
ENCANA OIL & GAS (USA) INC. - EBUS

**Federal D-16-7-94-S
RULISON
Garfield County , Colorado**

Squeeze Open Hole
27-Sep-2012

Job Site Documents

The Road to Excellence Starts with Safety

Sold To #: 340078	Ship To #: 2954202	Quote #:	Sales Order #: 9848012
Customer: ENCANA OIL & GAS (USA) INC. - EBUS	Customer Rep: Gardner, Gary		
Well Name: Federal	Well #: D-16-7-94-S	API/UWI #: 05-045-06673	
Field: RULISON	City (SAP): RIFLE	County/Parish: Garfield	State: Colorado
Lat: N 39.444 deg. OR N 39 deg. 26 min. 39.948 secs.	Long: W 107.896 deg. OR W -108 deg. 6 min. 13.536 secs.		
Contractor: Workover	Rig/Platform Name/Num: Workover		
Job Purpose: Squeeze Open Hole			
Well Type: Development Well	Job Type: Squeeze Open Hole		
Sales Person: MAYO, MARK	Srv Supervisor: SMITH, CHRISTOPHER	MBU ID Emp #: 452619	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BLUST, CHARLES Thomas	2.0	386662	SINCLAIR, DAN J	2.0	338784	SMITH, CHRISTOPHER Scott	2.0	452619
VANALSTYNE, TROY L	2.0	420256						

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10567589C	55 mile	10713212	55 mile	10951251	55 mile	11360871	55 mile
11808829	55 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours
09.27.2012	5	1.5						

TOTAL	Total is the sum of each column separately							
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Job

Job Times

Formation Name					Date		Time	Time Zone
Formation Depth (MD)	Top		Bottom		Called Out	27 - Sep - 2012	04:00	MST
Form Type	BHST				On Location	27 - Sep - 2012	06:30	MST
Job depth MD	6090. m		Job Depth TVD	6090. m	Job Started	27 - Sep - 2012	08:23	MST
Water Depth			Wk Ht Above Floor	4. m	Job Completed	27 - Sep - 2012	09:32	MST
Perforation Depth (MD)	From		To		Departed Loc	27 - Sep - 2012	11:30	MST

Well Data

Description	New / Used	Max pressure MPa	Size mm	ID mm	Weight kg/m	Thread	Grade	Top MD m	Bottom MD m	Top TVD m	Bottom TVD m
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Sales/Rental/3rd Party (HES)

Description	Qty	Qty uom	Depth	Supplier
ADC (AUTO DENSITY CTRL) SYS, /JOB,ZI	1	JOB		
PORT. DATA ACQUIS. W/OPTICEM RT W/HES	1	EA		
R/A DENSOMETER W/CHART RECORDER,/JOB,ZI	1	JOB		

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		6090'	Bottom Plug			
Float Collar					Retainer	4.5"	1		5323'	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

Stage/Plug #: 1

Fluid #	Stage Type	Fluid Name	Qty	Qty uom	Mixing Density kg/m3	Yield m3/sk	Mix Fluid m3/tonne	Rate m3/min	Total Mix Fluid m3/tonne
1	Spacer Ahead		5.00	bbl	8.33	.0	.0	2.0	
2	SqueezeCem Tail Cement	SQUEEZECM (TM) SYSTEM (452971)	100.0	sacks	15.8	1.15	4.97	2.0	4.97
	4.97 Gal	FRESH WATER							
3	Water Displacement		20.00	bbl	8.33	.0	.0	2.0	
Calculated Values		Pressures		Volumes					
Displacement	20.6	Shut In: Instant	1200	Lost Returns	0	Cement Slurry	20.5	Pad	
Top Of Cement		5 Min		Cement Returns	.5	Actual Displacement	20.6	Treatment	
Frac Gradient		15 Min		Spacers	5	Load and Breakdown		Total Job	89
Rates									
Circulating	N/A	Mixing	2	Displacement	2	Avg. Job			2
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					

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Legal Description:							
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Job Purpose: Squeeze Open Hole						Ticket Amount:	
Well Type: Development Well			Job Type: Squeeze Open Hole				
Sales Person: MAYO, MARK			Srcv Supervisor: SMITH, CHRISTOPHER			MBU ID Emp #: 452619	

Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	
Crew Leave Yard	09/27/2012 04:00							
Arrive At Loc	09/27/2012 06:30							
Assessment Of Location Safety Meeting	09/27/2012 06:45							ALL HES PERSONEL, UPON HES ARRIVAL RIG CREW WAITING WITH TUBING STUNG IN AND TUBING FULL.
Pre-Rig Up Safety Meeting	09/27/2012 06:55							ALL HES PERSONEL
Pre-Job Safety Meeting	09/27/2012 08:00							ALL HES PERSONEL AND RIG CREW
Start Job	09/27/2012 08:23							BP-6090', PERFS-5423', CSG 4.5 11.6 J55, TUB- 2 3/8 4.7# J55, WF -8.4, CUSTOMER STATED THAT TUBING WAS FULL AND HOLD FLUID. CUSTOMER STATED THAT NO HESITATIONS WILL BE USED. CUSTOMER WANTED CEMENT 100' ABOVE PERFS, 50' OH AND 50' 7" CASING.
Pressure Test	09/27/2012 08:31		0.5	0.5				ALL LINES HELD PRESSURE AT 5015 PSI
Pressure Up Annulus	09/27/2012 08:36		0.5	0.5				BACKSIDE HELD 700 PSI
Activity Description	Date/Time	Cht #	Rate m3/min	Volume m3		Pressure MPa		Comments
				Stage	Total	Tubing	Casing	

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9848012

SUMMIT Version: 7.3.0040

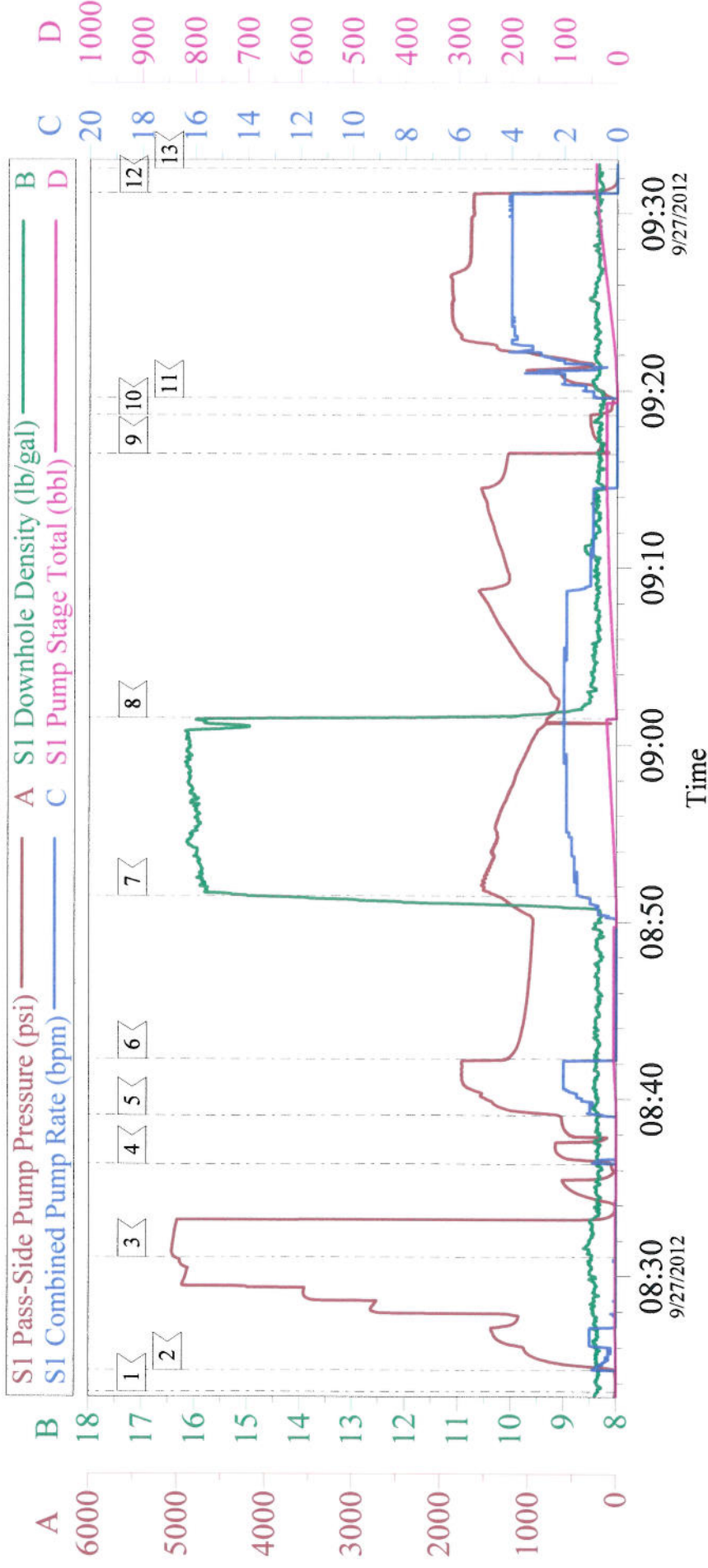
Thursday, September 27, 2012 10:13:00

Cementing Job Log

Injection Test	09/27/2012 08:39		2	5				WITH A MAX PRESSURE OF 2000 PSI, THE FASTER WE PUMPED THE CLOSER WE GOT TO THE MAX PRESSURE.
ISIP	09/27/2012 08:42						1200. 0	
Pump Cement	09/27/2012 08:51		2	20.5			1600. 0	100 SKS, 15.8 PPG, 1.15 FT3/SK, 4.96 GAL/SK
Pump Displacement	09/27/2012 09:01		2	20.6			1570. 0	SLOWED RATE WITH 5 BBLs LEFT
Shutdown	09/27/2012 09:16							
Other	09/27/2012 09:18							STING OUT
Reverse Circ Well	09/27/2012 09:19		4	40		1900. 0		CUSTOMER STATED THAT HIGH PRESURE WAS DUE TO SMALL ID OF STINGER.
Shutdown	09/27/2012 09:31							
End Job	09/27/2012 09:32							
Post-Job Safety Meeting (Pre Rig-Down)	09/27/2012 09:45							ALL HES PERSONEL
Pre-Convoy Safety Meeting	09/27/2012 11:00							ALL HES PERSONEL
Crew Leave Location	09/27/2012 11:15							
Other	09/27/2012 11:16							THANK YOU FOR CHOOSING HALLIBURTON, CHRIS SMITH AND CREW

ENCANA - FEDERAL D16-7-94S

SQUEEZE



Local Event Log			
1 START JOB	08:23:32	2 FILL LINES	08:24:43
3 TEST LINES	08:31:05	4 PRESSURE UP BACKSIDE	08:36:20
5 INJECTION TEST	08:39:05	6 ISIP	08:42:16
7 CEMENT	08:51:28	8 DISPLACEMENT	09:01:30
9 SHUTDOWN	09:16:25	10 STING OUT	09:18:37
11 REVERSE CIRCULATE WELL	09:19:36	12 SHUTDOWN	09:31:12
13 END JOB	09:32:32		

Customer: ENCANA OIL & GAS (USA) INC. - EBUS
Well Description: Federal D-16-7-94-S
Company Rep: JOHN SCHMITT

Job Date: 27-Sep-2012
Job Type: SQUEEZE
Cement Supervisor: C.SMITH

Sales Order #: 9848012
ADC Used: YES
Elite #3: D. SINCLAIR