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## **CHEVRON - MID-CONTINENT EBIZ**

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**McLAUGHLIN 9x33  
RANGELY  
Rio Blanco County , Colorado**

**Squeeze Perfs**  
10-Feb-2012

**Job Site Documents**

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	Establish Injection Test		20	bbl	8.33	.0	.0	5.0		
2	SqueezeCem Lead	SQUEEZECEM (TM) SYSTEM (452971)	115	sacks	12.5	2.13	12.3	5.0	12.3	
		12.3 Gal	FRESH WATER							
3	SqueezeCem Tail	SQUEEZECEM (TM) SYSTEM (452971)	75	sacks	15.6	1.18	5.05	2.0	5.05	
		2 %	CALCIUM CHLORIDE, PELLET, 50 LB (101509387)							
		5.05 Gal	FRESH WATER							
4	Fresh Water Displacement		4.7	bbl	8.33	.0	.0	3.0		
Calculated Values			Pressures			Volumes				
Displacement	4.7	Shut In: Instant		Lost Returns	0	Cement Slurry	62	Pad		
Top Of Cement	SURF	5 Min		Cement Returns	0	Actual Displacement	4.7	Treatment		
Frac Gradient		15 Min		Spacers	20	Load and Breakdown		Total Job	86.7	
Rates										
Circulating	2	Mixing	3	Displacement	3	Avg. Job	3			
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						

# Cement Verification Sheet

Company: Chevron 2/9/2012 16:00

Lease & Well: McLaughlin 9X33

Density: 12.5 lbs/gal

Yield: 2.26 ft<sup>3</sup>/sk

Water Req: 12.9 gal/sk

Sacks: 115 sks **LEAD**

**CEMENT BLEND:**

	<u>Conc.</u>	<u>Unit</u>	<u>Weight</u>	
TYPE III	100	% BWOC	10810.0	115 sks
CEMENT		% BWOC		sks
POZ		% BWOC		
OTHER		% BWOC		

**ADDITIVES:**

CALSEAL	2	% BWOC	216.2	4.3 sks
ECONOLITE	2	% BWOC	216.2	
VERSASET	0.3	% BWOC	32.4	
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		
ADDITIVE	0	LB/SK		

TOTAL: 11274.8

TONS: 5.6

TOTAL FT<sup>3</sup>: 121.4

## Cement Verification Sheet

Company:	<u>Chevron</u>	<u>2/9/2012 16:00</u>
Lease & Well:	<u>McLaughlin 9X33</u>	
Density:	<u>15.6 lbs/gal</u>	
Yield:	<u>1.18 ft<sup>3</sup>/sk</u>	
Water Req:	<u>5.05 gal/sk</u>	
Sacks:	75 sks	Type:

**CEMENT BLEND:**

<u>CEMENT BLEND:</u>	<u>Conc.</u>	<u>Unit</u>	<u>Weight</u>	
<u>MOUNTAIN G</u>	100	% BWOC	7050.0	75 sks
CEMENT		% BWOC		sks
BORAL CRAIG		% BWOC	0.0	0 sks
OTHER		% BWOC		

**ADDITIVES:**

[illegible]

<b>TOTAL:</b>	<b>7050.0</b>
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**TONS: 3.5**

**TOTAL FT<sup>3</sup>: 75.0**



*The Road to Excellence Starts with Safety*

Sold To #: 338668	Ship To #: 2904970	Quote #:	Sales Order #: 9274724
Customer: CHEVRON - MID-CONTINENT EBIZ	Customer Rep: Doyle		
Well Name: McLAUGHLIN	Well #: 9x33	API/UWI #:	
Field: RANGELY	City (SAP): RANGELY	County/Parish: Rio Blanco	State: Colorado
Contractor: WORKOVER	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Perfs			
Well Type: Producing Well	Job Type: Squeeze Perfs		
Sales Person: SARVER, ZACHARY	Srv Supervisor: DEAN, MARK	MBU ID Emp #: 454214	

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ANDERSON, BENJAMIN L	5	342843	DEAN, MARK Christophe	5	454214	Jutson, Tim	5	510127

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11076824	50	10948690	50	11398321			

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
02-10-12	5	5						

TOTAL	Total is the sum of each column separately							
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## Job

## Job Times

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To	Called Out	On Location	Job Started	Job Completed	Departed Loc
				BHST	1169. ft	911. ft	5 ft	911 ft		1169 ft	10 - Feb - 2012	05:00	10 - Feb - 2012	10:30	10 - Feb - 2012
												07:45		11:34	

## 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
Production Casing	Unknown		7.	6.366	23.		J-55	.	6000.		
Retainer	Unknown		7.	6.366	23.		J-55	850.	851.		
Surface Casing	Unknown		10.75	10.05	40.5		J-55	.	757.		
Tubing	Unknown		2.875	2.441	6.5		J-55	.	850.		
Squeeze Interval								3714.	3725.	.	.

## Sales/Rental/3<sup>rd</sup> Party (HES)

Description	Qty	Qty uom	Depth	Supplier
SUGAR - GRANULATED	20	LB		

## 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	



*The Road to Excellence Starts with Safety*

Sold To #: 338668		Ship To #: 2904970		Quote #:		Sales Order #: 9274724	
Customer: CHEVRON - MID-CONTINENT EBIZ				Customer Rep: Doyle			
Well Name: McLAUGHLIN			Well #: 9x33		API/UWI #:		
Field: RANGELY		City (SAP): RANGELY		County/Parish: Rio Blanco		State: Colorado	
Legal Description:							
Lat:				Long:			
Contractor: WORKOVER			Rig/Platform Name/Num: Workover				
Job Purpose: Squeeze Perfs					Ticket Amount:		
Well Type: Producing Well			Job Type: Squeeze Perfs				
Sales Person: SARVER, ZACHARY			Srcv Supervisor: DEAN, MARK			MBU ID Emp #: 454214	

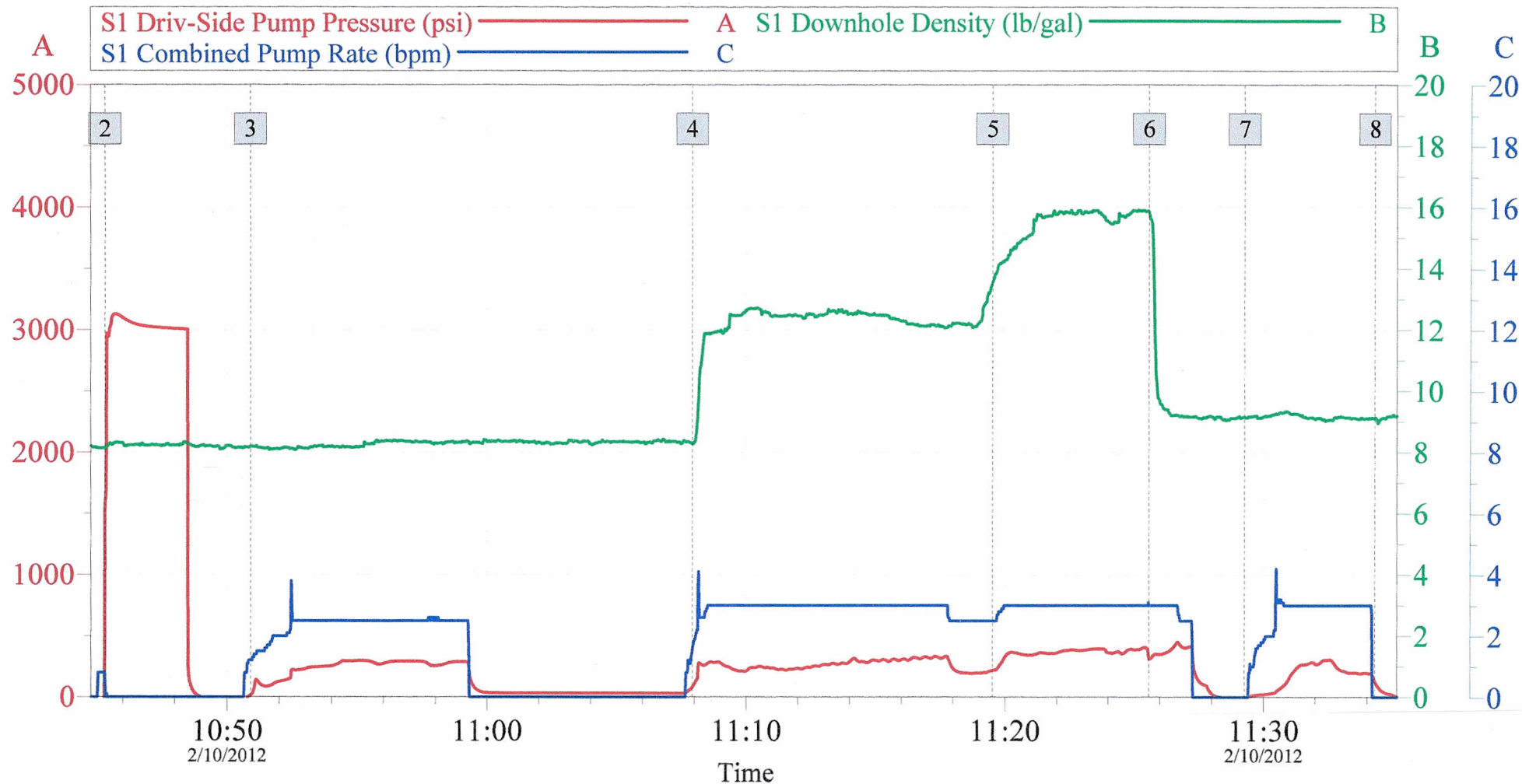
Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	02/10/2012 05:00							CREW CALLED OUT, GOT TRUCKS PREPPED FOR CONVOY AND JOB
Pre-Convoy Safety Meeting	02/10/2012 06:15							DISCUSSED CONVOY PROCEDURES, ROUTE, STOP, ROAD HAZARDS, TRAFFIC, WILDLIFE, WEATHER HAZARDS, EMERGENCY, AND BREAKDOWN PROCEDURES
Depart from Service Center or Other Site	02/10/2012 06:30							CREW DEPARTED IN CONVOY
Arrive At Loc	02/10/2012 07:45							Assesed location for spotting Equipment
Pre-Rig Up Safety Meeting	02/10/2012 08:00							DISCUSSED RIG UP PROCEDURES, PINCH POINTS, LIFTING, HAMMERING, RED ZONES, AND SLIPS/TRIPS/FALLS
Rig-Up Equipment	02/10/2012 08:15							RIGGED UP SAFELY AND TO BOTH HALLIBURTON AND CHEVRON STANDARDS
Pre-Job Safety Meeting	02/10/2012 10:15							DISCUSSED JOB PROCEDURE, RIG ISSUES, SAFETY ISSUES, HAZARDS WITH PRESSURE, EMERGENCY, AND EVACUATION PROCEDURES

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Test Lines	02/10/2012 10:32							TESTED LINES TO 3000 PSI (LEAK) (REPLACED 2 INCH LO TORQ ON TBG)
Test Lines	02/10/2012 10:45							TESTED LINES TO 3000 PSI (PRESSURE HELD)
Circulate Well	02/10/2012 10:50		2.5	20			225.0	BROKE CIRCULATION @ 4 BBL GONE
Pump Lead Cement	02/10/2012 11:08		3	46.29			290.0	PUMPED 46 BBL OF SqueezeCem LEAD CMT @ 12.5# - Y: 2.26 - W: 12.9 (115 SKS)
Pump Tail Cement	02/10/2012 11:20		3	15.76			360.0	PUMPED 15 BBL OF SqueezeCem TAIL CMT @ 15.6# - Y: 1.18 - W: 5.05 (75 SKS)
Pump Displacement	02/10/2012 11:26		3	4.7			345.0	PUMPED A TOTAL OF 4.7 BBL OF FRESHWATER DISPLACEMENT
Slow Rate	02/10/2012 11:27		2.5	7			400.0	SLOWED RATE TO MAINTAIN LOW PRESSURE
Shutdown	02/10/2012 11:29							SHUTDOWN AND PULLED OUT OF RETAINER
Reverse Circ Well	02/10/2012 11:30		2	13			150.0	REVERSED 13 BBL OF FRESH
Shutdown	02/10/2012 11:34							SWAPPED MANIFOLD TO PIT TO WASH UP
Clean Lines	02/10/2012 11:38							WASHED PUMP & LINES TO PIT
Post-Job Safety Meeting (Pre Rig-Down)	02/10/2012 11:50							DISCUSSED PPE & HAZARDS
Rig-Down Equipment	02/10/2012 11:55							RIGGED DOWN EQUIPMENT SAFELY
Pre-Convoy Safety Meeting	02/10/2012 12:45							DISCUSSED FATIGUE & SAFE DRIVING
Depart Location for Service Center or Other Site	02/10/2012 13:00							THANKYOU FOR CHOOSING HALLIBURTON !



# Chevron 2.875 Squeeze

02-10-12



## Global Event Log

2	Test Lines	10:45:20	3	Circulate Well	10:50:55	4	Pump Lead Cement	11:07:55
5	Pump Tail Cement	11:19:31	6	Pump Displacement	11:25:34	7	Reverse Circ Well	11:29:15
8	Shutdown	11:34:18						

Customer: Chevron  
Well Description: McLaughlin  
Cementer: Mark Dean

Job Date: 10-Feb-2012  
Well #: 9X33  
Operator: Ben Anderson

Sales Order #: 9274724  
RCM #: 11076824

OptiCem v6.4.10  
10-Feb-12 11:48