



February 25, 2010

CQI Report to Stakeholders

Subject: December 2009 Condensate Results

As of January 1, 2008, the Crude Quality Monitoring Project has modified its condensate testing program. We acknowledge that industry requirements and specifications are different for condensates than for other types of crude. As such, we have updated our condensate testing program in an effort to provide the industry with reliable, accurate, and usable information specifically relevant to condensates. We believe that this information will be valuable for numerous industry purposes, such as better blending data and formulating condensate specifications and guidelines. Should you have any questions regarding this report, or the modified condensate testing program, please contact Crude Quality Inc. at (780) 991-9900 or at crudequality@gmail.com.

Observations:

Attached are detailed C30+ compositional and trace sulphur analyses, as well as historical data from crudemonitor.ca pertaining to typical light ends and bulk properties for Condensate Blend (CRW).

In addition to the attached, we note the following testing results:

	Sample Date	Batch #	Sulphur (wt%)	API Gravity (degree)	Absolute Density (kg/m ³)	MCR (wt%)	Viscosity @ 7.5° C (cSt)	RVP (kPa)	Organo-Phosphates (ppmw)	Total Mercaptans (ppm)	Olefins (wt%)
Current Data	12/07/09	CRW-865	0.27	63.6	724.5	0.3	0.9	69.1	-	99	-
Average To Date			0.19	65.3	718.5	0.22	0.8	75.3	0.9	103	8xND
Std Dev.			0.08	2.1	7.6	0.13	0.05	3.5	0.23	18	-
Avg+StdDev			0.27	67.4	726.1	0.35	0.85	77.8	1.13	121	-
Avg-StdDev			0.1	63.2	710.9	0.09	0.74	70.8	0.67	85	-

Table 1: Summary of CRW current and average properties

The results for December reflect a somewhat heavier than average sample of CRW. Decreased C4s x C6s were observed, along with marginal increased in C8s x C29s. The sample's total sulphur, MCR, and API were on the high end of the respective average ranges, while viscosity was elevated and RVP decreased. This sample of CRW contained 90 mg/L of sediment.



In context, the sediment values observed for CRW since December 2008 have been tabulated below:

Dec08	Jan09	Feb09	Mar09	Apr09	May09	Jun09	Jul09	Aug09	Sep09	Oct09	Nov09	Dec09
70	150	320	80	-	90	130	140	73	43	39	<10	90

Table 2: Sediment values for CRW, in mg/L, from December 2008 to December 2009

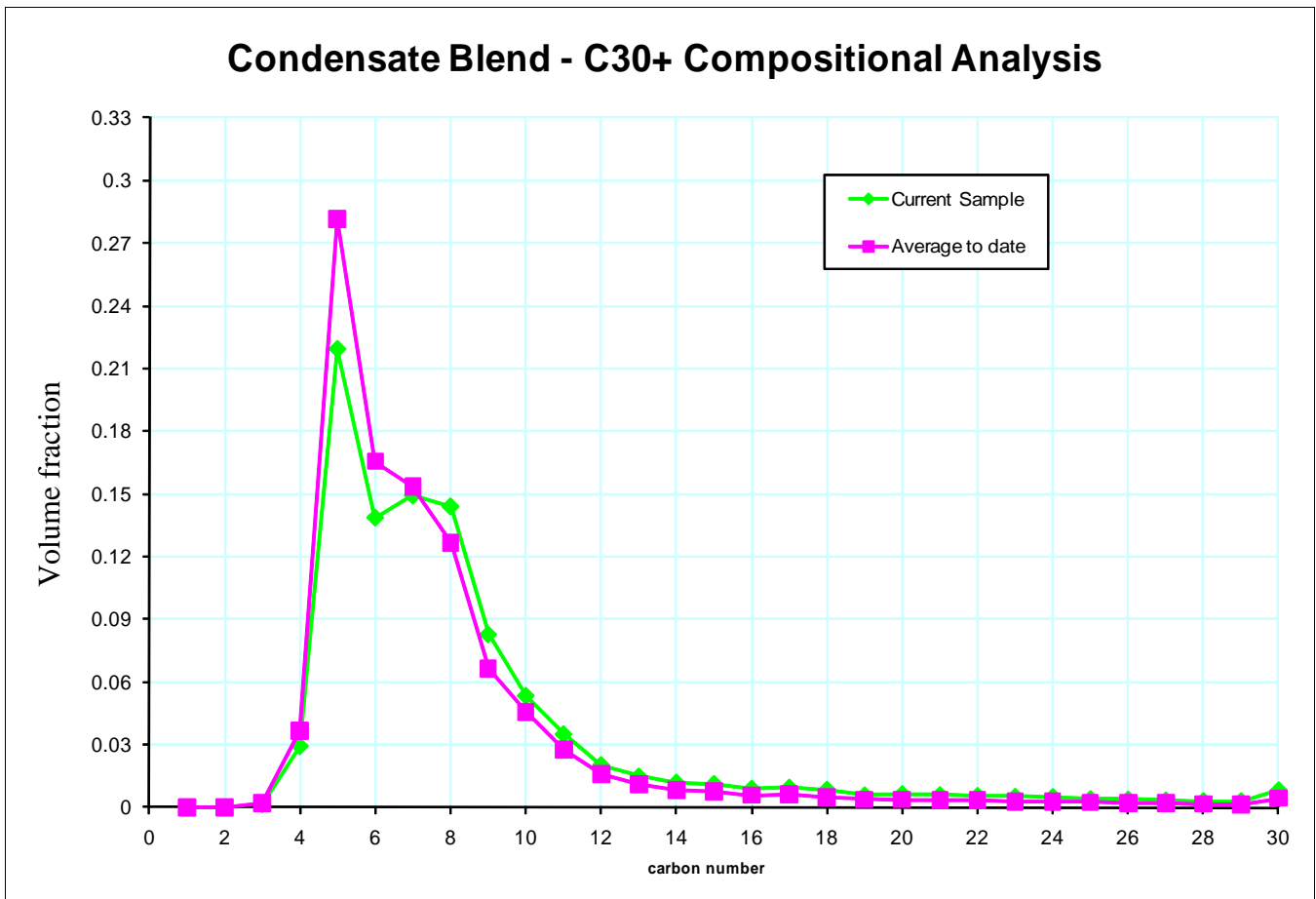


Figure 1: C30+ Compositional Analysis for CRW-865



C30+ COMPOSITIONAL ANALYSIS

A972347:S23462

MaxxID

Client ID

Meter Number

Laboratory Number

CRUDE QUALITY INC.

Operator Name

LSD

Well ID

CRUDE QUALITY INC. DEC09 LIGHT CRUDES

ENBRIDGE

Well Name

Initials of Sampler

Sampling Company

COND. BLEND CRW-865

1L CAN

Field or Area

Pool or Zone

Sample Point

Container Identity

Percent Full

Test Recovery

Interval

Elevations (m)

Sample Gathering Point

Solution Gas

Test Type

No.

Multiple Recovery

From:
To:

KB

GRD

Well Fluid Status

Well Status Mode

Production Rates

Gauge Pressures kPa

Temperature °C

Well Status Type

Well Type

Water m3/d

Oil m3/d

Gas 1000m3/d

Source

As Received

Source

As Received

Gas or Condensate Project

Licence No.

2009/12/07

2010/01/04

2010/01/04

2010/01/04

SK1,GS1,DJ2,JM4,SM4,SM1

Date Sampled Start

Date Sampled End

Date Received

Date Reported

Date Reissued

Analyst

COMPOSITION

COMPONENT	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N2			
CO2			
H2S			
C1	0.0000	0.0000	0.0000
C2	Trace	Trace	Trace
C3	0.0028	0.0012	0.0017
IC4	0.0074	0.0042	0.0053
NC4	0.0348	0.0196	0.0241
IC5	0.1325	0.0925	0.1066
NC5	0.1416	0.0989	0.1127
C6	0.1541	0.1285	0.1387
C7+	0.5268	0.6551	0.6109
TOTAL	1.0000	1.0000	1.0000

PROPERTIES

RESIDUE	RELATIVE DENSITY @ 15 °C		RELATIVE MOLECULAR MASS		DATA SUMMARY		
	OBSERVED	CALCULATED	OBSERVED	CALCULATED	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
C5+		0.725		105	0.9550	0.9750	0.9689
C6+		0.753		119	0.6809	0.7836	0.7496
C7+	0.772		126	128	0.5268	0.6551	0.6109
C10+					0.1413	0.2686	0.2348
C12+					0.0756	0.1747	0.1462
TOTAL		0.720		103			

Calculated Absolute Density Total Sample:
Gas Equivalent Factor:

719.4 kg/m3 @ 15°C
166.49 m3 Gas/m3 Liquid

** Information not supplied by client -- data derived from LSD information

Results relate only to items tested

Remarks:

Distillation Corrected to 101.3 kPa



C30+ COMPOSITIONAL ANALYSIS

CRUDE QUALITY INC.

A972347:S23462

Operator Name

Laboratory Number

CRUDE QUALITY INC. DEC09 LIGHT CRUDES

COND. BLEND CRW-865

Well Name

Sample Point

ENBRIDGE

Sampling Company

MaxxD

Client ID

2009/12/07

2010/01/04

2010/01/04

2010/01/04

SK1,GS1,DJ2,JM4,SM4,SM1

Date Sampled Start

Date Sampled End

Date Received

Date Reported

Date Reissued

Analyst

COMPONENT	BOILING POINT (°C)	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
Nitrogen	-196			
Carbon Dioxide	-79			
Hydrogen Sulphide	-60			
Methane	-162	0.0000	0.0000	0.0000
Ethane	-89	Trace	Trace	Trace
Propane	-42	0.0028	0.0012	0.0017
Iso-Butane	-12	0.0074	0.0042	0.0053
n-Butane	0	0.0348	0.0196	0.0241
Iso-Pentane	28	0.1325	0.0925	0.1066
n-Pentane	36	0.1416	0.0989	0.1127
Hexanes	37-69	0.1541	0.1285	0.1387
Heptanes	70-98	0.1678	0.1508	0.1493
Octanes	99-126	0.1447	0.1490	0.1440
Nonanes	127-151	0.0730	0.0867	0.0828
Decanes	152-174	0.0400	0.0549	0.0535
Undecanes	175-196	0.0257	0.0390	0.0351
Dodecanes	197-216	0.0139	0.0230	0.0204
Triadecanes	217-236	0.0095	0.0169	0.0149
Tetradecanes	237-253	0.0073	0.0140	0.0120
Pentadecanes	254-271	0.0064	0.0132	0.0113
Hexadecanes	272-287	0.0051	0.0108	0.0091
Heptadecanes	288-302	0.0050	0.0114	0.0096
Octadecanes	303-317	0.0043	0.0104	0.0086
NonaDecanes	318-331	0.0028	0.0072	0.0059
Eicosanes	332-343	0.0030	0.0079	0.0065
Heneicosanes	344-357	0.0026	0.0074	0.0060
Docosanes	358-369	0.0024	0.0069	0.0056
Triacosanes	370-380	0.0022	0.0065	0.0052
Tetracosanes	381-391	0.0021	0.0064	0.0051
Pentacosanes	392-402	0.0015	0.0051	0.0041
Hexacosanes	403-412	0.0014	0.0048	0.0039
Heptacosanes	413-422	0.0012	0.0044	0.0035
Octacosanes	423-432	0.0011	0.0039	0.0031
Nonacosanes	433-441	0.0010	0.0039	0.0031
triacontanes+	442-449+	0.0028	0.0106	0.0083
Totals		1.0000	1.0000	1.0000
neoHexane	50	0.0000	0.0000	0.0000
Methylcyclopentane	70	0.0307	0.0250	0.0237
Benzene	80	0.0133	0.0101	0.0081
Cyclohexane	81	0.0281	0.0229	0.0209
Methylcyclohexane	101	0.0437	0.0415	0.0384
Toluene	111	0.0197	0.0176	0.0145
Ethylbenzene	136	0.0035	0.0036	0.0030
m&p-Xylene	139	0.0119	0.0122	0.0099
o-Xylene	144	0.0022	0.0022	0.0018
1,2,4-Trimethylbenzene	169	0.0008	0.0010	0.0009

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Results relate only to items tested

Remarks:

Distillation Corrected to 101.3 kPa



TRACE SULPHUR ANALYSIS

A972347:S23463

MaxID		Client ID		Meter Number		Laboratory Number	
CRUDE QUALITY INC.						A972347:S23463	
Operator Name				LSD		Well ID	
CRUDE QUALITY INC. DEC09 LIGHT CRUDES						ENBRIDGE	
Well Name				Initials of Sampler		Sampling Company	
				COND. BLEND CRW-865		1L CAN	
Field or Area		Pool or Zone		Sample Point		Container Identity	
						Percent Full	
Test Recovery		Interval		Elevations (m)		Sample Gathering Point	
Test Type		From: To:		KB GRD		Well Fluid Status	
No. Multiple Recovery						Well Status Mode	
Production Rates		Gauge Pressures kPa		Temperature °C		Well Status Type	
Water m3/d Oil m3/d Gas 1000m3/d		Source As Received		23.0		Well Type	
				Source As Received		Gas or Condensate Project	
						Licence No.	
2009/12/07		2010/01/04		2010/01/04		2010/01/04	
Date Sampled Start		Date Sampled End		Date Received		Date Reported	
						Date Reissued	
						CB	
						Analyst	

COMPOSITION			Boiling Pt. (°C)	Sulphur mole ppm	Sulphur mass ppm	PROPERTIES
Component	Common Name					
Hydrogen Sulphide	H2S		-60.4	<0.5	<0.5	Molecular Wt. (g/mole) Measured
Carbonyl Sulphide	COS		-50	6.6	1.9	
Methanethiol	Methyl mercaptan		6.2	6.8	2.0	
Ethanethiol	Ethyl mercaptan		35	74.5	21.3	
Dimethyl Sulphide	DMS		38	20.5	5.9	Molecular Wt. (g/mole) Calculated
Carbon Disulphide	CS2		46.5	3.5	1.0	
Iso-Propanethiol	Iso-propyl mercaptan		58	112.8	32.2	Onsite H2S ppm(mole) mole%
t-Butanethiol	tert-butyl mercaptan		64	19.6	5.6	
Methyl Ethyl Sulphide	MES		67	17.2	4.9	
n-Propanethiol	Propyl mercaptan		70	19.9	5.7	
Unknown			36-69	<0.5	<0.5	
Thiophene/sec-Butanethiol	Thiophene/sec-Butyl mercaptan		84/90	72.8	20.8	
Diethyl Sulphide	DES		92.1	8.2	2.3	
Iso-Butanethiol	Iso-butyl mercaptan		99	3.0	0.8	
n-Butanethiol	Butyl mercaptan		98	6.8	1.9	
Unknown			71-97	10.7	3.1	
Dimethyl Disulphide	DMDS		110	17.0	4.8	
n-Pentanethiol	Pentyl mercaptan		127	12.3	3.5	
Unknown			100-126	76.5	21.9	
n-Hexanethiol	Hexyl mercaptan		151	13.2	3.8	
Unknown			127-150	67.0	19.1	
n-Heptanethiol	Heptyl mercaptan		177	3.8	1.1	
Unknown			152-176	82.4	23.5	
Total Sulphur				9209	2631.2	
Mercaptan Sulphur on Naphtha fraction (IBP 204°C) ASTM D3227 (mass%) Naphtha IBP 204°C (volume %) Elemental Sulphur (mass ppm)						

** Information not supplied by client -- data derived from LSD information

Results relate only to items tested

Remarks:

Light Crude Quality Project Analyses Summary (December 2007)

Crude	Sample Date	No. Samples or Batch #	Sulphur (wt%)	API Density (degree)	Absolute Density (kg/m3)	Sediment (ppmw)	MCR (wt%)	Salt (ptb)	TAN (mgKOH/g)	Nickel (mg/L)	Vanadium (mg/L)
CRW Condensate Blend											
	2005 Q2	3	0.17	62.9	727.0		0.2			43.5	4.8
	2005 Q3	3	0.16	63.3	725.8		0.4			17.9	2.4
	2005 Q4	3	0.17	63.6	724.6		0.3				3.6
	2006 Q1	4	0.16	64.8	720.2		0.3				6.8
	2006 Q2	3	0.21	63.3	725.9		0.3				1.4
	2006 Q3	2	0.17	62.1	730.2		0.2				1.2
	2006 Q4	2	0.13	67.0	712.2		0.1				
	2007 Q1	3	0.13	65.4	718.1		0.2				
	2007 Q2	3	0.10	67.6	710.3		0.1				
	2007 Q3	3	0.13	65.7	717.0		0.2				
	2007 Q4	3	0.22	64.8	720.3		0.2				1.6
	2008 Q1	1	0.39	65.1	719.2		0.4				
	12/1/2007	CRW-753	0.15	67.6	710.2		0.1				
	1/1/2008	CRW-757	0.39	65.1	719.2		0.4				
	Average		0.17	64.6	721.0		0.2			35.0	3.2
	Std Dev		0.07	2.1	7.7		0.1			13.1	2.0
	Avg + StdDev		0.24	66.7	728.7		0.4			48.1	5.2
	Avg - StdDev		0.10	62.5	713.3		0.1			21.9	1.2

Light Crude Quality Project Light Ends Summary (December 2007)

Crude Sample Date	Count of Batches or Batch No.	Ethane (vol%)	Propane (vol%)	Butanes (vol%)	Pentanes (vol%)	Hexanes (vol%)	Heptanes (vol%)	Octanes (vol%)	Nonanes (vol%)	Decanes (vol%)	Benzene (vol%)	Toluene (vol%)	Ethyl Benzene (vol%)	Xylenes (vol%)	
CRW Condensate Blend															
2005 Q2	3	0.02	0.32	3.54	23.63	21.20	15.23	10.08	5.12	2.28	1.15	2.10	0.23	1.86	
2005 Q3	3	0.02	0.23	3.23	23.45	21.28	16.37	10.77	5.51	2.45	1.23	2.34	0.25	2.03	
2005 Q4	3	0.02	0.23	3.15	21.79	21.60	16.33	11.80	6.09	2.40	1.16	2.26	0.30	2.13	
2006 Q1	4	0.02	0.19	2.76	22.50	22.77	14.89	10.86	6.18	2.49	1.23	2.07	0.28	1.92	
2006 Q2	3	0.02	0.27	3.42	22.51	19.93	15.65	10.90	5.69	2.30	1.06	2.08	0.26	1.86	
2006 Q3	2	0.02	0.28	2.96	20.36	19.74	16.38	11.82	6.08	2.52	1.06	2.19	0.29	2.06	
2006 Q4	2	0.02	0.22	3.37	25.43	22.50	15.32	10.35	5.29	2.09	1.13	2.00	0.25	1.82	
2007 Q1	3	0.02	0.24	3.33	24.64	24.26	15.17	10.54	5.29	2.17	1.27	2.10	0.27	1.93	
2007 Q2	3	0.02	0.20	3.22	25.40	23.30	15.51	10.59	5.37	1.96	1.25	2.15	0.27	1.86	
2007 Q3	3	0.02	0.24	3.42	23.97	20.53	15.46	10.25	5.10	2.08	1.08	2.13	0.25	1.82	
2007 Q4	3	0.02	0.26	3.49	24.77	21.60	16.06	11.39	5.70	2.22	1.08	2.15	0.30	1.97	
2008 Q1	1	0.02	0.21	3.06	25.40	21.80	16.14	11.48	5.53	2.05	1.07	2.13	0.31	1.99	
12/1/2007	CRW-753	0.02	0.18	2.89	26.08	22.84	16.97	11.76	5.53	2.07	1.14	2.22	0.3	1.94	
1/1/2008	CRW-757	0.02	0.21	3.06	25.4	21.8	16.14	11.48	5.53	2.05	1.07	2.13	0.31	1.99	
Average		0.02	0.24	3.25	23.56	21.77	15.65	10.85	5.59	2.27	1.16	2.14	0.27	1.93	
Std Dev		0.01	0.06	0.34	2.28	1.95	0.94	0.96	0.65	0.30	0.12	0.16	0.04	0.16	
Avg + StdDev		0.03	0.30	3.59	25.84	23.72	16.59	11.82	6.24	2.56	1.28	2.30	0.31	2.09	
Avg - StdDev		0.01	0.18	2.91	21.28	19.82	14.71	9.89	4.94	1.97	1.04	1.99	0.23	1.78	