
Representative: GREG GEISER

Job Date: 10/3/2013 10:25:24 PM
Sales Order #: 900793492

Well: SKR-598-08-BV-04
ELITE 4: JOHN KEANE / BRENT BANKS



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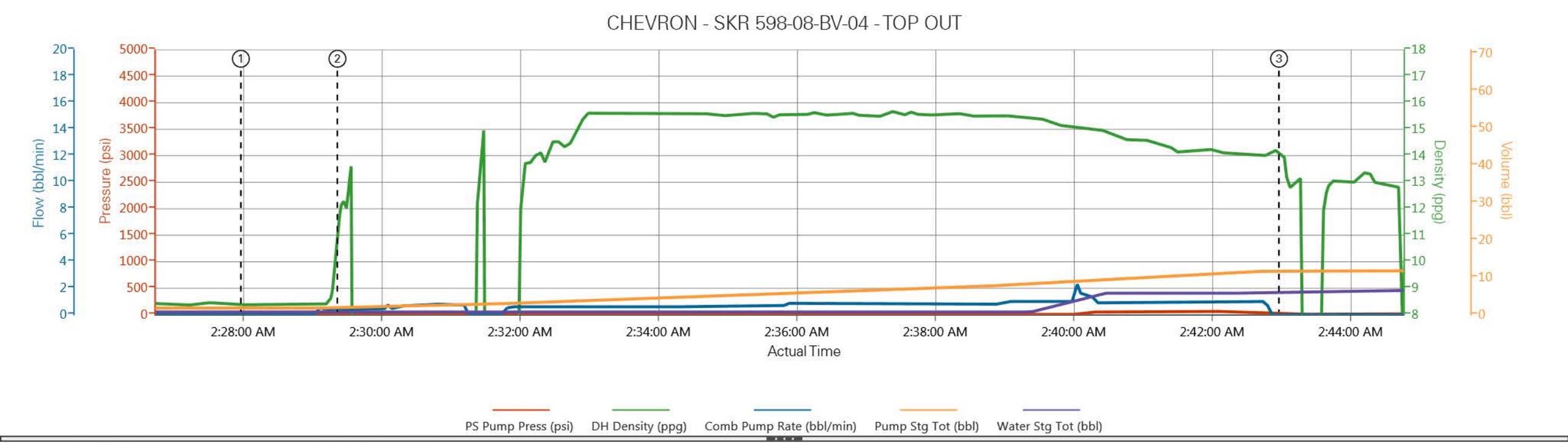


① Start Job 7;8.37;0;1.8;0.74 ③ End Job 26;14.01;0;11.7;6.1

② Pump Cement 7;12.05;0.4;1.9;0.74

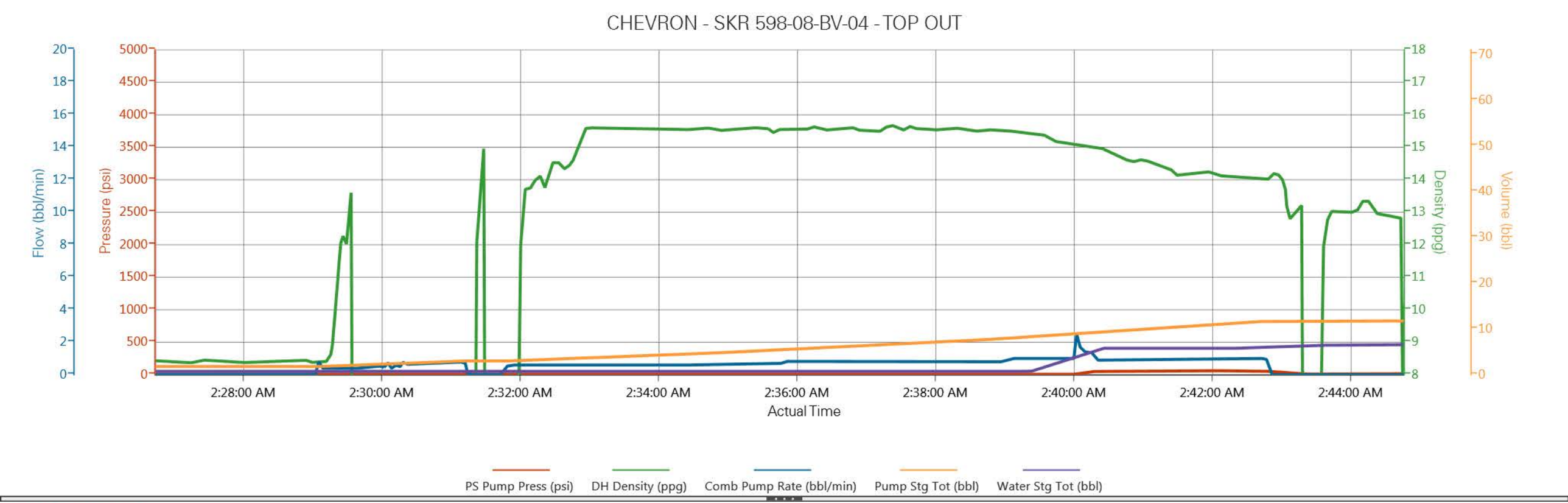
HALLIBURTON | iCem® Service

Created: 2013-10-04 01:36:23, Version: 2.0.606 Edit

Customer: CHEVRON - MID-CONTINENT EBIZ
Representative: GREG GEISER

Job Date: 10/4/2013 1:36:23 AM
Sales Order #: 900793492

Well: SKR-598-08-BV-04
ELITE 4: JOHN KEANE / BRENT BANKS



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Representative: GREG GEISER

Job Date: 10/4/2013 1:36:23 AM
Sales Order #: 900793492

Well: SKR-598-08-BV-04
ELITE 4: JOHN KEANE / BRENT BANKS

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Water Analysis Report

Company:	CHEVRON	**Date:**	10/3/2013
Submitted by:	JOHN KEANE	**Date Rec.:**	10/3/2013
Attention:	CHUCK ROSS	**S.O.#**	900793432
Lease	SKR	**Job Type:**	SURFACE
Well #	598-08-BV-04		

Specific Gravity	*MAX*	1	
pH	*8*	7	
Potassium (K)	*5000*	0	Mg / L
Calcium (Ca)	*500*	120	Mg / L
Iron (FE2)	*300*	0	Mg / L
Chlorides (Cl)	*3000*	500	Mg / L
Sulfates (SO_4)	*1500*	<200	Mg / L
Chlorine (Cl_2)		0	Mg / L
Temp	*40-80*	64	Deg
Total Dissolved Solids		410	Mg / L

Respectfully: JOHN KEANE

Title: CEMENTING SUPERVISOR

Location: Grand Junction, CO

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CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
900793492	10	10/4/2013
Customer:		**Job Type (BOM):**
CHEVRON - MID-CONTINENT EBIZ		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
GREG GEISER		AFEYSAZAEJKMCMUIAAA
Well Name:		**Well Number:**
SKR		598-08-BV-04
Well Type:	**Well Country:**	
Development Well	United States of America	
H2S Present:	**Well State:**	**Well County:**
	Colorado	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	10/4/2013
Survey Interviewer	The survey interviewer is the person who initiated the survey.	JOHN KEANE (HB58526)
Customer Participation	Did the customer partipcipate in this survey? (Y/N)	Yes
Customer Representative	Enter the Customer representative name	GREG GEISER
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	CREW DID AND EXCELLENT JOB AND ADHERED TO ALL CHEVRON POLICY

CUSTOMER SIGNATURE

HALLIBURTON

CUSTOMER SURVEY

Sales Order #:	**Line Item:**	**Survey Conducted Date:**
900793492	10	10/4/2013
Customer:		**Job Type (BOM):**
CHEVRON - MID-CONTINENT EBIZ		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
GREG GEISER		AFEYSAZAEJKMCMUIAAA
Well Name:		**Well Number:**
SKR		598-08-BV-04
Well Type:	**Well Country:**	
Development Well	United States of America	
H2S Present:	**Well State:**	**Well County:**
	Colorado	Garfield

KEY PERFORMANCE INDICATORS

General	
Survey Conducted Date The date the survey was conducted	10/4/2013

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.	6
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.	3
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	6
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

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900793492	10	10/4/2013
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CHEVRON - MID-CONTINENT EBIZ		CMT SURFACE CASING BOM
Customer Representative:		**API / UWI: (leave blank if unknown)**
GREG GEISER		AFEYSAZAEJKMCMUIAAA
Well Name:		**Well Number:**
SKR		598-08-BV-04
Well Type:	**Well Country:**	
Development Well	United States of America	
H2S Present:	**Well State:**	**Well County:**
	Colorado	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 cment mixed at designed density divided by total BBLs of cement multiplied by 100	95
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	94
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