



June 18, 2009

CQI Report to Stakeholders

## Subject: April 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 lywood@crudequality.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).

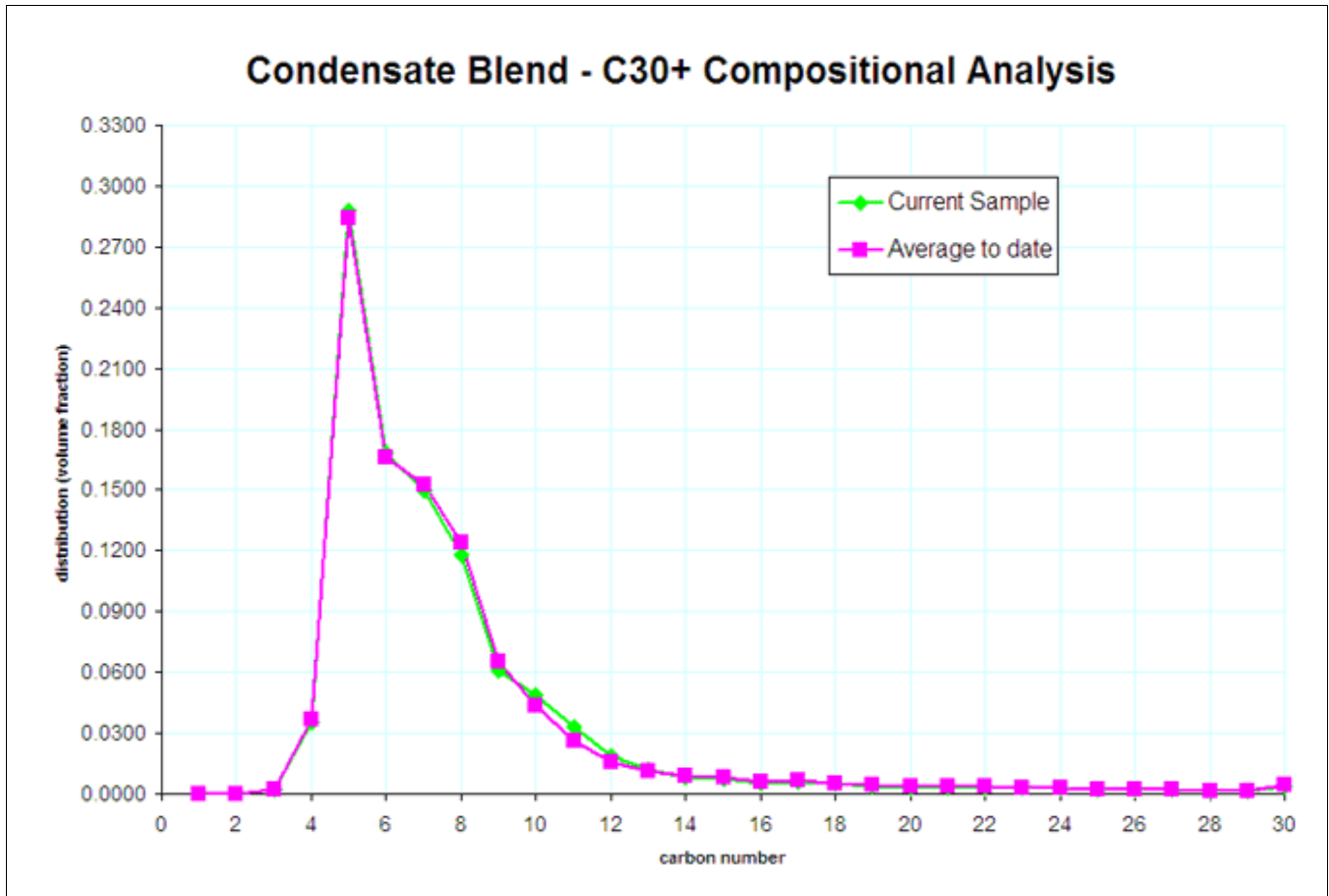
In addition to the attached, we note the following testing results:

	Sample Date	Batch #	Sulphur (wt%)	API Gravity (degree)	Absolute Density (kg/m <sup>3</sup> )	MCR (wt%)	Viscosity @ 7.5° C (cSt)	RVP (kPa)	Organo-Phosphates (ppmw)	Total Mercaptans (ppm)	Olefins (wt%)
<b>Current Data</b>	04/06/09	CRW-828	0.23	67.3	711.7	0.1	0.73	80	-	94	-
<b>Average To Date</b>			0.19	65.1	719.3	0.23	0.8	75.8	0.87	98	7xND
<b>Std Dev.</b>			0.09	2.1	7.5	0.13	0.05	3	0.23	17	-
<b>Avg+StdDev</b>			0.28	67.1	726.8	0.37	0.85	78.7	1.1	115	-
<b>Avg-StdDev</b>			0.11	63	711.8	0.10	0.75	72.8	0.63	81	-

The April sample of CRW exhibited slight decreases in density and viscosity along with marginally elevated RVP and C11s. A sediment value of 350 ppmw was measured for this sample, notably above the 80 ppmw observed in March 2009, and about equivalent to the February 2009 sediment value of 320 ppmw.



Figure 1. C30+ Compositional Analysis for CRW-828





# C30+ COMPOSITIONAL ANALYSIS

A921690:073092

MaxxID

Client ID

Meter Number

Laboratory Number

CRUDE QUALITY INC.

Operator Name

LSD

Well ID

CRUDE QUALITY INC. APR09 LIGHT CRUDES

ENBRIDGE

Well Name

Initials of Sampler

Sampling Company

COND. BLEND CRW-828

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

21 Source As Received

Gas or Condensate Project

Licence No.

2009/04/06

2009/05/09

2009/05/26

YZ

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	0.0039	0.0018	0.0025
IC4	0.0072	0.0044	0.0056
NC4	0.0408	0.0250	0.0300
IC5	0.1646	0.1251	0.1406
NC5	0.1740	0.1322	0.1470
C6	0.1774	0.1609	0.1686
C7+	0.4321	0.5506	0.5057
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+		0.707		97	0.9481	0.9688	0.9619
C6+		0.740		111	0.6095	0.7115	0.6743
C7+	0.764		123	121	0.4321	0.5506	0.5057
C10+					0.1055	0.2036	0.1771
C12+					0.0479	0.1146	0.0953
TOTAL		0.702		95			

Calculated Absolute Density Total Sample: 701.4 kg/m3 @ 15°C  
 Gas Equivalent Factor: 172.97 m3 Gas/m3 Liquid

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

Results relate only to items tested

Remarks:



# C30+ COMPOSITIONAL ANALYSIS

CRUDE QUALITY INC.

A921690:073092

Operator Name

Laboratory Number

CRUDE QUALITY INC. APR09 LIGHT CRUDES

COND. BLEND CRW-828

Well Name

Sample Point

ENBRIDGE

Sampling Company

Maxx/D

Client ID

2009/04/06

2009/05/09

2009/05/26

YZ

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	0.0039	0.0018	0.0025
Iso-Butane	-12	0.0072	0.0044	0.0056
n-Butane	0	0.0408	0.0250	0.0300
Iso-Pentane	28	0.1646	0.1251	0.1406
n-Pentane	36	0.1740	0.1322	0.1470
Hexanes	37-69	0.1774	0.1609	0.1686
Heptanes	70-98	0.1602	0.1549	0.1498
Octanes	99-126	0.1142	0.1261	0.1182
Nonanes	127-151	0.0522	0.0660	0.0606
Decanes	152-174	0.0349	0.0516	0.0487
Undecanes	175-196	0.0227	0.0374	0.0331
Dodecanes	197-216	0.0120	0.0215	0.0188
Triadecanes	217-236	0.0073	0.0143	0.0123
Tetradecanes	237-253	0.0047	0.0100	0.0085
Pentadecanes	254-271	0.0040	0.0090	0.0075
Hexadecanes	272-287	0.0028	0.0067	0.0056
Heptadecanes	288-302	0.0030	0.0076	0.0063
Octadecanes	303-317	0.0023	0.0060	0.0049
NonaDecanes	318-331	0.0015	0.0042	0.0035
Eicosanes	332-343	0.0013	0.0037	0.0030
Heneicosanes	344-357	0.0013	0.0041	0.0033
Docosanes	358-369	0.0011	0.0036	0.0029
Triacosanes	370-380	0.0010	0.0033	0.0027
Tetracosanes	381-391	0.0009	0.0034	0.0027
Pentacosanes	392-402	0.0009	0.0030	0.0023
Hexacosanes	403-412	0.0008	0.0026	0.0020
Heptacosanes	413-422	0.0007	0.0024	0.0019
Octacosanes	423-432	0.0006	0.0022	0.0017
Nonacosanes	433-441	0.0005	0.0019	0.0015
triacontanes+	442-449+	0.0012	0.0051	0.0039
Totals		1.0000	1.0000	1.0000
neoHexane	50	0.0000	0.0000	0.0000
Methylcyclopentane	70	0.0356	0.0315	0.0294
Benzene	80	0.0145	0.0120	0.0095
Cyclohexane	81	0.0286	0.0254	0.0228
Methylcyclohexane	101	0.0374	0.0387	0.0352
Toluene	111	0.0220	0.0214	0.0173
Ethylbenzene	136	0.0022	0.0025	0.0020
m&p-Xylene	139	0.0136	0.0152	0.0123
o-Xylene	144	0.0037	0.0042	0.0033
1,2,4-Trimethylbenzene	169	0.0040	0.0052	0.0042

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

Results relate only to items tested

Remarks:



# TRACE SULPHUR ANALYSIS

A921690:O73093

MaxID

Client ID

Meter Number

Laboratory Number

CRUDE QUALITY INC.

Operator Name

LSD

Well ID

CRUDE QUALITY INC. APR09 LIGHT CRUDES

ENBRIDGE

Well Name

Initials of Sampler

Sampling Company

COND. BLEND CRW-828

VIAL

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.

2009/04/06

2009/05/09

2009/05/26

JSA

Date Sampled Start

Date Sampled End

Date Received

Date Reported

Date Reissued

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	2.3	0.7	
Methanethiol	Methyl mercaptan		6.2	8.2	2.6	
Ethanethiol	Ethyl mercaptan		35	74.0	23.9	
Dimethyl Sulphide	DMS		38	23.9	7.7	Molecular Wt. (g/mole) Calculated
Carbon Disulphide	CS2		46.5	5.1	1.6	
Iso-Propanethiol	Iso-propyl mercaptan		58	97.4	31.5	Onsite H2S ppm(mole) mole%
t-Butanethiol	tert-butyl mercaptan		64	13.2	4.3	
Methyl Ethyl Sulphide	MES		67	14.7	4.8	
n-Propanethiol	Propyl mercaptan		70	18.7	6.0	
Unknown			36-69	<0.5	<0.5	
Thiophene/sec-Butanethiol	Thiophene/sec-Butyl mercaptan		84/90	52.2	16.9	
Diethyl Sulphide	DES		92.1	6.6	2.1	
Iso-Butanethiol	Iso-butyl mercaptan		99	1.9	0.6	
n-Butanethiol	Butyl mercaptan		98	5.9	1.9	
Unknown			71-97	13.2	4.3	
Dimethyl Disulphide	DMDS		110	9.6	3.1	
n-Pentanethiol	Pentyl mercaptan		127	2.4	0.8	
Unknown			100-126	47.9	15.5	
n-Hexanethiol	Hexyl mercaptan		151	11.9	3.8	
Unknown			127-150	49.1	15.9	
n-Heptanethiol	Heptyl mercaptan		177	6.0	1.9	
Unknown			152-176	51.0	16.5	
Total Sulphur				2794	903.0	

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)
<b>CRW Condensate Blend</b>											
	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				
	<b>Average</b>		<b>0.17</b>	<b>64.6</b>	<b>721.0</b>		<b>0.2</b>			<b>35.0</b>	<b>3.2</b>
	<b>Std Dev</b>		<b>0.07</b>	<b>2.1</b>	<b>7.7</b>		<b>0.1</b>			<b>13.1</b>	<b>2.0</b>
	<b>Avg + StdDev</b>		<b>0.24</b>	<b>66.7</b>	<b>728.7</b>		<b>0.4</b>			<b>48.1</b>	<b>5.2</b>
	<b>Avg - StdDev</b>		<b>0.10</b>	<b>62.5</b>	<b>713.3</b>		<b>0.1</b>			<b>21.9</b>	<b>1.2</b>

## 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%)	
<b>CRW Condensate Blend</b>															
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	
<b>Average</b>		<b>0.02</b>	<b>0.24</b>	<b>3.25</b>	<b>23.56</b>	<b>21.77</b>	<b>15.65</b>	<b>10.85</b>	<b>5.59</b>	<b>2.27</b>	<b>1.16</b>	<b>2.14</b>	<b>0.27</b>	<b>1.93</b>	
<b>Std Dev</b>		<b>0.01</b>	<b>0.06</b>	<b>0.34</b>	<b>2.28</b>	<b>1.95</b>	<b>0.94</b>	<b>0.96</b>	<b>0.65</b>	<b>0.30</b>	<b>0.12</b>	<b>0.16</b>	<b>0.04</b>	<b>0.16</b>	
<b>Avg + StdDev</b>		<b>0.03</b>	<b>0.30</b>	<b>3.59</b>	<b>25.84</b>	<b>23.72</b>	<b>16.59</b>	<b>11.82</b>	<b>6.24</b>	<b>2.56</b>	<b>1.28</b>	<b>2.30</b>	<b>0.31</b>	<b>2.09</b>	
<b>Avg - StdDev</b>		<b>0.01</b>	<b>0.18</b>	<b>2.91</b>	<b>21.28</b>	<b>19.82</b>	<b>14.71</b>	<b>9.89</b>	<b>4.94</b>	<b>1.97</b>	<b>1.04</b>	<b>1.99</b>	<b>0.23</b>	<b>1.78</b>	