



## GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 21181

LABORATORY NUMBER

GF41946A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

KB m ELEVATIONS GRD m

PARAMOUNT et al LAIRD

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LAIRD

SAME

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

TEST SEPARATOR

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

GAUGE PRESSURE kPa

TEMPERATURE °C

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

99-08-19

99-08-21

99-08-21

BN

NCO

F-36

| COMP.            | MOLE FRACTION        |                        | PETROLEUM LIQUID CONTENT mL • m <sup>-3</sup> |
|------------------|----------------------|------------------------|-----------------------------------------------|
|                  | AIR FREE AS RECEIVED | AIR FREE ACID GAS FREE |                                               |
| H <sub>2</sub>   | TRACE                | TRACE                  |                                               |
| He               | 0.0001               | 0.0001                 |                                               |
| N <sub>2</sub>   | 0.0032               | 0.0033                 |                                               |
| CO <sub>2</sub>  | 0.0133               | 0.0000                 |                                               |
| H <sub>2</sub> S | 0.0000               | 0.0000                 |                                               |
| C <sub>1</sub>   | 0.9497               | 0.9622                 |                                               |
| C <sub>2</sub>   | 0.0226               | 0.0229                 |                                               |
| C <sub>3</sub>   | 0.0063               | 0.0064                 | 23.3                                          |
| IC <sub>4</sub>  | 0.0013               | 0.0014                 | 5.9                                           |
| NC <sub>4</sub>  | 0.0015               | 0.0016                 | 6.5                                           |
| IC <sub>5</sub>  | 0.0007               | 0.0007                 | 3.5                                           |
| NC <sub>5</sub>  | 0.0005               | 0.0005                 | 2.6                                           |
| C <sub>6</sub>   | 0.0004               | 0.0004                 | 2.3                                           |
| C <sub>7</sub>   | 0.0003               | 0.0004                 | 2.1                                           |
| C <sub>8</sub>   | 0.0001               | 0.0001                 | 1.0                                           |
| C <sub>9</sub>   | 0.0000               | 0.0000                 | 0.0                                           |
| C <sub>10+</sub> | 0.0000               | 0.0000                 | 0.0                                           |
| TOTAL            | 1.0000               | 1.0000                 | 47.2                                          |

GROSS HEATING VALUE MJm<sup>-3</sup>  
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

39.21

AIR FREE AS RECEIVED

38.69

VAPOUR PRESSURE PENTANES PLUS

81.8

kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.594

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.582

PSEUDO CRITICAL PROPERTIES (CALCULATED):

AS SAMPLED

pPc (abs)

4635 kPa

pTc

196.9 K

ACID GAS FREE

pPc (abs)

4598 kPa

pTc

195.4 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.2

C<sub>7+</sub>

104.3

H<sub>2</sub>S g/m<sup>3</sup>

0.00

REMARKS:

FIELD H<sub>2</sub>S = 1.5 ppm