



January 8, 2009

CQI Report to Stakeholders

Subject: November 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	11/09/09	CRW-860	0.11	66	716.7	0.1	0.8	71	-	105	-
Average To Date			0.18	65.3	718.4	0.22	0.79	74.6	0.9	103	8xND
Std Dev.			0.08	2.1	7.6	0.13	0.05	3.3	0.23	18	-
Avg+StdDev			0.27	67.4	726	0.35	0.84	78	1.13	121	-
Avg-StdDev			0.1	63.3	710.8	0.09	0.74	71.3	0.67	85	-

Table 1: Summary of CRW current and average properties

The October sample of CRW had slightly lower than average C5s x C6s along with marginally increased C8s x C9s. Less than 10 mg/L of sediment was detected in this sample of CRW.

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

Nov08	Dec08	Jan09	Feb09	Mar09	Apr09	May09	Jun09	Jul09	Aug09	Sep09	Oct09	Nov09
21	70	150	320	80	-	90	130	140	73	43	39	<10

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

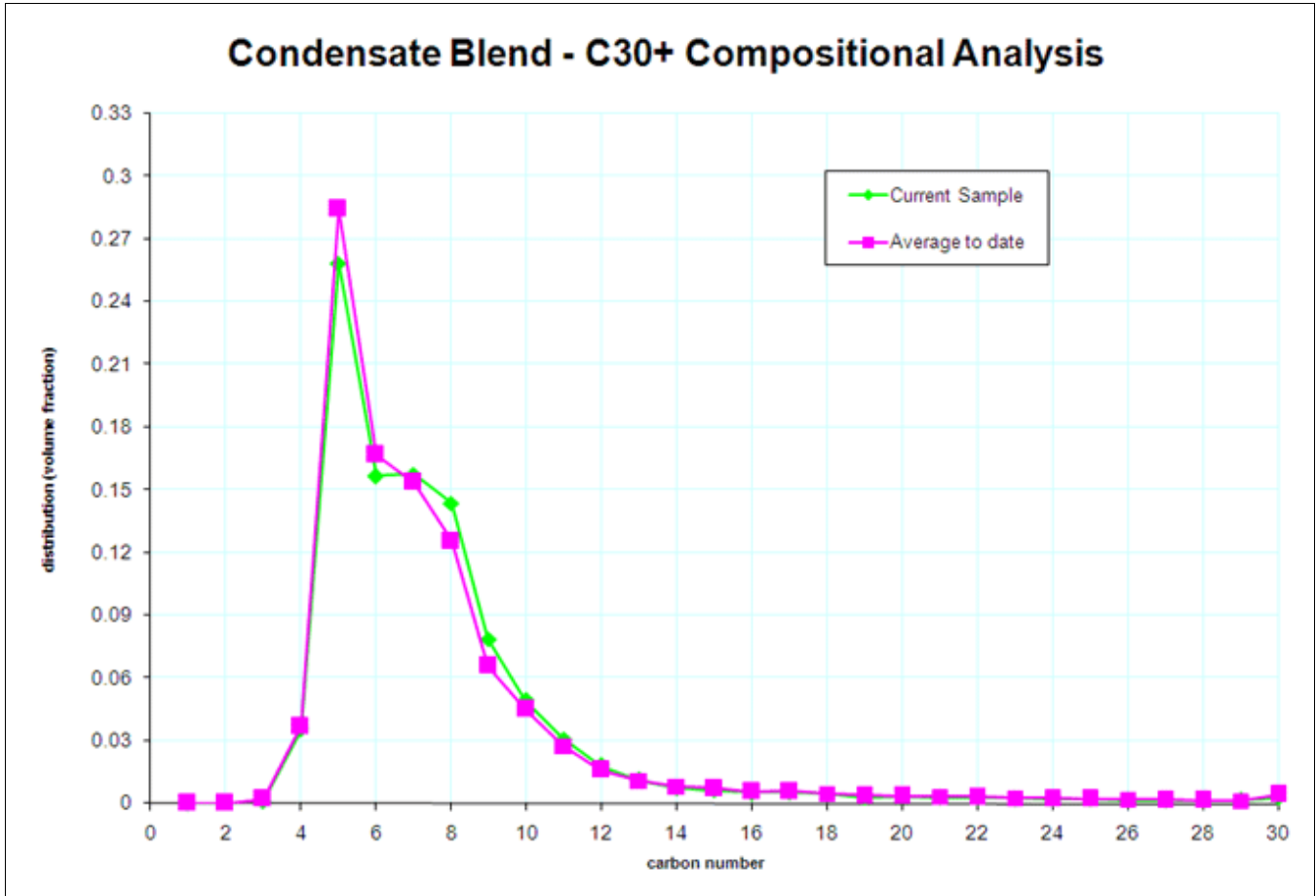


Figure 1: C30+ Compositional Analysis for CRW-860



C30+ COMPOSITIONAL ANALYSIS

A966316:R83306

MaxxID

Client ID

Meter Number

Laboratory Number

CRUDE QUALITY INC.

Operator Name

LSD

Well ID

CRUDE QUALITY INC. NOV09 LIGHT CRUDES

ENBRIDGE

Well Name

Initials of Sampler

Sampling Company

COND. BLEND CRW-860

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.

2009/11/09

2009/11/19

2009/11/25

2009/11/26

YZ ,DJ2

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	0.0020	0.0009	0.0013
IC4	0.0065	0.0039	0.0049
NC4	0.0418	0.0252	0.0306
IC5	0.1478	0.1107	0.1255
NC5	0.1584	0.1187	0.1331
C6	0.1652	0.1482	0.1568
C7+	0.4783	0.5924	0.5478
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+		0.713		98	0.9497	0.9700	0.9632
C6+		0.744		111	0.6435	0.7406	0.7046
C7+	0.766		121	119	0.4783	0.5924	0.5478
C10+					0.1031	0.1928	0.1676
C12+					0.0453	0.1053	0.0872
TOTAL		0.708		96			

Calculated Absolute Density Total Sample:
Gas Equivalent Factor:

707.4 kg/m3 @ 15°C
172.28 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.

A966316:R83306

Operator Name

Laboratory Number

CRUDE QUALITY INC. NOV09 LIGHT CRUDES

COND. BLEND CRW-860

Well Name

Sample Point

ENBRIDGE

Sampling Company

MaxxD

Client ID

2009/11/09

2009/11/19

2009/11/25

2009/11/26

YZ ,DJ2

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	0.0020	0.0009	0.0013
Iso-Butane	-12	0.0065	0.0039	0.0049
n-Butane	0	0.0418	0.0252	0.0306
Iso-Pentane	28	0.1478	0.1107	0.1255
n-Pentane	36	0.1584	0.1187	0.1331
Hexanes	37-69	0.1652	0.1482	0.1568
Heptanes	70-98	0.1684	0.1622	0.1577
Octanes	99-126	0.1388	0.1523	0.1438
Nonanes	127-151	0.0680	0.0851	0.0787
Decanes	152-174	0.0361	0.0524	0.0494
Undecanes	175-196	0.0217	0.0351	0.0310
Dodecanes	197-216	0.0117	0.0206	0.0180
Triadecanes	217-236	0.0068	0.0130	0.0113
Tetradecanes	237-253	0.0043	0.0089	0.0075
Pentadecanes	254-271	0.0035	0.0077	0.0064
Hexadecanes	272-287	0.0028	0.0064	0.0052
Heptadecanes	288-302	0.0027	0.0066	0.0054
Octadecanes	303-317	0.0022	0.0058	0.0048
NonaDecanes	318-331	0.0014	0.0039	0.0031
Eicosanes	332-343	0.0015	0.0045	0.0036
Heneicosanes	344-357	0.0013	0.0039	0.0031
Docosanes	358-369	0.0012	0.0035	0.0028
Triacosanes	370-380	0.0010	0.0032	0.0025
Tetracosanes	381-391	0.0009	0.0029	0.0022
Pentacosanes	392-402	0.0009	0.0031	0.0024
Hexacosanes	403-412	0.0006	0.0019	0.0015
Heptacosanes	413-422	0.0005	0.0019	0.0015
Octacosanes	423-432	0.0005	0.0019	0.0015
Nonacosanes	433-441	0.0005	0.0019	0.0015
triacontanes+	442-449+	0.0010	0.0037	0.0029
Totals		1.0000	1.0000	1.0000
neoHexane	50	0.0000	0.0000	0.0000
Methylcyclopentane	70	0.0321	0.0280	0.0260
Benzene	80	0.0135	0.0109	0.0086
Cyclohexane	81	0.0270	0.0236	0.0212
Methylcyclohexane	101	0.0418	0.0426	0.0387
Toluene	111	0.0231	0.0221	0.0179
Ethylbenzene	136	0.0032	0.0035	0.0029
m&p-Xylene	139	0.0154	0.0170	0.0137
o-Xylene	144	0.0049	0.0054	0.0043
1,2,4-Trimethylbenzene	169	0.0039	0.0049	0.0039

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

Results relate only to items tested

Remarks:

Distillation Corrected to 101.3 kPa



TRACE SULPHUR ANALYSIS

A966316:R83307

MaxID		Client ID		Meter Number		Laboratory Number	
CRUDE QUALITY INC.				LSD		Well ID	
Operator Name				Initials of Sampler		Sampling Company	
CRUDE QUALITY INC. NOV09 LIGHT CRUDES				COND. BLEND CRW-860		ENBRIDGE	
Well Name				Sample Point		Container Identity	
Field or Area				Pool or Zone		Percent Full	
Test Recovery		Interval		Elevations (m)		Sample Gathering Point	
Test Type		From: To:		KB GRD		Well Fluid Status	
No. Multiple Recovery		Gauge Pressures kPa		Temperature °C		Well Status Type	
Production Rates		Source As Received		23.0		Well Status Mode	
Water m3/d Oil m3/d Gas 1000m3/d		Source As Received		Source As Received		Licence No.	
2009/11/09		2009/11/19		2009/11/25		2009/11/26	
Date Sampled Start		Date Sampled End		Date Received		Date Reported	
						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	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Molecular Wt. (g/mole) Measured </div> <div style="border: 1px solid black; padding: 5px;"> Molecular Wt. (g/mole) Calculated </div>
Carbonyl Sulphide	COS		-50	<0.5	<0.5	
Methanethiol	Methyl mercaptan		6.2	7.5	2.4	
Ethanethiol	Ethyl mercaptan		35	90.6	29.0	
Dimethyl Sulphide	DMS		38	17.0	5.4	
Carbon Disulphide	CS2		46.5	3.3	1.0	
Iso-Propanethiol	Iso-propyl mercaptan		58	105.1	33.6	
t-Butanethiol	tert-butyl mercaptan		64	17.6	5.6	
Methyl Ethyl Sulphide	MES		67	14.0	4.5	
n-Propanethiol	Propyl mercaptan		70	22.4	7.2	
Unknown			36-69	<0.5	<0.5	
Thiophene/sec-Butanethiol	Thiophene/sec-Butyl mercaptan		84/90	61.7	19.7	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> Onsite H2S </div> <div style="border: 1px solid black; padding: 5px;"> ppm(mole) mole% </div>
Diethyl Sulphide	DES		92.1	5.9	1.9	
Iso-Butanethiol	Iso-butyl mercaptan		99	8.1	2.6	
n-Butanethiol	Butyl mercaptan		98	<0.5	<0.5	
Unknown			71-97	5.5	1.7	
Dimethyl Disulphide	DMDS		110	14.0	4.5	
n-Pentanethiol	Pentyl mercaptan		127	7.8	2.5	
Unknown			100-126	49.1	15.7	
n-Hexanethiol	Hexyl mercaptan		151	2.3	0.7	
Unknown			127-150	58.5	18.7	
n-Heptanethiol	Heptyl mercaptan		177	5.7	1.8	
Unknown			152-176	80.1	25.6	
Total Sulphur				3314	1060.4	
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	