

**HALLIBURTON**

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## **OXY GRAND JUNCTION EBUSINESS**

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**CC 697-05-78A  
GRAND VALLEY  
Garfield County , Colorado**

**Squeeze Perfs**  
**14-Sep-2012**

### **Post Job Summary**

*The Road to Excellence Starts with Safety*

Sold To #: 344034	Ship To #: 2857362	Quote #:	Sales Order #: 9768684
Customer: OXY GRAND JUNCTION EBUSINESS	Customer Rep: McKinney, Ken		
Well Name: CC	Well #: 697-05-78A	API/UWI #: 05-045-18731	
Field: GRAND VALLEY	City (SAP): PARACHUTE	County/Parish: Garfield	State: Colorado
Lat: N 39.542 deg. OR N 39 deg. 32 min. 31.294 secs.	Long: W 108.238 deg. OR W -109 deg. 45 min. 42.768 secs.		
Contractor: Workover	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Perfs			
Well Type: Development Well	Job Type: Squeeze Perfs		
Sales Person: PRUETT, BRADLEY	Srv Supervisor: SLAUGHTER, JESSE	MBU ID Emp #: 454315	

**Job Personnel**

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
HAMMOND, DENNIS C	7	287025	HYDE, DUSTIN C	7	453940	LAULAINEN, ROGER Edward	7	524413
ROMKEE, DALE Alan	7	488215	SILVERTHORN, AARON	7	491305	SLAUGHTER, JESSE Dean	7	454315

**Equipment**

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10744549	60 mile	10871245	60 mile	10995027	60 mile	11164590	60 mile
11259881	60 mile	11710582	60 mile	11808831	60 mile		

**Job Hours**

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
9-14-2012	7	7						
TOTAL			Total is the sum of each column separately					

**Job**

Formation Name	Formation Depth (MD)	Top	Bottom	Form Type	Job depth MD	Job Depth TVD	Water Depth	Perforation Depth (MD)	From	To
				BHST	7017. ft	7017. ft				
						Wk Ht Above Floor	8. ft			

**Job Times**

Date	Time	Time Zone
14 - Sep - 2012	03:00	MST
14 - Sep - 2012	07:30	MST
14 - Sep - 2012	10:59	MST
14 - Sep - 2012	13:29	MST
14 - Sep - 2012	14:30	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	4.5	1		7070	Bottom Plug			
Float Collar					Retainer	4.5	1		6840	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 #	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
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**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
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Stage/Plug #: 1									
1	Injection Test	FRESH WATER	10.00	bbl	.	.0	.0	3.5	
2	SUPER FLUSH 101	SUPER FLUSH 101 - SBM (12199)	20.00	bbl	10.	.0	.0	3.5	
3	Spacer	FRESH WATER	10.00	bbl	8.33	.0	.0	3.5	
4	Squeeze Cem	SQUEEZECM (TM) SYSTEM (452971)	200.0	sacks	15.8	1.15	4.94	2.0	4.94
	4.94 Gal	FRESH WATER							
5	Displacement	FRESH WATER	26.5	bbl	8.33	.0	.0	.5	
Calculated Values		Pressures		Volumes					
Displacement	26.5	Shut In: Instant		Lost Returns	NO	Cement Slurry	41	Pad	
Top Of Cement		5 Min		Cement Returns	1	Actual Displacement	25.5	Treatment	
Frac Gradient		15 Min		Spacers	40	Load and Breakdown		Total Job	108
Rates									
Circulating		Mixing	2	Displacement	.5	Avg. Job	1		
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					

*The Road to Excellence Starts with Safety*

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Field: GRAND VALLEY		City (SAP): PARACHUTE		County/Parish: Garfield		State: Colorado	
Legal Description:							
Lat: N 39.542 deg. OR N 39 deg. 32 min. 31.294 secs.				Long: W 108.238 deg. OR W -109 deg. 45 min. 42.768 secs.			
Contractor: Workover			Rig/Platform Name/Num: Workover				
Job Purpose: Squeeze Perfs						Ticket Amount:	
Well Type: Development Well			Job Type: Squeeze Perfs				
Sales Person: PRUETT, BRADLEY			Srvc Supervisor: SLAUGHTER, JESSE			MBU ID Emp #: 454315	

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Call Out	09/14/2012 06:00							RET 6840 FT, PERF 6892 FT TO 7017 FT, BP 7070 FT, TUB 2 3/8 IN 4.7 LB/FT, CSG 4 1/2 IN 11.6 LB/FT, WF 8.33 PPG
Pre-Convoy Safety Meeting	09/14/2012 07:00							WITH ALL HES PERSONNEL
Crew Leave Location	09/14/2012 07:10							CREW WAS ROLLED FROM PREVIOUS JOB
Arrive At Loc	09/14/2012 07:30							RIG WAS STATIC UPON HES ARRIVAL
Assessment Of Location Safety Meeting	09/14/2012 08:40							WITH ALL HES PERSONNEL
Other	09/14/2012 08:40							SPOT EQUIPMENT
Pre-Rig Up Safety Meeting	09/14/2012 08:50							WITH ALL HES PERSONNEL
Rig-Up Equipment	09/14/2012 09:00							
Pre-Job Safety Meeting	09/14/2012 10:45							WITH ALL PERSONNEL ON LOCATION
Start Job	09/14/2012 10:59							
Other	09/14/2012 11:00		2	2			15.0	FILL LINES WITH FRESH WATER
Test Lines	09/14/2012 11:01							TESTED LINES TO 4863 PSI PRESSURE HOLDING
Pump Spacer 1	09/14/2012 11:07		3.5	10			50.0	FRESH WATER
Pump Spacer 2	09/14/2012 11:12		3.5	20			150.0	SUPER FLUSH III
Pump Spacer 1	09/14/2012 11:17		2	10			50.0	FRESH WATER

Sold To #: 344034

Ship To #: 2857362

Quote #:

Sales Order #: 9768684

SUMMIT Version: 7.3.0040

Tuesday, September 25, 2012 03:42:00

Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	
Pump Tail Cement	09/14/2012 11:22		2	41			92.0	200 SKS AT 15.8 PPG, 1.15 FT3/SK, 4.94. OPERATOR ERROR DUE TO LoCal INSTEAD AN AUTOCAL.
Pump Displacement	09/14/2012 11:43		0.5	23			890.0	FRESH WATER. SHUTDOWN PRIOR TO CALCULATED DISPLACEMENT. WAITED 15 MIN
Other	09/14/2012 12:34		0.5	0.5			1760.0	HESITATION #1. WAITED 10 MIN.
Other	09/14/2012 12:44		0.5	0.75			1820.0	HESITATION #2. WAITED 5 MIN.
Other	09/14/2012 12:54		0.5	0.25			2100.0	HESITATION #3. WAITED 1 MIN.
Other	09/14/2012 13:00		0.5		25.5		2000.0	HESITATION #4. THROUGHOUT HESITATION HES WOULD PUMP UNTIL PRESSURE WOULD REACH 2000 PSI AND LET IT FALL TO 1500 PSI AS PER COMPANY REP. HES APPLIED THIS METHOD 4 TIMES.
Other	09/14/2012 13:04							RIG STING OUT OF RETAINER
Reverse Circ Well	09/14/2012 13:09		3	53			1500.0	REVERSE CIRCULATED WELL
Shutdown	09/14/2012 13:27							SHUTDOWN
End Job	09/14/2012 13:29							MANIFOLD USED, 80 LB SUGAR USED, NO ROTARY SUB USED
Pre-Rig Down Safety Meeting	09/14/2012 13:35							WITH ALL HES PERSONNEL
Rig-Down Equipment	09/14/2012 13:40							
Pre-Convoy Safety Meeting	09/14/2012 15:20							WITH ALL HES PERSONNEL
Crew Leave Location	09/14/2012 15:30							
Activity Description	Date/Time	Cht #	Rate bbl/min	Volume bbl		Pressure psig		Comments
				Stage	Total	Tubing	Casing	

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Tuesday, September 25, 2012 03:42:00

**HALLIBURTON**

***Cementing Job Log***

Comment	09/14/2012 15:31							THANK YOU FOR USING HALLIBURTON CEMENT DEPARTMENT. JESSE SLAUGHTER AND CREW
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Ship To # :2857362

Quote # :

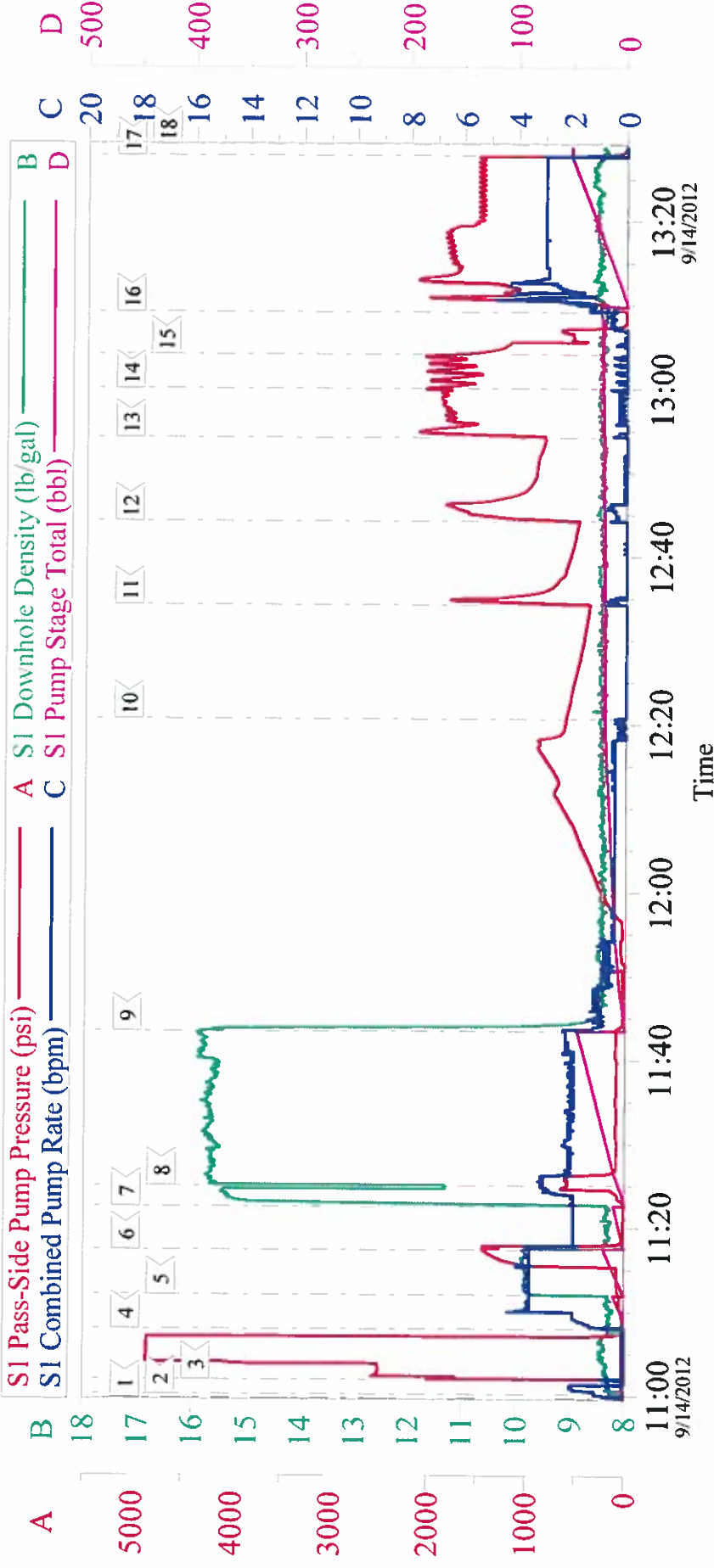
Sales Order # : 9768684

SUMMIT Version: 7.3.0040

Tuesday, September 25, 2012 03:42:00

# OXY CC 697-05-78A

## SQUEEZE



### Local Event Log

1	START JOB	10:59:38	2	PRIME LINES	11:00:10	3	TEST LINES	11:01:57
4	PUMP H2O SPACER	11:07:57	5	PUMP SUPER FLUSH	11:12:02	6	PUMP H2O SPACER	11:17:21
7	PUMP CEMENT	11:22:31	8	OPERATOR ERROR	11:25:00	9	PUMP DISPLACEMENT	11:43:23
10	SHUTDOWN	12:20:36	11	HESITATION #1	12:34:13	12	HESITATION #2	12:44:10
13	HESITATION #3	12:54:08	14	HESITATION #4	13:00:00	15	RIG STING OUT	13:04:05
16	REVERSE CIRCULATE WELL	13:09:08	17	SHUTDOWN	13:27:48	18	END JOB	13:29:10

Customer: OXY  
Well Description: CC 697-05-78A  
Customer Rep: KEN MCKINNEY

Job Date: 14-Sep-2012  
Job Type: SQUEEZE  
Cement Supervisor: JESSE SLAUGHTER

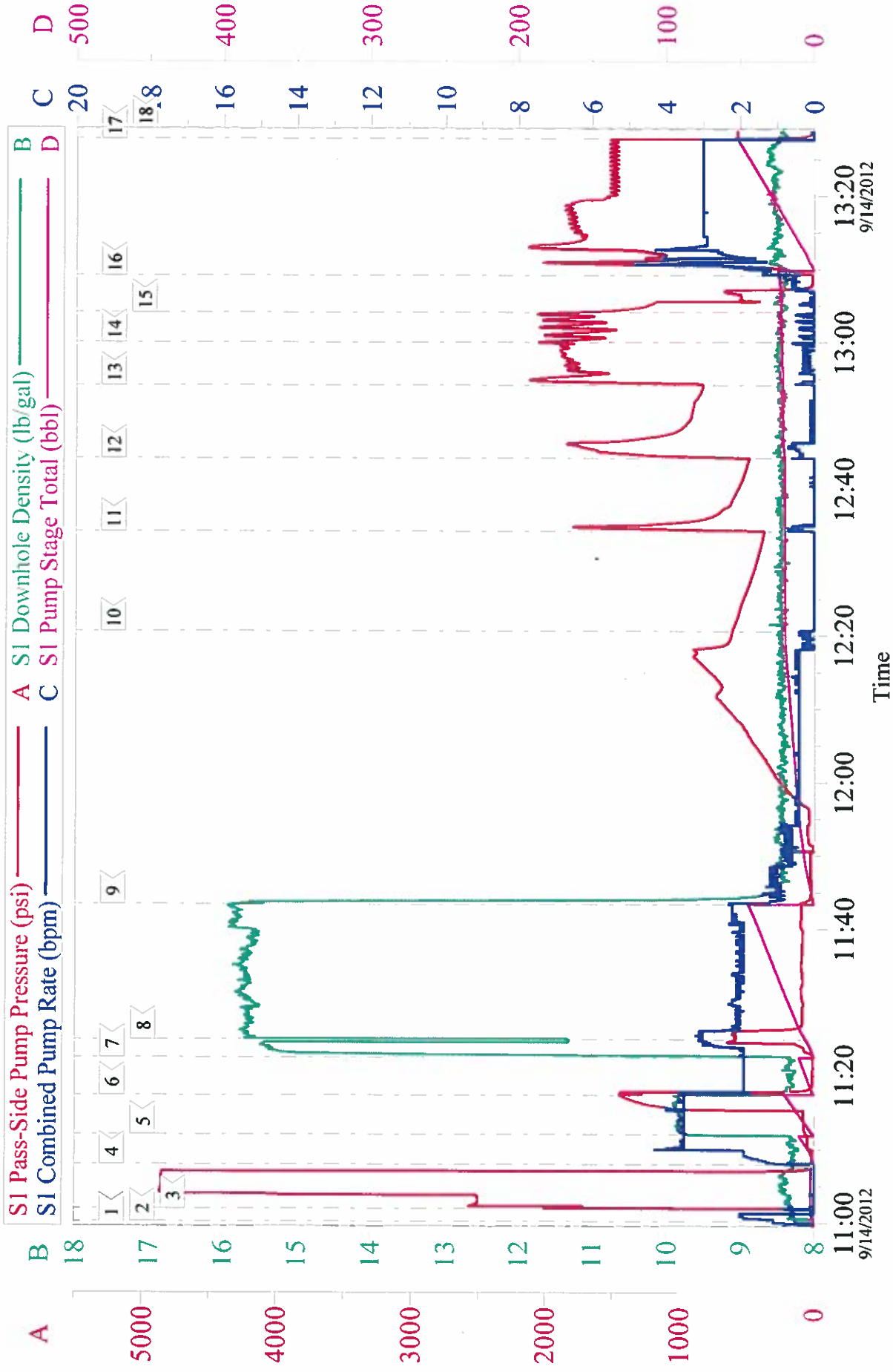
Sales Order #: 9768684  
ADC Used: YES  
Elite #: DUSTIN HYDE

OptiCem v6.4.10  
14-Sep-12 13:47



# OXY CC 697-05-78A

## SQUEEZE



Customer:	OXY	Job Date:	14-Sep-2012	Sales Order #:	9768684
Well Description:	CC 697-05-78A	Job Type:	SQUEEZE	ADC Used:	YES
Customer Rep:	KEN MCKINNEY	Cement Supervisor:	JESSE SLAUGHTER	Elite #8:	DUSTIN HYDE

OptiCem v6.4.10  
14-Sep-12 13:49