9211-P33-4-7

AGAT Laboratories

CALGARY — EDMONTON — GRANDE PRAIRIE

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HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION: AGAT 1047

LABORATORY NUMBER: C5405A

OPERATOR NAME: PARAMOUNT RESOURCES LTD. *****

UNIQUE WELL IDENTIFIER:

WELL NAME: PARAMOUNT et al CAMERON M-73

ELEVATIONS KB m: 775.15 GRD m: 771.45

FIELD OR AREA: CAMERON

POOL OR ZONE: SULPHUR POINT

NAME OF SAMPLER:

COMPANY: NORTHLAND

TEST TYPE:

NO:

TEST RECOVERY:

TEST INTERVAL OR PERFS: 1415.5-1420.5 mKB

SAMPLING POINT: SEPARATOR

* Bubble Point

	SEPARATOR	TREATER	RESERVOIR	SOURCE	SAMPLED	RECEIVED
GAUGE PRESSURE kPa	210			210		600*
TEMPERATURE °C	2			2		23*

DATE SAMPLED (Y-M-D): 91-03-13

DATE RECEIVED (Y-M-D): 91-03-27

DATE REPORTED (Y-M-D): 91-03-28

ANALYST: JT

OTHER INFORMATION: 60 10'N 117 15'W

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N_2	0.0001	0.0000	0.0000
CO_2	0.0037	0.0007	0.0007
H_2S	0.0000	0.0000	0.0000
C_1	0.0234	0.0016	0.0046
C_2	0.0040	0.0005	0.0012
C_3	0.0093	0.0017	0.0030
IC_4	0.0044	0.0011	0.0017
NC_4	0.0126	0.0031	0.0046
IC_5	0.0097	0.0030	0.0041
NC_5	0.0123	0.0038	0.0051
C_6	0.0282	0.0102	0.0131
C_{7+}	0.8923	0.9743	0.9619
C_8			
C_9			
C_{10}			
C_{11}			
C_{12+}			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C_7+ RESIDUE (15/15° C)

871.3 kg/m³ — DENSITY

0.8721 — RELATIVE DENSITY

30.6 — API @ 15.5° C

257.2 — RELATIVE MOLECULAR MASS

CALCULATED PROPERTIES OF TOTAL SAMPLE (15/15° C)

861.0 kg/m³ — DENSITY

0.8617 — RELATIVE DENSITY

32.6 — API @ 15.5° C

235.6 — RELATIVE MOLECULAR MASS

REMARKS:

File No. : C5405A
Company : PARAMOUNT RESOURCES LTD.
Well No. :

PROPERTIES OF C6+ FRACTION

BOILING POINT RANGE (C)	COMPONENT	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
36.1- 68.9	HEXANES----------C6	0.0266	0.0097	0.0126
68.9- 98.3	HEPTANES----------C7	0.0312	0.0164	0.0184
98.3-125.6	OCTANES----------C8	0.0475	0.0287	0.0311
125.6-150.6	NONANES----------C9	0.0335	0.0227	0.0240
150.6-173.9	DECANES----------C10	0.0539	0.0406	0.0422
173.9-196.1	UNDECANES----------C11	0.0599	0.0494	0.0508
196.1-215.0	DODECANES----------C12	0.0549	0.0493	0.0502
215.0-235.0	TRIDECANES----------C13	0.0678	0.0663	0.0667
235.0-252.2	TETRADECANES----------C14	0.0651	0.0680	0.0684
252.2-270.6	PENTADECANES----------C15	0.0543	0.0609	0.0603
270.6-287.8	HEXADECANES----------C16	0.0484	0.0580	0.0571
287.8-302.8	HEPTADECANES----------C17	0.0506	0.0643	0.0630
302.8-317.2	OCTADECANES----------C18	0.0412	0.0554	0.0539
317.2-330.0	NONADECANES----------C19	0.0324	0.0459	0.0446
330.0-344.4	EICOSANES----------C20	0.0273	0.0408	0.0394
344.4-357.2	HENEICOSANES----------C21	0.0259	0.0407	0.0392
357.2-369.4	DOCOSANES----------C22	0.0201	0.0330	0.0318
369.4-380.0	TRICOSANES----------C23	0.0154	0.0264	0.0254
380.0-391.1	TETRACOSANES----------C24	0.0162	0.0290	0.0277
391.1-401.7	PENTACOSANES----------C25	0.0131	0.0243	0.0232
401.7-412.2	HEXACOSANES----------C26	0.0114	0.0221	0.0211
412.2-422.2	HEPTACOSANES----------C27	0.0108	0.0218	0.0208
422.2-431.7	OCTACOSANES----------C28	0.0117	0.0244	0.0231
431.7-441.1	NONACOSANES----------C29	0.0078	0.0170	0.0161
441.1 PLUS	TRIACONTANES PLUS-------C30+	0.0112	0.0252	0.0239

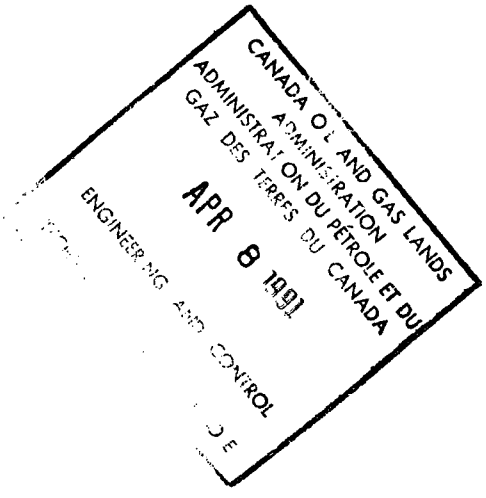
AROMATICS

80.0	BENZENES----------C6	0.0008	0.0003	0.0003
110.6	TOLUENE----------C7	0.0110	0.0054	0.0047
136.2	ETHYLBENZENE----------C8	0.0045	0.0025	0.0022
138.4-144.4	XYLENES----------C8	0.0274	0.0153	0.0135
168.9	1,2,4 TRIMETHYLBENZENE--C9	0.0138	0.0088	0.0076

NAPHTHENES

48.9	CYCLOPENTANE----------CC5	0.0016	0.0005	0.0005
72.2	METHYLCYCLOPENTANE------MCC5	0.0050	0.0023	0.0023
81.1	CYCLOHEXANE----------4CC6	0.0055	0.0025	0.0024
101.1	METHYLCYCLOHEXANE-------MCC6	0.0127	0.0066	0.0065

The above hexanes plus values are based upon a measured mass fraction and a calculated mole fraction, and assume a total hydrocarbon recovery from the chromatographic system.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