



C30+ COMPOSITIONAL ANALYSIS

B1A0117:BW0245

CRUDE QUALITY INC.	<i>MaxxID</i>	<i>Client ID</i>	<i>Meter Number</i>	<i>Laboratory Number</i>
<i>Operator Name</i>	<i>LSD</i>			<i>Well ID</i>
CRUDE QUALITY INC. MINI ASSAY				MAXXAM ANALYTICS
<i>Well Name</i>	<i>Initials of Sampler</i>			<i>Sampling Company</i>
	LLK NAPHTHA IBP - 190°C			4L CAN
<i>Field or Area</i>	<i>Pool or Zone</i>	<i>Sample Point</i>	<i>Container Identity</i>	<i>Percent Full</i>
<i>Test Recovery</i>	<i>Interval</i>		<i>Elevations (m)</i>	<i>Sample Gathering Point</i>
<i>Test Type</i>	<i>No.</i>	<i>Multiple Recovery</i>	From: To: KB GRD	<i>Solution Gas</i>
<i>Production Rates</i>		<i>Gauge Pressures kPa</i>	<i>Temperature °C</i>	<i>Well Fluid Status</i>
Water m3/d	Oil m3/d	Gas 1000m3/d	23	<i>Well Status Mode</i>
		Source As Received	Source As Received	<i>Well Status Type</i>
				<i>Well Type</i>
				<i>Gas or Condensate Project</i>
				<i>Licence No.</i>
<i>Date Sampled Start</i>	<i>Date Sampled End</i>	<i>Date Received</i>	<i>Date Reported</i>	<i>Date Reissued</i>
		2011/10/19	2012/02/10	
				NG
				<i>Analyst</i>

COMPOSITION			
COMPONENT	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N2			
CO2			
H2S			
C1	0.0000	0.0000	0.0000
C2	Trace	Trace	Trace
C3	0.0014	0.0007	0.0010
IC4	0.0219	0.0144	0.0174
NC4	0.0637	0.0420	0.0489
IC5	0.1974	0.1614	0.1764
NC5	0.1925	0.1574	0.1698
C6	0.1562	0.1526	0.1554
C7+	0.3669	0.4715	0.4311
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
C5+		0.689		91	0.9130	0.9429
C6+		0.725		105	0.5231	0.6241
C7+	0.745		113	113	0.3669	0.4715
C10+					0.0885	0.1504
C12+					0.0042	0.0100
TOTAL		0.681		88		0.0080

Calculated Absolute Density Total Sample: 680.4 kg/m3 @ 15°C
 Gas Equivalent Factor: 182.58 m3 Gas/m3 Liquid

** Information not supplied by client -- data derived from LSD information Results relate only to items tested

Remarks:



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Operator Name

Laboratory Number

CRUDE QUALITY INC. MINI ASSAY

LLK NAPHTHA IBP - 190°C

Well Name

Sample Point

MAXXAM ANALYTICS

Sampling Company

MaxxD

Client ID

2011/10/19

2012/02/10

NG

Date Sampled Start

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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	0.0014	0.0007	0.0010
Iso-Butane	-12	0.0219	0.0144	0.0174
n-Butane	0	0.0637	0.0420	0.0489
Iso-Pentane	28	0.1974	0.1614	0.1764
n-Pentane	36	0.1925	0.1574	0.1698
Hexanes	37-69	0.1562	0.1526	0.1554
Heptanes	70-98	0.1409	0.1482	0.1398
Octanes	99-126	0.0961	0.1152	0.1055
Nonanes	127-151	0.0414	0.0577	0.0524
Decanes	152-174	0.0522	0.0835	0.0767
Undecanes	175-196	0.0321	0.0569	0.0487
Dodecanes	197-216	0.0026	0.0049	0.0042
Triadecanes	217-236	Trace	Trace	Trace
Tetradecanes	237-253	Trace	Trace	Trace
Pentadecanes	254-271	Trace	Trace	Trace
Hexadecanes	272-287	Trace	Trace	Trace
Heptadecanes	288-302	Trace	Trace	Trace
Octadecanes	303-317	0.0001	0.0002	0.0001
NonaDecanes	318-331	0.0001	0.0002	0.0001
Eicosanes	332-343	0.0001	0.0003	0.0002
Heneicosanes	344-357	0.0001	0.0003	0.0003
Docosanes	358-369	0.0001	0.0002	0.0001
Triacosanes	370-380	0.0001	0.0002	0.0002
Tetracosanes	381-391	0.0001	0.0003	0.0002
Pentacosanes	392-402	0.0001	0.0003	0.0002
Hexacosanes	403-412	0.0001	0.0003	0.0003
Heptacosanes	413-422	0.0001	0.0004	0.0003
Octacosanes	423-432	0.0001	0.0004	0.0003
Nonacosanes	433-441	0.0001	0.0004	0.0003
triacontanes+	442-449+	0.0004	0.0016	0.0012
Totals		1.0000	1.0000	1.0000
neoHexane	50	0.0000	0.0000	0.0000
Methylcyclopentane	70	0.0295	0.0281	0.0253
Benzene	80	0.0094	0.0084	0.0065
Cyclohexane	81	0.0227	0.0216	0.0187
Methylcyclohexane	101	0.0327	0.0364	0.0321
Toluene	111	0.0132	0.0138	0.0108
Ethylbenzene	136	0.0022	0.0027	0.0021
m&p-Xylene	139	0.0064	0.0078	0.0061
o-Xylene	144	0.0018	0.0021	0.0016
1,2,4-Trimethylbenzene	169	0.0037	0.0052	0.0040

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