



02577975

FORM 4 Rev 12/08

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State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 601, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



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JUN 06 2012

COGCC/Rifle Office

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form). Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: 100185	4. Contact Name: Bonnie Lamond	Complete the Attachment Checklist OP OGCC
2. Name of Operator: Encana Oil & Gas (USA) Inc.	Phone: 720.876.5155	
3. Address: 370 17th Street Suite 1700 City: Denver State: CO Zip 80202	Fax: 720.876.6177	
5. API Number 05-045-20385	OGCC Facility ID Number 421390	Survey Plat
6. Well/Facility Name: Twin Creek	7. Well/Facility Number 12-5A2 (F12E)	Directional Survey
8. Location (Ctr/Ctr, Sec, Twp, Rng, Meridian): SENW Sec 12, T7S, R92W	6 P.M.	Surface Egmt Diagram
9. County: Garfield	10. Field Name: Mamm Creek	Technical Info Page X
11. Federal, Indian or State Lease Number: COC55972E		Other

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Bottomhole location Ctr/Ctr, Sec, Twp, Rng, Mer: _____ attach directional survey

Latitude _____ Distance to nearest property line _____ Distance to nearest bldg, public rd, utility or RR _____
 Longitude _____ Distance to nearest lease line _____ Is location in a High Density Area (rule 603b)? Yes/No
 Ground Elevation _____ Distance to nearest well same formation _____ Surface owner consultation date: _____

GPS DATA:
 Date of Measurement _____ PDOP Reading _____ Instrument Operator's Name _____

CHANGE SPACING UNIT
 Formation _____ Formation Code _____ Spacing order number _____ Unit Acreage _____ Unit configuration _____
 Remove from surface bond
 Signed surface use agreement attached

CHANGE OF OPERATOR (prior to drilling):
 Effective Date: _____
 Plugging Bond: Blanket Individual

CHANGE WELL NAME NUMBER
 From: _____
 To: _____
 Effective Date: _____

ABANDONED LOCATION:
 Was location ever built? Yes No
 Is site ready for inspection? Yes No
 Date Ready for inspection: _____

NOTICE OF CONTINUED SHUT IN STATUS
 Date well shut in or temporarily abandoned: _____
 Has Production Equipment been removed from site? Yes No
 MIT required if shut in longer than two years. Date of last MIT: _____

SPUD DATE: _____
 REQUEST FOR CONFIDENTIAL STATUS (if not from date casing set)

SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK *submit cbl and cement job summaries
 Method used _____ Cementing tool setting/depth _____ Cement volume _____ Cement top _____ Cement bottom _____ Date _____

RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.
 Final reclamation will commence on approximately _____ Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

Notice of Intent Approximate Start Date: As soon as approved Report of Work Done Date Work Completed: _____

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Request to Complete Mamm Creek Well	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Bonnie Lamond Date: 6/6/12 Email: bonnie.lamond@encana.com
Print Name: Bonnie Lamond Title: Permitting Technician

COGCC Approved: Kai J. Kij Title: PE I Date: JUN 08 2012
CONDITIONS OF APPROVAL, IF ANY

FORM
4
Rev 12/05

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TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

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JUN 06 2012

OGCC/Rifle Office

1. OGCC Operator Number: 100185 API Number: 05-045-20385
2. Name of Operator: Encana Oil & Gas (USA) Inc. OGCC Facility ID # 421390
3. Well/Facility Name: Twin Creek Well/Facility Number: 12-5A2 (F12E)
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW Sec 12, T7S, R92W 6 P.M.

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

The above referenced well has been successfully cemented according to the approved plan and summary of bradenhead monitoring completed.

FM TOPS Molina: 142'
FM TOPS Atwell Gulch: 590'
Mudlog TOG based on 2500 units: See attachment

Encana Oil & Gas (USA) Inc. requests approval to commence completions.

Attachments:

Cement Tickets
Wellbore Diagram with FIT
Bradenhead Pressure Report
CBL
Cement Proposals

Engineer Contact Information:

Ryan MiGilvery
Completion Engineer
370 17th. Street, Suite 1700
Denver, CO 80202
720-876-3681

or

Craig Miley
Completion Engineer
370 17th. Street, Suite 1700
Denver, CO 80202
720-876-5396

Well:	Twin Creek 12-5A2
Pad:	F12E
API No:	05-045-20385-00
Permit No:	400067561

Bradenhead Pressure Report Following Primary Cement Job

Date Cemented:	2.20.12
Plug Bumped:	Yes

Annular Fluid Level After Job (Static or Falling?):	Static	
If falling, barrels of mud added until stabilized:	n/a	barrels

WOC Time:	12 hrs
Bond Log Run:	2.21.12

Casing Slips Set:	yes
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Bradenhead Pressures

6 hrs:	0	psig
12 hrs:	0	psig
24 hrs:	0	psig
48 hrs:	0	psig
72 hrs:	0	psig

Comments

S.C. TOC - Surface
P.C. TOC - 2180'

Twin Creek 12-5A2 (F12E)

**Permit Estimated
Formation Tops
(MD / TVD)**

**Casing &
Hole size**

**Actual
Conditions
(MD / TVD)**

16" Conductor @ 40'
Cement to surface with 5 yds redi-mix

16" Conductor @ 40'
Cement to surface with 5 yds redi-mix

Wasatch	Surface / Surface
----------------	--------------------------

Wasatch	Surface/ Surface
----------------	-------------------------

12-1/4" Surface Hole

12-1/4" Surface Hole

Surface Casing	1135 / 1100
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Surface Casing	# 1149 / 1107
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9-5/8" 36# J/K55

9-5/8"

Cement to surface with:

Cemented to surface with

Tail: 547 sx, 15.8, Class G, 1.17 ft³/sk

547 sx, 15.8 ppg Class G, 1.16 ft³/sk

Total: 547 sx

(volume includes 80% excess)

7-7/8" Production Hole

7-7/8" Production Hole

Mesa Verde	2539 / 2377
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Mesa Verde	2501 / 2329
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Williams Fork	3204 / 2982
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Williams Fork	3110 / 2888
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TOC requirement 500ft above TOG

Prod TOC from CBL	2170 / 2025
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Top of Gas	3873 / 3612
-------------------	--------------------

Top of Gas	3946 / 3689
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Coal Ridge	5579 / 5317
-------------------	--------------------

Coal Ridge	no pick/ no pick
-------------------	-------------------------

Rollins	6304 / 6042
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Rollins	no pick/ no pick
----------------	-------------------------

Permit TD	6604 / 6342
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Actual TD	5765 / 5506
------------------	--------------------

Production casing	6604 / 6342
--------------------------	--------------------

Production casing	5748 / 5489
--------------------------	--------------------

4-1/2" 11.6# 80 grade

4-1/2"

Cement with:

Cemented with

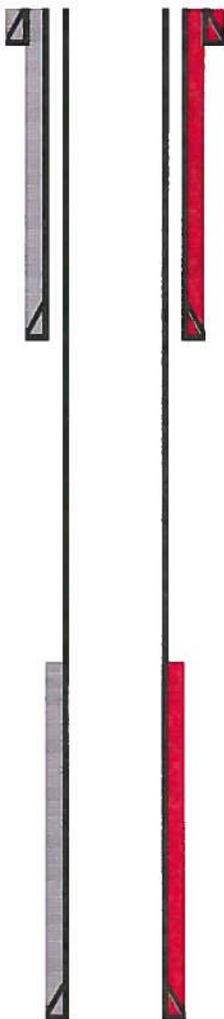
Lead: 83 sx, 12 TXI, 1.79 ft³/sk

Tail 1641 sx, 14.0 ppg TXI, 1.21 ft³/sk

Tail: 566 sx, 13 TXI, 1.43 ft³/sk

Total: 648 sx

(volume includes 30% excess)



Well Name	Well Number	ELEV_KB (TVDSS)	MOLINA (MD)	ATWELL GULCH (MD)	MSVRD (MD)	WLLMS_FRK (MD)	TOP_GAS_CONTINUOUS (MD)	COAL_RIDGE (MD)	TOP_GAS_2500 UNITS
Twin Creek	12-5A1	6167	107	546	2405	3004	3956	5425	N/A
Twin Creek	12-3D1	6167	169	632	2749	3448	4265	5847	5523' MD
Twin Creek	12-5D1	6167	88	514	2355	2948	3756	5334	N/A
Twin Creek	12-6D1	6167	100	527	2309	2889	3791	5298	N/A
Twin Creek	12-6C1	6167	62	464	2262	2802	3661	5185	N/A
Twin Creek	12-4D1	6167	177	635	2754	3505	4208	5823	*See note below (4133' MD)
Twin Creek	12-3D2	6167	149	601	2630	3302	4087	5692	**See note below (3984' MD)
Twin Creek	12-4A1	6167	219	684	3194	3867	4602	6044	N/A
Twin Creek	12-6A1	6167	118	557	2557	3180	3964	5536	3866' MD (2484' TVDSS)
Twin Creek	12-5A2	6167	142	590	2501	3097	3934	5561	*See note below (3940' MD)

Well Name	Well Number	TOP_GAS_2500 UNITS
Twin Creek	12-5A1	N/A
Twin Creek	12-3D1	5523' MD
Twin Creek	12-5D1	N/A
Twin Creek	12-6D1	N/A
Twin Creek	12-6C1	N/A
Twin Creek	12-4D1	*See note below (4133' MD)
Twin Creek	12-3D2	**See note below (3984' MD)
Twin Creek	12-4A1	N/A
Twin Creek	12-6A1	3866' MD (2484' TVDSS)
Twin Creek	12-5A2	*See note below (3940' MD)

Numbers are measured depth (MD) unless otherwise marked

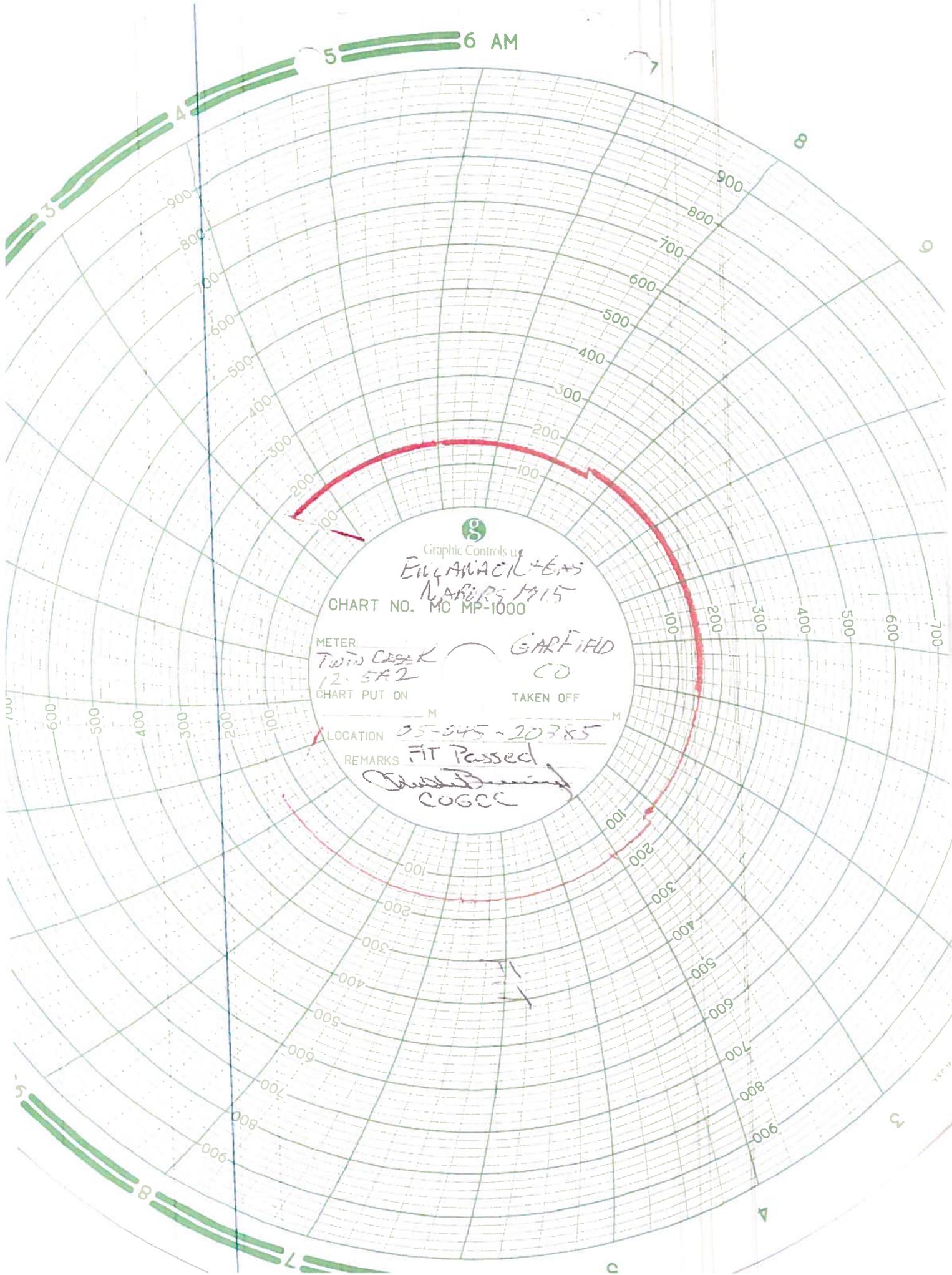
TOP_GAS_2500_UNITS - top marking shallowest occurrence of 2500 units of total gas from total gas curve collected during drilling of well.

N/A - Notation used when no point within well had >2500 units of total gas.

* Total gas curve data poor quality or data collection issue for well. As neighbouring 7 wells with quality data had "TOP_GAS_2500_UNITS" top deeper than 2484' TVDSS this TVDSS was used for these 2 wells to calculate corresponding MD. This MD in each well is a safe estimate where ECA is highly confident TOP_GAS_2500_UNITS would fall below, especially given fact that many wells on this pad did not reach 2500 units at any point in drilling.

** Total gas curve had spikes at 2497', 2747', and 5395' that are believed to be false readings. First, all other depths on this gas curve had a range of 0 to 1300 total gas units. Regarding false spikes at 2497' and 2747', none of the 7 wells on this pad with quality total gas data had total gas readings above 2500 units at this stratigraphic interval or above. In fact, no readings above 2500 units are found in these 7 wells in the 1200' below this stratigraphic horizon.

Analysis by: Matthew Boyce, Geologist, South Piceance Team, Encana Oil and Gas (USA) Inc., 370 17th Street, Suite 1700



Graphic Controls of
EUGENACIL+ETS
NABERS 1915

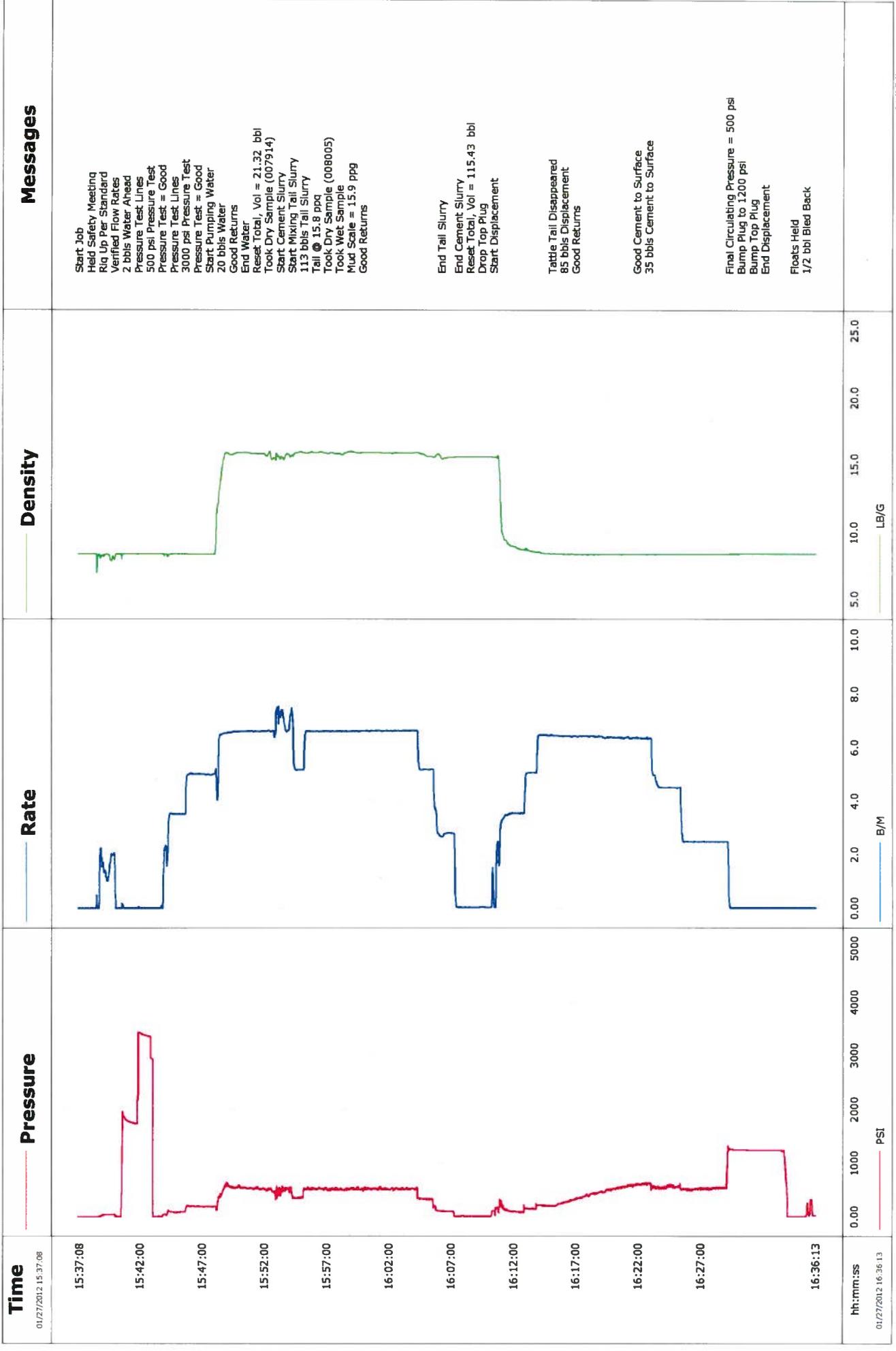
CHART NO. MC MP-1000

METER
TWIN CASEK GARFIELD
12-5A2 CO
CHART PUT ON TAKEN OFF

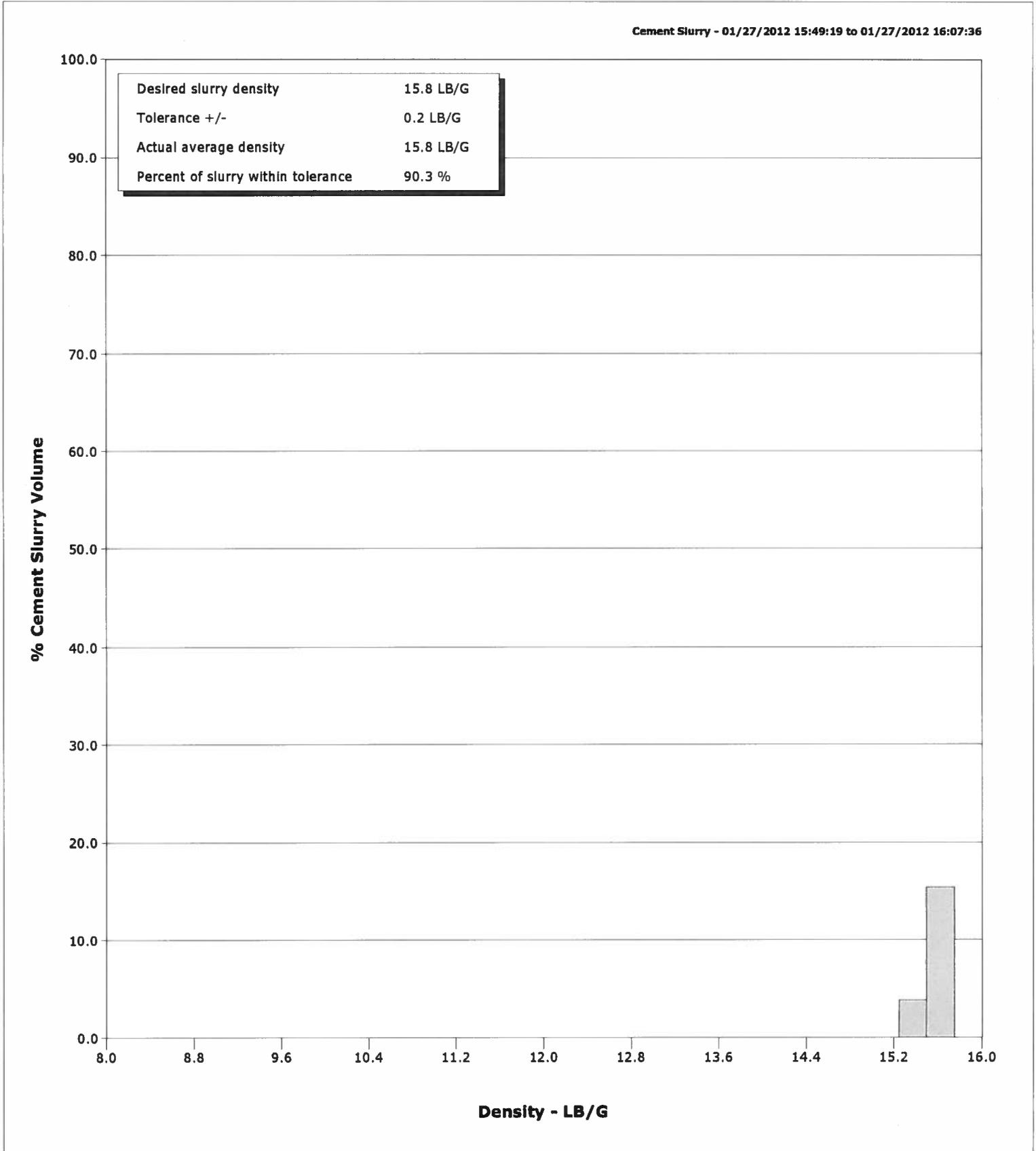
LOCATION 25-845-20785

REMARKS
FIT Passed
[Signature]
COGCC

Well	Twin Creek 12-5D2	Client	EnCana
Field	Mamm Creek	SIR No.	COBA-00075
Engineer	Ryan Bowditch	Job Type	9 5/8" Surface Casing
Country	United States	Job Date	01-27-2012



Well	Twin Creek 12-5D2	Client	EnCana
Field	Mamm Creek	SIR No.	C0BA-00075
Engineer	Ryan Bowditch	Job Type	9 5/8" Surface Casing
Country	United States	Job Date	01-27-2012



				Customer EnCana			Job Number COBA-00075						
Well Twin Creek 12-5D2			Location (legal)			Schlumberger Location Grand Junction, CO			Job Start Jan/27/2012				
Field Mamm Creek		Formation Name/Type Shale		Deviation 10 deg		Bit Size 12.3 in		Well MD 1152.0 ft		Well TVD 1152.0 ft			
County Garfield		State/Province Colorado		BHP psi		BHST 100 degF		BHCT 81 degF		Pore Press. Gradient lb/gal			
Well Master			API/UWI										
Rig Name Nabors M15		Drilled For Gas		Service Via Land		Casing/Liner							
						Depth, ft		Size, in		Weight, lb/ft			
						40.0		16.0		65.0			
Offshore Zone		Well Class New		Well Type Development		1152.0		9.6		36.0			
										K55			
										8RD			
Drilling Fluid Type			Max. Density lb/gal		Plastic Viscosity cP		Tubing/Drill Pipe						
							T/D		Depth, ft		Size, in		
											Weight, lb/ft		
											Grade		
											Thread		
Service Line Cementing		Job Type 9 5/8" Surface Casing											
Max. Allowed Tub. Press 3000 psi		Max. Allowed Ann. Press 1500 psi		WH Connection Single Cement head		Perforations/Open Hole							
						Top, ft		Bottom, ft		shot/ft		No. of Shots	
						ft		ft				Total Interval ft	
						ft		ft				Diameter in	
						Treat Down Casing		Displacement 85.4 bbl		Packer Type		Packer Depth ft	
						Tubing Vol. bbl		Casing Vol. 89.1 bbl		Annular Vol. 67.0 bbl		Openhole Vol. 160.0 bbl	
Casing/Tubing Secured <input checked="" type="checkbox"/>			1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>			Casing Tools			Squeeze Job				
Lift Pressure 500 psi			Shoe Type Float			Squeeze Type							
Pipe Rotated <input type="checkbox"/>			Pipe Reciprocated <input type="checkbox"/>			Shoe Depth 1152.0 ft			Tool Type				
No. Centralizers			Top Plugs 1		Bottom Plugs		Stage Tool Type			Tool Depth ft			
Cement Head Type Single			Stage Tool Depth ft			Tail Pipe Size in							
Job Scheduled For Jan/27/2012		Arrived on Location Jan/27/2012		Leave Location Jan/27/2012		Collar Type Float			Tail Pipe Depth ft				
						Collar Depth 1105.0 ft			Sqz. Total Vol. bbl				
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message						
01/27/2012	15:37:08	-9	0.0	8.41	0.0	0	Started Acquisition						
01/27/2012	15:37:09	-9	0.0	8.41	0.0	0	Start Job						
01/27/2012	15:37:10	-9	0.0	8.41	0.0	0	Held Safety Meeting						
01/27/2012	15:37:11	-8	0.0	8.41	0.0	0	2 bbls Water Ahead						
01/27/2012	15:38:48	-7	0.0	8.37	0.0	0							
01/27/2012	15:40:28	7	0.0	8.36	2.1	0							
01/27/2012	15:41:30	1743	0.0	8.39	2.1	0	Pressure Test Lines						
01/27/2012	15:42:08	3406	0.0	8.39	2.1	0							
01/27/2012	15:42:15	3389	0.0	8.39	2.1	0	Pressure Test Lines						
01/27/2012	15:43:48	7	0.1	8.39	2.1	0							
01/27/2012	15:45:27	84	3.5	8.39	6.6	0	Start Pumping Water						
01/27/2012	15:45:28	84	3.5	8.39	6.7	0							
01/27/2012	15:45:29	84	3.5	8.39	6.8	0	20 bbls Water						
01/27/2012	15:47:08	191	5.0	8.39	14.5	0							
01/27/2012	15:48:28	381	6.4	13.19	21.1	54	End Water						
01/27/2012	15:48:29	381	6.4	13.36	21.2	55	Reset Total, Vol = 21.32 bbl						
01/27/2012	15:48:32	350	6.5	13.73	21.5	55	Took Dry Sample (007914)						
01/27/2012	15:48:48	491	6.5	15.46	23.3	54							
01/27/2012	15:49:19	566	6.5	15.76	26.6	50	Start Cement Slurry						
01/27/2012	15:49:21	558	6.5	15.75	26.8	51	113 bbls Tail Slurry						
01/27/2012	15:50:28	538	6.6	15.93	34.2	50							

Well			Field		Job Start		Customer		Job Number
Twin Creek 12-5D2			Mamm Creek		Jan/27/2012		EnCana		COBA-00075
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Solid Fraction NULL	Message		
01/27/2012	15:53:48	506	6.6	15.77	56.5	54			
01/27/2012	15:55:24	511	6.5	15.87	66.0	53	Took Dry Sample (008005)		
01/27/2012	15:55:28	512	6.6	15.87	66.4	52			
01/27/2012	15:56:12	524	6.6	15.92	71.2	50	Took Wet Sample		
01/27/2012	15:56:13	501	6.6	15.92	71.3	50	Mud Scale = 15.9 ppg		
01/27/2012	15:57:08	509	6.6	15.85	77.3	48			
01/27/2012	15:57:39	503	6.6	15.87	80.7	47	Good Returns		
01/27/2012	15:58:48	516	6.6	15.95	88.3	49			
01/27/2012	16:00:28	525	6.6	15.92	99.3	48			
01/27/2012	16:02:08	506	6.6	15.88	110.3	48			
01/27/2012	16:03:48	506	6.6	15.88	121.2	48			
01/27/2012	16:05:28	320	5.2	15.63	130.7	47			
01/27/2012	16:06:14	103	2.7	15.51	133.6	33	End Tail Slurry		
01/27/2012	16:07:08	99	2.8	15.56	136.1	61			
01/27/2012	16:07:36	3	0.0	15.59	136.8	0	End Cement Slurry		
01/27/2012	16:07:38	5	0.0	15.59	136.8	0	Reset Total, Vol = 115.43 bbl		
01/27/2012	16:07:39	5	0.0	15.59	136.8	0	Drop Top Plug		
01/27/2012	16:07:40	5	0.0	15.59	136.8	0	Start Displacement		
01/27/2012	16:08:48	3	0.0	15.58	136.8	0			
01/27/2012	16:10:28	102	0.3	15.56	137.0	60			
01/27/2012	16:12:08	95	3.5	8.94	141.5	22			
01/27/2012	16:13:48	144	5.0	8.54	148.6	16			
01/27/2012	16:15:06	196	6.4	8.42	156.7	3	Tattle Tail Disappeared		
01/27/2012	16:15:07	196	6.4	8.42	156.8	4	Good Returns		
01/27/2012	16:15:28	202	6.4	8.41	159.1	10			
01/27/2012	16:17:08	353	6.4	8.36	169.8	12			
01/27/2012	16:18:48	437	6.4	8.38	180.4	3			
01/27/2012	16:20:28	514	6.3	8.39	191.0	0			
01/27/2012	16:21:53	573	6.3	8.37	200.0	0	Good Cement to Surface		
01/27/2012	16:22:08	602	6.3	8.39	201.5	0			
01/27/2012	16:23:48	527	4.5	8.39	211.0	0			
01/27/2012	16:25:28	524	4.0	8.39	218.5	0			
01/27/2012	16:27:08	518	2.5	8.39	222.7	0			
01/27/2012	16:28:48	531	2.5	8.39	226.8	0			
01/27/2012	16:29:18	1283	0.6	8.39	228.0	0	Final Circulating Pressure = 500 psi		
01/27/2012	16:29:19	1240	0.3	8.39	228.0	0	Bump Plug to 1200 psi		
01/27/2012	16:29:37	1243	0.0	8.39	228.0	0	Bump Top Plug		
01/27/2012	16:29:38	1242	0.0	8.39	228.0	0	End Displacement		
01/27/2012	16:30:28	1235	0.0	8.39	228.0	0			
01/27/2012	16:32:08	1230	0.0	8.39	228.0	0			
01/27/2012	16:33:48	973	0.0	8.39	228.0	0			
01/27/2012	16:34:27	-8	0.0	8.39	228.0	0	Floats Held		
01/27/2012	16:34:28	-8	0.0	8.39	228.0	0	1/2 bbl Bled Back		

Well Twin Creek 12-5D2	Field Mamm Creek	Job Start Jan/27/2012	Customer EnCana	Job Number COBA-00075
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Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 4.8	N2	Mud	Maximum Rate 7.5	Total Slurry 113.0	Mud 0.0	Spacer 20.0	N2	
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3424	Final 10	Average 518	Bump Plug to 1200	Breakdown	Type	Volume bbl	Density lb/gal	
Avg. N2 Percent %	Designed Slurry Volume 113.0 bbl		Displacement 85.0 bbl	Mix Water Temp 65 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>	Volume 35.0 bbl		
Customer or Authorized Representative Robert Tate					Schlumberger Supervisor Ryan Bowditch	Washed Thru Perfs <input type="checkbox"/>	To ft	
					Circulation Lost <input type="checkbox"/>	Job Completed <input checked="" type="checkbox"/>		

REGULATORY DRILLING SUMMARY



Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 01/28/2012
 Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 2
 Spud Date : Days From Spud : 2 Depth At 06:00 : 1170
 Morning Operations : Rig Released To the Twin Creek 12-5A1 @18:00 PM Estimated Total Depth : 5467

Time To	Description	Remarks :
6:30 AM	Service Rig	1569 Days without a Lost Time incident
8:30 AM	Directional Drill 12 1/4" Hole F/ 860' T/ 1170' MD / 1132' TVD = 310' in 2 hrs @ 155 ft/hr	12 Days without a Medical Aid or Restricted Work incident
9:00 AM	Pre- Job Safety Meeting - Tripping DP	118 Days without a Recordable Spill
11:00 AM	TOOH To run Casing	378 Days without a Reportable Quantity Spill
11:30 AM	Held Third Party Safety Meeting - Running Csg	xxxx gals fuel used past 24hrs
12:00 PM	Rig up Frank's casing tools	11410 gals fuel on Location,
2:30 PM	Run 25 joints 9.625 36# J-55 LT&C shoe @ 1147' float collra @ 1101',run 13 centralizer F/ 1103' TO 73'.	Rotating Hours on HWDP =102.5 Hrs
3:30 PM	C&C ,rig down Franks tools,& Pre Job Safety with Schlumberger cement crew.	Total Fluid Losses Last 24 hrs =0 bbls seepage
5:00 AM	Rig up cement tools,primary cementing pump 20bbls water spacer,114 bbls tail 15.8 ppg ,547 yield 1.16.required 5.11 water per sks,displace with 85 bbls water,Bump plug with 510 psi pressure up @ 1260psi,750psi over hold for 5 minutes plug heldr,35 bbl cement to surface.R/D cementer.	4 Mud Loggers on Location
6:00 PM	Blow down mud lines,rig down Gonzo,pull landing joint. Rig release @ 18:00.	1 Mud Engineer on Location - Mike Lindell
		Raz Parras On Location as Night Supervisor
		Pre Spud Notification for the Twin Creek 12-5A1 made 1-27-12
		Post Spud & Surf Csg / Cement Notification for 12-5A2 Made 1-27-12
		Hazard ID no

Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 01/27/2012
 Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 1
 Spud Date : Days From Spud : 1 Depth At 06:00 : 860
 Morning Operations : Drilling surface @ 860' Estimated Total Depth : 5467

Time To	Description	Remarks :
4:30 PM	Walk Rig onto well - Rig up Dredge Pump	1568 Days without a Lost Time incident
8:00 PM	Drill 12 1/4" Hole w/ Reamer Assembly F/ 62' T/ 197'= 3.5 hrs,38.6 ft/hr.	11 Days without a Medical Aid or Restricted Work incident
8:30 PM	TOOH stand back reamer assembly	117 Days without a Recordable Spill
9:00 PM	Service top drive,top drive inspection,inspect service loop,grease block,black jack,& oil top drive,check brakes,hoist lines,parameters.	377 Days without a Reportable Quantity Spill
9:30 PM	Pre-Job safety Meeting - Picking Up Directional Tools	1462 gals fuel used past 24hrs
10:00 PM	TIH w/ Directional tools	11410 gals fuel on Location,
6:00 AM	Directional Drill 12 1/4" Hole F/ 197' T/860'	Rotating Hours on HWDP =100 Hrs
		Total Fluid Losses Last 24 hrs =0 bbls seepage
		4 Mud Loggers on Location
		1 Mud Engineer on Location - Mike Lindell
		Raz Parras On Location as Night Supervisor
		Pre Spud Notification for the Twin Creek 12-5A2 made 1-26-12
		Post Spud & Surf Csg / Cement Notification for 12-5A2 Made 1-27-12
		Hazard ID no

Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 12/21/2009
 Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 0
 Spud Date : Days From Spud : -766 Depth At 06:00 :
 Morning Operations : Estimated Total Depth : 5467

Time To	Description	Remarks :

REGULATORY DRILLING SUMMARY



Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 02/16/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 3
Spud Date : Days From Spud : 21 Depth At 06:00 :
Morning Operations : Estimated Total Depth : 5467

Time To	Description	Remarks :
7:00 AM	Set BOP On Wellhead & 4 Bolt Stack	1587 Days without a Lost Time incident
7:30 AM	Pre- Job Safety meeting w/ Crew & Loggers	30 Days without a Medical Aid or Restricted Work incident
10:30 AM	Rig Up Schlumberger & Run CBL F/ Surface T/ 1102' WL Depth - Rig Down Loggers	25 Days without a Recordable Spill
12:00 PM	Nipple Up BOPE - Rotating head - Install Flowline - Flowline Stand - Fill up Line & Cables - And Turn buckles	396 Days without a Reportable Quantity Spill
8:30 PM	Test BOPE as Follows: Test Annular To 250/2500psi 5/10 Min - Test Blind Rams, Pipe Rams, HCR Valve, Choke Manifold, Inside & Outside Chokeline Manual Valves, Kill Linre Line, Inside & Outside Kill line Valves, Dart Valve, IBOP & All Floor Valves & Saver Sub to 250/5000psi for 5/10 Min - Test Two Manual & one Super Choke to 250/1500psi 5 /10 Mln - Test Casing To 1500psi for 30 MIN - ALL OK - Rig Down Testers	2703 gals fuel used past 24hrs 7660 gals fuel on Location, Rotating Hours on HWDP = 144.5 Hrs Total Fluid Losses Last 24 hrs =0 bbls seepage 0 Mud Loggers on Location 1 Mud Engineer on Location - Mike Lindell Bradenhead Pressure 12-5D1 50psi, 125A1 6,12hrs 0psi
9:30 PM	Install Wear Bushing	
10:00 PM	Service Top Drive, Inspect Brakes, Draw Works, Hoisting Lines - Check Coms	
10:30 PM	Pick Up BHA - Check Flowlines hydraulic lines For Leaks - OK	
11:00 PM	Pre-Job Safety Meeting - Tripping DP	
12:30 AM	TIH Make Up Directional tools - Scribe Motor - make Up Bit #3 8 3/4" FX 55M	
1:30 AM	Tlh w/ 10 Stds HWDP + 1 Std DP - Tag Cement @ 1059'	
3:30 AM	Wash & Ream - Drill out Cement & Float Equip + 27' New Hole to 1197'	
6:00 AM	Rig Up Rebel Testers & Run FIT Test at 1197' MD / 1157' TVD w/ 10.6ppg MW to 13.0ppg MW Equilant - Surface Press = 145psi - Lost 14psi in 15 min - Maximum allowable Press Drop = 15psi - FIT Witnessed By Chuck Browning w/ COGCC	

REGULATORY DRILLING SUMMARY



Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 02/17/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 4
Spud Date : Days From Spud : 22 Depth At 06:00 : 3498
Morning Operations : Directional Drilling Estimated Total Depth : 5467

Time To	Description	Remarks :
6:30 AM	Service Rig	1589 Days without a Lost Time incident
6:30 PM	Directional Drill 8 3/4" Hole F/ 1197' T/ 2451' = 1254' in 12 hrs @ 104.5 ft/hr	32 Days without a Medical Aid or Restricted Work incident
	SPR @ 1404' W/ 10.1ppg MW	27 Days without a Recordable Spill
	#1 20/110, 30/170, 40/234 psi	398 Days without a Reportable Quantity Spill
	#2 20/109, 30/180, 40/253psi	2054 gals fuel used past 24hrs
	SPR @ 1970' W/ 10.7ppg MW	11826 gals fuel on Location,
	#1 20/144, 30/196, 40/283 psi	Rotating Hours on HWDP =123 Hrs
	#2 20/133, 30/197, 40/265 psi	Total Fluid Losses Last 24 hrs =0 bbls seepage
	SPR @ 2451' W/ 11.1ppg MW	1 Mud Engineer on Location - Mike Lindell
	#1 20/150, 30/215, 40/335 psi	Pre Spud Notification for the Twin Creek 12-5A2 made 1-26-12
	#2 20/150, 30/2320, 40/330 psi	Post Spud & Surf Csg / Cement Notification for 12-5A2 Made 1-27-12
	BOP Drill @ 14:30 PM - Well Secured in 48 Seconds	Bradenhead Pressures on the 12-5D1 & 12-5A1 = 0 psi
		Hazard ID 0
7:00 PM	Service Rig	
6:00 AM	Directional Drill 8 3/4" Hole F/ 2451' T/ 3498' = 1047' in 11 hrs @ 95.2 ft/hr	
	SPR @ 2926' W/ 11.4ppg MW	
	#1 20/170, 30/250, 40/345 psi	
	#2 20/170, 30/230, 40/340 psi	
	BOP Drill @ 18:25 PM - Well secured in 37 Seconds	

REGULATORY DRILLING SUMMARY



Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 02/18/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 5
Spud Date : Days From Spud : 23 Depth At 06:00 : 4638
Morning Operations : Directional Drill 8 3/4" Hole To TD @ 5750' +/- Estimated Total Depth : 5467

Time To	Description
6:30 AM	Service Rig
8:00 PM	Directional Drill 8 3/4" Hole F/ 3498' T/ 4069' = 571' in 13.5 hrs @ 42.3 ft/hr - NOTE: Having to Slide 60' of every 100' F/ 3498' T/ 3828' this Slaughtered our ROP SPR @ 3688' W/ 11.9ppg MW #1 20/195, 30/277, 40/383 psi #2 20/186, 30/273, 40/382 psi SPR @ 4069' W/12.3ppg MW #1 20/230, 30/290, 40/400 psi #2 20/225, 30/300, 40/400 psi
8:30 PM	Service Rig
6:00 AM	Directional Drill 8 3/4" Hole F/ 4069' T/ 4638' = 569' in 9.5 hrs @ 59.9 ft/hr SPR @ 4448' W/ 12.4ppg MW #1 20/277, 30/348, 40/457 psi #2 20/263, 30/345, 40/455 psi

Remarks :

1590 Days without a Lost Time incident
33 Days without a Medical Aid or Restricted Work incident
28 Days without a Recordable Spill
399 Days without a Reportable Quantity Spill
2300 gals fuel used past 24hrs
9526 gals fuel on Location,
Rotating Hours on HWDP =146 Hrs
Total Fluid Losses Last 24 hrs =0 bbls seepage
1 Mud Engineer on Location - Mike Lindell
Pre Spud Notification for the Twin Creek 12-5A2 made 1-26-12
Post Spud & Surf Csg / Cement Notification for 12-5A2 Made 1-27-12
Bradenhead Pressures on the 12-5D1 = 0 & 12-5A1 = 0 psi @ 04:00Am. 2/17/12, 100psi @ 9:00 AM 2/17/12 then 0psi @ 04:00AM 2/18/2012
Hazard ID 0

REGULATORY DRILLING SUMMARY



Well : **Twin Creek 12-5A2 (F12E)** API # : 05045203850000 Operations Date : 02/19/2012
 Surface Location : SENW Sec 12 T7S - R92W 6th PM Area : Mamm Creek Report # : 6
 Spud Date : Days From Spud : 24 Depth At 06:00 : 5682
 Morning Operations : Circ & Condition Mud - Rebuild Volume Estimated Total Depth : 5467

Time To	Description	Remarks :
6:30 AM	Service Rig	1591 Days without a Lost Time incident 34 Days without a Medical Aid or Restricted Work incident 29 Days without a Recordable Spill 400 Days without a Reportable Quantity Spill 2275 gals fuel used past 24hrs 7251 gals fuel on Location, Rotating Hours on HWDP =166.5 Hrs Total Fluid Losses Last 24 hrs =318 bbbls seepage 1 Mud Engineer on Location - Mike Lindell Pre Spud Notification for the Twin Creek 12-5A2 made 1-26-12 Post Spud & Surf Csg / Cement Notification for 12-5A2 Made 1-27-12 Bradenhead Pressures on the 12-5D1 = 0 & 12-5A1 = (Checked 6 Times in last 24 hrs) All = 0 psi Hazard ID 1 Will Send Lost Fluid Notification to State Today
8:00 AM	Directional Drill 8 3/4" Hole F/ 4638' T/ 4746' = 108' in 1.5 hrs @ 72 ft/hr - Lost Returns At 4746' SPR @ 4732' W/12.5ppg MW #1 20/252, 30/317, 40/425 psi #2 20/240, 30/310, 40/425 psi	
9:30 AM	Circ & Cond Mud - Build LCM Pill & Start Treating Active system with 5 ppb LCM -Regained partial Returns - Pumped 20bbl LCM Sweep Regained full Returns - Total Lost was 68bbbls While Building LCM Pill & circ @ Slow Pump Rate 40 SPM - Lost 28 bbbls More while pumping LCM Sweep @ SPR 40SPM Total Lost = 96bbbls	
10:30 PM	Directional Drill 8 3/4" Hole F/ 4746' T/ 5207' = 461' in 13 hrs @ 35.5 ft/hr SPR @ 5112' W/ 12.4ppg MW #1 20/250, 30/335, 40/460 psi #2 20/240, 30/340, 40/465 psi	
11:00 PM	Service Rig	
4:00 AM	Directional Drill 8 3/4" Hole F/ 5207' T/ 5602' = 395' in 5 hrs @ 79 ft/hr SPR @ 5587' W/ 12.4ppg MW #1 20/260, 30/345, 40/470 psi #2 20/265, 30/360, 40/475 psi	
4:30 AM	Circ & Cond Mud - Lost Returns At 5602' - Pump 5 bbl LCM Sweeps & Continue Treating system w/ 15 ppg LCM - Regained Circulation	
5:30 AM	Directional Drill 8 3/4" Hole F/ 5602' T/ 5682' = 80' in 1 hr @ 80 ft/hr In the Coal Ridge - Lost Returns @ 5682'	
6:00 AM	Circ & Cond Mud & Hole - Treating Lost Circ - Rebuild Volume Note: Total Losses Last 12 Hrs = 222bbbls + 96 bbbls From Previous 12 Hrs = 318 bbbls Mud Lost to Formation in the Last 24 Hrs	

REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-5A2 (F12E)	API # : 05045203850000	Operations Date : 02/20/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM	Area : Mamm Creek	Report # : 7
Spud Date :	Days From Spud : 25	Depth At 06:00 : 5765
Morning Operations : Running 4 1/2" 11.6# S80 BTC Prod. Casing		Estimated Total Depth : 5467

Time To	Description	Remarks :
6:30 AM	Service Rig	1592 Days without a Lost Time incident
9:00 AM	Directional Drill 8 3/4" Hole F/ 5682' T/ 5765' = 83' in 1.25 hrs @ 66.4 ft/hr (TD @ 08:47 AM 02/19/2012) Lost 10 bbls Mud While Drilling for 1.25 hrs	35 Days without a Medical Aid or Restricted Work incident
	SPR @ 5682' W/ 12.5ppg MW #1 20/227, 30/318, 40/455 psi #2 20/209, 30/313, 40/456 psi	30 Days without a Recordable Spill
	Note: TD with 12.4+ppg MW - Trip Margin = 12.6+ ppg MW	401 Days without a Reportable Quantity Spill
5:30 PM	Clrc & Cond.- Pump 20 bbl LCM Sweep to clean hole & treat Seepage - Raise MW to = Trip Margin 12.6+ @ SPR 40 SPM - After 4 hrs and not having 12.6+ MW all around we increased Pump Rate by 10 SPM at a time and treated system with mediun/fine grained LCM to Stop seepage while increasing MW	1828 gals fuel used past 24hrs
10:30 PM	TOOH 2 Stds - Do Flow Check - OK - TOOH 3 Stds Flow Check OK - TOOH - Flow check every 10 Stds - Keep Hole full Continuosly	8692 gals fuel on Location,
11:00 PM	Pull Rotatinghead	Rotating Hours on HWDP =166.5 Hrs
11:30 PM	TOOH - 10 Stds HWDP	Total Fluid Losses Last 24 hrs =10 bbls seepage - Total Losses on the 12-5A2 = 328bbls
12:00 AM	HTPSM W/ Cathedral - Laying Down Directional tools	1 Mud Engineer on Location - Mike Lindell
1:00 AM	TOOH - Laying Down Directional Tools - Calculated Displacement = 38.2 bbls - Actual Displacement = 35.15 bbls	Prod. Csg & Cement Notification for the Twin Creek 12-5A2 made 2-19-12
1:30 AM	Pull Wear Bushing - Function Test BOP's - Annular, Blind rams & Pipe Rams	BOP & FIT Notification for 12-4D1 Made 2-20-12
3:00 AM	Waiting on Frank's - Running Late Due to BAd Road Conditions	Bradenhead Pressures on the 12-5D1 = 0 & 12-5A1 = (Checked 6 Times in last 24 hrs) All = 0 psi
3:30 AM	Held Third Party Safety Meeting w/ Frank's	Hazard ID 1
4:00 AM	MIRU Frank's Casing Tools	Lost Fluid Notification to State on the 12-5A2 sent 2/19/2012
6:00 AM	Ran 20 of 129 jts of 4 1/2" 11.6# S80 BTC Prod. Csg	

REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-5A2 (F12E)		API # : 05045203850000	Operations Date : 02/22/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 9
Spud Date :	Days From Spud : 27		Depth At 06:00 : 5765
Morning Operations :			Estimated Total Depth : 5467

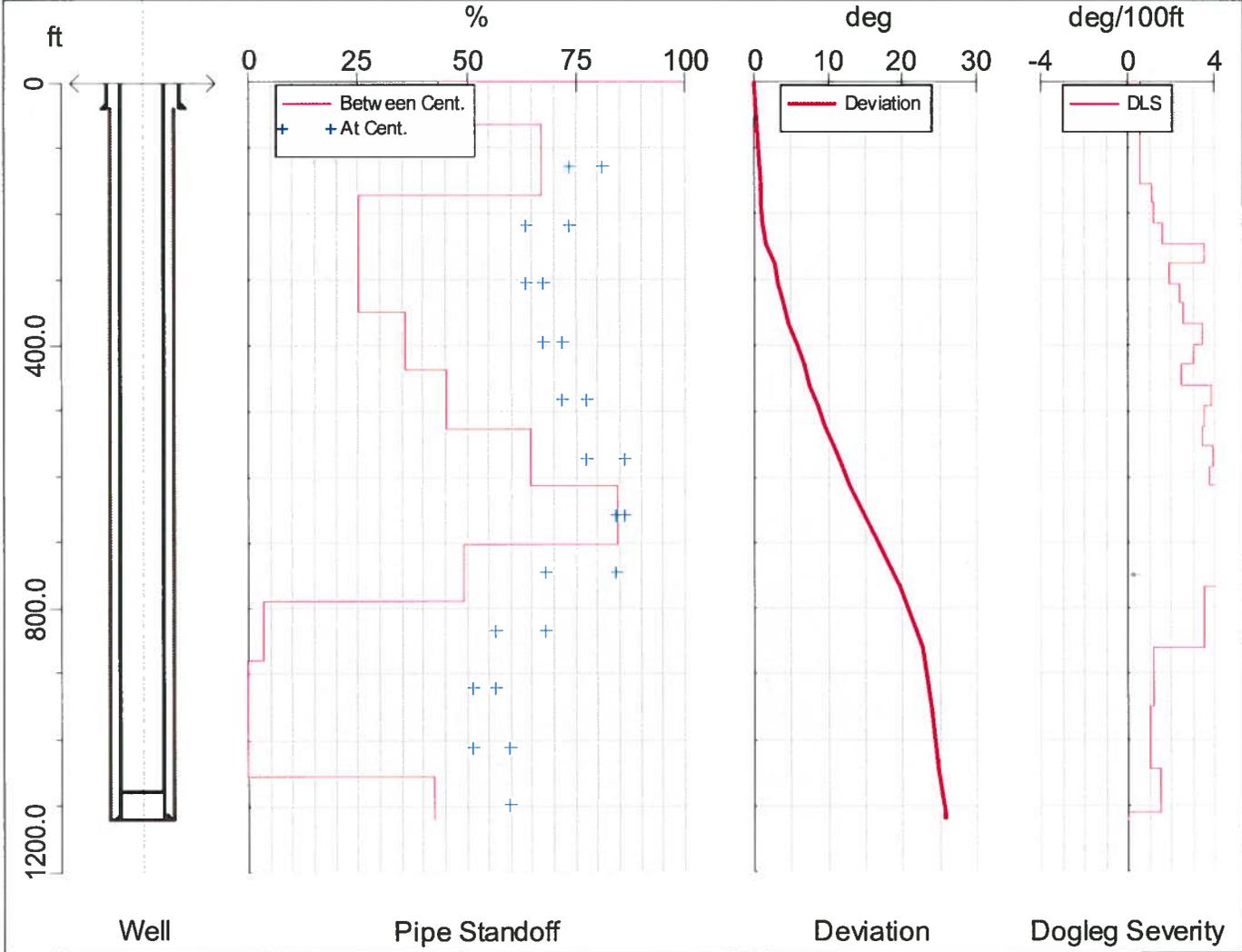
Time To	Description	Remarks :
8:00 AM	Run CBL / Temp Log - Tagged Up at 5670' W.L. Depth	1594 Days without a Lost Time incident
8:30 AM	Rig Down Loggers & Release Rig at 8:30 AM 2/21/2012	37 Days without a Medical Aid or Restricted Work incident
		32 Days without a Recordable Spill
		403 Days without a Reportable Quantity Spill
		xxxx gals fuel used past 24hrs
		13678 gals fuel on Location,
		Rotating Hours on HWDP =166.5 Hrs
		Total Fluid Losses Last 24 hrs =0 bbls seepage - Total
		Losses on the 12-5A2 = 328bbbls
		1 Mud Engineer on Location - Mike Lindell
		BOP & FIT Notification for 12-4D1 Made 2-20-12
		Bradenhead Pressures on the 12-5D1 = 0, 12-5A1 = 0 psi,
		12-5A2 = 0 (Checked Every 4 hrs) since 6PM 2/20/12
		Hazard ID 1

Well : Twin Creek 12-5A2 (F12E)		API # : 05045203850000	Operations Date : 02/21/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 8
Spud Date :	Days From Spud : 26		Depth At 06:00 : 5765
Morning Operations : CBL Logs			Estimated Total Depth : 5467

Time To	Description	Remarks :
1:00 PM	Runnung 4 1/2" 11.6# S80 BTC Csg To 5748' MD - 5488' TVD Float Collar set at 5701' MD - 5441' TVD - Ran 146 Centralizers F/ 5724' T/ 379'	1593 Days without a Lost Time incident
3:00 PM	Circ & Cond Hole For Cement	36 Days without a Medical Aid or Restricted Work incident
5:30 PM	HTPSM W/ Schlumberger - MIRU Cement Equipment - and Cement as Follows: Test Lines To 500/3000psi - Pumped 50bbbls 13.2ppg mud Push + 353.5bbbls (1641sx) (1986 cu/ft) of Conventional "G" @ 14.00ppg, 1.21 Yld, 5.480gl/sk Mix + Displaced w/ 88bbbls H2O - Final Circ Press = 1740psi @ 2bbl/min - Bumped Plug w/ 2370psi - Held 10 min - Full Returns - No Cement to Surface - Float Held - CIP @ 5:12 PM 2/20/2012 - Calculated Top of Cement at 670'	31 Days without a Recordable Spill
6:00 PM	Rig Down Schlumberger	402 Days without a Reportable Quantity Spill
5:00 AM	WOC - To Run CBL / Temp Log - Nipple Down BOPE - HTPSM W/ Schlumberger Wireline - MIRU Logging Tools	2014 gals fuel used past 24hrs
6:00 AM	Run CBL / Temp Log -Tagged Up At 5670' WireLine Depth	13678 gals fuel on Location,
		Rotating Hours on HWDP =166.5 Hrs
		Total Fluid Losses Last 24 hrs =0 bbls seepage - Total
		Losses on the 12-5A2 = 328bbbls
		1 Mud Engineer on Location - Mike Lindell
		BOP & FIT Notification for 12-4D1 Made 2-20-12
		Bradenhead Pressures on the 12-5D1 = 0, 12-5A1 = 0 psi,
		12-5A2 = 0 (Checked Every 4 hrs) since 6PM 2/20/12
		Hazard ID 1

Twin Creek 12-5A2

Type	Quantity	Centralizers per Joint	Spacing (ft)	From (ft)	To (ft)	Stop Rings
12 1/4" BOW	12	1/2	88	Surface	TD	0



Casing Cementing



Company: ENCAN USA - PARACHUTE FIELD OFC (EDI)
Well Name: Twin Creek 12-5A2
Field: Mamm Creek
County: Garfield
State: CO

Date: 2/19/2012
Well Location: F12E
API Number: 05045203850000
Proposal Number: 2
Contact:
Made By: Matt Hudson
Service from District: Grand Junction, CO
District Phone: 303-486-3245
Objective: Top of Cement: 670ft.
Surface Casing Shoe: 1170ft.
Mesa Verde: 2538ft. (2377)
Top of Gas: 3871ft. (3612)
8 3/4" Bit Depth: TD.
TD: 5727ft. (5467)

Disclaimer Notice

The information is presented in good faith, but no warranty is given by Schlumberger and Schlumberger assumes no liability for advice or recommendations made concerning the use of any product or service. The results given are estimates based on calculations produced by a computer model including various assumptions of the well, reservoir and location. The results depend on input data provided by the customer and estimates of unknown data and can no more accurate than the model, the assumptions and such input data. The information presented is Schlumberger's best estimate of the results that may be achieved and should be used for comparison purposes rather than absolute values. The quantity of input data, an chance test, may be improved through the use of certain tests and procedures which Schlumberger can assist in selecting. Freedom from infringement of patents of Schlumberger or third parties is not to be inferred nor are any such rights granted unless expressly agreed to in writing.

Schlumberger



EXECUTIVE SUMMARY

Enclosed are our recommendations for Schlumberger intervention on the referenced well. The proposal includes well data, design data, materials and resources requirements and cost estimates. The purpose of our services is to perform a Casing Cementing treatment.

Schlumberger has established a safety policy to which all Schlumberger personnel must adhere. A pre-job safety meeting will be held with customer representatives and other on location personnel to familiarize everyone with existing hazards and safety procedures. We would appreciate close cooperation between the customer representative and the Schlumberger representative to ensure a safe operation.

The estimated total cost of our services is **\$ 91,990.46**. All costs are estimates only. Actual costs will be determined by time, material and equipment used during treatment. Taxes are not included. All work will be subject to Schlumberger then-current General Terms and Conditions or to the terms and conditions of a Master Service Agreement if one is in force between Schlumberger and Customer. This quote is valid for a period of thirty (30) days from the date submitted.

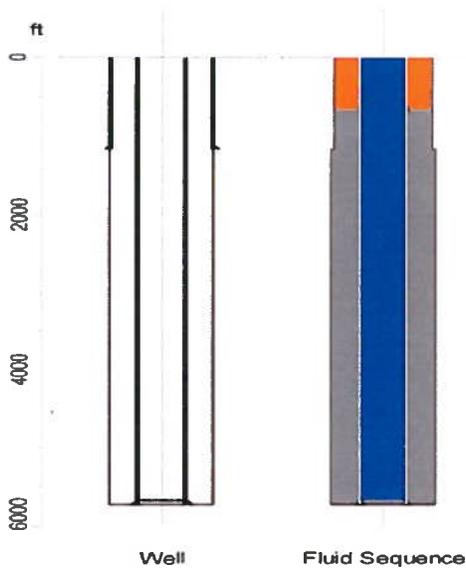
Thank you for considering Schlumberger.
Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Matt Hudson
303-862-1701
mhudson2@slb.com



WELL DATA



Well Data	
Job Type :	Casing Cementing
Total Depth (Measured) :	5727.0 ft
True Vertical Depth (TVD) :	5467.6 ft
BHST (Tubular Bottom Static Temperature) :	160 degF
BHCT (Tubular Bottom Circulating Temperature) :	115 degF

Open Hole		
Mean Diameter without Excess	Bottom Depth	Annular Excess
8.750 in	5727.0 ft	30.0 %

Previous Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
9 5/8 in	36.0 lb/ft	K-55	LTC	0.43 ft ³ /ft	1170.0 ft

Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
4 1/2 in	11.6 lb/ft	N-80	BTC	0.09 ft ³ /ft	5727.0 ft

IMPORTANT:
The well data shown on this page is based on information available when this treatment program was prepared. This data must be confirmed on location with the wellsite supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Annular Capacity (without Excess) : Casing Bottom / Open Hole : 0.31 ft³/ft
Annular Capacity (without Excess) : Previous Casing Bottom / Casing : 0.32 ft³/ft

Fluid Placement			
Fluid Name	Volume bbl	Density lb/gal	Top of Fluid ft
MUDPUSH II	50.0	13.20	0.0
14.0# EasyBLOK	353.5	14.00	670.0
Water	88.4	8.32	0.0

Total Liquid Volume : 491.9 bbl



FLUID SYSTEMS

MUDPUSH II			
System	MUDPUSH II		
Density	13.20 lb/gal		
Total Volume	50.0 bbl		
Additives	Code	Description	Concentration
	D031	Weighting Agent	6302.6 lb/mgal

14.0# EasyBLOK (1641 sacks, 75 lb per sack of Blend)			
System	Conventional		
Density	14.00 lb/gal		
Yield	1.21 ft ³ /sk		
Mixed Water	5.480 gal/sk		
Mixed Fluid	5.480 gal/sk		
Total Volume	353.5 bbl		
Additives	Code	Description	Concentration
	D049	Cement	75.00 lb/sk WBWOB
	D154	Extender	6.0 % BWOB
	D400	Gas Control Agent	0.6 % BWOB
	D202	Dispersant	0.2 % BWOB
	D153	Anti-Settling Agent	0.1 % BWOB
	D013	Retarder	0.5 % BWOB
	D046 D029	Anti Foam Lost Circulation Control Agent	0.5 % BWOB 0.25 lb/sk WBWOB

Water			
System	Water		
Density	8.32 lb/gal		
Total Volume	88.4 bbl		
Additives	Code	Description	Concentration

Some of the chemicals specified in this program may have toxic properties. All personnel should be familiar with the inherent dangers and appropriate safeguards to prevent accidental injury. Use of the chemicals may be governed by certain laws and regulations and should only be used in accordance with such. Please refer to the MSDS sheets for the recommended safety precautions and required minimum personal protective equipment.



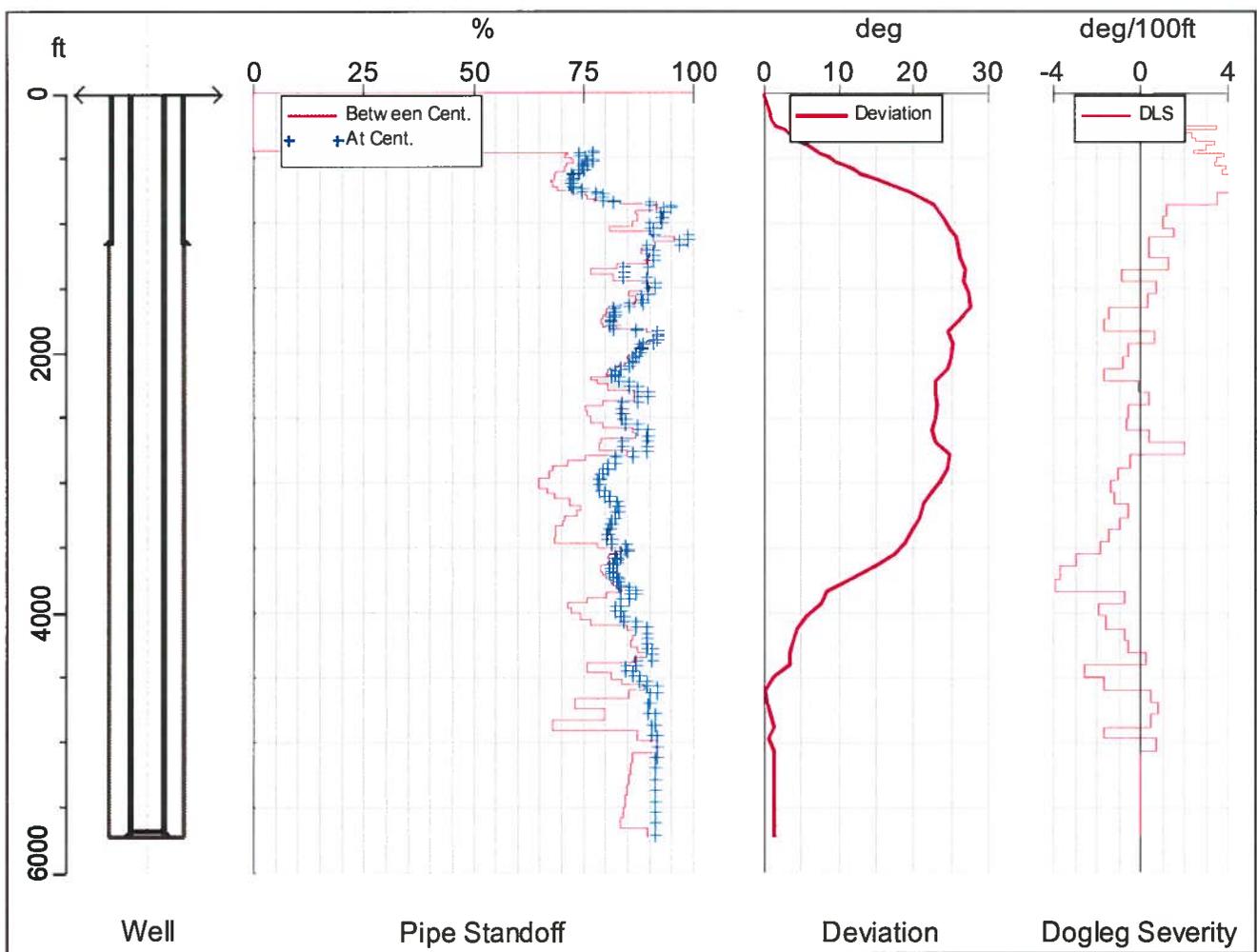
PROCEDURES

1. MI (Move in) Schlumberger equipment.
2. Conduct Rig-up, Prime-up and pressure test safety meeting.
3. RU (Rig up) Schlumberger equipment and pressure test to customer master valve.
4. Conduct pre-job safety meeting.
5. Perform treatment per design pumping schedule and instructions of client representative.
6. ADD 50lbs SUGAR TO FIRST 50bbls DISPLACEMENT
7. Add L064 EVENLY to displacement (1gal/10bbls).
8. Conduct post job rig down meeting.
9. Purge all High Pressure and Low Pressure treating lines with air PRIOR TO RIG-DOWN.
10. Rig down Schlumberger equipment.
11. Conduct convoy meeting and move out Schlumberger equipment.



CENTRALIZERS

Type	Quantity	Centralizers per Joint	Spacing (ft)	From (ft)	To (ft)	Stop Rings
8 3/4" BOW	22	2/1	21	435	897	11
8 3/4" BOW	17	1/1	42	897	1611	0
8 3/4" BOW	28	2/1	21	1611	2199	14
8 3/4" BOW	31	1/1	42	2199	3501	0
8 3/4" BOW	16	2/1	21	3501	3837	8
8 3/4" BOW	19	1/1	42	3837	4635	0
8 3/4" BOW	13	1/2	84	4635	TD	0





PRICE ESTIMATE

Equipment and Services						
Code	Standard Description	Quantity	Unit List Price	Total List Price \$	Discount Rate	Discounted Price \$
48019000	Bulk Unit, Cement Add Hr	8 HR	107.50	860.00	45.2 %	471.28
48021000	Silo, Cement	2 EA	570.00	1,140.00	45.2 %	624.72
48301000	Cement Plug Container	1 JOB	520.00	520.00	45.2 %	284.96
49100000	Cement Blending Charge	2231 CF	2.27	5,064.37	45.2 %	2,775.27
49102000	Transportation, Cement Ton-mile	5498 MI	2.02	11,105.96	45.2 %	6,086.07
56702044	Plug, Cementing Top Plastic 4.5 in	1 EA	151.00	151.00	45.2 %	82.75
58498000	Taxes	1 JOB	2,811.81	2,811.81	0 %	2,811.81
59200002	Transportation, Mileage Heavy Vehicles	450 MI	5.52	2,484.00	45.2 %	1,361.23
59200005	Transportation, Mileage Light Vehicles	150 MI	3.24	486.00	45.2 %	266.33
59397004	CemCAT Monitoring System	1 JOB	880.00	880.00	45.2 %	482.24
102871060	Pump, Casing Cement 5501-6000 ft	1 EA	3,500.00	3,500.00	45.2 %	1,918.00
107264001	Regulatory Conformance Charge	8 EA	341.00	2,728.00	0 %	2,728.00

Subtotals: \$ 31,731.14 \$ 19,892.66

Materials						
Code	Standard Description	Quantity	Unit List Price	Total List Price \$	Discount Rate	Discounted Price \$
B838	B838 CemNETplus conversion charge	50 BBL	148.50	7,425.00	45.2 %	4,068.90
D013	Retarder	615 LB	2.61	1,605.15	45.2 %	879.62
D029	Cellophane Flakes	410 LB	3.97	1,627.70	45.2 %	891.98
D031	Barite	133 CW	38.61	5,135.13	45.2 %	2,814.05
D046	Antifoam Agent, All Purpose	615 LB	4.75	2,921.25	45.2 %	1,600.85
D049	Cement, TXI LITEWEIGHT	1641 CF	21.95	36,019.95	45.2 %	19,738.93
D153	Antisettling Agent	123 LB	7.69	945.87	45.2 %	518.34
D154	Extender, LT	7381 LB	1.40	10,333.40	45.2 %	5,662.70
D202	Low-Temperature Solid Dispersant D202	246 LB	19.15	4,710.90	45.2 %	2,581.57
D400	EasyBLOK D400	738 LB	47.00	34,686.00	45.2 %	19,007.93
D970	MUDPUSH II Fresh Water Based Spacer	50 BBL	116.00	5,800.00	45.2 %	3,178.40
D974	CemNET Conversion	354 BBL	57.50	20,355.00	45.2 %	11,154.54

Subtotals: \$ 131,565.35 \$ 72,097.81

Total Discount:	\$	71,306.03
Job Price Estimate*:	\$	91,990.46