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# CHEVRON - MID-CONTINENT EBIZ

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Union Pacific 48-29  
RANGELY WEBER SAND UNIT  
Rio Blanco County , Colorado

## Cement Production Liner

23-Nov-2011

### Job Site Documents

EWF  
2/9/12  
DLP

## The Road to Excellence Starts with Safety

Sold To #: 338668	Ship To #: 338668	Quote #:	Sales Order #: 9079157
Customer: CHEVRON - MID-CONTINENT EBIZ		Customer Rep: Cramer, Roy	
Well Name: Union Pacific		Well #: 48-29	API/UWI #: 05-103-06231
Field:	City (SAP): HOUSTON	County/Parish: Rio Blanco	State: Colorado
Legal Description: Section 29 Township 02N Range 102W			
Contractor: AESC		Rig/Platform Name/Num:	
Job Purpose: Cement Production Liner			
Well Type: Injection Well		Job Type: Cement Production Liner	
Sales Person: SPENCER, WESTON		Srvc Supervisor: ASHBY, ANDREW	MBU ID Emp #: 450544

## Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
ASHBY, ANDREW A	5.5	450544	GAMBLES, BRAYDEN Kade	5.5	469413	LINDER, DAVID A.	5.5	506410
MCKEE, RALPH R	5.5	259268						

## Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
11338213	60 mile	11360879	60 mile	11410664	60 mile	11512092	60 mile
11526494	60 mile						

## Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
23 Nov 2011	5.5	1						
TOTAL	Total is the sum of each column separately							

## Job

## Job Times

Formation Name						Date	Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	23 - Nov - 2011	07:00	MST
Form Type			BHST	165 degF	On Location	23 - Nov - 2011	10:30	MST
Job depth MD	6445. ft		Job Depth TVD		Job Started	23 - Nov - 2011	12:30	MST
Water Depth			Wk Ht Above Floor		Job Completed	23 - Nov - 2011	14:00	MST
Perforation Depth (MD)	From		To		Departed Loc	23 - Nov - 2011	15:30	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
Open Hole				6.125				5209.	6440.		
Liner	Unknown		5.	4.276	18.		L-80	4950.	6440.		
Previous Casing	Unknown		7.	6.366	23.		J-55	.	5209.		
Drill Pipe	Unknown		2.875	2.151	10.4			.	4950.		

## Tools and Accessories

Type	Size	Qty	Make	Depth	Type	Size	Qty	Make	Depth	Type	Size	Qty	Make
Guide Shoe					Packer		0			Top Plug		1	
Float Shoe	1				Bridge Plug		0			Bottom Plug		0	
Float Collar	1				Retainer		0			SSR plug set		0	
Insert Float	0									Plug Container		0	
Stage Tool	0									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	MUD FLUSH III	MUD FLUSH III - SBM (528788)	40.00	bbl	8.4	.0	.0	4.0	
2	TUNED SPACER III	TUNED SPACER III - SBM (483826)	15.00	bbl	11.	7.66	50.4	4.0	
34.6 gal/bbl		FRESH WATER							
124.67 lbm/bbl		BARITE, BULK (100003681)							
3	BondCem V1	BONDCEM (TM) SYSTEM (452977)	100.0	sacks	13.5	1.46	6.96	4.0	6.96
6.96 Gal		FRESH WATER							
4	Water Displacement		47.00	bbl	8.34	.0	.0	4.0	
<b>Calculated Values</b>		<b>Pressures</b>		<b>Volumes</b>					
Displacement	47 bbl	Shut In: Instant	405	Lost Returns	0	Cement Slurry	27	Pad	
Top Of Cement	4743 ft	5 Min		Cement Returns	0	Actual Displacement	47	Treatment	
Frac Gradient		15 Min		Spacers	75	Load and Breakdown		Total Job	
<b>Rates</b>									
Circulating		Mixing	4	Displacement	4	Avg. Job		4	
Cement Left In Pipe	Amount	45 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

Sold To #: 338668	Ship To #: 338668	Quote #:	Sales Order #: 9079157
Customer: CHEVRON - MID-CONTINENT EBIZ		Customer Rep: Cramer, Roy	
Well Name: Union Pacific		Well #: 48-29	API/UWI #: 05-103-06231
Field:	City (SAP): HOUSTON	County/Parish: Rio Blanco	State: Colorado
Legal Description: Section 29 Township 02N Range 102W			
Lat: N 0 deg. OR N 0 deg. 0 min. 0 secs.		Long: E 0 deg. OR E 0 deg. 0 min. 0 secs.	
Contractor: AESC		Rig/Platform Name/Num:	
Job Purpose: Cement Production Liner			Ticket Amount:
Well Type: Injection Well		Job Type: Cement Production Liner	
Sales Person: SPENCER, WESTON		Srv Supervisor: ASHBY, ANDREW	MBU ID Emp #: 450544

Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	11/23/2011 07:00							Crew Called out for Job. (Requested on location @ 08:00)
Pre-Convoy Safety Meeting	11/23/2011 09:20							Met w/crew to discuss safety and hazards of travel to location
Depart from Service Center or Other Site	11/23/2011 09:30							Entered into Journey Management.
Arrive At Loc	11/23/2011 10:30							Ended Journey Management. Rig was ready for us..
Assessment Of Location Safety Meeting	11/23/2011 10:35							Met w/crew to discuss hazards of site, location of materials and safety precautions.
Other	11/23/2011 10:40							Spot Equipment
Pre-Rig Up Safety Meeting	11/23/2011 10:55							Met w/crew to discuss the best way to rig up, safety and hazards involved.
Rig-Up Equipment	11/23/2011 11:00							Rig up Ground, Standpipe, rig floor, water lines, and bulk lines.
Pre-Job Safety Meeting	11/23/2011 12:15							Met w/Rig Crew, Co. Rep, and our crew to discuss job procedres, contingencies, and safety measures.
Other	11/23/2011 12:40							Mix up Mud Flush Spacer
Other	11/23/2011 12:49							Fill Lines w/Fresh water
Test Lines	11/23/2011 12:52					4999. 0		Start pressure Test

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9079157

SUMMIT Version: 7.2.27

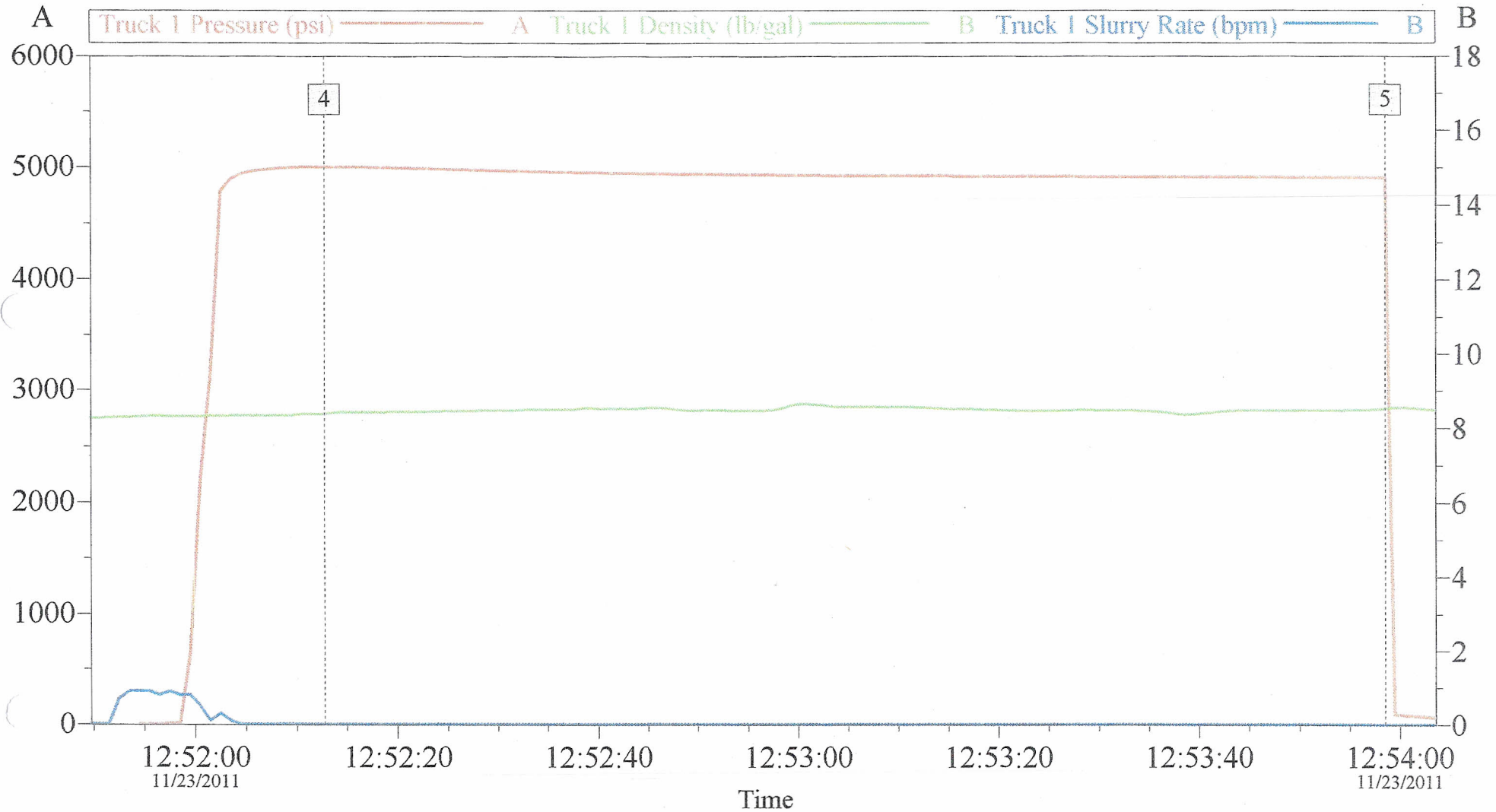
Wednesday, November 23, 2011 03:32:00

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Test Lines	11/23/2011 12:53					4911. 0		End Pressure Test - lost 88 psi over 2 min.
Pump Water	11/23/2011 12:55		4	20		1253. 0		20 bbls Fresh Water spacer per Co. Rep.
Pump Spacer 1	11/23/2011 13:00		4	40		1491. 0		Mud Flush III Spacer
Pump Spacer 2	11/23/2011 13:11		4	15		1453. 0		11 sks Tuned Spacer @ 11.0 lbm/gal, 7.66 cuft/sk, 50.4 gal/sk
Pump Cement	11/23/2011 13:17		4	27		1330. 0		100 sks BondCem @ 13.5 lbm/gal, 1.46 cuft/sk, 6.96 gal/sk
Shutdown	11/23/2011 13:23							Shutdown, Tool rep. dropped dart, rig hand varified it was gone, Cmt Supervisor witnessed events.
Pump Displacement	11/23/2011 13:30		6	47		150.0		Brine Water Displacement
Displ Reached Cmmt	11/23/2011 13:32		6		8.5	1682. 0		Caught pressure / slowed Rate to 4 bpm to keep pressure down.
Slow Rate	11/23/2011 13:41		3		45	1478. 0		Slowed rate to bump plug.
Bump Plug	11/23/2011 13:42		3			1854. 0		Bump 500 psi over final circulating pressure (1478 psi)
Other	11/23/2011 13:44							Check floats - failed (shut truck in @ 4 bbls back and still flowing)
Pressure Up	11/23/2011 13:48		2					Pressure up to bump plug again.
Bump Plug	11/23/2011 13:50		2			2126. 0		Pressure up to 2100 psi per Co. Rep.
Other	11/23/2011 13:55					2131. 0		Check Floats - Floats Failed - shut truck in @ 4 bbls back and still flowing)
Pressure Up	11/23/2011 14:02		2					Pressure up to bump plug, release pressure to 500 psi, then shut-in per Co. Rep.
Bump Plug	11/23/2011 14:04		2			2092. 0		Pressure back up to 2100 psi.
Bleeding Tubing Or Casing	11/23/2011 14:05					2108. 0		Bleed back pressure to 500 psi.



Activity Description	Date/Time	Cht #	Rate bbl/ min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Shut In Well	11/23/2011 14:08					405.0		Shut-in well and turn over to the rig.
Other	11/23/2011 14:09							Rig to Pull out of liner, set liner, and then reverse out (100 bbls)
End Job	11/23/2011 14:56							Our services complete per Co. Rep. Maintained good returns throughout the job.
Post-Job Safety Meeting (Pre Rig-Down)	11/23/2011 15:20							Met w/crew to discuss rigging down safely.
Rig-Down Equipment	11/23/2011 15:25							Rig everything down.
Pre-Convoy Safety Meeting	11/23/2011 15:50							Met w/crew to discuss fit-for-duty, safety and hazards of travel back.
Depart Location for Service Center or Other Site	11/23/2011 16:00							Entered into Journey Management.
Other	11/23/2011 16:00							Thanks for using Halliburton!!!

# Chevron - Union Pacific# 48-29 - Production Liner Pressure Test



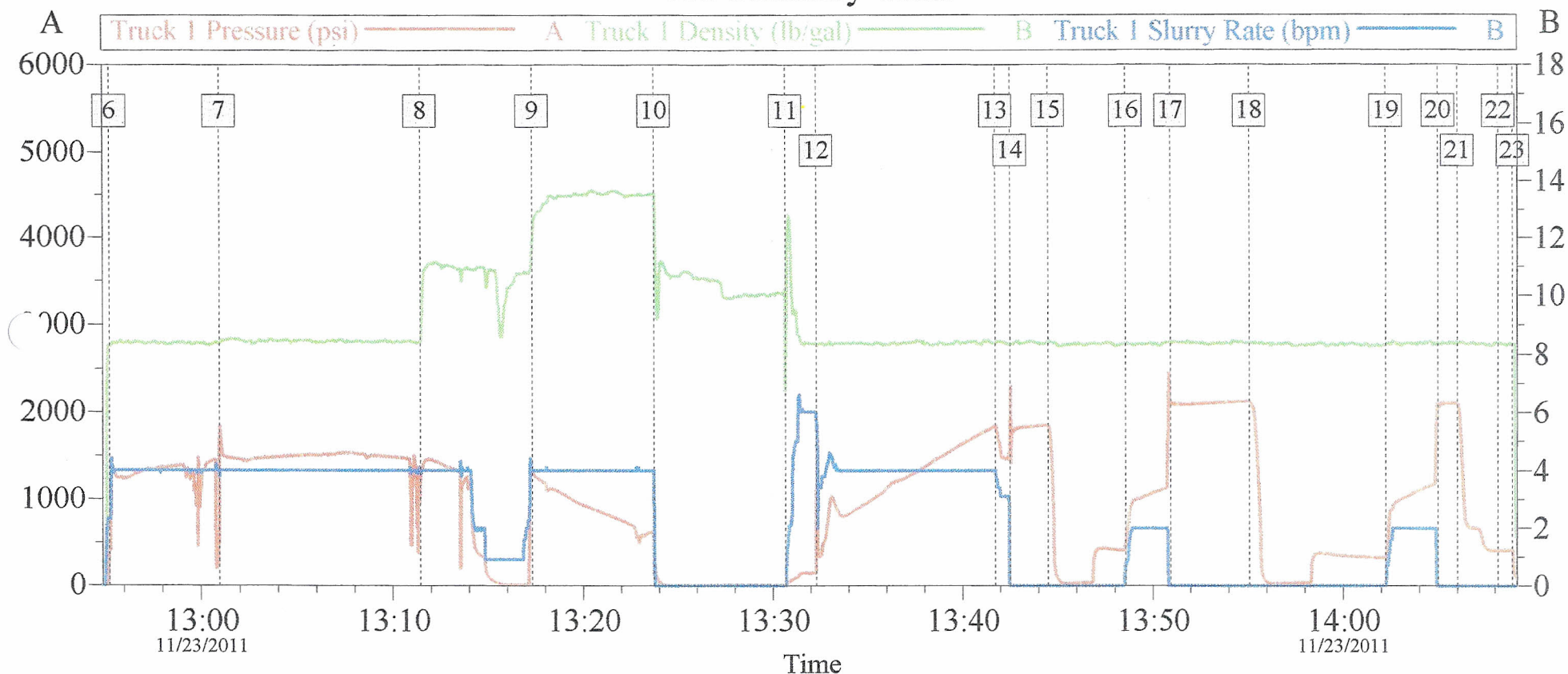
Global Event Log							
Intersection			PSI	Intersection			PSI
4	Start Pressure Test	12:52:13	4999	5	End Pressure Test	12:53:59	4911

Customer:	Chevron	Job Date:	23-Nov-2011	Sales Order #:	9079157
Job Description:	5" Production Liner	UWI:	05-103-06231	Elite #:	11512092
Service Supervisor:	Andrew Ashby	Service Operator:	Brayden Gambles	Service Leader:	n/a

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# Chevron - Union Pacific# 48-29 - Production Liner

## Job Summary Chart



### Global Event Log

6 Pump Water Spacer	12:55:15	7 Pump Mud Flush III	13:00:56	8 Pump Tuned Spacer	13:11:25
9 Pump BondCem Cement	13:17:18	10 Shutdown / Drop Dart	13:23:44	11 Pump Displacement	13:30:40
12 Displ Reached Cmmt	13:32:17	13 Slow Rate	13:41:44	14 Bump Plug	13:42:29
15 Check Floats	13:44:30	16 Pressure Up Well	13:48:34	17 Bump Plug	13:50:56
18 Check Floats	13:55:05	19 Pressure Up Well	14:02:13	20 Bump Plug	14:04:59
21 Bleed Tubing	14:05:59	22 Shut In Well	14:08:09	23 Ending Job	14:08:54

Customer: Chevron  
 Job Description: 5" Production Liner  
 Service Supervisor: Andrew Ashby

Job Date: 23-Nov-2011  
 UWI: 05-103-06231  
 Service Operator: Brayden Gambles

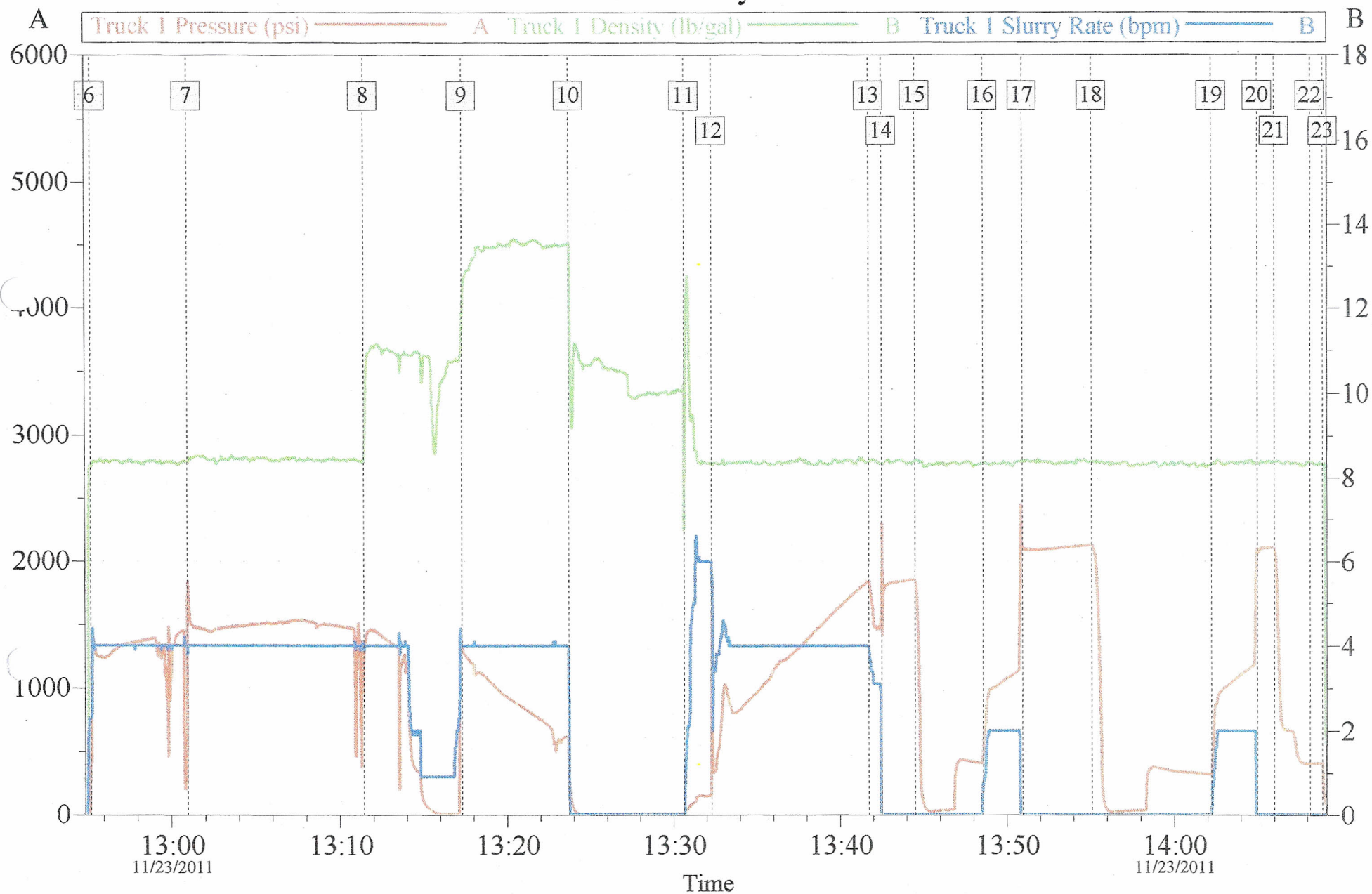
Sales Order #: 9079157  
 Elite #: 11512092  
 Service Leader: n/a

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# Chevron - Union Pacific# 48-29 - Production Liner

## Job Summary Chart



Customer: Chevron  
 Job Description: 5" Production Liner  
 Service Supervisor: Andrew Ashby

Job Date: 23-Nov-2011  
 UWI: 05-103-06231  
 Service Operator: Brayden Gambles

Sales Order #: 9079157  
 Elite #: 11512092  
 Service Leader: n/a

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