

N.E.B. COPY

PARAMOUNT RESOURCES LTD.

PARA et al MOUNT COTY

I-02

100/I-02-60-20-123-30/00

FANTASQUE

MAR 13-14, 2001

SWAB REPORT

Well Test Data

Contact

GRANT HARTER
Well Testing Manager

Nisku: (780) 955-7525

NATIONAL ENERGY BOARD
ENGINEERING BRANCH

APR 18 2001

GENERAL INFORMATION

Client Information:

Company: PARAMOUNT RESOURCES LTD.

Contact: PARAMOUNT RESOURCES LTD.

Phone: Fax: e-mail:

Site Information:

Contact: WAYNE TOMM/ AL IRONSIDE

Phone: Fax: e-mail:

Well Information:

Name: PARA et al MOUNT COTY I-02

Operator: PARAMOUNT RESOURCES LTD.

Location-Downhole: I-02-60-20-123-30

Location-Surface: I-02

Test Information:

Company: SOLID PRODUCTION SERVICES LTD.

Representative: GRANT HARTER

Supervisor: RYAN WHITE

Test Type: SWAB Job Number: 074-SWAB

Test Unit: PT-501

Start Date: 2001/03/13 Start Time: 11:23:00

End Date: 2001/03/14 End Time: 12:00:00

Report Date: 2001/04/11 Prepared By: LAURA D. DOMINICK

Remarks: Qualified By:

WELL INFORMATION

Well Name : PARA et al MOUNT COTY I-02

Well Operator : PARAMOUNT RESOURCES LTD.

Well Location : I-02-60-20-123-30

Location-Surface : I-02

Field : MOUNT COTY

Well Type : Vertical

Pool : UNDEFINED

Formation : FANTASQUE

Perforation Type :			Producing Through : Tubing	Size	73.00 mm
Pool Datum	m	KB	Elevation Referenced From	379.50 m	KB
Datum Depth	m	KB	Elevation Referenced To	367.90 m	GL
			Offset	11.60 m	

Production Intervals

Production Interval & MPP Reference To : KB

MPP Pressure Reference : None

	From - m	To - m		Depth - m	Pressure - kPa
1.	897.00	917.00	1.	907.00	
2.			2.		
3.			3.		
4.			4.		
5.			5.		
6.			6.		
7.			7.		
8.			8.		
9.			9.		
10.			10.		
11.			11.		
12.			12.		

Remarks :

PARAMOUNT RESOURCES LTD.
I-02-60-20-123-30
Start Test Date: 2001/03/13
Final Test Date: 2001/03/14

FieldNotes METER REPORT

PARA et al MOUNT COTY I-02
Formation: FANTASQUE
Pool: UNDEFINED
Job Number: 074-SWAB

Oil Meter 1

Meter Type:

Measurement Type:

Columns for Produced Volume:

Previous Oil Production:

Previous Water Production:

Produced Volume
Incremental

0.000 m³

0.000 m³

PARAMOUNT RESOURCES LTD.
 I-02-60-20-123-30
 Start Test Date: 2001/03/13
 Final Test Date: 2001/03/14

FIELD NO. 102

PARA et al MOUNT COTY I-02
 Formation: FANTASQUE
 Pool: UNDEFINED
 Job Number: 074-SWAB

	Clock Date	Cum Time	Swab #	Swab Depth	Fld Level	Fld per Swab	Oil Per Swab	H2O per Swab	Tbg Pres	Csg Pres	Salinity ppm	BSW %	Sand %	pH	Cum Oil m ³	Cum Water m ³
1	2001/03/13	10:00:00													0.00	0
2		11:23:00	1	850	0.00	2.19	0.44	1.76	0	0	12444	80	0	7	0.44	1.76
3		11:35:00	2	850	600.00	0.63	0.09	0.54	0	0	12444	85	0	7	0.53	2.29
4		12:43:00	3	850	400.00	1.16	0.06	1.10	0	0	12444	95	0	7	0.59	3.39
5			SUMMARY													
6			CUMM FLUID SWABBED = 3.98 M ³ .													
7			CUMM WATER SWABBED = 3.39 M ³ .													
8			CUMM OIL SWABBED = 0.59 M ³ .													
9			SLIGHT BLOW ON WELL FOR APPROX 1 MINUTE AFTER SWAB.													
10		13:37:00	4	850	550.00	0.86	0.09	0.77	0	0	14222	90	0	7	0.68	4.17
11		14:41:00	5	850	550.00	1.01	0.10	0.91		0	12444	90	0	7	0.78	5.08
12			Tubing on strong vac.													
13		15:28:00	6	850	550.00	0.64	0.01	0.63		0	8889	99	0	7	0.78	5.71
14			Tubing on vac.													
15		16:03:00	7	850	700.00	0.37	0.00	0.37		0	8889	100	0	7	0.78	6.08
16			Tubing on vac. Trace oil.													
17		16:33:00	8	850	750.00	0.61	0.00	0.61		0	8889	100	0	7	0.78	6.69
18			Tubing on vac. Trace oil.													
19		17:14:00	9	850	639.00	0.64	0.00	0.64		0	5333	100	0	7	0.78	7.33
20			Tubing on vac. Trace oil. A.P.I ON OIL = 17.6 @ 15.6°C.													
21		17:44:00	10	850	717.00	0.40	0.01	0.39		0	5333	98	0	7	0.79	7.72
22			Tubing on vac.													
23		18:04:00	11	850	737.00	0.34	0.00	0.34		0	5333	99	0	7	0.80	8.06
24			Tubing on vac.													
25		18:36:00	12	850	694.00	0.47	0.00	0.47		0	5333	99	0	7	0.80	8.52
26			Tubing on vac.													
27			END OF SWABBING FOR DAY.													
28			SUMMARY.													
29			TOTAL # OF SWABS = 12.													
30			CUMM FLUID SWABBED = 9.32 m ³ .													
31			CUMM WATER SWABBED = 8.52 m ³ .													
32			CUMM OIL SWABBED = 0.80 m ³ .													

2001/03/13 10:00:00 To 2001/03/14 07:05:00
 Oil 0.801 Cum. 0.801 m³
 Water 8.524 Cum. 8.524 m³

PARAMOUNT RESOURCES LTD.
 I-02-60-20-123-30
 Start Test Date: 2001/03/13
 Final Test Date: 2001/03/14

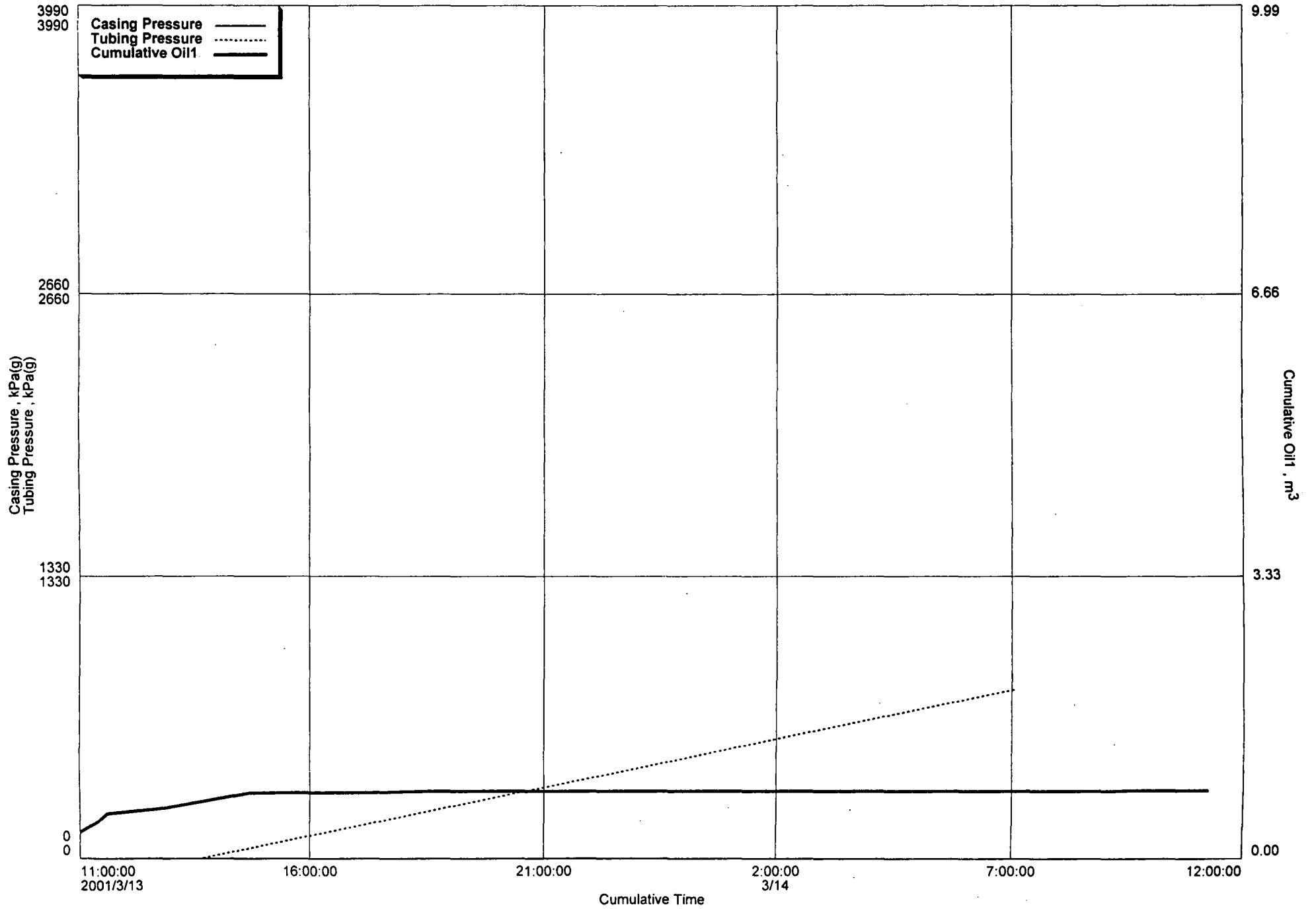
PARA et al MOUNT COTY I-02
 Formation: FANTASQUE
 Pool: UNDEFINED
 Job Number: 074-SWAB

	Date	Clock Time	Cum Time	Swab #	Swab Depth	Fld Level	Fld per Swab	Oil Per Swab	H2O per Swab	Tbg Pres	Csg Pres	Salinity	BSW	Sand	pH	Cum Oil	Cum Water
	yyyy/mm/d	hh:mm:ss	hr				m ³	m ³	m ³	kPa(g)	kPa(g)	ppm	%	%		m ³	m ³
33	2001/03/13	07:05:00	21.08							800	0						
34		08:04:00	22.07	Blow down well.													
35		08:10:00	22.17	Rig up to swab.													
36		08:39:00	22.65	1	850	100.00	2.20	0.00	2.20		0	7111	100	0	7	0.80	10.72
37				Tubing on vac. Trace oil in sample.													
38		09:06:00	23.10	2	850	586.00	0.80	0.00	0.80		0	5333	100	0	7	0.80	11.52
39				Tubing on vac. Trace oil in sample.													
40		09:35:00	23.58	3	850	594.00	0.76	0.01	0.75		0	5333	99	0	7	0.81	12.28
41				Tubing on vac.													
42		11:14:00	25.23	4	825	500.00	0.98	0.00	0.98		0	1779	100	0	7	0.81	13.26
43				Tubing on vac.													

2001/03/13 10:00:00 To 2001/03/14 07:05:00
 Oil 0.801 Cum. 0.801 m³
 Water 8.524 Cum. 8.524 m³

PARAMOUNT RESOURCES LTD.
I-02-60-20-123-30
Start Test Date: 2001/03/13
Final Test Date: 2001/03/14

PARA et al MOUNT COTY I-02
Formation: FANTASQUE
Pool: UNDEFINED
Job Number: 074-SWAB





Container Identification PB-1		Laboratory Number OE69349A				
Operator Name PARAMOUNT RESOURCES LTD.						
Unique Well Identifier NOT AVAILABLE		Well Name PARA et al MOUNT CODY I-02			Elevation KB m 379.50 GRD m 367.90	
Field or Area MOUNT CODY		Pool or Zone FANTASQUE		Sampler's Company SOLID PRODUCTION SERVICES		
Test Type	Test No.	Test Recovery			Name of Sampler	
Test Interval or Perfs 897.00-917.00 mKB		Sampling Point FRAC MANIFOLD		Separator	Reservoir	Source
				Pressure (kPa)	Sampled	Received
				Temperature (°C)		
Date Sampled Mar 13, 2001		Date Received Mar 20, 2001		Date Reported Mar 05, 2001		Analyst H,H,D
Other Information						

Sample Properties

Colour of Clean Oil Dk. Brown	Colour Number ASTM D-1500 D-8 A.S.T.M.
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B.S. & W. (Volume Fraction)

Water Trace	Sediment Trace	Total Trace
Free Sediment 3 vol%		

API Gravity @ 15°C 25.36

Density - After Cleaning

Relative 0.9021	Absolute kg/m³ 901.3
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Total Sulphur Mass Fraction 0.00543	Pour Point / °C (A.S.T.M. D-97) -27
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Viscosity

Temp °C	Absolute mPa·s	Kinematic mm²·s ⁻¹
20	76.35	85.00
30	36.58	41.00
40	19.59	22.10

Distillation

Volume Fraction	Temp / °C
0.05	71.9
0.10	92.2
0.15	104.3
0.20	124.5
0.25	143.8
0.30	159.9
0.35	177.1
0.40	203.4
0.45	228.7
0.50	251.0
0.55	269.2
0.60	296.5
0.65	316.7
0.70	337.0
0.75	366.3
F.B.P.	368.3

Method A.S.T.M. -D86*

Initial Boiling Point 46.6

Absolute Barometric Pressure (kPa) 88.5

Room Temp (°C) 21.0

Characterization Factor 11.7
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200 °C Naphtha 0.39

275 °C Kerosene 0.56

350 °C Light Gas Oil 0.72

Recovered 0.78

Residue 0.19

Distillation Loss 0.03

Remarks:

BS&W performed on oil portion only. The distillation temperatures have been corrected to 101.3 kPa (abs).





Container Identification
PB 2A

Previous Number	Laboratory Number
WE69349B	WE69349A

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation	
I-02	PARA ET AL MOUNT COTY I-02	KB m	GRD m
		379.50	367.90

Field or Area	Pool or Zone	Sampler's Company
MOUNT COTY	FANTASQUE	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler

Test Interval or Perfs	Sampling Point	Separator	Reservoir	Source	Sampled	Received
897.00-917.00	FRAC MANIFOLD					
mKB		Pressure (kPa)				
		Temperature (°C)				

Date Sampled	Date Received	Date Reported	Analyst
Mar 14, 2001	Mar 20, 2001	Mar 30, 2001	LN

Other Information

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	753.0	0.239	32.8
K	39.5	0.013	1.0
Ca	30.0	0.010	0.7
Mg	35.3	0.011	1.5
Fe	0.9	Trace	Trace

Anions

ION	mg/L	Mass Fraction	mmol/L
Cl	329.0	0.104	9.3
HCO ₃	1936.8	0.614	31.7
SO ₄	28.8	0.009	0.3
CO ₃	Ni	Ni	Ni
OH	Ni	Ni	Ni

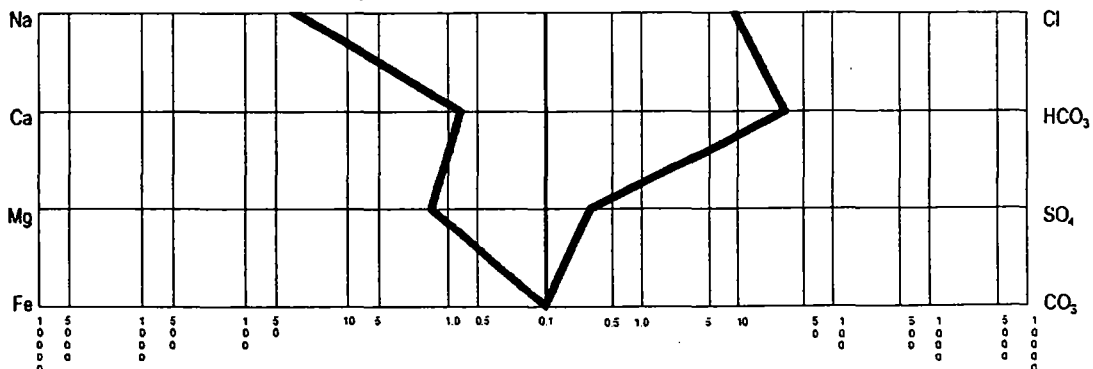
Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	3153
Observed pH	8.29
H ₂ S (25°C) mg/L	N/D
Relative Density (25°C)	1.002
Resistivity / OHM·m (25°C)	2.900
Salinity %	0.06

Total Cations 38.2

Total Anions 41.6

Logarithmic Pattern mmol/L





Container Identification
PB 3B

Previous Number	Laboratory Number
WE69349A	WE69349B

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier	Well Name	Elevation	
I-02	PARA ET AL MOUNT COTY I-02	KB m	379.50
		GRD m	367.90

Field or Area	Pool or Zone	Sampler's Company
MOUNT COTY	FANTASQUE	SOLID PRODUCTION SERVICES

Test Type	Test No.	Test Recovery	Name of Sampler

Test Interval or Perfs	Sampling Point	Separator	Reservoir	Source	Sampled	Received
897.00-917.00	FRAC MANIFOLD					
mKB		Pressure (kPa)				
		Temperature (°C)				

Date Sampled	Date Received	Date Reported	Analyst
Mar 13, 2001	Mar 20, 2001	Mar 30, 2001	LN

Other Information

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	769.0	0.223	33.4
K	207.0	0.060	5.3
Ca	31.1	0.009	0.8
Mg	34.8	0.010	1.4
Fe	Trace	Trace	Trace

Anions

ION	mg/L	Mass Fraction	mmol/L
Cl	470.0	0.137	13.3
HCO ₃	1906.3	0.554	31.2
SO ₄	24.4	0.007	0.3
CO ₃	Ni	Ni	Ni
OH	Ni	Ni	Ni

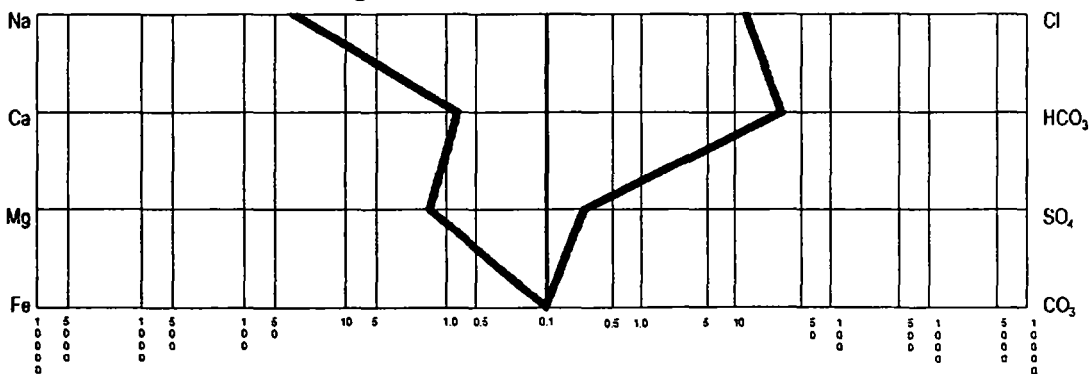
Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	3442
Observed pH	8.27
H ₂ S (25°C) mg/L	N/D
Relative Density (25°C)	1.003
Resistivity / OHM·m (25°C)	2.420
Salinity ‰	0.08

Total Cations

Total Anions

Logarithmic Pattern mmol/L





Container Identification PB 4C		Previous Number WE69349A		Laboratory Number WE69349C			
Operator Name PARAMOUNT RESOURCES LTD.							
Unique Well Identifier I-02		Well Name PARA ET AL MOUNT COTY I-02			Elevation KB m 379.50 GRD m 367.90		
Field or Area MOUNT COTY		Pool or Zone FANTASQUE		Sampler's Company SOLID PRODUCTION SERVICES			
Test Type	Test No.	Test Recovery			Name of Sampler		
Test Interval or Perfs 897.00-917.00 mKB		Sampling Point FRAC MANIFOLD		Separator	Reservoir	Source	
				Pressure (kPa)	Sampled	Received	
				Temperature (°C)			
Date Sampled Mar 13, 2001		Date Received Mar 20, 2001		Date Reported Mar 30, 2001		Analyst LN	
Other Information							

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	724.0	0.059	31.5
K	4710.0	0.381	120.5
Ca	105.0	0.008	2.6
Mg	28.9	0.002	1.2
Fe	3.6	Trace	0.1

Anions

ION	mg/L	Mass Fraction	mmol/L
Cl	4749.0	0.384	134.0
HCO ₃	2028.3	0.164	33.2
SO ₄	16.4	0.001	0.2
CO ₃	Ni	Ni	Ni
OH	Ni	Ni	Ni

Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	12365
Observed pH	8.20
H ₂ S (25°C) mg/L	N/D
Relative Density (25°C)	1.004
Resistivity / OHM·m (25°C)	0.552
Salinity ‰	0.85

Total Cations 159.7

Total Anions 167.5

Logarithmic Pattern mmol/L

