

REMARKS: Free water (volume %) = 1
Total Sulphur (Not Detected) = < 0.50 g/kg.
Pour Point Detection Limit = -60°C.



HYDROCARBON LIQUID ANALYSIS

375 - 4		1957		52136-2005-0876			
CONTAINER IDENTITY		METER ID		WELL LICENSE NUMBER			
K-14-66-40-126-00		Paramount Resources Ltd.		LABORATORY FILE NUMBER			
LOCATION (UWI)		OPERATOR		PAGE			
West Nogha		Apache Paramount West Nogha K-14-66-40-126-00		4			
FIELD OR AREA		WELL NAME		KB ELEV (m) GR ELEV (m)			
West Nogha		Core Laboratories					
POOL OR ZONE		SAMPLER					
TEST TYPE AND NO.		TEST RECOVERY					
Choke Manifold Swab #1							
		POINT OF SAMPLE		SAMPLE POINT ID			
		PUMPING	FLOWING	GAS LIFT	SWAB		
		WATER	m ³ /d	OIL	m ³ /d	GAS	m ³ /d
TEST INTERVAL or PERFS (meters)		SEPARATOR		RESERVOIR		OTHER	
at 11:30 hrs		Pressures, kPa (gauge)		Temperatures, °C			
2005 02 23		2005 03 09		2005 04 05		CR	
DATE SAMPLED (Y/M/D)		DATE RECEIVED (Y/M/D)		DATE ANALYZED (Y/M/D)		ANALYST	
						AMT. AND TYPE CUSHION	
						MUD RESISTIVITY	

COMPONENT	MOLE FRACTION	MASS FRACTION	LIQUID VOLUME FRACTION	mL/m ³
N ₂	0.0000	0.0000	0.0000	0.0
CO ₂	0.0000	0.0000	0.0000	0.0
H ₂ S	0.0000	0.0000	0.0000	0.0
C ₁	0.0001	0.0000	0.0000	0.2
C ₂	0.0008	0.0002	0.0004	2.8
C ₃	0.0045	0.0017	0.0026	16.5
iC ₄	0.0030	0.0015	0.0020	13.1
C ₄	0.0038	0.0019	0.0025	16.0
iC ₅	0.0023	0.0014	0.0017	11.2
C ₅	0.0015	0.0009	0.0011	7.3
C ₆₊	0.9840	0.9924	0.9897	6,378.3
Total	1.0000	1.0000	1.0000	6,445.5

OBSERVED PROPERTIES OF C ₆₊ RESIDUE (15/15°C)		
765.9 kg/m ³	0.7666	53.3
DENSITY	RELATIVE DENSITY	API @ 15.5 °C
117		
RELATIVE MOLECULAR MASS		
CALCULATED PROPERTIES OF TOTAL SAMPLE (15/15°C)		
763.8 kg/m ³	0.7645	53.8
DENSITY	RELATIVE DENSITY	API @ 15.5 °C
116.40		
RELATIVE MOLECULAR MASS		
GAS EQUIVALENT		
0.1551 10 ³ m ³ Gas/m ³ Liquid (E ³ m ³ /m ³)		

REMARKS: Atmospheric pressure sample.
Refer to page 5 for extended analysis.



HYDROCARBON LIQUID ANALYSIS

Operator: Paramount Resources Ltd.

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Well: Apache Paramount West Nogha K-14-66-40-126-00

File: 52136-2005-0876-4-375

Sample Point: Choke Manifold Swab #1

Date: 2005 04 05

Analysis of C₆₊ Fraction

Boiling Point: Range (° C)	Component	Carbon Number	Mole Fraction	Mass Fraction	Liq. Vol. Fraction
36.1- 68.9	Hexanes	C ₆	0.0041	0.0031	0.0035
68.9- 98.3	Heptanes	C ₇	0.0992	0.0855	0.0924
98.3-125.6	Octanes	C ₈	0.3236	0.3178	0.3344
125.6-150.6	Nonanes	C ₉	0.1554	0.1714	0.1767
150.6-173.9	Decanes	C ₁₀	0.0660	0.0808	0.0819
173.9-196.1	Undecanes	C ₁₁	0.0257	0.0325	0.0306
196.1-215.0	Dodecanes	C ₁₂	0.0114	0.0158	0.0146
215.0-235.0	Tridecanes	C ₁₃	0.0077	0.0115	0.0106
235.0-252.2	Tetradecanes	C ₁₄	0.0061	0.0100	0.0090
252.2-270.6	Pentadecanes	C ₁₅	0.0043	0.0077	0.0068
270.6-287.8	Hexadecanes	C ₁₆	0.0023	0.0044	0.0039
287.8-302.8	Heptadecanes	C ₁₇	0.0016	0.0032	0.0028
302.8-317.2	Octadecanes	C ₁₈	0.0016	0.0034	0.0030
317.2-330.0	Nonadecanes	C ₁₉	0.0012	0.0028	0.0023
330.0-344.4	Eicosanes	C ₂₀	0.0008	0.0019	0.0016
344.4-357.2	Heneicosanes	C ₂₁	0.0005	0.0012	0.0011
357.2-369.4	Docosanes	C ₂₂	0.0003	0.0009	0.0007
369.4-380.0	Tricosanes	C ₂₃	0.0003	0.0008	0.0007
380.0-391.1	Tetracosanes	C ₂₄	0.0003	0.0009	0.0007
391.1-401.7	Pentacosanes	C ₂₅	0.0003	0.0008	0.0007
401.7-412.2	Hexacosanes	C ₂₆	0.0003	0.0008	0.0008
412.2-422.2	Heptacosanes	C ₂₇	0.0002	0.0007	0.0005
422.2-431.7	Octacosanes	C ₂₈	0.0002	0.0007	0.0006
431.7-441.1	Nonacosanes	C ₂₉	0.0002	0.0007	0.0006
441.1 PLUS	Triacontanes Plus	C ₃₀₊	0.0006	0.0021	0.0018
80.0	Benzene	C ₆ H ₆	0.0006	0.0004	0.0003
110.6	Toluene	C ₇ H ₈	0.0649	0.0515	0.0439
136.1-138.9	Ethylbenzene, p + m-Xylene	C ₈ H ₁₀	0.0658	0.0601	0.0515
144.4	o-Xylene	C ₈ H ₁₀	0.0137	0.0125	0.0105
168.9	1,2,4 Trimethylbenzene	C ₉ H ₁₂	0.0094	0.0097	0.0082
48.9	Cyclopentane	C ₅ H ₁₀	Trace	Trace	Trace
72.2	Methylcyclopentane	C ₆ H ₁₂	0.0015	0.0011	0.0011
81.1	Cyclohexane	C ₆ H ₁₂	0.0049	0.0036	0.0034
101.1	Methylcyclohexane	C ₇ H ₁₄	0.1090	0.0921	0.0885
	TOTAL		0.9840	0.9924	0.9897
	Mole Fraction of C7+				0.9799
	Mass Fraction of C7+				0.9893
	Liquid Volume Fraction of C7+				0.9862
	Calculated Relative Molecular Mass of C7+				117
	Calculated Relative Density of C7+				0.7670
	Calculated Density of C7+ (kg/m3)				766.3



EXTENDED GAS ANALYSIS

V0008668 - 1		1957	52136-2005-0876
CONTAINER IDENTITY	METER ID	WELL LICENSE NUMBER	LABORATORY FILE NUMBER
Paramount Resources Ltd.		3	
OPERATOR		PAGE	
K-14-66-40-126-00	Apache Paramount West Nogha K-14-66-40-126-00		
LOCATION (UWI)	WELL NAME	KB ELEV (m)	GR ELEV (m)
West Nogha	Core Laboratories		
FIELD OR AREA	POOL OR ZONE	SAMPLER	

TEST TYPE AND NO. TEST RECOVERY

Wellhead

	POINT OF SAMPLE	SAMPLE POINT ID
	PUMPING FLOWING GAS LIFT SWAB	
	WATER m³/d OIL m³/d GAS m³/d	

TEST INTERVAL or PERFS (meters)			
		6250	6250 @ °C
SEPARATOR	RESERVOIR	OTHER	CONTAINER WHEN SAMPLED
		6912 @ 22 °C	-20
		CONTAINER WHEN RECEIVED	SEPARATOR
		OTHER	

at 09:50 hrs

Pressures, kPa (gauge)

Temperatures, °C

2005 02 23	2005 03 09	2005 04 06	CH	@ °C
DATE SAMPLED (Y/M/D)	DATE RECEIVED (Y/M/D)	DATE ANALYZED (Y/M/D)	ANALYST	MUD RESISTIVITY

COMPONENT	MOLE FRACTION AIR FREE AS RECEIVED	MOLE FRACTION AIR FREE ACID GAS FREE	mL/m ³ AIR FREE AS RECEIVED
H ₂	0.0001	0.0001	
He	0.0077	0.0077	
N ₂	0.2208	0.2209	
CO ₂	0.0005	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.7433	0.7437	
C ₂	0.0222	0.0222	78.9
C ₃	0.0035	0.0035	12.9
iC ₄	0.0005	0.0005	2.2
C ₄	0.0006	0.0006	2.5
iC ₅	0.0001	0.0001	0.5
C ₅	Trace	Trace	Trace
C ₆	Trace	Trace	Trace
C ₇₊	0.0007	0.0007	3.9
Total	1.0000	1.0000	100.9

CALCULATED GROSS HEATING VALUE MJ/m³ @ 15°C & 101.325 kPa (abs.)		CALCULATED VAPOR PRESSURE kPa (abs.) @ 40 °C	
30.15		30.17	
MOISTURE FREE		MOISTURE & ACID GAS FREE	
		PENTANES PLUS	
CALCULATED TOTAL SAMPLE PROPERTIES (AIR=1) @ 15°C & 101.325 kPa			
MOISTURE FREE AS SAMPLED			
0.809 kg/m³		0.660	
DENSITY		RELATIVE DENSITY	
		RELATIVE MOLECULAR MASS	
CALCULATED PSEUDOCRITICAL PROPERTIES			
AS SAMPLED		ACID GAS FREE	
4303.6 kPa (abs.)		178.7 K	
pPc		pTc	
4302.1 kPa (abs.)		178.6 K	
pPc		pTc	
C7+ PROPERTIES @ 15°C & 101.325 kPa		MOLE FRACTION	
767.6 kg/m³		0.0000000	
99.3		Field	
DENSITY		MOLECULAR WEIGHT	
		HYDROGEN SULPHIDE	
		METHOD	
		Gastec	

REMARKS:

H2S was not detected in the field by Gastec.
Well was not flowing at time of sampling.
Note high N2 content.
Duplicate sample was analyzed to confirm results.

NOTE: THE GROSS HEATING VALUE HAS BEEN CALCULATED IN ACCORDANCE TO
AGA REPORT #5 AND ALL PROPERTIES HAVE BEEN CALCULATED UTILIZING
GPA 2145 - 03 PHYSICAL CONSTANTS AND BOILING POINT GROUPING.