



02577979



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State of Colorado  
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109

## SUNDRY NOTICE

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.)



JUN 06 2012

COGCC/Rifle Office

1. OGCC Operator Number: 100185	4. Contact Name: Bonnie Lamond
2. Name of Operator: Encana Oil & Gas (USA) Inc.	Phone: 720.876.5156
3. Address: 370 17th Street Suite 1700	Fax: 720.876.6177
City: Denver State: CO Zip: 80202	
5. API Number: 05-045-20394	OGCC Facility ID Number: 421390
6. Well/Facility Name: Twin Creek	7. Well/Facility Number: 12-5A1 (F12E)
8. Location (Qtr/Sec. Twp. Rng. Meridian): SENW Sec 12, T7S, R92W 6 P.M.	Survey Plat
9. County: Garfield	Directional Survey
10. Field Name: Mamm Creek	Surface Equipmt Diagram
11. Federal, Indian or State Lease Number: COC55972E	Technical Info Page
	Other

## General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL/FSL <input type="checkbox"/> FEL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Sec. Twp. Rng. Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest bldg, public rd, utility or RR
Ground Elevation	Distance to nearest lease line
	Distance to nearest well same formation
	Is location in a High Density Area (rule 603b)? Yes/No
	Surface owner consultation date:
GPS DATA:	
Date of Measurement PDOP Reading Instrument Operator's Name	
<input type="checkbox"/> CHANGE SPACING UNIT	<input type="checkbox"/> Remove from surface bond
Formation Formation Code Spacing order number Unit Acreage Unit configuration	Signed surface use agreement attached
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	<input type="checkbox"/> CHANGE WELL NAME
Effective Date:	From:
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	To:
	Effective Date:
<input type="checkbox"/> ABANDONED LOCATION:	<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS
Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No	Date well shut in or temporarily abandoned:
Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No	Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection:	MIT required if shut in longer than two years. Date of last MIT
<input type="checkbox"/> SPUD DATE:	<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (5 mos from date casing set)
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
*submit cbl and cement job summaries	
Method used Cementing tool setting/perf depth Cement volume Cement top Cement bottom Date	
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	
<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.	

## Technical Engineering/Environmental Notice

<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Report of Work Done	
Approximate Start Date: As soon as approved	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
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Request to Complete Mamm Creek Well	for Spills and Releases

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.comPrint Name: Bonnie Lamond Title: Permitting TechnicianCOGCC Approved: Keith Kij Title: PEI Date: JUN 08 2012

CONDITIONS OF APPROVAL, IF ANY:



TECHNICAL INFORMATION PAGE



1. OGCC Operator Number:	100185	API Number:	05- 045-20394
2. Name of Operator:	Encana Oil & Gas (USA) Inc.	OGCC Facility ID #	421390
3. Well/Facility Name:	Twin Creek	Well/Facility Number:	12-6A1 (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: 118'  
FM TOPS Atwell Gulch: 557'  
Mudlog TOG based on 2500 units: 3866'

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

Attachments:

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

Engineer Contact Information:	
Ryan MiGilvery	or Craig Miley
Completion Engineer	Completion Engineer
370 17th. Street, Suite 1700	370 17th. Street, Suite 1700
Denver, CO 80202	Denver, CO 80202
720-876-3681	720-876-5396

Well:	Twin Creek 12-6A1
Pad:	F12E
API No:	05-045-20394-00
Permit No:	400062039

**Bradenhead Pressure Report Following Primary Cement Job**

Date Cemented:	4.12.12
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:	16 days	Received Verbal to delay CBL
Bond Log Run:	4.29.12	

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**

Intermediate set

S.C. TOC - Surface  
 I.C. TOC - 1370'  
 P.C TOC - 4120'  
                   Stringer to 3660'

Twin Creek 12-6A1 (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
WasatchSurface / Surface		WasatchSurface/ Surface
12-1/4" Surface Hole		12-1/4" Surface Hole
Surface Casing1105 / 1100		Surface Casing# 1148 / 1141
9-5/8" 36# J/K55 Cement to surface with: Tail: 532 sx, 15.8, Class G, 1.17 ft <sup>3</sup> /sk Total: 532 sx (volume includes 80% excess)		9-5/8" Cemented to surface with: 532 sx, 15.8 ppg Class G, 1.16 ft <sup>3</sup> /sk
7-7/8" Production Hole		Inter TOC from CBL1366 / 1353
Mesa Verde2510 / 2387		8-3/4" Intermediate Hole
		Mesa Verde2557 / 2418
Williams Fork3182 / 2992		Williams Fork3180 / 3009
TOC requirement 500ft above TOG		Prod TOC3660 / 3479
Top of Gas3824 / 3622		Top of Gas3881 / 3698
		Intermediate Casing4420 / 4235
		7" 23# 55 grade Cemented to 1045' with: 780 sx, 14.0 ppg TXI, 1.21 ft <sup>3</sup> /sk
Coal Ridge5529 / 5327		Coal Ridge5536 / 5351
Rollins6254 / 6052		Rollinsno pick/ no pick
Permit TD6554 / 6352		Actual TD5670 / 5485
Production casing6554 / 6352		Production casing5649 / 5464
4-1/2" 11.6# 80 grade Cement with: Lead: 83 sx, 12 TXI, 1.79 ft <sup>3</sup> /sk Tail: 565 sx, 13 TXI, 1.43 ft <sup>3</sup> /sk Total: 648 sx (volume includes 30% excess)		4-1/2" Cemented with 251 sx, 14.0 ppg TXI, 1.21 ft <sup>3</sup> /sk

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.

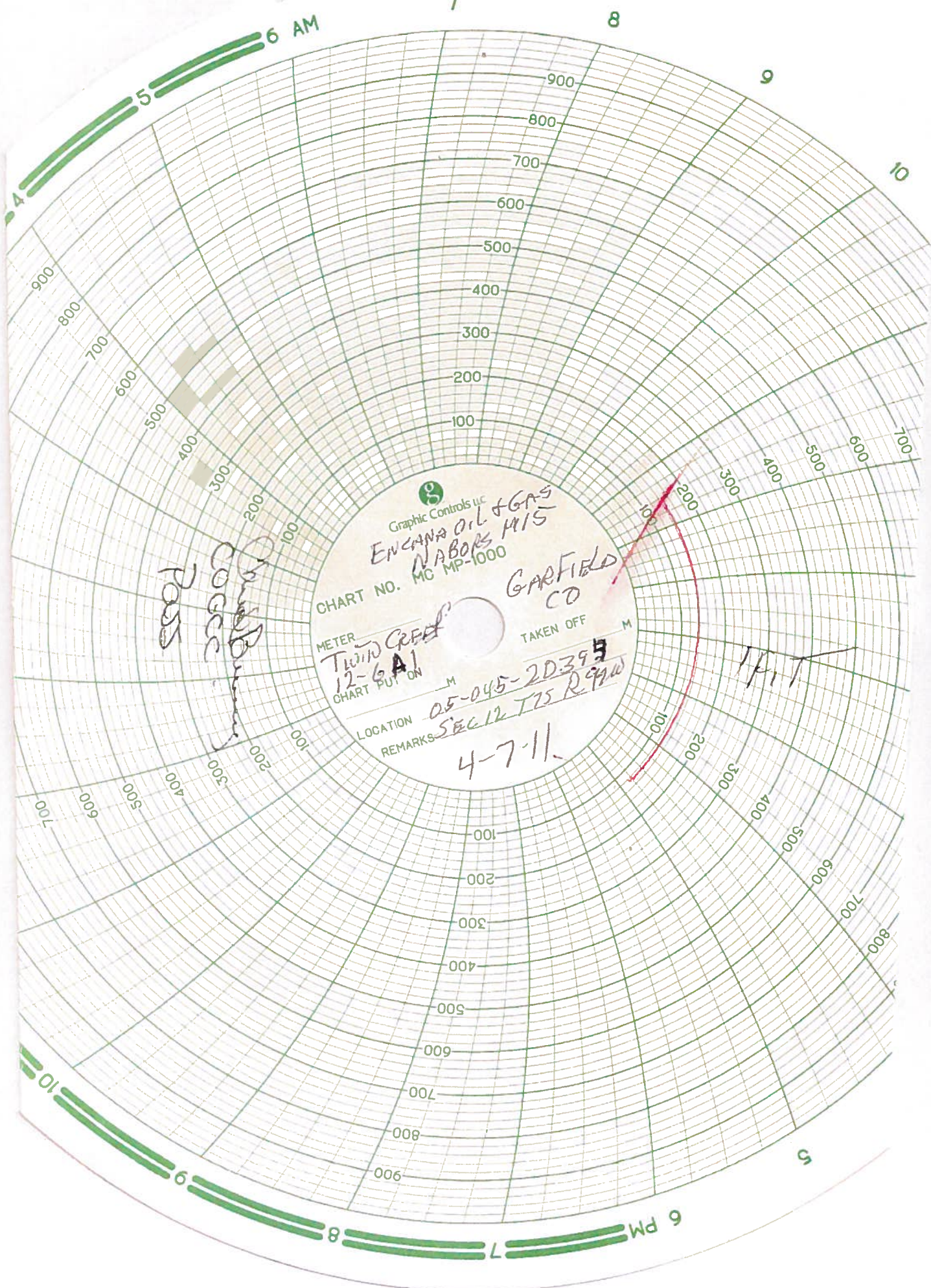
N/A- Notation used when no point within well had >2500 units of total gas.

\* 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





ENCLAVE OIL & GAS  
NABORS M/S

CHART NO.

MC MP-1000

GARFIELD  
CD

METER

TWIN CREEK

TAKEN OFF

CHART PUT ON

LOCATION

05-045-2D.395  
56612 T75 R940

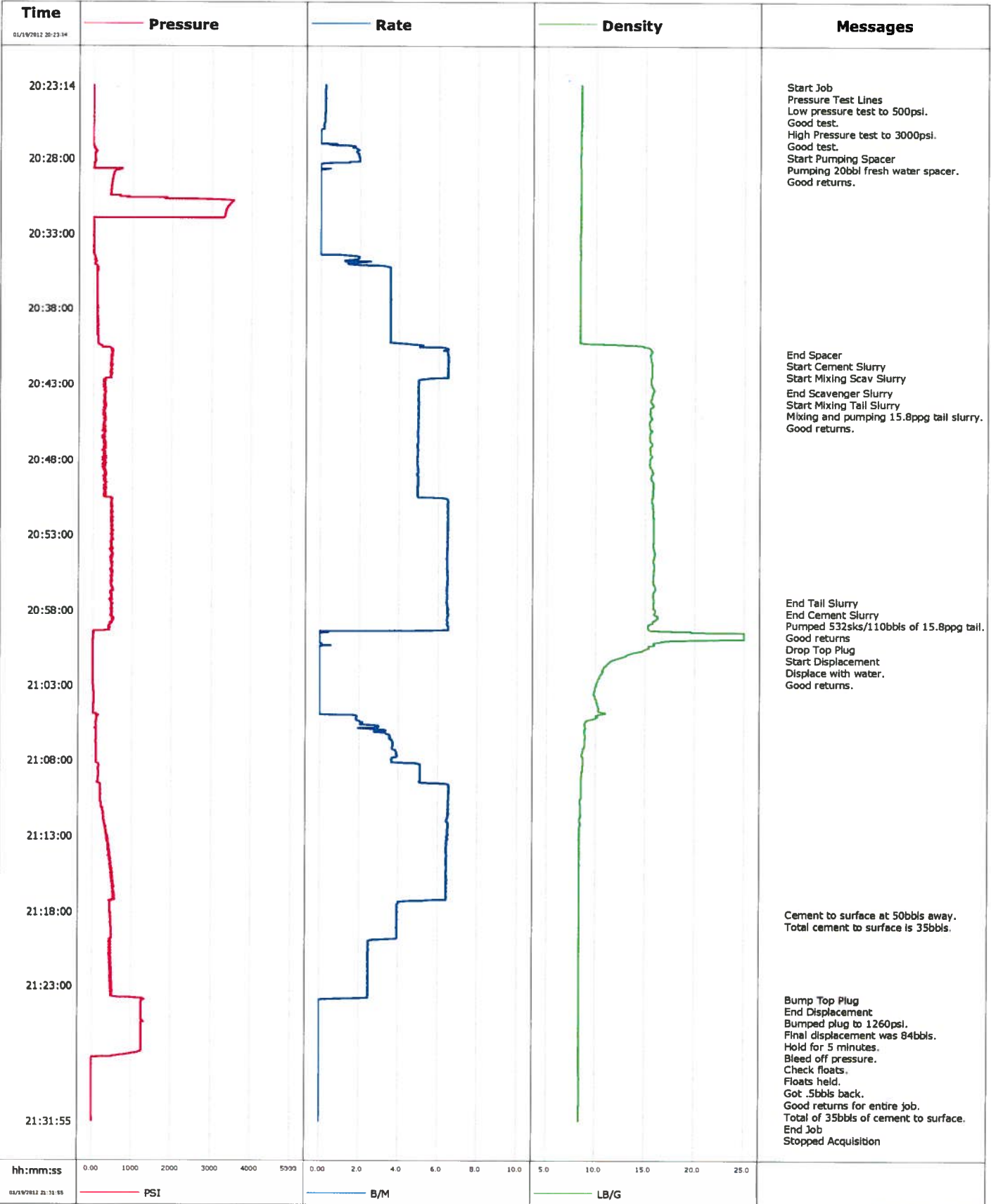
REMARKS

4-7-11

POST  
COGC  
Twin Creek

HIT

Well	TWIN CREEK 12-6A1	Client	ENCANA
Field	DIVIDE CREEK	SIR No.	C0BA-00069
Engineer	Jeff Patterson/T. Willardson	Job Type	9 5/8" SURFACE
Country	United States	Job Date	01-19-2012







Cementing Service Report

				Customer ENCANA		Job Number COBA-00069			
Well TWIN CREEK 12-6A1 TWIN CREEK 12-6A1			Location (legal) F12E		Schlumberger Location Grand Junction, Colorado		Job Start Jan/19/2012		
Field DIVIDE CREEK		Formation Name/Type SHALE		Deviation 0 deg	Bit Size 12.3 in	Well MD 1152.0 ft		Well TVD 1152.0 ft	
County GARFIELD		State/Province Colorado		BHP	BHST 100 degF	BHCT 81 degF	Pore Press. Gradient		
Well Master		API/UWI 05-045-20394-00							
Rig Name NABORS M-15	Drilled For Gas	Service Via Land	Casing/Liner						
			Depth, ft	Size, in	Weight, lb/ft	Grade	Thread		
Offshore Zone	Well Class New	Well Type Development	1152.0	9.630	36.0	J55	8RD		
			0.0	0.000	0.0				
Drilling Fluid Type		Max. Density	Plastic Viscosity	Tubing/Drill Pipe					
				Depth,	Size,	Weight,	Grade	Thread	
Service Line Cementing	Job Type 9 5/8" SURFACE								
Max. Allowed Tub. Press 3000 psi	Max. Allowed Ann. Press	WH Connection 9 5/8" CEMENT HEAD	Perforations/Open Hole						
			Top,	Bottom,		No. of Shots	Total Interval		
							Diameter		
			Treat Down Casing	Displacement 85.4 bbl	Packer Type	Packer Depth			
			Tubing Vol.	Casing Vol. 89.0 bbl	Annular Vol. 67.0 bbl	Openhole Vol. 160.0 bbl			
Service Instructions CEMENT SURFACE CASING WITH. 20BBLS WATER. 532SKS 15.8PPG TAIL. YIELD= 1.16 DISPLACE WITH WATER.									
Casing/Tubing Secured <input checked="" type="checkbox"/>			1 Hole Vol. Circulated prior to Cement <input checked="" type="checkbox"/>			Casing Tools		Squeeze Job	
Lift Pressure 570 psi			Shoe Type Guide			Squeeze Type			
Pipe Rotated <input type="checkbox"/>			Pipe Reciprocated <input type="checkbox"/>			Shoe Depth 1152.0 ft			
No. Centralizers			Top Plugs 1			Bottom Plugs			
Cement Head Type Single			Stage Tool Type			Tool Depth			
Job Scheduled For Jan/19/2012			Arrived on Location Jan/19/2012			Leave Location Jan/19/2012			
			Collar Type Float			Tall Pipe Depth			
			Collar Depth 1105.0 ft			Seq. Total Vol.			
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message			
01/01/1970	00:00:00					Started Acquisition			
01/01/1970	00:00:00					Stopped Acquisition			
01/01/1970	00:00:00					Started Acquisition			
01/19/2012	19:22:50					Started Acquisition			
01/19/2012	20:23:14	4	0.3	8.46	0.0				
01/19/2012	20:23:15					Start Job			
01/19/2012	20:23:15	4	0.3	8.46	0.0				
01/19/2012	20:23:17					Pressure Test Lines			
01/19/2012	20:23:17	4	0.3	8.46	0.0				
01/19/2012	20:23:18					Low pressure test to 500psi.			
01/19/2012	20:23:18	4	0.3	8.46	0.0				
01/19/2012	20:23:19					Good test.			
01/19/2012	20:23:19					High Pressure test to 3000psi.			
01/19/2012	20:23:19					Good test.			
01/19/2012	20:23:19	4	0.3	8.46	0.0				
01/19/2012	20:23:22					Start Pumping Spacer			
01/19/2012	20:23:22	4	0.3	8.46	0.0				
01/19/2012	20:23:23					Pumping 20bbl fresh water spacer.			
01/19/2012	20:23:23					Good returns.			
01/19/2012	20:23:23	4	0.3	8.46	0.0				
01/19/2012	20:23:30	4	0.3	8.46	0.1				



Well			Field	Job Start	Customer	Job Number
TWIN CREEK 12-6A1 TWIN CREEK 12-6A1			DIVIDE CREEK	Jan/19/2012	ENCANA	COBA-00069
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/g	Volume BBL	Message
01/19/2012	20:24:30	4	0.2	8.46	0.3	
01/19/2012	20:25:00	1	0.2	8.46	0.4	
01/19/2012	20:25:30	1	0.2	8.46	0.5	
01/19/2012	20:26:00	-0	0.2	8.46	0.6	
01/19/2012	20:26:30	-1	0.0	8.39	0.7	
01/19/2012	20:27:00	-1	0.0	8.39	0.7	
01/19/2012	20:27:30	74	1.9	8.39	1.3	
01/19/2012	20:28:00	60	2.0	8.38	2.2	
01/19/2012	20:28:30	30	0.0	8.38	2.8	
01/19/2012	20:29:00	538	0.0	8.38	2.8	
01/19/2012	20:29:30	490	0.0	8.38	2.8	
01/19/2012	20:30:00	460	0.0	8.38	2.8	
01/19/2012	20:30:30	698	0.0	8.38	2.8	
01/19/2012	20:31:00	3487	0.0	8.38	2.8	
01/19/2012	20:31:30	3363	0.0	8.38	2.8	
01/19/2012	20:32:00	242	0.0	8.38	2.8	
01/19/2012	20:32:30	15	0.0	8.38	2.8	
01/19/2012	20:33:00	14	0.0	8.38	2.8	
01/19/2012	20:33:30	26	0.0	8.38	2.8	
01/19/2012	20:34:00	25	0.0	8.38	2.8	
01/19/2012	20:34:30	54	1.8	8.38	3.0	
01/19/2012	20:35:00	59	1.4	8.38	3.9	
01/19/2012	20:35:30	124	3.6	8.38	5.3	
01/19/2012	20:36:00	114	3.6	8.38	7.1	
01/19/2012	20:36:30	113	3.6	8.38	8.9	
01/19/2012	20:37:00	118	3.6	8.38	10.7	
01/19/2012	20:37:30	118	3.6	8.38	12.5	
01/19/2012	20:38:00	124	3.6	8.38	14.2	
01/19/2012	20:38:30	121	3.5	8.38	16.0	
01/19/2012	20:39:00	125	3.6	8.38	17.8	
01/19/2012	20:39:30	128	3.6	8.38	19.6	
01/19/2012	20:40:00	127	3.6	8.38	21.3	
01/19/2012	20:40:30	224	5.2	14.13	23.3	
01/19/2012	20:40:59					End Spacer
01/19/2012	20:40:59	487	6.5	15.57	26.3	
01/19/2012	20:41:00	487	6.5	15.57	26.4	
01/19/2012	20:41:01					Start Cement Slurry
01/19/2012	20:41:01	511	6.5	15.54	26.6	
01/19/2012	20:41:02					Start Mixing Scav Slurry
01/19/2012	20:41:02	476	6.5	15.51	26.7	
01/19/2012	20:41:30	481	6.5	15.57	29.7	
01/19/2012	20:42:00	476	6.5	15.66	32.9	
01/19/2012	20:42:30	452	6.5	15.62	36.2	
01/19/2012	20:43:00	296	5.0	15.58	38.9	
01/19/2012	20:43:29					End Scavenger Slurry
01/19/2012	20:43:29	334	5.0	15.84	41.3	
01/19/2012	20:43:30	334	5.0	15.84	41.4	
01/19/2012	20:43:32					Start Mixing Tail Slurry
01/19/2012	20:43:32	323	5.0	15.78	41.6	
01/19/2012	20:43:39					Mixing and pumping 15.8ppg tail slurry.
01/19/2012	20:43:39	322	5.0	15.71	42.1	
01/19/2012	20:43:40					Good returns.
01/19/2012	20:43:40	322	5.0	15.70	42.2	
01/19/2012	20:44:00	304	5.0	15.57	43.9	

Well TWIN CREEK 12-6A1 TWIN CREEK 12-6A1			Field DIVIDE CREEK	Job Start Jan/19/2012	Customer ENCANA	Job Number COBA-00069
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message
01/19/2012	20:45:00	262	5.0	15.44	48.9	
01/19/2012	20:45:30	302	5.0	15.42	51.4	
01/19/2012	20:46:00	312	5.0	15.47	53.8	
01/19/2012	20:46:30	252	4.9	15.40	56.3	
01/19/2012	20:47:00	293	4.9	15.66	58.8	
01/19/2012	20:47:30	299	4.9	15.46	61.3	
01/19/2012	20:48:00	266	4.9	15.47	63.7	
01/19/2012	20:48:30	256	4.9	15.48	66.2	
01/19/2012	20:49:00	295	4.9	15.66	68.7	
01/19/2012	20:49:30	311	5.0	15.72	71.2	
01/19/2012	20:50:00	307	4.9	15.74	73.6	
01/19/2012	20:50:30	294	5.0	15.69	76.1	
01/19/2012	20:51:00	482	6.5	15.70	79.2	
01/19/2012	20:51:30	469	6.5	15.76	82.5	
01/19/2012	20:52:00	484	6.5	15.79	85.7	
01/19/2012	20:52:30	485	6.5	15.81	89.0	
01/19/2012	20:53:00	463	6.5	15.82	92.2	
01/19/2012	20:53:30	463	6.5	15.81	95.4	
01/19/2012	20:54:00	517	6.5	15.84	98.7	
01/19/2012	20:54:30	450	6.4	15.89	101.9	
01/19/2012	20:55:00	487	6.5	15.85	105.1	
01/19/2012	20:55:30	526	6.5	15.82	108.3	
01/19/2012	20:56:00	470	6.5	15.74	111.5	
01/19/2012	20:56:30	506	6.4	15.98	114.8	
01/19/2012	20:57:00	467	6.5	15.75	118.0	
01/19/2012	20:57:28					End Tail Slurry
01/19/2012	20:57:28	472	6.4	15.84	121.0	
01/19/2012	20:57:30					End Cement Slurry
01/19/2012	20:57:30	476	6.4	15.83	121.2	
01/19/2012	20:57:31					Pumped 532sks/110bbbls of 15.8ppg tail.
01/19/2012	20:57:31	484	6.4	15.83	121.3	
01/19/2012	20:57:32					Good returns
01/19/2012	20:57:32	484	6.4	15.83	121.4	
01/19/2012	20:57:37					Drop Top Plug
01/19/2012	20:57:37	518	6.4	15.82	122.0	
01/19/2012	20:57:38					Start Displacement
01/19/2012	20:57:38	518	6.4	15.81	122.1	
01/19/2012	20:57:40					Displace with water.
01/19/2012	20:57:40					Good returns.
01/19/2012	20:57:40	473	6.5	15.81	122.3	
01/19/2012	20:58:00	466	6.5	15.93	124.4	
01/19/2012	20:58:30	486	6.5	16.24	127.7	
01/19/2012	20:59:00	444	6.5	15.38	130.9	
01/19/2012	20:59:30	32	0.4	19.66	133.6	
01/19/2012	21:00:00	23	0.0	20.48	133.6	
01/19/2012	21:00:30	19	0.0	15.34	133.6	
01/19/2012	21:01:00	18	0.0	13.15	133.6	
01/19/2012	21:01:30	18	0.0	11.39	133.6	
01/19/2012	21:02:00	17	0.0	10.70	133.6	
01/19/2012	21:02:30	17	0.0	10.36	133.6	
01/19/2012	21:03:00	31	0.0	10.03	133.6	
01/19/2012	21:03:30	43	0.0	9.83	133.6	
01/19/2012	21:04:00	46	0.0	10.02	133.6	
01/19/2012	21:04:30	31	0.0	10.27	133.6	

Well			Field	Job Start		Customer	Job Number
TWIN CREEK 12-6A1 TWIN CREEK 12-6A1			DIVIDE CREEK	Jan/19/2012		ENCANA	COBA-00069
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
01/19/2012	21:05:30	99	2.1	8.97	134.6		
01/19/2012	21:06:00	107	3.0	8.92	135.9		
01/19/2012	21:06:30	102	3.6	8.93	137.5		
01/19/2012	21:07:00	111	3.7	8.88	139.4		
01/19/2012	21:07:30	113	3.9	8.66	141.2		
01/19/2012	21:08:00	105	3.6	8.74	143.1		
01/19/2012	21:08:30	160	5.1	8.66	145.4		
01/19/2012	21:09:00	168	5.1	8.60	147.9		
01/19/2012	21:09:30	153	5.1	8.56	150.5		
01/19/2012	21:10:00	220	6.6	8.55	153.6		
01/19/2012	21:10:30	219	6.5	8.55	156.9		
01/19/2012	21:11:00	244	6.5	8.46	160.2		
01/19/2012	21:11:30	295	6.5	8.46	163.4		
01/19/2012	21:12:00	299	6.4	8.37	166.7		
01/19/2012	21:12:30	339	6.5	8.35	169.9		
01/19/2012	21:13:00	390	6.5	8.33	173.2		
01/19/2012	21:14:00	451	6.4	8.38	179.6		
01/19/2012	21:14:30	443	6.4	8.38	182.8		
01/19/2012	21:15:00	493	6.4	8.38	186.0		
01/19/2012	21:15:30	528	6.4	8.38	189.3		
01/19/2012	21:16:00	511	6.4	8.37	192.5		
01/19/2012	21:16:30	542	6.4	8.38	195.7		
01/19/2012	21:17:00	552	6.4	8.38	198.9		
01/19/2012	21:17:30	459	4.0	8.36	201.6		
01/19/2012	21:18:00	470	3.9	8.38	203.6		
01/19/2012	21:18:09					Cement to surface at 50bbbls away.	
01/19/2012	21:18:09					Total cement to surface is 35bbbls.	
01/19/2012	21:18:09	480	3.9	8.38	204.2		
01/19/2012	21:18:30	485	3.9	8.38	205.6		
01/19/2012	21:19:00	488	3.9	8.37	207.5		
01/19/2012	21:19:30	509	3.9	8.38	209.5		
01/19/2012	21:20:00	458	2.5	8.38	211.3		
01/19/2012	21:20:30	453	2.5	8.38	212.6		
01/19/2012	21:21:00	445	2.5	8.38	213.8		
01/19/2012	21:21:30	486	2.5	8.38	215.1		
01/19/2012	21:22:00	500	2.5	8.38	216.3		
01/19/2012	21:22:30	485	2.5	8.37	217.6		
01/19/2012	21:23:00	495	2.5	8.37	218.8		
01/19/2012	21:23:30	528	2.5	8.38	220.1		
01/19/2012	21:23:51					Bump Top Plug	
01/19/2012	21:23:51					End Displacement	
01/19/2012	21:23:51	1294	2.0	8.38	221.0		
01/19/2012	21:23:52					Bumped plug to 1260psi.	
01/19/2012	21:23:52	1294	2.0	8.38	221.0		
01/19/2012	21:23:53					Final displacement was 84bbbls.	
01/19/2012	21:23:53					Hold for 5 minutes.	
01/19/2012	21:23:53					Bleed off pressure.	
01/19/2012	21:23:53					Check floats.	
01/19/2012	21:23:53					Floats held.	
01/19/2012	21:23:53	1262	0.9	8.38	221.0		
01/19/2012	21:23:54					Got .5bbbls back.	
01/19/2012	21:23:54					Good returns for entire job.	
01/19/2012	21:23:54					Total of 35bbbls of cement to surface.	
01/19/2012	21:23:54	1263	0.9	8.38	221.0		

Well			Field	Job Start		Customer	Job Number
TWIN CREEK 12-6A1 TWIN CREEK 12-6A1			DIVIDE CREEK	Jan/19/2012		ENCANA	C08A-00069
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BSL	Message	
01/19/2012	21:24:30	1258	0.0	8.38	221.0		
01/19/2012	21:25:00	1257	0.0	8.38	221.0		
01/19/2012	21:25:30	1256	0.0	8.38	221.0		
01/19/2012	21:26:00	1255	0.0	8.38	221.0		
01/19/2012	21:26:30	1255	0.0	8.38	221.0		
01/19/2012	21:27:00	1255	0.0	8.38	221.0		
01/19/2012	21:27:30	1047	0.0	8.38	221.0		
01/19/2012	21:28:00	9	0.0	8.38	221.0		
01/19/2012	21:28:30	9	0.0	8.38	221.0		
01/19/2012	21:29:00	9	0.0	8.38	221.0		
01/19/2012	21:29:30	9	0.0	8.38	221.0		
01/19/2012	21:30:00	8	0.0	8.38	221.0		
01/19/2012	21:30:30	8	0.0	8.38	221.0		
01/19/2012	21:31:00	8	0.0	8.38	221.0		
01/19/2012	21:31:30	8	0.0	8.38	221.0		
01/19/2012	21:31:31					End Job	
01/19/2012	21:31:31	8	0.0	8.38	221.0		

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry 6.5	N2	Mud	Maximum Rate 8.0		Total Slurry 110.0	Mud	Spacer 20.0	N2
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum 3000	Final 1260	Average 300	Bump Plug to 1260	Breakdown	Type	Volume		Density
Avg. N2 Percent		Designed Slurry Volume 110.0 bbl		Displacement 85.0 bbl	Mix Water Temp 70 degF	Cement Circulated to Surface? <input checked="" type="checkbox"/>		Volume 35.0 bbl
						Washed Thru Perfs <input type="checkbox"/>		To
Customer or Authorized Representative ROBERT TATE			Schlumberger Supervisor Jeff Patterson/T. Willardson			Circulation Lost <input type="checkbox"/>		Job Completed <input checked="" type="checkbox"/>



Schlumberger

Service Quality Evaluation

Client:	ENCANA
Field:	DIVIDE CREEK
Rig:	NABORS M-15
Well:	TWIN CREEK 12-6A1
Service Line:	Cementing
Job Type:	9 5/8" SURFACE

Service Order #:	
Date:	Jan/19/2012
Operating Time:	0.0
Client Rep:	ENCANA
Schlumberger Engineer:	Jeff Patterson/T. Willardson
Schlumberger FSM:	

Main Objective:

To be completed by Company Rep. Please answer Y (Yes) or N (No) and add any comments below.

		Score	Yes / No				Result
1	HSE						
1a	Free of lost time injury and compliance with SLB and loc. spec. HSE practice	5	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
1b	Free of environmental spill or non-compliant discharge	5	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
1c	Free of RIRs	5	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
1d	Wellsite left clean	4	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
Sub-total							0%

2	Design / Preparation						
2a	Program incl. job simulation (CemCADE) & pump schedule / tool hydraulic calcs	3	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
2b	Equipment maintenance schedule completed / Green tagged	2	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
2c	All materials and equipment required for job/contingency checked & on location	2	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
2d	Safety / pre-job meeting conducted with all involved present	2	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
Sub-total							0%

3	Execution					
3a	Lost time < 30 mins	3	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3b	Equipment pressure tested succesfully	3	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3c	All key parameters monitored and recorded accurately (Pressure, Rate, Density)	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3d	Plugs / darts released and tested succesfully	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3e	Density variation met expectations	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3f	Personnel performed as per expectations	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3g	Equipment performed as per expectations	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3h	Job pumped per design	3	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3i	Did job start on time	2	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
3j	Free of Operational failures (screen out, Cementing Example, etc.)	3	yes	<input type="checkbox"/>	no <input checked="" type="checkbox"/>	0
					Sub-total	0%

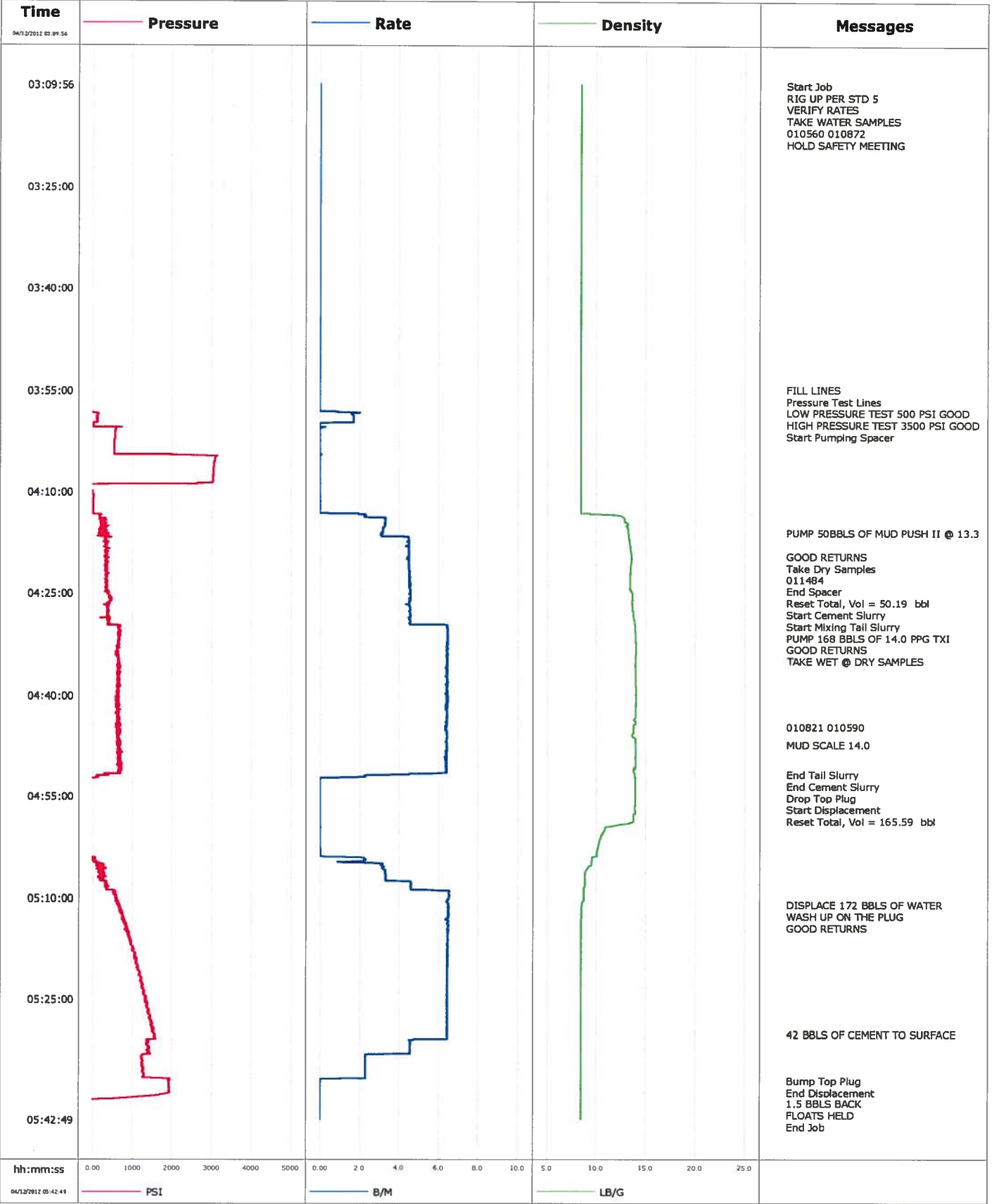
4	Evaluation						
4a	Main job objective achieved with no consequential non-productive time	10	yes	<input type="checkbox"/>	no	<input checked="" type="checkbox"/>	0
Sub-total							0%

Total0%

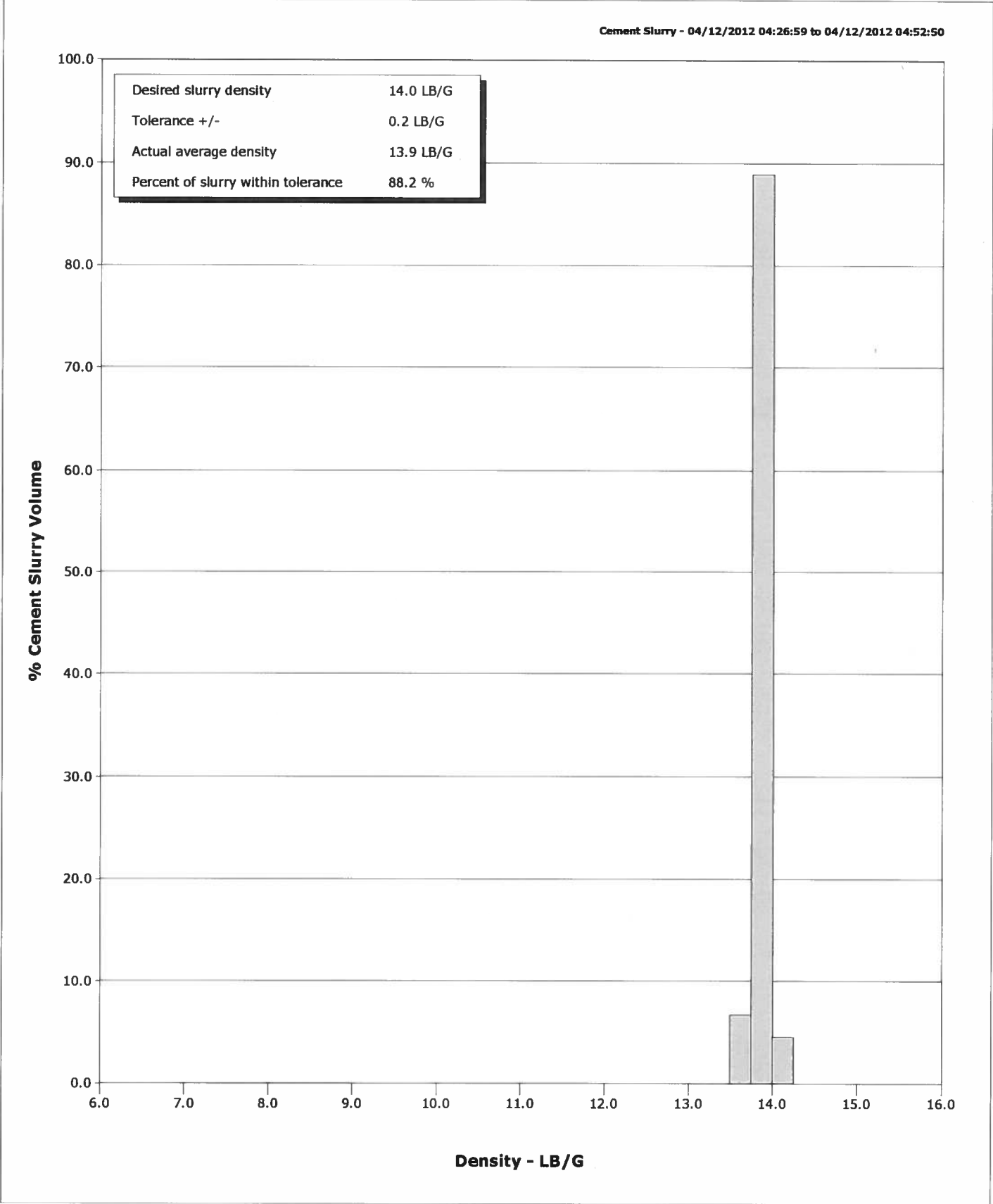
Comments: (Please include a brief explanation for a "NO" response and summarize any innovations attempted on this well.)

Client:	Schlumberger:
Client Signature:	Schlumberger Signature:

Well	TWIN CREEK 12-6A1	Client	ENCANA
Field	MAMM CREEK	SIR No.	715544
Engineer	DANT RYAN	Job Type	7" INTERMEDIATE
Country	United States	Job Date	04-11-2012



Well	TWIN CREEK 12-6A1	Client	ENCANA
Field	MAMM CREEK	SIR No.	715544
Engineer	DANT RYAN	Job Type	7" INTERMEDIATE
Country	United States	Job Date	04-11-2012



Schlumberger

Cementing Service Report

				Customer		ENCANA		Job Number		715544							
Well			Location (legal)			Schlumberger Location			Job Start								
TWIN CREEK 12-6A1 12-6A1			F12E						Apr/11/2012								
Field		Formation Name/Type		Deviation		Bit Size		Well MD		Well TVD							
MAMM CREEK		Shale		deg		8.8 in		4418.0 ft		4418.0 ft							
County		State/Province		BHP		BHST		BHCT		Pore Press. Gradient							
GARFIELD		Colorado		psi		140 degF		116 degF		lb/gal							
Well Master		API/UWI															
Rig Name		Drilled For		Service Via		Casing/Liner											
NABORS M15		Gas		Land		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread			
Offshore Zone		Well Class		Well Type		1170.0		9.6		36.0		K55		8RD			
		New		Development		4418.0		7.0		23.0		J55		8RD			
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe											
Bentonite		12.90 lb/gal		cP		T/D		Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Service Line		Job Type															
Cementing		7" INTERMEDIATE															
Max. Allowed Tub. Press		Max. Allowed Ann. Press		WH Connection		Perforations/Open Hole											
psi		psi		Single Cement head		Top, ft		Bottom, ft		shot/ft		No. of Shots		Total Interval			
						ft		ft						ft			
						ft		ft						Diameter			
						ft		ft						in			
Service Instructions CEMENT 7" INTERMEDIATE CASING PUMP 50BBLs OF MUD PUSH II @ 13.3 PPG PUMP 780 SKS (168 BBLs) 14.0 TXI YIELD OF 1.21 DISPLACE 172 BBLs OF FRESH WATER						Treat Down		Displacement		Packer Type		Packer Depth					
						Casing		173.0 bbl				ft					
						Tubing Vol.		Casing Vol.		Annular Vol.		Openhole Vol.					
						bbl		175.0 bbl		122.0 bbl		299.0 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		2640 psi		Shoe Type		Float		Squeeze Type									
Pipe Rotated		<input type="checkbox"/>		Pipe Reciprocated		<input type="checkbox"/>		Shoe Depth		4418.0 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		Arrived on Location		Leave Location		Collar Type		Float		Tail Pipe Depth		ft					
Apr/11/2012 19:00		Apr/11/2012 19:00		Apr/11/2012		Collar Depth		4377.0 ft		Sqr. Total Vol.		bbl					
Data		Time 24-hr clock		Treating Pressure PSI		Flow Rate B/M		Density LB/G		Volume BBL		Message					
04/12/2012		03:09:56		-39		0.0		8.46		4.0		Started Acquisition					
04/12/2012		03:09:58		-39		0.0		8.46		4.0		Start Job					
04/12/2012		03:10:01		-39		0.0		8.46		4.0		RIG UP PER STD 5					
04/12/2012		03:10:02		-39		0.0		8.46		4.0		VERIFY RATES					
04/12/2012		03:10:03		-39		0.0		8.46		4.0		010560 010872					
04/12/2012		03:10:05		-39		0.0		8.46		4.0		HOLD SAFETY MEETING					
04/12/2012		03:11:36		-39		0.0		8.46		4.0							
04/12/2012		03:13:16		-38		0.0		8.46		4.0							
04/12/2012		03:14:56		-38		0.0		8.46		4.0							
04/12/2012		03:16:36		-39		0.0		8.46		4.1							
04/12/2012		03:18:16		-38		0.0		8.46		4.1							
04/12/2012		03:19:56		-38		0.0		8.46		4.1							
04/12/2012		03:21:36		-39		0.0		8.46		4.1							
04/12/2012		03:23:16		-39		0.0		8.46		4.1							
04/12/2012		03:24:56		-38		0.0		8.46		4.2							
04/12/2012		03:26:36		-37		0.0		8.46		4.2							
04/12/2012		03:28:16		-37		0.0		8.46		4.2							
04/12/2012		03:29:56		-38		0.0		8.46		4.2							
04/12/2012		03:31:36		-37		0.0		8.46		4.2							
04/12/2012		03:33:16		-37		0.0		8.46		4.2							
04/12/2012		03:34:56		-37		0.0		8.46		4.3							



Well			Field	Job Start		Customer	Job Number
TWIN CREEK 12-6A1 12-6A1			MAMM CREEK	Apr/11/2012		ENCANA	715544
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
04/12/2012	03:38:16	-37	0.0	8.46	4.3		
04/12/2012	03:39:56	-37	0.0	8.46	4.3		
04/12/2012	03:41:36	-37	0.0	8.46	4.3		
04/12/2012	03:43:16	-38	0.0	8.46	4.4		
04/12/2012	03:44:56	-38	0.0	8.46	4.4		
04/12/2012	03:46:36	-38	0.0	8.46	4.4		
04/12/2012	03:48:16	-38	0.0	8.46	4.4		
04/12/2012	03:49:56	-39	0.0	8.46	4.4		
04/12/2012	03:51:36	-38	0.0	8.46	4.5		
04/12/2012	03:53:16	-39	0.0	8.46	4.5		
04/12/2012	03:54:52	-39	0.0	8.46	4.5	FILL LINES	
04/12/2012	03:54:56	-38	0.0	8.46	4.5		
04/12/2012	03:54:58	-39	0.0	8.46	4.5	Pressure Test Lines	
04/12/2012	03:55:01	-38	0.0	8.46	4.5	LOW PRESSURE TEST 500 PSI GOOD	
04/12/2012	03:55:06	-39	0.0	8.46	4.5	Start Pumping Spacer	
04/12/2012	03:56:36	-41	0.0	8.46	4.5		
04/12/2012	03:58:16	1	1.3	8.44	4.7		
04/12/2012	03:59:56	31	0.0	8.46	2.3		
04/12/2012	04:01:36	568	0.0	8.46	2.4		
04/12/2012	04:03:16	559	0.0	8.46	2.4		
04/12/2012	04:04:56	3095	0.0	8.46	2.4		
04/12/2012	04:06:36	3062	0.0	8.46	2.5		
04/12/2012	04:08:16	3046	0.0	8.46	2.5		
04/12/2012	04:09:56	13	0.0	8.46	2.5		
04/12/2012	04:11:36	23	0.0	8.46	2.6		
04/12/2012	04:13:16	45	0.4	8.46	2.6		
04/12/2012	04:14:56	222	3.3	13.20	7.2		
04/12/2012	04:16:10	271	3.2	13.21	11.2	PUMP 50BBLs OF MUD PUSH II @ 13.3	
04/12/2012	04:16:36	208	3.1	13.26	12.5		
04/12/2012	04:18:16	366	4.5	13.43	19.8		
04/12/2012	04:19:38	372	4.5	13.56	25.9	GOOD RETURNS	
04/12/2012	04:19:56	341	4.4	13.56	27.2		
04/12/2012	04:21:36	371	4.5	13.47	34.7		
04/12/2012	04:23:16	367	4.5	13.41	42.3		
04/12/2012	04:24:42	361	4.6	13.50	48.8	End Spacer	
04/12/2012	04:24:47	412	4.6	13.53	49.2	Reset Total, Vol = 50.19 bbl	
04/12/2012	04:24:56	427	4.6	13.60	49.9		
04/12/2012	04:26:36	425	4.5	13.61	57.5		
04/12/2012	04:26:59	381	4.5	13.65	59.2	Start Cement Slurry	
04/12/2012	04:27:03	401	4.6	13.65	59.5	PUMP 168 BBLs OF 14.0 PPG TXI	
04/12/2012	04:27:04	401	4.6	13.65	59.6	GOOD RETURNS	
04/12/2012	04:27:11	390	4.5	13.65	60.1	TAKE WET @ DRY SAMPLES	
04/12/2012	04:28:16	386	4.6	13.75	65.0		
04/12/2012	04:29:56	700	6.5	13.89	73.0		
04/12/2012	04:31:36	663	6.5	13.95	83.8		
04/12/2012	04:33:16	636	6.4	14.00	94.5		
04/12/2012	04:34:56	644	6.4	13.94	105.2		
04/12/2012	04:36:36	645	6.4	13.94	115.9		
04/12/2012	04:38:16	657	6.4	13.95	126.6		
04/12/2012	04:39:56	636	6.4	13.99	137.3		
04/12/2012	04:41:36	607	6.4	13.98	148.0		
04/12/2012	04:43:16	632	6.4	13.95	158.7		
04/12/2012	04:44:48	663	6.4	13.77	168.5	010821 010590	
04/12/2012	04:44:56	613	6.4	13.77	169.3		

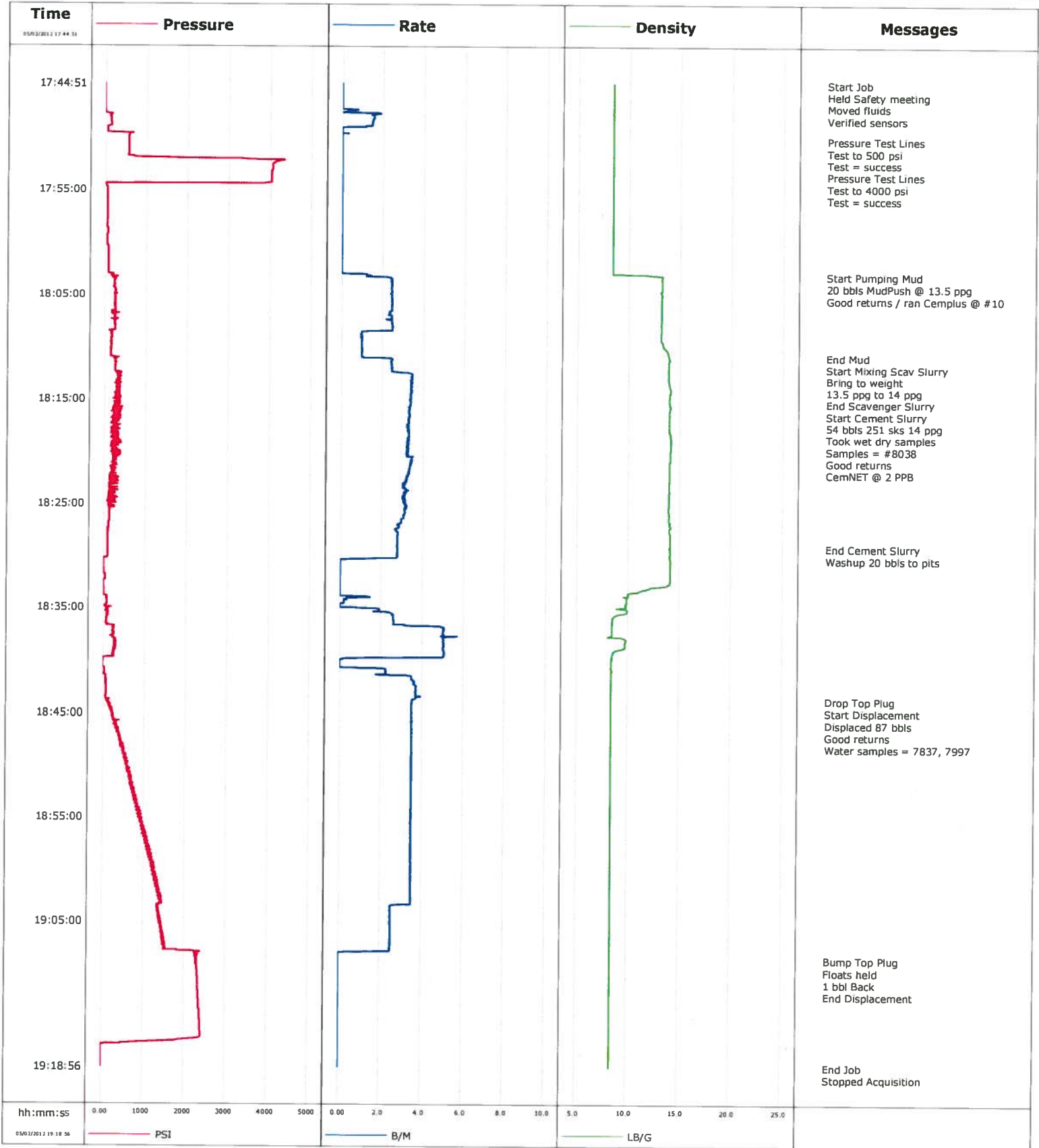
Well			Field	Job Start		Customer	Job Number
TWIN CREEK 12-6A1 12-6A1			MAMM CREEK	Apr/11/2012		ENCANA	715544
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
04/12/2012	04:47:30	640	6.4	13.94	185.8	MUD SCALE 14.0	
04/12/2012	04:48:16	670	6.4	13.96	190.7		
04/12/2012	04:49:56	732	6.4	13.93	201.3		
04/12/2012	04:51:36	675	6.4	13.82	211.9		
04/12/2012	04:52:50	-33	0.0	13.91	214.8	End Cement Slurry	
04/12/2012	04:52:58	-35	0.0	13.91	214.8	Drop Top Plug	
04/12/2012	04:52:59	-35	0.0	13.91	214.8	Start Displacement	
04/12/2012	04:53:07	-35	0.0	13.90	214.8	Reset Total, Vol = 165.59 bbl	
04/12/2012	04:53:16	-36	0.0	13.90	214.8		
04/12/2012	04:54:56	-24	0.0	13.88	214.8		
04/12/2012	04:56:36	-28	0.0	13.86	214.9		
04/12/2012	04:58:16	-28	0.0	13.77	214.9		
04/12/2012	04:59:56	-29	0.0	10.85	214.9		
04/12/2012	05:01:36	-28	0.0	10.33	214.9		
04/12/2012	05:03:16	-29	0.0	10.06	214.9		
04/12/2012	05:04:56	236	2.8	9.48	216.9		
04/12/2012	05:06:36	230	3.3	8.85	222.2		
04/12/2012	05:08:16	332	4.6	8.82	228.6		
04/12/2012	05:09:56	597	6.5	8.72	238.2		
04/12/2012	05:11:04	681	6.5	8.55	245.5	DISPLACE 172 BBLS OF WATER	
04/12/2012	05:11:05	681	6.5	8.55	245.6	WASH UP ON THE PLUG	
04/12/2012	05:11:10	662	6.5	8.54	246.2	GOOD RETURNS	
04/12/2012	05:11:36	699	6.5	8.52	249.0		
04/12/2012	05:13:16	801	6.4	8.47	259.8		
04/12/2012	05:14:56	908	6.5	8.45	270.6		
04/12/2012	05:16:36	983	6.5	8.45	281.3		
04/12/2012	05:18:16	1071	6.4	8.45	292.1		
04/12/2012	05:19:56	1120	6.4	8.45	302.8		
04/12/2012	05:21:36	1197	6.4	8.45	313.6		
04/12/2012	05:23:16	1252	6.4	8.45	324.3		
04/12/2012	05:24:56	1369	6.4	8.45	335.0		
04/12/2012	05:28:16	1494	6.4	8.45	356.4		
04/12/2012	05:29:56	1541	6.4	8.45	367.1		
04/12/2012	05:30:13	1562	6.4	8.45	369.0	42 BBLS OF CEMENT TO SURFACE	
04/12/2012	05:31:36	1412	4.6	8.45	377.0		
04/12/2012	05:33:16	1269	2.4	8.45	384.5		
04/12/2012	05:34:56	1248	2.3	8.45	388.4		
04/12/2012	05:36:36	1276	2.3	8.45	392.2		
04/12/2012	05:37:10	1949	0.0	8.45	392.9	Bump Top Plug	
04/12/2012	05:37:12	1924	0.0	8.46	392.9	End Displacement	
04/12/2012	05:38:16	1938	0.0	8.45	392.9		
04/12/2012	05:39:56	-20	0.0	8.46	392.9		
04/12/2012	05:40:26	-34	0.0	8.46	392.9	1.5 BBLS BACK	
04/12/2012	05:41:36	-33	0.0	8.46	392.9		

Well	Field	Job Start	Customer	Job Number
TWIN CREEK 12-6A1 12-6A1	MAMM CREEK	Apr/11/2012	ENCANA	715544

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl			
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2	
2.7			6.5	393.9	0.0	49.8		
Treating Pressure Summary, psi					Breakdown Fluid			
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density	
3154	-34	840	1900			bbl	lb/gal	
Avg. N2 Percent	Designed Slurry Volume		Displacement	Mix Water Temp	Cement Circulated to Surface?	Volume		
%	168.0 bbl		178.0 bbl	60 degF	<input checked="" type="checkbox"/>	42.0 bbl		
Customer or Authorized Representative			Schlumberger Supervisor		Washed Thru Perfs			
					<input type="checkbox"/> To			
TERRY DUNN			DANT RYAN		Circulation Lost			
					<input type="checkbox"/> Job Completed			
					<input checked="" type="checkbox"/>			

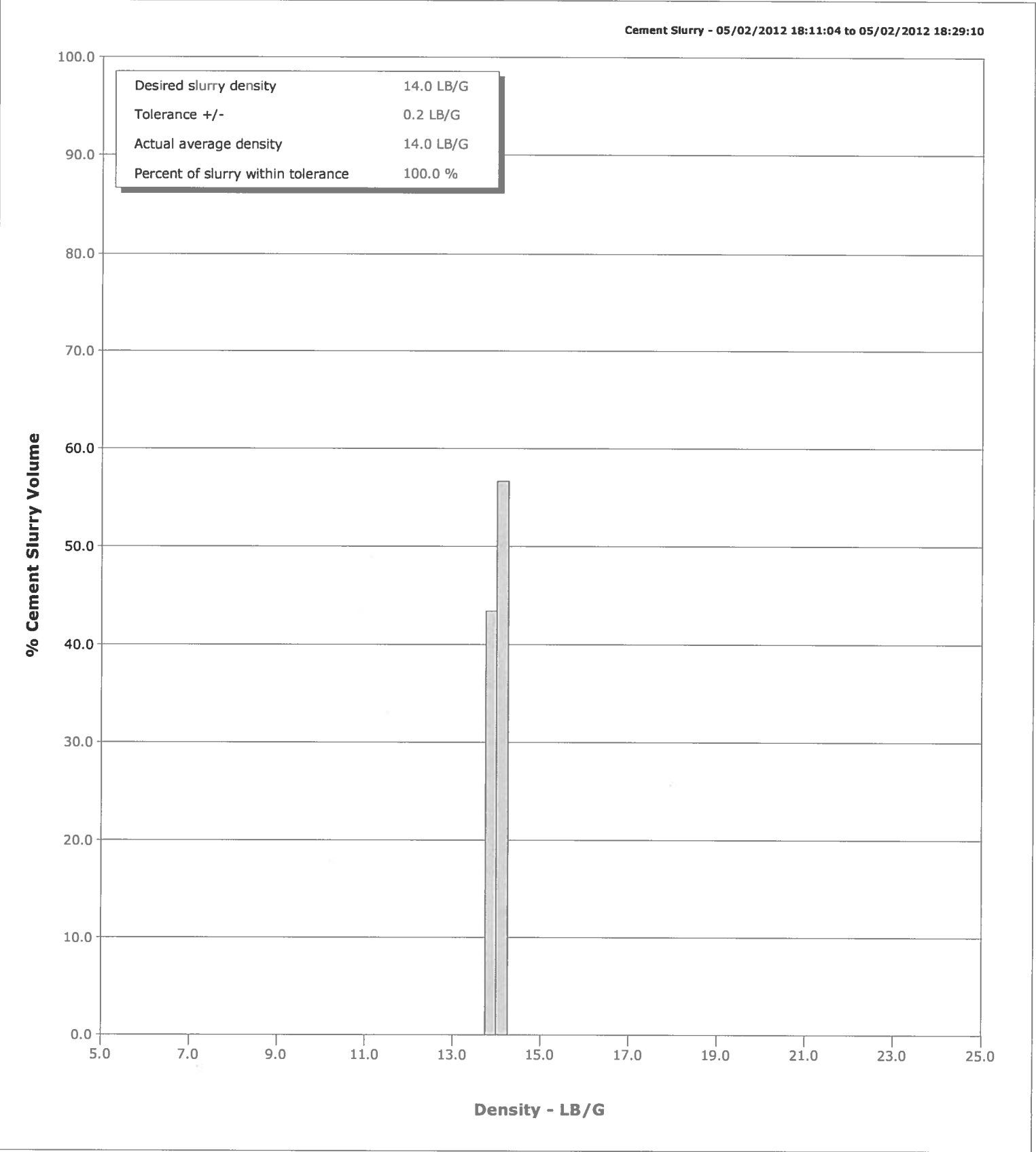
Well	Twin Creek 12-6A1	Client	Encana
Field	S. Parachute	SIR No.	C62J-00002
Engineer	Russell Bolding / Peavey	Job Type	4 1/2 Production
Country	United States	Job Date	05-02-2012





# Schlumberger Cementing Qa/Qc Density Report

Well	Twin Creek 12-6A1	Client	Encana
Field	S. Parachute	SIR No.	C62J-00002
Engineer	Russell Bolding / Peavey	Job Type	4 1/2 Production
Country	United States	Job Date	05-02-2012





Cementing Service Report

				Customer Encana			Job Number C62J-00002								
Well Twin Creek 12-6A1 Twin Creek 12-6A1			Location (legal) Nabors M15		Schlumberger Location			Job Start May/02/2012							
Field S. Parachute		Formation Name/Type		Deviation		Bit Size 5.5 in		Well MD 5652.0 ft		Well TVD 5652.0 ft					
County Grafield		State/Province Colorado		BHP		BHST 160 degF		BHCT 138 degF		Pore Press. Gradient					
Well Master		API/UWI													
Rig Name M15		Drilled For Gas		Service Via		Casing/Liner									
						Depth, ft		Size, in		Weight, lb/ft		Grade		Thread	
Offshore Zone		Well Class New		Well Type New Well Completion		5652.0		4.500		11.6		n-80		BUTT	
						0.0		0.000		0.0					
Drilling Fluid Type		Max. Density		Plastic Viscosity		Tubing/Drill Pipe									
						Depth,		Size,		Weight,		Grade		Thread	
Service Line Cementing		Job Type 4 1/2 Production													
Max. Allowed Tub. Press		Max. Allowed Ann. Press		WH Connection 4 1/2		Perforations/Open Hole									
						Top,		Bottom,				No. of Shots		Total Interval	
Service Instructions Production														Diameter	
Treat Down Casing				Displacement 87.0 bbl				Packer Type None				Packer Depth			
Tubing Vol.				Casing Vol. 88.0 bbl				Annular Vol. 42.0 bbl				Openhole Vol. 208.0 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 4122 psi						Shoe Type Guide			Squeeze Type						
Pipe Rotated <input type="checkbox"/>		Pipe Reciprocated <input type="checkbox"/>				Shoe Depth 5652.0 ft			Tool Type						
No. Centralizers 11		Top Plugs 1		Bottom Plugs 0		Stage Tool Type			Tool Depth						
Cement Head Type Single						Stage Tool Depth			Tail Pipe Size						
Job Scheduled For May/02/2012		Arrived on Location May/02/2012		Leave Location May/02/2012		Collar Type Diff-Fill			Tail Pipe Depth						
						Collar Depth 5606.0 ft			Sqz. Total Vol.						
Date	Time 24-hr clock	Treating Pressure PSI		Flow Rate B/M		Density LB/G		Volume BBL		Message					
05/02/2012	16:11:48									Started Acquisition					
05/02/2012	17:44:51	-4		0.0		8.45		0.0							
05/02/2012	17:44:53									Start Job					
05/02/2012	17:44:53	-5		0.0		8.45		0.0							
05/02/2012	17:44:58									Held Safety meeting					
05/02/2012	17:44:58									Moved fluids					
05/02/2012	17:44:58									Verified sensors					
05/02/2012	17:44:58	-4		0.0		8.45		0.0							
05/02/2012	17:45:08	-5		0.0		8.45		0.0							
05/02/2012	17:46:48	-6		0.0		8.45		0.0							
05/02/2012	17:48:28	142		1.5		8.45		1.4							
05/02/2012	17:50:08	566		0.0		8.46		2.2							
05/02/2012	17:50:13									Pressure Test Lines					
05/02/2012	17:50:13	565		0.0		8.45		2.2							
05/02/2012	17:50:18									Test to 500 psi					
05/02/2012	17:50:18	564		0.0		8.46		2.2							
05/02/2012	17:50:20									Test = success					
05/02/2012	17:50:20	564		0.0		8.45		2.2							
05/02/2012	17:51:48	696		0.0		8.46		2.2							
05/02/2012	17:52:17									Pressure Test Lines					
05/02/2012	17:52:17	4175		0.0		8.45		2.2							

Well Twin Creek 12-6A1 Twin Creek 12-6A1			Field S. Parachute		Job Start May/02/2012	Customer Encana	Job Number C62J-00002
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message	
05/02/2012	17:52:19	4157	0.0	8.45	2.2		
05/02/2012	17:52:21					Test = success	
05/02/2012	17:52:21	4140	0.0	8.45	2.2		
05/02/2012	17:53:28	4044	0.0	8.45	2.2		
05/02/2012	17:55:08	51	0.0	8.46	2.2		
05/02/2012	17:56:48	51	0.0	8.46	2.2		
05/02/2012	17:58:28	52	0.0	8.46	2.2		
05/02/2012	18:00:08	54	0.0	8.45	2.2		
05/02/2012	18:01:48	88	0.0	8.45	2.2		
05/02/2012	18:03:09					Start Pumping Mud	
05/02/2012	18:03:09	161	1.4	13.00	2.4		
05/02/2012	18:03:10					20 bbls MudPush @ 13.5 ppg	
05/02/2012	18:03:10	167	1.4	13.16	2.4		
05/02/2012	18:03:11					Good returns / ran Cemplus @ #10	
05/02/2012	18:03:11	167	1.5	13.16	2.4		
05/02/2012	18:03:28	280	2.4	13.19	3.0		
05/02/2012	18:05:08	272	2.5	13.19	7.1		
05/02/2012	18:06:48	331	2.4	13.18	11.1		
05/02/2012	18:08:28	118	1.3	13.17	15.2		
05/02/2012	18:10:08	154	1.0	13.57	16.8		
05/02/2012	18:10:53					End Mud	
05/02/2012	18:10:53	154	1.0	13.90	17.6		
05/02/2012	18:10:58					Start Mixing Scav Slurry	
05/02/2012	18:10:58	288	1.1	13.91	17.7		
05/02/2012	18:10:59					Bring to weight	
05/02/2012	18:10:59					13.5 ppg to 14 ppg	
05/02/2012	18:10:59	288	1.8	13.91	17.7		
05/02/2012	18:11:03					End Scavenger Slurry	
05/02/2012	18:11:03	232	2.4	13.91	17.8		
05/02/2012	18:11:04					Start Cement Slurry	
05/02/2012	18:11:04	218	2.4	13.91	17.9		
05/02/2012	18:11:05					54 bbls 251 sks 14 ppg	
05/02/2012	18:11:05	218	2.5	13.94	17.9		
05/02/2012	18:11:06					Took wet dry samples	
05/02/2012	18:11:06					Samples = #8038	
05/02/2012	18:11:06	240	2.5	13.96	17.9		
05/02/2012	18:11:07					Good returns	
05/02/2012	18:11:07					CemNET @ 2 PPB	
05/02/2012	18:11:07	262	2.5	13.96	18.0		
05/02/2012	18:11:48	274	2.5	13.87	19.7		
05/02/2012	18:13:28	348	3.4	13.95	24.8		
05/02/2012	18:15:08	296	3.4	13.99	30.5		
05/02/2012	18:16:48	273	3.3	13.99	36.1		
05/02/2012	18:18:28	260	3.3	14.07	41.5		
05/02/2012	18:20:08	186	3.2	14.08	47.0		
05/02/2012	18:21:48	188	3.3	14.02	52.6		
05/02/2012	18:23:28	126	3.1	14.00	57.9		
05/02/2012	18:25:08	134	3.2	13.97	63.1		
05/02/2012	18:26:48	119	2.9	14.07	68.3		
05/02/2012	18:28:28	106	2.8	14.05	73.0		
05/02/2012	18:29:10					End Cement Slurry	
05/02/2012	18:29:10	106	2.8	14.05	74.9		
05/02/2012	18:29:13					Washup 20 bbls to pits	
05/02/2012	18:29:13	105	2.8	14.05	75.0		

Well			Field		Job Start		Customer		Job Number	
Twin Creek 12-6A1 Twin Creek 12-6A1			S. Parachute		May/02/2012		Encana		C62J-00002	
Date	Time 24-hr clock	Treating Pressure PSI	Flow Rate B/M	Density LB/G	Volume BBL	Message				
05/02/2012	18:31:48	45	0.0	14.10	77.9					
05/02/2012	18:33:28	20	0.0	10.51	77.9					
05/02/2012	18:35:08	80	1.9	9.99	78.5					
05/02/2012	18:36:48	250	5.0	8.52	82.9					
05/02/2012	18:38:28	308	5.0	9.76	91.3					
05/02/2012	18:40:08	0	0.0	8.47	97.9					
05/02/2012	18:41:48	72	3.5	8.45	100.7					
05/02/2012	18:43:28	73	3.9	8.45	106.8					
05/02/2012	18:43:51					Drop Top Plug				
05/02/2012	18:43:51	89	3.6	8.45	108.2					
05/02/2012	18:43:52					Start Displacement				
05/02/2012	18:43:52	100	3.5	8.45	108.3					
05/02/2012	18:43:53					Displaced 87 bbls				
05/02/2012	18:43:53	123	3.5	8.45	108.3					
05/02/2012	18:43:54					Good returns				
05/02/2012	18:43:54					Water samples = 7837, 7997				
05/02/2012	18:43:54	123	3.5	8.45	108.4					
05/02/2012	18:45:08	228	3.5	8.45	112.7					
05/02/2012	18:46:48	355	3.5	8.45	118.6					
05/02/2012	18:48:28	469	3.5	8.45	124.5					
05/02/2012	18:50:08	595	3.5	8.45	130.3					
05/02/2012	18:51:48	726	3.5	8.45	136.2					
05/02/2012	18:53:28	830	3.5	8.45	142.1					
05/02/2012	18:55:08	981	3.5	8.45	147.9					
05/02/2012	18:56:48	1021	3.5	8.45	153.8					
05/02/2012	18:58:28	1123	3.5	8.45	159.6					
05/02/2012	19:00:08	1273	3.5	8.45	165.4					
05/02/2012	19:01:48	1375	3.5	8.45	171.3					
05/02/2012	19:03:28	1397	2.7	8.45	177.1					
05/02/2012	19:05:08	1440	2.5	8.45	181.3					
05/02/2012	19:06:48	1505	2.5	8.45	185.6					
05/02/2012	19:08:28	2311	0.0	8.45	188.3					
05/02/2012	19:08:39					Bump Top Plug				
05/02/2012	19:08:39	2294	0.0	8.45	188.3					
05/02/2012	19:08:41					Floats held				
05/02/2012	19:08:41					1 bbl Back				
05/02/2012	19:08:41	2304	0.0	8.45	188.3					
05/02/2012	19:08:43					End Displacement				
05/02/2012	19:08:43	2310	0.0	8.45	188.3					
05/02/2012	19:10:08	2333	0.0	8.45	188.3					
05/02/2012	19:11:48	2359	0.0	8.45	188.3					
05/02/2012	19:13:28	2382	0.0	8.45	188.3					
05/02/2012	19:15:08	2402	0.0	8.45	188.3					
05/02/2012	19:16:48	37	0.0	8.45	188.3					
05/02/2012	19:18:28	3	0.0	8.45	188.3					
05/02/2012	19:18:54					End Job				
05/02/2012	19:18:54	2	0.0	8.45	188.3					



Well	Field	Job Start	Customer	Job Number
Twin Creek 12-6A1 Twin Creek 12-6A1	S. Parachute	May/02/2012	Encana	C62J-00002

Post Job Summary

Average Pump Rates, bbl/min					Volume of Fluid Injected, bbl				
Slurry	N2	Mud	Maximum Rate	Total Slurry	Mud	Spacer	N2		
3.0		2.0	5.7	54.3	20.1	2.0			
Treating Pressure Summary, psi					Breakdown Fluid				
Maximum	Final	Average	Bump Plug to	Breakdown	Type	Volume	Density		
4339	2	688	1373						
Avg. N2 Percent		Designed Slurry Volume		Displacement 87.0 bbl		Mix Water Temp		Cement Circulated to Surface?	Volume
								Washed Thru Perfs	To
Customer or Authorized Representative Tony Ketterling				Schlumberger Supervisor Russell Bolding / Peavey				Circulation Lost	Job Completed
								-	-

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 01/20/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 2
Spud Date : 01/18/2012 Days From Spud : 2		Depth At 06:00 : 1170	
Morning Operations : Rig Released to the Twin Creek 12-3D1 well @23:00 1/19/2012		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1561 Days without a Lost Time incident	
7:00 AM	Directional Drill 12 1/4" Hole F/ 1011' T/1170'= 159' in 1 hr at 159 ft/hr	4 Days without a Medical Aid or Restricted Work incident	
7:30 AM	Service rig	111 Days without a Recordable Spill	
8:30 AM	Circ & Cond Hole For Wiper Trip	370 Days without a Reportable Quantity Spill	
11:00 AM	TOOH - Wiper Trip	xxxx gals fuel used past 24hrs	
3:00 PM	Lay Down Batteries , & 12 1/4" PDC bit	16216 gals fuel on Location,	
3:30 PM	HTPSM W/ Franks	Rotating Hours on HWDP = 26 Hrs	
7:00 PM	Rig Up Frank's Casing tools & Run 25 Jts of 9 5/8" 36# J55 LT&C as Follows: Casing Shoe Set at 1148' MD / 1140'TVD - Float Collar at 1100' MD 1093' TVD - Ran 13 Central izersF/ 1121' MD t/ 72' MD	Total Fluid Losses Last 24 hrs =0 bbls seepage	
8:00 PM	C&C ,R/D Franks casing tools,PJSA with Schlumberger.	4 Mud Loggers on Location	
9:30 PM	R/U Schlumberger tools,run 20 bbls water spacer,cement w/15.8 G cement tail,532 sks,1.16 yeild,Dispalace w/85.5 water.bump plug 500 over hold for 5 minutes,float held,35 bbls return to surface.	1 Mud Engineer on Location - Mike Lindell	
11:00 PM	Rig down landing joint,& gonzo pump,get ready to walk rig to Twin Creek 12-3D1,Rig Release @ 23:00.	Raz Parras On Location as Night Supervisor	
		Pre - Spud Notification for the 12-3D1 sent 1/19/12	

Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 01/19/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 1
Spud Date : 01/18/2012 Days From Spud : 1		Depth At 06:00 : 1011	
Morning Operations : Rotary drill & slide @ 1011' - Surface TD @ 1170'		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1560 Days without a Lost Time incident	
7:30 AM	PJSA ,Pre walk inspection,Skid Rig walk rig to Twin Creek 12-6A1	3 Days without a Medical Aid or Restricted Work incident	
9:30 AM	Change out Gonzo Dredge pump & rig up Gonzo	110 Days without a Recordable Spill	
10:30 AM	Service Rig,Grease wash pipe,blow thru mud lines,check adjust brakes,ck com,fom,bom,hoist lines.	369 Days without a Reportable Quantity Spill	
11:30 AM	P/U BHA,install master bushing,P/U reamer assy.,fill pipe break cir.	1730 gals fuel used past 24hrs	
4:00 PM	Rotary drill F/ 72' to/ 163' to make room for Dir. BHA	16216 gals fuel on Location,	
6:30 PM	C&C Constantly to clean hole & letting shakers clean out.	Rotating Hours on HWDP = 25 Hrs	
8:00 PM	Work tight spot,TOOH,& blow back mud lines.	Total Fluid Losses Last 24 hrs =0 bbls seepage	
9:00 PM	Service rig,adjust brakes,grease wash pipe,top drive inspection.	4 Mud Loggers on Location	
6:00 AM	Rotary drill & slide F/ 163' to 1011' = 848' in 8.5 hrs @ 99.8 ft/hr		

Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 01/18/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 0
Spud Date : 01/18/2012 Days From Spud : 0		Depth At 06:00 :	
Morning Operations :		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description		

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/08/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 4
Spud Date : 01/18/2012 Days From Spud : 81		Depth At 06:00 : 2826	
Morning Operations : Drilling @c 2933'		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1639 Days without a Lost Time incident	
7:30 AM	Pick up BHA	24 hr losses 0 bbls Total losses 0 bbls	
8:30 AM	Trip in the hole, blow air back through mud line making sure it was free, install rotating rubber	82 Days without a Medical Aid or Restricted Work incident	
10:30 AM	Down time mud system tried to pump through BHA and check for leaks on flow line and BOP, found that the valves on flow line were froze, hole to remove flow line	77 Days without a Recordable Spill	
11:00 AM	Trip in the hole from 194' to 1021'	447 Days without a Reportable Quantity Spill	
1:00 PM	Washed and ream cement tagged cement @ 1085', float @ 1102' and shoe @ 1146' wash to 1170'	1225 gals fuel used past 24hrs	
1:30 PM	Drill from 1170' to 1196' circulated bottoms up	Bradenhead Pressures on the F12E pad as Follows:	
2:00 PM	FIT held for 15 min at 166 psi TVD 141 EMW 13ppg PMW 10.2ppg PASS	Twin Creek 12-5D1=40psi, 12-5A1=0psi, 12-5A2 90psi,	
3:00 PM	Drill from 1196' to 1306'	12-4D1 0 psi 12-4A1 100psi, 12-6C1 30psi, 12-3D2 20psi,	
3:30 PM	Service rig	12-3D1 0psi	
6:00 PM	Drill from 1306' to 1592', 15k wob, 65 rpm, 120 spm, 9.9ppg mud wt	Notification to COGCC for 24 BOP/ FIT Chuck Brown on	
6:30 PM	Service rig	location to witness FIT	
6:00 AM	Drill from 1592 to 2826' 15-18k wob, building mwt from 9.9ppg to 10.8ppg 502 gpm		

Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/07/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 3
Spud Date : 01/18/2012 Days From Spud : 80		Depth At 06:00 : 5477	
Morning Operations : Picking up BHA		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1638 Days without a Lost Time incident	
1:00 PM	Walk rig	24 hr losses 0 bbls Total losses 0 bbls	
1:30 PM	Remove cellar cover and pump out cellar	81 Days without a Medical Aid or Restricted Work incident	
2:00 PM	Nipple up BOP set BOP on well head	76 Days without a Recordable Spill	
2:30 PM	Rig up loggers	446 Days without a Reportable Quantity Spill	
3:00 PM	Run CBL loggers TD 1053' top of cement 100'	??? gals fuel used past 24hrs	
5:30 PM	Nipple up BOP	Bradenhead Pressures on the F12E pad as Follows:	
12:00 AM	Test BOP against test plug, annular to 250psi/ 2500psi, Manifold and pipe/ blinds to 250psi/ 5000psi, Casing to 1500 psi for 30 min	Twin Creek 12-5D1=40psi, 12-5A1=0psi, 12-5A2 90psi,	
12:30 AM	Install wear bushing	12-4D1 0 psi 12-4A1 100psi, 12-6C1 30psi, 12-3D2 20psi	
3:30 AM	Finish nipping up BOP change sock on flow line,	Notification to COGCC for 24 BOP/ FIT	
4:00 AM	Clean out mud system filled pill tank up with water, caustic and biocide to flush out all gun lines		
4:30 AM	Rig service		
6:00 AM	Pick up BHA		

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)	API # : 05045203940000	Operations Date : 04/09/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM	Area : Mamm Creek	Report # : 5
Spud Date : 01/18/2012	Days From Spud : 82	Depth At 06:00 : 3869
Morning Operations : Circulating and raising mud density to 12.1.		Estimated Total Depth : 5477

Time To	Description	Remarks :
7:30 AM	Drill from 2,826' to 2,921' with 120 spm, 10.8 ppg mud weight. SPR #1 20/183, 30/256, 40/350 @ 2,921'. SPR #2 20/166, 30/244, 40/352.	1640 Days without a Lost Time incident 24 hr losses 0 bbls      Total losses 0 83 Days without a Medical Aid or Restricted Work incident
8:00 AM	Slide from 2,921' to 2,938'.	78 Days without a Recordable Spill
11:00 AM	Rotary drill from 2,938' to 3,206'. BOP drill held, well secure in 1 min. 20 seconds. Held simulation with Bladestone helmets.	448 Days without a Reportable Quantity Spill 1225 gals fuel used past 24hrs
11:30 AM	Slide from 3,206' to 3,216'.	Bradenhead Pressures on the F12E pad as Follows: Twin Creek 12-5D1=40psi, 12-5A1=0psi, 12-5A2 90psi, 12-4D1 0 psi 12-4A1 100psi, 12-6C1 30psi, 12-3D2 20psi, 12-3D1 0psi
1:30 PM	Slide and rotate from 3,206' to 3,395'. Take Slow pump rates.	Notification to COGCC for 24 BOP/ FIT    Chuck Brown on location to witness FIT
2:00 PM	Rig Service. Change out shaker screenand rubber on shaker deck.	
6:00 PM	Slide and rotate from 3,395' to 3,616'.	
6:30 PM	Rig Service. Top drive inspection.	
10:00 PM	Rotary drill from 3,616' to 3,869'. SPR #1 20/200, 30/295, 40/405, #2 20/200, 30/300, 40/435.	
12:30 AM	Well Control. Took 6 bbl gain. Shut down pumps, spaced out and shut in well. Total gain was 18bbls. Shut in at 21:53. SIDPP = 224, SICP = 390. Drillers method Step 1 pumped 3100 str.	
1:30 AM	Shut well back in to monitor pressures. Checking every 5 minutes. Fill out Kill Sheet #2. SIDPP = 199, SICP = 299.	
4:00 AM	Circulated a surface to surface while attempting to increase mud weight to 12.1. Pumped 5600 strokes. Mud on back side only increased to 11.7#/gal.	
6:00 AM	Continue circulating while increasing mud weight. Mud is returning gas cut ( 12.1 in/ 11.7 out. Begin raising mud weight to 12.2.	

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/11/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 7
Spud Date : 01/18/2012 Days From Spud : 84		Depth At 06:00 : 4463	
Morning Operations : Pull Wear Bushing.		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1642 Days without a Lost Time incident	
10:00 AM	Dir Drill f/ 4248' to 4463. (215' @ 53.8 fph).	24 hr losses 0 bbls	Total losses 0
10:00 AM	Wait on orders from Denver office to continue drilling or run 7" intermediate casing dropped mud wt from 12.6ppg to 12.4 ppg decided to run 7" casing	bbls	
		85 Days without a Medical Aid or Restricted Work incident	
3:00 PM	Circulate raised mud wt from 12.4pp to 12.6ppg monitored well	80 Days without a Recordable Spill	
6:30 PM	15 min flow check, well still flow @ 5 bls hr, decided to circulate and building mud wt to 12.9ppg	450 Days without a Reportable Quantity Spill	
8:30 PM	Perform 30 min Flow Check; Wiper Trip 10 stds - Hole good. HOLE FILL: Calc: 13.2 bbls, Act: 13.6 bbls.	1414 gals fuel used past 24hrs	
12:00 AM	Circ Btms Up after Wiper trip; Max Gas: 446 units w/ lazy 5' flare f/ 1500 strokes to Btms Up. Circ & pump 2 x 15 bbl sweeps to clean hole. Circ & Cond mud f/ csg.	Bradenhead Pressures on the F12E pad as Follows:	
4:00 AM	Flow Check 30 mins on Bttm; Pull 5 stds and Flow Check - No Flow. Trip out of hole to run Csg, Flow Check ea 10 stds. HOLE FILL: Calc: 39.2 bbls, Act: 33.8 bbls.	Twin Creek 12-5D1=80psi, 12-5A1=0psi, 12-5A2 10psi,	
5:30 AM	Handle & L/D DIR BHA & Bit.	12-4D1 110 psi 12-4A1 120psi, 12-6C1 80psi, 12-3D2	
6:00 AM	Pull Wear Bshg.	120psi, 12-3D1 0psi	
		Notification to COGCC for 24 BOP/ FIT Chuck Brown on location to witness FIT	
		NOTE: Gas Detector reading correct	

Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/10/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 6
Spud Date : 01/18/2012 Days From Spud : 83		Depth At 06:00 : 4248	
Morning Operations : Dir Drlg @ 4248'.		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1641 Days without a Lost Time incident	
12:00 PM	Well Control. Circulate out kick.	24 hr losses 0 bbls	Total losses 0
12:30 PM	Stop circulating. Closed choke and monitored pressures for 15 minutes. No buildup in pressure. Flow check. Well flowing slightly, gained 1.7 bbls in 15 minutes. Resume circulating, will build mud from 12.2 to 12.3 ppg.	bbls	
		84 Days without a Medical Aid or Restricted Work incident	
4:00 PM	After circulating 15 minutes, had 15 bbl pit gain. shut in well, monitored pressures, prepared kill sheet. Circulated out kick.	79 Days without a Recordable Spill	
6:30 PM	Circulate at 50 spm, increasing mud density to 12.6ppg in, 12.4 ppg out. Flow Check No Flow. Check Floor/Board/Crown Savers.	449 Days without a Reportable Quantity Spill	
9:00 PM	Dir Drill f/ 3869' to 3969'. (100' @ 40 fph). Held BOP Drill: Well secure in 42 secs.	1165 gals fuel used past 24hrs	
1:30 AM	Shut well in due to 15bbl Pit Gain. SIDPP: 72 psi, SICP: 94 psi. Circ out influx @ 40 spm, allow mud wts to stabilize; IN: 12.6ppg, OUT: 12.3ppg. Flow Check: No Flow. Circ Btms up down flowline through Gas Buster, MWO to 12.4 ppg.	Bradenhead Pressures on the F12E pad as Follows:	
2:30 AM	Dir Drill f/ 3969' to 4059'. (90' @ 90 fph). Increase Mud Wt to 12.7 ppg w/ OUT: 12.5+ - 12.6ppg.	Twin Creek 12-5D1=80psi, 12-5A1=0psi, 12-5A2 10psi,	
3:00 AM	Rig Service; Service Top Drive and inspect same; Grease Black jack, Drawworks. Inspect brakes, hoisting lines and floor valves.	12-4D1 80 psi 12-4A1 140psi, 12-6C1 80psi, 12-3D2 0psi,	
6:00 AM	Dir Drill f/ 4059' to 4248'. (189' @ 63 fph).	12-3D1 0psi	
		Notification to COGCC for 24 BOP/ FIT Chuck Brown on location to witness FIT	
		NOTE: Gas Detector readings are incorrect	

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)	API # : 05045203940000	Operations Date : 04/12/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM	Area : Mamm Creek	Report # : 8
Spud Date : 01/18/2012	Days From Spud : 85	Depth At 06:00 : 4463
Morning Operations : R/D cementers and Flush surface lines of cement.		Estimated Total Depth : 5477

Time To	Description	Remarks :
6:30 AM	Pull Wear Bushing.	1643 Days without a Lost Time incident 24 hr losses 0 bbls      Total losses 0 bbls
9:00 AM	Held PJSM; Change out 4-1/2" Pipe Rams to 7" Csg Rams.	86 Days without a Medical Aid or Restricted Work incident
10:30 AM	Held PJSM; R/U & Press Test 7" Csg Ramsto LOW: 250psi f/ 5mins and HIGH: 5000psi f/ 10mins.	81 Days without a Recordable Spill 451 Days without a Reportable Quantity Spill 825 gals fuel used past 24hrs
11:00 AM	Held PJSM and R/U Frank's Csg running equip.	Bradenhead Pressures on the F12E pad as Follows:
5:30 PM	Run 7" Int Csg to 2747', Threadlock ES, Shoe Jnt, FC and 1st Jnt above (Torq: 3900 ft.lbs). Ran total 66 jnts to 2747' (torq: 3130 ft.lbs).	Twin Creek 12-5D1=90psi, 12-5A1=0psi, 12-5A2 10psi, 12-4D1 130 psi 12-4A1 150psi, 12-6C1 80psi, 12-3D2 140psi, 12-3D1 0psi Notification to COGCC for 24 Csg/Cmtg and P/T for 12-6D1.
7:00 PM	Had storm blow in, lightning strike on rig that shut down pumps to high sensor overload on pumps, work with Pace to reset.	
9:00 PM	Circulate Btms up and asses damage caused by lightning strike. Confirm "go ahead" plan w/ office.	
10:00 PM	Run 19 Jnts 7" Csg to 3755'.	
11:00 PM	Circ Btms up through choke @ 40spm. Max Flare: 3 to 5' lazy flare w/ Mud Cut to 12.4ppg.	
1:30 AM	Cont to run 7" Int Csg to btm. Ran total of 105 Jnts, 7", 23#, J-55, LT&C New Csg. Ran 7" x 8-3/4" Bow Spring Centralizers each Jnt f/ 4410' to 1639', then 2/Jnt f/ 1597' to 381' and 1/Jnt to Surface. R/D franks while circ.	
3:30 AM	Circ Btms up @ 40spm through choke, Max Flare - 3' Lazy w/ Mud Cut to 12.6ppg. Open well and circ through Gas Buster at 70spm and cond mud f/ Cmtg.	
6:00 AM	Held PJSM w/ Schlumberger Cmtrs and personnel on loc. R/U Cement head and P/T to Low: 500psi and HIGH: 5000psi:OK. Mix & Pump 50 bbls Mud PUSH II + 6432.7 lb/mgal D031 + 6.0 lb/bbl D182 + 10 lb/bbl CemNet Plus D097 @ 13.3 ppg. Mix & Pump (780 sxs) 168 bbls EasyBLOK TXI Cement + 6.0% D154 + 0.6% D400 + 0.1% D153 + 0.2%D202 + 0.55% D013 + 0.5% D046 + 0.25 lb/sx D029 + 1.5 lb/bbl CemNet @ 14.0 ppg. Drop Plug and displace w/ 172.2 bbls H2O, Bumped Plug @ 600 psi over final press of 1300 psi, Held. Bled back 1.5 bbls and checked floats: Held OK. R/D Cementers. No fluid drop in annulus. Rec'd 42 bbls cement to surface.	

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/13/2012	
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # :	9
Spud Date : 01/18/2012      Days From Spud : 86			Depth At 06:00 :	4463
Morning Operations : Rig Released @ 13:30 Hrs 04/12/12.			Estimated Total Depth :	5477
		Remarks :		
Time To	Description	1644 Days without a Lost Time incident		
9:00 AM	N/D BOP's and remove Flowline.	24 hr losses 0 bbls      Total losses 0 bbls		
11:30 AM	Set Slips w/ GE @ 85k Tension. make rough cut, walk rig 2'. Make final cut and set Pack-off.	87 Days without a Medical Aid or Restricted Work incident		
1:30 PM	Re configured Gas blow down line f/ 12-5C1 due to being under catwalk for walk and re install. Held Pre-walk inspection and Rig Release. NOTE: Rig Released @ 13:30 Hrs 04/12/12.	82 Days without a Recordable Spill 452 Days without a Reportable Quantity Spill gals fuel used past 24hrs Bradenhead Pressures on the F12E pad as Follows: Twin Creek 12-5D1=90psi, 12-5A1=0psi, 12-5A2 10psi, 12-4D1 130 psi 12-4A1 150psi, 12-6C1 80psi, 12-3D2 140psi, 12-3D1 0psi NOTE: RIG RELEASED @ 13:30 Hrs 04/12/2012.		



# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/30/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 11
Spud Date : 01/18/2012 Days From Spud : 103		Depth At 06:00 : 4732	
Morning Operations : Spotting LCM pill on bottom, TOOH		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1662 Days without a Lost Time incident	
11:00 AM	Test BOP against test plug, annular to 250/ 2500 psi manifold and pipe blind rams to 250/ 5000psi, super choke to 1500psi and casing to 1500psi for 30min	24 hr losses 175 bbls Total losses 175 bbls	
11:15 AM	Install wear bushing	105 Days without a Medical Aid or Restricted Work incident	
2:00 PM	Pick up directional tools,scribe,installed batteries, made up bit, bend motor to 1.5 deg.	100 Days without a Recordable Spill	
3:00 PM	Trip in the with HWDP 10 stds	470 Days without a Reportable Quantity Spill	
5:45 PM	Slip and cut 110', change out saver sub	1011 Gals fuel used past 24hrs	
6:30 PM	Trip in the hole with 1 std DP, installed rotating rubber	Bradenhead Pressures on the F12E pad as Follows:	
7:30 PM	Trip in the hole 38 stds of DP	Twin Creek: 12-5D1=100psi, 12-5A1=0psi,	
8:00 PM	Service rig	12-5A2=100psi, 12-4D1=40 psi, 12-4A1=150psi,	
11:00 PM	Drill cement tagged up @ 4370', drilled out float collar @ 4376' and shoe @ 4420'	12-6C1=40psi, 12-3D2=140psi, 12-3D1=0psi,	
12:00 AM	Circulate and condition mud hole was packing off from all the cement, cleaned out rat hole to 4463' mud wt 12.3ppg	12-6A1=0psi, 12-6D1 = 0 psi. Prod. 40psi	
4:00 AM	Drill from 4463' to 4732' ROP=67.2 fpr, mud wt 12.4ppg		
5:30 AM	Lost full returns @ 4732' MD 4546' TVD pumped LCM pill lost 90bbls cleared bit with first pill turned pumps off built 30bbl LCM pill to spot on bottom		
6:00 AM	Trip out of the 5 stds of DP filling hole over the top with trip tank continuously calc. fill 7.36bbls, actual fill 9.1bbls		

Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 04/29/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 10
Spud Date : 01/18/2012 Days From Spud : 102		Depth At 06:00 : 5477	
Morning Operations : Testing BOP		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1661 Days without a Lost Time incident	
10:00 PM	Walk rig from 12-6C1 back to 12-6A1	24 hr losses 0 bbls Total losses 0 bbls	
3:00 AM	Cased hole logs (CBL) top of cement 700', nipples up BOP while running CBL	104 Days without a Medical Aid or Restricted Work incident	
6:00 AM	Start testing BOP	99 Days without a Recordable Spill	
		469 Days without a Reportable Quantity Spill	
		XXX Gals fuel used past 24hrs	
		Bradenhead Pressures on the F12E pad as Follows:	
		Twin Creek: 12-5D1=100psi, 12-5A1=0psi,	
		12-5A2=90psi, 12-4D1=50 psi, 12-4A1=150psi,	
		12-6C1=0psi, 12-3D2=0psi, 12-3D1=5psi, 12-6A1=0psi,	
		12-6D1 = 0 psi. Prod. 180psi	

REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 05/01/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 12
Spud Date : 01/18/2012      Days From Spud : 104		Depth At 06:00 :	5480
Morning Operations : Drilling @ 5480'		Estimated Total Depth :	5477
		Remarks :	
Time To	Description	1663 Days without a Lost Time incident	
8:00 AM	Circulate over the top of the hole with trip tank let LCM soak lost 22 bbls	24 hr losses 546 bbls      Total losses 720 bbls	
8:30 AM	Trip back to bottom from 4247' to 4626' washed last 2stds down to 4732'	106 Days without a Medical Aid or Restricted Work incident	
11:00 AM	Drill from 4732' to 4816', 37 spm, 155 gpm, 12.3ppg hole still seeping	101 Days without a Recordable Spill	
11:30 AM	Circulate bottoms up to clean up hole 42 spm, 176 gpm, 12.3 ppg	471 Days without a Reportable Quantity Spill	
4:45 PM	Drill from 4816' to 5006', 42 spm, 176 gpm, 12.2ppg mud wt	1011 Gals fuel used past 24hrs	
5:30 PM	Flow check 45 min, started with 18% flow and ended with 13% flow we gained 62bbls, flow rate at the start was 85 bbls hr 22 bbls at the end of flow check	Bradenhead Pressures on the F12E pad as Follows:	
6:00 PM	Drill from 5006' to 5015' 12.2ppg mud wt	Twin Creek: 12-5D1=50psi, 12-5A1=0psi, 12-5A2=40psi,	
8:00 PM	Drill from 5015' to 5100', w/ 40 spm, 167 gpm, to keep from loosing mud down hole, while bring mud wt down to 12.0ppg after 12.0ppg mud hit the bit turned stoke up on mud pump to 50 spm, 209 gpm	12-4D1=25 psi, 12-4A1=150psi, 12-6C1=30psi,	
8:30 PM	Service rig	12-3D2=140psi, 12-3D1=0psi, 12-6A1=0psi, 12-6D1 = 0	
6:00 AM	Drill from 5100' to 5480' hole still breathing taking 45bbls while drilling and gave back 35 to 45 on connections, came up on strokes to 60 spm, 250 gpm, hole was still seeping and took 245 bbls all night	psi. Prod. 40psi	

# REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 05/02/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 13
Spud Date : 01/18/2012      Days From Spud : 105		Depth At 06:00 : 5670	
Morning Operations : Running casing		Estimated Total Depth : 5477	
		Remarks :	
Time To	Description	1664 Days without a Lost Time incident	
6:30 AM	Rig service	24 hr losses 0 bbls      Total losses 720	
7:00 AM	Circulate bottoms and gas down	bbls	
11:00 AM	Drill from 5480' to 5670' mud wt 12.1ppg gained 40bbls on connection	107 Days without a Medical Aid or Restricted Work incident	
12:00 PM	Circulate and condition mud two bottoms up, get TD survey, gained 35 bbls on survey	102 Days without a Recordable Spill	
12:30 PM	Shut well in to check CICP & CIDP both @ 160psi	472 Days without a Reportable Quantity Spill	
3:00 PM	Circulate and bring mud wt up to 12.2ppg, hole seeped 80 bbls, build LCM pill	1011 Gals fuel used past 24hrs	
3:30 PM	30 min flow check, gained 75bbls	Bradenhead Pressures on the F12E pad as Follows:	
4:00 PM	close well back in to check pressure DP 40 psi, casing 120 psi	Twin Creek: 12-5D1=80psi, 12-5A1=0psi,	
6:00 PM	30 min flow check, gained 75 bbls, circulated bottoms up got 600 units of gas, mud wt was 10.8ppg cut 20' flare	12-5A2=100psi, 12-4D1=30 psi, 12-4A1=10psi,	
6:30 PM	Rig service	12-6C1=30psi, 12-3D2=35psi, 12-3D1=0psi, 12-6A1=5psi,	
7:00 PM	Circulated 12.8ppg LCM pill to hold back well from breathing no losses while displacing pill	12-6D1 = 0 psi. Prod. 40psi	
8:30 PM	Trip out of the 12 stds @ 30 ft/ min hole took 4.5bbls calc. fill was 18bbs		
10:30 PM	Circulated 12.4ppg mud around to held hold back breathing in well after we got 12.4ppg back at shakers flow checked for 30min and no flow after 15 min, pumped dry job		
3:00 AM	TOOH @ 30' ft/min came up on trip speed 10' min every 1000' max speed was 70' ft/ min flow check every 1000', pulled rotating rubber on last std of DP		
4:30 AM	Lay down BHA, hole took 30.8bbls calc. fill was 24.3bbls		
5:30 AM	Pull wear bushing		
6:00 AM	Rig up casing crew		

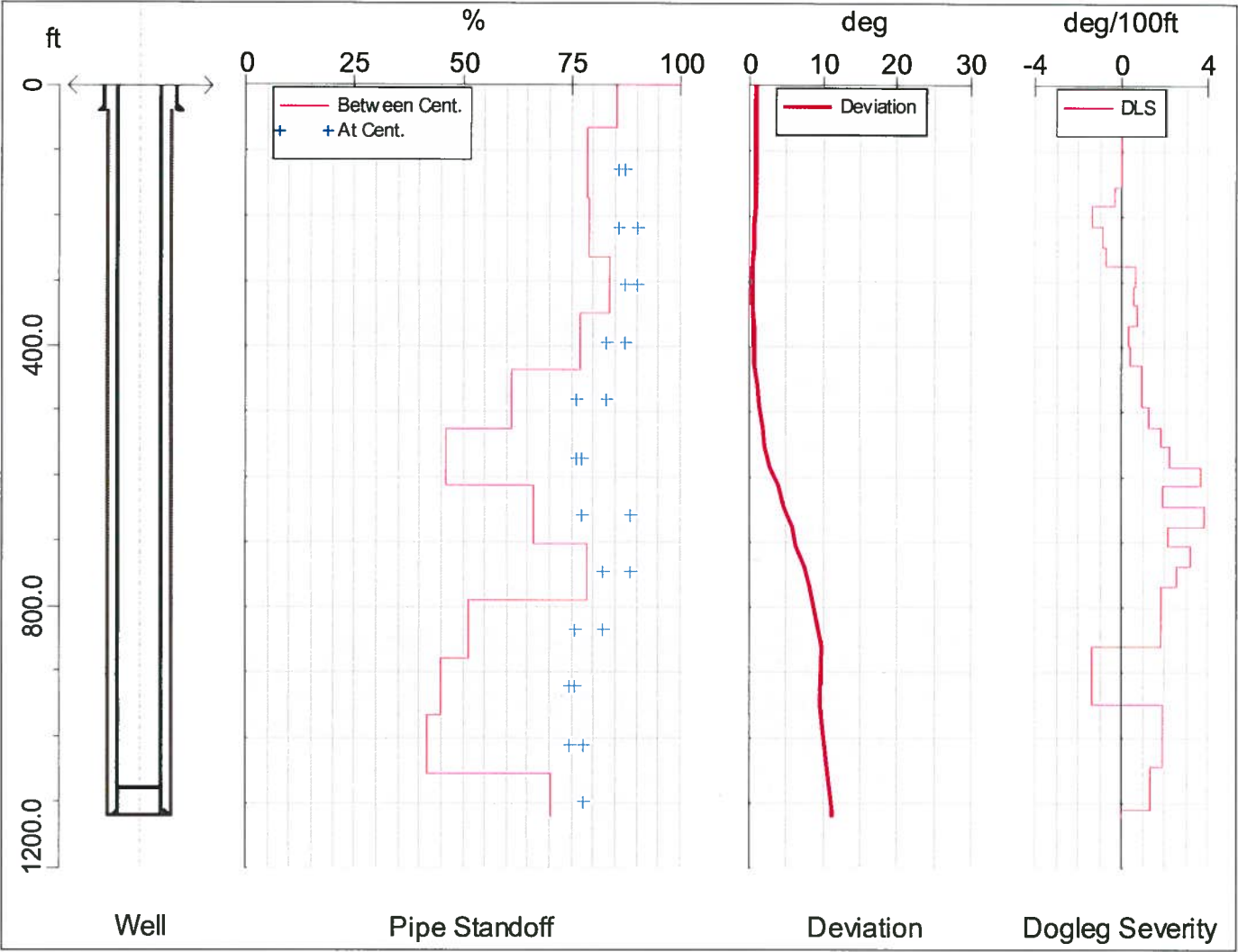
REGULATORY DRILLING SUMMARY



Well : Twin Creek 12-6A1 (F12E)		API # : 05045203940000	Operations Date : 05/03/2012
Surface Location : SENW Sec 12 T7S - R92W 6th PM		Area : Mamm Creek	Report # : 14
Spud Date : 01/18/2012      Days From Spud : 106		Depth At 06:00 :	5670
Morning Operations : Testing BOP.		Estimated Total Depth :	5477
		Remarks :	
Time To	Description	1665 Days without a Lost Time incident	
6:30 AM	Pre job safety meeting with franks casing crew	24 hr losses 0 bbls      Total losses 720 bbls	
3:30 PM	Ran 130jts of 11.6# S80 BTC casing w/ 63 centralizers and two marker joints, circulating bottoms up every 1000' running in @ 75' ft/min and 30' ft/ min in open hole took 70bbls and gave back 20 on flow check	108 Days without a Medical Aid or Restricted Work incident	
4:00 PM	Rig down casing crew while circulating	103 Days without a Recordable Spill	
5:00 PM	Circulated bottom up @ 20 spm trying to mitigate losses	473 Days without a Reportable Quantity Spill	
5:00 PM	Flow checked 30min gained 20bbls	XXX Gals fuel used past 24hrs	
6:00 PM	Pre job safety meeting with schlumberger, rig up cement head and tested lines to 5000psi	Bradenhead Pressures on the F12E pad as Follows:	
8:00 PM	Primary cement, pumped 20 bbls of 13.5ppg mud push II, 60 bbls of 14.0ppg TXI tail, displaced 86bbls of water had no flow after cementing	Twin Creek: 12-5D1=80psi, 12-5A1=0psi,	
11:30 PM	Set casing slips with 85k, nipple down BOP and cut off casing, released rig @ 23:30	12-5A2=100psi, 12-4D1=30 psi, 12-4A1=10psi,	
		12-6C1=30psi, 12-3D2=35psi, 12-3D1=0psi, 12-6A1=5psi,	
		12-6D1 = 0 psi. Prod. 40psi	

Twin Creek 12-6A1

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:** ENCANA USA - PARACHUTE FIELD OFC (EDI)

**Well Name:** Twin Creek 12-6A1

**Field:** Mamm Creek

**County:** Garfield

**State:** CO

**Date:** 4/10/2012

**Well Location:** F12E

**API Number:** 05045203940000

**Proposal Number:** 2

**Contact:**

**Made By:** Matt Hudson

**Service from District:** Grand Junction, CO

**District Phone:** 303-486-3245

**Objective:** 50bbls MUDPUSH II Spacer  
10lb/bbl CemNET Plus  
14.0# EasyBLOK TXI: Surface.  
1.5lb/bbl CemNET  
Surface Casing Shoe: 1170ft.  
Mesa Verde: 2510ft. (2387)  
Top of Gas: 3824ft. (3622)  
8 3/4" Bit Depth: TD.  
TD: 4450ft.

## Disclaimer Notice

The information is presented in good faith, but no warranty is given by Schlumberger as to the accuracy or reliability of the information 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 on the well, reservoir and treatment. The results depend on input data provided by the Customer and estimates as to unknown data and can no more accurate than the input. The assumption is that the input data is accurate. 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 quality of input data, and hence results, 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 others 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 **\$ 56,693.30**. 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.

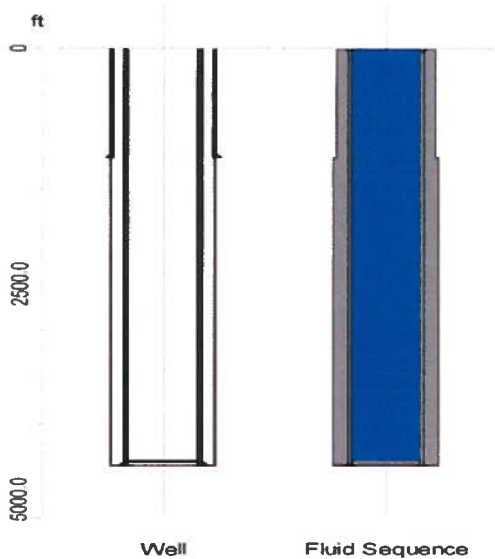
Sincerely,

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





WELL DATA



**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.

Fluid Placement			
Fluid Name	Volume bbl	Density lb/gal	Top of Fluid ft
MUDPUSH II	50.0	13.30	0.0
14.0# EasyBLOK TXI	168.0	14.00	0.0
Water	168.7	8.32	0.0

Total Liquid Volume : 386.8 bbl

Well Data	
Job Type :	Casing Cementing
Total Depth (Measured) :	4450.0 ft
True Vertical Depth (TVD) :	4264.9 ft
BHST (Tubular Bottom Static Temperature) :	140 degF
BHCT (Tubular Bottom Circulating Temperature) :	117 degF

Open Hole		
Mean Diameter without Excess	Bottom Depth	Annular Excess
8.750 in	4450.0 ft	50.0 %

Previous Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
9 5/8 in	36.0 lb/ft	K-55	LTC	0.43 ft3/ft	1173.0 ft

Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
7 in	26.0 lb/ft			0.21 ft3/ft	4450.0 ft

Annular Capacity (without Excess) : Casing Bottom / Open Hole : 0.15 ft3/ft  
Annular Capacity (without Excess) : Previous Casing Bottom / Casing : 0.17 ft3/ft



FLUID SYSTEMS

MUDPUSH II			
System	MUDPUSH II		
Density	13.30 lb/gal		
Total Volume	50.0 bbl		
Additives	Code	Description	Concentration
	D031	Weighting Agent	6432.7 lb/mgal
	D182	MUDPUSH II Additive	6.0 lb/bbl Base Fluid
	D097	Losseal W/O (CemNET Plus)	10.0 lb/bbl Spacer

14.0# EasyBLOK TXI (780 sacks, 75 lb per sack of BlendI)			
System	Conventional		
Density	14.00 lb/gal		
Yield	1.21 ft3/sk		
Mixed Water	5.477 gal/sk		
Mixed Fluid	5.477 gal/sk		
Total Volume	168.0 bbl		
Additives	Code	Description	Concentration
	D049	Cement	75.00 lb/sk WBWOB
	D154	Extender	6.0 % BWOB
	D400	Gas Control Agent	0.6 % BWOB
	D153	Anti-Settling Agent	0.1 % BWOB
	D202	Dispersant	0.2 % BWOB
	D013	Retarder	0.55 % BWOB
	D046	Anti Foam	0.5 % BWOB
	D029	Lost Circulation Control Agent	0.25 lb/sk WBWOB
	D095	CemNET	1.5 lb/bbl

Water			
System	Water		
Density	8.32 lb/gal		
Total Volume	168.7 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.



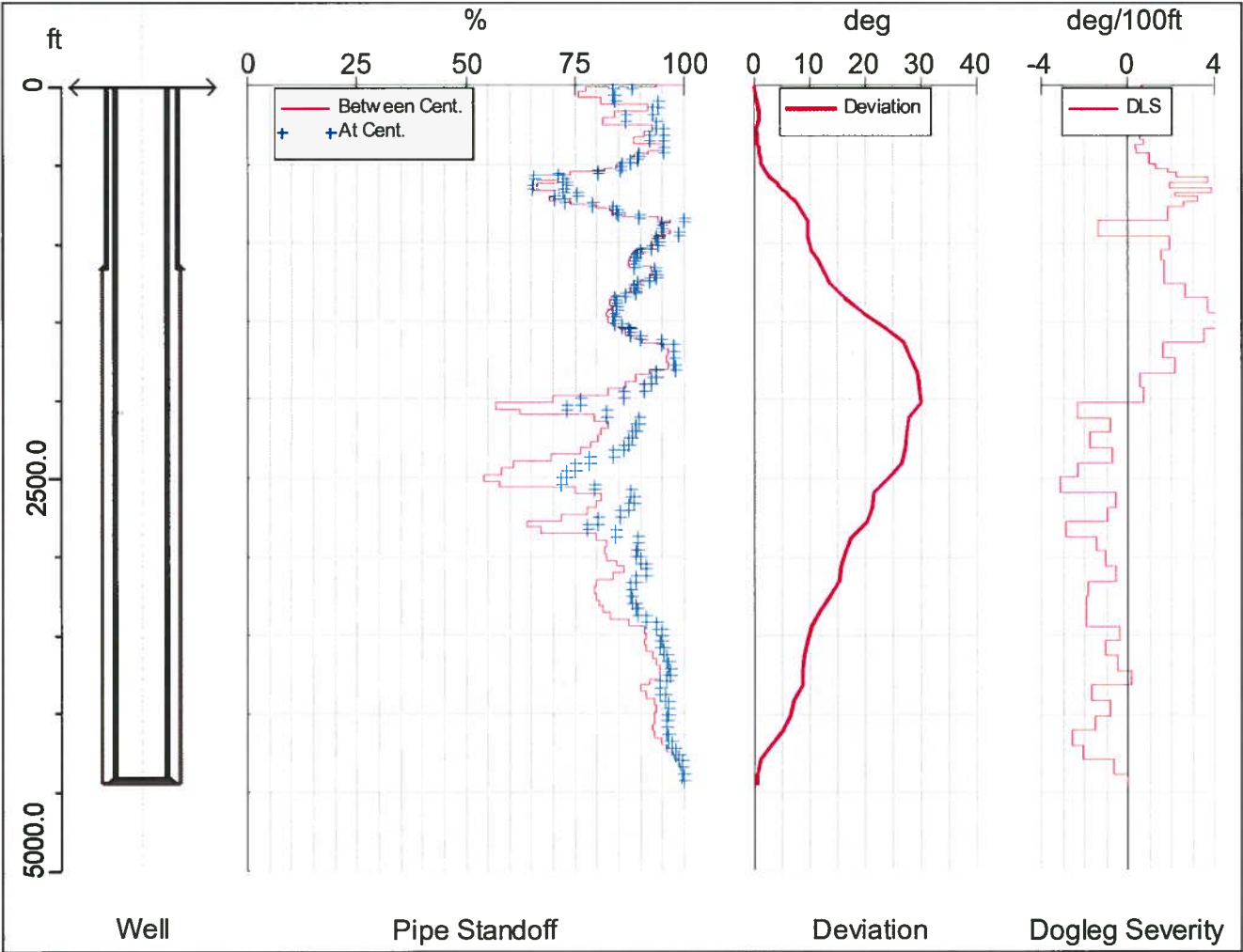
## PROCEDURES

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. Conduct post job rig down meeting.
7. Purge all High Pressure and Low Pressure treating lines with air PRIOR TO RIG-DOWN.
8. Rig down Schlumberger equipment.
9. Conduct convoy meeting and move out Schlumberger equipment.



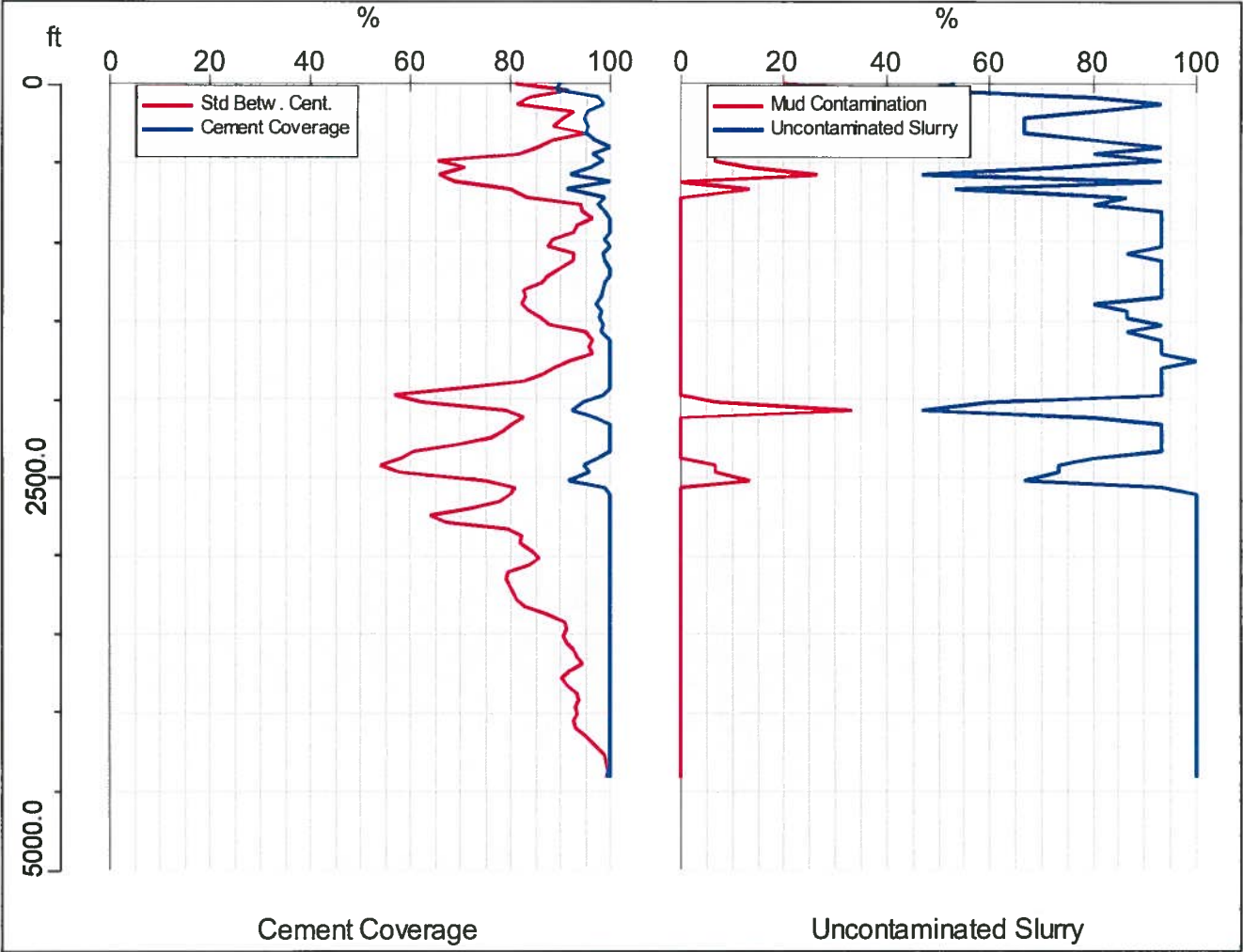
CENTRALIZERS

Type	Quantity	Centralizers per Joint	Spacing (ft)	From (ft)	To (ft)	Stop Rings
8 3/4" BOW	10	1/1	40	Surface	418	0
8 3/4" BOW	58	2/1	20	418	1636	29
8 3/4" BOW	67	1/1	40	1636	TD	0

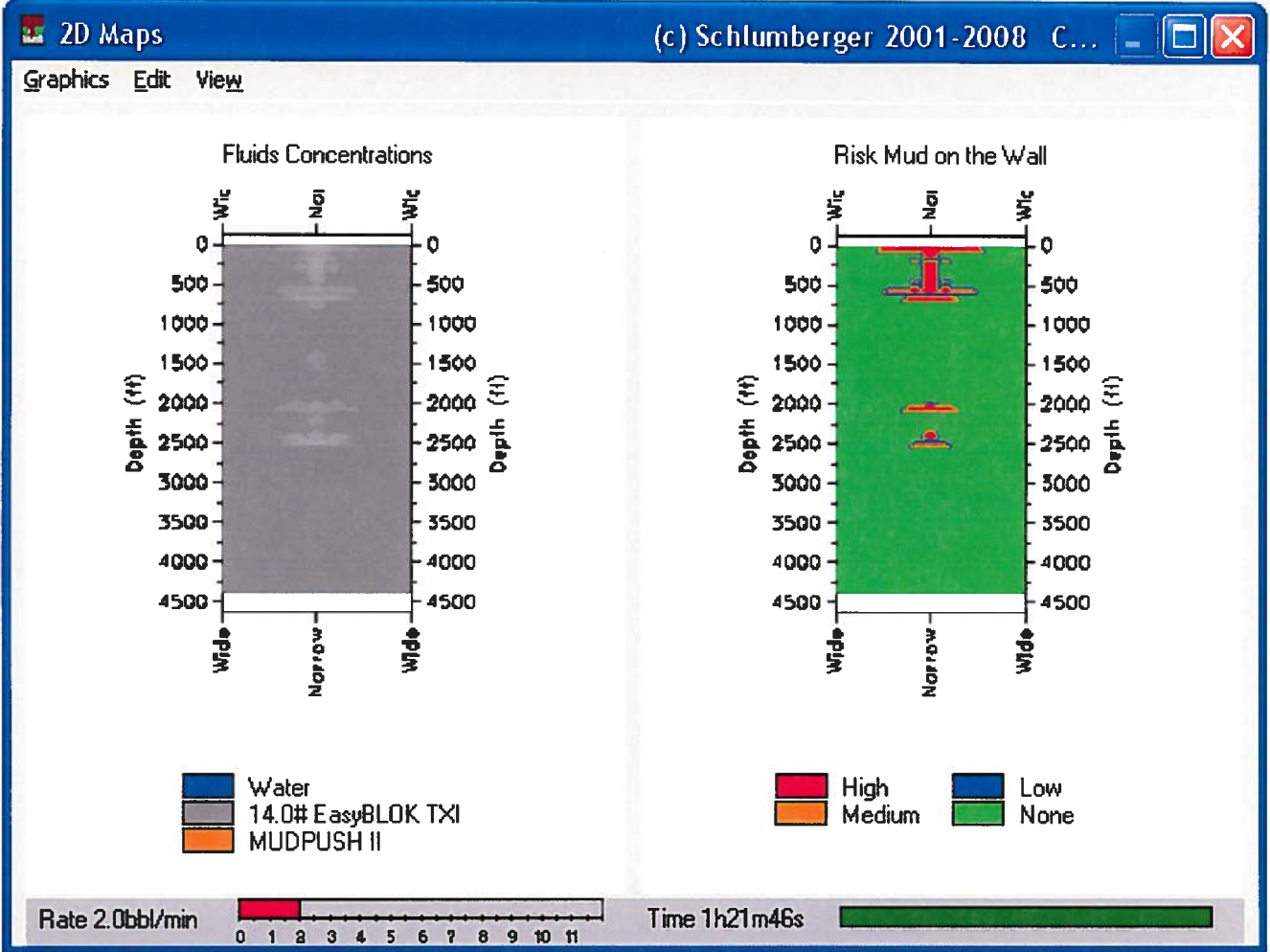




## WELLCLEAN II Simulation









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	3 EA	570.00	1,710.00	45.2 %	937.08
48601000	Cement Plug Container	1 JOB	520.00	520.00	45.2 %	284.96
49100000	Cement Blending Charge	1114 CF	2.27	2,528.78	45.2 %	1,385.77
49102000	Transportation, Cement Ton-mile	2890 MI	2.02	5,837.80	45.2 %	3,199.11
56702070	Plug, Cementing Top Plastic 7 in	1 EA	282.50	282.50	45.2 %	154.81
58498000	Taxes	1 JOB	1,600.64	1,600.64	0 %	1,600.64
59200002	Transportation, Mileage Heavy Vehicles	600 MI	5.52	3,312.00	45.2 %	1,814.98
59200005	Transportation, Mileage Light Vehicles	150 MI	3.24	486.00	45.2 %	266.33
59697004	CemCAT Monitoring System	1 JOB	880.00	880.00	45.2 %	482.24
102871045	Pump, Casing Cement 4001-4500 ft	1 EA	3,000.00	3,000.00	45.2 %	1,644.00
107264001	Regulatory Conformance Charge	10 EA	341.00	3,410.00	0 %	3,410.00

Subtotals: \$ 24,427.72 \$ 15,651.20

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	322 LB	2.61	840.42	45.2 %	460.55
D029	Cellophane Flakes	195 LB	3.97	774.15	45.2 %	424.23
D031	Barite	136 CW	38.61	5,250.96	45.2 %	2,877.53
D046	Antifoam Agent, All Purpose	293 LB	4.75	1,391.75	45.2 %	762.68
D049	Cement, TXI LITEWEIGHT	780 CF	21.95	17,121.00	45.2 %	9,382.31
D153	Antisettling Agent	59 LB	7.69	453.71	45.2 %	248.63
D154	Extender, LT	3507 LB	1.40	4,909.80	45.2 %	2,690.57
D202	Low-Temperature Solid Dispersant D202	117 LB	19.15	2,240.55	45.2 %	1,227.82
D400	EasyBLOK D400	351 LB	47.00	16,497.00	45.2 %	9,040.36
D970	MUDPUSH II Fresh Water Based Spacer	50 BBL	116.00	5,800.00	45.2 %	3,178.40
D974	CemNET Conversion	212 BBL	57.50	12,190.00	45.2 %	6,680.12

Subtotals: \$ 74,894.34 \$ 41,042.10

Total Discount:	\$	42,628.76
Job Price Estimate*:	\$	56,693.30



# Casing Cementing



Company: ENCANA USA - PARACHUTE FIELD OFC (EDI)  
Well Name: Twin Creek 12-6A1  
Field: Mamm Creek  
County: Garfield  
State: CO

Date: 4/16/2012  
Well Location: F12E  
API Number: 05045203940000  
Proposal Number: 2  
Contact:  
Made By: Matt Hudson  
Service from District: Grand Junction, CO  
District Phone: 303-486-3245  
Objective: Top of Cement: 3324ft.  
Intermediate Casing Shoe: 4420ft.  
Mesa Verde: 2510ft. (2387)  
Top of Gas: 3824ft. (3622)  
6 1/8" Bit.  
TD: 5680ft. (5477)

**Disclaimer Notice:**  
The information is presented in good faith, but no warranty is given. Schlumberger assumes no liability for delays 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 on the well, reservoir and treatment. The results depend on input data provided by the customer and Schlumberger's is to 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 quality of input data, and hence results, may be improved through the use of certain tests and procedures which Schlumberger can assist in collecting. Freedom from infringement of patents of Schlumberger or others 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 **\$ 22,421.03**. 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.

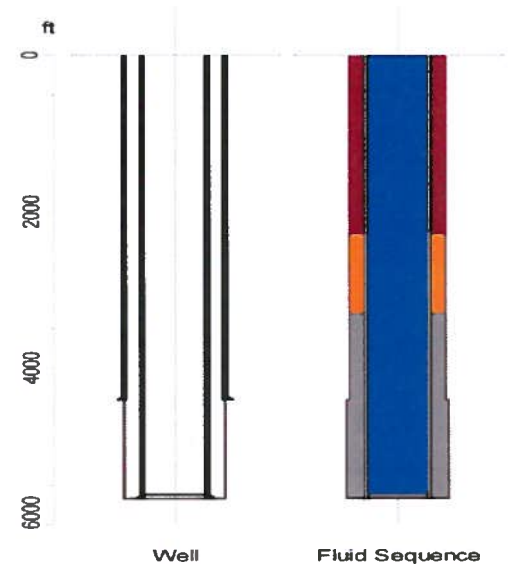
Thank you for considering Schlumberger.  
Please do not hesitate to contact me with any questions or concerns.

Sincerely,

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



## WELL DATA



**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 well site supervisor prior to the treatment. Any changes in the well data need to be reviewed for their impact on the treatment design.

Fluid Placement			
Fluid Name	Volume bbl	Density lb/gal	Top of Fluid ft
MUDPUSH II	20.0	13.50	2308.6
14.0# EasyBLOK TXI	53.9	14.00	3324.0
Water	87.6	8.32	0.0

Total Liquid Volume : 161.6 bbl

Well Data	
Job Type :	Casing Cementing
Total Depth (Measured) :	5680.0 ft
True Vertical Depth (TVD) :	5494.4 ft
BHST (Tubular Bottom Static Temperature) :	160 degF
BHCT (Tubular Bottom Circulating Temperature) :	138 degF

Open Hole		
Mean Diameter without Excess	Bottom Depth	Annular Excess
6.125 in	5680.0 ft	50.0 %

Previous Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
7 in	23.0 lb/ft	J-55	LTC	0.22 ft3/ft	4420.0 ft

Casing					
OD	Weight	Grade	Thread	Inner Capacity	Bottom Depth
4 1/2 in	11.6 lb/ft	N-80	BTC	0.09 ft3/ft	5680.0 ft

Annular Capacity (without Excess) : Casing Bottom / Open Hole : 0.09 ft3/ft  
Annular Capacity (without Excess) : Previous Casing Bottom / Casing : 0.11 ft3/ft



FLUID SYSTEMS

MUDPUSH II			
System	MUDPUSH II		
Density	13.50 lb/gal		
Total Volume	20.0 bbl		
Additives	Code	Description	Concentration
	D031	Weighting Agent	6692.9 lb/mgal
	D182	MUDPUSH II Additive	6.0 lb/bbl Base Fluid
	D097	Losseal W/O (CemNET Plus)	10.0 lb/bbl Spacer

14.0# EasyBLOK TXI (251 sacks, 75 lb per sack of Blend)			
System	Conventional		
Density	14.00 lb/gal		
Yield	1.21 ft3/sk		
Mixed Water	5.478 gal/sk		
Mixed Fluid	5.478 gal/sk		
Total Volume	53.9 bbl		
Additives	Code	Description	Concentration
	D049	Cement	75.01 lb/sk WBWOB
	D154	Extender	6.0 % BWOB
	D400	Gas Control Agent	0.6 % BWOB
	D153	Anti-Settling Agent	0.1 % BWOB
	D202	Dispersant	0.3 % BWOB
	D013	Retarder	0.55 % BWOB
	D046	Anti Foam	0.5 % BWOB
	D029	Lost Circulation Control Agent	0.25 lb/sk WBWOB
	D095	CemNET	1.5 lb/bbl

Water			
System	Water		
Density	8.32 lb/gal		
Total Volume	87.6 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

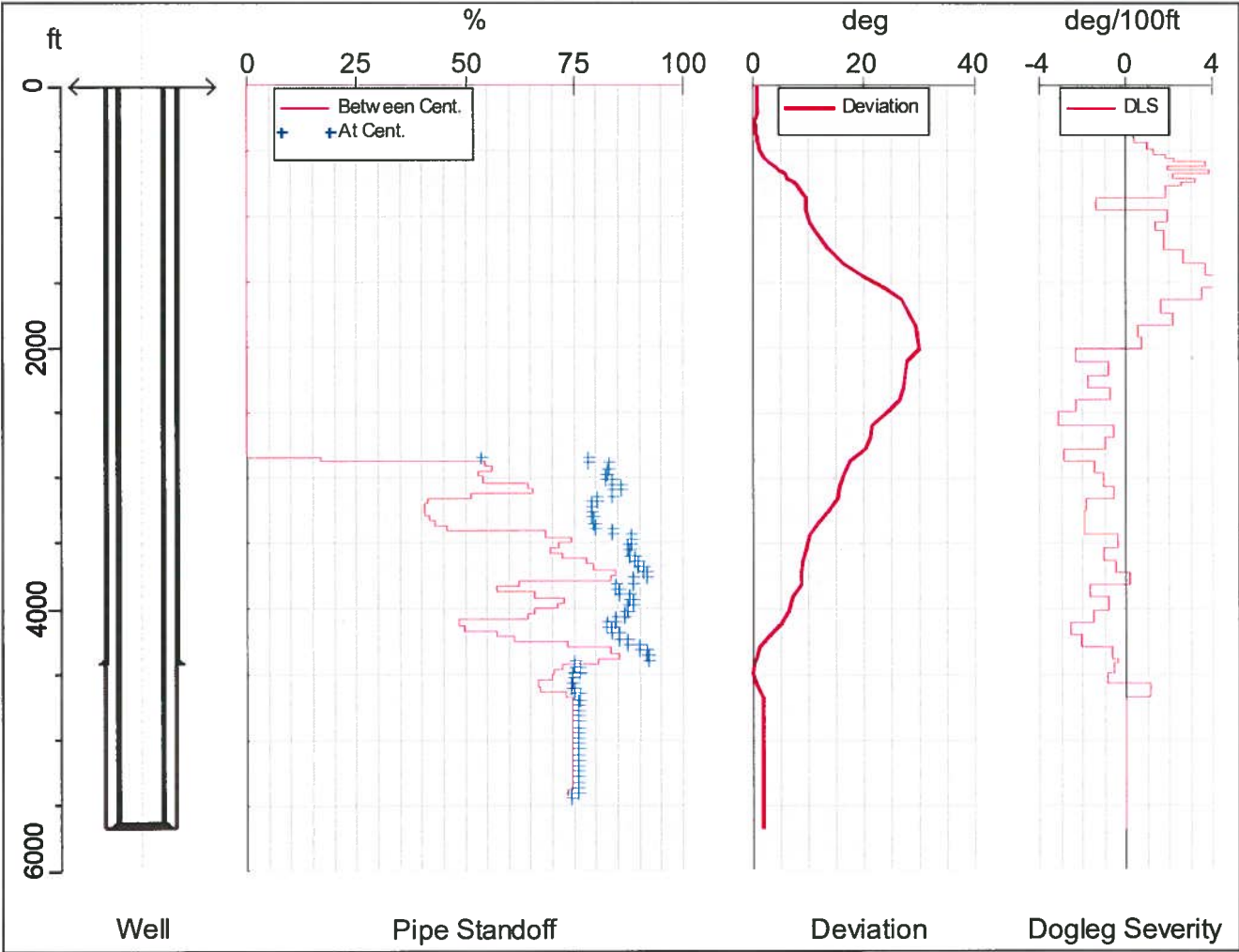
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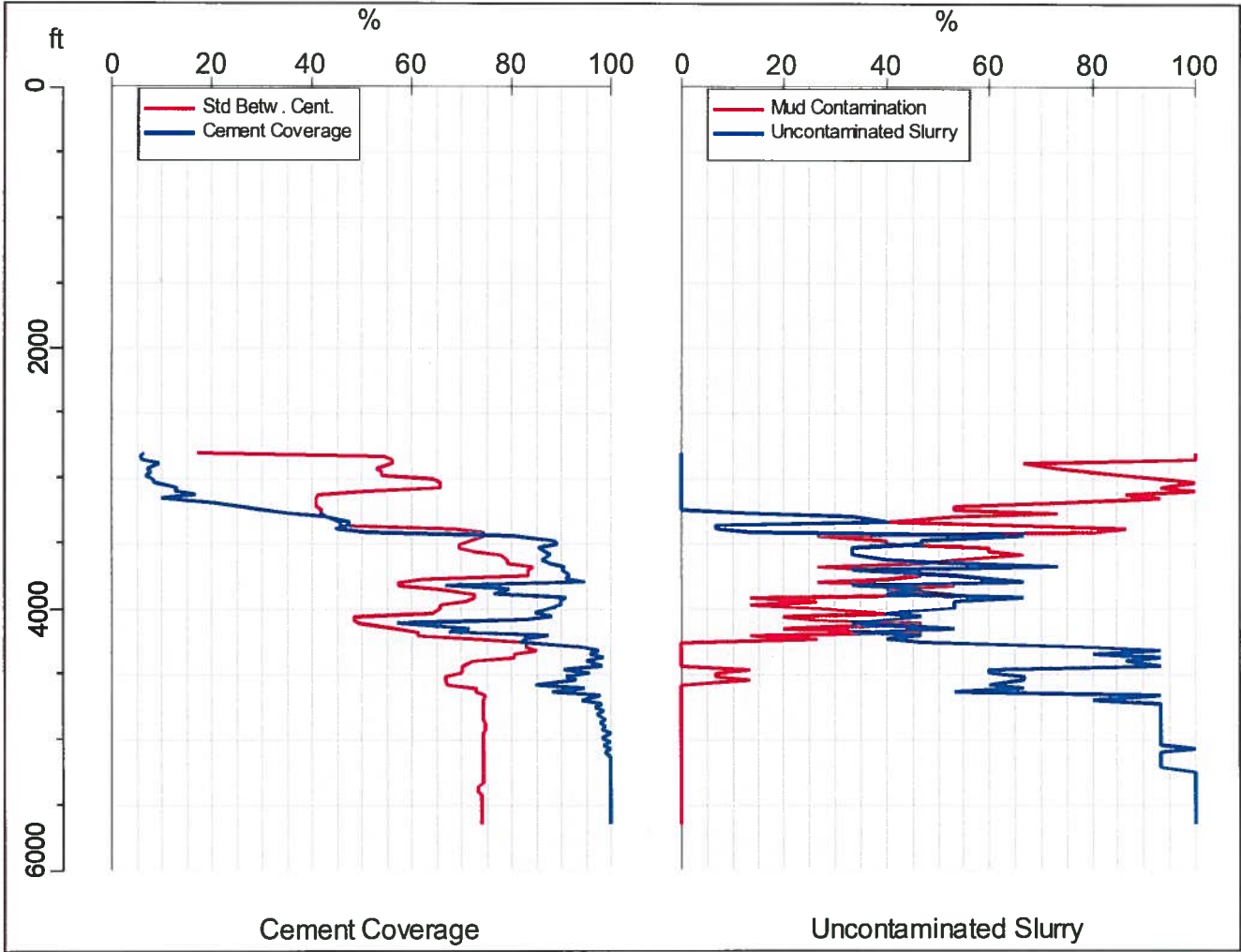
CENTRALIZERS

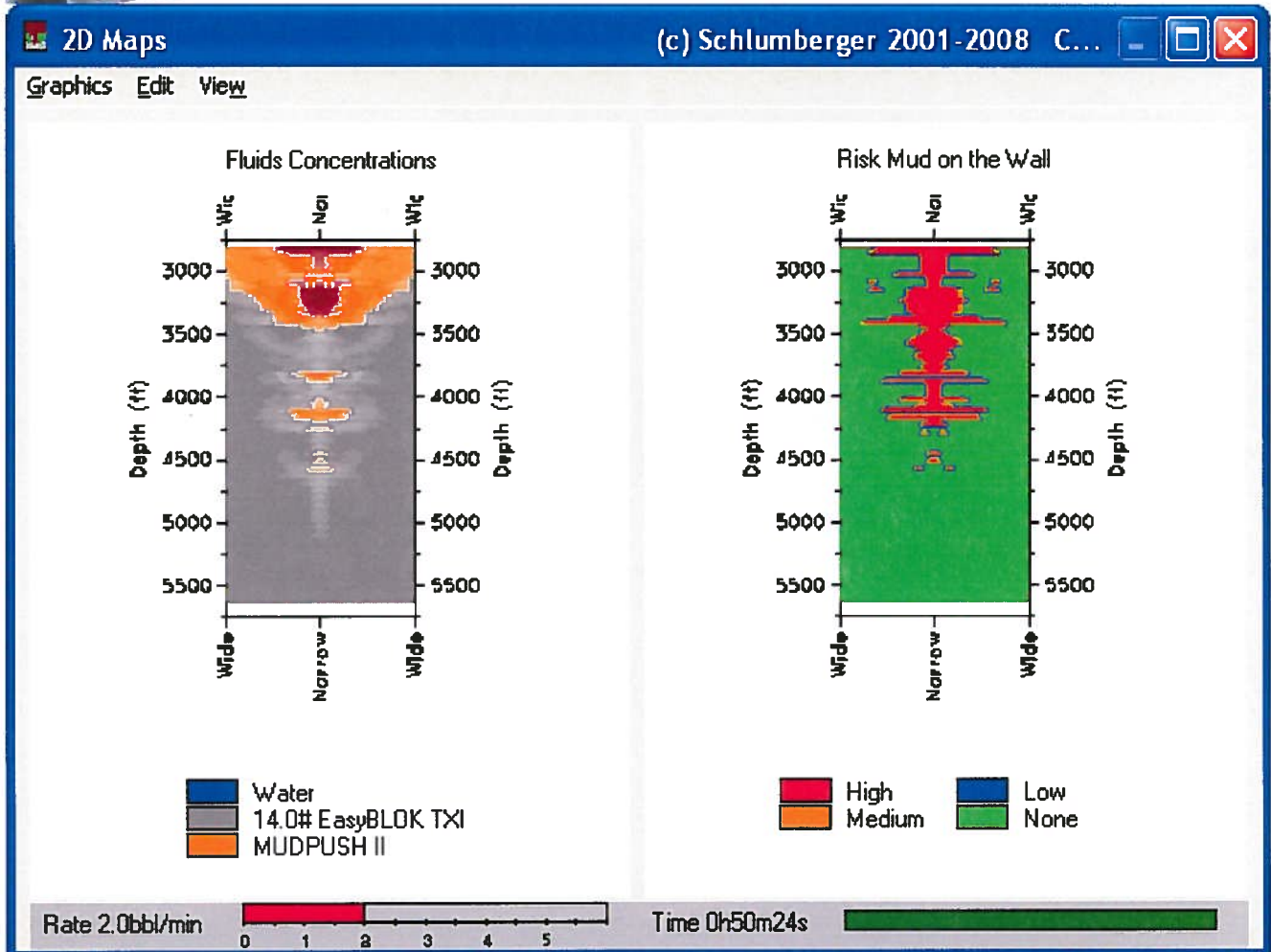
Type	Quantity	Centralizers per Joint	Spacing (ft)	From (ft)	To (ft)	Stop Rings
6 1/8" BOW	63	1/1	42	2824	TD	0



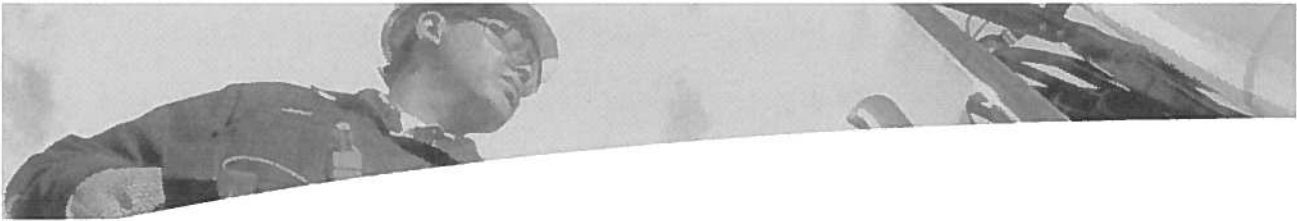


## WELLCLEAN II Simulation









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	4 HR	107.50	430.00	45.2 %	235.64
48021000	Silo, Cement	1 EA	570.00	570.00	45.2 %	312.36
48601000	Cement Plug Container	1 JOB	520.00	520.00	45.2 %	284.96
49100000	Cement Blending Charge	367 CF	2.27	833.09	45.2 %	456.53
49102000	Transportation, Cement Ton-mile	977 MI	2.02	1,973.54	45.2 %	1,081.50
56702044	Plug, Cementing Top Plastic 4.5 in	1 EA	151.00	151.00	45.2 %	82.75
58498000	Taxes	1 JOB	538.54	538.54	0 %	538.54
59200002	Transportation, Mileage Heavy Vehicles	300 MI	5.52	1,656.00	45.2 %	907.49
59200005	Transportation, Mileage Light Vehicles	150 MI	3.24	486.00	45.2 %	266.33
59697004	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	6 EA	341.00	2,046.00	0 %	2,046.00

Subtotals: \$ 13,584.17 \$ 8,612.34

Materials						
Code	Standard Description	Quantity	Unit List Price	Total List Price \$	Discount Rate	Discounted Price \$
B838	B838 CemNETplus conversion charge	20 BBL	148.50	2,970.00	45.2 %	1,627.56
D013	Retarder	104 LB	2.61	271.44	45.2 %	148.75
D029	Cellophane Flakes	63 LB	3.97	250.11	45.2 %	137.06
D031	Barite	57 CW	38.61	2,200.77	45.2 %	1,206.02
D046	Antifoam Agent, All Purpose	94 LB	4.75	446.50	45.2 %	244.68
D049	Cement, TXI LITEWEIGHT	251 CF	21.95	5,509.45	45.2 %	3,019.18
D153	Antisettling Agent	19 LB	7.69	146.11	45.2 %	80.07
D154	Extender, LT	1126 LB	1.40	1,576.40	45.2 %	863.87
D202	Low-Temperature Solid Dispersant D202	57 LB	19.15	1,091.55	45.2 %	598.17
D400	EasyBLOK D400	113 LB	47.00	5,311.00	45.2 %	2,910.43
D970	MUDPUSH II Fresh Water Based Spacer	20 BBL	116.00	2,320.00	45.2 %	1,271.36
D974	CemNET Conversion	54 BBL	57.50	3,105.00	45.2 %	1,701.54

Subtotals: \$ 25,198.33 \$ 13,808.69

Total Discount:	\$	16,361.47
Job Price Estimate*:	\$	22,421.03