

**ENCANA OIL & GAS (USA) INC. - EBUS
DO NOT MAIL-3601 N STAGECOACH RD
LONGMONT, Colorado**

Chavez
Chavez 4A-4H

Ensign/124

Post Job Summary **Cement Intermediate Casing**

Date Prepared: 07/01/2012
Version: 1

Service Supervisor: SNYDER, JONATHAN

Submitted by: BORDEN, RYAN

HALLIBURTON

HALLIBURTON

Wellbore Geometry

Job Tubulars					MD		TVD		Excess	Shoe Joint Length
Type	Description	Size in	ID in	Wt lbm/ft	Top ft	Bottom ft	Top ft	Bottom ft	%	ft
Open Hole Section	Open Hole Section		8.750		970.00	7,449.00	970.00	7,449.00		
Casing	Intermediate Casing	7.00	6.276	26.00	0.00	7,449.00	0.00	7,449.00		42.00
Casing	Surface Casing	9.63	8.921	36.00	0.00	970.00	0.00	970.00		

Pumping Schedule

Stage /Plug #	Fluid #	Fluid Type	Fluid Name	Surface Density lbm/gal	Avg Rate bbl/min	Surface Volume	Downhole Volume
1	1	Spacer	TUNED SPACER III	9.80	6.00	50.0 bbl	50.0 bbl
1	2	Cement Slurry	Tuned Light 10#	9.05	5.00	350.0 sacks	350.0 sacks
1	3	Cement Slurry	Varicem 12#	12.00	6.00	140.0 sacks	140.0 sacks
1	4	Cement Slurry	Varicem 13#	13.00	6.00	90.0 sacks	90.0 sacks
1	5	Spacer	ClayWeb III	8.34	6.00		268 bbl

HALLIBURTON

Job Summary

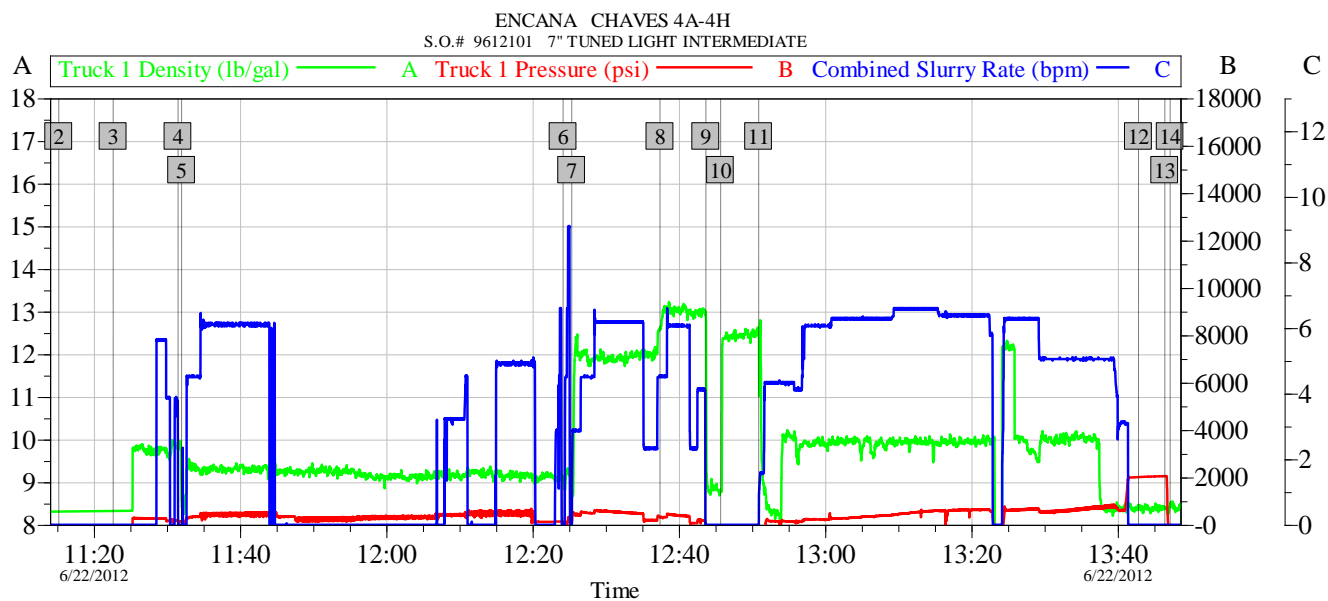
Job Information

Job Start Date	6/22/2012 11:15:00 AM	Rate at Which Well was Circulated	5.000 bbl/min
Job MD	8,396.0 ft	Pipe Movement During Hole Circulation	None
Job TVD	7,321.0 ft	Time From End Mud Circ. to Job Start	20.00 minute
Height of Plug Container/Swage Above Rig Floor	6.0 ft	Pipe Movement During Cementing	Reciprocated
Surface Temperature at Time of Job	75 degF	Calculated Displacement	276.00 bbl
Mud Type	Water Based Mud	Amount of Cement Returns	38.00 bbl
Actual Mud Density	10 lbm/gal	Job Displaced by (rig/halco)	Cement Unit HP Pumps
Time Circulated before job	2.00 hour(s)	Length of Rat Hole	21.00 ft

Cementing Equipment

Pipe Centralization	Unknown	Brand of Plug set used?	HALLIBURTON
Did Float Equipment Hold?	Yes	Did Plugs Bump?	Unknown
Plug set used?	Yes	Calculated Pressure to Bump Plugs	1,026.0 psig

Data Acquisition



Global Event Log					
Intersection	TID	TIP	Intersection	TID	TIP
2 Start Job	11:15:13	8.312 -39.14	3 Pump Tuned Spacer @ 9.8 #	11:22:39	8.325 -38.95
4 Drop Bottom Plug	11:31:31	9.835 194.0	5 Pump Tuned Light @ 10 #	11:32:01	8.567 127.8
6 Drop Bottom Plug	12:24:10	9.087 141.0	7 Pump Lead Cement @ 12 #	12:25:21	9.286 93.56
8 Pump Tail Cement @13 #	12:37:25	12.61 318.9	9 Shutdown	12:43:41	12.87 -48.75
10 Drop Top Plug	12:45:42	8.778 -67.94	11 Pump Displacement	12:50:54	12.52 -71.08
12 Bump Plug	13:42:51	8.414 2014	13 Check Floats	13:46:27	8.371 2056
14 End Job	13:47:11	8.471 -122.2			

Customer: ENCANA	Job Date: 22-Jun-2012	Sales Order #: 9612101
Well Description: CHAVES 4A-4H	UWI: 05-123-35476	
SERVICE SUPERVISOR JONATHAN SNYDER	SERVICE OPERATOR JAMES WILEY	

OptiCem v6.4.9
22-Jun-12 14:03

Service Supervisor Reports

Job Log

Date/Time	Chart #	Activity Code	Pump Rate	Cum Vol	Pump		Pressure (psig)	Comments
06/22/2012 07:00		Arrive at Location from Service Center						ARRIVED AND CONDUCTED A HAZARD HUNT AND FOUND NO HAZARDS THAT CONFLICT WITH US RIGGING UP EQUIPMENT.
06/22/2012 10:45		Pre-Job Safety Meeting						HELD SAFETY MEETING WITH ALL EMPLOYEES AND ALL THIRD PARTY PERSONEL PRIOR TO PUMPING THE CEMENT JOB.
06/22/2012 11:15		Start Job						
06/22/2012 11:22		Pump Spacer 1	6	50			274.0	TUNED SPACER MIXED @ 9.8 PPG W/ RIG WATER
06/22/2012 11:31		Drop Bottom Plug						PLUG PRELOADED, DROPPED PLUG IN THE LAST 2 BBLs OF TUNED SPACER
06/22/2012 11:32		Pump Cement	6	145			450.0	350 SKS TUNED LIGHT CEMENT MIXED @ 10 PPG W/ RIG WATER
06/22/2012 12:24		Drop Bottom Plug						PLUG PRELOADED, DROPPED PLUG IN THE LAST 2 BBLs OF TUNED LIGHT CEMENT
06/22/2012 12:25		Pump Lead Cement	6	62			520.0	140 SKS VARICEM B1 MIXED @ 12 PPG W/ RIG WATER
06/22/2012 12:37		Pump Tail Cement	6	31			450.0	90 SKS VARICEM B1 MIXED @ 13 PPG W/ RIG WATER
06/22/2012 12:43		Shutdown						
06/22/2012 12:45		Drop Top Plug						DROPPED PLUG PRIOR TO PUMPING DISPLACEMENT. WE CLEANED PUMPS AND LINES ON TOP OF THE PLUG WITH THE FIRST 10 BBLs OF DISPLACEMENT.
06/22/2012 12:50		Pump Displacement	6	268			608.0	FIRST 10 BBLs CLEANED UP THE MIXING TUBS ON TOP OF THE PLUG, THEN PUMPED 246 BBLs OF MUD SUPPLIED BY THE RIG, THEN 20 MORE BBLs OF WATER TO ENSURE OUR LINES WERE CLEAR OF MUD AND THE STAND PIPE FOR THE RIG.
06/22/2012 13:04		Test Lines						PRESSURE TEST DID NOT HOLD BUT WE VISUALLY INSPECTED THE LINES AND FOUND NO VISIBLE LEAKS. WE ALSO MADE SURE NO ONE WAS AROUND THE LINES THROUGHOUT THE JOB.
06/22/2012 13:42		Bump Plug	3				700.0	
06/22/2012 13:46		Check Floats					2056.0	FLOATS HELD, GOOD RETURNS THROUGHOUT THE JOB. WE GOT 1 BBL OF WATER BACK INTO OUR DISPLACEMENT TANKS WHEN WE CHECKED FLOATS.
06/22/2012 13:47		End Job						
06/22/2012 13:55		Pre-Rig Down Safety Meeting						HELD SAFETY MEETING WITH ALL EMPLOYEES PRIOR TO RIGGING DOWN AND DISCUSSED ALL HAZARDS WHILE RIGGING DOWN EQUIPMENT.
06/22/2012 15:00		Depart Location for Service Center or Other Site						HELD SAFETY MEETING PRIOR TO LEAVING LOCATION AND DISCUSSED ALL POTENTIAL HAZARDS WHILE DRIVING BACK TO THE SERVICE CENTER.

The Road to Excellence Starts with Safety

Sold To #: 340078		Ship To #: 2933728		Quote #:		Sales Order #: 9612101	
Customer: ENCANA OIL & GAS (USA) INC. - EBUS				Customer Rep:			
Well Name: Chavez			Well #: 4A-4H			API/UWI #: 05-123-35476	
Field: WATTENBERG		City (SAP): HUDSON		County/Parish: Weld		State: Colorado	
Contractor: Ensign			Rig/Platform Name/Num: 124				
Job Purpose: Cement Intermediate Casing							
Well Type: Development Well			Job Type: Cement Intermediate Casing				
Sales Person: AARON, WESLEY			Srvc Supervisor: SNYDER, JONATHAN			MBU ID Emp #: 435616	

Job Personnel

HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #	HES Emp Name	Exp Hrs	Emp #
BARNES, BRIAN L	8.0	485204	BARTOSEK, KEVIN	8.0	516167	KUNERT, RANDY Joe	8.0	477850
PLIENESS, RYAN Charles	8.0	490745	SANFORD, DALE A	8.0	219527	SANSONI, NICHOLAS Sterling J	8.0	502962
SMITH, AARON David	8.0	518187	SNYDER, JONATHAN Leroy	8.0	435616	WILEY, JAMES A	8.0	440080

Equipment

HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way	HES Unit #	Distance-1 way
10248062C	12 mile	10824253C	12 mile	11064535	12 mile	11518550	12 mile
11542577	12 mile	11562546C	12 mile	11606995	12 mile	11645063	12 mile
11748359	12 mile	11764052	12 mile	11764054C	12 mile	11764737	12 mile
NA	12 mile						

Job Hours

Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours	Date	On Location Hours	Operating Hours

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	22 - Jun - 2012	04:00 MST
Form Type	BHST			On Location	22 - Jun - 2012	07:00 MST
Job depth MD	8396. ft	Job Depth TVD	7321. ft	Job Started	22 - Jun - 2012	11:15 MST
Water Depth		Wk Ht Above Floor	6. ft	Job Completed	22 - Jun - 2012	13:47 MST
Perforation Depth (MD)	From	To		Departed Loc	22 - Jun - 2012	15:00 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 Section				8.75				970.	7449.	970.	7449.
Intermediate Casing	Unknown		7.	6.276	26.		P-110	.	7449.	.	7449.
Surface Casing	Used		9.625	8.921	36.		K-55	.	970.	.	970.

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	

Fluid Data

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	TUNED SPACER III	TUNED SPACER III - SBM (483826)	50.00	bbl	9.8	5.78	38.63	4.0		
	39.07 gal/bbl	FRESH WATER								
	30.27 lbm/bbl	BARITE, 100 LB SK (100003680)								
2	Tuned Light 10#	TUNED LIGHT (TM) SYSTEM (452984)	350.0	sacks	9.05	2.33	8.83	4.0	8.83	
	8.83 Gal	FRESH WATER								
3	Varicem 12#	VARICEM (TM) CEMENT (452009)	140.0	sacks	12.	2.49	13.92	4.0	13.92	
	13.92 Gal	FRESH WATER								
4	Varicem 13#	VARICEM (TM) CEMENT (452009)	90.0	sacks	13.	1.96	11.92	4.0	11.92	
	11.92 Gal	FRESH WATER								
5	ClayWeb III			bbl	8.34	.0	.0	.0		
	0.2 gal/Mgal	CLA-WEB - TOTE (101985045)								

Calculated Values			Pressures			Volumes				
Displacement		Shut In: Instant			Lost Returns		Cement Slurry		Pad	
Top Of Cement		5 Min			Cement Returns		Actual Displacement		Treatment	
Frac Gradient		15 Min			Spacers		Load and Breakdown		Total Job	

Rates										
Circulating		Mixing		Displacement		Avg. Job				
Cement Left In Pipe	Amount	42 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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