

AUTHORITY TO
DRILL A WELL



Exploratory
Development

☒
☐

Delineation
Service

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☐

AUTHORITY TO DRILL A WELL

APPLICATION

200492

This application is submitted with Section 82 of the Canada Oil and Gas Drilling Regulations. When approved under Section 83 of the Regulations, it is the requisite authority for the commencement of drilling operations.

Well Name in Full: Paramount 45, 41, Liard F-36
Operator: Paramount Resources Ltd.
Contractor: Akita
Drilling Rig or Unit: 15
Location-Unit: F Section: 36
Coordinates: Lat: 60° 05' 27.535" Long: 123° 22' 00.564"
Area: F-36, Liard, Northwest Territories
Elevation-RT/KB: 469 m KB (ASL) Seafloor: (BRT)
Approx. Spud Date: February 15, 1998
Anticipated Total Depth: 2000 m
Drilling Program No.:
Permit or Lease No.: EL 381
Estimated Well Cost: 1,500,000
Grid Area: 60° 10', 123° 15'
Field/Pool: N/A
Estimated Days on Location: 13
Target Horizon(s): CHINKEH / MATTSON

EVALUATION PROGRAM

Ten-metre sample intervals: N/A
Five-metre sample intervals: as specified from under surface casing to TD
Canned sample intervals: N/A
Conventional cores at: 1155 m - 1164 m KB
Logs and Tests: resistivity and porosity logs (as per Paramount's letter dated Feb. 26/98)

CASING AND CEMENTING PROGRAM

O.D.	Weight:	Grade:	Setting Depth KB	Cementing Program (Volumes):
219.1	35.7	J-55	500	'G' + 2% CaCl ₂
139.7	23.7	J-55	2000	150 m inside sfc.

B.O.P. Equipment: 21 mPa Class IV stack and manifold with one annular preventer and 3 gates - 1 double and 1 single and double choke to kill

Other Information:

Signed: *Matthew Bennett*
Date: Jan 13/98

Title: *Engineering / Completion Consultant*
Company: *Paramount*

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Signed:

James Baker
Engineering Branch
Feb. 27/98

Date:

File: 9211-P33-11-1, WID 1841
UWI 300F366010123150

Canada

WELL
TERMINATION
RECORD (with
attachment)



WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations

WELL DATA

Well Name: PARAMOUNT 4E AL LIND R-36 Area: PE. Liard
Grid Area: 60° 10' 123° 15' Field/Pool: N/A
Permit or Lease No.: EL 381 Final Coordinates: Lat.: 60° 05' 27.535" Long: 123° 22' 00.564"
Drilling Unit: AKITA 15 Elevations-RTKD: 469.4 SF/GL: 464.8
Spud Date: March 3, 1998 Rig Released: March 28, 1998 Total Depth: 1494 m

CASING AND CEMENTING

O.D.	Weight:	Grade:	Depth Set:	Cement and Additives:
<u>244.5</u>	<u>48.07</u>	<u>H 40</u>	<u>502</u>	<u>30T</u>
<u>177.8</u>	<u>34.23</u>	<u>J 55</u>	<u>1494</u>	<u>39T</u>

PLUGGING PROGRAM

Approval of the following program was obtained by (person) N/A from
(person) by means of
on 19

Type of Plug:	Interval:	Felt:	Cement and Additives:

Lost Circulation/Overpressure Zones: N/A

Equipment left on Seafloor (Describe): Casing Bowl

Provision for Re-entry (Describe and attach sketch): Drill out of 177 mm casing

Cores: Type: N/A Intervals:

Other Downhole Completion/Suspension Equipment: N/A

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: Shirley Maaskant CET

Name: Shirley Maaskant

Title: Drilling and Completion Consultant

Date: May 6, 1998

Acknowledged by: [Signature]

Engineering Branch

Date: June 30/98

File: 9211-P33-11-1, WID 1841

UWI 300F366010123150

Well Status
Suspended
Completed
Abandoned

☒
☐
☐
☐

Canada

PARAMOUNT ET AL LIARD F36

As Is May, 1998

DEPTH	HOLE SIZES	CASING & CEMENT
502	311 mm	244 mm, 48.07 kg/m, H40 ST&C 30 T 0:1:0 G + 2% CaCl ₂ + 96 kg celloflake 3 m3 good returns
1494		177.8 34.23 kg/m J55 Fill: 1:1:2 + 0.5% CFR Tail: 19 T Expando + 0.15% CFL3 + 0.3% LTR + 1% EWCA 2 m3 returns

Approval to Alter Condition of a Well (2)



APPROVAL TO ALTER CONDITION OF A WELL

This application is to be submitted to the Chief Conservation Officer at least 48 days before commencement of operations.

Well Name: ..Paramount et al Liard F-36..... Area:Ft. Liard.....
Operator: ..Paramount Resources Ltd..... Contractor: ..Canalta.....
Drilling Rig or Unit: ..42..... Depth: ..2110 m.....
Coordinates: Lat: ..60° 05' 27.535"..... Long: ..122° 22' 00.564".....
Date ADW issued: ..February 27, 1998..... Date of last Operation: ..February 5, 1999.....
Elevation-KB/ASL: ..469.4 m..... (ASL) GL/..... 464.8.....

TYPE OF OPERATION

.....Initial Completion and Production Test.....

SUMMARY OF PROPOSED OPERATIONS

.....Drill out top of liner to PBTD 2093 mKB.....

.....Hole Log.....

.....Perforate section one and evaluate.....

.....Perforate section two and evaluate.....

.....Perforate section three and evaluate.....

.....Perforate section four and evaluate.....

NOTE: May conduct a solvent squeeze after each set of perforations.

.....Production Test.....

Signed: ..*Phil Christie*.....
Responsible Officer

Title: ..Drilling Manager.....

Name: ..Phil Christie.....

Company: ..Paramount Resources Ltd.....

Date: ..February 10, 1999.....

Phone: ..(403) 290-3600.....

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Date: ..February 16, 1999.....

Signed: ..*Andrew Brown*.....

File: ..9211-P33-11-IRE.....

Chief Conservation Officer

WID: ..1841.....

UWI: 300F366010123152

Well Status

Suspended ☐

Completed ☐

Abandoned ☐



APPROVAL TO ALTER CONDITION OF A WELL

This application is to be submitted to the Chief Conservation Officer at least 45 days before commencement of operations.

Well Name: Paramount et al Liard F-36 Area: Fort Liard
Operator: Paramount Resources Ltd. Contractor: Precision Drilling
Drilling Rig or Unit: 373 Depth: 1494 m KB
Coordinates: Lat: 60° 05' 27.535 " Long: 123° 22' 00.564"
Date ADW issued: February 27, 1998 Date of last Operation: March 28, 1998
Elevation-KB: 469.4 m (ASL) GL: 464.8 m

TYPE OF OPERATION

Finish drilling well

SUMMARY OF PROPOSED OPERATIONS

Drilling out 177 mm intermediate casing set at 1494 m KB.

Drill with Invert to TD at 2000 m.

Run 114 mm liner.

Signed: *D. Maaskant*
Responsible Officer

Title: Drilling and Completions Consultant

Name: Shirley Maaskant

Company: Paramount Resources Ltd.

Date: November 19, 1998

Phone: (403) 290-3600

APPROVAL

An approved copy of this notice is to be posted at each wellsite.

Date: Dec 11/98
File: 9211-P33-11-1RE, UWI 300F366010123151

Signed:

[Signature]
for Chief Conservation Officer

WID: 1841

Well Status

Suspended ☒

Completed ☐

Abandoned ☐

WELL
TERMINATION
RECORD (with
attachment)



CANADA

WELL TERMINATION RECORD

This record is submitted in triplicate in compliance with Section 184 of the Canada Oil and Gas Drilling Regulations.

WELL DATA

Well Name: Paramount et al Fort Liard F-36 Area: Fort Liard
Grid Area: 60° 10' 122° 15' Field/Pool: N/A
Permit or Lease No.: EL 381 Final Coordinates: Lat: 60° 05' 27.535" Long: 122° 22' 00.564"
Drilling Unit: Akita 15/Precision 373 Elevations KB: 470.3 IGL: 464.8
Spud Date: March 2, 1998 Rig Released: February 5, 1999 Total Depth: 2110m
RE Feb. 19, 1999 Mar. 20, 1999 2092m (PRTD)

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
244.5	48.07	H40	502	30 T.O. 1:0.2% CaCl ₂ + celloflake
177.8	34.2	J55	1494	20 T. 1:1:2 + 0.5% CER + 19 T expandomix + 0.15% CFL3 + 0.3% LTR + 1% EWCA
114.3	17.26	L80	2108.25	15.8 T.O. 1:0.2% D24... + 0.4% R6 + 0.5% T10 + 1% Salt Gel

PLUGGING PROGRAM

Approval of the following program was obtained by (person) from

(person) by means of

on 19

Type of Plug:	Interval:	Felt:	Cement and Additives:
---------------	-----------	-------	-----------------------

N/A			

Lost Circulation/Overpressure Zones: N/A

Equipment left on Seafloor (Describe): Wellhead

Provision for Re-entry (Describe and attach sketch):

Cores: Type: N/A Intervals:

Other Downhole Completion/Suspension Equipment: Tubing Plug @ 1353.03 m

CERTIFICATION

I certify on the basis of personal knowledge of operations undertaken at the above named well that the above information is accurate.

Signed: *Phil Christie*

Title: Drilling and Completion's Manager

Name: Phil Christie

Date: June 15, 1999

Acknowledged by: *J. M. Baker*

Engineering Branch

Date: May 05/00

File: 9211-P33-11-1RE-WID-1841

UWI 300F366010123152

Well Status
Suspended ☐
Completed ☒
Abandoned ☐

Canada

PARAMOUNT ET AL LIARD F36

Geology & Casing Information

See Baker Diagram Dated March 14/90 For Final Completion String

GL: 464.8 m

KB: 470.3 m

Note: KB changed
from first drilling rig
to second rig.

SCATTER 790

GARBUTT 916

CHINKEH
TRIASSIC 1111
1124

PERMIAN 1225

MATTSON 1400

GOLATA 1945

FLETT 2085

PLUG BACK 2092

TOTAL DEPTH 2110

SFC CSG

244 mm, 48.07 kg/m, H40 Landed at
502 m. Cemented to surface
311 mm hole

INTERMEDIATE CASING:

177.8 mm, 34.23 kg/m, J55 landed at
1494 m KB. Cement top 835 m.
222 mm hole

LINER:

114.3 mm, 17.26 kg/m, L80 landed at
2108.25 m KB. Cement top 1462 m
Top of tie-back 1387.69 m KB
156 mm hole

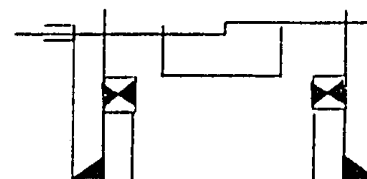
TUBING: See attached Baker diagram for tubing
and packer details.

PERFS: See attached sheet for perforations
A total of 213.1 meters has been
perforated from 1514 - 2046 m KB

PARAMOUNT ET AL LIARD F36

Perforations

See Baker Diagram Dated March 14/99 For Final Completion String



INTERMEDIATE CASING: 177.8 mm, 34.23 kg/m

LINER: 114.3 mm, 17.26 kg/m, L80 landed at
2108.25 m KB. Cement top 1462 m

PERFORATIONS

21 gram HMX
20 SPM, 60 degree

1514 - 15
1520 - 26
1530 - 40
1541 - 50
1551 - 57
1558 - 69
1569.5 - 71.5
1572.5 - 74.5
1576 - 82

1600 - 02
1602.5 - 05
1608 - 11
1615 - 1638

1644 - 45
1648 - 57
1659 - 63
1668 - 73
1675 - 86
1697 - 1701
1704.5 - 11
1719 - 24
1751 - 61
1769 - 73

1786 - 90
1792 - 94
1805 - 09
1811 - 13
1834 - 38.5
1840 - 43
1846 - 48
1850 - 62
1863 - 67
1869 - 74
1888 - 89.5
1896.6 - 97.7
1900 - 05.5
1933 - 34.5
1941 - 45

1984 - 88
1990.5 - 93
1996 - 99.5
2006 - 08
2044.5 - 46

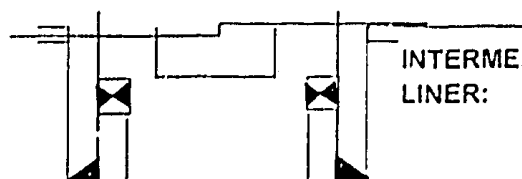
PLUG BACK
TOTAL DEPTH

2092
2110

PARAMOUNT ET AL LIARD F36

Perforations

See Baker Diagram Dated March 14/99 For Final Completion String



INTERMEDIATE CASING: 177.8 mm, 34.23 kg/m
 LINER: 114.3 mm, 17.26 kg/m, L80 landed at
 2108.25 m KB. Cement top 1462 m

1514 - 15
 1520 - 26
 1530 - 40
 1541 - 50
 1551 - 57
 1558 - 69
 1569.5 - 71.5
 1572.5 - 74.5
 1576 - 82

PERFORATIONS

21 gram HMX
 20 SPM, 60 degree

1600 - 02
 1602.5 - 05
 1603 - 11
 1615 - 1638

1644 - 45
 1648 - 57
 1659 - 63
 1668 - 73
 1675 - 86
 1697 - 1701
 1704.5 - 11
 1719 - 24
 1751 - 61
 1769 - 73

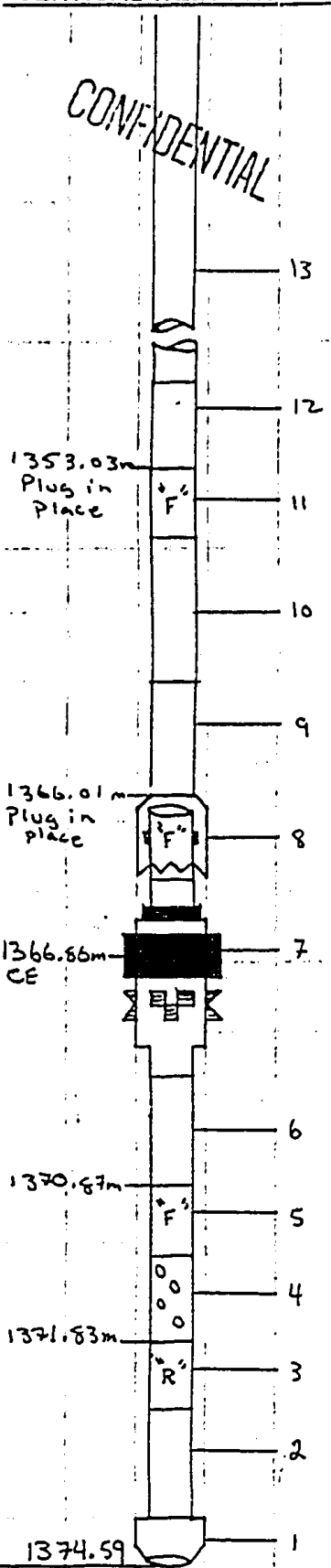
1786 - 90
 1792 - 94
 1805 - 09
 1811 - 13
 1834 - 38.5
 1840 - 43
 1846 - 48
 1850 - 62
 1863 - 67
 1869 - 74
 1888 - 89.5
 1896.6 - 97.7
 1900 - 05.5
 1933 - 34.5
 1941 - 45

1984 - 88
 1990.5 - 93
 1996 - 99.5
 2006 - 08
 2044.5 - 46

PLUG BACK 2092
 TOTAL DEPTH 2110

VERTICAL WELL PROFILE

CONFIDENTIAL



CONFIDENTIAL

OPERATOR <u>Paramont</u>					CASINO	SIZE	WEIGHT	GRADE	THREAD
COMPANY REP. <u>Bert Blakely</u>					LINER	114.3	17.3	L-60	L-60
WELL # <u>F-36</u>					TUBING	88.9	13.64	L-60	EUE
FIELD					OPEN HOLE				
PROVINCE <u>N.W.T</u>					WELL FLUIDS		TUBING	CASING	
DATE <u>March 14/99</u>					INITIAL		Gas	Gas	
☒ New Completion ☐ Workover					FINAL		Inhibited H ₂ O	Inhibited H ₂ O	
Job Log. # <u>20773</u>					DESCRIPTION				
NO.	DEPTH	LENGTH	OD	ID	EWA				
	mks	m	mm	mm					
	1374.74				84m of Tailpipe				
1	1374.59	.17	139	76	Re-entry Guide				
2	1372.1	2.47	114.3	76	88.9mm Pup Joint EUE L-60				
3	1371.83	.27	114.3	76	Baker "R" nipple 69.45mm 69.5mm ne-ga 88.9mm EUE				
4	1371.19	.64	114.3	76	88.9mm Perforated Pup Joint EUE T-55				
5	1370.57	.32	114.3	76	Baker "F" nipple 69.45mm 88.9mm EUE				
6	1367.8	3.07	114.3	76	88.9mm Pup Joint EUE S-55				
7	1366.5	1.30	154.6	76	Baker Model "AL-2" Lok-set Packer - size 4734 - 6K Double grip 88.9mm EUE BVP Rt hd set - Rt hd released - 36m Top - center element				
8	1366.01	.49	140	71.42	Baker "L-10" on/off connector 71.42mm "F" profile - Auto-on Lt hd release 88.9mm EUE				
9	1362.96	3.05	114.3	76	88.9mm Pup Joint EUE L-60				
10	1353.35	4.61	114.3	76	1 Joint TBG 88.9mm EUE L-60				
11	1353.03	.32	114.3	71.42	Baker "F" nipple 71.42mm profile 88.9mm EUE				
12	1352.4	.63	114.3	76	88.9mm Pup Joint EUE L-60				
13	4.7	1347.7			88.9mm TBG to surface EUE L-60 141 JTS includes TUE 15m *				
	4.7	4.9			KB-THE				
		<.20>			4000dan Compression (TBG plugged)				
					Liner Top @ 1390mkb				
					Perfs @ 1954-2046m 1756-1955m 1600-1733m 1514-1592m				
					WR @ 1385m 1740m				

PREPARED BY:	DISTRICT	PHONE
<u>Rod Huehn</u>	<u>Ft. St. John</u>	<u>850 765-3975</u>
BAKER OIL TOOLS 1300 - 401 - 9th Avenue S.W. Calgary, Alberta T2P 3C5 (403) 296-9600		

AS RUN ASSEMBLY DRAWING

CUSTOMER: PARAMOUNT

PROVINCE: H.E.T.

FIELD: UARD

WELL N°: 36

QUDIA: Q

REDRAWN FROM ORIGINAL

DRAWING NO. F-3600000022

APPROVED BY: AL. WICKS

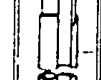
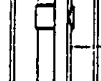
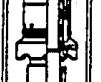
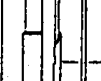
DRAWN BY: GLENN SQUANCE/BRUCE FLACH

DATE: RUN MARCH 22, 2000



Baker Oil Tools

MAX. O.D.	WELL I.D.	WELL SCHEMATIC	DESCRIPTION	LENGTH	DEPTH
			CASING: 114.3mm		
			3,000 psi COMPRESSION ON "TH" PACKER; LOCKSET PACKER SET @ NEUTRAL AND SPLINED EXPANSION JOINT CLOSED TO ALLOW SHEAR RELEASING OF "TH" PACKER KB TO T.H.P.	0.20m	0.0m
			88.9mm EUE TUBING HANGER	4.80m	-0.20m
				0.15m	4.70m
88.9mm	76mm		TUBING JOINT SIZE: 88.9mm, 13.8kg/m, L-80 THREADS: 88.9mm EUE	8.82m	4.85m
88.9mm	76mm		2 PUP JOINTS SIZE: 88.9mm, 13.8kg/m, L-80 THREADS: 88.9mm EUE LENGTHS RUN: 3.07 & 1.24m	4.31m	14.47m
88.9mm	76mm		141 JOINTS SIZE: 88.9mm, 13.8kg/m, L-80 THREADS: 88.9mm EUE	1348.24m	18.78m
114.3mm	62mm		① CROSS-OVER SUB SIZE: 88.9mm X 73mm, L-80 BOX THREADS: 88.9mm EUE BOX THREADS: 73mm EUE	0.21m	1387.02
73mm	62mm		15 JOINTS TUBING SIZE: 73mm, 8.67kg/m, L-80 THREADS: 73mm EUE	141.98m	1387.23m
73mm	62mm		PUP JOINT SIZE: 73mm, 8.67kg/m X 2.48m, L-80 THREADS: 73mm EUE	2.48m	1509.22m
73mm	62mm		② BAKER BLAST JOINTS (12 IN TOTAL) SIZE: 83mm X 62mm X 3.0m, L-80 THREADS: 73mm EUE	34.50m	1511.70m
86mm	51.72mm		③ BAKER MODEL "L" SLIDING SLEEVE SIZE: 73mm X 51.72mm BAKER "T" PROFILE THREADS: 73mm EUE	0.87m	1546.20m
73mm	62mm		PUP JOINT SIZE: 73mm, 8.67kg/m X 3.08m, L-80 THREADS: 73mm EUE	3.08m	1547.07m
84mm	62mm		④ BAKER BLAST JOINTS (12 IN TOTAL) SIZE: 83mm X 62mm X 3.0m, L-80 THREADS: 73mm EUE	36.00m	1550.18m
73mm	62mm		PUP JOINT SIZE: 73mm, 8.67kg/m X 3.07m, L-80 THREADS: 73mm EUE	3.07m	1556.16m
83.17mm	50.6mm		⑤ CROSS-OVER SUB SIZE: 73mm X 60.3mm, L-80 BOX THREADS: 73mm EUE PIN THREADS: 60.3mm EUE	0.23m	1589.23m
85.25mm	47.63mm		⑥ BAKER MODEL "L-10" ON-OFF SEALING CONNECTOR SIZE: 85.25mm X 60.3mm X 47.63mm THREADS: 60.3mm EUE PROFILE: 47.63mm BAKER "T"	0.41m	1589.46m
85.78mm	50.24mm		⑦ BAKER MODEL "TH" HYDROSTATIC SINGLE STRING PACKER SIZE: 43A THREADS: 60.3mm EUE 1818044N	1.64m	1589.87m
60.3mm	50.6mm		PUP JOINT SIZE: 60.3mm, 8.98kg/m X 3.07m, L-80 THREADS: 60.3mm EUE	3.07m	1591.31m

85.78mm	50.24mm		7 BAKER MODEL "TH" HYDROSTATIC SINGLE STRING PACKER SIZE: 43A THREADS: 60.3mm EUE 18180mm	1.44m	1389.87m
60.3mm	50.8mm		PUP JOINT SIZE: 60.3mm, 8.99kg/m X 3.07m, L-80 THREADS: 60.3mm EUE	3.07m	1391.31m
78mm	50.6mm		8 BAKER BLAST JOINTS (23 IN TOTAL) SIZE: 78mm X 50.8mm X 3.0m, L-80 THREADS: 73mm EUE	69.00m	1364.56m
74mm	47.83mm		9 BAKER MODEL "L" SLIDING SLEEVE SIZE: 60.3mm X 47.83mm BAKER "T" PROFILE THREADS: 60.3mm EUE	0.80m	1683.58mm
60.3mm	50.8mm		PUP JOINT SIZE: 60.3mm, 8.99kg/m X 3.05m, L-80 THREADS: 60.3mm EUE	3.05m	1391.51m
78mm	50.8mm		10 BAKER BLAST JOINTS (22 IN TOTAL) SIZE: 78mm X 50.8mm X 3.0m THREADS: 60.3mm EUE TOP 8 L-80 BOTTOM 14 P-110	66.00m	1667.43m
82mm	50.6mm		11 EXPANSION JOINT SIZE: 60.3mm THREADS: 60.3mm EUE STROKE: 1.21m, LANDED IN CLOSED POSITION	2.24m	1733.43m
60.3mm	50.8mm		PUP JOINT SIZE: 60.3mm, 8.99kg/m X 2.48m, L-80 THREADS: 60.3mm EUE	2.48m	1735.87m
65.25mm	46.02mm		12 BAKER MODEL "L-10" ON-OFF SEALING CONNECTOR SIZE: 65.25mm X 60.3mm X 46.02mm THREADS: 60.3mm EUE PROFILE: 46.02mm BAKER "T"	0.47m	1736.15m
85.78mm	50.24mm		13 BAKER MODEL "A-J" LOCKSET PACKER SIZE: 43A THREADS: 60.3mm EUE	1.12m	1738.62m
60.3mm	50.8mm		PUP JOINT SIZE: 60.3mm, 8.99kg/m X 3.06m, L-80 THREADS: 60.3mm EUE	3.06m	1738.74m
78mm	45.24mm		14 BAKER MODEL "T" SEATING NIPPLE SIZE: 60.3mm X 45.24mm X 43.98mm THREADS: 60.3mm EUE	0.31m	1742.82m
78mm	50.6mm		15 BAKER WIRELINE REENTRY GUIDE SIZE: 78mm X 60.3mm THREADS: 60.3mm EUE	0.13m	1743.13m
85.78mm	N/A		16 BAKER "NORP" SIZE: 43A		1825.00m

Nominal Illustration.
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FINAL WELL REPORT

**FINAL WELL REPORT
PARAMOUNT et al LIARD
F-36**

60⁰ 10' 123⁰ 15'

1998/1999 N.E.B. COPY

1841

Release date Feb. 5, 2001



Paramount Resources Ltd.

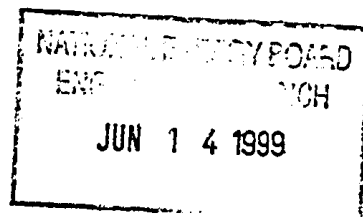
N.E.B. COPY

FINAL WELL REPORT

PARAMOUNT et al LIARD F-36

$60^{\circ}10' 123^{\circ}15'$

Latitude $60^{\circ}05' 27.535''$ Longitude $123^{\circ}22' 00.564''$



Prepared By:
Date:

S. Maaskant, C.E.T.
June 11, 1999

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Position Keeping
Support Craft
Drilling Unit Performance
Difficulties and Delays
Total Well Cost

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Total Depth
Spud Date
Drilling Date
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Casing & Cementing
Sidetracked Hole
Drilling Fluid
Fishing Operations
Well Kicks
Leak-Off Tests
Time Distribution
Deviation Surveys
Abandonment Plugs
Composite Well Record

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Cores
Lithology
Stratigraphic Column
Biostratigraphic Column

5. WELL EVALUATION

Downhole Logs
Other Logs
Synthetic Seismograms
Formation Stimulation
Formation and Production Tests

6. ENVIRONMENTAL WELL REPORT

7. APPENDICES TO WELL HISTORY REPORT

Oil, Gas, and Water Analyses
Completion Data

1. INTRODUCTION

Summary

This well was drilled over two winter seasons due to spring break-up. The well was spudded with Akita 15 on March 3, 1998 and rig released March 28, 1998 with intermediate casing set. Precision 373 was moved in the next winter season to complete the drilling. It spud December 23, 1998 and rig release February 5, 1999. Cenalta 42 service rig moved in the same season to complete the well.

Surface hole was drilled with a gel chem mud system to 502 m with no problems. Intermediate was also drilled with gel chem without incident. Drillstem tests were run in the Chinkeh formation on penetration. After logging, intermediate casing was cemented in place and the rig released due to spring break-up.

Main hole was drilled through the Mattson the following season with Precision 373. Drilling started through a closed system with nitrified calcium chloride invert to a depth of 1565 m KB. Multiple drill stem tests and flow tests were conducted throughout this section. At 1565 m the wellbore evacuated with a rate of 16 mmcf/d. The well was shut in and it was determined the well would be killed. Closed system equipment was rigged out and drilling continue overbalanced to total depth of 2110 m KB. A 114.3 mm liner was hung and cemented in place after logs were run.

Cenalta 42 was moved in on February 19, 1999 to complete this well. Multiple sets of perforations were shot throughout the Mattson formation with testing conducted in sections. A total of 213.1 m was perforated over the gross interval 1514 - 2046 m KB (532 m). The well has not been stimulated.

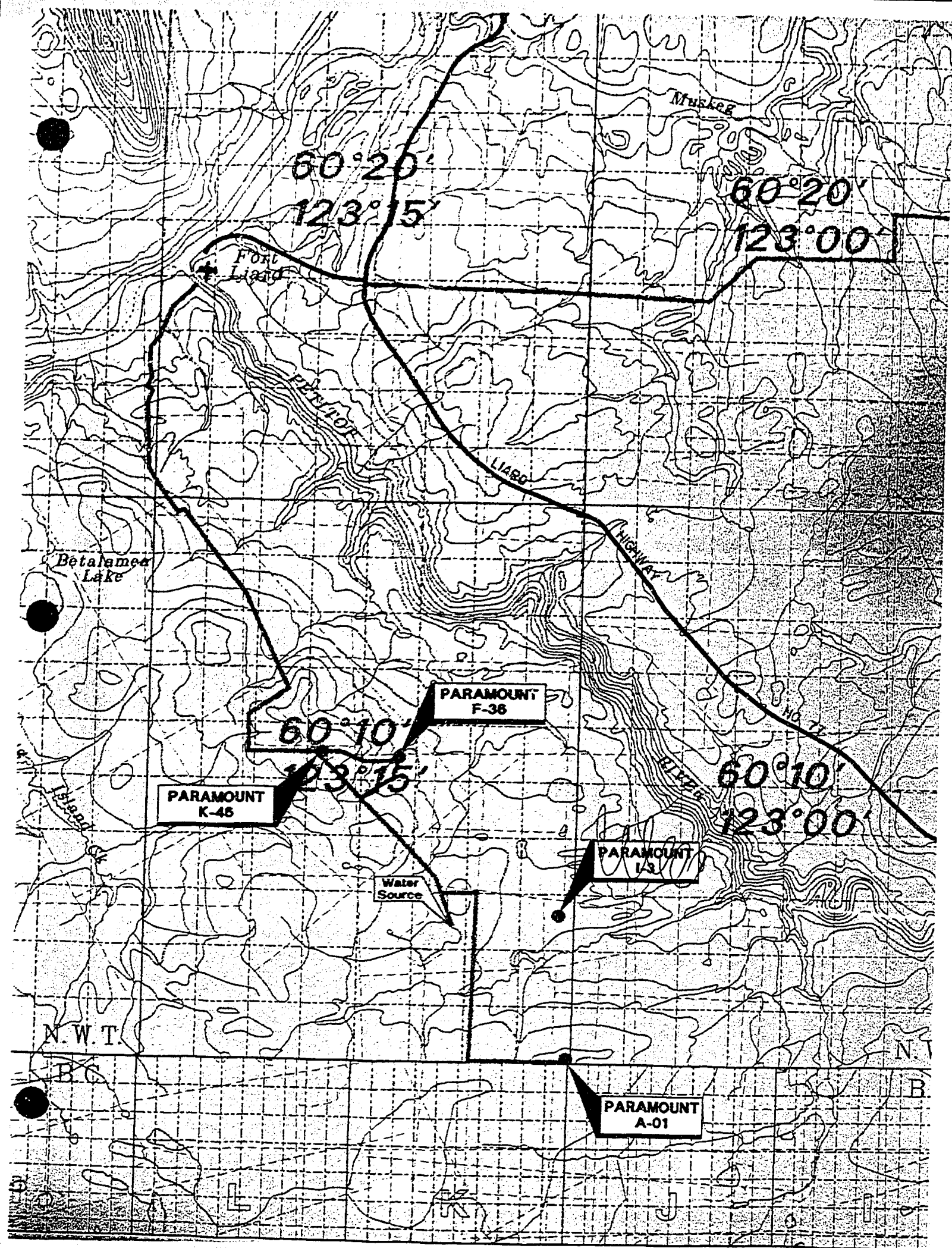
The sections within the Mattson formation that have gradients, flow tests and/or buildups are:

1984 - 2046 m KB
1786 - 2046 m KB
1626 - 1638 m KB
1600 - 1773 m KB
1514 - 1582 m KB

Tubing is in the well complete with a packer and tubing plug in place. Two retrievable bridge plugs are set to segregate the large perforated interval. These plugs are at 1825 m KB and 1740 m KB. Refer to the Wellbore Diagram for details.

This well is shut in.

Location Map (Following Page)



2. GENERAL DATA

WELL NAME: Paramount et al Liard F-36

EXPLORATION AGREEMENT: EL 381

DRILLING AUTHORITY: 1841 Issued February 27, 1998

GRID AREA: 60° 10' 123° 15'

CO-ORDINATES: Latitude 60° 05' 27.535"
Longitude 123° 22' 00.564"

UNIQUE WELL IDENTIFIER: 300F366010123150

LESSOR: Paramount Resources Ltd.

OPERATOR: Paramount Resources Ltd.
4000, 350 - 7 Ave. S.W.
Calgary, Alberta
T2P 3W5

DRILLING CONTRACTOR: Akita Drilling Ltd.
1110, 505 - 3 St. S.W.
Calgary, Alberta

Precision Drilling Limited
1000, 112 - 4 Ave. S.W.
Calgary, Alberta

DRILLING RIG: Akita 15 - March 3 -28, 1998
Precision 373 Dec. 23, 1998 - Feb 5, 1999

POSITION KEEPING: N/A

SUPPORT CRAFT: N/A

DRILLING UNIT PERFORMANCE N/A

DIFFICULTIES & DELAYS: N/A

TOTAL WELL COST: \$2,800,000 Drilling
\$830,000 Completion

3. SUMMARY OF DRILLING OPERATIONS

ELEVATIONS: G.L.: 464.8 m
K.B.: 469.4 m with Akita Rig, revised to
470.3 m with Precision rig.
K.B. - C.F.: 464.8 m

TOTAL DEPTH: Drilled: 2110 m
Logged: 2109.8 m
Plug Back: 2092 m

NOTE: This well was spudded and drilled to 1494 m, then suspended due to break-up. A different rig moved in the following season and finished drilling the well to total depth.

SPUD DATE: March 3, 1998 - 0015 hrs

SUSPEND DRILLING DATE: March 28, 1998 (first rig released) - 1500 hrs

RESUME DRILLING DATE: December 23, 1998 (second spud date) - 2210 hrs

COMPLETED DRILLING DATE: January 31, 1999 - 2300 hrs

RIG RELEASE: February 5, 1999 - 2400 hrs

WELL STATUS: Shut In Gas Well

HOLE SIZES: Also See Attached Bit Record

	HOLE SIZE mm	DEPTH M KB
Conductor	504	20
Surface	311	502
Intermediate	222	1494
Main	156	2110

BIT RECORD

PARAMOUNT RESOURCES LTD.

BIT RECORD

PAGE 1 OF 3

WELL NAME Paramount et al Liard LOCATION F-36
 Contractor Akita/Prec. Rig No. 15 / 373 Field Fort Liard
 Spud Date 98-03-03/98-12-23 T.D. Date Rig Release Date 98-03-28/99-02-05

Bit No.	Size mm	Make & Type	Depth Out	Metres Drld.	Rotating Hours	Total Hours	Weight on Bit - daN	Bit RPM	Jets - mm			Pump Pr. Pa or MPa	Pump Out m3/min	Dull Condition		
									1.0	2.0	3.0			T	B	G
1A	311	S44GF	236	236	22.75	22.75			14.3	14.3	14.3					
2A	311	H88S	369	133	18.50	41.25	8000	190	12.7	12.7	12.7	6400	1.33	1	4	I
3A	311	H88S	502	133	22.50	63.75	6000	190	9.5	9.5	9.5	6400	1.33	1	4	I
1	222	F15HP	792	290	41.25	105.00	8000	120	12.7	12.7	12.7	7300	1.43	4	3	I
2	222	ERA22	1145	353	54.00	159.00	10000	120	12.7	12.7	12.7	7500	1.43	5	2	I
3	222	GERA33	1292	147	37.50	196.50	12000	130	14.3	14.3	14.3	8000	1.43	7	4	0.2
4	222	ATJM44G	1348	56	17.50	214.00	10000	130	14.3	14.3	14.3	8000	1.43	8	3	0.2
5	222	EPH53A	1368	20	6.25	220.25	10000	140	14.3	14.3	14.3	1500	0.72	5	1	0.1
6	222	GM84F	1454	86	33.50	253.75	14000	120	14.3	14.3	14.3	8000	1.43	6	8	0.2
7	222	GM89TF	1494	40	15.75	269.50	16000	120	14.3	14.3	14.3	9000	1.43	4	2	I
FIRST RIG RELEASE																
1	156	HWATJ4	1494	1	1.50	1.50	5	85	OPEN			7000	0.7	6	2	I
2	156	WHSTR3	1524	30	21.50	23.00	10000	55	OPEN			6100	0.675	6	3	I
3	156	F3	1565	41	41.00	64.00	10000	55	OPEN			4500	0.25	6	3	3
4	156	PSF	1569	4	2.25	66.25	5000	55	OPEN			5790	0.67	5	3	3

Remarks SEE PAGE 2

PARAMOUNT RESOURCES LTD.

BIT RECORD

PAGE 2 OF 3

WELL NAME Paramount et al Liard LOCATION F-36
 Contractor Akita/Prec. Rig No. 15 / 373 Field Fort Liard
 Spud Date 98-03-03/98-12-23 T.D. Date _____ Rig Release Date 98-03-28/99-02-05

Bit No.	Size mm	Make & Type	Depth Out	Metres Drld.	Rotating Hours	Total Hours	Weight on Bit - daN	Bit RPM	Jets -- mm			Pump Pr. Pa or MPa	Pump Out m3/min	Dull Condition		
									1.0	2.0	3.0			T	B	G
5	156	EH62A	1615	46	41.50	107.75	10000	65	OPEN			6180	0.686	5	4	I
6	156	C3LRG	1641	26	25.75	133.50	10000	65	OPEN			6250	0.686	4	3	I
7	156	EHP53A	1663	22	20.25	153.75	10000	65	OPEN			6250	0.686	4	3	I
8	156	STR44	1688	25	22.50	176.25	10000	65	OPEN			6300	0.686	8	8	12
9	156	C4LRG	1689	1	1.00	177.25	4000	65	OPEN			6300	0.686	2	1	I
10	156	RR462	1690	1	1.50	178.75	8000	50	OPEN			6300	0.686	8	4	I
11	156	D41	1701	11	17.25	196.00	4000	55	OPEN			13500	1.012			
12	156	C15LR	1716	15	17.00	213.00	8000	60	OPEN			8500	0.888	8	8	I
13	156	C47L4	1806	90	52.25	265.25	10000	100	OPEN			8700	0.888	7	4	I
14	156	C45LRC	1872	66	51.25	316.50	11000	75	OPEN			9600	0.888	7	7	3
15	156	EHP52	1940	68	56.00	372.50	11000	80	OPEN			9600	0.888	7	4	5
16	156	STR50	1953	13	14.50	387.00	11000	75	OPEN			9700	0.888	7	4	I
17	156	F57ODP	1968	15	16.75	403.75	11000	75	OPEN			10200	0.888	4	4	I
18RR	156	PSF	1968	0	N OUT											
19	156	HZM891	2020	52	36.50	440.25	14000	75	OPEN			10500	0.888	8	8	9

Remarks SEE PAGE 3

PARAMOUNT RESOURCES LTD.

BIT RECORD

PAGE 3 OF 3

WELL NAME

Paramount et al Liard

LOCATION

F-36

Contractor

Akita/Prec

Rig No.

15 / 373

Field

Fort Liard

Spud Date

98-03-03/98-12-23

T.D. Date

Rig Release Date

98-03-28/99-02-05

[illegible]

CASING & CEMENTING:

See Casing & Cementing Reports, and Wellhead diagram on following pages

	SURFACE	INTERMEDIATE	LINER
CASING SIZE	244.5	177.8	114.3
CASING WEIGHT	48.07	34.2	17.26
CASING GRADE	H-40	J-55	L-80
CASING MAKE	Prudential	Prudential	Prudential
NUMBER JOINTS	38	117	
THREAD	ST&C	LT&C	LT&C
DEPTH SET	502	1494	2108.25
TOP OF CASING	0	0	1387.69
DATE SET	Mar 8/98	March 29/98	Feb 3/99
FLOAT SHOE DEPTH	501.62	1494.57	2107.59
FLOAT COLLAR DEPTH	488.06	1484.99	2093.27
CEMENT TYPE FILL	0:1:0 G	1:1:2	0:1:0 G
TAIL	N/A	Expandomix	N/A
CEMENT VOLUME FILL	30 T	20 T	15.8 T
TAIL	N/A	19 T	N/A
ADDITIVES FILL	2% CaCl ₂ + 96 kg celloflake	0.5% CFR	0.4% D-24 + 0.4% R6 + 0.5% T10 + 1% salt gel
TAIL	N/A	0.15% CFL-3+ 0.3% LTR + 1% EWCA	N/A
CEMENT TOP	Surface	835	1462

SIDETRACKED HOLE: N/A

DRILLING FLUID: See Attached Drilling Fluid Summary

Surface Hole: Gel Chemical

Intermediate: Gel Chemical

Main Hole: Calcium Chloride Invert (nitrified invert to 1565 m)

CASING & CEMENTING REPORTS

PIPE TALLY

Date 98/03/04

Page # 1

name and location PARAMOUNT ET AL LIARD

Contractor Akita 15

Pipe Description SURFACE CASING

Size: 244 Wt: 48.07 Grade: H-40 Cplg 8 RND

Thread: 8 RND Mfr: PRUDENTIAL

Type of String: SURFACE

Tallied By: Mike Beaudin

No	Length	No		No		No		No	
1	13.93	21	13.24	41	FLT .31	61		81	
2	12.73	22	13.23	42	SHOE .38	62		82	
3	13.24	23	13.25	43		63		83	
4	13.25	24	13.23	44		64		84	
5	13.24	25	13.24	45		65		85	
6	13.24	26	13.23	46		66		86	
7	13.23	27	13.24	47		67		87	
8	13.24	28	13.23	48		68		88	
9	13.24	29	13.25	49		69		89	
10	12.62	30	13.24	50		70		90	
Total	131.96		132.38		0		0		0
11	13.23	31	13.23	51		71		91	
12	13.24	32	13.24	52		72		92	
13	13.24	33	13.25	53		73		93	
14	13.24	34	13.23	54		74		94	
15	13.24	35	13.25	55		75		95	
16	13.24	36	13.25	56		76		96	
17	13.24	37	13.23	57		77		97	
18	13.24	38	13.24	58		78		98	
19	13.23	39		59		79		99	
20	13.23	40		60		80		100	
Total	132.37		105.92		0		0		0
Total 1-20	264.33	Total 21-40	238.3	Total 41-60	0	Total 61-80	0	Total 81-100	0

TOTALS		TOTALS		TOTALS	
1-20	264.33	101-120			
21-40	238.3	121-140			
41-60		141-160			
61-80		161-180			
81-100		181-200			
TOTAL	502.63	TOTAL	0	TOTAL	502.63

Total joints on location 38

Length of cutoff

Remarks: Shoe and float collar measurements included in first joint

PIPE TALLY

Date 98-03-24

Page # 1

Name and location PARAMOUNT et al Liard F-36

Contractor Akita #15

Pipe Description Casing

Size: 177.8 mm Wt: 34.23 kg/m Grade: J55 Cplg LT & C

Thread: 8 RND Mfr: PRUDENTIAL

Type of String: Prouction

Tallied By: Dave Campbell (Akita #15 rig crew)

No	Length	No	No	No	No	No	No	No	No
1	9.37	21	12.72	41	13.19	61	13.21	81	13.19
2	13.22	22	13.21	42	13.11	62	13.21	82	13.21
3	13.21	23	13.21	43	13.21	63	13.21	83	13.21
4	13.21	24	13.22	44	13.21	64	13.21	84	13.21
5	13.21	25	13.21	45	13.21	65	13.21	85	13.22
6	13.21	26	13.22	46	13.21	66	13.19	86	13.22
7	13.13	27	13.21	47	13.19	67	13.21	87	13.13
8	13.22	28	13.21	48	13.21	68	13.21	88	13.22
9	13.21	29	13.21	49	13.21	69	13.21	89	13.21
10	13.21	30	13.21	50	13.21	70	13.21	90	13.22
Total	128.20		131.63		131.96		132.08		132.04
11	13.11	31	13.19	51	11.41	71	13.21	91	13.21
12	13.19	32	13.21	52	13.15	72	13.21	92	11.01
13	13.22	33	13.21	53	9.07	73	13.12	93	11.11
14	13.22	34	13.21	54	9.15	74	13.21	94	13.21
15	12.85	35	13.21	55	9.86	75	13.21	95	13.22
16	13.22	36	13.21	56	8.25	76	13.21	96	13.22
17	13.21	37	13.21	57	9.56	77	13.22	97	13.21
18	13.19	38	13.21	58	9.67	78	13.21	98	13.21
19	13.21	39	13.21	59	13.19	79	13.21	99	13.21
20	13.21	40	13.21	60	13.21	80	13.21	100	13.21
Total	131.63		132.08		106.52		132.02		127.82
Total 1-20	259.83	Total 21-40	263.71	Total 41-60	238.48	Total 61-80	264.1	Total 81-100	259.86

TOTALS		TOTALS		TOTALS	
1-20	259.83	101-120			
21-40	263.71	121-140			
41-60	238.48	141-160			
61-80	264.10	161-180			
81-100	259.86	181-200			
TOTAL	1285.98	TOTAL	0	TOTAL	1285.98

Total joints on location 124 Length of cutoff

Remarks:

PIPE TALLY

Date 98-03-24

Page # 2

Well name and location Paramount et al Liard F-36

Contractor Akita #15

Description Casing

Size: 177.8 mm Wt: 34.23 kg/m Grade: J55 Range: 3 Cplg: LT&C

Thread: 8 Rnd Mfr: Prudential

Type of String: Production

Tallied By: Dave Campbell (Akita rig crew)

No	Length	No		No		No		No	
101	13.13	121	*13.22*	141		161		181	
102	13.21	122	*13.21*	142		162		182	
103	13.21	123	*13.21*	143		163		183	
104	13.21	124	*13.21*	144		164		184	
105	13.22	125		145		165		185	
106	13.21	126		146		166		186	
107	13.21	127		147		167		187	
108	13.21	128		148		168		188	
109	13.21	129		149		169		189	
110	13.21	130		150		170		190	
	132.03		0		0		0		0
111	13.22	131		151		171		191	
112	13.22	132		152		172		192	
113	13.21	133		153		173		193	
114	12.87	134		154		174		194	
115	13.22	135		155		175		195	
116	13.21	136		156		176		196	
117	*13.21*	137		157		177		197	
118	*10.46*	138		158		178		198	
119	*11.26	139		159		179		199	
120	*13.22*	140		160		180		200	
Total	78.95	Total	0	Total	0	Total	0	Total	0
101-120	210.98	121-140	0	141-160	0	161-180	0	181-200	0

TOTALS		TOTALS		TOTALS	
1-20	259.83	101-117	210.98		
21-40	263.71	121-140			
41-60	238.48	141-160			
61-80	264.10	161-180			
81-100	259.86	181-200			
TOTAL	1285.98	TOTAL	210.98	TOTAL	1496.96

Total joints on location 124

Length of cutoff

Remarks: F.Shoe 0.43 m 124 jts 1597.03 m On location
 F.Collar 0.36 m - 8 jts 101.00 m Out
 117 jts 1496.96 m Total casing in hole
 Landed @ 1494.00 mKB
 PBTD @ 1484.63 mKB

Float equipment added to jt #1.



CARDIUM
Tool Services Inc.

PARAMOUNT

WAYNE TOMM

Date: FEB 5, 99

Rep: CAL LAWTON
262-9586

Loc: F-36 60-10-123-15

Service Centre: EDMONTON
(780) 465-9311

Name: PARA et al
LIARD F-36 N.W.T.

Service Rep: GEORGE CAMP

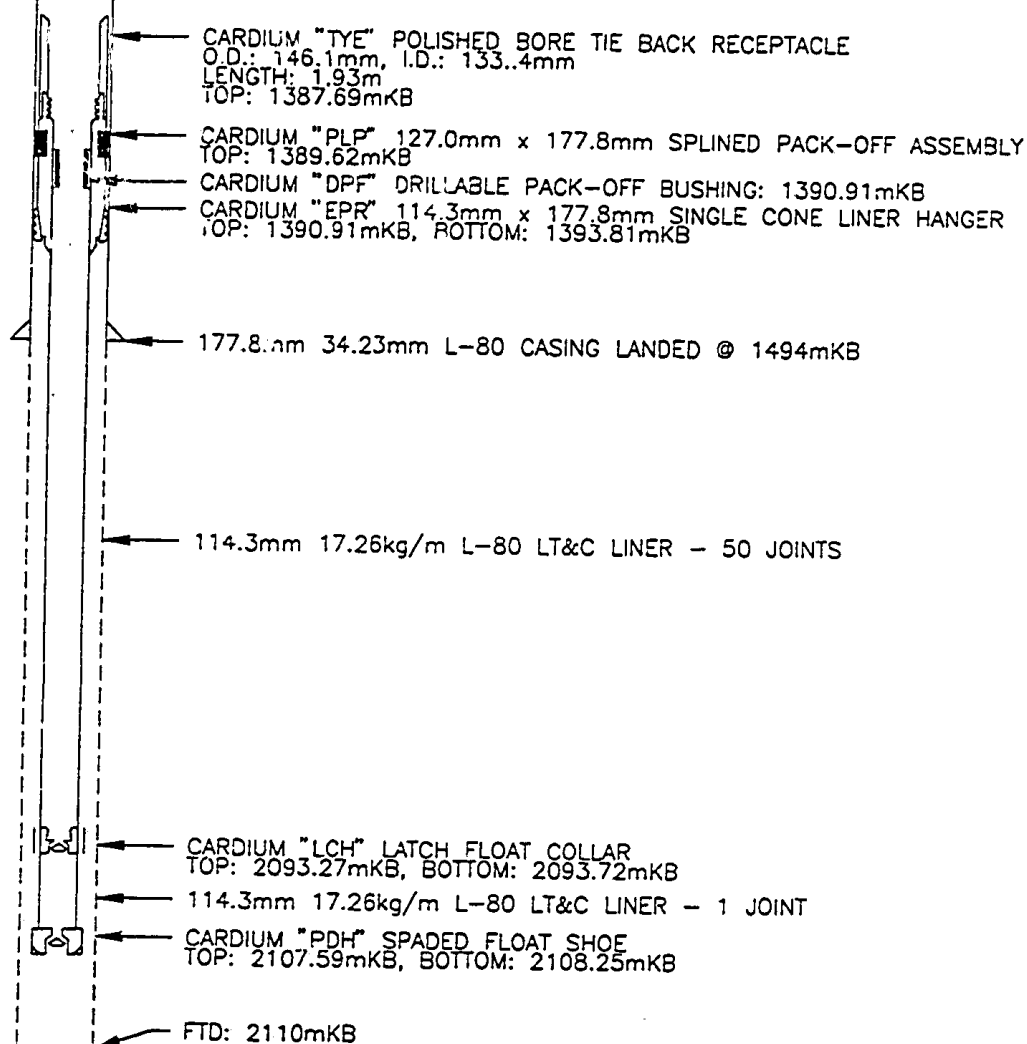
DWG. # 39614

ASBUILT

	SIZE	WEIGHT	GRADE	THREAD		SIZE	WEIGHT	GRADE	THREAD
CASING	177.8mm	34.23kg/m	L-80	LT&C	TUBING 1				
LINER	114.3mm	17.26kg/m	L-80	LT&C	TUBING 2				

114.3mm x 177.8mm LINER ASSEMBLY

BUMP LINER LATCH WIPER PLUG WITH 14,500KPa
SET LINER TOP PACKER WITH 20,000dan COMPRESSION
LINER OVERLAP: 106.31m



CARDILUM TOOL SERVICES INC.
INSTALLATION REPORT

Oil Co. PARAMOUNT RESOURCES

Date FEB 2, 3, 4, 5 1999

Well Name & No. BAR ET AL L1A13

Remarks

Location E36-62-12-123-15

Field

Province N.W.T.

Contractor PRECISION B. 373

Tieback No. TYPE 127121

Top Set Coupling TYPE 725001

Hanger No. LENR730001711

Ind. Clr No. LICH114001ST10

Shoe No. LPD114001T10

W Plug No. 11WP11400

P.D. Plug No. 11WP08900

OVERLAP
106.31 m

0445 TAG 15TH, CIRC
AND CONDITION MUD
0950 SAFETY MEETING
PUMP P.U. RIG UP
CEMENTERS, HANG
LINER AND CEMENT
1320 WROP Plug AND
DISPLACE.
1345 Bump Plug W/
14500 KPA. RELEASE
PRESS
1350 ROTATE FROM LINER
SET PACKER W/2000
WAS ON TIE-BACK.
PULL UP 2 M. AND
CIRC OUT CMT DOWN
WIRE PIPE. P.O.D.H.

Size Bottom Csg 177.8 mm

Wt. Bottom Csg. 34.23 KG/m

3m Csg Depth 1494 m

Size Liner 114.3 mm

Wt. Liner 17.26 KG/m

Liner Length W/Tools 720.56 m

Liner Top

Landing Collar

Bottom of Liner

Total Depth 2110 m

Type of Mud INVERT

Mud Wt. 1125

viscosity 53

Amount of Cement on Backwash 2.20 m³

FEB 2/99

1130 ON LOCATION

LOGGING

FEB 3/99

RIG OUT LOGGERS AND

LAY DOWN ISC'S AND

25 STDS S.P.

1115 RIG UP POWER

TOWERS AND RUN CSG.

FEB 4/99

0115 CIRC BEFORE

GOING INTO OPEN HOLE

PICKUP PLUG LOADED CMT

HEAD ON SINGLE OPEN

LEAVE IN MOUTH HOLE.

RUN D.P. TO SURFACE

TOP
OF
TIE-BACK 1387.69

TOP
OF
PACKER 1389.62

TOP
OF
HANGER 1370.91

50
JOINTS
114.3 mm
x
17.26 KG/m

145 FLOAT
COLLAR 2093.27

1387 1 2093.72

JOINT
OF
114.3 mm
x
17.26 KG/m

166 SHOE 2107.59

Engineer DENNIS McCULLOUGH

LAND 2/08/95

Cardium Operator GEORGE CAMP

PARAMOUNT RESOURCES LTD.

PIPE TALLY SHEET

DATE 99 02 03

PAGE 1 of 2

WELL NAME PARA ET AL LIARD

LOCATION F-36-60-10-023-15

Size 114.3mm

Wt. 17.26kg/m

Grade L-80

Cplg LT&C

Thread 8rd

Joint	Length	Joint	Length	Joint	Length	Joint	Length	Joint	Length
1	13.87	11	14.00	21	14.02	31	14.23	41	13.59
2	13.66	12	13.44	22	13.40	32	14.30	42	13.89
3	14.10	13	12.89	23	14.01	33	14.09	43	13.92
4	13.90	14	13.70	24	14.34	34	14.24	44	13.65
5	14.30	15	13.82	25	13.88	35	14.15	45	13.70
6	14.29	16	14.26	26	14.24	36	13.93	46	13.25
7	13.95	17	14.30	27	14.17	37	14.13	47	14.15
8	14.30	18	14.25	28	14.24	38	14.14	48	13.86
9	14.10	19	14.06	29	13.88	39	14.02	49	14.00
10	14.26	20	14.25	30	14.17	40	14.14	50	14.10
A	140.73	B	138.97	C	140.35	D	141.37	E	138.11

Joint	Length	Joint	Length	Joint	Length	Joint	Length	Joint	Length
51	13.80	61		71		81		91	
52		62		72		82		92	
53		63		73		83		93	
54		64		74		84		94	
55		65		75		85		95	
56		66		76		86		96	
57		67		77		87		97	
58		68		78		88		98	
59		69		79		89		99	
60		70		80		90		100	
F	13.80	G		H		I		J	

A	140.73	Column Subtotal	Shoe	0.66	JOINTS	LENGTH
B	138.97	279.70	Collar	0.45		720.56
C	140.35	420.05	Other	6.12	Page Total	
D	141.37	561.42			Brought FWD	
E	138.11	699.53			Grand Total	720.56
F	13.80	713.33			Joints on Location	63
G						
H						
I						
J						
Total	713.33					

Remarks: RUN IN ON END OF 146 JOINTS DRH I. PIPE

Supervisor D. McCULLOCH

NOTE: Use a new page for each casing type. Number joints in order of running.
Indicate joints not run by * and do not include in total length.

PARAMOUNT RESOURCES LTD.

PIPE TALLY SHEET

DATE 09 02 04

PAGE 2 of 2

WELL NAME PARA ET AL LIARD

LOCATION F-36-60-10-023-15

Size 89.9mm

Wt. 23.07 kg/m

Grade E

Cplg 3.5mm

Thread IF

Joint	Length	Joint	Length	Joint	Length	Joint	Length	Joint	Length
1	19.30	11	19.02	21	19.23	31	19.37	41	19.47
2	19.02	12	19.36	22	19.17	32	19.14	42	19.16
3	19.40	13	19.10	23	19.20	33	19.16	43	19.27
4	19.14	14	19.17	24	19.29	34	19.08	44	19.14
5	18.60	15	19.06	25	18.62	35	19.15	45	18.93
6	19.00	16	19.22	26	19.08	36	19.25	46	18.86
7	19.20	17	19.27	27	19.19	37	18.66	47	18.85
8	18.40	18	18.89	28	18.53	38	19.03	48	18.66
9	18.35	19	18.60	29	18.44	39	19.34	49	18.67
10	18.49	20	19.32	30	19.23	40	19.24	50	18.63
A	189.56	B	191.11	C	189.98	D	191.42	E	189.64

Joint	Length	Joint	Length	Joint	Length	Joint	Length	Joint	Length
51	18.51	61	18.51	71	19.06	81		91	
52	19.11	62	18.54	72	19.06	82		92	
53	19.04	63	19.18	73	18.73	83		93	
54	19.09	64	18.66	74		84		94	
55	19.31	65	18.87	75		85		95	
56	19.03	66	18.34	76		86		96	
57	18.96	67	18.33	77		87		97	
58	19.31	68	19.07	78		88		98	
59	18.65	69	19.23	79		89		99	
60	19.17	70	19.22	80		90		100	
F	190.18	G	187.95	H	56.85	I		J	

A	189.56	Column Subtotal	Shoe	JOINTS	LENGTH
B	191.11	380.67	Collar		1,388.53
C	189.98	570.65	Other SUB-.97	Page Total	
D	191.42	762.07	SUB-.87	Brought FWD	
E	189.64	951.71		Grand Total	1,388.53
F	190.18	1,141.89		JOINTS on Location	
G	187.95	1,329.84			
H	56.85	1,386.69			
I					
J					
Total	1,386.69				

Remark: RUN IN ON TOP OF LINER.

Supervisor D. McCULLOCH

NOTE: Use a new page for each casing type. Number joints in order of running.
Indicate joints not run by * and do not include in total length.

DRILLING FLUID

REC-AP-1

CONCORD DRILLING FLUIDS LTD.

WELL DATA RECAP & SUMMARY

OPERATOR	PARAMOUNT RESOURCES	SPUD IN DATE	98-03-03	MUD VANS ON LOCATION	YES
WELL NAME	PARA at LIARD	DRILL OUT DATE	98-03-09		
LOCATION	F-38	T.D. DATE	98-03-24	HI - BOY ON LOCATION	
PROVINCE	NWT	RELEASE DATE	98-03-25		
CONTRACTOR	AKITA #15	TOTAL DEPTH m.	1494	PALLETS or TARPS USED	YES
CONCORD REP.	GARTH SHEWCHUK	TOTAL # DAYS	22		

SURFACE HOLE INTERVAL		OPERATIONS		SURVEY RECORD	
HOLE SIZE mm.	311			DEPTHS	ANGLE
INTERVAL m.	0 - 502	Well was spudded on March 3, 1998 and drilled with GEL SLURRY to 502 meters.		31	1/8
CASING SIZE mm.	244.5	No hole problems were encountered.		90	7/8
MUD SYSTEM	GEL SLURRY	Ran and cemented 244.5 mm casing with no problems.		122	7/8
DRILLING HRS.	63.75 # BITS	3		196	1/4
REAMING HRS.	# DAYS	4		256	3/4
MUD COST	\$5,400			312	1/2
		TOTAL METRES	502	370	1/2
		AVERAGE MUD COST / M.	\$10.78		
		AVERAGE R.O.P. M. / HR.	7.87		

MAIN HOLE INTERVAL		OPERATIONS		SURVEY RECORD	
HOLE SIZE mm.	222			DEPTHS	ANGLE
INTERVAL m.	502 - 1494	Drilled out casing shoe with water. Mudded up hole after 'Leak-Off' was run.		426	1
CASING SIZE mm.	178	Solids control was handled by dilution and dumping of tanks to maintain mud density below 1100 kg/m ³ .		495	1
MUD SYSTEM	GEL CHEMICAL	Hole cleaning was not a problem. Ran three (3) DST's without hole problems.		534	1/2
DRILLING HRS.	201 # BITS	7		591	7/8
REAMING HRS.	# DAYS	18		650	7/8
MUD COSTS	\$27,518			708	1
				761	7/8
				818	3/4
				871	1/4
				933	1/8
				989	1/4
				1050	1/4
		TOTAL METRES	992		
		AVERAGE MUD COST / M.	\$27.74		
		AVERAGE R.O.P. M. / HR.	4.94		

PRODUCTS USED						SURVEY RECORD	
GEL REGULAR	1091	ENVIROFLOC	17			DEPTHS	ANGLE
BARITE	218	LIGNITE	21			1213	1 1/8
AQUAPAC	17	S.A.P.P.	2			1263	1
BICARB OF SODA	1	SAWDUST	2			1318	2 3/4
CAUSTIC SODA	21	SODA ASH	2			1354	3
DESCO	3	VIS-PLUS	1			1383	3
DETERGENT L.	3					1440	3/4

PROBLEM / COST SUMMARY	DEPTHS m.	COSTS	MUD COST SUMMARY
LOST CIRCULATION (SURF)			ESTIMATED MUD COST
LOST CIRCULATION (MAIN)			\$32,917.84
SECOND LEG COST			PROGRAMMED COST
H2S			\$27,500.00
MUD RINGS			MUD COST / METRE
ANHYDRITE			\$22.03
MUD BREAKERS			TRUCKING COSTS
SLOUGHING HOLE			\$8,430.00
			VAN / HI-BOY RENTAL
			\$1,660.00
			SERVICE COSTS
			RESTOCKING CHARGES
			TOTAL GST
			\$3,003.55
			TOTAL COSTS
			\$45,911.39

CONCORD FIELD REP.	GARTH SHEWCHUK	PHONE #	403 234 7771
CONCORD SALES REP.	DAN ANDERSON	PHONE #	250 785 4715



Well Name: **PARAMOUNT LIARD (F36)**

Location: - 60 - 1 / 123 - 1 -

Spud Date (m/d/y): **12/24/98** Total Depth: **2110**

Completion Date: **2/5/99** Total Days: **44**

Contractor: **Precision 373**

Job ID: **28447** TSR: **Robert Klyne**

Service(Y/N): **Yes**

Well Profile	Hole Size	Casing Size	Csg/Mud up Depth	Days	Mud System	Max. Mud Density	Maximum Deviation	Dev. Depth
Surface Hole								
Top Hole								
Intermediate		161	1494	0				
2nd Intermediate								
Liner								
Main Hole	155.6		2110		Carbotech L Invert	1100	3	

Lost Circulation Depths/Zones: **n/a**

Pressured Zones: **1538m**

H2S Zones:

Sloughing Zones:

PROBLEMS AND COMMENTS

This well was drilled as a reentry with Intermediate casing priority set at 1494m. Casing water was displaced over to Carbo Teq L Invert and cement drilled out. Drilled ahead 155.6mm new hole with Nitrogen/Invert mist (air drilling). Gas was encountered at 1538m. Gas was flared off and continued to drill ahead to 1542m. Blew hole clean and flow test (4 million cu/ft). Continued to drill ahead to 1555m. Pressure increasing in well bore. Hard shut in of well and let pressure stabilize. Entest unable to contain pressure (separator vessel to low of a pressure rating). Had to put back pressure on RBOP'S. RBOP'S maxed out. Decision was made to displace well over to Invert with no Nitrogen. Used Newsco pumping unit to displace well. Circulated well and weighted up with Barite to 1090 Kg/m3. Ran DST'S, well flowing @ 10 - 14 million cu/ft.

From 1900m-1970m hole drilled at low penetration rate (0.5m-1.5m). Mud properties: Oil/Water ratio- 96.4/3.6, Chlorides (water phase) -190,000 - 250,000, Yield Point 2 - 2.6 Pa @ 50 deg C.

Mud and hole conditions in good condition (no fill). Prior tripping for logging, 2 bags of Oil Gel were mixed into active system and spotted down hole. During 3 Days of logging operations (9 runs) in 155.9mm open hole no problems were reported.

For the last part of hole, 1970-2110m, well had been declared tight hole. With 1120 Kg/m3 density, 24 hours losses were between 3 - 4m3. Treatment for these losses included lowering density by adding fresh invert (4m3 over 4 hours while drilling) and mixing 2-6 bags CaCo3. An efficient treatment for these losses was adding 0.2m3 Brine (22% CaCl2) to the system.



Well Name: **PARAMOUNT LIARD (F36)**

Location: - 60 - 1 / 123 - 1 -

Spud Date (m/d/y): **12/24/98** Total Depth: **2110**

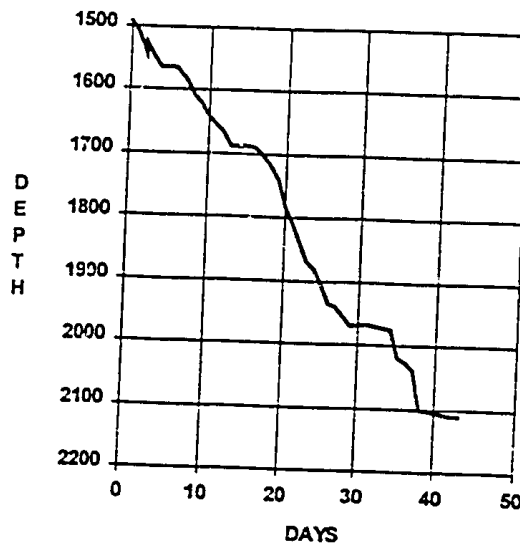
Completion Date: **2/5/99** Total Days: **44**

Contractor: **Precision 373**

Job ID: **28447** TSR: **Robert Klyne**

Service(Y/N): **Yes**

Product Used - Unit:	Quantity:
Calcium Carbonate - 25.0 kg	2381
Calcium Chloride Fines - 40.0 kg	221
Carbomul SEA - 55.0 G	41
Carbotec L SEA - 55.0 G	31
CarboTEQ-E Invert - m³	631
Diesel Fuel - m³	241
Lime - 20kg	821
Milbar - 40.0 kg	11181
Milclean - 55.0 G	11
OilGel 3000 - 50 lbs	371
Sawdust - 18.1 kg	771
SoluFlake Fine - 50 lbs	501
SoluFlake Medium - 50 lbs	161



WELLHEAD



March 23, 1999

WELL FILE
REVISED TOP SECTION

PARAMOUNT RESOURCES LTD.

LOCATION: **F-36**

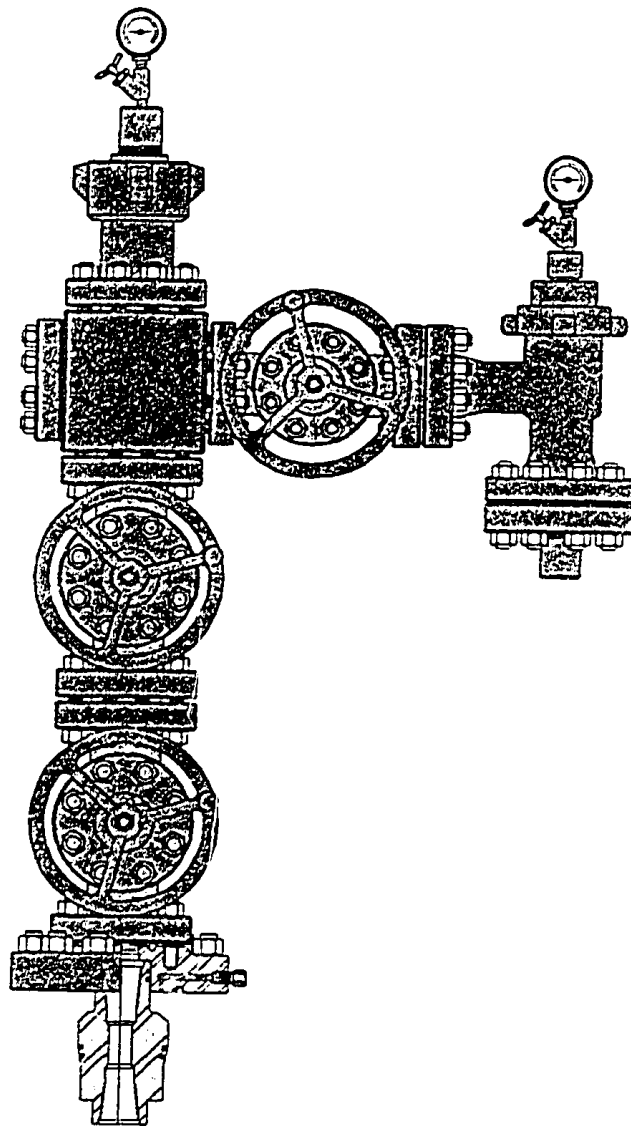
ITEM

SERIAL #

1.) Tubing Hanger 7 1/16" x 3 1/2" EUE c/w 3" BVPT ABB XP-1	#24051-05
2.) (3) Gate Valves 3 1/8" 3M FLGD L,AA,PSL-1 Newco	#53038
	#53513
	#53515
3.) Adaptor Flange 7 1/16" 3M x 3 1/8" 3M SSU c/w Seal Pocket & Test Port ABB XP-1	#24113-01
4.) Studded Cross 3 1/8" 3M x 3 1/8" 3M x 3 1/8" 3M x 3 1/8" 3M	N/A
5.) BHTA 3 1/8" 3M FLGD x 3 1/2" EUE c/w Top Cap	#23556-05
6.) Production Choke 3 1/8" 3M L,DD, TC Internals Master Flow P-3	#P3-2880

MISC.

- 1.) Needle Valves
- 2.) Pressure Gauges
- 3.) Studs & Nuts
- 4.) Companion Flanges
- 5.) Etc...



PARAMOUNT RESOURCES LTD.

A J INDUSTRIES.

LOCATION : F-36

RE: 7 1/16" 3000# WP X 3 1/2" 3000# WP STD. SERVICE
LOW TEMP. TOP SECTION





February 22, 1999

WELL FILE

PARAMOUNT RESOURCES LTD.

LOCATION: **F-36**

ITEM

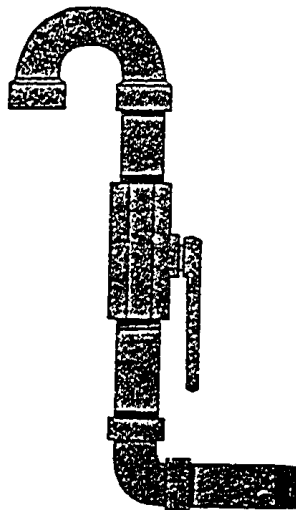
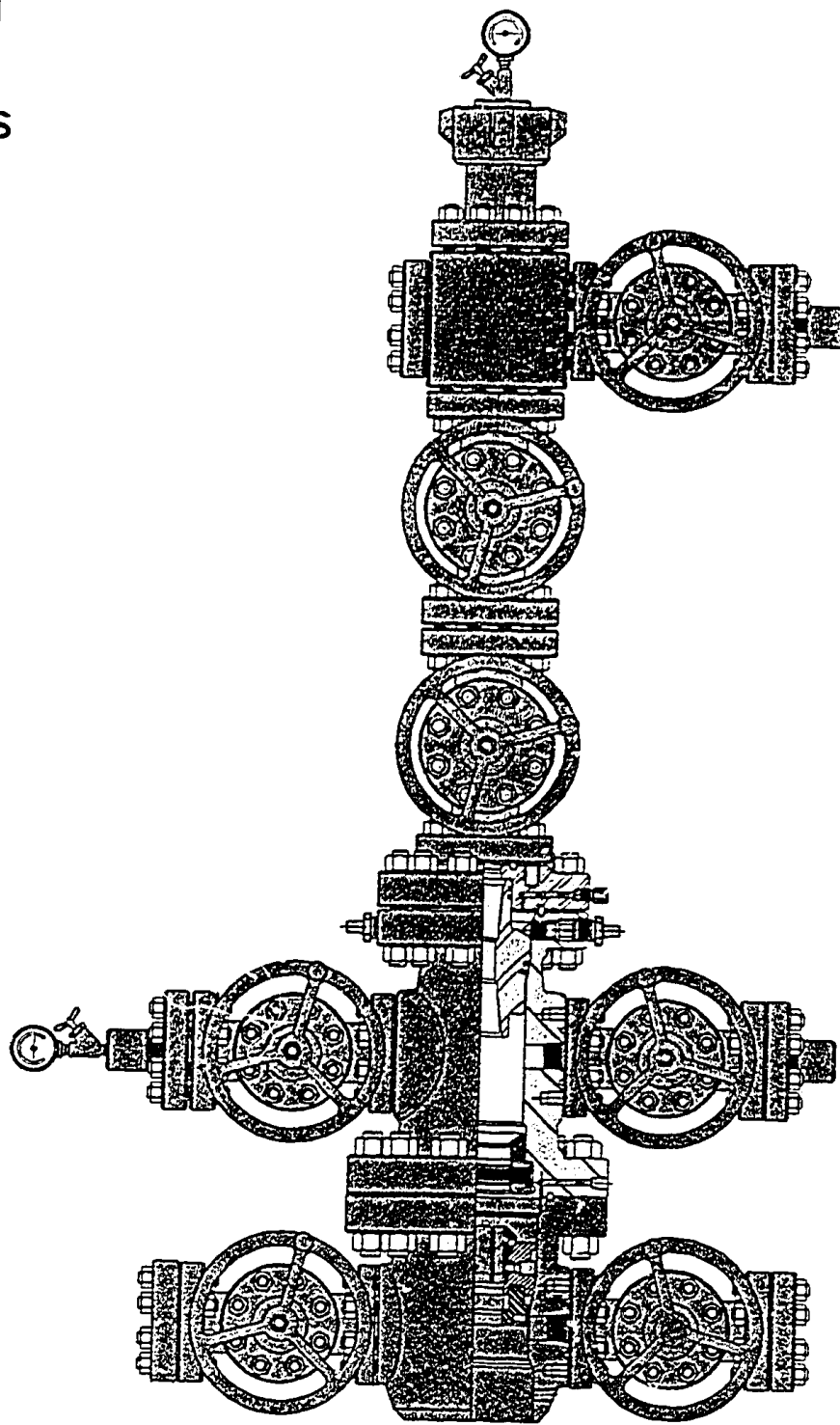
SERIAL

1.) Casing Bowl 11" 3M x 9 5/8" ODSO c/w 2-2" SSO Walker EG	#21570-12
2.) (2) Gate Valves 2 1/16" 5M c/w T-21 Trim Barton	#23801-000-4
	#23801-000-22
3.) Tubing Head 11" 3M x 7 1/16" 3M c/w 2-2" SSO ABB VG-OF	#21797-10
4.) Tubing Hanger 7 1/16" x 2 7/8" EUE c/w BVPT ABB XP-1 UPTBG BVPT	#23614-18
5.) Gate Valve 2 9/16" 5M FLGD c/w T-36 Trim VGC	#23284-18
6.) Gate Valve 2 1/16" 5M FLGD c/w T-36 Trim VGC	#23492-128
7.) Gate Valve (Reman) 2 1/16" 5M FLGD c/w T-36 Trim Crown	#46077-3
8.) Gate Valve 2 9/16" 5M FLGD c/w T-36 Trim ABB RISR #20156(CP)	#23284-11
9.) Gate Valve 2 1/16" 5M FLGD c/w T-36 Trim AOP RISR #20156(CP)	#22031-1
10.) Adapter Flange 7 1/16" 3M x 2 9/16" 5M SSU ABB XP-1 c/w Seal Pckt	#22321-03
11.) Studded Cross (Reman) 2 9/16" 5M x 2 9/16" 5M x 2 1/16" 5M x 2 1/16" 5M	#15951-6
12.) BHTA (Reman) 2 9/16" 5M c/w Top Cap	N/A

MISC.

- 1.) Needle Valves
- 2.) Pressure Gauges
- 3.) Bull Plugs
- 4.) Studs & Nuts
- 5.) Ring Gaskets
- 6.) Casing Vent Assembly
- 7.) Etc...

AJ
INDUSTRIES



PARAMOUNT RESOURCES LTD.

A J INDUSTRIES

LOCATION : F-36

RE: 11" 3000# X 9 5/8" X 7 1/16" 3000# X 7" X 2 7/8" FLOWING



FISHING: N/A

WELL KICKS: N/A
(Note: A short section at the start of the main hole was drilled underbalanced.)

LEAK-OFF TESTS: Gradient at 512 m 23.05 kPa/m, no breakdown

TIME DISTRIBUTION: See Attached within this section

DEVIATION SURVEY: See Attached within this Section

ABANDONMENT PLUGS: N/A

COMPOSITE WELL RECORD: See attached in the pouch at the end of this section

LEAK - OFF TESTS



PRESSURE TESTERS LTD.

Box 6820, Fort St. John, B.C. V1J 4J3 Telephone (604) 785-4540.

FORMATION PRESSURE TEST

Oil Company PARAMOUNT RESOURCES

Date 98/03/09

Location PARAMOUNT ET AL LIARD F-36

Contractor AKITA 15

Piston Size 2.25

Stroke Length 3.75

Depth of Casing 502

Depth Drilled Out 512

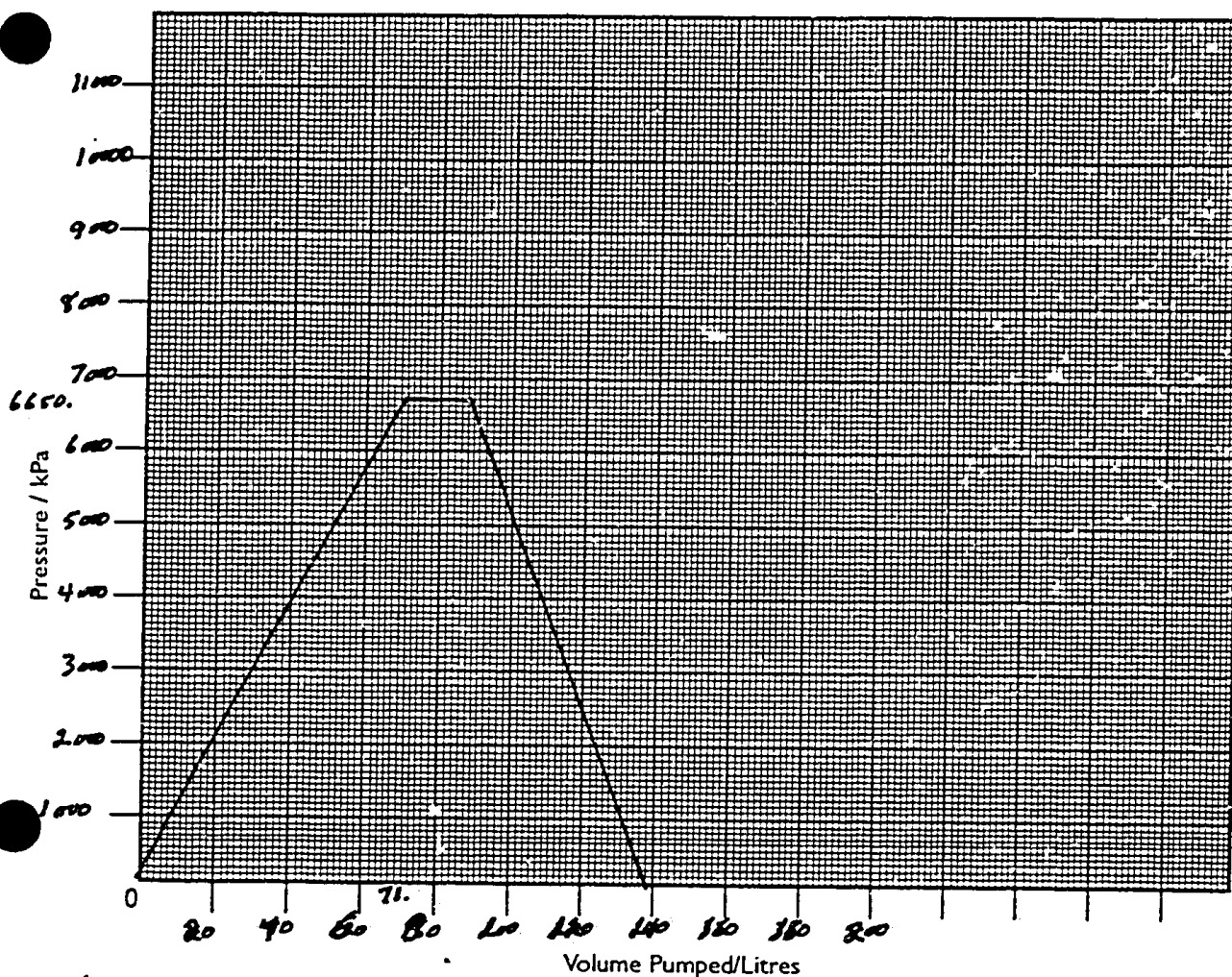
Gradient of Fluid in Hole 1000

Hydrostatic Pressure 4925

Leak-Off Pressure 6650

Total Pressure at Shoe 11575

Formation Gradient 23.05

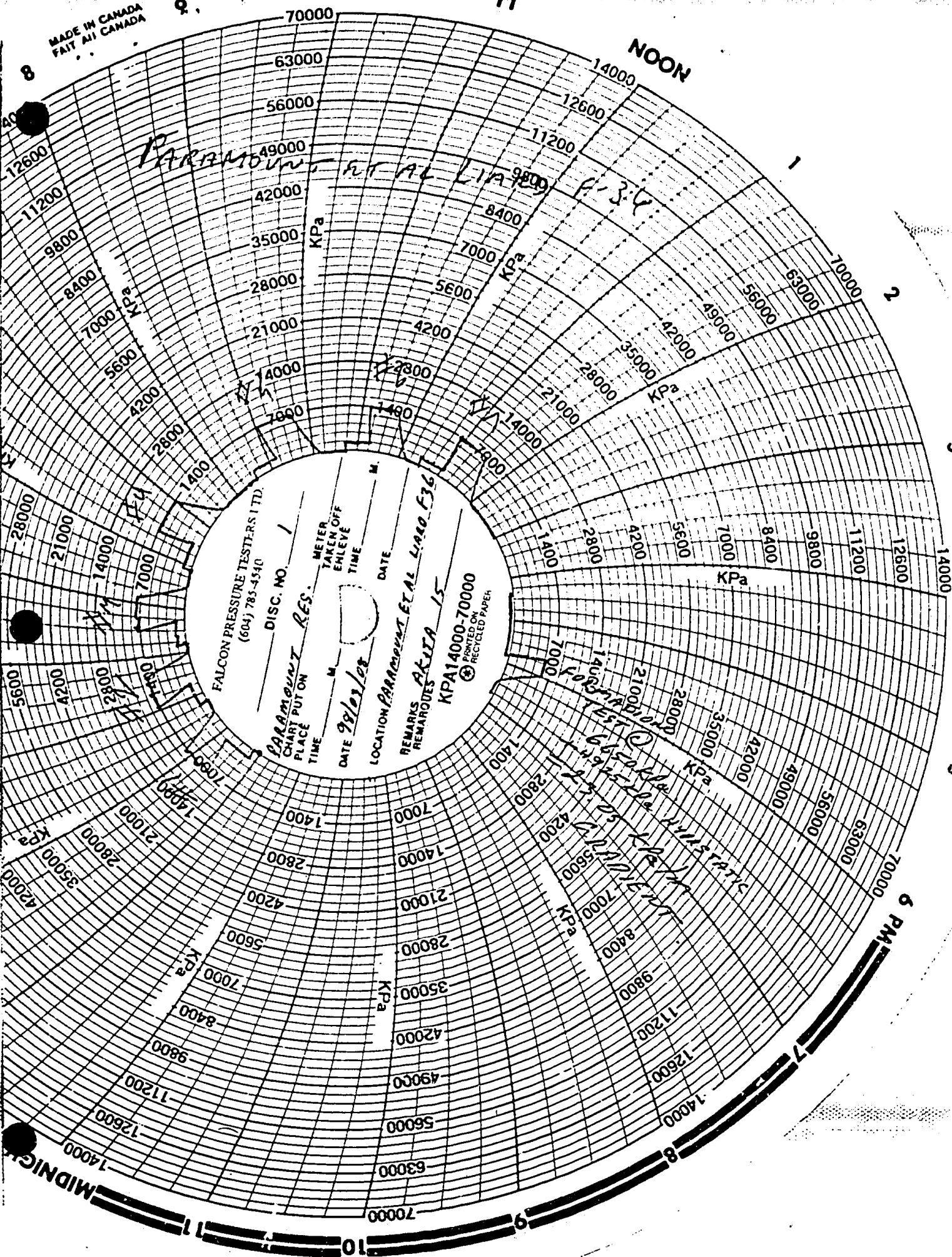


MADE IN CANADA
FAIT AU CANADA

10

11

NOON



6 PM

MIDNIGHT

TIME DISTRIBUTION

PARAMOUNT ET AL LIARD F-36

TIME DISTRIBUTION - TOTAL HOURS SPLD TO RIG RELEASE

OPERATION	TOTAL HOURS		GRAND TOTAL
	AKITA 15	PREC 373	
DRILLING	272.25	474.75	747
TRIPS	119.75	234.75	354.5
RIG SERVICE	13.75	26	39.75
SURVEY	11.5	10.75	22.25
REAM & COND	10.5	20.25	30.75
COND MUD	0	27.75	27.75
CIRCULATE	25.25	46	71.25
RIG REPAIRS	59	7	66
CSG & CMT	19.75	10.25	30
FISHING	0	0	0
LOGGING	20.75	62.75	83.5
CORING	0	0	0
TESTING	15.5	70	85.5
WAITING TIME	8	18	26
NU & PT	23.5	17	40.5
DRILL OUT	3	8.5	11.5
LOST CIRC	0	0	0
LD DP & DC	0	21.25	21.25
PLUG/ABAND	0	0	0
RIG UP OTHER	10.5	32.75	43.25
SAFETY MTG	2	8.25	10.25
HANDLE TOOLS	16	8	24
TOTAL	631	1104	1735

PARAMOUNT ET AL LIARD F-36

TIME DISTRIBUTION

MARCH 1998

MARCH 1998																													OPERATION	TOTAL HOURS
DATE	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
DAYS FROM SPUD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27			
DRILLING	13.5	17.3	15.5	15	10		1.5	15.5	20.8	12.5	22.5	22.5	4.75		22	13	10.5	6.25	3	10.3	20.3	12.8	3					DRILLING	272.25	
TRIPS		4.75	4.25	4.25	4		3.75	4.75		6.5			10.3	12.5	0.5	7.75	5.25	7.75	1	2		9.5	8.5	4.75	7.75			TRIPS	119.75	
RIG SERVICE	0.75	0.75	0.75	0.75	0.75		0.25	0.75	0.75	0.5	0.75	0.75	0.75	0.25	0.75	0.75	0.5	0.25	0.5	0.5	0.75	0.5	0.25	0.25		0.25		RIG SERVICE	13.75	
SURVEY	1	1.25	1	0.75	0.5			0.5	0.5	0.5	0.5	0.75	0.25		0.25	0.5	0.5	0.5		0.5	1.25				0.5			SURVEY	11.5	
REAM & COND			2.25	2				1	2	1			0.5					1.25				0.5						REAM & COND	10.5	
COND MUD																												COND MUD	0	
CIRCULATE			0.25	0.25	0.5	0.5	0.25			1			3		0.5	2	4	0.75	1.25	0.5	1.75	0.75	2.75		1.75	3.5		CIRCULATE	25.25	
RIG REPAIRS	8.75			1	1.25				2								3	7.25	7.5	10.3				6.75		11.3		RIG REPAIRS	59	
CSG & CMT					6.75	2.5																			1	9	0.5	CSG & CMT	19.75	
FISHING																												FISHING	0	
LOGGING																								8	12.8			LOGGING	20.75	
CORING																												CORING	0	
TESTING														7.75									7.25	0.5				TESTING	15.5	
WAITING TIME						8																						WAITING TIME	8	
NU & PT						10	13.5																					NU & PT	23.5	
DRILL OUT							3																					DRILL OUT	3	
LOST CIRC																												LOST CIRC	0	
LD DP & DC																												LD DP & DC	0	
PLUG/ABAND																												PLUG/ABAND	0	
RIG UP OTHER/TO						3							1														6.5	RIG UP OTHER	10.5	
SAFETY MTG					0.25		0.5	0.25			0.25						0.25						0.25		0.25			SAFETY MTG	2	
HANDLE TOOL							1.25	1.25					3.5	3.5					0.75				2	3.75					16	
TOTAL	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	7	TOTAL	631	

TIME DISTRIBUTION

JANUARY, 1999

FEBRUARY, 1999

[illegible]

DEVIATION SURVEYS

A Gyrodata Directional Survey

for

PARAMOUNT RESOURCES LTD.

WELL: PARAMOUNT ET AL LIARD F36

Location: F36 60 10 123 15

Job Number: C0199GDM215

Run Date: 30-Jan-99 06:53:50

Surveyor: G.Lariviere

Calculation Method: MINIMUM CURVATURE

Survey Latitude: 60.050000 deg. N

Azimuth Correction:

Rate-Gyro: Bearings are Relative to True North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

A Gyrodata Directional Survey

PARAMOUNT RESOURCES LTD.
WELL: PARAMOUNT ET AL LIARD F36
Location: F36 60 10 123 15
Job Number: C0199GDM215

Page 1

MEASURED DEPTH meters	I N C L deg.	AZIMUTH deg.	VERTICAL DEPTH meters	CLOSURE DIST. meters	AZIMUTH deg.	H O R I Z O N T A L C O O R D I N A T E S meters	DOGLEG SEVERITY deg/30m
0.0	0.00	0.00	0.0	0.0	0.0	0.00 N 0.00 E	0.00
----- ALL MAESURED DEPTHS COORDINATES ARE REFERENCED TO AN R.K.B. OF 4.8 METERS. -----							
52.6	.47	241.00	52.5	.2	241.0	.11 S .19 W	.27
71.4	.42	253.53	71.3	.4	243.4	.16 S .33 W	.18
90.0	.42	258.54	90.0	.5	246.8	.20 S .46 W	.06
108.4	.41	254.45	108.4	.6	248.9	.23 S .59 W	.05
127.2	.32	255.02	127.2	.8	249.8	.26 S .70 W	.15
145.9	.18	261.51	145.9	.8	250.5	.28 S .78 W	.23
164.2	.09	297.16	164.2	.9	251.6	.28 S .83 W	.20
183.0	.12	292.45	183.0	.9	253.1	.26 S .86 W	.06
201.4	.29	161.31	201.4	.9	250.9	.30 S .86 W	.63
220.8	.28	160.05	220.8	.9	244.9	.39 S .83 W	.02
239.4	.29	158.46	239.4	.9	239.2	.47 S .80 W	.03
258.7	.30	157.94	258.7	.9	233.2	.57 S .76 W	.01
278.2	.25	155.09	278.1	1.0	227.8	.65 S .72 W	.08
297.4	.15	164.67	297.4	1.0	224.2	.72 S .70 W	.17
316.8	.09	212.55	316.8	1.0	222.8	.75 S .70 W	.17
336.1	.20	267.05	336.1	1.1	223.9	.77 S .74 W	.26
355.2	.21	265.45	355.2	1.1	226.3	.77 S .81 W	.01
374.4	.27	284.04	374.4	1.2	229.2	.77 S .89 W	.16
393.5	.23	273.08	393.5	1.2	232.2	.75 S .97 W	.10
412.8	.18	283.54	412.8	1.3	234.4	.74 S 1.04 W	.10
432.1	.21	312.98	432.1	1.3	236.9	.71 S 1.09 W	.16

A Gyrodata Directional Survey

PARAMOUNT RESOURCES LTD.
WELL: PARAMOUNT ET AL LIARD F36
Location: F36 60 10 123 15
Job Number: C0199GDM215

Page 2

MEASURED DEPTH meters	I N C L deg.	AZIMUTH deg.	VERTICAL DEPTH meters	CLOSURE DIST. meters	AZIMUTH deg.	H O R I Z O N T A L C O O R D I N A T E S meters	DOGLEG SEVERITY deg/30m
451.3	.23	333.60	451.3	1.3	240.0	.65 S 1.13 W	.13
470.0	.23	303.87	470.0	1.3	243.1	.60 S 1.18 W	.19
489.0	.29	314.35	489.0	1.4	246.4	.54 S 1.25 W	.11
508.2	.31	326.70	508.2	1.4	250.4	.47 S 1.31 W	.11
527.3	.27	323.02	527.3	1.4	254.2	.39 S 1.37 W	.08
546.6	.19	290.32	546.6	1.5	256.5	.34 S 1.42 W	.23
565.0	.38	285.58	565.0	1.5	258.3	.31 S 1.51 W	.32
584.4	.44	295.03	584.4	1.7	260.8	.26 S 1.64 W	.14
603.2	.51	290.34	603.2	1.8	263.5	.20 S 1.79 W	.13
622.3	.46	287.47	622.2	1.9	265.5	.15 S 1.94 W	.09
641.1	.53	287.75	641.1	2.1	267.2	.10 S 2.10 W	.12
660.5	.58	281.18	660.4	2.3	268.6	.06 S 2.28 W	.12
679.1	.50	280.46	679.0	2.4	269.5	.02 S 2.45 W	.13
698.2	.30	285.00	698.2	2.6	270.1	.01 N 2.58 W	.31
717.4	.37	281.91	717.4	2.7	270.7	.03 N 2.69 W	.10
736.6	.27	259.00	736.6	2.8	270.7	.04 N 2.79 W	.25
754.5	.23	269.92	754.4	2.9	270.5	.03 N 2.87 W	.11
773.8	.34	257.92	773.8	3.0	270.3	.02 N 2.96 W	.19
792.2	.52	231.57	792.2	3.1	269.1	.05 S 3.08 W	.44
811.6	.69	217.25	811.5	3.2	266.5	.20 S 3.22 W	.35
829.9	.57	205.54	829.9	3.3	263.7	.37 S 3.33 W	.28
849.2	.68	209.70	849.2	3.5	260.8	.55 S 3.43 W	.18
868.6	.60	190.86	868.6	3.6	257.9	.75 S 3.50 W	.35
887.4	.42	194.09	887.4	3.7	255.5	.92 S 3.54 W	.29
906.9	.45	201.58	906.9	3.7	253.6	1.06 S 3.58 W	.10

A Gyrodata Directional Survey

PARAMOUNT RESOURCES LTD.
WELL: PARAMOUNT ET AL LIARD F36
Location: F36 60 10 123 15
Job Number: C0199GDM215

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MEASURED DEPTH meters	I N C L deg.	AZIMUTH deg.	VERTICAL DEPTH meters	CLOSURE DIST. meters	AZIMUTH deg.	H O R I Z O N T A L C O O R D I N A T E S meters	DOGLEG SEVERITY deg/30m
926.1	.49	216.85	926.1	3.8	252.0	1.19 S 3.66 W	.20
944.5	.31	223.83	944.5	4.0	251.0	1.29 S 3.74 W	.31
963.7	.48	210.73	963.6	4.1	249.9	1.40 S 3.82 W	.30
982.1	.47	233.62	982.1	4.2	249.0	1.51 S 3.92 W	.30
1001.4	.46	235.14	1001.4	4.3	248.4	1.60 S 4.05 W	.02
1020.1	.32	207.04	1020.1	4.5	247.8	1.69 S 4.13 W	.38
1038.9	.43	262.25	1038.8	4.6	247.6	1.74 S 4.23 W	.58
1057.5	.40	237.89	1057.5	4.7	247.7	1.79 S 4.35 W	.29
1076.8	.39	218.85	1076.8	4.8	247.2	1.87 S 4.45 W	.20
1096.0	.40	180.71	1096.0	4.9	246.1	1.99 S 4.49 W	.40
1115.3	.52	184.83	1115.3	5.0	244.5	2.15 S 4.50 W	.20
1134.4	.52	172.07	1134.3	5.1	242.7	2.32 S 4.49 W	.18
1152.7	.57	170.59	1152.7	5.1	240.9	2.49 S 4.47 W	.09
1172.1	.61	165.34	1172.0	5.2	238.8	2.68 S 4.42 W	.10
1190.9	.59	169.55	1190.9	5.2	236.7	2.88 S 4.38 W	.07
1209.4	.92	188.92	1209.3	5.4	234.6	3.12 S 4.39 W	.66
1228.3	1.03	170.37	1228.3	5.6	231.9	3.43 S 4.38 W	.53
1246.9	1.04	151.33	1246.9	5.7	228.7	3.75 S 4.27 W	.55
1266.3	1.26	144.82	1266.3	5.8	224.9	4.08 S 4.07 W	.39
1285.9	1.63	140.07	1285.8	5.8	220.1	4.47 S 3.76 W	.60
1305.4	2.21	137.18	1305.3	6.0	213.9	4.96 S 3.33 W	.89
1324.3	3.13	135.62	1324.2	6.2	205.9	5.59 S 2.72 W	1.47
1343.4	3.35	135.23	1343.3	6.7	197.1	6.36 S 1.96 W	.34
1362.4	3.45	132.56	1362.3	7.2	189.1	7.14 S 1.15 W	.30
1381.7	3.53	129.52	1381.5	7.9	181.9	7.91 S .26 W	.31

A Gyrodata Directional Survey

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MEASURED DEPTH meters	I N C L deg.	AZIMUTH deg.	VERTICAL DEPTH meters	CLOSURE DIST. meters	AZIMUTH deg.	H O R I Z O N T A L C O O R D I N A T E S meters	DOGLEG SEVERITY deg/30m
1400.3	2.89	128.68	1400.1	8.6	176.4	8.57 S .55 E	1.02
1419.2	2.44	125.71	1419.0	9.2	172.2	9.10 S 1.24 E	.75
1438.4	1.78	123.47	1438.2	9.7	169.1	9.51 S 1.82 E	1.05
1457.0	1.24	122.14	1456.7	10.0	167.1	9.77 S 2.24 E	.86
1476.1	.95	122.53	1475.9	10.3	165.7	9.97 S 2.55 E	.46
1494.0	.80	131.05	1493.8	10.5	164.7	10.13 S 2.76 E	.34
1513.8	.86	126.15	1513.5	10.7	163.8	10.31 S 2.99 E	.15
1533.1	.72	157.81	1532.9	11.0	163.3	10.51 S 3.15 E	.70
1552.1	1.12	186.79	1551.9	11.3	163.6	10.80 S 3.17 E	.95
1571.4	1.03	205.38	1571.2	11.6	164.6	11.15 S 3.08 E	.56
1590.1	1.97	224.97	1589.9	11.9	166.4	11.53 S 2.78 E	1.69
1609.0	3.28	232.05	1608.7	12.3	170.0	12.09 S 2.13 E	2.14
1628.2	2.75	234.00	1627.8	12.8	174.1	12.69 S 1.32 E	.84
1647.3	2.34	238.91	1647.0	13.2	177.3	13.17 S .62 E	.72
1665.8	2.59	240.08	1665.4	13.6	180.3	13.57 S .07 W	.42
1684.1	2.21	253.51	1683.7	13.9	183.2	13.88 S .77 W	1.11
1703.0	2.05	262.91	1702.6	14.1	185.9	14.02 S 1.45 W	.61
1722.3	2.02	260.05	1721.9	14.3	188.6	14.12 S 2.13 W	.16
1741.5	2.01	260.01	1741.1	14.5	191.1	14.24 S 2.79 W	.00
1760.6	1.62	277.77	1760.2	14.7	193.4	14.26 S 3.39 W	1.07
1779.8	1.29	296.82	1779.4	14.6	195.3	14.13 S 3.85 W	.91
1798.9	1.01	301.07	1798.5	14.6	196.7	13.94 S 4.19 W	.47
1818.3	1.10	281.19	1817.9	14.5	198.1	13.82 S 4.52 W	.58
1837.5	.96	264.76	1837.0	14.6	199.4	13.80 S 4.86 W	.51
1856.3	1.77	232.41	1855.8	14.9	200.6	13.99 S 5.25 W	1.73

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MEASURED DEPTH meters	I N C L deg.	AZIMUTH deg.	VERTICAL DEPTH meters	CLOSURE DIST. meters	AZIMUTH deg.	H O R I Z O N T A L C O O R D I N A T E S meters		DOGLEG SEVERITY deg/30m
1874.9	2.54	230.31	1874.4	15.5	201.9	14.43 S	5.79 W	1.25
1894.1	2.77	252.32	1893.7	16.2	203.9	14.84 S	6.56 W	1.62
1913.3	2.71	256.73	1912.9	16.8	206.3	15.09 S	7.45 W	.34
1932.3	1.40	277.41	1931.8	17.2	208.2	15.16 S	8.12 W	2.35
1951.6	.72	357.56	1951.1	17.2	209.1	15.01 S	8.36 W	2.28
1971.0	1.98	50.37	1970.5	16.8	208.9	14.67 S	8.10 W	2.55
1989.8	3.31	60.03	1989.3	16.0	207.5	14.19 S	7.38 W	2.23
2008.2	5.30	67.39	2007.6	14.9	204.3	13.60 S	6.14 W	3.35
2016.7	6.64	68.49	2016.0	14.3	201.9	13.27 S	5.32 W	4.77
2025.0	7.81	69.81	2024.3	13.6	198.6	12.90 S	4.34 W	4.26
2025.4	7.81	69.78	2024.7	13.6	198.4	12.88 S	4.29 W	.29

Final Station Closure: Distance: 13.57 m Az: 198.42 deg.

COMPOSITE WELL RECORD

**LEGIBILITY
OF LOG
COULD VARY
DUE TO
COLOR
CONTENT**

**LEGIBILITY
OF LOG
COULD VARY
DUE TO
COLOR
CONTENT**

4. GEOLOGY

Drill Cuttings

5 m interval surface to total depth

Sample Distribution:

One set bagged samples and Two sets of glass vials sent to G.S.C., Calgary Attention: Alan Scott

One Set vials to Paramount

Cores

N/A

Lithology:

See following pages for descriptions

Stratigraphic Column

Attached in this section

Biostratigraphic Column

N/A

GEOLOGICAL MARKERS

KB: 470.3 m

GL: 464.8 m

FORMATION	PROGNOSIS	SAMPLE	LOG md	SUBSEA (LOG)
SCATTER	826.6	784	790	-319.7
GARBUTT	1069.6	981	916	-445.7
CHINKEH	1159.6	1107	1111	-640.7
TRIASSIC	1169.6	1125	1124	-653.7
PERMIAN	1229.6	1225	1225	-754.7
MATTSON	1417.6	1397	1400	-929.7
GOLATA			1945	-1474.7
FLETT	2045	2087	2085	-1614.7
TOTAL DEPTH	2060.6	2110	2110	-1639.7

LITHOLOGY

LITHOLOGY

Formation tops Sample interval (in meters)	<u>SAMPLE DESCRIPTION</u>
0 - 2	SILTSTONE - medium gray, very argillaceous, very slightly calcareous;
2 - 5	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, micaceous, argillaceous;
5 - 20	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, calcareous cemented;
20 - 30	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , moderately consolidated, moderately calcareous cemented, occasionally kaolin cemented, very micaceous;
30 - 35	SANDSTONE - light medium gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, grading to light medium gray silt;
35 - 40	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, slightly to medium calcareous in part;
40 - 47	SILTSTONE - medium gray, very fine grained in part;
47 - 49	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, grading to medium gray silt;
49 - 50	SILTSTONE - medium gray, argillaceous;
50 - 64	SANDSTONE - medium light gray, fine grained to medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , moderately consolidated, occasionally micaceous, quartz, chert, rock fragments, slightly calcareous, kaolin cemented in part;
64 - 67	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, calcareous cemented in part, kaolin cemented in part;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
67 - 69	SILTSTONE - medium gray, argillaceous;
69 - 71	SANDSTONE - medium light gray, fine grained to medium grained, subangular to angular, well sorted;
71 - 80	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , calcareous cemented;
80 - 82	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, trace intergranular porosity, calcareous to kaolin cemented;
82 - 86	SILTSTONE - medium gray, argillaceous, non to very slightly calcareous;
86 - 88	SANDSTONE - light medium gray salt and pepper, very fine grained, subangular to angular, well sorted, silty, argillaceous, calcareous cemented;
88 - 94	SILTSTONE - medium gray, argillaceous, very fine grained in part;
94 - 108	SILTSTONE - medium gray, non calcareous, laminae of very fine grained sand, very argillaceous;
108 - 114	SHALE - medium dark gray, blocky, non calcareous;
114 - 130	SANDSTONE - light medium gray, fine grained to medium grained, subangular to angular, well sorted, occurs as loose grains in sample;
130 - 160	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , moderately consolidated, kaolin cemented in part, occasionally medium grained in part;
160 - 170	SANDSTONE - light medium gray, very fine grained to fine grained, subangular to angular, well sorted, silty, slightly carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
170 - 178	SANDSTONE - light medium gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> silty;
178 - 194	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, rare laminae of brown dolomitic argillaceous siltstone, moderately silty;
194 - 224	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, well consolidated in part, occasionally carbonaceous;
224 - 235	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, slightly calcareous in part, very silty;
235 - 250	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, occasional carbonaceous laminae, well consolidated, slightly siliceous cemented, shale laminae, trace kaolin cement, very silty;
250 - 261	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, increasingly argillaceous;
261 - 269	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, shale laminae;
269 - 286	SHALE - dark gray, blocky to subfissile, micromicaceous in part, non calcareous, occasional thin interbedded very fine grained argillaceous sand;
286 - 294	SHALE - dark gray, carbonaceous in part, fish scales;
294 - 312	SHALE - dark gray, occasional thin interbedded very fine grained well consolidated silty sand, fish scales;
312 - 340	SHALE - dark gray, carbonaceous in part, fish scales, rare sand laminae;
340 - 370	SHALE - dark gray to black, carbonaceous, micromicaceous, non calcareous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
370 - 375	SHALE - very dark gray to black, carbonaceous in part, micromicaceous, non calcareous, occasionally silty;
375 - 380	SHALE - very dark gray to black, thinly interbedded very fine grained sand;
380 - 391	SHALE - very dark gray to black, carbonaceous in part, micromicaceous, non calcareous;
391 - 400	SANDSTONE - light gray to medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, argillaceous, slightly calcareous, fish scales, grading to silt, moderately silty;
400 - 407	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
407 - 409	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, silty, carbonaceous laminae in part, slightly to moderately calcareous, kaolin cement in part;
409 - 410	SHALE - very dark gray to black, silty;
410 - 413	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, moderately calcareous, kaolin cement in part;
413 - 414	SHALE - very dark gray;
414 - 421	SANDSTONE - medium light gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, moderately consolidated, calcareous cement in part, kaolin cement in part, rare fish scales;
421 - 431	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, argillaceous in part;
431 - 432	SHALE - very dark gray, blocky to subfissile, non calcareous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

432 - 437	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, slightly calcareous cemented, kaolin cemented, slightly siliceous cemented, carbonaceous laminae in part, moderately silty;
437 - 442	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , kaolin cemented, scattered glauconite;
442 - 443	SANDSTONE - very fine grained;
443 - 444	SHALE - very dark gray, non calcareous;
444 - 452	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , scattered glauconite;
452 - 474	SANDSTONE - medium light gray, very fine grained and some fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , siliceous cemented, scattered glauconite;
474 - 478	SILTSTONE - medium gray, non calcareous, very argillaceous;
478 - 479	SHALE - very dark gray, non calcareous;
479 - 481	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, very slightly calcareous, kaolin cement, slightly siliceous cemented, scattered glauconite, moderately silty;
481 - 483	SANDSTONE - medium light gray, very fine grained to fine grained and some medium grained, subangular to angular, moderately sorted, <u>trace intergranular porosity</u> , kaolin cement, siliceous cemented,, scattered glauconite;
483 - 489	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
489 - 496	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , kaolin cemented, siliceous cemented, scattered glauconite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
496 - 499	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, scattered glauconite;
499 - 502	SILTSTONE - medium gray, argillaceous;
502 - 513	SILTSTONE - medium gray, argillaceous;
513 - 524	SANDSTONE - medium light gray and light medium gray, very fine grained, subangular to angular, well sorted, silty, argillaceous in part, kaolin cement, loose fine to medium subrounded to rounded grains in sample, occasional glauconite;
524 - 527	SILTSTONE - medium gray, argillaceous, very fine grained;
527 - 539	SANDSTONE - light gray, very fine grained to medium grained and some coarse grained, subangular to angular, poorly sorted, occurs as abundant loose grains in sample, sample quality poor;
539 - 545	SILTSTONE - medium gray, grading to micromicaceous silty shale, very argillaceous;
545 - 547	SHALE - medium gray, micromicaceous, non calcareous, silty;
547 - 551	SILTSTONE - medium gray, argillaceous, grading to silty shale;
551 - 552	SHALE - dark gray, blocky to subfissile, micromicaceous, non calcareous, silty in part;
552 - 559	SILTSTONE - medium gray, argillaceous, very fine grained in part;
559 - 567	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, slightly siliceous cemented, slightly calcareous cemented, kaolin cemented, trace glauconite;
567 - 568	SHALE - dark gray to black, fissile, micromicaceous, non calcareous, moderately carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
568 - 574	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, carbonaceous, moderately silty;
574 - 575	SHALE - dark gray to black, fissile, micromicaceous;
575 - 583	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
583 - 584	SHALE - dark gray to black, fissile, micromicaceous;
584 - 587	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, carbonaceous, argillaceous, moderately silty;
587 - 597	SILTSTONE - medium gray, very fine grained in part;
597 - 605	SHALE - dark gray to black, fissile, micromicaceous, grading to silt in part;
605 - 610	SILTSTONE - medium gray, very argillaceous;
610 - 615	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, very silty, well consolidated, moderately carbonaceous;
615 - 623	SILTSTONE - medium gray, very fine grained in part;
623 - 625	SHALE - dark gray to black, non calcareous;
625 - 632	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, calcareous cemented in part, medium gray and carbonaceous in part, moderately silty, trace glauconite;
632 - 635	SHALE - dark gray to black;
635 - 658	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, medium gray and very carbonaceous in part, no observable porosity, moderately carbonaceous;
658 - 660	SHALE - dark gray to black, very carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
660 - 661	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, carbonaceous, silty;
661 - 665	SILTSTONE - medium gray, carbonaceous, very argillaceous;
665 - 674	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, no observable porosity, very carbonaceous;
674 - 675	SILTSTONE - medium gray, carbonaceous;
675 - 677	SHALE - dark gray to black, non calcareous;
677 - 678	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, carbonaceous;
678 - 679	SHALE - dark gray to black, carbonaceous;
679 - 686	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, no oil staining, no fluorescence, no cut, no observable porosity, very carbonaceous;
686 - 692	SANDSTONE - light medium gray to medium gray, very fine grained, subangular to angular, well sorted, silty, very carbonaceous;
692 - 696	SILTSTONE - medium gray, carbonaceous;
696 - 699	SHALE - dark gray to black, blocky to fissile, non calcareous, micromicaceous in part, very carbonaceous;
699 - 701	SILTSTONE - medium gray, argillaceous, very fine grained in part, carbonaceous;
701 - 706	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, very carbonaceous;
706 - 709	SHALE - dark gray;
709 - 718	SILTSTONE - medium gray, carbonaceous, very fine grained in part, grading to silty shale in part, slightly calcareous, trace glauconite, trace pyrite;

LITHOLOGY

Formation tops Sample interval (in meters)	<u>SAMPLE DESCRIPTION</u>
718 - 720	SHALE - dark gray;
720 - 725	SILTSTONE - medium gray, carbonaceous, very fine grained in part, grading to silty shale in part, slightly calcareous, trace glauconite, trace pyrite;
725 - 728	SHALE - dark gray, silty in part;
728 - 741	SILTSTONE - medium gray, carbonaceous, grading to silty shale, trace glauconite, trace pyrite;
741 - 747	SHALE - dark gray to gray black, blocky, micromicaceous, silty in part, trace pyrite;
747 - 753	SILTSTONE - medium gray, carbonaceous, argillaceous;
753 - 757	SHALE - dark gray to gray black, occasional thin interbedded very fine grained sand and argillaceous silt;
757 - 759	SILTSTONE - medium gray, very fine grained in part;
759 - 762	SHALE - dark gray to gray black;
762 - 772	SILTSTONE - medium gray, argillaceous, very fine grained in part;
772 - 776	SHALE - dark gray to gray black;
776 - 778	SILTSTONE - medium gray, grading to medium light gray slightly calcareous slightly siliceous cemented very fine grained sand;
778 - 784	SHALE - dark gray to gray black;
Scatter	784m Sample 789.5m Log
784 - 788	SANDSTONE - light medium gray, medium green in part, very fine grained, subangular to angular, well sorted, moderately consolidated, slightly argillaceous, carbonaceous in part, moderately calcareous, abundant glauconite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
788 - 793	SANDSTONE - light medium gray salt and pepper, very fine grained, subangular to angular, well sorted, moderately calcareous cemented, slightly siliceous cemented, scattered glauconite;
793 - 804	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, very slightly calcareous, slightly siliceous cemented, silty, argillaceous, occasional carbonaceous laminae;
804 - 831	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, trace glauconite;
831 - 837	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, siliceous cemented, very slightly calcareous cemented, scattered glauconite;
837 - 838	SHALE - dark gray to gray black, subfissile, micromicaceous, non calcareous;
838 - 842	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
842 - 846	SHALE - dark gray to gray black;
846 - 857	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
857 - 858	SHALE - dark gray to gray black, non calcareous;
858 - 870	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, occasional carbonaceous laminae;
870 - 871	SHALE - dark gray to gray black;
871 - 872	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
872 - 873	SHALE - dark gray to gray black. trace pyrite;
873 - 877	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;

LITHOLOGY

Formation tops Sample interval (in meters)	<u>SAMPLE DESCRIPTION</u>
877 - 881	SHALE - dark gray to gray black;
881 - 882	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
882 - 886	SHALE - dark gray to gray black;
886 - 887	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
887 - 888	SHALE - dark gray to gray black, non calcareous;
888 - 891	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
891 - 892	SHALE - dark gray to gray black;
892 - 893	SANDSTONE - light gray salt and pepper;
893 - 895	SHALE - dark gray to gray black, silty in part;
895 - 897	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
897 - 898	SHALE - as above;
898 - 906	SANDSTONE - light brown gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>dull yellow fluorescence</u> , <u>milky white cut</u> , siliceous cemented, scattered glauconite;
906 - 908	SHALE - dark gray to gray black;
908 - 910	SANDSTONE - light brown gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>dull yellow fluorescence</u> , <u>milky white cut</u> , siliceous cemented, scattered glauconite;
910 - 911	SHALE - dark gray to gray black;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
911 - 915	SANDSTONE - light brown gray to medium gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , scattered glauconite;
915 - 921	SHALE - dark gray to gray black, occasionally silty, non calcareous;
921 - 927	SANDSTONE - brown gray to medium gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , carbonaceous, siliceous cemented;
927 - 930	SHALE - dark gray to gray black, blocky to subfissile, non calcareous, silty, very carbonaceous;
930 - 932	SHALE - dark gray to gray black, blocky to subfissile, non calcareous, silty, very carbonaceous;
932 - 938	SANDSTONE - medium gray to medium brown gray, very fine grained, subangular to angular, well sorted, <u>occasional dull yellow fluorescence</u> , <u>milky white cut</u> , moderately carbonaceous;
938 - 941	SHALE - dark gray to gray black, non calcareous;
941 - 952	SANDSTONE - medium brown gray, very fine grained, subangular to angular, well sorted, <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , non calcareous, argillaceous, slightly siliceous cemented, silty, no observable porosity, very carbonaceous, trace glauconite;
952 - 961	SHALE - dark gray to gray black, grading to medium to dark gray very carbonaceous silt;
961 - 962	SILTSTONE - medium to dark gray, very carbonaceous;
962 - 963	SANDSTONE - medium brown gray, very fine grained, subangular to angular, well sorted, carbonaceous;
963 - 970	SHALE - dark gray to gray black, carbonaceous, non calcareous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

970 - 971	SILTSTONE - medium to dark gray, carbonaceous;
971 - 973	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, argillaceous, non shows, tight;
973 - 976	SHALE - dark gray to gray black;
976 - 979	SANDSTONE - light medium gray to medium gray, very fine grained, subangular to angular, well sorted, argillaceous, silty, no observable porosity;
979 - 981	SILTSTONE - medium to dark gray, carbonaceous;
Garbutt	981m Sample 969.5m Log
981 - 1020	SHALE - dark gray to gray black, fissile to subfissile, splintery in part, micromicaceous in part, non calcareous;
1020 - 1040	SHALE - dark gray to gray black, micromicaceous in part, non calcareous, subfissile to fissile, rare gray brown very argillaceous silt laminae;
1040 - 1050	SHALE - dark gray to gray black, rare laminae of medium gray very argillaceous silt;
1050 - 1062	SHALE - dark gray to gray black, carbonaceous in part, non calcareous;
1062 - 1066	SHALE - dark gray to gray black, rare trace light gray bentonite;
1066 - 1070	SHALE - dark gray to gray black, rare trace pyrobitumen, non calcareous;
1070 - 1075	SHALE - dark gray to gray black, rare trace light gray bentonite;
1075 - 1107	SHALE - dark gray to gray black, rare light gray to light green bentonite laminae, very rare pyrobitumen;

Chinkeh 1107m Sample 1110m Log

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1107 - 1114	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>very rare slow blue white cut</u> , silty, slightly calcareous cemented, slightly siliceous cemented, slightly carbonaceous, <u>very rare oil staining</u> , moderately glauconitic;
1114 - 1119	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>occasional dull yellow fluorescence</u> , <u>blue white cut</u> , well consolidated, siliceous cemented, scattered glauconite;
1119 - 1125	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>occasional dull yellow fluorescence</u> , <u>slow blue white cut</u> , siliceous cemented, scattered glauconite;
Triassic	1125m Sample 1125m Log
1125 - 1130	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, siliceous cemented, dolomite cemented; SILTSTONE-medium gray, very argillaceous, siliceous cemented;
1130 - 1145	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, siliceous cemented, dolomite cemented, silty;
1145 - 1155	SANDSTONE - medium brown gray to light medium gray, very fine grained, subangular to angular, well sorted, no live oil staining, no fluorescence, no cut, silty, dolomite cemented in part, siliceous cemented in part, scattered pyrobitumen, no visible porosity;
1155 - 1174	SHALE - gray red to medium gray, blocky to subfissile, very slightly dolomitic;
1174 - 1184	SHALE - medium to dark gray, gray red;
1184 - 1188	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented, slightly siliceous cemented, argillaceous, grading to silt, very silty, scattered pyrite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1188 - 1197	SHALE - medium gray to gray brown, thin interbeds of light medium gray silt and very fine grained glauconitic sand;
1197 - 1205	SHALE - medium gray to gray brown, very fine grained silty dolomite, cemented sand interbeds;
1205 - 1208	SILTSTONE - light medium gray, slightly argillaceous;
1208 - 1212	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, dolomitic cemented, very silty;
1212 - 1215	SHALE - medium gray to gray brown;
1215 - 1216	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented;
1216 - 1218	SHALE - gray brown, blocky to subfissile;
1218 - 1220	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented;
1220 - 1222	SHALE - gray brown;
1222 - 1225	SHALE - medium gray;
Fantasque	1225m Sample 1224.5m Log
1225 - 1228	CHERT - medium dark gray, carbonaceous in part;
1228 - 1230	CHERT - medium dark gray, <u>trace microvuggy porosity</u> , <u>trace dull yellow fluorescence</u> , <u>streaming milky white cut</u> , very finely arenaceous in part, rarely spicular, pyrobitumen in part, carbonaceous in part;
1230 - 1233	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, very well consolidated, very siliceous cemented, slightly dolomitic cemented, silty, abundant glauconite;
1233 - 1235	CHERT - medium dark gray, carbonaceous in part;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1235 - 1238	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, silty, very siliceous cemented, very well consolidated, abundant glauconite;
1238 - 1241	CHERT - medium dark gray;
1241 - 1242	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, silty, very siliceous cemented, very well consolidated, abundant glauconite;
1242 - 1245	CHERT - medium gray to medium brown gray, spiculer in part, very slightly dolomitic, very rare trace pyrobitumen lined <u>microvuggy porosity</u> , very finely arenaceous and carbonaceous in part;
1245 - 1249	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, moderately sorted, subrounded in part, carbonaceous in part, siliceous cemented, very slightly dolomitic cemented, no visible porosity, abundant glauconite;
1249 - 1256	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, slightly argillaceous, siliceous cemented, slightly dolomitic cemented, subrounded in part, very carbonaceous;
1256 - 1257	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, <u>trace microvuggy porosity</u> , <u>trace dull yellow fluorescence</u> , <u>slow blue white cut</u> , trace pyrobitumen, rare pyrite replacement of spicula, <u>rare trace microvuggy porosity</u> , abundant glauconite;
1257 - 1260	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, siliceous cemented, trace pyrobitumen;
1260 - 1269	CHERT - medium brown gray, occasionally very finely arenaceous, slightly dolomitic in part, no observable porosity, occasional glauconite;
1269 - 1274	CHERT - dark gray to dark brown gray, very finely arenaceous and very carbonaceous in part, pyritic in part;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1274 - 1279	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, rare rounded grains, very glauconitic;
1279 - 1292	CHERT - light brown gray, <u>trace microvuggy porosity</u> , very fine to finely glauconitic in part, scattered pyrite in part, <u>rare microvuggy and moldic porosity</u> ;
1292 - 1296	CHERT - medium brown gray to gray brown, <u>trace microvuggy porosity</u> , very finely glauconitic in part, very slightly dolomitic, rare sparry calcite, spiculer in part, pyritic;
1296 - 1299	CHERT - medium brown gray to gray brown, occasional carbonaceous laminae;
1299 - 1301	CHERT - medium brown gray to gray brown, abundant very fine to fine grained glauconite, pyrite, trace pyrobitumen, <u>trace microvuggy solution porosity</u> .
1301 - 1303	CHERT - medium brown gray to gray brown;
1303 - 1306	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very finely glauconitic;
1306 - 1308	CHERT - light gray brown;
1308 - 1309	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very finely glauconitic;
1309 - 1311	CHERT - light gray brown;
1311 - 1313	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very fine glauconitic;
1313 - 1315	CHERT - light gray brown, rare white kaolinite laminae;
1315 - 1325	CHERT - light to medium gray brown, <u>trace microvuggy porosity</u> , rare kaolin laminae;
1325 - 1333	CHERT - dark brown gray to medium brown gray, argillaceous;
1333 - 1345	CHERT - medium to light gray brown, <u>trace microvuggy porosity</u> , spiculer in part, slightly dolomitic;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1345 - 1348	CHERT - medium to light blue gray, <u>poor microvuggy porosity</u> , <u>poor fracture porosity</u> , <u>dull yellow fluorescence</u> , <u>blue white cut</u> , fractures infilled with white flinty chert, rarely clear quartz, and very fine grained argillaceous carbonaceous <u>dolomitic oil stained sand</u> , fractures not completely infilled in part.
1348 - 1352	CHERT - medium to light blue gray, <u>poor vuggy porosity</u> , <u>poor fracture porosity</u> , <u>dull yellow fluorescence</u> , <u>blue white cut</u> , fractures infilled with very fine grained argillaceous carbonaceous <u>dolomitic oil stained sand</u> , white flinty fracture infilling;
1352 - 1360	CHERT - light blue gray to gray brown, <u>trace dull yellow fluorescence</u> , <u>trace blue white cut</u> , <u>rare microvuggy porosity</u> ;
1360 - 1369	SANDSTONE - dark brown gray, very fine grained, subangular to angular, moderately sorted, <u>trace pinpoint porosity</u> , <u>very rare dull yellow fluorescence</u> , <u>blue white cut</u> , carbonaceous, pyritic in part, pyrobituminous, slightly siliceous cemented, very dolomitic, very argillaceous, silty, rare subrounded glauconite grains at top of interval;
1369 - 1375	SILTSTONE - dark brown gray, very dolomitic, very carbonaceous, very argillaceous;
1375 - 1380	DOLOMITE - dark gray brown, microcrystalline, silty, pyritic, carbonaceous, very argillaceous;
1380 - 1389	DOLOMITE - dark gray brown, microcrystalline, very argillaceous, moderately limy;
1389 - 1397	SILTSTONE - dark gray, very carbonaceous, silty, shaley, dolomitic in part, very argillaceous, very calcareous;
Mattson	1397m Sample 1398.5m Log
1397 - 1402	SANDSTONE - light gray to light medium gray, very fine grained, subangular to angular, well sorted, <u>dull yellow fluorescence</u> , <u>blue white cut</u> , well consolidated, slightly siliceous cemented, pyrobituminous, very calcareous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1402 - 1407	SANDSTONE - light gray to light medium gray, very fine grained, subangular to angular, well sorted, well consolidated, slightly siliceous cemented, pyrobituminous, very calcareous;
1407 - 1408	SANDSTONE - light brown gray, black with heavy oil in part, very fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>immediate yellow white cut</u> , abundant pyrobitumen in part, <u>live black oil</u> , trace sparry calcite may indicate fracture porosity, very calcareous;
1408 - 1414	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , calcareous cemented in part, siliceous cemented, very rare glauconite, trace pyrite,;
1414 - 1429	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , siliceous cemented, calcareous cemented, very rare glauconite, trace pyrite;
1429 - 1430	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>poor intergranular porosity</u> , <u>dull yellow fluorescence in part</u> , <u>blue white cut</u> ;
1430 - 1432	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, calcareous cement, siliceous cement;
1432 - 1435	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> ;
1435 - 1437	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> ;
1437 - 1441	SANDSTONE - light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, trace pyrobitumen, siliceous cemented, calcareous cemented, slightly pyritic, occasional carbonaceous laminae;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1441 - 1449	SANDSTONE - light gray to light medium gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , rare subrounded medium to coarse grains in limestone matrix, microcrystalline limestone interbeds;
1449 - 1455	SANDSTONE - light gray, brown gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>dull yellow fluorescence and blue white cut where brown gray</u> , pyrobitumen in part, occasional medium grains;
1455 - 1462	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, calcareous and siliceous cemented, no observable porosity
1462 - 1471	SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, <u>poor intergranular porosity, dull yellow fluorescence on wet sample, blue white cut</u> , siliceous cemented, calcareous cemented in part, pyrobituminous in part, rare blue gray chert fragments;
1471 - 1483	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , calcareous cemented, siliceous cemented;
1483 - 1494	SANDSTONE - light gray to light brown gray, very fine grained to fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , subrounded medium grains in sample, calcareous and siliceous cemented, medium gray and carbonaceous in part;
1494m	TOTAL DEPTH

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1494 - 1500	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>pale greenish yellow fluorescence</u> , <u>blue white cut</u> , scattered disseminated very fine to fine pyrite, clear quartz, siliceous cemented, moderately calcareous cemented, no observable porosity;
1500 - 1501	SHALE - dark gray, blocky, very finely arenaceous in part, non calcareous, moderately carbonaceous, occasionally pyritic;
1501 - 1504	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>pale greenish yellow fluorescence</u> , <u>blue white cut</u> , scattered disseminated very fine to fine pyrite, clear quartz, siliceous cemented, moderately calcareous cemented, no observable porosity;
1504 - 1506	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, well sorted, no observable fluorescence, <u>slow blue white cut</u> , no observable porosity, moderately carbonaceous, moderately argillaceous, very pyritic;
1506 - 1507	SHALE - dark gray, blocky, very finely arenaceous in part, non calcareous, moderately carbonaceous, occasionally pyritic;
1507 - 1508	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above, moderately carbonaceous, occasional pyrite;
1508 - 1512	SHALE - dark gray, as above, non calcareous, moderately carbonaceous, occasional pyrite;
1512 - 1517	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>scattered greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, rarely fine grained with <u>trace porosity</u> , rare streaks coarse to very coarse grains in argillaceous carbonaceous matrix with <u>porosity</u> , slightly calcareous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1517 - 1519	SHALE - dark gray, as above, non calcareous, moderately carbonaceous;
1519 - 1522	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered greenish yellow fluorescence</u> , <u>blue white cut</u> , moderately calcareous cemented, <u>very rare trace intergranular porosity</u> , very carbonaceous, moderately argillaceous;
1522 - 1525	SHALE - medium dark gray, blocky, hard, non calcareous, moderately silty and grading to very argillaceous siltstone, moderately carbonaceous;
1525 - 1527	SILTSTONE - medium dark gray, non calcareous, moderately carbonaceous, very argillaceous;
1527 - 1529	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, calcareous cemented, occasional pyrite;
1529 - 1533	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>trace greenish yellow fluorescence</u> , <u>slow blue cut</u> , siliceous cemented, slightly calcareous to dolomitic cemented, moderately argillaceous in part;
1533 - 1534	SHALE - dark gray, very silty, moderately carbonaceous;
1534 - 1540	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered intergranular porosity</u> , <u>very weak greenish yellow fluorescence</u> , <u>very slow blue cut</u> , siliceous cemented, moderately calcareous cemented in part, occasional loose medium grains in sample;
1540 - 1542	SHALE - dark gray, very silty, moderately carbonaceous;
1542 - 1545	SANDSTONE - light yellow brown to light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous cemented, trace loose medium grains in sample, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1545 - 1547	SHALE - dark gray, very silty, moderately carbonaceous;
1547 - 1549	SANDSTONE - light yellow brown to light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous cemented, trace loose medium grains in sample, no observable porosity;
1549 - 1551	SHALE - dark gray, very silty, moderately carbonaceous;
1551 - 1554	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly calcareous cemented, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , no observable porosity;
1554 - 1555	SHALE - dark gray, very silty, moderately carbonaceous;
1555 - 1559	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , slightly argillaceous, very siliceous cemented, slightly calcareous cemented, no observable porosity, very silty;
1559 - 1560	SHALE - dark gray, very silty, moderately carbonaceous;
1560 - 1562	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , slightly argillaceous, very siliceous cemented, slightly calcareous cemented, no observable porosity, very silty;
1562 - 1563	SHALE - dark gray, very silty, moderately carbonaceous;
1563 - 1566	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered intergranular porosity</u> , <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , siliceous cemented, slightly calcareous cemented;
1566 - 1568	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , very fine disseminated pyrite, very slightly calcareous, siliceous cemented, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1568 - 1570	SHALE - dark gray, non calcareous, grading to very argillaceous siltstone, very silty, moderately carbonaceous;
1570 - 1573	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite;
1573 - 1574	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence</u> and <u>cut</u> as above, <u>trace intergranular porosity</u> ;
1574 - 1576	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite;
1576 - 1584	SANDSTONE - light yellow brown, very fine grained to very fine grained, subangular to angular, well sorted, <u>green yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, trace pyrite, moderately calcareous to dolomite cemented, <u>rare trace intergranular porosity</u> ;
1584 - 1586	DOLOMITE - medium brown, microcrystalline, slow blue cut, very fine disseminated pyrite, very fine grains of quartz, spicular, no visible porosity;
1586 - 1591	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite, no observable porosity;
1591 - 1596	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>very slow bluish cut</u> , siliceous cemented, dolomite cemented, pyrobituminous, no visible porosity, moderately argillaceous;
1596 - 1598	SHALE - dark gray, as above, moderately silty;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1598 - 1602	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, calcareous to dolomite cemented, <u>very rare trace intergranular porosity</u> , trace pyrite;
1602 - 1603	SHALE - dark gray, siliceous, very dolomitic, very silty and grading to argillaceous siltstone;
1603 - 1604	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, as above, no visible porosity;
1604 - 1605	SHALE - dark gray, siliceous, very dolomitic, very silty and grading to argillaceous siltstone;
1605 - 1608	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>slow bluish cut</u> , dolomitic cement, occasional medium quartz grains, argillaceous, no visible porosity;
1608 - 1609	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, <u>trace intergranular porosity</u> ;
1609 - 1610	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence and cut as above</u> , no observable porosity;
1610 - 1612	SILTSTONE - dark gray, medium brown gray, very argillaceous, very dolomitic cemented, non shows, <u>tight</u> ;
1612 - 1615	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, slightly dolomitic cemented, <u>trace intergranular porosity in part</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1615 - 1617	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, silty, pyrobituminous and carbonaceous, siliceous cemented, slightly dolomitic cemented, <u>slow bluish cut</u> , <u>rare intergranular porosity</u> , moderately argillaceous;
1617 - 1618	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, slightly dolomitic cemented, <u>trace intergranular porosity</u> in part;
1618 - 1619	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, silty, pyrobituminous and carbonaceous, siliceous cemented, slightly dolomitic cemented, <u>slow bluish cut</u> , <u>rare intergranular porosity</u> , moderately argillaceous;
1619 - 1621	SANDSTONE - light yellow brown, occasionally light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, very slightly dolomitic cemented, rare white kaolin laminae, very rare very carbonaceous shaley laminae;
1621 - 1629	SANDSTONE - light to medium yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , kaolin laminae, siliceous cement, <u>trace intergranular porosity</u> where fine to medium grained;
1629 - 1630	SHALE - dark gray, as above, very carbonaceous;
1630 - 1637	SANDSTONE - medium yellow brown, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , kaolin laminae, siliceous cemented, <u>trace to scattered porosity</u> where fine to medium grained;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1637 - 1641	SANDSTONE - medium yellow brown, medium gray in part, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence, spotty slow blue white cut</u> , kaolin laminae, siliceous cement, slightly to moderately dolomitic cemented, <u>fair porosity</u> where fine to medium grained;
1641 - 1646	SANDSTONE - medium yellow brown, medium gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>very slow bluish cut</u> , very silty, siliceous cemented, dolomitic cemented, carbonaceous in part, no observable porosity, moderately argillaceous;
1646 - 1647	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, trace kaolin laminae, siliceous cemented, dolomitic cemented, <u>rare intergranular porosity</u> ;
1647 - 1648	SILTSTONE - dark gray, slightly dolomitic, very argillaceous;
1648 - 1653	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut</u> , scattered silt size pyrite, siliceous cemented, kaolin laminae, <u>very rare intergranular porosity</u> in sample;
1653 - 1657	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, silty, argillaceous in part, occasional pyrobitumin, no observable porosity;
1657 - 1660	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut</u> , scattered silt size pyrite, siliceous cemented, kaolin laminae, <u>very rare intergranular porosity</u> in sample;
1660 - 1663	SILTSTONE - dark gray, <u>occasional dull greenish yellow fluorescence, slow bluish cut</u> , very fine grained in part, siliceous cemented, slightly dolomitic cemented, carbonaceous and pyrobituminous in part, very argillaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

- 1663 - 1664 SANDSTONE - light gray, light yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, rare greenish yellow fluorescence, slow bluish cut, siliceous cemented, slightly dolomitic cemented, occasional pyrobitumin, trace intergranular porosity;
- 1664 - 1666 SILTSTONE - dark gray, no fluorescence, slow bluish cut, carbonaceous, siliceous cemented, moderately dolomitic cemented, very fine grained in part, no visible porosity, very argillaceous;
- 1666 - 1671 SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, scattered dull greenish yellow fluorescence, bluish white cut, rare medium grains in matrix, siliceous cemented, moderately dolomitic cemented, rare intergranular porosity;
- 1671 - 1673 SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, scattered greenish yellow fluorescence, slow bluish cut, siliceous cemented, trace intergranular porosity;
- 1673 - 1679 SANDSTONE - light gray, medium yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, scattered dull greenish yellow fluorescence, slow bluish cut in part, siliceous cemented, slightly dolomitic cemented, streaks of fine to medium grained with subrounded medium gray chert, occasional intergranular porosity;
- 1679 - 1681 SANDSTONE - dark gray, medium yellow brown, very fine grained, subangular to angular, well sorted, no fluorescence, slow bluish cut, silty, argillaceous, scattered pyrobitumin, no observable porosity;
- 1681 - 1683 SANDSTONE - light gray, medium yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, scattered dull greenish yellow fluorescence, slow bluish cut in part, siliceous cemented, slightly dolomitic cemented, streaks of fine to medium grained, occasional intergranular porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1683 - 1688	SANDSTONE - dark gray, dark yellow brown, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , silty in part, siliceous cemented, slightly dolomitic cemented, argillaceous, carbonaceous and pyrobituminous, no visible porosity;
1688 - 1691	SANDSTONE - dark gray, dark yellow brown, very fine grained, subangular to angular, well sorted, as above, siliceous cemented, slightly dolomitic cemented, carbonaceous and pyrobituminous in part, moderately argillaceous;
1691 - 1698	SANDSTONE - medium gray, medium brown gray, very light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>occasional greenish yellow fluorescence with bright bluish white cut</u> , fine to medium grained in part, pyrobitumin in part, siliceous cemented, slightly to moderately dolomitic cemented, rare glauconite;
1698 - 1700	SILTSTONE - very dark gray, siliceous cemented, very fine grained in part, shaly in part, moderately argillaceous, occasional pyrite;
1700 - 1701	SANDSTONE - very light gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut in part</u> , siliceous cemented, slightly to moderately dolomitic cemented, no visible porosity;
1701 - 1702	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>very slow bluish cut</u> , streaks of fine to medium grained and cherty in part, siliceous cemented, <u>scattered intergranular porosity</u> , scattered pyrite;
1702 - 1710	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>very slow bluish cut</u> , fine to medium grained and cherty in part, siliceous cemented, <u>scattered intergranular porosity</u> , scattered pyrite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1710 - 1713	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, medium gray and argillaceous in part, trace pyrobitumin, as above, slightly argillaceous;
1713 - 1716	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered greenish yellow fluorescence, very slow bluish cut</u> , siliceous cemented, very slightly dolomitic cemented, rarely fine to medium grained, no observable porosity;
1716 - 1718	SANDSTONE - as above, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence, slow bluish cut</u> , as above, trace medium gray pyritic shaly laminae;
1718 - 1724	SANDSTONE - very light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut in part</u> , occasionally fine to medium grained, trace pyrobitumin, siliceous cemented, slightly dolomitic cemented, <u>scattered intergranular porosity</u> , trace pyrite;
1724 - 1730	SANDSTONE - light medium gray, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence as above, occasional bright bluish white cut</u> , occasionally fine to medium grained, scattered pyrobitumin, <u>trace intergranular porosity</u> ;
1730 - 1734	SANDSTONE - light medium gray, light yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part, slow bluish cut</u> , trace carbonaceous laminae, thin dark gray argillaceous siltstone interbeds, no observable porosity;
1734 - 1737	SANDSTONE - light medium gray, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part, slow bluish cut</u> , carbonaceous laminae, siliceous cemented, dolomitic cemented in part, pyrobitumin, <u>scattered intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1737 - 1741	SANDSTONE- medium gray in part, very fine grained to fine grained, subangular to angular, well sorted, as above, no observable porosity, moderately argillaceous;
1741 - 1748	SANDSTONE - light gray, very fine grained to very fine grained, subangular to angular, well sorted, as above, interbeds of dark gray very argillaceous siltstone, no observable porosity, moderately argillaceous;
1748 - 1754	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , fine to medium grained in part, rare kaolin laminae, siliceous cemented, rare carbonaceous laminae, <u>scattered intergranular porosity</u> ;
1754 - 1756	SANDSTONE - as above, medium gray and fine to medium grained in part with <u>trace intergranular porosity</u> in sample.
1756 - 1765	SANDSTONE - light yellow brown, light gray, very fine to fine grained, as above, rare pyrobitumin, occasional shaly laminae, <u>trace intergranular porosity</u> ;
1765 - 1768	SANDSTONE - medium gray, light gray to light medium brown in part, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, scattered very fine disseminated pyrite, no observable porosity;
1768 - 1773	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, very rare pyrobitumin, <u>trace to scattered porosity</u> in sample;
1773 - 1775	SILTSTONE - dark gray, very fine grained, very slightly dolomitic, very argillaceous;
1775 - 1777	SANDSTONE - light gray, light yellow brown, fine grained to medium grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, <u>trace porosity</u> in sample;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1777 - 1782	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish white cut</u> , occasional thin interbeds of medium gray shale, siliceous cemented, <u>rare intergranular porosity</u> ;
1782 - 1785	SHALE - dark gray, interbedded with sandstone, as above, very silty;
1785 - 1789	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , fine to medium grained in part, rare kaolin laminae, siliceous cemented, rare carbonaceous laminae, <u>scattered intergranular porosity</u> , trace pyrite, dark gray and pyrobituminous with <u>scattered intergranular porosity</u> in part;
1789 - 1791	SHALE - dark gray, as interbeds in sand, very silty;
1791 - 1794	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish to bright bluish white cut</u> where dark gray and pyrobituminous, siliceous cemented, moderately dolomitic cemented in part, fine to medium grained in part, <u>trace intergranular porosity</u> ;
1794 - 1796	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, as above, no observable porosity, trace pyrite;
1796 - 1798	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, moderately silty;
1798 - 1803	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part</u> , <u>slow bluish cut</u> , rarely medium grained, siliceous cemented, moderately dolomitic cemented in part, <u>trace intergranular porosity</u> , scattered pyrite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1803 - 1804	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, moderately silty;
1804 - 1806	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part, slow bluish cut</u> , rarely medium grained, siliceous cemented, moderately dolomitic cemented in part, <u>trace intergranular porosity</u> , scattered pyrite;
1806 - 1807	SHALE - medium to dark gray, grading to very argillaceous silty sandstone in part, moderately silty;
1807 - 1811	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly dolomitic cemented, no visible porosity, moderately silty, moderately argillaceous;
1811 - 1817	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut</u> , fine to medium grained in part, siliceous cemented, slightly dolomitic cemented, rarely cherty, <u>trace intergranular porosity</u> ;
1817 - 1820	SILTSTONE - dark gray, silty, non calcareous, very fine grained in part, slightly dolomitic cemented, moderately carbonaceous;
1820 - 1822	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, grading to very argillaceous siltstone, moderately silty;
1822 - 1823	SILTSTONE - dark gray, as above, very argillaceous;
1823 - 1829	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut</u> , siliceous cemented, slightly dolomitic cemented, fine to medium grained in part, <u>trace intergranular porosity</u> ;
1829 - 1831	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, grading to very argillaceous siltstone, moderately silty;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1831 - 1835	SILTSTONE - dark gray, as above, very argillaceous;
1835 - 1837	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, <u>dull yellow fluorescence in part with slow bluish cut</u> , siliceous cemented, very rare glauconite, trace pyrobitumin, occasional carbonaceous shaly laminae, <u>rare intergranular porosity</u> ;
1837 - 1839	SHALE - dark gray, as above, silty, moderately carbonaceous;
1839 - 1841	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, trace shaly laminae, rarely pyrobituminous, occasional thin interbeds of very dolomitic sandstone;
1841 - 1843	SHALE - dark gray, as above;
1843 - 1844	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, trace shaly laminae, rarely pyrobituminous, occasional thin interbeds of very dolomitic sandstone;
1844 - 1846	SILTSTONE - dark gray, as above;
1846 - 1855	SANDSTONE - dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>slow bluish cut in part</u> , very siliceous cemented, moderately argillaceous, moderately pyrobituminous, slightly to moderately dolomitic cemented, fine to medium grained with <u>trace porosity</u> in part;
59	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, very siliceous and cherty, no observable porosity, moderately argillaceous;
	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, as above, no shows, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1861 - 1862	SHALE - dark gray, as above;
1862 - 1870	SANDSTONE - light gray, light yellow brown, rarely medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence and bluish white cut</u> where medium yellow brown, siliceous cemented, trace pyrite, <u>trace intergranular porosity</u> in part;
1870 - 1873	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, very siliceous cemented in part, non to moderately dolomitic cemented, rarely fine to medium grained with <u>trace intergranular porosity</u> ;
1873 - 1876	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, non apparent fluorescence, <u>slow bluish cut</u> , siliceous cemented, slightly to moderately dolomitic cemented, very carbonaceous, moderately argillaceous;
1876 - 1878	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , as above, <u>trace intergranular porosity</u> where fine to medium grained;
1878 - 1880	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, non apparent fluorescence, <u>slow bluish cut</u> , siliceous cemented, slightly to moderately dolomitic cemented, very carbonaceous, moderately argillaceous;
1880 - 1882	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasionally fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1882 - 1884	SANDSTONE - light to medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , occasional carbonaceous laminae, siliceous cemented, rare kaolin infilling, <u>trace intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1884 - 1886	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasional fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1886 - 1891	SANDSTONE - light gray, light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, occasional carbonaceous laminae, <u>very rare trace intergranular porosity</u> ;
1891 - 1892	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasionally fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1892 - 1894	SANDSTONE - light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, occasional carbonaceous laminae, <u>trace intergranular porosity</u> ;
1894 - 1901	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, dark gray shale interbeds, very carbonaceous, moderately argillaceous;
1901 - 1903	SANDSTONE - light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, slightly blue cut, siliceous cemented, as above, <u>trace intergranular porosity</u> ;
1903 - 1909	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, dark gray shale interbeds, very carbonaceous, moderately argillaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1909 - 1914	SANDSTONE - medium grey to medium yellow brown, very fine to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, trace carbonaceous laminae, moderately carbonaceous, moderately argillaceous, <u>trace intergranular porosity</u> ;
1914 - 1915	SHALE - dark gray, silty, micromicaceous, non dolomitic, very carbonaceous;
1915 - 1916	SANDSTONE - medium grey to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, as above, <u>trace intergranular porosity</u> ;
1916 - 1918	SHALE - dark gray, as above, very carbonaceous;
1918 - 1923	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1923 - 1925	SILTSTONE - dark gray, very finely arenaceous in part, shaley in part, very argillaceous, very carbonaceous;
1925 - 1928	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, <u>rare intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1928 - 1929	SHALE - dark gray, as above, very carbonaceous;
1929 - 1930	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1930 - 1933	SANDSTONE - medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cement, moderately argillaceous, moderately carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1933 - 1934	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1934 - 1935	SHALE - dark gray, as above, very carbonaceous;
1935 - 1936	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1936 - 1939	SANDSTONE - medium yellow brown, medium gray, dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, trace pyrite, scattered very dark gray to black carbonaceous silty shaly laminae, <u>very rare trace intergranular porosity</u> ;
1939 - 1943	SANDSTONE - medium to dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , scattered to abundant carbonaceous very silty laminae, siliceous cemented, occasionally medium grained with <u>trace intergranular porosity</u> ;
1943 - 1948	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, scattered carbonaceous silty laminae, <u>trace intergranular porosity</u> ;
1948 - 1950	SANDSTONE - medium yellow brown, medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, scattered very silty carbonaceous laminae;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1950 - 1952	SANDSTONE - light gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, slightly dolomitic cemented in part, <u>trace intergranular porosity</u> ;
1952 - 1957	SHALE - very dark gray to black, blocky, silty in part, very carbonaceous, interbedded with very fine to fine grained sandstone, as above;
1957 - 1958	SANDSTONE - medium gray to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no visible fluorescence, <u>slow bluish white cut</u> , siliceous cemented, abundant very argillaceous micromicaceous carbonaceous laminae, <u>trace porosity in part</u> ;
1958 - 1962	SANDSTONE - medium gray to medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no visible fluorescence, <u>slow bluish white cut</u> , siliceous cemented, abundant argillaceous very carbonaceous micromicaceous shaley laminae and interbeds;
1962 - 1966	SANDSTONE - light gray to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence, bright white cut</u> , siliceous cemented, slightly dolomitic cemented, abundant carbonaceous laminae, dark gray very argillaceous and silty in part;
1962 - 1964	SANDSTONE - light gray to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence, bright white cut</u> , siliceous cemented, slightly dolomitic cemented, abundant carbonaceous laminae, dark gray very argillaceous and silty in part;
1964 - 1966	SANDSTONE - medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1966 - 1967	SANDSTONE - medium yellow brown, light gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence</u> , <u>bright white cut</u> , siliceous cemented, slightly dolomitic cemented, as above, <u>trace intergranular porosity</u> ;
1967 - 1968	SANDSTONE - medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above;
1968 - 1973	SANDSTONE - light to medium gray, medium yellow brown, dark gray in part, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly dolomitic cemented in part, abundant very dark gray very carbonaceous shaly laminae, <u>rare porosity</u> ;
1973 - 1974	SHALE - very dark gray, non calcareous, very carbonaceous;
1974 - 1978	SANDSTONE - fine grained to medium grained, subangular to subrounded, well sorted, as above, shaly carbonaceous laminae;
1978 - 1979	SHALE - very dark gray, non calcareous, very carbonaceous;
1979 - 1983	SANDSTONE - fine grained to medium grained, subangular to subrounded, well sorted, as above, abundant carbonaceous laminae, <u>trace porosity</u> ;
1983 - 1987	SANDSTONE - very fine grained to fine grained, subangular to angular, well sorted, as above, abundant very carbonaceous laminae;
1987 - 1988	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence</u> , <u>bluish white cut</u> , siliceous cemented, rare carbonaceous material, <u>trace intergranular porosity</u> ;
1988 - 1989	SHALE - very dark gray, non calcareous, very carbonaceous;
1989 - 1990	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence</u> , <u>bluish white cut</u> , siliceous cemented, rare carbonaceous material, <u>trace intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1990 - 1991	SHALE - very dark gray, as above, very carbonaceous;
1991 - 1994	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, abundant carbonaceous laminae, <u>rare trace porosity</u> ;
1994 - 1995	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
1995 - 1998	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut</u> , siliceous cemented, abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
1998 - 1999	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
1999 - 2001	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut</u> , siliceous cemented, abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
2001 - 2003	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2003 - 2005	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut</u> , siliceous cemented, abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
2005 - 2006	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2006 - 2012	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional fluorescence and cut as above</u> , siliceous cemented, abundant carbonaceous laminae, <u>trace intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
2012 - 2013	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2013 - 2014	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional fluorescence and cut as above</u> , siliceous cemented, carbonaceous laminae, <u>trace intergranular porosity</u> ;
2014 - 2015	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut</u> , siliceous cemented, abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
2015 - 2020	SANDSTONE - medium yellow brown, occasional medium gray and argillaceous, very fine grained to medium grained, subangular to subrounded, well sorted, siliceous cemented, carbonaceous laminae as above;
2020 - 2023	SANDSTONE - medium to dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace greenish yellow fluorescence, bluish cut</u> , very siliceous cemented, light gray and very slightly dolomitic cement in part, argillaceous and silty, muscovite, abundant very carbonaceous micromicaceous laminae;
2023 - 2024	SHALE - very dark gray, non calcareous, micromicaceous, very carbonaceous;
2024 - 2026	SANDSTONE - medium to dark gray, very fine grained to fine grained, angular to subangular, well sorted, <u>trace greenish yellow fluorescence, bluish fluorescence</u> , siliceous cemented, abundant carbonaceous laminae, argillaceous and silty in part;
2026 - 2027	SHALE - very dark gray, non calcareous, micromicaceous, very carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
2027 - 2029	SANDSTONE - medium to dark gray, very fine grained to fine grained, angular to subangular, well sorted, <u>trace greenish yellow fluorescence</u> , <u>bluish fluorescence</u> , siliceous cemented, abundant carbonaceous laminae, argillaceous and silty in part;
2029 - 2031	SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, <u>dull greenish yellow fluorescence</u> , <u>bluish cut</u> , siliceous cement, <u>trace intergranular porosity</u> ;
2031 - 2033	SHALE - very dark gray, non calcareous, very carbonaceous, soft, occasional white kaolinitic specks;
2033 - 2035	SANDSTONE - light to medium gray, dark gray in part, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>bluish white cut</u> , abundant carbonaceous laminae, siliceous cemented, dolomitic cemented in part;
2035 - 2043	SANDSTONE - light to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>poor intergranular porosity</u> , <u>blue white cut</u> , siliceous cemented, slightly to moderately dolomite cemented, shale interbeds, carbonaceous lm, <u>rare intergranular porosity</u> , very argillaceous;
2043 - 2044	SHALE - very dark gray, non calcareous, very carbonaceous;
2044 - 2049	SANDSTONE - dark gray to dark brown gray, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>bluish white cut</u> , very argillaceous and carbonaceous, moderately siliceous cemented, slightly dolomitic cemented, with shale interbeds;
2049 - 2059	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, siliceous cemented, occasional carbonaceous shaly laminae, <u>very rare trace intergranular porosity</u> ;
2059 - 2060	SHALE - light medium gray to very dark gray, non calcareous, kaolin specks, sand lenses and laminae, very carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
2060 - 2067	SANDSTONE - light gray to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, as above, scattered dark gray carbonaceous laminae, siliceous cemented, moderately dolomitic cemented in part, dark gray very fine grained cherty laminae, <u>very rare trace of intergranular porosity</u> ;
2067 - 2070	SHALE - dark gray, non calcareous, very carbonaceous;
2070 - 2077	SANDSTONE - dark yellow brown, medium gray, very fine grained to fine grained, subangular to angular, well sorted, as above, very siliceous cemented, slightly dolomitic cemented, very rare glauconite, no visible porosity;
2077 - 2080	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, very siliceous, very limy in part, trace fossil fragments in sample, no visible porosity;
2080 - 2082	SILTSTONE - dark yellow brown, limy in part, rare Crinoid, trace other fossils and fossil fragments, very argillaceous;
2082 - 2083	SHALE - dark gray, as above, very carbonaceous, white chalky kaolinite laminae, rare Ostracod and Byrozoan, very rare waxy green shale;
2083 - 2085	SANDSTONE - medium yellow brown, dark gray, very fine grained to fine grained, subangular to angular, well sorted, silty, limy in part, rare fossils, no visible porosity, moderately argillaceous, abundant chalky kaolinite interbeds;
2085 - 2086	SILTSTONE - dark yellow brown, limy in part, rare Crinoid, trace other fossils, very argillaceous;
2086 - 2087	SHALE - dark gray, abundant chalky kaolin laminae and interbeds, very carbonaceous;
<u>Mississippian (Flett) 2087m Sample 2085m Log</u>	

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

2087 - 2093	LIMESTONE - medium to dark yellow brown, very fine grained to fine grained, no fluorescence, <u>slow bluish cut</u> , dark gray and argillaceous in part, rare pellets, rare Oolite, trace kaolin, slightly dolomitic, no visible porosity;
2093 - 2099	LIMESTONE - medium to dark yellow brown, occasionally pale yellow brown, very fine grained to coarse grained, very argillaceous where dark yellow brown, no visible porosity in sample;
2099 - 2103	LIMESTONE - very fine grained to coarse grained, as above, occasional shale laminae, fossils, rare Coral, scattered chert laminae with very coarse rounded quartz, chert, fossil fragments and rock fragments;
2103 - 2110	LIMESTONE - dark yellow brown, very fine grained to coarse grained, very argillaceous in part, dolomitic in part, abundant dark brown chert laminae, chalky kaolin laminae in part, rare Brachiopod, rare Ostracod, no shows, no visible porosity;
2110m	TOTAL DEPTH

STRATIGRAPHIC COLUMN

OVERSIZED

DOCUMENT

FILMED

ON

35mm

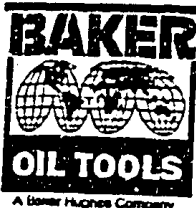
5. WELL EVALUATION

Logs were submitted earlier

DOWNHOLE LOG SUMMARY OPEN HOLE LOGS

DATE RUN	RUN #	TYPE	INTERVAL (m)
		SCHLUMBERGER	
March 26/98	1	Dipole Shear Sonic Upper Dipole - P & S Mode	502-1477.5
	2	Platform Express Array Induction - RXO	502.5-1483.5
	2	Platform Express Compensated Neutron Lithology Density-GR	502.5-1479.5
	2	Platform Express Microlog	502.5-1479.5
		BAKER HUGHES/BAKER ATLAS	
Jan 22/99	1	High Definition Induction Gamma Ray	1494-1965.2
Jan 23/99		Circumferential Borehole Imaging, Hi-Res Density/Neutron	1472.79-1962.3
		Multipole Array Acoustilog, Gamma Ray	1474.24-1972.36
	1	Circumferential Borehole Imaging, Gamma Ray	250-1967.2
	1	Magnetic Resonance Imaging, Gamma Ray	1525-1923.8
	1	Compensated Z-Densilog, Compensated Neutron, Gamma Ray, X-Y Caliper	1494-1966.7
	1	Hexagonal Diplog, Gamma Ray	250-1960.5
	1	Multipole Array Acoustilog, Gamma Ray	250-1960.7
Feb 2/99	2	Compensated Z-Densilog, Compensated Neutron, Gamma Ray, Caliper, Merged Presentation	470-2108.8
	2	High Definition Induction, Gamma Ray, Merged Presentation	850-2107.3
	2	Delta T Compressional Acoustilog, Gamma Ray, Merged Presentation	75-2108.4
	2	Multipole Array Acoustilog, Gamma Ray	1905-2102.8
	2	Compensated Z-Densilog, Compensated Neutron, Gamma Ray, X-Y Caliper	1905-2108.8
	2	Cement Volume for 156 mm Borehole & 114 mm Csg	1494-2108.8
	2	High Definition Induction Gamma Ray	1494-2107.3

FORMATION TESTS



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 1

Formation: Chinkeh
Interval - from: 1,145.00 **to:** 1,155.00 meters

Test Date: 1998-03-15
Test Type : Inflate Straddle

Recorder# N41 at 1,148.00 meters

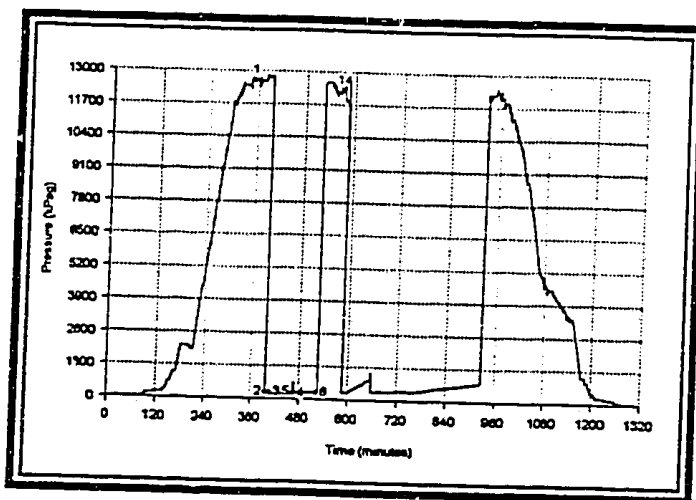
Blow Description:

PREFLOW: Closed Chamber with Delta P.

FINAL FLOW: Closed Chamber with Delta P.

Remarks:

This is the first of two tests run on the same trip in the hole. Mechanically successful test. Results suggest virtually no permeability within the interval tested.



Max Btm Hole Temperature @ FSI: 45.8 C

	Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1 Initial Hydrostatic	12624		
2 Start of 1st Flow	238		
3 End of 1st Flow	239	9.5	
4 End of 1st Shut-in	204	57.5	
5 Start of 2nd Flow	243		
6 End of 2nd Flow	246	55.0	
7 End of 2nd Shut-in	12255	47.0	
14 Final Hydrostatic	12255		

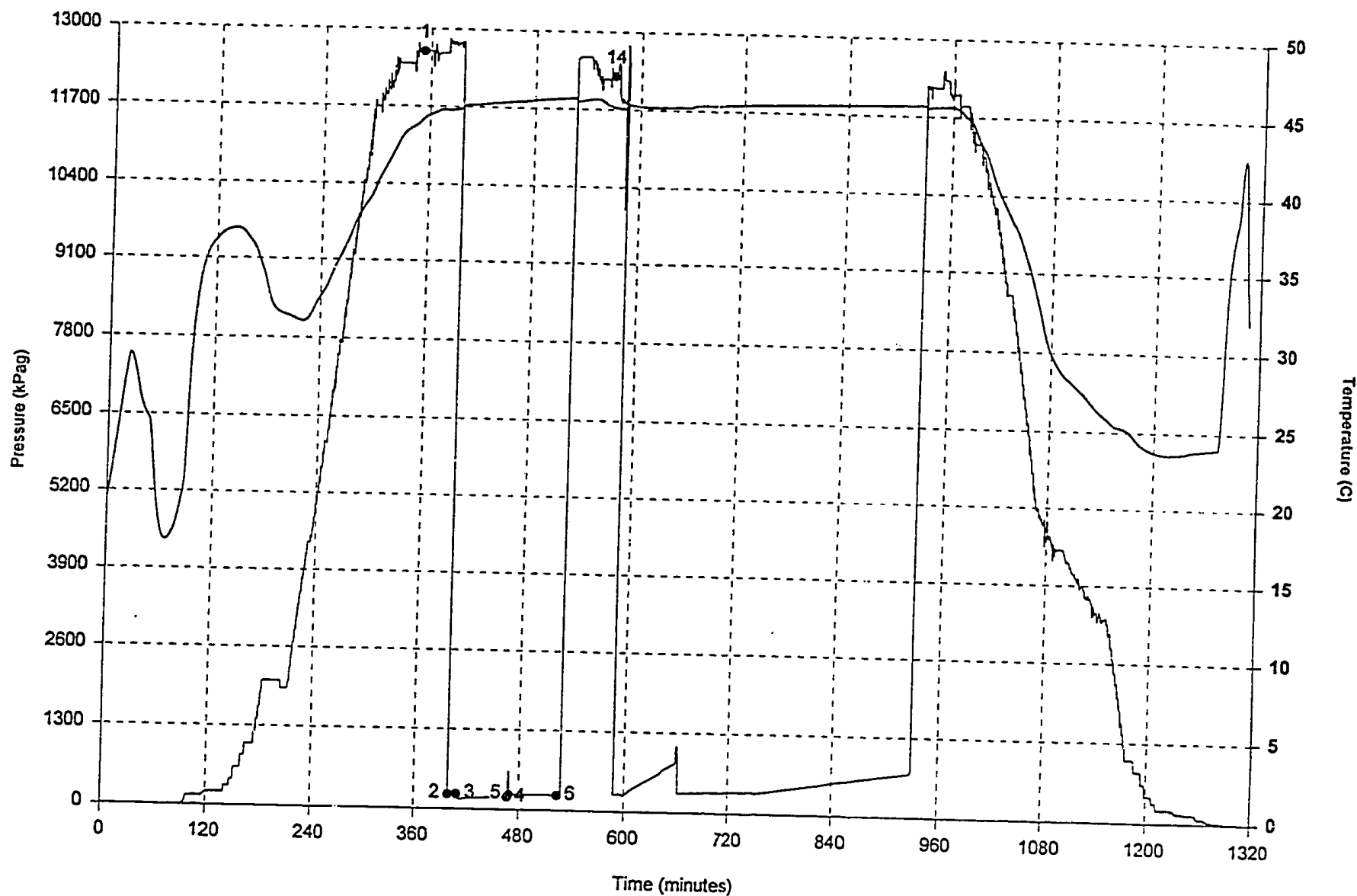
Liquid Recovery 8.50 meters

Salinity : 2 000 g/m3

Recovery	Description
8.50 m	DRILLING MUD

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST #: 1
Recorder: N41

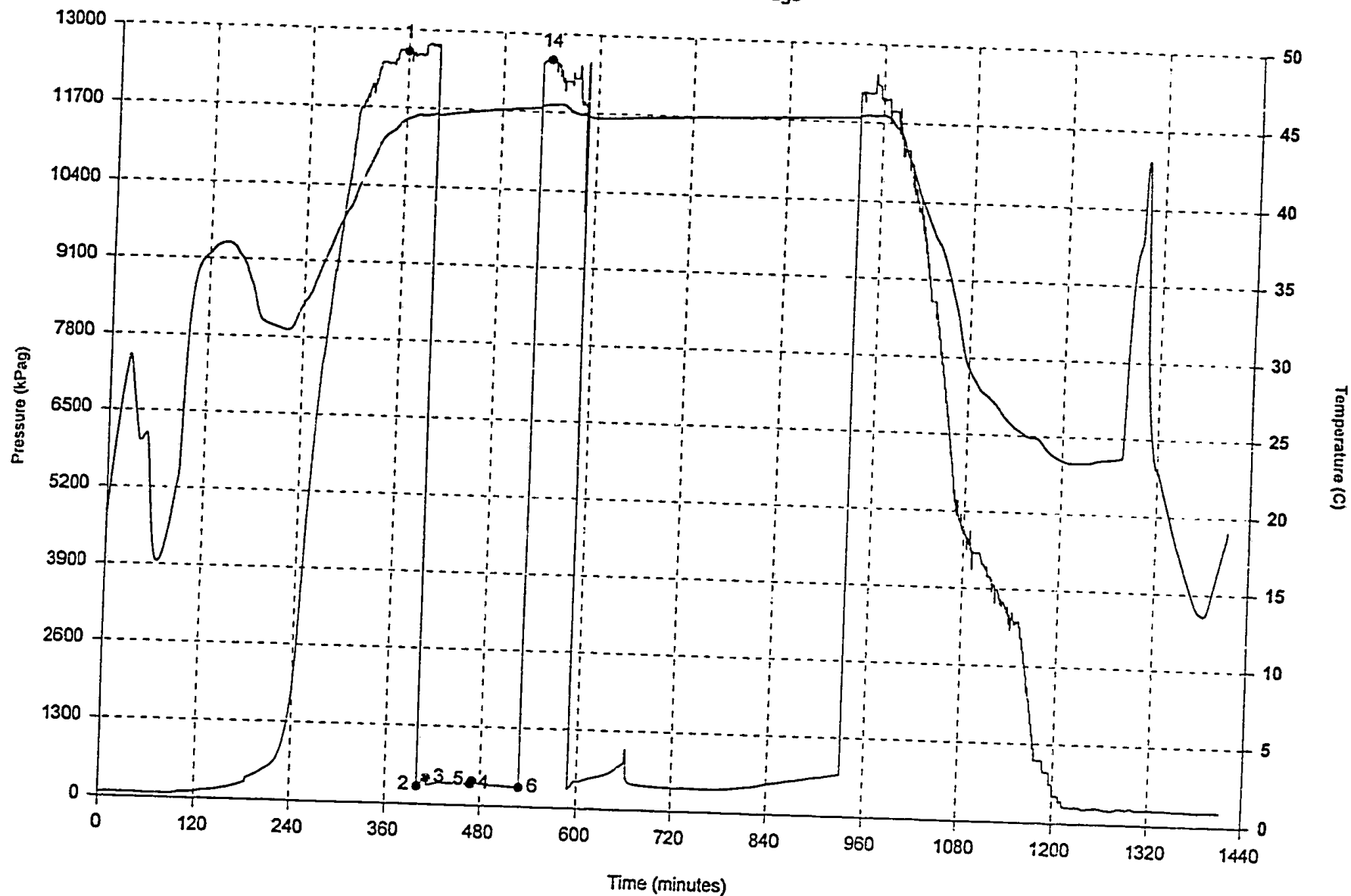
Pressure (kPag) at Critical Points:
1: 12624 4: 204 14: 12255
2: 238 5: 243
3: 239 6: 246



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 00
DST #: 1
Recorder: K20

Pressure (kPag) at Critical Points:
1: 12636 4: 349 14: 12567
2: 295 5: 399
3: 428 6: 313

Second Electronic Gauge

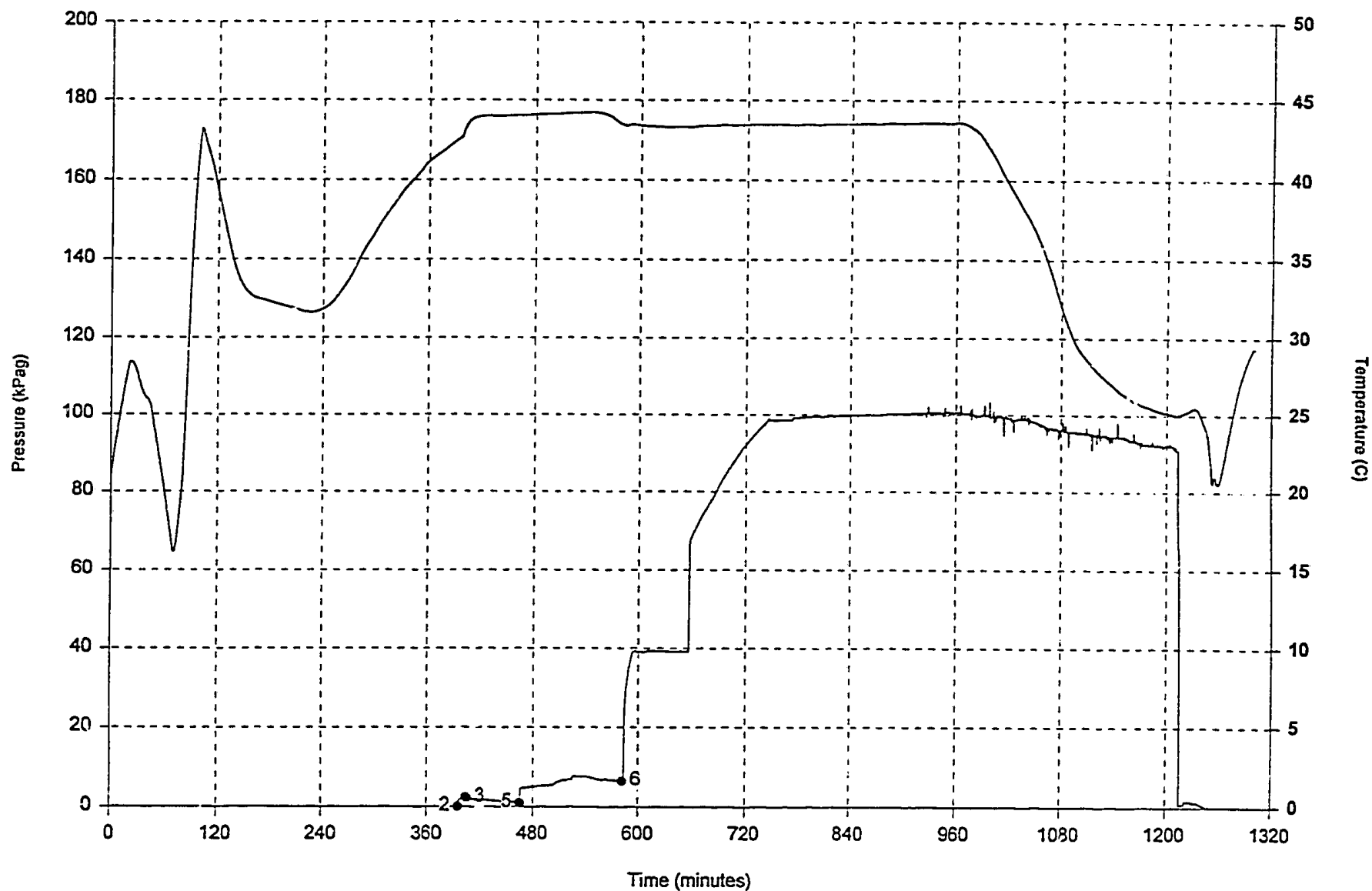


PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 /00
DST #: 1
Recorder: P99

Pressure (kPag) at Critical Points:

2:	0	6:	6
3:	2		
5:	1		

Recovery Recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 1

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Ave. S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Brennan T

Ticket#: 806589

Reverse Circulated? N

KB Elevation: 469.40 meters

Ground Elevat'n: 381.00 meters

Total Depth: 1,173.60 meters

Mud Data:

Weight: 1105 kg/m3

Type: Gel Chemical

Viscosity: 62 s/l

Water Loss: 8.0 cc/s

Filter Cake: 1.5 mm

Hole Data:

Drilled Hole Size: 222 mm

Hole Condition at Test Time: Good

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Location	Capacity	Units	Depth	Comments
P99	ZI	Inside	34500	kPag	1,128.00	Recovery Recorder
8892	K-3	Outside	21000	kPag	1,148.00	
K20	ZI	Outside	68900	kPag	1,148.00	Second Electronic Gauge
N41	ZI	Outside	68900	kPag	1,148.00	

Distributions:

Reports Sent To: Greg Elliott

Fluid Samples - no of: 1 Sent To: Core Labs

Bottom Hole Sampler#	Sent To
291	Core Labs

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 1

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.40 m
	Pump Out Sub	0.36 m
	Cross Over Sub	0.30 m
	Recorder Carrier	1.48 m
	Choke Sub	0.31 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	1.03 m
	Recorder Carrier	1.48 m
	Real Time Gauge	6.39 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.30 m
	Recorder Carrier	2.04 m
	Spacing	0.31 m
	Spacing	2.43 m
	Spacing	2.43 m
	Spacing	1.22 m
	Packer Stick Up	0.42 m
	Bottom Inflate Packer	1.90 m
	Perforations	0.61 m
	Belly Spring	2.00 m

Tool String Length: 35.92 m
 Drill Collar I.D.: 63 mm 72.76 m
 Drill Pipe O.D.: 101 mm 1,055.16 m
 Collar Pipe Total: 1,127.92 m
 Stick Up: 4.36 m
 Tool Above: 21.44 m
 Interval Tested: 10.00 m
 Bottom Hole Choke Size: 12.70 mm

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 1

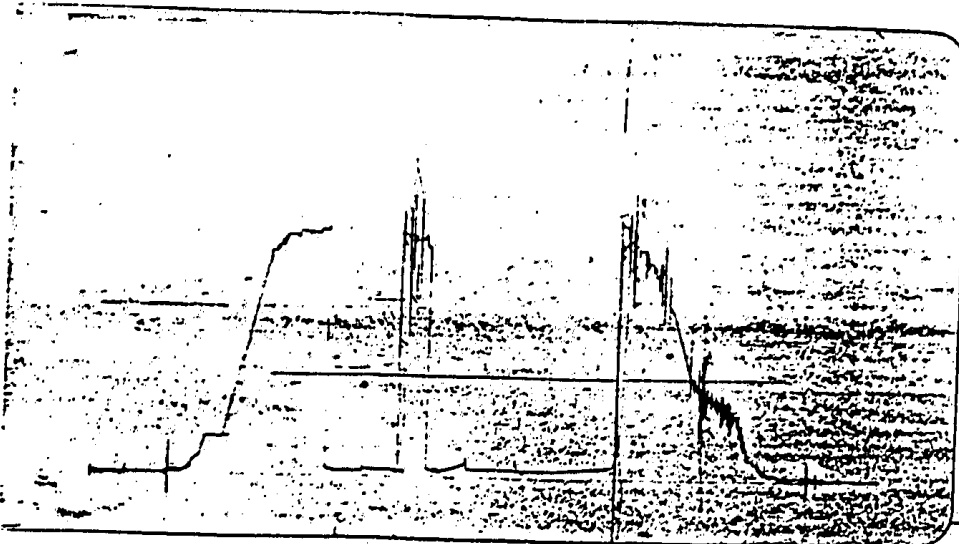
Recorder# 8892

Depth: 1,148.00 m

Location: Outside

Recorder Type: K-3

Capacity: 21,000 kPag



	Pressure (kPag)	Time (min)
1 Initial Hydrostatic	12565	
2 Start of 1st Flow	300	
3 End of 1st Flow	215	9.5
4 End of 1st Shut-in	160	57.5
5 Start of 2nd Flow	363	
6 End of 2nd Flow	219	55.0
7 End of 2nd Shut-in		47.0
14 Final Hydrostatic	12195	

Recorder# K20

Depth: 1,148.00 m

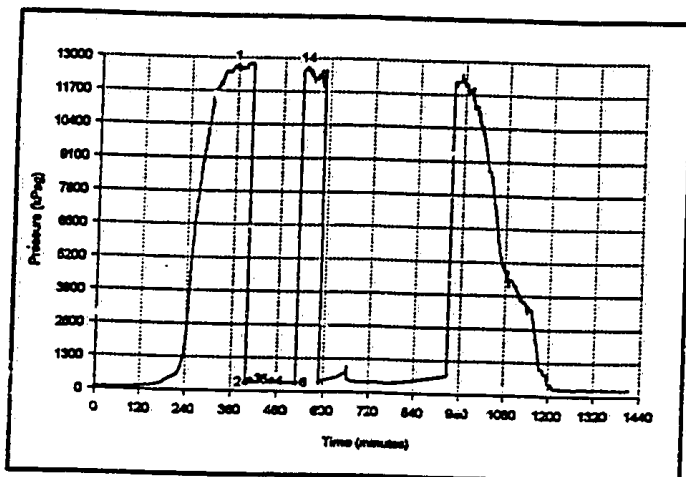
Temperature: 45.4 C

Location: Outside

Recorder Type: ZI

Capacity: 68,900 kPag

Comments: Second Electronic Gauge



	Pressure (kPag)	Time (min)
1 Initial Hydrostatic	12636	
2 Start of 1st Flow	295	
3 End of 1st Flow	428	9.5
4 End of 1st Shut-in	349	57.5
5 Start of 2nd Flow	399	
6 End of 2nd Flow	313	55.0
14 Final Hydrostatic	12567	

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /00
DST# 1

Recorder# N41

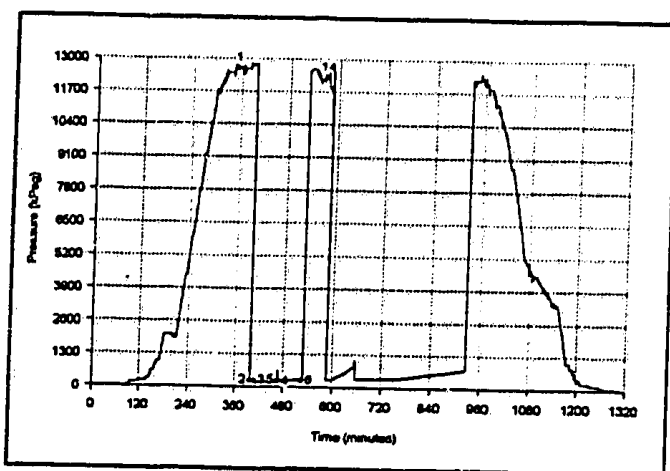
Depth: 1,148.00 m

Temperature: 45.8 C

Location: Outside

Recorder Type: ZI

Capacity: 68,900 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	12624	
2	Start of 1st Flow	238	
3	End of 1st Flow	239	9.5
4	End of 1st Shut-in	204	57.5
5	Start of 2nd Flow	243	
6	End of 2nd Flow	246	55.0
7	End of 2nd Shut-in	12255	47.0
14	Final Hydrostatic	12255	

Recorder# P99

Depth: 1,128.00 m

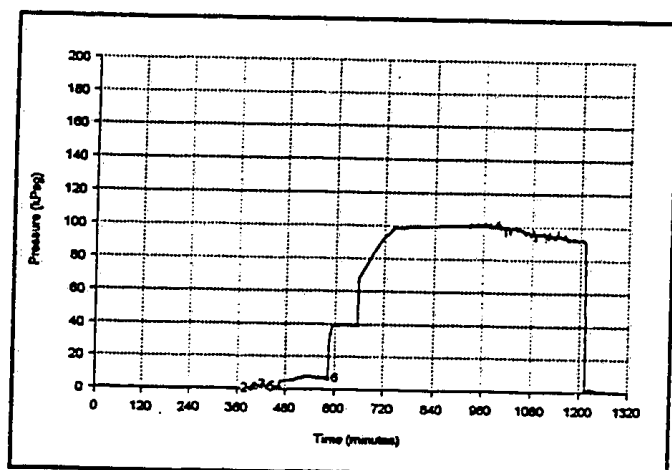
Temperature: 44.3 C

Location: Inside

Recorder Type: ZI

Capacity: 34,500 kPag

Comments: Recovery Recorder



		Pressure (kPag)	Time (min)
2	Start of 1st Flow	0	
3	End of 1st Flow	2	9.5
5	Start of 2nd Flow	1	
6	End of 2nd Flow	6	55.0

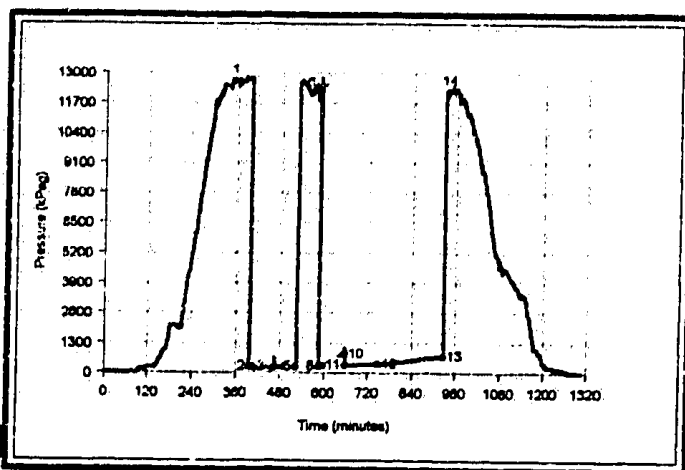


PARAMONT ET AL LIARD F-36 DST# 1

Formation: CHINKEH
Interval - from: 1145 to: 1155 m

Test Date: 1998-03-15
Test Type: INFLATE
Tester Name: TIM BRENNAN
Drill Pipe O.D.: 101.00 mm
Drill Collar I.D.: 63.00 mm
Drill Collar Length: 72.76 m
Hole Size: 222.00 mm

Recorder# N41 at 1148 m



Blow Description:
PREFLOW - CLOSED CHAMBER WITH DELTA P.

Remarks:

Maximum Btm Hole Temperature @ FSI: 45.8 C

		Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1	Initial Hydrostatic	12624		
2	Start of 1st Flow	238		
3	End of 1st Flow	239	9.5	
4	End of 1st Shut-in	204	57.5	
5	Start of 2nd Flow	246		
6	End of 2nd Flow	12570	10.0	
7	End of 2nd Shut-in	12255	37.0	
8	Start of 3rd Flow	272		
9	End of 3rd Flow	283	9.0	
10	End of 3rd Shut-in	808	61.0	
11	Start of 4th Flow	314		
12	End of 4th Flow	347	87.5	
13	End of 4th Shut-in	707	180.0	
14	Final Hydrostatic	12192		

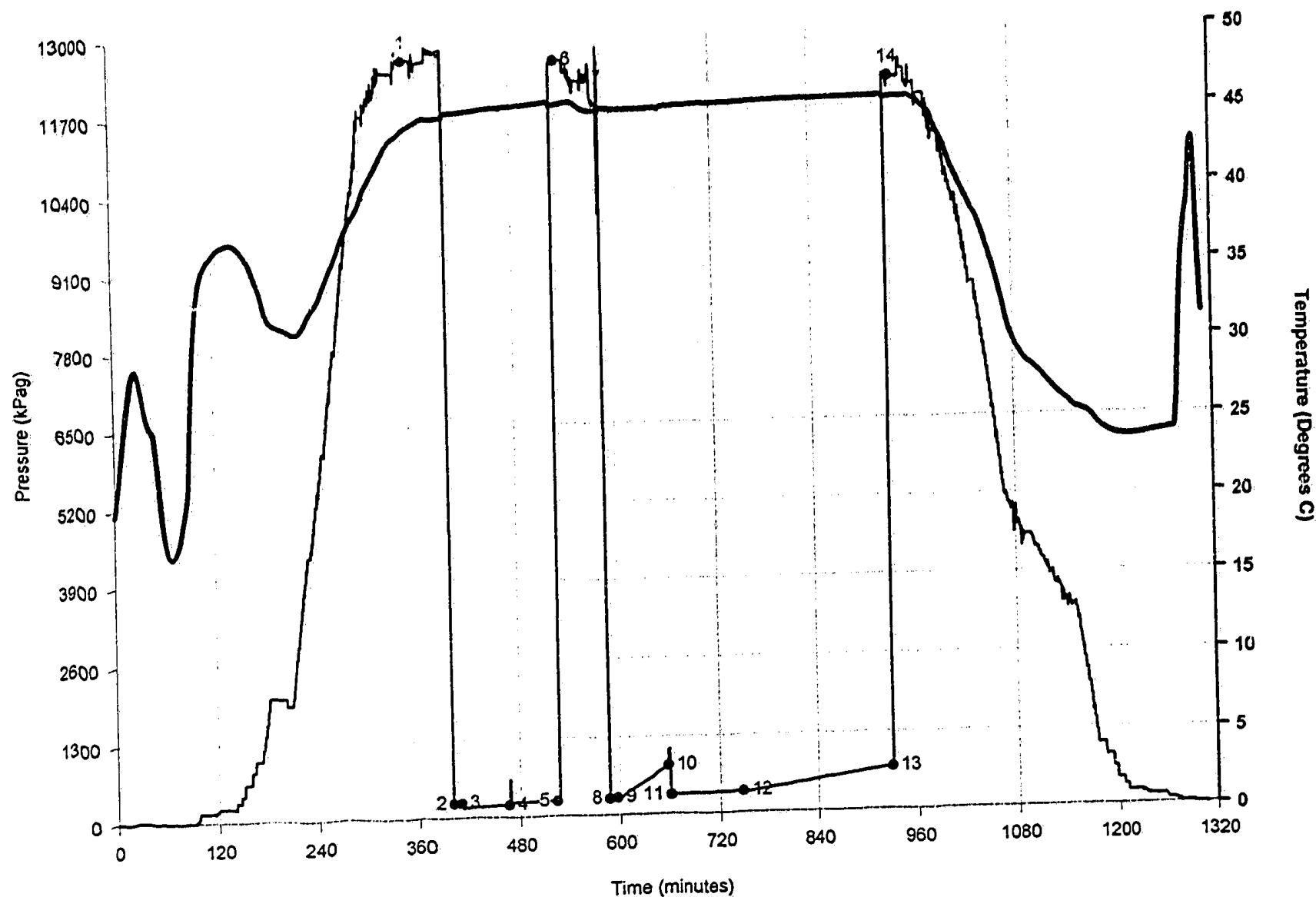
Liquid Recovery of 8.50 m

Recovery	Description	Salinity
8.50 m	DRILLING MUD	2000

BAKER OIL TOOLS CANADA / LYNES DRILL STEM TESTING

PARAMONT ET AL LIARD
F-36
DST #: 1
Recorder: N41

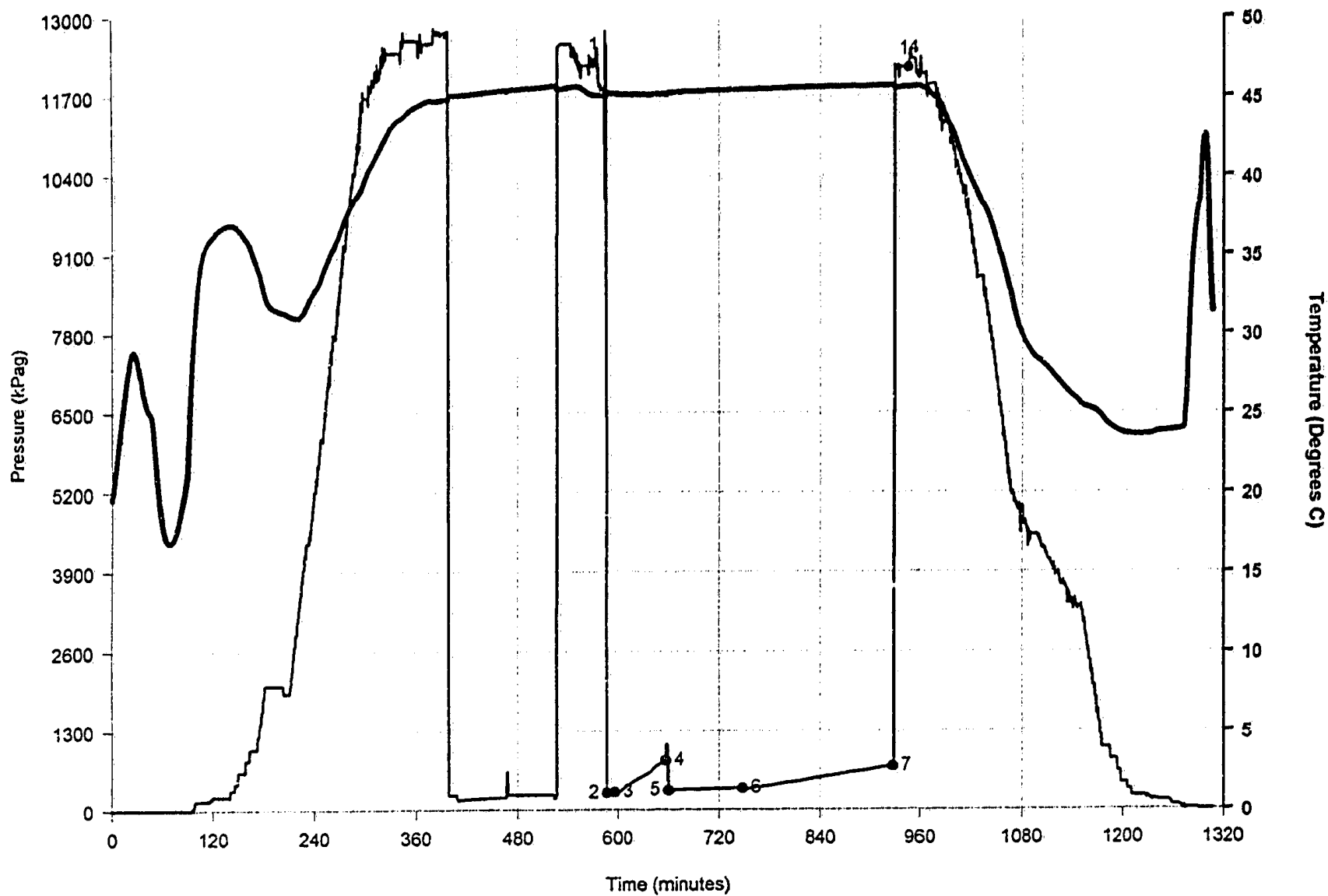
1: 12624	4: 204	7: 12255	10: 808	13: 707
2: 238	5: 246	8: 272	11: 314	14: 12192
3: 239	6: 12570	9: 283	12: 347	



BAKER OIL TOOLS CANADA / LYNES DRILL STEM TESTING

PARAMONT ET AL LIARD
F-38
DST #: 2
Recorder: N41

Pressure (kPag) at Critical Points:
1: 12255 4: 808 7: 707
2: 272 5: 314 14: 12179
3: 283 6: 347



BAKER OIL TOOLS
DELTA-P TEST CORP
WELL TESTING AND DST EVALUATIONS

PARAMOUNT et al LIARD
F-36
CHINKEH / 1145 - 1155 M
DST # 1

Sun, Mar 15, 1998

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155

DST # 1

CLOSED CHAMBER REPORT SUMMARY

FLOW TIMES (minutes)

FLOW # 1 = 10 SHUT IN # 1 = 60
FLOW # 2 = 60 SHUT IN # 2 = 0

FLOW RATES (m3/D)

	GAS	LIQUID
	---	-----
FLOW # 1 initial	0	0
final	0	0
FLOW # 2 initial	2.6	0
final	0	0

RECOVERY

LENGTH (m)	VOLUME (m3)	DESCRIPTION
-----	-----	-----
.5	.001	DRILLING MUD
-----	-----	-----
.5	.001	TOTAL RECOVERY

COMMENTS

Surface pressures and flow rates were monitored on a minute by minute basis throughout both flow periods and the results, in graphical and tabular form, are contained in the following pages.

A good mechanical INFLATE STRADDLE DST using the WTD REAL TIME PRESSURE GAUGE and CLOSED CHAMBER was conducted on the CHINKEH formation across the interval 1145 - 1155 m.

Analysis for liquid produced during this test was done using pressures from the fluid recovery recorder, closed chamber surface data and the reported recovery. Calculations indicate a gradient of 10.8 kPa/m which is reasonable for this type of recovery and the reported recovery is varified.

Calculations indicate that 0.5 m of mud entered the test string during this test.

LIQUID AND GAS FLOW RATES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.

PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

CHINKEH/1145-1155

DST # 1

Testtime (24 Hr.)	Flowtime (min)	Surface Dp/Dt (KPa/mn)	Surface Pressure (KPabs)	Recovery Dp/Dt (KPa/mn)	Recovery Pressure (KPabs)	Liquidrate (m3/D)	Gasrate (m3/D)
----------------------	-------------------	------------------------------	--------------------------------	-------------------------------	---------------------------------	----------------------	-------------------

START OF FLOW #1

11:48:45	0.00	0.00	86.49	0.0	86.5		
11:49:00	0.25	0.72	86.67	1.0	86.7	0.0	66.6
11:49:15	0.50	-0.03	86.66	1.0	87.0	0.0	0.0
11:49:30	0.75	-0.03	86.66	1.0	87.2	0.0	0.0
11:49:45	1.00	-0.02	86.65	1.0	87.5	0.0	0.0
11:51:45	3.00	-0.02	86.61	0.4	88.2	0.0	0.0
11:53:45	5.00	-0.01	86.58	0.1	88.4	0.0	0.0
11:55:45	7.00	-0.00	86.58	0.1	88.6	0.0	0.0
11:57:45	9.00	0.00	86.58	0.0	88.7	0.0	0.0
11:59:00	10.25	-0.01	86.57	0.1	88.8	0.0	0.0

START OF SHUT IN #1

						(Apparent Rates)	
11:59:00	0.00	0.00	86.57	0.0	88.8		
12:00:00	1.00	0.00	86.57	-0.2	88.6	0.0	0.0
12:01:00	2.00	-0.01	86.56	-0.1	88.5	0.0	0.0
12:02:00	3.00	-0.02	86.55	-0.0	88.5	0.0	0.0
12:03:00	4.00	0.00	86.55	-0.1	88.4	0.0	0.0
12:04:00	5.00	0.00	86.55	0.0	88.4	0.0	0.0
12:19:00	20.00	0.00	86.57	-0.0	88.1	0.0	0.1
12:34:00	35.00	-0.01	86.45	-0.0	87.8	0.0	0.0
12:49:00	50.00	-0.01	86.35	-0.0	87.6	0.0	0.0
12:58:30	59.50	-0.00	86.32	-0.0	87.6	0.0	0.0

START OF FLOW #2

12:58:30	0.00	0.00	86.32	0.0	87.6		
12:58:45	0.25	0.03	86.32	-0.3	87.5	0.0	2.6
12:59:00	0.50	0.00	86.32	-0.3	87.4	0.0	0.0
12:59:15	0.75	0.00	86.32	-0.1	87.4	0.0	0.0
12:59:30	1.00	0.03	86.33	1.7	87.8	0.0	2.6
13:09:30	11.00	-0.00	86.29	0.4	91.3	0.0	0.0
13:19:30	21.00	-0.01	86.23	0.0	91.5	0.0	0.0
13:29:30	31.00	-0.00	86.19	0.0	91.7	0.0	0.0
13:39:30	41.00	-0.01	86.14	0.1	92.6	0.0	0.0
13:49:30	51.00	-0.01	86.08	0.0	92.8	0.0	0.0
13:54:45	56.25	-0.02	85.98	0.1	93.3	0.0	0.0

LIQUID AND GAS FLOW RATES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.

PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

CHINKEH/1145-1155

DST # 1

Testtime (24 Hr.)	Flowtime (min)	Surface Dp/Dt (KPa/mn)	Surface Pressure (KPabs)	Recovery Dp/Dt (KPa/mn)	Recovery Pressure (KPabs)	Liquidrate (m3/D)	Gasrate (m3/D)
START OF SHUT IN #2						(Apparent Rates)	
13:54:45	0.00	0.00	85.98	0.0	93.3		
13:55:45	1.00	0.01	86.00	-0.1	93.1	0.0	1.4
13:56:45	2.00	0.02	86.02	0.0	93.2	0.0	1.9
13:57:45	3.00	0.01	86.03	0.8	93.9	0.0	0.7
13:58:45	4.00	-0.02	86.00	0.1	94.0	0.0	0.0
13:59:45	5.00	0.78	86.78	0.0	94.1	0.0	71.3
14:00:00	5.25	0.00	86.78	-0.1	94.0	0.0	0.0

END OF RECORDED SURFACE PRESSURE DATA

SUMMARY OF CHAMBER FLOW PROPERTIES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.
PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

CHINKEH/1145-1155

DST # 1

	VOLUMES (m3)	LENGTHS (m)	PRESSURES (KPa abs)	
START FLOW # 1				
AIR/N2	6.193	1127.92	surface	86.5
			average	92.4
			bottom	98.6
GAS	0.000	0.00	surface	98.6
			average	98.6
			bottom	98.6
RECOVERY	0.000	0.00		
	-----	-----		
TOTAL	6.193	1127.92	rec/gauge	86.5
END FLOW # 1				
AIR/N2	6.188	1125.92	surface	86.6
			average	92.5
			bottom	98.7
GAS	0.006	2.00	surface	98.7
			average	98.7
			bottom	98.7
RECOVERY	0.000	0.00		
	-----	-----		
TOTAL	6.193	1127.92	rec/gauge	88.8
** SHUT IN # 1				
AIR/N2	6.193	1127.92	surface	86.3
			average	92.2
			bottom	98.4
GAS	0.000	0.00	surface	98.4
			average	98.4
			bottom	98.4
RECOVERY	0.000	0.00		
	-----	-----		
TOTAL	6.193	1127.92	rec/gauge	87.6

**Point before 59.75 min into shut in, first surface dp/dt < -0.5

SUMMARY OF CHAMBER FLOW PROPERTIES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.
PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

CHINKEH/1145-1155

DST # 1

	VOLUMES (m3)	LENGTHS (m)	PRESSURES (KPa abs)	
START FLOW # 2				
AIR/N2	6.193	1127.92	surface	86.3
			average	92.2
			bottom	98.4
GAS	0.000	0.00	surface	98.4
			average	98.4
			bottom	98.4
RECOVERY	0.000	0.00		
TOTAL	6.193	1127.92	rec/gauge	87.6
END FLOW # 2				
AIR/N2	6.193	1127.92	surface	86.0
			average	91.9
			bottom	98.0
GAS	0.000	0.00	surface	98.0
			average	98.0
			bottom	98.0
RECOVERY	0.000	0.00		
TOTAL	6.193	1127.92	rec/gauge	93.3
** SHUT IN # 2				
AIR/N2	6.137	1108.08	surface	86.8
			average	92.6
			bottom	98.7
GAS	0.056	19.84	surface	98.7
			average	98.8
			bottom	98.9
RECOVERY	0.000	0.00		
TOTAL	6.193	1127.92	rec/gauge	94.0

**Point before 5.25 min into shut in, first surface dp/dt < -0.5

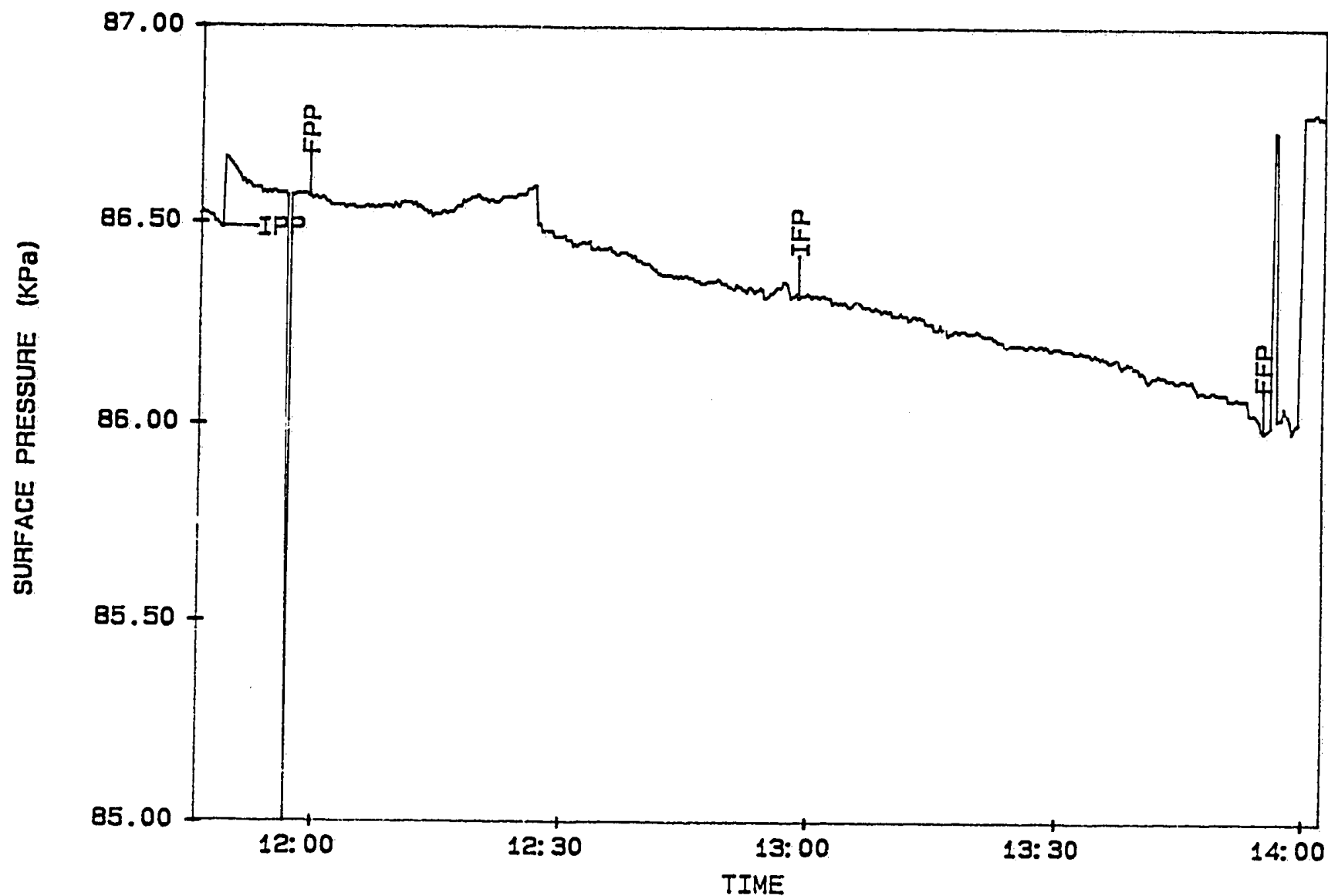
DELTA-P TEST CORP.

REFERENCE FILENAME : P1602

TEST DATE : Sun, Mar 15, 1998

WELL NAME : PARAMOUNT ET AL LIARD

WELL LOCATION : F-36



Sun, Mar 15, 1998

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155

DST # 1

PRETEST CALCULATIONS

FILENAME	P1602.DST	
GAS GRAVITY	.65	
FORMATION DEPTH	1150.00 MKB	
FORMATION PRESSURE	11707.00 KPAg	
FORMATION TEMPERATURE	38.01 DEG C	
AVE CHAMBER TEMP	21.25 DEG C	
INITIAL CHM SURFACE PRESSURE	86.50 KPAA	
INITIAL GAS/N2 HEAD PRESSURE	94.36 KPAA	
INITIAL TOTAL CUSH. PRESSURE	94.36 KPAA	
INITIAL CUSHION LENGTH	.00 m	
LIQUID CUSHION GRADIENT	.00 kPA/m	
DOWN HOLE CHOKE DIAMETER	12.70 mm	
CHOKE COEFFICIENT	18.02 m3/D/KPA	
DRILL COLLAR LENGTH	72.76 m	
DRILL COLLAR I.D.	60.00 mm	
DRILL COLLAR CAPACITY	.002827 m3/m	
DRILL COLLAR VOLUME	.206 m3	
LOWER DRILL PIPE LENGTH	1055.16 m	
LOWER DRILL PIPE I.D.	85.00 mm	
LOWER DRILL PIPE CAPACITY	.005674 m3/m	
LOWER DRILL PIPE VOLUME	5.988 m3	
UPPER DRILL PIPE LENGTH	.00 m	
UPPER DRILL PIPE I.D.	.00 mm	
UPPER DRILL PIPE CAPACITY	.000000 m3/m	
UPPER DRILL PIPE VOLUME	.000 m3	
TOTAL CHAMBER VOLUME	6.19 m3	
LIQUID CUSHION VOLUME	.00 m3	
NET CHAMBER VOLUME	6.19 m3	
GAS	MAX. RATE	MAX. SURFACE DP/DT
GAS SATURATED H2O	285738.7 m3/D	3167.5 KPA/min
PURE LIQUID INFLUX	824.5 m3/D	28.5 KPA/min
	824.5 m3/D	8.4 KPA/min
GAS	INITIAL CONVERSION FACTORS	
GAS SATURATED H2O	90.2 m3/D/KPA/min	
PURE LIQUID INFLUX	28.9 m3/D/KPA/min	
	98.7 m3/D/KPA/min	

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

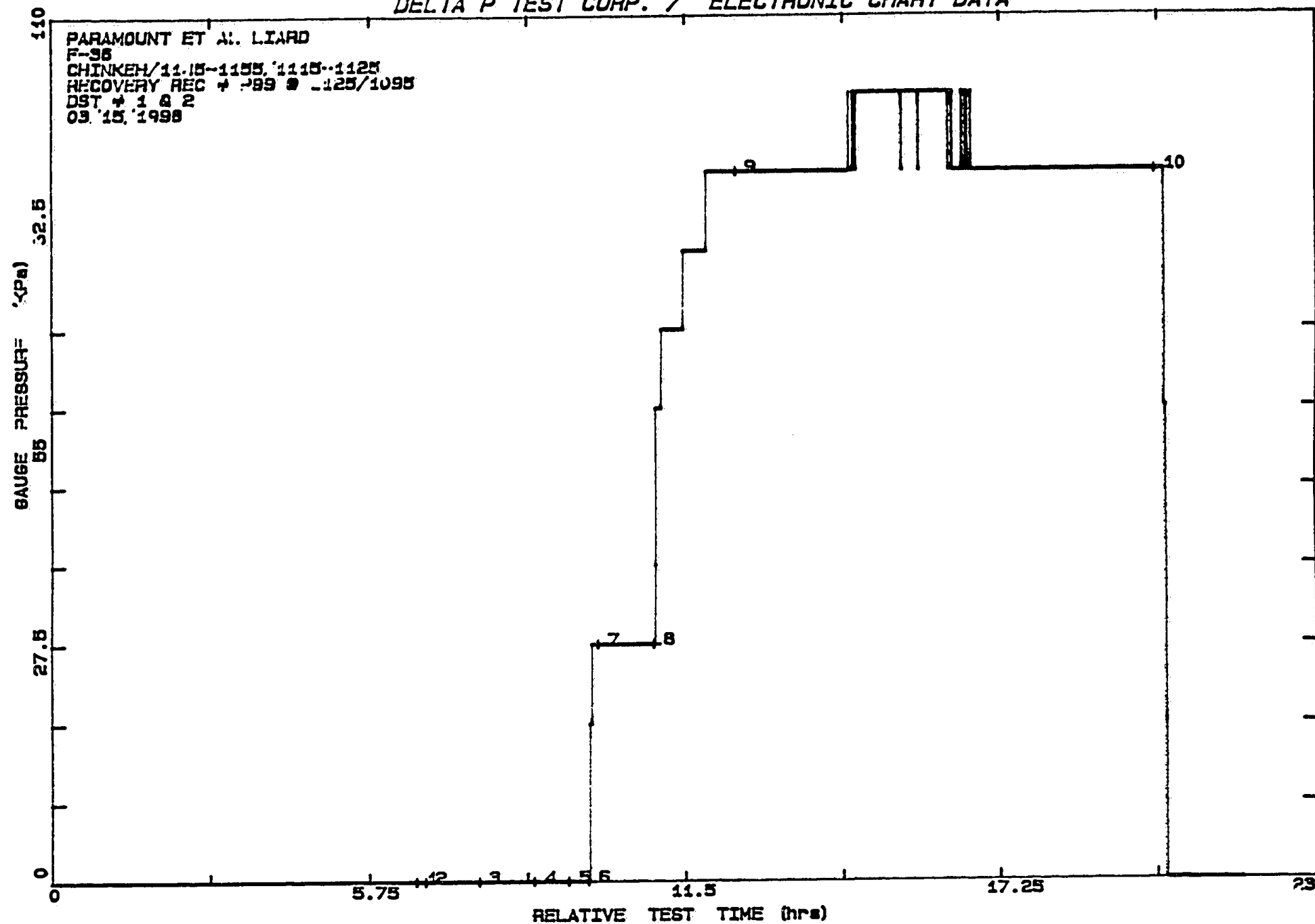
PARAMOUNT ET AL LIARD
F-36
CHINKEH/1145-1155/1115-1125
RECOVERY REC # P99 @ 1125/1095
DST # 1 & 2
03/15/1998

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
1	IPP1	395.5	6.59	0.0
2	FPP1	405.5	6.76	2.4
3	IFP1	464.5	7.74	1.1
4	FFP1	524.0	8.73	6.8
5	FHP1	562.0	9.37	6.7
6	IPP2	583.0	9.72	6.1
7	FPP2	593.5	9.89	38.8
8	IFP2	655.0	10.92	39.5
9	FFP2	745.5	12.42	99.2
10	FHP2	1203.5	20.06	92.2

DELTA P TEST CORP. / ELECTRONIC CHART DATA

PARAMOUNT ET AL. LIARD
 F-36
 CHINKEH/11.15-1155, 1115-1125
 RECOVERY REC # 99 @ 125/1095
 DST # 1 & 2
 03.15.1998



ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

RECOVERY REC # P99 @ 1125/1095

DST # 1 & 2

03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
	1.0	0.02	0.0
	2.5	0.04	0.0
	242.5	4.04	0.0
IPP1	395.5	6.59	0.0
	397.5	6.62	1.4
	399.5	6.66	1.8
	401.5	6.69	2.0
	403.5	6.72	2.2
FPP1	405.5	6.76	2.4
	420.5	7.01	1.6
	435.5	7.26	1.4
	450.5	7.51	1.1
IFP1	464.5	7.74	1.1
	474.5	7.91	4.8
	484.5	8.07	5.0
	494.5	8.24	5.1
	504.5	8.41	5.6
	514.5	8.57	6.5
FFP1	524.0	8.73	6.8
	544.0	9.07	7.4
FHP1	562.0	9.37	6.7
IPP2	583.0	9.72	6.1
	585.0	9.75	24.5
	587.0	9.78	30.6
	589.0	9.82	34.2
	591.0	9.85	36.6
	593.0	9.88	38.3
FPP2	593.5	9.89	38.8
	613.5	10.22	39.2
	633.5	10.56	39.1
	653.5	10.89	39.0
IFP2	655.0	10.92	39.5
	670.0	11.17	73.3
	685.0	11.42	79.3
	700.0	11.67	85.2
	715.0	11.92	90.8
	730.0	12.17	94.8
	745.0	12.42	98.6
FPP2	745.5	12.42	99.2
	864.5	14.41	99.9
	983.5	16.39	99.9
	1102.5	18.38	95.4
FHP2	1203.5	20.06	92.2

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

RECOVERY REC # P99 @ 1125/1095

DST # 1 & 2

03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	1264.0	21.07	0.0

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

OUTSIDE REC # N41 @ 1148/1118

DST # 1 & 2

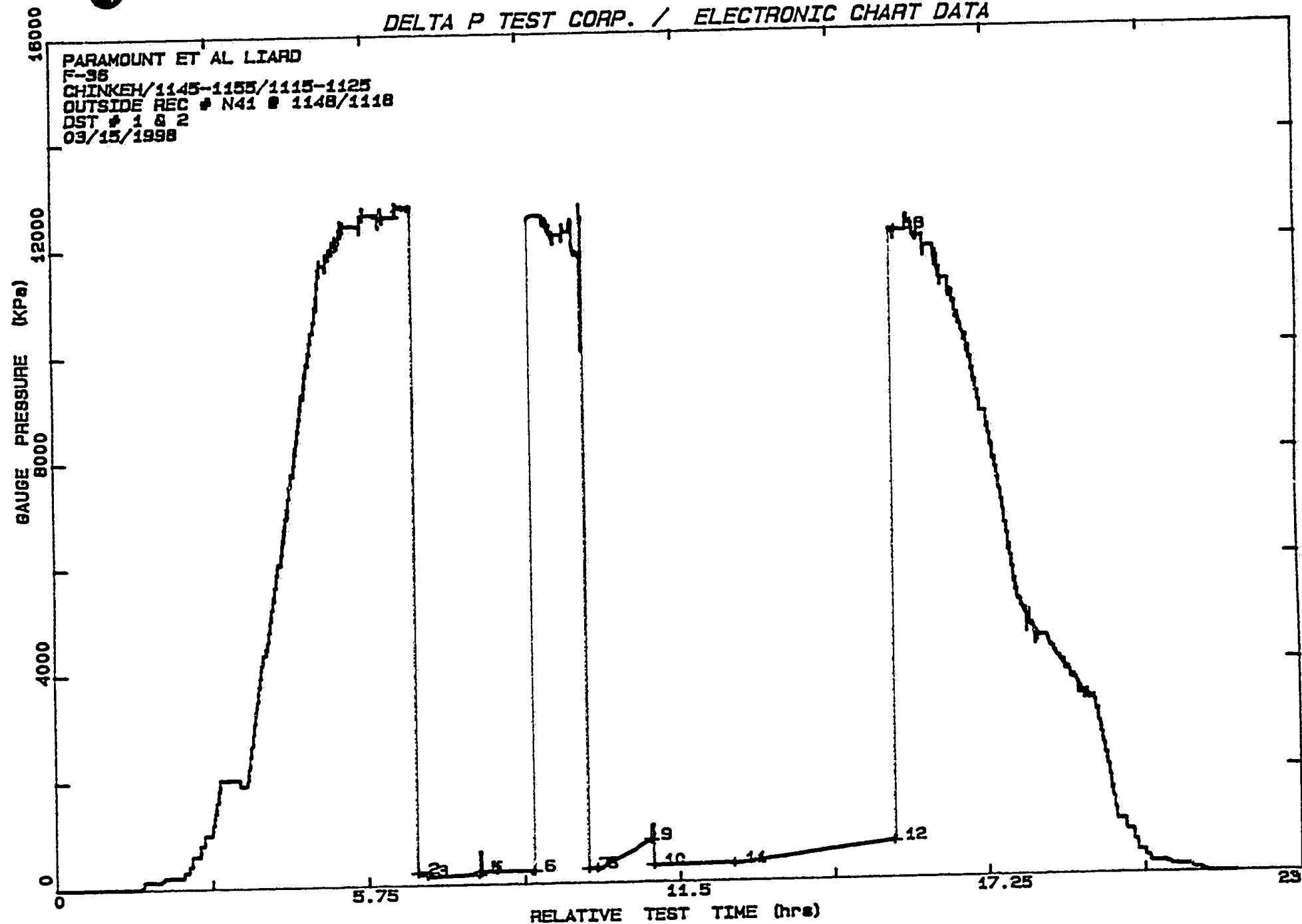
03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
	1.0	0.02	0.0
	2.5	0.04	0.0
	123.0	2.05	216.6
	242.0	4.03	5203.4
	361.0	6.02	12622.5
IHP	365.0	6.08	12581.9
IPP1	399.5	6.66	237.7
	404.5	6.74	238.6
FPP1	409.5	6.82	184.5
	424.5	7.08	171.3
	439.5	7.32	182.5
	454.5	7.58	194.9
ISI1	466.5	7.77	203.9
IFP1	469.0	7.82	243.3
	484.0	8.07	243.2
	499.0	8.32	243.9
	514.0	8.57	245.3
FFP1	527.5	8.79	245.4
	587.0	9.78	12539.3
IPP2	587.5	9.79	272.3
	592.5	9.87	279.3
FPP2	596.5	9.94	282.8
	616.5	10.27	433.2
	636.5	10.61	600.3
	656.5	10.94	799.2
ISI2	657.5	10.96	807.7
IFP2	660.0	11.00	321.2
	680.0	11.33	322.8
	700.0	11.67	331.8
	720.0	12.00	338.9
	740.0	12.33	344.5
FFP2	750.0	12.50	338.0
	770.0	12.83	369.4
	790.0	13.17	413.2
	810.0	13.50	455.3
	830.0	13.83	500.9
	850.0	14.17	547.6
	870.0	14.50	590.0
	890.0	14.83	631.2
	910.0	15.17	671.3
FSI2	928.0	15.47	706.7
FHP	935.5	15.59	12195.6
	1173.5	19.56	1233.3

DELTA P TEST CORP. / ELECTRONIC CHART DATA

PARAMOUNT ET AL LIARD
 F-36
 CHINKEH/1145-1155/1115-1125
 OUTSIDE REC # N41 @ 1148/1118
 DST # 1 & 2
 03/15/1998





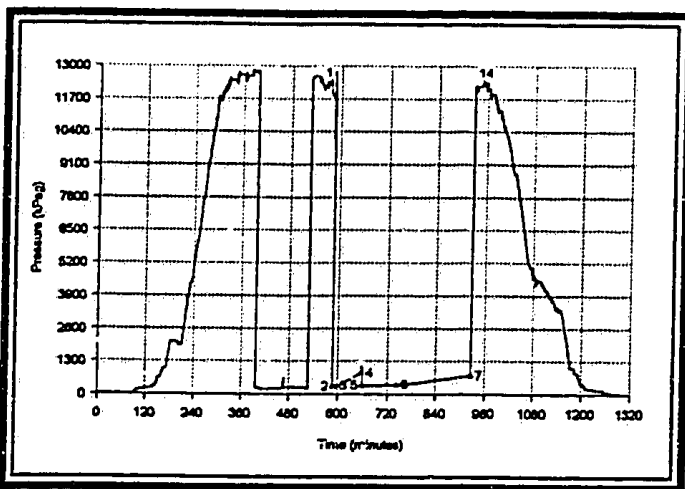
PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 2

Formation: Tight Hole
Interval - from: 1,115.00 **to:** 1,125.00 meters

Test Date: 1998-03-15
Test Type : Inflate Straddle

Recorder# N41 at 1,118.00 meters

Blow Description:
 PREFLOW: Closed Chamber with Delta P.



FINAL FLOW: Closed Chamber with Delta P.

Remarks:
 This is the second of two tests run on the same trip in the hole. Mechanically successful test. Results suggest virtually no permeability within the interval tested.

Max Btm Hole Temperature @ FSI: 45.7 C

		Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1	Initial Hydrostatic	12303		
2	Start of 1st Flow	272		
3	End of 1st Flow	283	9.0	
4	End of 1st Shut-in	808	61.0	
5	Start of 2nd Flow	314		
6	End of 2nd Flow	347	87.5	
7	End of 2nd Shut-in	707	180.0	
14	Final Hydrostatic	12305		

Liquid Recovery 8.50 meters

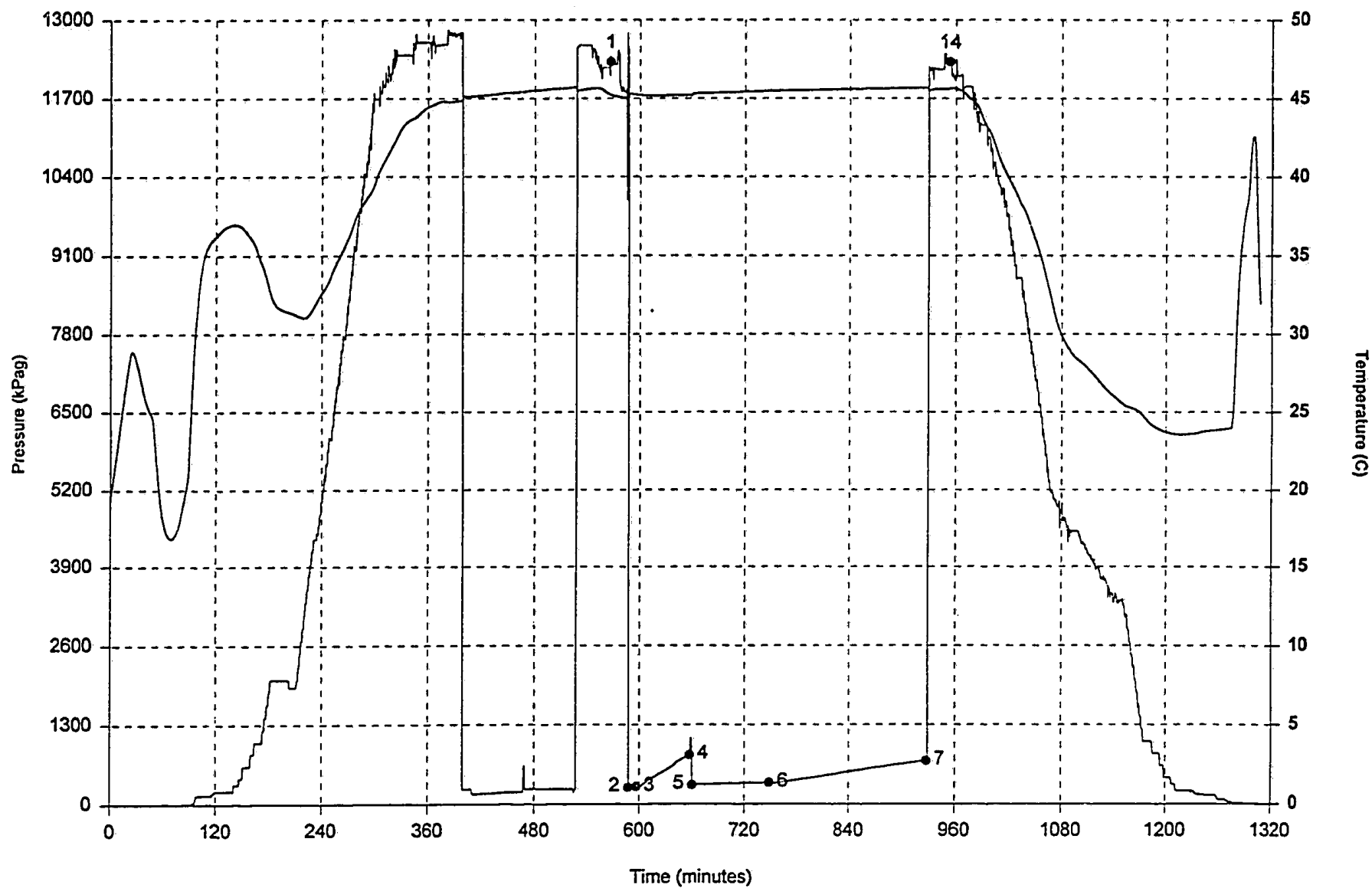
Salinity : 2 000 g/m3

Recovery	Description
8.50 m	DRILLING MUD

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST #: 2
Recorder: N41

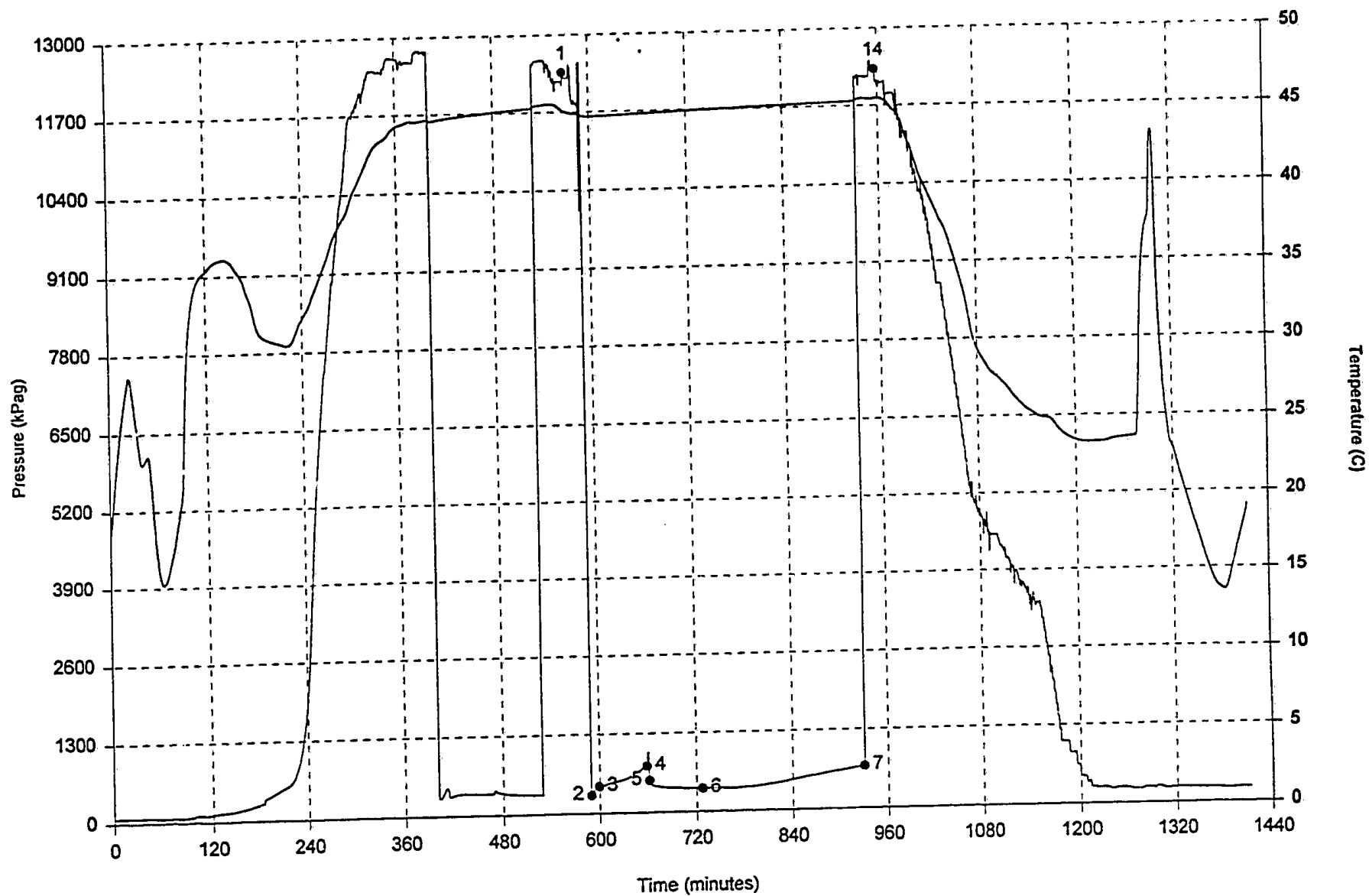
Pressure (kPag) at Critical Points:
1: 12303 4: 808 7: 707
2: 272 5: 314 14: 12305
3: 283 6: 347

Second Electronic Gauge



PARAMOUNT ET AL LIARD F-38
00/ 60.091 / 123.367 /00
DST #: 2
Recorder: K20

Pressure (kPag) at Critical Points:
1: 12367 4: 763 7: 686
2: 297 5: 524 14: 12313
3: 438 6: 377

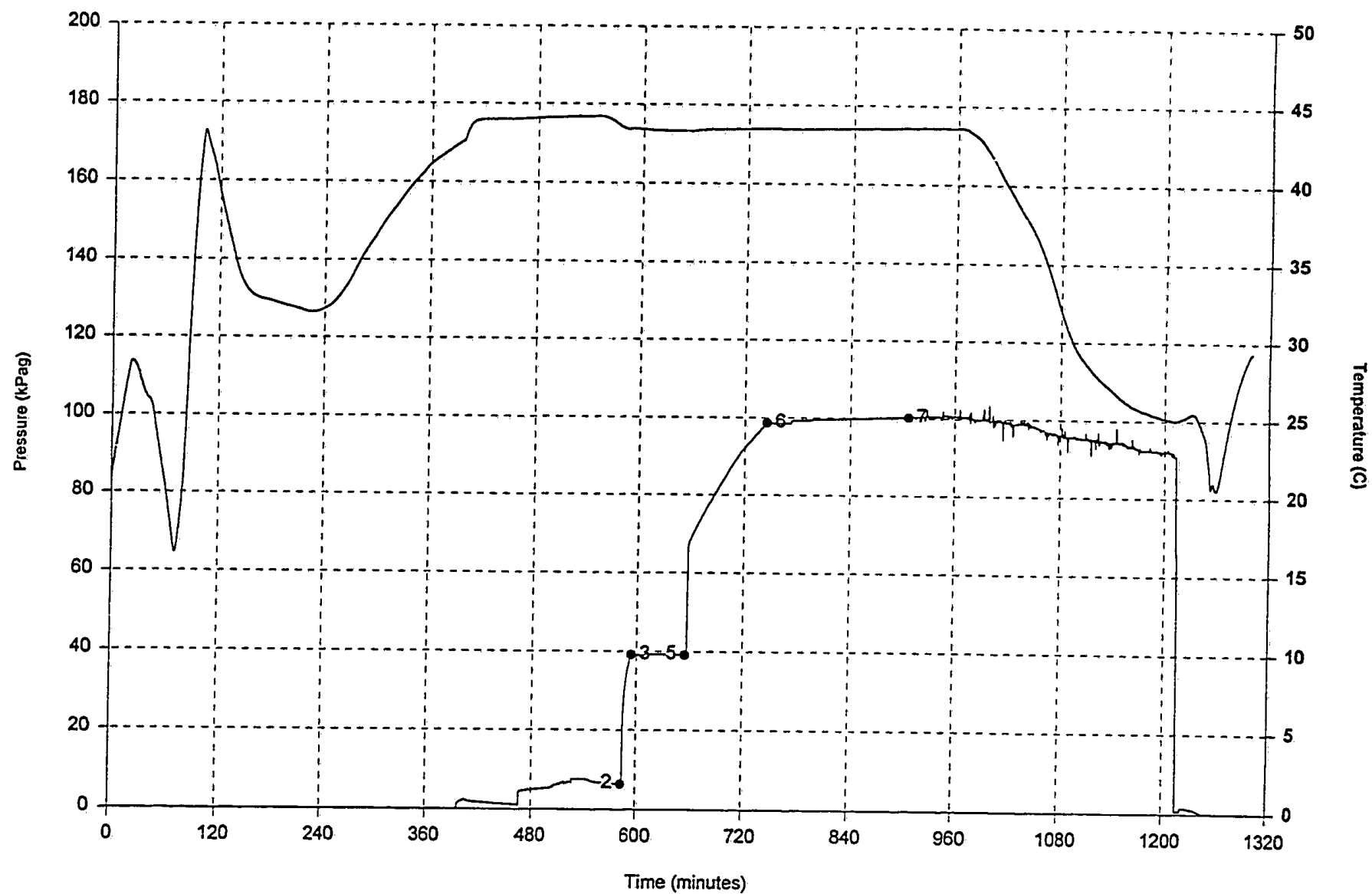


PARAMOUNT ET AL LIARD F-36
00/80.091 / 123.367 /00
DST #: 2
Recorder: P99

Pressure (kPag) at Critical Points:

2:	6	6:	99
3:	39	7:	100
5:	39		

Recovery Recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 2

General Information:

Operator: Paramount Resources Ltd.
 4000, 350 - 7th Ave. S.W.
 Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Brennan T

Ticket#: 806590

Reverse Circulated? N

KB Elevation: 469.40 meters

Ground Elevat'n: 381.00 meters

Total Depth: 1,173.60 meters

Mud Data:

Weight: 1105 kg/m3

Type: Gel Chemical

Viscosity: 62 s/l

Water Loss: 8.0 cc/s

Filter Cake: 1.5 mm

Hole Data:

Drilled Hole Size: 222 mm

Hole Condition at Test Time: Good

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Location	Capacity	Units	Depth	Comments
P99	ZI	Inside	34500	kPag	1,098.00	Recovery Recorder
8892	K-3	Outside	21000	kPag	1,107.00	
K20	ZI	Outside	68900	kPag	1,118.00	
N41	ZI	Outside	68900	kPag	1,118.00	Second Electronic Gauge

Distributions:

Reports Sent To: Greg Elliott

Fluid Samples - no of: 1 Sent To: CORE

Bottom Hole Sampler#	Sent To
291	CORE

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 2

Tool Sequence:

<i>Diagram</i>	<i>Description</i>	<i>Length</i>
	Pump Out Sub	0.40 m
	Pump Out Sub	0.36 m
	Cross Over Sub	0.30 m
	Recorder Carrier	1.48 m
	Choke Sub	0.31 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	1.03 m
	Recorder Carrier	1.48 m
	Real Time Gauge	6.39 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.30 m
	Recorder Carrier	2.04 m
	Spacing	0.31 m
	Spacing	2.43 m
	Spacing	2.43 m
	Spacing	1.22 m
	Packer Stick Up	0.42 m
	Bottom Inflate Packer	1.90 m
	Perforations	0.61 m
	Belly Spring	2.00 m

Tool String Length: 35.92 m
 Drill Collar I.D.: 63 mm 72.76 m
 Drill Pipe O.D.: 101 mm 1,026.67 m
 Collar Pipe Total: 1,099.43 m
 Stick Up: 5.87 m
 Tool Above: 21.44 m
 Interval Tested: 10.00 m
 Bottom Hole Choke Size: 12.70 mm

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /00
DST# 2

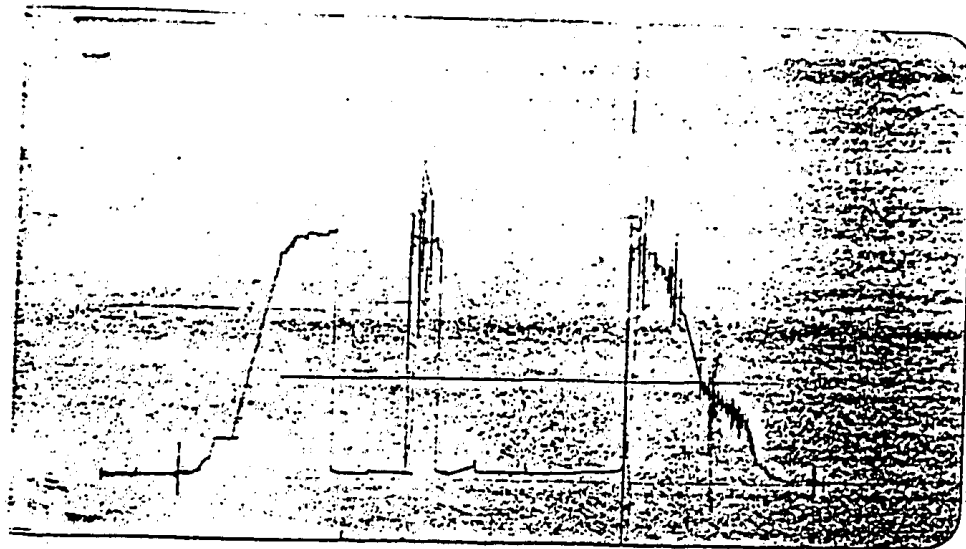
Recorder# 8892

Depth: 1,107.00 m

Location: Outside

Recorder Type: K-3

Capacity: 21,000 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	12237	
2	Start of 1st Flow	319	
3	End of 1st Flow	206	9.0
4	End of 1st Shut-in	666	61.0
5	Start of 2nd Flow	318	
6	End of 2nd Flow	287	87.5
7	End of 2nd Shut-in	630	180.0
14	Final Hydrostatic	12218	

Recorder# K20

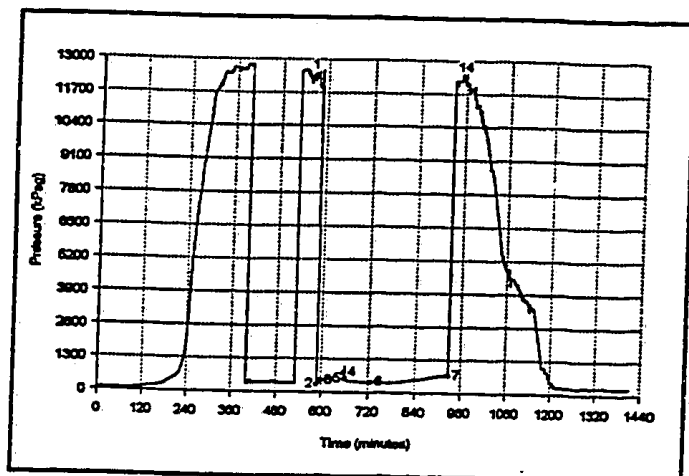
Depth: 1,118.00 m

Temperature: 45.0 C

Location: Outside

Recorder Type: ZI

Capacity: 68,900 kPag



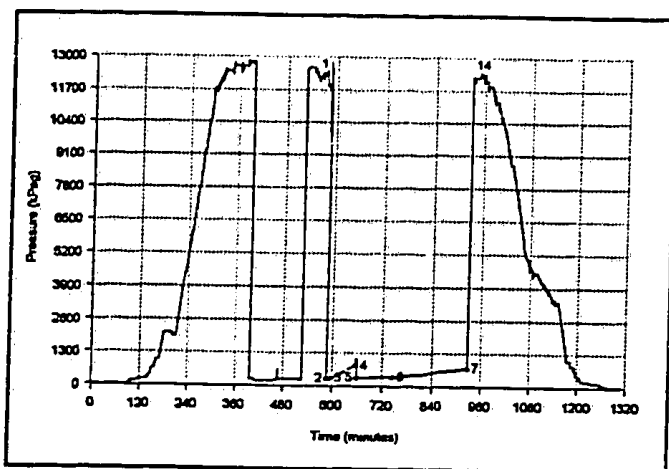
		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	12367	
2	Start of 1st Flow	297	
3	End of 1st Flow	438	9.0
4	End of 1st Shut-in	763	61.0
5	Start of 2nd Flow	524	
6	End of 2nd Flow	377	87.5
7	End of 2nd Shut-in	686	180.0
14	Final Hydrostatic	12313	

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 2

Recorder# N41

Depth: 1,118.00 m
 Temperature: 45.7 C
 Location: Outside

Recorder Type: ZI
 Capacity: 68,900 kPag
 Comments: Second Electronic Gauge

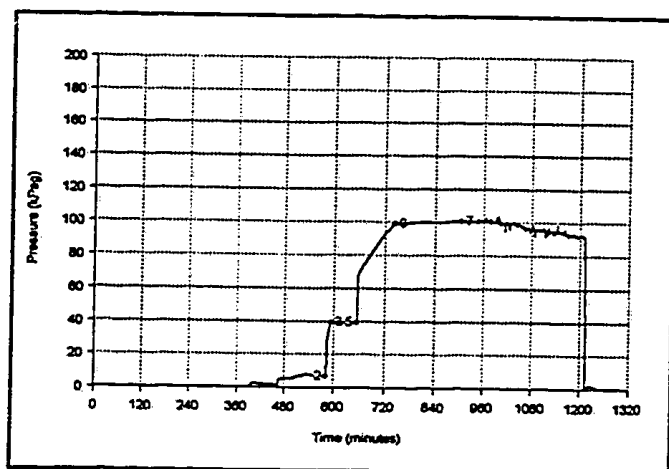


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	12303	
2	Start of 1st Flow	272	
3	End of 1st Flow	283	9.0
4	End of 1st Shut-in	808	61.0
5	Start of 2nd Flow	314	
6	End of 2nd Flow	347	87.5
7	End of 2nd Shut-in	707	180.0
14	Final Hydrostatic	12305	

Recorder# P99

Depth: 1,098.00 m
 Temperature: 43.7 C
 Location: Inside

Recorder Type: ZI
 Capacity: 34,500 kPag
 Comments: Recovery Recorder



		Pressure (kPag)	Time (min)
2	Start of 1st Flow	6	
3	End of 1st Flow	39	9.0
5	Start of 2nd Flow	39	
6	End of 2nd Flow	99	87.5
7	End of 2nd Shut-in	100	180.0

BAKER OIL TOOLS
DELTA-P TEST CORP
WELL TESTING AND DST EVALUATIONS

PARAMOUNT et al LIARD

F-36

1115 - 1125 M

DST # 2

Sun, Mar 15, 1998

PARAMOUNT ET AL LIARD

F-36

1115-1125

DST # 2

This test was a reset after DST # 1.

Salinity of the recovered fluid was 2000 ppm.

LIQUID AND GAS FLOW RATES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.

PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

1115-1125

DST # 2

Testtime (24 Hr.)	Flowtime (min)	Surface Dp/Dt (KPa/mn)	Surface Pressure (KPabs)	Recovery Dp/Dt (KPa/mn)	Recovery Pressure (KPabs)	Liquidrate (m3/D)	Gasrate (m3/D)
----------------------	-------------------	------------------------------	--------------------------------	-------------------------------	---------------------------------	----------------------	-------------------

START OF FLOW #1

14:56:45	0.00	0.00	86.58	0.0	92.7		
14:57:00	0.25	0.29	86.66	-0.6	92.6	0.0	25.8
14:57:15	0.50	-0.08	86.64	-0.6	92.5	0.0	0.0
14:57:30	0.75	0.06	86.65	-0.6	92.3	0.0	5.4
14:57:45	1.00	0.02	86.66	9.7	94.7	0.0	2.2
14:59:45	3.00	0.01	86.67	10.4	115.5	3.2	0.0
15:01:45	5.00	0.00	86.68	2.2	119.9	0.8	0.0
15:03:45	7.00	0.00	86.69	1.4	122.6	0.5	0.0
15:05:45	9.00	0.00	86.69	1.0	124.7	0.4	0.0
15:06:30	9.75	-0.04	86.66	0.9	125.4	0.3	0.0

START OF SHUT IN #1

						(Apparent Rates)	
15:06:30	0.00	0.00	86.66	-0.0	125.4		
15:07:30	1.00	0.00	86.66	0.3	125.6	0.1	0.0
15:08:30	2.00	0.02	86.68	0.0	125.7	0.0	2.1
15:09:30	3.00	-0.01	86.67	0.1	125.7	0.0	0.0
15:10:30	4.00	-0.01	86.66	-0.1	125.6	0.0	0.0
15:11:30	5.00	0.01	86.67	-0.0	125.6	0.0	0.6
15:26:30	20.00	-0.00	86.62	0.0	125.8	0.0	0.0
15:41:30	35.00	-0.00	86.56	0.0	125.8	0.0	0.0
15:56:30	50.00	-0.00	86.50	-0.0	125.6	0.0	0.0
16:09:00	62.50	-0.00	86.46	0.0	126.1	0.0	0.0

START OF FLOW #2

16:09:00	0.00	0.00	86.46	0.0	126.1		
16:09:15	0.25	0.03	86.47	-1.1	125.8	0.0	3.3
16:09:30	0.50	0.02	86.47	-1.0	125.6	0.0	2.5
16:09:45	0.75	0.29	86.55	-0.1	125.5	0.0	26.3
16:10:00	1.00	0.09	86.57	0.3	125.6	0.1	7.8
16:20:00	11.00	-0.00	86.53	3.3	158.3	1.2	0.0
16:30:00	21.00	-0.01	86.47	0.4	162.5	0.2	0.0
16:40:00	31.00	-0.01	86.42	0.4	166.5	0.2	0.0
16:50:00	41.00	-0.00	86.37	0.4	170.5	0.2	0.0
17:00:00	51.00	-0.00	86.34	0.4	174.4	0.1	0.0
17:10:00	61.00	-0.00	86.30	0.4	177.9	0.1	0.0
17:20:00	71.00	-0.00	86.27	0.3	180.6	0.1	0.0
17:30:00	81.00	-0.00	86.24	0.3	183.2	0.1	0.0
17:38:15	89.25	-0.00	86.21	0.3	185.8	0.1	0.0

LIQUID AND GAS FLOW RATES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.

PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

1115-1125

DST # 2

Testtime (24 Hr.)	Flowtime (min)	Surface Dp/Dt (KPa/mn)	Surface Pressure (KPabs)	Recovery Dp/Dt (KPa/mn)	Recovery Pressure (KPabs)	Liquidrate (m3/D)	Gasrate (m3/D)
START OF SHUT IN #2						(Apparent Rates)	
17:38:15	0.00	0.00	86.21	0.0	185.8		
17:39:15	1.00	-0.03	86.18	-0.7	185.1	0.0	0.0
17:40:15	2.00	0.02	86.20	0.1	185.1	0.0	1.8
17:41:15	3.00	-0.03	86.17	0.0	185.1	0.0	0.0
17:42:15	4.00	0.01	86.18	0.1	185.2	0.0	0.7
17:43:15	5.00	0.00	86.18	-0.1	185.1	0.0	0.0
17:48:15	10.00	-0.00	86.16	-0.0	185.1	0.0	0.0
17:49:00	10.75	-0.02	86.15	0.1	185.1	0.0	0.0

END OF RECORDED SURFACE PRESSURE DATA

SUMMARY OF CHAMBER FLOW PROPERTIES

DELTA P TEST CORP., #3 Pumpmeadow Cr. S.W., T2V 5C8, CALGARY, ALTA.

PARAMOUNT ET AL LIARD

F-36

Sun, Mar 15, 1998

1115-1125

DST # 2

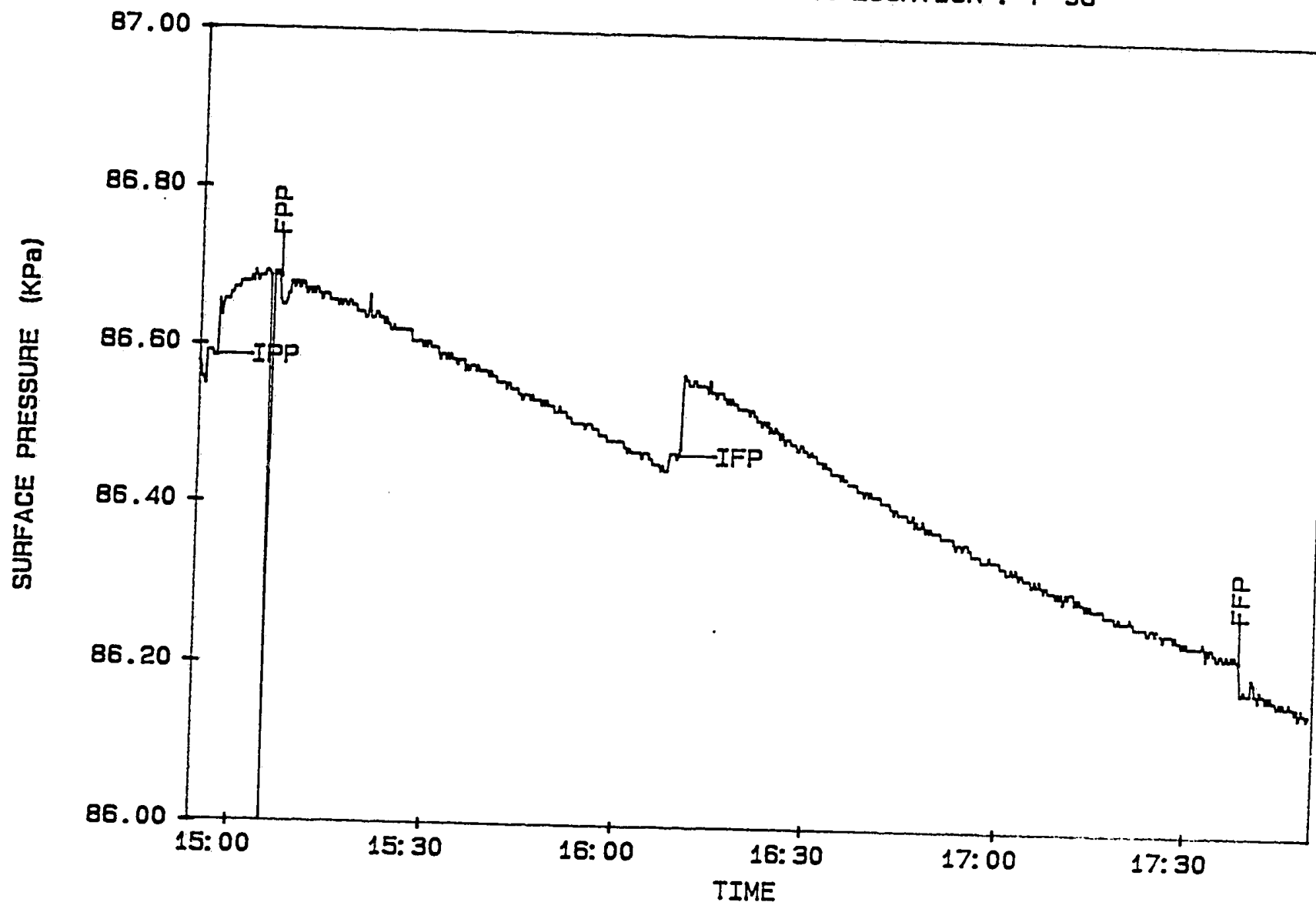
	VOLUMES (m3)	LENGTHS (m)	PRESSURES (KPa abs)	
START FLOW # 2				
AIR/N2	6.024	1096.85	surface	86.5
			average	92.2
			bottom	98.2
GAS	0.000	0.00	surface	98.2
			average	98.2
			bottom	98.2
CUSHION	0.000	0.00		
RECOVERY	0.007	2.58		
	-----	-----		
TOTAL	6.032	1099.43	rec/gauge	126.1
END FLOW # 2				
AIR/N2	6.009	1091.30	surface	86.2
			average	91.9
			bottom	97.9
GAS	0.000	0.00	surface	97.9
			average	97.9
			bottom	97.9
CUSHION	0.000	0.00		
RECOVERY	0.023	8.13		
	-----	-----		
TOTAL	6.032	1099.43	rec/gauge	185.8
** SHUT IN # 2				
AIR/N2	6.009	1091.35	surface	86.2
			average	91.9
			bottom	97.8
GAS	0.000	0.00	surface	97.8
			average	97.8
			bottom	97.8
CUSHION	0.000	0.00		
RECOVERY	0.023	8.08		
	-----	-----		
TOTAL	6.032	1099.43	rec/gauge	185.1

**Point before 10.75 min into shut in, first surface dp/dt < -0.5

DELTA-P TEST CORP.

REFERENCE FILENAME : P1603

TEST DATE : Sun. Mar 15, 1998
WELL NAME : PARAMOUNT ET AL LIARD
WELL LOCATION : F-36



Sun, Mar 15, 1998

PARAMOUNT ET AL LIARD

F-36

1115-1125

DST # 2

PRETEST CALCULATIONS

FILENAME	P1603.DST
GAS GRAVITY	.65
FORMATION DEPTH	1120.00 MKB
FORMATION PRESSURE	11401.60 KPAg
FORMATION TEMPERATURE	37.13 DEG C
AVE CHAMBER TEMP	20.82 DEG C
INITIAL CHM SURFACE PRESSURE	86.60 KPAA
INITIAL GAS/N2 HEAD PRESSURE	94.27 KPAA
INITIAL TOTAL CUSH. PRESSURE	94.27 KPAA
INITIAL CUSHION LENGTH	.00 m
LIQUID CUSHION GRADIENT	.00 kPA/m
DOWN HOLE CHOKE DIAMETER	12.70 mm
CHOKE COEFFICIENT	18.02 m3/D/KPA
DRILL COLLAR LENGTH	72.76 m
DRILL COLLAR I.D.	60.00 mm
DRILL COLLAR CAPACITY	.002827 m3/m
DRILL COLLAR VOLUME	.206 m3
LOWER DRILL PIPE LENGTH	1026.67 m
LOWER DRILL PIPE I.D.	85.00 mm
LOWER DRILL PIPE CAPACITY	.005674 m3/m
LOWER DRILL PIPE VOLUME	5.826 m3
UPPER DRILL PIPE LENGTH	.00 m
UPPER DRILL PIPE I.D.	.00 mm
UPPER DRILL PIPE CAPACITY	.000000 m3/m
UPPER DRILL PIPE VOLUME	.000 m3
TOTAL CHAMBER VOLUME	6.03 m3
LIQUID CUSHION VOLUME	.00 m3
NET CHAMBER VOLUME	6.03 m3

	MAX. RATE	MAX. SURFACE DP/DT
GAS	278620.4 m3/D	3170.0 KPA/min
GAS SATURATED H2O	813.7 m3/D	28.5 KPA/min
PURE LIQUID INFLUX	813.7 m3/D	8.5 KPA/min

	INITIAL CONVERSION FACTORS
GAS	87.9 m3/D/KPA/min
GAS SATURATED H2O	28.5 m3/D/KPA/min
PURE LIQUID INFLUX	96.1 m3/D/KPA/min

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

RECOVERY REC # P99 @ 1125/1095

DST # 1 & 2

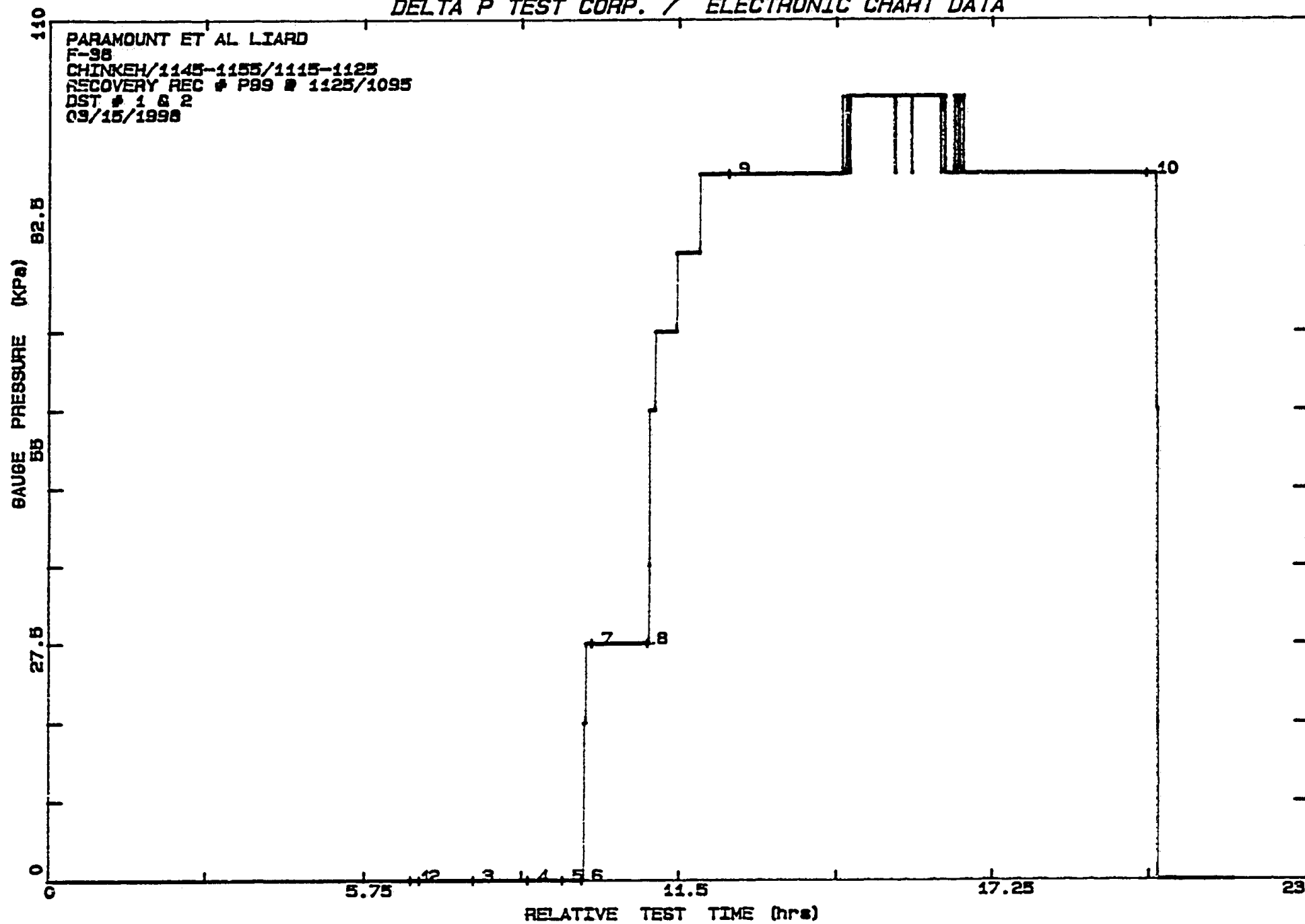
03/15/1998

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
1	IPP1	395.5	6.59	0.0
2	FPP1	405.5	6.76	2.4
3	IFP1	464.5	7.74	1.1
4	FFP1	524.0	8.73	6.8
5	FHP1	562.0	9.37	6.7
6	IPP2	583.0	9.72	6.1
7	FPP2	593.5	9.89	38.8
8	IFP2	655.0	10.92	39.5
9	FFP2	745.5	12.42	99.2
10	FHP2	1203.5	20.06	92.2

DELTA P TEST CORP. / ELECTRONIC CHART DATA

PARAMOUNT ET AL LIARD
F-98
CHINKEH/1145-1155/1115-1125
RECOVERY REC # P89 # 1125/1095
DST # 1 & 2
09/15/1998



ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

RECOVERY REC # P99 @ 1125/1095

DST # 1 & 2

03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	1.0	0.02	0.0
	2.5	0.04	0.0
IPP1	242.5	4.04	0.0
	395.5	6.59	0.0
	397.5	6.62	1.4
	399.5	6.66	1.8
	401.5	6.69	2.0
FPP1	403.5	6.72	2.2
	405.5	6.76	2.4
	420.5	7.01	1.6
	435.5	7.26	1.4
IFP1	450.5	7.51	1.1
	464.5	7.74	1.1
	474.5	7.91	4.8
	484.5	8.07	5.0
	494.5	8.24	5.1
	504.5	8.41	5.6
	514.5	8.57	6.5
FPP1	524.0	8.73	6.8
	544.0	9.07	7.4
FHP1	562.0	9.37	6.7
IPP2	583.0	9.72	6.1
	585.0	9.75	24.5
	587.0	9.78	30.6
	589.0	9.82	34.2
	591.0	9.85	36.6
	593.0	9.88	38.3
FPP2	593.5	9.89	38.8
	613.5	10.22	39.2
	633.5	10.56	39.1
	653.5	10.89	39.0
IFP2	655.0	10.92	39.5
	670.0	11.17	73.3
	685.0	11.42	79.3
	700.0	11.67	85.2
	715.0	11.92	90.8
	730.0	12.17	94.8
	745.0	12.42	98.6
FPP2	745.5	12.42	99.2
	864.5	14.41	99.9
	983.5	16.39	99.9
	1102.5	18.38	95.4
FHP2	1203.5	20.06	92.2

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

RECOVERY REC # P99 @ 1125/1095

DST # 1 & 2

03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	1264.0	21.07	0.0

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

OUTSIDE REC # N41 @ 1148/1118

DST # 1 & 2

03/15/1998

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
1	IHP	365.0	6.08	12581.9
2	IPP1	399.5	6.66	237.7
3	FPP1	409.5	6.82	184.5
4	ISI1	466.5	7.77	203.9
5	IFP1	469.0	7.82	243.3
6	FFP1	527.5	8.79	245.4
7	IPP2	587.5	9.79	272.3
8	FPP2	596.5	9.94	282.8
9	ISI2	657.5	10.96	807.7
10	IFP2	660.0	11.00	321.2
11	FFP2	750.0	12.50	338.0
12	FSI2	928.0	15.47	706.7
13	FHP	935.5	15.59	12195.6

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F-36

CHINKEH/1145-1155/1115-1125

OUTSIDE REC # N41 @ 1148/1118

DST # 1 & 2

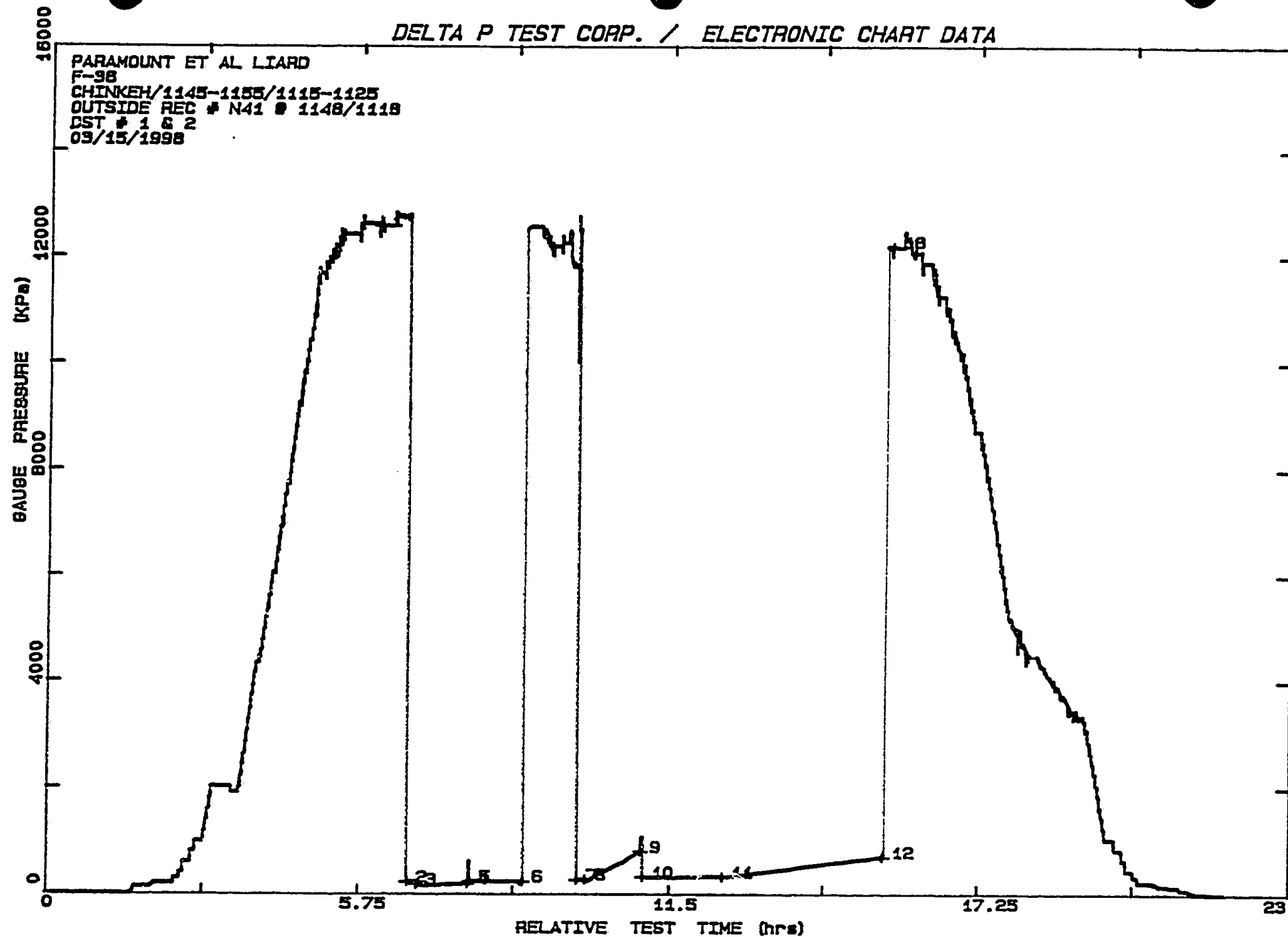
03/15/1998

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	1.0	0.02	0.0
	2.5	0.04	0.0
	123.0	2.05	216.6
	242.0	4.03	5203.4
	361.0	6.02	12622.5
IHP	365.0	6.08	12581.9
IPP1	399.5	6.66	237.7
	404.5	6.74	238.6
FPP1	409.5	6.82	184.5
	424.5	7.08	171.3
	439.5	7.32	182.5
	454.5	7.58	194.9
ISI1	466.5	7.77	203.9
IFP1	469.0	7.82	243.3
	484.0	8.07	243.2
	499.0	8.32	243.9
	514.0	8.57	245.3
FFP1	527.5	8.79	245.4
	587.0	9.78	12539.3
IPP2	587.5	9.79	272.3
	592.5	9.87	279.3
FPP2	596.5	9.94	282.8
	616.5	10.27	433.2
	636.5	10.61	600.3
	656.5	10.94	799.2
ISI2	657.5	10.96	807.7
IFP2	660.0	11.00	321.2
	680.0	11.33	322.8
	700.0	11.67	331.8
	720.0	12.00	338.9
	740.0	12.33	344.5
FFP2	750.0	12.50	338.0
	770.0	12.83	369.4
	790.0	13.17	413.2
	810.0	13.50	455.3
	830.0	13.83	500.9
	850.0	14.17	547.6
	870.0	14.50	590.0
	890.0	14.83	631.2
	910.0	15.17	671.3
FSI2	928.0	15.47	706.7
FHP	935.5	15.59	12195.6
	1173.5	19.56	1233.3

DELTA P TEST CORP. / ELECTRONIC CHART DATA

PARAMOUNT ET AL LIARD
F-98
CHINKEH/1145-1155/1115-1125
OUTSIDE REC # N41 # 1148/1118
DST # 1 & 2
03/15/1998

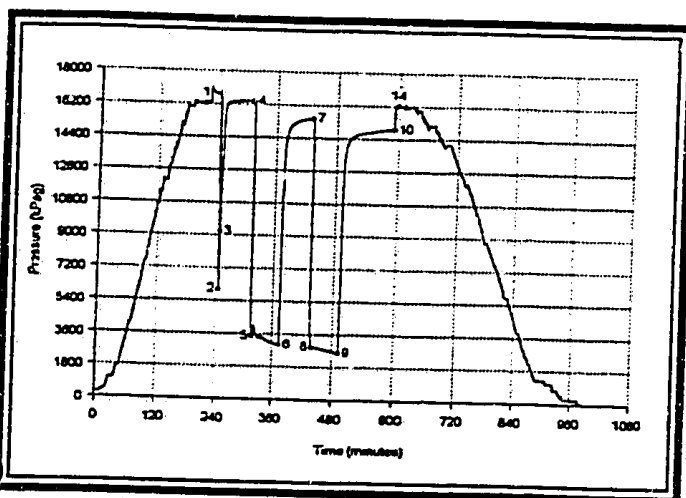




PARAMOUNT ET AL LIARD F-36 00/ 60.091 / 123.367 /00 DST# 3

Formation: Mattson
Interval - from: 1,455.00 to: 1,494.00 meters

Recorder# N42 at 1,458.00 meters



Test Date: 1998-03-24
Test Type: Inflate Bottom Hole

Blow Description:

PREFLOW: Closed Chamber/Real Time with Delta-P.

SECOND FLOW: Closed Chamber/Real Time with Delta-P. Gas to surface immediately upon venting.

FINAL FLOW: Closed Chamber and Real time with Delta P.

Remarks:

Mechanically successful test. Results suggest average permeability within the interval tested. Some plugging on the preflow - initial shut-in possibly reading high. Slight plugging on the second flow - does not affect test. 6 meters of fill on bottom.

Max Btm Hole Temperature @ FSI: 47.9 C

	Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1 Initial Hydrostatic	16211		
2 Start of 1st Flow	6001		
3 End of 1st Flow	9185	1.0	
4 End of 1st Shut-in	16348	63.5	16367.3
5 Start of 2nd Flow	3430		
6 End of 2nd Flow	2997	57.0	
7 End of 2nd Shut-in	15467	59.5	15717.8
8 Start of 3rd Flow	2897		
9 End of 3rd Flow	2574	53.5	
10 End of 3rd Shut-in	14918	98.0	15259.2
14 Final Hydrostatic	16208		

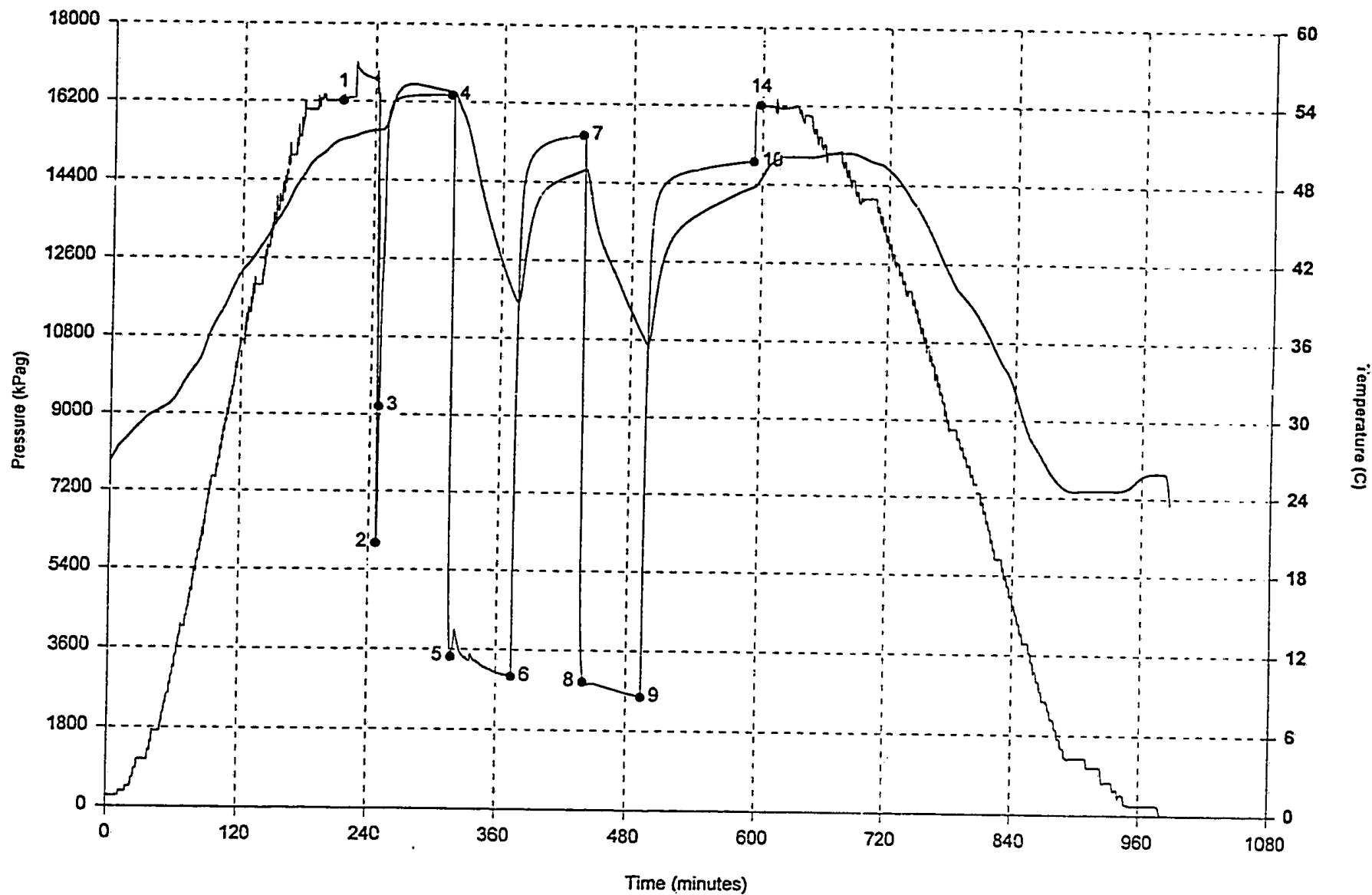
Flow#	Time (min)	Surface Choke (mm)	Surface Pressure (kPag)	Gas Rate (m3/day)
2	10	12.70	2160	39 477
2	30	12.70	1725	40 719
2	60	12.70	1521	36 250
3	12	12.70	1492	35 704
3	32	12.70	1476	35 321
3	52	12.70	1408	33 693
3	59	12.70	1307	31 277

Liquid Recovery 80.00 meters

Recovery	Description
42.00 m	drilling mud
19.00 m	mud slightly gasified
19.00 m	mud gasified

PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 /00
DST #: 3
Recorder: N42

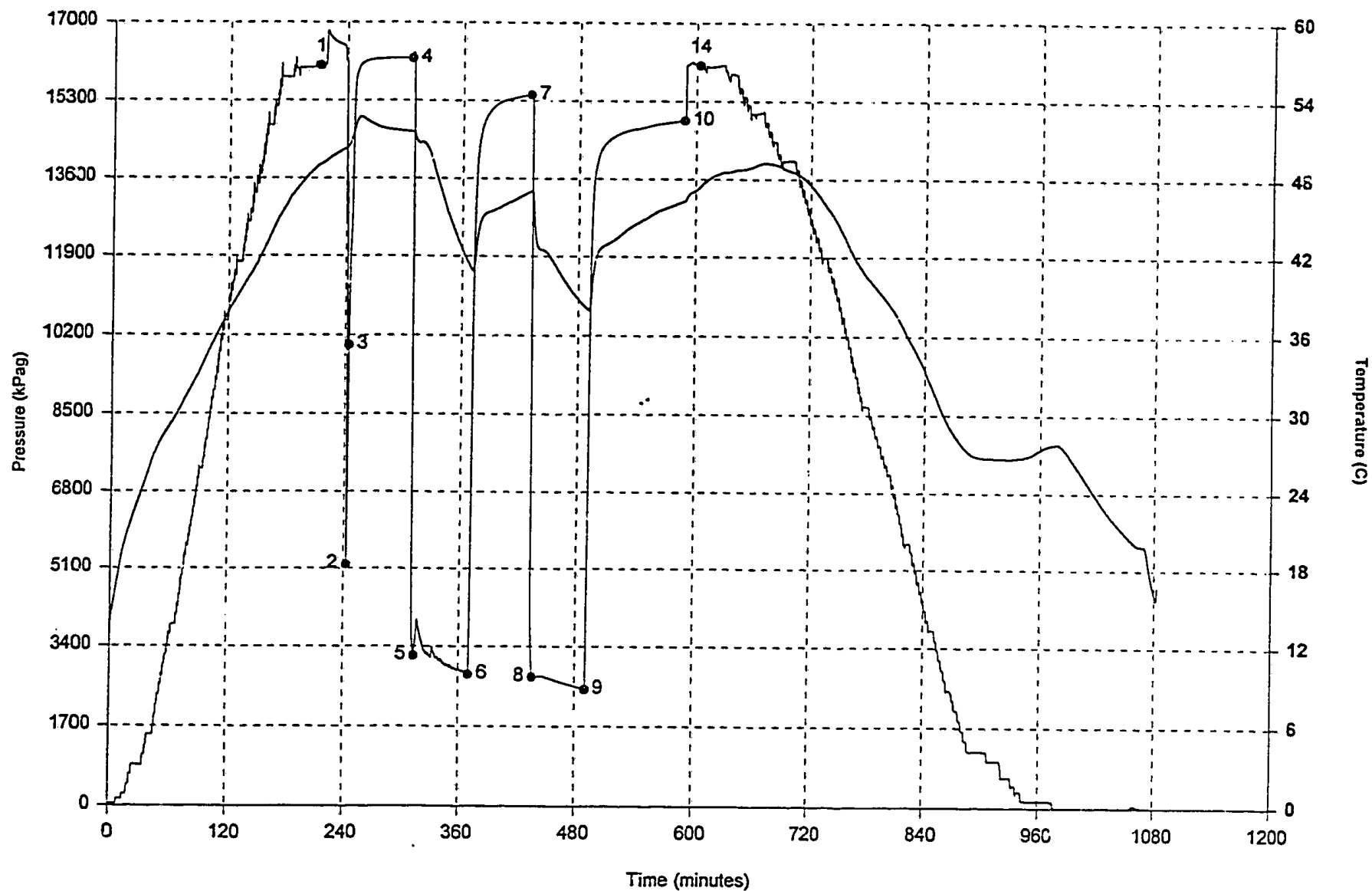
1: 16211	4: 16348	7: 15467	10: 14918
2: 6001	5: 3430	8: 2897	14: 16208
3: 9185	6: 2997	9: 2574	



PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 /00
DST #: 3
Recorder: P99

1: 16065	4: 16218	7: 15423	10: 14875
2: 5182	5: 3198	8: 2743	14: 16080
3: 9986	6: 2798	9: 2487	

Second Electronic Gauge



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 3

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Ave. S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Willis K

Ticket#: 806561

Reverse Circulated? N

KB Elevation: 469.40 meters

Ground Elevat'n: 381.00 meters

Total Depth: 1,494.00 meters

Mud Data:

Weight: 1130 kg/m3

Type: Gel Chemical

Viscosity: 82 s/l

Water Loss: 8.3 cc/s

Filter Cake: 2.0 mm

Hole Data:

Drilled Hole Size: 222 mm

Hole Condition at Test Time: Fair

Conditioned prior to this test? N

Recorder Summary:

Recorder#	Type	Location	Capacity	Units	Depth	Comments
K2	ZI	Inside	68900	kPag	1,437.00	Second Electronic Gauge
P99	ZI	Inside	34500	kPag	1,441.00	
12769	K-3	Outside	20700	kPag	1,458.00	
N42	ZI	Outside	34500	kPag	1,458.00	

Distributions:

Reports Sent To: Drilling

Fluid Samples - no of: 5 Sent To: AGAT

Gas Bomb#	Sent To
3211/9687	AGAT
Bottom Hole Sampler#	Sent To
422/386	AGAT

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 3

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.33 m
	Double Pin Sub	0.25 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Choke Sub	0.31 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	2.06 m
	Recorder Carrier	1.38 m
	Real Time Gauge	6.16 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.42 m
	Recorder Carrier	2.06 m
	Spacing	0.30 m
	Blank Off Sub	0.30 m
	Spacing	0.61 m
	Spacing	1.22 m
	Spacing	2.43 m
	Cross Over Sub	0.30 m
	Drill Collar	27.83 m
	Cross Over Sub	0.30 m
	Perforations	0.61 m
	Belly Spring	2.00 m

Tool String Length: 61.09 m
 Drill Collar I.D.: 61 mm 72.43 m
 Drill Pipe O.D.: 102 mm 1,369.57 m
 Collar Pipe Total: 1,442.00 m
 Stick Up: 8.89 m
 Tool Above: 21.89 m
 Interval Tested: 39.00 m
 Bottom Hole Choke Size: 12.70 mm

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 3
Recorder#N42

Build-up and Flow Curve Increments

Flow# 1

Chart Label	Time (min)	Pressure (kPag)
2	0.0	6001
	0.5	6032
3	1.0	9185

Shut-in# 1

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
	0.0		9185			
	2.0	3230	12415	1.5000		154.1385
	4.0	6108	15293	1.2500		233.8632
	6.0	6762	15947	1.1667		254.3001
	8.0	6910	16095	1.1250		259.0617
	10.0	6998	16183	1.1000		261.8798
	12.0	7041	16226	1.0833		263.2691
	14.0	7068	16253	1.0714		264.1540
	16.0	7087	16272	1.0625		264.7736
	18.0	7101	16286	1.0556		265.2329
	20.0	7111	16296	1.0500		265.5750
	22.0	7120	16305	1.0455		265.8441
	24.0	7127	16312	1.0417		266.0779
	26.0	7132	16317	1.0385		266.2588
	28.0	7137	16322	1.0357		266.4162
	30.0	7141	16326	1.0333		266.5511
	32.0	7144	16329	1.0313		266.6477
	34.0	7147	16332	1.0294		266.7312
	36.0	7150	16335	1.0278	*	266.8249
	38.0	7152	16337	1.0263	*	266.8862
	40.0	7153	16338	1.0250	*	266.9411
	42.0	7155	16340	1.0238	*	266.9951
	44.0	7156	16341	1.0227	*	267.0309
	46.0	7157	16342	1.0217	*	267.0590
	48.0	7158	16343	1.0208	*	267.0816
	50.0	7159	16344	1.0200	*	267.1356
	52.0	7159	16344	1.0192	*	267.1329
	54.0	7162	16347	1.0185	*	267.2144
	56.0	7162	16347	1.0179	*	267.2277
	58.0	7162	16347	1.0172	*	267.2386
	60.0	7163	16348	1.0167	*	267.2530
	62.0	7163	16348	1.0161	*	267.2635
4	63.5	7163	16348	1.0157	*	267.2650

Flow# 2

Chart Label	Time (min)	Pressure (kPag)
5	0.0	3430
	1.5	3623
	3.0	4016
	4.5	3908
	6.0	3745

Shut-in# 2

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
	0.0		2997			
	1.5	7665	10662	39.6667		113.6811
	3.0	10233	13231	20.3333		175.0467
	4.5	11065	14062	13.8889		197.7456
	6.0	11403	14400	10.6667		207.3598

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 3
Recorder#N42

Build-up and Flow Curve Increments

Flow# 2

Chart Label	Time (min)	Pressure (kPag)
	7.5	3617
	9.0	3527
	10.5	3468
	12.0	3439
	13.5	3393
	15.0	3381
	16.5	3347
	18.0	3364
	19.5	3444
	21.0	3398
	22.5	3345
	24.0	3346
	25.5	3304
	27.0	3296
	28.5	3262
	30.0	3228
	31.5	3195
	33.0	3197
	34.5	3172
	36.0	3153
	37.5	3136
	39.0	3119
	40.5	3107
	42.0	3099
	43.5	3075
	45.0	3063
	46.5	3068
	48.0	3047
	49.5	3043
	51.0	3031
	52.5	3021
	54.0	3012
6	55.5	3003
	57.0	2997

Shut-in# 2

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
	7.5	11639	14636	8.7333		214.2118
	9.0	11780	14777	7.4444		218.3629
	10.5	11881	14878	6.5238		221.3681
	12.0	11958	14955	5.8333		223.6569
	13.5	12020	15017	5.2963		225.5060
	15.0	12070	15068	4.8667		227.0319
	16.5	12113	15110	4.5152		228.3055
	18.0	12149	15146	4.2222		229.3961
	19.5	12180	15177	3.9744		230.3423
	21.0	12207	15204	3.7619		231.1753
	22.5	12231	15228	3.5778		231.8927
	24.0	12252	15249	3.4167		232.5408
	25.5	12271	15269	3.2745		233.1272
	27.0	12289	15286	3.1481		233.6618
	28.5	12304	15301	3.0351		234.1179
	30.0	12318	15315	2.9333		234.5529
	31.5	12331	15328	2.8413	*	234.9493
	33.0	12343	15340	2.7576	*	235.3213
	34.5	12354	15351	2.6812	*	235.6620
	36.0	12364	15361	2.6111	*	235.9674
	37.5	12374	15371	2.5467	*	236.2573
	39.0	12382	15379	2.4872	*	236.5274
	40.5	12391	15388	2.4321	*	236.7809
	42.0	12398	15395	2.3810	*	237.0178
	43.5	12406	15403	2.3333	*	237.2417
	45.0	12413	15410	2.2889	*	237.4587
	46.5	12420	15417	2.2473	*	237.6734
	48.0	12426	15423	2.2083	*	237.8682
	49.5	12433	15430	2.1717	*	238.0737
	51.0	12438	15435	2.1373	*	238.2516
	52.5	12444	15441	2.1048	*	238.4323
	54.0	12450	15447	2.0741	*	238.5989
	55.5	12455	15452	2.0450	*	238.7688
	57.0	12461	15458	2.0175	*	238.9424
	58.5	12466	15463	1.9915	*	239.1065
7	59.5	12469	15467	1.9748	*	239.2130

Flow# 3

Chart Label	Time (min)	Pressure (kPag)
8	0.0	2897
	1.5	2821
	3.0	2826

Shut-in# 3

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
	0.0		2574			
	2.5	8833	11407	45.6000		130.1151
	5.0	10794	13368	23.3000		178.7039

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /00

DST# 3

Recorder#N42

Build-up and Flow Curve Increments

Flow# 3

Shut-in# 3

Chart Label	Time (min)	Pressure (kPag)	Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
9	4.5	2841		7.5	11309	13882	15.8667		192.7129
	6.0	2851		10.0	11539	14113	12.1500		199.1742
	7.5	2854		12.5	11683	14256	9.9200		203.2366
	9.0	2851		15.0	11778	14351	8.4333		205.9536
	10.5	2847		17.5	11847	14421	7.3714		207.9550
	12.0	2840		20.0	11901	14474	6.5750		209.5053
	13.5	2829		22.5	11944	14517	5.9556		210.7532
	15.0	2819		25.0	11979	14553	5.4600		211.7820
	16.5	2810		27.5	12009	14583	5.0545		212.6563
	18.0	2799		30.0	12035	14608	4.7167		213.3970
	19.5	2790		32.5	12057	14630	4.4308		214.0397
	21.0	2778		35.0	12075	14649	4.1857		214.5896
	22.5	2767		37.5	12092	14666	3.9733		215.0828
	24.0	2755		40.0	12107	14681	3.7875		215.5268
	25.5	2745		42.5	12121	14694	3.6235		215.9162
	27.0	2735		45.0	12133	14707	3.4778		216.2876
	28.5	2723		47.5	12145	14719	3.3474		216.6501
	30.0	2714		50.0	12158	14731	3.2300		217.0141
	31.5	2703		52.5	12170	14743	3.1238	*	217.3661
	33.0	2695		55.0	12182	14756	3.0273	*	217.7250
	34.5	2684		57.5	12194	14767	2.9391	*	218.0762
	36.0	2675		60.0	12205	14779	2.8583	*	218.4066
	37.5	2666		62.5	12216	14789	2.7840	*	218.7267
	39.0	2658		65.0	12227	14800	2.7154	*	219.0489
	40.5	2648		67.5	12237	14811	2.6519	*	219.3595
	42.0	2639		70.0	12247	14821	2.5929	*	219.6497
	43.5	2630		72.5	12257	14830	2.5379	*	219.9328
	45.0	2621		75.0	12266	14840	2.4867	*	220.2113
	46.5	2614		77.5	12275	14849	2.4387	*	220.4836
	48.0	2605		80.0	12284	14858	2.3938	*	220.7471
	49.5	2595		82.5	12293	14867	2.3515	*	221.0174
	51.0	2588		85.0	12302	14875	2.3118	*	221.2777
	52.5	2579		87.5	12310	14884	2.2743	*	221.5325
	53.5	2574		90.0	12319	14892	2.2389	*	221.7788
10				92.5	12327	14900	2.2054	*	222.0237
				95.0	12335	14908	2.1737	*	222.2608
				97.5	12343	14917	2.1436	*	222.5071
				98.0	12345	14918	2.1378	*	222.5530

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36
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DST# 3
Recorder#P99

Build-up and Flow Curve Increments

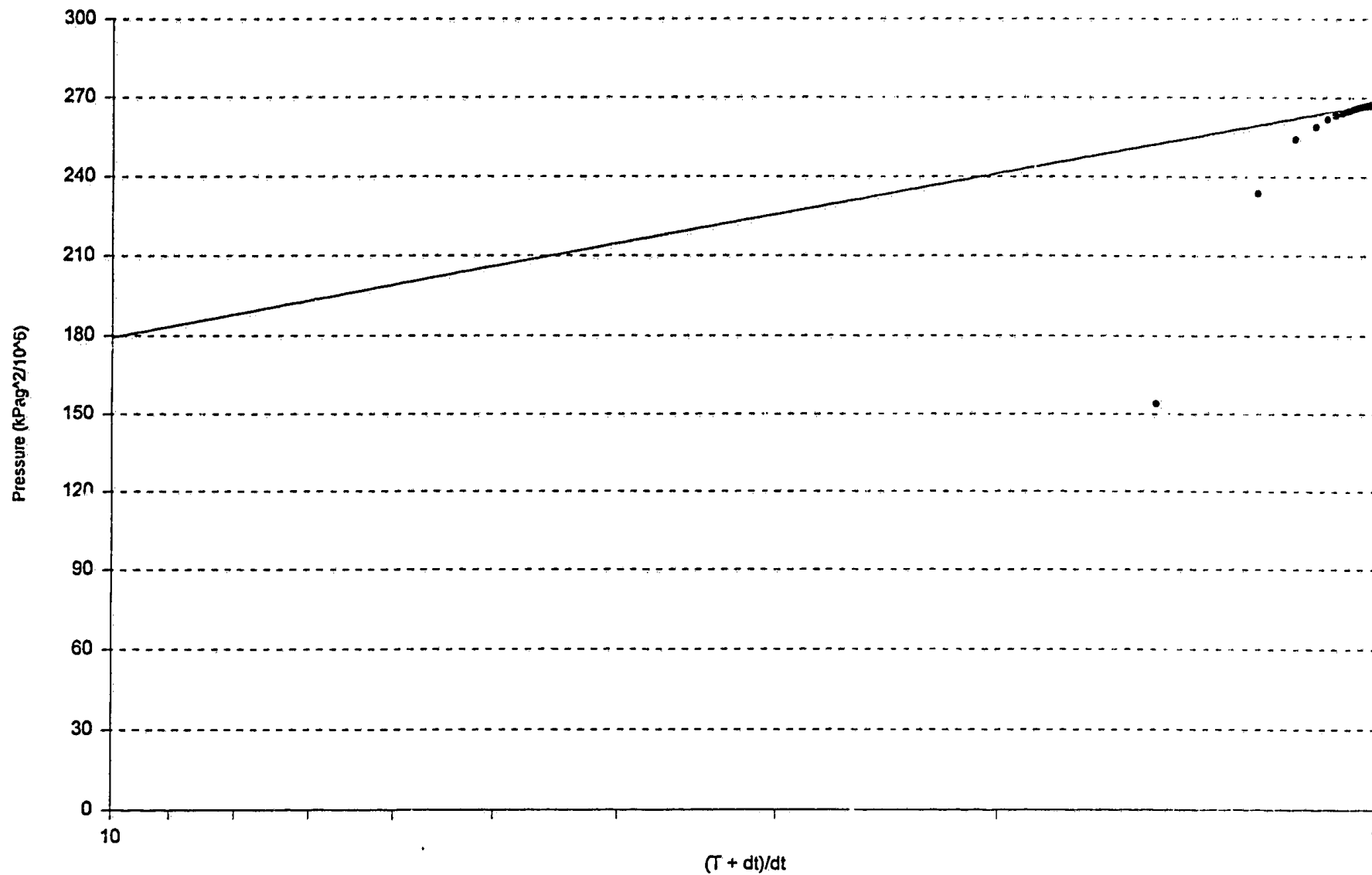
Horner Extrapolation:

Shut-in#	Extrapolated Pressure (kPag)	Extrapolated Slope ((kPag ² /10 ⁶)/cycle)
1	16367.3	88.57488
2	15717.8	26.62875
3	15259.2	31.65354

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

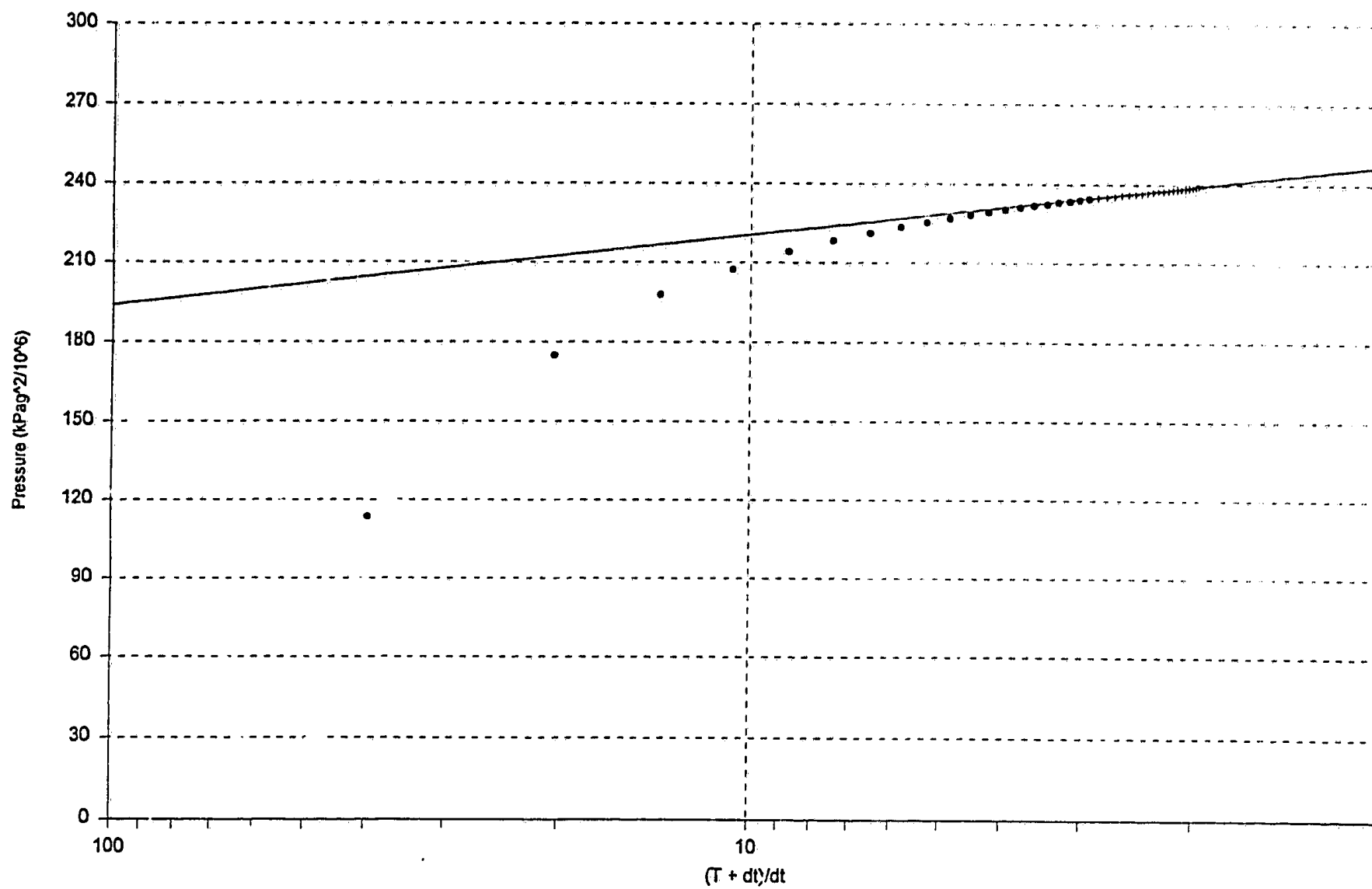
PARAMOUNT ET AL LIARD F-38
00/60.091 / 123.367 /00
DST #: 3
Recorder: N42

Shut-in #1
Slope = 88.57 kPag²/10⁶/cycle
Extrapolated Pressure = 16367.31 kPag



PARAMOUNT ET AL LIARD F-38
00/ 60.091 / 123.367 /00
DST #: 3
Recorder: N42

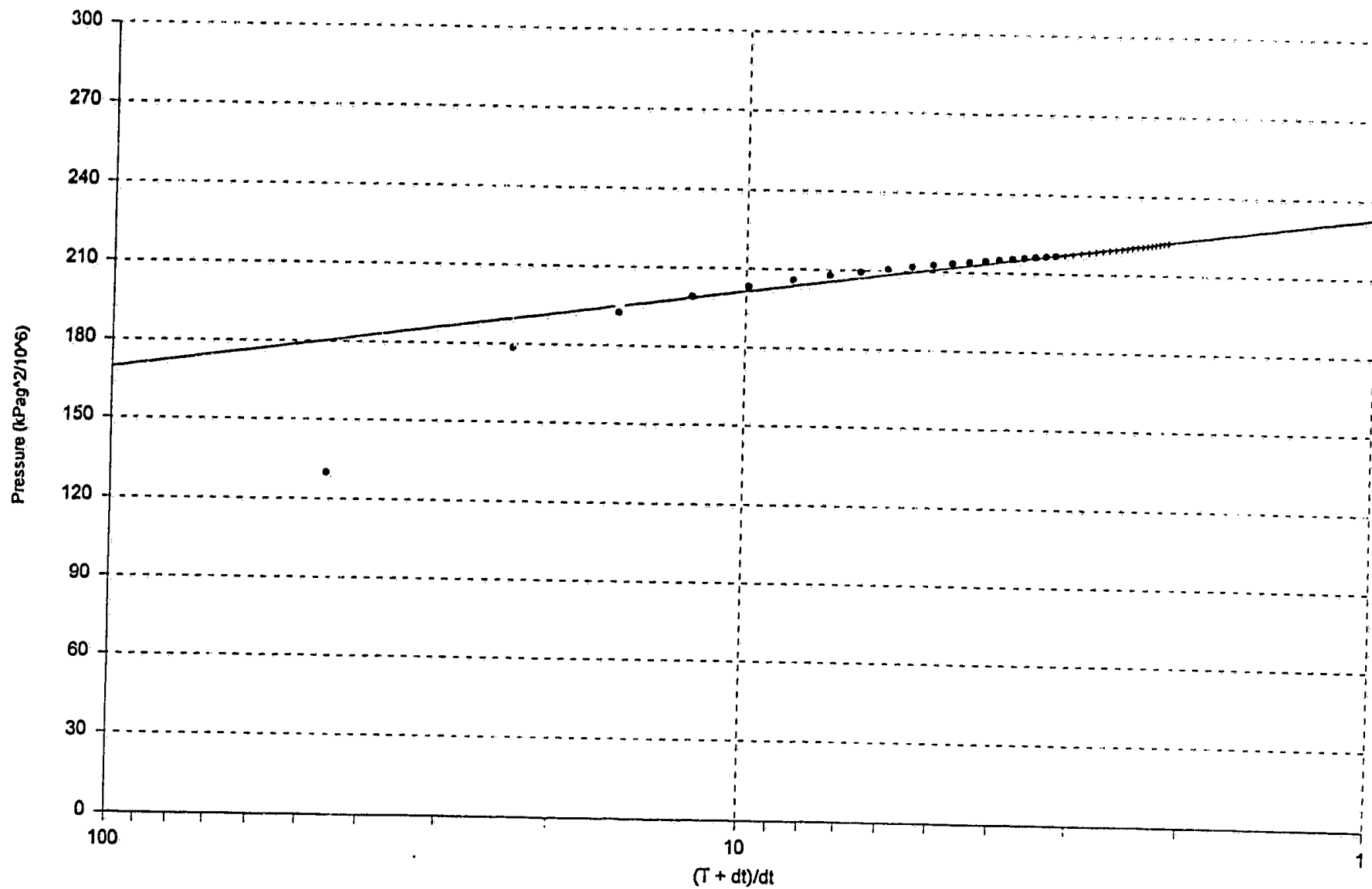
Shut-in #2
Slope = 26.63 kPag²/10⁶/cycle
Extrapolated Pressure = 15717.83 kPag



PARAMOUNT ET AL LIARD F-38
00/80.091 / 123.387 / 00
DST #: 3
Recorder: N42

Shut-in #3
Slope = 31.85 kPag²/10⁶/cycle
Extrapolated Pressure = 15259.18 kPag

BAKER OIL TOOLS / LYNES DRILL STEM TESTING



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /00
DST# 3

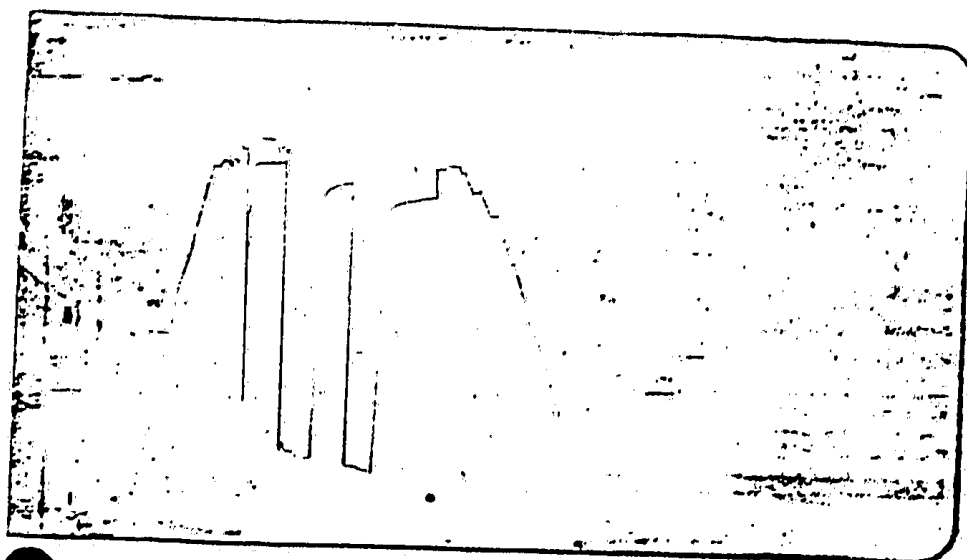
Recorder# 12769

Depth: 1,458.00 m

Location: Outside

Recorder Type: K-3

Capacity: 20,700 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	16055	
2	Start of 1st Flow	5589	
3	End of 1st Flow	9564	1.0
4	End of 1st Shut-in	16238	63.5
5	Start of 2nd Flow	3636	
6	End of 2nd Flow	3274	57.0
7	End of 2nd Shut-in	15429	59.5
8	Start of 3rd Flow	2982	
9	End of 3rd Flow	2721	53.5

Recorder# K2

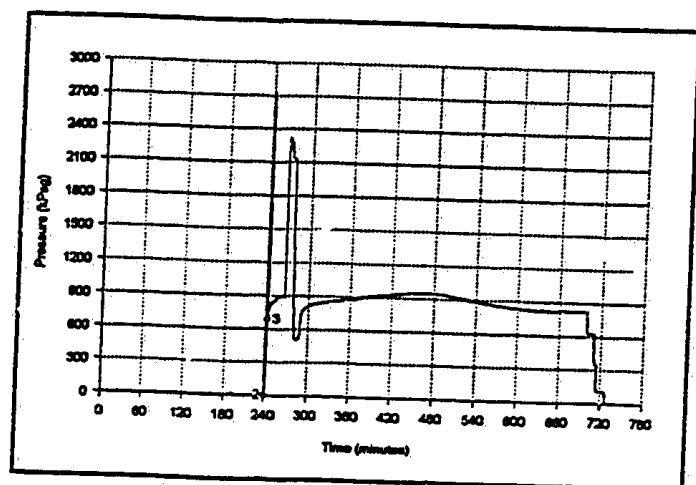
Depth: 1,437.00 m

Temperature: 49.1 C

Location: Inside

Recorder Type: ZI

Capacity: 68,900 kPag



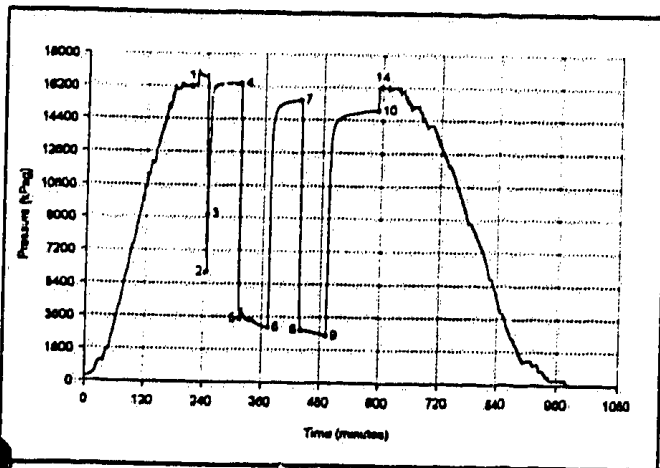
		Pressure (kPag)	Time (min)
2	Start of 1st Flow	0	
3	End of 1st Flow	683	1.0

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DST# 3

Recorder# N42

Depth: 1,458.00 m
 Temperature: 47.9 C
 Location: Outside

Recorder Type: ZI
 Capacity: 34,500 kPag

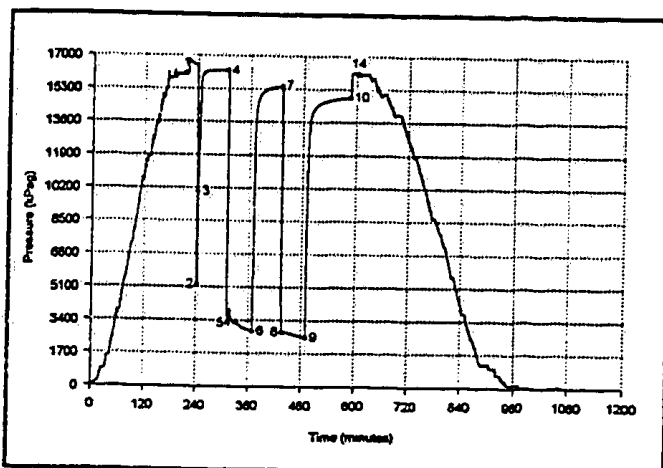


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	16211	
2	Start of 1st Flow	6001	
3	End of 1st Flow	9185	1.0
4	End of 1st Shut-in	16348	63.5
5	Start of 2nd Flow	3430	
6	End of 2nd Flow	2997	57.0
7	End of 2nd Shut-in	15467	59.5
8	Start of 3rd Flow	2897	
9	End of 3rd Flow	2574	53.5

Recorder# P99

Depth: 1,441.00 m
 Temperature: 46.8 C
 Location: Inside

Recorder Type: ZI
 Capacity: 34,500 kPag
 Comments: Second Electronic Gauge



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	16065	
2	Start of 1st Flow	5182	
3	End of 1st Flow	9986	1.0
4	End of 1st Shut-in	16218	63.5
5	Start of 2nd Flow	3198	
6	End of 2nd Flow	2798	57.0
7	End of 2nd Shut-in	15423	59.5
8	Start of 3rd Flow	2743	
9	End of 3rd Flow	2487	53.5

BAKER OIL TOOLS
DELTA-P TEST CORP
WELL TESTING AND DST EVALUATIONS

PARAMOUNT et al LIARD
F-36
MATTSON / 1455 - 1494 M
DST # 3

Wed, Mar 25, 1998

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

DST # 3

CLOSED CHAMBER REPORT SUMMARY

FLOW TIMES (minutes)

FLOW # 1 = 5.25	SHUT IN # 1 = 63
FLOW # 2 = 61	SHUT IN # 2 = 61
FLOW # 3 = 59	SHUT IN # 3 = 95

FLOW RATES (m3/D)

	GAS	LIQUID
	---	-----
FLOW # 1 initial	30650	0
final	4801	0
FLOW # 2 initial	50379	0
final	36250	0
FLOW # 3 initial	35704	0
final	31277	0

RECOVERY

LENGTH (m)	VOLUME (m3)	DESCRIPTION
-----	-----	-----
80	.28	GASIFIED DRILLING MUD
80	.28	TOTAL RECOVERY

COMMENTS

A CLOSED CHAMBER / REAL TIME TEST WAS PERFORMED ON THE MATTSON FORMATION WITH THESE RESULTS:

PREFLOW

A DEFINITIVE GAS FLOW WAS NOTED THROUGHOUT. RATES FLUCTUATED WIDELY AS INTERMITTENT PLUGGING OCCURRED. THESE REACTIONS WERE CONFIRMED ON REALTIME.

INITIAL SHUTIN

ONLY TWO MINUTES OF BREAKOUT OCCURRED. THE CHAMBER WAS FLARED TO THE PIT AT MINUTE # 10. GAS TO SURFACE WAS IMMEDIATE. A SAMPLE WAS CAUGHT WHILE VENTING. THE SHUTIN PRESSURE WAS SO CLOSE TO HYDROSTATIC THE VALIDITY

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PARAMOUNT ET AL LIARD

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MATTSON / 1455 - 1494 M

DST # 3

COULD NOT BE DETERMINED SO PLANS FOR A THIRD SHUTIN PERIOD WERE FORMULATED.

SECOND FLOW PERIOD

THE SECOND FLOW WAS RAN IN CLOSED MODE FOR THE FIRST SIX MINUTES THEN OPENED TO FLARE AND CONTINUED IN OPEN MODE. POSSIBLE DEPLETION WAS EVIDENT.

SECOND SHUTIN

THE CHAMBER WAS LEFT OPEN TO VENT CONTENTS TO FLARE. NO SIGNIFICANT LIQUIDS WERE EXPELLED WHILE FLARING. REAL TIME SUGGESTED POSSIBLE DEPLETION.

THIRD FLOW

THE THIRD FLOW WAS RAN IN OPEN MODE THROUGHOUT. RATES PEAKED AT MINUTE 20 AND DECLINED SLOWLY AND STEADILY FOR THE REMAINDER.

THIRD SHUTIN

THE CHAMBER WAS LEFT OPEN TO THE PIT. REAL TIME AGAIN INDICATED POSSIBLE DEPLETION.

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PARAMOUNT ET AL LIARD

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MATTSON / 1455 - 1494 M

DST # 3

GAS FLOW RATES AND TIMES

TestTime	FlowTime Min.	Pressure KPa abs.	Dp/Dt KPa/min	Gas Rate m3/D
----------	------------------	----------------------	------------------	------------------

START OF FLOW # 1

01:27:45	.00	95.26		
01:28:00	.25	95.80	2.16	251.1
01:28:15	.50	95.95	.60	69.8
01:28:30	.75	100.57	18.48	2148.9
01:28:45	1.00	115.15	58.32	6784.8
01:29:00	1.25	140.30	100.60	11712.8
01:29:15	1.50	196.07	223.08	26019.0
01:29:30	1.75	261.63	262.24	30650.1
01:29:45	2.00	279.00	69.48	8125.2
01:30:00	2.25	294.61	62.44	7305.5
01:30:15	2.50	313.36	75.00	8780.3
01:30:30	2.75	335.05	86.76	10164.1
01:30:45	3.00	361.82	107.08	12555.3
01:31:00	3.25	381.38	78.24	9179.5
01:31:15	3.50	410.75	117.48	13796.3
01:31:30	3.75	438.04	109.16	12830.4
01:31:45	4.00	463.94	103.60	12187.0
01:32:00	4.25	491.81	111.48	13125.7
01:32:15	4.50	512.30	81.96	9656.4
01:32:30	4.75	535.28	91.92	10837.9
01:32:45	5.00	554.24	75.84	8947.4
01:33:00	5.25	564.41	40.68	4800.9

START OF SHUT IN # 1

01:33:00	.00	564.41	.00	
01:35:00	2.00	570.23	2.91	
01:40:00	7.00	570.05	-.04	
01:45:00	12.00	179.43	-78.12	
01:50:00	17.00	94.92	-16.90	
01:55:00	22.00	94.39	-.11	
02:00:00	27.00	94.30	-.02	
02:05:00	32.00	94.22	-.02	
02:10:00	37.00	94.14	-.02	
02:15:00	42.00	94.11	-.01	
02:20:00	47.00	94.05	-.01	
02:25:00	52.00	93.96	-.02	
02:30:00	57.00	93.86	-.02	
02:35:00	62.00	93.82	-.01	
02:36:00	63.00	94.39	.57	

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PARAMOUNT ET AL LIARD

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MATTSON / 1455 - 1494 M

DST # 3

GAS FLOW RATES AND TIMES

TestTime	FlowTime Min.	Pressure KPa abs.	Dp/Dt KPa/min	Gas Rate m3/D
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START OF FLOW # 2

02:36:00	.00	94.39		
02:37:00	1.00	454.65	360.26	42366.7
02:38:00	2.00	946.38	491.73	58757.1
02:39:00	3.00	1364.08	417.70	50606.2
02:40:00	4.00	1773.62	409.54	50307.5
02:41:00	5.00	2156.15	382.53	47610.4
02:42:00	6.00	2520.85	364.70	45972.0

START OF CONVENTIONAL FLOW

02:43:00	7.00	2454.50	-66.35	50379.8
02:46:00	10.00	2160.20	-98.10	39477.6
02:56:00	20.00	1771.12	-38.91	37601.0
03:06:00	30.00	1725.52	-4.56	40719.8
03:16:00	40.00	1619.26	-10.63	37444.5
03:26:00	50.00	1573.92	-4.53	37112.8
03:37:00	61.00	1521.74	-4.74	36250.2

END OF CONVENTIONAL FLOW

START OF SHUT IN # 2

03:37:00	.00	1521.74	.00	
03:40:00	3.00	890.95	-210.26	
03:45:00	8.00	370.90	-104.01	
03:50:00	13.00	152.59	-43.66	
03:55:00	18.00	94.37	-11.64	
04:00:00	23.00	93.32	-.21	
04:05:00	28.00	93.22	-.02	
04:10:00	33.00	93.13	-.02	
04:15:00	38.00	93.07	-.01	
04:20:00	43.00	93.05	-.00	
04:25:00	48.00	93.05	.00	
04:30:00	53.00	93.05	.00	
04:35:00	58.00	93.11	.01	
04:38:00	61.00	93.13	.01	

START OF FLOW # 3 CONVENTIONAL FLOW

04:38:00	.00	93.13		
04:40:00	2.00	593.81	593.34	14214.1
04:50:00	12.00	1492.68	89.89	35704.2

05:00:00	22.00	1514.49	2.18	36230.6
05:10:00	32.00	1476.26	-3.82	35321.0
05:20:00	42.00	1440.73	-3.55	34459.0
05:30:00	52.00	1408.42	-3.23	33693.0
05:37:00	59.00	1307.74	-14.38	31277.0

END OF CONVENTIONAL FLOW

START OF SHUT IN # 3

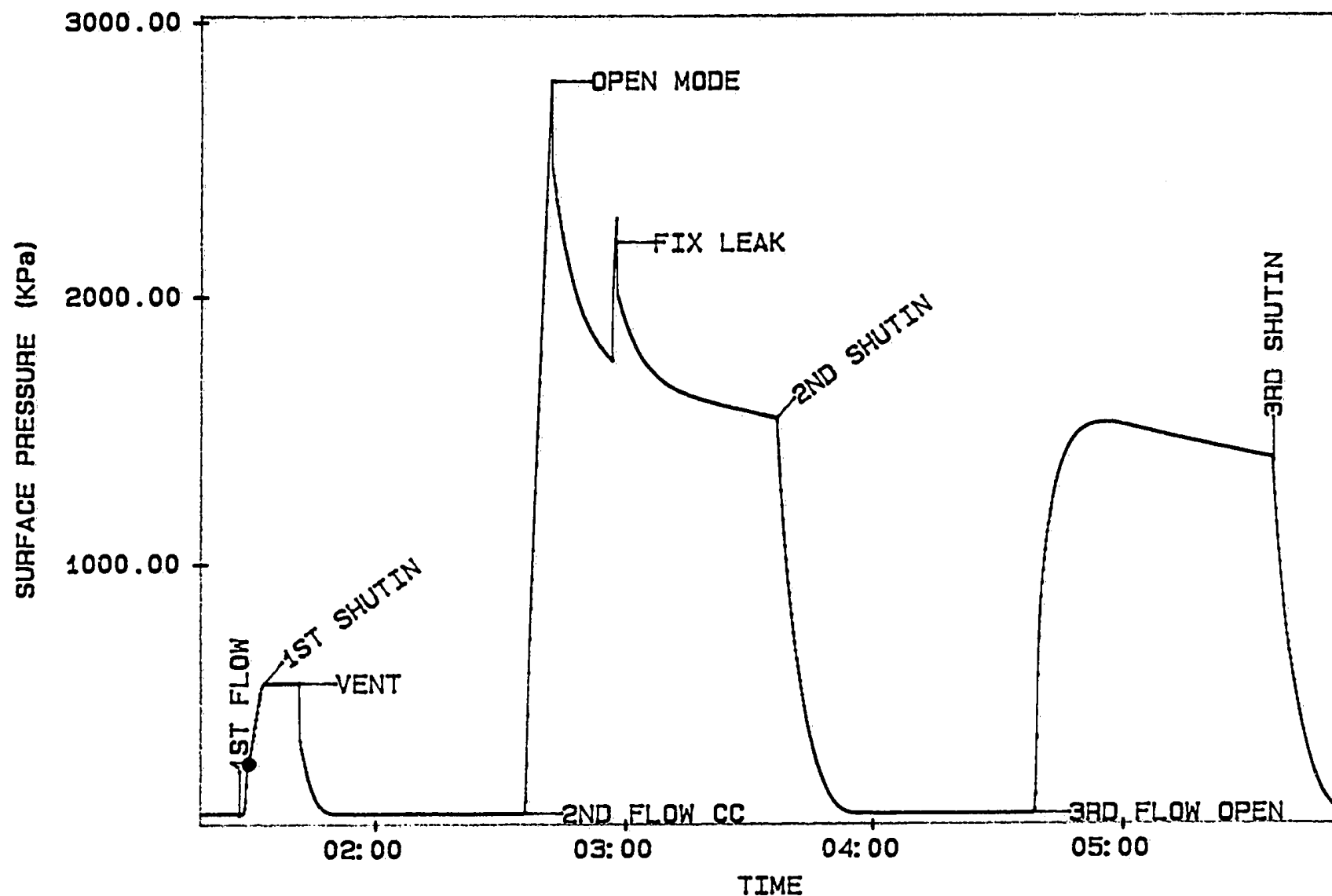
05:37:00	.00	1307.74	.00
05:38:00	1.00	1096.05	-211.69
05:39:00	2.00	919.61	-176.44
05:40:00	3.00	773.14	-146.47
05:41:00	4.00	651.13	-122.01
05:42:00	5.00	548.19	-102.94
05:43:00	6.00	462.45	-85.74
05:44:00	7.00	391.33	-71.12
05:45:00	8.00	331.44	-59.89
05:46:00	9.00	280.72	-50.72
05:47:00	10.00	236.72	-44.00
05:48:00	11.00	198.44	-38.28
05:49:00	12.00	167.11	-31.33
05:50:00	13.00	142.71	-24.40
05:51:00	14.00	124.25	-18.46
05:52:00	15.00	110.90	-13.35
05:53:00	16.00	101.74	-9.16
05:54:00	17.00	95.94	-5.80

END OF RECORDED DATA

DELTA-P TEST CORP.

REFERENCE FILENAME : P1532C

TEST DATE : Wed, Mar 25, 1998
WELL NAME : PARAMOUNT ET AL LIARD
WELL LOCATION : F - 36



Wed, Mar 25, 1998

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

DST # 3

PRETEST CALCULATIONS

FILENAME	P1532C.DST
GAS GRAVITY	.70
FORMATION DEPTH	1445.00 MKB
FORMATION PRESSURE	14710.10 KPAg
FORMATION TEMPERATURE	46.60 DEG C
AVE CHAMBER TEMP	25.55 DEG C
INITIAL CHM SURFACE PRESSURE	99.00 KPAA
INITIAL GAS/N2 HEAD PRESSURE	111.18 KPAA
INITIAL TOTAL CUSH. PRESSURE	111.18 KPAA
INITIAL CUSHION LENGTH	.00 m
LIQUID CUSHION GRADIENT	.00 kPA/m
DOWN HOLE CHOKE DIAMETER	12.70 mm
CHOKE COEFFICIENT	18.02 m3/D/KPA
DRILL COLLAR LENGTH	72.43 m
DRILL COLLAR I.D.	65.00 mm
DRILL COLLAR CAPACITY	.003318 m3/m
DRILL COLLAR VOLUME	.240 m3
LOWER DRILL PIPE LENGTH	1369.57 m
LOWER DRILL PIPE I.D.	84.80 mm
LOWER DRILL PIPE CAPACITY	.005648 m3/m
LOWER DRILL PIPE VOLUME	7.735 m3
UPPER DRILL PIPE LENGTH	.00 m
UPPER DRILL PIPE I.D.	.00 mm
UPPER DRILL PIPE CAPACITY	.000000 m3/m
UPPER DRILL PIPE VOLUME	.000 m3
TOTAL CHAMBER VOLUME	7.98 m3
LIQUID CUSHION VOLUME	.00 m3
NET CHAMBER VOLUME	7.98 m3

	MAX. RATE	MAX. SURFACE DP/DT
GAS	347930.0 m3/D	2992.2 KPA/min
GAS SATURATED H2O	923.6 m3/D	28.7 KPA/min
PURE LIQUID INFLUX	923.6 m3/D	8.4 KPA/min

	INITIAL CONVERSION FACTORS
GAS	116.3 m3/D/KPA/min
GAS SATURATED H2O	32.1 m3/D/KPA/min
PURE LIQUID INFLUX	109.4 m3/D/KPA/min

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#2I TOP @ DEPTH 1435 M

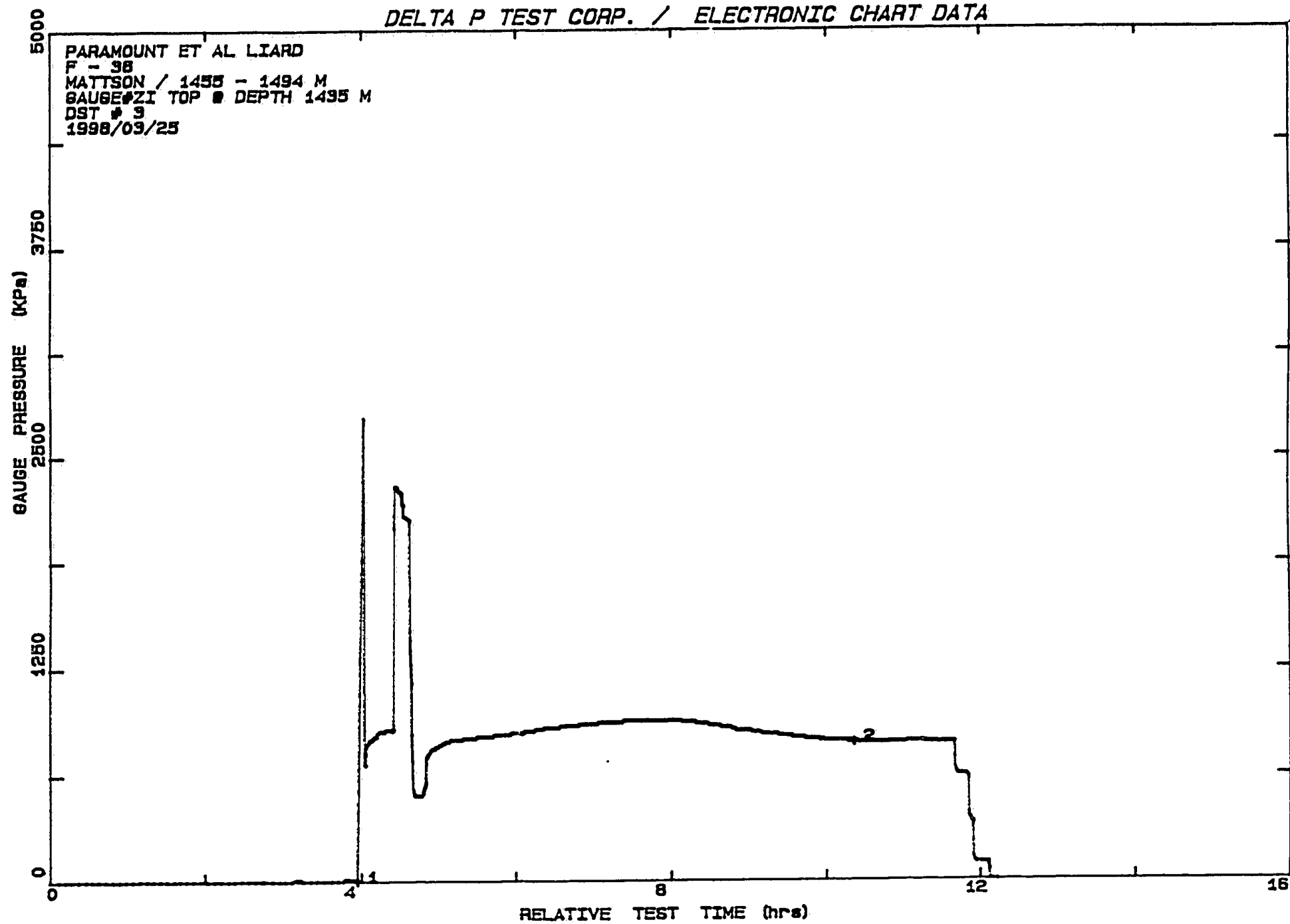
DST # 3

1998/03/25

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST	TIME	PRESSURE
		(min)	(hours)	
1	START TST	236.5	3.94	0.0
2	FHP	621.5	10.36	819.8

DELTA P TEST CORP. / ELECTRONIC CHART DATA



ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#ZI OUT @ DEPTH 1457 M

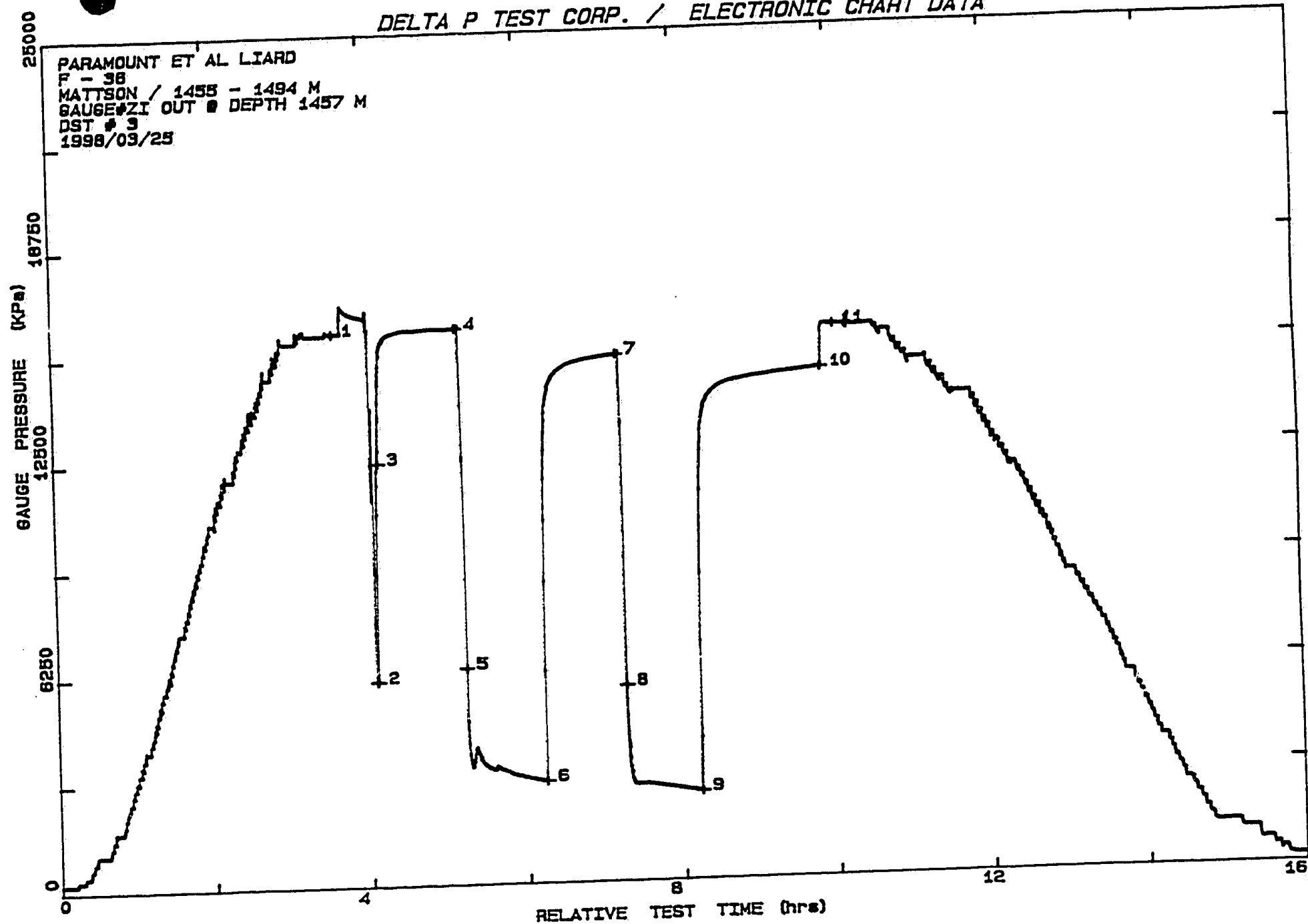
DST # 3

1998/03/25

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
1	IHP	216.5	3.61	16266.4
2	IPF	246.5	4.11	6000.8
3	FPF	249.5	4.16	12415.3
4	ISI	311.0	5.18	16348.2
5	2IF	314.5	5.24	6342.5
6	2FF	374.5	6.24	2997.1
7	2SI	434.0	7.23	15466.5
8	3IF	437.0	7.28	5735.3
9	3FF	494.0	8.23	2573.6
10	3SI	592.0	9.87	14918.2
11	FHP	602.0	10.03	16176.7

DELTA P TEST CORP. / ELECTRONIC CHART DATA



ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#ZI OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME		PRESSURE
	(min)	(hours)	
	0.0	0.00	242.9
	0.5	0.01	241.3
	31.0	0.52	1069.4
	61.0	1.02	3140.8
	91.0	1.52	7058.7
	121.0	2.02	10703.6
	151.0	2.52	13470.8
	181.0	3.02	15996.9
	211.0	3.52	16210.6
IHP	216.5	3.61	16266.4
	221.5	3.69	16276.5
	226.5	3.77	16886.5
	231.5	3.86	16786.8
	236.5	3.94	16730.1
	241.5	4.02	16664.1
IPF	246.5	4.11	6000.8
	247.5	4.12	9185.0
	248.5	4.14	11798.9
FPF	249.5	4.16	12415.3
	250.5	4.17	13680.3
	251.5	4.19	15292.6
	252.5	4.21	15756.8
	253.5	4.23	15946.8
	254.5	4.24	15985.7
	255.5	4.26	16095.4
	256.5	4.28	16149.0
	257.5	4.29	16182.7
	258.5	4.31	16206.9
	264.5	4.41	16279.4
	269.5	4.49	16304.7
	274.5	4.58	16319.9
	279.5	4.66	16329.4
	284.5	4.74	16335.7
	289.5	4.82	16340.0
	294.5	4.91	16342.5
	299.5	4.99	16344.2
	304.5	5.08	16347.3
	309.5	5.16	16348.2
ISI	311.0	5.18	16348.2
	312.0	5.20	16445.5
	313.0	5.22	16433.8
	314.0	5.23	12530.1
ZIF	314.5	5.24	6342.5

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#ZI OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	315.5	5.26	4147.0
	316.5	5.28	3650.0
	317.5	5.29	3429.9
	318.5	5.31	3538.4
	319.5	5.33	3740.6
	320.5	5.34	4016.0
	321.5	5.36	3972.2
	322.5	5.38	3851.3
	323.5	5.39	3745.0
	324.5	5.41	3657.2
	325.5	5.43	3578.4
	326.5	5.44	3527.3
	327.5	5.46	3485.5
	328.5	5.48	3452.8
	329.5	5.49	3438.8
	330.5	5.51	3393.1
	331.5	5.53	3426.6
	332.5	5.54	3380.9
	333.5	5.56	3348.3
	334.5	5.57	3343.4
	335.5	5.59	3364.1
	336.5	5.61	3479.9
	337.5	5.63	3430.5
	338.5	5.64	3397.9
	339.5	5.66	3357.1
	340.5	5.68	3335.2
	341.5	5.69	3346.3
	342.5	5.71	3321.8
	343.5	5.73	3293.8
	344.5	5.74	3295.7
	345.5	5.76	3277.9
	346.5	5.78	3244.5
	347.5	5.79	3228.4
	348.5	5.81	3209.3
	349.5	5.83	3197.6
	350.5	5.84	3197.3
	351.5	5.86	3178.9
	352.5	5.88	3153.8
	353.5	5.89	3153.5
	354.5	5.91	3135.3
	355.5	5.93	3158.3
	356.5	5.94	3118.6
	357.5	5.96	3112.2

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#21 OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME		PRESSURE
	(min)	(hours)	
	358.5	5.98	3102.5
	359.5	5.99	3099.2
	360.5	6.01	3079.1
	361.5	6.03	3069.3
	362.5	6.04	3062.8
	363.5	6.06	3069.3
	364.5	6.07	3057.9
	365.5	6.09	3046.8
	366.5	6.11	3029.2
	367.5	6.13	3033.8
	368.5	6.14	3031.3
	369.5	6.16	3027.6
	370.5	6.18	3009.3
	371.5	6.19	3012.2
	372.5	6.21	3006.8
	373.5	6.23	2994.8
2FF	374.5	6.24	2997.1
	375.5	6.26	8848.2
	376.5	6.28	11880.6
	377.5	6.29	13230.5
	378.5	6.31	13866.3
	379.5	6.33	14212.6
	380.5	6.34	14400.0
	381.5	6.36	14573.8
	382.5	6.38	14689.4
	383.5	6.39	14777.1
	384.5	6.41	14847.8
	385.5	6.43	14906.2
	386.5	6.44	14955.2
	387.5	6.46	14998.1
	388.5	6.48	15034.9
	389.5	6.49	15067.6
	390.5	6.51	15096.4
	391.5	6.53	15122.4
	392.5	6.54	15145.8
	393.5	6.56	15167.1
	399.5	6.66	15262.2
	404.5	6.74	15315.1
	409.5	6.83	15354.7
	414.5	6.91	15384.9
	419.5	6.99	15409.7
	424.5	7.07	15431.4
	429.5	7.16	15450.2

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#21 OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME		PRESSURE
	(min)	(hours)	
2SI	434.0	7.23	15466.5
	435.0	7.25	15539.6
	436.0	7.27	15530.9
3IF	437.0	7.28	5735.3
	438.0	7.30	3893.8
	439.0	7.32	3312.9
	440.0	7.33	2972.5
	441.0	7.35	2854.5
	442.0	7.37	2820.8
	443.0	7.38	2821.4
	444.0	7.40	2832.0
	445.0	7.42	2841.2
	446.0	7.43	2846.8
	447.0	7.45	2852.7
	448.0	7.47	2854.0
	449.0	7.48	2852.0
	450.0	7.50	2851.6
	451.0	7.52	2847.1
	452.0	7.53	2842.0
	453.0	7.55	2836.6
	454.0	7.57	2828.8
	455.0	7.58	2820.4
	456.0	7.60	2813.8
	457.0	7.62	2810.0
	458.0	7.63	2804.9
	459.0	7.65	2794.6
	460.0	7.67	2789.6
	461.0	7.68	2781.9
	462.0	7.70	2773.6
	463.0	7.72	2766.6
	464.0	7.73	2758.2
	465.0	7.75	2752.3
	466.0	7.77	2744.8
	467.0	7.78	2738.9
	468.0	7.80	2731.2
	469.0	7.82	2723.1
	470.0	7.83	2718.0
	471.0	7.85	2709.9
	472.0	7.87	2703.3
	473.0	7.88	2697.4
	474.0	7.90	2689.7
	475.0	7.92	2684.2
	476.0	7.93	2678.9

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#ZI OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST TIME (min)	TIME (hours)	PRESSURE (KPa)
	477.0	7.95	2673.0
	478.0	7.97	2666.2
	479.0	7.98	2660.4
	480.0	8.00	2654.3
	481.0	8.02	2648.4
	482.0	8.03	2643.6
	483.0	8.05	2636.9
	484.0	8.07	2629.7
	485.0	8.08	2625.0
	486.0	8.10	2618.4
	487.0	8.12	2613.9
	488.0	8.13	2607.4
	489.0	8.15	2601.2
	490.0	8.17	2595.5
	491.0	8.18	2590.4
	492.0	8.20	2584.4
	493.0	8.22	2579.0
3FF	494.0	8.23	2573.6
	495.0	8.25	6980.0
	496.0	8.27	10416.9
	497.0	8.28	12097.1
	498.0	8.30	12924.8
	499.0	8.32	13368.0
	500.0	8.33	13635.4
	501.0	8.35	13813.5
	502.0	8.37	13941.1
	503.0	8.38	14022.1
	504.0	8.40	14112.9
	505.0	8.42	14179.2
	506.0	8.43	14232.6
	507.0	8.45	14277.9
	508.0	8.47	14317.3
	509.0	8.48	14351.1
	510.0	8.50	14381.5
	511.0	8.52	14408.2
	512.0	8.53	14432.5
	513.0	8.55	14454.3
	519.0	8.65	14552.7
	524.0	8.73	14608.1
	529.0	8.82	14648.9
	534.0	8.90	14680.8
	539.0	8.98	14706.7
	544.0	9.07	14731.4

ELECTRONIC DOWNHOLE RECORDER DATA

DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#ZI OUT @ DEPTH 1457 M

DST # 3

1998/03/25

CHART FLOW TIMES AND PRESSURES

LABEL	TEST	TIME	PRESSURE
	(min)	(hours)	(KPa)
	549.0	9.15	14755.5
	554.0	9.23	14778.6
	559.0	9.32	14800.3
	564.0	9.40	14820.6
	569.0	9.48	14839.5
	574.0	9.57	14857.6
	579.0	9.65	14875.4
	584.0	9.73	14892.2
	589.0	9.82	14908.4
3SI	592.0	9.87	14918.2
	593.0	9.88	16087.0
	594.0	9.90	16185.1
	595.0	9.92	16190.1
	596.0	9.93	16195.7
	597.0	9.95	16200.6
	598.0	9.97	16208.4
	599.0	9.98	16204.8
	600.0	10.00	16200.0
	601.0	10.02	16179.7
FHP	602.0	10.03	16176.7
	632.0	10.53	16173.3
	662.0	11.03	15125.0
	692.0	11.53	13991.4
	722.0	12.03	13050.6
	752.0	12.53	11145.0
	782.0	13.03	8774.6
	812.0	13.53	6800.8
	842.0	14.03	4579.5
	872.0	14.53	2516.1
	902.0	15.03	1275.5
	932.0	15.53	745.2

ELECTRONIC DOWNHOLE RECORDER DATA
DELTA P TEST CORP.

PARAMOUNT ET AL LIARD

F - 36

MATTSON / 1455 - 1494 M

GAUGE#WTD # 9@ DEPTH 1445 M

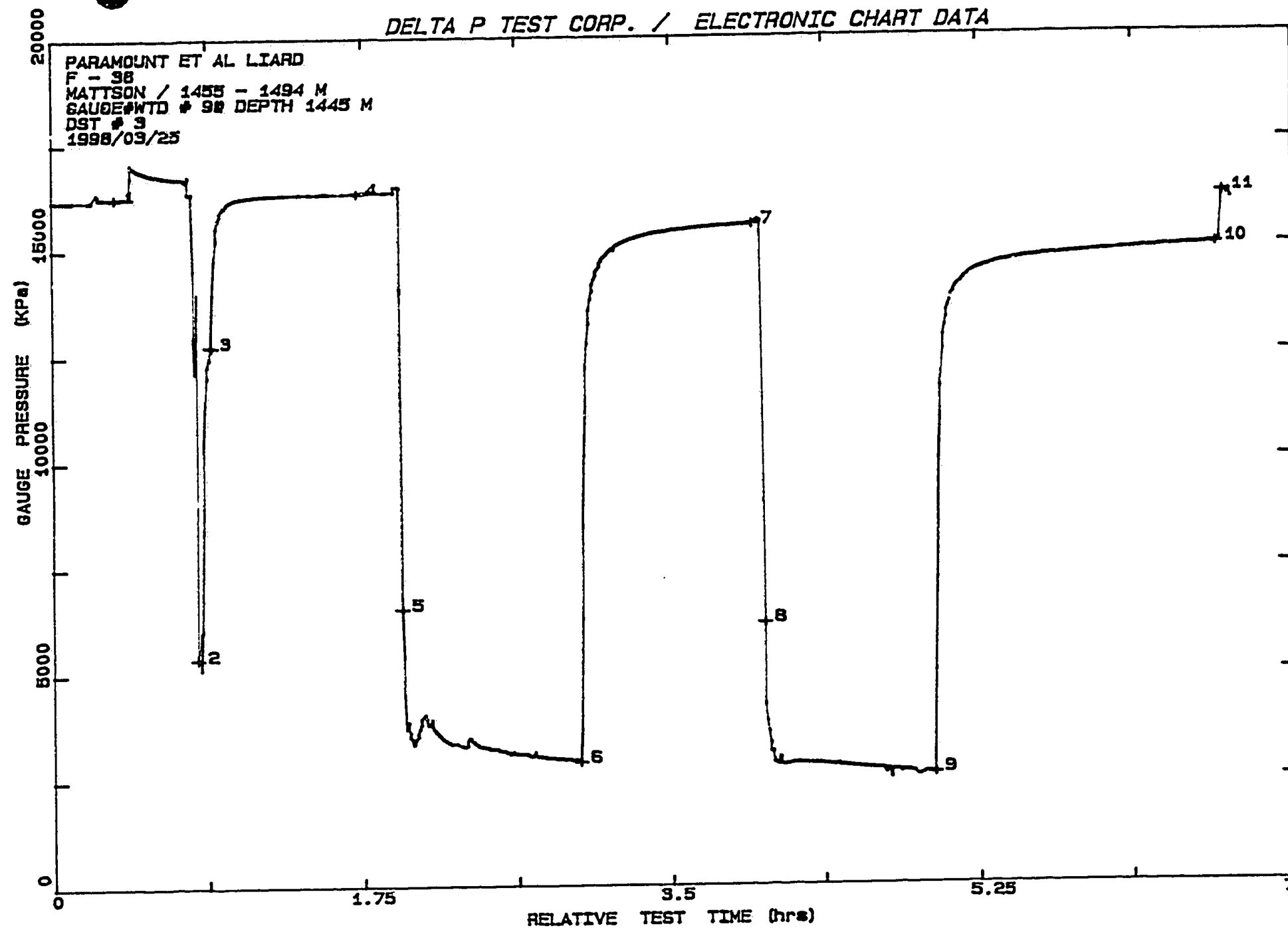
DST # 3

1998/03/25

CHART SUMMARY OF LABELS AND PRESSURES

LABEL#	LABEL	TEST (min)	TIME (hours)	PRESSURE (KPa)
1	IHP	21.2	0.35	16237.0
2	IPF	49.2	0.82	5354.2
3	FPF	53.6	0.89	12735.1
4	ISI	103.2	1.72	16321.5
5	2ND IF	118.0	1.97	6518.8
6	2ND FF	178.0	2.97	2902.2
7	2ND SI	237.2	3.95	15537.8
8	3RD IF	240.8	4.01	6159.4
9	3RD FF	298.0	4.97	2592.1
10	3RD SI	394.4	6.57	14990.0
11	FHP	397.2	6.62	16181.7

DELTA P TEST CORP. / ELECTRONIC CHART DATA

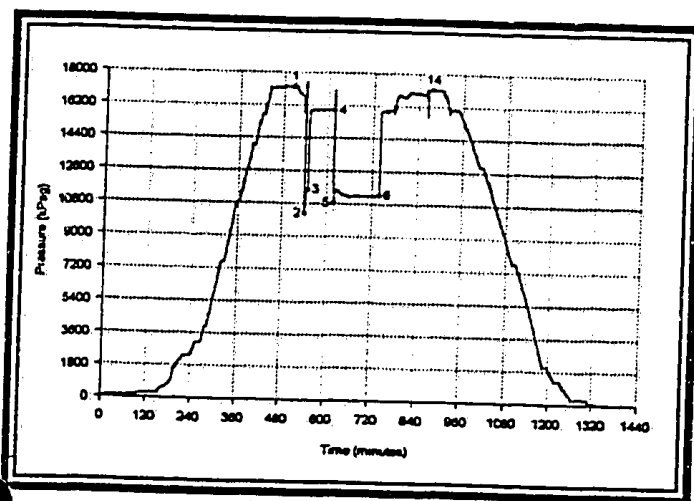




PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST# 4

Baker Oil Tools

Formation: Mattson
Interval - from: 1,559.70 to: 1,565.60 meters
Recorder# N2 at 1,562.70 meters



Max Btm Hole Temperature @ FSI: 57.4 C

	Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1 Initial Hydrostatic	17181		
2 Start of 1st Flow	10237		
3 End of 1st Flow	11536	8.5	
4 End of 1st Shut-in	15911	67.0	15911.2
5 Start of 2nd Flow	10817		
6 End of 2nd Flow	11273	121.0	
7 End of 2nd Shut-in	15902	19.5	15927.2
14 Final Hydrostatic	17096		

Liquid Recovery 0.00 meters

Recovery	Description
0.00 m	No fluid recovery

Test Date: 1998-12-29
Test Type: Inflate Bottom Hole

Blow Description:

PREFLOW: Strong air blow in 10 seconds. Gas to surface in 80 seconds increasing throughout.

FINAL FLOW: Strong air blow immediately with gas to surface immediately.

Remarks:

Results suggest high permeability within the interval tested. Lost the packer seat 19.5 minutes into the final shut-in. Attempted to reset the packer with no success. Reservoir calculations were done using the supplied net pay of 3 meters and porosity of 10%. The calculations shown an extremely large skin and damage ratio. Non ideal flow such as partial penetration and/or turbulence will show up as damage.

Gas Measured with Floor Manifold

Flow#	Time (min)	Surface Choke (mm)	Surface Pressure (kPag)	Gas Rate (m3/day)
2	10	19.07	3300	210 108
2	20	19.07	3350	213 345
2	30	19.07	3350	213 345
2	40	19.07	3400	216 586
2	50	19.07	3500	223 080
2	60	19.07	3500	223 080
2	70	19.07	3500	223 080
2	80	19.07	3500	223 080
2	90	19.07	3500	223 080
2	100	19.07	3500	223 080
2	110	19.07	3500	223 080
2	120	19.07	3500	223 080

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 4

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Avenue S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Willis K

Ticket#: 808827

Reverse Circulated? N

KB Elevation: 469.40 meters

Ground Elevat'n: 381.00 meters

Total Depth: 1,565.60 meters

Mud Data:

Weight: 1090 kg/m3

Type: Invert

Viscosity: 52 s/l

Hole Data:

Drilled Hole Size: 156 mm

Hole Condition at Test Time: Fair

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Position	Capacity	Units	Depth	Comments
M27	ZI	Inside	68900	kPag	1,543.70	Recovery recorder Above interval
N4	ZI	Inside	68900	kPag	1,547.70	
13832	K-3	Outside	19300	kPag	1,562.70	
N2	ZI	Outside	68900	kPag	1,562.70	

Distributions:

Reports Sent To: Wayne Tomm

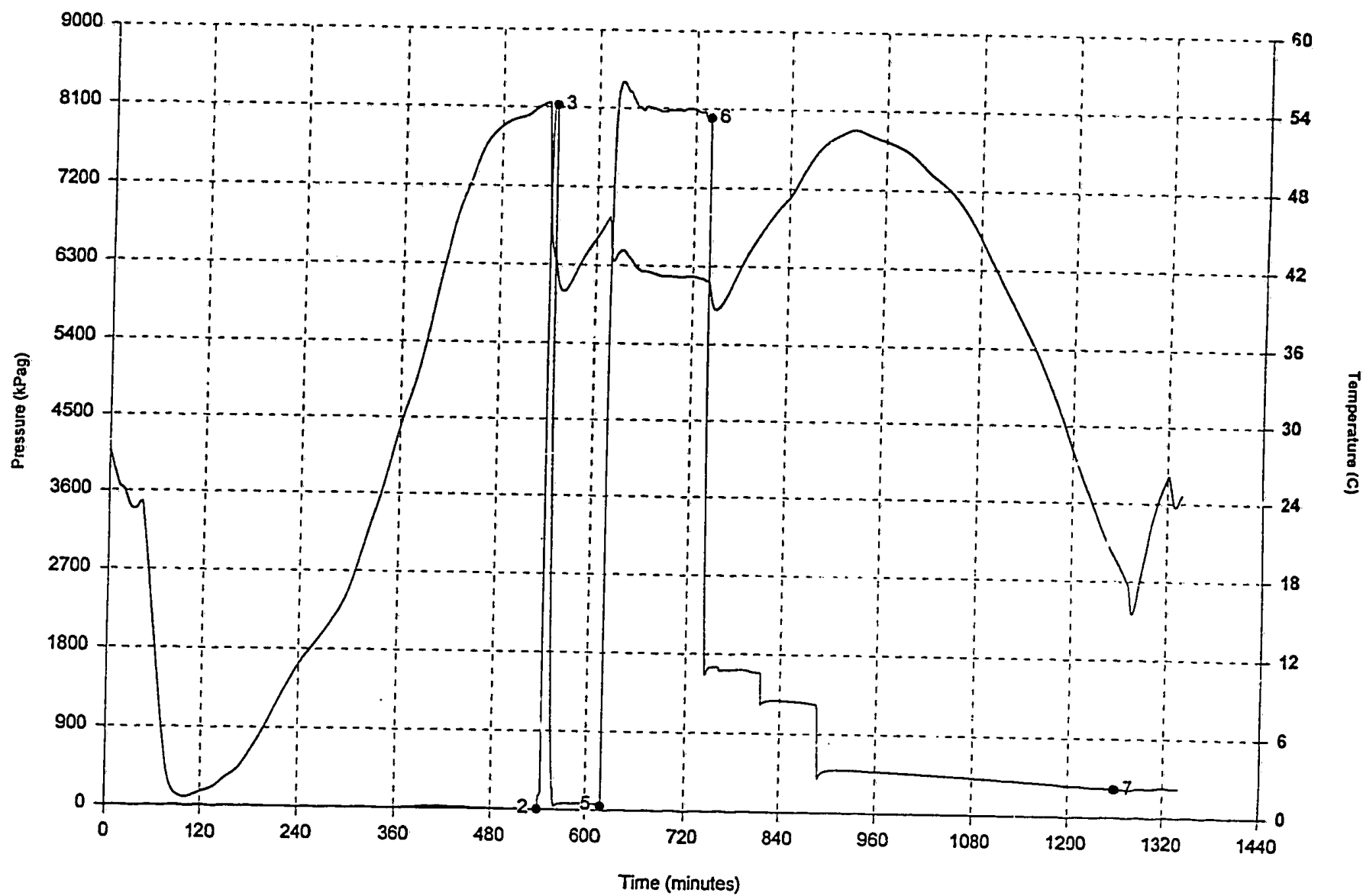
Gas Bomb#	Sent To
30545	AGAT
30768	AGAT

Bottom Hole Sampler#	Sent To
Yes	AGAT

PARAMOUNT ET AL LIARD F-38
00/ 60 091 / 123.367 / 0
DST #: 4
Recorder: M27

Pressure (kPag) at Critical Points:
2: 3 6: 7895
3: 8123 7: 326
5: 50

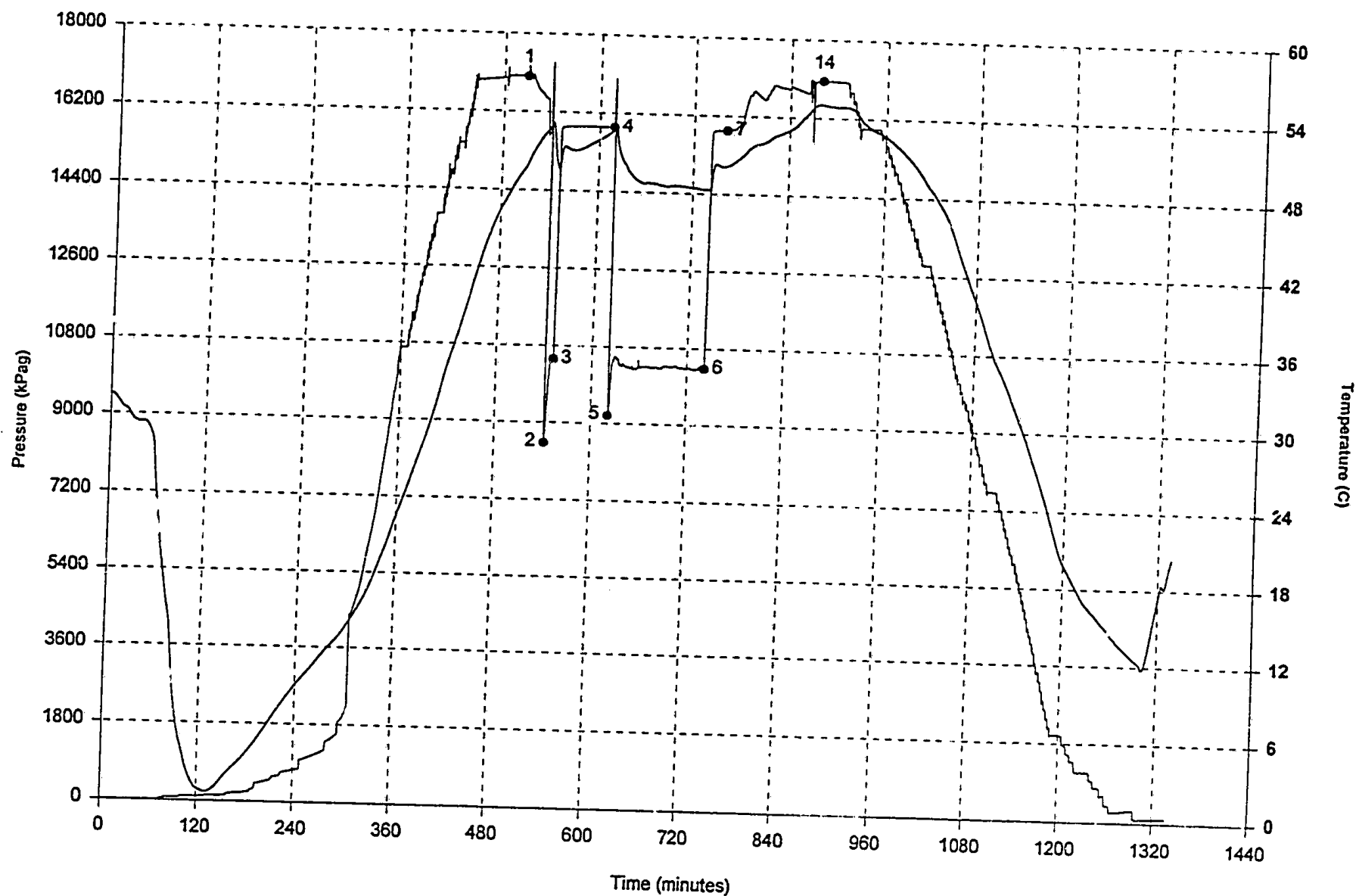
Recovery recorder



PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 / 0
DST #: 4
Recorder: N4

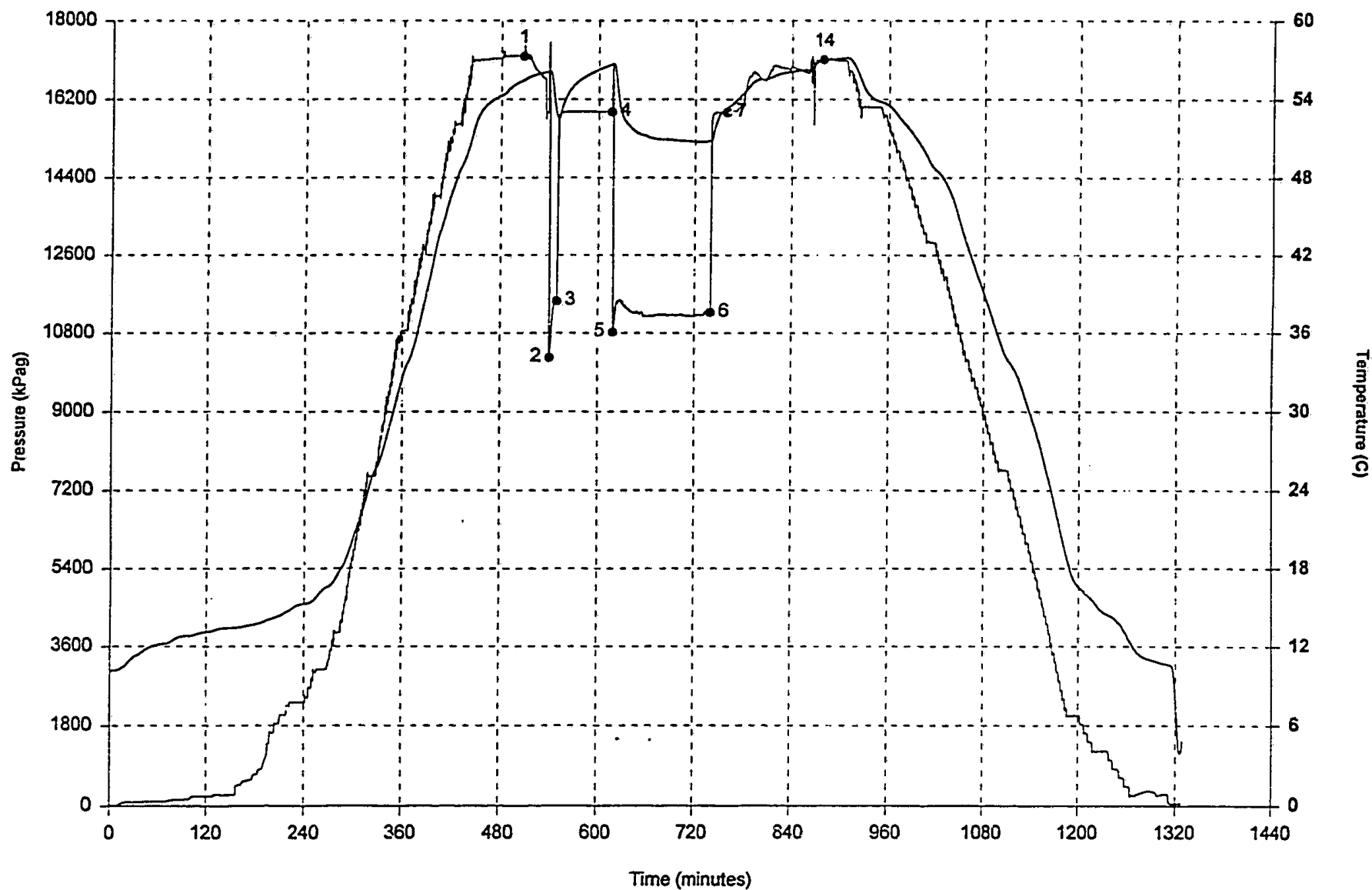
Pressure (kPag) at Critical Points:
1: 17006 4: 15875 7: 15864
2: 8526 5: 9195 14: 17046
3: 10497 6: 10333

Above interval



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST #: 4
Recorder: N2

Pressure (kPag) at Critical Points:
1: 17181 4: 15911 7: 15902
2: 10237 5: 10817 14: 17096
3: 11536 6: 11273



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST# 4

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.33 m
	Cross Over Sub	0.30 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	1.03 m
	Bottom Hole Sampler	1.03 m
	Recorder Carrier	1.38 m
	Real Time Gauge	4.20 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.42 m
	Recorder Carrier	2.06 m
	Spacing	0.30 m
	Blank Off Sub	0.30 m
	Belly Spring	2.00 m

Tool String Length: 25.57 m
 Drill Collar I.D.: 57 mm 166.69 m
 Drill Pipe O.D.: 88 mm 1,379.84 m
 Collar Pipe Total: 1,546.53 m
 Stick Up: 6.50 m
 Tool Above: 19.67 m
 Interval Tested: 5.90 m
 Bottom Hole Choke Size: 25.40 mm

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0

DST# 4

Recorder# N2

Build-up and Flow Curve Increments

Flow# 1

Chart Label	Time (min)	Pressure (kPag)
2	0.0	10237
	1.0	10571
	2.0	10888
	3.0	11171
	4.0	11354
	5.0	11454
	6.0	11504
	7.0	11494
	8.0	11482
3	8.5	11536

Shut-in# 1

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrapolation	Pressure**2 (kPag ² /10 ⁶)
	0.0		11536			
	2.0	4315	15851	5.2500		251.2593
	4.0	4346	15882	3.1250		252.2229
	6.0	4357	15893	2.4167		252.5912
	8.0	4363	15899	2.0625		252.7883
	10.0	4366	15902	1.8500		252.8806
	12.0	4368	15904	1.7083		252.9367
	14.0	4369	15905	1.6071		252.9670
	16.0	4370	15906	1.5313		252.9874
	18.0	4370	15906	1.4722		253.0148
	20.0	4372	15907	1.4250	*	253.0472
	22.0	4371	15907	1.3864	*	253.0330
	24.0	4380	15916	1.3542	*	253.3289
	26.0	4376	15912	1.3269	*	253.2012
	28.0	4374	15910	1.3036	*	253.1405
	30.0	4373	15909	1.2833	*	253.1052
	32.0	4374	15910	1.2656	*	253.1297
	34.0	4374	15910	1.2500	*	253.1247
	36.0	4375	15910	1.2361	*	253.1439
	38.0	4374	15910	1.2237	*	253.1279
	40.0	4374	15910	1.2125	*	253.1314
	42.0	4374	15910	1.2024	*	253.1311
	44.0	4374	15910	1.1932	*	253.1344
	46.0	4374	15910	1.1848	*	253.1347
	48.0	4374	15910	1.1771	*	253.1369
	50.0	4375	15911	1.1700	*	253.1471
	52.0	4375	15911	1.1635	*	253.1499
	54.0	4375	15911	1.1574	*	253.1479
	56.0	4375	15911	1.1518	*	253.1470
	58.0	4375	15911	1.1466	*	253.1472
	60.0	4375	15911	1.1417	*	253.1499
	62.0	4375	15911	1.1371	*	253.1571
	64.0	4375	15911	1.1328	*	253.1552
	66.0	4375	15911	1.1288	*	253.1606
4	67.0	4375	15911	1.1269	*	253.1568

Flow# 2

Chart Label	Time (min)	Pressure (kPag)
5	0.0	10817
	3.0	11456
	6.0	11512

Shut-in# 2

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrapolation	Pressure**2 (kPag ² /10 ⁶)
	0.0		11273			
	1.0	4480	15753	130.5000		248.1603
	2.0	4565	15838	65.7500		250.8503

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0

DST# 4

Recorder# N2

Build-up and Flow Curve Increments

Flow# 2

Shut-in# 2

Chart Label	Time (min)	Pressure (kPag)	Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag ² /10 ⁶)
	9.0	11558		3.0	4594	15868	44.1667		251.7790
	12.0	11488		4.0	4604	15878	33.3750		252.1062
	15.0	11443		5.0	4611	15885	26.9000		252.3262
	18.0	11350		6.0	4612	15885	22.5833		252.3362
	21.0	11293		7.0	4615	15888	19.5000		252.4320
	24.0	11273		8.0	4617	15891	17.1875		252.5096
	27.0	11277		9.0	4619	15892	15.3889		252.5691
	30.0	11299		10.0	4621	15894	13.9500		252.6217
	33.0	11233		11.0	4622	15895	12.7727	*	252.6658
	36.0	11273		12.0	4623	15897	11.7917	*	252.6995
	39.0	11166		13.0	4624	15897	10.9615	*	252.7284
	42.0	11179		14.0	4625	15898	10.2500	*	252.7530
	45.0	11179		15.0	4626	15899	9.6333	*	252.7772
	48.0	11185		16.0	4626	15900	9.0938	*	252.8046
	51.0	11196		17.0	4627	15900	8.6176	*	252.8252
	54.0	11207		18.0	4628	15901	8.1944	*	252.8421
	57.0	11222		19.0	4628	15901	7.8158	*	252.8573
	60.0	11225	7	19.5	4629	15902	7.6410	*	252.8718
	63.0	11211							
	66.0	11218							
	69.0	11200							
	72.0	11206							
	75.0	11210							
	78.0	11201							
	81.0	11205							
	84.0	11216							
	87.0	11191							
	90.0	11192							
	93.0	11193							
	96.0	11184							
	99.0	11182							
	102.0	11191							
	105.0	11214							
	108.0	11211							
	111.0	11204							
	114.0	11290							
	117.0	11276							
6	120.0	11275							
	121.0	11273							

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /0

DST# 4

Recorder#M27

Build-up and Flow Curve Increments

Horner Extrapolation:

Shut-in#	Extrapolated Pressure (kPag)	Extrapolated Slope ((kPag ² /10 ⁶)/cycle)
1	15911.2	0.26635
2	15927.2	0.91092

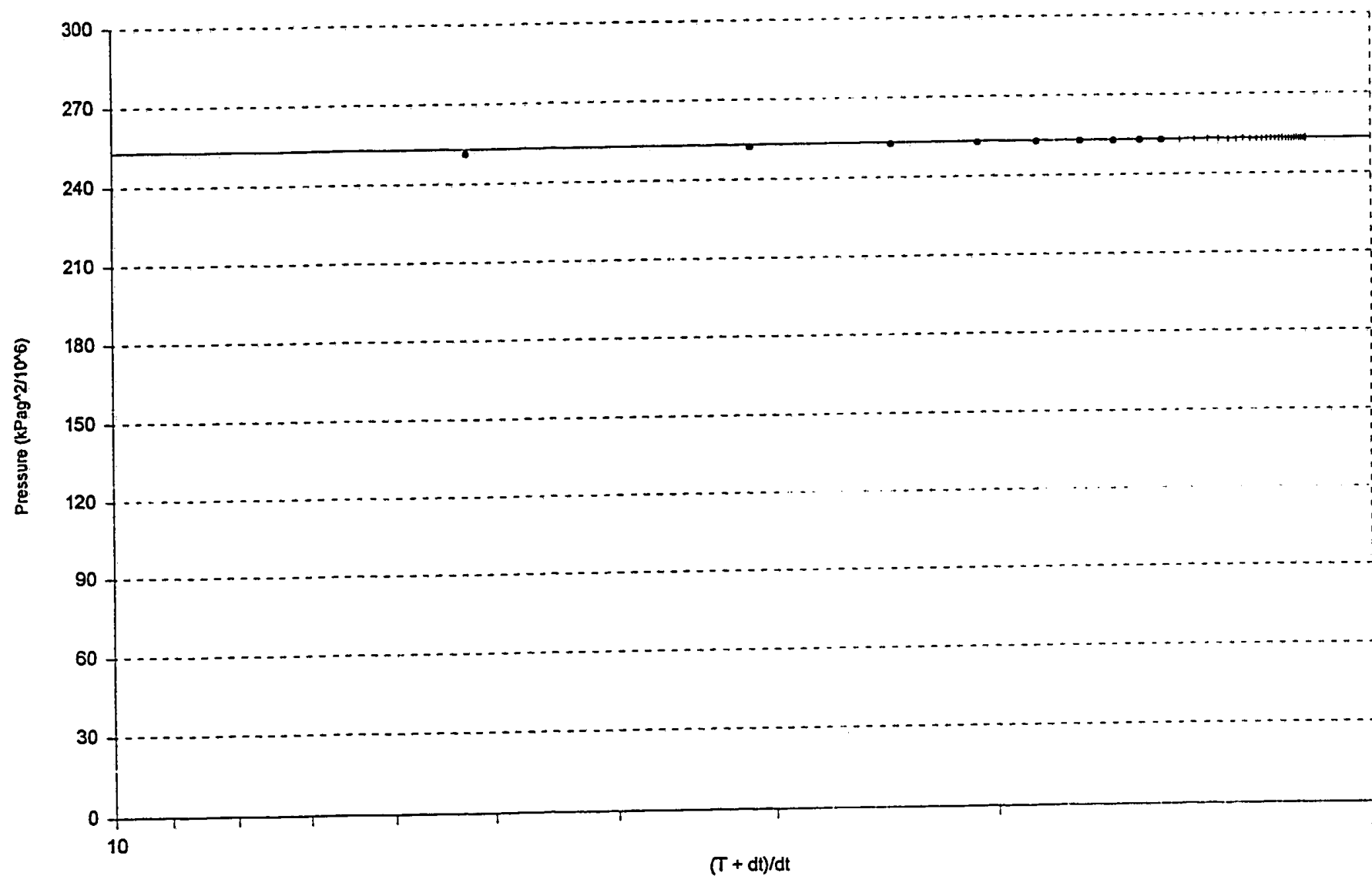
Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

BAKER OIL TOOLS / LYNES DRILL STEM TESTING

Page: 9

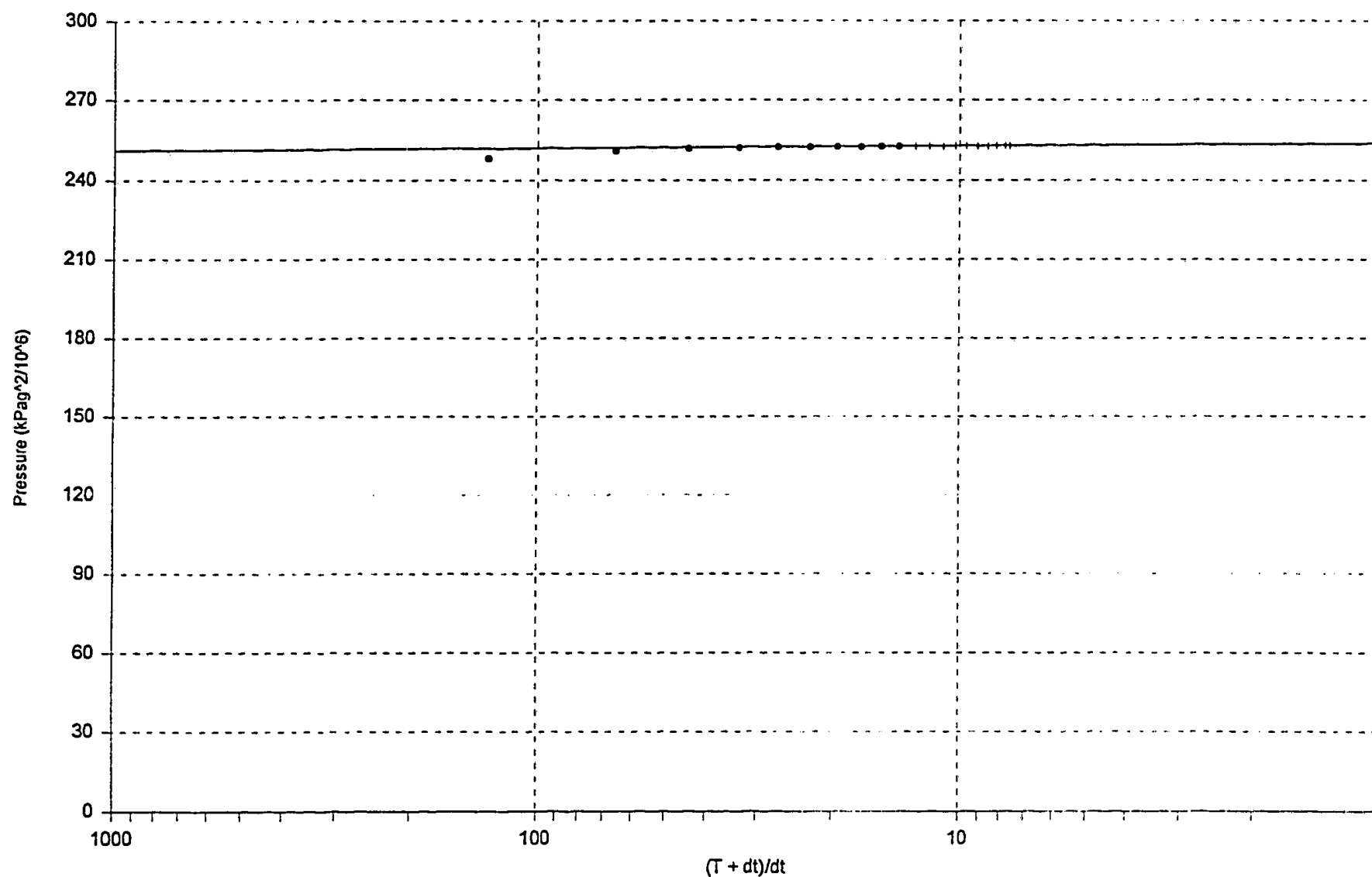
PARAMOUNT ET AL LIARD F-38
 00/60.091 / 123.367 / 0
 DST #: 4
 Recorder: N2

Shut-in #1
 Slope = 0.27 kPag²/10⁶/cycle
 Extrapolated Pressure = 15911.17 kPag



PARAMOUNT ET AL LIARD F-36
 00/ 60.091 / 123.367 / 0
 DST #: 4
 Recorder: N2

Shut-In #2
 Slope = 0.91 kPag²/10⁶/cycle
 Extrapolated Pressure = 15927.17 kPag



PA. AMOUNT ET AL LIARD 1-36
00/ 60.091 / 123.367 / 0
DST# 4
Recorder# N2

GAS RESERVOIR CALCULATIONS (Using Semi-log Analysis) :

Based on Shut-in# 2

Reservoir Parameters Used:

Net Pay:	3.0 m	Specific Gravity:	0.650
Porosity:	10.0 %	Z Factor:	0.816
Temperature:	57.4 C	Viscosity:	0.017 mPa.s
Flow Rate:	223,080 m3/d	Compressibility:	6.3270e-5 / kPag
Flow Time:	129.5 min		
Final Flowing Pressure:	11273 kPag		
Horner Slope:	0.91092 (kPag**2 / 10**6) / cycle		
Horner Extrapolation:	15927.2 kPag		
Assumed Drainage Radius:	908.00 m		
Wellbore Radius:	78.00 mm		

Results:

Effective Permeability:	558.10 mD
Transmissibility:	98,488.59 mD.m/mPa.s
Flow Capacity:	1,674.31 mD.m
Skin:	151.69
Pressure Drop Across Skin:	4,448.12 kPa
Radius of Investigation:	401.67 m
Calculated Damage Ratio:	19.37
AOF:	446,957.87 m3/d
AOF with Damage Removed:	8,658,814.19 m3/d
Est. Stabilized AOF (No Damage):	8,305,475.88 m3/d

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 4

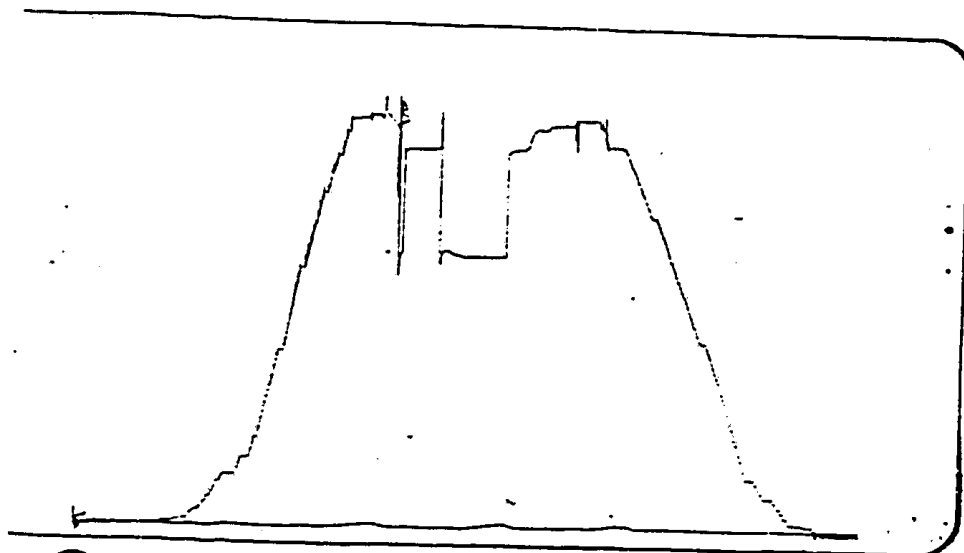
Recorder# 13832

Depth: 1,562.70 m

Location: Outside

Recorder Type: K-3

Capacity: 19,300 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	17176	
2	Start of 1st Flow	10594	
3	End of 1st Flow	11594	8.5
4	End of 1st Shut-in	15916	67.0
5	Start of 2nd Flow	11116	
6	End of 2nd Flow	11432	121.0
7	End of 2nd Shut-in	15871	19.5
14	Final Hydrostatic	17176	

Recorder# M27

Depth: 1,543.70 m

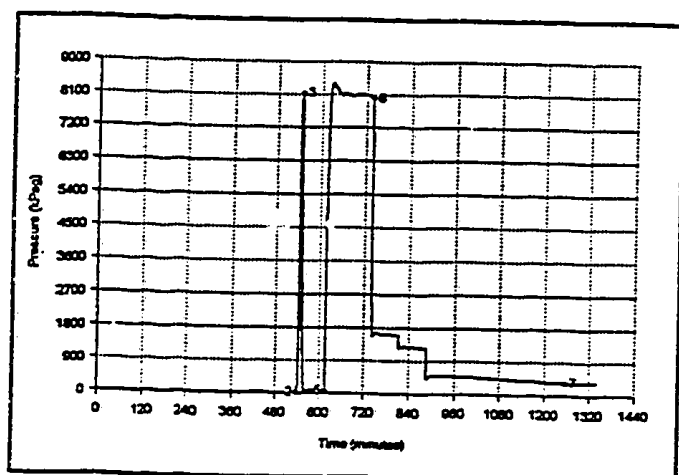
Temperature: 54.4 C

Location: Inside

Recorder Type: ZI

Capacity: 68,900 kPag

Comments: Recovery recorder



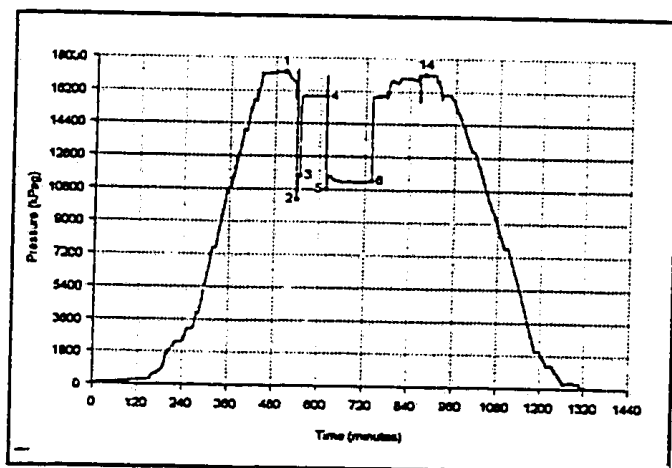
		Pressure (kPag)	Time (min)
2	Start of 1st Flow	3	
3	End of 1st Flow	8123	8.5
5	Start of 2nd Flow	50	
6	End of 2nd Flow	7995	121.0
7	End of 2nd Shut-in	326	19.5

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 4

Recorder# N2

Depth: 1,562.70 m
 Temperature: 57.4 C
 Location: Outside

Recorder Type: ZI
 Capacity: 68,900 kPag

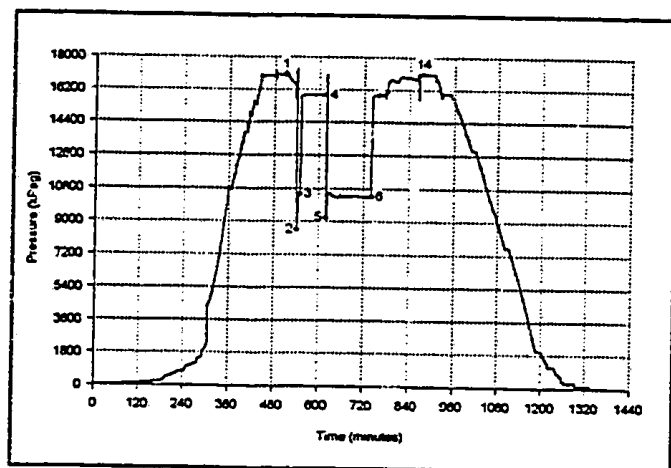


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	17181	
2	Start of 1st Flow	10237	
3	End of 1st Flow	11536	8.5
4	End of 1st Shut-in	15911	67.0
5	Sta. of 2nd Flow	10817	
6	End of 2nd Flow	11273	121.0
7	End of 2nd Shut-in	15902	19.5
14	Final Hydrostatic	17096	

Recorder# N4

Depth: 1,547.70 m
 Temperature: 55.0 C
 Location: Inside

Recorder Type: ZI
 Capacity: 68,900 kPag
 Comments: Above interval



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	17006	
2	Start of 1st Flow	8526	
3	End of 1st Flow	10487	8.5
4	End of 1st Shut-in	15875	67.0
5	Start of 2nd Flow	9195	
6	End of 2nd Flow	10333	121.0
7	End of 2nd Shut-in	15864	19.5
14	Final Hydrostatic	17046	



PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0

DST# 5

13 - 01 - 1999

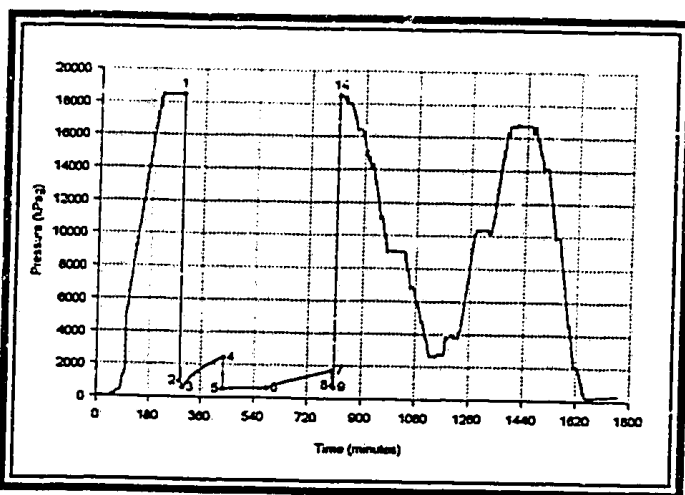
WT

Baker Oil Tools

Formation: Mattson

Interval - from: 1,662.00 to: 1,689.00 meters

Recorder# N2 at 1,662.70 meters



Max Btm Hole Temperature @ FSI: 59.8 C

	Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1 Initial Hydrostatic	18450		
2 Start of 1st Flow	938		
3 End of 1st Flow	543	10.5	
4 End of 1st Shut-in	2391	137.0	
5 Start of 2nd Flow	458		
6 End of 2nd Flow	550	150.0	
7 End of 2nd Shut-in	1693	219.0	
8 Start of 3rd Flow	783		
9 End of 3rd Flow	647	5.0	
14 Final Hydrostatic	18456		

Liquid Recovery 43.00 meters

Recovery	Description
43.00 m	Estimated recovery

Test Date: 1999-01-07

Test Type: Conventional Bottom Hole

Blow Description:

PREFLOW: Weak air blow increasing to strong in 10 minutes. No gas to surface.

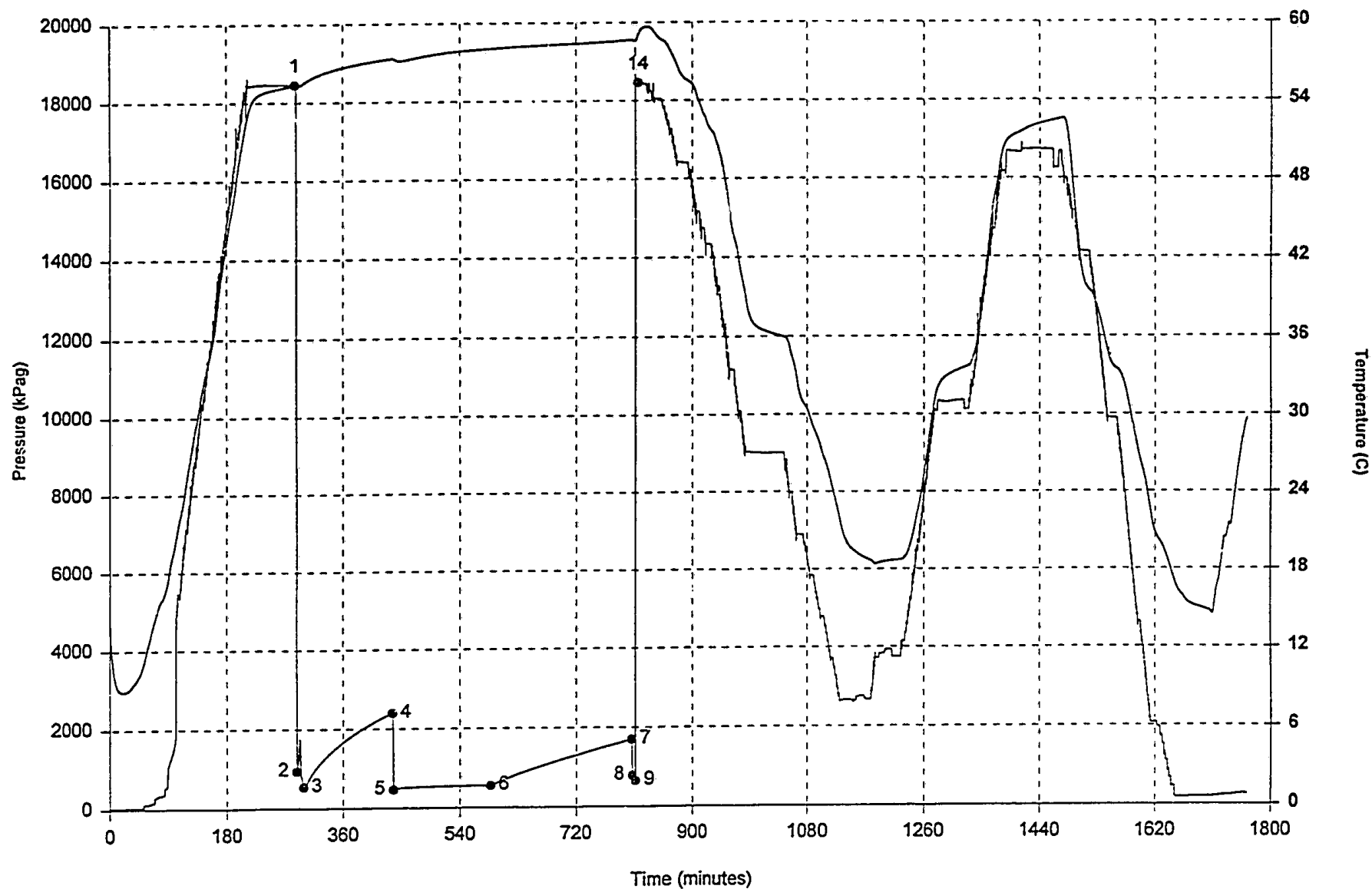
FINAL FLOW: Strong initial blow decreasing to very weak in 2 minutes. No gas to surface.

Remarks:

Mechanically successful test. Results suggest virtually no permeability within the interval tested. The tool was opened momentarily at the end of the final flow in order to rotate it to the last shut-in position. Pulled out to the collars but the hole fill volumes were not correct. Dropped the bar, circulate and ran back into casing shoe so as to eliminate any possibility of a kick. Due to circulation pressures the pressure activated pump-out sub was activated and no fluid recovery samples were obtained. The recovery has been estimated from the recovery recorder.

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST #: 5
Recorder: N2

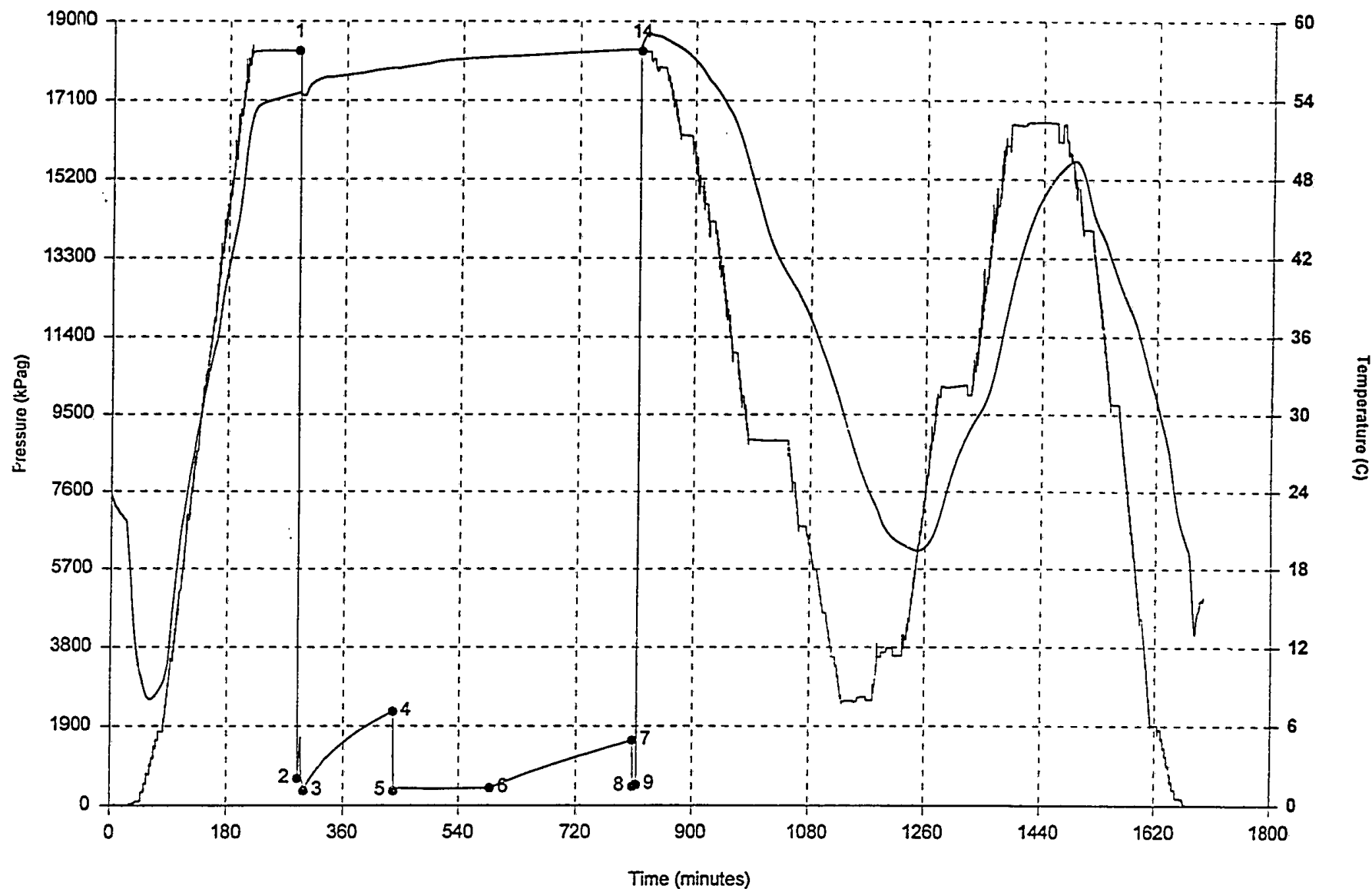
1: 18450	4: 2391	7: 1693	14: 18456
2: 938	5: 458	8: 783	
3: 543	6: 550	9: 647	



PARAMOUNT ET AL LIARD F-36
 00/ 60.091 / 123.367 /0
 DST #: 5
 Recorder: N4

1: 18288	4: 2245	7: 1549	14: 18281
2: 637	5: 341	9: 447	
3: 346	6: 409	9: 490	

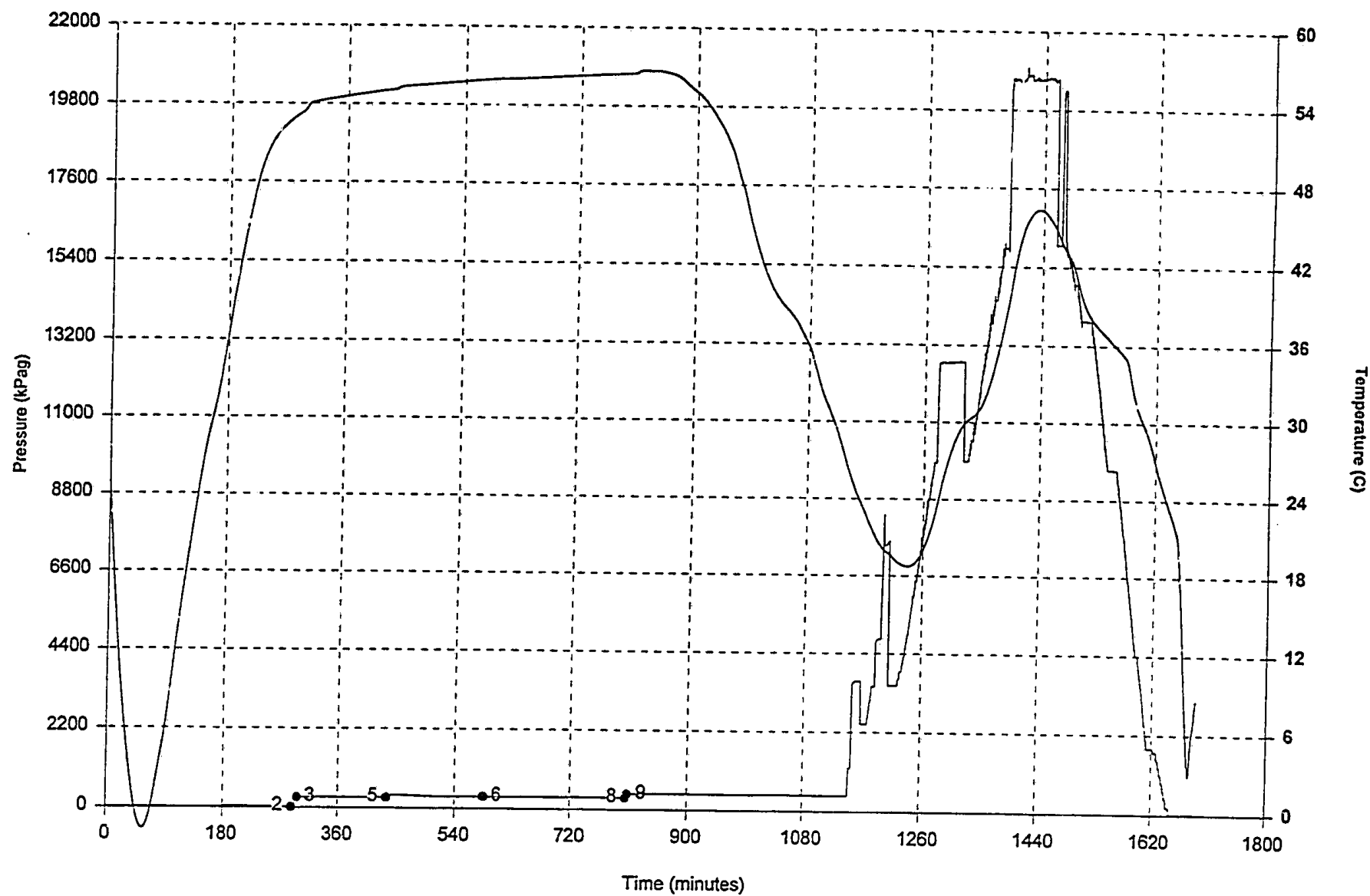
Above interval



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST #: 5
Recorder: M27

Pressure (kPag) at Critical Points:
2: 8 6: 320
3: 279 8: 322
5: 283 9: 427

Recovery recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 5

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Avenue S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Willis K

Ticket#: 808828

Reverse Circulated? N

KB Elevation: 470.30 meters

Ground Elevat'n: 464.80 meters

Total Depth: 1,689.00 meters

Mud Data:

Weight: 1115 kg/m3

Type: Invert

Viscosity: 60 s/l

Hole Data:

Drilled Hole Size: 156 mm

Hole Condition at Test Time: Fair

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Position	Capacity	Units	Depth	Comments
M27	ZI	Inside	68900	kPag	1,643.70	Recovery recorder Above interval
N4	ZI	Inside	68900	kPag	1,647.70	
13832	K-3	Outside	19300	kPag	1,662.70	
N2	ZI	Outside	68900	kPag	1,662.70	

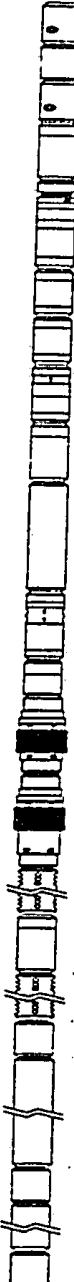
Distributions:

Reports Sent To: Wayne Tomm

Bottom Hole Sampler#	Sent To
Yes	AGAT

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST# 5

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.33 m
	Double Pin Sub	0.30 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Rotating Shut-in Tool	2.58 m
	Bottom Hole Sampler	1.03 m
	Bottom Hole Sampler	1.03 m
	Hydraulic Tool	1.50 m
	Recorder Carrier	1.38 m
	Real Time Gauge	2.89 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Conventional Packer	2.30 m
	Conventional Packer	1.30 m
	Packer Stick Down	1.00 m
	Perforations	1.53 m
	Recorder Carrier	2.06 m
	Perforations	1.53 m
	Cross Over Sub	0.30 m
	Drill Collar	18.38 m
	Cross Over Sub	0.30 m
	Spacing	1.22 m
	Anchor Shoe (Bull Nose)	0.61 m

Tool String Length: 46.15 m
 Drill Collar I.D.: 57 mm 149.22 m
 Drill Pipe O.D.: 88 mm 1,503.01 m
 Collar Pipe Total: 1,652.23 m
 Stick Up: 9.45 m
 Tool Above: 19.22 m
 Interval Tested: 27.00 m
 Bottom Hole Choke Size: 25.40 mm

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0
DST# 5

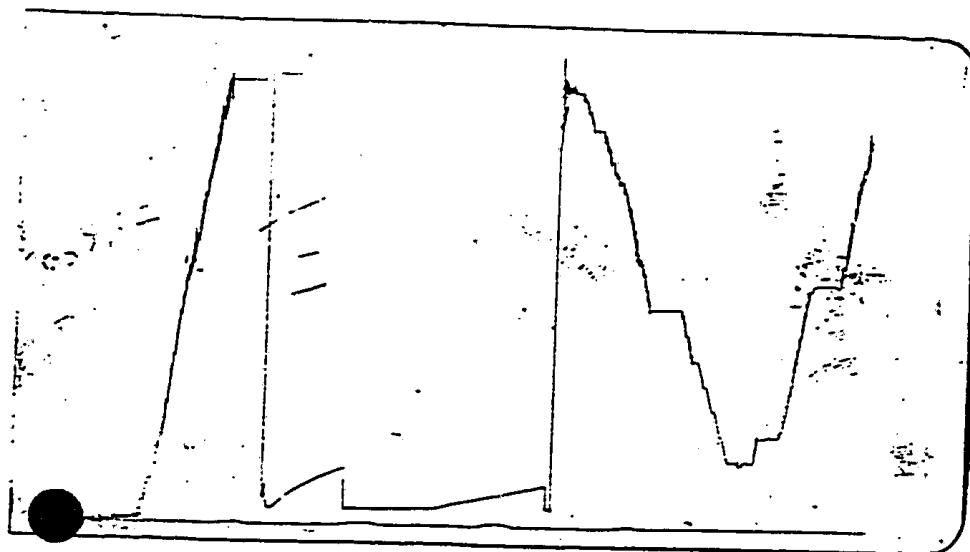
Recorder# 13832

Depth: 1,662.70 m

Location: Outside

Recorder Type: K-3

Capacity: 19,300 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	18563	
2	Start of 1st Flow	889	
3	End of 1st Flow	763	10.5
4	End of 1st Shut-in	2390	137.0
5	Start of 2nd Flow	735	
6	End of 2nd Flow	784	150.0
7	End of 2nd Shut-in	1783	219.0
8	Start of 3rd Flow	823	
9	End of 3rd Flow	823	5.0
14	Final Hydrostatic	18534	

Recorder# M27

Depth: 1,643.70 m

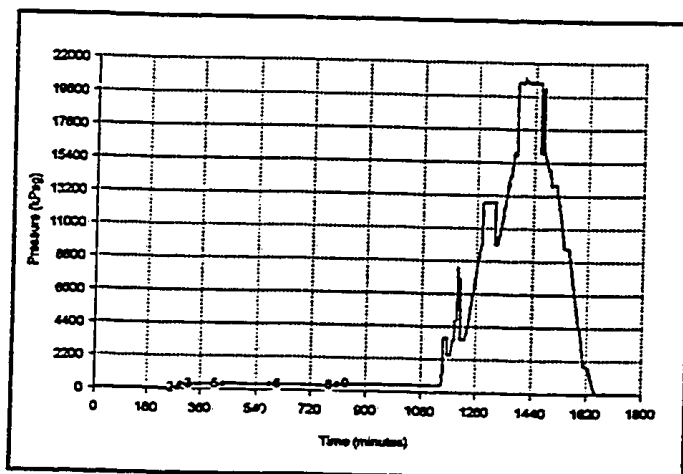
Temperature: 57.0 C

Location: Inside

Recorder Type: ZI

Capacity: 68,900 kPag

Comments: Recovery recorder



		Pressure (kPag)	Time (min)
2	Start of 1st Flow	8	
3	End of 1st Flow	279	10.5
5	Start of 2nd Flow	283	
6	End of 2nd Flow	320	150.0
8	Start of 3rd Flow	322	
9	End of 3rd Flow	427	5.0

PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 / 0
DST# 5

Recorder# N2

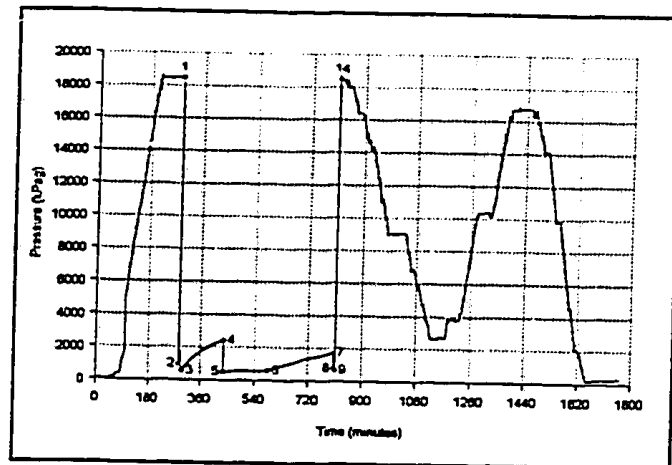
Depth: 1,662.70 m

Temperature: 59.8 C

Location: Outside

Recorder Type: ZI

Capacity: 68,900 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	18450	
2	Start of 1st Flow	938	
3	End of 1st Flow	543	10.5
4	End of 1st Shut-in	2391	137.0
5	Start of 2nd Flow	458	
6	End of 2nd Flow	550	150.0
7	End of 2nd Shut-in	1693	219.0
8	Start of 3rd Flow	783	
9	End of 3rd Flow	647	5.0
14	Final Hydrostatic	18456	

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0
DST# 5

Recorder# N4

Depth: 1,647.70 m

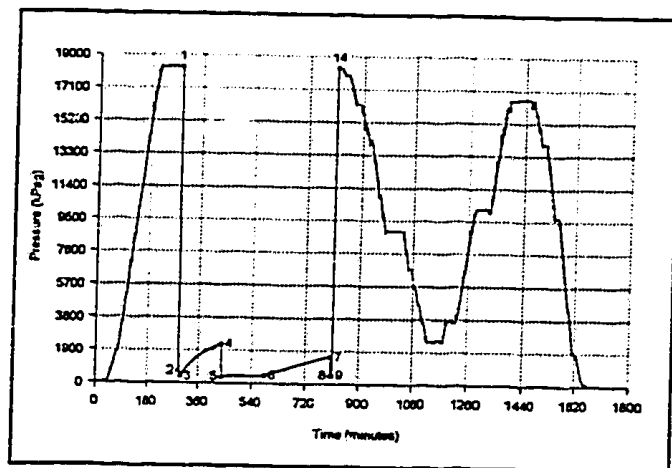
Temperature: 59.4 C

Location: Inside

Recorder Type: ZI

Capacity: 68,900 kPag

Comments: Above interval



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	18288	
2	Start of 1st Flow	637	
3	End of 1st Flow	346	10.5
4	End of 1st Shut-in	2245	137.0
5	Start of 2nd Flow	341	
6	End of 2nd Flow	409	150.0
7	End of 2nd Shut-in	1549	219.0
8	Start of 3rd Flow	447	
9	End of 3rd Flow	490	5.0
14	Final Hydrostatic	18281	



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST# 6

REC'D/RECEIVED

- 3 -02- 1999

Wayne.

Baker Oil Tools

Formation: Mattson
Interval - from: 1,763.00 to: 1,777.00 meters

Test Date: 1999-01-25
Test Type: Inflate Straddle

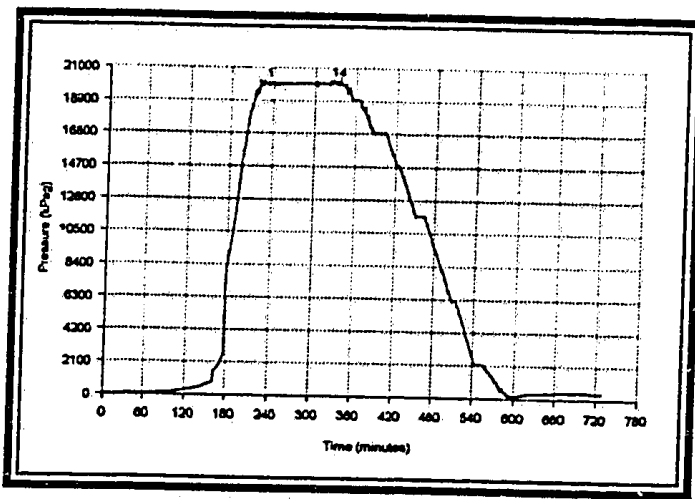
Recorder# N10 at 1,764.00 meters

Blow Description:

Misrun.

Remarks:

Misrun - unable to obtain a packer seat. Ruptured both elements. The Real Time data (gauge did not work properly) is included.



Max Btm Hole Temperature @ FSI: 60.6 C

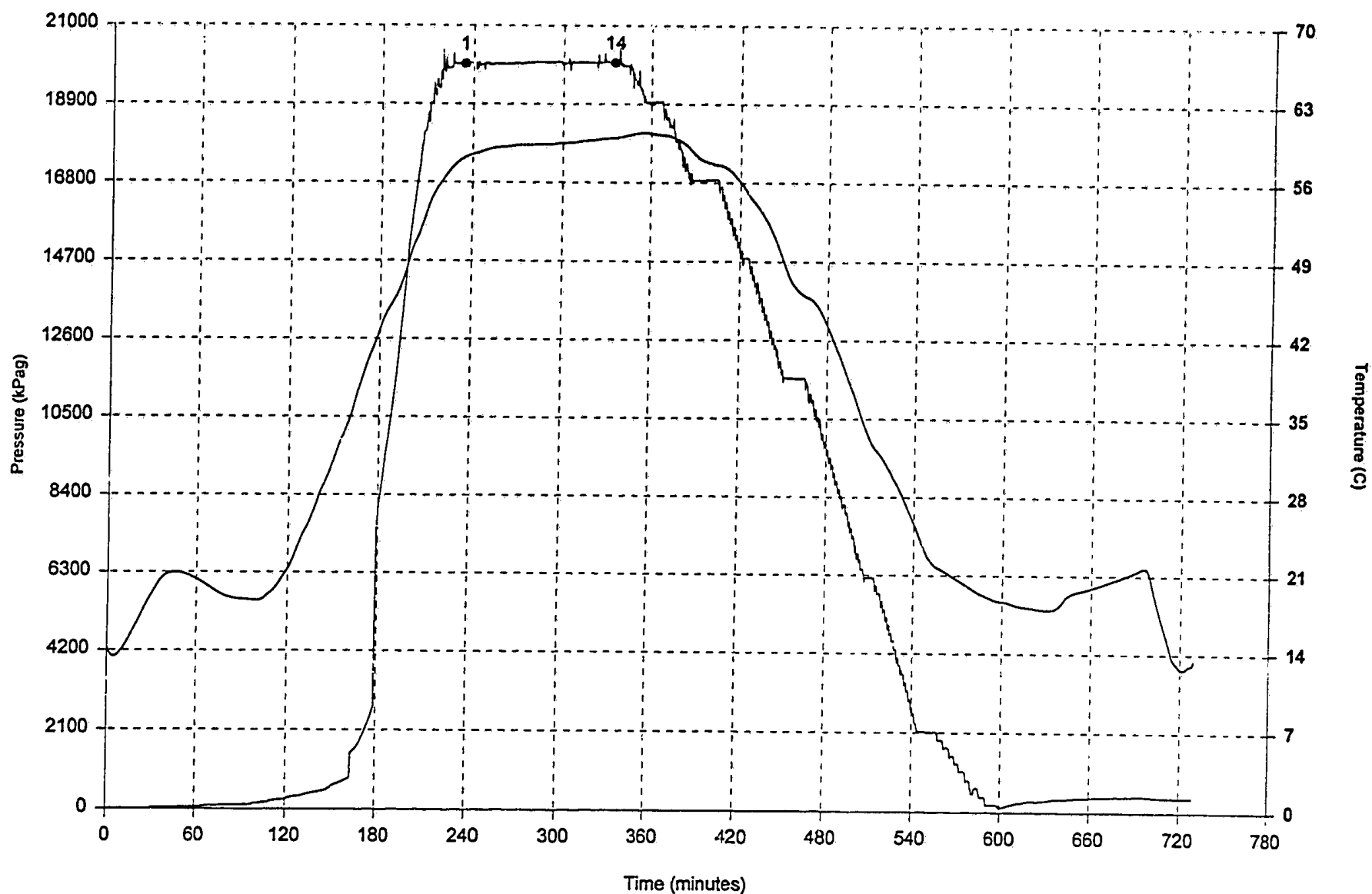
		Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1	Initial Hydrostatic	19973		
14	Final Hydrostatic	20011		

Liquid Recovery 0.00 meters

Recovery	Description
0.00 m	NO FLUID RECOVERED

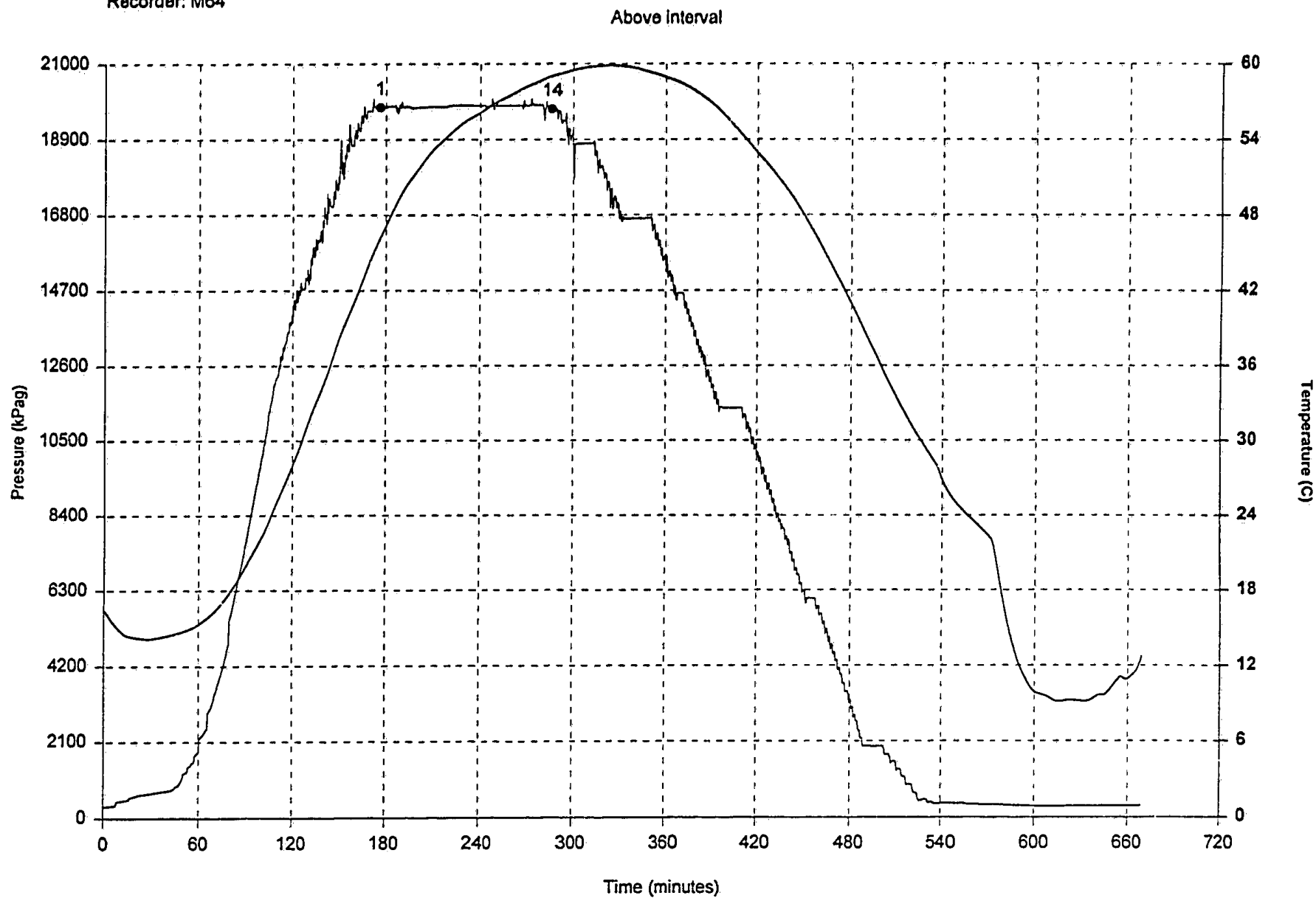
PARAMOUNT ET AL LIARD F-38
00/60.091 / 123.367 / 0
DST #: 8
Recorder: N10

Pressure (kPag) at Critical Points:
1: 19973
14: 20011



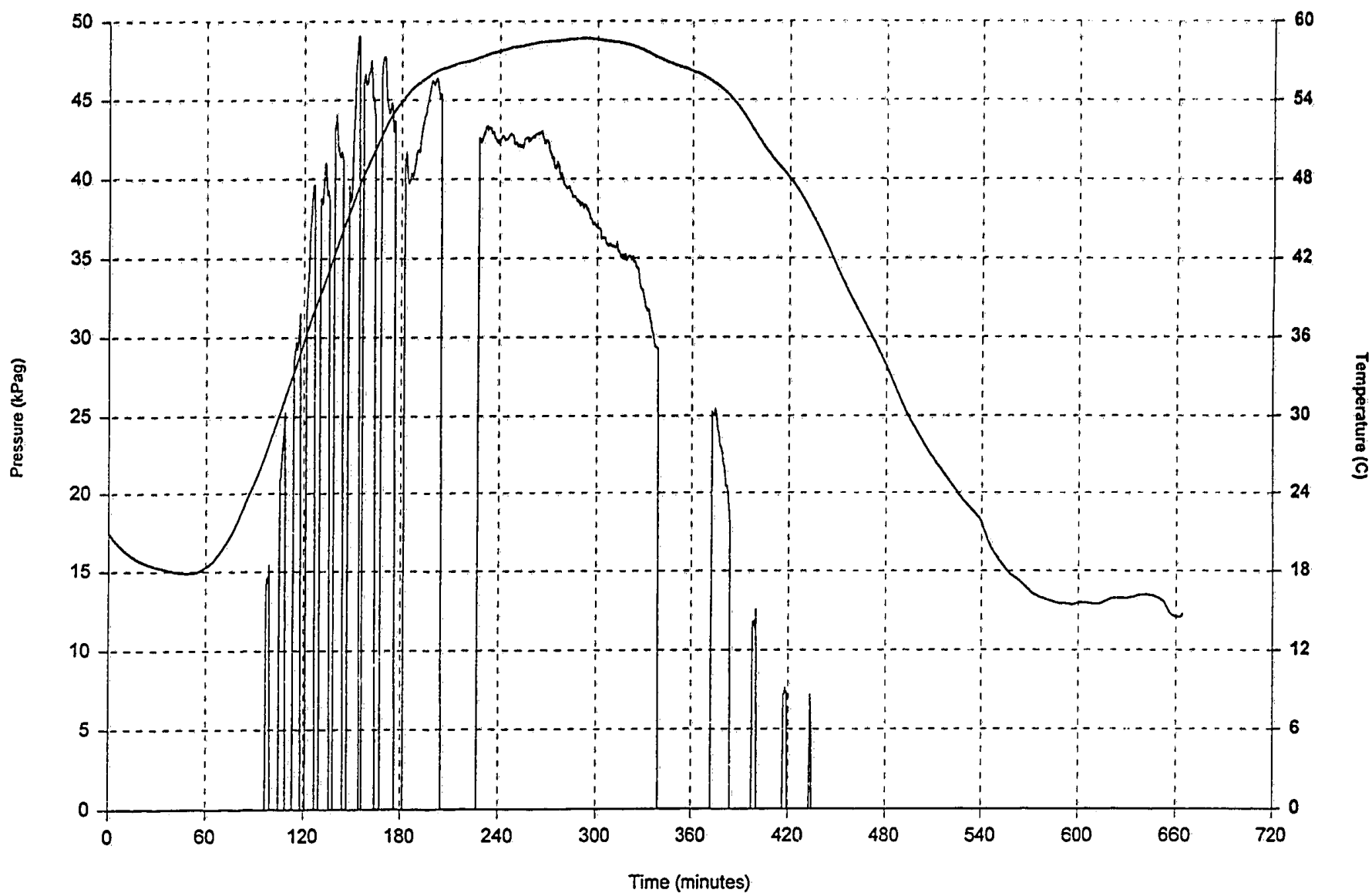
PARAMOUNT ET AL LIARD F-38
00/ 60.091 / 123.367 / 0
DST #: 6
Recorder: M84

Pressure (kPag) at Critical Points:
1: 19794
14: 19746



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.387 / 0
DST #: 6
Recorder: K3

Recovery recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 6

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Avenue S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Prysunka S

Ticket#: 807462

Reverse Circulated? N

KB Elevation: 470.30 meters

Ground Elevat'n: 464.80 meters

Total Depth: 1,968.00 meters

Mud Data:

Weight: 1130 kg/m3

Type: Invert

Viscosity: 56 s/l

Filter Cake: 1.0 mm

Hole Data:

Drilled Hole Size: 156 mm

Calipered Hole Size: 160 mm

Hole Condition at Test Time: Good

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Position	Capacity	Units	Depth	Comments
K3	ZI	Inside	68900	kPag	1,746.00	Recovery recorder Above interval
M64	ZI	Inside	68900	kPag	1,751.00	
21419	K-3	Outside	21000	kPag	1,764.00	
N10	ZI	Outside	34500	kPag	1,764.00	

Distributions:

Reports Sent To: Wayne Tomm

DST# 6

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.33 m
	Cross Over Sub	0.30 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	2.06 m
	Choke Sub	0.31 m
	Recorder Carrier	1.38 m
	Real Time Gauge	2.92 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.42 m
	Recorder Carrier	2.06 m
	Spacing	0.48 m
	Cross Over Sub	0.30 m
	Drill Collar	9.20 m
	Cross Over Sub	0.30 m
	Packer Stick Up	0.42 m
	Bottom Inflate Packer	1.90 m
Belly Spring	2.30 m	

Tool String Length:	36.90 m
Drill Collar I.D.: 58 mm	149.32 m
Drill Pipe O.D.: 89 mm	1,599.21 m
Collar Pipe Total:	1,748.53 m
Stick Up:	4.23 m
Tool Above:	18.70 m
Interval Tested:	14.00 m
Bottom Hole Choke Size:	12.70 mm

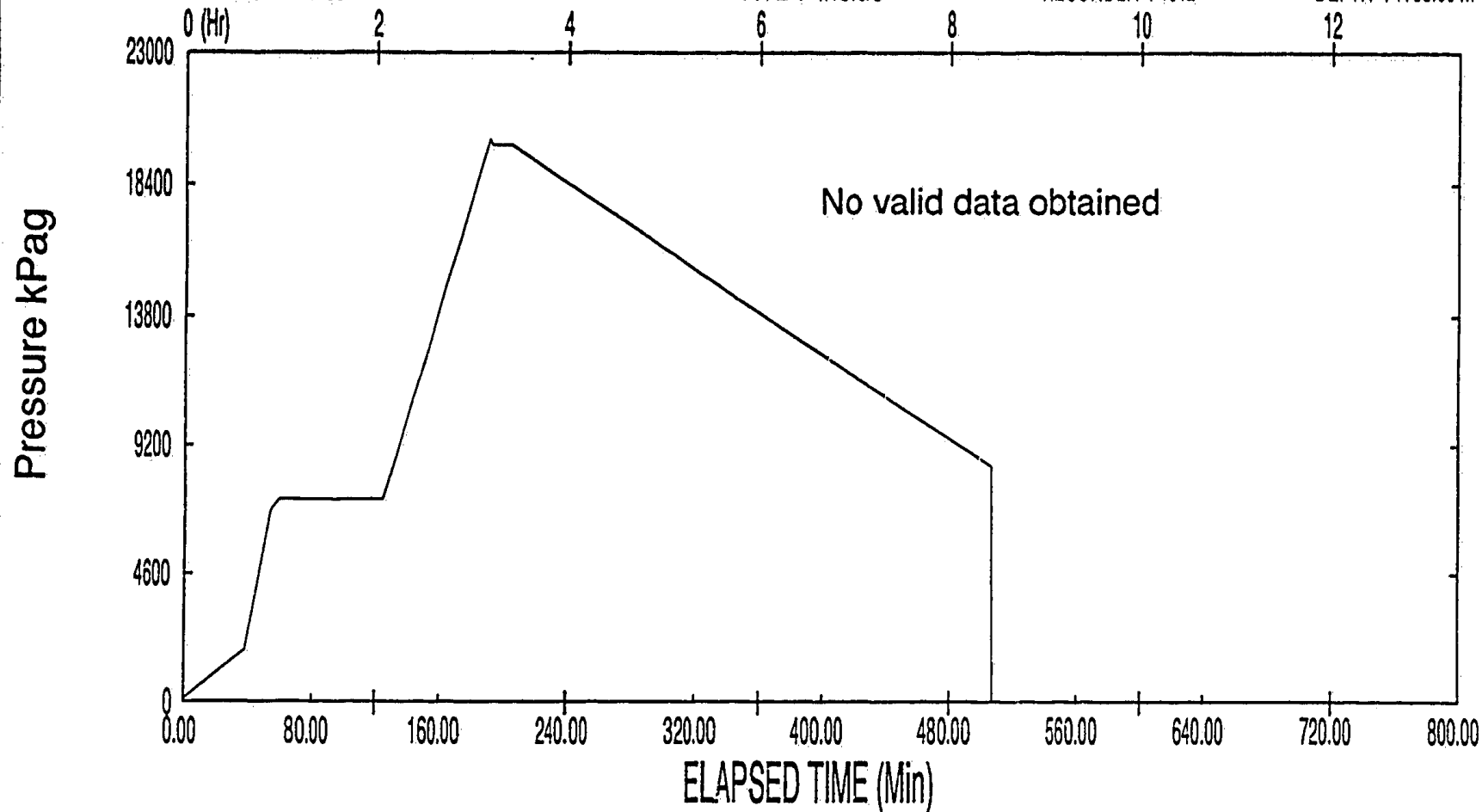
PROFILE PLOT

RTDT Inside

WELL NAME : Paramount et al Liard
LOCATION : F 36

TICKET : 6337
RECORDER : 4012

TEST # : Six
DEPTH : 1753.00 m



Well Name :Paramount et al Liard
Location :F-36
Recorder #:4012

Ticket #:6337
Test # :Six
Depth :1753.00 m
Page : 1

Electronic Pressure Analysis

Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
-------------------------	--------------------	--------------------	-------------------------	--------------------	--------------------	-------------------------	--------------------	--------------------

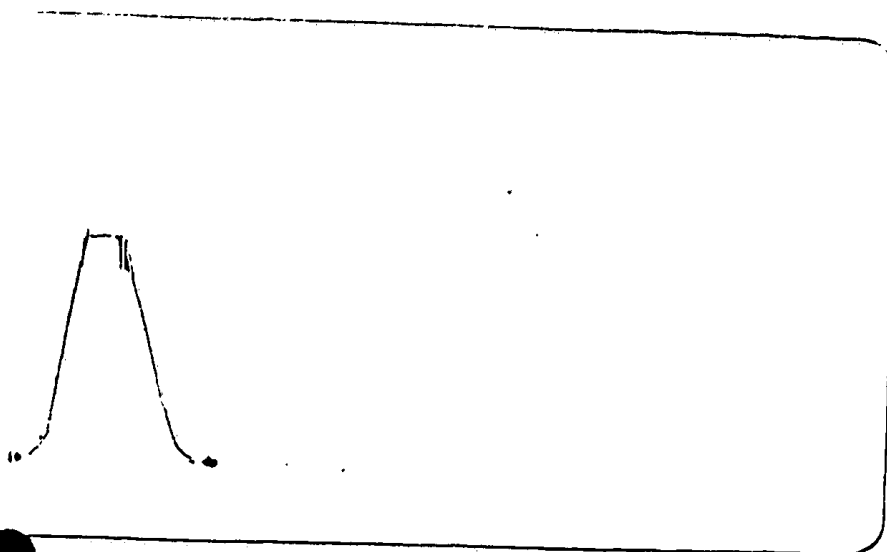
0.00		91.0						
38.67		1807.1						
54.32		6867.1						
59.92		7236.0						
116.17		7236.0						
117.63		7236.0						
117.87		7236.0						
124.38		7236.0						
189.92		19936.2						
191.78		19754.8						
204.62		19754.8						
506.68		8424.7						
507.68		0.0						
800.00		0.0						

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 6

Recorder# 21419

Depth: 1,764.00 m
Location: Outside

Recorder Type: K-3
Capacity: 21,000 kPag

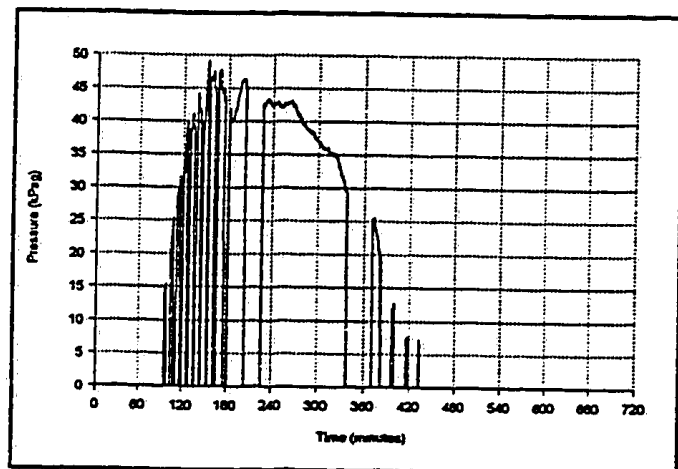


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	20009	
14	Final Hydrostatic	20009	

Recorder# K3

Depth: 1,746.00 m
Temperature: 58.7 C
Location: Inside

Recorder Type: ZI
Capacity: 68,900 kPag
Comments: Recovery recorder

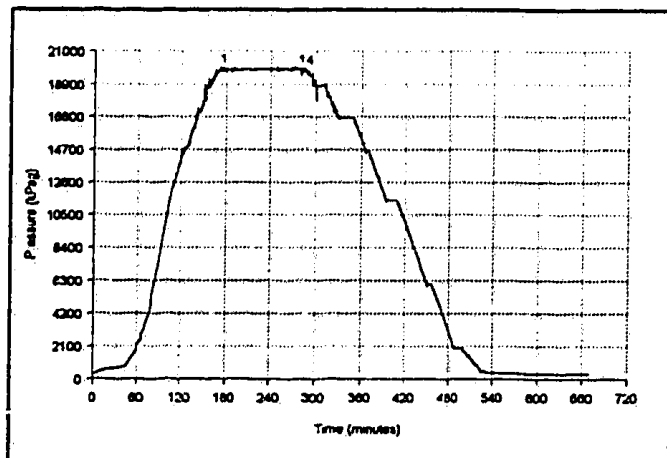


PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 6

Recorder# M64

Depth: 1,751.00 m
 Temperature: 59.8 C
 Location: Inside

Recorder Type: ZI
 Capacity: 68,900 kPag
 Comments: Above interval

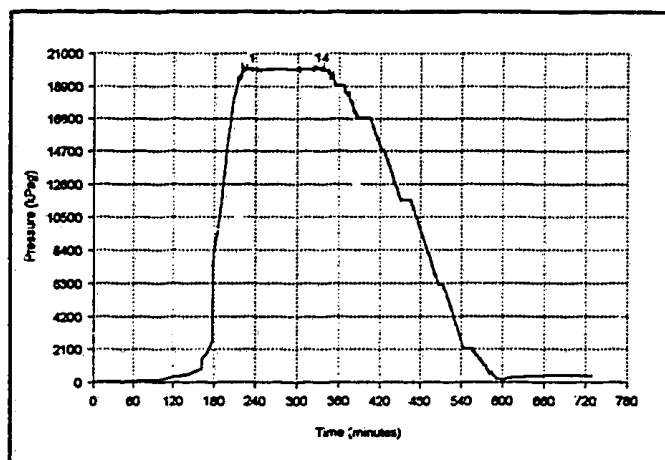


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	19794	
14	Final Hydrostatic	19746	

Recorder# N10

Depth: 1,764.00 m
 Temperature: 60.6 C
 Location: Outside

Recorder Type: ZI
 Capacity: 34,500 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	19973	
14	Final Hydrostatic	20011	



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 7

Baker Oil Tools

Formation: Mattson
Interval - from: 1,757.00 to: 1,792.00 meters

Test Date: 1999-01-26
Test Type: Inflate Straddle

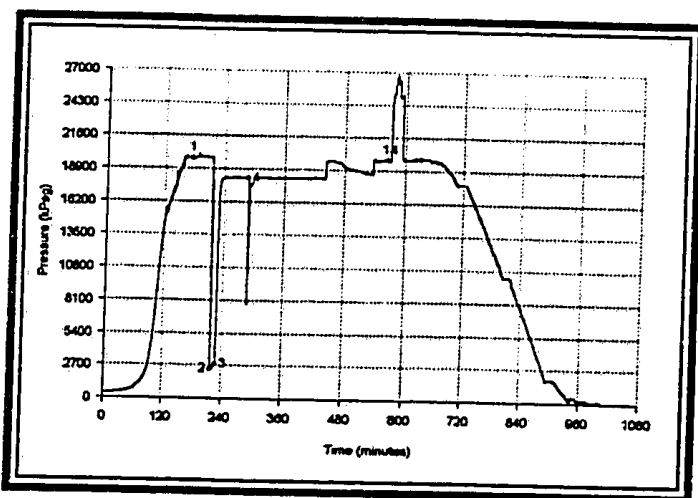
Recorder# N10 at 1,758.00 meters

Blow Description:

PREFLOW: Strong initial puff with a strong air blow in 45 seconds. Gas to surface in 2.5 minutes building throughout.

Remarks:

The available results suggest average permeability within the interval tested. Opened the tool for the final flow and the mud dropped. The recorders indicate that the seat was not lost but mud was entering the drill string. It took 4 m3 of mud to fill the annulus. As the real time indicated that the seat was not lost but a large volume of mud had been picked up, opened the tool again and flowed 5 liters of fluid. Closed the tool and pulled out of the hole. The data after the initial shut-in is affected by this large mud recovery. It is estimated that approximately 30 meters of fluid was produced during the preflow and an additional 1720 meters of mud was picked up.



Max Btm Hole Temperature @ FSI: 62.2 C

		Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1	Initial Hydrostatic	19747		
2	Start of 1st Flow	2358		
3	End of 1st Flow	2808	10.5	
4	End of 1st Shut-in	18152	59.5	18171.8
14	Final Hydrostatic	19732		

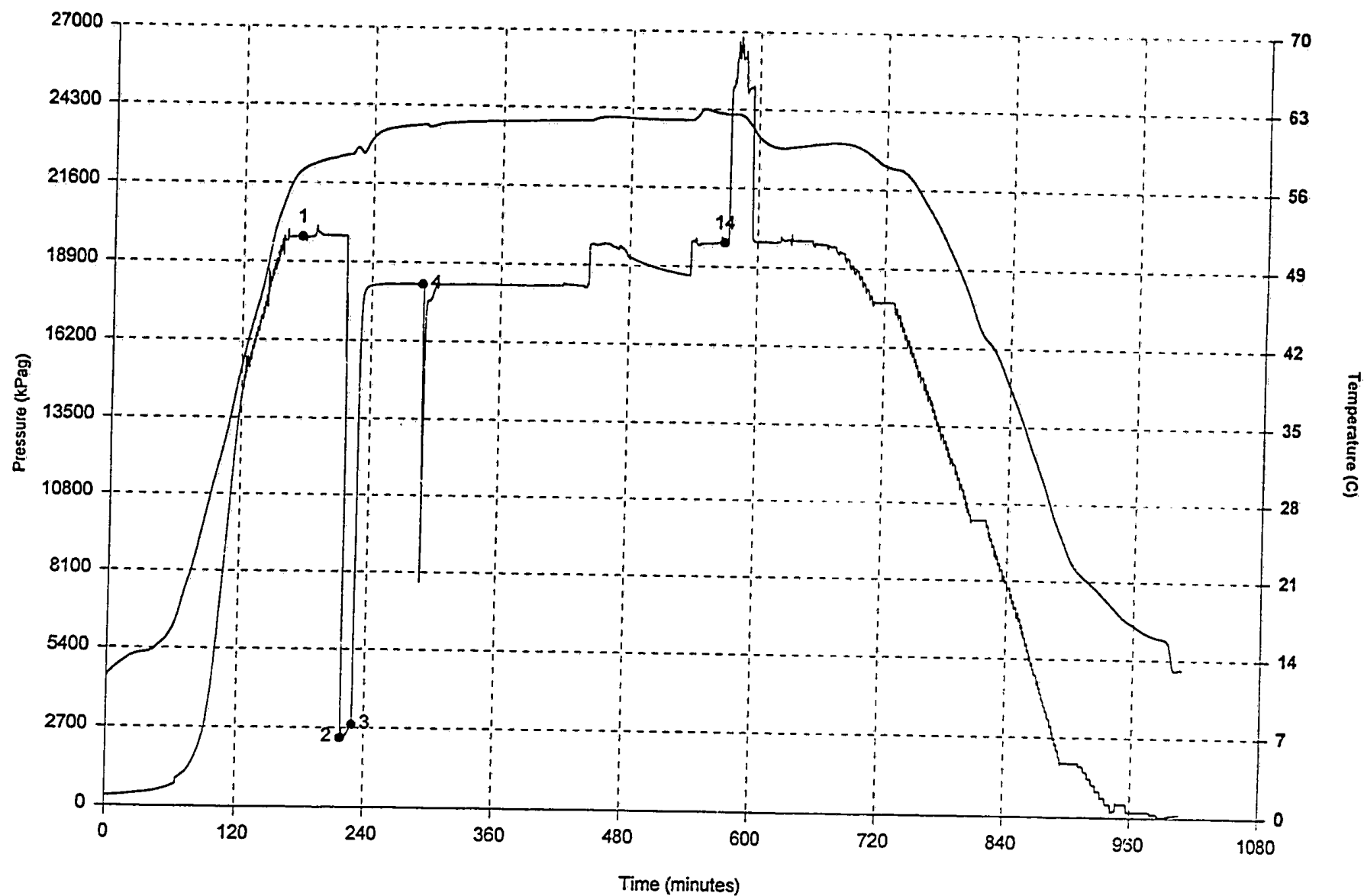
Flow#	Time (min)	Surface Choke (mm)	Surface Pressure (kPag)	Gas Rate (m3/day)
1	5	19.05	360	26 877
1	10	19.05	510	35 902

Liquid Recovery 1,750.00 meters

Recovery	Description
1,750.00 m	Estimated mud recovery

PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 / 0
DST #: 7
Recorder: N10

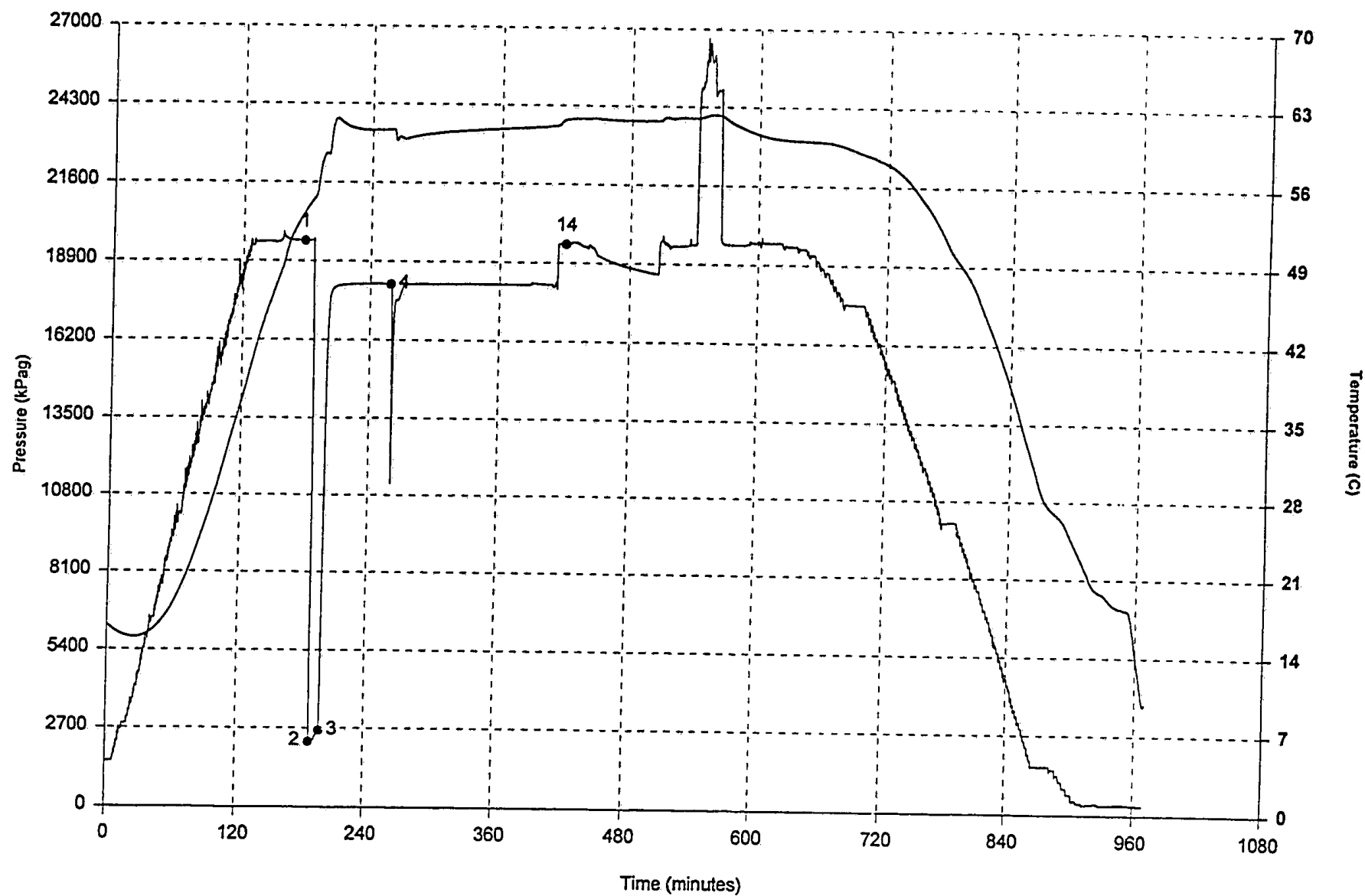
Pressure (kPag) at Critical Points:
1: 19747 4: 18152
2: 2358 14: 19732
3: 2806



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST #: 7
Recorder: M64

Pressure (kPag) at Critical Points:
1: 19598 4: 18115
2: 2229 14: 19539
3: 2613

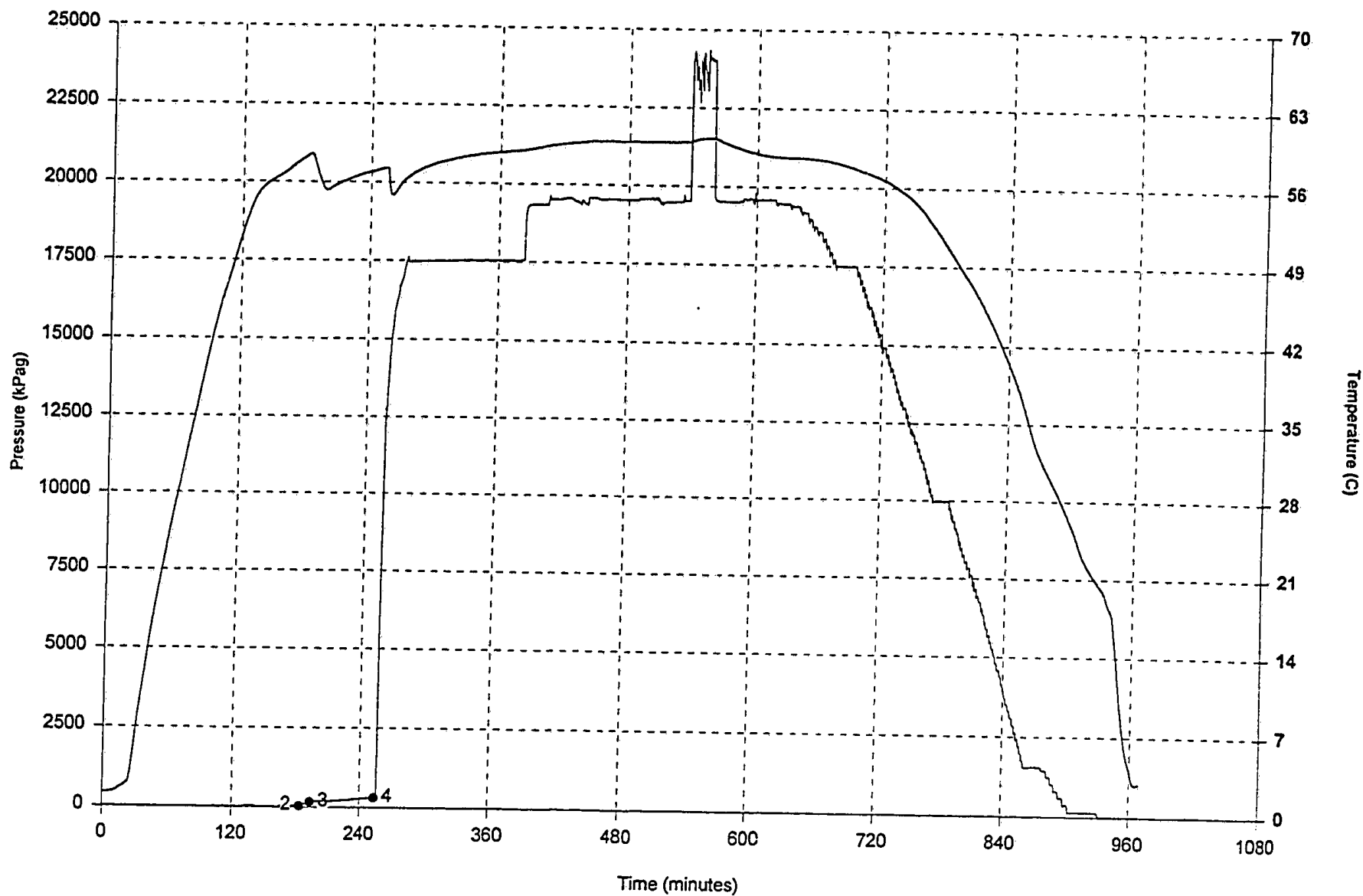
Above interval



PARAMOUNT ET AL LIARD F-38
 00/ 60.091 / 123.367 / 0
 DST #: 7
 Recorder: K3

Pressure (kPag) at Critical Points:
 2: 37
 3: 158
 4: 308

Recovery recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 7

General Information:

Operator: Paramount Resources Ltd.
 4000, 350 - 7th Avenue S.W.
 Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Prysunka S

Ticket#: 807463

Reverse Circulated? Y

KB Elevation: 470.30 meters

Ground Elevat'n: 464.80 meters

Total Depth: 1,968.00 meters

Mud Data:

Weight: 1130 kg/m3

Type: Invert

Viscosity: 56 s/l

Filter Cake: 1.0 mm

Hole Data:

Drilled Hole Size: 156 mm

Calipered Hole Size: 160 mm

Hole Condition at Test Time: Good

Conditioned prior to this test? Y

Recorder Summary:

Recorder#	Type	Position	Capacity	Units	Depth	Comments
K3	ZI	Inside	68900	kPag	1,738.00	Recovery recorder Above interval
M64	ZI	Inside	68900	kPag	1,743.50	
21419	K-3	Outside	21000	kPag	1,758.00	
N10	ZI	Outside	34500	kPag	1,758.00	

Distributions:

Reports Sent To: Wayne Tomm

Fluid Samples - no of: 10 Sent To: AGAT

Gas Bomb#	Sent To
701	AGAT
702	AGAT
Bottom Hole Sampler#	Sent To
77	AGAT

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 7

Tool Sequence:

<i>Diagram</i>	<i>Description</i>	<i>Length</i>
	Pump Out Sub	0.33 m
	Cross Over Sub	0.30 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Hydraulic Tool	1.50 m
	Bottom Hole Sampler	2.06 m
	Choke Sub	0.31 m
	Recorder Carrier	1.38 m
	Real Time Gauge	4.29 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Inflate Pump	2.38 m
	Screen	1.16 m
	Top Inflate Packer	1.78 m
	Packer Stick Down	0.82 m
	Port Sub	0.42 m
	Recorder Carrier	2.06 m
	Spacing	2.89 m
	Cross Over Sub	0.30 m
	Drill Collar	27.79 m
	Cross Over Sub	0.30 m
	Packer Stick Up	0.42 m
	Bottom Inflate Packer	1.90 m
	Belly Spring	2.30 m

Tool String Length: 59.27 m
 Drill Collar I.D.: 58 mm 130.73 m
 Drill Pipe O.D.: 89 mm 1,608.83 m
 Collar Pipe Total: 1,739.56 m
 Stick Up: 2.63 m
 Tool Above: 20.07 m
 Interval Tested: 35.00 m
 Bottom Hole Choke Size: 12.70 mm

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /0

DST# 7

Recorder#K3

Build-up and Flow Curve Increments

Flow# 1

Shut-in# 1

Chart Label	Time (min)	Pressure (kPag)	Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap	Pressure**2 (kPag^2/10^6)
2	0.0	2358		0.0		2808			
	1.0	2641		1.5	11549	14358	8.0000		206.1426
	2.0	2502		3.0	14453	17261	4.5000		297.9553
	3.0	2411		4.5	14995	17803	3.3333		316.9422
	4.0	2380		6.0	15144	17952	2.7500		322.2891
	5.0	2469		7.5	15206	18014	2.4000		324.5065
	6.0	2516		9.0	15238	18047	2.1667		325.6789
	7.0	2600		10.5	15258	18067	2.0000		326.4091
	8.0	2668		12.0	15273	18081	1.8750		326.9171
	9.0	2752		13.5	15283	18092	1.7778		327.3075
3	10.0	2802		15.0	15292	18100	1.7000		327.6068
	10.5	2808		16.5	15298	18107	1.6364		327.8463
				18.0	15304	18112	1.5833		328.0428
				19.5	15308	18117	1.5385		328.2096
				21.0	15312	18120	1.5000		328.3384
				22.5	15315	18123	1.4667		328.4518
				24.0	15318	18126	1.4375	*	328.5543
				25.5	15320	18129	1.4118	*	328.6525
				27.0	15322	18131	1.3889	*	328.7250
				28.5	15325	18133	1.3684	*	328.8060
				30.0	15326	18135	1.3500	*	328.8668
				31.5	15328	18136	1.3333	*	328.9208
				33.0	15329	18138	1.3182	*	328.9763
				34.5	15330	18139	1.3043	*	329.0116
				36.0	15332	18140	1.2917	*	329.0694
				37.5	15333	18141	1.2800	*	329.1069
				39.0	15334	18142	1.2692	*	329.1380
				40.5	15335	18143	1.2593	*	329.1716
				42.0	15336	18144	1.2500	*	329.2123
				43.5	15336	18145	1.2414	*	329.2322
				45.0	15337	18146	1.2333	*	329.2680
				46.5	15338	18146	1.2258	*	329.2874
				48.0	15339	18147	1.2188	*	329.3207
				49.5	15339	18148	1.2121	*	329.3402
				51.0	15340	18148	1.2059	*	329.3613
				52.5	15341	18149	1.2000	*	329.3822
				54.0	15341	18150	1.1944	*	329.4051
				55.5	15342	18150	1.1892	*	329.4299
				57.0	15342	18151	1.1842	*	329.4488
				58.5	15343	18151	1.1795	*	329.4652
4				59.5	15343	18152	1.1765	*	329.4845

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 7
Recorder#N10

Build-up and Flow Curve Increments

Horner Extrapolation:

Shut-in#	Extrapolated Pressure (kPag)	Extrapolated Slope ((kPag ² /10 ⁶)/cycle)
1	18171.8	10.39091

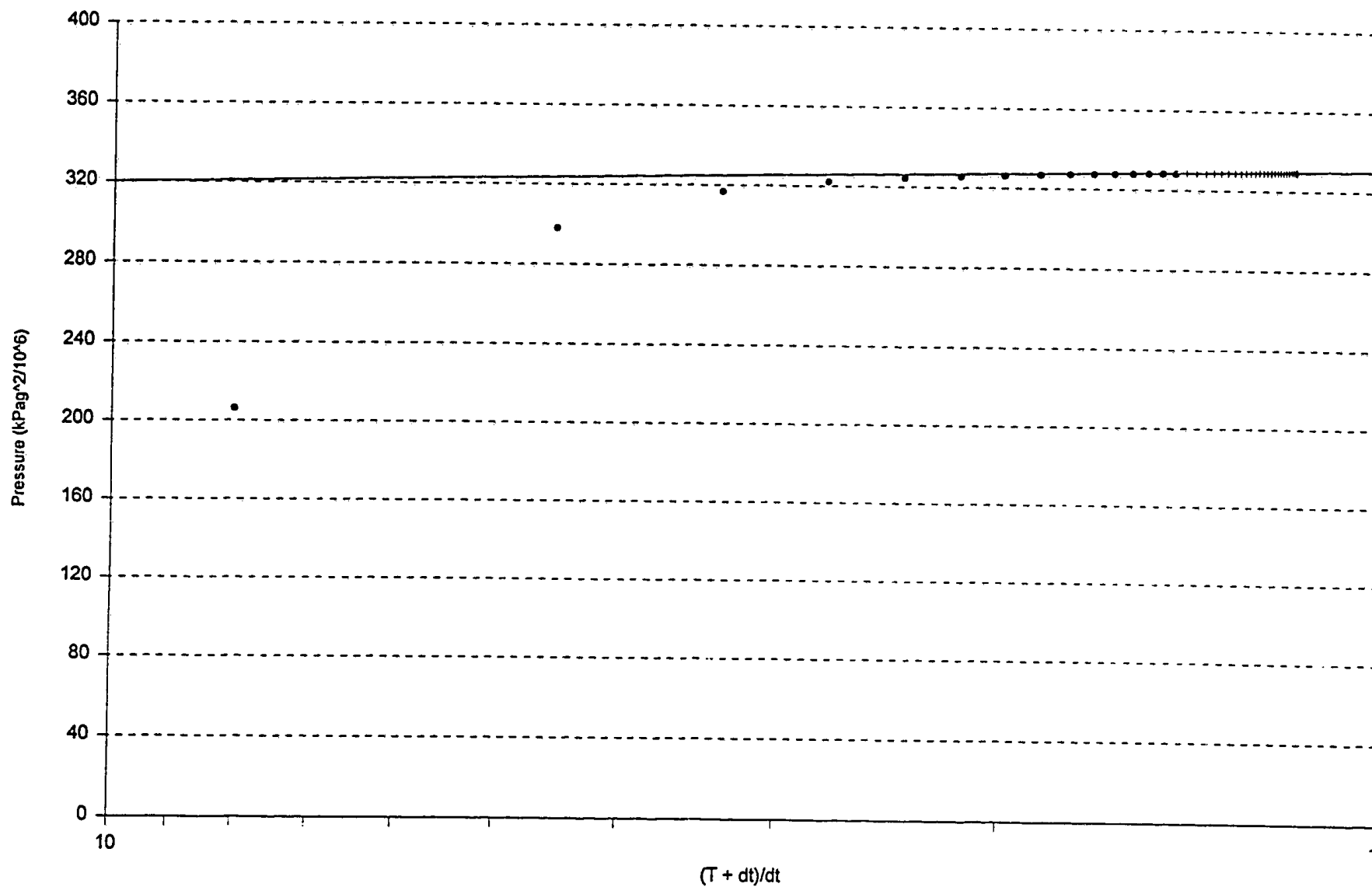
Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

BAKER OIL TOOLS / LYNES DRILL STEM TESTING

Page: 8

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST #: 7
Recorder: N10

Shut-in #1
Slope = 10.39 kPag²/10⁶/cycle
Extrapolated Pressure = 18171.75 kPag



PARAMOUNT ET AL LIARD F-36**00/ 60.091 / 123.367 /0****DST# 7****Recorder# N10**

GAS RESERVOIR CALCULATIONS (Using Semi-log Analysis) :**Based on Shut-in# 1****Reservoir Parameters Used:**

Net Pay:	6.0 m	Specific Gravity:	0.600
Porosity:	17.0 %	Z Factor:	0.856
Temperature:	62.2 C	Viscosity:	0.017 mPa.s
Flow Rate:	35,902 m3/d	Compressibility:	5.2450e-5 / kPag
Flow Time:	10.5 min		
Final Flowing Pressure:	2808 kPag		
Horner Slope:	10.39091 (kPag**2 / 10**6) / cycle		
Horner Extrapolation:	18171.8 kPag		
Assumed Drainage Radius:	908.00 m		
Wellbore Radius:	77.80 mm		

Results:

Effective Permeability:	4.19 mD
Transmissibility:	1,478.82 mD.m/mPa.s
Flow Capacity:	25.14 mD.m
Skin:	31.32
Pressure Drop Across Skin:	14,240.92 kPa
Radius of Investigation:	8.35 m
Calculated Damage Ratio:	8.14
AOF:	36,773.39 m3/d
AOF with Damage Removed:	299,336.11 m3/d
Est. Stabilized AOF (No Damage):	152,487.86 m3/d
Possible Depletion:	0.00 %

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /0

DST# 7

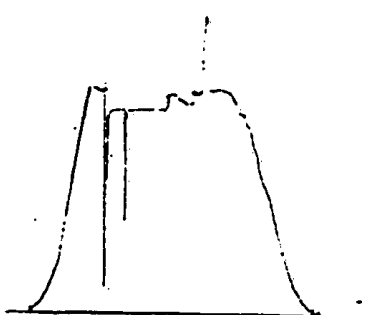
Recorder# 21419

Depth: 1,758.00 m

Location: Outside

Recorder Type: K-3

Capacity: 21,000 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	19891	
2	Start of 1st Flow	2496	
3	End of 1st Flow	2722	10.5
4	End of 1st Shut-in	18150	59.5
14	Final Hydrostatic	19891	

Recorder# K3

Depth: 1,738.00 m

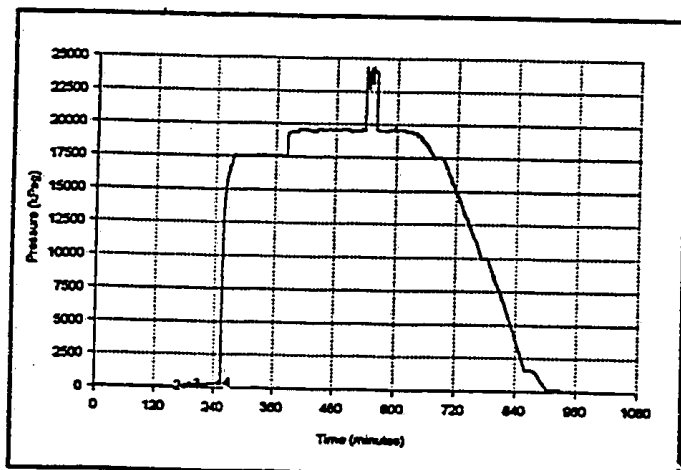
Temperature: 59.9 C

Location: Inside

Recorder Type: ZI

Capacity: 68,900 kPag

Comments: Recovery recorder



		Pressure (kPag)	Time (min)
2	Start of 1st Flow	37	
3	End of 1st Flow	158	10.5
4	End of 1st Shut-in	308	59.5

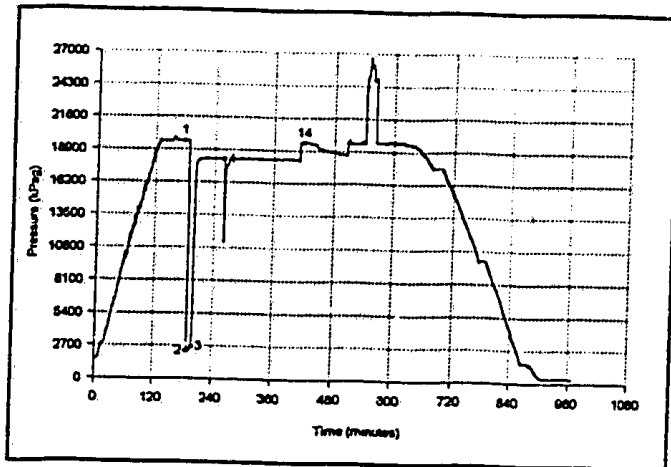
PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0
DST# 7

Recorder# M64

Depth: 1,743.50 m
Temperature: 61.6 C
Location: Inside

Recorder Type: ZI
Capacity: 68,900 kPag
Comments: Above interval

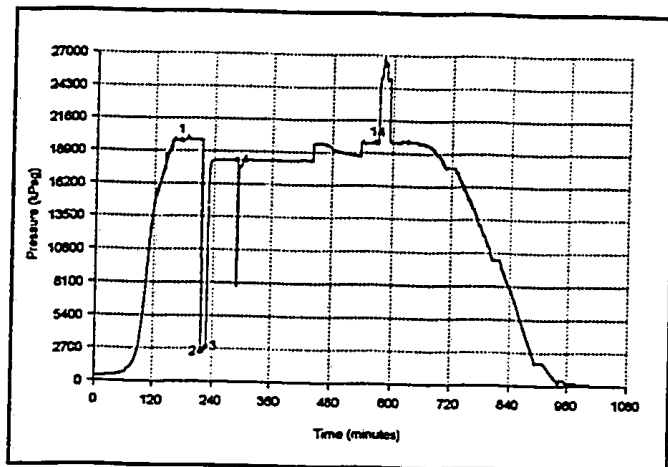


		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	19598	
2	Start of 1st Flow	2229	
3	End of 1st Flow	2613	10.5
4	End of 1st Shut-in	18115	59.5
14	Final Hydrostatic	19539	

Recorder# N10

Depth: 1,758.00 m
Temperature: 62.2 C
Location: Outside

Recorder Type: ZI
Capacity: 34,500 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	19747	
2	Start of 1st Flow	2358	
3	End of 1st Flow	2808	10.5
4	End of 1st Shut-in	18152	59.5
14	Final Hydrostatic	19732	

AGAT[®] Laboratories



CONTAINER IDENTIFICATION

AGAT 20681

GAS ANALYSIS

LABORATORY NUMBER

GG35222A

PARAMOUNT RESOURCES LTD.

OPERATION NAME

UNIQUE WELL IDENTIFIER

PARAMOUNT et al LIARD F-36

WELL NAME

48 H. ELUTION GAS

470.00

484.00

FIELD OF AREA

LIARD

POOL OF ZONE

MATTSON

NAME OF SAMPLE

BAKER

TEST TYPE

DST

TEST RECOVERY

60 DEG. 5' 27" latitude 123 DEG. 22' 30" longitude

TEST INTERVAL, OR DEEPS

1757.0-1752.0

mK3

SAMPLING POINT

BOTTOM HOLE SAMPLER

GAUGE PRESSURE MPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLE

ANALYST

517

517

70.0

DATE SAMPLED (Y-M-D)

99-01-26

DATE RECEIVED (Y-M-D)

99-02-01

DATE REPORTED (Y-M-D)

99-02-03

ANALYST

DQ

SCD

OTHER INFORMATION

BPS #77

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (mL/m ³)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0048	0.0048	
CO ₂	0.0000	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9823	0.9823	
C ₂	0.0117	0.0117	
C ₃	0.0009	0.0009	3.4
IC ₄	TRACE	TRACE	0.2
NC ₄	TRACE	TRACE	0.2
IC ₅	0.0000	0.0000	0.0
NC ₅	0.0000	0.0000	0.0
C ₆	0.0000	0.0000	0.0
C ₇	0.0000	0.0000	0.0
C ₈	0.0000	0.0000	0.0
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	3.8

GROSS HEATING VALUE (MJ/m³)
15° C AND 101.325 kPaMOISTURE AND
ACID GAS FREE

37.99

AIR FREE
AS RECEIVED

37.99

WATER PRESSURE
PENALTY PLUS

0.0

kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLE

MEASURED

CALCULATE

0.563

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATE

0.563

CRITICAL PROPERTIES CALCULATED:

AS SAMPLED

DPC (kPa)

4601

DTC

191.7

DPC (kPa)

4601

ACID GAS FREE

DTC

191.7

RELATIVE MOLECULAR MASS

TOTAL GAS

16.3

C₁

0.0

H₂S (mL/m³)

0.00

REMARKS



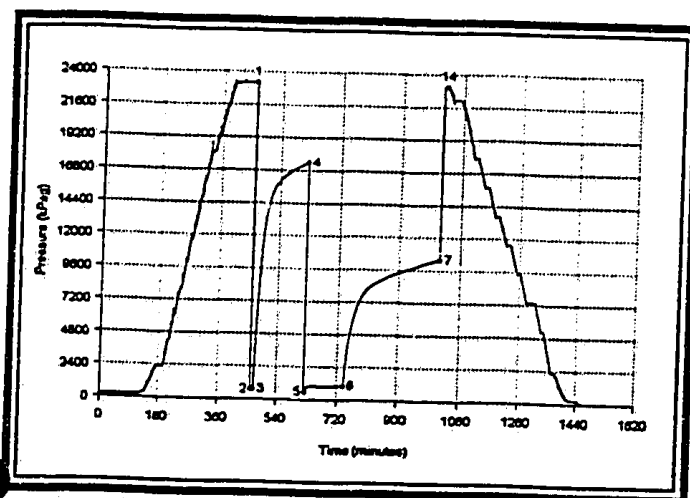
PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 / 0
DST# 8

Baker Oil Tools

Formation: Flett

Interval - from: 2,085.00 to: 2,119.00 meters

Recorder# P99 at 2,089.00 meters



Test Date: 1999-02-01

Test Type: Conventional Bottom Hole

Blow Description:

PREFLOW: Strong air blow in 35 seconds. Gas to surface in 5 minutes with a lazy 2 meter flame - too small to measure.

FINAL FLOW: Strong air blow immediately. Gas to surface immediately with a lazy 2 meter flame decreasing to 1 meter - too small to measure.

Remarks:

Mechanically successful test. Results suggest low permeability within the interval tested. The shut-ins were not extrapolated due to insufficient curve development. The shut-in data maybe indicating a decrease in permeability away from the wellbore.

Max Btm Hole Temperature @ FSI: 70.7 C

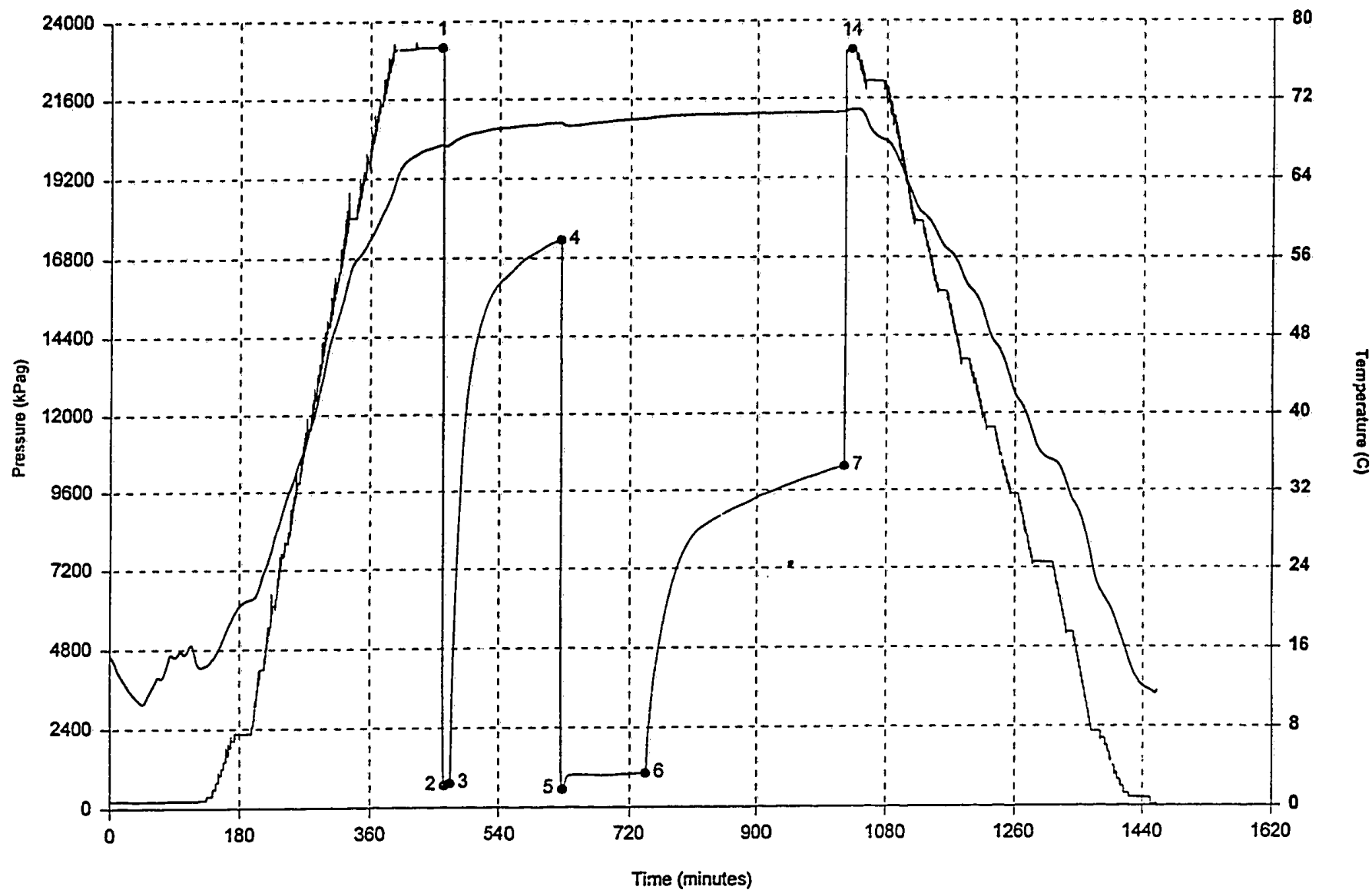
	Pressure (kPag)	Time (min)	Extrapolated Pressure (kPag)
1 Initial Hydrostatic	23183		
2 Start of 1st Flow	665		
3 End of 1st Flow	728	8.0	
4 End of 1st Shut-in	17352	152.0	
5 Start of 2nd Flow	545		
6 End of 2nd Flow	1021	115.5	
7 End of 2nd Shut-in	10349	278.0	
14 Final Hydrostatic	23109		

Liquid Recovery 95.00 meters

Recovery	Description
27.00 m	Gassy Inhibited Water
68.00 m	Gassy Watery Invert

PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 / 0
DST #: 8
Recorder: P99

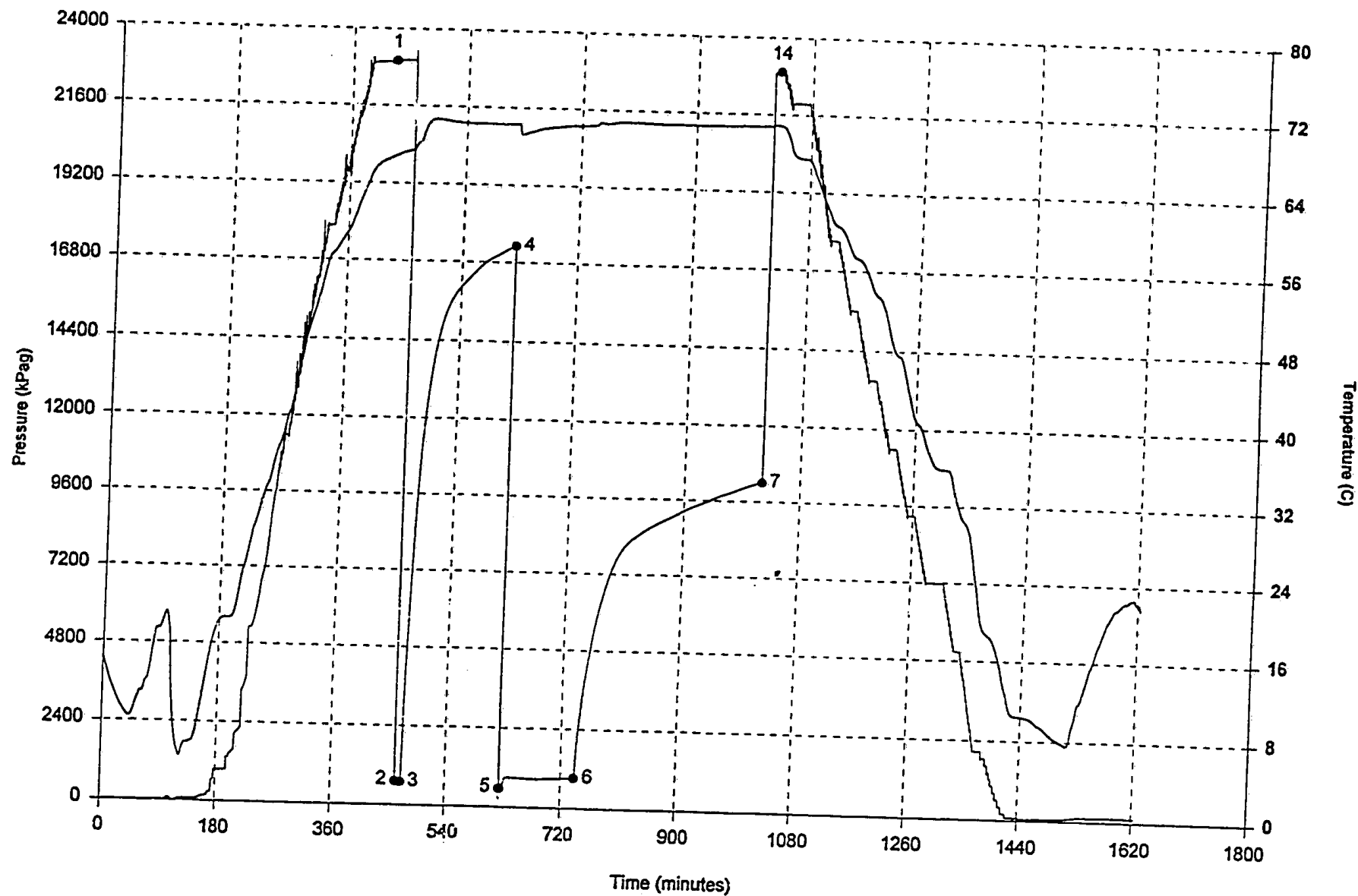
Pressure (kPag) at Critical Points:
1: 23183 4: 17352 7: 10349
2: 665 5: 545 14: 23109
3: 728 6: 1021



PARAMOUNT ET AL LIARD F-38
00/ 60.091 / 123.367 / 0
DST #: 8
Recorder: K15

Pressure (kPag) at Critical Points:
1: 23001 4: 17315 7: 10202
2: 726 5: 568 14: 22936
3: 696 6: 911

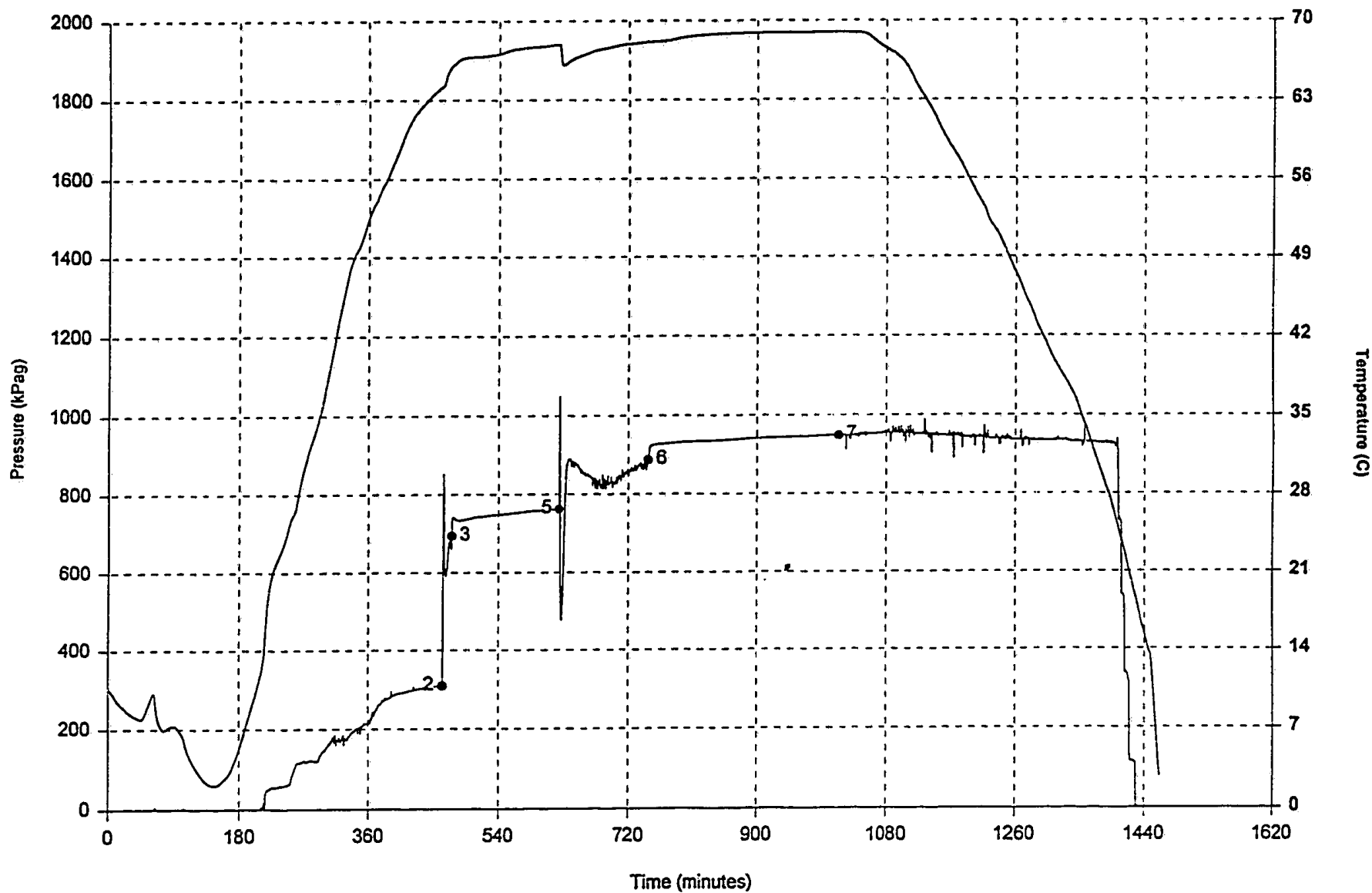
Above interval



PARAMOUNT ET AL LIARD F-38
00/ 80.091 / 123.367 / 0
DST #: 8
Recorder: K99

Pressure (kPag) at Critical Points:
2: 310 6: 887
3: 694 7: 948
5: 762

Recovery recorder



PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 8

General Information:

Operator: Paramount Resources Ltd.
4000, 350 - 7th Avenue S.W.
Calgary Alberta T2P 3W5

Licence#: 1841

Tester: Pangracs D

Ticket#: 809002

Reverse Circulated? N

KB Elevation: 470.30 meters

Ground Elevat'n: 464.80 meters

Total Depth: 2,110.00 meters

Mud Data:

Weight: 1130 kg/m3

Type: Invert

Viscosity: 56 s/l

Filter Cake: 1.0 mm

Hole Data:

Drilled Hole Size: 156 mm

Calipered Hole Size: 159 mm

Hole Condition at Test Time: Fair

Conditioned prior to this test? N

Recorder Summary:

Recorder#	Type	Position	Capacity	Units	Depth	Comments
K99	ZI	Inside	68999	kPag	2,065.00	Recovery recorder
K15	ZI	Inside	68900	kPag	2,073.00	Above interval
21674	K-3	Outside	39800	kPag	2,089.00	Clock stopped
P99	ZI	Outside	34500	kPag	2,089.00	

Distributions:

Reports Sent To: Wayne Tomm

Fluid Samples - no of: 6 Sent To: Agat

Gas Bomb#	Sent To
cx05278	Agat
cx06419	Agat
Bottom Hole Sampler#	Sent To
8	Agat
88	Agat

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 8

Tool Sequence:

Diagram	Description	Length
	Pump Out Sub	0.33 m
	Cross Over Sub	0.30 m
	Pump Out Sub	0.33 m
	Recorder Carrier	1.38 m
	Rotating Shut-in Tool	2.58 m
	Bottom Hole Sampler	1.03 m
	Bottom Hole Sampler	1.03 m
	Hydraulic Tool	1.50 m
	Recorder Carrier	1.38 m
	Real Time Gauge	4.59 m
	Hydraulic Jars	2.22 m
	Safety Joint	0.65 m
	Conventional Packer	2.30 m
	Conventional Packer	1.30 m
	Packer Stick Down	1.00 m
	Perforations	1.51 m
	Perforations	1.51 m
	Recorder Carrier	2.05 m
	Spacing	8.51 m
	Drill Collar	9.23 m
	Cross Over Sub	0.60 m
	Anchor Shoe (Bull Nose)	0.61 m

Tool String Length: 45.94 m
 Drill Collar I.D.: 58 mm 158.51 m
 Drill Pipe O.D.: 89 mm 1,910.81 m
 Collar Pipe Total: 2,069.32 m
 Stick Up: 5.24 m
 Tool Above: 20.92 m
 Interval Tested: 25.00 m
 Bottom Hole Choke Size: 25.40 mm

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0

DST# 8

Recorder# P99

Build-up and Flow Curve Increments

Flow# 1

Chart Label	Time (min)	Pressure (kPag)
2	0.0	665
	1.0	641
	2.0	652
	3.0	661
	4.0	689
	5.0	705
	6.0	719
	7.0	723
3	8.0	728

Shut-in# 1

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap
	0.0		728		
	3.5	3416	4144	3.2857	
	7.0	5593	6320	2.1429	
	10.5	7480	8208	1.7619	
	14.0	8977	9705	1.5714	
	17.5	10234	10961	1.4571	
	21.0	11223	11951	1.3810	
	24.5	11978	12706	1.3265	
	28.0	12600	13328	1.2857	
	31.5	13116	13843	1.2540	
	35.0	13535	14263	1.2286	
	38.5	13872	14600	1.2078	
	42.0	14149	14877	1.1905	
	45.5	14385	15112	1.1758	
	49.0	14586	15313	1.1633	
	52.5	14755	15482	1.1524	
	56.0	14901	15629	1.1429	
	59.5	15029	15757	1.1345	
	63.0	15143	15871	1.1270	
	66.5	15245	15973	1.1203	
	70.0	15340	16067	1.1143	
	73.5	15429	16156	1.1088	
	77.0	15513	16240	1.1039	
	80.5	15593	16321	1.0994	
	84.0	15670	16398	1.0952	
	87.5	15744	16471	1.0914	
	91.0	15813	16540	1.0879	
	94.5	15878	16606	1.0847	
	98.0	15942	16669	1.0816	
	101.5	16001	16728	1.0788	
	105.0	16056	16784	1.0762	
	108.5	16109	16837	1.0737	
	112.0	16159	16887	1.0714	
	115.5	16207	16934	1.0693	
	119.0	16253	16980	1.0672	
	122.5	16298	17025	1.0653	
	126.0	16341	17069	1.0635	
	129.5	16382	17110	1.0618	
	133.0	16423	17150	1.0602	
	136.5	16462	17189	1.0586	
	140.0	16500	17228	1.0571	
	143.5	16538	17265	1.0557	
	147.0	16574	17302	1.0544	
	150.5	16610	17338	1.0532	
	152.0	16625	17352	1.0526	
4					

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36
00/ 60.091 / 123.367 /0
DST# 8
Recorder#K99

Build-up and Flow Curve Increments

Flow# 1

Shut-in# 1

Flow# 2

Shut-in# 2

Chart Label	Time (min)	Pressure (kPag)	Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap
5	0.0	545		0.0		1021		
	2.5	691		5.5	1729	2750	23.4545	
	5.0	863		11.0	2834	3856	12.2273	
	7.5	936		16.5	3633	4654	8.4848	
	10.0	954		22.0	4305	5327	6.6136	
	12.5	962		27.5	4888	5910	5.4909	
	15.0	968		33.0	5381	6403	4.7424	
	17.5	972		38.5	5807	6829	4.2078	
	20.0	973		44.0	6184	7205	3.8068	
	22.5	971		49.5	6505	7527	3.4949	
	25.0	968		55.0	6767	7788	3.2455	
	27.5	972		60.5	6974	7996	3.0413	
	30.0	971		66.0	7148	8169	2.8712	
	32.5	969		71.5	7284	8305	2.7273	
	35.0	972		77.0	7392	8413	2.6039	
	37.5	967		82.5	7481	8503	2.4970	
	40.0	967		88.0	7561	8582	2.4034	
	42.5	963		93.5	7637	8658	2.3209	
	45.0	945		99.0	7708	8729	2.2475	
	47.5	963		104.5	7777	8798	2.1818	
	50.0	952		110.0	7844	8865	2.1227	
	52.5	941		115.5	7909	8930	2.0693	
	55.0	973		121.0	7972	8993	2.0207	
	57.5	969		126.5	8033	9055	1.9763	
	60.0	959		132.0	8092	9113	1.9356	
	62.5	958		137.5	8150	9171	1.8982	
	65.0	956		143.0	8205	9227	1.8636	
	67.5	960		148.5	8261	9282	1.8316	
	70.0	960		154.0	8316	9337	1.8019	
	72.5	960		159.5	8371	9393	1.7743	
	75.0	969		165.0	8426	9447	1.7485	
	77.5	965		170.5	8477	9499	1.7243	
	80.0	978		176.0	8529	9550	1.7017	
	82.5	986		181.5	8581	9602	1.6804	
	85.0	982		187.0	8629	9650	1.6604	
	87.5	990		192.5	8677	9699	1.6416	
	90.0	993		198.0	8725	9747	1.6237	
	92.5	996		203.5	8772	9794	1.6069	
	95.0	999		209.0	8819	9840	1.5909	
	97.5	993		214.5	8862	9884	1.5758	
	100.0	1002		220.0	8906	9927	1.5614	
	102.5	998		225.5	8948	9970	1.5477	
				231.0	8991	10012	1.5346	

Note: Increment list is intended to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 /0

DST# 8

Recorder# P99

Build-up and Flow Curve Increments

Flow# 2

Chart Label	Time (min)	Pressure (kPag)
6	105.0	1015
	107.5	1010
	110.0	1003
	112.5	1005
	115.0	1010
	115.5	1021

Shut-in# 2

Chart Label	Time (min)	Delta P (kPag)	Pressure (kPag)	Abscissa (T+dT)/dT	Used for Extrap
7	236.5	9033	10055	1.5222	
	242.0	9075	10096	1.5103	
	247.5	9116	10137	1.4990	
	253.0	9156	10177	1.4881	
	258.5	9196	10217	1.4778	
	264.0	9234	10255	1.4678	
	269.5	9272	10293	1.4583	
	275.0	9308	10330	1.4491	
	278.0	9327	10349	1.4442	

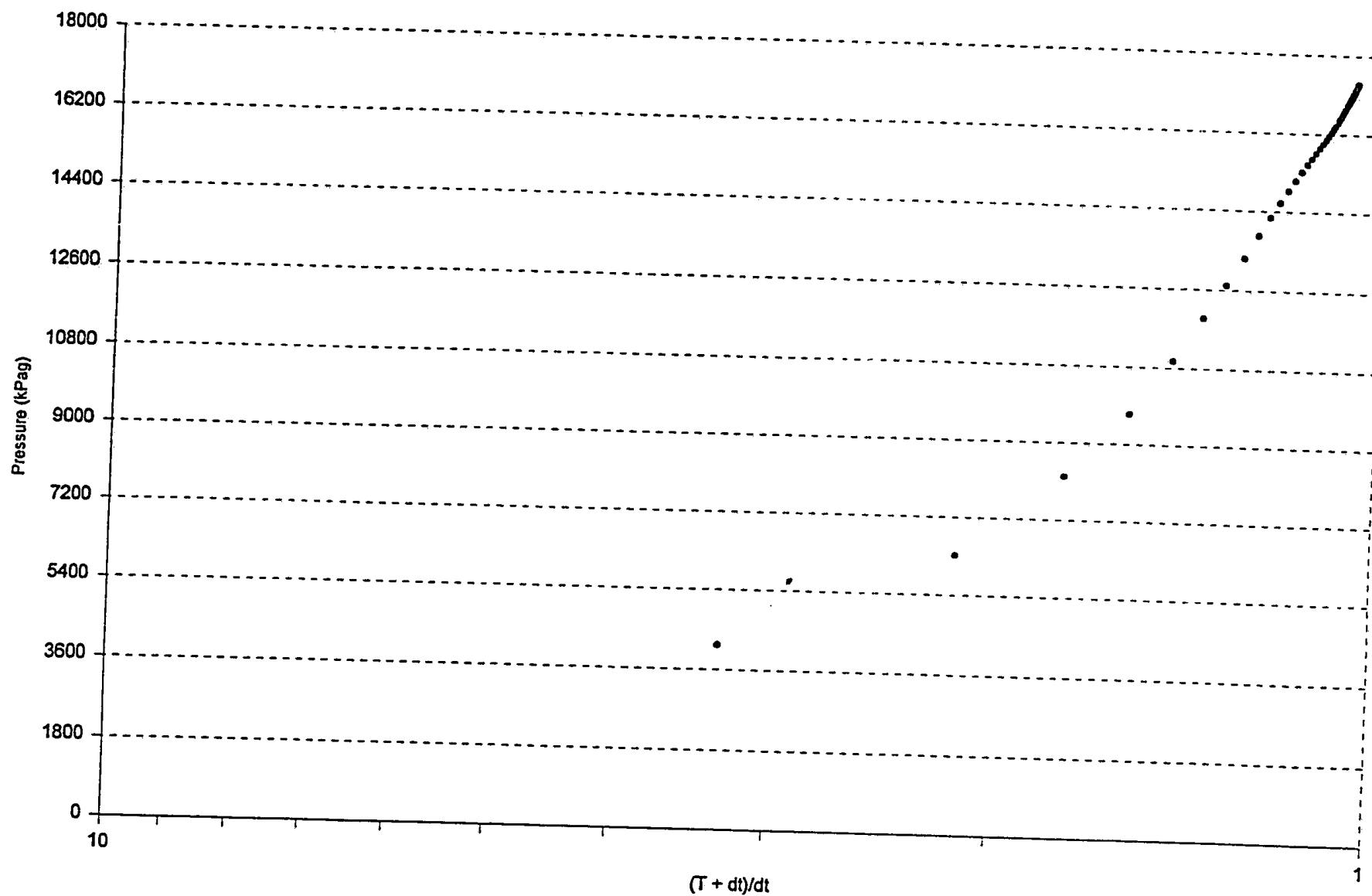
Horner Extrapolation:

Note: Increment listing is filtered to include critical data only. Complete time/pressure data is available in electronic or printed format.

PARAMOUNT ET AL LIARD F-36
00/60.091 / 123.367 / 0
DST #: 8
Recorder: P99

Shut-in #1

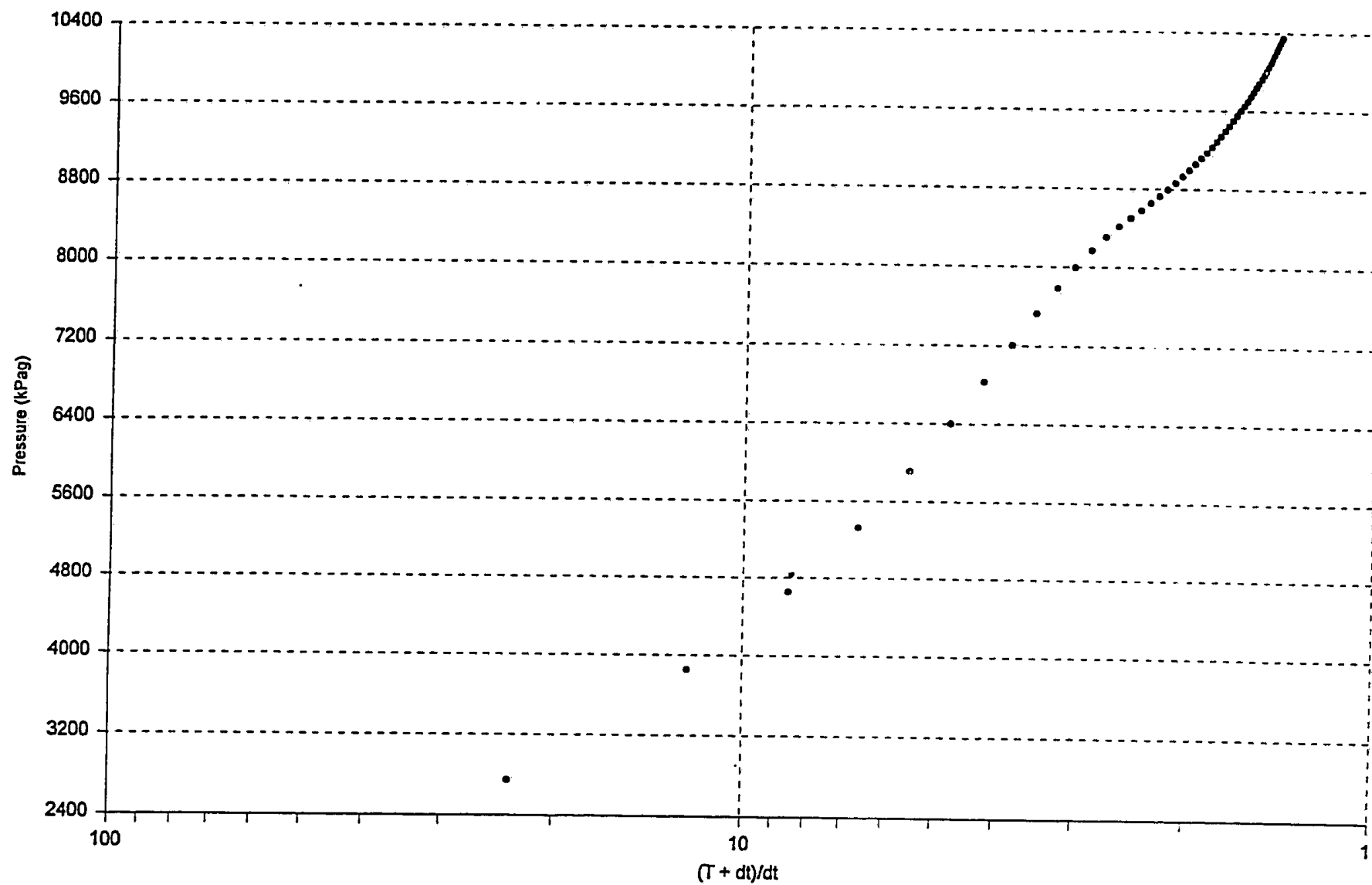
BAKER OIL TOOLS / LYNES DRILL STEM TESTING



Paramount Et al Liard F-36
60.091/123.367
DST #: 8
Recorder: P99

Shut-in #2

BAKER OIL TOOLS DRILL STEM TESTING



PARAMOUNT ET AL LIARD F-36

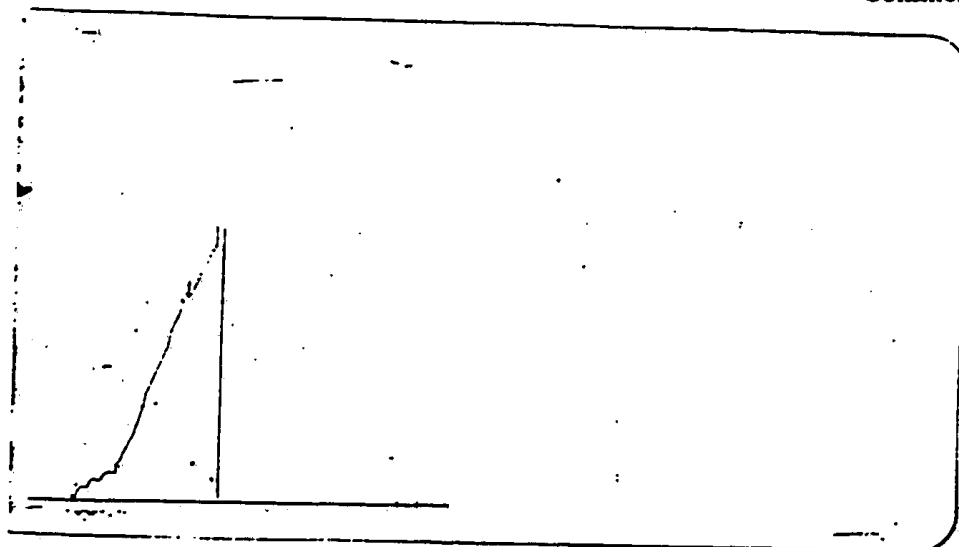
00/ 60.091 / 123.367 /0

DST# 8

Recorder# 21674

Depth: 2,089.00 m
Location: Outside

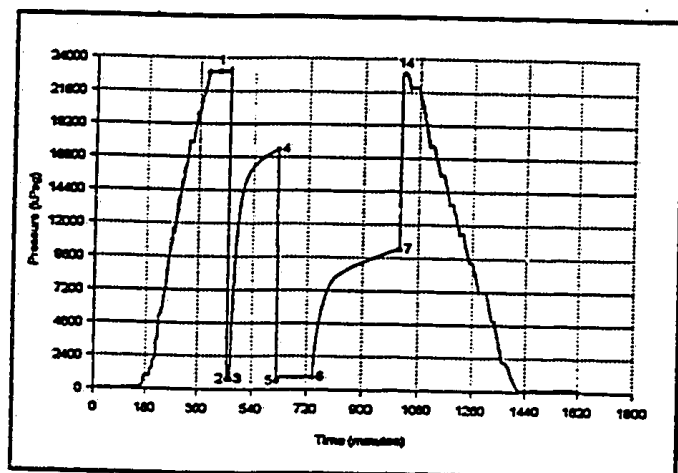
Recorder Type: K-3
Capacity: 39,800 kPag
Comments: Clock stopped



Recorder# K15

Depth: 2,073.00 m
Temperature: 70.6 C
Location: Inside

Recorder Type: ZI
Capacity: 68,900 kPag
Comments: Above interval



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	23001	
2	Start of 1st Flow	726	
3	End of 1st Flow	696	8.0
4	End of 1st Shut-in	17315	152.0
5	Start of 2nd Flow	568	
6	End of 2nd Flow	911	115.5
7	End of 2nd Shut-in	10202	278.0
14	Final Hydrostatic	22936	

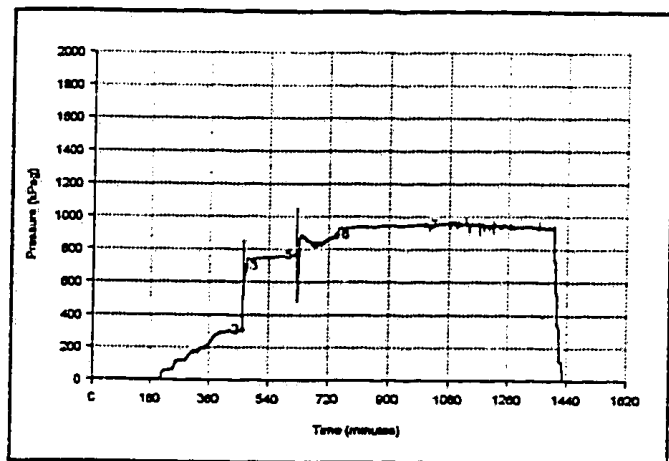
PARAMOUNT ET AL LIARD F-36

00/ 60.091 / 123.367 / 0
DST# 8

Recorder# K99

Depth: 2,065.00 m
Temperature: 69.1 C
Location: Inside

Recorder Type: ZI
Capacity: 68,999 kPag
Comments: Recovery recorder

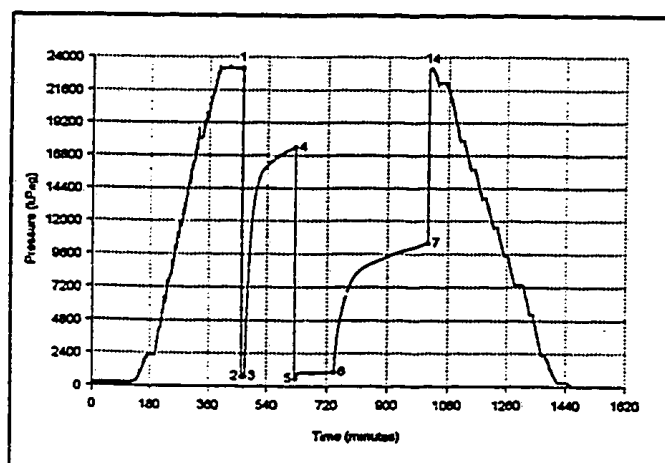


		Pressure (kPag)	Time (min)
2	Start of 1st Flow	310	
3	End of 1st Flow	694	8.0
5	Start of 2nd Flow	762	
6	End of 2nd Flow	887	115.5
7	End of 2nd Shut-in	948	278.0

Recorder# P99

Depth: 2,089.00 m
Temperature: 70.7 C
Location: Outside

Recorder Type: ZI
Capacity: 34,500 kPag



		Pressure (kPag)	Time (min)
1	Initial Hydrostatic	23183	
2	Start of 1st Flow	665	
3	End of 1st Flow	728	8.0
4	End of 1st Shut-in	17352	152.0
5	Start of 2nd Flow	545	
6	End of 2nd Flow	1021	115.5
7	End of 2nd Shut-in	10349	278.0
14	Final Hydrostatic	23109	

Tri-Alta Bews Services Ltd. Pressure Test Report

COMPANY INFORMATION

Company Name
Representative
Phone
Address

PARAMOUNT RESOURCES LTD.
MR. WAYNE TOMM
266 - 2047
4000, 350 - 7th Avenue S.W.,
CALGARY, ALBERTA
T2P - 3W5

WELL INFORMATION

Well Name
Well Location
Field and pool
Status (oil, gas, water, injection)
Perforated Intervals
Mid point of Perforated Intervals (MPP)
Drilling Rig Number
Elevations
 Kelly Bushing (KB)
 Casing Flange (CF)
 KB-CF
 Ground Level (GL)
Plug back total depth
Total depth
Production Casing
Production Tubing

PARAMOUNT et al LIARD
F - 36
LIARD -
GASWELL
1978.5 - 2040.5 mCF
2009.5 mCF

470.3 m
464.8 m
5.5 m

1984-2046 m
KB

88.9 mm
N/A

TEST INFORMATION

Test number / Type of test
Date(s) of test
Dead-weight gauge tubing pressure
Dead-weight gauge casing pressure
Shut-in date
Shut-in duration
Date/time on bottom
Date/time off bottom

STATIC GRADIENT
February 24/99.
N/A
6000 kPa

February 24/99 @ 06:20.
February 24/99 @ 06:25.

Run depth at probe pressure port

2050.0 mCF

PRESSURE TEST RESULTS

Maximum recorded probe pressure
Maximum recorded probe temperature
Final buildup pressure
Gradient Survey Information
 Extrapolated pressure to MPP
 Final gradient at depth

6808.282 kPag
55.69 Degrees C

YES
6797.663 kPag
0.1115 kPa/m

Tri-Alta Bews Job Number

Probe Serial Number

R69 (BOTTOM)

PROBE INFORMATION

Probe Serial Number	R69 (BOTTOM)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag (0 - 6000 PSI)
Accuracy	0.05% FS
Resolution	0.0008% FS
Temperature	
Calibrated Temperature Range	-21.0 - 125.2 Degrees C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration file used for reports	R69OC16A.CAL

PROGRAMMING DETAILS

Sequence	Sampling	Sample	Repetitions of step
<u>Step</u>	<u>Mode</u>	<u>Period</u>	<u>Count</u>
1	Pause	5 seconds	5
2	Pressure Trigger	2 minutes	Trig. @ 100 PSI
3	Overrun	30 seconds	to end of memory

Program start time	Feb 24/99 @ 04:37:11
Program end time	Feb 24/99 @ 18:18:11
Total Samples Taken	1643
Usage for this test	0.1440 Ah
Generic Data File Name	R69SGB.GEN
Reported by	TIM BEWS

COMMENTS

Pressure vs. Depth

Probe R69 (BOTTOM)
Company PARAMOUNT RESOURCES LTD.
Well Name PARAMOUNT et al LIARD
Well Location F - 36
Field and Pool LIARD -
Date of Test February 24/99.

Stop Time		Depth (mCF)	Pressure (kPag)	Gradient (kPa/m)
From	To			
04:37	04:42	0.000	5805.649	0.7438
04:52	04:57	500.000	6177.564	0.7438
05:10	05:15	1000.000	6543.326	0.7315
05:40	05:45	1500.000	6799.889	0.5131
06:02	06:07	1970.000	6798.859	-0.0022
06:08	06:13	2000.000	6797.875	-0.0328
06:14	06:19	2030.000	6797.206	-0.0223
06:20	06:25	2050.000	6799.437	0.1115

MPP Pressure extrapolated using a least-squares fit:
2009.500 6797.663

Data Listing: Every 5th point of the generic data file.

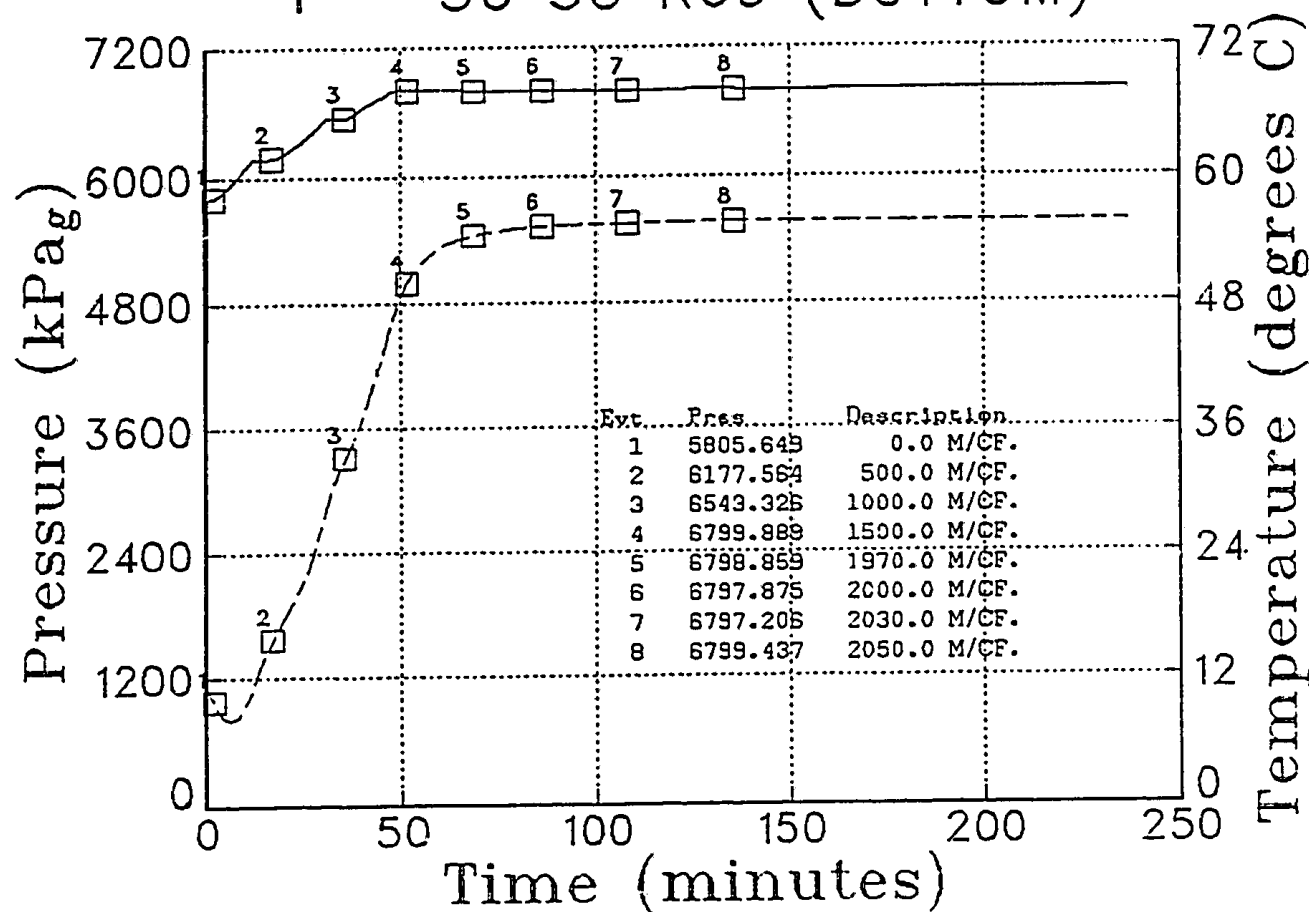
Probe Number: R69 (BOTTOM)
Company: PARAMOUNT RESOURCES LTD.
Well: PARAMOUNT et al LIARD
Location: F - 36
Field: LIARD -
Test Date(s): February 24/99.

Time	Pressure (kPag)	Temperature (degrees C)	Time	Pressure (kPag)	Temperature (degrees C)
Wed Feb 24, 1999			05:47:11	6798.576	54.5830
04:37:11	3137.569	11.1720	05:49:41	6798.460	54.7590
1 - 0.0 M/CF.			05:52:11	6798.262	54.9040
04:39:11	5805.649	9.7550	05:54:41	6798.064	55.0200
04:39:41	5809.257	9.3970	05:57:11	6797.869	55.1160
04:42:11	5880.609	8.2120	05:59:41	6797.695	55.1930
04:44:41	5980.700	8.2070	06:02:11	6797.825	55.2580
04:47:11	6080.209	9.2890	6 - 2000.0 M/CF.		
04:49:41	6172.292	11.5370	06:03:11	6797.875	55.2800
04:52:11	6175.792	14.0420	06:04:41	6797.993	55.3090
2 - 500.0 M/CF.			06:07:11	6797.752	55.3520
04:54:11	6177.564	15.6390	06:09:41	6797.743	55.3880
04:54:41	6177.936	15.9880	06:12:11	6797.696	55.4160
04:57:11	6214.439	17.5640	06:14:41	6797.436	55.4410
04:59:41	6272.620	19.3410	06:17:11	6797.512	55.4670
05:02:11	6342.397	21.4640	06:19:41	6797.380	55.4840
05:04:41	6425.185	24.1080	06:22:11	6797.373	55.5010
05:07:11	6508.160	27.1130	06:24:41	6797.257	55.5160
05:09:41	6542.138	30.2340	7 - 2030.0 M/CF.		
05:12:11	6543.273	32.7480	06:25:11	6797.206	55.5200
3 - 1000.0 M/CF.			06:27:11	6797.415	55.5310
05:12:41	6543.326	33.1630	06:29:41	6798.255	55.5480
05:14:41	6575.592	34.6560	06:32:11	6798.651	55.5690
05:17:11	6632.019	36.9510	06:34:41	6798.878	55.5900
05:19:41	6685.362	39.7970	06:37:11	6799.150	55.6130
05:22:11	6737.963	42.9460	06:39:41	6799.133	55.6330
05:24:41	6791.122	46.0890	06:42:11	6800.142	55.6620
05:27:11	6799.583	48.7620	06:44:41	6800.024	55.6750
4 - 1500.0 M/CF.			06:47:11	6799.710	55.6840
05:28:41	6799.889	49.9330	Maximum Recorded Temperature		
05:29:41	6800.155	50.5750	06:49:41	6799.893	55.6920
05:32:11	6800.040	51.8110	06:52:11	6799.623	55.6900
05:34:41	6799.708	52.6710	8 - 2050.0 M/CF.		
05:37:11	6799.356	53.2960	06:52:41	6799.437	55.6900
05:39:41	6799.412	53.7590	06:54:41	6798.919	55.6900
05:42:11	6799.398	54.1050	06:57:11	6797.031	55.6880
05:44:41	6798.983	54.3680	06:59:41	6797.414	55.6840
5 - 1970.0 M/CF.			07:02:11	6797.620	55.6830
05:45:41	6798.859	54.4580	07:04:41	6797.925	55.6810

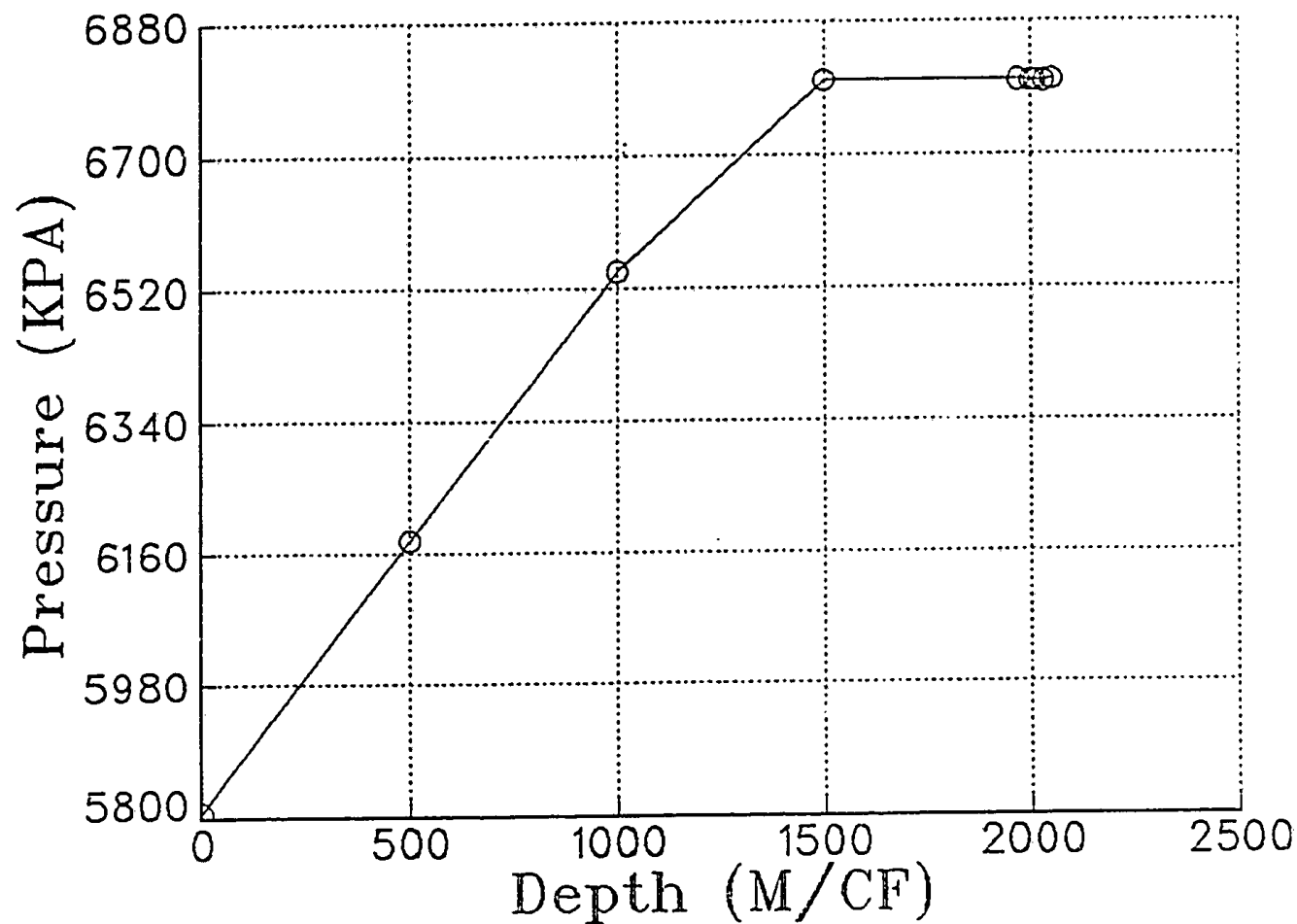
Time	Pressure (kPag)	Temperature (degrees C)	Time	Pressure (kPag)	Temperature (degrees C)
Wed Feb 24, 1999			07:54:41	6803.474	55.6710
07:07:11	6798.230	55.6790	07:57:11	6803.888	55.6710
07:09:41	6798.436	55.6770	07:59:41	6804.136	55.6710
07:12:11	6798.762	55.6750	08:02:11	6804.446	55.6710
07:14:41	6799.026	55.6730	08:04:41	6804.737	55.6730
07:17:11	6799.316	55.6730	08:07:11	6805.053	55.6750
07:19:41	6799.625	55.6710	08:09:41	6805.358	55.6730
07:22:11	6799.915	55.6710	08:12:11	6805.647	55.6730
07:24:41	6800.226	55.6710	08:14:41	6805.917	55.6730
07:27:11	6800.495	55.6710	08:17:11	6806.299	55.6770
07:29:41	6800.903	55.6690	08:19:41	6806.563	55.6750
07:32:11	6801.275	55.6690	08:22:11	6806.812	55.6750
07:34:41	6801.027	55.6690	08:24:41	6807.102	55.6750
07:37:11	6801.461	55.6690	08:27:11	6807.422	55.6750
07:39:41	6801.710	55.6690	08:29:41	6807.722	55.6750
07:42:11	6802.000	55.6690	08:32:11	6808.075	55.6770
07:44:41	6802.331	55.6690	Maximum Recorded Pressure		
07:47:11	6802.641	55.6690	08:34:11	6808.282	55.6770
07:49:41	6802.972	55.6690	08:34:11	6808.282	55.6770
07:52:11	6803.309	55.6710			

Paramount Resources Ltd.

F - 36 SG R69 (BOTTOM)



Paramount Resources Ltd.
F - 36 SG R69 (BOTTOM)



ZIPGRAPH 3.1b6 for Z.I. Probes, Edmonton Mar. 1, 1999 11:16:33

Tri-Alta Bews Services Ltd. Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	MR. WAYNE TOMM
Phone	# 266 - 2047
Address	4000, 350 - 7th Avenue S.W., CALGARY, ALBERTA T2P - 3W5

WELL INFORMATION

Well Name	PARAMOUNT et al LIARD
Well Location	F - 36
Field and pool	LIARD -
Status (oil, gas, water, injection)	GASWELL
Perforated Intervals	1978.5 - 2040.5 mCF
Mid point of Perforated Intervals (MPP)	2009.5 mCF
Drilling Rig Number	
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level (GL)	
Plug back total depth	
Total depth	
Production Casing	88.9 mm
Production Tubing	N/A

TEST INFORMATION

Test number / Type of test	STATIC GRADIENT
Date(s) of test	February 24/99.
Dead-weight gauge tubing pressure	N/A
Dead-weight gauge casing pressure	6000 kPa
Shut-in date	
Shut-in duration	
Date/time on bottom	February 24/99 @ 06:20.
Date/time off bottom	February 24/99 @ 06:25.
Run depth at probe pressure port	2048.9 mCF

PRESSURE TEST RESULTS

Maximum recorded probe pressure	6803.924 kPag
Maximum recorded probe temperature	54.96 Degrees C
Final buildup pressure	
Gradient Survey Information	YES
Extrapolated pressure to MPP	6800.900 kPag
Final gradient at depth	0.1233 kPa/m

Tri-Alta Bews Job Number

Probe Serial Number

PS4 ()

PROBE INFORMATION

Probe Serial Number	P54 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag (0 - 6000 PSI)
Accuracy	0.05% FS
Resolution	0.0008% FS
Temperature	
Calibrated Temperature Range	-21.1 - 148.6 Degrees C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration file used for reports	P54JA02A.CAL

PROGRAMMING DETAILS

<u>Sequence</u>	<u>Sampling</u>	<u>Sample</u>	<u>Repetitions of step</u>
<u>Step</u>	<u>Mode</u>	<u>Period</u>	<u>Count</u>
1	Pause	5 seconds	5
2	Pressure Trigger	2 minutes	Trig. @ 100 PSI
3	Overrun	30 seconds	to end of memory

Program start time	Feb 24/99 @ 04:37:11
Program end time	Feb 24/99 @ 18:18:11
Total Samples Taken	1643
Usage for this test	0.1440 Ah

Generic Data File Name	P54SGT.GEN
Reported by	TIM BEWS

COMMENTS

Pressure vs. Depth

Probe P54 (TOP)
Company PARAMOUNT RESOURCES LTD.
Well Name PARAMOUNT et al LIARD
Well Location F - 36
Field and Pool LIARD -
Date of Test February 24/99.

Stop Time		Depth	Pressure	Gradient
From	To	(mCF)	(kPag)	(kPa/m)
04:37	04:42	0.000	5805.684	0.7434
04:52	04:57	498.900	6176.574	0.7434
05:10	05:15	998.900	6533.346	0.7135
05:40	05:45	1498.900	6803.553	0.5404
06:02	06:07	1968.900	6802.466	-0.0023
06:08	06:13	1998.900	6801.199	-0.0422
06:14	06:19	2028.900	6800.352	-0.0282
06:20	06:25	2048.900	6802.818	0.1233

MPP Pressure extrapolated using a least-squares fit:
2009.500 6800.900

Data Listing: Every 5th point of the generic data file.

Probe Number: P54 (TOP)
Company: PARAMOUNT RESOURCES LTD.
Well: PARAMOUNT et al LIARD
Location: F - 36
Field: LIARD -
Test Date(s): February 24/99.

Time	Pressure (kPag)	Temperature (degrees C)	Time	Pressure (kPag)	Temperature (degrees C)
Wed Feb 24, 1999					
04:19:08	0.000	31.9270	05:33:08	6803.924	51.4170
04:21:38	0.000	31.3650	05:34:08	6803.659	51.7400
04:24:08	0.000	28.6600	05:36:38	6803.191	52.3900
04:26:38	0.000	25.1220	05:39:08	6802.999	52.8740
04:29:08	0.000	21.8000	05:41:38	6803.089	53.2410
04:31:38	0.000	18.2490	05:44:08	6802.910	53.5320
04:34:08	0.000	14.9770	5 - 1968.9 M/CF.		
04:36:38	784.081	12.9860	05:45:38	6802.466	53.6660
1 - 0.0 M/CF.			05:46:38	6802.323	53.7520
04:39:08	5805.684	12.5140	05:49:08	6802.084	53.9350
04:41:38	5860.316	11.6330	05:51:38	6801.815	54.0860
04:44:08	5961.120	10.8840	05:54:08	6801.587	54.2090
04:46:38	6060.223	11.3020	05:56:38	6801.274	54.3100
04:49:08	6158.731	13.1970	05:59:08	6801.090	54.3960
04:51:38	6175.562	15.5940	06:01:38	6801.179	54.4670
2 - 498.9 M/CF.			6 - 1998.9 M/CF.		
04:53:08	6176.574	16.7140	06:03:08	6801.199	54.5050
04:54:08	6176.990	17.3410	06:04:08	6801.249	54.5280
04:56:38	6202.861	18.6210	06:06:38	6801.028	54.5780
04:59:08	6253.237	20.0050	06:09:08	6800.979	54.6220
05:01:38	6322.466	21.7430	06:11:38	6801.016	54.6580
05:04:08	6404.836	24.0240	06:14:08	6800.716	54.6890
05:06:38	6484.918	26.8010	06:16:38	6800.665	54.7140
05:09:08	6533.561	29.7750	06:19:08	6800.531	54.7360
3 - 998.9 M/CF.			06:21:38	6800.534	54.7580
05:11:08	6533.346	31.8190	06:24:08	6800.497	54.7770
05:11:38	6533.367	32.2580	7 - 2028.9 M/CF.		
05:14:08	6553.566	34.0410	06:25:38	6800.352	54.7860
05:16:38	6611.683	36.0480	06:26:38	6800.409	54.7940
05:19:08	6667.220	38.7030	06:29:08	6801.279	54.8110
05:21:38	6725.872	41.7270	06:31:38	6801.729	54.8320
05:24:08	6781.726	44.8430	06:34:08	6802.027	54.8570
05:26:38	6802.585	47.6010	06:36:38	6802.314	54.8800
05:29:08	6803.391	49.5220	06:39:08	6802.318	54.8950
4 - 1498.9 M/CF.			06:41:38	6803.018	54.9240
05:29:38	6803.553	49.8260	06:44:08	6803.330	54.9420
05:31:38	6803.805	50.8320	06:46:38	6802.793	54.9470
Maximum Recorded Pressure			8 - 2048.9 M/CF.		
			06:48:38	6802.818	54.9510

Time	Pressure (kPag)	Temperature (degrees C)
------	--------------------	----------------------------

Wed Feb 24, 1999

06:49:08	6802.818	54.9510
06:51:38	6802.845	54.9550
06:54:08	6802.115	54.9570
06:56:38	6801.282	54.9570
06:59:08	6800.287	54.9550

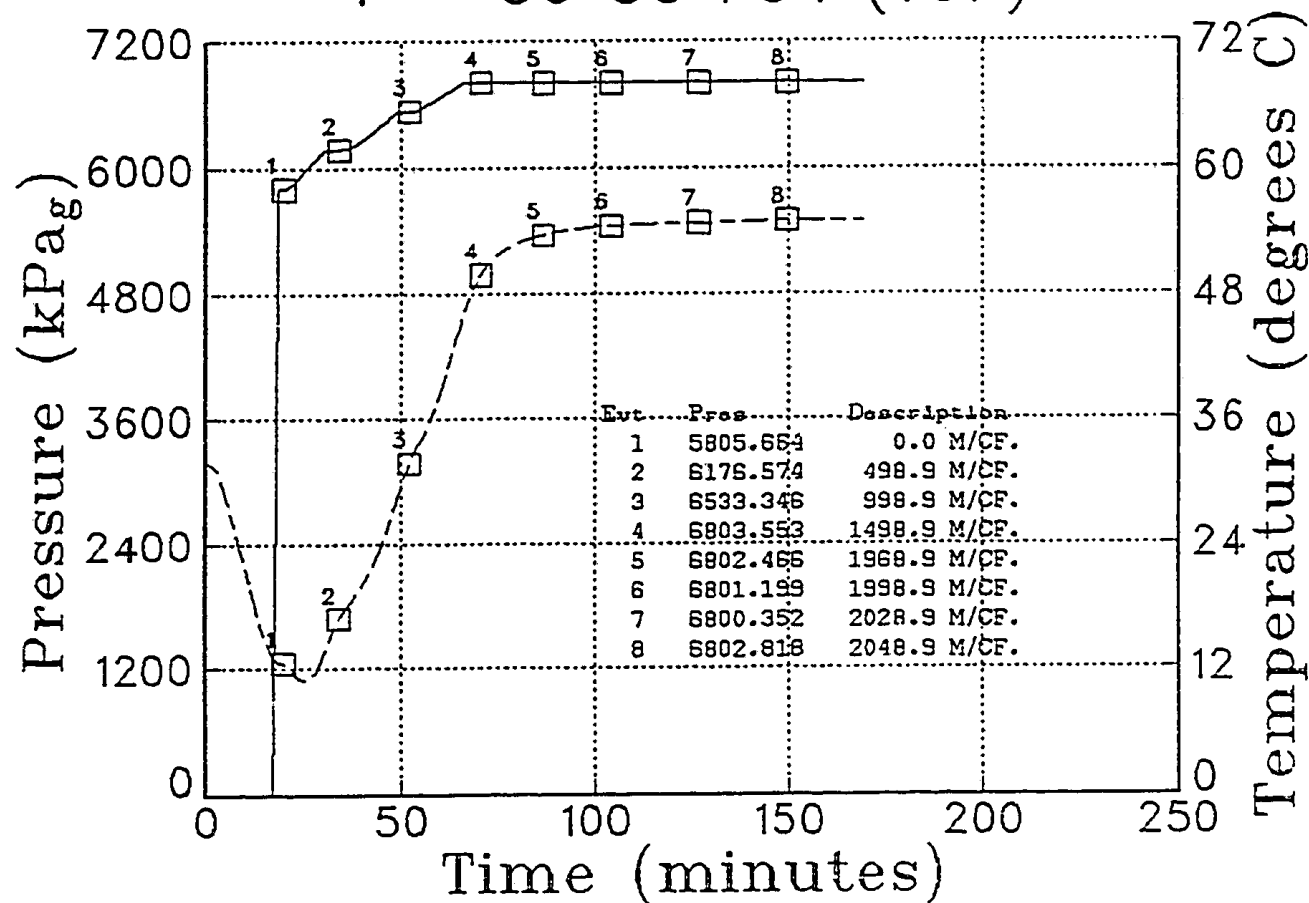
Time	Pressure (kPag)	Temperature (degrees C)
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Maximum Recorded Temperature

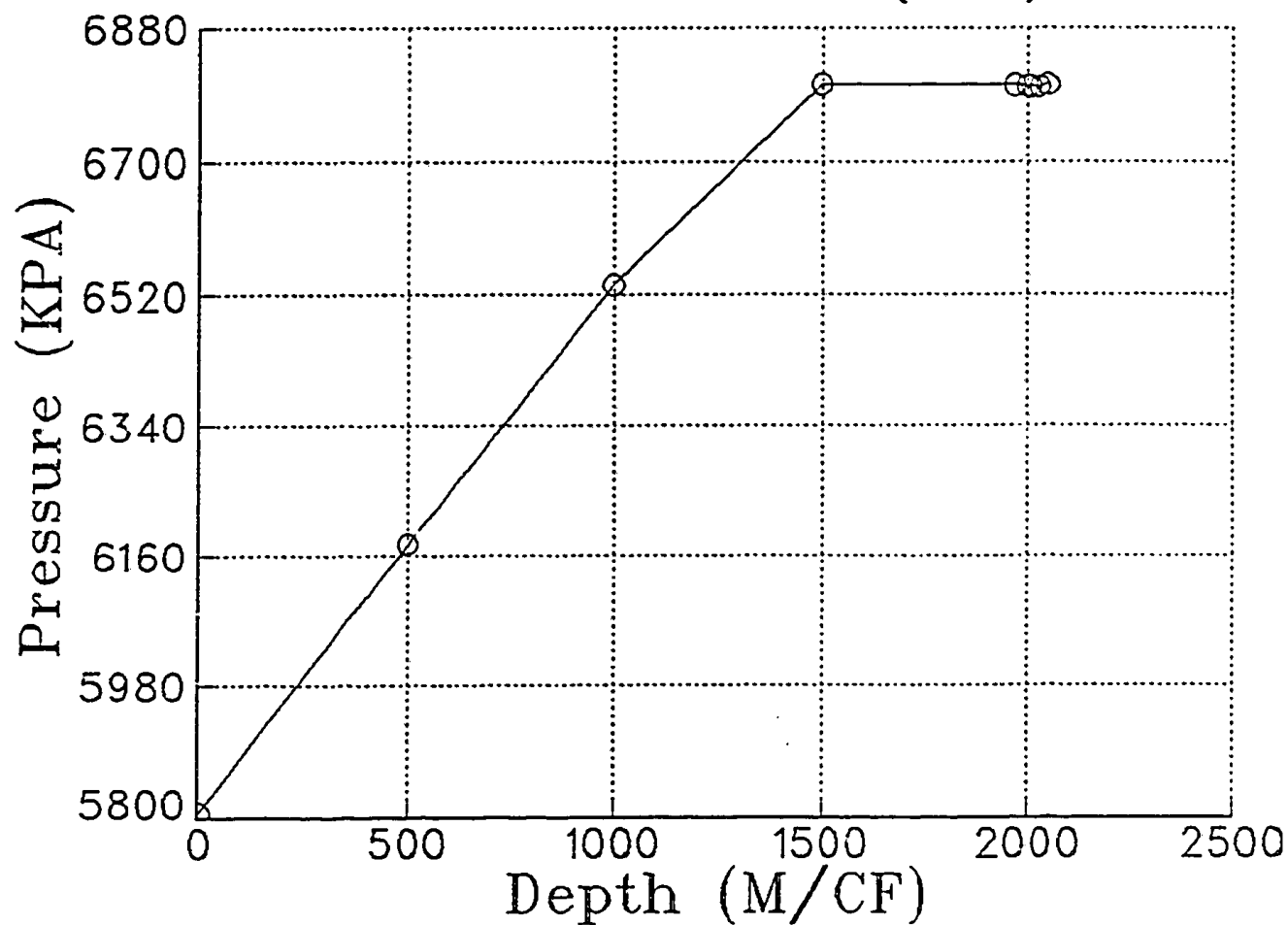
07:00:38	6800.542	54.9630
07:01:38	6800.510	54.9550
07:04:08	6800.809	54.9530
07:06:38	6801.073	54.9530
07:08:08	6801.276	54.9530

Paramount Resources Ltd.

F - 36 SG P54 (TOP)



Paramount Resources Ltd.
F - 36 SG P54 (TOP)



ZIPGRAPH 3.1b6 for Z.I. Probes, Edmonton Mar. 1, 1999 11:21:00

Tri-Alta Bews Services Ltd. Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	MR. WAYNE TOMM
Phone	# 266 - 2047
Address	4000, 350 - 7th Avenue S.W., CALGARY, ALBERTA T2P - 3W5

WELL INFORMATION

Well Name	PARAMOUNT et al LIARD
Well Location	F - 36
Field and pool	LIARD -
Status (oil, gas, water, injection)	GASWELL
Perforated Intervals	1978.5 - 2040.5 mCF
Mid point of Perforated Intervals (MPP)	2009.5 mCF
Drilling Rig Number	
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level (GL)	
Plug back total depth	
Total depth	
Production Casing	88.9 mm
Production Tubing	N/A

TEST INFORMATION

Test number / Type of test	BUILDUP
Date(s) of test	February 24/99.
Dead-weight gauge tubing pressure	N/A
Dead-weight gauge casing pressure	6000 kPa
Shut-in date	
Shut-in duration	
Date/time on bottom	February 24/99 @ 06:19.
Date/time off bottom	February 24/99 @ 17:30.
Run depth at probe pressure port	2050.0 mCF

PRESSURE TEST RESULTS

Maximum recorded probe pressure	6813.279 kPag
Maximum recorded probe temperature	70.97 Degrees C
Final buildup pressure	6584.171 kPag
Gradient Survey Information	YES
Extrapolated pressure to MPP	
Final gradient at depth	

Tri-Alta Bews Job Number

Probe Serial Number

R69 (BOTTOM)

PROBE INFORMATION

Probe Serial Number	R69 (BOTTOM)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag (0 - 6000 PSI)
Accuracy	0.05% FS
Resolution	0.0008% FS
Temperature	
Calibrated Temperature Range	-21.0 - 125.2 Degrees C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration file used for reports	R69OC16A.CAL

PROGRAMMING DETAILS

Sequence	Sampling	Sample	Repetitions of step
<u>Step</u>	<u>Mode</u>	<u>Period</u>	<u>Count</u>
1	Pause	5 seconds	5
2	Pressure Trigger	2 minutes	Trig. @ 100 PSI
3	Overrun	30 seconds	to end of memory

Program start time	Feb 24/99 @ 04:37:11
Program end time	Feb 24/99 @ 18:18:11
Total Samples Taken	1643
Usage for this test	0.1440 Ah

Generic Data File Name	R69FE24A.GEN
Reported by	TIM BEWC

COMMENTS

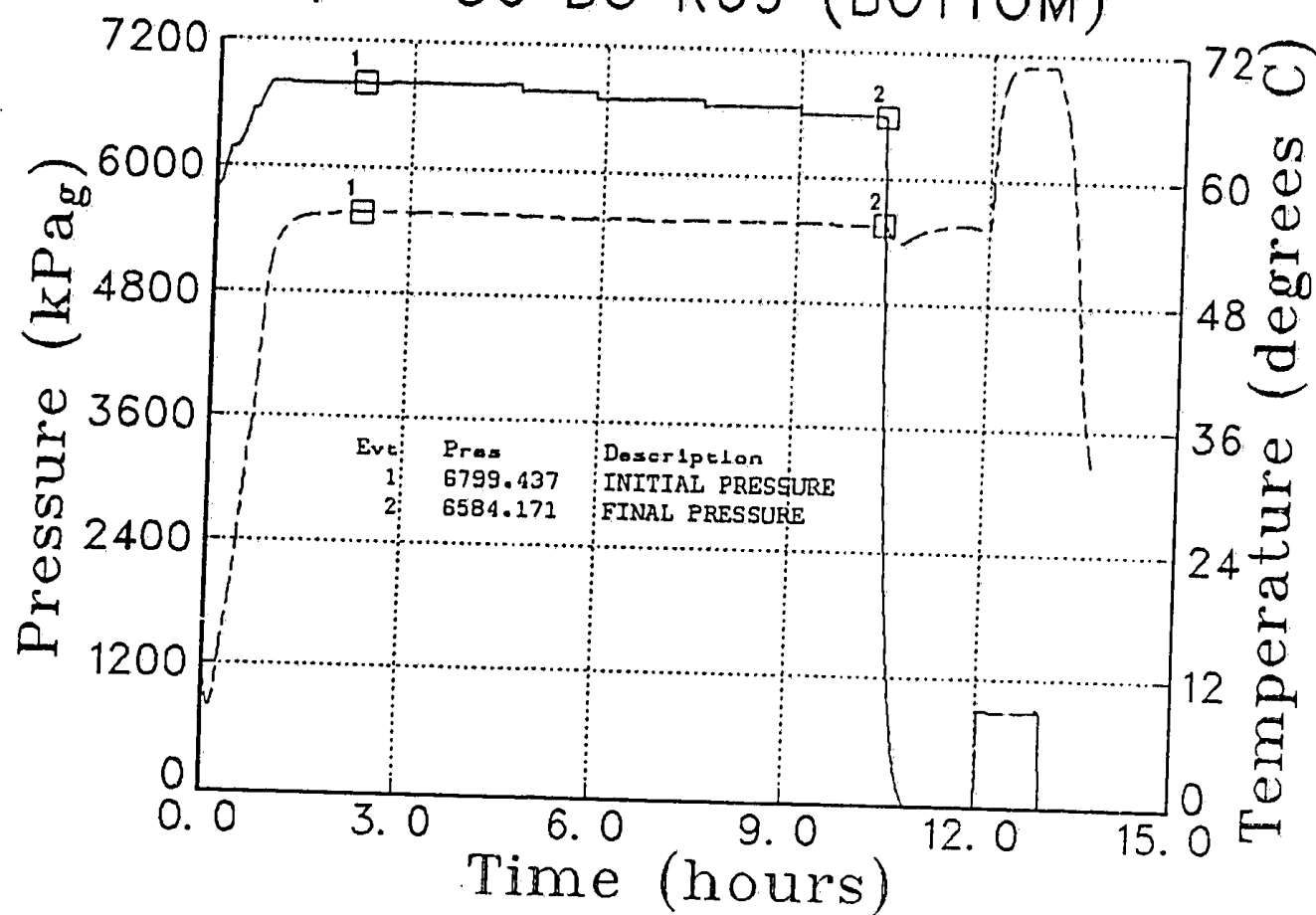
Data Listing: Every 25th point of the generic data file.

Probe Number: R69 (BOTTOM)
Company: PARAMOUNT RESOURCES LTD.
Well: PARAMOUNT et al LIARD
Location: F - 36
Field: LIARD -
Test Date(s): February 24/99.

Time	Pressure (kPag)	Temperature (degrees C)	Time	Pressure (kPag)	Temperature (degrees C)
Wed Feb 24, 1999					
04:37:11	3137.569	11.1720	11:29:41	6702.880	55.4910
04:49:41	6172.292	11.5370	11:42:11	6705.194	55.5230
05:02:11	6342.397	21.4640	11:54:41	6704.194	55.5640
05:14:41	6575.592	34.6560	12:07:11	6705.191	55.5910
05:27:11	6799.583	48.7620	12:19:41	6649.000	55.5630
05:39:41	6799.412	53.7590	12:32:11	6649.969	55.5860
05:52:11	6798.262	54.9040	12:44:41	6649.803	55.6080
06:04:41	6797.993	55.3090	12:57:11	6649.583	55.5760
06:17:11	6797.512	55.4670	13:09:41	6651.861	55.5890
06:29:41	6798.255	55.5480	13:22:11	6650.936	55.6180
06:42:11	6800.142	55.6620	13:34:41	6651.724	55.6330
1 - INITIAL PRESSURE			13:47:11	6596.279	55.5920
06:52:41	6799.437	55.6900	13:59:41	6596.409	55.6110
06:54:41	6798.919	55.6900	14:12:11	6595.875	55.5460
07:07:11	6798.230	55.6790	14:24:41	6598.156	55.4310
07:19:41	6799.625	55.6710	14:37:11	6596.906	55.4900
07:32:11	6801.275	55.6690	14:49:41	6597.798	55.5310
07:44:41	6802.331	55.6690	2 - FINAL PRESSURE		
07:57:11	6803.888	55.6710	14:58:41	6584.171	55.5480
08:09:41	6805.358	55.6730	15:02:11	4427.830	55.2180
08:22:11	6806.812	55.6750	15:14:41	1004.657	53.8550
08:34:41	6808.343	55.6750	15:27:11	109.485	54.4760
08:47:11	6809.771	55.6770	15:39:41	0.000	55.0740
08:59:41	6811.184	55.6790	15:52:11	0.000	55.3590
09:12:11	6812.596	55.6810	16:04:41	0.000	55.5240
09:24:41	6754.524	55.6300	16:17:11	0.000	55.6320
09:37:11	6755.683	55.6300	16:29:41	0.000	55.4190
09:49:41	6755.943	55.6490	16:42:11	900.872	62.6910
10:02:11	6756.022	55.5070	16:54:41	894.927	70.2880
10:14:41	6758.152	55.4960	17:07:11	893.913	70.8780
10:27:11	6757.275	55.5450	17:19:41	892.601	70.9530
10:39:41	6700.193	55.5380	17:32:11	926.838	70.9640
10:52:11	6700.361	55.5720	17:44:41	0.000	67.8730
11:04:41	6700.784	55.6000	17:57:11	0.000	57.4130
11:17:11	6701.902	55.5000	18:09:41	0.000	38.9960
			18:18:11	0.000	32.6810

Paramount Resources Ltd.

F - 36 BU R69 (BOTTOM)



Tri-Alta Bews Services Ltd. Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	MR. WAYNE TOMM
Phone	# 266 - 2047
Address	4000, 350 - 7th Avenue S.W., CALGARY, ALBERTA T2P - 3W5

WELL INFORMATION

Well Name	PARAMOUNT et al LIARD
Well Location	F - 36
Field and pool	LIARD -
Status (oil, gas, water, injection)	GASWELL
Perforated Intervals	1978.5 - 2040.5 mCF
Mid point of Perforated Intervals (MPP)	2009.5 mCF
Drilling Rig Number	
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level (GL)	
Plug back total depth	
Total depth	
Production Casing	88.9 mm
Production Tubing	N/A

TEST INFORMATION

Test number / Type of test	BUILDUP
Date(s) of test	February 24/99.
Dead-weight gauge tubing pressure	N/A
Dead-weight gauge casing pressure	6000 kPa
Shut-in date	
Shut-in duration	
Date/time on bottom	February 24/99 @ 06:19.
Date/time off bottom	February 24/99 @ 17:30.
Run depth at probe pressure port	2048.9 mCF

PRESSURE TEST RESULTS

Maximum recorded probe pressure	6816.195 kPag
Maximum recorded probe temperature	70.37 Degrees C
Final buildup pressure	6586.973 kPag
Gradient Survey Information	YES
Extrapolated pressure to MPP	
Final gradient at depth	

Tri-Alta Bews Job Number

Probe Serial Number P54 (TOP)

PROBE INFORMATION

Probe Serial Number	P54 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag (0 - 6000 PSI)
Accuracy	0.05% FS
Resolution	0.0008% FS
Temperature	
Calibrated Temperature Range	-21.1 - 148.6 Degrees C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration file used for reports	P54JA02A.CAL

PROGRAMMING DETAILS

<u>Sequence</u>	<u>Sampling</u>	<u>Sample</u>	<u>Repetitions of step</u>
<u>Step</u>	<u>Mode</u>	<u>Period</u>	<u>Count</u>
1	Pause	5 seconds	5
2	Overrun	30 seconds	to end of memory
3	Overrun	30 seconds	to end of memory

Program start time	Feb 24/99 @ 04:19:08
Program end time	Feb 24/99 @ 18:20:08
Total Samples Taken	1683
Usage for this test	0.1480 Ah

Generic Data File Name	P54FE24A.GEN
Reported by	TIM BEWS

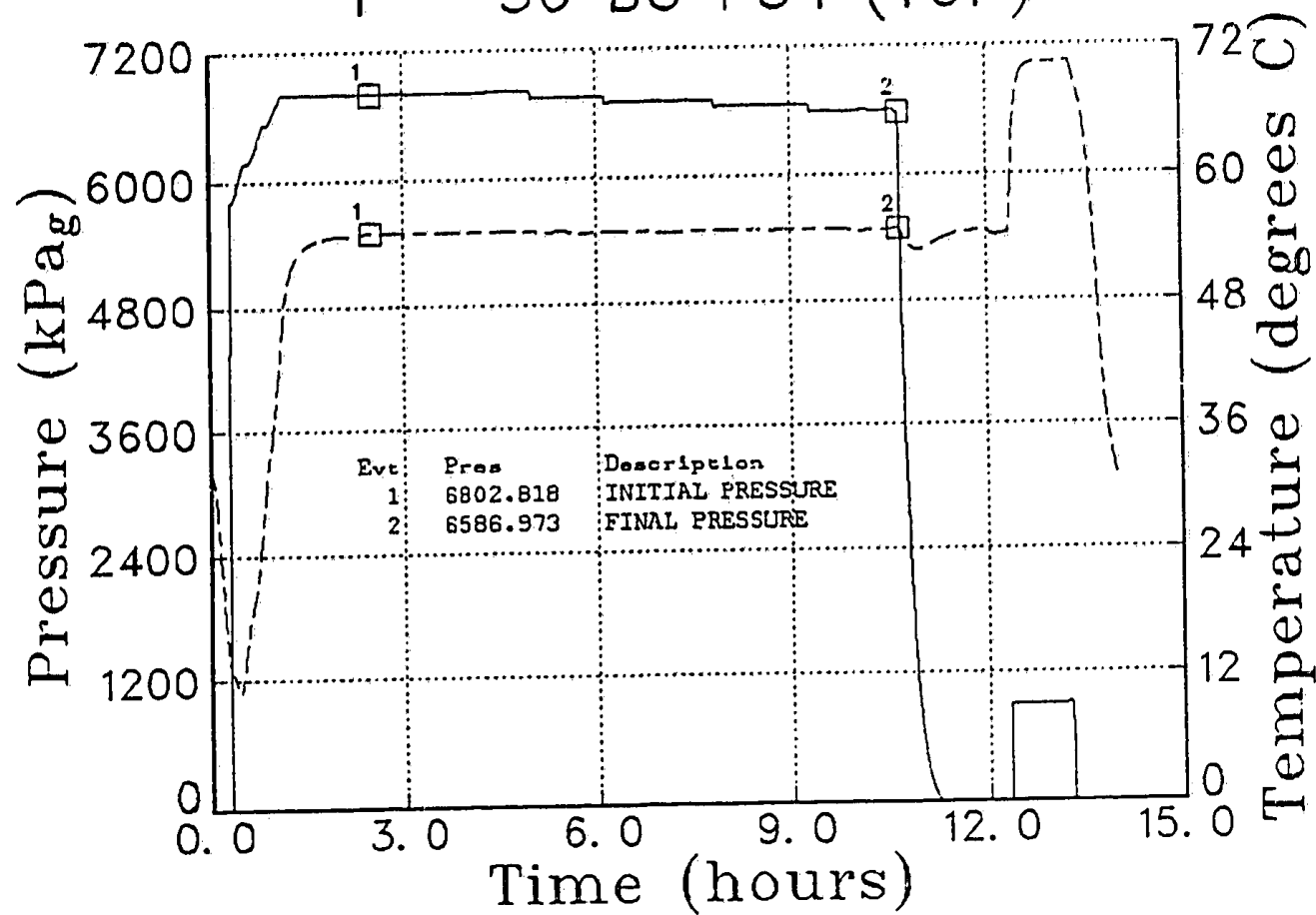
COMMENTS

Data Listing: Every 25th point of the generic data file.

Probe Number: P54 (TOP)
Company: PARAMOUNT RESOURCES LTD.
Well: PARAMOUNT et al LIARD
Location: F - 36
Field: LIARD -
Test Date(s): February 24/99.

Time	Pressure (kPag)	Temperature (degrees C)	Time	Pressure (kPag)	Temperature (degrees C)
Wed Feb 24, 1999					
04:19:08	0.000	31.9270	11:24:08	6705.009	54.7350
04:31:38	0.000	18.2490	11:36:38	6706.124	54.7770
04:44:08	5961.120	10.8840	11:49:08	6707.643	54.8290
04:56:38	6202.861	18.6210	12:01:38	6707.408	54.8650
05:09:08	6533.561	29.7750	12:14:08	6650.567	54.8420
05:21:38	6725.872	41.7270	12:26:38	6652.274	54.8650
05:34:08	6803.659	51.7400	12:39:08	6652.628	54.9020
05:46:38	6802.323	53.7520	12:51:38	6652.437	54.8670
05:59:08	6801.090	54.3960	13:04:08	6653.257	54.8130
06:11:38	6801.016	54.6580	13:16:38	6654.583	54.8630
06:24:08	6800.497	54.7770	13:29:08	6653.585	54.8880
06:36:38	6802.314	54.8800	13:41:38	6597.375	54.8630
1 - INITIAL PRESSURE			13:54:08	6598.963	54.8650
06:48:38	6802.818	54.9510	14:06:38	6598.416	54.8980
06:49:08	6802.818	54.9510	14:19:08	6597.810	54.6590
07:01:38	6800.510	54.9550	14:31:38	6600.075	54.7050
07:14:08	6801.951	54.9550	14:44:08	6599.786	54.7750
07:26:38	6803.399	54.9610	14:56:38	6585.999	54.8210
07:39:08	6804.603	54.9630	2 - FINAL PRESSURE		
07:51:38	6806.177	54.9690	14:58:38	6586.973	54.8210
08:04:08	6807.680	54.9700	15:09:08	1971.836	53.1800
08:16:38	6809.106	54.9740	15:21:38	364.798	53.0090
08:29:08	6810.614	54.9760	15:34:08	0.000	53.6740
08:41:38	6812.103	54.9800	15:46:38	0.000	54.1830
08:54:08	6813.549	54.9820	15:59:08	0.000	54.4740
09:06:38	6814.931	54.9840	16:11:38	0.000	54.6310
Maximum Recorded Pressure			16:24:08	0.000	54.2160
09:17:08	6816.195	54.9860	16:36:38	0.000	54.3730
09:19:08	6751.034	54.9800	16:49:08	892.536	69.0010
09:31:38	6758.257	54.9240	17:01:38	890.246	70.2590
09:44:08	6758.563	54.9420	17:14:08	891.510	70.3370
09:56:38	6758.372	54.8280	17:26:38	889.812	70.3510
10:09:08	6760.314	54.7940	Maximum Recorded Temperature		
10:21:38	6759.896	54.8400	17:36:38	563.850	70.3690
10:34:08	6702.599	54.8320	17:39:08	0.000	69.3390
10:46:38	6703.165	54.8630	17:51:38	0.000	62.2990
10:59:08	6703.549	54.9010	18:04:08	0.000	44.0230
11:11:38	6704.248	54.8250	18:16:38	0.000	32.0610
			18:20:08	0.000	30.5730

Paramount Resources Ltd.
F - 36 BU P54 (TOP)



Baker Atlas
TRI-ALTA BEWS DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Wayne Tomm
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Tri - Alta Bews Services

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard - Tight Hole
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1782.1 - 1941.1 mCF
Mid-point of Perforated Intervals (MPP)	1861.6 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	N/A
Casing Flange (CF)	N/A
KB-CF	3.9 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	114.3 mm
Production Tubing	N/A

1786-2046 mKB

*SHOULD BE
5.5M*

TEST INFORMATION

Test Number / Type of Test	Static Gradient / Flow and Buildup / Static Gradient
Date(s) of Test	March 02 - 05/99.
Dead-weight Gauge Tubing Pressure	N/A
Dead-weight Gauge Casing Pressure	14,500 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	March 02/99 @ 08:34.
Date / Time off Bottom	March 05/99 @ 09:02.

Probe Serial Number	P54 (TOP)	R69 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1958.81 mCF	1959.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	19710.87 kPag	19707.91 kPag
Maximum Recorded Probe Temperature	68.20 deg C	68.92 deg C
Final Buildup Pressure	17105.295 kPag	17109.746 kPag
Gradient Survey Information		
Extrapolated Pressure to MPP	18772.385 kPa	18760.407 kPag
Final Gradient at Depth	9.7027 kPa/m	9.6628 kPa/m
Job Number	N/A	



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 02 - 05/99.

PROBE INFORMATION

Probe Serial Number P54 (TOP)
Model Level II
Pressure
Calibrated Pressure Range 0 - 41370 kPag
Accuracy 0.05% FS
Resolution 0.0015% FS
Temperature
Calibrated Temperature Range -21.1 - 148.6 deg C
Accuracy 0.25% FS
Resolution 0.002% FS
Calibration File Used for Reports P54JA02A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time Mar 02/1999 @ 06:43:44
Program End Time Mar 05/1999 @ 10:32:44
Total Samples Taken 9099
Usage for this Test 0.8010 Ah
Generic Data File Name P54MR05A.GEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lland
Well Location F - 36
Date(s) of Test March 02 - 05/99.

PROBE INFORMATION

Probe Serial Number R69 (BOTTOM)
Model Level II
Pressure
 Calibrated Pressure Range 0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -21.0 - 125.2 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports R69OC16A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Mar 02/1999 @ 06:45:37
Program End Time	Mar 05/1999 @ 10:22:37
Total Samples Taken	9075
Usage for this Test	0.7990 Ah
Generic Data File Name	R69MR05A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 02 - 05/99.

COMMENTS

Reported By

TIM BEWS

MARCH 05/99: TBG: N/A CSG: 13,580 KPA



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 02 - 05/99.

Pressure vs. Depth

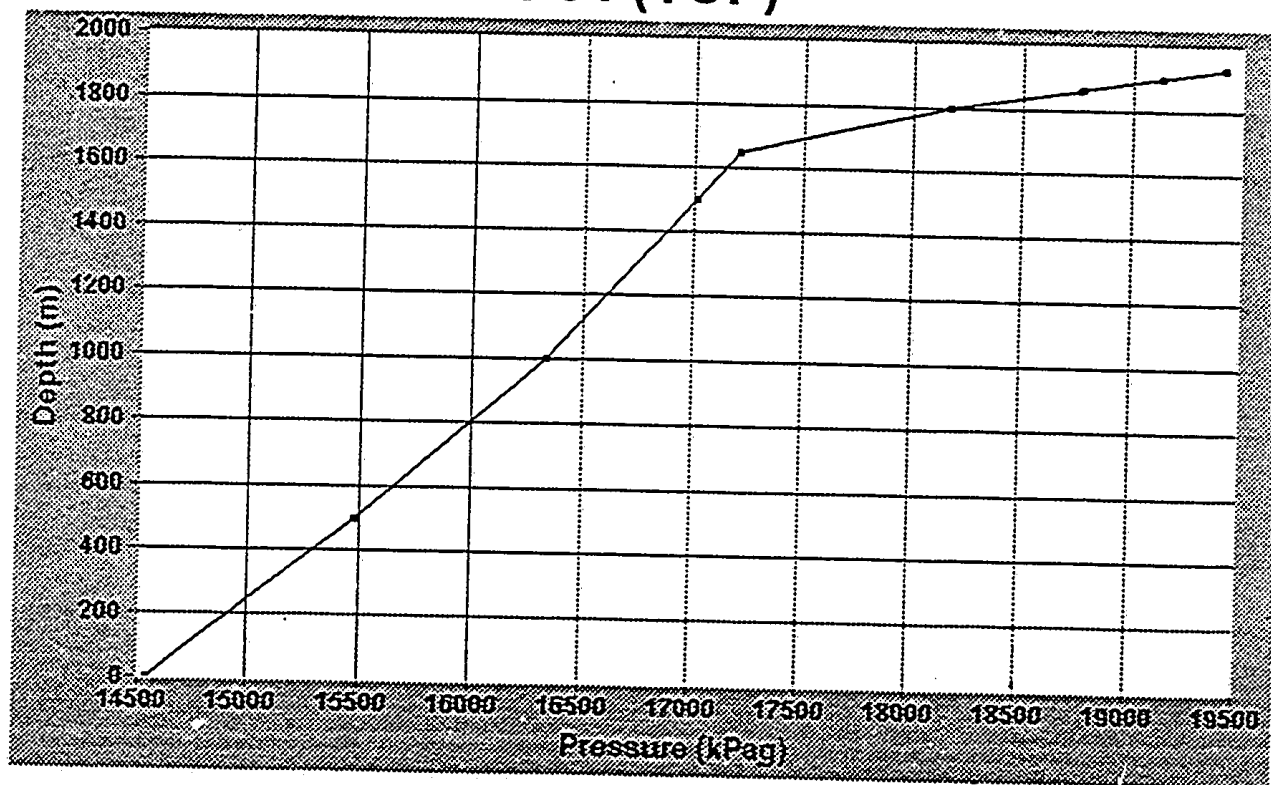
Probe Serial Number P54 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
06:59	07:04	-1.190	14540.011	-
07:12	07:17	498.810	15478.874	1.8777
07:29	07:34	998.810	16330.742	1.7037
07:52	07:57	1498.810	17009.475	1.3575
08:00	08:05	1648.810	17206.182	1.3114
08:08	08:13	1798.810	18169.715	6.4236
08:15	08:20	1860.310	18759.891	9.5964
08:21	08:26	1898.810	19132.799	9.6859
08:27	08:32	1928.810	19423.881	9.7027

Extrapolated MPP Pressure:

1861.600 18772.385

P54 (TOP)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 02 - 05/99.

Pressure vs. Depth

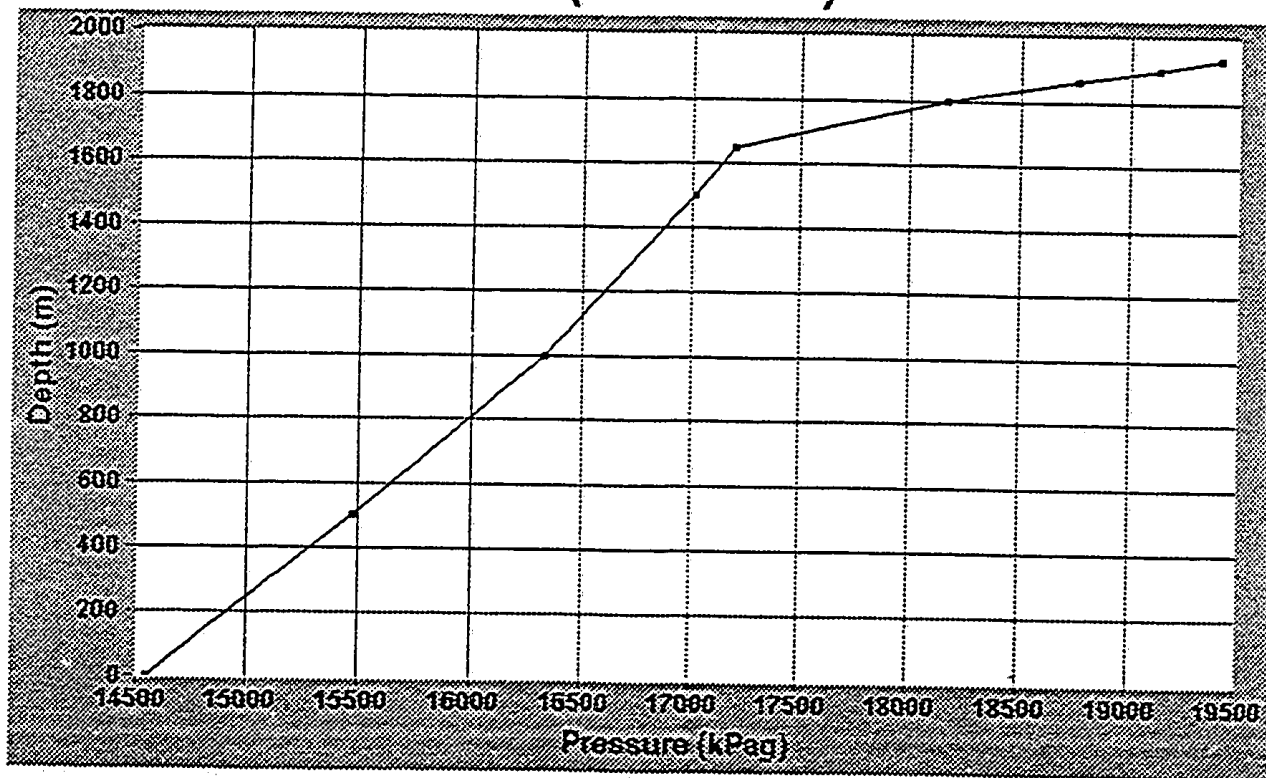
Probe Serial Number R69 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
06:59	07:04	-0.110	14544.956	-
07:12	07:17	499.890	15476.538	1.8632
07:29	07:34	999.890	16325.158	1.6972
07:52	07:57	1499.890	17009.240	1.3682
08:00	08:05	1649.890	17199.039	1.2653
08:08	08:13	1799.890	18169.238	6.4680
08:15	08:20	1861.390	18758.383	9.5796
08:21	08:26	1899.890	19129.457	9.6383
08:27	08:32	1929.890	19419.340	9.6628

Extrapolated MPP Pressure:

1861.600 18760.407

R69 (BOTTOM)





Company
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 38
March 02 - 05/99.

Pressure vs. Depth

Probe Serial Number P54 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
09:03	09:08	1928.810	16823.244	-
09:09	09:14	1898.810	16532.369	9.6958
09:15	09:20	1860.310	16161.186	9.6411
09:21	09:26	1798.810	16005.153	2.5371
09:28	09:33	1648.810	15822.959	1.2146
09:35	09:40	1498.810	15640.093	1.2191
09:44	09:49	998.810	14992.748	1.2947
09:54	09:59	498.810	14316.475	1.3525
10:05	10:10	-1.190	13566.063	1.5008

Extrapolated MPP Pressure:

1861.600 16173.623

P54 (TOP)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 02 - 05/99.

Pressure vs. Depth

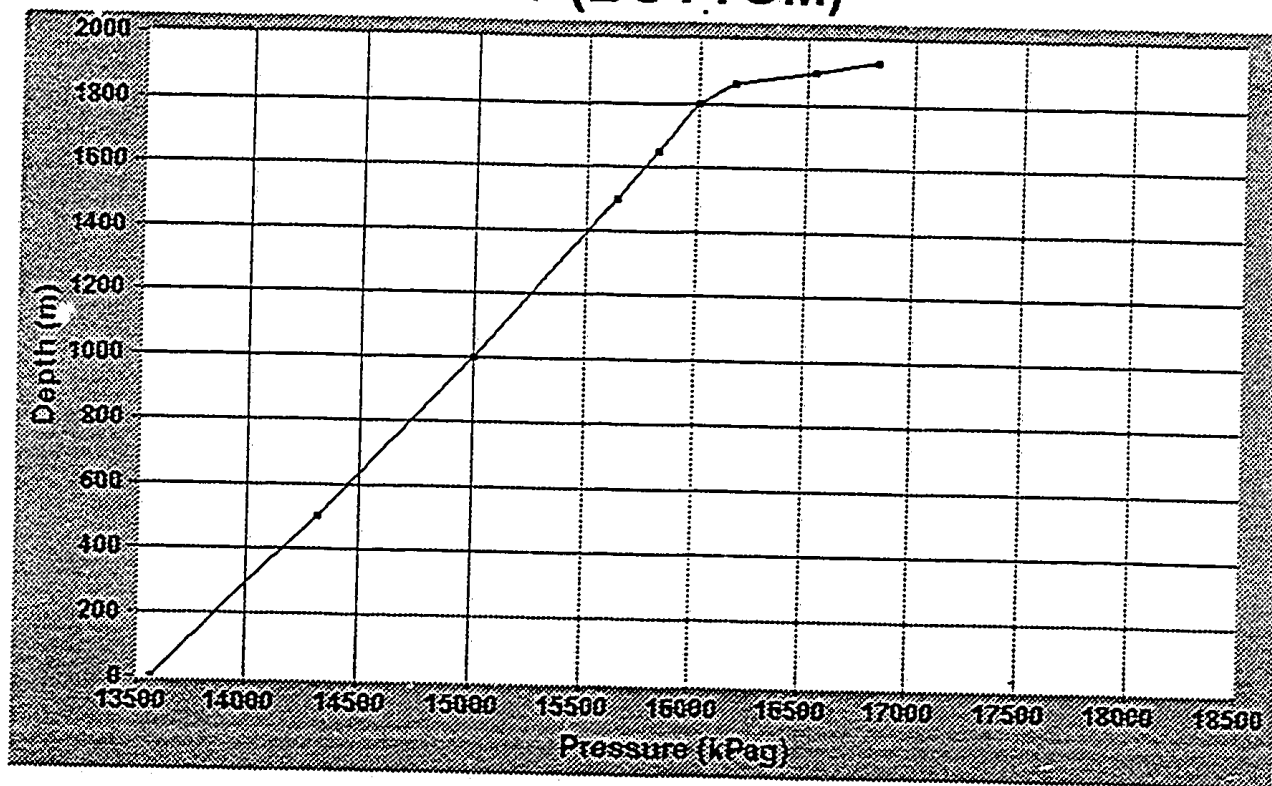
Probe Serial Number R69 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
09:03	09:08	1929.890	16827.451	-
09:09	09:14	1899.890	16536.570	9.6960
09:15	09:20	1861.390	16165.655	9.6342
09:21	09:26	1799.890	16001.994	2.6612
09:28	09:33	1649.890	15820.190	1.2120
09:35	09:40	1499.890	15637.669	1.2168
09:44	09:49	999.890	14997.463	1.2804
09:54	09:59	499.890	14316.182	1.3626
10:05	10:10	-0.110	13565.851	1.5007

Extrapolated MPP Pressure:

1861.600 16167.678

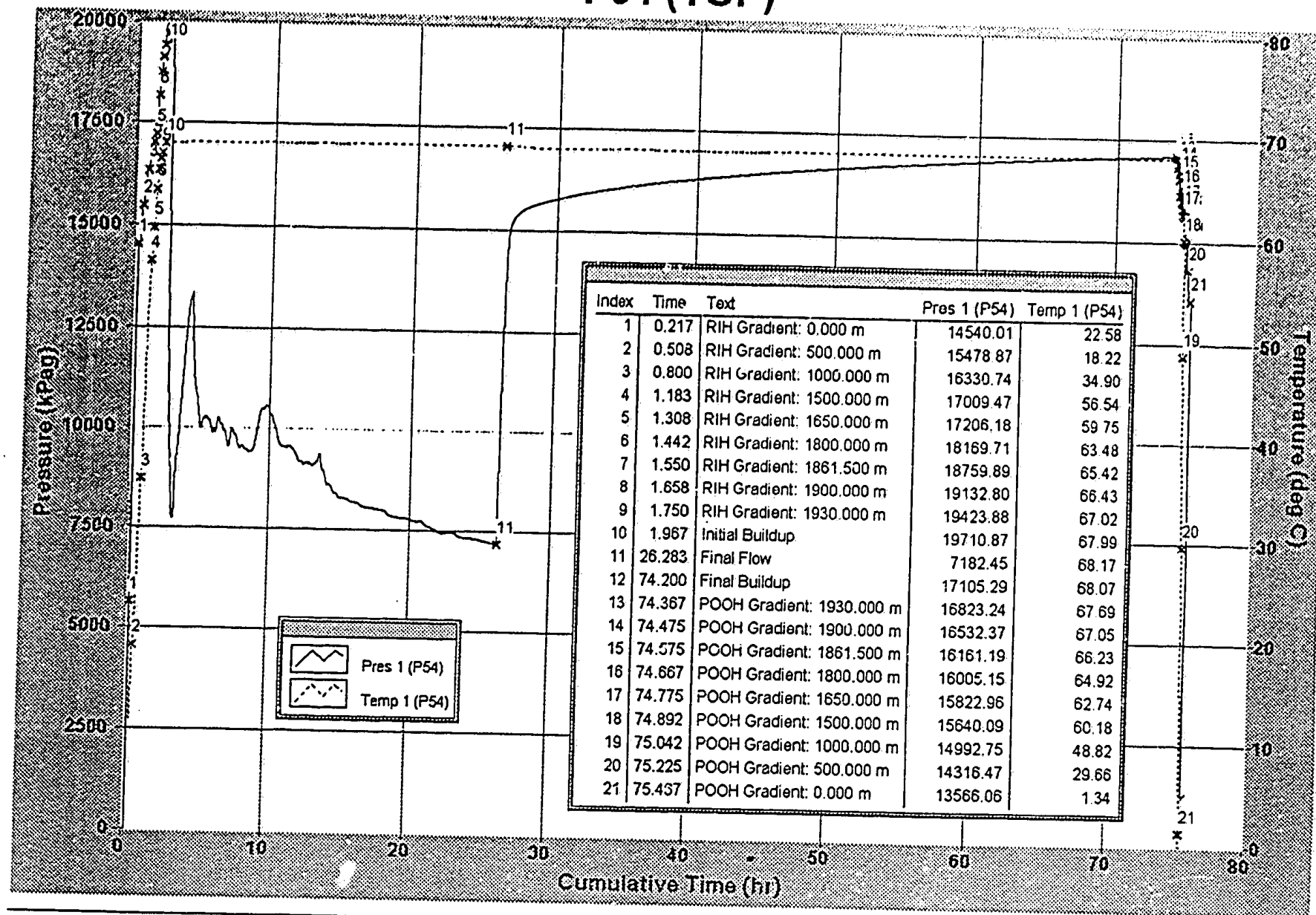
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
 Well Name Paramount et al Liard
 Well Location F - 36
 Date(s) of Test March 02 - 05/99.

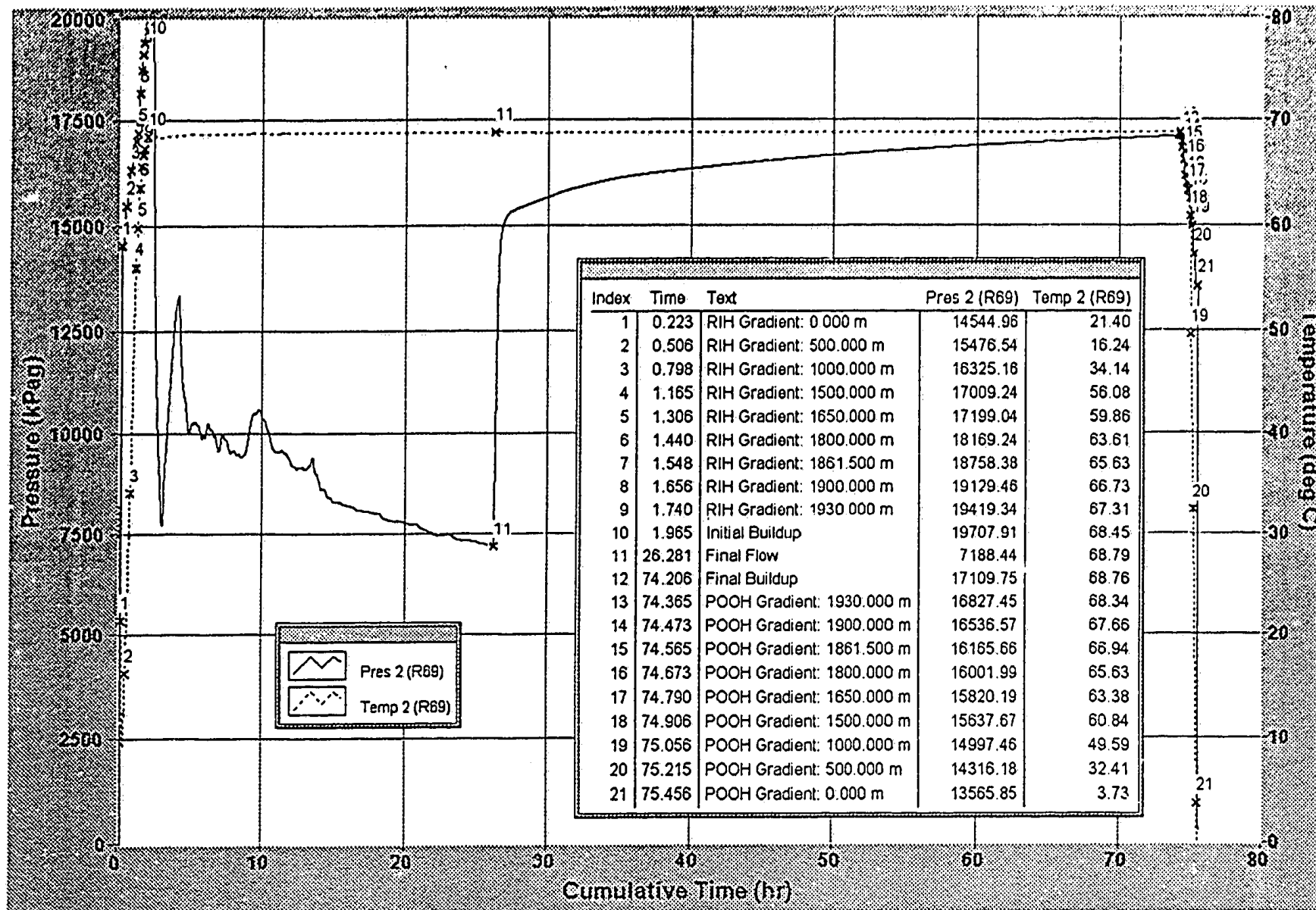
P54 (TOP)





Company Name PARAMOUNT RESOURCES LTD.
 Well Name Paramount et al Liard
 Well Location F - 38
 Date(s) of Test March 02 - 05/09.

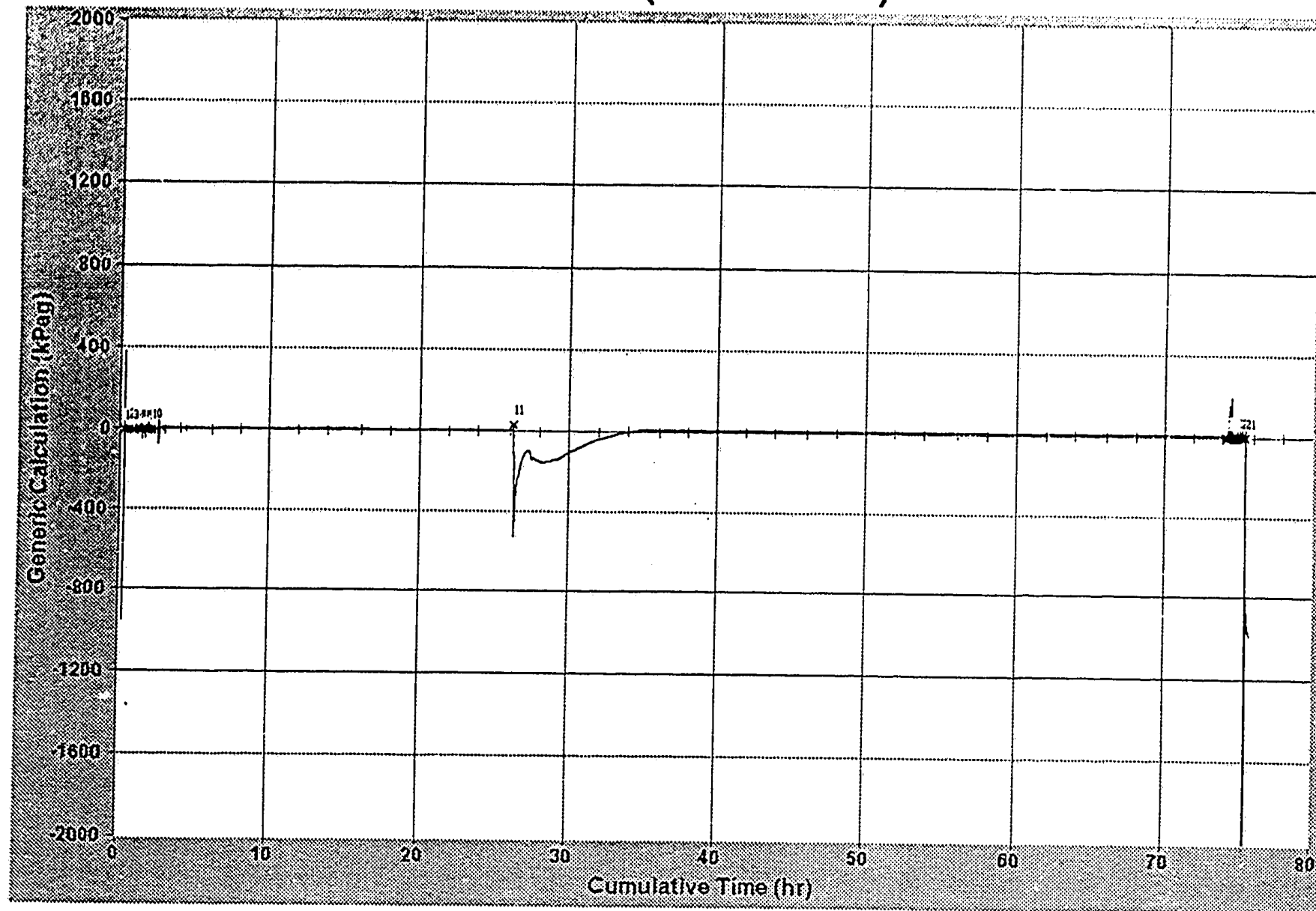
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test March 02 - 05/09.

P54 - R69 (DEVIATION)





Company: • PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Liard
Well Location: F - 36
Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/02	06:43:44	0.0000	0.000	34.344
RIH Gradient 0.000 m				
1999/03/02	06:56:44	0.2167	14540.011	22.582
1999/03/02	06:58:44	0.2500	14564.115	20.418
1999/03/02	07:13:44	0.5000	15478.294	17.848
RIH Gradient 500.000 m				
1999/03/02	07:14:14	0.5083	15478.874	18.219
1999/03/02	07:28:44	0.7500	16329.161	32.205
RIH Gradient 1000.000 m				
1999/03/02	07:31:44	0.8000	16330.742	34.900
1999/03/02	07:43:44	1.0000	16775.078	47.807
RIH Gradient 1500.000 m				
1999/03/02	07:54:44	1.1833	17009.475	56.542
1999/03/02	07:58:44	1.2500	17202.445	58.252
RIH Gradient 1650.000 m				
1999/03/02	08:02:14	1.3083	17206.182	59.752
RIH Gradient 1800.000 m				
1999/03/02	08:10:14	1.4417	18169.715	63.481
1999/03/02	08:13:44	1.5000	18759.236	64.579
RIH Gradient 1861.500 m				
1999/03/02	08:16:44	1.5500	18759.891	65.418
RIH Gradient 1900.000 m				
1999/03/02	08:23:14	1.6583	19132.799	66.427
RIH Gradient 1930.000 m				
1999/03/02	08:28:44	1.7500	19423.881	67.017
Initial Buildup				
1999/03/02	08:41:44	1.9667	19710.865	67.994
1999/03/02	08:43:44	2.0000	19709.682	68.025
1999/03/02	08:58:44	2.2500	19680.854	68.079
1999/03/02	09:13:44	2.5000	13687.007	67.997
1999/03/02	09:28:44	2.7500	9784.011	67.958
1999/03/02	09:43:44	3.0000	7778.532	67.949
1999/03/02	09:58:44	3.2500	9205.363	67.996
1999/03/02	10:13:44	3.5000	10453.015	68.036
1999/03/02	10:28:44	3.7500	11836.139	68.045
1999/03/02	10:43:44	4.0000	12932.119	68.041
1999/03/02	10:58:44	4.2500	13340.464	68.039
1999/03/02	11:13:44	4.5000	11302.422	68.035
1999/03/02	11:28:44	4.7500	10674.476	68.040
1999/03/02	11:43:44	5.0000	10048.558	68.050
1999/03/02	11:58:44	5.2500	10229.308	68.065
1999/03/02	12:13:44	5.5000	10233.852	68.077
1999/03/02	12:28:44	5.7500	10030.044	68.086
1999/03/02	12:43:44	6.0000	9916.748	68.091
1999/03/02	12:58:44	6.2500	10258.655	68.098
1999/03/02	13:13:44	6.5000	10093.638	68.102
1999/03/02	13:28:44	6.7500	9939.983	68.102
1999/03/02	13:43:44	7.0000	9553.404	68.104
1999/03/02	13:58:44	7.2500	9989.549	68.108
1999/03/02	14:13:44	7.5000	9842.441	68.111

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/02	06:45:37	0.0314	0.000	32.916
RIH Gradient 0.000 m				
1999/03/02	06:57:07	0.2231	14544.956	21.403
1999/03/02	07:00:37	0.2814	14577.262	15.897
RIH Gradient 500.000 m				
1999/03/02	07:14:07	0.5064	15476.538	16.236
1999/03/02	07:15:37	0.5314	15516.445	17.398
1999/03/02	07:30:37	0.7814	16324.758	33.258
RIH Gradient 1000.000 m				
1999/03/02	07:31:37	0.7981	16325.158	34.142
1999/03/02	07:45:37	1.0314	16847.812	49.453
RIH Gradient 1500.000 m				
1999/03/02	07:53:37	1.1647	17009.240	56.076
1999/03/02	08:00:37	1.2814	17197.098	59.270
RIH Gradient 1650.000 m				
1999/03/02	08:02:07	1.3064	17199.039	59.858
RIH Gradient 1800.000 m				
1999/03/02	08:10:07	1.4397	18169.238	63.611
1999/03/02	08:15:37	1.5314	18757.873	65.381
RIH Gradient 1861.500 m				
1999/03/02	08:16:37	1.5481	18758.383	65.631
RIH Gradient 1900.000 m				
1999/03/02	08:23:07	1.6564	19129.457	66.730
RIH Gradient 1930.000 m				
1999/03/02	08:28:07	1.7397	19419.340	67.305
1999/03/02	08:30:37	1.7814	19597.213	67.517
Initial Buildup				
1999/03/02	08:41:37	1.9647	19707.908	68.448
1999/03/02	08:45:37	2.0314	19706.446	68.519
1999/03/02	09:00:37	2.2814	19695.502	68.577
1999/03/02	09:15:37	2.5314	12882.683	68.513
1999/03/02	09:30:37	2.7814	9497.144	68.407
1999/03/02	09:45:37	3.0314	7735.279	68.389
1999/03/02	10:00:37	3.2814	9333.228	68.437
1999/03/02	10:15:37	3.5314	10638.075	68.483
1999/03/02	10:30:37	3.7814	11992.921	68.498
1999/03/02	10:45:37	4.0314	13019.621	68.516
1999/03/02	11:00:37	4.2814	13308.073	68.536
1999/03/02	11:15:37	4.5314	11173.228	68.586
1999/03/02	11:30:37	4.7814	10565.139	68.616
1999/03/02	11:45:37	5.0314	10091.313	68.615
1999/03/02	12:00:37	5.2814	10258.881	68.628
1999/03/02	12:15:37	5.5314	10212.787	68.643
1999/03/02	12:30:37	5.7814	9951.426	68.639
1999/03/02	12:45:37	6.0314	9912.069	68.632
1999/03/02	13:00:37	6.2814	10254.323	68.635
1999/03/02	13:15:37	6.5314	10085.233	68.633
1999/03/02	13:30:37	6.7814	9927.697	68.630
1999/03/02	13:45:37	7.0314	9575.018	68.657
1999/03/02	14:00:37	7.2814	9982.583	68.652



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lland
Well Location: F - 38
Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/02	14:28:44	7.7500	9570.854	68.110
1999/03/02	14:43:44	8.0000	9553.438	68.112
1999/03/02	14:58:44	8.2500	9480.746	68.115
1999/03/02	15:13:44	8.5000	9428.558	68.117
1999/03/02	15:28:44	8.7500	9448.332	68.121
1999/03/02	15:43:44	9.0000	9725.161	68.128
1999/03/02	15:58:44	9.2500	10298.940	68.134
1999/03/02	16:13:44	9.5000	10480.383	68.133
1999/03/02	16:28:44	9.7500	10585.166	68.129
1999/03/02	16:43:44	10.0000	10427.054	68.122
1999/03/02	16:58:44	10.2500	10256.702	68.125
1999/03/02	17:13:44	10.5000	9999.863	68.123
1999/03/02	17:28:44	10.7500	9656.874	68.123
1999/03/02	17:43:44	11.0000	9547.567	68.122
1999/03/02	17:58:44	11.2500	9529.280	68.122
1999/03/02	18:13:44	11.5000	9558.002	68.126
1999/03/02	18:28:44	11.7500	9451.342	68.121
1999/03/02	18:43:44	12.0000	9263.909	68.123
1999/03/02	18:58:44	12.2500	9183.123	68.121
1999/03/02	19:13:44	12.5000	9127.501	68.123
1999/03/02	19:28:44	12.7500	9140.261	68.125
1999/03/02	19:43:44	13.0000	9103.363	68.127
1999/03/02	19:58:44	13.2500	9152.720	68.129
1999/03/02	20:13:44	13.5000	9345.754	68.134
1999/03/02	20:28:44	13.7500	9029.039	68.130
1999/03/02	20:43:44	14.0000	8807.249	68.125
1999/03/02	20:58:44	14.2500	8621.977	68.122
1999/03/02	21:13:44	14.5000	8540.073	68.122
1999/03/02	21:28:44	14.7500	8398.876	68.123
1999/03/02	21:43:44	15.0000	8309.976	68.129
1999/03/02	21:58:44	15.2500	8294.255	68.127
1999/03/02	22:13:44	15.5000	8273.742	68.129
1999/03/02	22:28:44	15.7500	8221.920	68.131
1999/03/02	22:43:44	16.0000	8200.436	68.131
1999/03/02	22:58:44	16.2500	8175.511	68.133
1999/03/02	23:13:44	16.5000	8133.009	68.135
1999/03/02	23:28:44	16.7500	8077.167	68.135
1999/03/02	23:43:44	17.0000	8060.495	68.143
1999/03/02	23:58:44	17.2500	8050.759	68.137
1999/03/03	00:13:44	17.5000	8038.936	68.139
1999/03/03	00:28:44	17.7500	8022.775	68.138
1999/03/03	00:43:44	18.0000	8002.903	68.140
1999/03/03	00:58:44	18.2500	7991.996	68.140
1999/03/03	01:13:44	18.5000	7897.215	68.142
1999/03/03	01:28:44	18.7500	7851.471	68.142
1999/03/03	01:43:44	19.0000	7833.622	68.148
1999/03/03	01:58:44	19.2500	7817.208	68.144
1999/03/03	02:13:44	19.5000	7813.242	68.148
1999/03/03	02:28:44	19.7500	7803.995	68.150
1999/03/03	02:43:44	20.0000	7776.133	68.148

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/02	14:15:37	7.5314	9843.890	68.665
1999/03/02	14:30:37	7.7814	9528.257	68.665
1999/03/02	14:45:37	8.0314	9569.139	68.672
1999/03/02	15:00:37	8.2814	9482.300	68.679
1999/03/02	15:15:37	8.5314	9414.168	68.683
1999/03/02	15:30:37	8.7814	9461.651	68.686
1999/03/02	15:45:37	9.0314	9793.957	68.694
1999/03/02	16:00:37	9.2814	10359.329	68.718
1999/03/02	16:15:37	9.5314	10480.196	68.728
1999/03/02	16:30:37	9.7814	10582.872	68.726
1999/03/02	16:45:37	10.0314	10382.703	68.717
1999/03/02	17:00:37	10.2814	10211.295	68.701
1999/03/02	17:15:37	10.5314	9973.008	68.695
1999/03/02	17:30:37	10.7814	9641.158	68.687
1999/03/02	17:45:37	11.0314	9553.824	68.690
1999/03/02	18:00:37	11.2814	9551.323	68.701
1999/03/02	18:15:37	11.5314	9552.004	68.707
1999/03/02	18:30:37	11.7814	9445.345	68.715
1999/03/02	18:45:37	12.0314	9241.604	68.711
1999/03/02	19:00:37	12.2814	9189.673	68.711
1999/03/02	19:15:37	12.5314	9140.399	68.714
1999/03/02	19:30:37	12.7814	9129.562	68.723
1999/03/02	19:45:37	13.0314	9105.165	68.727
1999/03/02	20:00:37	13.2814	9177.679	68.731
1999/03/02	20:15:37	13.5314	9376.390	68.741
1999/03/02	20:30:37	13.7814	9001.963	68.732
1999/03/02	20:45:37	14.0314	8757.548	68.714
1999/03/02	21:00:37	14.2814	8631.701	68.707
1999/03/02	21:15:37	14.5314	8512.261	68.718
1999/03/02	21:30:37	14.7814	8414.420	68.714
1999/03/02	21:45:37	15.0314	8302.876	68.721
1999/03/02	22:00:37	15.2814	8297.369	68.725
1999/03/02	22:15:37	15.5314	8282.652	68.731
1999/03/02	22:30:37	15.7814	8224.716	68.727
1999/03/02	22:45:37	16.0314	8205.101	68.725
1999/03/02	23:00:37	16.2814	8179.155	68.724
1999/03/02	23:15:37	16.5314	8136.885	68.722
1999/03/02	23:30:37	16.7814	8080.017	68.718
1999/03/02	23:45:37	17.0314	8066.224	68.726
1999/03/03	00:00:37	17.2814	8057.953	68.734
1999/03/03	00:15:37	17.5314	8043.184	68.738
1999/03/03	00:30:37	17.7814	8025.470	68.742
1999/03/03	00:45:37	18.0314	8006.657	68.744
1999/03/03	01:00:37	18.2814	7998.161	68.748
1999/03/03	01:15:37	18.5314	7895.843	68.748
1999/03/03	01:30:37	18.7814	7854.251	68.745
1999/03/03	01:45:37	19.0314	7837.815	68.749
1999/03/03	02:00:37	19.2814	7819.583	68.753
1999/03/03	02:15:37	19.5314	7826.133	68.753
1999/03/03	02:30:37	19.7814	7809.498	68.760



Company: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Liard
Well Location: F - 36
Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/03	02:58:44	20.2500	7748.694	68.148
1999/03/03	03:13:44	20.5000	7727.240	68.150
1999/03/03	03:28:44	20.7500	7733.195	68.150
1999/03/03	03:43:44	21.0000	7714.043	68.154
1999/03/03	03:58:44	21.2500	7614.548	68.152
1999/03/03	04:13:44	21.5000	7581.778	68.152
1999/03/03	04:28:44	21.7500	7546.091	68.152
1999/03/03	04:43:44	22.0000	7488.380	68.152
1999/03/03	04:58:44	22.2500	7455.811	68.154
1999/03/03	05:13:44	22.5000	7457.670	68.154
1999/03/03	05:28:44	22.7500	7453.934	68.156
1999/03/03	05:43:44	23.0000	7462.151	68.158
1999/03/03	05:58:44	23.2500	7456.060	68.164
1999/03/03	06:13:44	23.5000	7388.585	68.160
1999/03/03	06:28:44	23.7500	7350.601	68.162
1999/03/03	06:43:44	24.0000	7334.283	68.162
1999/03/03	06:58:44	24.2500	7326.157	68.162
1999/03/03	07:13:44	24.5000	7319.014	68.164
1999/03/03	07:28:44	24.7500	7308.133	68.166
1999/03/03	07:43:44	25.0000	7293.013	68.160
1999/03/03	07:58:44	25.2500	7262.759	68.160
1999/03/03	08:13:44	25.5000	7247.171	68.160
1999/03/03	08:28:44	25.7500	7223.899	68.162
1999/03/03	08:43:44	26.0000	7199.478	68.164
1999/03/03	08:58:44	26.2500	7184.350	68.166
Final Flow				
1999/03/03	09:00:44	26.2833	7182.454	68.170
1999/03/03	09:13:44	26.5000	13182.960	68.172
1999/03/03	09:28:44	26.7500	15066.053	68.192
1999/03/03	09:43:44	27.0000	15291.457	68.170
1999/03/03	09:58:44	27.2500	15394.013	68.143
1999/03/03	10:13:44	27.5000	15466.648	68.128
1999/03/03	10:28:44	27.7500	15523.561	68.112
1999/03/03	10:43:44	28.0000	15565.037	68.056
1999/03/03	10:58:44	28.2500	15600.481	68.008
1999/03/03	11:13:44	28.5000	15630.907	67.996
1999/03/03	11:28:44	28.7500	15657.941	67.961
1999/03/03	11:43:44	29.0000	15683.118	67.973
1999/03/03	11:58:44	29.2500	15707.364	67.942
1999/03/03	12:13:44	29.5000	15730.787	67.954
1999/03/03	12:28:44	29.7500	15753.193	67.965
1999/03/03	12:43:44	30.0000	15775.106	67.973
1999/03/03	12:58:44	30.2500	15796.201	67.969
1999/03/03	13:13:44	30.5000	15816.351	67.971
1999/03/03	13:28:44	30.7500	15836.017	67.979
1999/03/03	13:43:44	31.0000	15855.157	67.987
1999/03/03	13:58:44	31.2500	15873.849	67.991
1999/03/03	14:13:44	31.5000	15892.066	68.002
1999/03/03	14:28:44	31.7500	15909.895	68.014
1999/03/03	14:43:44	32.0000	15926.712	68.014

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/03	02:45:37	20.0314	7779.558	68.759
1999/03/03	03:00:37	20.2814	7753.089	68.761
1999/03/03	03:15:37	20.5314	7732.798	68.761
1999/03/03	03:30:37	20.7814	7738.918	68.767
1999/03/03	03:45:37	21.0314	7699.808	68.767
1999/03/03	04:00:37	21.2814	7614.854	68.760
1999/03/03	04:15:37	21.5314	7584.210	68.758
1999/03/03	04:30:37	21.7814	7550.878	68.764
1999/03/03	04:45:37	22.0314	7490.057	68.764
1999/03/03	05:00:37	22.2814	7452.537	68.766
1999/03/03	05:15:37	22.5314	7465.253	68.768
1999/03/03	05:30:37	22.7814	7466.176	68.770
1999/03/03	05:45:37	23.0314	7470.367	68.774
1999/03/03	06:00:37	23.2814	7459.260	68.778
1999/03/03	06:15:37	23.5314	7388.749	68.778
1999/03/03	06:30:37	23.7814	7355.387	68.780
1999/03/03	06:45:37	24.0314	7339.544	68.784
1999/03/03	07:00:37	24.2814	7331.466	68.788
1999/03/03	07:15:37	24.5314	7325.321	68.788
1999/03/03	07:30:37	24.7814	7312.839	68.788
1999/03/03	07:45:37	25.0314	7296.573	68.784
1999/03/03	08:00:37	25.2814	7266.152	68.784
1999/03/03	08:15:37	25.5314	7251.152	68.785
1999/03/03	08:30:37	25.7814	7227.390	68.787
1999/03/03	08:45:37	26.0314	7204.645	68.787
Final Flow				
1999/03/03	09:00:37	26.2814	7188.435	68.791
1999/03/03	09:15:37	26.5314	13426.384	68.844
1999/03/03	09:30:37	26.7814	14942.516	68.794
1999/03/03	09:45:37	27.0314	15195.526	68.759
1999/03/03	10:00:37	27.2814	15307.211	68.736
1999/03/03	10:15:37	27.5314	15333.761	68.724
1999/03/03	10:30:37	27.7814	15387.014	68.724
1999/03/03	10:45:37	28.0314	15420.375	68.716
1999/03/03	11:00:37	28.2814	15452.013	68.708
1999/03/03	11:15:37	28.5314	15485.289	68.710
1999/03/03	11:30:37	28.7814	15512.542	68.704
1999/03/03	11:45:37	29.0314	15549.070	68.702
1999/03/03	12:00:37	29.2814	15573.914	68.690
1999/03/03	12:15:37	29.5314	15606.491	68.701
1999/03/03	12:30:37	29.7814	15642.663	68.697
1999/03/03	12:45:37	30.0314	15673.543	68.701
1999/03/03	13:00:37	30.2814	15701.706	68.703
1999/03/03	13:15:37	30.5314	15733.011	68.706
1999/03/03	13:30:37	30.7814	15763.553	68.710
1999/03/03	13:45:37	31.0314	15792.187	68.712
1999/03/03	14:00:37	31.2814	15818.717	68.716
1999/03/03	14:15:37	31.5314	15844.118	68.717
1999/03/03	14:30:37	31.7814	15868.965	68.725
1999/03/03	14:45:37	32.0314	15891.674	68.723



Company: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Liard
Well Location: F - 36
Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/03	14:58:44	32.2500	15943.282	68.016
1999/03/03	15:13:44	32.5000	15959.496	68.018
1999/03/03	15:28:44	32.7500	15975.622	68.022
1999/03/03	15:43:44	33.0000	15991.051	68.022
1999/03/03	15:58:44	33.2500	16006.301	68.024
1999/03/03	16:13:44	33.5000	16021.195	68.026
1999/03/03	16:28:44	33.7500	16035.882	68.032
1999/03/03	16:43:44	34.0000	16050.114	68.032
1999/03/03	16:58:44	34.2500	16064.038	68.032
1999/03/03	17:13:44	34.5000	16077.624	68.030
1999/03/03	17:28:44	34.7500	16091.065	68.032
1999/03/03	17:43:44	35.0000	16104.193	68.034
1999/03/03	17:58:44	35.2500	16117.237	68.036
1999/03/03	18:13:44	35.5000	16129.845	68.036
1999/03/03	18:28:44	35.7500	16142.652	68.046
1999/03/03	18:43:44	36.0000	16154.805	68.042
1999/03/03	18:58:44	36.2500	16166.813	68.038
1999/03/03	19:13:44	36.5000	16178.485	68.034
1999/03/03	19:28:44	36.7500	16190.095	68.030
1999/03/03	19:43:44	37.0000	16201.478	68.026
1999/03/03	19:58:44	37.2500	16212.708	68.026
1999/03/03	20:13:44	37.5000	16223.838	68.023
1999/03/03	20:28:44	37.7500	16234.879	68.026
1999/03/03	20:43:44	38.0000	16245.327	68.021
1999/03/03	20:58:44	38.2500	16254.094	68.026
1999/03/03	21:13:44	38.5000	16261.015	68.023
1999/03/03	21:28:44	38.7500	16269.725	68.025
1999/03/03	21:43:44	39.0000	16278.894	68.025
1999/03/03	21:58:44	39.2500	16288.646	68.023
1999/03/03	22:13:44	39.5000	16298.377	68.023
1999/03/03	22:28:44	39.7500	16308.690	68.029
1999/03/03	22:43:44	40.0000	16318.652	68.027
1999/03/03	22:58:44	40.2500	16328.449	68.029
1999/03/03	23:13:44	40.5000	16338.120	68.025
1999/03/03	23:28:44	40.7500	16347.809	68.023
1999/03/03	23:43:44	41.0000	16357.291	68.023
1999/03/03	23:58:44	41.2500	16366.604	68.021
1999/03/04	00:13:44	41.5000	16376.064	68.023
1999/03/04	00:28:44	41.7500	16385.111	68.023
1999/03/04	00:43:44	42.0000	16394.156	68.023
1999/03/04	00:58:44	42.2500	16403.117	68.021
1999/03/04	01:13:44	42.5000	16412.182	68.025
1999/03/04	01:28:44	42.7500	16420.809	68.025
1999/03/04	01:43:44	43.0000	16429.352	68.023
1999/03/04	01:58:44	43.2500	16438.039	68.025
1999/03/04	02:13:44	43.5000	16446.617	68.027
1999/03/04	02:28:44	43.7500	16454.955	68.025
1999/03/04	02:43:44	44.0000	16462.912	68.027
1999/03/04	02:58:44	44.2500	16470.936	68.027
1999/03/04	03:13:44	44.5000	16478.914	68.027

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/03	15:00:37	32.2814	15913.709	68.723
1999/03/03	15:15:37	32.5314	15935.439	68.723
1999/03/03	15:30:37	32.7814	15956.984	68.736
1999/03/03	15:45:37	33.0314	15976.639	68.732
1999/03/03	16:00:37	33.2814	15996.932	68.732
1999/03/03	16:15:37	33.5314	16015.455	68.734
1999/03/03	16:30:37	33.7814	16033.660	68.734
1999/03/03	16:45:37	34.0314	16051.464	68.732
1999/03/03	17:00:37	34.2814	16068.590	68.730
1999/03/03	17:15:37	34.5314	16085.266	68.733
1999/03/03	17:30:37	34.7814	16100.640	68.735
1999/03/03	17:45:37	35.0314	16115.949	68.739
1999/03/03	18:00:37	35.2814	16129.621	68.747
1999/03/03	18:15:37	35.5314	16143.126	68.750
1999/03/03	18:30:37	35.7814	16155.479	68.754
1999/03/03	18:45:37	36.0314	16167.270	68.754
1999/03/03	19:00:37	36.2814	16179.056	68.756
1999/03/03	19:15:37	36.5314	16190.842	68.754
1999/03/03	19:30:37	36.7814	16202.270	68.752
1999/03/03	19:45:37	37.0314	16213.294	68.752
1999/03/03	20:00:37	37.2814	16224.614	68.750
1999/03/03	20:15:37	37.5314	16235.636	68.752
1999/03/03	20:30:37	37.7814	16246.404	68.750
1999/03/03	20:45:37	38.0314	16256.746	68.750
1999/03/03	21:00:37	38.2814	16265.454	68.752
1999/03/03	21:15:37	38.5314	16272.463	68.752
1999/03/03	21:30:37	38.7814	16280.723	68.751
1999/03/03	21:45:37	39.0314	16290.089	68.753
1999/03/03	22:00:37	39.2814	16299.774	68.753
1999/03/03	22:15:37	39.5314	16309.435	68.753
1999/03/03	22:30:37	39.7814	16319.269	68.751
1999/03/03	22:45:37	40.0314	16329.123	68.751
1999/03/03	23:00:37	40.2814	16338.870	68.751
1999/03/03	23:15:37	40.5314	16348.727	68.751
1999/03/03	23:30:37	40.7814	16358.328	68.751
1999/03/03	23:45:37	41.0314	16367.860	68.753
1999/03/04	00:00:37	41.2814	16377.058	68.749
1999/03/04	00:15:37	41.5314	16386.361	68.749
1999/03/04	00:30:37	41.7814	16395.213	68.749
1999/03/04	00:45:37	42.0314	16404.283	68.749
1999/03/04	01:00:37	42.2814	16413.332	68.751
1999/03/04	01:15:37	42.5314	16422.148	68.751
1999/03/04	01:30:37	42.7814	16431.000	68.751
1999/03/04	01:45:37	43.0314	16439.689	68.754
1999/03/04	02:00:37	43.2814	16448.158	68.753
1999/03/04	02:15:37	43.5314	16456.676	68.752
1999/03/04	02:30:37	43.7814	16465.088	68.752
1999/03/04	02:45:37	44.0314	16473.160	68.750
1999/03/04	03:00:37	44.2814	16481.332	68.750
1999/03/04	03:15:37	44.5314	16489.254	68.750



Company: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lard
Well Location: F - 36
Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/04	03:28:44	44.7500	16487.102	68.027
1999/03/04	03:43:44	45.0000	16495.143	68.029
1999/03/04	03:58:44	45.2500	16503.227	68.029
1999/03/04	04:13:44	45.5000	16510.998	68.029
1999/03/04	04:28:44	45.7500	16518.957	68.033
1999/03/04	04:43:44	46.0000	16526.875	68.037
1999/03/04	04:58:44	46.2500	16534.395	68.035
1999/03/04	05:13:44	46.5000	16542.025	68.035
1999/03/04	05:28:44	46.7500	16549.650	68.037
1999/03/04	05:43:44	47.0000	16556.920	68.033
1999/03/04	05:58:44	47.2500	16564.230	68.029
1999/03/04	06:13:44	47.5000	16571.588	68.031
1999/03/04	06:28:44	47.7500	16578.859	68.033
1999/03/04	06:43:44	48.0000	16585.838	68.031
1999/03/04	06:58:44	48.2500	16593.131	68.033
1999/03/04	07:13:44	48.5000	16600.051	68.031
1999/03/04	07:28:44	48.7500	16607.029	68.033
1999/03/04	07:43:44	49.0000	16614.012	68.033
1999/03/04	07:58:44	49.2500	16620.971	68.035
1999/03/04	08:13:44	49.5000	16627.781	68.035
1999/03/04	08:28:44	49.7500	16634.723	68.041
1999/03/04	08:43:44	50.0000	16641.430	68.043
1999/03/04	08:58:44	50.2500	16647.826	68.043
1999/03/04	09:13:44	50.5000	16654.561	68.051
1999/03/04	09:28:44	50.7500	16660.873	68.045
1999/03/04	09:43:44	51.0000	16667.246	68.045
1999/03/04	09:58:44	51.2500	16673.496	68.045
1999/03/04	10:13:44	51.5000	16679.664	68.045
1999/03/04	10:28:44	51.7500	16685.961	68.049
1999/03/04	10:43:44	52.0000	16692.168	68.051
1999/03/04	10:58:44	52.2500	16698.420	68.053
1999/03/04	11:13:44	52.5000	16704.656	68.060
1999/03/04	11:28:44	52.7500	16710.633	68.057
1999/03/04	11:43:44	53.0000	16716.592	68.057
1999/03/04	11:58:44	53.2500	16722.363	68.055
1999/03/04	12:13:44	53.5000	16728.322	68.055
1999/03/04	12:28:44	53.7500	16734.156	68.055
1999/03/04	12:43:44	54.0000	16739.969	68.055
1999/03/04	12:58:44	54.2500	16745.676	68.053
1999/03/04	13:13:44	54.5000	16751.432	68.055
1999/03/04	13:28:44	54.7500	16757.094	68.051
1999/03/04	13:43:44	55.0000	16762.744	68.053
1999/03/04	13:58:44	55.2500	16768.350	68.053
1999/03/04	14:13:44	55.5000	16773.783	68.051
1999/03/04	14:28:44	55.7500	16779.221	68.049
1999/03/04	14:43:44	56.0000	16784.639	68.049
1999/03/04	14:58:44	56.2500	16790.080	68.051
1999/03/04	15:13:44	56.5000	16795.393	68.051
1999/03/04	15:28:44	56.7500	16800.727	68.053
1999/03/04	15:43:44	57.0000	16806.020	68.053

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/04	03:30:37	44.7814	16497.205	68.748
1999/03/04	03:45:37	45.0314	16505.482	68.754
1999/03/04	04:00:37	45.2814	16513.383	68.752
1999/03/04	04:15:37	45.5314	16521.301	68.752
1999/03/04	04:30:37	45.7814	16529.029	68.752
1999/03/04	04:45:37	46.0314	16536.607	68.752
1999/03/04	05:00:37	46.2814	16544.334	68.752
1999/03/04	05:15:37	46.5314	16551.914	68.756
1999/03/04	05:30:37	46.7814	16559.494	68.756
1999/03/04	05:45:37	47.0314	16566.986	68.756
1999/03/04	06:00:37	47.2814	16574.332	68.756
1999/03/04	06:15:37	47.5314	16581.445	68.756
1999/03/04	06:30:37	47.7814	16588.621	68.756
1999/03/04	06:45:37	48.0314	16595.904	68.757
1999/03/04	07:00:37	48.2814	16602.887	68.757
1999/03/04	07:15:37	48.5314	16609.787	68.755
1999/03/04	07:30:37	48.7814	16616.689	68.755
1999/03/04	07:45:37	49.0314	16623.732	68.755
1999/03/04	08:00:37	49.2814	16630.697	68.757
1999/03/04	08:15:37	49.5314	16637.449	68.757
1999/03/04	08:30:37	49.7814	16644.096	68.755
1999/03/04	08:45:37	50.0314	16650.631	68.755
1999/03/04	09:00:37	50.2814	16657.064	68.755
1999/03/04	09:15:37	50.5314	16663.582	68.755
1999/03/04	09:30:37	50.7814	16669.996	68.755
1999/03/04	09:45:37	51.0314	16676.406	68.757
1999/03/04	10:00:37	51.2814	16682.688	68.757
1999/03/04	10:15:37	51.5314	16688.973	68.757
1999/03/04	10:30:37	51.7814	16695.131	68.757
1999/03/04	10:45:37	52.0314	16701.227	68.757
1999/03/04	11:00:37	52.2814	16707.361	68.757
1999/03/04	11:15:37	52.5314	16713.391	68.759
1999/03/04	11:30:37	52.7814	16719.400	68.761
1999/03/04	11:45:37	53.0314	16725.426	68.761
1999/03/04	12:00:37	53.2814	16731.434	68.763
1999/03/04	12:15:37	53.5314	16737.230	68.761
1999/03/04	12:30:37	53.7814	16743.197	68.762
1999/03/04	12:45:37	54.0314	16748.867	68.762
1999/03/04	13:00:37	54.2814	16754.621	68.762
1999/03/04	13:15:37	54.5314	16760.480	68.764
1999/03/04	13:30:37	54.7814	16766.086	68.764
1999/03/04	13:45:37	55.0314	16771.711	68.764
1999/03/04	14:00:37	55.2814	16777.379	68.766
1999/03/04	14:15:37	55.5314	16782.963	68.766
1999/03/04	14:30:37	55.7814	16788.336	68.764
1999/03/04	14:45:37	56.0314	16793.707	68.764
1999/03/04	15:00:37	56.2814	16799.031	68.764
1999/03/04	15:15:37	56.5314	16804.383	68.764
1999/03/04	15:30:37	56.7814	16809.605	68.762
1999/03/04	15:45:37	57.0314	16814.809	68.762



Company / 1 PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/04	15:58:44	57.2500	16811.207	68.053
1999/03/04	16:13:44	57.5000	16816.332	68.053
1999/03/04	16:28:44	57.7500	16821.270	68.053
1999/03/04	16:43:44	58.0000	16826.525	68.055
1999/03/04	16:58:44	58.2500	16831.463	68.055
1999/03/04	17:13:44	58.5000	16836.482	68.055
1999/03/04	17:28:44	58.7500	16841.422	68.055
1999/03/04	17:43:44	59.0000	16846.316	68.055
1999/03/04	17:58:44	59.2500	16851.318	68.055
1999/03/04	18:13:44	59.5000	16856.234	68.055
1999/03/04	18:28:44	59.7500	16861.193	68.057
1999/03/04	18:43:44	60.0000	16866.041	68.057
1999/03/04	18:58:44	60.2500	16870.832	68.057
1999/03/04	19:13:44	60.5000	16875.586	68.059
1999/03/04	19:28:44	60.7500	16880.357	68.059
1999/03/04	19:43:44	61.0000	16885.170	68.059
1999/03/04	19:58:44	61.2500	16889.771	68.057
1999/03/04	20:13:44	61.5000	16894.459	68.059
1999/03/04	20:28:44	61.7500	16898.959	68.059
1999/03/04	20:43:44	62.0000	16903.562	68.061
1999/03/04	20:58:44	62.2500	16907.875	68.061
1999/03/04	21:13:44	62.5000	16912.248	68.059
1999/03/04	21:28:44	62.7500	16916.623	68.059
1999/03/04	21:43:44	63.0000	16921.002	68.061
1999/03/04	21:58:44	63.2500	16925.330	68.059
1999/03/04	22:13:44	63.5000	16929.768	68.059
1999/03/04	22:28:44	63.7500	16934.146	68.059
1999/03/04	22:43:44	64.0000	16938.562	68.061
1999/03/04	22:58:44	64.2500	16942.834	68.061
1999/03/04	23:13:44	64.5000	16947.146	68.059
1999/03/04	23:28:44	64.7500	16951.520	68.059
1999/03/04	23:43:44	65.0000	16955.789	68.059
1999/03/04	23:58:44	65.2500	16960.164	68.059
1999/03/05	00:13:44	65.5000	16964.352	68.059
1999/03/05	00:28:44	65.7500	16968.705	68.061
1999/03/05	00:43:44	66.0000	16972.893	68.061
1999/03/05	00:58:44	66.2500	16977.145	68.061
1999/03/05	01:13:44	66.5000	16981.266	68.059
1999/03/05	01:28:44	66.7500	16985.285	68.059
1999/03/05	01:43:44	67.0000	16989.330	68.061
1999/03/05	01:58:44	67.2500	16993.223	68.059
1999/03/05	02:13:44	67.5000	16997.035	68.059
1999/03/05	02:28:44	67.7500	17000.916	68.061
1999/03/05	02:43:44	68.0000	17004.686	68.061
1999/03/05	02:58:44	68.2500	17008.227	68.061
1999/03/05	03:13:44	68.5000	17011.977	68.061
1999/03/05	03:28:44	68.7500	17015.709	68.063
1999/03/05	03:43:44	69.0000	17019.477	68.063
1999/03/05	03:58:44	69.2500	17023.357	68.067
1999/03/05	04:13:44	69.5000	17026.914	68.063

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/04	16:00:37	57.2814	16820.074	68.764
1999/03/04	16:15:37	57.5314	16825.256	68.764
1999/03/04	16:30:37	57.7814	16830.354	68.766
1999/03/04	16:45:37	58.0314	16835.359	68.764
1999/03/04	17:00:37	58.2814	16840.242	68.762
1999/03/04	17:15:37	58.5314	16845.295	68.762
1999/03/04	17:30:37	58.7814	16850.217	68.762
1999/03/04	17:45:37	59.0314	16855.207	68.762
1999/03/04	18:00:37	59.2814	16860.070	68.762
1999/03/04	18:15:37	59.5314	16865.018	68.762
1999/03/04	18:30:37	59.7814	16869.900	68.764
1999/03/04	18:45:37	60.0314	16874.650	68.760
1999/03/04	19:00:37	60.2814	16879.301	68.760
1999/03/04	19:15:37	60.5314	16884.100	68.760
1999/03/04	19:30:37	60.7814	16888.773	68.760
1999/03/04	19:45:37	61.0314	16893.551	68.760
1999/03/04	20:00:37	61.2814	16898.305	68.760
1999/03/04	20:15:37	61.5314	16902.914	68.760
1999/03/04	20:30:37	61.7814	16907.607	68.764
1999/03/04	20:45:37	62.0314	16911.867	68.760
1999/03/04	21:00:37	62.2814	16916.287	68.760
1999/03/04	21:15:37	62.5314	16920.719	68.760
1999/03/04	21:30:37	62.7814	16924.941	68.758
1999/03/04	21:45:37	63.0314	16929.350	68.758
1999/03/04	22:00:37	63.2814	16933.680	68.756
1999/03/04	22:15:37	63.5314	16937.988	68.756
1999/03/04	22:30:37	63.7814	16942.359	68.756
1999/03/04	22:45:37	64.0314	16946.732	68.756
1999/03/04	23:00:37	64.2814	16951.162	68.754
1999/03/04	23:15:37	64.5314	16955.471	68.754
1999/03/04	23:30:37	64.7814	16959.844	68.756
1999/03/04	23:45:37	65.0314	16964.109	68.754
1999/03/05	00:00:37	65.2814	16968.416	68.754
1999/03/05	00:15:37	65.5314	16972.639	68.754
1999/03/05	00:30:37	65.7814	16977.008	68.754
1999/03/05	00:45:37	66.0314	16980.893	68.755
1999/03/05	01:00:37	66.2814	16985.074	68.755
1999/03/05	01:15:37	66.5314	16989.191	68.755
1999/03/05	01:30:37	66.7814	16993.139	68.755
1999/03/05	01:45:37	67.0314	16997.234	68.755
1999/03/05	02:00:37	67.2814	17001.094	68.755
1999/03/05	02:15:37	67.5314	17005.000	68.755
1999/03/05	02:30:37	67.7814	17008.777	68.755
1999/03/05	02:45:37	68.0314	17012.602	68.757
1999/03/05	03:00:37	68.2814	17016.268	68.755
1999/03/05	03:15:37	68.5314	17019.938	68.755
1999/03/05	03:30:37	68.7814	17023.674	68.757
1999/03/05	03:45:37	69.0314	17027.303	68.755
1999/03/05	04:00:37	69.2814	17031.061	68.757
1999/03/05	04:15:37	69.5314	17034.879	68.759



Company: PARAMOUNT RESOURCES LTD.
 Well Name: Paramount et al Lard
 Well Location: F - 36
 Date(s) of Test: March 02 - 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	04:28:44	69.7500	17030.498	68.063
1999/03/05	04:43:44	70.0000	17033.852	68.063
1999/03/05	04:58:44	70.2500	17037.287	68.063
1999/03/05	05:13:44	70.5000	17040.916	68.065
1999/03/05	05:28:44	70.7500	17044.436	68.065
1999/03/05	05:43:44	71.0000	17047.809	68.063
1999/03/05	05:58:44	71.2500	17051.357	68.069
1999/03/05	06:13:44	71.5000	17054.332	68.065
1999/03/05	06:28:44	71.7500	17057.750	68.065
1999/03/05	06:43:44	72.0000	17061.250	68.067
1999/03/05	06:58:44	72.2500	17064.854	68.067
1999/03/05	07:13:44	72.5000	17068.395	68.067
1999/03/05	07:28:44	72.7500	17072.000	68.067
1999/03/05	07:43:44	73.0000	17075.689	68.067
1999/03/05	07:58:44	73.2500	17079.527	68.071
1999/03/05	08:13:44	73.5000	17083.086	68.069
1999/03/05	08:28:44	73.7500	17086.645	68.067
1999/03/05	08:43:44	74.0000	17086.852	68.065
Final Buildup				
1999/03/05	08:55:44	74.2000	17105.295	68.071
1999/03/05	08:58:44	74.2500	17097.475	68.065
POOH Gradient: 1930.000 m				
1999/03/05	09:05:44	74.3667	16823.244	67.687
POOH Gradient: 1900.000 m				
1999/03/05	09:12:14	74.4750	16532.369	67.049
1999/03/05	09:13:44	74.5000	16161.002	66.921
POOH Gradient: 1861.500 m				
1999/03/05	09:18:14	74.5750	16161.186	66.232
POOH Gradient: 1800.000 m				
1999/03/05	09:23:44	74.6667	16005.153	64.921
1999/03/05	09:28:44	74.7500	15823.312	63.223
POOH Gradient: 1650.000 m				
1999/03/05	09:30:14	74.7750	15822.959	62.737
POOH Gradient: 1500.000 m				
1999/03/05	09:37:14	74.8917	15640.093	60.184
1999/03/05	09:43:44	75.0000	14995.445	53.411
POOH Gradient: 1000.000 m				
1999/03/05	09:46:14	75.0417	14992.748	48.823
POOH Gradient: 500.000 m				
1999/03/05	09:57:14	75.2250	14316.475	29.656
1999/03/05	09:58:44	75.2500	14187.882	28.208
POOH Gradient: 0.000 m				
1999/03/05	10:11:44	75.4667	13566.053	1.342
1999/03/05	10:13:44	75.5000	13018.639	-0.595
1999/03/05	10:28:44	75.7500	1294.598	-5.456

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	04:30:37	69.7814	17038.488	68.759
1999/03/05	04:45:37	70.0314	17041.861	68.759
1999/03/05	05:00:37	70.2814	17045.215	68.759
1999/03/05	05:15:37	70.5314	17048.887	68.759
1999/03/05	05:30:37	70.7814	17052.367	68.761
1999/03/05	05:45:37	71.0314	17055.807	68.761
1999/03/05	06:00:37	71.2814	17059.158	68.759
1999/03/05	06:15:37	71.5314	17062.322	68.761
1999/03/05	06:30:37	71.7814	17065.693	68.761
1999/03/05	06:45:37	72.0314	17069.172	68.759
1999/03/05	07:00:37	72.2814	17072.672	68.759
1999/03/05	07:15:37	72.5314	17076.260	68.759
1999/03/05	07:30:37	72.7814	17079.932	68.759
1999/03/05	07:45:37	73.0314	17083.539	68.759
1999/03/05	08:00:37	73.2814	17087.188	68.759
1999/03/05	08:15:37	73.5314	17090.838	68.759
1999/03/05	08:30:37	73.7814	17094.381	68.759
1999/03/05	08:45:37	74.0314	17094.570	68.757
Final Buildup				
1999/03/05	08:56:07	74.2064	17109.746	68.761
1999/03/05	09:00:37	74.2814	17101.646	68.799
POOH Gradient: 1930.000 m				
1999/03/05	09:05:37	74.3647	16827.451	68.336
POOH Gradient: 1900.000 m				
1999/03/05	09:12:07	74.4731	16536.570	67.657
1999/03/05	09:15:37	74.5314	16165.248	67.218
POOH Gradient: 1861.500 m				
1999/03/05	09:17:37	74.5647	16165.655	66.937
POOH Gradient: 1800.000 m				
1999/03/05	09:24:07	74.6731	16001.994	65.628
1999/03/05	09:30:37	74.7814	15819.867	63.505
POOH Gradient: 1650.000 m				
1999/03/05	09:31:07	74.7897	15820.190	63.376
POOH Gradient: 1500.000 m				
1999/03/05	09:38:07	74.9064	15637.669	60.844
1999/03/05	09:45:37	75.0314	14995.901	51.804
POOH Gradient: 1000.000 m				
1999/03/05	09:47:07	75.0564	14997.463	49.590
POOH Gradient: 500.000 m				
1999/03/05	09:56:37	75.2147	14316.182	32.412
1999/03/05	10:00:37	75.2814	13945.732	27.390
POOH Gradient: 0.000 m				
1999/03/05	10:11:07	75.4564	13565.851	3.728
1999/03/05	10:15:37	75.5314	545.515	-2.500

Baker Atlas
TRI-ALTA BEWS DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Wayne Tomm
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Tri - Alta Bews Services

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard - Tight Hole
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1621.0 - 1632.5 mCF
Mid-point of Perforated Intervals (MPP)	1626.75 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	114.3 mm
Production Tubing	N/A

1626 - 1638 m KB

TEST INFORMATION

Test Number / Type of Test	Static Gradient
Date(s) of Test	March 05/99.
Dead-weight Gauge Tubing Pressure	N/A
Dead-weight Gauge Casing Pressure	13,600 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	March 05/99 @ 22:44.
Date / Time off Bottom	March 05/99 @ 22:54.

Probe Serial Number	P54 (TOP)	R69 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1625.56 mCF	1626.64 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	15904.08 kPag	15901.20 kPag
Maximum Recorded Probe Temperature	58.69 deg C	59.24 deg C
Final Buildup Pressure	N/A	N/A
Gradient Survey information		
Extrapolated Pressure to MPP	15906.330 kPag	15901.436 kPag
Final Gradient at Depth	2.2797 kPa/m	2.1868 kPa/m
Job Number	N/A	



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Llard
F - 36
March 05/99.

PROBE INFORMATION

Probe Serial Number	P54 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-21.1 - 148.6 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P54JA02A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	10 seconds	end of memory	Fill remaining memory

Program Start Time	Mar 05/1999 @ 21:46:01
Program End Time	Mar 05/1999 @ 23:29:31
Total Samples Taken	622
Usage for this Test	0.0540 Ah
Generic Data File Name	P54MR05A.GEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Llard
Well Location F - 36
Date(s) of Test March 05/99.

PROBE INFORMATION

Probe Serial Number R69 (BOTTOM)
Model Level II
Pressure
 Calibrated Pressure Range 0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -21.0 - 125.2 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports R69OC16A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	10 seconds	end of memory	Fill remaining memory

Program Start Time Mar 05/1999 @ 21:47:29
Program End Time Mar 05/1999 @ 23:27:29
Total Samples Taken 601
Usage for this Test 0.0530 Ah
Generic Data File Name R69MR05A.GEN



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Llard
Well Location: F - 36
Date(s) of Test: March 05/99.

COMMENTS

Reported By

TIM BEWS

FINAL PRESSURE: TBG: N/A CSG: 13,960 KPA



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 05/99.



Pressure vs. Depth

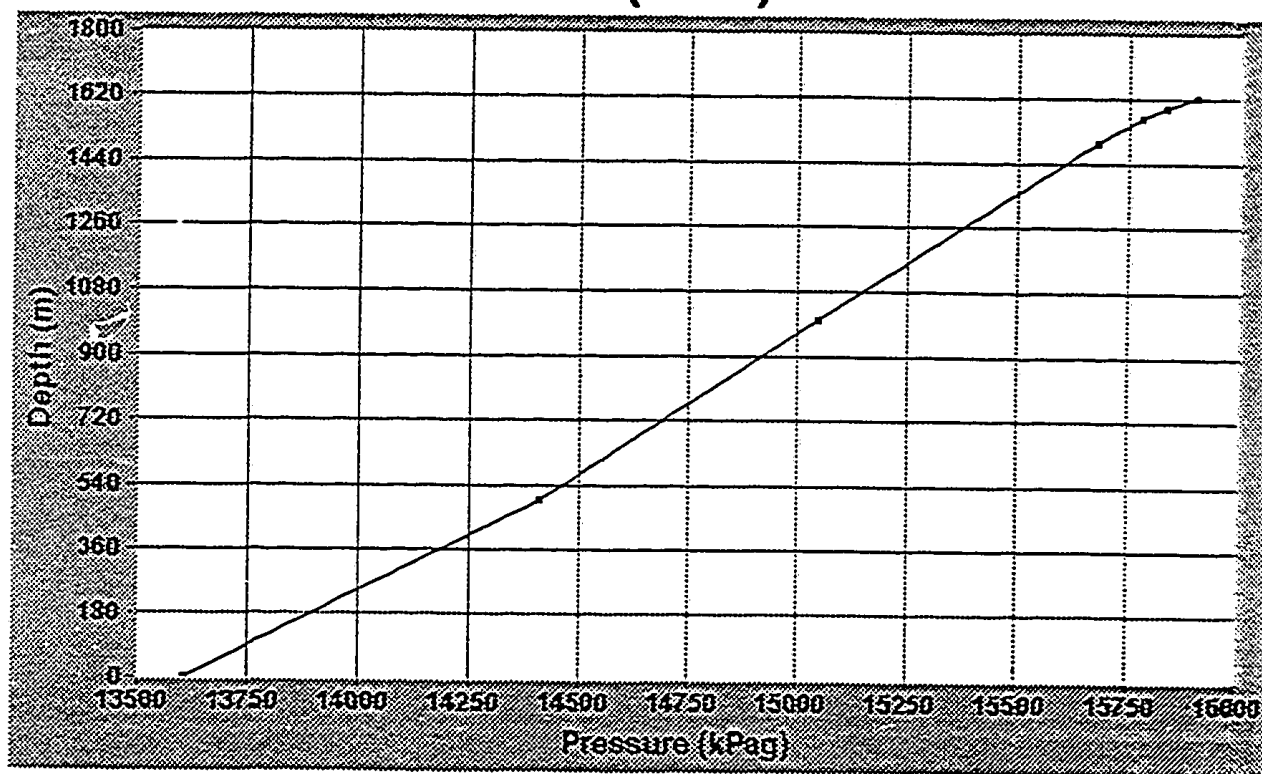
Probe Serial Number P54 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
21:55	22:00	-1.190	13605.764	-
22:06	22:11	498.810	14407.292	1.6031
22:16	22:21	998.810	15048.753	1.2829
22:26	22:31	1498.810	15678.824	1.2601
22:32	22:37	1565.560	15780.791	1.5276
22:38	22:43	1595.560	15835.227	1.8145
22:44	22:54	1625.560	15903.617	2.2797

Extrapolated MPP Pressure:

1626.750 15906.330

P54 (TOP)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 05/99.

Pressure vs. Depth

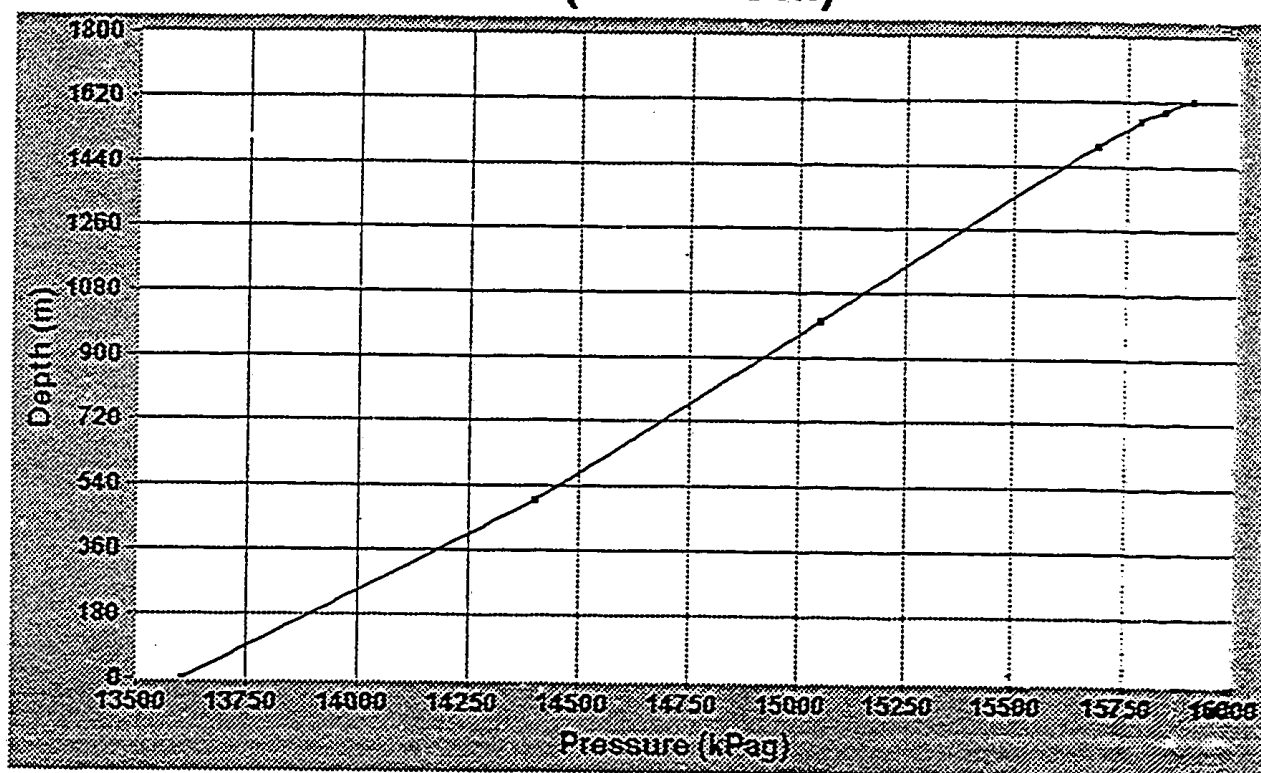
Probe Serial Number R69 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
21:55	22:00	-0.110	13606.485	-
22:06	22:11	499.890	14401.063	1.5892
22:16	22:21	999.890	15050.134	1.2981
22:26	22:31	1499.890	15684.023	1.2678
22:32	22:37	1566.640	15781.749	1.4641
22:38	22:43	1596.640	15835.592	1.7948
22:44	22:54	1626.640	15901.195	2.1868

Extrapolated MPP Pressure:

1626.750 15901.436

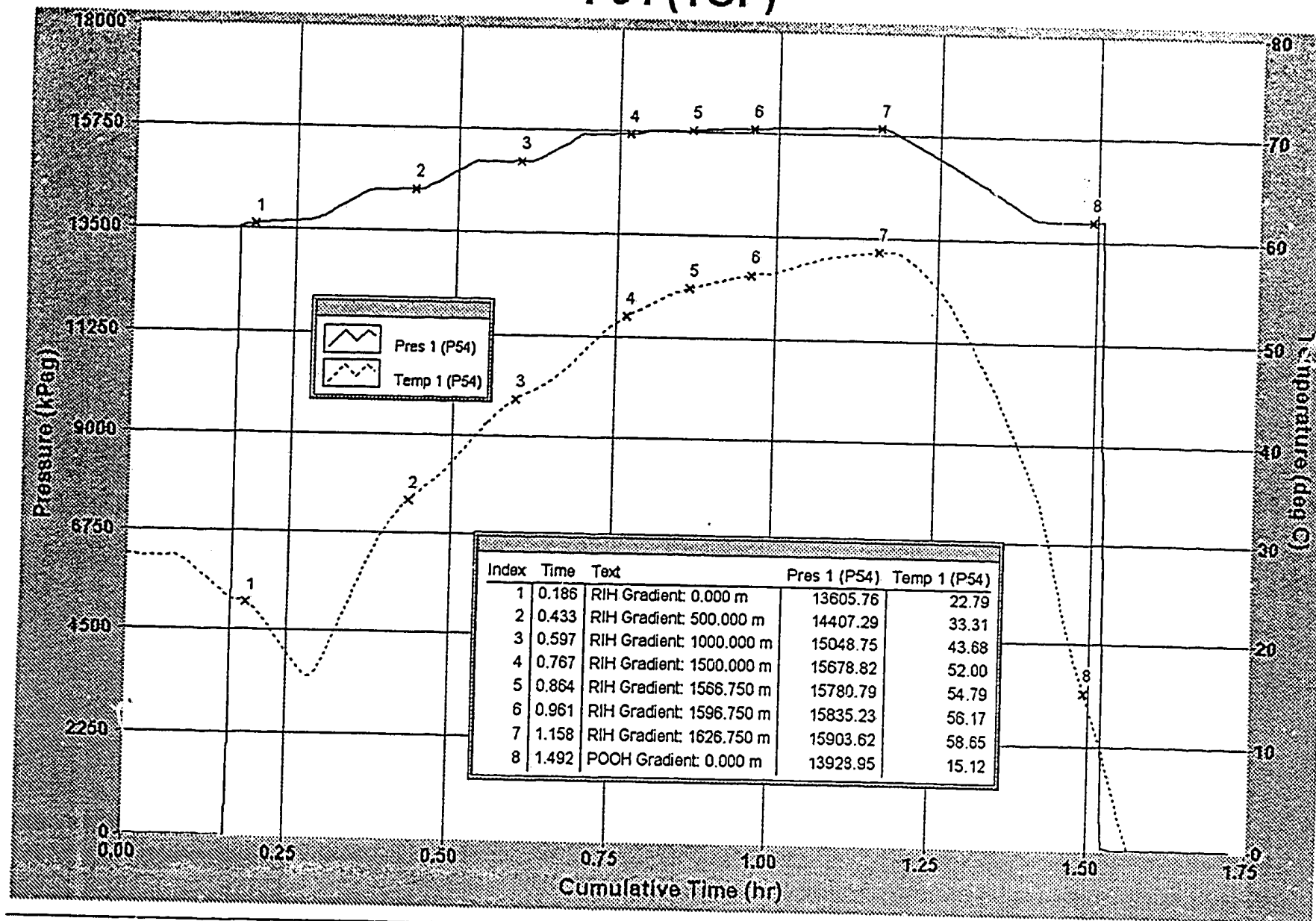
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
 Well Name Paramount et al Liard
 Well Location F - 38
 Date(s) of Test March 05/99.

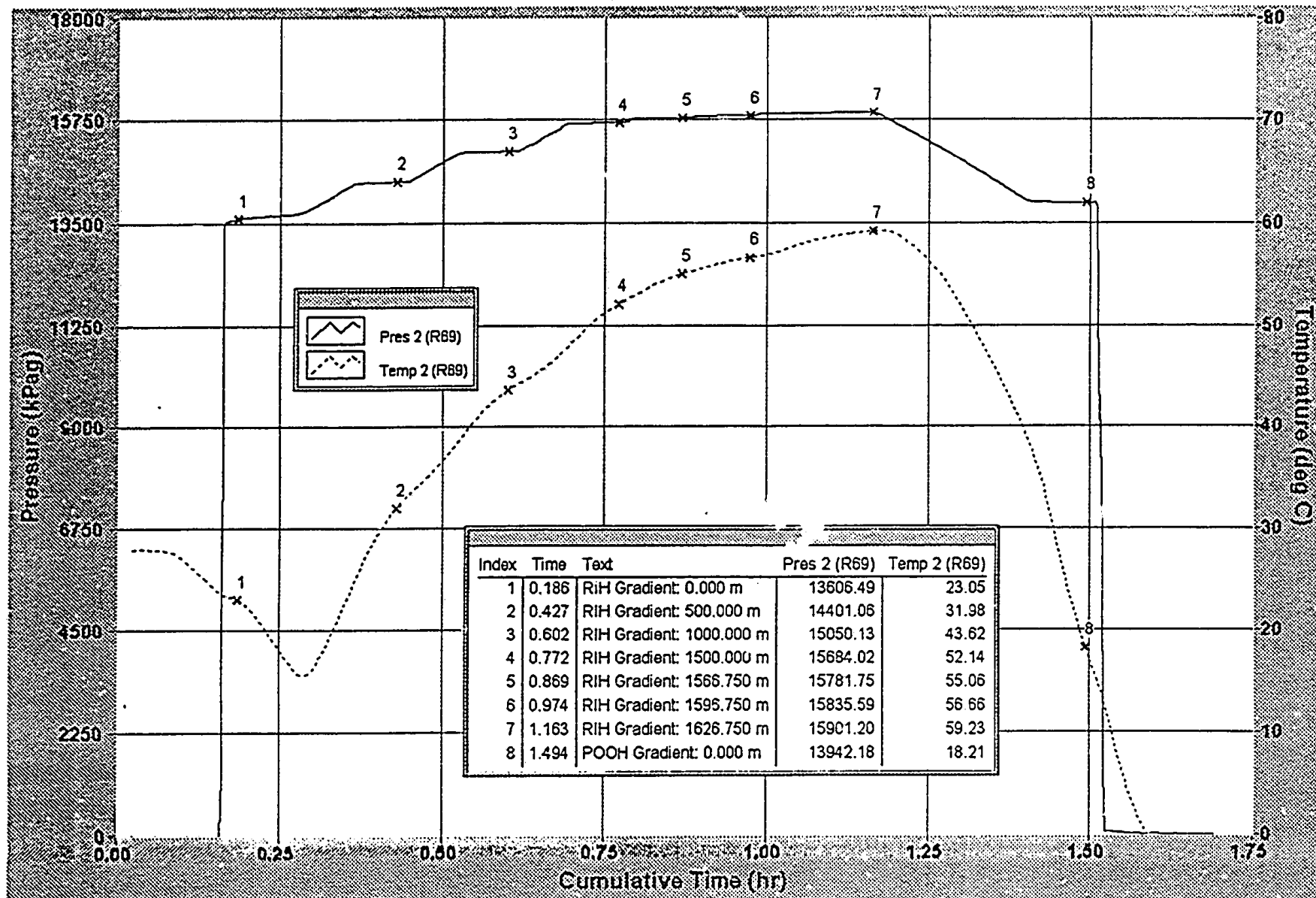
P54 (TOP)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test March 05/09.

R69 (BOTTOM)

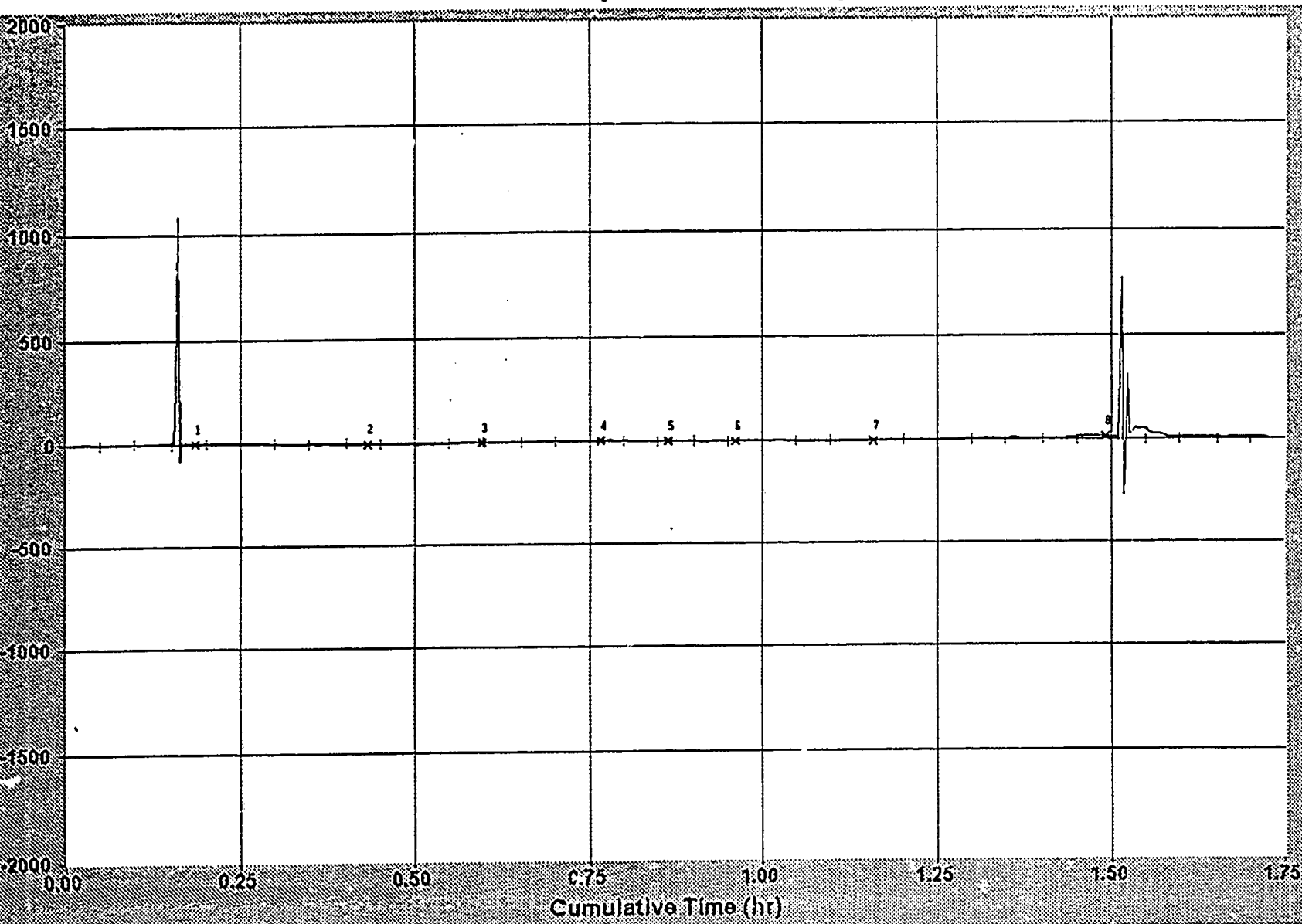




Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 38
March 05/99.

P54 - R69 (DEVIATION)





Company N PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	21:46:01	0.0000	0.525	27.563
1999/03/05	21:46:21	0.0056	0.000	27.592
1999/03/05	21:46:41	0.0111	0.000	27.557
1999/03/05	21:47:11	0.0194	0.000	27.498
1999/03/05	21:47:31	0.0250	0.000	27.369
1999/03/05	21:47:51	0.0306	0.000	27.375
1999/03/05	21:48:01	0.0333	0.000	27.382
1999/03/05	21:48:21	0.0389	0.000	27.398
1999/03/05	21:48:51	0.0472	0.000	27.421
1999/03/05	21:49:11	0.0528	0.000	27.427
1999/03/05	21:49:31	0.0583	0.000	27.415
1999/03/05	21:49:51	0.0639	0.000	27.388
1999/03/05	21:50:11	0.0694	0.000	27.473
1999/03/05	21:50:21	0.0722	0.000	27.459
1999/03/05	21:50:41	0.0778	0.000	27.384
1999/03/05	21:51:11	0.0861	0.000	27.133
1999/03/05	21:51:31	0.0917	0.000	26.887
1999/03/05	21:51:51	0.0972	0.000	26.608
1999/03/05	21:52:01	0.1000	0.000	26.472
1999/03/05	21:52:21	0.1056	0.000	26.186
1999/03/05	21:52:51	0.1139	0.000	25.673
1999/03/05	21:53:21	0.1222	0.000	25.314
1999/03/05	21:53:31	0.1250	0.000	25.159
1999/03/05	21:53:51	0.1306	0.000	24.843
1999/03/05	21:54:21	0.1389	0.000	24.374
1999/03/05	21:54:41	0.1444	0.000	24.056
1999/03/05	21:55:01	0.1500	0.000	23.720
1999/03/05	21:55:11	0.1528	0.000	23.598
1999/03/05	21:55:31	0.1583	0.000	23.306
1999/03/05	21:56:01	0.1667	13526.510	22.992
1999/03/05	21:56:21	0.1722	13559.169	22.949
1999/03/05	21:56:41	0.1778	13582.287	22.949
1999/03/05	21:56:51	0.1806	13592.614	22.922
RIH Gradient: 0.000 m				
1999/03/05	21:57:11	0.1861	13605.764	22.788
1999/03/05	21:57:41	0.1944	13620.793	22.391
1999/03/05	21:58:01	0.2000	13628.955	22.033
1999/03/05	21:58:21	0.2056	13635.877	21.616
1999/03/05	21:58:31	0.2083	13639.102	21.394
1999/03/05	21:58:51	0.2139	13645.102	20.929
1999/03/05	21:59:11	0.2194	13650.640	20.443
1999/03/05	21:59:41	0.2278	13658.600	19.707
1999/03/05	22:00:01	0.2333	13663.634	19.210
1999/03/05	22:00:21	0.2389	13668.562	18.723
1999/03/05	22:00:51	0.2472	13675.471	18.000
1999/03/05	22:01:11	0.2528	13680.101	17.531
1999/03/05	22:01:31	0.2583	13684.386	17.067
1999/03/05	22:01:41	0.2611	13686.572	16.841
1999/03/05	22:02:01	0.2667	13689.434	16.342
1999/03/05	22:02:31	0.2750	13708.943	15.720

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	21:47:29	0.0244	3.500	27.894
1999/03/05	21:47:49	0.0300	2.714	27.940
1999/03/05	21:48:09	0.0356	2.304	27.949
1999/03/05	21:48:29	0.0411	1.855	27.940
1999/03/05	21:48:49	0.0467	1.699	27.940
1999/03/05	21:49:09	0.0522	1.477	27.909
1999/03/05	21:49:29	0.0578	1.410	27.886
1999/03/05	21:49:49	0.0633	1.235	27.902
1999/03/05	21:50:09	0.0689	1.227	27.862
1999/03/05	21:50:29	0.0744	0.566	27.835
1999/03/05	21:50:49	0.0800	0.466	27.721
1999/03/05	21:51:09	0.0856	0.332	27.624
1999/03/05	21:51:29	0.0911	0.397	27.462
1999/03/05	21:51:49	0.0967	0.650	27.243
1999/03/05	21:52:09	0.1022	0.866	26.977
1999/03/05	21:52:29	0.1078	1.127	26.669
1999/03/05	21:52:49	0.1133	1.378	26.357
1999/03/05	21:53:09	0.1189	1.635	26.048
1999/03/05	21:53:29	0.1244	1.900	25.719
1999/03/05	21:53:49	0.1300	2.255	25.374
1999/03/05	21:54:09	0.1356	2.593	25.055
1999/03/05	21:54:29	0.1411	2.922	24.693
1999/03/05	21:54:49	0.1467	3.116	24.387
1999/03/05	21:55:09	0.1522	3.300	24.058
1999/03/05	21:55:29	0.1578	3.392	23.738
1999/03/05	21:55:49	0.1633	13433.611	23.504
1999/03/05	21:56:09	0.1689	13552.144	23.337
1999/03/05	21:56:29	0.1744	13573.138	23.237
1999/03/05	21:56:49	0.1800	13592.135	23.184
RIH Gradient: 0.000 m				
1999/03/05	21:57:09	0.1856	13606.485	23.049
1999/03/05	21:57:29	0.1911	13618.351	22.851
1999/03/05	21:57:49	0.1967	13627.440	22.552
1999/03/05	21:58:09	0.2022	13636.781	22.237
1999/03/05	21:58:29	0.2078	13643.868	21.828
1999/03/05	21:58:49	0.2133	13650.376	21.379
1999/03/05	21:59:09	0.2189	13656.243	20.903
1999/03/05	21:59:29	0.2244	13661.548	20.409
1999/03/05	21:59:49	0.2300	13666.575	19.905
1999/03/05	22:00:09	0.2356	13671.511	19.394
1999/03/05	22:00:29	0.2411	13676.489	18.884
1999/03/05	22:00:49	0.2467	13681.134	18.371
1999/03/05	22:01:09	0.2522	13685.395	17.852
1999/03/05	22:01:29	0.2578	13689.468	17.347
1999/03/05	22:01:49	0.2633	13693.003	16.834
1999/03/05	22:02:09	0.2689	13700.168	16.371
1999/03/05	22:02:29	0.2744	13711.584	15.866
1999/03/05	22:02:49	0.2800	13731.131	15.565
1999/03/05	22:03:09	0.2856	13755.397	15.451
1999/03/05	22:03:29	0.2911	13789.396	15.579



Company Name • PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	22:02:51	0.2806	13728.742	15.467
1999/03/05	22:03:11	0.2861	13755.143	15.514
1999/03/05	22:03:21	0.2889	13771.286	15.643
1999/03/05	22:03:41	0.2944	13813.437	16.071
1999/03/05	22:04:11	0.3028	13878.391	17.015
1999/03/05	22:04:31	0.3083	13922.656	17.772
1999/03/05	22:04:51	0.3139	13967.420	18.573
1999/03/05	22:05:01	0.3167	13989.209	18.979
1999/03/05	22:05:21	0.3222	14032.237	19.834
1999/03/05	22:05:41	0.3278	14077.606	20.670
1999/03/05	22:06:01	0.3333	14123.008	21.495
1999/03/05	22:06:31	0.3417	14192.865	22.771
1999/03/05	22:06:51	0.3472	14237.604	23.635
1999/03/05	22:07:21	0.3556	14304.675	24.912
1999/03/05	22:07:41	0.3611	14350.164	25.740
1999/03/05	22:08:01	0.3667	14373.099	26.553
1999/03/05	22:08:11	0.3694	14375.141	26.953
1999/03/05	22:08:31	0.3750	14378.836	27.737
1999/03/05	22:09:01	0.3893	14383.893	28.822
1999/03/05	22:09:21	0.3889	14386.772	29.479
1999/03/05	22:09:41	0.3944	14389.850	30.092
1999/03/05	22:09:51	0.3972	14391.223	30.378
1999/03/05	22:10:11	0.4028	14394.049	30.924
1999/03/05	22:10:41	0.4111	14398.079	31.682
1999/03/05	22:11:01	0.4167	14400.329	32.132
1999/03/05	22:11:21	0.4222	14402.577	32.553
1999/03/05	22:11:31	0.4250	14403.811	32.753
1999/03/05	22:11:51	0.4306	14406.122	33.130
RIH Gradient: 500.000 m				
1999/03/05	22:12:01	0.4333	14407.292	33.308
1999/03/05	22:12:11	0.4361	14408.444	33.481
1999/03/05	22:12:31	0.4417	14410.606	33.803
1999/03/05	22:13:01	0.4500	14437.656	34.246
1999/03/05	22:13:21	0.4556	14480.294	34.529
1999/03/05	22:13:51	0.4639	14545.156	34.962
1999/03/05	22:14:11	0.4694	14587.414	35.268
1999/03/05	22:14:31	0.4750	14630.066	35.593
1999/03/05	22:14:41	0.4778	14651.894	35.760
1999/03/05	22:15:01	0.4833	14695.570	36.118
1999/03/05	22:15:31	0.4917	14759.046	36.702
1999/03/05	22:15:51	0.4972	14801.687	37.112
1999/03/05	22:16:11	0.5028	14845.132	37.529
1999/03/05	22:16:21	0.5056	14866.335	37.741
1999/03/05	22:16:41	0.5111	14908.075	38.159
1999/03/05	22:17:11	0.5194	14971.396	38.784
1999/03/05	22:17:31	0.5250	15013.692	39.199
1999/03/05	22:17:51	0.5306	15030.689	39.628
1999/03/05	22:18:01	0.5333	15031.959	39.847
1999/03/05	22:18:21	0.5389	15034.048	40.282
1999/03/05	22:18:41	0.5444	15035.992	40.704

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	22:03:49	0.2967	13829.893	15.869
1999/03/05	22:04:09	0.3022	13872.946	16.374
1999/03/05	22:04:29	0.3078	13916.431	16.972
1999/03/05	22:04:49	0.3133	13959.975	17.617
1999/03/05	22:05:09	0.3189	14002.848	18.320
1999/03/05	22:05:29	0.3244	14047.022	19.100
1999/03/05	22:05:49	0.3300	14093.512	19.907
1999/03/05	22:06:09	0.3356	14138.829	20.662
1999/03/05	22:06:29	0.3411	14185.033	21.475
1999/03/05	22:06:49	0.3467	14230.728	22.324
1999/03/05	22:07:09	0.3522	14275.188	23.144
1999/03/05	22:07:29	0.3578	14319.703	23.929
1999/03/05	22:07:49	0.3633	14364.669	24.775
1999/03/05	22:08:09	0.3689	14372.501	25.596
1999/03/05	22:08:29	0.3744	14376.113	26.378
1999/03/05	22:08:49	0.3800	14379.404	27.129
1999/03/05	22:09:09	0.3856	14382.370	27.846
1999/03/05	22:09:29	0.3911	14385.025	28.513
1999/03/05	22:09:49	0.3967	14387.724	29.144
1999/03/05	22:10:09	0.4022	14390.521	29.738
1999/03/05	22:10:29	0.4078	14393.197	30.298
1999/03/05	22:10:49	0.4133	14395.468	30.819
1999/03/05	22:11:09	0.4189	14397.729	31.303
1999/03/05	22:11:29	0.4244	14399.912	31.760
RIH Gradient: 500.000 m				
1999/03/05	22:11:39	0.4272	14401.063	31.980
1999/03/05	22:11:49	0.4300	14402.171	32.191
1999/03/05	22:12:09	0.4356	14404.277	32.592
1999/03/05	22:12:29	0.4411	14406.588	32.971
1999/03/05	22:12:49	0.4467	14409.574	33.310
1999/03/05	22:13:09	0.4522	14449.022	33.614
1999/03/05	22:13:29	0.4578	14493.133	33.966
1999/03/05	22:13:49	0.4633	14535.627	34.274
1999/03/05	22:14:09	0.4689	14577.339	34.588
1999/03/05	22:14:29	0.4744	14620.534	34.953
1999/03/05	22:14:49	0.4800	14663.468	35.289
1999/03/05	22:15:09	0.4856	14707.045	35.688
1999/03/05	22:15:29	0.4911	14748.768	36.077
1999/03/05	22:15:49	0.4967	14790.803	36.474
1999/03/05	22:16:09	0.5022	14833.587	36.871
1999/03/05	22:16:29	0.5078	14876.223	37.311
1999/03/05	22:16:49	0.5133	14917.791	37.732
1999/03/05	22:17:09	0.5189	14961.396	38.192
1999/03/05	22:17:29	0.5244	15002.826	38.577
1999/03/05	22:17:49	0.5300	15023.660	38.999
1999/03/05	22:18:09	0.5356	15027.198	39.465
1999/03/05	22:18:29	0.5411	15030.545	39.933
1999/03/05	22:18:49	0.5467	15032.619	40.359
1999/03/05	22:19:09	0.5522	15034.734	40.769
1999/03/05	22:19:29	0.5578	15036.630	41.160



Company Name: PARAMOUNT RESOURCES LTD.
 Well Name: Paramount et al Lard
 Well Location: F-36
 Date(s) of Test: March 05/99.

Date	Time	Cum. T. 1 (P54) hr	Pres 1 (P54) kPag	Temp 1 (P54) deg C
1999/03/05	22:19:01	0.5500	15037.655	41.107
1999/03/05	22:19:31	0.5583	15039.855	41.670
1999/03/05	22:19:51	0.5639	15041.173	42.017
1999/03/05	22:20:11	0.5694	15042.561	42.344
1999/03/05	22:20:41	0.5778	15044.387	42.795
1999/03/05	22:21:01	0.5833	15045.698	43.072
1999/03/05	22:21:11	0.5861	15046.336	43.203
1999/03/05	22:21:31	0.5917	15047.769	43.458
RIH Gradient: 1000.000 m				
1999/03/05	22:21:51	0.5972	15048.753	43.683
1999/03/05	22:22:01	0.6000	15049.480	43.794
1999/03/05	22:22:21	0.6056	15050.732	44.004
1999/03/05	22:22:41	0.6111	15051.980	44.198
1999/03/05	22:22:51	0.6139	15052.677	44.290
1999/03/05	22:23:11	0.6194	15070.752	44.465
1999/03/05	22:23:41	0.6278	15125.875	44.718
1999/03/05	22:24:01	0.6333	15164.145	44.897
1999/03/05	22:24:21	0.6389	15201.438	45.095
1999/03/05	22:24:31	0.6417	15221.460	45.204
1999/03/05	22:24:51	0.6472	15263.610	45.437
1999/03/05	22:25:11	0.6528	15311.919	45.692
1999/03/05	22:25:31	0.6583	15358.999	45.969
1999/03/05	22:26:01	0.6667	15429.023	46.432
1999/03/05	22:26:21	0.6722	15476.987	46.747
1999/03/05	22:26:41	0.6778	15523.049	47.045
1999/03/05	22:27:01	0.6833	15567.986	47.342
1999/03/05	22:27:31	0.6917	15639.130	47.864
1999/03/05	22:27:41	0.6944	15655.090	48.049
1999/03/05	22:28:01	0.7000	15661.161	48.476
1999/03/05	22:28:31	0.7083	15664.610	49.040
1999/03/05	22:28:51	0.7139	15666.506	49.405
1999/03/05	22:29:11	0.7194	15668.255	49.752
1999/03/05	22:29:21	0.7222	15668.967	49.920
1999/03/05	22:29:41	0.7278	15670.284	50.234
1999/03/05	22:30:11	0.7361	15672.446	50.683
1999/03/05	22:30:31	0.7417	15673.710	50.960
1999/03/05	22:30:51	0.7472	15675.092	51.222
1999/03/05	22:31:01	0.7500	15675.585	51.346
1999/03/05	22:31:21	0.7556	15676.489	51.576
1999/03/05	22:31:41	0.7611	15677.850	51.799
RIH Gradient: 1500.000 m				
1999/03/05	22:32:01	0.7667	15678.824	52.004
1999/03/05	22:32:31	0.7750	15680.981	52.298
1999/03/05	22:32:51	0.7806	15680.359	52.415
1999/03/05	22:33:11	0.7861	15714.072	52.571
1999/03/05	22:33:21	0.7889	15732.664	52.661
1999/03/05	22:33:51	0.7972	15763.376	52.992
1999/03/05	22:34:11	0.8028	15765.768	53.183
1999/03/05	22:34:31	0.8083	15767.440	53.364
1999/03/05	22:35:01	0.8167	15769.803	53.630

Date	Time	Cum. T. 2 (R69) hr	Pres 2 (R69) kPag	Temp 2 (R69) deg C
1999/03/05	22:19:49	0.5633	15038.512	41.534
1999/03/05	22:20:09	0.5689	15040.274	41.888
1999/03/05	22:20:29	0.5744	15042.065	42.220
1999/03/05	22:20:49	0.5800	15043.707	42.534
1999/03/05	22:21:09	0.5856	15045.348	42.830
1999/03/05	22:21:29	0.5911	15046.905	43.109
1999/03/05	22:21:49	0.5967	15048.602	43.372
RIH Gradient: 1000.000 m				
1999/03/05	22:22:09	0.6022	15050.134	43.618
1999/03/05	22:22:29	0.6078	15051.761	43.850
1999/03/05	22:22:49	0.6133	15053.372	44.071
1999/03/05	22:23:09	0.6189	15066.475	44.231
1999/03/05	22:23:29	0.6244	15102.762	44.422
1999/03/05	22:23:49	0.6300	15141.513	44.640
1999/03/05	22:24:09	0.6356	15179.727	44.849
1999/03/05	22:24:29	0.6411	15216.831	45.033
1999/03/05	22:24:49	0.6467	15258.833	45.263
1999/03/05	22:25:09	0.6522	15307.621	45.541
1999/03/05	22:25:29	0.6578	15355.178	45.816
1999/03/05	22:25:49	0.6633	15401.372	46.094
1999/03/05	22:26:09	0.6689	15448.229	46.387
1999/03/05	22:26:29	0.6744	15497.072	46.714
1999/03/05	22:26:49	0.6800	15544.243	47.044
1999/03/05	22:27:09	0.6856	15590.867	47.367
1999/03/05	22:27:29	0.6911	15638.943	47.697
1999/03/05	22:27:49	0.6967	15662.203	48.065
1999/03/05	22:28:09	0.7022	15665.162	48.435
1999/03/05	22:28:29	0.7078	15666.822	48.790
1999/03/05	22:28:49	0.7133	15669.016	49.159
1999/03/05	22:29:09	0.7189	15670.732	49.508
1999/03/05	22:29:29	0.7244	15672.161	49.841
1999/03/05	22:29:49	0.7300	15674.068	50.175
1999/03/05	22:30:09	0.7356	15675.541	50.482
1999/03/05	22:30:29	0.7411	15677.194	50.782
1999/03/05	22:30:49	0.7467	15678.393	51.057
1999/03/05	22:31:09	0.7522	15679.716	51.322
1999/03/05	22:31:29	0.7578	15680.916	51.571
1999/03/05	22:31:49	0.7633	15681.995	51.803
1999/03/05	22:32:09	0.7689	15683.330	52.030
RIH Gradient: 1500.000 m				
1999/03/05	22:32:19	0.7717	15684.023	52.138
1999/03/05	22:32:29	0.7744	15684.565	52.241
1999/03/05	22:32:49	0.7800	15685.702	52.435
1999/03/05	22:33:09	0.7856	15714.863	52.584
1999/03/05	22:33:29	0.7911	15751.607	52.768
1999/03/05	22:33:49	0.7967	15766.293	52.994
1999/03/05	22:34:09	0.8022	15768.301	53.186
1999/03/05	22:34:29	0.8078	15769.645	53.373
1999/03/05	22:34:49	0.8133	15771.034	53.562
1999/03/05	22:35:09	0.8189	15772.396	53.744



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Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	22:35:21	0.8222	15771.273	53.796
1999/03/05	22:35:41	0.8278	15772.720	53.957
1999/03/05	22:35:51	0.8306	15773.294	54.033
1999/03/05	22:36:11	0.8361	15774.618	54.178
1999/03/05	22:36:41	0.8444	15776.553	54.383
1999/03/05	22:37:01	0.8500	15777.807	54.507
1999/03/05	22:37:21	0.8556	15779.015	54.626
1999/03/05	22:37:31	0.8583	15779.643	54.681
RIH Gradient: 1566.750 m				
1999/03/05	22:37:51	0.8639	15780.791	54.788
1999/03/05	22:38:11	0.8694	15781.940	54.887
1999/03/05	22:38:31	0.8750	15783.157	54.983
1999/03/05	22:39:01	0.8833	15791.216	55.069
1999/03/05	22:39:21	0.8889	15814.195	55.146
1999/03/05	22:39:41	0.8944	15820.556	55.250
1999/03/05	22:39:51	0.8972	15821.451	55.295
1999/03/05	22:40:11	0.9028	15823.626	55.405
1999/03/05	22:40:41	0.9111	15825.516	55.537
1999/03/05	22:41:01	0.9167	15826.692	55.621
1999/03/05	22:41:31	0.9250	15828.351	55.742
1999/03/05	22:41:51	0.9306	15829.480	55.819
1999/03/05	22:42:11	0.9361	15830.567	55.893
1999/03/05	22:42:21	0.9389	15831.229	55.928
1999/03/05	22:42:41	0.9444	15832.210	55.995
1999/03/05	22:43:11	0.9528	15833.824	56.089
1999/03/05	22:43:31	0.9583	15835.006	56.152
RIH Gradient: 1596.750 m				
1999/03/05	22:43:41	0.9611	15835.227	56.173
1999/03/05	22:43:51	0.9639	15835.863	56.202
1999/03/05	22:44:01	0.9667	15836.378	56.229
1999/03/05	22:44:21	0.9722	15837.403	56.277
1999/03/05	22:44:41	0.9778	15838.443	56.324
1999/03/05	22:45:01	0.9833	15845.978	56.321
1999/03/05	22:45:31	0.9917	15871.884	56.363
1999/03/05	22:45:51	0.9972	15875.557	56.472
1999/03/05	22:46:11	1.0028	15876.464	56.541
1999/03/05	22:46:21	1.0056	15877.296	56.593
1999/03/05	22:46:41	1.0111	15879.154	56.715
1999/03/05	22:47:11	1.0194	15880.024	56.859
1999/03/05	22:47:31	1.0250	15880.667	56.962
1999/03/05	22:48:01	1.0333	15882.681	57.148
1999/03/05	22:48:21	1.0389	15883.891	57.269
1999/03/05	22:48:41	1.0444	15885.224	57.386
1999/03/05	22:48:51	1.0472	15885.730	57.440
1999/03/05	22:49:11	1.0528	15886.824	57.545
1999/03/05	22:49:41	1.0611	15888.183	57.687
1999/03/05	22:50:01	1.0667	15889.159	57.775
1999/03/05	22:50:21	1.0722	15890.108	57.861
1999/03/05	22:50:31	1.0750	15890.565	57.901
1999/03/05	22:50:51	1.0806	15891.527	57.978

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	22:35:29	0.8244	15773.611	53.923
1999/03/05	22:35:49	0.8300	15774.758	54.093
1999/03/05	22:36:09	0.8356	15775.918	54.255
1999/03/05	22:36:29	0.8411	15776.925	54.407
1999/03/05	22:36:49	0.8467	15777.904	54.553
1999/03/05	22:37:09	0.8522	15778.958	54.690
1999/03/05	22:37:29	0.8578	15779.965	54.822
1999/03/05	22:37:49	0.8633	15780.840	54.944
RIH Gradient: 1566.750 m				
1999/03/05	22:38:09	0.8689	15781.749	55.062
1999/03/05	22:38:29	0.8744	15782.878	55.172
1999/03/05	22:38:49	0.8800	15783.713	55.275
1999/03/05	22:39:09	0.8856	15798.917	55.326
1999/03/05	22:39:29	0.8911	15818.852	55.430
1999/03/05	22:39:49	0.8967	15820.379	55.539
1999/03/05	22:40:09	0.9022	15821.436	55.632
1999/03/05	22:40:29	0.9078	15822.350	55.722
1999/03/05	22:40:49	0.9133	15823.326	55.815
1999/03/05	22:41:09	0.9189	15824.552	55.908
1999/03/05	22:41:29	0.9244	15826.057	56.011
1999/03/05	22:41:49	0.9300	15826.999	56.093
1999/03/05	22:42:09	0.9356	15828.090	56.176
1999/03/05	22:42:29	0.9411	15829.516	56.264
1999/03/05	22:42:49	0.9467	15830.556	56.338
1999/03/05	22:43:09	0.9522	15831.572	56.411
1999/03/05	22:43:29	0.9578	15832.544	56.479
1999/03/05	22:43:49	0.9633	15833.461	56.538
1999/03/05	22:44:09	0.9689	15834.633	56.601
RIH Gradient: 1596.750 m				
1999/03/05	22:44:29	0.9744	15835.592	56.658
1999/03/05	22:44:49	0.9800	15836.673	56.713
1999/03/05	22:45:09	0.9856	15852.374	56.755
1999/03/05	22:45:29	0.9911	15869.688	56.793
1999/03/05	22:45:49	0.9967	15873.673	56.865
1999/03/05	22:46:09	1.0022	15874.917	56.947
1999/03/05	22:46:29	1.0078	15876.072	57.040
1999/03/05	22:46:49	1.0133	15877.157	57.143
1999/03/05	22:47:09	1.0189	15877.999	57.252
1999/03/05	22:47:29	1.0244	15879.222	57.374
1999/03/05	22:47:49	1.0300	15879.711	57.481
1999/03/05	22:48:09	1.0356	15880.348	57.588
1999/03/05	22:48:29	1.0411	15881.148	57.702
1999/03/05	22:48:49	1.0467	15882.604	57.828
1999/03/05	22:49:09	1.0522	15883.365	57.933
1999/03/05	22:49:29	1.0578	15884.076	58.030
1999/03/05	22:49:49	1.0633	15885.188	58.133
1999/03/05	22:50:09	1.0689	15885.875	58.223
1999/03/05	22:50:29	1.0744	15886.958	58.318
1999/03/05	22:50:49	1.0800	15887.596	58.398
1999/03/05	22:51:09	1.0856	15888.757	58.484



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Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/02/05	22:51:11	1.0861	15892.336	58.047
1999/03/05	22:51:31	1.0917	15893.185	58.112
1999/03/05	22:52:01	1.1000	15894.495	58.206
1999/03/05	22:52:21	1.1056	15895.438	58.264
1999/03/05	22:52:41	1.1111	15896.229	58.315
1999/03/05	22:52:51	1.1139	15896.749	58.340
1999/03/05	22:53:11	1.1194	15897.638	58.390
1999/03/05	22:53:41	1.1278	15898.900	58.457
1999/03/05	22:54:01	1.1333	15899.786	58.499
1999/03/05	22:54:21	1.1389	15900.733	58.541
1999/03/05	22:54:51	1.1472	15901.786	58.587
1999/03/05	22:55:11	1.1528	15902.705	58.622
1999/03/05	22:55:21	1.1556	15903.191	58.639
RIH Gradient: 1626.750 m				
1999/03/05	22:55:31	1.1583	15903.617	58.653
1999/03/05	22:55:41	1.1611	15904.085	58.668
1999/03/05	22:56:11	1.1694	15868.372	58.674
1999/03/05	22:56:31	1.1750	15830.261	58.695
1999/03/05	22:56:51	1.1806	15789.000	58.620
1999/03/05	22:57:01	1.1833	15767.934	58.578
1999/03/05	22:57:21	1.1889	15726.111	58.517
1999/03/05	22:57:41	1.1944	15683.680	58.348
1999/03/05	22:58:01	1.2000	15641.316	58.130
1999/03/05	22:58:31	1.2083	15577.116	57.762
1999/03/05	22:58:51	1.2139	15534.834	57.469
1999/03/05	22:59:11	1.2194	15492.909	57.160
1999/03/05	22:59:21	1.2222	15471.488	57.000
1999/03/05	22:59:41	1.2278	15428.106	56.680
1999/03/05	23:00:11	1.2361	15364.685	56.185
1999/03/05	23:00:31	1.2417	15319.928	55.796
1999/03/05	23:00:51	1.2472	15276.081	55.417
1999/03/05	23:01:11	1.2528	15233.729	55.024
1999/03/05	23:01:41	1.2611	15166.870	54.380
1999/03/05	23:01:51	1.2639	15143.201	54.132
1999/03/05	23:02:11	1.2694	15098.422	53.640
1999/03/05	23:02:41	1.2778	15031.311	52.817
1999/03/05	23:03:01	1.2833	14984.072	52.213
1999/03/05	23:03:21	1.2889	14938.077	51.597
1999/03/05	23:03:31	1.2917	14915.778	51.288
1999/03/05	23:03:51	1.2972	14870.491	50.653
1999/03/05	23:04:11	1.3028	14824.248	50.056
1999/03/05	23:04:31	1.3083	14778.789	49.446
1999/03/05	23:05:01	1.3167	14709.333	48.496
1999/03/05	23:05:21	1.3222	14661.637	47.776
1999/03/05	23:05:41	1.3278	14615.683	47.113
1999/03/05	23:05:51	1.3306	14591.006	46.751
1999/03/05	23:06:11	1.3361	14544.914	46.111
1999/03/05	23:06:41	1.3444	14474.218	45.018
1999/03/05	23:07:01	1.3500	14423.784	44.236
1999/03/05	23:07:21	1.3556	14375.084	43.460

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	22:51:29	1.0911	15889.580	58.557
1999/03/05	22:51:49	1.0967	15890.506	58.631
1999/03/05	22:52:09	1.1022	15891.575	58.702
1999/03/05	22:52:29	1.1078	15892.518	58.768
1999/03/05	22:52:49	1.1133	15893.349	58.828
1999/03/05	22:53:09	1.1189	15894.306	58.887
1999/03/05	22:53:29	1.1244	15895.263	58.940
1999/03/05	22:53:49	1.1300	15896.148	58.990
1999/03/05	22:54:09	1.1356	15896.972	59.035
1999/03/05	22:54:29	1.1411	15897.692	59.077
1999/03/05	22:54:49	1.1467	15898.533	59.119
1999/03/05	22:55:09	1.1522	15899.374	59.158
1999/03/05	22:55:29	1.1578	15900.356	59.196
RIH Gradient: 1626.750 m				
1999/03/05	22:55:49	1.1633	15901.195	59.230
1999/03/05	22:56:09	1.1689	15869.354	59.234
1999/03/05	22:56:29	1.1744	15830.604	59.244
1999/03/05	22:56:49	1.1800	15790.802	59.227
1999/03/05	22:57:09	1.1856	15749.514	59.191
1999/03/05	22:57:29	1.1911	15706.778	59.098
1999/03/05	22:57:49	1.1967	15665.531	58.969
1999/03/05	22:58:09	1.2022	15624.196	58.807
1999/03/05	22:58:29	1.2078	15580.938	58.594
1999/03/05	22:58:49	1.2133	15539.136	58.356
1999/03/05	22:59:09	1.2189	15497.179	58.086
1999/03/05	22:59:29	1.2244	15454.193	57.758
1999/03/05	22:59:49	1.2300	15411.378	57.522
1999/03/05	23:00:09	1.2356	15369.046	57.214
1999/03/05	23:00:29	1.2411	15325.529	56.892
1999/03/05	23:00:49	1.2467	15281.367	56.554
1999/03/05	23:01:09	1.2522	15238.270	56.181
1999/03/05	23:01:29	1.2578	15195.041	55.809
1999/03/05	23:01:49	1.2633	15149.135	55.400
1999/03/05	23:02:09	1.2689	15104.541	54.975
1999/03/05	23:02:29	1.2744	15060.413	54.481
1999/03/05	23:02:49	1.2800	15015.435	53.964
1999/03/05	23:03:09	1.2856	14969.312	53.436
1999/03/05	23:03:29	1.2911	14924.203	52.854
1999/03/05	23:03:49	1.2967	14879.622	52.266
1999/03/05	23:04:09	1.3022	14833.257	51.681
1999/03/05	23:04:29	1.3078	14787.752	51.090
1999/03/05	23:04:49	1.3133	14742.834	50.513
1999/03/05	23:05:09	1.3189	14696.323	49.907
1999/03/05	23:05:29	1.3244	14650.092	49.264
1999/03/05	23:05:49	1.3300	14603.656	48.652
1999/03/05	23:06:09	1.3356	14555.034	47.981
1999/03/05	23:06:29	1.3411	14509.473	47.341
1999/03/05	23:06:49	1.3467	14461.095	46.638
1999/03/05	23:07:09	1.3522	14410.874	45.905
1999/03/05	23:07:29	1.3578	14364.922	45.236



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Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	23:07:31	1.3583	14351.861	43.085
1999/03/05	23:08:01	1.3667	14278.889	41.937
1999/03/05	23:08:21	1.3722	14229.748	41.177
1999/03/05	23:08:41	1.3778	14181.039	40.352
1999/03/05	23:09:11	1.3861	14105.386	39.077
1999/03/05	23:09:31	1.3917	14055.563	38.208
1999/03/05	23:09:51	1.3972	14006.269	37.321
1999/03/05	23:10:01	1.4000	13986.697	36.873
1999/03/05	23:10:21	1.4056	13961.473	35.978
1999/03/05	23:10:41	1.4111	13950.099	35.130
1999/03/05	23:11:01	1.4167	13944.306	34.178
1999/03/05	23:11:31	1.4250	13940.138	32.167
1999/03/05	23:11:51	1.4306	13939.074	30.665
1999/03/05	23:12:11	1.4361	13936.257	29.042
1999/03/05	23:12:21	1.4389	13935.655	28.242
1999/03/05	23:12:41	1.4444	13933.389	26.603
1999/03/05	23:13:11	1.4528	13931.722	24.275
1999/03/05	23:13:31	1.4583	13930.317	22.753
1999/03/05	23:13:51	1.4639	13929.278	21.320
1999/03/05	23:14:01	1.4667	13928.582	20.617
1999/03/05	23:14:21	1.4722	13928.399	19.278
1999/03/05	23:14:51	1.4806	13929.837	17.454
1999/03/05	23:15:11	1.4861	13929.150	16.254
POOH Gradient: 0.000 m				
1999/03/05	23:15:31	1.4917	13928.947	15.124
1999/03/05	23:15:41	1.4944	13929.689	14.606
1999/03/05	23:16:01	1.5000	13930.660	13.601
1999/03/05	23:16:21	1.5056	13930.466	12.611
1999/03/05	23:16:31	1.5083	13948.229	12.147
1999/03/05	23:16:51	1.5139	8988.314	11.252
1999/03/05	23:17:11	1.5194	5729.137	10.289
1999/03/05	23:17:31	1.5250	22.487	9.091
1999/03/05	23:18:01	1.5333	14.905	6.990
1999/03/05	23:18:21	1.5389	0.000	5.596
1999/03/05	23:18:41	1.5444	0.000	4.284
1999/03/05	23:18:51	1.5472	0.000	3.660
1999/03/05	23:19:11	1.5528	0.000	2.541
1999/03/05	23:19:41	1.5611	0.000	1.057
1999/03/05	23:20:01	1.5667	0.000	0.212
1999/03/05	23:20:21	1.5722	0.000	-0.638
1999/03/05	23:20:31	1.5750	0.000	-0.965
1999/03/05	23:20:51	1.5806	0.000	-1.609
1999/03/05	23:21:21	1.5889	0.000	-2.361
1999/03/05	23:21:41	1.5944	0.000	-2.910
1999/03/05	23:22:11	1.6028	0.000	-3.723
1999/03/05	23:22:31	1.6083	0.000	-4.164
1999/03/05	23:22:51	1.6139	0.000	-4.427
1999/03/05	23:23:01	1.6167	0.000	-4.582
1999/03/05	23:23:21	1.6222	0.000	-4.874
1999/03/05	23:23:41	1.6278	0.000	-5.160

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	23:07:49	1.3633	14315.877	44.485
1999/03/05	23:08:09	1.3689	14265.924	43.761
1999/03/05	23:08:29	1.3744	14217.027	43.027
1999/03/05	23:08:49	1.3800	14167.177	42.224
1999/03/05	23:09:09	1.3856	14115.739	41.415
1999/03/05	23:09:29	1.3911	14064.970	40.594
1999/03/05	23:09:49	1.3967	14015.676	39.762
1999/03/05	23:10:09	1.4022	13977.724	38.928
1999/03/05	23:10:29	1.4078	13958.844	38.050
1999/03/05	23:10:49	1.4133	13949.185	37.169
1999/03/05	23:11:09	1.4189	13944.780	36.172
1999/03/05	23:11:29	1.4244	13945.144	35.021
1999/03/05	23:11:49	1.4300	13944.906	33.718
1999/03/05	23:12:09	1.4356	13944.373	32.308
1999/03/05	23:12:29	1.4411	13943.068	30.819
1999/03/05	23:12:49	1.4467	13942.470	29.335
1999/03/05	23:13:09	1.4522	13942.146	27.860
1999/03/05	23:13:29	1.4578	13941.991	26.415
1999/03/05	23:13:49	1.4633	13942.540	25.031
1999/03/05	23:14:09	1.4689	13943.199	23.691
1999/03/05	23:14:29	1.4744	13942.344	22.369
1999/03/05	23:14:49	1.4800	13942.039	21.099
1999/03/05	23:15:09	1.4856	13941.893	19.904
1999/03/05	23:15:29	1.4911	13941.829	18.761
POOH Gradient: 0.000 m				
1999/03/05	23:15:39	1.4939	13942.179	18.213
1999/03/05	23:15:49	1.4967	13942.289	17.680
1999/03/05	23:16:09	1.5022	13941.421	16.616
1999/03/05	23:16:29	1.5078	13959.569	15.627
1999/03/05	23:16:49	1.5133	10000.434	14.649
1999/03/05	23:17:09	1.5189	6685.017	13.624
1999/03/05	23:17:29	1.5244	56.906	12.263
1999/03/05	23:17:49	1.5300	62.854	10.989
1999/03/05	23:18:09	1.5356	56.421	9.614
1999/03/05	23:18:29	1.5411	49.534	8.273
1999/03/05	23:18:49	1.5467	50.564	6.993
1999/03/05	23:19:09	1.5522	35.264	5.765
1999/03/05	23:19:29	1.5578	25.733	4.663
1999/03/05	23:19:49	1.5633	23.896	3.644
1999/03/05	23:20:09	1.5689	24.055	2.726
1999/03/05	23:20:29	1.5744	18.104	1.883
1999/03/05	23:20:49	1.5800	9.830	1.123
1999/03/05	23:21:09	1.5856	9.711	0.431
1999/03/05	23:21:29	1.5911	10.326	-0.205
1999/03/05	23:21:49	1.5967	11.103	-0.749
1999/03/05	23:22:09	1.6022	11.754	-1.218
1999/03/05	23:22:29	1.6078	7.703	-1.599
1999/03/05	23:22:49	1.6133	7.693	-1.935
1999/03/05	23:23:09	1.6189	8.231	-2.238
1999/03/05	23:23:29	1.6244	8.613	-2.467



Company
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 05/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/05	23:24:01	1.6333	0.000	-5.423
1999/03/05	23:24:31	1.6417	0.000	-5.798
1999/03/05	23:24:51	1.6472	0.000	-6.024
1999/03/05	23:25:11	1.6528	0.000	-6.197
1999/03/05	23:25:21	1.6556	0.000	-6.272
1999/03/05	23:25:41	1.6611	0.000	-6.514
1999/03/05	23:26:11	1.6694	0.000	-6.534
1999/03/05	23:26:31	1.6750	0.000	-6.490
1999/03/05	23:26:51	1.6806	0.000	-6.442
1999/03/05	23:27:01	1.6833	0.000	-6.407
1999/03/05	23:27:21	1.6889	0.000	-6.314
1999/03/05	23:27:51	1.6972	0.000	-6.185
1999/03/05	23:28:11	1.7028	0.000	-6.083
1999/03/05	23:28:31	1.7083	0.000	-5.972
1999/03/05	23:29:01	1.7167	0.000	-5.798
1999/03/05	23:29:21	1.7222	0.000	-5.820

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/05	23:23:49	1.6300	8.837	-2.616
1999/03/05	23:24:09	1.6356	9.224	-2.782
1999/03/05	23:24:29	1.6411	9.477	-2.941
1999/03/05	23:24:49	1.6467	10.196	-3.130
1999/03/05	23:25:09	1.6522	10.444	-3.220
1999/03/05	23:25:29	1.6578	7.276	-3.329
1999/03/05	23:25:49	1.6633	6.559	-3.415
1999/03/05	23:26:09	1.6689	8.022	-3.648
1999/03/05	23:26:29	1.6744	8.354	-3.677
1999/03/05	23:26:49	1.6800	8.723	-3.701
1999/03/05	23:27:09	1.6856	9.166	-3.705

Baker Atlas
TRI-ALTA BEWS DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Wayne Tomm
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Tri - Alta Bews Services

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard - Tight Hole
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1594.5 - 1767.5 mCF
Mid-point of Perforated Intervals (MPP)	1681.0 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	114.3 mm
Production Tubing	N/A

1600 - 1773 mKB

TEST INFORMATION

Test Number / Type of Test	Static Gradient / Flow and Buildup / Static Gradient
Date(s) of Test	March 06 - 09/99.
Dead-weight Gauge Tubing Pressure	N/A
Dead-weight Gauge Casing Pressure	14,200 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	March 06/99 @ 13:11.
Date / Time off Bottom	March 09/99 @ 14:16.

Probe Serial Number	P54 (TOP)	R69 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1777.81 mCF	1778.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	17061.39 kPag	17064.13 kPag
Maximum Recorded Probe Temperature	64.03 deg C	64.32 deg C
Final Buildup Pressure	16569.936 kPag	16592.971 kPag
Gradient Survey Information		
Extrapolated Pressure to MPP	16397.527 kPag	16385.003 kPag
Final Gradient at Depth	7.6935 kPa/m	7.6320 kPa/m
Job Number	N/A	



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Uard
F - 36
March 06 - 09/99.

PROBE INFORMATION

Probe Serial Number	P54 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-21.1 - 148.6 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P54JA02A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Mar 06/1999 @ 11:55:44
Program End Time	Mar 09/1999 @ 15:27:44
Total Samples Taken	9065
Usage for this Test	0.7980 Ah
Generic Data File Name	P54MR09A.GEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test March 06 - 09/99.

PROBE INFORMATION

Probe Serial Number R69 (BOTTOM)
Model Level II
Pressure
 Calibrated Pressure Range 0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -21.0 - 125.2 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports R69OC16A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time Mar 06/1999 @ 11:56:57
Program End Time Mar 09/1999 @ 15:25:27
Total Samples Taken 9058
Usage for this Test 0.7970 Ah
Generic Data File Name R69MR09A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Uard
F - 36
March 06 - 09/99.

COMMENTS

Reported By

TIM BEWS

MARCH 09/99: TBG: N/A CSG: 14,050 KPA



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 06 - 09/99.

Pressure vs. Depth

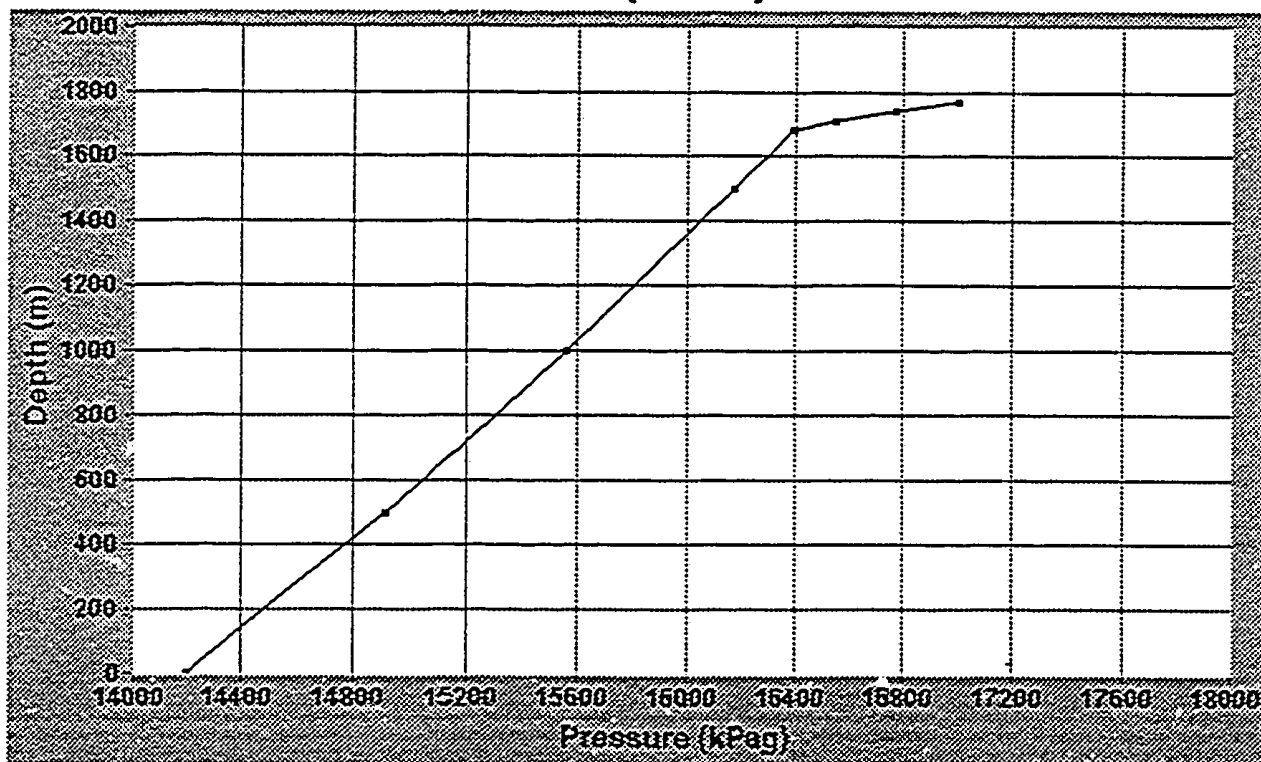
Probe Serial Number P54 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
12:09	12:14	-1.190	14197.082	-
12:20	12:25	498.810	14912.504	1.4308
12:30	12:35	998.810	15563.156	1.3013
12:40	12:45	1498.810	16172.385	1.2185
12:47	12:52	1679.810	16391.256	1.2092
12:53	12:58	1709.810	16549.359	5.2701
12:59	13:04	1739.810	16771.504	7.4048
13:05	13:10	1769.810	17002.309	7.6935

Extrapolated MPP Pressure:

1681.000 16397.527

P54 (TOP)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 06 - 09/99.

Pressure vs. Depth

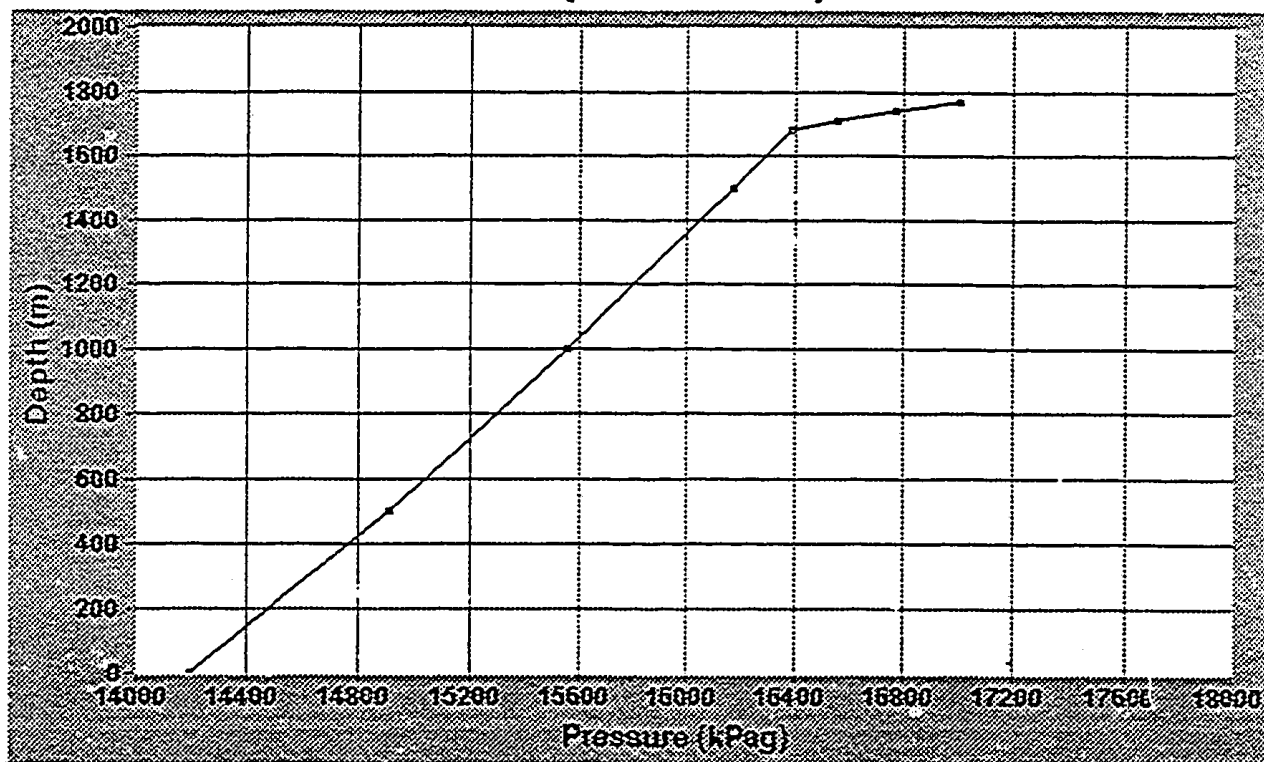
Probe Serial Number R69 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
12:09	12:14	-0.110	14197.486	-
12:20	12:25	499.890	14908.609	1.4222
12:30	12:35	999.890	15555.494	1.2938
12:40	12:45	1499.890	16172.674	1.2344
12:47	12:52	1680.890	16384.393	1.1697
12:53	12:58	1710.890	16550.742	5.5450
12:59	13:04	1740.890	16773.617	7.4292
13:05	13:10	1770.890	17002.578	7.6320

Extrapolated MPP Pressure:

1681.000 16385.003

R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Uard
Well Location F - 36
Date(s) of Test March 06 - 09/99.

Pressure vs. Depth

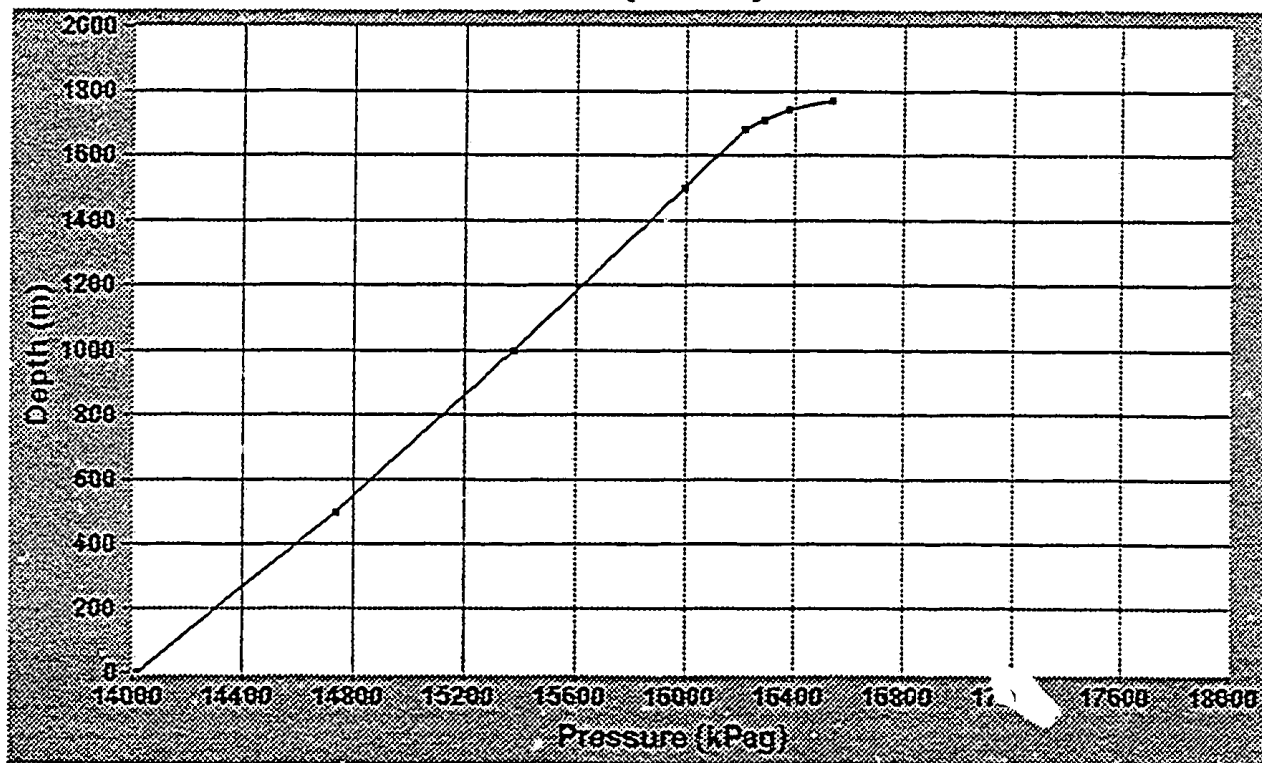
Probe Serial Number P54 (TOP)

		(m)	(kPag)	(kPag/m)
14:16	14:21	1769.810	16532.133	-
14:22	14:27	1739.810	16377.438	5.1565
14:28	14:33	1709.810	16284.694	3.0915
14:34	14:39	1679.810	16212.559	2.4045
14:41	14:46	1498.810	15997.092	1.1904
14:51	14:56	998.810	15376.756	1.2407
15:01	15:06	498.810	14732.717	1.2881
15:13	15:18	-1.190	14021.207	1.4230

Extrapolated MPP Pressure:

1681.000 16215.420

P54 (TOP)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Uard
Well Location F - 36
Date(s) of Test March 06 - 09/99.



Pressure vs. Depth

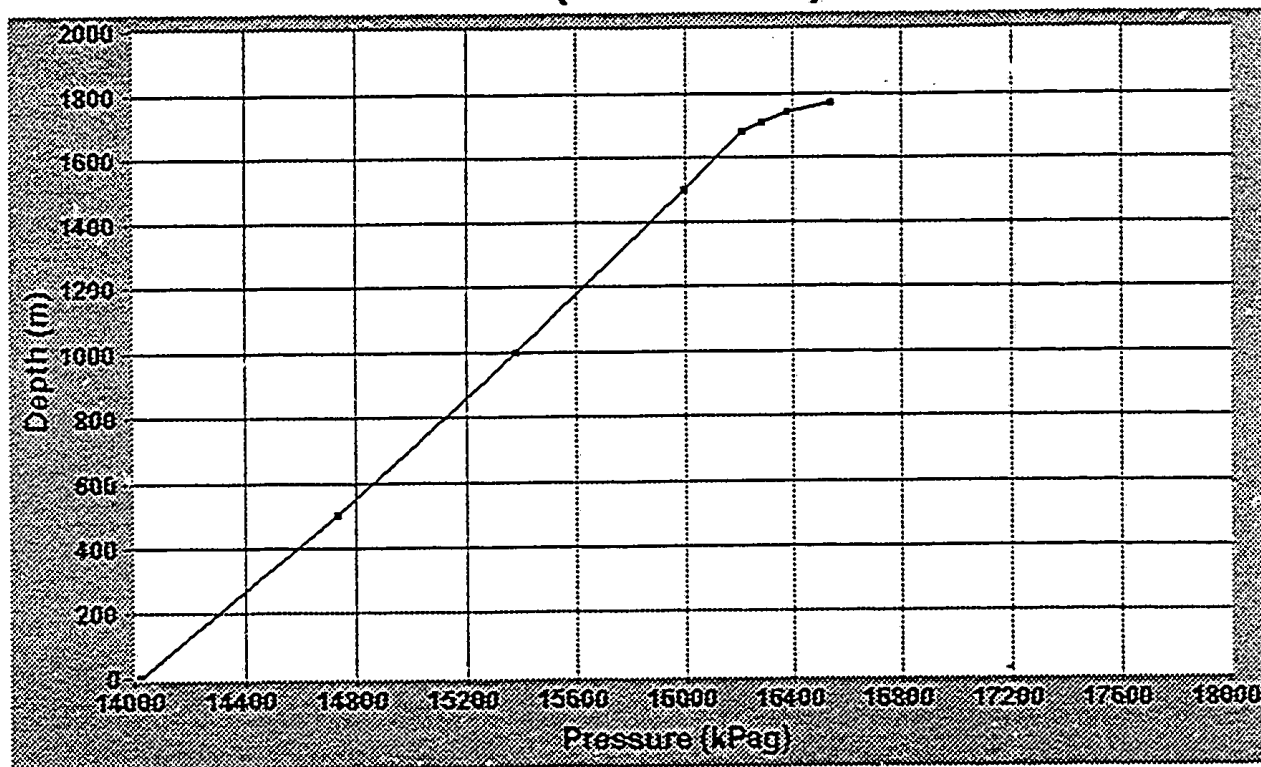
Probe Serial Number R69 (BOTTOM)

		(m)	(kPag)	(kPag/m)
14:16	14:21	1770.890	16537.023	-
14:22	14:27	1740.890	16376.702	5.3440
14:28	14:33	1710.890	16281.267	3.1812
14:34	14:39	1680.890	16208.086	2.4394
14:41	14:46	1499.890	15993.333	1.1865
14:51	14:56	999.890	15381.099	1.2245
15:01	15:06	499.890	14732.631	1.2969
15:13	15:18	-0.110	14023.109	1.4190

Extrapolated MPP Pressure:

1681.000 16208.354

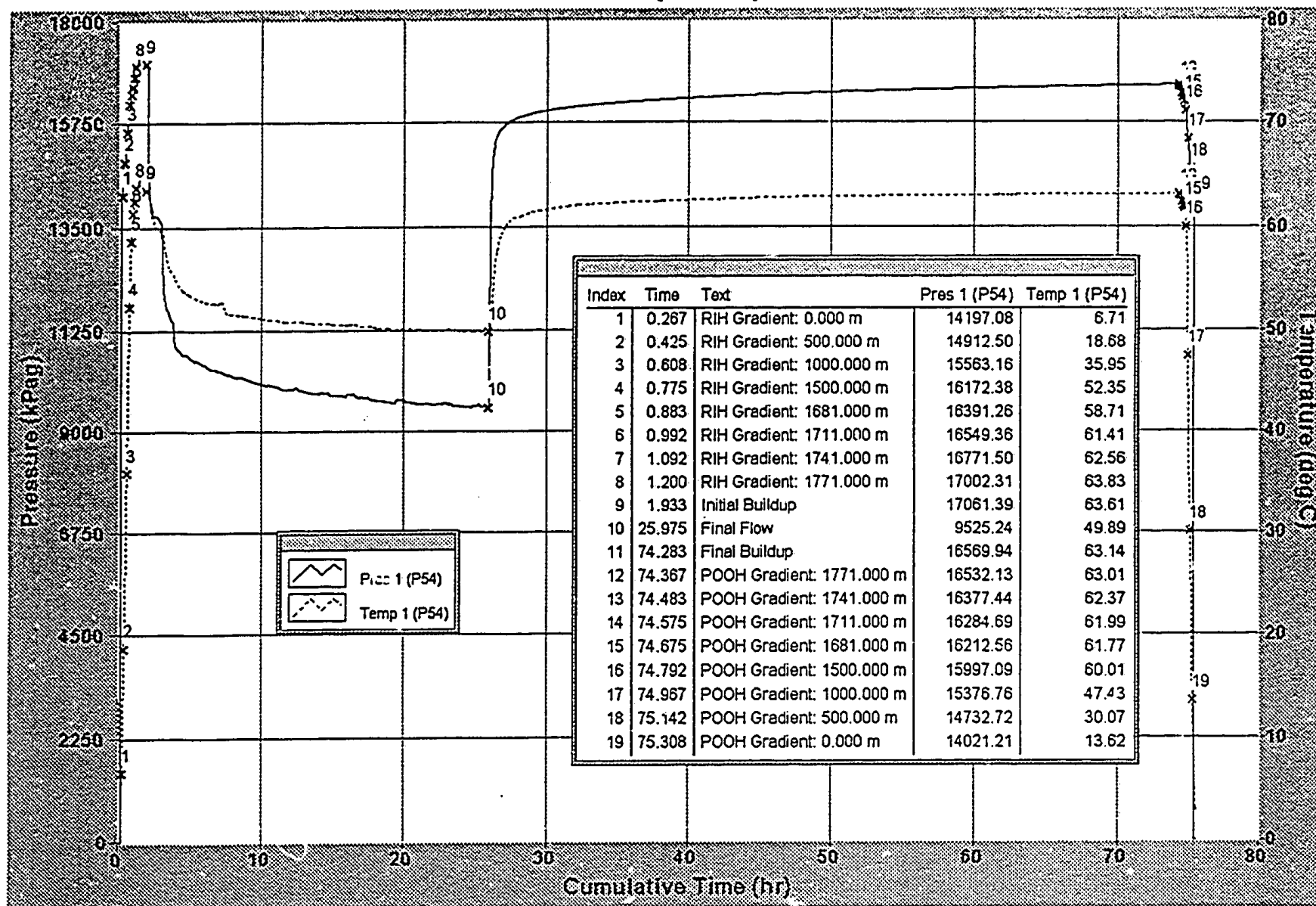
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test March 06 - 09/99.

P54 (TOP)

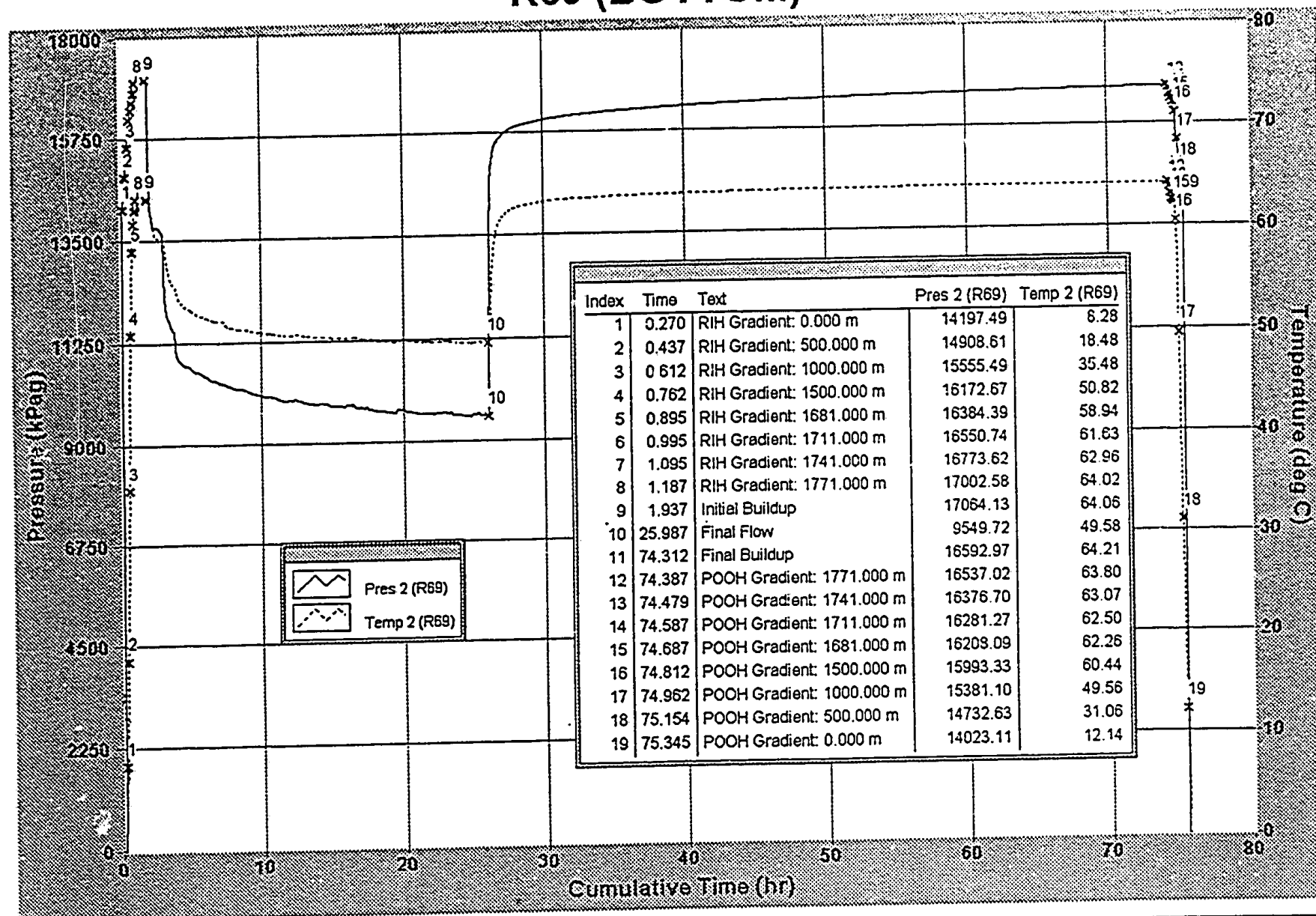




Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Llard
F - 36
March 06 - 09/99.

R69 (BOTTOM)

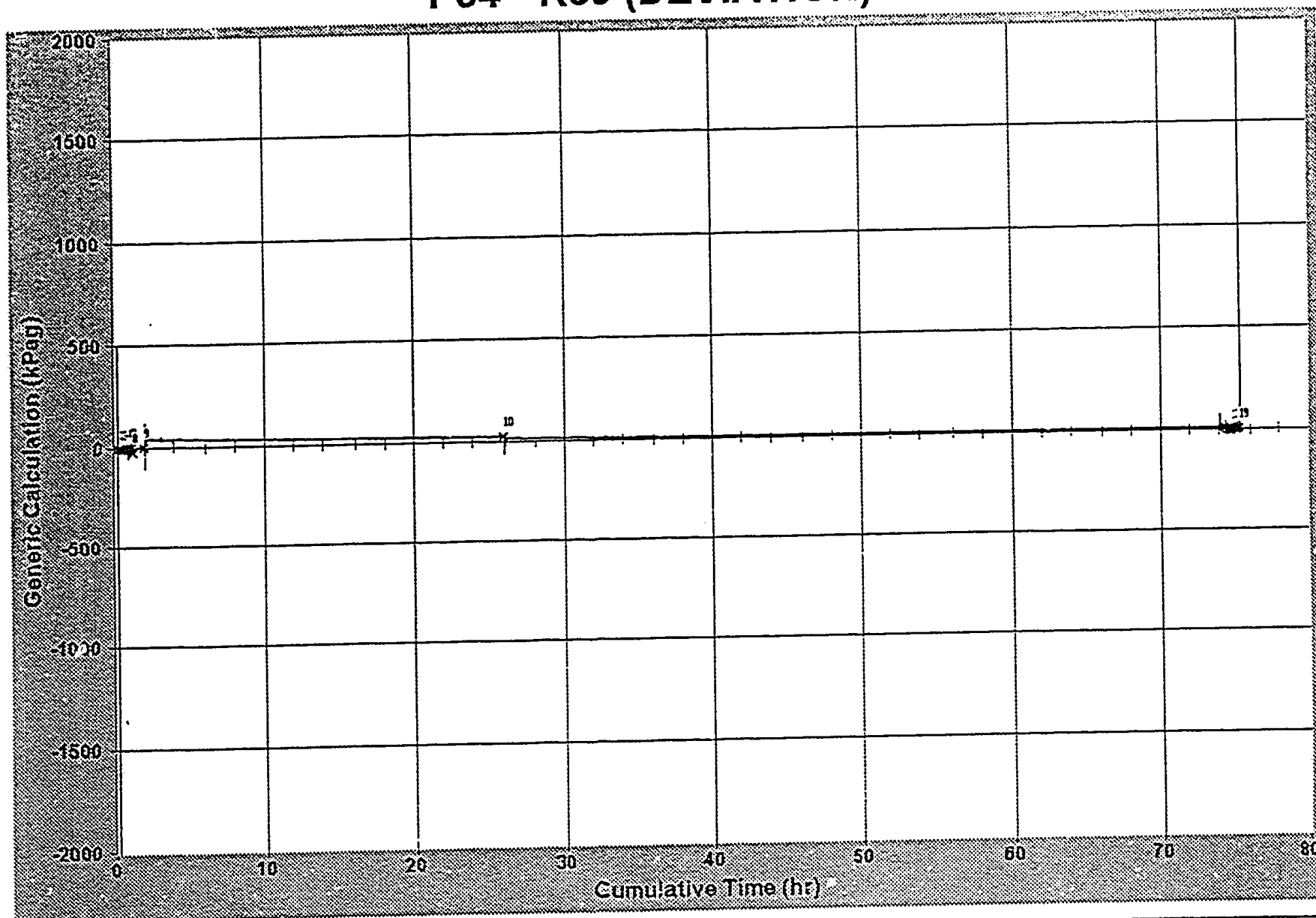




Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Llard
F - 36
March 06 - 09/99.

P54 - R69 (DEVIATION)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 06 - 09/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/06	11:55:44	0.0000	9.636	13.768
1999/03/06	12:10:44	0.2500	14194.158	7.298
RIH Gradient 0.000 m				
1999/03/06	12:11:44	0.2667	14197.082	6.709
RIH Gradient 500.000 m				
1999/03/06	12:21:14	0.4250	14912.504	18.679
1999/03/06	12:25:44	0.5000	15347.975	24.277
RIH Gradient 1000.000 m				
1999/03/06	12:32:14	0.6083	15563.156	35.947
1999/03/06	12:40:44	0.7500	16172.757	50.617
RIH Gradient 1500.000 m				
1999/03/06	12:42:14	0.7750	16172.385	52.347
RIH Gradient 1681.000 m				
1999/03/06	12:48:44	0.8633	16391.256	58.705
RIH Gradient 1711.000 m				
1999/03/06	12:55:14	0.9917	16549.359	61.409
1999/03/06	12:55:44	1.0000	16549.143	61.505
RIH Gradient 1741.000 m				
1999/03/06	13:01:14	1.0917	16771.504	62.556
RIH Gradient 1771.000 m				
1999/03/06	13:07:44	1.2000	17002.309	63.835
1999/03/06	13:10:44	1.2500	17052.475	63.998
1999/03/06	13:25:44	1.5000	17055.283	63.637
1999/03/06	13:40:44	1.7500	17058.744	63.614
Initial Buildup				
1999/03/06	13:51:44	1.9333	17061.391	63.606
1999/03/06	13:55:44	2.0000	17011.766	63.587
1999/03/06	14:10:44	2.2500	13987.481	62.336
1999/03/06	14:25:44	2.5000	13748.173	60.483
1999/03/06	14:40:44	2.7500	13732.175	59.967
1999/03/06	14:55:44	3.0000	13610.336	59.685
1999/03/06	15:10:44	3.2500	11964.949	58.197
1999/03/06	15:25:44	3.5000	11699.084	56.393
1999/03/06	15:40:44	3.7500	11491.801	55.723
1999/03/06	15:55:44	4.0000	10961.641	55.124
1999/03/06	16:10:44	4.2500	10814.530	54.421
1999/03/06	16:25:44	4.5000	10737.156	53.977
1999/03/06	16:40:44	4.7500	10721.340	53.803
1999/03/06	16:55:44	5.0000	10667.116	53.533
1999/03/06	17:10:44	5.2500	10604.471	53.334
1999/03/06	17:25:44	5.5000	10587.806	53.181
1999/03/06	17:40:44	5.7500	10544.068	53.056
1999/03/06	17:55:44	6.0000	10488.071	52.888
1999/03/06	18:10:44	6.2500	10450.055	52.807
1999/03/06	18:25:44	6.5000	10394.571	52.711
1999/03/06	18:40:44	6.7500	10387.991	52.652
1999/03/06	18:55:44	7.0000	10341.853	52.665
1999/03/06	19:10:44	7.2500	10317.373	52.809
1999/03/06	19:25:44	7.5000	10291.850	52.013
1999/03/06	19:40:44	7.7500	10265.838	51.650

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/06	11:56:57	0.0203	11.248	14.519
RIH Gradient 0.000 m				
1999/03/06	12:11:57	0.2703	14197.486	8.276
RIH Gradient 500.000 m				
1999/03/06	12:21:57	0.4369	14908.609	18.479
1999/03/06	12:26:57	0.5203	15522.820	25.754
RIH Gradient 1000.000 m				
1999/03/06	12:32:27	0.6119	15555.494	35.484
RIH Gradient 1500.000 m				
1999/03/06	12:41:27	0.7619	16172.674	50.824
1999/03/06	12:41:57	0.7703	16171.641	51.396
RIH Gradient 1681.000 m				
1999/03/06	12:49:27	0.8953	16384.350	58.941
RIH Gradient 1711.000 m				
1999/03/06	12:55:27	0.9953	16550.742	61.632
1999/03/06	12:56:57	1.0203	16770.807	61.938
RIH Gradient 1741.000 m				
1999/03/06	13:01:27	1.0953	16773.617	62.560
RIH Gradient 1771.000 m				
1999/03/06	13:06:57	1.1859	17002.578	64.024
1999/03/06	13:11:57	1.2703	17055.211	64.285
1999/03/06	13:26:57	1.5203	17057.854	64.083
1999/03/06	13:41:57	1.7703	17061.572	64.060
Initial Buildup				
1999/03/06	13:51:57	1.9369	17064.129	64.058
1999/03/06	13:56:57	2.0203	17018.869	64.056
1999/03/06	14:11:57	2.2703	13982.986	62.348
1999/03/06	14:26:57	2.5203	13791.784	60.482
1999/03/06	14:41:57	2.7703	13762.945	60.172
1999/03/06	14:56:57	3.0203	13642.634	59.891
1999/03/06	15:11:57	3.2703	11964.202	58.035
1999/03/06	15:26:57	3.5203	11723.413	56.297
1999/03/06	15:41:57	3.7703	11523.148	55.586
1999/03/06	15:56:57	4.0203	10972.520	54.853
1999/03/06	16:11:57	4.2703	10852.325	54.034
1999/03/06	16:26:57	4.5203	10767.989	53.594
1999/03/06	16:41:57	4.7703	10761.287	53.391
1999/03/06	16:56:57	5.0203	10701.702	53.146
1999/03/06	17:11:57	5.2703	10636.204	52.927
1999/03/06	17:26:57	5.5203	10623.874	52.762
1999/03/06	17:41:57	5.7703	10579.048	52.613
1999/03/06	17:56:57	6.0203	10522.136	52.445
1999/03/06	18:11:57	6.2703	10480.623	52.337
1999/03/06	18:26:57	6.5203	10429.191	52.202
1999/03/06	18:41:57	6.7703	10424.229	52.134
1999/03/06	18:56:57	7.0203	10373.945	52.106
1999/03/06	19:11:57	7.2703	10351.292	52.129
1999/03/06	19:26:57	7.5203	10323.419	51.635
1999/03/06	19:41:57	7.7703	10300.827	51.419
1999/03/06	19:56:57	8.0203	10260.321	51.388



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Llard
Well Location: F - 36
Date(s) of Test: March 06 - 09/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/06	19:55:44	8.0000	10227.229	51.600
1999/03/06	20:10:44	8.2500	10204.626	51.523
1999/03/06	20:25:44	8.5000	10199.450	51.504
1999/03/06	20:40:44	8.7500	10190.755	51.481
1999/03/06	20:55:44	9.0000	10150.492	51.462
1999/03/06	21:10:44	9.2500	10116.676	51.357
1999/03/06	21:25:44	9.5000	10090.716	51.307
1999/03/06	21:40:44	9.7500	10070.426	51.246
1999/03/06	21:55:44	10.0000	10049.114	51.184
1999/03/06	22:10:44	10.2500	10029.999	51.138
1999/03/06	22:25:44	10.5000	10032.023	51.073
1999/03/06	22:40:44	10.7500	10014.099	51.068
1999/03/06	22:55:44	11.0000	10008.417	51.028
1999/03/06	23:10:44	11.2500	9964.169	50.970
1999/03/06	23:25:44	11.5000	9939.738	50.916
1999/03/06	23:40:44	11.7500	9926.832	50.876
1999/03/06	23:55:44	12.0000	9942.517	50.844
1999/03/07	00:10:44	12.2500	9929.711	50.851
1999/03/07	00:25:44	12.5000	9962.945	50.874
1999/03/07	00:40:44	12.7500	9915.041	50.855
1999/03/07	00:55:44	13.0000	9889.189	50.807
1999/03/07	01:10:44	13.2500	9874.926	50.765
1999/03/07	01:25:44	13.5000	9856.735	50.741
1999/03/07	01:40:44	13.7500	9848.679	50.687
1999/03/07	01:55:44	14.0000	9835.485	50.649
1999/03/07	02:10:44	14.2500	9865.785	50.636
1999/03/07	02:25:44	14.5000	9847.765	50.658
1999/03/07	02:40:44	14.7500	9846.694	50.647
1999/03/07	02:55:44	15.0000	9797.737	50.591
1999/03/07	03:10:44	15.2500	9801.136	50.572
1999/03/07	03:25:44	15.5000	9792.101	50.553
1999/03/07	03:40:44	15.7500	9793.188	50.534
1999/03/07	03:55:44	16.0000	9788.657	50.513
1999/03/07	04:10:44	16.2500	9820.187	50.557
1999/03/07	04:25:44	16.5000	9832.335	50.559
1999/03/07	04:40:44	16.7500	9761.113	50.528
1999/03/07	04:55:44	17.0000	9750.436	50.433
1999/03/07	05:10:44	17.2500	9742.010	50.410
1999/03/07	05:25:44	17.5000	9766.793	50.376
1999/03/07	05:40:44	17.7500	9704.754	50.351
1999/03/07	05:55:44	18.0000	9691.312	50.288
1999/03/07	06:10:44	18.2500	9668.658	50.219
1999/03/07	06:25:44	18.5000	9668.433	50.183
1999/03/07	06:40:44	18.7500	9657.804	50.165
1999/03/07	06:55:44	19.0000	9647.963	50.144
1999/03/07	07:10:44	19.2500	9635.671	50.116
1999/03/07	07:25:44	19.5000	9643.542	50.087
1999/03/07	07:40:44	19.7500	9698.687	50.173
1999/03/07	07:55:44	20.0000	9707.613	50.204
1999/03/07	08:10:44	20.2500	9653.934	50.217

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/06	20:11:57	8.2703	10236.429	51.305
1999/03/06	20:26:57	8.5203	10233.466	51.274
1999/03/06	20:41:57	8.7703	10221.230	51.259
1999/03/06	20:56:57	9.0203	10181.924	51.188
1999/03/06	21:11:57	9.2703	10147.811	51.100
1999/03/06	21:26:57	9.5203	10120.146	51.020
1999/03/06	21:41:57	9.7703	10101.600	50.979
1999/03/06	21:56:57	10.0203	10079.086	50.911
1999/03/06	22:11:57	10.2703	10061.542	50.864
1999/03/06	22:26:57	10.5203	10063.068	50.816
1999/03/06	22:41:57	10.7703	10044.146	50.809
1999/03/06	22:56:57	11.0203	10038.945	50.779
1999/03/06	23:11:57	11.2703	9995.857	50.709
1999/03/06	23:26:57	11.5203	9969.285	50.647
1999/03/06	23:41:57	11.7703	9958.892	50.599
1999/03/06	23:56:57	12.0203	9973.907	50.599
1999/03/07	00:11:57	12.2703	9960.319	50.605
1999/03/07	00:26:57	12.5203	9990.945	50.642
1999/03/07	00:41:57	12.7703	9942.843	50.586
1999/03/07	00:56:57	13.0203	9918.619	50.551
1999/03/07	01:11:57	13.2703	9903.331	50.503
1999/03/07	01:26:57	13.5203	9885.351	50.462
1999/03/07	01:41:57	13.7703	9876.522	50.414
1999/03/07	01:56:57	14.0203	9864.546	50.378
1999/03/07	02:11:57	14.2703	9893.759	50.386
1999/03/07	02:26:57	14.5203	9875.057	50.407
1999/03/07	02:41:57	14.7703	9866.123	50.397
1999/03/07	02:56:57	15.0203	9825.668	50.311
1999/03/07	03:11:57	15.2703	9828.750	50.290
1999/03/07	03:26:57	15.5203	9820.152	50.271
1999/03/07	03:41:57	15.7703	9819.387	50.259
1999/03/07	03:56:57	16.0203	9831.050	50.227
1999/03/07	04:11:57	16.2703	9846.930	50.301
1999/03/07	04:26:57	16.5203	9864.555	50.291
1999/03/07	04:41:57	16.7703	9785.426	50.252
1999/03/07	04:56:57	17.0203	9782.465	50.152
1999/03/07	05:11:57	17.2703	9768.538	50.142
1999/03/07	05:26:57	17.5203	9793.561	50.119
1999/03/07	05:41:57	17.7703	9730.242	50.078
1999/03/07	05:56:57	18.0203	9716.329	50.006
1999/03/07	06:11:57	18.2703	9694.651	49.948
1999/03/07	06:26:57	18.5203	9693.768	49.921
1999/03/07	06:41:57	18.7703	9684.366	49.904
1999/03/07	06:56:57	19.0203	9674.481	49.882
1999/03/07	07:11:57	19.2703	9660.589	49.853
1999/03/07	07:26:57	19.5203	9688.750	49.822
1999/03/07	07:41:57	19.7703	9723.582	49.945
1999/03/07	07:56:57	20.0203	9740.390	49.962
1999/03/07	08:11:57	20.2703	9678.506	49.942
1999/03/07	08:26:57	20.5203	9668.080	49.882



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lard
Well Location: F - 36
Date(s) of Test: March 06 - 09/09.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/07	08:25:44	20.5000	9642.780	50.148
1999/03/07	08:40:44	20.7500	9622.216	50.100
1999/03/07	08:55:44	21.0000	9611.008	50.060
1999/03/07	09:10:44	21.2500	9606.808	50.037
1999/03/07	09:25:44	21.5000	9608.840	50.024
1999/03/07	09:40:44	21.7500	9603.742	50.013
1999/03/07	09:55:44	22.0000	9596.788	50.009
1999/03/07	10:10:44	22.2500	9585.778	49.995
1999/03/07	10:25:44	22.5000	9600.028	50.001
1999/03/07	10:40:44	22.7500	9597.134	50.007
1999/03/07	10:55:44	23.0000	9622.367	50.043
1999/03/07	11:10:44	23.2500	9591.680	50.051
1999/03/07	11:25:44	23.5000	9563.345	50.036
1999/03/07	11:40:44	23.7500	9556.105	49.967
1999/03/07	11:55:44	24.0000	9550.607	49.944
1999/03/07	12:10:44	24.2500	9543.229	49.923
1999/03/07	12:25:44	24.5000	9534.104	49.900
1999/03/07	12:40:44	24.7500	9525.331	49.862
1999/03/07	12:55:44	25.0000	9568.271	49.902
1999/03/07	13:10:44	25.2500	9561.417	49.923
1999/03/07	13:25:44	25.5000	9545.483	49.961
1999/03/07	13:40:44	25.7500	9535.509	49.888
Final Flow				
1999/03/07	13:54:14	25.9750	9525.241	49.888
1999/03/07	13:55:44	26.0000	9526.209	49.885
1999/03/07	14:10:44	26.2500	14995.408	53.709
1999/03/07	14:25:44	26.5000	15445.269	57.427
1999/03/07	14:40:44	26.7500	15578.261	58.941
1999/03/07	14:55:44	27.0000	15662.474	59.785
1999/03/07	15:10:44	27.2500	15726.703	60.286
1999/03/07	15:25:44	27.5000	15778.856	60.635
1999/03/07	15:40:44	27.7500	15819.556	60.887
1999/03/07	15:55:44	28.0000	15851.278	60.951
1999/03/07	16:10:44	28.2500	15878.253	61.095
1999/03/07	16:25:44	28.5000	15901.678	61.199
1999/03/07	16:40:44	28.7500	15922.487	61.319
1999/03/07	16:55:44	29.0000	15942.024	61.419
1999/03/07	17:10:44	29.2500	15959.317	61.485
1999/03/07	17:25:44	29.5000	15975.043	61.535
1999/03/07	17:40:44	29.7500	15989.544	61.587
1999/03/07	17:55:44	30.0000	16003.165	61.650
1999/03/07	18:10:44	30.2500	16016.688	61.743
1999/03/07	18:25:44	30.5000	16028.351	61.777
1999/03/07	18:40:44	30.7500	16040.090	61.839
1999/03/07	18:55:44	31.0000	16050.730	61.872
1999/03/07	19:10:44	31.2500	16061.294	61.926
1999/03/07	19:25:44	31.5000	16071.449	61.968
1999/03/07	19:40:44	31.7500	16080.551	62.011
1999/03/07	19:55:44	32.0000	16089.636	62.047
1999/03/07	20:10:44	32.2500	16098.397	62.072

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/07	08:41:57	20.7703	9648.341	49.835
1999/03/07	08:56:57	21.0203	9635.604	49.797
1999/03/07	09:11:57	21.2703	9633.293	49.761
1999/03/07	09:26:57	21.5203	9634.981	49.763
1999/03/07	09:41:57	21.7703	9629.147	49.783
1999/03/07	09:56:57	22.0203	9622.857	49.744
1999/03/07	10:11:57	22.2703	9610.175	49.729
1999/03/07	10:26:57	22.5203	9626.388	49.727
1999/03/07	10:41:57	22.7703	9624.582	49.732
1999/03/07	10:56:57	23.0203	9647.196	49.776
1999/03/07	11:11:57	23.2703	9614.570	49.765
1999/03/07	11:26:57	23.5203	9585.383	49.746
1999/03/07	11:41:57	23.7703	9581.083	49.661
1999/03/07	11:56:57	24.0203	9575.694	49.640
1999/03/07	12:11:57	24.2703	9568.447	49.635
1999/03/07	12:26:57	24.5203	9558.369	49.600
1999/03/07	12:41:57	24.7703	9549.292	49.566
1999/03/07	12:56:57	25.0203	9591.786	49.619
1999/03/07	13:11:57	25.2703	9606.800	49.638
1999/03/07	13:26:57	25.5203	9570.632	49.646
1999/03/07	13:41:57	25.7703	9560.208	49.585
Final Flow				
1999/03/07	13:54:57	25.9869	9549.717	49.582
1999/03/07	13:56:57	26.0203	9552.254	49.576
1999/03/07	14:11:57	26.2703	15066.591	56.737
1999/03/07	14:26:57	26.5203	15478.893	60.010
1999/03/07	14:41:57	26.7703	15603.388	61.151
1999/03/07	14:56:57	27.0203	15685.026	61.734
1999/03/07	15:11:57	27.2703	15746.855	62.076
1999/03/07	15:26:57	27.5203	15796.683	62.325
1999/03/07	15:41:57	27.7703	15836.492	62.505
1999/03/07	15:56:57	28.0203	15867.337	62.644
1999/03/07	16:11:57	28.2703	15895.184	62.755
1999/03/07	16:26:57	28.5203	15917.627	62.857
1999/03/07	16:41:57	28.7703	15938.360	62.937
1999/03/07	16:56:57	29.0203	15956.513	63.006
1999/03/07	17:11:57	29.2703	15974.716	63.067
1999/03/07	17:26:57	29.5203	15990.053	63.111
1999/03/07	17:41:57	29.7703	16003.899	63.156
1999/03/07	17:56:57	30.0203	16018.042	63.192
1999/03/07	18:11:57	30.2703	16031.102	63.230
1999/03/07	18:26:57	30.5203	16043.658	63.267
1999/03/07	18:41:57	30.7703	16054.701	63.305
1999/03/07	18:56:57	31.0203	16065.503	63.334
1999/03/07	19:11:57	31.2703	16075.422	63.363
1999/03/07	19:26:57	31.5203	16084.672	63.390
1999/03/07	19:41:57	31.7703	16093.606	63.413
1999/03/07	19:56:57	32.0203	16102.626	63.434
1999/03/07	20:11:57	32.2703	16110.560	63.453
1999/03/07	20:26:57	32.5203	16118.261	63.472



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lard
Well Location: F - 38
Date(s) of Test: March 06 - 09/00.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPa _g	deg C
1999/03/07	20:25:44	32.5000	16106.564	62.092
1999/03/07	20:40:44	32.7500	16114.166	62.105
1999/03/07	20:55:44	33.0000	16122.020	62.121
1999/03/07	21:10:44	33.2500	16129.373	62.157
1999/03/07	21:25:44	33.5000	16136.768	62.213
1999/03/07	21:40:44	33.7500	16143.557	62.207
1999/03/07	21:55:44	34.0000	16150.165	62.213
1999/03/07	22:10:44	34.2500	16156.601	62.227
1999/03/07	22:25:44	34.5000	16163.074	62.240
1999/03/07	22:40:44	34.7500	16169.082	62.257
1999/03/07	22:55:44	35.0000	16175.376	62.298
1999/03/07	23:10:44	35.2500	16180.951	62.315
1999/03/07	23:25:44	35.5000	16186.662	62.325
1999/03/07	23:40:44	35.7500	16191.899	62.333
1999/03/07	23:55:44	36.0000	16197.861	62.367
1999/03/08	00:10:44	36.2500	16203.152	62.367
1999/03/08	00:25:44	36.5000	16208.207	62.377
1999/03/08	00:40:44	36.7500	16213.406	62.388
1999/03/08	00:55:44	37.0000	16218.583	62.417
1999/03/08	01:10:44	37.2500	16223.461	62.435
1999/03/08	01:25:44	37.5000	16228.403	62.435
1999/03/08	01:40:44	37.7500	16232.756	62.440
1999/03/08	01:55:44	38.0000	16237.440	62.452
1999/03/08	02:10:44	38.2500	16241.897	62.458
1999/03/08	02:25:44	38.5000	16246.665	62.487
1999/03/08	02:40:44	38.7500	16251.264	62.493
1999/03/08	02:55:44	39.0000	16255.388	62.498
1999/03/08	03:10:44	39.2500	16260.137	62.508
1999/03/08	03:25:44	39.5000	16264.370	62.519
1999/03/08	03:40:44	39.7500	16268.611	62.537
1999/03/08	03:55:44	40.0000	16273.439	62.543
1999/03/08	04:10:44	40.2500	16278.668	62.575
1999/03/08	04:25:44	40.5000	16283.293	62.585
1999/03/08	04:40:44	40.7500	16287.519	62.589
1999/03/08	04:55:44	41.0000	16291.442	62.595
1999/03/08	05:10:44	41.2500	16295.427	62.602
1999/03/08	05:25:44	41.5000	16298.981	62.612
1999/03/08	05:40:44	41.7500	16303.175	62.643
1999/03/08	05:55:44	42.0000	16306.694	62.637
1999/03/08	06:10:44	42.2500	16310.260	62.639
1999/03/08	06:25:44	42.5000	16313.791	62.647
1999/03/08	06:40:44	42.7500	16317.272	62.676
1999/03/08	06:55:44	43.0000	16321.057	62.674
1999/03/08	07:10:44	43.2500	16324.585	62.678
1999/03/08	07:25:44	43.5000	16327.498	62.683
1999/03/08	07:40:44	43.7500	16331.305	62.695
1999/03/08	07:55:44	44.0000	16334.648	62.701
1999/03/08	08:10:44	44.2500	16338.707	62.716
1999/03/08	08:25:44	44.5000	16342.021	62.730
1999/03/08	08:40:44	44.7500	16345.353	62.741

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/07	20:41:57	32.7703	16127.621	63.489
1999/03/07	20:56:57	33.0203	16133.978	63.508
1999/03/07	21:11:57	33.2703	16142.023	63.497
1999/03/07	21:26:57	33.5203	16148.844	63.516
1999/03/07	21:41:57	33.7703	16155.604	63.535
1999/03/07	21:56:57	34.0203	16162.404	63.552
1999/03/07	22:11:57	34.2703	16168.619	63.570
1999/03/07	22:26:57	34.5203	16175.232	63.585
1999/03/07	22:41:57	34.7703	16181.153	63.598
1999/03/07	22:56:57	35.0203	16187.853	63.614
1999/03/07	23:11:57	35.2703	16193.458	63.627
1999/03/07	23:26:57	35.5203	16198.961	63.639
1999/03/07	23:41:57	35.7703	16204.357	63.650
1999/03/07	23:56:57	36.0203	16209.631	63.660
1999/03/08	00:11:57	36.2703	16215.343	63.669
1999/03/08	00:26:57	36.5203	16220.446	63.681
1999/03/08	00:41:57	36.7703	16225.445	63.690
1999/03/08	00:56:57	37.0203	16230.719	63.702
1999/03/08	01:11:57	37.2703	16235.407	63.711
1999/03/08	01:26:57	37.5203	16240.173	63.723
1999/03/08	01:41:57	37.7703	16244.881	63.733
1999/03/08	01:56:57	38.0203	16249.439	63.742
1999/03/08	02:11:57	38.2703	16253.895	63.752
1999/03/08	02:26:57	38.5203	16258.642	63.761
1999/03/08	02:41:57	38.7703	16263.012	63.767
1999/03/08	02:56:57	39.0203	16267.236	63.777
1999/03/08	03:11:57	39.2703	16271.839	63.782
1999/03/08	03:26:57	39.5203	16276.189	63.792
1999/03/08	03:41:57	39.7703	16280.266	63.800
1999/03/08	03:56:57	40.0203	16285.244	63.809
1999/03/08	04:11:57	40.2703	16290.040	63.817
1999/03/08	04:26:57	40.5203	16294.557	63.825
1999/03/08	04:41:57	40.7703	16298.384	63.832
1999/03/08	04:56:57	41.0203	16302.439	63.844
1999/03/08	05:11:57	41.2703	16306.264	63.848
1999/03/08	05:26:57	41.5203	16309.881	63.853
1999/03/08	05:41:57	41.7703	16314.086	63.859
1999/03/08	05:56:57	42.0203	16317.678	63.865
1999/03/08	06:11:57	42.2703	16320.915	63.870
1999/03/08	06:26:57	42.5203	16324.430	63.876
1999/03/08	06:41:57	42.7703	16328.254	63.882
1999/03/08	06:56:57	43.0203	16331.657	63.892
1999/03/08	07:11:57	43.2703	16335.046	63.895
1999/03/08	07:26:57	43.5203	16338.388	63.903
1999/03/08	07:41:57	43.7703	16341.875	63.909
1999/03/08	07:56:57	44.0203	16345.727	63.916
1999/03/08	08:11:57	44.2703	16350.750	63.930
1999/03/08	08:26:57	44.5203	16353.928	63.943
1999/03/08	08:41:57	44.7703	16356.687	63.951
1999/03/08	08:56:57	45.0203	16359.819	63.957



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lard
Well Location: F - 36
Date(s) of Test: March 06 - 09/09.

Date	Time	Cum. T. 1 (P54) hr	Pres 1 (P54) kPag	Temp 1 (P54) deg C
1999/03/08	08:55:44	45.0000	16348.437	62.751
1999/03/08	09:10:44	45.2500	16351.874	62.778
1999/03/08	09:25:44	45.5000	16354.826	62.784
1999/03/08	09:40:44	45.7500	16357.947	62.787
1999/03/08	09:55:44	46.0000	16360.215	62.787
1999/03/08	10:10:44	46.2500	16363.248	62.791
1999/03/08	10:25:44	46.5000	16366.658	62.799
1999/03/08	10:40:44	46.7500	16369.640	62.809
1999/03/08	10:55:44	47.0000	16372.370	62.818
1999/03/08	11:10:44	47.2500	16375.290	62.826
1999/03/08	11:25:44	47.5000	16377.604	62.830
1999/03/08	11:40:44	47.7500	16380.807	62.853
1999/03/08	11:55:44	48.0000	16383.754	62.851
1999/03/08	12:10:44	48.2500	16386.336	62.855
1999/03/08	12:25:44	48.5000	16388.850	62.857
1999/03/08	12:40:44	48.7500	16391.350	62.861
1999/03/08	12:55:44	49.0000	16393.750	62.865
1999/03/08	13:10:44	49.2500	16396.500	62.876
1999/03/08	13:25:44	49.5000	16398.830	62.876
1999/03/08	13:40:44	49.7500	16401.426	62.878
1999/03/08	13:55:44	50.0000	16403.719	62.884
1999/03/08	14:10:44	50.2500	16406.129	62.886
1999/03/08	14:25:44	50.5000	16408.520	62.888
1999/03/08	14:40:44	50.7500	16411.189	62.907
1999/03/08	14:55:44	51.0000	16413.230	62.903
1999/03/08	15:10:44	51.2500	16415.744	62.903
1999/03/08	15:25:44	51.5000	16417.971	62.905
1999/03/08	15:40:44	51.7500	16420.057	62.909
1999/03/08	15:55:44	52.0000	16422.287	62.923
1999/03/08	16:10:44	52.2500	16424.287	62.919
1999/03/08	16:25:44	52.5000	16426.658	62.921
1999/03/08	16:40:44	52.7500	16428.656	62.921
1999/03/08	16:55:44	53.0000	16431.402	62.925
1999/03/08	17:10:44	53.2500	16433.506	62.925
1999/03/08	17:25:44	53.5000	16435.676	62.940
1999/03/08	17:40:44	53.7500	16437.844	62.944
1999/03/08	17:55:44	54.0000	16439.818	62.940
1999/03/08	18:10:44	54.2500	16441.719	62.942
1999/03/08	18:25:44	54.5000	16444.090	62.944
1999/03/08	18:40:44	54.7500	16446.027	62.948
1999/03/08	18:55:44	55.0000	16448.006	62.948
1999/03/08	19:10:44	55.2500	16449.727	62.961
1999/03/08	19:25:44	55.5000	16452.283	62.963
1999/03/08	19:40:44	55.7500	16454.180	62.963
1999/03/08	19:55:44	56.0000	16456.014	62.965
1999/03/08	20:10:44	56.2500	16457.582	62.965
1999/03/08	20:25:44	56.5000	16459.834	62.971
1999/03/08	20:40:44	56.7500	16461.900	62.979
1999/03/08	20:55:44	57.0000	16464.004	62.983
1999/03/08	21:10:44	57.2500	16465.900	62.981

Date	Time	Cum. T. 2 (R69) hr	Pres 2 (R69) kPag	Temp 2 (R69) deg C
1999/03/08	09:11:57	45.2703	16363.014	63.962
1999/03/08	09:26:57	45.5203	16365.941	63.968
1999/03/08	09:41:57	45.7703	16368.525	63.972
1999/03/08	09:56:57	46.0203	16371.385	63.976
1999/03/08	10:11:57	46.2703	16374.392	63.982
1999/03/08	10:26:57	46.5203	16378.029	63.987
1999/03/08	10:41:57	46.7703	16381.081	63.995
1999/03/08	10:56:57	47.0203	16383.542	64.001
1999/03/08	11:11:57	47.2703	16386.441	64.005
1999/03/08	11:26:57	47.5203	16388.965	64.008
1999/03/08	11:41:57	47.7703	16391.725	64.012
1999/03/08	11:56:57	48.0203	16393.934	64.014
1999/03/08	12:11:57	48.2703	16396.455	64.018
1999/03/08	12:26:57	48.5203	16399.252	64.020
1999/03/08	12:41:57	48.7703	16401.629	64.022
1999/03/08	12:56:57	49.0203	16404.299	64.026
1999/03/08	13:11:57	49.2703	16406.549	64.026
1999/03/08	13:26:57	49.5203	16409.092	64.029
1999/03/08	13:41:57	49.7703	16411.385	64.033
1999/03/08	13:56:57	50.0203	16413.508	64.033
1999/03/08	14:11:57	50.2703	16416.096	64.037
1999/03/08	14:26:57	50.5203	16418.344	64.039
1999/03/08	14:41:57	50.7703	16420.678	64.041
1999/03/08	14:56:57	51.0203	16422.850	64.043
1999/03/08	15:11:57	51.2703	16425.205	64.045
1999/03/08	15:26:57	51.5203	16427.244	64.049
1999/03/08	15:41:57	51.7703	16431.010	64.054
1999/03/08	15:56:57	52.0203	16433.008	64.058
1999/03/08	16:11:57	52.2703	16435.174	64.060
1999/03/08	16:26:57	52.5203	16437.486	64.062
1999/03/08	16:41:57	52.7703	16439.529	64.064
1999/03/08	16:56:57	53.0203	16441.295	64.066
1999/03/08	17:11:57	53.2703	16443.740	64.070
1999/03/08	17:26:57	53.5203	16445.631	64.072
1999/03/08	17:41:57	53.7703	16447.943	64.073
1999/03/08	17:56:57	54.0203	16450.004	64.075
1999/03/08	18:11:57	54.2703	16452.043	64.077
1999/03/08	18:26:57	54.5203	16453.744	64.079
1999/03/08	18:41:57	54.7703	16455.533	64.081
1999/03/08	18:56:57	55.0203	16457.887	64.083
1999/03/08	19:11:57	55.2703	16459.969	64.083
1999/03/08	19:26:57	55.5203	16461.691	64.087
1999/03/08	19:41:57	55.7703	16464.090	64.091
1999/03/08	19:56:57	56.0203	16465.748	64.093
1999/03/08	20:11:57	56.2703	16467.646	64.094
1999/03/08	20:26:57	56.5203	16469.303	64.096
1999/03/08	20:41:57	56.7703	16471.744	64.098
1999/03/08	20:56:57	57.0203	16473.406	64.098
1999/03/08	21:11:57	57.2703	16475.277	64.100
1999/03/08	21:26:57	57.5203	16477.043	64.102



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 06 - 00/00.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/08	21:25:44	57.5000	16467.445	62.981
1999/03/08	21:40:44	57.7500	16469.135	62.981
1999/03/08	21:55:44	58.0000	16470.785	62.983
1999/03/08	22:10:44	58.2500	16472.830	62.985
1999/03/08	22:25:44	58.5000	16475.207	62.994
1999/03/08	22:40:44	58.7500	16476.645	62.988
1999/03/08	22:55:44	59.0000	16478.389	63.002
1999/03/08	23:10:44	59.2500	16480.201	63.002
1999/03/08	23:25:44	59.5000	16481.975	63.002
1999/03/08	23:40:44	59.7500	16483.729	63.004
1999/03/08	23:55:44	60.0000	16485.314	63.006
1999/03/09	00:10:44	60.2500	16487.232	63.006
1999/03/09	00:25:44	60.5000	16489.053	63.014
1999/03/09	00:40:44	60.7500	16490.598	63.010
1999/03/09	00:55:44	61.0000	16491.814	63.012
1999/03/09	01:10:44	61.2500	16493.939	63.016
1999/03/09	01:25:44	61.5000	16496.012	63.027
1999/03/09	01:40:44	61.7500	16497.207	63.027
1999/03/09	01:55:44	62.0000	16498.770	63.025
1999/03/09	02:10:44	62.2500	16500.170	63.025
1999/03/09	02:25:44	62.5000	16501.887	63.031
1999/03/09	02:40:44	62.7500	16503.475	63.027
1999/03/09	02:55:44	63.0000	16505.205	63.029
1999/03/09	03:10:44	63.2500	16506.938	63.029
1999/03/09	03:25:44	63.5000	16508.340	63.029
1999/03/09	03:40:44	63.7500	16509.742	63.031
1999/03/09	03:55:44	64.0000	16511.252	63.035
1999/03/09	04:10:44	64.2500	16512.633	63.035
1999/03/09	04:25:44	64.5000	16514.477	63.048
1999/03/09	04:40:44	64.7500	16516.275	63.052
1999/03/09	04:55:44	65.0000	16517.674	63.050
1999/03/09	05:10:44	65.2500	16518.705	63.050
1999/03/09	05:25:44	65.5000	16520.379	63.052
1999/03/09	05:40:44	65.7500	16521.842	63.054
1999/03/09	05:55:44	66.0000	16523.367	63.056
1999/03/09	06:10:44	66.2500	16524.875	63.058
1999/03/09	06:25:44	66.5000	16526.361	63.060
1999/03/09	06:40:44	66.7500	16527.951	63.062
1999/03/09	06:55:44	67.0000	16529.273	63.066
1999/03/09	07:10:44	67.2500	16530.699	63.070
1999/03/09	07:25:44	67.5000	16532.150	63.078
1999/03/09	07:40:44	67.7500	16533.465	63.076
1999/03/09	07:55:44	68.0000	16534.625	63.078
1999/03/09	08:10:44	68.2500	16536.068	63.079
1999/03/09	08:25:44	68.5000	16537.885	63.081
1999/03/09	08:40:44	68.7500	16539.332	63.087
1999/03/09	08:55:44	69.0000	16540.178	63.085
1999/03/09	09:10:44	69.2500	16541.908	63.087
1999/03/09	09:25:44	69.5000	16543.168	63.087
1999/03/09	09:40:44	69.7500	16544.303	63.089

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/08	21:41:57	57.7703	16479.020	64.108
1999/03/08	21:56:57	58.0203	16480.533	64.108
1999/03/08	22:11:57	58.2703	16482.215	64.106
1999/03/08	22:26:57	58.5203	16484.021	64.108
1999/03/08	22:41:57	58.7703	16486.273	64.110
1999/03/08	22:56:57	59.0203	16488.250	64.114
1999/03/08	23:11:57	59.2703	16490.059	64.117
1999/03/08	23:26:57	59.5203	16491.592	64.117
1999/03/08	23:41:57	59.7703	16493.527	64.121
1999/03/08	23:56:57	60.0203	16495.104	64.119
1999/03/09	00:11:57	60.2703	16496.449	64.121
1999/03/09	00:26:57	60.5203	16498.342	64.123
1999/03/09	00:41:57	60.7703	16500.275	64.125
1999/03/09	00:56:57	61.0203	16501.537	64.125
1999/03/09	01:11:57	61.2703	16503.430	64.127
1999/03/09	01:26:57	61.5203	16505.197	64.129
1999/03/09	01:41:57	61.7703	16506.588	64.131
1999/03/09	01:56:57	62.0203	16508.434	64.131
1999/03/09	02:11:57	62.2703	16509.926	64.131
1999/03/09	02:26:57	62.5203	16511.293	64.133
1999/03/09	02:41:57	62.7703	16513.039	64.135
1999/03/09	02:56:57	63.0203	16514.451	64.136
1999/03/09	03:11:57	63.2703	16515.881	64.136
1999/03/09	03:26:57	63.5203	16517.521	64.138
1999/03/09	03:41:57	63.7703	16519.246	64.138
1999/03/09	03:56:57	64.0203	16520.969	64.140
1999/03/09	04:11:57	64.2703	16522.168	64.142
1999/03/09	04:26:57	64.5203	16523.936	64.144
1999/03/09	04:41:57	64.7703	16525.111	64.144
1999/03/09	04:56:57	65.0203	16526.668	64.146
1999/03/09	05:11:57	65.2703	16528.201	64.146
1999/03/09	05:26:57	65.5203	16529.633	64.148
1999/03/09	05:41:57	65.7703	16531.252	64.150
1999/03/09	05:56:57	66.0203	16532.557	64.150
1999/03/09	06:11:57	66.2703	16534.006	64.152
1999/03/09	06:26:57	66.5203	16535.205	64.152
1999/03/09	06:41:57	66.7703	16536.697	64.154
1999/03/09	06:56:57	67.0203	16537.939	64.156
1999/03/09	07:11:57	67.2703	16539.727	64.156
1999/03/09	07:26:57	67.5203	16540.967	64.157
1999/03/09	07:41:57	67.7703	16542.459	64.159
1999/03/09	07:56:57	68.0203	16543.490	64.159
1999/03/09	08:11:57	68.2703	16545.174	64.161
1999/03/09	08:26:57	68.5203	16546.539	64.161
1999/03/09	08:41:57	68.7703	16548.074	64.163
1999/03/09	08:56:57	69.0203	16549.506	64.165
1999/03/09	09:11:57	69.2703	16550.430	64.165
1999/03/09	09:26:57	69.5203	16552.029	64.167
1999/03/09	09:41:57	69.7703	16553.354	64.167
1999/03/09	09:56:57	70.0203	16554.783	64.167



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Llard
Well Location: F - 36
Date(s) of Test: March 06 - 09/09.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/09	09:55:44	70.0000	16545.623	63.089
1999/03/09	10:10:44	70.2500	16546.551	63.089
1999/03/09	10:25:44	70.5000	16548.281	63.089
1999/03/09	10:40:44	70.7500	16549.484	63.095
1999/03/09	10:55:44	71.0000	16550.885	63.095
1999/03/09	11:10:44	71.2500	16552.123	63.097
1999/03/09	11:25:44	71.5000	16552.867	63.099
1999/03/09	11:40:44	71.7500	16554.477	63.101
1999/03/09	11:55:44	72.0000	16556.201	63.112
1999/03/09	12:10:44	72.2500	16557.438	63.112
1999/03/09	12:25:44	72.5000	16558.693	63.110
1999/03/09	12:40:44	72.7500	16559.789	63.112
1999/03/09	12:55:44	73.0000	16561.068	63.112
1999/03/09	13:10:44	73.2500	16561.955	63.116
1999/03/09	13:25:44	73.5000	16563.398	63.118
1999/03/09	13:40:44	73.7500	16564.744	63.120
1999/03/09	13:55:44	74.0000	16565.508	63.122
1999/03/09	14:10:44	74.2500	16562.242	63.159
Final Buildup				
1999/03/09	14:12:44	74.2833	16569.936	63.138
POOH Gradient: 1771.000 m				
1999/03/09	14:17:44	74.3667	16532.133	63.012
POOH Gradient: 1741.000 m				
1999/03/09	14:24:44	74.4833	16377.438	62.365
1999/03/09	14:25:44	74.5000	16379.352	62.290
POOH Gradient: 1711.000 m				
1999/03/09	14:30:14	74.5750	16284.694	61.987
POOH Gradient: 1681.000 m				
1999/03/09	14:36:14	74.6750	16212.559	61.774
1999/03/09	14:40:44	74.7500	15997.440	60.906
POOH Gradient: 1500.000 m				
1999/03/09	14:43:14	74.7917	15397.092	60.010
POOH Gradient: 1000.000 m				
1999/03/09	14:53:44	74.9667	15376.756	47.434
1999/03/09	14:55:44	75.0000	15227.083	45.354
POOH Gradient: 500.000 m				
1999/03/09	15:04:14	75.1417	14732.717	30.067
1999/03/09	15:10:44	75.2500	14025.594	20.075
POOH Gradient: 0.000 m				
1999/03/09	15:14:14	75.3083	14021.207	13.617
1999/03/09	15:25:44	75.5000	0.000	2.987

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/09	10:11:57	70.2703	16555.875	64.189
1999/03/09	10:26:57	70.5203	16557.264	64.189
1999/03/09	10:41:57	70.7703	16558.590	64.171
1999/03/09	10:56:57	71.0203	16559.680	64.171
1999/03/09	11:11:57	71.2703	16561.027	64.173
1999/03/09	11:26:57	71.5203	16562.730	64.175
1999/03/09	11:41:57	71.7703	16563.635	64.175
1999/03/09	11:56:57	72.0203	16564.791	64.175
1999/03/09	12:11:57	72.2703	16566.033	64.175
1999/03/09	12:26:57	72.5203	16567.295	64.176
1999/03/09	12:41:57	72.7703	16568.578	64.178
1999/03/09	12:56:57	73.0203	16569.713	64.178
1999/03/09	13:11:57	73.2703	16571.039	64.180
1999/03/09	13:26:57	73.5203	16571.625	64.180
1999/03/09	13:41:57	73.7703	16573.398	64.182
1999/03/09	13:56:57	74.0203	16510.609	64.183
1999/03/09	14:11:57	74.2703	16576.586	64.174
Final Buildup				
1999/03/09	14:14:27	74.3119	16592.971	64.213
POOH Gradient: 1771.000 m				
1999/03/09	14:18:57	74.3869	16537.023	63.796
POOH Gradient: 1741.000 m				
1999/03/09	14:24:27	74.4786	16376.702	63.068
1999/03/09	14:26:57	74.5203	16283.201	62.808
POOH Gradient: 1711.000 m				
1999/03/09	14:30:57	74.5869	16281.267	62.502
POOH Gradient: 1681.000 m				
1999/03/09	14:36:57	74.6869	16208.086	62.257
1999/03/09	14:41:57	74.7703	15993.021	61.149
POOH Gradient: 1500.000 m				
1999/03/09	14:44:27	74.8119	15993.333	60.435
POOH Gradient: 1000.000 m				
1999/03/09	14:53:27	74.9619	15381.099	49.557
1999/03/09	14:56:57	75.0203	15064.544	45.420
POOH Gradient: 500.000 m				
1999/03/09	15:04:57	75.1536	14732.631	31.057
1999/03/09	15:11:57	75.2703	14026.797	19.117
POOH Gradient: 0.000 m				
1999/03/09	15:16:27	75.3453	14023.109	12.138

Baker Atlas
TRI-ALTA BEWS DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Wayne Tomm
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Tri - Alta Bews Services

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard - Tight Hole
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1576.5 mCF
Mid-point of Perforated Intervals (MPP)	1542.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	N/A
Casing Flange (CF)	N/A
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	114.3 mm
Production Tubing	N/A

1514-1582 mKB

TEST INFORMATION

Test Number / Type of Test	Static Gradient / Flow and Buildup / Static Gradient
Date(s) of Test	March 10 - 13/99.
Dead-weight Gauge Tubing Pressure	N/A
Dead-weight Gauge Casing Pressure	13,860 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	March 10/99 @ 01:24.
Date / Time off Bottom	March 13/99 @ 09:23.

Probe Serial Number	P54 (TOP)	R69 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1591.81 mCF	1592.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	16153.52 kPag	16177.34 kPag
Maximum Recorded Probe Temperature	60.36 deg C	61.12 deg C
Final Buildup Pressure	16088.104 kPag	16090.133 kPag
Gradient Survey Information		
Extrapolated Pressure to MPP	15904.034 kPag	15892.774 kPag
Final Gradient at Depth	3.2058 kPa/m	3.4529 kPa/m
Job Number	N/A	



Company N
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Llard
F - 36
March 10 - 13/00.

PROBE INFORMATION

Probe Serial Number	P54 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-21.1 - 148.6 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P54JA02A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Pressure Trigger	2 minutes	indefinite	Trig @ 100 psi
2	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Mar 10/1999 @ 00:22:54
Program End Time	Mar 13/1999 @ 10:28:54
Total Samples Taken	9853
Usage for this Test	0.8680 Ah
Generic Data File Name	P54MR13A.GEN



Company Na
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 10 - 13/99.

PROBE INFORMATION

Probe Serial Number	R69 (BOTTOM)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-21.0 - 125.2 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	R69OC16A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>		<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Pressure Trigger	2 minutes	indefinite	Trig @ 100 psi
2	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Mar 10/1999 @ 00:24:14
Program End Time	Mar 13/1999 @ 10:26:14
Total Samples Taken	9845
Usage for this Test	0.8670 Ah
Generic Data File Name	R69MR13A.GEN



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount of al Llard
Well Location: F - 30
Date(s) of Test: March 10 - 13/99.

COMMENTS

Reported By

TIM BEWS

MARCH 13/99: TBG: N/A CSG: 13,350 KPA



Company N-
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 10 - 13/09.



Pressure vs. Depth

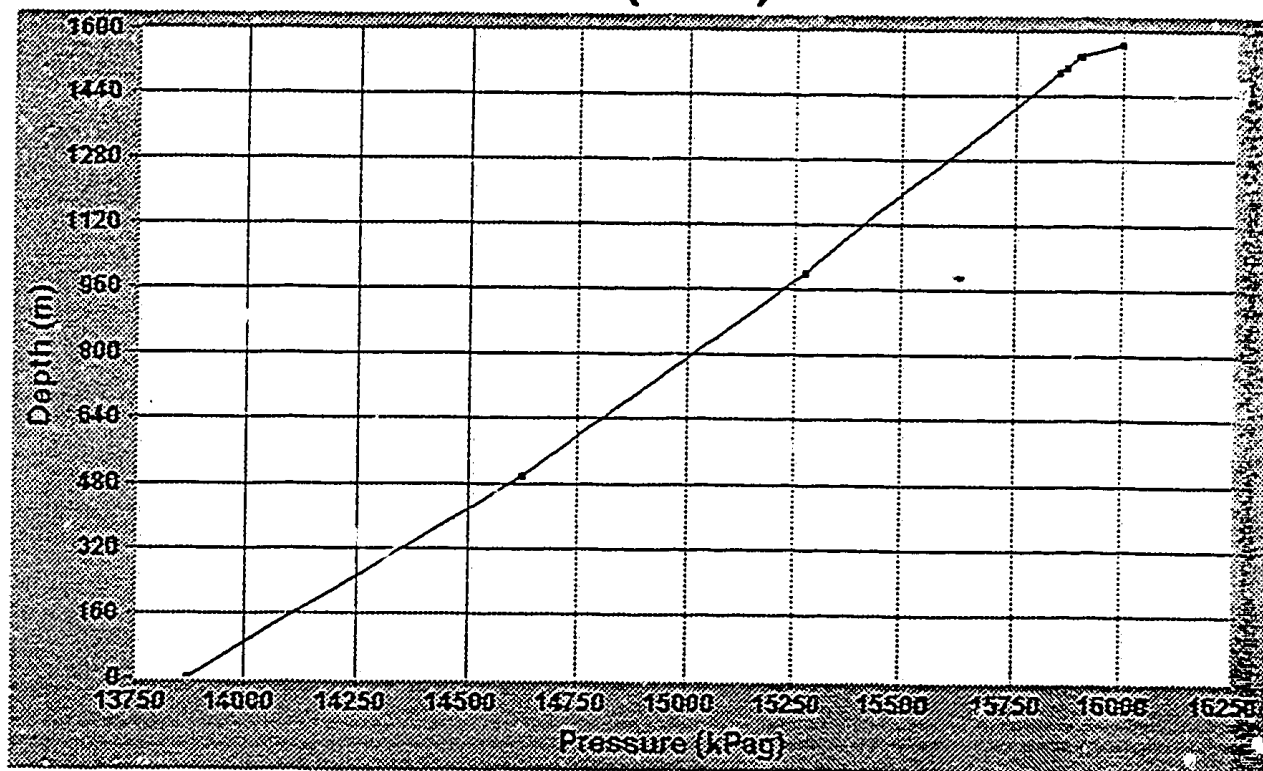
Probe Serial Number P54 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
00:26	00:31	-1.190	13869.848	-
00:37	00:42	498.810	14622.822	1.5059
00:48	00:53	998.810	15272.727	1.2998
00:59	01:04	1498.810	15851.418	1.1574
01:05	01:10	1511.310	15867.604	1.2948
01:11	01:16	1541.310	15900.219	1.0872
01:17	01:22	1571.310	15996.394	3.2058

Extrapolated MPP Pressure:

1542.500 15904.034

P54 (TOP)





Company Nr
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 10 - 13/99.

Pressure vs. Depth

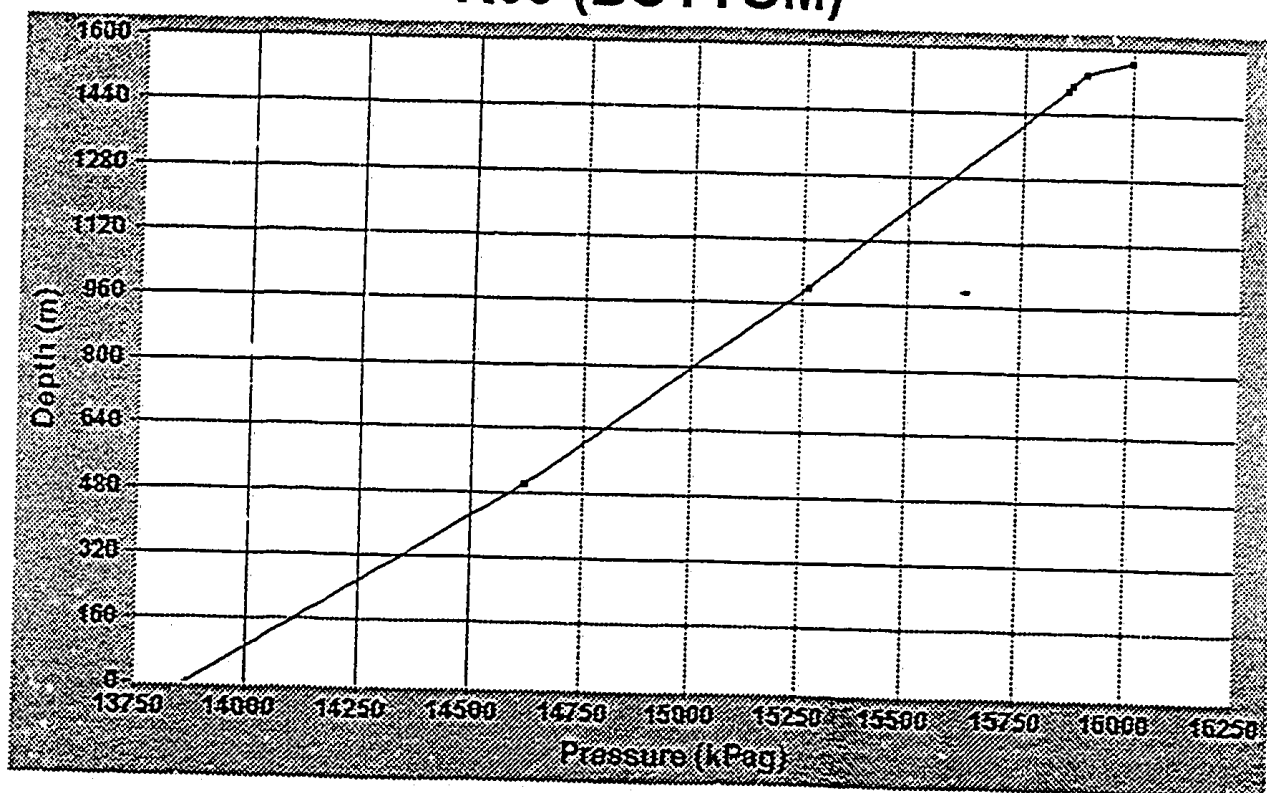
Probe Serial Number R69 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
00:26	00:31	-0.110	13866.826	.
00:37	00:42	499.890	14619.236	1.5048
00:48	00:53	999.890	15265.728	1.2930
00:59	01:04	1499.890	15851.657	1.1719
01:05	01:10	1512.390	15860.665	0.7206
01:11	01:16	1542.390	15892.395	1.0576
01:17	01:22	1572.390	15995.981	3.4529

Extrapolated MPP Pressure:

1542.500 15892.774

R69 (BOTTOM)





Company No
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 30
March 10 - 13/09.

Pressure vs. Depth

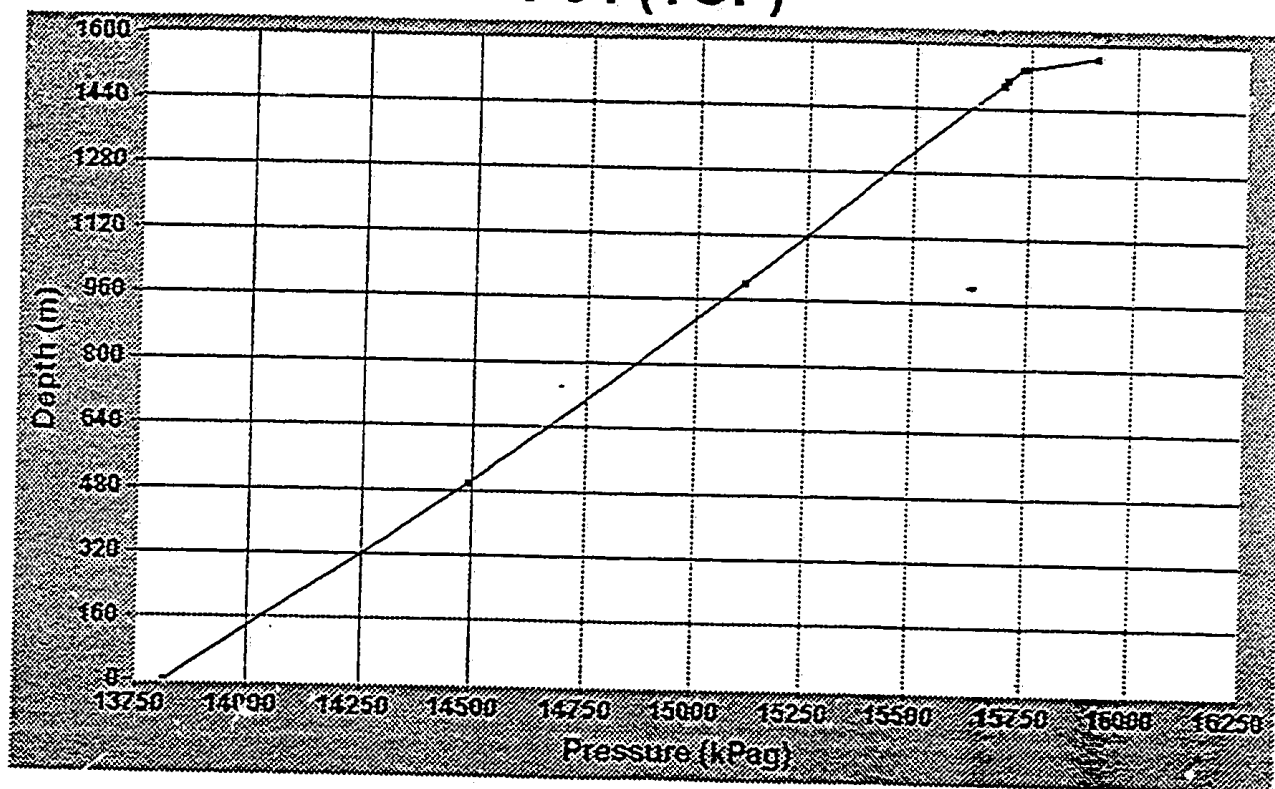
Probe Serial Number P54 (TOP)

		(m)	(kPag)	(kPag/m)
09:23	09:28	1571.310	15901.020	-
09:29	09:34	1541.310	15731.087	5.6644
09:35	09:40	1511.310	15700.850	1.0079
09:41	09:46	1498.810	15692.580	0.6616
09:51	09:56	998.810	15109.521	1.1661
10:01	10:06	498.810	14492.328	1.2344
10:12	10:17	-1.190	13815.544	1.3536

Extrapolated MPP Pressure:

1542.500 15737.828

P54 (TOP)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 10 - 13/99.

Pressure vs. Depth

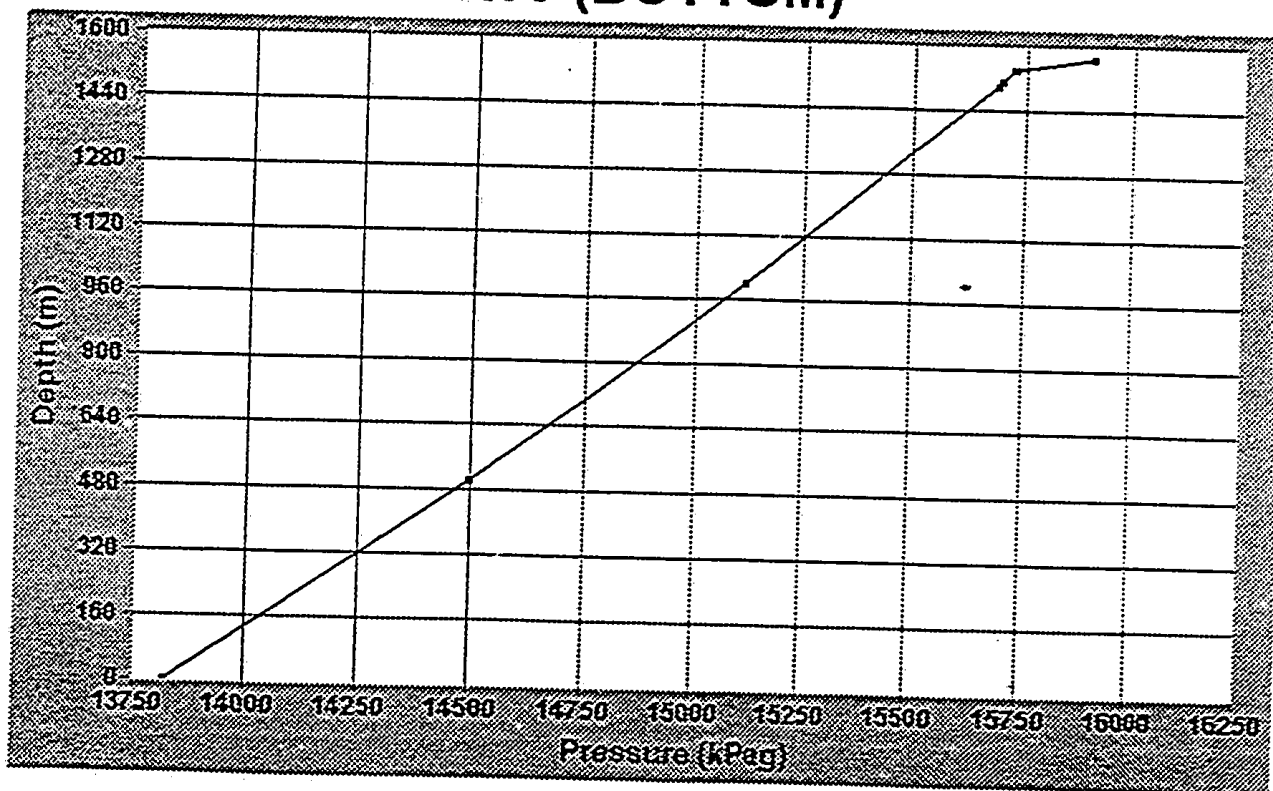
Probe Serial Number R69 (BOTTOM)

		(m)	(kPag)	(kPag/m)
09:23	09:28	1572.390	15902.980	-
09:29	09:34	1542.390	15724.221	5.9587
09:35	09:40	1512.390	15696.732	0.9163
09:41	09:46	1499.890	15686.405	0.8262
09:51	09:56	999.890	15114.801	1.1432
10:01	10:06	499.890	14496.229	1.2371
10:12	10:17	-0.110	13820.046	1.3524

Extrapolated MPP Pressure:

1542.500 15724.876

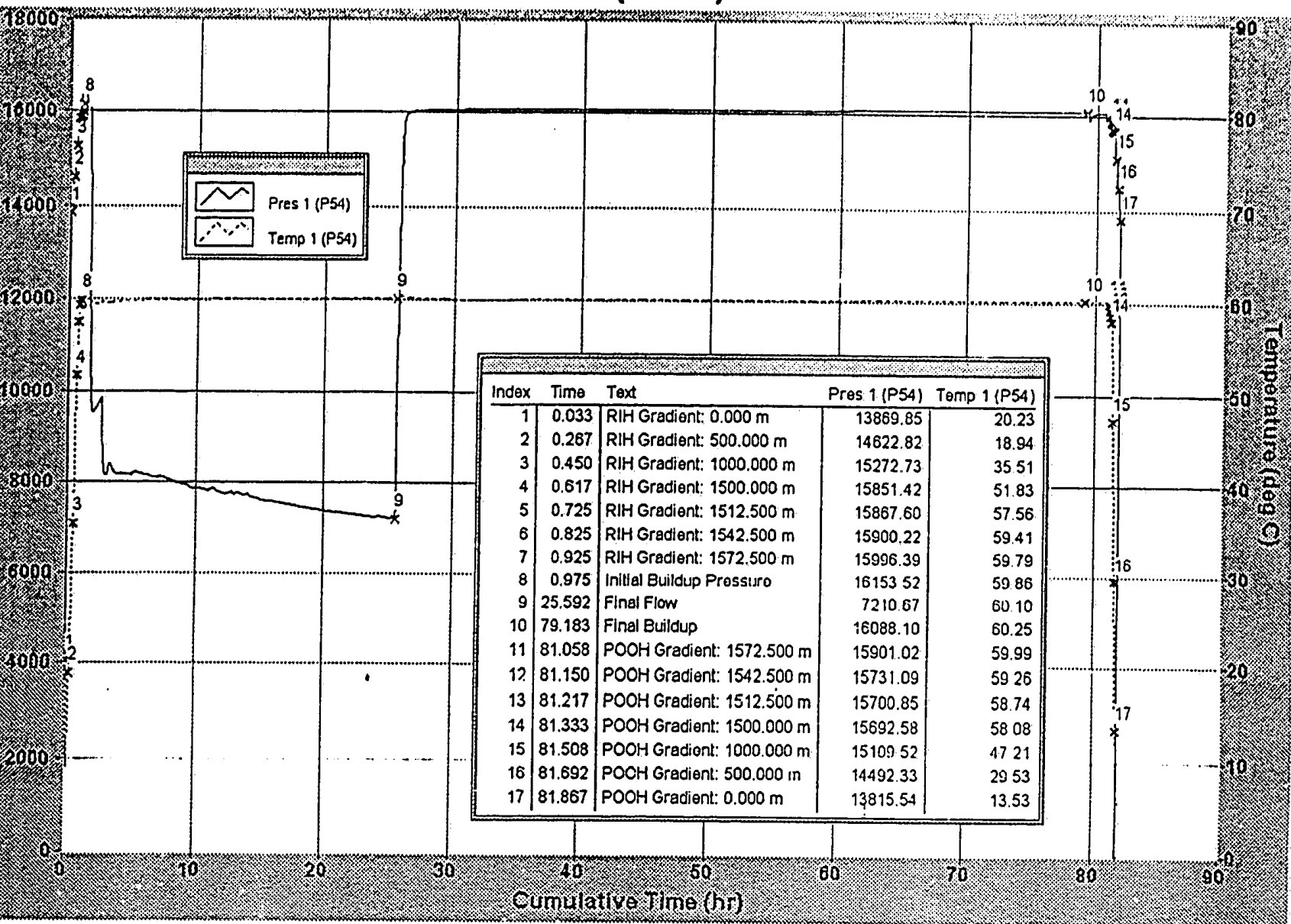
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 10 - 13/99.

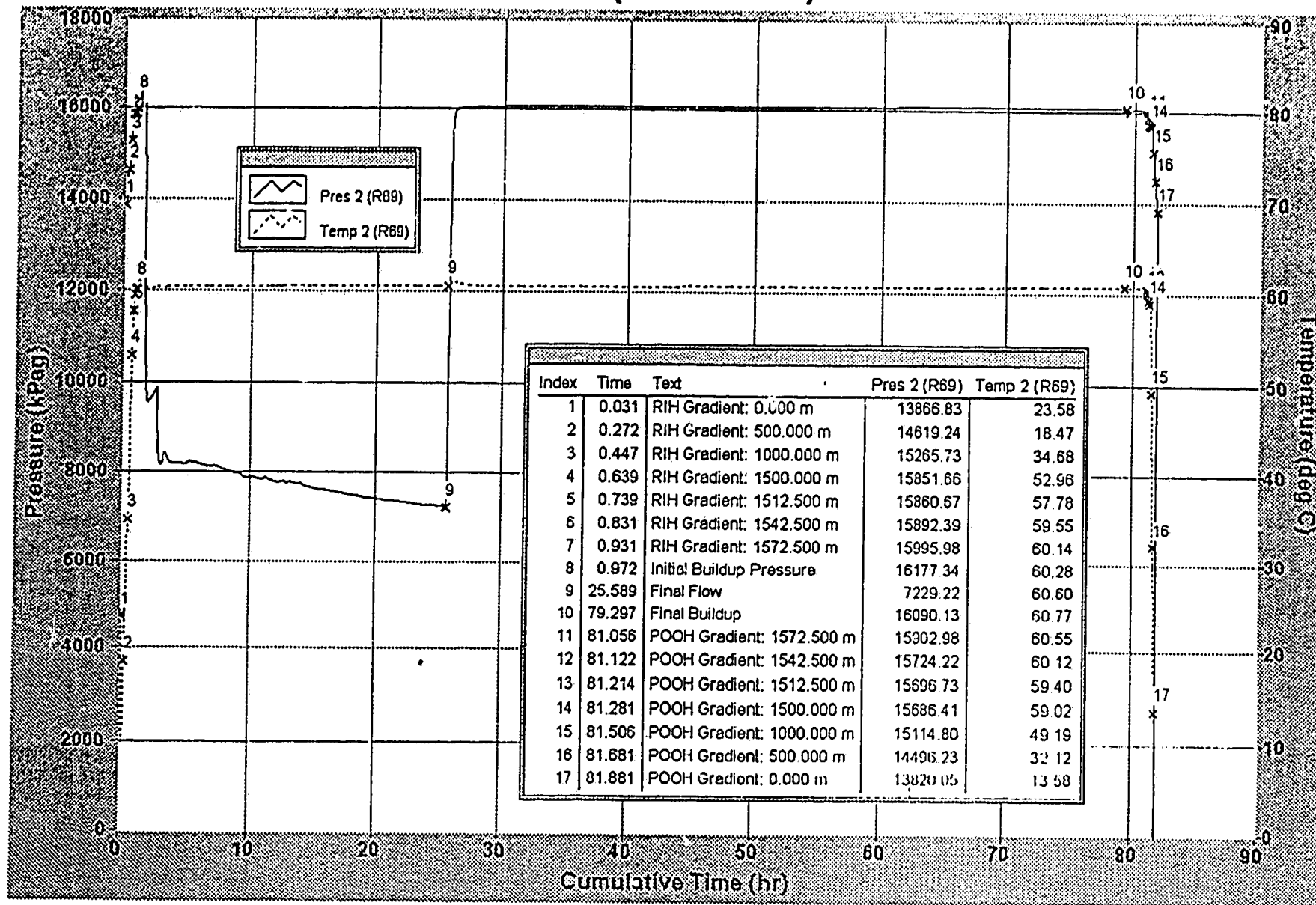
P54 (TOP)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test March 10 - 13/09.

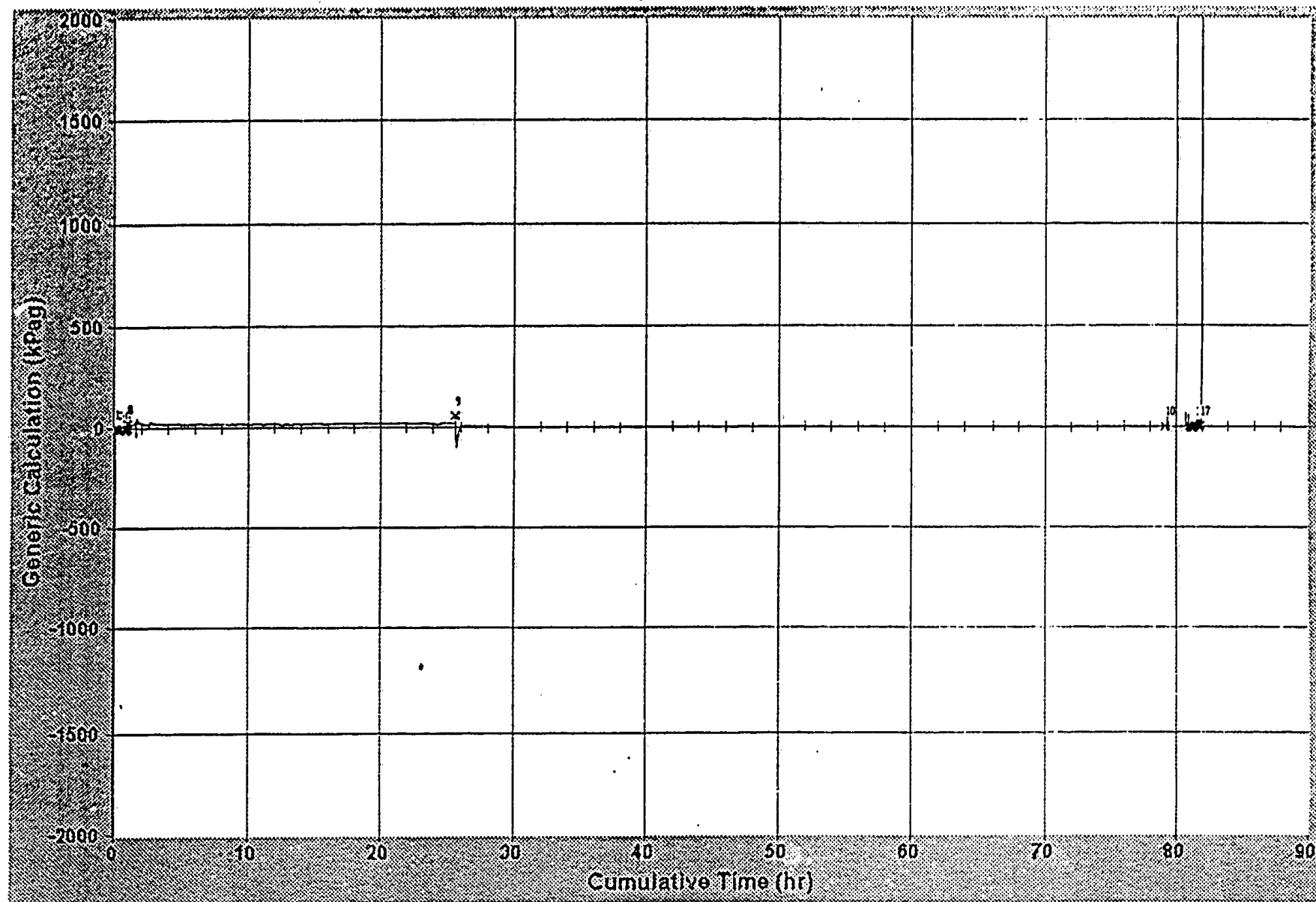
R69 (BOTTOM)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test March 10 - 13/99.

P54 - R69 (DEVIATION)





Company Nr
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Llard
F - 36
March 10 - 13/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/10	00:22:54	0.0000	4155.292	23.704
RIH Gradient 0.000 m				
1999/03/10	00:24:54	0.0333	13869.848	20.225
RIH Gradient 500.000 m				
1999/03/10	00:38:54	0.2667	14622.822	18.937
1999/03/10	00:39:24	0.2750	14623.352	19.443
RIH Gradient 1000.000 m				
1999/03/10	00:49:54	0.4500	15272.727	35.511
1999/03/10	00:55:54	0.5500	15753.336	44.207
RIH Gradient 1500.000 m				
1999/03/10	00:59:54	0.6167	15851.418	51.826
RIH Gradient 1512.500 m				
1999/03/10	01:06:24	0.7250	15867.604	57.555
RIH Gradient 1542.500 m				
1999/03/10	01:12:24	0.8250	15900.219	59.411
RIH Gradient 1572.500 m				
1999/03/10	01:18:24	0.9250	15996.394	59.792
Initial Buildup Pressure				
1999/03/10	01:21:24	0.9750	16153.521	59.858
1999/03/10	01:28:54	1.1000	16150.477	59.910
1999/03/10	01:45:24	1.3750	16146.273	59.948
1999/03/10	02:01:54	1.6500	12150.709	59.870
1999/03/10	02:18:24	1.9250	9533.344	59.482
1999/03/10	02:34:54	2.2000	9647.785	59.540
1999/03/10	02:51:24	2.4750	9778.851	59.653
1999/03/10	03:07:54	2.7500	8384.170	59.639
1999/03/10	03:24:24	3.0250	8162.515	59.572
1999/03/10	03:40:54	3.3000	8391.123	59.653
1999/03/10	03:57:24	3.5750	8234.247	59.708
1999/03/10	04:13:54	3.8500	8177.866	59.745
1999/03/10	04:30:24	4.1250	8188.754	59.778
1999/03/10	04:46:54	4.4000	8181.177	59.805
1999/03/10	05:03:24	4.6750	8169.975	59.825
1999/03/10	05:19:54	4.9500	8175.907	59.840
1999/03/10	05:36:24	5.2250	8235.389	59.858
1999/03/10	05:52:54	5.5000	8204.415	59.866
1999/03/10	06:09:24	5.7750	8182.087	59.875
1999/03/10	06:25:54	6.0500	8160.000	59.883
1999/03/10	06:42:24	6.3250	8137.091	59.887
1999/03/10	06:58:54	6.6000	8110.910	59.883
1999/03/10	07:15:24	6.8750	8106.355	59.893
1999/03/10	07:31:54	7.1500	8127.800	59.903
1999/03/10	07:48:24	7.4250	8109.716	59.912
1999/03/10	08:04:54	7.7000	8076.576	59.918
1999/03/10	08:21:24	7.9750	8049.732	59.924
1999/03/10	08:37:54	8.2500	8019.788	59.930
1999/03/10	08:54:24	8.5250	7985.738	59.934
1999/03/10	09:10:54	8.8000	7971.811	59.938
1999/03/10	09:27:24	9.0750	7969.261	59.942
1999/03/10	09:43:54	9.3500	7928.198	59.944

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/10	00:24:14	0.0222	13866.674	24.940
RIH Gradient 0.000 m				
1999/03/10	00:24:44	0.0306	13866.826	23.585
RIH Gradient 500.000 m				
1999/03/10	00:39:14	0.2722	14619.236	18.471
1999/03/10	00:40:44	0.2972	14717.337	19.900
RIH Gradient 1000.000 m				
1999/03/10	00:49:44	0.4472	15265.728	34.679
1999/03/10	00:57:14	0.5722	15846.754	46.245
RIH Gradient 1500.000 m				
1999/03/10	01:01:14	0.6389	15851.657	52.959
RIH Gradient 1512.500 m				
1999/03/10	01:07:14	0.7389	15860.665	57.783
RIH Gradient 1542.500 m				
1999/03/10	01:12:44	0.8306	15892.395	59.551
1999/03/10	01:13:44	0.8472	15892.767	59.722
RIH Gradient 1572.500 m				
1999/03/10	01:18:44	0.9306	15995.981	60.138
Initial Buildup Pressure				
1999/03/10	01:21:14	0.9722	16177.342	60.284
1999/03/10	01:30:14	1.1222	16170.247	60.481
1999/03/10	01:46:44	1.3972	16167.047	60.546
1999/03/10	02:03:14	1.6722	11587.668	60.467
1999/03/10	02:19:44	1.9472	9556.248	60.228
1999/03/10	02:36:14	2.2222	9679.405	60.307
1999/03/10	02:52:44	2.4972	9812.229	60.394
1999/03/10	03:09:14	2.7722	8342.936	60.362
1999/03/10	03:25:44	3.0472	8211.061	60.336
1999/03/10	03:42:14	3.3222	8397.584	60.417
1999/03/10	03:58:44	3.5972	8245.283	60.422
1999/03/10	04:15:14	3.8722	8194.257	60.422
1999/03/10	04:31:44	4.1472	8206.659	60.434
1999/03/10	04:48:14	4.4222	8197.734	60.445
1999/03/10	05:04:44	4.6972	8186.977	60.455
1999/03/10	05:21:14	4.9722	8201.722	60.456
1999/03/10	05:37:44	5.2472	8248.131	60.448
1999/03/10	05:54:14	5.5222	8220.170	60.458
1999/03/10	06:10:44	5.7972	8200.602	60.458
1999/03/10	06:27:14	6.0722	8175.442	60.459
1999/03/10	06:43:44	6.3472	8152.336	60.478
1999/03/10	07:00:14	6.6222	8131.046	60.482
1999/03/10	07:16:44	6.8972	8121.052	60.490
1999/03/10	07:33:14	7.1722	8142.039	60.501
1999/03/10	07:49:44	7.4472	8124.432	60.501
1999/03/10	08:06:14	7.7222	8083.147	60.505
1999/03/10	08:22:44	7.9972	8064.530	60.503
1999/03/10	08:39:14	8.2722	8035.266	60.504
1999/03/10	08:55:44	8.5472	8001.616	60.481
1999/03/10	09:12:14	8.8222	7987.354	60.485
1999/03/10	09:28:44	9.0972	7984.188	60.489



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Liard
F - 36
March 10 - 13/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/10	10:00:24	9.6250	7873.189	59.938
1999/03/10	10:16:54	9.9000	7866.724	59.944
1999/03/10	10:33:24	10.1750	7883.104	59.956
1999/03/10	10:49:54	10.4500	7859.944	59.977
1999/03/10	11:06:24	10.7250	7837.313	59.979
1999/03/10	11:22:54	11.0000	7818.335	59.989
1999/03/10	11:39:24	11.2750	7869.358	59.993
1999/03/10	11:55:54	11.5500	7814.359	60.003
1999/03/10	12:12:24	11.8250	7786.438	60.008
1999/03/10	12:28:54	12.1000	7763.083	60.022
1999/03/10	12:45:24	12.3750	7757.646	60.030
1999/03/10	13:01:54	12.6500	7770.245	60.040
1999/03/10	13:18:24	12.9250	7740.447	60.044
1999/03/10	13:34:54	13.2000	7768.920	60.049
1999/03/10	13:51:24	13.4750	7747.581	60.053
1999/03/10	14:07:54	13.7500	7721.342	60.053
1999/03/10	14:24:24	14.0250	7758.611	60.055
1999/03/10	14:40:54	14.3000	7687.084	60.050
1999/03/10	14:57:24	14.5750	7655.712	60.048
1999/03/10	15:13:54	14.8500	7646.936	60.052
1999/03/10	15:30:24	15.1250	7621.391	60.057
1999/03/10	15:46:54	15.4000	7602.800	60.054
1999/03/10	16:03:24	15.6750	7597.832	60.054
1999/03/10	16:19:54	15.9500	7589.275	60.056
1999/03/10	16:36:24	16.2250	7573.943	60.058
1999/03/10	16:52:54	16.5000	7563.575	60.063
1999/03/10	17:09:24	16.7750	7549.629	60.062
1999/03/10	17:25:54	17.0500	7536.648	60.067
1999/03/10	17:42:24	17.3250	7523.276	60.073
1999/03/10	17:58:54	17.6000	7509.113	60.073
1999/03/10	18:15:24	17.8750	7492.765	60.071
1999/03/10	18:31:54	18.1500	7475.230	60.071
1999/03/10	18:48:24	18.4250	7462.645	60.071
1999/03/10	19:04:54	18.7000	7450.478	60.075
1999/03/10	19:21:24	18.9750	7434.683	60.081
1999/03/10	19:37:54	19.2500	7426.534	60.089
1999/03/10	19:54:24	19.5250	7415.678	60.101
1999/03/10	20:10:54	19.8000	7401.665	60.113
1999/03/10	20:27:24	20.0750	7386.806	60.116
1999/03/10	20:43:54	20.3500	7375.543	60.103
1999/03/10	21:00:24	20.6250	7364.853	60.097
1999/03/10	21:16:54	20.9000	7360.813	60.091
1999/03/10	21:33:24	21.1750	7357.312	60.087
1999/03/10	21:49:54	21.4500	7345.565	60.085
1999/03/10	22:06:24	21.7250	7335.013	60.087
1999/03/10	22:22:54	22.0000	7321.912	60.095
1999/03/10	22:39:24	22.2750	7314.166	60.101
1999/03/10	22:55:54	22.5500	7302.346	60.105
1999/03/10	23:12:24	22.8250	7291.073	60.105
1999/03/10	23:28:54	23.1000	7280.293	60.105

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/10	09:45:14	9.3722	7940.000	60.489
1999/03/10	10:01:44	9.6472	7887.494	60.497
1999/03/10	10:18:14	9.9222	7885.708	60.501
1999/03/10	10:34:44	10.1972	7898.492	60.511
1999/03/10	10:51:14	10.4722	7875.697	60.513
1999/03/10	11:07:44	10.7472	7854.664	60.513
1999/03/10	11:24:14	11.0222	7842.065	60.513
1999/03/10	11:40:44	11.2972	7890.226	60.522
1999/03/10	11:57:14	11.5722	7831.292	60.521
1999/03/10	12:13:44	11.8472	7802.633	60.521
1999/03/10	12:30:14	12.1222	7779.647	60.521
1999/03/10	12:46:44	12.3972	7775.434	60.519
1999/03/10	13:03:14	12.6722	7793.617	60.523
1999/03/10	13:19:44	12.9472	7757.192	60.529
1999/03/10	13:36:14	13.2222	7782.620	60.527
1999/03/10	13:52:44	13.4972	7764.123	60.529
1999/03/10	14:09:14	13.7722	7738.994	60.527
1999/03/10	14:25:44	14.0472	7771.791	60.531
1999/03/10	14:42:14	14.3222	7704.935	60.527
1999/03/10	14:58:44	14.5972	7675.083	60.522
1999/03/10	15:15:14	14.8722	7662.197	60.524
1999/03/10	15:31:44	15.1472	7639.278	60.526
1999/03/10	15:48:14	15.4222	7620.319	60.528
1999/03/10	16:04:44	15.6972	7614.406	60.532
1999/03/10	16:21:14	15.9722	7606.863	60.536
1999/03/10	16:37:44	16.2472	7591.480	60.538
1999/03/10	16:54:14	16.5222	7581.168	60.540
1999/03/10	17:10:44	16.7972	7566.476	60.542
1999/03/10	17:27:14	17.0722	7554.987	60.544
1999/03/10	17:43:44	17.3472	7542.750	60.546
1999/03/10	18:00:14	17.6222	7527.221	60.548
1999/03/10	18:16:44	17.8972	7510.539	60.548
1999/03/10	18:33:14	18.1722	7492.209	60.552
1999/03/10	18:49:44	18.4472	7480.599	60.554
1999/03/10	19:06:14	18.7222	7467.812	60.556
1999/03/10	19:22:44	18.9972	7453.207	60.558
1999/03/10	19:39:14	19.2722	7445.088	60.560
1999/03/10	19:55:44	19.5472	7434.165	60.562
1999/03/10	20:12:14	19.8222	7419.750	60.564
1999/03/10	20:28:44	20.0972	7405.417	60.568
1999/03/10	20:45:14	20.3722	7393.542	60.566
1999/03/10	21:01:44	20.6472	7383.525	60.570
1999/03/10	21:18:14	20.9222	7379.070	60.572
1999/03/10	21:34:44	21.1972	7375.508	60.578
1999/03/10	21:51:14	21.4722	7363.972	60.578
1999/03/10	22:07:44	21.7472	7352.707	60.578
1999/03/10	22:24:14	22.0222	7339.789	60.578
1999/03/10	22:40:44	22.2972	7332.008	60.580
1999/03/10	22:57:14	22.5722	7320.602	60.582
1999/03/10	23:13:44	22.8472	7309.188	60.588



Company Nr
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
March 10 - 13/09.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/10	23:45:24	23.3750	7270.900	60.109
1999/03/11	00:01:54	23.6500	7260.507	60.099
1999/03/11	00:18:24	23.9250	7247.993	60.103
1999/03/11	00:34:54	24.2000	7262.868	60.099
1999/03/11	00:51:24	24.4750	7257.140	60.099
1999/03/11	01:07:54	24.7500	7244.528	60.105
1999/03/11	01:24:24	25.0250	7232.825	60.107
1999/03/11	01:40:54	25.3000	7221.423	60.103
1999/03/11	01:57:24	25.5750	7211.346	60.105
Final Flow				
1999/03/11	01:58:24	25.5917	7210.668	60.105
1999/03/11	02:13:54	25.8500	15141.399	60.327
1999/03/11	02:30:24	26.1250	15950.832	60.340
1999/03/11	02:46:54	26.4000	16001.848	60.299
1999/03/11	03:03:24	26.6750	16017.293	60.255
1999/03/11	03:19:54	26.9500	16027.238	60.210
1999/03/11	03:36:24	27.2250	16033.733	60.174
1999/03/11	03:52:54	27.5000	16038.859	60.151
1999/03/11	04:09:24	27.7750	16042.902	60.131
1999/03/11	04:25:54	28.0500	16046.582	60.118
1999/03/11	04:42:24	28.3250	16049.481	60.106
1999/03/11	04:58:54	28.6000	16052.040	60.099
1999/03/11	05:15:24	28.8750	16054.246	60.093
1999/03/11	05:31:54	29.1500	16056.396	60.091
1999/03/11	05:48:24	29.4250	16058.156	60.089
1999/03/11	06:04:54	29.7000	16059.688	60.085
1999/03/11	06:21:24	29.9750	16061.121	60.081
1999/03/11	06:37:54	30.2500	16062.372	60.081
1999/03/11	06:54:24	30.5250	16063.615	60.079
1999/03/11	07:10:54	30.8000	16064.661	60.079
1999/03/11	07:27:24	31.0750	16065.644	60.079
1999/03/11	07:43:54	31.3500	16066.401	60.079
1999/03/11	08:00:24	31.6250	16067.302	60.079
1999/03/11	08:16:54	31.9000	16067.958	60.079
1999/03/11	08:33:24	32.1750	16068.573	60.079
1999/03/11	08:49:54	32.4500	16069.167	60.079
1999/03/11	09:06:24	32.7250	16069.827	60.083
1999/03/11	09:22:54	33.0000	16070.360	60.083
1999/03/11	09:39:24	33.2750	16070.709	60.083
1999/03/11	09:55:54	33.5500	16071.158	60.083
1999/03/11	10:12:24	33.8250	16071.753	60.083
1999/03/11	10:28:54	34.1000	16072.081	60.083
1999/03/11	10:45:24	34.3750	16072.552	60.085
1999/03/11	11:01:54	34.6500	16073.128	60.089
1999/03/11	11:18:24	34.9250	16073.475	60.087
1999/03/11	11:34:54	35.2000	16073.889	60.091
1999/03/11	11:51:24	35.4750	16074.259	60.091
1999/03/11	12:07:54	35.7500	16074.605	60.091
1999/03/11	12:24:24	36.0250	16074.936	60.093
1999/03/11	12:40:54	36.3000	16075.557	60.100

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/10	23:30:14	23.1222	7298.221	60.590
1999/03/10	23:46:44	23.3972	7288.643	60.594
1999/03/11	00:03:14	23.6722	7277.902	60.594
1999/03/11	00:19:44	23.9472	7267.155	60.592
1999/03/11	00:36:14	24.2222	7277.760	60.596
1999/03/11	00:52:44	24.4972	7272.849	60.599
1999/03/11	01:09:14	24.7722	7262.466	60.600
1999/03/11	01:25:44	25.0472	7250.966	60.596
1999/03/11	01:42:14	25.3222	7239.438	60.602
Final Flow				
1999/03/11	01:58:14	25.5889	7229.222	60.602
1999/03/11	01:58:44	25.5972	7342.866	60.601
1999/03/11	02:15:14	25.8722	15316.434	61.088
1999/03/11	02:31:44	26.1472	15964.711	61.044
1999/03/11	02:48:14	26.4222	16008.153	60.893
1999/03/11	03:04:44	26.6972	16023.066	60.793
1999/03/11	03:21:14	26.9722	16031.882	60.730
1999/03/11	03:37:44	27.2472	16037.859	60.687
1999/03/11	03:54:14	27.5222	16042.567	60.659
1999/03/11	04:10:44	27.7972	16046.381	60.637
1999/03/11	04:27:14	28.0722	16049.629	60.622
1999/03/11	04:43:44	28.3472	16052.445	60.613
1999/03/11	05:00:14	28.6222	16054.945	60.605
1999/03/11	05:16:44	28.8972	16057.155	60.599
1999/03/11	05:33:14	29.1722	16059.033	60.593
1999/03/11	05:49:44	29.4472	16060.572	60.591
1999/03/11	06:06:14	29.7222	16062.054	60.588
1999/03/11	06:22:44	29.9972	16063.243	60.586
1999/03/11	06:39:14	30.2722	16064.370	60.584
1999/03/11	06:55:44	30.5472	16065.497	60.584
1999/03/11	07:12:14	30.8222	16066.478	60.584
1999/03/11	07:28:44	31.0972	16067.332	60.584
1999/03/11	07:45:14	31.3722	16068.062	60.584
1999/03/11	08:01:44	31.6472	16068.711	60.584
1999/03/11	08:18:14	31.9222	16069.335	60.584
1999/03/11	08:34:44	32.1972	16069.879	60.584
1999/03/11	08:51:14	32.4722	16070.396	60.584
1999/03/11	09:07:44	32.7472	16070.897	60.584
1999/03/11	09:24:14	33.0222	16071.528	60.589
1999/03/11	09:40:44	33.2972	16071.758	60.586
1999/03/11	09:57:14	33.5722	16072.423	60.591
1999/03/11	10:13:44	33.8472	16072.865	60.589
1999/03/11	10:30:14	34.1222	16073.367	60.593
1999/03/11	10:46:44	34.3972	16073.612	60.589
1999/03/11	11:03:14	34.6722	16073.972	60.591
1999/03/11	11:19:44	34.9472	16074.473	60.593
1999/03/11	11:36:14	35.2222	16074.786	60.593
1999/03/11	11:52:44	35.4972	16075.015	60.593
1999/03/11	12:09:14	35.7722	16075.392	60.595
1999/03/11	12:25:44	36.0472	16075.745	60.595



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Llard
Well Location F - 36
Date(s) of Test March 10 - 13/01

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/11	12:57:24	36.5750	16075.675	60.097
1999/03/11	13:13:54	36.8500	16076.110	60.104
1999/03/11	13:30:24	37.1250	16076.166	60.099
1999/03/11	13:46:54	37.4000	16076.454	60.099
1999/03/11	14:03:24	37.6750	16076.766	60.100
1999/03/11	14:19:54	37.9500	16077.033	60.102
1999/03/11	14:36:24	38.2250	16077.156	60.102
1999/03/11	14:52:54	38.5000	16077.422	60.104
1999/03/11	15:09:24	38.7750	16077.853	60.106
1999/03/11	15:25:54	39.0500	16077.915	60.106
1999/03/11	15:42:24	39.3250	16078.284	60.108
1999/03/11	15:58:54	39.6000	16078.324	60.108
1999/03/11	16:15:24	39.8750	16078.467	60.108
1999/03/11	16:31:54	40.1500	16078.718	60.110
1999/03/11	16:48:24	40.4250	16078.861	60.110
1999/03/11	17:04:54	40.7000	16079.108	60.114
1999/03/11	17:21:24	40.9750	16079.252	60.114
1999/03/11	17:37:54	41.2500	16079.437	60.116
1999/03/11	17:54:24	41.5250	16079.627	60.120
1999/03/11	18:10:54	41.8000	16079.790	60.120
1999/03/11	18:27:24	42.0750	16079.893	60.120
1999/03/11	18:43:54	42.3500	16079.996	60.120
1999/03/11	19:00:24	42.6250	16080.139	60.120
1999/03/11	19:16:54	42.9000	16080.344	60.122
1999/03/11	19:33:24	43.1750	16080.385	60.122
1999/03/11	19:49:54	43.4500	16080.529	60.124
1999/03/11	20:06:24	43.7250	16080.632	60.126
1999/03/11	20:22:54	44.0000	16080.734	60.126
1999/03/11	20:39:24	44.2750	16080.817	60.127
1999/03/11	20:55:54	44.5500	16081.006	60.129
1999/03/11	21:12:24	44.8250	16081.129	60.129
1999/03/11	21:28:54	45.1000	16081.273	60.131
1999/03/11	21:45:24	45.3750	16081.253	60.133
1999/03/11	22:01:54	45.6500	16081.416	60.133
1999/03/11	22:18:24	45.9250	16081.396	60.133
1999/03/11	22:34:54	46.2000	16081.562	60.135
1999/03/11	22:51:24	46.4750	16081.684	60.137
1999/03/11	23:07:54	46.7500	16081.834	60.139
1999/03/11	23:24:24	47.0250	16081.895	60.139
1999/03/11	23:40:54	47.3000	16081.937	60.141
1999/03/11	23:57:24	47.5750	16081.999	60.141
1999/03/12	00:13:54	47.8500	16082.202	60.143
1999/03/12	00:30:24	48.1250	16082.142	60.143
1999/03/12	00:46:54	48.4000	16082.307	60.145
1999/03/12	01:03:24	48.6750	16082.287	60.145
1999/03/12	01:19:54	48.9500	16082.450	60.147
1999/03/12	01:36:24	49.2250	16082.683	60.154
1999/03/12	01:52:54	49.5000	16082.620	60.149
1999/03/12	02:09:24	49.7750	16082.825	60.154
1999/03/12	02:25:54	50.0500	16082.763	60.149

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/11	12:42:14	36.3222	16076.082	60.597
1999/03/11	12:58:44	36.5972	16076.415	60.599
1999/03/11	13:15:14	36.8722	16076.708	60.601
1999/03/11	13:31:44	37.1472	16077.020	60.601
1999/03/11	13:48:14	37.4222	16077.147	60.603
1999/03/11	14:04:44	37.6972	16077.292	60.605
1999/03/11	14:21:14	37.9722	16077.480	60.605
1999/03/11	14:37:44	38.2472	16077.754	60.607
1999/03/11	14:54:14	38.5222	16077.982	60.607
1999/03/11	15:10:44	38.7972	16078.213	60.608
1999/03/11	15:27:14	39.0722	16078.566	60.610
1999/03/11	15:43:44	39.3472	16078.442	60.610
1999/03/11	16:00:14	39.6222	16078.735	60.612
1999/03/11	16:16:44	39.8972	16079.174	60.614
1999/03/11	16:33:14	40.1722	16079.112	60.616
1999/03/11	16:49:44	40.4472	16079.385	60.616
1999/03/11	17:06:14	40.7222	16079.343	60.618
1999/03/11	17:22:44	40.9972	16079.509	60.620
1999/03/11	17:39:14	41.2722	16079.698	60.620
1999/03/11	17:55:44	41.5472	16079.906	60.622
1999/03/11	18:12:14	41.8222	16079.990	60.622
1999/03/11	18:28:44	42.0972	16080.203	60.624
1999/03/11	18:45:14	42.3722	16080.304	60.626
1999/03/11	19:01:44	42.6472	16080.472	60.628
1999/03/11	19:18:14	42.9222	16080.472	60.628
1999/03/11	19:34:44	43.1972	16080.560	60.630
1999/03/11	19:51:14	43.4722	16080.853	60.631
1999/03/11	20:07:44	43.7472	16080.915	60.631
1999/03/11	20:24:14	44.0222	16081.041	60.633
1999/03/11	20:40:44	44.2972	16081.104	60.635
1999/03/11	20:57:14	44.5722	16081.166	60.635
1999/03/11	21:13:44	44.8472	16081.270	60.635
1999/03/11	21:30:14	45.1222	16081.313	60.637
1999/03/11	21:46:44	45.3972	16081.396	60.639
1999/03/11	22:03:14	45.6722	16081.502	60.641
1999/03/11	22:19:44	45.9472	16081.606	60.645
1999/03/11	22:36:14	46.2222	16081.606	60.641
1999/03/11	22:52:44	46.4972	16081.879	60.647
1999/03/11	23:09:14	46.7722	16081.795	60.645
1999/03/11	23:25:44	47.0472	16081.985	60.651
1999/03/11	23:42:14	47.3222	16081.964	60.647
1999/03/11	23:58:44	47.5972	16082.130	60.649
1999/03/12	00:15:14	47.8722	16082.194	60.651
1999/03/12	00:31:44	48.1472	16082.360	60.653
1999/03/12	00:48:14	48.4222	16082.360	60.653
1999/03/12	01:04:44	48.6972	16082.402	60.654
1999/03/12	01:21:14	48.9722	16082.465	60.654
1999/03/12	01:37:44	49.2472	16082.611	60.656
1999/03/12	01:54:14	49.5222	16082.571	60.656
1999/03/12	02:10:44	49.7972	16082.658	60.658



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Lard
Well Location: F - 36
Date(s) of Test: March 10 - 13/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/12	02:42:24	50.3250	16082.783	60.151
1999/03/12	02:58:54	50.6000	16082.908	60.153
1999/03/12	03:15:24	50.8750	16083.053	60.156
1999/03/12	03:31:54	51.1500	16083.030	60.154
1999/03/12	03:48:24	51.4250	16083.153	60.154
1999/03/12	04:04:54	51.7000	16083.195	60.156
1999/03/12	04:21:24	51.9750	16083.281	60.158
1999/03/12	04:37:54	52.2500	16083.344	60.160
1999/03/12	04:54:24	52.5250	16083.406	60.162
1999/03/12	05:10:54	52.8000	16083.365	60.164
1999/03/12	05:27:24	53.0750	16083.530	60.166
1999/03/12	05:43:54	53.3500	16083.633	60.166
1999/03/12	06:00:24	53.6250	16083.719	60.168
1999/03/12	06:16:54	53.9000	16083.679	60.168
1999/03/12	06:33:24	54.1750	16083.761	60.170
1999/03/12	06:49:54	54.4500	16083.781	60.172
1999/03/12	07:06:24	54.7250	16083.802	60.172
1999/03/12	07:22:54	55.0000	16083.886	60.174
1999/03/12	07:39:24	55.2750	16084.029	60.176
1999/03/12	07:55:54	55.5500	16084.049	60.176
1999/03/12	08:12:24	55.8250	16084.097	60.178
1999/03/12	08:28:54	56.1000	16084.199	60.180
1999/03/12	08:45:24	56.3750	16084.179	60.180
1999/03/12	09:01:54	56.6500	16084.261	60.180
1999/03/12	09:18:24	56.9250	16084.239	60.178
1999/03/12	09:34:54	57.2000	16084.404	60.180
1999/03/12	09:51:24	57.4750	16084.425	60.181
1999/03/12	10:07:54	57.7500	16084.507	60.181
1999/03/12	10:24:24	58.0250	16084.672	60.183
1999/03/12	10:40:54	58.3000	16084.712	60.183
1999/03/12	10:57:24	58.5750	16084.732	60.183
1999/03/12	11:13:54	58.8500	16084.877	60.185
1999/03/12	11:30:24	59.1250	16084.979	60.185
1999/03/12	11:46:54	59.4000	16085.128	60.187
1999/03/12	12:03:24	59.6750	16085.086	60.187
1999/03/12	12:19:54	59.9500	16085.209	60.189
1999/03/12	12:36:24	60.2250	16085.251	60.189
1999/03/12	12:52:54	60.5000	16085.272	60.191
1999/03/12	13:09:24	60.7750	16085.333	60.193
1999/03/12	13:25:54	61.0500	16085.396	60.193
1999/03/12	13:42:24	61.3250	16085.479	60.195
1999/03/12	13:58:54	61.6000	16085.540	60.195
1999/03/12	14:15:24	61.8750	16085.626	60.197
1999/03/12	14:31:54	62.1500	16085.875	60.205
1999/03/12	14:48:24	62.4250	16085.690	60.201
1999/03/12	15:04:54	62.7000	16085.921	60.206
1999/03/12	15:21:24	62.9750	16085.771	60.203
1999/03/12	15:37:54	63.2500	16085.813	60.203
1999/03/12	15:54:24	63.5250	16085.835	60.205
1999/03/12	16:10:54	63.8000	16085.961	60.206

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/12	02:27:14	50.0722	16082.848	60.660
1999/03/12	02:43:44	50.3472	16082.848	60.660
1999/03/12	03:00:14	50.6222	16082.972	60.662
1999/03/12	03:16:44	50.8972	16083.036	60.664
1999/03/12	03:33:14	51.1722	16083.016	60.666
1999/03/12	03:49:44	51.4472	16082.911	60.666
1999/03/12	04:06:14	51.7222	16083.225	60.666
1999/03/12	04:22:44	51.9972	16083.244	60.668
1999/03/12	04:39:14	52.2722	16083.244	60.668
1999/03/12	04:55:44	52.5472	16083.393	60.670
1999/03/12	05:12:14	52.8222	16083.393	60.672
1999/03/12	05:28:44	53.0972	16083.435	60.674
1999/03/12	05:45:14	53.3722	16083.477	60.674
1999/03/12	06:01:44	53.6472	16083.457	60.675
1999/03/12	06:18:14	53.9222	16083.561	60.675
1999/03/12	06:34:44	54.1972	16083.665	60.677
1999/03/12	06:51:14	54.4722	16083.665	60.677
1999/03/12	07:07:44	54.7472	16083.667	60.679
1999/03/12	07:24:14	55.0222	16083.707	60.681
1999/03/12	07:40:44	55.2972	16083.834	60.681
1999/03/12	07:57:14	55.5722	16084.042	60.683
1999/03/12	08:13:44	55.8472	16084.002	60.685
1999/03/12	08:30:14	56.1222	16084.044	60.685
1999/03/12	08:46:44	56.3972	16084.022	60.687
1999/03/12	09:03:14	56.6722	16084.064	60.687
1999/03/12	09:19:44	56.9472	16084.127	60.689
1999/03/12	09:36:14	57.2222	16084.236	60.691
1999/03/12	09:52:44	57.4972	16084.320	60.691
1999/03/12	10:09:14	57.7722	16084.383	60.693
1999/03/12	10:25:44	58.0472	16084.383	60.693
1999/03/12	10:42:14	58.3222	16084.383	60.693
1999/03/12	10:58:44	58.5972	16084.488	60.695
1999/03/12	11:15:14	58.8722	16084.719	60.700
1999/03/12	11:31:44	59.1472	16084.697	60.697
1999/03/12	11:48:14	59.4222	16084.907	60.702
1999/03/12	12:04:44	59.6972	16084.928	60.700
1999/03/12	12:21:14	59.9722	16085.054	60.704
1999/03/12	12:37:44	60.2472	16084.949	60.700
1999/03/12	12:54:14	60.5222	16084.949	60.702
1999/03/12	13:10:44	60.7972	16085.137	60.704
1999/03/12	13:27:14	61.0722	16085.283	60.704
1999/03/12	13:43:44	61.3472	16085.284	60.706
1999/03/12	14:00:14	61.6222	16085.389	60.708
1999/03/12	14:16:44	61.8972	16085.514	60.708
1999/03/12	14:33:14	62.1722	16085.535	60.710
1999/03/12	14:49:44	62.4472	16085.473	60.710
1999/03/12	15:06:14	62.7222	16085.535	60.712
1999/03/12	15:22:44	62.9972	16085.682	60.712
1999/03/12	15:39:14	63.2722	16085.724	60.714
1999/03/12	15:55:44	63.5472	16085.662	60.714



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Liard
Well Location: F - 36
Date(s) of Test: March 10 - 13/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/12	16:27:24	64.0750	16085.899	60.206
1999/03/12	16:43:54	64.3500	16085.879	60.206
1999/03/12	17:00:24	64.6250	16085.983	60.208
1999/03/12	17:16:54	64.9000	16085.963	60.208
1999/03/12	17:33:24	65.1750	16085.941	60.208
1999/03/12	17:49:54	65.4500	16086.023	60.210
1999/03/12	18:06:24	65.7250	16086.003	60.210
1999/03/12	18:22:54	66.0000	16086.046	60.212
1999/03/12	18:39:24	66.2750	16086.065	60.212
1999/03/12	18:55:54	66.5500	16086.065	60.214
1999/03/12	19:12:24	66.8250	16086.005	60.212
1999/03/12	19:28:54	67.1000	16086.086	60.214
1999/03/12	19:45:24	67.3750	16086.086	60.214
1999/03/12	20:01:54	67.6500	16086.112	60.216
1999/03/12	20:18:24	67.9250	16086.051	60.218
1999/03/12	20:34:54	68.2000	16086.133	60.218
1999/03/12	20:51:24	68.4750	16086.193	60.218
1999/03/12	21:07:54	68.7500	16086.135	60.220
1999/03/12	21:24:24	69.0250	16086.155	60.220
1999/03/12	21:40:54	69.3000	16086.197	60.222
1999/03/12	21:57:24	69.5750	16086.197	60.222
1999/03/12	22:13:54	69.8500	16086.279	60.222
1999/03/12	22:30:24	70.1250	16086.237	60.222
1999/03/12	22:46:54	70.4000	16086.217	60.224
1999/03/12	23:03:24	70.6750	16086.284	60.226
1999/03/12	23:19:54	70.9500	16086.448	60.226
1999/03/12	23:36:24	71.2250	16086.509	60.228
1999/03/12	23:52:54	71.5000	16086.468	60.228
1999/03/13	00:09:24	71.7750	16086.449	60.230
1999/03/13	00:25:54	72.0500	16086.470	60.230
1999/03/13	00:42:24	72.3250	16086.510	60.230
1999/03/13	00:58:54	72.6000	16086.530	60.232
1999/03/13	01:15:24	72.8750	16086.510	60.232
1999/03/13	01:31:54	73.1500	16086.838	60.232
1999/03/13	01:48:24	73.4250	16087.438	60.235
1999/03/13	02:04:54	73.7000	16087.454	60.233
1999/03/13	02:21:24	73.9750	16087.826	60.235
1999/03/13	02:37:54	74.2500	16087.929	60.235
1999/03/13	02:54:24	74.5250	16088.094	60.237
1999/03/13	03:10:54	74.8000	16088.054	60.237
1999/03/13	03:27:24	75.0750	16088.347	60.245
1999/03/13	03:43:54	75.3500	16088.261	60.239
1999/03/13	04:00:24	75.6250	16088.410	60.247
1999/03/13	04:16:54	75.9000	16088.219	60.241
1999/03/13	04:33:24	76.1750	16088.198	60.241
1999/03/13	04:49:54	76.4500	16088.281	60.243
1999/03/13	05:06:24	76.7250	16088.190	60.243
1999/03/13	05:22:54	77.0000	16088.138	60.243
1999/03/13	05:39:24	77.2750	16088.121	60.245
1999/03/13	05:55:54	77.5500	16088.101	60.245

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/12	16:12:14	63.8222	16085.746	60.716
1999/03/12	16:28:44	64.0972	16085.830	60.718
1999/03/12	16:45:14	64.3722	16085.726	60.718
1999/03/12	17:01:44	64.6472	16085.894	60.720
1999/03/12	17:18:14	64.9222	16085.939	60.721
1999/03/12	17:34:44	65.1972	16085.960	60.721
1999/03/12	17:51:14	65.4722	16085.939	60.721
1999/03/12	18:07:44	65.7472	16085.981	60.723
1999/03/12	18:24:14	66.0222	16085.939	60.723
1999/03/12	18:40:44	66.2972	16086.046	60.725
1999/03/12	18:57:14	66.5722	16085.981	60.725
1999/03/12	19:13:44	66.8472	16086.003	60.727
1999/03/12	19:30:14	67.1222	16086.088	60.729
1999/03/12	19:46:44	67.3972	16086.005	60.729
1999/03/12	20:03:14	67.6722	16086.109	60.731
1999/03/12	20:19:44	67.9472	16085.963	60.731
1999/03/12	20:36:14	68.2222	16086.192	60.733
1999/03/12	20:52:44	68.4972	16086.109	60.733
1999/03/12	21:09:14	68.7722	16086.109	60.735
1999/03/12	21:25:44	69.0472	16086.131	60.735
1999/03/12	21:42:14	69.3222	16086.193	60.737
1999/03/12	21:58:44	69.5972	16086.277	60.737
1999/03/12	22:15:14	69.8722	16086.342	60.739
1999/03/12	22:31:44	70.1472	16086.342	60.739
1999/03/12	22:48:14	70.4222	16086.382	60.741
1999/03/12	23:04:44	70.6972	16086.382	60.741
1999/03/12	23:21:14	70.9722	16086.466	60.743
1999/03/12	23:37:44	71.2472	16086.466	60.743
1999/03/12	23:54:14	71.5222	16086.510	60.744
1999/03/13	00:10:44	71.7972	16086.637	60.748
1999/03/13	00:27:14	72.0722	16086.593	60.744
1999/03/13	00:43:44	72.3472	16086.702	60.750
1999/03/13	01:00:14	72.6222	16086.740	60.748
1999/03/13	01:16:44	72.8972	16086.786	60.752
1999/03/13	01:33:14	73.1722	16087.161	60.750
1999/03/13	01:49:44	73.4472	16087.367	60.750
1999/03/13	02:06:14	73.7222	16087.805	60.752
1999/03/13	02:22:44	73.9972	16088.035	60.752
1999/03/13	02:39:14	74.2722	16088.117	60.752
1999/03/13	02:55:44	74.5472	16088.291	60.754
1999/03/13	03:12:14	74.8222	16088.373	60.756
1999/03/13	03:28:44	75.0972	16088.415	60.756
1999/03/13	03:45:14	75.3722	16088.542	60.758
1999/03/13	04:01:44	75.6472	16088.562	60.758
1999/03/13	04:18:14	75.9222	16088.730	60.760
1999/03/13	04:34:44	76.1972	16088.772	60.760
1999/03/13	04:51:14	76.4722	16088.877	60.762
1999/03/13	05:07:44	76.7472	16088.793	60.762
1999/03/13	05:24:14	77.0222	16088.879	60.764
1999/03/13	05:40:44	77.2972	16088.856	60.764



Company Name: PARAMOUNT RESOURCES LTD.
Well Name: Paramount et al Llard
Well Location: F - 36
Date(s) of Test: March 10 - 13/99.

Date	Time	Cum. T. 1 (P54)	Pres 1 (P54)	Temp 1 (P54)
		hr	kPag	deg C
1999/03/13	06:12:24	77.8250	16088.266	60.247
1999/03/13	06:28:54	78.1000	16088.349	60.249
1999/03/13	06:45:24	78.3750	16088.451	60.249
1999/03/13	07:01:54	78.6500	16088.308	60.249
1999/03/13	07:18:24	78.9250	16088.350	60.251
Final Buildup				
1999/03/13	07:33:54	79.1833	16088.104	60.251
1999/03/13	07:34:54	79.2000	16088.042	60.251
1999/03/13	07:51:24	79.4750	16004.114	60.249
1999/03/13	08:07:54	79.7500	16055.397	60.249
1999/03/13	08:24:24	80.0250	16072.145	60.253
1999/03/13	08:40:54	80.3000	16078.657	60.253
1999/03/13	08:57:24	80.5750	16081.464	60.253
1999/03/13	09:13:54	80.8500	16007.373	60.251
POOH Gradient: 1572.500 m				
1999/03/13	09:26:24	81.0583	15901.020	59.993
1999/03/13	09:30:24	81.1250	15728.651	59.463
POOH Gradient: 1542.500 m				
1999/03/13	09:31:54	81.1500	15731.087	59.257
POOH Gradient: 1512.500 m				
1999/03/13	09:35:54	81.2167	15700.850	58.743
POOH Gradient: 1500.000 m				
1999/03/13	09:42:54	81.3333	15692.580	58.080
1999/03/13	09:46:54	81.4000	15422.260	57.180
POOH Gradient: 1000.000 m				
1999/03/13	09:53:24	81.5083	15109.521	47.214
1999/03/13	10:03:24	81.6750	14491.316	30.565
POOH Gradient: 500.000 m				
1999/03/13	10:04:24	81.6917	14492.328	29.535
POOH Gradient: 0.000 m				
1999/03/13	10:14:54	81.8667	13815.544	13.535
1999/03/13	10:19:54	81.9500	0.000	8.399

Date	Time	Cum. T. 2 (R69)	Pres 2 (R69)	Temp 2 (R69)
		hr	kPag	deg C
1999/03/13	05:57:14	77.5722	16089.023	60.764
1999/03/13	06:13:44	77.8472	16089.713	60.765
1999/03/13	06:30:14	78.1222	16089.796	60.765
1999/03/13	06:46:44	78.3972	16089.609	60.765
1999/03/13	07:03:14	78.6722	16089.756	60.767
1999/03/13	07:19:44	78.9472	16089.713	60.767
1999/03/13	07:36:14	79.2222	16090.048	60.769
Final Buildup				
1999/03/13	07:40:44	79.2972	16090.133	60.769
1999/03/13	07:52:44	79.4972	16014.608	60.768
1999/03/13	08:09:14	79.7722	16058.237	60.771
1999/03/13	08:25:44	80.0472	16073.705	60.773
1999/03/13	08:42:14	80.3222	16079.780	60.773
1999/03/13	08:58:44	80.5972	16082.725	60.775
1999/03/13	09:15:14	80.8722	16014.859	60.772
POOH Gradient: 1572.500 m				
1999/03/13	09:26:14	81.0556	15902.980	60.549
POOH Gradient: 1542.500 m				
1999/03/13	09:30:14	81.1222	15724.221	60.117
1999/03/13	09:31:44	81.1472	15726.607	59.897
POOH Gradient: 1512.500 m				
1999/03/13	09:35:44	81.2139	15696.732	59.396
POOH Gradient: 1500.000 m				
1999/03/13	09:39:44	81.2806	15686.405	59.020
1999/03/13	09:48:14	81.4222	15275.703	57.049
POOH Gradient: 1000.000 m				
1999/03/13	09:53:14	81.5056	15114.801	49.191
POOH Gradient: 500.000 m				
1999/03/13	10:03:44	81.6806	14496.229	32.116
1999/03/13	10:04:44	81.6972	14496.980	30.955
POOH Gradient: 0.000 m				
1999/03/13	10:15:44	81.8806	13820.046	13.584
1999/03/13	10:21:14	81.9722	0.000	6.537



" A Plains Energy Services Company "

Paramount Resources Ltd.

F-36

1st and 2nd Interval

99/02/18 - 99/03/05

1786-2046 mKB

Prepare by
Entest Corp.
April 20, 1999

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand
Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Rate	Total Gas	Fluid BS+W	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity ppm	pH
	yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
1	1999/02/18	08:00:00	SPOT EQUIPMENT. INSTALL ANCHORS.																
2	1999/02/19		BEGIN RIG IN. WAIT ON PICKER TO STAND STACK.																
3	1999/02/20		STAND STACK. FINISH RIG IN.																
4	1999/02/21		RIG IN PROPANE SKID AND VAPORIZER TO LH 21 AND STACK.																
5			WIRELINE RUNNING CEMENT BOND LOG AND GAMMA RAY.																
6	1999/02/22		FUNCTION TEST VAPORIZER, PILOT AND IGNITER ON STACK.																
7			WAITING FOR N2 TO BLOW HOLE DRY.																

1999/02/18 08:00:00 To 1999/02/23 07:00:00
Gas Cum. 0.000 10³m³
Oil Cum. 0.000 m³
Water Cum. m³

Paramount Resources Ltd.

F-36

Start Test Date: 1999/02/18

Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Gas	Total Fluid	BS+W	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
8	1999/02/23	07:00:00	BLOW HOLE DRY W/N2 TO RIG TANK.															
9			SNUB OUT OF HOLE.															

1999/02/23 07:00:00 To 1999/02/23 16:00:00

Gas		Cum.	10 ³ m ³
Oil	0.000	Cum.	m ³
Water		Cum.	m ³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand
Job Number: G0207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Rate	Total Gas	BS+W	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm	

10 1999/02/23 16:00:00 RIG UP WIRELINE TO PERFORATE 1ST INTERVAL 1988-2044 mKB.

1999/02/23 07:00:00 To 1999/02/23 16:00:00

Gas		Cum.	10 ³ m ³
Oil	0.000	Cum.	m ³
Water		Cum.	m ³

Paramount Resources Ltd.
 F-36
 Start Test Date: 1999/02/18
 Final Test Date: 1999/03/05

FieldNotes

Field Measurements

Paramount et al Liard F-36
 Formation: Mattson Sand

Job Number: G0207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Rate	Cum. Gas	Total Fluid	BS+W %	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm

11	1999/02/23	17:00:00	SAFETY MEETING.																
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1999/02/23 07:00:00 To 1999/02/23 16:00:00

Gas		Cum.		10 ³ m ³
Oil	0.000	Cum.	0.000	m ³
Water		Cum.		m ³

Paramount Resources Ltd.
 F-36
 Start Test Date: 1999/02/18
 Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
 Formation: Mattson Sand
 Job Number: G0207

Date	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinity	pH
yyyy/mm/d hh:mm:ss	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water
		mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³
12	1999/02/24	15:00:00	NO INCREASE IN PRESSURE AFTER PERF. RUN RECORDERS.														

1999/02/24 15:00:00 To 1999/02/24 15:00:00
 Gas Cum. 10³m³
 Oil 0.000 Cum. m³
 Water Cum. m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Rate	Total Fluid	Oil BS+W	Cum. Prod	Water Prod	Cum. Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	ppm
13 1999/02/24	15:00:00			5600													

1999/02/24 15:00:00 To 1999/02/24 15:00:00
Gas Cum. 10³m³
Oil 0.000 Cum. m³
Water Cum. 0.000 m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Gas	Total Fluid	BS+W	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity	pH
	yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
14	1999/02/24	15:00:00	OPEN TO FLOW THROUGH 2" GUTLINE.																
15		15:05:00				2800													
16		15:10:00				1800													
17		15:15:00				900													
18		15:30:00				40													
19		15:30:00	TRACE OF BURNEABLE GAS.																
20		15:35:00																	
21		15:35:00	LEFT OPEN TO VENT.																
22	1999/02/24	16:00:00	RUN IN WITH BAILER TO CHECK FOR FLUID.																
23		16:55:00	OUT OF HOLE WITH RECORDERS.																

1999/02/24 15:00:00 To 1999/02/24 15:00:00
 Gas Cum. 10³m³
 Oil 0.000 Cum. 0.000 m³
 Water Cum. m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand
Job Number: G0207

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.				
Date	Time	-	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	Salinity
yyyy/mm/d	hh:mm:ss		mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
24	1999/02/25	07:00:00	SLIGHT VACUUM ON WELL.																
25		08:00:00	RIG OFF SNUBBING UNIT. WAIT ON N2 FOR PERFORATING 2ND INTERVAL.																

1999/02/25 07:00:00 To 1999/02/26 07:00:00

Gas		Cum.		10 ³ m ³
Oil	0.000	Cum.	0.000	m ³
Water		Cum.		m ³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand
Job Number: G0207

Date	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinity	pH
Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	
yyyy/mm/d hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
26	1999/02/26	07:00:00	GUNS STUCK IN HOLE AFTER FIRST SHOT OF 2ND INTERVAL.														
27	1999/02/27	01:00:00	RUNNING IN WITH PIPE TO FISH OR PUSH DOWN GUNS.														
28			TRYING TO RETRIEVE GUNS FROM HOLE.														

1999/02/26 07:00:00 To 1999/02/28 10:00:00
 Gas Cum. 10³m³
 Oil Cum. 0.000 m³
 Water Cum. 0.000 m³

Paramount Resources Ltd.

F-36

Start Test Date: 1999/02/18

Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

Date	Clock	Time	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinity	pH
yyyy/mm/d	hh:mm:ss		mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³	10 ³ m ³	m ³	%	m ³	m ³	m ³	ppm

29 1999/02/28 10:00:00 TRYING TO RETRIEVE MAGNET FROM BOTTOM OF GUNS.

1999/02/28 10:00:00 To 1999/02/28 10:00:00

Gas		Cum.	10 ³ m ³
Oil	0.000	Cum.	0.000 m ³
Water		Cum.	m ³

Paramount Resources Ltd.

F-36

Start Test Date: 1999/02/18

Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

Date	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinity	pH
yyyy/mm/d	hh:mm:ss	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water
mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm	
30	1999/02/28	10:00:00	RIG UP POWER SWIVEL TO MILL OUT.														

1999/02/28 10:00:00 To 1999/02/28 10:00:00

Gas		Cum.	10 ³ m ³
Oil	0.000	Cum.	0.000 m ³
Water		Cum.	m ³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand
Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Gas	Total Fluid	BS+W	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity	pH
	yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm
31	1999/03/01	07:00:00																	
32		07:00:00																	
33		13:15:00																	
34		15:30:00																	
35	1999/03/02	06:00:00																	

1999/03/01 07:00:00 To 1999/03/02 08:30:00

Gas		Cum.		10 ³ m ³
Oil	0.000	Cum.	0.000	m ³
Water		Cum.		m ³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes

Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.				
Date	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm	
1999/03/02	08:30:00																		
36																			
37	09:00:00	19.05		14653															
38																			
39	09:05:00			11800															
40																			
41	09:10:00	50.80		9300															
42	09:15:00			7200															
43	1999/03/02	09:25:00																	
44	09:30:00	50.80		2900															
45	09:35:00																		
46	09:45:00	19.05		1107															
47	09:50:00																		
48	10:00:00	19.05		5928															
49	10:00:00																		
50	10:05:00	16.67						0.0	7e-15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	10:05:00																		
52	10:15:00	15.88		7611	1	379	43.8	20	76.20	181.41	1.26	0.00		0.00	0.00	0.00	0.00		
53	10:15:00																		
54	10:30:00	15.88		8337	1	393	44.1	20	76.20	184.57	3.17	0.00		0.00	0.00	0.00	0.00		
55	10:30:00																		
56	11:00:00	15.88		9540	4	407	47.8	16	76.20	196.58	7.14	0.00		0.00	0.00	0.00	0.00		
57	11:00:00																		
58	11:30:00	19.05		7750	8	517	64.7	15	76.20	253.92	11.83	0.00		0.00	0.00	0.00	0.00		
59	12:00:00	19.05		7200	9	607	66.7	18	76.20	274.45	17.33	0.00		0.00	0.00	0.00	0.00		
60	12:30:00	19.05		7296	10	621	67.7	18	76.20	279.28	23.10	0.00		0.00	0.00	0.00	0.00		
61	12:30:00																		
62	13:00:00	19.05		7446	10	586	64.2	19	76.20	264.63	28.77	3.22	13.0	2.80	2.80	0.42	0.42		
63	13:30:00	19.05		7227	11	634	69.7	14	76.20	288.12	34.52								
64	1999/03/02	14:00:00	19.05	7200	12	607	65.7	12	76.20	275.36	40.39	0.88	12.0	0.77	3.58	0.11	0.52		
65	14:00:00																		
66	14:30:00	19.05		6858	13	841	60.3	17	76.20	301.09	46.40								
67	15:00:00	19.05		6843	13	848	59.8	19	76.20	299.83	52.66	0.65	13.0	0.57	4.14	0.08	0.61		
68	15:30:00	19.05		6816	13	848	58.3	16	76.20	297.63	58.88								
69	16:00:00	19.05		7653	13	772	54.3	15	76.20	275.71	64.85	0.70	12.0	0.62	4.76	0.08	0.69		
70	16:30:00	19.05		7788	14	772	54.8	15	76.20	277.00	70.61								
71	16:30:00																		
72	17:00:00	19.05		7473	14	814	57.8	14	76.20	292.00	76.54	0.67	5.0	0.64	5.39	0.03	0.73		
73	17:30:00	19.05		6996	13	841	58.8	14	76.20	298.91	82.69								
74	18:00:00	19.05		6885	13	827	57.8	15	76.20	293.54	88.87	0.65	6.0	0.61	6.00	0.04	0.77		

1999/03/02 08:30:00 To 1999/03/03 06:30:00
Gas 240.907 Cum. 240.907 10³m³
Oil 12.647 Cum. 12.647 m³
Water 1.133 Cum. 1.133 m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.		
Date	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	Salinity
																	ppm
75	1999/03/02	18:00:00	SPIN-OUTS CONTAIN 3-5% SEDIMENT.														
76		18:30:00	19.05		6772	14	827	57.8	16	76.20	292.99	94.97					
77		19:00:00	19.05		6597	14	827	57.8	16	76.20	292.99	101.08	0.73	8.0	0.67	6.68	0.06
78		19:30:00	19.05		6543	14	827	58.0	16	76.20	293.64	107.19					
79		20:00:00	19.05		6612	14	821	56.8	17	76.20	289.91	113.26	0.65	8.0	0.60	7.27	0.05
80		20:30:00	19.05		6447	14	827	58.8	17	76.20	295.00	119.34					
81		21:00:00	19.05		6147	14	827	58.8	17	76.20	295.00	125.49	0.75	0.0	0.75	8.02	0.00
82	1999/03/02	21:30:00	19.05		5940	14	841	58.8	18	76.20	296.69	131.65					
83		22:00:00	19.05		5859	15	862	59.8	18	76.20	302.61	137.89	0.47	6.0	0.44	8.47	0.03
84		22:30:00	19.05		5775	15	862	59.8	19	76.20	302.05	144.19					
85		23:00:00	19.05		5694	15	841	59.0	19	76.20	296.79	150.43	0.57	7.0	0.53	9.00	0.04
86		23:30:00	19.05		5613	14	841	59.8	19	76.20	298.71	156.63					
87	1999/03/03	00:00:00	19.05		5683	15	834	58.8	20	76.20	294.49	162.81	0.56	7.0	0.52	9.52	0.04
88		00:30:00	19.05		5556	14	841	58.8	20	76.20	295.60	168.96					
89		01:00:00	19.05		5529	14	834	58.5	20	76.20	293.88	175.10	0.47	6.0	0.44	9.96	0.03
90		01:30:00	19.05		5406	14	834	58.3	20	76.20	293.23	181.21					
91		02:00:00	19.05		5394	14	827	57.8	20	76.20	290.84	187.30	0.68	4.0	0.65	10.61	0.03
92		02:00:00	BLOW DOWN LINES AND ZEROED METER.														
93		02:30:00	19.05		5364	14	827	57.0	19	76.20	289.44	193.34					
94		03:00:00	19.05		5337	14	827	56.5	20	76.20	287.61	199.35	0.51	8.0	0.47	11.08	0.04
95		03:30:00	19.05		5310	14	827	56.5	19	76.20	288.14	205.35					
96		04:00:00	19.05		5214	14	827	56.8	20	76.20	288.26	211.35	0.62	3.0	0.60	11.68	0.02
97		04:30:00	19.05		5175	14	821	56.0	20	76.20	285.40	217.33					
98		05:00:00	19.05		5140	14	814	55.8	20	76.20	283.66	223.26	0.49	3.0	0.48	12.16	0.01
99		05:30:00	19.05		5118	14	807	55.8	20	76.20	282.56	229.16					
100		06:00:00	19.05		5091	14	800	55.8	20	76.20	281.46	235.03	0.51	4.0	0.49	12.65	0.02
101		06:00:00	BLOW DOWN LINES AND CHANGED CHART ON METER.														
102		06:00:00	API = 42.2														

1999/03/02 08:30:00 To 1999/03/03 06:30:00

Gas	240.907	Cum.	240.907	10 ³ m ³
Oil	12.647	Cum.	12.647	m ³
Water	1.133	Cum.	1.133	m ³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.		
Date	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³
																	pH
103	1999/03/03	06:30:00	19.05		4893	14	807	55.8	20	76.20	282.56	240.91					
104		07:00:00	19.05		4956	14	793	54.8	21	76.20	277.27	246.74	0.40	14.0	0.34	12.99	0.06
105		07:30:00	19.05		4941	14	793	55.8	21	76.20	279.84	252.54					1.19
106		08:00:00	19.05		4914	14	793	55.3	21	76.20	278.56	258.36	0.67	8.0	0.62	13.61	0.05
107		08:30:00	19.05		4845	14	793	54.8	22	76.20	276.77	264.14					1.24
108		08:30:00	SAMPLES TAKEN: 2 GAS #19420, 18673 AGAT, 2 H2O, 2 OIL														
109		09:00:00	19.05		4837	14	779	54.0	22	76.20	272.65	269.87	0.47	5.0	0.45	14.05	0.02
110		09:00:00	SHUT IN / RECORD BUILD-UPS / 3-5% SEDIMENT IN ALL SPIN-OUTS.														
111		09:05:00			7338												
112		09:10:00			3910												
113		09:15:00			10446												
114		09:30:00			11457												
115		09:45:00			11760												
116		10:00:00			11767												
117		10:30:00			11816												
118		11:00:00			11869												
119		12:00:00			11952												
120		13:00:00			12149												
121	1999/03/03	14:00:00			12225												
122		15:00:00			12307												
123		16:00:00			12390												
124		17:00:00			12471												
125		18:00:00			12690												
126		19:00:00			12744												
127		20:00:00			12786												
128		21:00:00			12882												
129		22:00:00			12894												
130		23:00:00			12924												
131	1999/03/04	00:00:00			12951												
132		01:00:00			12978												
133		02:00:00			13020												
134		03:00:00			13032												
135		04:00:00			13047												
136		05:00:00			13086												
137		06:00:00			13101												

1999/03/03 06:30:00 To 1999/03/04 19:00:00
 Gas 28.959 Cum. 269.866 10³m³
 Oil 1.407 Cum. 14.054 m³
 Water 0.133 Cum. 1.266 m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

FieldNotes Field Measurements

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.				
Date	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm	
138	1999/03/04	19:00:00			13347														
139	1999/03/05	01:00:00			13512														
140		06:00:00			13581														

1999/03/04 19:00:00 To 1999/03/05 07:00:00

Gas	0.000	Cum.	269.866	10 ³ m ³
Oil	0.000	Cum.	14.054	m ³
Water	0.000	Cum.	1.266	m ³

Paramount Resources Ltd.

F-36

Start Test Date: 1999/02/18

Final Test Date: 1999/03/05

FieldNotes

Field Measurements

Paramount et al Liard F-36

Formation: Mattson Sand

Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orifice	Cum. Rate	Total Fluid	BS+W %	Oil Prod	Cum. Oil	Water Prod	Cum. Water	Salinity ppm	pH
	yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa(g)	kPa	°C	mm	10 ³ m ³	10 ³ m ³	m ³		m ³	m ³	m ³	m ³	
141	1999/03/05	07:00:00				13593													
142		07:00:00	END OF JOB																

Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

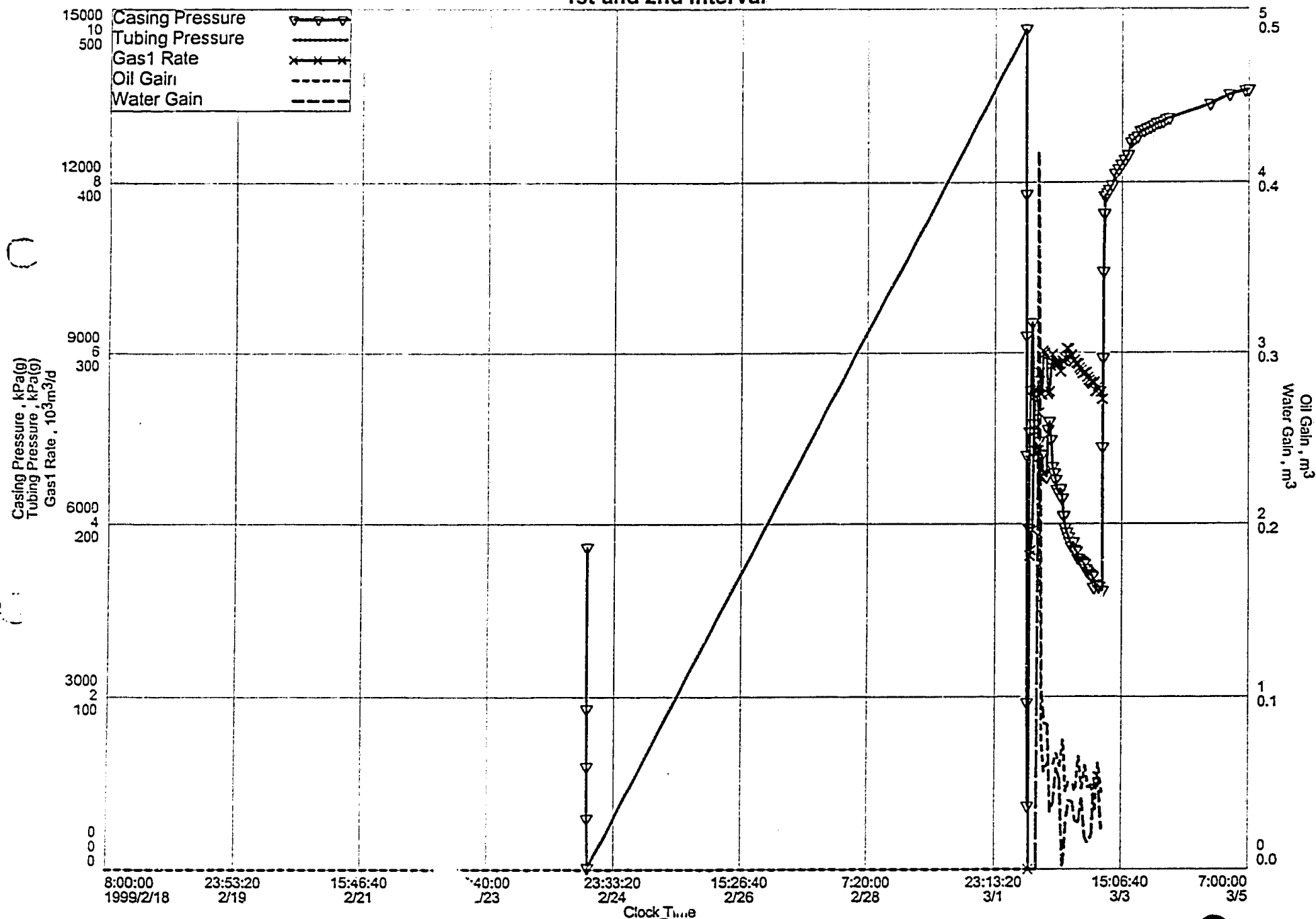
	From Date	Clock Time	To Date	Clock Time	Daily Cum. Gas 10 ³ m ³	Daily Cum. Oil m ³	Daily Cum. Water m ³	Daily Cum. Cond. m ³	Cum. Gas To Date 10 ³ m ³	Cum. Oil To Date m ³	Cum. Water To Date m ³	Cum. Cond To Date m ³
1	1999/02/18	08:00:00	1999/02/23	07:00:00		0.000				0.000		
2	1999/02/23	07:00:00	1999/02/23	16:00:00		0.000				0.000		
3	1999/02/23	16:00:00	1999/02/23	17:00:00		0.000				0.000		
4	1999/02/23	17:00:00	1999/02/24	15:00:00		0.000				0.000		
5	1999/02/24	15:00:00	1999/02/24	15:00:00		0.000				0.000		
6	1999/02/24	15:00:00	1999/02/24	15:00:00		0.000				0.000		
7	1999/02/24	15:00:00	1999/02/25	07:00:00		0.000				0.000		
8	1999/02/25	07:00:00	1999/02/26	07:00:00		0.000				0.000		
9	1999/02/26	07:00:00	1999/02/28	10:00:00		0.000				0.000		
10	1999/02/28	10:00:00	1999/02/28	10:00:00		0.000				0.000		
11	1999/02/28	10:00:00	1999/03/01	07:00:00		0.000				0.000		
12	1999/03/01	07:00:00	1999/03/02	08:30:00		0.000				0.000		
13	1999/03/02	08:30:00	1999/03/03	06:30:00	240.907	12.647	1.133		240.907	12.647	1.133	
14	1999/03/03	06:30:00	1999/03/04	19:00:00	28.959	1.407	0.133		269.866	14.054	1.266	
15	1999/03/04	19:00:00	1999/03/05	07:00:00	0.000	0.000	0.000		269.866	14.054	1.266	

Print Filter Off

Paramount Resources Ltd.
 F-36
 Start Test Date: 1999/02/18
 Final Test Date: 1999/03/05

Paramount et al Liard F-36
 Formation: Mattson Sand
 Job Number: G0207

1st and 2nd Interval



Paramount Resources Ltd.
F-36
Start Test Date: 1999/02/18
Final Test Date: 1999/03/05

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Date	Clock	Comment
	yyyy/mm/dd	hh:mm:ss	
1	1999/02/18	08:00:00	SPOT EQUIPMENT. INSTALL ANCHORS.
2	1999/02/19	08:00:00	BEGIN RIG IN. WAIT ON PICKER TO STAND STACK.
3	1999/02/20	08:00:00	STAND STACK. FINISH RIG IN.
4	1999/02/21	08:00:00	RIG IN PROPANE SKID AND VAPORIZER TO LH 21 AND STACK.
5	1999/02/21	08:00:00	WIRELINE RUNNING CEMENT BOND LOG AND GAMMA RAY.
6	1999/02/22	08:00:00	FUNCTION TEST VAPORIZER, PILOT AND IGNITER ON STACK.
7	1999/02/22	08:00:00	WAITING FOR N2 TO BLOW HOLE DRY.
8	1999/02/23	07:00:00	BLOW HOLE DRY W/N2 TO RIG TANK.
9	1999/02/23	07:00:00	SNUB OUT OF HOLE.
10	1999/02/23	16:00:00	RIG UP WIRELINE TO PERFORATE 1ST INTERVAL 1988-2044 mKB.
11	1999/02/23	17:00:00	SAFETY MEETING.
12	1999/02/24	15:00:00	NO INCREASE IN PRESSURE AFTER PERF. RUN RECORDERS.
13	1999/02/24	15:00:00	OPEN TO FLOW THROUGH 2" GUTLINE.
14	1999/02/24	15:30:00	TRACE OF BURNEABLE GAS.
15	1999/02/24	15:35:00	LEFT OPEN TO VENT.
16	1999/02/24	16:00:00	RUN IN WITH BAILER TO CHECK FOR FLUID.
17	1999/02/24	16:55:00	OUT OF HOLE WITH RECORDERS.
18	1999/02/25	07:00:00	SLIGHT VACUUM ON WELL.
19	1999/02/25	08:00:00	RIG OFF SNUBBING UNIT. WAIT ON N2 FOR PERFORATING 2ND INTERVAL.
20	1999/02/26	07:00:00	GUNS STUCK IN HOLE AFTER FIRST SHOT OF 2ND INTERVAL.
21	1999/02/27	01:00:00	RUNNING IN WITH PIPE TO FISH OR PUSH DOWN GUNS.
22	1999/02/27	01:00:00	TRYING TO RETRIEVE GUNS FROM HOLE.
23	1999/02/28	10:00:00	TRYING TO RETRIEVE MAGNET FROM BOTTOM OF GUNS.
24	1999/02/28	10:00:00	RIG UP POWER SWIVEL TO MILL OUT.
25	1999/03/01	07:00:00	MAGNET PUSHED TO BOTTOM. RIG UP TO BLOW WELL DRY.
26	1999/03/01	07:00:00	TRIP PIPE OUT OF HOLE.
27	1999/03/01	13:15:00	PRESSURE UP WELL WITH N2 FOR PERFORATING 2ND INTERVAL.
28	1999/03/01	15:30:00	BEGIN PERFORATING.
29	1999/03/02	06:00:00	SLICKLINE RUNNING DART.
30	1999/03/02	08:30:00	RECORDERS SET. SLICKLINE RIGGING OFF.
31	1999/03/02	09:00:00	OPEN TO FLOW ON 48/64"(19.05mm) CHOKE.
32	1999/03/02	09:05:00	OPEN TO 2"(50.80mm) GUTLINE.
33	1999/03/02	09:25:00	BURNEABLE GAS TO SURFACE.
34	1999/03/02	09:35:00	REDUCE CHOKE TO 48/64"(19.05mm)

Print Filter Off

Paramount Resources Ltd.

F-36

Start Test Date: 1999/02/18

Final Test Date: 1999/03/05

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Date	Clock	Comment
	yyyy/mm/dd hh:mm:ss		
35	1999/03/02	09:50:00	REDUCE CHOKE TO 36/64"(14.29mm).
36	1999/03/02	10:00:00	OPEN CHOKE TO 42/64"(16.67mm).
37	1999/03/02	10:05:00	REDUCE CHOKE TO 40/64"(15.88mm) AT REQUEST.
38	1999/03/02	10:15:00	METER IN SERVICE WITH 3.00"(76.20mm) ORIFICE PLATE.
39	1999/03/02	10:30:00	BLACK IN FLARE DUE TO GREASE INJECTED BY PERFORATORS.
40	1999/03/02	11:00:00	OPEN CHOKE TO 48/64"(19.05mm). NO SIGNS OF FLUID TO SURFACE.
41	1999/03/02	12:30:00	WELL PRESSURE ELECTRONICALLY DEADWEIGHTED.
42	1999/03/02	14:00:00	ZERO METER. INCREASE BACKPRESSURE.
43	1999/03/02	16:30:00	H2S BY KITAGAWA= 0 PPM
44	1999/03/02	18:00:00	SPIN-OUTS CONTAIN 3-5% SEDIMENT.
45	1999/03/03	02:00:00	BLOW DOWN LINES AND ZEROED METER.
46	1999/03/03	06:00:00	BLOW DOWN LINES AND CHANGED CHART ON METER.
47	1999/03/03	06:00:00	API = 42.2
48	1999/03/03	08:30:00	SAMPLES TAKEN: 2 GAS #19420, 18673 AGAT, 2 H2O, 2 OIL.
49	1999/03/03	09:00:00	SHUT IN / RECORD BUILD-UPS / 3-5% SEDIMENT IN ALL SPIN-OUTS.
50	1999/03/05	07:00:00	END OF JOB

Print Filter Off

FieldNotes

Gas Meter 1

Meter Type:	Orifice Meter
Meter Size:	154.05 mm
Previous Gas Production:	0.000 10 ³ m ³
Tap Type:	Flange
Tap Location:	Downstream
Gas Gravity (G):	0.623
CO ₂ :	0.01 %
H ₂ S:	0.00 %
N ₂ :	0.01 %
Critical Temperature (T _C):	201.30 K
Critical Pressure (P _C):	4623.00 kPa

Oil Meter 1

Meter Type:	Produced Volume
Measurement Type:	Incremental
Previous Oil Production:	0.000 m ³
Previous Water Production:	0.000 m ³



"A Plains Energy Services Company"

Paramount Resources Ltd.

F-36

3rd Interval 24HR. 6Hr Partial

99/03/05 - 99/03/09

1626-36 mKB
1600-1773 mKB

Prepare by
Entest Corp.
April 20, 1999

Paramount Resources Ltd.
 0F-35 (60 Deg. 35' 27" Latitude) (123 Deg. 22' 30" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Liard F-35
 Formation: Mattson Sand

Well Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW %	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity %
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		%
1	1999/03/05	09:00:00																		
2		09:00:00																		
3		10:15:00																		
4		11:10:00																		
5		11:30:00																		
6		12:15:00																		
7		13:05:00																		
8		13:45:00																		
9		14:00:00																		
10		14:20:00																		
11		15:00:00																		
12		15:30:00	19.05		10911		0	0.00	0	0.00	0.00	277.42	0.00		0.00	14.05	0.00	1.27		
13		15:30:00			10350		0	0.00	0	0.00	0.00	277.42	0.00		0.00	14.05	0.00	1.27		
14		15:35:00	19.05		9978	15	1827	89.64	0	76.20	560.25	279.37								
15		15:40:00	19.05		10350		0	0.00	0	0.00	0.00	277.42	0.00		0.00	14.05	0.00	1.27		
16		15:45:00	19.05		9978	15	1827	89.64	0	76.20	560.25	279.37								
17		15:45:00																		
18		16:00:00	19.05		8472	15	1979	68.72	5	76.20	504.06	284.91								
19		16:00:00																		
20		16:15:00	19.05		8467	15	1310	43.82	7	101.60	626.00	290.79								
21		16:30:00	19.05		8310	15	1310	44.32	10	101.60	625.84	297.31								
22		16:30:00																		
23	1999/03/05	17:00:00	19.05		8253	15	1296	61.74	12	95.25	629.03	310.39	0.80	5.00	0.76	14.81	0.04	1.31	7	1.40
24		17:00:00																		
25		17:30:00	19.05		8130	18	1289	61.25	16	95.25	620.06	323.40								
26		18:00:00	19.05		8079	21	1296	61.25	17	95.25	620.47	336.32	0.43	2.00	0.42	15.23	0.01	1.32	7	1.40
27		18:30:00	19.05		8064	22	1289	61.25	18	95.25	617.69	349.22								
28		19:00:00	19.05		8022	24	1282	60.76	18	95.25	613.60	362.04	0.04	0.00	0.04	15.27	0.00	1.32	7	1.60
29		19:00:00																		
30		19:30:00	19.05		8064	24	1296	61.25	18	95.25	619.29	374.89								
31		20:00:00	19.05		7980	23	1269	60.26	18	95.25	608.09	387.67	0.27	3.00	0.26	15.53	0.01	1.33	7	1.80
32		20:00:00																		
33		20:30:00	19.05		7884	23	1262	60.26	18	95.25	606.49	400.32								
34		21:00:00	19.05		7830	23	1255	59.76	19	95.25	601.21	412.90	0.43	3.00	0.42	15.95	0.01	1.34	7	0.00
35		21:00:00																		
36		21:30:00	19.05		7842	23	1269	60.26	19	95.25	606.93	425.49								
37		21:30:00																		
38		21:35:00			13074															
39		21:40:00			13224															
40		21:45:00			13401															
41		22:00:00			13647															
42		22:15:00			13827															
43		22:30:00																		

1999/03/05 09:00:00 To 1999/03/05 11:30:00
 Gas 425.487 Cum. 425.487 10³m³
 Oil 15.950 Cum. 15.950 m³
 Water 1.340 Cum. 1.340 m³

Paramount Resources Ltd.
 OF-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Liard F-36
 Formation: Mattson Sand

Job Number: G0207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity
yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		%
44	1999/03/05	22:30:00			13839														

1999/03/05 09:00:00 To 1999/03/06 11:30:00
 Gas 425.487 Cum. 425.487 10³m³
 Oil 15.950 Cum. 15.950 m³
 Water 1.340 Cum. 1.340 m³

Paramount Resources Ltd.

07-38 (80 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)

Start Test Date: 1999/03/05

Final Test Date: 1999/03/09

FieldNotes

Paramount et al Liard F-38
Formation: Maitson Sand

Formation: Maltese Sand

Job Number: 00207

Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Flu	BSW %	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity %
yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		%

1999/03/06 11:30:00 To 1999/03/07 06:00:00

Gas	400.536	Cum	826.023	103m ³
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Oil	4.725	Cum.	20.675 m ³
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Oil	0.025	Sand	20.975 m ³
Water	0.145	Gum	1.485 m ³

Paramount Resources Ltd.
 0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Lard F-36
 Formation: Maltson Sand

Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		%
88	1999/03/07	02:00:00	SPIN-OUT = TRACE OF SEDIMENT. API = 38																	
89		02:30:00	22.23		7960	24	1276	60.78	18	95.25	612.23	737.17								
90		03:00:00	22.23		7920	24	1276	60.26	18	95.25	609.68	749.90	0.35	9.00	0.32	20.14	0.03	1.42	8	5.60
91		03:00:00	SPIN-OUT = 1% SEDIMENT.																	
92		03:30:00	22.23		7920	24	1276	60.26	19	95.25	608.52	782.59								
93		04:00:00	22.23		7940	24	1282	60.78	18	95.25	613.60	775.32	0.14	8.00	0.13	20.27	0.01	1.43	8	3.00
94		04:00:00	SPIN-OUT = TRACE OF SEDIMENT.																	
95		04:30:00	22.23		7950	24	1276	59.76	19	95.25	605.96	788.02								
96		05:00:00	22.23		7900	24	1276	60.51	19	95.25	609.80	800.69	0.34	10.00	0.31	20.57	0.03	1.47	8	1.40
97		05:00:00	SPIN-OUT = TRACE OF SEDIMENT.																	
98		05:30:00	22.23		7870	24	1276	60.26	19	95.25	608.52	813.38								

1999/03/07 06:00:00 To 1999/03/08 06:00:00
 Gas 199.854 Cum. 1025.877 10³m³
 Oil 1.503 Cum. 22.178 m³
 Water 0.067 Cum. 1.552 m³

Paramount Resources Ltd.
 0F-36 (00 Deg. 05' 37" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Liard F-36
 Formation: Matson Sand

Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW %	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity %
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		
99	1999/03/07	08:00:00	22.23		7820	23	1282	60.26	19	95.25	605.34	828.02	0.12	15.00	0.10	20.68	0.02	1.48	8	2.00
100		08:00:00	ZEROED METER.																	
101		08:30:00	22.23		7810	23	1255	60.26	19	95.25	603.75	838.62								
102	1999/03/07	07:00:00	22.23		7800	23	1282	60.26	19	95.25	605.34	851.21	0.28	4.00	0.27	20.94	0.01	1.50	8	2.20
103		07:00:00	SPIN-OUT= 2% SEDIMENT.																	
104		07:30:00	22.23		7820	22	1269	59.76	19	95.25	604.38	863.81								
105		08:00:00	22.23		7830	22	1255	59.76	19	95.25	601.21	878.37	0.21	6.00	0.20	21.14	0.01	1.51	7	1.80
106		08:00:00	SPIN-OUT= TRACE OF SEDIMENT. H2S= 0 PPM API=38																	
107		08:30:00	22.23		7800	21	1269	60.26	19	95.25	608.93	888.96								
108		09:00:00	22.23		7800	21	1241	59.76	18	95.25	601.44	901.54	0.21	5.00	0.20	21.34	0.01	1.52	7	2.00
109		09:00:00	GAS SAMPLES TAKEN: # 00200, 00198 AGAT																	
110		09:30:00	22.23		7780	22	1241	59.76	21	95.25	595.78	914.02								
111		10:00:00	22.23		7750	22	1255	59.76	22	95.25	597.84	926.45	0.22	10.00	0.20	21.54	0.02	1.54	7	2.00
112		10:00:00	SPIN-OUT= TRACE OF SEDIMENT.																	
113		10:30:00	22.23		7760	22	1255	59.76	23	95.25	596.73	938.89								
114		11:00:00	22.23		7750	23	1255	59.76	23	95.25	596.73	951.32	0.21	5.00	0.20	21.74	0.01	1.55	7	2.00
115		11:00:00	SPIN-OUT= TRACE OF SEDIMENT.																	
116		11:30:00	22.23		7720	23	1262	60.26	24	95.25	599.72	963.79								
117		12:00:00	22.23		7700	23	1255	59.76	24	95.25	595.62	976.24	0.15	0.00	0.15	21.89	0.00	1.55		
118		12:00:00	SPIN-OUT= TRACE OF H2O, SEDIMENT.																	
119		12:30:00	22.23		7700	23	1241	59.76	24	95.25	592.47	988.61								
120		13:00:00	22.23		7710	23	1255	59.76	24	95.25	595.62	1000.99	0.22	0.00	0.22	22.11	0.00	1.55		
121		13:00:00	SPIN-OUT= TRACE OF H2O, SEDIMENT.																	
122		13:30:00	22.23		7710	23	1255	59.76	23	95.25	596.73	1013.41								
123	1999/03/07	14:00:00	22.23		7710	23	1255	59.76	20	95.25	600.08	1025.88	0.07	0.00	0.07	22.18	0.00	1.55		
124		14:00:00	SHUT IN / RECORD BUILD-UPS.																	
125		14:05:00			11930															
126		14:10:00			12650															
127		14:15:00			12960															
128		14:30:00			13230															
129		14:45:00			13370															
130		15:00:00			13410															
131		15:30:00			13495															
132		16:00:00			13560															
133		16:30:00			13575															
134		17:00:00			13585															
135		18:00:00			13630															
136	1999/03/08	00:00:00			13750															

1999/03/07 06:00:00 To 1999/03/08 06:00:00
 Gas 199.854 Cum. 1025.877 10³m³
 Oil 1.503 Cum. 22.178 m³
 Water 0.067 Cum. 1.552 m³

Paramount Resources Ltd
 0F-36 (00 Deg 05' 27" Latitude) (123 Deg 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Lard F-36
 Formation: Maltson Sand

Job Number: G0207

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		%
137	1999/03/08	08:00:00			14170															
138		14:00:00			14050															
139		19:00:00			14000															
140	1999/03/09	02:00:00			14000															

1999/03/08 06:00:00 To 1999/03/09 06:00:00
 Gas 0.000 Cum. 1025.877 10³m³
 Oil 0.000 Cum. 22.178 m³
 Water 0.000 Cum. 1.552 m³

Paramount Resources Ltd.
 0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/06
 Final Test Date: 1999/03/09

FieldNotes Field Measurements

Paramount et al Liard F-36
 Formation: Mattson Sand
 Job Number: G020

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Orific	Gas Rate	Cum Gas	Total Fld	BSW %	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	pH	Salinity %
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³		m ³	m ³	m ³	m ³		
141	1999/03/09	08:00:00					14020													
142		14:00:00					14050													
143		14:00:00	WIRELINE RUNNING GRADIENT & RETRIEVING RECORDERS.																	

1999/03/09 06:00:00 To 1999/03/09 14:00:00
 Gas 0.000 Cum. 1025.877 10³m³
 Oil 0.000 Cum. 22.178 m³
 Water 0.000 Cum. 1.552 m³

Paramount Resources Ltd.
 0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

Paramount et al Liard F-36
 Formation: Mattson Sand

Job Number: G0207

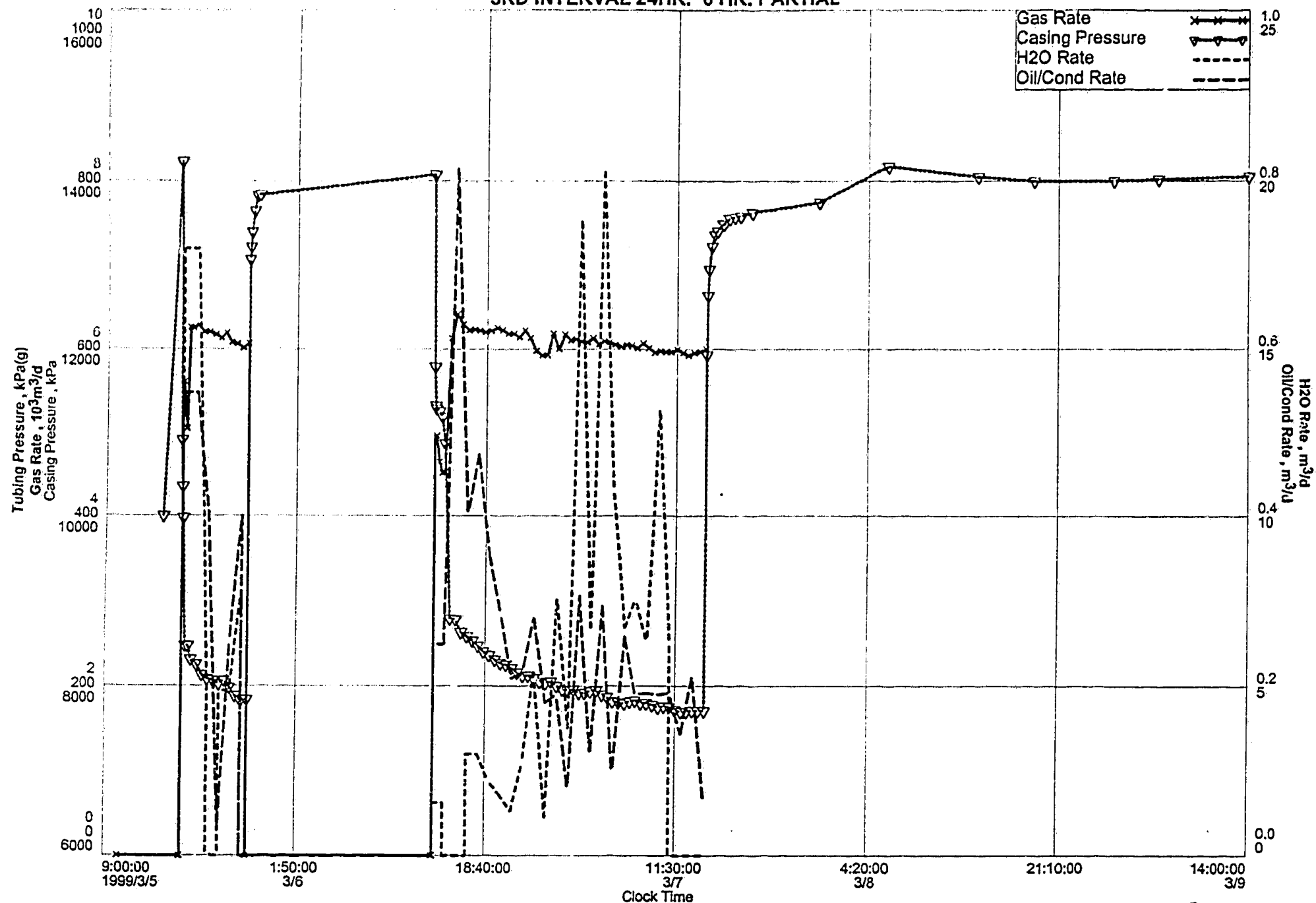
	From	Clock	To	Clock	Daily	Daily	Daily	Daily	Cum.	Cum.	Cum.	Cum.
	Date	Time	Date	Time	Cum.	Cum.	Cum.	Cum.	Gas	Oil	Water	Cond
	yyyy/mm/dd	hh:mm:ss	yyyy/mm/dd	hh:mm:ss	Gas	Oil	Water	Cond.	To Date	To Date	To Date	To Date
					10 ³ m ³	m ³	m ³	m ³	10 ³ m ³	m ³	m ³	m ³
1	1999/03/05	09:00:00	1999/03/06	11:30:00	425.487	15.950	1.340		425.487	15.950	1.340	
2	1999/03/06	11:30:00	1999/03/07	06:00:00	400.536	4.725	0.145		826.023	20.675	1.485	
3	1999/03/07	06:00:00	1999/03/08	06:00:00	199.854	1.503	0.067		1025.877	22.178	1.552	
4	1999/03/08	06:00:00	1999/03/09	06:00:00	0.000	0.000	0.000		1025.877	22.178	1.552	
5	1999/03/09	06:00:00	1999/03/09	14:00:00	0.000	0.000	0.000		1025.877	22.178	1.552	

Print Filter Off

Paramount Resources Ltd.
 0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

Paramount et al Liard F-36
 Formation: Mattson Sand
 Job Number: G0207

3RD INTERVAL 24HR. 6 HR. PARTIAL



Paramount Resources Ltd.
 0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
 Start Test Date: 1999/03/05
 Final Test Date: 1999/03/09

Paramount et al Liard F-36
 Formation: Mattson Sand

Job Number: G0207

	Date	Clock	Comment
	yyyy/mm/dd	hh:mm:ss	
1	1999/03/05	09:00:00	SLICKLINE RETRIEVING RECORDERS. RUNNING GRADIENT.
2	1999/03/05	09:00:00	CUM GAS FOR INTERVAL 1ST AND 2ND = 277.42 10 3 m3 / CUM OIL = 14.05 m3 / CUM WATER = 1.27 m3
3	1999/03/05	10:15:00	OUT OF HOLE WITH RECORDERS.
4	1999/03/05	11:10:00	OUT OF HOLE WITH COLLAR STOP.
5	1999/03/05	11:30:00	RIG UP WIRELINE TO SET W/R PLUG.
6	1999/03/05	12:15:00	RUNNING PLUG.
7	1999/03/05	13:05:00	OUT OF HOLE.
8	1999/03/05	13:45:00	OPEN TO BLEED DOWN TO 10 MPa.CSG.= 13593 KPa.
9	1999/03/05	14:20:00	RUN IN TO PERFORATE.
10	1999/03/05	15:00:00	OUT OF HOLE. RIG OFF. PREPARE TO FLOW.
11	1999/03/05	15:30:00	OPEN TO FLOW ON 48/64"(19.05mm) CHOKE.
12	1999/03/05	15:45:00	METER IN SERVICE WITH 3.00"(76.20mm) ORIFICE PLATE.
13	1999/03/05	16:00:00	CHANGE ORIFICE TO 4.00"(101.6mm) INCREASE BACKPRESSURE.
14	1999/03/05	16:30:00	CHANGE ORIFICE TO 3.75"(95.25mm).
15	1999/03/05	17:00:00	SPIN-OUT=5% SEDIMENT.
16	1999/03/05	19:00:00	SPIN-OUT= 5% SEDIMENT
17	1999/03/05	20:00:00	SPIN-OUT=6% SEDIMENT
18	1999/03/05	21:00:00	SPIN-OUT=1% SEDIMENT
19	1999/03/05	21:30:00	SHUT IN WELL. START BUILD UP'S.
20	1999/03/05	22:30:00	BUILD UPS TILL 23:30 PM = 13896 kPa
21	1999/03/06	11:30:00	PART 2 OF 3RD INTERVAL PERFORATING FINISHED.
22	1999/03/06	13:30:00	RECORDERS SET. SLICKLINE OUT OF HOLE.
23	1999/03/06	14:00:00	OPEN TO FLOW ON A 48/64"(19.05mm) CHOKE.
24	1999/03/06	14:30:00	METER IN SERVICE WITH A 3.75"(95.25mm) ORIFICE PLATE.
25	1999/03/06	15:00:00	CHOKE OPENED TO 56/64"(22.23mm).
26	1999/03/06	17:00:00	TRACE OF H2O & SEDIMENT IN SPIN-OUTS.
27	1999/03/06	20:00:00	TRACE OF H2O & 8% SEDIMENT IN SPIN-OUTS.
28	1999/03/06	20:00:00	API = 41.9
29	1999/03/06	21:00:00	TRACE OF H2O & 3% SEDIMENT IN SPIN-OUT.
30	1999/03/06	22:00:00	ZEROED AND BLOW DOWN METER. SPIN-OUT = 3% SEDIMENT
31	1999/03/06	23:00:00	SPIN-OUT=3% SEDIMENT
32	1999/03/07	00:00:00	BLOW DOWN METER. SPIN-OUT=TRACE OF H2O AND 3% SEDIMENT.
33	1999/03/07	00:30:00	ZEROED AND BLOW DOWN METER.
34	1999/03/07	02:00:00	ZEROED AND BLOW DOWN METER

Print Filter Off

Paramount Resources Ltd.
0F-36 (60 Deg. 05' 27" Latitude) (123 Deg. 22' 00" Longitude)
Start Test Date: 1999/03/05
Final Test Date: 1999/03/09

Paramount et al Liard F-36
Formation: Mattson Sand

Job Number: G0207

	Date	Clock	Comment
	yyyy/mm/dd	hh:mm:ss	
35	1999/03/07	02:00:00	SPIN-OUT = TRACE OF SEDIMENT. API = 38
36	1999/03/07	03:00:00	SPIN-OUT = 1% SEDIMENT.
37	1999/03/07	04:00:00	SPIN-OUT = TRACE OF SEDIMENT.
38	1999/03/07	05:00:00	SPIN-OUT = TRACE OF SEDIMENT.
39	1999/03/07	06:00:00	ZEROED METER.
40	1999/03/07	07:00:00	SPIN-OUT = 2% SEDIMENT.
41	1999/03/07	08:00:00	SPIN-OUT = TRACE OF SEDIMENT. H2S = 0 PPM API = 38
42	1999/03/07	09:00:00	GAS SAMPLES TAKEN: # 00200, 00198 AGAT
43	1999/03/07	10:00:00	SPIN-OUT = TRACE OF SEDIMENT.
44	1999/03/07	11:00:00	SPIN-OUT = TRACE OF SEDIMENT.
45	1999/03/07	12:00:00	SPIN-OUT = TRACE OF H2O, SEDIMENT.
46	1999/03/07	13:00:00	SPIN-OUT = TRACE OF H2O, SEDIMENT.
47	1999/03/07	14:00:00	SHUT IN / RECORD BUILD-UPS.
48	1999/03/09	14:00:00	WIRELINE RUNNING GRADIENT & RETRIEVING RECORDERS.

Print Filter Off

FieldNotes

Gas Meter 1

Meter Type:	Orifice Meter
Meter Size:	154.05 mm
Previous Gas Production:	277.420 10 ³ m ³
Tap Type:	Flange
Tap Location:	Downstream
Gas Gravity (G):	0.600
CO ₂ :	0.01 %
H ₂ S:	0.00 %
N ₂ :	0.00 %
Critical Temperature (T _C):	197.70 K
Critical Pressure (P _C):	4631.00 kPa

Oil Meter1

Meter Type:	Produced Volume
Measurement Type:	Incremental
Previous Oil Production:	14.050 m ³
Previous Water Production:	1.270 m ³

Water Meter1

Meter Type:	Produced Volume
Measurement type:	Cumulative
Previous Water Production:	1.270 m ³

FieldNotes

Water Meter2

Meter Type:

Measurement type:

Previous Water Production:

Produced Volume

Cumulative

1.270 m³

AGAT[®] Laboratories



CONTAINER IDENTIFICATION

AGAT 200

GAS ANALYSIS

LABORATORY NUMBER

GG36788A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD P-36

NS m ELEVATION GRD m

470.30

464.80

FIELD CH AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

1600.0-1786.0
mKB

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

METER RUN

SAMPLING POINT

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

1241

1241

1240

16

16

21

DATE SAMPLED (Y-M-D)

99-03-07

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

PL

NCO

OTHER INFORMATION

3rd SET

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT wt. %
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0029	0.0029	
O ₂	0.0127	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9467	0.9589	
C ₂	0.0229	0.0232	
C ₃	0.0074	0.0075	27.2
C ₄	0.0015	0.0015	6.5
NC ₄	0.0021	0.0021	8.7
C ₅	0.0009	0.0009	4.3
NC ₅	0.0007	0.0008	3.6
C ₆	0.0009	0.0009	5.0
C ₇	0.0009	0.0009	5.5
C ₈	0.0003	0.0003	2.0
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	62.8

GROSS HEATING VALUE (MJ/kg)
15°C AND 101.325 kPaMOISTURE AND
ACID GAS FREE

39.58

AIR FREE
AS RECEIVED

39.08

VAPOUR PRESSURE
PENTANES PLUS

66.1 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.600

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.588

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

P_{PC} (atm)

4631 kPa

P_{TC}

197.7 K

P_{PC} (atm)

4595 kPa

ACID GAS FREE

P_{TC}

196.3 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.4

C₇₊

103.6

H₂S (wt. %)

0.00

REMARKS:

AGAT Laboratories



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION

PB#1

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

LABORATORY NUMBER
CG36788A

UNIQUE WELL IDENTIFIER

FIELD OR AREA

LIARD

WELL NAME
PARAMOUNT et al LIARD F-36

POOL OR ZONE

MATTEON SAND

NAME OF SAMPLER

ELEVATIONS

470.30

464.80

TEST TYPE

NO

COMPANY

ENTEST CORP.

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1600.00-1786.00
MRB

P-TANK

SAMPLING POINT

= Bubble Point

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

PRESERVOR

SOURCE

SAMPLED

RECEIVED

DATE SAMPLED (Y-M-D)

99-03-07

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-05

ANALYST

MH

NCO

OTHER INFORMATION

3rd SET

OBSERVED PROPERTIES OF C7+ RESIDUE (15/15° C)

813.9

DENSITY kg/m³

0.8146

RELATIVE DENSITY

42.0

API @ 15.5° C

147.5

RELATIVE MOLECULAR MASS

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

806.2

DENSITY kg/m³

0.8069

RELATIVE DENSITY

43.7

API @ 15.5° C

142.4

RELATIVE MOLECULAR MASS

REMARKS:

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0000	0.0000	0.0000
CO ₂	0.0000	0.0000	0.0000
N ₂ S	0.0000	0.0000	0.0000
	0.0002	0.0000	0.0000
C ₂	0.0006	0.0001	0.0003
C ₃	0.0026	0.0008	0.0013
C ₄	0.0024	0.0010	0.0014
C ₄	0.0052	0.0021	0.0029
C ₅	0.0087	0.0044	0.0057
C ₅	0.0100	0.0051	0.0065
C ₆	0.0426	0.0256	0.0309
C ₇	0.9277	0.9609	0.9510
C ₈			
C ₉			
C ₁₀			
C ₁₁			
C ₁₂₊			
TOTAL	1.0000	1.0000	1.0000

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.1207 C₇₊ 0.8478

File No. : CG36788A

Company : PARAMOUNT RESOL 45 LTD.

Well No. :

PROPERTIES OF C6+ FRACTION

BOILING POINT RANGE (C)	COMPONENT	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
36.1- 68.9	HEXANES-----C6	0.0408	0.0247	0.0300
68.9- 98.3	HEPTANES-----C7	0.0630	0.0501	0.0544
98.3-125.6	OCTANES-----C8	0.1089	0.0987	0.1043
125.6-150.6	NONANES-----C9	0.0956	0.0972	0.1006
150.6-173.9	DECANES-----C10	0.1016	0.1145	0.1166
173.9-196.1	UNDECANES-----C11	0.0864	0.1070	0.1075
196.1-215.0	DODECANES-----C12	0.0645	0.0871	0.0866
215.0-235.0	TRIDECANES-----C13	0.0458	0.0669	0.0658
235.0-252.2	TETRADECANES-----C14	0.0306	0.0481	0.0471
252.2-270.6	PENTADECANES-----C15	0.0167	0.0281	0.0272
270.6-287.8	HEXADECANES-----C16	0.0045	0.0081	0.0078
287.8-302.8	HEPTADECANES-----C17	0.0031	0.0058	0.0056
302.8-317.2	OCTADECANES-----C18	0.0019	0.0038	0.0036
317.2-330.0	NONADECANES-----C19	0.0009	0.0020	0.0019
330.0-344.4	EICOSANES-----C20	0.0006	0.0013	0.0012
344.4-357.2	HENEICOSANES-----C21	0.0004	0.0009	0.0009
357.2-369.4	DOCOSANES-----C22	0.0004	0.0011	0.0010
369.4-380.0	TRICOSANES-----C23	0.0005	0.0013	0.0012
380.0-391.1	TETRACOSANES-----C24	0.0007	0.0020	0.0019
391.1-401.7	PENTACOSANES-----C25	0.0004	0.0012	0.0011
401.7-412.2	HEXACOSANES-----C26	0.0004	0.0012	0.0011
412.2-422.2	HEPTACOSANES-----C27	0.0006	0.0018	0.0017
422.2-431.7	OCTACOSANES-----C28	0.0003	0.0008	0.0007
431.7-441.1	NONACOSANES-----C29	0.0001	0.0004	0.0004
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0044	0.0027	0.0023
110.6	TOLUENE-----C7	0.0349	0.0255	0.0218
136.2	ETHYLBENZENE-----C8	0.0146	0.0123	0.0105
138.4-144.4	XYLENES-----C8	0.0622	0.0523	0.0450
168.9	1,2,4 TRIMETHYLBENZENE-----C9	0.0237	0.0225	0.0191

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0018	0.0009	0.0009
72.2	METHYLCYCLOPENTANE-----MCC5	0.0199	0.0133	0.0132
81.1	CYCLOHEXANE-----CC6	0.0538	0.0358	0.0341
101.1	METHYLCYCLOHEXANE-----MCC6	0.0863	0.0671	0.0648

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.



" A Plains Energy Services Company "

Paramount Resources Ltd.

F-36

4th Interval

99/03/09 – 99/03/11

1514-1582m KB

Prepare by
Entest Corp.
April 30, 1999

Paramount Resources Ltd.
0F-36
Start Test Date: 1999/03/09
Final Test Date: 1999/03/11

FieldNotes Field Measurements

Paramount et al Liard
Formation: Mattson Sand

Job Number: G0207c

	Clock	Choke	Tubing	Casing	Flow	Static	Diff	Meter	Gas	Cum	Total	Oil/Con	Cum	H2O	Cum	Salin		
Date	Time	Size	Press	Press	Temp	Press	Press	Temp	Orifice	Rate	Gas	BSW	Gain	Oil/Con	Gain	H2O	Salinity	pH
yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	%	m ³	m ³	m ³	m ³	ppm	%
1	1999/03/09	15:20:00	TOTAL CUM GAS FOR 3RD INTERVAL = 1025.88 10 ³ m ³ /CUM OIL 22.18m ³ /CUM WATER 1.55m ³															
2	15:20:00	19.05		14050						0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3	15:20:00	PLUG SET BLEED DOWN TO 10 MPa FOR PERFORATING																
4	1999/03/10	00:00:00	PERFORATING COMPLETE RIG UP SLICK LINE TO RUN RECORDERS GRADIENT															
5	02:00:00	19.05		13970						0.00	0.00	0.00	0.00	0.00	0.00	0.00		
6	02:00:00	OPEN TO FLOW ON 48/64" (19.05mm) CHOKE																
7	02:05:00	19.05		10000														
8	02:10:00	19.05		8750														
9	02:15:00	19.05		8300														
10	02:15:00									0.00	0.00	0.00	0.00	0.00	0.00	0.00		
11	02:15:00	METER IN SERVICE WITH 3.750" (95.25mm) ORIFICE PLATE.																
12	02:30:00	19.05		8200	5	662	31.87	8	95.25	320.48	3.34	0.00		0.00	0.00	0.00	0.00	
13	03:00:00	19.05		8410	10	690	33.62	8	95.25	335.39	10.17	0.00		0.00	0.00	0.00	0.00	
14	03:00:00	INCREASE CHOKE TO 56/64" (22.23mm)																
15	03:30:00	22.23		6900	14	827	39.84	14	95.25	392.06	17.75							
16	04:00:00	22.23		6950	15	896	42.33	16	95.25	417.80	26.18	0.23	1.00	0.23	0.23	0.00	0.00	
17	04:00:00	FLUID TO SURFACE 1% SEDIMENT AND TRACE OF H2O.																
18	04:30:00	22.23		6950	15	896	42.83	17	95.25	419.50	34.91							
19	05:00:00	22.23		6920	16	896	43.58	16	95.25	424.00	43.69	0.13	3.00	0.13	0.35	0.00	0.01	8
20	05:30:00	22.23		6970	17	896	43.58	17	95.25	423.20	52.52							15.00
21	05:30:00	METER OUT OF SERVICE.																

1999/03/09 15:20:00 To 1999/03/10 06:08:00
Gas 64.722 Cum. 64.722 10³m³
Oil 0.402 Cum. 0.402 m³
Water 0.008 Cum. 0.008 m³

Paramount Resources Ltd.
OF-36
Start Test Date: 1999/03/09
Final Test Date: 1999/03/11

FieldNotes Field Measurements

Paramount et al Liard
Formation: Mattson Sand

Job Number: G0207c

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Orifice	Gas Rate	Cum Gas	Total Fld	BSW	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	Salinity	pH	Salin %
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm		%
22	1999/03/10	06:08:00	22.23		6970	18	1448	53.29	17	88.90	501.80	64.72	0.05	3.50	0.05	0.40	0.00	0.01			8 15.00
23		06:08:00	METER IN SERVICE WITH A 3.500"(88.90mm) PLATE.																		
24	1999/03/10	08:30:00	22.23		6920	17	1138	43.82	18	88.90	404.22	71.64									
25		07:00:00	22.23		6850	17	931	40.59	18	88.90	354.04	79.54	0.10	13.00	0.09	0.49	0.01	0.02			8 6.80
26		07:00:00	CHANGE ORIFICE PLATE TO 3.00"(76.2mm). INCREASE BACKPRESSURE.																		
27		07:30:00	22.23		6890	17	1689	67.73	18	76.20	434.55	87.76									
28		07:30:00	METER BLOWN DOWN @ 07:00 FOR ACCURATE GAS RATE.																		
29		08:00:00	22.23		6850	17	1675	67.23	19	76.20	430.30	96.77	0.07	10.00	0.06	0.55	0.01	0.03			7 4.80
30		08:30:00	22.23		6820	17	1696	67.23	20	76.20	432.08	105.75									
31		09:00:00	22.23		6780	18	1689	66.73	21	76.20	428.73	114.71	0.15	6.00	0.14	0.69	0.01	0.04			7 5.80
32		09:00:00	SPIN-OUT= TRACE OF SEDIMENT.																		
33		09:30:00	22.23		6770	19	1682	66.48	22	76.20	426.20	123.62									
34		10:00:00	22.23		6690	19	1669	66.48	21	76.20	425.42	132.49	0.07	8.00	0.06	0.76	0.01	0.04			7 2.60
35		10:00:00	BLOW DOWN AND ZERO METER.																		
36		10:30:00	22.23		6680	18	1641	66.23	13	76.20	427.92	141.38									
37		11:00:00	22.23		6660	19	1655	65.24	13	76.20	426.44	150.28	0.08	6.00	0.08	0.83	0.00	0.05			7 3.40
38		11:30:00	22.23		6650	20	1641	64.74	13	76.20	423.01	159.13									
39		12:00:00	22.23		6630	21	1641	64.24	13	76.20	421.36	167.92	0.07	2.00	0.07	0.90	0.00	0.05			7 3.40
40		12:30:00	22.23		6590	22	1634	63.74	13	76.20	418.81	176.68									
41		13:00:00	22.23		6560	22	1634	62.50	13	76.20	414.67	185.36	0.08	2.00	0.08	0.98	0.00	0.05			7 2.80
42		13:30:00	22.23		6560	21	1634	61.75	13	76.20	412.14	193.97									
43		14:00:00	22.23		6550	21	1634	61.00	13	76.20	409.60	202.53	0.07	2.00	0.07	1.05	0.00	0.05			7 2.60
44		14:00:00	BLOW DOWN AND ZERO METER.																		
45	1999/03/10	14:30:00	22.23		6550	22	1669	65.74	20	76.20	423.85	211.21									
46		14:30:00	BLOWING METER DOWN HOURLY. API= 42@ 15 CELSIUS.																		
47		15:00:00	22.23		6500	22	1634	66.23	15	76.20	425.28	220.06	0.15	4.00	0.14	1.19	0.01	0.06			7 3.00
48		15:00:00	H2S BY KITAGAWA= 0 PPM																		
49		15:30:00	22.23		6470	22	1627	65.74	14	76.20	423.65	228.90									
50		16:00:00	22.23		6440	22	1620	65.74	14	76.20	422.76	237.72	0.08	2.00	0.08	1.27	0.00	0.06			7 4.80
51		16:30:00	22.23		6430	22	1620	66.23	15	76.20	423.49	246.53									
52		17:00:00	22.23		6410	22	1613	65.74	15	76.20	421.01	255.33	0.08	10.00	0.07	1.34	0.01	0.07			7 1.80
53		17:30:00	22.23		6400	22	1607	65.24	15	76.20	418.62	264.08									
54		18:00:00	22.23		6370	22	1600	65.24	13	76.20	419.42	272.80	0.07	8.00	0.06	1.41	0.01	0.07			7 2.40
55		18:00:00	METER ZEROED.																		
56		18:30:00	22.23		6350	22	1586	64.99	13	76.20	416.81	281.52									
57		19:00:00	22.23		6320	22	1586	64.74	13	76.20	416.00	290.19	0.08	15.00	0.07	1.48	0.01	0.08			8 1.60
58		19:30:00	22.23		6300	22	1586	64.74	13	76.20	416.00	298.86									
59		19:30:00	GAS SAMPLES TAKEN:# 19540, 17458.																		
60		20:00:00	22.23		6300	21	1586	64.49	17	76.20	411.85	307.48	0.07	8.00	0.06	1.54	0.01	0.09			8 2.20
61		20:30:00	22.23		6260	21	1586	63.74	16	76.20	410.23	316.04									

1999/03/10 06:08:00 To 1999/03/11 06:00:00
Gas 344.229 Cum. 408.951 10³m³
Oil 1.251 Cum. 1.653 m³
Water 0.109 Cum. 0.117 m³

Paramount Resources Ltd.
0F-36
Start Test Date: 1999/03/09
Final Test Date: 1999/03/11

Field Notes Field Measurements

Paramount et al Liard
Formation: Mattson Sand

Job Number: G0207c

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Orifice	Gas Rate	Cum Gas	Total Fld	BSW	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	Salinity	pH	Salin
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	ppm		%
62	1999/03/10	21:00:00	22.23		6260	20	1586	62.75	15	76.20	407.81	324.57	0.00	0.00	0.00	1.54	0.00	0.09			
63		21:30:00	22.23		6230	20	1586	62.75	19	76.20	404.57	333.03									
64		22:00:00	22.23		6210	20	1586	62.25	21	76.20	401.35	341.42	0.00	0.00	0.00	1.54	0.00	0.09			
65		22:00:00	BLOW DOWN AND ZEROED METER.																		
66		22:30:00	22.23		6180	20	1586	64.49	21	76.20	408.60	349.86									
67		23:00:00	22.23		6180	20	1586	64.49	22	76.20	407.81	358.36	0.00	0.00	0.00	1.54	0.00	0.09			
68		23:30:00	22.23		6180	21	1586	63.74	22	76.20	405.40	366.83									
69	1999/03/11	00:00:00	22.23		6170	19	1579	63.99	24	76.20	403.76	375.26	0.14	19.00	0.11	1.65	0.03	0.12		8	1.40
70		00:00:00	SPIN-OUT = 1% SEDIMENT																		
71		00:30:00	22.23		6150	19	1579	63.99	24	76.20	403.76	383.68									
72		01:00:00	22.23		6150	20	1579	63.99	23	76.20	404.54	392.09	0.00	0.00	0.00	1.65	0.00	0.12			
73		01:30:00	22.23		6110	19	1579	63.99	23	76.20	404.54	400.52									
74		02:00:00	22.23		6100	19	1579	63.99	23	76.20	404.54	408.95	0.00	0.00	0.00	1.65	0.00	0.12			
75		02:00:00	4TH INTERVAL 24 HR. TOTAL CUM GAS = 408.95 10 ³ m ³																		
76		02:00:00	4TH INTERVAL TOTAL CUM OIL = 1.65 m ³ / TOTAL WATER = 0.12 m ³																		
77		02:00:00	SHUT IN WELL / RECORD BUILD-UPS.																		
78		02:05:00			9750																
79		02:10:00			12230																
80		02:15:00			13240																
81		02:30:00			13870																
82		02:45:00			13900																
83		03:00:00			13900																
84		03:30:00			13880																
85		04:00:00			13880																
86		04:30:00			13880																
87		05:00:00			13880																

1999/03/10 06:08:00 To 1999/03/11 06:00:00
 Gas 344.229 Cum. 408.951 10³m³
 Oil 1.251 Cum. 1.653 m³
 Water 0.109 Cum. 0.117 m³

Paramount Resources Ltd.
 OF-36
 Start Test Date: 1999/03/09
 Final Test Date: 1999/03/11

FieldNotes Field Measurements

Paramount et al Liard
 Formation: Mattson Sand

Job Number: G0207c

	Date	Clock Time	Choke Size	Tubing Press	Casing Press	Flow Temp	Static Press	Diff Press	Meter Temp	Gas Rate	Cum Gas	Total Fld	BSW %	Oil/Con Gain	Cum Oil/Con	H2O Gain	Cum H2O	Salinity ppm	pH	Salin %
	yyyy/mm/d	hh:mm:ss	mm	kPa	kPa	°C	kPa(g)	kPa	°C	mm	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³		
88	1999/03/11	06:00:00			13880															
89		07:00:00			13880															

1999/03/11 06:00:00 To 1999/03/11 07:00:00
 Gas 0.000 Cum. 408.951 10³m³
 Oil 0.000 Cum. 1.653 m³
 Water 0.000 Cum. 0.117 m³

Paramount Resources Ltd.

0F-36

Start Test Date: 1999/03/09

Final Test Date: 1999/03/11

Paramount et al Liard
Formation: Mattson Sand

Job Number: G0207c

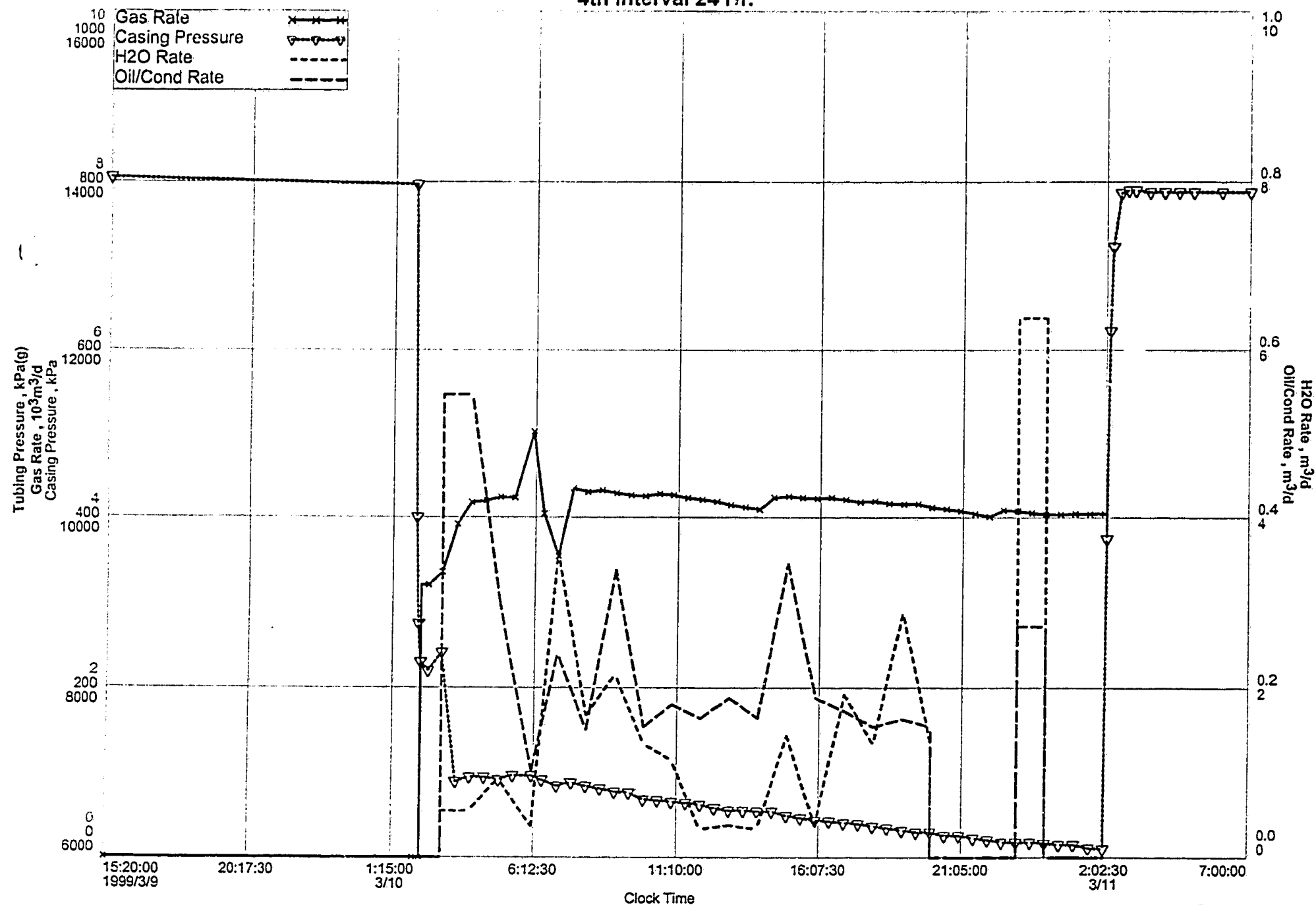
	From	Clock	To	Clock	Daily	Daily	Daily	Daily	Cum.	Cum.	Cum.	Cum.
	Date	Time	Date	Time	Cum.	Cum.	Cum.	Cum.	Gas	Oil	Water	Cond
	yyyy/mm/dd	hh:mm:ss	yyyy/mm/dd	hh:mm:ss	Gas	Oil	Water	Cond.	To Date	To Date	To Date	To Date
					10 ³ m ³	m ³	m ³	m ³	10 ³ m ³	m ³	m ³	m ³
1	1999/03/09	15:20:00	1999/03/10	06:08:00	64.722	0.402	0.008		64.722	0.402	0.008	
2	1999/03/10	06:08:00	1999/03/11	06:00:00	344.229	1.251	0.109		408.951	1.653	0.117	
3	1999/03/11	06:00:00	1999/03/11	07:00:00	0.000	0.000	0.000		408.951	1.653	0.117	

Print Filter Off

DF-36
 Start Test Date: 1999/03/09
 Final Test Date: 1999/03/11

Paramount et al Liard
 Formation: Mattson Sand
 Job Number: G0207c

4th Interval 24 Hr.



Paramount Resources Ltd.
 0F-36
 Start Test Date: 1999/03/09
 Final Test Date: 1999/03/11

Paramount et al
 Formation: Mattson
 Job Number: G0

	Date	Clock	Comment
	yy/mm/dd	hh:mm:ss	
1	1999/03/09	15:20:00	TOTAL CUM GAS FOR 3RD INTERVAL = 1025.88 10 3m3 / CUM OIL 22.18 m3 / CUM WATER 1.55 m3
2	1999/03/09	15:20:00	PLUG SET. BLEED DOWN TO 10 MPa FOR PERFORATING.
3	1999/03/10	00:00:00	PERFORATING COMPLETE. RIG UP SLICKLINE TO RUN RECORDERS; GRADIENT.
4	1999/03/10	02:00:00	OPEN TO FLOW ON 48/64" (19.05mm) CHOKE.
5	1999/03/10	02:15:00	METER IN SERVICE WITH 3.750" (95.25mm) ORIFICE PLATE.
6	1999/03/10	03:00:00	INCREASE CHOKE TO 56/64" (22.23mm)
7	1999/03/10	04:00:00	FLUID TO SURFACE 1% SEDIMENT AND TRACE OF H2O.
8	1999/03/10	05:30:00	METER OUT OF SERVICE.
9	1999/03/10	06:08:00	METER IN SERVICE WITH A 3.500" (88.90mm) PLATE.
10	1999/03/10	07:00:00	CHANGE ORIFICE PLATE TO 3.00" (76.2mm). INCREASE BACKPRESSURE.
11	1999/03/10	07:30:00	METER BLOWN DOWN @ 07:00 FOR ACCURATE GAS RATE.
12	1999/03/10	09:00:00	SPIN-OUT = TRACE OF SEDIMENT.
13	1999/03/10	10:00:00	BLOW DOWN AND ZERO METER.
14	1999/03/10	14:00:00	BLOW DOWN AND ZERO METER.
15	1999/03/10	14:30:00	BLOWING METER DOWN HOURLY. API = 42 @ 15 CELSIUS.
16	1999/03/10	15:00:00	H2S BY KITAGAWA = 0 PPM
17	1999/03/10	18:00:00	METER ZEROED.
18	1999/03/10	19:30:00	GAS SAMPLES TAKEN: # 19540, 17458.
19	1999/03/10	22:00:00	BLOW DOWN AND ZEROED METER.
20	1999/03/11	00:00:00	SPIN-OUT = 1% SEDIMENT
21	1999/03/11	02:00:00	4TH INTERVAL 24 HR. TOTAL CUM GAS = 408.95 10 3 m3
22	1999/03/11	02:00:00	4TH INTERVAL TOTAL CUM OIL = 1.65 m3 / TOTAL WATER = 0.12 m3
23	1999/03/11	02:00:00	SHUT IN WELL / RECORD BUILD-UPS.

Print Filter

FieldNotes

Gas Meter 1

Meter Type:	Orifice Meter
Meter Size:	154.05 mm
Previous Gas Production:	10 ³ m ³
Tap Type:	Flange
Tap Location:	Downstream
Gas Gravity (G):	0.650
CO ₂ :	0.00 %
H ₂ S:	0.00 %
N ₂ :	0.00 %
Critical Temperature (T _C):	207.76 K
Critical Pressure (P _C):	4625.74 kPa

Oil Meter 1

Meter Type:	Produced Volume
Measurement Type:	Incremental
Previous Oil Production:	m ³
Previous Water Production:	m ³



" A Plains Energy Services Company "

Paramount Resources Ltd.

F-36

Flow While Snubbing

99/03/14 – 99/03/18

multiple intervals.
plugs were being
pulled

Prepare by
Entest Corp.
April 30, 1999

Paramount Resources Ltd.
F-36
Start Test Date: 1999/03/14
Final Test Date: 1999/03/18

FieldNotes Field Measurements

Paramount et al Lia
Formation: Mattson Sar

Job Number: G0271

	Clock	Choke	Tubing	Casing	Flow	Statl	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinl		
Date	Time	- Size	Press	Press	Temp	Pres	Press	Temp	Orifico	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	%
1999/03/14	07:00:00	ARRIVED ON LOCATION																
	07:00:00			13900														
	07:00:00	SAFETY MEETING																
	07:45:00	PREPARE TO SNUB IN & RETRIEVE W/RI PLUG																
	07:45:00	22.46		13900		0	0.0	0	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	
6	07:45:00	OPEN THROUGH DUAL BEAN CHOKES. 48/64" & 30/64" (22.46mm)																
7	08:00:00			7520														
8	09:00:00			7070		1462	56.3	8	76.20	376.21	19.59	0.07	0.0	0.07	0.07	0.00	0.00	
9	10:00:00			7090		1503	52.3	10	76.20	365.93	35.06	0.15	0.0	0.15	0.22	0.00	0.00	
10	11:00:00			7070		1434	55.8	11	76.20	368.77	50.36	0.09	0.0	0.09	0.31	0.00	0.00	
11	11:00:00	INCREASE BACKPRESSURE.																
12	12:00:00			7070		2034	40.8	14	76.20	372.41	65.80	0.13	0.0	0.13	0.44	0.00	0.00	
13	13:00:00			6980		2027	40.3	16	76.20	367.91	81.23	0.14	0.0	0.14	0.58	0.00	0.00	
14	13:00:00	SHUT IN WELL. TUBING PLUG LEAK.																
15	13:30:00	OPEN TO FLOW.																
16	14:00:00					2399	35.4	14	76.20	376.84	96.74	0.00		0.00	0.58	0.00	0.00	
17	14:25:00	SHUT IN / ATTEMPTING TO RETRIEVE W/RI PLUG																
18	15:15:00	OPEN TO FLOW																
19	15:30:00	SHUT IN																
20	16:35:00	RIG UP SLICKLINE TO PULL AND RESET PLUG																

1999/03/14 07:00:00 To 1999/03/15 07:00:00

Gas 96.742 Cum. 96.742 10³m³
Oil 0.580 Cum. 0.580 m³
Water 0.000 Cum. 0.000 m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/03/14
Final Test Date: 1999/03/18

FieldNotes Field Measurements

Paramount et al Liai
Formation: Mattson Sar

Job Number: G0270

	Clock	Choke	Tubing	Casing	Flow	Statl	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinit		
Date	Time	- Size	Press	Press	Temp	Pres	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	%
21	1999/03/15	07:00:00				13900		0.0	0.0	0.00	96.74	0.00		0.00	0.58	0.00	0.00	
22		07:00:00	OPEN TO FLOW THROUGH DUAL CHOKES 48/64 30/64 (22.46mm)															
23		07:15:00	SHUT IN BLEED OFF TUBING.															
24	1999/03/15	07:25:00	OPEN TO FLOW CASING.															
25		09:00:00			7000													
26		10:00:00			7000													
27		11:00:00			7000							0.20	0.0	0.20	0.78	0.00	0.00	
28		11:45:00	SHUT IN OUT OF HOLE WITHOUT WR PLUG.															
29		12:30:00			13600		20	0.0	0.0	0.00	96.74	0.00		0.00	0.78	0.00	0.00	
30		14:00:00	OPEN TO FLOW CASING. BEGIN SNUBBING IN TO RETRIEVE WR PLUG.															
31		14:00:00			7000		2069	38.4	25	76.20	355.79	118.98	0.07	0.0	0.07	0.85	0.00	0.00
32		15:00:00			7000		2000	39.8	17	76.20	362.39	133.94	0.00		0.00	0.85	0.00	0.00
33		16:00:00			7000		2000	39.8	21	76.20	359.43	148.98	0.07	0.0	0.07	0.92	0.00	0.00
34		17:00:00			7000		2013	38.8	20	76.20	356.75	163.90	0.20	0.0	0.20	1.12	0.00	0.00
35		18:00:00			7000		1986	38.8	20	76.20	354.33	178.71	0.07	0.0	0.07	1.19	0.00	0.00
36		18:00:00	ON TOP OF WR PLUG. SHUT IN.															
37		20:00:00	FLOWING TBG WHILE PUMPING 2M ³ H ₂ O DOWN CASING.															
38		22:00:00	LATCHED ONTO WR PLUG. LARGE AMOUNT OF GUN JUNK RETURNED TO VESSEL.															

1999/03/15 07:00:00 To 1999/03/16 07:00:00
 Gas 81.972 Cum. 178.714 10³m³
 Oil 0.610 Cum. 1.190 m³
 Water 0.000 Cum. 0.000 m³

	Clock	Choke	Tubing Casing Flow	Statl	Diff	Meter	Gas	Cum.	Total	Oil	Cum.	Water	Cum.	Salinit		
Date	Time	- Size	Press Press Temp Pres Press Temp Orifice Rate Gas Fluid BS+W Prod Oil Prod Water pH													
yyyy/mm/d hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa	kPa	°C	mm	10 ³ m ³ / 10 ³ m ³	m ³	%	m ³	m ³	m ³	pH	%
39	1999/03/16	07:00:00	PULL JOINT RIG UP SLICKLINE TO SET TUBING PLUG.													
40		08:30:00			13900		0	0.00	0.00	178.74	0.00	0.00	1.19	0.00	0.00	
41		08:35:00	OPEN TO FLOW THROUGH DUAL CHOKES 30/64 & 48/64 (22.46mm)													
42		08:35:00			9800											
43		08:38:00	BEGIN SNUBBING OUT OF HOLE.													
44	1999/03/16	08:40:00			9000		0	0.00	0.00	178.74	0.00	0.00	1.19	0.00	0.00	
45		08:40:00	0.95 M3 OF 2M3 PUMPED DOWN CASING RECOVERED.													
46		08:45:00			8800											
47		09:00:00			8600		2206	46.8	5	76.20	424.01	184.60	0.95	100.0	0.00	1.19
48		09:15:00	METER IN SERVICE WITH 3.00"(76.2mm) ORIFICE.													
49		09:15:00			6500											
50		09:15:00	ADJUST BACKPRESSURE.													
51		09:30:00			9600		2206	46.8	5	76.20	424.01	193.44				
52		10:00:00			9500		2069	49.8	11	76.20	417.76	202.20	1.29	82.0	0.23	1.42
53		10:00:00	CHANGE CHOKE TO 48/64 & 48/64"(26.94mm). LL PUMPED H2O RECOVERED.													
54		11:00:00	26.94		10250		1689	59.8	13	76.20	412.04	219.49	0.62	15.0	0.53	1.95
55		11:00:00	CHOKES PLUGGING OFF WITH GUN JUNK AND WR PLUG ELEMENTS.													
56		12:00:00			10500		1689	55.8	17	76.20	394.71	236.30	0.28	10.0	0.25	2.20
57		13:00:00	OPEN THROUGH 2"(50.80mm)GUTLINE. CLEAN OUT CHOKES.													
58		13:00:00			6000		1827	69.7	18	88.90	643.00	257.92	0.76	9.0	0.69	2.89
59		14:00:00	CHANGE TO 46/64 & 48/64"(26.39mm)CHOKES.ORIFICE CHANGED TO 3.50"(88.9mm)													
60		14:00:00			8800		1586	61.3	12	88.90	568.52	283.16	0.50	7.0	0.46	3.36
61		14:10:00			8800		1586	61.3	12	88.90	568.52	287.11	0.00		0.00	3.36
62		14:30:00	SHUT IN .TUBING OUT OF HOLE WITH WR PLUG.													
63		14:30:00			12500											
64	1999/03/16	15:00:00			8800		1351	70.7	9	88.90	569.07	306.86	0.37	7.0	0.34	3.70
65		15:00:00	INCREASE BACKPRESSURE.													
66		16:00:00			8800		1627	59.8	17	88.90	562.84	330.44	0.56	7.0	0.52	4.22
67		16:00:00	ALL SPIN-OUTS CONTAIN 2-5% SEDIMENT & METAL DUST.													
68		17:00:00			8800		1641	60.8	16	88.90	571.12	354.06	0.38	5.0	0.36	4.58
69		18:00:00			8800		1641	60.3	18	88.90	566.47	377.76	0.25	6.0	0.23	4.82
70		19:00:00			8800		1641	60.3	18	88.90	566.47	401.36	0.25	7.0	0.23	5.05
71		20:00:00			8700		1586	57.8	18	88.90	545.32	424.53	0.23	7.0	0.21	5.27
72		20:55:00			8700		1586	57.8	18	88.90	545.32	445.36	0.22	4.0	0.21	5.48
73		21:45:00	SHUT IN WELL ATTEMPTING TO RETRIEVE WR PLUG.													

1999/03/16 07:00:00 To 1999/03/17 06:30:00				
Gas	266.642	Cum.	445.355	10 ³ m ³
Oil	4.286	Cum.	5.476	m ³
Water	2.374	Cum.	2.374	m ³

Paramount et al Lia
Formation: Mattson Sar
Job Number: G0270

[illegible]

1999/03/16 07:00:00 To 1999/03/17 06:30:00			
Gas	266.642	Cum.	445.355 10 ⁵ m ³
Oil	4.286	Cum.	5.476 m ³
Water	2.374	Cum.	2.374 m ³

Paramount Resources Ltd.
 F-36
 Start Test Date: 1999/03/14
 Final Test Date: 1999/03/18

FieldNotes Field Measurements

Paramount et al Liar
 Formation: Mattson San
 Job Number: G0270

	Clock	Choke	Tubing	Casing	Flow	Statl	Diff	Meter	Gas	Cum.	Total		Oil	Cum.	Water	Cum.		Salinit
Date	Time	- Size	Press	Press	Temp	Pres	Press	Temp	Orifice	Rate	Gas	Fluid	BS+W	Prod	Oil	Prod	Water	pH
yyyy/mm/d	hh:mm:ss	mm	kPa(g)	kPa(g)	°C	kPa	kPa	°C	mm	10 ³ m ³ /	10 ³ m ³	m ³	%	m ³	m ³	m ³	m ³	%
118	1999/03/18	07:30:00	RIG OUT EQUIPMENT.															
119		11:00:00	EMPTY LH21. CLEAN OUT VESSEL WITH VAC. TRUCK.															
120		12:30:00	WINTERIZE VESSEL WITH 100 LITRES METHANOL.															
121		12:30:00	NIGHTSHIFT LAYING DOWN STACK & MOVING TO G.P. TOMMORROW.															

1999/03/18 07:30:00 To 1999/03/18 12:30:00
 Gas 0.000 Cum. 651.511 10³m³
 Oil 0.000 Cum. 11.039 m³
 Water 0.000 Cum. 2.641 m³

Paramount Resources Ltd.
F-36
Start Test Date: 1999/03/14
Final Test Date: 1999/03/18

Paramount et al Liai
Formation: Mattson Sar

Job Number: G0270

	From Date yyyy/mm/dd	Clock Time hh:mm:ss	To Date yyyy/mm/dd	Clock Time hh:mm:ss	Daily Cum. Gas 10 ³ m ³	Daily Cum. Oil m ³	Daily Cum. Water m ³	Daily Cum. Cond. m ³	Cum. Gas To Date 10 ³ m ³	Cum. Oil To Date m ³	Cum. Water To Date m ³	Cum. Cond To Date m ³
1	1999/03/14	07:00:00	1999/03/15	07:00:00	96.742	0.580	0.000		96.742	0.580	0.000	
2	1999/03/15	07:00:00	1999/03/16	07:00:00	81.972	0.610	0.000		178.714	1.190	0.000	
3	1999/03/16	07:00:00	1999/03/17	06:30:00	266.642	4.286	2.374		445.355	5.476	2.374	
4	1999/03/17	06:30:00	1999/03/18	07:30:00	206.155	5.563	0.267		651.511	11.039	2.641	
5	1999/03/18	07:30:00	1999/03/18	12:30:00	0.000	0.000	0.000		651.511	11.039	2.641	

Print Filter Of

F-36

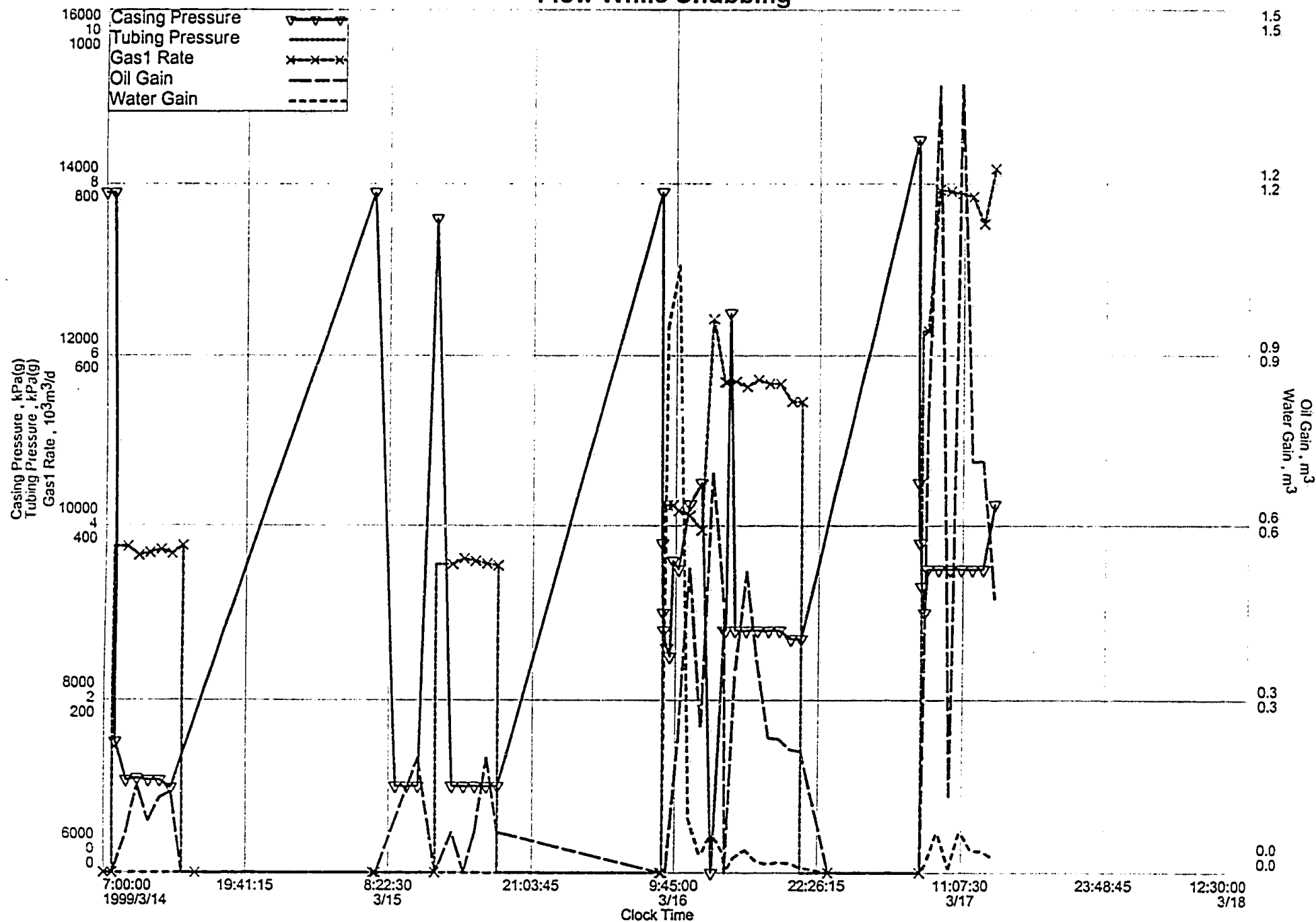
Start Test Date: 1999/03/14

Final Test Date: 1999/03/18

Formation: Mattson Sand

Job Number: G0270d

Flow While Snubbing



Paramount Resources Ltd.
F-36
Start Test Date: 1999/03/14
Final Test Date: 1999/03/18

Paramount et al Liar
Formation: Mattson San

Job Number: G0270

	Date	Clock	Comment
	yyyy/mm/dd	hh:mm:ss	
1	1999/03/14	07:00:00	ARRIVED ON LOCATION
2	1999/03/14	07:00:00	SAFETY MEETING
3	1999/03/14	07:45:00	PREPARE TO SNUB IN & RETRIEVE WR PLUG
4	1999/03/14	07:45:00	OPEN THROUGH DUAL BEAN CHOKES. 48/64" & 30/64" (22.46mm)
5	1999/03/14	11:00:00	INCREASE BACKPRESSURE.
6	1999/03/14	13:00:00	SHUT IN WELL. TUBING PLUG LEAK.
7	1999/03/14	13:30:00	OPEN TO FLOW.
8	1999/03/14	14:25:00	SHUT IN / ATTEMPTING TO RETRIEVE WR PLUG.
9	1999/03/14	15:15:00	OPEN TO FLOW.
10	1999/03/14	15:30:00	SHUT IN.
11	1999/03/14	16:35:00	RIG UP SLICKLINE TO PULL AND RESET PLUG.
12	1999/03/15	07:00:00	OPEN TO FLOW THROUGH DUAL CHOKES 48/64, 30/64 (22.46mm)
13	1999/03/15	07:15:00	SHUT IN. BLEED OFF TUBING.
14	1999/03/15	07:25:00	OPEN TO FLOW CASING.
15	1999/03/15	11:45:00	SHUT IN OUT OF HOLE WITHOUT WR PLUG.
16	1999/03/15	14:00:00	OPEN TO FLOW CASING. BEGIN SNUBBING IN TO RETRIEVE WR PLUG.
17	1999/03/15	18:00:00	ON TOP OF WR PLUG. SHUT IN.
18	1999/03/15	20:00:00	FLOWING TBG. WHILE PUMPING 2M3 H2O DOWN CASING.
19	1999/03/15	22:00:00	LATCHED ONTO WR PLUG. LARGE AMOUNT OF GUN JUNK RETURNED TO VESSEL.
20	1999/03/16	07:00:00	PULL 1 JOINT. RIG UP SLICKLINE TO SET TUBING PLUG.
21	1999/03/16	08:35:00	OPEN TO FLOW THROUGH DUAL CHOKES 30/64 & 48/64" (22.46mm)
22	1999/03/16	08:38:00	BEGIN SNUBBING OUT OF HOLE.
23	1999/03/16	08:40:00	0.95 M3 OF 2M3 PUMPED DOWN CASING RECOVERED.
24	1999/03/16	09:15:00	METER IN SERVICE WITH 3.00" (76.2mm) ORIFICE.
25	1999/03/16	09:15:00	ADJUST BACKPRESSURE.
26	1999/03/16	10:00:00	CHANGE CHOKE TO 48/64 & 48/64" (26.94mm). LL PUMPED H2O RECOVERED.
27	1999/03/16	11:00:00	CHOKES PLUGGING OFF WITH GUN JUNK AND WR PLUG ELEMENTS.
28	1999/03/16	13:00:00	OPEN THROUGH 2" (50.80mm) GUTLINE. CLEAN OUT CHOKES.
29	1999/03/16	14:00:00	CHANGE TO 46/64 & 48/64" (26.39mm) CHOKES. ORIFICE CHANGED TO 3.50" (88.9mm)
30	1999/03/16	14:30:00	SHUT IN. TUBING OUT OF HOLE WITH WR PLUG.
31	1999/03/16	15:00:00	INCREASE BACKPRESSURE.
32	1999/03/16	16:00:00	ALL SPIN-OUTS CONTAIN 2-5% SEDIMENT & METAL DUST.
33	1999/03/16	21:45:00	SHUT IN WELL. ATTEMPTING TO RETRIEVE WR PLUG.
34	1999/03/16	21:45:00	RIG IN SLICKLINE TO PULL TUBING PLUG AND PRONG.

Print Filter Of

Paramount Resources Ltd.
F-36
Start Test Date: 1999/03/14
Final Test Date: 1999/03/18

Paramount et al Liar
Formation: Mattson San

Job Number: G0270

	Date	Clock	Comment
	yyyy/mm/dd	hh:mm:ss	
35	1999/03/16	23:25:00	PRONG NOT PLUG RETRIEVED.
36	1999/03/16	23:25:00	OPEN TO FLOW TUBING.
37	1999/03/16	23:45:00	SHUT IN. ATTEMPT TO RETRIEVE PLUG BODY.
38	1999/03/17	00:01:00	RIH FOR THIRD TIME TO RETRIEVE "FSG" PLUG BODY. FAILED.
39	1999/03/17	03:15:00	MAKE 3 RUNS. W/HYDROSTATIC BAILER UNTIL ALL SAND OFF TBG. PLUG.
40	1999/03/17	04:30:00	RIH AND RETRIEVE "FSG" PLUG BODY/RIG OUT SLICKLINE.
41	1999/03/17	04:30:00	OPEN TO FLOW TUBING/WORK TBG. DOWNWARD AND LATCH ONTO WR PLUG.
42	1999/03/17	04:30:00	APPEARS WR UNSET. STRING MOVED 2 METERS PAST TAG DEPTH.
43	1999/03/17	04:53:00	SHUT IN. 0.44 M3 FLUID RECOVERED WITH GUN JUNK.
44	1999/03/17	05:00:00	TBG. PRESSURE DIED OFF INDICATING PLUGGED OVERSHOT.
45	1999/03/17	05:00:00	SET UP SLICKLINE/RIH 39mm IMP. BLOCK (marks show "wr" shear stud.)
46	1999/03/17	05:00:00	RIH SET REDRESSED "FSG" PLUG IN "CR" PROFILE NIPPLE ABOVE "WR" OVERSHOT.
47	1999/03/17	06:30:00	BLEED TBG. TO FLARE/PLUG HOLDING/RIG OUT SLICKLINE.
48	1999/03/17	07:00:00	CREW CHANGE/SAFETY MEETING.
49	1999/03/17	07:15:00	OPEN TO FLOW ON 26.39mm CHOKE.
50	1999/03/17	07:20:00	METAL GUN JUNK IN FLUID.
51	1999/03/17	07:30:00	WORKING PIPE TO INSURE WR FREE. METER IN SERVICE.
52	1999/03/17	07:45:00	SNUBBING OUT OF HOLE.
53	1999/03/17	08:02:00	OPEN TO 50.80mm GUTLINE TO REDUCE PRESSURE ON WELL.
54	1999/03/17	09:00:00	SPIN-OUT= 2% H2O, 3% SEDIMENT, METAL DUST.
55	1999/03/17	11:00:00	SPIN-OUT= 1% H2O, 4% SEDIMENT, ETC.
56	1999/03/17	12:00:00	SPIN-OUT= 3% H2O, 2% SEDIMENT.
57	1999/03/17	13:00:00	SNUBBING OUT LAST 3 JOINTS.
58	1999/03/17	15:30:00	SHUT IN WELL.
59	1999/03/17	15:30:00	RIG UP WIRELINE TO SET 2 "WR" PLUGS.
60	1999/03/17	19:45:00	SAFETY MEETING.
61	1999/03/17	20:00:00	BEGIN SNUBBING IN PROD. STRING.
62	1999/03/18	03:40:00	DOGNUT LANDED.
63	1999/03/18	04:00:00	PACKER SET / BLEED OFF CASING.
64	1999/03/18	06:00:00	COME OFF ON/OFF CONNECTER. CIRCULATE INHIBITED H2O TO VESSEL.
65	1999/03/18	07:30:00	RIG OUT EQUIPMENT.
66	1999/03/18	11:00:00	EMPTY LH21. CLEAN OUT VESSEL WITH VAC. TRUCK.
67	1999/03/18	12:30:00	WINTERIZE VESSEL WITH 100 LITRES METHANOL.
68	1999/03/18	12:30:00	NIGHTSHIFT LAYING DOWN STACK & MOVING TO G.P. TOMMORROW.

Print Filter Of

FieldNotes

Gas Meter 1

Meter Type:	Orifice Meter
Meter Size:	154.05 mm
Previous Gas Production:	0.000 10 ³ m ³
Tap Type:	Flange
Tap Location:	Downstream

Gas Gravity (G):	0.650
CO ₂ :	0.00 %
H ₂ S:	0.00 %
N ₂ :	0.00 %
Critical Temperature (T _C):	207.76 K
Critical Pressure (P _C):	4625.74 kPa

Oil Meter 1

Meter Type:	Produced Volume
Measurement Type:	Incremental
Previous Oil Production:	0.000 m ³
Previous Water Production:	0.000 m ³

Paramount Resources Ltd.

F-36

Start Test Date: 1999/03/14

Final Test Date: 1999/03/18

Paramount et al Liarc
Formation: Mattson Sand

Job Number: G0270c

Date Clock
yyyy/mm/dd hh:mm:ss

Comment

Print Filter Off

6. **ENVIRONMENTAL WELL REPORT**

Was submitted with drilling application

7. APPENDICES TO WELL HISTORY REPORT

Oil, Gas & Water Analyses: (see attached)

Completion Data:

DATE	DAYS FROM SPUD	REMARKS
Feb 19/99	1	Rig up Cenalta rig 42
Feb 20	2	Tag cement at liner top (1392.38 m KB).
Feb 21	3	Drill out cement and hanger bushings. Tag plug back at 2064.20 m KB. Mill out to 2092 m.
Feb 22	4	Run cement bond log. Cement top for 114.3 mm liner at 1462 m KB, cement top for 177 mm casing at 835 m KB.
Feb 23	5	Rig up snubbers and associate equipment.
Feb 24	6	Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as follows: 2044.5-2046 2006-2008 1996-1999.5 1990.5-1993 1984-1988
Feb 25	7	Run in with recorders to run gradient, retrieve recorders
Feb 26	8	Rig out snubbers, wait on N2.
Feb 27	9	Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as follows: 1869 - 1874 m KB. Gun stuck, pull free at rope socket, attempt to retrieve run.
Feb 28	10	Run in with debris catcher, catcher stuck
March 1	11	Run in with drill string and mill on debris catcher to 2089.7 m KB.
March 2	12	Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as

		follows: 1941-1945 1933-1934.5 1896.6-1897.7 1900-1905.5 1888-1889.5 1856-1862 1863-1867 1846-1848 1850-1856 1834-1838.5 1840-1843 1805-1809 1811-1813 1786-1790 1792-1794
March 3	13	Run recorders - run gradient. Open well to testers
March 4	14	Flow ell then shut in for 48 hour buildup
March 5	15	Shut in for buildup
March 6	16	Recover recorders. Set retrievable bridge plug at 1783 m KB. Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as follows 1626.5 - 1638 m KB Flow to test unit. Run gradient
March 7	17	Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as follows: 1751-61 1719-1724 1704.5-1711 1697-1701 1675-1686 1668-1673 1659-1663 1651-1657 1644-1645 1648-1651 1615-1626.5 1600-1602

		1602.5-1605 1608-1611 1769-1773 Run gradient. Open well to test unit for 24 hour test (1600 - 1773 m interval).
March 8	18	Flow well. Shut in for buildup
March 9	19	Shut in for buildup
March 10	20	Recover recorders. Set retrievable bridge plug at 1597 m KB. Perforate with 21 gram HMX charges 20 SPM 60 degree phasing as follows: 1572.5-1574.5 1576-1582 1562-1569 1569.5-1571.5 1551-1557 1558-1562 1541-1550 1530-1540 1520-1526 1514-1515
March 11	21	Run gradient. Open well for flow test
March 12	22	Finish 24 hour flow test. Shut in for 48 hour buildup
March 13	23	Shut in for buildup
March 14	24	Recover recorders
March 15	25	Flow well to lower pressure for snubbing. Snub in to recover upper WR plug. Tubing plug leaking. Re-set plug.
March 16	26	Work to latch on to plug. Released
March 17	27	Recover upper WR plug. Attempt to pull lower WR plug from 1783 m.
March 18	28	Retrieve WR plug from 1783 m. Set WR plug at 1825 m and another WR plug at 1740 m KB.
March 19	29	Run in with tubing complete with packer. Land tubing at 1374.7 m KB, packer at 1355.55 m KB. Reverse circulate well to inhibited fluid. Set

		FSG plug in F profile 1 joint above on/off. Install wellhead.
March 20	30	Tear out rig.

Wellbore Diagram:

(see attached)

OIL, GAS & WATER ANALYSES

WATER ANALYSIS

CONTAINER IDENTIFICATION
PB 5E

LABORATORY NUMBER
WF24780E

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

PARAMOUNT et al LIARD F-36

WELL NAME

KB m ELEVATIONS

469.00

GRD m
464.60

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON

NAME OF SAMPLER

SAME

COMPANY

TEST TYPE

DST

NO

3

TEST RECOVERY

TEST INTERVAL OR PERFS

1455.0-1494.0
mKB

TOOL

SAMPLING POINT

AMT & TYPE OF CUSHION

MUD RESISTIVITY Ω m

@ 25°C

TYPE OF PRODUCTION

PUMPING

FLOWING

GAS LIFT

SWAB

PRODUCTION RATES

WATER

m³/d

OIL

m³/d

GAS

10³ m³/d

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

GAUGE PRESSURE kPa

TEMPERATURE °C

DATE SAMPLED (Y-M-D)

98-03-24

DATE RECEIVED (Y-M-D)

98-03-31

DATE REPORTED (Y-M-D)

98-04-07

ANALYST

LN

NCO

OTHER INFORMATION

#5

ION	mg/L	MASS FRACTION	mmol/L
Na	1100.0	0.302	47.8
K	13.2	0.004	0.3
Ca	29.3	0.008	0.7
Mg	3.5	0.001	0.1
Ba	N.A.	N.A.	N.A.
Sr	N.A.	N.A.	N.A.
Fe	0.3	TRC*	TRC+

ION	mg/L	MASS FRACTION	mmol/L
Cl	139.0	0.038	3.9
Br	N.A.	N.A.	N.A.
I	N.A.	N.A.	N.A.
HCO ₃	1620.0	0.445	26.5
SO ₄	646.0	0.177	6.7
CO ₃	90.0	0.025	1.5
OH	NIL	NIL	NIL
H ₂ S	N.D.	N.D.	N.D.

DISSOLVED

TOTAL SOLIDS mg/L

EVAPORATED AT 110°C

EVAPORATED AT 180°C

AT IGNITION

CALCULATED

3640.0

RELATIVE DENSITY

1.003 @ 25°C

REFRACTIVE INDEX

N.A. @ 25°C

OBSERVED pH

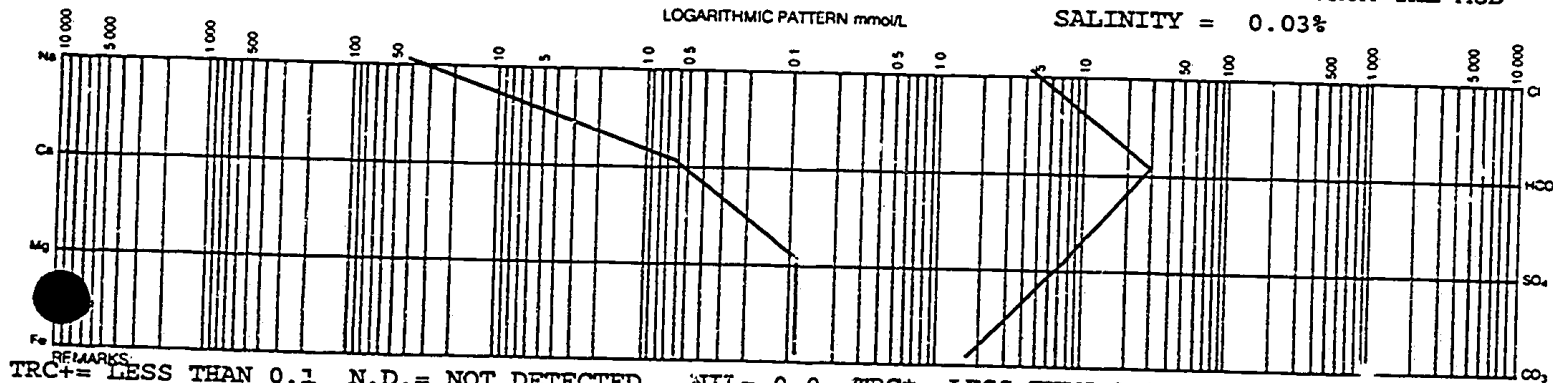
8.83 @ 25°C

RESISTIVITY Ω cm

2.71 @ 25°C

THE '30 MINUTE' API MUD FIL-
TRATE LOSS IS 5.5mL. THE
ABOVE RESULTS PERTAIN TO THE
WATER EXTRACTED FROM THE MUD
SALINITY = 0.03%

LOGARITHMIC PATTERN mmol/L



REMARKS
TRC+ = LESS THAN 0.1 N.D. = NOT DETECTED NIL = 0.0 TRC* = LESS THAN 0.001 N.A. = NOT ANALYZED



CONTAINER IDENTIFICATION

AGAT 30768

GAS ANALYSIS

LABORATORY NUMBER

GF34205G

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

LIARD

WELL NAME

PARAMOUNT et al LIARD F-36

KB m ELEVATIONS

470.30

GRD m

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON

NAME OF SAMPLER

BAKER

TEST TYPE

DST

NO

4

TEST RECOVERY

60 DEG. 5' 46" latitude 123 DEG. 22' 6" longitude

TEST INTERVAL OR PERFS

1559.7-1565.6

mKB

SAMPLING POINT

FLARE LINE

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

4700

21

DATE SAMPLED (Y-M-D)

98-12-28

DATE RECEIVED (Y-M-D)

99-01-05

DATE REPORTED (Y-M-D)

99-01-07

ANALYST

LQ

NCO

OTHER INFORMATION

END OF VALVE OPEN

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (mL = m ³)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0025	0.0026	
CO ₂	0.0163	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9532	0.9689	
C ₂	0.0215	0.0219	
C ₃	0.0040	0.0041	14.9
IC ₄	0.0012	0.0012	5.1
NC ₄	0.0005	0.0005	2.0
IC ₅	0.0001	0.0001	0.6
NC ₅	0.0001	0.0001	0.7
C ₆	0.0004	0.0004	1.9
C ₇	0.0001	0.0001	0.9
C ₈	0.0000	0.0000	0.0
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	26.1

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.79

AIR FREE AS RECEIVED

38.16

VAPOUR PRESSURE PENTANES PLUS

60.4 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.589

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.574

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

P_{pc} (kPa)

4648

T_{pc}

196.0 K

ACID GAS FREE

P_{pc} (kPa)

4602

T_{pc}

194.2 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇₊

100.2

H₂S g/m³

0.00

REMARKS:

DST: 4 BHS: no # OP: 1300 psi
RECOVERY: HP GAS (BHS), HP GAS (BHS)

MGAT[®] Laboratories



GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 30545

LABORATORY NUMBER

GF34205F

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB m ELEVATIONS

470.30

GRD m

454.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON

NAME OF SAMPLER

BAKER

COMPANY

TEST TYPE

DST

NO

TEST RECOVERY

60 DEG. 5' 46" latitude 123 DEG. 22' 6" longitude

TEST INTERVAL OR PERFS

1559.7-1565.6

mKB

SAMPLING POINT

FLARE LINE

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

5000

21

DATE SAMPLED (Y-M-D)

98-12-28

DATE RECEIVED (Y-M-D)

99-01-05

DATE REPORTED (Y-M-D)

99-01-11

ANALYST

PL

NCO

OTHER INFORMATION

MIDDLE OF VALVE OPEN

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL + m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0025	0.0025	
CO ₂	0.0164	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9516	0.9676	
C ₂	0.0219	0.0222	
C ₃	0.0043	0.0044	15.8
IC ₄	0.0013	0.0013	5.5
NC ₄	0.0006	0.0006	2.4
IC ₅	0.0004	0.0004	1.7
NC ₅	0.0001	0.0001	0.6
C ₆	0.0004	0.0004	1.9
C ₇	0.0003	0.0003	1.9
C ₈	0.0001	0.0001	0.8
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	30.6

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.90

AIR FREE AS RECEIVED

38.26

VAPOUR PRESSURE
PENTANES PLUS

63.0 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.591

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.576

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

p_{Pc} (abs)

4647 kPa

p_{Tc}

196.3 K

ACID GAS FREE

p_{Pc} (abs)

4602 kPa

p_{Tc}

194.5 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇₊

103.9

H₂S gm³

0.00

REMARKS:

DST: 4 BHS: no # OP: 1300 psi
RECOVERY: HP gas from (BHS), HP gas (FROM BHS)

AGAT[®] Laboratories



CONTAINER IDENTIFICATION

AGAT 30804

GAS ANALYSIS

LABORATORY NUMBER

GF34205A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB m ELEVATIONS GMD m

470.30

464.80

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

MATTSON

BAKER

TEST TYPE

NO

TEST RECOVERY

DST

4

60 DEG. 5' 46"latitude 123 DEG. 22' 6"longitude

TEST INTERVAL OR PERFS

1559.7-1565.6

mKB

SAMPLING POINT

BOTTOM HOLE SAMPLER

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

8964

8964

8000

21

DATE SAMPLED (Y-M-D)

98-12-31

DATE RECEIVED (Y-M-D)

99-01-05

DATE REPORTED (Y-M-D)

99-01-11

ANALYST

PL

NCO

OTHER INFORMATION

BHS #NSN

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL = m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
He	0.0001	0.0001	
N ₂	0.0028	0.0028	
CO ₂	0.0160	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9525	0.9681	
C ₂	0.0214	0.0217	
C ₃	0.0040	0.0041	14.7
IC ₄	0.0012	0.0012	5.3
NC ₄	0.0006	0.0006	2.4
IC ₅	0.0004	0.0004	1.8
NC ₅	0.0002	0.0002	0.8
C ₆	0.0004	0.0004	2.0
C ₇	0.0003	0.0003	2.0
C ₈	0.0001	0.0001	0.8
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	29.8

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.87

AIR FREE AS RECEIVED

38.24

VAPOUR PRESSURE PENTANES PLUS

64.7 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.590

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.575

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (abs)

4646 kPa

pTc

196.1 K

ACID GAS FREE

pPc (abs)

4601 kPa

pTc

194.4 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇₊

104.0

H₂S gm³

0.00

REMARKS:

AGAT[®] Laboratories

GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 30629

LABORATORY NUMBER

GF34205B

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB m ELEVATIONS GRD m

470.30

464.80

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

C/COMPANY

LIARD

MATTSON

BAKER

TEST TYPE

NO

TEST RECOVERY

DST

60 DEG. 5' 46" latitude 123 DEG. 22' 6" longitude

TEST INTERVAL OR PERFS

1559.7-1565.6

mKB

SAMPLING POINT

BOTTOM HOLE SAMPLER

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

8964

8964

7000

21

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

98-12-31

99-01-05

99-01-11

PL

NCO

BHS #NSN

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT ml x m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0032	0.0033	
CO ₂	0.0174	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9515	0.9684	
C ₂	0.0211	0.0215	
C ₃	0.0040	0.0040	14.6
IC ₄	0.0012	0.0012	5.2
NC ₄	0.0005	0.0005	2.0
IC ₅	0.0003	0.0003	1.7
NC ₅	0.0001	0.0001	0.6
C ₆	0.0004	0.0004	2.0
C ₇	0.0002	0.0002	1.1
C ₈	TRACE	TRACE	0.2
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	27.4

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.78

AIR FREE AS RECEIVED

38.11

VAPOUR PRESSURE
PENTANES PLUS

74.3 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.591

MEASURED

CALCULATED

0.574

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (kPa)

4650 kPa

pTc

196.1 K

ACID GAS FREE

pPc (kPa)

4601 kPa

pTc

194.2 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇₊

101.8

H₂S g/m³

0.00

REMARKS:

AGAT[®] Laboratories



CONTAINER IDENTIFICATION

AGAT 18628

GAS ANALYSIS

LABORATORY NUMBER

GP34453A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB m. ELEMENTAL GAS

470.30

GAC m

464.30

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON

NAME OF SAMPLE

COMPRESS

BAKER

TEST TYPE

DST

5

TEST RECEIVED

60 DEG. 5' 27" latitude 123 deg. 22' 00" longitude

TEST INTERVAL: GR PERFS

1662.0-1689.0

mKB

SAMPLING POINT

BOTTOM HOLE SAMPLER

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLE

RECEIVED

22.0

4.0

DATE SAMPLED (Y-M-D)

99-01-08

DATE RECEIVED (Y-M-D)

99-01-12

DATE REPORTED (Y-M-D)

99-01-18

ANALYST

PL

RCO

OTHER INFORMATION

SES (NSS)

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT ml + m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0086	0.0086	
CO ₂	0.0001	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9659	0.9660	
C ₂	0.0206	0.0206	
C ₃	0.0033	0.0033	12.2
NC ₄	0.0003	0.0003	1.3
NC ₄	0.0004	0.0004	1.5
C ₅	0.0001	0.0001	0.7
NC ₅	0.0002	0.0002	0.9
C ₆	0.0001	0.0001	0.4
C ₇	0.0002	0.0002	1.3
C ₈	0.0001	0.0001	0.7
	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	19.0

GROSS HEATING VALUE NUM 1
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.38

AIR FREE AS RECEIVED

38.38

WATER PRESSURE
PERMANENT PLUS

63.6

kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLE

MEASURED

CALCULATED

0.573

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.573

PSUEDO CRITICAL PROPERTIES CALCULATED:

AS SAMPLED

DPG (kPa)

4597

DPG

193.3

ACID GAS FREE

DPG (kPa)

4596

DPG

193.3

RELATIVE MOLECULAR MASS

TOTAL GAS

16.6

C₁

104.9

W₂₅ g/m³

0.00

REMARKS

AGAT[®] Laboratories



GAS ANALYSIS

CONTAINER IDENTIFICATION
CX 6429

LABORATORY NUMBER
GG35472A

CLIENT NAME
PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME
PARAMOUNT et al LIARD F-36

KB in ELIMINATED -
470.30 **466.80**

FIELD OR AREA
LIARD

POOL OR ZONE
FLETT

DATE OF SAMPLE

COPIES
BAKER

TEST TYPE
DST **8**

TEST RECORD
60 DEG. 5' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL ON PRESS

2085.0-2110.0
mKE

SAMPLE NO.

VALVE OPEN

GAUGE PRESSURE MPa
TEMPERATURE °C

SEPARATOR

TREATER

RECYCLER

SOURCE

SAMPLE

RECEIVED

DATE SAMPLED (Y-M-D)

99-01-02

DATE RECEIVED (Y-M-D)

99-02-05

DATE REPORTED (Y-M-D)

99-03-11

ANALYST

LQ KOC

OTHER INFORMATION

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (m. = m. 2)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0002	0.0002	
H ₂	0.0087	0.0087	
CO ₂	0.0000	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9412	0.9412	
C ₂	0.0323	0.0323	
C ₃	0.0105	0.0105	38.6
iC ₄	0.0013	0.0013	5.9
nC ₄	0.0030	0.0030	12.6
C ₅	0.0012	0.0012	6.0
nC ₆	0.0007	0.0007	3.4
C ₆	0.0003	0.0003	1.7
C ₇	0.0004	0.0004	2.5
C ₈	0.0002	0.0002	1.0
C ₉	0.0000	0.0000	0.0
C ₁₀	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	71.7

GROSS HEATING VALUE ALUM 1
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE
39.69

AIR FREE AS RECEIVED
39.69

VAPOR PRESSURE
FLUORINE PLUS
94.3 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED
0.596

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED
0.596

RELATIVE DENSITY (CALCULATED)

AS SAMPLED

DPG (kPa)

4591 kPa

DPG

197.4

ACID GAS FREE

DPG (kPa)

4591 kPa

DPG

197.4

RELATIVE MOLECULAR MASS

TOTAL GAS

17.3

C₇

104.0

H₂S g/m³

0.00

REMARKS:



CONTAINER IDENTIFICATION

AGAT 21797

GAS ANALYSIS

LABORATORY NUMBER

GF24780C

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB m ELEVATIONS GMD m

469.00

464.60

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

MATTSON

OH

SAME

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

1455.0-1494.0
mKB

SAMPLING POINT

BHS

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

2240

2240

2200

22

DATE SAMPLED (Y-M-D)

98-03-24

DATE RECEIVED (Y-M-D)

98-03-31

DATE REPORTED (Y-M-D)

98-04-06

ANALYST

PL

NCO

OTHER INFORMATION

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL + m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
He	0.0001	0.0001	
N ₂	0.0033	0.0033	
CO ₂	0.0033	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.8790	0.8819	
C ₂	0.0589	0.0591	
C ₃	0.0344	0.0345	126.7
IC ₄	0.0036	0.0036	15.8
NC ₄	0.0107	0.0108	45.3
IC ₅	0.0020	0.0020	9.6
NC ₅	0.0026	0.0026	12.6
C ₆	0.0013	0.0013	7.2
C ₇	0.0008	0.0008	4.7
C ₈			
C ₉			
C ₁₀ +			
TOTAL	1.0000	1.0000	221.9

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

43.36

AIR FREE AS RECEIVED

43.22

VAPOUR PRESSURE PENTANES PLUS

91.8 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.655

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.652

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (kPa)

4592 kPa

pTc

208.9 K

pPc (kPa)

4583 kPa

ACID GAS FREE

pTc

208.5 K

RELATIVE MOLECULAR MASS

TOTAL GAS

19.0

C₇ +

101.1

H₂S gm³

0.00

REMARKS:

AGAT[®] Laboratories



GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 19570

LABORATORY NUMBER

GY37190A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

TOE IN ELEVATION SEC IN

PARAMOUNT et al LIARD P-36

470.30

464.80

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

MATTSON SAND

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1514.0-1582.0
mKB

SAMPLING POINT

METER RUN

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

PRESERVOR

SOURCE

SAMPLED

RECEIVED

1586

1586

1410

13

13

21

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

99-03-10

99-03-24

99-03-31

PL

NCO

4th

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (ML = 100)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0018	0.0018	
CO ₂	0.0163	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9530	0.9689	
C ₂	0.0219	0.0222	
C ₃	0.0041	0.0042	15.2
IC ₄	0.0012	0.0012	5.3
NC ₄	0.0005	0.0005	2.1
IC ₅	0.0004	0.0004	1.9
NC ₅	0.0002	0.0002	0.7
C ₆	0.0003	0.0003	1.5
C ₇	0.0002	0.0002	1.2
C ₈	0.0000	0.0000	0.0
C ₉	0.0000	0.0000	0.0
10+	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	27.9

GROSS HEATING VALUE MJ/M³
15°C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

38.87

AIR FREE AS RECEIVED

38.23

VAPOUR PRESSURE
PENTANES PLUS

81.3 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.590

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.574

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

PPC (KPa)

4649 kPa

PPC

196.2 °C

ACID GAS FREE

PPC (KPa)

4603 kPa

PPC

194.4 °C

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇+

100.2

H₂O ppm

0.00

REMARKS:



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION

PB#1

LABORATORY NUMBER

CF37190A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LYARD F-36

AS - ELEVATIONS

470.30

464.80

FIELD OR AREA

LYARD

ROCK OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05'27" latitude 123 DEG. 22'00" longitude

TEST INTERVAL OR PERFS

1514.00-1582.00
mKB

SAMPLING POINT

P-TANK

* Bubble Point

GAUGE PRESSURE (PSI)

SEPARATOR

TARGET

RESERVOIR

SOURCE

SAMPLED

RECEIVED

TEMPERATURE (°C)

DATE SAMPLED (Y-M-D)

99-03-10

DATE RECEIVED (Y-M-D)

99-03-24

DATE REPORTED (Y-M-D)

99-04-05

ANALYST

MH

NCO

OTHER INFORMATION

4th

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0000	0.0000	0.0000
CO ₂	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000
C ₁	0.0002	0.0000	0.0001
C ₂	0.0010	0.0002	0.0005
C ₃	0.0028	0.0008	0.0013
C ₄	0.0037	0.0014	0.0021
NC ₄	0.0025	0.0010	0.0014
NC ₅	0.0076	0.0036	0.0048
NC ₆	0.0036	0.0017	0.0022
C ₆	0.0362	0.0203	0.0249
C ₇	0.94	0.9710	0.9627
C ₈			
C ₉			
C ₁₀			
C ₁₁			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇ + RESIDUE (15/15° C)

822.9

0.8236

40.2

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

156.1

RELATIVE MOLECULAR MASS

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

816.9

0.8176

41.4

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

151.6

RELATIVE MOLECULAR MASS

REMARKS:

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.0656 C₇ 0.9108

File No. : CP37190A
 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	0.0340	0.0193	0.0238
68.9- 98.3	HEPTANES-----C7	0.0314	0.0223	0.0243
98.3-125.6	OCTANES-----C8	0.0914	0.0741	0.0785
125.6-150.6	NONANES-----C9	0.1081	0.0983	0.1021
150.6-173.9	DECANES-----C10	0.1395	0.1407	0.1436
173.9-196.1	UNDECANES-----C11	0.1223	0.1356	0.1366
196.1-215.0	DODECANES-----C12	0.0898	0.1086	0.1082
215.0-235.0	TRIDECANES-----C13	0.0648	0.0847	0.0836
235.0-252.2	TETRADECANES-----C14	0.0445	0.0627	0.0616
252.2-270.6	PENTADECANES-----C15	0.0293	0.0442	0.0429
270.6-287.8	HEXADECANES-----C16	0.0096	0.0154	0.0148
287.8-302.8	HEPTADECANES-----C17	0.0040	0.0069	0.0066
302.8-317.2	OCTADECANES-----C18	0.0017	0.0031	0.0030
317.2-330.0	NONADECANES-----C19	0.0009	0.0017	0.0016
330.0-344.4	EICOSANES-----C20	0.0005	0.0011	0.0010
344.4-357.2	HENEICOSANES-----C21	0.0003	0.0007	0.0007
357.2-369.4	DOCOSANES-----C22	0.0018	0.0039	0.0037
369.4-380.0	TRICOSANES-----C23	0.0028	0.0064	0.0060
380.0-391.1	TETRACOSANES-----C24	0.0019	0.0045	0.0042
391.1-401.7	PENTACOSANES-----C25	0.0030	0.0074	0.0069
401.7-412.2	HEXACOSANES-----C26	0.0025	0.0064	0.0060
412.2-422.2	HEPTACOSANES-----C27	0.0011	0.0031	0.0029
422.2-431.7	OCTACOSANES-----C28	0.0003	0.0009	0.0008
431.7-441.1	NONACOSANES-----C29	0.0001	0.0002	0.0002
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0017	0.0010	0.0008
110.6	TOLUENE-----C7	0.0193	0.0126	0.0108
136.2	ETHYLBENZENE-----C8	0.0164	0.0123	0.0106
138.4-144.4	XYLENES-----C8	0.0634	0.0477	0.0412
168.9	1,2,4 TRIMETHYLBENZENE-----C9	0.0302	0.0257	0.0219

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0022	0.0010	0.0011
72.2	METHYLCYCLOPENTANE-----MCC5	0.0092	0.0055	0.0055
81.1	CYCLOHEXANE-----CC6	0.0185	0.0110	0.0105
101.1	METHYLCYCLOHEXANE-----MCC6	0.0321	0.0223	0.0216

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.

OIL ANALYSIS

CONTAINER IDENTIFICATION

PR-1

LABORATORY NUMBER

OF37190A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

K&M ELEVATIONS (m)

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

SAMPLING POINT

P-TANK

AMT & TYPE OF CUSHION

MUD RESISTIVITY/Ω m

@ 25° C

TEST INTERVAL OR PERFS

1514.0-1582.0
mKB

GAUGE PRESSURE kPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

TEMPERATURE °C

DATE SAMPLED (Y-M-D)

99-03-10

DATE RECEIVED (Y-M-D)

99-03-24

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

V.D.J NCO

OTHER INFORMATION

4th SET

SAMPLE PROPERTIES

B.S. & W. (VOLUME FRACTION)

COLOUR OF CLEAN OIL

BROWN

WATER

TRACE

SEDIMENT

0.004

TOTAL

0.004

COLOUR NUMBER ASTM D-1500

D-4.5 A.S.T.M.

DENSITY

RELATIVE

AS RECEIVED

AFTER CLEANING

AS RECEIVED

AFTER CLEANING

API GRAVITY @ 15° C

41.50

TOTAL SULPHUR
(MASS FRACTION)

0.00072

TOTAL SALT g/m³

POUR POINT / °C

U.S.B.M.

A.S.T.M.

RVP @ 38° C

CARBON RESIDUE
(MASS FRACTION)

CONRADSON

RAMSBOTTOM

VISCOSITY

TEMP / °C	ABSOLUTE $\text{mPa}\cdot\text{s}$	KINEMATIC mm^2/s
25	1.63	2.01
38	1.25	1.56
50	1.02	1.28

DISTILLATION

METHOD

A.S.T.M.-D86*

INITIAL BOILING POINT

58.7

AUS BAROM PRESSURE

88.7

ROOM TEMP / °C

21.0

DISTILLATION SUMMARY (VOLUME FRACTION)

200° C
NAPHTHA

0.51

275° C
KEROGENE

0.77

350° C
LIGHT GAS OIL

0.87

RECOVERED

0.91

RESIDUE

0.08

DISTILLATION LOSS

0.01

CHARACTERIZATION FACTOR

11.7

VOLUME FRACTION	TEMP. / °C
0.05	120.4
0.10	131.5
0.15	140.6
0.20	147.7
0.25	156.8
0.30	164.9
0.35	173.0
0.40	180.1
0.45	189.2
0.50	198.3
0.55	208.4
0.60	218.5
0.65	232.7
0.70	250.9
0.75	269.1
0.80	293.4
0.85	335.8
0.90	374.3
0.95	
1.00	
F.B.P.	376.3
CRACKED	

* THE DISTILLATION TEMPERATURES HAVE BEEN CORRECTED TO 101.3 KPA(ABS). POUR POINT = <-50 DEGREES CELSIUS



GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 200

LABORATORY NUMBER

GG36788A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB IN ELEVATION (MO) IN

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1600.0-1786.0
mKB

SAMPLING POINT

METER RUN

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

1241

1241

124C

16

16

21

DATE SAMPLED (Y-M-D)

99-03-07

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

PL NCO

OTHER INFORMATION

3rd SET

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (ML - IN 1)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0029	0.0029	
CO ₂	0.0127	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9467	0.9589	
C ₂	0.0229	0.0232	
C ₃	0.0074	0.0075	27.2
C ₄	0.0015	0.0015	6.5
C ₄	0.0021	0.0021	8.7
C ₅	0.0009	0.0009	4.3
NC ₂	0.0007	0.0008	3.6
C ₆	0.0009	0.0009	5.0
C ₇ +	0.0012	0.0012	7.5
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	62.8

GROSS HEATING VALUE (MJ/kg)
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

39.58

AIR FREE AS RECEIVED

39.08

VAPOR PRESSURE
PENTANES PLUS

66.1 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

MEASURED

CALCULATED

0.600

0.588

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

ACID GAS FREE

DPc (kPa)

4631 kPa

DPc

197.7 kPa

DPc (kPa)

4595 kPa

DPc

196.3 kPa

RELATIVE MOLECULAR MASS

TOTAL GAS

C₇ +

17.4

103.6

H₂O (mm)

0.00

REMARKS:

OIL ANALYSIS

CONTAINER IDENTIFICATION PH-1		LABORATORY NUMBER OG36788A	
OPERATOR NAME PARAMOUNT RESOURCES LTD.			
UNIQUE WELL IDENT. FIRM	WELL NAME	KB m	ELEVATION CAD m
	PARAMOUNT et al LIARD P-35	470.30	464.80
FIELD OR AREA	POOL OR ZONE	NAME OF SAMPLER	COMPANY
LIARD	MATTSON SAND		ENTEST CORP.
TEST TYPE	TEST RECOVERY	TEST RECOVERY	
		50 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude	
SAMPLING POINT		AMT & TYPE OF CUSHION	MUD RESISTIVITY Ω m @ 25°C
P-TANK			
TEST INTERVAL OR PERFS 1600.0-1786.0 mKB			
DATE SAMPLED (Y-M-D)	DATE RECEIVED (Y-M-D)	DATE REPORTED (Y-M-D)	ANALYST
99-03-07	99-03-15	99-04-01	V. D. J. NCO
OTHER INFORMATION		3rd SET	

SAMPLE PROPERTIES

BS & W (VOLUME FRACTIONS)			
COLOUR OF CLEAN OIL	WATER	SEDIMENT	TOTAL
BROWN	TRACE	0.001	0.001
COLOUR NUMBER ASTM D-1500			
D-5 A.S.T.M.			
RELATIVE DENSITY		ABSOLUTE DENSITY	
AS RECEIVED	AFTER CLEANING	AS RECEIVED	AFTER CLEANING
	0.8083		807.6
API GRAVITY @ 15°C			
43.55			
TOTAL SULPHUR (MASS FRACTION)	TOTAL SALT g/m ³	POUR POINT / °C	U.S.B.M.
0.00074			
CARBON RESIDUE (MASS FRACTION)			
CONRADSON	RAMSBOTTOM		

VISCOSITY		
TEMP / °C	ABSOLUTE mPa·s	KINEMATIC mm ² /s
25	1.41	1.76
38	1.17	1.48
50	1.00	1.28

DISTILLATION

METHOD		
A.S.T.M.-D86*		
INITIAL BOILING POINT		
73.9		
ABS BAROM PRESSURE	ROOM TEMP / °C	
88.7	21.0	
DISTILLATION SUMMARY (VOLUME FRACTION)		
200°C NAPHTHA	275°C KEROSENE	350°C LIGHT GAS OIL
0.54	0.74	0.84
RECOVERED	REMOVED	DISTILLATION LOSS
0.87	0.12	0.01
CHARACTERIZATION FACTOR		
11.8		

VOLUME FRACTION	TEMP. / °C
0.08	96.1
0.10	105.3
0.15	115.4
0.20	126.5
0.25	133.6
0.30	141.7
0.36	150.8
0.40	162.9
0.46	169.0
0.50	186.2
0.55	200.3
0.60	217.5
0.65	232.7
0.70	249.9
0.75	277.2
0.80	306.5
0.85	362.1
0.90	
0.95	
1.00	
F.B.P.	364.1
CRACKED	

* THE DISTILLATION TEMPERATURES HAVE BEEN CORRECTED TO 101.3 KPA (ABS). POUR POINT = < -50 DEGREES CELSIUS. SAMPLE CONTAINS 2.44% FREE WATER BY VOLUME. BS&W PERFORMED ON OIL PORTION ONLY.



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION

PB#1

LABORATORY NUMBER

CG36788A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT SE al LIARD F-36

ELEVATIONS

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1600.00-1786.00

mKB

SAMPLING POINT

P-TANK

* Bubble Point

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

GAUGE PRESSURE kPa

TEMPERATURE °C

DATE SAMPLED (Y.M.D.)

99-03-07

DATE RECEIVED (Y.M.D.)

99-03-15

DATE REPORTED (Y.M.D.)

99-04-05

ANALYST

MR

NCO

OTHER INFORMATION

3rd SET

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0000	0.0000	0.0000
CO ₂	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000
C ₁	0.0002	0.0000	0.0000
C ₂	0.0006	0.0001	0.0003
C ₃	0.0026	0.0008	0.0013
C ₄	0.0024	0.0010	0.0014
NC ₄	0.0052	0.0021	0.0029
NC ₅	0.0087	0.0044	0.0057
NC ₆	0.0100	0.0051	0.0065
C ₆	0.0426	0.0256	0.0309
C ₇	0.9277	0.9609	0.9510
C ₈			
C ₉			
C ₁₀			
C ₁₂			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇+ RESIDUE (15/15° C)

813.9

0.8146

42.0

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

147.5

RELATIVE MOLECULAR MASS

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

806.2

0.8069

43.7

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

142.4

RELATIVE MOLECULAR MASS

REMARKS.

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.1207 C₇+ 0.8478

File No. : CG36788A
 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	0.0408	0.0247	0.0300
68.9- 98.3	HEPTANES-----C7	0.0630	0.0501	0.0544
98.3-125.6	OCTANES-----C8	0.1089	0.0987	0.1043
125.6-150.6	NONANES-----C9	0.0956	0.0972	0.1006
150.6-173.9	DECANES-----C10	0.1016	0.1145	0.1166
173.9-196.1	UNDECANES-----C11	0.0864	0.1070	0.1075
196.1-215.0	DODECANES-----C12	0.0645	0.0871	0.0866
215.0-235.0	TRIDECANES-----C13	0.0458	0.0669	0.0658
235.0-252.2	TETRADECANES-----C14	0.0306	0.0481	0.0471
252.2-270.6	PENTADECANES-----C15	0.0167	0.0281	0.0272
270.6-287.8	HEXADECANES-----C16	0.0045	0.0081	0.0078
287.8-302.8	HEPTADECANES-----C17	0.0031	0.0058	0.0056
302.8-317.2	OCTADECANES-----C18	0.0019	0.0038	0.0036
317.2-330.0	NONADECANES-----C19	0.0009	0.0020	0.0019
330.0-344.4	EICOSANES-----C20	0.0006	0.0013	0.0012
344.4-357.2	HENEICOSANES-----C21	0.0004	0.0009	0.0009
357.2-369.4	DOCOSANES-----C22	0.0004	0.0011	0.0010
369.4-380.0	TRICOSANES-----C23	0.0005	0.0013	0.0012
380.0-391.1	TETRACOSANES-----C24	0.0007	0.0020	0.0019
391.1-401.7	PENTACOSANES-----C25	0.0004	0.0012	0.0011
401.7-412.2	HEXACOSANES-----C26	0.0004	0.0012	0.0011
412.2-422.2	HEPTACOSANES-----C27	0.0006	0.0018	0.0017
422.2-431.7	OCTACOSANES-----C28	0.0003	0.0008	0.0007
431.7-441.1	NONACOSANES-----C29	0.0001	0.0004	0.0004
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0044	0.0027	0.0023
110.6	TOLUENE-----C7	0.0349	0.0255	0.0218
136.2	ETHYLBENZENE-----C8	0.0146	0.0123	0.0105
138.4-144.4	XYLENES-----C8	0.0622	0.0523	0.0450
168.9	1,2,4 TRIMETHYLBENZENE-----C9	0.0237	0.0225	0.0191

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0018	0.0009	0.0009
72.2	METHYLCYCLOPENTANE-----MCC5	0.0199	0.0133	0.0132
81.1	CYCLOHEXANE-----CC6	0.0538	0.0358	0.0341
101.1	METHYLCYCLOHEXANE-----MCC6	0.0863	0.0671	0.0648

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.

OIL ANALYSIS

CONTAINER IDENTIFICATION

PB-4

LABORATORY NUMBER

OF36779A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFICATION

WELL NAME

PARAMOUNT et al LIARD P-36

KB m

ELEVATIONS

QWD m

470.30

464.80

FIELD OR AREA

LIARD

FOCAL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

50 DEG. 05' 27"latitude 123 DEG. 22' 00"longitude

SAMPLING POINT

P-TANK

AMT & TYPE OF CUSHION

MUD RESISTIVITY: Ω m

425°C

TEST INTERVAL OR PERFS

1786.0-2046.0
mKB

GAUGE PRESSURE kPa

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

TEMPERATURE °C

DATE SAMPLED (Y-M-D)

99-03-03

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

V,D,J NCO

OTHER INFORMATION

2nd SET

SAMPLE PROPERTIES

B.S. & W. (VOLUME FRACTION)

COLOUR OF CLEAN OIL

BROWN

WATER

TRACE

SEDIMENT

TRACE

TOTAL

TRACE

COLOUR NUMBER ASTM D-1500

D-7 A.S.T.M.

RELATIVE

DENSITY

ABSOLUTE $\rho_{40}^{\circ}\text{m}^{-3}$

AS RECEIVED

AFTER CLEANING

0.8085

AS RECEIVED

807.8

API GRAVITY @ 15°C

43.51

TOTAL SULPHUR
(MASS FRACTION)

0.00076

TOTAL SALT $\text{g}^{\circ}\text{m}^{-3}$

POUR POINT / °C

U.S.B.M.

A.S.T.M.

CARBON RESIDUE
(MASS FRACTION)

CONRADSON

RAMSBOTTOM

REMARKS

VISCOSITY

TEMP. °C	ABSOLUTE $\text{mPa}^{\circ}\text{s}$	KINEMATIC mm^2/s
25	1.81	2.26
38	1.38	1.74
50	1.11	1.41

DISTILLATION

METHOD

A.S.T.M.-D86*

INITIAL

BOILING POINT

57.7

ABS BAROM PRESSURE

88.7

ROOM TEMP./°C

21.0

DISTILLATION SUMMARY

(VOLUME FRACTION)

200°C

NAPHTHA

0.49

275°C

KEROSENE

0.67

350°C

LIGHT GASE OIL

0.79

RECOVERED

0.81

RESIDUE

0.18

DISTILLATION

LOSS

0.01

CHARACTERIZATION
FACTOR

11.9

REMARKS:

* THE DISTILLATION TEMPERATURES HAVE BEEN CORRECTED TO 101.3 KPA(ABS). SAMPLE CONTAINS 2.91% FREE WATER BY VOLUME. BS&W PERFORMED ON OIL PORTION ONLY.



CONTAINER IDENTIFICATION

PB#4

HYDROCARBON LIQUID ANALYSIS

LABORATORY NUMBER

CF36779A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT at al LIARD F-36

KB - ELEVATIONS

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

EST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1786.0-2046.0

mKB

SAMPLING POINT

METER RUN

* Bubble Point

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATION

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

DATE SAMPLED (Y-M-D)

99-03-03

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-05

ANALYST

MH

NCO

OTHER INFORMATION

2nd SET

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0000	0.0000	0.0000
CO ₂	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000
C ₁	0.0003	0.0000	0.0001
C ₂	0.0011	0.0002	0.0005
C ₃	0.0037	0.0011	0.0017
C ₄	0.0030	0.0012	0.0017
C ₄	0.0068	0.0026	0.0036
C ₅	0.0103	0.0049	0.0063
C ₅	0.0118	0.0057	0.0072
C ₆	0.0506	0.0287	0.0347
C ₇ +	0.9124	0.9556	0.9442
C ₈			
C ₉			
C ₁₀			
C ₁₁			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇ + RESIDUE (15/15° C)

815.9

DENSITY kg/m³

0.8166

RELATIVE DENSITY

41.6

API @ 15.5° C

158.1

RELATIVE MOLECULAR MASS

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

806.8

DENSITY kg/m³

0.8075

RELATIVE DENSITY

43.6

API @ 15.5° C

150.9

RELATIVE MOLECULAR MASS

REMARKS:

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.1400 C₇ + 0.8213

File No. : CP36779A

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	0.0489	0.0279	0.0339
68.9- 98.3	HEPTANES-----C7	0.0939	0.0739	0.0804
98.3-125.6	OCTANES-----C8	0.1034	0.0933	0.0987
125.6-150.6	NONANES-----C9	0.0733	0.0739	0.0766
150.6-173.9	DECANES-----C10	0.0739	0.0827	0.0842
173.9-196.1	UNDECANES-----C11	0.0677	0.0832	0.0836
196.1-215.0	DODECANES-----C12	0.0515	0.0689	0.0686
215.0-235.0	TRIDECANES-----C13	0.0368	0.0534	0.0526
235.0-252.2	TETRADECANES-----C14	0.0294	0.0458	0.0449
252.2-270.6	PENTADECANES-----C15	0.0215	0.0360	0.0349
270.6-287.8	HEXADECANES-----C16	0.0113	0.0200	0.0193
287.8-302.8	HEPTADECANES-----C17	0.0073	0.0137	0.0132
302.8-317.2	OCTADECANES-----C18	0.0050	0.0099	0.0094
317.2-330.0	NONADECANES-----C19	0.0036	0.0075	0.0071
330.0-344.4	EICOSANES-----C20	0.0023	0.0051	0.0048
344.4-357.2	HENEICOSANES-----C21	0.0016	0.0038	0.0036
357.2-369.4	DOCOSANES-----C22	0.0014	0.0035	0.0033
369.4-380.0	TRICOSANES-----C23	0.0014	0.0035	0.0033
380.0-391.1	TETRACOSANES-----C24	0.0008	0.0021	0.0020
391.1-401.7	PENTACOSANES-----C25	0.0008	0.0021	0.0020
401.7-412.2	HEXACOSANES-----C26	0.0010	0.0030	0.0028
412.2-422.2	HEPTACOSANES-----C27	0.0018	0.0055	0.0052
422.2-431.7	OCTACOSANES-----C28	0.0022	0.0068	0.0063
431.7-441.1	NONACOSANES-----C29	0.0012	0.0040	0.0037
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0056	0.0185	0.0172

AROMATICS

80.0	BENZENES-----C6	0.0061	0.0038	0.0032
110.6	TOLUENE-----C7	0.0504	0.0364	0.0313
136.2	ETHYLBENZENE-----C8	0.0065	0.0054	0.0047
138.4-144.4	XYLENES-----C8	0.0520	0.0433	0.0374
168.9	1,2,4 TRIMETHYLBENZENE-----C9	0.0164	0.0154	0.0131

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0017	0.0008	0.0008
72.2	METHYLCYCLOPENTANE-----MCC5	0.0226	0.0149	0.0148
81.1	CYCLOHEXANE-----CC6	0.0607	0.0401	0.0383
101.1	METHYLCYCLOHEXANE-----MCC6	0.0990	0.0762	0.0737

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.



CONTAINER IDENTIFICATION

AGAT 194

GAS ANALYSIS

LABORATORY NUMBER

GP36779A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

KB IN LITM/TONG QRD IN

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1786.0-2046.0

mKB

SAMPLING POINT

METER RUN

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

793

793

880

22

22

21

DATE SAMPLED (Y-M-D)

99-03-03

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

PL

NCO

OTHER INFORMATION

2nd SET

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT (mL/m ³)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	0.0004	0.0004	
He	0.0001	0.0001	
N ₂	0.0082	0.0083	
CO ₂	0.0134	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9152	0.9275	
C ₂	0.0389	0.0395	
C ₃	0.0123	0.0125	45.3
C ₄	0.0025	0.0025	10.9
NC ₄	0.0032	0.0033	13.7
C ₅	0.0014	0.0014	6.9
NC ₅	0.0011	0.0012	5.5
C ₆	0.0014	0.0014	7.8
C ₇	0.0014	0.0014	8.6
C ₈	0.0005	0.0005	3.6
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	102.3

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

40.62

AIR FREE AS RECEIVED

40.08

VAPOUR PRESSURE
PENTANES PLUS

65.7 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.623

MEASURED

CALCULATED

0.611

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

DPG (kPa)

4623 kPa

DPG

201.3 k

DPG (kPa)

4586 kPa

ACID GAS FREE

DPG

199.9 k

RELATIVE MOLECULAR MASS

TOTAL GAS

18.0

C₇ =

104.0

H₂6 (mm)

0.00

REMARKS:

AGAT[®] Laboratories

GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 194

LABORATORY NUMBER

GF36779A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT at al LIARD F-36

KB IN ELEVATION

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1786.0-2046.0

mKB

SAMPLING POINT

METER RUN

GAUGE PRESSURE MPa

SEPARATOR

TREATER

RESEPARATOR

SOURCE

SAMPLED

RECEIVED

TEMPERATURE °C

793

793

880

22

22

21

DATE SAMPLED (Y-M-D)

99-03-03

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

PL

NCO

OTHER INFORMATION

2nd SET

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT ML - 100 g
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
N ₂	0.0004	0.0004	
H ₂	0.0001	0.0001	
N ₂	0.0082	0.0083	
CO ₂	0.0134	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9152	0.9275	
C ₂	0.0389	0.0395	
C ₃	0.0123	0.0125	45.3
IC ₄	0.0025	0.0025	10.9
NC ₄	0.0032	0.0033	13.7
IC ₅	0.0014	0.0014	6.9
NC ₆	0.0011	0.0012	5.5
C ₆	0.0014	0.0014	7.8
C ₇	0.0014	0.0014	8.6
C ₈	0.0005	0.0005	3.6
C ₉	0.0000	0.0000	0.0
10+	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	102.3

GROSS HEATING VALUE MJ/m³
15° C AND 101.323 kPaMOISTURE AND
ACID GAS FREE

40.62

AIR FREE
AS RECEIVED

40.08

VAPOUR PRESSURE
PENTANES PLUS

65.7 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.623

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.611

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

P_{pc} (kPa)

4623 kPa

P_{pc}

201.3 k

ACID GAS FREE

P_{pc} (kPa)

4586 kPa

P_{pc}

199.9 k

RELATIVE MOLECULAR MASS

TOTAL GAS

18.0

C₇

104.0

H₂S g/m³

0.00

REMARKS:

AGAT[®] Laboratories



CONTAINER IDENTIFICATION

AGAT 194

GAS ANALYSIS

LABORATORY NUMBER

GP36779A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

ICE IN ELEVATION GAO IN

PARAMOUNT at al LIARD F-36

470.30

464.80

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

MATTSON SAND

ENTEST CORP.

TEST TYPE

NO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERFS

1786.0-2046.0

mXB

SAMPLING POINT

METER RUN

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

REDUCOR

SOURCE

SAMPLED

RECEIVED

793

793

880

22

22

21

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

99-03-03

99-03-15

99-04-01

PL

NCO

2nd SET

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT % = m ³
	AIR FREE AS RECEIVED	AIR FREE NOD GAS FREE	
H ₂	0.0004	0.0004	
He	0.0001	0.0001	
N ₂	0.0082	0.0083	
Ar	0.0134	0.0000	
H ₂ O	0.0000	0.0000	
C ₁	0.9152	0.9275	
C ₂	0.0389	0.0395	
C ₃	0.0123	0.0125	45.3
iC ₄	0.0025	0.0025	10.9
nC ₄	0.0032	0.0033	13.7
iC ₅	0.0014	0.0014	6.9
nC ₅	0.0011	0.0012	5.5
C ₆	0.0014	0.0014	7.8
C ₇	0.0014	0.0014	8.6
C ₈	0.0005	0.0005	3.6
C ₉	0.0000	0.0000	0.0
C ₁₀	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	102.3

GROSS HEATING VALUE SURV-1
15°C AND 101.325 kPaMOISTURE AND
ACID GAS FREE

40.62

AIR FREE
AS RECEIVED

40.08

VAPOUR PRESSURE
PENTANES PLUS

65.7 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.623

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.611

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

P_{pc} (kPa)

4623 kPa

P_{tc}

201.3 °C

ACID GAS FREE

P_{pc} (kPa)

4586 kPa

P_{tc}

199.9 °C

RELATIVE MOLECULAR MASS

TOTAL GAS

18.0

C₇

104.0

H₂S g/m³

0.00

REMARKS:

WELLBORE DIAGRAM

PARAMOUNT ET AL LIARD F36

Geology & Casing Information

See Baker Diagram Dated March 14/99 For Final Completion String

GL: 464.8 m

KB: 470.3 m

Note: KB changed
from first drilling rig
to second rig.

SCATTER

790

GARBUTT

916

CHINKEH
TRIASSIC

1111

1124

PERMIAN

1225

MATTSON

1400

SFC CSG

244 mm, 48.07 kg/m, H40 Landed at
502 m. Cemented to surface
311 mm hole

INTERMEDIATE CASING:

177.8 mm, 34.23 kg/m, J55 landed at
1494 m KB. Cement top 835 m.
222 mm hole

LINER:

114.3 mm, 17.26 kg/m, L80 landed at
2108.25 m KB. Cement top 1462 m
Top of tie-back 1387.69 m KB
156 mm hole

TUBING: See attached Baker diagram for tubing
and packer details.

PERFS: See attached sheet for perforations
A total of 213.1 meters has been
perforated from 1514 - 2046 m KB

GOLATA

1945

FLETT

2085

PLUG BACK

2092

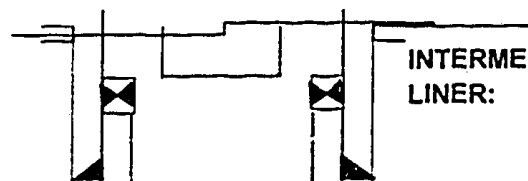
TOTAL DEPTH

2110

PARAMOUNT ET AL LIARD F36

Perforations

See Baker Diagram Dated March 14/99 For Final Completion String



INTERMEDIATE CASING: 177.8 mm, 34.23 kg/m

LINER: 114.3 mm, 17.26 kg/m, L80 landed at
2108.25 m KB. Cement top 1462 m

PERFORATIONS

21 gram HMX
20 SPM, 60 degree

1514 - 15
1520 - 26
1530 - 40
1541 - 50
1551 - 57
1558 - 69
1569.5 - 71.5
1572.5 - 74.5
1576 - 82

1600 - 02
1602.5 - 05
1608 - 11
1615 - 1638

1644 - 45
1648 - 57
1659 - 63
1668 - 73
1675 - 86
1697 - 1701
1704.5 - 11
1719 - 24
1751 - 61
1769 - 73

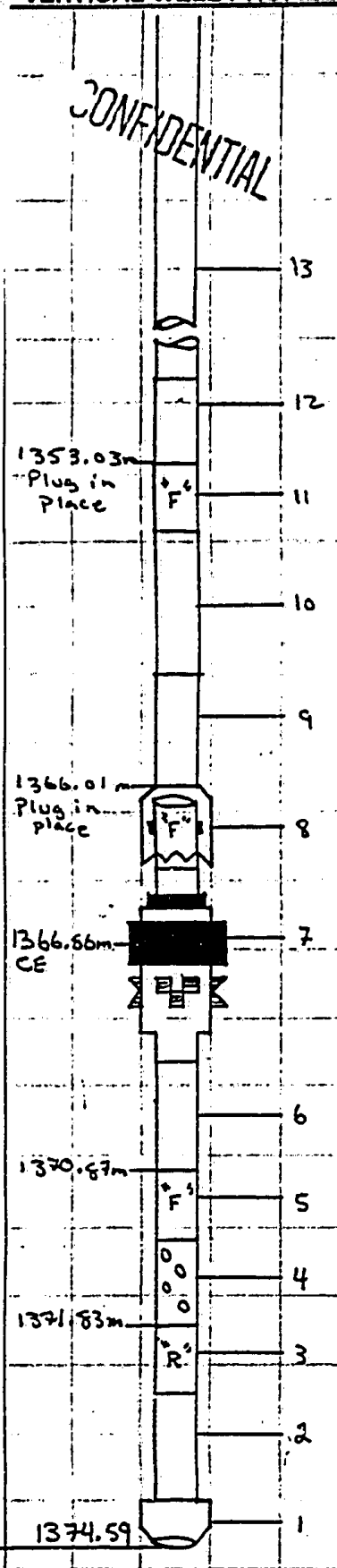
1786 - 90
1792 - 94
1805 - 09
1811 - 13
1834 - 38.5
1840 - 43
1846 - 48
1850 - 62
1863 - 67
1869 - 74
1888 - 89.5
1896.6 - 97.7
1900 - 05.5
1933 - 34.5
1941 - 45

1984 - 88
1990.5 - 93
1996 - 99.5
2006 - 08
2044.5 - 46

PLUG BACK 2092
TOTAL DEPTH 2110

VERTICAL WELL PROFILE

CONFIDENTIAL



OPERATOR Paramont
 COMPANY REP. Bert Blakely
 WELL # F-36
 FIELD _____
 PROVINCE N.W.T
 DATE March 14 / 99
☒ New Completion ☐ Workover
 Job Log # 20773

	SIZE	WEIGHT	GRADE	THREAD
CASINO	172.3	34.23	L-60	L-60
LINER	114.3	13.3	L-60	L-60
TUBING	88.9	13.64	L-60	EUE
OPEN HOLE				
WELL FLUIDS	TUBING		CASINO	
INITIAL	Gas		Gas	
FINAL	Inhibited H ₂ O		Inhibited H ₂ O	

NO.	DEPTH	LENGTH	OD	ID	DESCRIPTION
	mks	m	mm	mm	
	1374.74				BHA
					84m of Tailpipe
1	1374.59	.17	139	76	Re-entry Guide
2	1372.1	2.47	114.3	76	88.9mm Pup Joint EUE L-60
3	1371.63	.27	114.3	76	Baker "R" nipple 69.95mm 69.5mm no-go 88.9mm EUE
4	1371.19	.64	114.3	76	88.9mm Perforated Pup Joint EUE J-55
5	1370.67	.32	114.3	76	Baker "F" nipple 69.95mm 88.9mm EUE
6	1367.8	3.07	114.3	76	88.9mm Pup Joint EUE J-55
7	1366.5	1.30	154.6	76	Baker Model "AL-2" Lok-set Packer - size 4734 - 6K Double grip 88.9mm EUE RVD Rt hd set - Rt hd released - 36m Top - center element
8	1366.01	.49	140	71.42	Baker "L-10" on/off connector (Run with "F" profile - Auto-on "F" plug in place) Lt hd release 88.9mm EUE
9	1362.96	3.05	114.3	76	88.9mm Pup Joint EUE L-60
10	1353.35	9.61	114.3	76	1 Joint TBG 88.9mm EUE L-60
11	1353.03	.32	114.3	71.42	Baker "F" nipple 71.42mm profile 88.9mm EUE
12	1352.4	.63	114.3	76	88.9mm Pup Joint EUE L-60
13	4.7	1347.3			88.9mm TBG to surface EUE L-60 141 JTB includes TWE 15m #
	4.7	4.9			KB-THE
		(.20)			4000dan Compression (TBG plugged)
					Liner Top @ 1390 mks
					Perfs @ 1584-2046m 1756-1945m 1600-1773m 1514-1582m
					WR @ 1585m 1740m

CONFIDENTIAL



PREPARED BY:
Rod Huehn

DISTRICT
Ft. St. John

PHONE
850 765-3975

1300 - 401 - 9th Avenue S.W.
 Calgary, Alberta T2P 3C5
 (403) 296-9600

Weatherford RTDT Final Report



Weatherford

Completion & Oilfield Services

N.E.B. COPY

COMPANY NAME	Paramount Resources Limited
WELL NAME	Paramount et al Liard
LOCATION	F36 NWT
FIELD	Liard
POOL	Mattson
INTERVAL	1662.00 to 1689.00 m
TICKET / DST No.	6012 DST # One
TEST DATE	99/01/08

Real Time Data Tool (RTDT)

FINAL REPORT

McAllister Products

#300, 333 - 5 Avenue SW
Calgary, Alberta T2P 3B6
Canada

(403) 269-7788
(403) 237-6445 Fax

www.weatherford.com

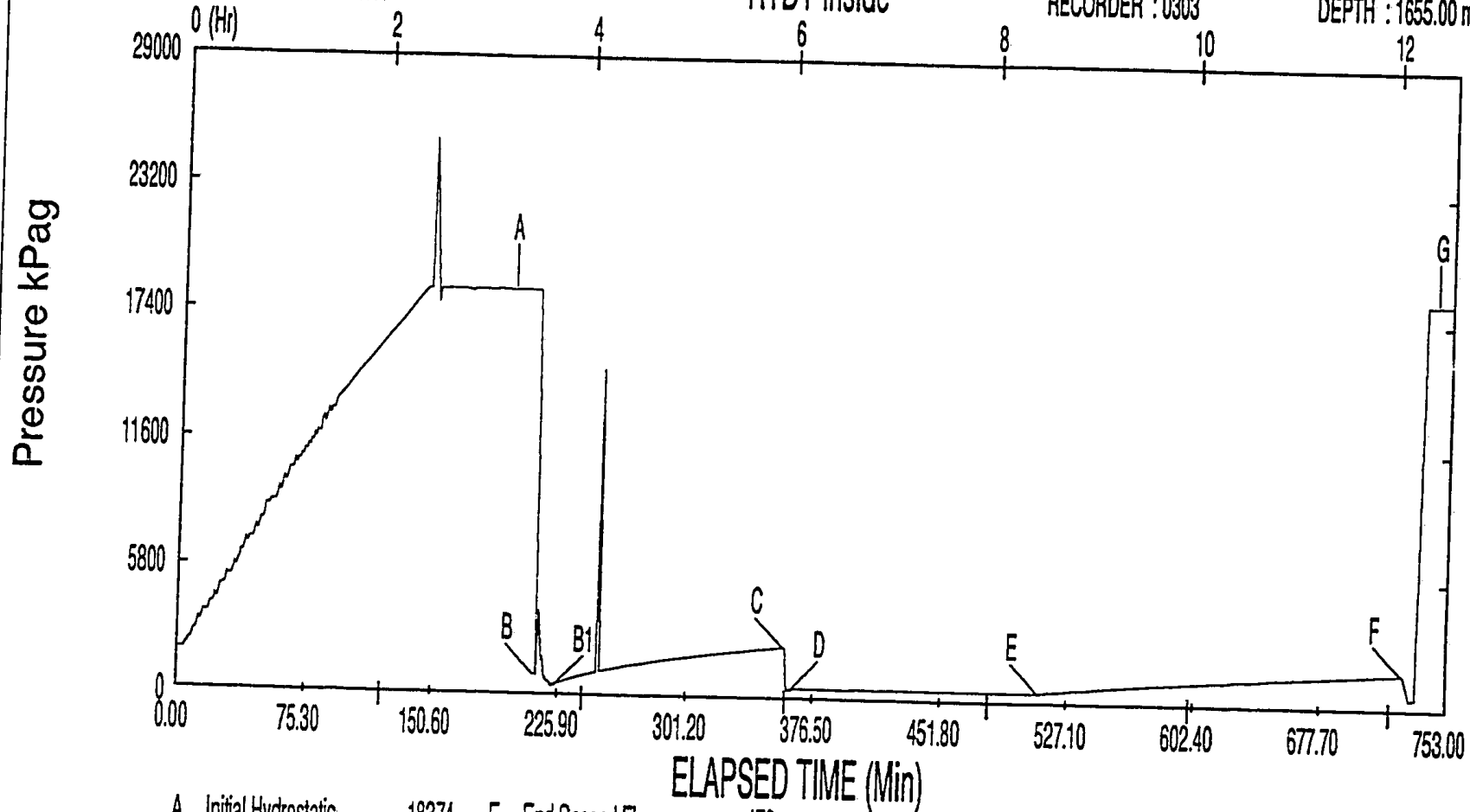
Weatherford
Completion & Oilfield Services

PROFILE PLOT
RTDT Inside

WELL NAME : Paramount et al Liard
LOCATION : F36 NWT

TICKET : 6012
RECORDER : 0303

TEST # : One
DEPTH : 1655.00 m



A	Initial Hydrostatic	18374	E	End Second Flow	479
B	First Flow	896	F	Second Shutin	1610
B1	End First Flow	407	G	Final Hydrostatic	18350
C	First Shutin	2317			
D	Second Flow	379			

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
 Location :F36 NWT
 Recorder #:0303

Ticket #:6012
 Test # :One
 Depth :1655.00 m
 Page : 1

Electronic Pressure Analysis

Time	kPag	psig	kPa^2	Time	T+DT/DT	kPag	psig	kPa^2	d kPa
Initial Flow				Initial Shut In					
0	18357	2662.5	336.987	0	-	407	59.0	0.165	0
1	12969	1881.0	168.195	1	13.06	427	62.0	0.183	21
2	896	130.0	0.803	2	6.97	458	66.5	0.210	52
3	3851	558.5	14.827	4	3.99	517	75.0	0.267	110
5	1541	223.5	2.374	4	3.99	517	75.0	0.267	110
5	1541	223.5	2.374	5	3.40	548	79.5	0.300	141
6	1689	245.0	2.853	6	3.00	576	83.5	0.331	169
7	872	126.5	0.761	7	2.71	600	87.0	0.360	193
8	645	93.5	0.416	8	2.33	655	95.0	0.429	248
9	582	84.5	0.339	9	2.20	682	99.0	0.466	276
10	476	69.0	0.226	10	2.09	707	102.5	0.499	300
11	407	59.0	0.165	12	1.92	755	109.5	0.570	348
				14	1.80	803	116.5	0.645	396
				16	1.71	841	122.0	0.707	434
				18	1.63	879	127.5	0.773	472
				20	1.57	920	133.5	0.847	514
				22	1.50	975	141.5	0.952	569
				24	1.46	1013	147.0	1.027	607
				26	1.43	1048	152.0	1.098	641
				28	1.40	1082	157.0	1.172	676
				30	1.38	1117	162.0	1.247	710
				35	1.32	1193	173.0	1.423	786
				40	1.28	1282	186.0	1.644	876
				45	1.25	1351	196.0	1.826	945
				50	1.23	1420	206.0	2.017	1013
				55	1.20	1499	217.5	2.249	1093
				60	1.19	1558	226.0	2.428	1151
				70	1.16	1682	244.0	2.830	1275
				80	1.14	1799	261.0	3.238	1393
				90	1.13	1899	275.5	3.608	1493
				100	1.11	1996	289.5	3.984	1589
				110	1.10	2089	303.0	4.364	1682
				120	1.09	2165	314.0	4.687	1758
				137	1.08	2317	336.0	5.367	1910
Second Flow				Second Shut In					
0	2317	336.0	5.367	0	-	479	69.5	0.230	0
1	662	96.0	0.438	2	81.99	493	71.5	0.243	14
2	379	55.0	0.144	2	81.99	493	71.5	0.243	14
3	420	61.0	0.177	3	55.09	496	72.0	0.246	17
4	431	62.5	0.186	4	41.49	507	73.5	0.257	28
5	445	64.5	0.198	5	33.43	510	74.0	0.260	31
6	448	65.0	0.201	6	28.04	520	75.5	0.271	41
7	445	64.5	0.198	7	24.16	527	76.5	0.278	48
8	448	65.0	0.201	8	18.99	541	78.5	0.293	62
9	448	65.0	0.201	9	17.20	545	79.0	0.297	65
10	448	65.0	0.201	10	15.72	548	79.5	0.300	69
12	445	64.5	0.198	12	13.47	562	81.5	0.316	83

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
 Location :F36 NWT
 Recorder #:0303

Ticket #:6012
 Test # :One
 Depth :1655.00 m
 Page : 2

Electronic Pressure Analysis

Time	kPag	psig	kPa^2	Time	T+DT/DT	kPag	psig	kPa^2	d kPa
Second Flow (continued)				Second Shut In (continued)					
14	448	65.0	0.201	14	11.80	576	83.5	0.331	96
16	445	64.5	0.198	16	10.53	589	85.5	0.347	110
18	445	64.5	0.198	19	9.10	607	88.0	0.368	128
20	445	64.5	0.198	20	8.71	610	88.5	0.372	131
22	445	64.5	0.198	22	7.75	627	91.0	0.394	148
24	445	64.5	0.198	24	7.23	641	93.0	0.411	162
26	445	64.5	0.198	26	6.79	648	94.0	0.420	169
28	445	64.5	0.198	28	6.40	662	96.0	0.438	183
31	445	64.5	0.198	30	6.06	676	98.0	0.456	196
35	445	64.5	0.198	35	5.38	703	102.0	0.494	224
40	458	66.5	0.210	40	4.77	738	107.0	0.544	259
45	458	66.5	0.210	45	4.38	765	111.0	0.586	286
50	458	66.5	0.210	50	4.06	796	115.5	0.634	317
55	455	66.0	0.207	55	3.75	824	119.5	0.679	345
60	458	66.5	0.210	60	3.53	851	123.5	0.725	372
70	458	66.5	0.210	70	3.16	910	132.0	0.828	431
80	465	67.5	0.217	80	2.88	962	139.5	0.925	483
90	462	67.0	0.213	90	2.69	1010	146.5	1.020	531
100	469	68.0	0.220	100	2.51	1058	153.5	1.120	579
110	469	68.0	0.220	110	2.37	1110	161.0	1.232	631
120	472	68.5	0.223	120	2.27	1158	168.0	1.341	679
140	476	69.0	0.226	140	2.08	1255	182.0	1.575	776
151	479	69.5	0.230	160	1.95	1351	196.0	1.826	872
				180	1.84	1441	209.0	2.076	962
				200	1.76	1534	222.5	2.353	1055
				217	1.70	1610	233.5	2.591	1131

Weatherford

Well Name :Paramount et al Liard

Location : F36 NWT

Recorder #:0303

Ticket #:6012

Test # : One

Depth :1655.00 m

Page : 3

Electronic Pressure Analysis

	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
	195.37		18374.5	240.23		879.0	283.23		1565.0
A IHYD	196.30		18374.5	241.17		903.1	284.17		1578.8
	197.23		18374.5	242.10		920.4	285.10		1592.6
	198.17		18374.5	243.03		941.1	286.03		1606.4
	199.10		18374.5	243.97		958.3	286.97		1616.7
	199.60		18374.5	244.90		975.5	287.92		1627.1
	200.03		18374.5	245.85		996.2	288.85		1640.9
	200.97		18374.5	246.78		1013.5	289.78		1647.8
	201.90		18374.5	247.72		1030.7	290.72		1661.6
	202.85		18374.5	248.65		1047.9	291.65		1668.5
	203.78		18374.5	249.58		14854.7	292.58		1682.2
	204.72		18374.5	250.52		1082.4	294.45		1702.9
	205.65		18374.5	251.45		1103.1	295.38		1716.7
	206.58		18374.5	252.38		1116.9	296.32		1727.1
	207.52		18374.5	253.32		1134.1	297.25		1737.4
	209.38		18374.5	254.25		1144.5	298.20		1747.7
BA OPEN	211.25		18357.2	255.18		1161.7	299.13		1754.6
	212.18		12969.0	257.07		1192.7	300.07		1768.4
B 1FLO	213.12		896.2	258.00		1210.0	301.00		1778.8
	214.07		3850.6	258.93		1227.2	301.93		1785.7
	215.93		1540.9	259.87		1241.6	302.87		1799.5
	216.87		1689.1	260.80		1254.8	303.80		1806.4
	217.80		872.1	261.73		1272.0	304.73		1816.7
	218.73		699.7	262.67		1282.3	305.67		1830.5
	219.67		644.6	263.60		1296.1	306.60		1837.4
	220.60		582.5	264.53		1313.4	307.53		1847.7
	221.53		475.7	265.47		1327.2	308.48		1858.1
B1 EFLO	222.47		406.7	266.40		1341.0	309.42		1868.4
	223.40		427.4	267.35		1351.3	310.35		1875.3
	224.35		458.4	268.28		1368.5	311.28		1889.1
	226.22		517.0	269.22		1382.3	312.22		1899.4
	227.15		548.1	270.15		1396.1	313.15		1906.3
	228.08		575.6	271.08		1409.9	314.08		1916.7
	229.02		599.8	272.02		1420.2	315.02		1923.6
	229.95		630.8	272.95		1434.0	316.88		1940.8
	230.88		654.9	273.88		1447.8	317.82		1951.1
	231.82		682.5	274.82		1458.2	318.77		1961.5
	232.75		706.6	275.75		1468.5	319.70		1971.8
	233.68		730.8	276.68		1485.7	320.63		1975.3
	234.62		754.9	277.63		1499.5	322.50		1996.0
	235.57		775.6	278.57		1509.9	323.43		2006.3
	236.50		803.2	279.50		1520.2	324.37		2009.7
	237.43		820.4	280.43		1534.0	325.30		2020.1
	238.37		841.1	281.37		1544.3	326.23		2027.0
	239.30		861.8	282.30		1558.1	327.17		2037.3

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
 Location :F36 NWT
 Recorder #:0303

Ticket #:6012
 Test #:One
 Depth :1655.00 m
 Page : 4

Electronic Pressure Analysis

Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
328.10		2044.2	372.98		448.1	416.92		458.4
329.03		2054.6	373.92		448.1	417.85		455.0
329.98		2061.5	374.85		444.6	418.78		458.4
330.92		2071.8	375.78		444.6	419.72		458.4
331.85		2075.2	376.72		444.6	420.65		455.0
332.78		2089.0	377.65		444.6	421.58		458.4
333.72		2092.5	378.58		444.6	422.52		455.0
334.65		2106.3	379.52		444.6	423.45		458.4
335.58		2109.7	380.45		444.6	424.40		458.4
336.52		2123.5	381.38		444.6	425.33		458.4
337.45		2127.0	382.32		444.6	426.27		458.4
338.38		2140.7	383.27		444.6	427.20		455.0
339.32		2144.2	384.20		444.6	428.13		458.4
340.25		2154.5	385.13		444.6	429.07		458.4
341.20		2161.4	386.07		444.6	430.00		458.4
342.13		2164.9	387.00		444.6	430.93		458.4
343.07		2175.2	387.93		444.6	431.87		465.3
344.00		2182.1	388.87		444.6	432.80		458.4
344.93		2192.5	390.73		444.6	433.73		465.3
346.80		2209.7	391.67		444.6	434.67		458.4
347.73		2213.1	392.60		444.6	435.62		465.3
348.67		2226.9	393.55		444.6	436.55		465.3
349.60		2230.4	394.48		444.6	437.48		465.3
351.48		2247.6	395.42		448.1	438.42		465.3
352.42		2258.0	396.35		448.1	439.35		465.3
353.35		2261.4	397.28		448.1	440.28		465.3
354.28		2268.3	398.22		455.0	441.22		465.3
355.22		2278.6	399.15		455.0	442.15		465.3
357.08		2292.4	400.08		458.4	443.08		461.9
358.02		2299.3	401.02		455.0	444.02		465.3
358.95		2309.7	402.88		458.4	444.95		461.9
C 1SI 359.88		2316.6	403.83		458.4	445.90		461.9
360.82		661.8	404.77		458.4	447.77		468.8
D 2FLO 361.77		379.1	405.70		458.4	448.70		461.9
362.70		420.5	406.63		458.4	449.63		461.9
363.63		430.8	407.57		458.4	450.57		461.9
364.57		444.6	408.50		458.4	451.50		461.9
365.50		448.1	409.43		458.4	452.43		468.8
366.43		444.6	410.37		461.9	453.37		468.8
367.37		444.6	411.30		458.4	454.30		468.8
368.30		448.1	412.23		458.4	455.23		468.8
369.23		448.1	413.17		458.4	456.18		468.8
370.17		448.1	414.12		455.0	457.12		468.8
371.10		448.1	415.05		455.0	458.05		468.8
372.03		444.6	415.98		455.0	458.98		468.8

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
 Location :F36 NWT
 Recorder #:0303

Ticket #:6012
 Test # :One
 Depth :1655.00 m
 Page : 5

Electronic Pressure Analysis

Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
459.92		468.8	502.92		475.7	550.58		734.2
460.85		468.8	503.85		475.7	551.53		737.7
461.78		468.8	504.78		479.1	552.47		744.6
462.72		468.8	505.72		475.7	553.40		751.5
463.65		468.8	506.65		475.7	554.33		754.9
464.58		468.8	507.58		479.1	555.27		761.8
465.52		468.8	508.52		479.1	556.20		765.2
466.47		468.8	509.47		479.1	557.13		772.1
467.40		468.8	510.40		479.1	558.07		779.0
468.33		468.8	E E2FL 511.33		479.1	559.00		782.5
469.27		472.2	513.20		492.9	559.93		785.9
470.20		468.8	514.13		496.3	560.87		796.3
471.13		468.8	515.07		506.7	561.82		799.7
472.07		472.2	516.00		510.1	562.75		803.2
473.00		472.2	516.93		520.5	563.68		813.5
473.93		472.2	517.87		527.4	564.62		817.0
474.87		468.8	518.80		530.8	565.55		820.4
475.80		472.2	519.75		541.2	566.48		823.8
477.68		472.2	520.68		544.6	567.42		830.7
478.62		468.8	521.62		548.1	568.35		837.6
479.55		472.2	522.55		555.0	569.28		841.1
480.48		472.2	523.48		561.8	570.22		848.0
481.42		472.2	524.42		572.2	571.15		851.4
482.35		472.2	525.35		575.6	572.10		854.9
483.28		472.2	526.28		582.5	573.03		865.2
484.22		472.2	527.22		589.4	573.97		868.7
485.15		472.2	528.15		592.9	574.90		872.1
486.08		472.2	530.03		606.7	575.83		875.6
487.02		472.2	530.97		610.1	576.77		885.9
487.97		475.7	531.90		613.6	577.70		889.3
488.90		472.2	532.83		623.9	578.63		892.8
489.83		475.7	533.77		627.3	579.57		896.2
490.77		475.7	535.63		641.1	580.50		903.1
491.70		475.7	536.57		648.0	581.43		910.0
492.63		475.7	537.50		648.0	582.38		913.5
493.57		475.7	539.37		661.8	583.32		920.4
494.50		475.7	540.32		665.3	584.25		923.8
495.43		475.7	541.25		675.6	585.18		930.7
496.37		475.7	543.12		686.0	586.12		930.7
497.30		475.7	544.05		692.8	587.05		937.6
498.25		475.7	544.98		696.3	587.98		941.1
499.18		475.7	545.92		703.2	588.92		944.5
500.12		475.7	546.85		710.1	589.85		954.8
501.05		475.7	548.72		717.0	590.78		958.3
501.98		475.7	549.65		727.3	591.72		961.7

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
 Location :F36 NWT
 Recorder #:0303

Ticket #:6012
 Test # :One
 Depth :1655.00 m
 Page : 6

Electronic Pressure Analysis

Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
592.65		965.2	637.53		1192.7	681.47		1399.6
593.60		975.5	638.47		1192.7	682.40		1403.0
594.53		975.5	639.40		1199.6	683.33		1406.5
595.47		982.4	641.27		1210.0	684.27		1409.9
596.40		989.3	642.20		1210.0	685.20		1416.8
597.33		992.8	643.13		1213.4	686.13		1420.2
598.27		996.2	644.07		1220.3	687.07		1423.7
599.20		1006.6	645.00		1220.3	688.02		1427.1
600.13		1006.6	645.93		1230.6	688.95		1430.6
601.07		1010.0	646.88		1234.1	689.88		1437.5
602.00		1016.9	647.82		1237.5	690.82		1440.9
602.93		1016.9	648.75		1244.4	691.75		1440.9
603.88		1027.2	649.68		1247.9	692.68		1447.8
604.82		1030.7	650.62		1251.3	693.62		1454.7
605.75		1034.1	651.55		1254.8	694.55		1458.2
606.68		1041.0	652.48		1261.7	695.48		1461.6
607.62		1044.5	653.42		1265.1	696.42		1465.1
608.55		1047.9	654.35		1268.6	697.35		1472.0
610.42		1058.3	655.28		1272.0	698.30		1472.0
611.35		1058.3	656.22		1278.9	699.23		1478.8
612.28		1065.2	657.17		1285.8	700.17		1482.3
613.22		1072.1	658.10		1285.8	702.03		1489.2
614.17		1075.5	659.03		1289.2	702.97		1496.1
615.10		1079.0	659.97		1299.6	703.90		1499.5
616.03		1082.4	660.90		1299.6	704.83		1499.5
616.97		1089.3	661.83		1303.0	705.77		1506.4
617.90		1092.7	662.77		1313.4	706.70		1513.3
619.77		1106.5	663.70		1313.4	707.63		1516.8
620.70		1106.5	664.63		1316.8	708.57		1516.8
621.63		1110.0	665.57		1323.7	709.52		1527.1
622.57		1116.9	666.50		1323.7	710.45		1530.6
623.50		1116.9	667.45		1330.6	711.38		1534.0
624.43		1127.2	668.38		1334.1	712.32		1540.9
625.38		1130.7	669.32		1341.0	713.25		1544.3
627.25		1141.0	670.25		1341.0	714.18		1547.8
628.18		1144.5	671.18		1351.3	715.12		1547.8
629.12		1147.9	672.12		1354.7	716.98		1561.6
630.05		1151.3	673.05		1354.7	718.85		1565.0
630.98		1158.2	673.98		1365.1	719.78		1575.4
631.92		1161.7	674.92		1368.5	721.67		1578.8
632.85		1165.1	675.85		1372.0	722.60		1585.7
633.78		1168.6	676.78		1375.4	725.40		1596.1
634.72		1178.9	677.73		1382.3	727.27		1609.8
635.67		1178.9	679.60		1385.8	728.20		1609.8
636.60		1185.8	680.53		1392.7	731.02		775.6

F 2S1

Weatherford

Completion & Oilfield Services

Well Name :Paramount et al Liard
Location :F36 NWT
Recorder #:0303

Ticket #:6012
Test # :One
Depth :1655.00 m
Page : 7

Electronic Pressure Analysis

Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)	Delta_time (Minutes)	Temperature (C)	Pressure (kPag)
731.95		482.6						
732.88		499.8						
733.82		510.1						
734.75		523.9						
735.68		534.3						
738.48		18329.6						
739.42		18357.2						
740.35		18350.3						
743.17		18350.3						
G FHYD 744.10		18350.3						
745.97		18367.6						

Entest Reports

(4)

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NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REF: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

MPTT:0101N 104 05 000

GAS DENSITY: 0.623 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST_{CORP.}

CUSTOMER: PARAMOUNT RESOURCES LTD.

..L NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.623 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

ALL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD.

ZONE: MATTSON SAND

METER RUN: 154 05 min

GAS DENSITY: 0.823 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

WELL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154 05 mm

GAS DENSITY: 0.623 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time hh:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ M ³ /day	Cum. Gas 10 ³ M ³	Fluid Volume M ³ / hr	Calc. Inc. HC/hr M ³	Cum HC M ³	Calc. Inc. H ₂ O/hr M ³	Cum H ₂ O M ³	BS&W %	P.H.	SAL %
	11:30	2.50	19.05	N/A	7750	8	517	64.74	15	76.20	240.98	20.30	0.00							
	12:00	3.00	19.05	N/A	7200	9	607	66.73	18	76.20	261.67	26.03	0.00							
	12:30	3.50	19.05	N/A	7296	10	621	67.73	18	76.20	266.30	31.78	0.00							
			WELL PRESSURE ELECTRONICALLY DEADWEIGHTED.																	
	13:00	4.00	19.05	N/A	7446	10	586	64.24	19	76.20	252.46	37.14	3.22	2.80	2.80	0.42	0.42	13	7	2.2
	13:30	4.50	19.05	N/A	7227	11	634	69.72	14	76.20	274.53	43.00								
02/03/99	14:00	5.00	19.05	N/A	7200	12	607	65.74	12	76.20	262.69	48.55	0.88	0.77	3.58	0.11	0.52	12	7	2.8
			ZERO METER. INCREASE BACKPRESSURE.																	
	14:30	5.50	19.05	N/A	6858	13	841	60.26	17	76.20	291.13	54.73								
	15:00	6.00	19.05	N/A	6843	13	848	59.76	19	76.20	290.06	60.87	0.65	0.57	4.14	0.08	0.61	13	7	2.8
	15:30	6.50	19.05	N/A	6816	13	848	58.27	16	76.20	288.16	66.95								
	16:00	7.00	19.05	N/A	7653	13	772	54.28	15	76.20	266.93	72.55	0.70	0.62	4.76	0.08	0.69	12	7	2.6
	16:30	7.50	19.05	N/A	7788	14	772	54.78	15	76.20	268.10	78.16								
			H2S BY KITAGAWA= 0 PPM																	
	17:00	8.00	19.05	N/A	7473	14	814	57.77	14	76.20	282.49	84.09	0.67	0.64	5.39	0.03	0.73	5	7	2.4
	17:30	8.50	19.05	N/A	6996	13	841	58.76	14	76.20	289.24	90.16								
	18:00	9.00	19.05	N/A	6885	13	827	57.77	15	76.20	284.09	96.12	0.65	0.61	6.00	0.04	0.77	6	7	2.2
			SPIN-OUTS CONTAIN 3-5% SEDIMENT.																	
	18:30	9.50	19.05	N/A	6772	14	827	57.77	16	76.20	283.57	102.06								

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

WELL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.823 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time hh:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ M ³ /day	Cum. Gas 10 ³ M ³	Fluid Volume M ³ / hr	Calc. Inc. HC/hr M ³	Cum HC M ³	Calc. Inc H ₂ O/hr M ³	Cum H ₂ O M ³	BS&W %	P.H.	SAL %
	19:00	10.00	19.05	N/A	6597	14	827	57.77	16	76.20	283.57	107.99	0.73	0.57	6.68	0.06	0.82	8	7	2.4
	19:30	10.50	19.05	N/A	6543	14	827	58.02	16	76.20	284.16	113.94								
	20:00	11.00	19.05	N/A	6612	14	821	56.77	17	76.20	279.73	119.79	0.65	0.60	7.27	0.05	0.88	8	7	2.4
	20:30	11.50	19.05	N/A	6447	14	827	58.76	17	76.20	285.36	125.75								
	21:00	12.00	19.05	N/A	6147	14	827	58.76	17	76.20	285.36	131.72	0.75	0.75	8.02	0.00	0.88	0	0	0
			TOTAL H2O PRODUCED PAST 12hrs = 0.88 M ³																	
			TOTAL OIL PRODUCED PAST 12hrs = 8.02 M ³ API = 43.5																	
			TOTAL GAS FLARED PAST 12hrs = 129.07 10 ³ M ³																	
02/03/99	21:30	12.50	19.05	N/A	5940	14	841	58.76	18	76.20	287.12	137.72								
	22:00	13.00	19.05	N/A	5859	15	862	59.76	18	76.20	292.86	143.85	0.47	0.44	8.47	0.03	0.90	6	7	4.4
	22:30	13.50	19.05	N/A	5775	15	862	59.76	19	76.20	292.33	149.96								
	23:00	14.00	19.05	N/A	5694	15	841	59.01	19	76.20	287.18	155.96	0.57	0.53	9.00	0.04	0.94	7	7	3
	23:30	14.50	19.05	N/A	5613	14	841	59.76	19	76.20	288.92	161.99								
03/03/99	00:00	15.00	19.05	N/A	5683	15	834	58.76	20	76.20	284.94	167.94	0.56	0.52	9.52	0.04	0.98	7	7	2.6
	00:30	15.50	19.05	N/A	5556	14	841	58.76	20	76.20	286.08	173.91								
	01:00	16.00	19.05	N/A	5529	14	834	58.52	20	76.20	284.39	179.85	0.47	0.44	9.96	0.03	1.01	6	7	2.4
	01:30	16.50	19.05	N/A	5406	14	834	58.27	20	76.20	283.80	185.77								
	02:00	17.00	19.05	N/A	5394	14	827	57.77	20	76.20	281.51	191.64	0.68	0.65	10.61	0.03	1.04	4	7	4.8
			BLOW DOWN LINES AND ZEROED METER.																	

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

.I. NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.623 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

..L NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST; 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ADN1: MATSON SAND

METER RUN: 154.00 INCH

GAS DENSITY: 0.623 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST_{CORP.}

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.L NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 1ST AND 2ND INTERVAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

JOHN: MATTSON SAND

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

GAS DENSITY: 0.823 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

AGAT[®] Laboratories



GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 194

LABORATORY NUMBER

GP36779A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT st al LIARD F-36

123 m ELEVATION

470.30

464.80

FIELD OR AREA

LIARD

POOL OR ZONE

MATTSON SAND

NAME OF SAMPLER

COMPANY

ENTEST CORP.

TEST TYPE

MO

TEST RECOVERY

60 DEG. 05' 27" latitude 123 DEG. 22' 00" longitude

TEST INTERVAL OR PERPS

1786.0-2046.0

mKB

SAMPLING POINT

METER RUN

GAUGE PRESSURE MPa

TEMPERATURE °C

SEPARATOR

TREATEN

RESERVOIR

SOURCE

SAMPLED

RECEIVED

793

793

880

22

22

21

DATE SAMPLED (Y-M-D)

99-03-03

DATE RECEIVED (Y-M-D)

99-03-15

DATE REPORTED (Y-M-D)

99-04-01

ANALYST

PL

NCO

OTHER INFORMATION

2nd SET

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT (ML - 100)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	0.0004	0.0004	
H ₂	0.0001	0.0001	
N ₂	0.0082	0.0083	
CO ₂	0.0134	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9152	0.9275	
C ₂	0.0389	0.0395	
C ₃	0.0123	0.0125	45.3
iC ₄	0.0025	0.0025	10.9
nC ₄	0.0032	0.0033	13.7
iC ₅	0.0014	0.0014	6.9
nC ₅	0.0011	0.0012	5.5
C ₆	0.0014	0.0014	7.8
C ₇	0.0014	0.0014	8.6
C ₈	0.0005	0.0005	3.6
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	102.3

UNIQUE HEATING VALUE (MJ/kg)
1.0° C AND 101.325 kPaMOISTURE AND
ACID GAS FREE

40.62

AIR FREE
AS RECEIVED

40.08

VAPOUR PRESSURE
PENTANES PLUS

65.7 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.623

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.611

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

PFC (MPa)

4623 kPa

PTC

201.3 °C

ACID GAS FREE

PFC (MPa)

4586 kPa

PTC

199.9 °C

RELATIVE MOLECULAR MASS

TOTAL GAS

18.0

C₇₊

104.0

H₂S g/m³

0.00

REMARKS:

N.E.B. COPY

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

J. NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR, 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSO SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time hh:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ MP/day	Cum. Gas 10 ³ MP	Fluid Volume MP / hr	Calc. Inc. HC/hr MP	Cum HC MP	Calc. Inc H ₂ O/hr MP	Cum H ₂ O MP	BS&W %	P.H.	SAL %
05/03/99	09:00		SLICKLINE RETRIEVING RECORDERS. RUNNING GRADIENT.																	
	10:15		OUT OF HOLE WITH RECORDERS.																	
	11:10		OUT OF HOLE WITH COLLAR STOP.																	
	11:30		RIG UP WIRELINE TO SET W/R PLUG.																	
	12:15		RUNNING PLUG.																	
	13:05		OUT OF HOLE.																	
	13:45		OPEN TO BLEED DOWN TO 10 MPa.CSG. = 13593 KPa.																	
	14:00				10000															
	14:20		RUN IN TO PERFORATE.																	
	15:00		OUT OF HOLE. RIG OFF. PREPARE TO FLOW.																	
	15:30	0.00	19.05	N/A	14223															
			OPEN TO FLOW ON 48/64"(19.05mm) CHOKE.																	
	15:35	0.08	19.05	N/A	10911															
	15:40	0.16	19.05	N/A	10350															
	15:45	0.25	19.05	N/A	9978	15	1827	89.64	0	76.20	526.19	5.48								
			METER IN SERVICE WITH 3.00"(76.20mm) ORIFICE PLATE.																	
	16:00	0.50	19.05	N/A	8472	15	1979	68.72	5	76.20	476.70	10.45								
			CHANGE ORIFICE TO 4.00"(101.6 mm). INCREASE BACKPRESSURE																	
	16:15	0.75	19.05	N/A	8467	15	1310	43.82	7	101.60	592.11	16.61								

ENTEST_{CORP.}

CUSTOMER: PARAMOUNT RESOURCES LTD.

LAST NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR.,6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

MILITARY 104 00 0000

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time hh:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10³M³/day	Cum. Gas 10³M³	Fluid Volume / hr	Calc. Inc. HC/hr M³	Cum HC M³	Calc. Inc H₂O/hr M³	Cum H₂O M³	BS&W %	P.H.	SAL %	
	16:30	1.00	19.05	N/A	8310	15	1310	44.32	10	101.60	591.82	22.78									
			CHANGE ORIFICE TO 3.75"(95.25mm).																		
05/03/99	17:00	1.50	19.05	N/A	8253	15	1296	61.74	12	95.25	590.85	34.72	0.80	0.76	0.76	0.04	0.04	5	7	1.4	
			SPIN-OUT= 5% SEDIMENT																		
	17:30	2.00	19.05	N/A	8130	18	1289	61.25	16	95.25	582.43	46.67									
	18:00	2.50	19.05	N/A	8079	21	1296	61.25	17	95.25	582.88	58.68	0.43	0.42	1.18	0.01	0.05	2	7	1.4	
	18:30	3.00	19.05	N/A	8064	22	1289	61.25	18	95.25	580.20	70.67									
	19:00	3.50	19.05	N/A	8022	24	1282	60.76	18	95.25	576.39	82.63	0.04	0.04	1.22	0.00	0.05	0	7	1.6	
			SPIN-OUT= 5% SEDIMENT																		
	19:30	4.00	19.05	N/A	8064	24	1296	61.25	18	95.25	581.76	94.69									
	20:00	4.50	19.05	N/A	7980	23	1269	60.26	18	95.25	571.20	106.58	0.27	0.26	1.48	0.01	0.06	3	7	1.8	
			SPIN-OUT=5% SEDIMENT																		
	20:30	5.00	19.05	N/A	7884	23	1262	60.26	18	95.25	569.64	118.44									
	21:00	5.50	19.05	N/A	7830	23	1255	59.76	19	95.25	564.72	130.22	0.43	0.42	1.90	0.01	0.07	3	7	0	
			SPIN-OUT=1% SEDIMENT																		
	21:30	6.00	19.05	N/A	7842	23	1269	60.26	19	95.25	570.12	142.09									
			SHUT IN WELL . START BUILD UP'S.																		
	21:35				13074	TOTAL GAS FLARED = 142.09 10³M³															
	21:40				13224	TOTAL FLUID PRODUCED = 1.97 M³															

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

WELL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR., 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 104.00 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time h:mm	Elps flow Tim. Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10³M³/day	Cum. Gas 10³M³	Fluid Volume M³ / hr	Calc. Inc. HC/hr M³	Cum HC M³	Calc. Inc H₂O/hr M³	Cum H₂O M³	BS&W %	P.H.	SAL %	
	21:45				13401	TOTAL OIL PRODUCED = 1.90 M³															
	22:00				13647	TOTAL H2O PRODUCED = 0.07 M³															
	22:15				13827	TEST TIME = 6:00hrs															
	22:30				13839	BUILD UPS TILL 23:30 PM = 13896 KPA															
06/03/99	11:30	PART 2 OF 3RD INTERVAL PERFORATING FINISHED.																			
	13:30	RECORDERS SET. SLICKLINE OUT OF HOLE.																			
	14:00	6.00	19.05	N/A	14073																
		OPEN TO FLOW ON A 48/64"(19.05mm) CHOKE.																			
	14:05	6.08	19.05	N/A	11787	8															
	14:10	6.16	19.05	N/A	11322	8															
	14:15	6.25	19.05	N/A	11290	8	1000	47.31	2	95.25	466.56	146.24									
		METER IN SERVICE WITH A 3.75"(95.25mm) ORIFICE PLATE.																			
	14:30	6.50	19.05	N/A	11253	10	938	43.82	0	95.25	437.66	149.99									
	14:45	6.75	19.05	N/A	11184	14	910	42.33	-1	95.25	425.04	153.63									
	15:00	7.00	19.05	N/A	10869	15	931	41.83	0	95.25	426.38	157.38	0.24	0.24	2.14	0.00	0.07	1			
		CHOKE OPENED TO 56/64"(22.23mm).																			
	15:30	7.50	22.23	N/A	8787	18	1296	57.27	6	95.25	576.62	169.23									
	16:00	8.00	22.23	N/A	8780	22	1379	61.01	13	95.25	604.73	181.57	0.85	0.85	2.99	0.00	0.07	0			
	16:30	8.50	22.23	N/A	8630	22	1379	59.76	18	95.25	592.87	193.73									

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD

ALL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR., 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

APPROX. 104 ON 1000

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

1 NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR., 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD

WELL NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR., 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN 16405 min

GAS DENSITY: 0.85 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time h:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Pres. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ MP/day	Cum. Gas 10 ³ MP	Fluid Volume MP / hr	Calc. Inc. HC/hr MP	Cum HC MP	Calc. Inc H ₂ O/hr MP	Cum H ₂ O MP	BS&W %	P.H.	SAL %
	03:30	19.50	22.23	N/A	7920	24	1276	60.26	19	95.25	571.67	457.11								
	04:00	20.00	22.23	N/A	7940	24	1282	60.76	18	95.25	576.39	469.10	0.14	0.13	6.22	0.01	0.10	8	8	3
			SPIN-OUT = TRACE OF SEDIMENT.																	
	04:30	20.50	22.23	N/A	7950	24	1276	59.76	19	95.25	569.37	480.95								
	05:00	21.00	22.23	N/A	7900	24	1276	60.51	19	95.25	572.81	492.86	0.34	0.31	6.52	0.03	0.20	10	8	1.4
			SPIN-OUT = TRACE OF SEDIMENT.																	
	05:30	21.50	22.23	N/A	7870	24	1276	60.26	19	95.25	571.67	504.76								
	06:00	22.00	22.23	N/A	7820	23	1262	60.26	19	95.25	568.56	516.59	0.12	0.10	6.63	0.02	0.22	15	8	2
			ZEROED METER.																	
	06:30	22.50	22.23	N/A	7810	23	1255	60.26	19	95.25	567.00	528.40								
07/03/99	07:00	23.00	22.23	N/A	7800	23	1262	60.26	19	95.25	568.56	540.24	0.28	0.27	6.89	0.01	0.23	4	8	2.2
			SPIN-OUT= 2% SEDIMENT.																	
	07:30	23.50	22.23	N/A	7820	22	1269	59.76	19	95.25	567.82	552.06								
	08:00	24.00	22.23	N/A	7830	22	1255	59.76	19	95.25	564.72	563.82	0.21	0.20	7.09	0.01	0.24	6	7	1.8
			SPIN-OUT= TRACE OF SEDIMENT. H ₂ S= 0 PPM API=38																	
	08:30	24.50	22.23	N/A	7800	21	1269	60.26	19	95.25	570.12	575.69								
	09:00	25.00	22.23	N/A	7800	21	1241	59.76	16	95.25	564.82	587.46	0.21	0.20	7.29	0.01	0.25	5	7	2
			GAS SAMPLES TAKEN: # 00200, 00198 AGAT																	
	09:30	25.50	22.23	N/A	7780	22	1241	59.76	21	95.25	559.48	599.12								

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR,6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT RESOURCES LTD.

NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR, 6HR, PARTIAL

COMPANY REP. BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTESTcorp.

CUSTOMER: PARAMOUNT RESOURCES LTD.

J.L. NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 3RD INTERVAL 24HR., 6HR. PARTIAL

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.85 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

Date dd/mm/yy	Time hh:mm	Elps flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ M ³ /day	Cum. Gas 10 ³ M ³	Fluid Volume M ³ / hr.	Calc. Inc. HC/hr M ³	Cum HC M ³	Calc. Inc H ₂ O/hr M ³	Cum. H ₂ O M ³	BS&W %	P.H.	SAL %

WIRELINE RUNNING GRADIENT & RETRIEVING RECORDERS.

Page 1

CUSTOMER: PARAMOUNT

J. NAME: No. PARAMOUNT ET AL LIARD

TYPE TEST: 4TH INTERVAL 24HR. F-38

COMPANY REF: BERT E. AKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

MICRO HUN: 104.08 mm

GAS DENSITY: 0.65 $A_r = 1$

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT

NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 4TH INTERVAL 24HR. F-38

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONI: MATTSON BAND

METER RUN: 104.00 min

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST Corp.

CUSTOMER: PARAMOUNT

J. NAME / No: PARAMOUNT BT AL LIARD

TYPE TEST: 4TH INTERVAL 24HR. F-38

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 104.06 mm

LIAR DENSITY: 0.66 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

Date dd/mm/yy	Time hh:mm	Elpe flow Time Decimal	Choke size mm	Tubing Press. kPa	Casing Press. kPa	Flow Temp °C	Static Press. kPa	Diff. Press. kPa	Meter Temp °C	Orifice Size mm	Gas Rate 10 ³ M ³ /day	Cum. Gas 10 ³ M ³	Fluid Volume M ³ / hr	Calc. Inc. HC/hr M ³	Cum HC M ³	Calc. Inc H ₂ O/hr M ³	Cum H ₂ O M ³	BS&W %	P.H.	BAL %
10/03/99	14:30	12.50	22.23	N/A	6550	22	1669	65.74	20	76.20	414.44	210.79								
			BLOWING METER DOWN HOURLY. API= 42@ 15 CELSIUS.																	
	15:00	13.00	22.23	N/A	6500	22	1634	68.23	15	76.20	415.80	219.45	0.15	0.14	1.19	0.01	0.06	4	7	3
			H2S BY KITAGAWA= 0 PPM																	
	15:30	13.50	22.23	N/A	6470	22	1627	65.74	14	76.20	414.03	228.08								
	16:00	14.00	22.23	N/A	6440	22	1620	65.74	14	76.20	413.12	236.68	0.08	0.08	1.27	0.00	0.06	2	7	4.8
			TOTAL GAS FLARED PAST 14 HRS.= 236.68 10 ³ M ³																	
			TOTAL OIL PROD. PAST 14HRS.= 1.27 M3																	
			TOTAL H2O PROD. PAST 14HRS.= 0.06 M3																	
	16:30	14.50	22.23	N/A	6430	22	1620	66.23	15	76.20	413.79	245.30								
	17:00	15.00	22.23	N/A	6410	22	1613	65.74	15	76.20	411.39	253.88	0.08	0.07	1.34	0.01	0.07	10	7	1.8
	17:30	15.50	22.23	N/A	6400	22	1607	65.24	15	76.20	409.10	262.40								
	18:00	16.00	22.23	N/A	6370	22	1600	65.24	13	76.20	409.84	270.94	0.07	0.06	1.41	0.01	0.07	8	7	2.4
			METER ZEROED.																	
	18:30	16.50	22.23	N/A	6350	22	1586	64.99	13	76.20	407.26	279.42								
	19:00	17.00	22.23	N/A	6320	22	1586	64.74	13	76.20	406.49	287.89	0.08	0.07	1.48	0.01	0.08	15	8	1.6
	19:30	17.50	22.23	N/A	6300	22	1586	64.74	13	76.20	406.49	296.36								
			GAS SAMPLES TAKEN: # 19540, 17458.																	
	20:00	18.00	22.23	N/A	6300	21	1586	64.49	17	76.20	402.50	304.74	0.07	0.06	1.54	0.01	0.09	8	8	2.2
	20:30	18.50	22.23	N/A	6260	21	1586	63.74	16	76.20	401.01	313.10								
	21:00	19.00	22.23	N/A	6260	20	1586	62.75	15	76.20	398.76	321.41	0.00	0.00	1.54	0.00	0.09	0		

ENTEST_{CORP.}

CUSTOMER: PARAMOUNT

1. NAME / No. PARAMOUNT ET AL (LAND)

TYPE TEST: 4TH INTERVAL 24HR: F-38

COMPANY REP: BERT BLAKELY.

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

MILITARY UNIT, 104 (M) 871119

LIAN DINNITY, UOD. AM - 1

UNIT NUMBER: 14.

SUPERVISOR: R. LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT

1. NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: 4TH INTERVAL 24HR. F-38

COMPANY REP. BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.85 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

[illegible]

ZONE: MATTSON SAND

SUPERVISOR: R. LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT

1. NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: FLOW WHILE SNUBBING

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 $A_{17} = 1$

UNIT NUMBER: 14

SUPERVISOR: R. LUTZ

[illegible]

ENTEST CORP.

CUSTOMER: PARAMOUNT

AL NAME / No. PARAMOUNT ET ALIARD

TYPE TEST: FLOW WHILE SNUBBING

COMPANY REF: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

ENTEST_{CORP.}

CUSTOMER: PARAMOUNT

NAME / No. PARAMOUNT ET AL LIARD

TYPE TEST: FLOW WHILE SNUBBING

COMPANY REP: BERT BLAKELY

FIELD OR AREA: LIARD

ZONE: MATTSON SAND

METER RUN: 154.05 mm

GAS DENSITY: 0.65 Air = 1

UNIT NUMBER: 14

SUPERVISOR: R.LUTZ

[illegible]

SDS Report

- 4 -10- 1999

SDS Report

COMPANY INFORMATION

Company Name	Paramount Resources Ltd.
Representative	Wayne Tomm
Phone	403-290-3600
Fax	403-266-6032
Address	#4000, 350-7th Ave, S.W. Calgary, Alberta T2P 3W5
E-Mail Address	wayne.tomm@paramountres.com
Service Company	ProbeTech Services Ltd.

TEST INFORMATION

Test number / Type of Test	Build Up
Date(s) of Test	99/08/24 - 99/09/23
Shut-in Date (Duration)	99/08/24

Job Number
SDS Serial Number

Reported by Ian Scott

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F 36
Field and Pool	Ft. Liard / Mattson Sands
Status (Oil, Gas, Water, Injection)	Gas
Perforated Intervals	1514 - 1740 mKB (WR bridge plug in place)
Mid-point of Perforated Intervals (MPP)	1627 m
Drilling Rig Number	
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	
Plug Back Total Depth	
Total Depth	2108 mKB
Production Casing	114.3 mm
Production Tubing	88.9 mm



Company Name Paramount Resources Ltd.
Well Name Paramount et al Liard
Well Location F 36
Date(s) of Test 99/08/24 - 99/09/23

SERVICES LTD.

METER INFORMATION

COMMENTS

On September 10 at 15:21 hrs (405 hrs into the test) we removed the sensor from the casing and put it on the tubing.
The probes were within published specifications for temperature dependency.
Temperature dependency was 0.035% of full scale.
Pressure accuracy was 0.014%



Company Name Paramount Resources Ltd.
Well Name Paramount et al Liard
Well Location F 36
Date(s) of Test 99/08/24 - 99/09/23

SERVICES LTD.

Date	Time	Cum. Time	Tbg Pres 1	Csg Pres 1	Tbg Temp 1
		hr	kPag	kPag	deg C
1999/08/24	18:19:32	0.0000	5217.027	0.000	23.524
1999/08/24	20:19:32	2.0000	12722.318	0.000	13.631
1999/08/24	22:19:22	3.9972	12794.535	0.000	11.565
1999/08/25	00:19:37	6.0014	12837.901	0.000	11.019
1999/08/25	02:19:22	7.9972	12868.089	0.000	10.823
1999/08/25	04:19:37	10.0014	12892.957	0.000	10.233
1999/08/25	06:19:37	12.0014	12912.533	0.000	10.045
1999/08/25	08:19:22	13.9972	12932.857	0.000	10.174
1999/08/25	10:19:44	16.0033	12951.617	0.000	11.336
1999/08/25	12:19:29	17.9992	12969.744	0.000	12.496
1999/08/25	14:19:44	20.0033	12985.223	0.000	15.573
1999/08/25	16:19:44	22.0033	13001.367	0.000	16.229
1999/08/25	18:19:29	23.9992	13016.970	0.000	17.018
1999/08/25	20:19:29	25.9992	13028.652	0.000	12.836
1999/08/25	22:19:29	27.9992	13032.360	0.000	10.562
1999/08/26	00:19:44	30.0033	13039.113	0.000	9.362
1999/08/26	02:19:29	31.9992	13048.006	0.000	8.370
1999/08/26	04:19:29	33.9992	13056.318	0.000	7.995
1999/08/26	06:19:44	36.0033	13064.817	0.000	7.835
1999/08/26	08:19:44	38.0033	13073.584	0.000	8.384
1999/08/26	10:19:44	40.0033	13085.811	0.000	14.284
1999/08/26	12:19:44	42.0033	13097.438	0.000	15.454
1999/08/26	14:19:44	44.0033	13106.370	0.000	16.628
1999/08/26	16:19:44	46.0033	13116.570	0.000	14.472
1999/08/26	18:19:44	48.0033	13124.290	0.000	14.106
1999/08/26	20:19:44	50.0033	13124.934	0.000	11.954
1999/08/26	22:19:44	52.0033	13126.429	0.000	10.695
1999/08/27	00:18:44	53.9867	13129.462	0.000	9.528
1999/08/27	02:19:44	56.0033	13134.529	0.000	8.652
1999/08/27	04:18:44	57.9867	13138.459	0.000	8.478
1999/08/27	06:19:44	60.0033	13143.811	0.000	8.120
1999/08/27	08:18:44	61.9867	13149.126	0.000	8.263
1999/08/27	10:19:44	64.0033	13156.673	0.000	10.128
1999/08/27	12:19:44	66.0033	13165.678	0.000	15.884
1999/08/27	14:18:44	67.9867	13176.400	0.000	15.104
1999/08/27	16:19:44	70.0033	13183.029	1.902	16.971
1999/08/27	18:19:44	72.0033	13188.249	2.415	18.275
1999/08/27	20:19:44	74.0033	13189.244	0.000	16.132
1999/08/27	22:18:44	75.9867	13187.593	0.000	13.214
1999/08/28	00:19:44	78.0033	13189.361	0.000	12.012
1999/08/28	02:19:44	80.0033	13192.607	0.000	11.721
1999/08/28	04:19:44	82.0033	13194.591	0.000	10.709
1999/08/28	06:18:44	83.9867	13198.323	0.000	9.780
1999/08/28	08:19:44	86.0033	13200.150	0.000	9.431
1999/08/28	10:19:44	88.0033	13204.931	0.000	9.804
1999/08/28	12:19:44	90.0033	13209.199	0.000	10.393
1999/08/28	14:18:44	91.9867	13214.674	0.000	11.220
1999/08/28	16:18:44	93.9867	13217.775	0.000	11.518
1999/08/28	18:19:44	96.0033	13220.478	0.000	11.533
1999/08/28	20:18:44	97.9867	13223.140	0.000	11.242



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1999/08/28	22:18:44	99.9867	13224.953	0.000	9.993
1999/08/29	00:19:44	102.0033	13225.318	0.000	9.351
1999/08/29	02:19:44	104.0033	13227.091	0.000	9.186
1999/08/29	04:18:44	105.9867	13228.034	0.000	8.428
1999/08/29	06:19:44	108.0033	13228.842	0.000	8.198
1999/08/29	08:19:44	110.0033	13231.681	0.000	13.322
1999/08/29	10:18:44	111.9867	13240.305	0.000	17.513
1999/08/29	12:19:44	114.0033	13249.976	0.000	19.929
1999/08/29	14:19:44	116.0033	13256.191	0.000	19.071
1999/08/29	16:19:44	118.0033	13258.393	0.000	20.144
1999/08/29	18:18:44	119.9867	13262.169	0.000	20.237
1999/08/29	20:18:44	121.9867	13261.714	0.000	16.257
1999/08/29	22:19:44	124.0033	13260.296	0.000	11.886
1999/08/30	00:19:44	126.0033	13260.737	0.000	9.712
1999/08/30	02:18:44	127.9867	13259.619	0.000	8.903
1999/08/30	04:19:44	130.0033	13260.895	0.000	7.828
1999/08/30	06:19:44	132.0033	13261.444	0.000	7.401
1999/08/30	08:19:44	134.0033	13263.675	0.000	7.319
1999/08/30	10:18:44	135.9867	13265.988	0.000	7.771
1999/08/30	12:19:44	138.0033	13273.445	0.000	10.857
1999/08/30	14:19:44	140.0033	13281.750	0.000	14.722
1999/08/30	16:18:44	141.9867	13284.156	0.000	17.241
1999/08/30	18:18:44	143.9867	13289.468	0.000	14.571
1999/08/30	20:19:44	146.0033	13285.849	0.000	12.915
1999/08/30	22:19:44	148.0033	13284.148	0.000	11.694
1999/08/31	00:19:44	150.0033	13284.510	0.000	10.551
1999/08/31	02:19:44	152.0033	13283.666	0.000	9.067
1999/08/31	04:19:44	154.0033	13284.749	0.000	8.513
1999/08/31	06:19:44	156.0033	13286.659	0.000	8.018
1999/08/31	08:18:44	157.9867	13287.091	0.000	7.813
1999/08/31	10:19:44	160.0033	13290.768	0.000	8.880
1999/08/31	12:19:44	162.0033	13297.650	0.000	11.243
1999/08/31	14:18:44	163.9867	13306.149	0.000	14.622
1999/08/31	16:19:44	166.0033	13308.892	0.000	17.203
1999/08/31	18:19:44	168.0033	13313.574	3.017	18.858
1999/08/31	20:18:44	169.9867	13311.256	0.000	16.230
1999/08/31	22:18:44	171.9867	13306.870	0.000	12.829
1999/09/01	00:19:44	174.0033	13305.577	0.000	11.749
1999/09/01	02:19:44	176.0033	13304.936	0.000	9.915
1999/09/01	04:19:44	178.0033	13305.218	0.000	8.710
1999/09/01	06:18:44	179.9867	13305.394	0.000	8.472
1999/09/01	08:19:44	182.0033	13307.286	0.000	8.916
1999/09/01	10:19:44	184.0033	13312.783	0.000	10.743
1999/09/01	12:18:44	185.9867	13319.580	0.000	15.366
1999/09/01	14:18:44	187.9867	13324.796	0.000	15.245
1999/09/01	16:19:44	190.0033	13329.015	0.000	17.172
1999/09/01	18:19:44	192.0033	13332.105	2.739	17.697
1999/09/01	20:19:44	194.0033	13329.693	0.000	14.699
1999/09/01	22:18:44	195.9867	13325.094	0.000	12.301
1999/09/02	00:19:44	198.0033	13323.754	0.000	11.131



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1999/09/02	02:19:44	200.0033	13322.362	0.000	9.883
1999/09/02	04:18:44	201.9867	13323.500	0.000	9.106
1999/09/02	06:19:44	204.0033	13323.311	0.000	8.527
1999/09/02	08:18:44	205.9867	13324.149	0.000	13.664
1999/09/02	10:19:44	208.0033	13332.955	0.000	13.149
1999/09/02	12:18:44	209.9867	13337.850	0.000	19.148
1999/09/02	14:19:44	212.0033	13342.257	0.000	19.025
1999/09/02	16:19:44	214.0033	13344.687	2.425	19.371
1999/09/02	18:18:44	215.9867	13349.038	3.417	21.352
1999/09/02	20:19:44	218.0033	13347.622	0.000	16.559
1999/09/02	22:19:44	220.0033	13342.360	0.000	12.876
1999/09/03	00:19:44	222.0033	13340.539	0.000	11.606
1999/09/03	02:18:44	223.9867	13341.116	0.000	10.641
1999/09/03	04:19:44	226.0033	13341.438	0.000	10.574
1999/09/03	06:19:44	228.0033	13343.431	0.000	10.173
1999/09/03	08:18:44	229.9867	13344.148	0.000	10.169
1999/09/03	10:19:38	232.0017	13347.292	0.000	14.260
1999/09/03	12:19:46	234.0039	13354.293	0.000	15.436
1999/09/03	14:19:35	236.0008	13357.648	0.000	18.420
1999/09/03	16:19:35	238.0008	13361.299	0.000	19.321
1999/09/03	18:19:35	240.0008	13361.141	0.000	21.582
1999/09/03	20:18:35	241.9842	13363.742	0.000	18.232
1999/09/03	22:19:35	244.0008	13359.500	0.000	15.263
1999/09/04	00:19:35	246.0008	13358.300	0.000	14.469
1999/09/04	02:18:35	247.9842	13360.111	0.000	14.138
1999/09/04	04:18:35	249.9842	13360.862	0.000	13.481
1999/09/04	06:19:35	252.0008	13361.433	0.000	12.878
1999/09/04	08:19:35	254.0008	13362.260	0.000	12.924
1999/09/04	10:19:35	256.0008	13363.002	0.000	18.154
1999/09/04	12:18:35	257.9842	13369.702	0.000	22.614
1999/09/04	14:19:35	260.0008	13373.203	0.000	21.278
1999/09/04	16:19:35	262.0008	13376.261	1.274	20.564
1999/09/04	18:18:35	263.9842	13378.267	2.317	20.790
1999/09/04	20:19:35	266.0008	13377.715	0.000	16.731
1999/09/04	22:18:35	267.9842	13371.406	0.000	12.646
1999/09/05	00:18:35	269.9842	13369.498	0.000	10.725
1999/09/05	02:19:35	272.0008	13368.536	0.000	10.425
1999/09/05	04:19:35	274.0008	13369.358	0.000	9.351
1999/09/05	06:19:35	276.0008	13369.517	0.000	9.558
1999/09/05	08:18:35	277.9842	13369.835	0.000	12.587
1999/09/05	10:19:35	280.0008	13374.970	0.000	17.064
1999/09/05	12:19:35	282.0008	13382.718	0.000	16.075
1999/09/05	14:19:35	284.0008	13385.757	0.000	17.103
1999/09/05	16:18:35	285.9842	13389.889	0.957	17.842
1999/09/05	18:19:35	288.0008	13389.341	0.000	16.950
1999/09/05	20:19:35	290.0008	13389.572	0.000	15.511
1999/09/05	22:18:35	291.9842	13386.745	0.000	13.946
1999/09/06	00:19:35	294.0008	13387.041	0.000	12.122
1999/09/06	02:18:35	295.9842	13386.473	0.000	11.372
1999/09/06	04:19:35	298.0008	13385.718	0.000	10.841



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1999/09/06	06:18:35	299.9842	13386.130	0.000	10.413
1999/09/06	08:19:35	302.0008	13386.351	0.000	9.832
1999/09/06	10:19:35	304.0008	13386.832	0.000	9.676
1999/09/06	12:19:35	306.0008	13388.658	0.000	9.753
1999/09/06	14:18:35	307.9842	13391.392	0.000	11.383
1999/09/06	16:26:15	310.1119	13394.092	0.000	12.677
1999/09/06	18:20:06	312.0094	13396.030	0.000	12.284
1999/09/06	20:19:06	313.9928	13395.789	0.000	11.347
1999/09/06	22:20:06	316.0094	13393.890	0.000	10.351
1999/09/07	00:20:06	318.0094	13394.244	0.000	9.636
1999/09/07	02:20:06	320.0094	13393.649	0.000	9.094
1999/09/07	04:20:06	322.0094	13393.140	0.000	8.138
1999/09/07	06:20:06	324.0094	13393.431	0.000	7.210
1999/09/07	08:20:06	326.0094	13393.727	0.000	7.325
1999/09/07	10:20:06	328.0094	13396.651	0.000	9.103
1999/09/07	12:20:06	330.0094	13404.260	0.000	12.894
1999/09/07	14:20:06	332.0094	13408.721	0.000	13.381
1999/09/07	16:19:06	333.9928	13413.656	0.000	14.820
1999/09/07	18:20:06	336.0094	13415.651	0.000	17.571
1999/09/07	20:20:06	338.0094	13412.017	0.000	13.636
1999/09/07	22:20:06	340.0094	13407.521	0.000	10.051
1999/09/08	00:19:06	341.9928	13405.029	0.000	9.037
1999/09/08	02:20:06	344.0094	13407.760	0.000	10.057
1999/09/08	04:20:06	346.0094	13408.779	0.000	10.074
1999/09/08	06:20:06	348.0094	13406.987	0.000	7.929
1999/09/08	08:20:06	350.0094	13405.408	0.000	11.440
1999/09/08	10:20:06	352.0094	13410.691	0.000	11.708
1999/09/08	12:19:55	354.0064	13415.803	0.000	12.703
1999/09/08	14:18:55	355.9897	13421.914	0.000	15.610
1999/09/08	16:19:55	358.0064	13426.380	0.000	17.593
1999/09/08	18:18:55	359.9897	13427.294	0.000	15.969
1999/09/08	20:19:55	362.0064	13426.098	0.000	15.279
1999/09/08	22:19:55	364.0064	13422.349	0.000	12.865
1999/09/09	00:19:55	366.0064	13419.674	0.000	11.370
1999/09/09	02:18:55	367.9897	13420.099	0.000	10.846
1999/09/09	04:18:55	369.9897	13419.704	0.000	10.772
1999/09/09	06:19:55	372.0064	13420.316	0.000	10.182
1999/09/09	08:19:55	374.0064	13421.067	0.000	9.742
1999/09/09	10:19:55	376.0064	13422.679	0.000	10.490
1999/09/09	12:19:55	378.0064	13424.336	0.000	10.058
1999/09/09	14:18:55	379.9897	13425.627	0.000	11.081
1999/09/09	16:19:55	382.0064	13430.557	0.000	13.627
1999/09/09	18:18:55	383.9897	13434.650	0.000	15.101
1999/09/09	20:19:55	386.0064	13432.054	0.000	12.752
1999/09/09	22:18:55	387.9897	13427.122	0.000	9.897
1999/09/10	00:19:55	390.0064	13425.893	0.000	8.946
1999/09/10	02:19:55	392.0064	13424.543	0.000	8.129
1999/09/10	04:19:55	394.0064	13425.283	0.000	6.940
1999/09/10	06:18:55	395.9897	13425.894	0.000	6.465
1999/09/10	08:18:55	397.9897	13426.526	0.000	6.086



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1999/09/10	10:40:13	400.3447	13428.609	0.000	7.259
1999/09/10	12:19:20	401.9967	13432.852	0.000	8.478
1999/09/10	14:20:20	404.0133	13436.036	0.000	9.035
1999/09/10	15:21:20	405.0300	Casing sensor removed and added to the tubing		
1999/09/10	15:21:20	405.0300	13436.688	13431.321	8.906
1999/09/10	16:20:20	406.0133	13437.285	13434.615	9.215
1999/09/10	18:20:20	408.0133	13443.899	13442.045	10.288
1999/09/10	20:19:20	409.9967	13438.585	13435.004	8.654
1999/09/10	22:19:20	411.9967	13434.466	13430.354	7.454
1999/09/11	00:20:20	414.0133	13431.896	13427.020	5.486
1999/09/11	02:20:20	416.0133	13431.578	13426.540	5.468
1999/09/11	04:20:20	418.0133	13431.676	13426.091	4.667
1999/09/11	06:19:20	419.9967	13432.217	13427.634	4.935
1999/09/11	08:20:20	422.0133	13431.647	13429.414	9.284
1999/09/11	10:19:20	423.9967	13439.482	13437.035	14.582
1999/09/11	12:20:20	426.0133	13448.395	13444.825	17.666
1999/09/11	14:20:20	428.0133	13452.862	13452.726	17.249
1999/09/11	16:20:20	430.0133	13454.979	13454.152	18.107
1999/09/11	18:19:20	431.9967	13457.626	13457.236	19.261
1999/09/11	20:20:20	434.0133	13455.527	13453.176	14.981
1999/09/11	22:20:20	436.0133	13449.075	13445.265	10.905
1999/09/12	00:19:20	437.9967	13447.451	13444.199	10.540
1999/09/12	02:20:20	440.0133	13447.772	13443.889	9.706
1999/09/12	04:20:20	442.0133	13446.714	13443.554	8.436
1999/09/12	06:20:20	444.0133	13447.556	13442.719	7.942
1999/09/12	08:20:20	446.0133	13446.465	13442.237	10.301
1999/09/12	10:19:20	447.9967	13451.391	13449.366	17.166
1999/09/12	12:20:20	450.0133	13458.085	13457.298	19.871
1999/09/12	14:19:20	451.9967	13462.223	13462.562	18.610
1999/09/12	16:19:20	453.9967	13465.980	13464.679	19.480
1999/09/12	18:20:20	456.0133	13466.335	13456.481	19.481
1999/09/12	20:20:20	458.0133	13464.885	13462.278	15.430
1999/09/12	22:19:20	459.9967	13460.203	13457.021	12.559
1999/09/13	00:19:20	461.9967	13458.640	13454.471	11.048
1999/09/13	02:20:20	464.0133	13457.700	13454.229	10.841
1999/09/13	04:20:20	466.0133	13457.526	13454.516	10.713
1999/09/13	06:19:20	467.9967	13458.710	13455.024	9.340
1999/09/13	08:19:20	469.9967	13456.670	13455.064	12.911
1999/09/13	10:19:20	471.9967	13463.906	13462.342	19.003
1999/09/13	12:20:20	474.0133	13468.138	13468.063	22.487
1999/09/13	14:20:20	476.0133	13472.090	13473.354	21.881
1999/09/13	16:20:20	478.0133	13472.714	13473.189	22.936
1999/09/13	18:20:20	480.0133	13474.178	13475.203	23.321
1999/09/13	20:20:20	482.0133	13474.737	13472.874	19.177
1999/09/13	22:19:20	483.9967	13471.682	13469.937	17.119
1999/09/14	00:20:20	486.0133	13471.817	13469.542	15.653
1999/09/14	02:20:20	488.0133	13469.247	13467.481	14.368
1999/09/14	04:19:20	489.9967	13469.148	13466.640	12.693
1999/09/14	06:20:20	492.0133	13466.960	13463.472	10.934
1999/09/14	08:20:20	494.0133	13466.498	13463.761	13.970



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SERVICES LTD.

Date	Time	Cum. Time	Tbg Pres 1	Csg Pres 1	Tbg Temp 1
		hr	kPag	kPag	deg C
1999/09/14	10:19:20	495.9967	13471.817	13470.368	19.157
1999/09/14	12:19:20	497.9967	13477.184	13475.700	20.900
1999/09/14	14:19:20	499.9967	13480.245	13481.125	20.869
1999/09/14	16:20:20	502.0133	13481.444	13481.754	21.561
1999/09/14	18:20:20	504.0133	13484.001	13483.794	21.995
1999/09/14	20:20:20	506.0133	13481.170	13478.127	15.713
1999/09/14	22:20:20	508.0133	13475.729	13473.080	13.181
1999/09/15	00:20:20	510.0133	13475.319	13471.623	12.115
1999/09/15	02:19:20	511.9967	13474.937	13471.514	10.471
1999/09/15	04:20:20	514.0133	13473.432	13469.037	9.504
1999/09/15	06:20:20	516.0133	13472.379	13468.417	8.671
1999/09/15	08:20:20	518.0133	13471.457	13467.077	8.015
1999/09/15	10:19:20	519.9967	13475.389	13473.421	12.003
1999/09/15	12:19:20	521.9967	13481.733	13480.467	12.215
1999/09/15	14:20:20	524.0133	13485.862	13484.862	13.845
1999/09/15	16:20:20	526.0133	13487.960	13486.806	13.900
1999/09/15	18:19:20	527.9967	13485.936	13484.272	12.769
1999/09/15	20:20:20	530.0133	13483.853	13481.927	11.263
1999/09/15	22:19:20	531.9967	13481.243	13477.149	9.603
1999/09/16	00:19:20	533.9967	13478.521	13474.969	8.861
1999/09/16	02:19:20	535.9967	13478.640	13474.605	8.694
1999/09/16	04:20:20	538.0133	13478.515	13475.339	8.476
1999/09/16	06:20:20	540.0133	13480.415	13476.302	8.889
1999/09/16	08:19:20	541.9967	13481.088	13476.706	8.636
1999/09/16	10:20:20	544.0133	13482.019	13480.173	14.653
1999/09/16	12:20:20	546.0133	13490.558	13488.859	19.013
1999/09/16	14:19:20	547.9967	13494.546	13495.256	15.765
1999/09/16	16:19:20	549.9967	13496.954	13497.354	17.063
1999/09/16	18:20:20	552.0133	13498.394	13498.557	16.620
1999/09/16	20:20:20	554.0133	13494.901	13490.831	11.323
1999/09/16	22:19:20	555.9967	13490.736	13486.405	10.625
1999/09/17	00:20:20	558.0133	13486.675	13482.060	8.434
1999/09/17	02:19:20	559.9967	13486.018	13480.982	7.483
1999/09/17	04:20:20	562.0133	13485.426	13480.139	7.008
1999/09/17	06:19:20	563.9967	13485.940	13481.423	7.236
1999/09/17	08:20:20	566.0133	13486.490	13482.080	7.307
1999/09/17	10:20:20	568.0133	13487.924	13485.233	7.559
1999/09/17	12:20:20	570.0133	13496.426	13494.316	11.706
1999/09/17	14:19:20	571.9967	13501.404	13501.558	13.804
1999/09/17	16:20:19	574.0131	13504.494	13505.422	16.018
1999/09/17	18:20:19	576.0131	13507.264	13508.211	15.964
1999/09/17	20:20:19	578.0131	13502.015	13498.891	13.515
1999/09/17	22:19:19	579.9964	13496.836	13493.203	11.237
1999/09/18	00:20:19	582.0131	13494.638	13491.240	10.255
1999/09/18	02:20:19	584.0131	13494.653	13491.047	9.784
1999/09/18	04:20:19	586.0131	13494.172	13490.677	9.295
1999/09/18	06:20:19	588.0131	13495.385	13492.678	9.644
1999/09/18	08:20:19	590.0131	13495.811	13492.838	8.593
1999/09/18	10:19:19	591.9964	13498.131	13495.496	9.235
1999/09/18	12:19:19	593.9964	13503.578	13502.220	13.157



Company Name Paramount Resources Ltd.
Well Name Paramount et al Liard
Well Location F 36
Date(s) of Test 99/08/24 - 99/09/23

SERVICES LTD.

Date	Time	Cum.Time	Tbg Pres 1	Csg Pres 1	Tbg Temp 1
		hr	kPag	kPag	deg C
1999/09/18	14:20:19	596.0131	13507.946	13510.254	18.597
1999/09/18	16:20:19	598.0131	13510.230	13512.310	21.638
1999/09/18	18:19:19	599.9964	13512.725	13514.393	21.580
1999/09/18	20:20:19	602.0131	13510.666	13509.922	18.592
1999/09/18	22:20:19	604.0131	13508.630	13506.643	16.219
1999/09/19	00:20:19	606.0131	13507.830	13505.501	15.186
1999/09/19	02:19:19	607.9964	13507.490	13505.475	13.965
1999/09/19	04:20:19	610.0131	13507.372	13504.169	13.742
1999/09/19	06:20:19	612.0131	13507.994	13505.381	14.319
1999/09/19	08:20:19	614.0131	13506.681	13504.954	14.154
1999/09/19	10:20:19	616.0131	13508.083	13508.371	20.242
1999/09/19	12:20:19	618.0131	13511.483	13512.175	25.869
1999/09/19	14:19:19	619.9964	13512.808	13515.482	25.498
1999/09/19	16:19:19	621.9964	13514.814	13516.382	25.470
1999/09/19	18:19:19	623.9964	13519.047	13518.751	22.082
1999/09/19	20:20:19	626.0131	13516.822	13515.711	18.397
1999/09/19	22:20:19	628.0131	13513.283	13511.092	14.711
1999/09/20	00:19:19	629.9964	13510.450	13507.367	12.546
1999/09/20	02:19:19	631.9964	13508.786	13504.715	11.602
1999/09/20	04:19:19	633.9964	13508.280	13504.255	10.941
1999/09/20	06:20:19	636.0131	13508.043	13503.683	10.395
1999/09/20	08:20:19	638.0131	13507.609	13505.029	11.705
1999/09/20	10:20:19	640.0131	13509.910	13509.752	18.174
1999/09/20	12:20:19	642.0131	13515.361	13515.159	17.587
1999/09/20	14:20:19	644.0131	13519.916	13519.368	16.728
1999/09/20	16:19:19	645.9964	13523.513	13523.921	17.560
1999/09/20	18:20:19	648.0131	13523.241	13524.270	16.904
1999/09/20	20:20:19	650.0131	13519.472	13515.488	14.085
1999/09/20	22:19:19	651.9964	13514.321	13511.014	10.790
1999/09/21	00:20:19	654.0131	13512.271	13509.336	10.774
1999/09/21	02:20:19	656.0131	13512.442	13508.595	10.155
1999/09/21	04:20:19	658.0131	13511.234	13507.190	9.111
1999/09/21	06:19:19	659.9964	13511.880	13507.672	9.464
1999/09/21	08:19:19	661.9964	13513.158	13508.745	9.091
1999/09/21	10:20:19	664.0131	13515.694	13514.649	17.439
1999/09/21	12:20:19	666.0131	13520.892	13521.354	19.501
1999/09/21	14:20:19	668.0131	13526.111	13526.680	17.847
1999/09/21	16:20:19	670.0131	13527.882	13528.114	17.542
1999/09/21	18:20:19	672.0131	13529.188	13529.807	17.229
1999/09/21	20:19:19	673.9964	13524.578	13521.163	13.258
1999/09/21	22:20:19	676.0131	13518.428	13514.688	10.370
1999/09/22	00:20:19	678.0131	13517.567	13511.673	8.398
1999/09/22	02:20:19	680.0131	13514.285	13509.678	8.424
1999/09/22	04:19:19	681.9964	13514.003	13511.046	8.535
1999/09/22	06:20:19	684.0131	13518.197	13512.451	7.312
1999/09/22	08:20:19	686.0131	13516.342	13511.670	8.684
1999/09/22	10:20:19	688.0131	13517.778	13513.291	9.410
1999/09/22	12:20:19	690.0131	13523.308	13521.937	12.407
1999/09/22	14:19:19	691.9964	13528.499	13527.180	13.562
1999/09/22	16:19:19	693.9964	13528.498	13527.805	13.043



Company Name Paramount Resources Ltd.
Well Name Paramount et al Liard
Well Location F 36
Date(s) of Test 99/08/24 - 99/09/23

SERVICES LTD.

Date	Time	Cum.Time	Tbg Pres 1	Csg Pres 1	Tbg Temp 1
		hr	kPag	kPag	deg C
1999/09/22	18:19:19	695.9964	13525.377	13523.432	12.004
1999/09/22	20:19:19	697.9964	13525.500	13519.988	9.664
1999/09/22	22:20:19	700.0131	13523.958	13518.939	8.974
1999/09/23	00:20:19	702.0131	13523.052	13518.070	8.334
1999/09/23	02:19:19	703.9964	13522.984	13517.829	8.268
1999/09/23	04:20:19	706.0131	13523.416	13518.284	8.581
1999/09/23	06:20:19	708.0131	13521.957	13516.475	7.579
1999/09/23	08:19:19	709.9964	13521.062	13515.879	7.917

Norward Report (Extended Flow)

N.E.B. COPY



Customer: Paramount Resources
Wellname: Paramount et al Liard
Well Location: F-36
Test Dates: Aug 06 - 24, 1999
Formation: Mattson Sand

File Name: GP99, PARA04.FLD
Supervisors: M. Mueller, M. Lachinsky
Customer Reps: Wayne Tomm
Test Unit/Tank: TU#12
Test Type: Extended Rate Flow

SEP 20 1999

Final Edited Copy

GENERAL INFORMATION

Client Information:

Company: Paramount Resources.

Contact: Wayne Tomm

Phone: (403) 290-3600 Fax: (403) 266-6032 e-mail:

Site Information:

Contact: Bert Blakley

Phone: Fax: e-mail:

Well Information:

Name: Paramount et al Liard

Operator:

Location-Downhole: F-36

Location-Surface: F-36

Test Information:

Company: Norward Energy Services

Representative: Ron Norgaard

Supervisor: M. Mueller, M. Laschinsky

Test Type: Extended Rate Flow

Job Number: GP99

Test Unit: T.U. #12

Start Date: 1999/08/12

Start Time: 16:41:00

End Date: 1999/08/24

End Time: 18:30:00

Report Date: 1999/09/02

Prepared By: C. Brunt

Remarks:

Qualified By:

Paramount Resources.
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes

Paramount et al Liard
Formation: Mattson sand

Job Number: GP99

Gas Meter 1

Meter Type:

Meter Size:

Previous Gas Production:

Tap Type:

Tap Location:

Orifice Meter

97.43 mm

0.000 10³m³

Flange

Downstream

Gas Gravity (G):

0.590

CO₂:

16.00 %

H₂S:

0.00 %

N₂:

2.80 %

Critical Temperature (T_c):

184.88 K

Critical Pressure (P_c):

5067.39 kPa

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
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation: Marton sand

Job Number: OP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fid Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
1	1999/08/06	17:00:00																			
2	1999/08/07	08:00:00																			
3	1999/08/08	08:00:00																			
4	1999/08/09	08:00:00																			
5	1999/08/10	08:00:00																			
6		14:00:00																			
7		23:00:00																			
8	1999/08/11	08:00:00																			
9		19:30:00																			
10	1999/08/12	08:00:00																			
11		16:35:00	0	0	0.0	0.000	0	0.0	0.0	0.00	0.00	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000		
12		16:40:00	3000																		
13		16:41:00																			
14		16:42:00																			
15		16:44:00																			
16		16:45:00	4700																		
17		16:50:00	6900																		
18		16:55:00	10000																		
19		17:50:00	11900																		
20	1999/08/12	17:11:00																			
21	1999/08/13	07:00:00																			
22		15:15:00																			
23		15:30:00																			
24		15:50:00																			
25		15:50:00	14000			0.000	0	0.0	0.0	0.00	0.00	0.000	0.0	0.000	0.000	0.000	0.000	0.000	0.000		
26		15:59:00																			
27		16:00:00																			
28		16:10:00	5585			0.000	0	0.0	0.0	0.00	0.00										
29		16:15:00	5620																		
30	1999/08/13	16:30:00	5690			0.000	0	0.0	0.0	0.00	0.00										
31		16:36:00																			
32		16:44:00																			
33		16:45:00	7000	0	21.0	73.025	4200	34.8	28.0	533.50	5.56										
34		17:00:00	6790	0	21.0	73.025	4300	35.5	29.0	544.31	11.17	0.478	55.0	0.215	4.425	0.215	0.263	5.408	0.263	7	12000
35		17:30:00	6690	0	25.0	73.025	4250	35.0	30.0	536.15	22.43										
36		18:00:00	6690	0	27.0	73.025	4225	34.9	32.0	531.65	33.55	0.014	28.0	0.010	0.242	0.225	0.004	0.094	0.267	7	12000
37		18:30:00	6688	0	26.0	73.025	4250	34.9	33.0	532.22	44.63										
38		19:00:00	6688	0	28.0	73.025	4250	34.9	34.0	531.18	55.71	0.168	14.0	0.144	3.468	0.370	0.024	0.564	0.290	7	14000
39		19:30:00	6667	0	26.0	73.025	4250	34.9	35.0	530.15	66.76										
40	1999/08/13	20:00:00	6667	0	24.0	73.025	4250	34.8	35.0	529.39	77.80	0.406	14.0	0.349	8.380	0.719	0.057	1.364	0.347	7	15000
41		20:30:00	6667	0	24.0	73.025	4250	34.5	37.0	525.07	88.78										
42		21:00:00	6667	0	24.0	73.025	4250	34.7	37.0	526.59	99.74	0.034	10.0	0.076	1.814	0.794	0.008	0.202	0.356	7	16000
43		21:30:00	6667	0	24.0	73.025	4250	34.6	37.0	525.83	110.70										
44		22:00:00	6667	0	24.0	73.025	4250	34.6	37.0	525.83	121.66	0.035	2.0	0.034	0.823	0.829	0.001	0.017	0.356	7	16000
45		22:30:00	6667	0	22.0	73.025	4250	34.6	38.0	524.82	132.60										
46		23:00:00	6667	0	24.0	73.025	4250	34.5	38.0	524.06	143.53	0.042	4.0	0.040	0.968	0.869	0.002	0.040	0.358	7	0
47		23:25:00																			

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation: Mattoon sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT °C	Orifice mm	Static kPa(g)	Diff kPa	Temp °C	Gas Rate 10 ³ m ³ /d	Cum Gas 10 ³ m ³	Fid Gain m ³	BSW %	Oil Gain m ³	Oil Rate m ³ /d	Cum Oil m ³	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Ph	Salinity ppm
48	1999/08/13	23:30:00	6667	0	24.0	73.025	4250	33.1	37.0	514.29	154.34										
49	1999/08/14	00:00:00	6667	0	24.0	73.025	4180	33.2	37.0	510.72	165.02	0.024	0.0	0.024	0.576	0.893	0.000	0.000	0.358	7	20000
50	1999/08/14	00:00:00	PRODUCTION TOTALS: Cum Gas = 165.02 E3m ³ , Cum H2O = 0.36 m ³ , Cum Cond = 0.89 m ³ , A.P.I. = 47.6 @ 15°C, Gastec = 0ppm.																		
51		00:30:00	6653	0	24.0	73.025	4180	33.2	37.0	510.72	175.66								0.358	7	0
52		01:00:00	6639	0	24.0	73.025	4180	33.2	37.0	510.72	186.30	0.189	0.0	0.189	4.536	1.082	0.000	0.000	0.358	7	0
53		01:30:00	6639	0	24.0	73.025	4180	33.1	38.0	508.97	196.92										
54		02:00:00	6653	0	24.0	73.025	4180	32.9	38.0	507.43	207.51	0.126	2.0	0.123	2.964	1.206	0.003	0.060	0.360	7	0
55		02:30:00	6639	0	24.0	73.025	4180	33.0	38.0	508.20	218.09										
56		03:00:00	6632	0	24.0	73.025	4200	32.9	38.0	508.67	228.68	0.000	0.0	0.000	0.000	1.205	0.000	0.000	0.360	7	0
57		03:30:00	6632	0	24.0	73.025	4180	32.8	38.0	506.66	239.26										
58	1999/08/14	04:00:00	6632	0	24.0	73.025	4160	32.8	38.0	505.42	249.80	0.035	0.0	0.035	0.840	1.241	0.000	0.000	0.360	7	0
59		04:30:00	6639	0	24.0	73.025	4120	32.9	38.0	503.70	260.31										
60		05:00:00	6632	0	24.0	73.025	4120	32.9	38.0	503.70	270.81	0.028	0.0	0.028	0.672	1.269	0.000	0.000	0.360	7	0
61		05:30:00	6626	0	24.0	73.025	4120	32.8	38.0	502.93	281.29										
62		06:00:00	6632	0	24.0	73.025	4140	32.8	38.0	504.18	291.78	0.020	10.0	0.018	0.432	1.287	0.002	0.048	0.362	7	30000
63		06:30:00	6626	0	24.0	73.025	4150	32.9	38.0	504.80	302.29										
64		07:00:00	6619	0	24.0	73.025	4150	32.7	38.0	504.03	312.80	0.028	3.0	0.027	0.652	1.314	0.001	0.020	0.363	8	0
65		07:30:00	6619	0	24.0	73.025	4150	32.7	38.0	504.03	323.30										
66		08:00:00	6919	0	23.0	73.025	4050	32.0	29.0	501.10	333.77	0.138	15.0	0.117	2.815	1.431	0.021	0.497	0.384	8	32000
67		08:30:00	6919	0	24.0	73.025	4050	32.3	32.0	500.49	344.20										
68	1999/08/14	09:00:00	6599	0	24.0	73.025	4050	32.2	32.0	499.71	354.62	0.152	12.0	0.134	3.210	1.565	0.018	0.438	0.402	8	0
69		09:30:00	6599	0	25.0	73.025	4075	32.2	34.0	499.34	365.03										
70		10:00:00	6599	0	26.0	73.025	4075	32.3	34.0	500.11	375.44	0.169	16.0	0.142	3.407	1.707	0.027	0.649	0.429	8	28000
71		10:00:00	API=50.0 @ 30°C, H2S by Kitiqawa = 0.5ppm.																		
72		10:30:00	6599	0	27.0	73.025	4075	32.3	34.0	500.11	385.86										
73		11:00:00	6585	0	27.0	73.025	4075	32.3	35.0	499.15	396.27	0.092	3.0	0.089	2.142	1.796	0.003	0.066	0.432	8	0
74		11:30:00	6585	0	28.0	73.025	4075	32.3	35.0	499.15	406.67										
75		12:00:00	6585	0	27.0	73.025	4100	32.3	35.0	500.71	417.08	0.111	9.0	0.101	2.424	1.897	0.010	0.240	0.442	8	16000
76		12:30:00	6585	0	28.0	73.025	4100	32.3	36.0	499.75	427.50										
77		13:00:00	6578	0	28.0	73.025	4125	32.3	36.0	501.30	437.93	0.164	11.0	0.146	3.503	2.043	0.018	0.433	0.460	8	12000
78	1999/08/14	13:30:00	6578	0	28.0	73.025	4125	32.2	36.0	500.52	448.37										
79		14:00:00	6571	0	28.0	73.025	4125	32.2	36.0	500.52	458.80	0.124	13.0	0.108	2.589	2.151	0.016	0.387	0.476	8	14000
80		14:30:00	6571	0	30.0	73.025	4125	32.2	35.0	501.49	469.23										
81		15:00:00	6564	0	33.0	73.025	4100	32.1	34.0	500.12	479.67	0.138	10.0	0.124	2.981	2.275	0.014	0.331	0.490	8	12000
82		15:30:00	6557	0	32.0	73.025	4100	32.1	33.0	501.09	490.10										
83		16:00:00	6557	0	34.0	73.025	4075	32.1	33.0	499.53	500.52	0.131	12.0	0.115	2.767	2.390	0.016	0.377	0.506	8	10000
84		16:30:00	6550	0	34.0	73.025	4075	32.0	33.0	498.75	510.92										
85		17:00:00	6550	0	34.0	73.025	4050	32.0	33.0	497.18	521.29	0.203	10.0	0.183	4.385	2.573	0.020	0.487	0.526	8	14000
86		17:30:00	6550	0	34.0	73.025	4050	32.0	33.0	497.18	531.65										
87		18:00:00	6536	0	35.0	73.025	4050	32.0	33.0	497.18	542.01	0.140	5.0	0.133	3.192	2.706	0.007	0.168	0.533	8	
88	1999/08/14	18:30:00	6564	0	34.0	73.025	4075	32.2	32.0	501.28	552.41										
89		19:00:00	6564	0	33.0	73.025	4075	32.1	32.0	500.50	562.84	0.140	8.0	0.129	3.091	2.835	0.011	0.269	0.544	8	
90		19:30:00	6557	0	28.0	73.025	4150	32.4	34.0	505.58	573.32										
91		20:00:00	6557	0	27.0	73.025	4150	32.4	34.0	505.58	583.86	0.140	2.0	0.137	3.293	2.972	0.003	0.067	0.547	8	
92		20:30:00	6550	0	26.0	73.025	4075	31.8	32.0	498.16	594.31										
93		21:00:00	6543	0	25.0	73.025	4075	32.2	32.0	501.28	604.72	0.080	3.0	0.078	1.862	3.050	0.002	0.058	0.549	8	20000
94		21:30:00	6536	0	25.0	73.025	4075	32.0	34.0	497.78	615.13										

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation, Mattson sand
Job Number: GP90

	Date	Clock Time	Pt	Pc	WHT °C	Orifice mm	Static kPa(g)	Diff kPa	Temp °C	Gas Rate 10 ³ m ³ /d	Cum Gas 10 ³ m ³	Fid Gain m ³	BSW %	Oil Gain m ³	Oil Rate m ³ /d	Cum Oil m ³	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Ph	Salinity ppm
95	1999/08/14	22:00:00	6529	0	25.0	73.025	4100	32.0	34.0	499.34	625.52	0.060	7.0	356	1.339	3.105	0.004	0.101	0.554	8	16000
96		22:30:00	6529	0	25.0	73.025	4100	32.0	35.0	498.38	635.91										
97		23:00:00	6529	0	26.0	73.025	4075	31.9	34.0	497.00	646.28	0.130	6.0	0.122	2.933	3.228	0.008	0.187	0.561	8	26000
98	1999/08/14	23:30:00	6529	0	25.0	73.025	4075	31.9	35.0	496.05	658.62										
99	1999/08/15	00:00:00	6529	0	24.0	73.025	4075	31.9	35.0	496.05	666.96	0.050	4.0	0.048	1.152	3.276	0.002	0.048	0.563	8	26000
100		00:00:00	PRODUCTION TOTALS: Cum Gas = 666.96 E3m3, Cum H2O = 0.563 m3, Cum Cond = 3.276 m3, A.P.I = 49.2 @ 15°C, Gastec = 0ppm.																		
101		00:30:00	6515	0	25.0	73.025	4075	31.9	35.0	496.05	677.29										
102		01:00:00	6515	0	25.0	73.025	4050	31.8	35.0	493.71	687.60	0.200	8.0	0.184	4.416	3.460	0.016	0.384	0.579	8	16000
103		01:30:00	6508	0	25.0	73.025	4100	31.8	35.0	496.82	697.92										
104		02:00:00	6508	0	25.0	73.025	4100	31.8	35.0	496.82	708.27	0.079	0.0	0.079	1.886	3.538	0.000	0.000	0.579	8	16000
105	1999/08/15	02:30:00	6501	0	25.0	73.025	4075	31.8	35.0	495.27	718.60										
106		03:00:00	6495	0	25.0	73.025	4075	31.8	35.0	495.27	728.92	0.092	3.0	0.089	2.135	3.627	0.003	0.066	0.582	8	16000
107		03:30:00	6495	0	25.0	73.025	4075	31.9	35.0	496.05	739.25										
108		04:00:00	6495	0	25.0	73.025	4050	31.8	35.0	493.71	749.56	0.120	7.0	0.112	2.678	3.739	0.008	0.202	0.591	8	16000
109		04:30:00	6488	0	25.0	73.025	4050	31.7	35.0	492.94	759.84										
110		05:00:00	6481	0	25.0	73.025	4050	31.7	35.0	492.94	770.10	0.160	8.0	0.147	3.533	3.886	0.013	0.307	0.603	8	12000
111		05:30:00	6481	0	25.0	73.025	4050	31.7	35.0	492.94	780.37										
112		06:00:00	6481	0	25.0	73.025	4050	31.7	35.0	492.94	790.64	0.100	8.0	0.092	2.208	3.978	0.008	0.192	0.611	8	16000
113		06:30:00	6474	0	25.0	73.025	4050	31.7	35.0	492.94	800.91										
114		07:00:00	6468	0	25.0	73.025	4050	31.7	35.0	492.94	811.18	0.144	5.5	0.136	3.266	4.114	0.008	0.190	0.619	8	14000
115	1999/08/15	07:30:00	6495	0	25.0	73.025	4025	31.7	31.0	495.21	821.48										
116		08:00:00	6481	0	25.0	73.025	4025	31.6	32.0	493.46	831.77	0.210	8.0	0.193	4.637	4.307	0.017	0.403	0.636	8	14000
117		08:30:00	6468	0	25.0	73.025	4000	31.6	32.0	491.89	842.04										
118		09:00:00	6468	0	25.0	73.025	4000	31.7	32.0	492.67	852.29	0.170	8.0	0.156	3.754	4.464	0.014	0.326	0.650	8	10000
119		09:30:00	6468	0	26.0	73.025	4000	31.7	33.0	491.72	862.55										
120		10:00:00	6468	0	26.0	73.025	4000	31.8	33.0	492.49	872.80	0.157	10.0	0.141	3.391	4.605	0.016	0.377	0.665	8	16000
121		10:30:00	6468	0	28.0	73.025	4000	31.8	34.0	491.54	883.05										
122		11:00:00	6481	0	28.0	73.025	4000	32.0	34.0	493.09	893.31	0.151	6.0	0.142	3.407	4.747	0.009	0.217	0.674	8	26000
123		11:30:00	6468	0	27.0	73.025	4000	32.0	34.0	493.09	903.58										
124		12:00:00	6468	0	28.0	73.025	4000	32.0	34.0	493.09	913.85	0.177	9.0	0.161	3.866	4.908	0.016	0.382	0.690	8	16000
125	1999/08/15	12:30:00	6468	0	28.0	73.025	4000	32.0	34.0	493.09	924.13										
126		13:00:00	6468	0	28.0	73.025	4000	32.0	34.0	493.09	934.40	0.098	8.0	0.090	2.164	4.998	0.008	0.188	0.698	8	20000
127		13:30:00	6468	0	28.0	73.025	4000	31.9	34.0	492.31	944.66										
128		14:00:00	6468	0	28.0	73.025	4000	31.9	34.0	492.31	954.92	0.131	8.0	0.121	2.892	5.119	0.010	0.252	0.709	8	14000
129		14:30:00	6468	0	29.0	73.025	4000	31.9	34.0	492.31	965.18										
130		15:00:00	6468	0	29.0	73.025	4000	31.9	34.0	492.31	975.43	0.131	8.0	0.121	2.892	5.239	0.010	0.252	0.719	8	22000
131		15:30:00	6468	0	29.0	73.025	4000	31.9	34.0	492.31	985.69										
132		16:00:00	6454	0	29.0	73.025	4000	31.8	34.0	491.54	995.94	0.144	5.0	0.137	3.283	5.376	0.007	0.173	0.726	8	16000
133		16:30:00	6454	0	29.0	73.025	4000	31.7	35.0	489.82	1006.16										
134		17:00:00	6454	0	30.0	73.025	4025	31.5	35.0	489.83	1016.36	0.170	7.0	0.158	3.794	5.534	0.012	0.286	0.738	8	12000
135	1999/08/15	17:30:00	6454	0	30.0	73.025	4025	31.5	35.0	489.83	1026.57										
136		18:00:00	6447	0	30.0	73.025	4000	31.5	34.0	489.21	1036.77	0.072	4.0	0.069	1.659	5.603	0.003	0.069	0.741	8	10000
137		18:30:00	6447	0	30.0	73.025	4000	31.7	34.0	490.77	1046.98										
138		19:00:00	6447	0	30.0	73.025	4000	31.7	34.0	490.77	1057.20	0.151	8.0	0.139	3.334	5.742	0.012	0.290	0.753	8	12000
139		19:30:00	6439	0	30.0	73.025	4000	31.6	35.0	489.05	1067.41										
140		20:00:00	6439	0	30.0	73.025	4015	31.6	35.0	489.98	1077.60	0.030	8.0	0.028	0.662	5.770	0.002	0.058	0.756	8	10000
141		20:30:00	6433	0	28.0	73.025	4015	31.5	35.0	489.21	1087.80										

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Lard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fld Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
142	1999/08/15	21:00:00	6433	0	28.0	73.025	4000	31.4	35.0	487.50	1097.98	0.250	5.0	0.237	5.700	6.007	0.013	0.300	0.768	8	10000
143		21:30:00	6433	0	27.0	73.025	4000	31.2	35.0	485.94	1108.12										
144		22:00:00	6426	0	26.0	73.025	4025	31.1	35.0	486.70	1118.25	0.092	6.0	0.086	2.069	6.093	0.008	0.132	0.774	8	10000
145	1999/08/15	22:30:00	6426	0	28.0	73.025	4025	31.1	35.0	486.70	1128.39										
146		23:00:00	6488	0	26.0	73.025	4000	31.5	34.0	489.21	1138.56	0.048	7.0	0.043	1.023	6.136	0.003	0.077	0.777	8	10000
147		23:30:00	8481	0	26.0	73.025	4000	31.4	34.0	488.43	1148.74										
148	1999/08/16	00:00:00	8467	0	28.0	73.025	3975	31.4	34.0	486.88	1158.90	0.040	7.0	0.037	0.893	6.173	0.003	0.067	0.780	8	10000
149		00:00:00	PRODUCTION TOTALS: Cum Gas = 1158.90 E3m3, Cum H2O = 0.78 m3, Cum Cond = 6.173 m3, A.P.I = 48.8 @ 15°C, Gastec = 0ppm.																		
150		00:30:00	8481	0	25.0	73.025	3975	31.3	34.0	486.10	1169.03										
151		01:00:00	6488	0	26.0	73.025	3975	31.3	34.0	486.10	1179.16	0.120	4.0	0.115	2.765	6.288	0.005	0.115	0.784	8	8000
152	1999/08/16	01:30:00	6452	0	26.0	73.025	3975	31.3	34.0	486.10	1189.29										
153		02:00:00	6446	0	26.0	73.025	3975	31.3	34.0	486.10	1199.42	0.120	5.0	0.114	2.736	6.402	0.006	0.144	0.790	8	10000
154		02:30:00	6446	0	26.0	73.025	3975	31.2	34.0	485.32	1209.53										
155		03:00:00	6446	0	25.0	73.025	3975	31.1	34.0	484.54	1219.64	0.120	5.0	0.114	2.736	6.516	0.006	0.144	0.796	8	10000
156		03:30:00	6426	0	25.0	73.025	3975	31.1	34.0	484.54	1229.73										
157		04:00:00	6439	0	25.0	73.025	3975	31.1	34.0	484.54	1239.83	0.230	3.0	0.223	5.354	6.739	0.007	0.166	0.803	8	10000
158		04:30:00	6439	0	25.0	73.025	3975	31.1	34.0	484.54	1249.92										
159		05:00:00	6439	0	25.0	73.025	3975	31.1	34.0	484.54	1260.02	0.070	3.0	0.068	1.630	6.807	0.002	0.050	0.805	8	10000
160		05:30:00	6439	0	25.0	73.025	3975	31.1	34.0	484.54	1270.11										
161		06:00:00	6439	0	25.0	73.025	3975	31.1	34.0	484.54	1280.20	0.120	0.0	0.120	2.880	6.927	0.000	0.000	0.805	8	12000
162	1999/08/16	06:30:00	6439	0	25.0	73.025	3975	31.2	34.0	485.32	1290.31										
163		07:00:00	6439	0	25.0	73.025	3975	31.2	34.0	485.32	1300.42	0.136	8.5	0.124	2.987	7.052	0.012	0.277	0.817	7	10000
164		07:30:00	6439	0	25.0	73.025	3975	31.2	34.0	485.32	1310.53										
165		08:00:00	6433	0	26.0	73.025	3975	31.2	34.0	485.32	1320.64	0.203	6.0	0.191	4.580	7.243	0.012	0.292	0.829	7	10000
166		08:30:00	6433	0	26.0	73.025	3975	31.2	34.0	485.32	1330.75										
167		09:00:00	6426	0	26.0	73.025	3975	31.2	34.0	485.32	1340.86	0.144	4.5	0.138	3.300	7.380	0.006	0.156	0.836	7	12000
168		09:30:00	6426	0	26.0	73.025	3975	31.2	34.0	485.32	1350.97										
169		10:00:00	6419	0	26.0	73.025	3975	31.1	34.0	484.54	1361.07	0.151	6.0	0.142	3.407	7.522	0.009	0.217	0.845	7	14000
170		10:30:00	6419	0	26.0	73.025	3975	31.2	34.0	485.32	1371.18										
171		11:00:00	6419	0	26.0	73.025	3975	31.2	34.0	485.32	1381.29	0.111	7.0	0.103	2.478	7.625	0.008	0.186	0.853	7	14000
172	1999/08/16	11:30:00	6412	0	26.0	73.025	3975	31.2	34.0	485.32	1391.40										
173		12:00:00	6412	0	27.0	73.025	3975	31.2	34.0	485.32	1401.51	0.157	3.5	0.152	3.636	7.777	0.005	0.132	0.658	8	18000
174		12:30:00	6412	0	28.0	73.025	3975	31.2	34.0	485.32	1411.62										
175		13:00:00	6399	0	28.0	73.025	4000	31.2	34.0	486.87	1421.75	0.085	5.0	0.081	1.938	7.858	0.004	0.102	0.862	7	14000
176	1999/08/16	13:30:00	6399	0	28.0	73.025	4000	31.2	34.0	486.87	1431.89										
177		14:00:00	6399	0	28.0	73.025	4000	31.2	34.0	486.87	1442.03	0.210	6.0	0.197	4.738	8.055	0.013	0.302	0.875	7	18000
178		14:30:00	6399	0	28.0	73.025	4000	31.2	34.0	486.87	1452.18										
179		15:00:00	6399	0	29.0	73.025	4000	31.1	35.0	485.16	1462.30	0.105	3.5	0.101	2.432	8.156	0.004	0.098	0.879	7	14000
180		15:30:00	6399	0	29.0	73.025	4000	31.0	34.0	485.31	1472.41										
181		16:00:00	6399	0	29.0	73.025	4000	31.1	34.0	486.09	1482.53	0.092	3.0	0.089	2.142	8.246	0.003	0.066	0.881	8	16000
182	1999/08/16	16:30:00	6399	0	29.0	73.025	4000	31.2	34.0	486.87	1492.67										
183		17:00:00	6385	0	29.0	73.025	4000	31.2	34.0	486.87	1502.81	0.138	2.5	0.135	3.229	8.380	0.003	0.083	0.885	7	16000
184		17:30:00	6385	0	29.0	73.025	4000	31.1	34.0	486.09	1512.94										
185		18:00:00	6385	0	29.0	73.025	4000	31.1	34.0	486.09	1523.07	0.157	3.5	0.152	3.636	8.532	0.005	0.132	0.890	8	12000
186		18:30:00	6385	0	29.0	73.025	4000	31.1	34.0	486.09	1533.20										
187		19:00:00	6385	0	29.0	73.025	4000	31.1	34.0	486.09	1543.33	0.144	5.0	0.137	3.283	8.668	0.007	0.173	0.897	7	6000
188		19:30:00	6384	0	29.0	73.025	4000	31.1	34.0	486.09	1553.45										

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation, Maitson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fld Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
189	1999/08/16	20:00:00	6384	0	27.0	73.025	4000	31.1	34.0	486.09	1563.58	0.340	4.0	0.326	7.834	8.995	0.014	0.328	0.911	7	10000
190		20:30:00	6377	0	26.0	73.025	4000	31.1	34.0	486.09	1573.71										
191		21:00:00	6377	0	26.0	73.025	4000	31.1	34.0	486.09	1583.83	0.340	5.0	0.323	7.752	9.318	0.017	0.408	0.928	7	6000
192	1999/08/16	21:30:00	6377	0	26.0	73.025	4000	31.1	34.0	486.09	1593.96										
193		22:00:00	6377	0	26.0	73.025	4015	31.0	34.0	486.24	1604.09	0.340	4.0	0.326	7.834	9.644	0.014	0.326	0.942	7	8000
194		22:30:00	6370	0	25.0	73.025	4015	31.0	34.0	486.24	1614.22										
195		23:00:00	6370	0	25.0	73.025	4015	31.0	34.0	486.24	1624.35	0.340	5.0	0.323	7.752	9.967	0.017	0.408	0.959	7	7000
196		23:30:00	6363	0	25.0	73.025	4015	30.9	34.0	485.45	1634.47										
197	1999/08/17	00:00:00	6363	0	25.0	73.025	4000	30.9	34.0	484.53	1644.57	0.200	5.0	0.190	4.560	10.157	0.010	0.240	0.969	7	8000
198		00:00:00	PRODUCTION TOTALS: Cum Gas = 1644.57 E3m3, Cum H2O = 0.969 m3, Cum Cond = 10.157 m3, A.P.I. = 48.4 @ 15°C, Gastec = 0ppm.																		
199	1999/08/17	00:30:00	6363	0	25.0	73.025	3975	30.9	34.0	482.98	1654.65										
200		01:00:00	6363	0	25.0	73.025	3975	30.9	34.0	482.98	1664.71	0.020	0.0	0.020	0.480	10.177	0.000	0.000	0.969	7	8000
201		01:30:00	6363	0	25.0	73.025	3975	30.7	34.0	481.41	1674.76										
202		02:00:00	6357	0	24.0	73.025	3975	30.7	34.0	481.41	1684.79	0.150	6.0	0.141	3.384	10.318	0.009	0.216	0.978	7	8000
203		02:30:00	6357	0	24.0	73.025	3975	30.8	34.0	482.20	1694.83										
204		03:00:00	6357	0	24.0	73.025	3975	30.8	34.0	482.20	1704.87	0.066	3.0	0.064	1.525	10.382	0.002	0.047	0.980	7	8000
205		03:30:00	6357	0	24.0	73.025	3975	30.8	34.0	482.20	1714.92										
206		04:00:00	6357	0	24.0	73.025	3950	30.6	34.0	479.08	1724.93	0.200	4.0	0.192	4.608	10.574	0.008	0.192	0.988	7	8000
207		04:30:00	6350	0	24.0	73.025	3950	30.6	34.0	479.08	1734.91										
208		05:00:00	6350	0	24.0	73.025	3950	30.6	34.0	479.08	1744.89	0.046	2.0	0.045	1.082	10.619	0.001	0.022	0.989	7	7000
209	1999/08/17	05:30:00	6350	0	24.0	73.025	3950	30.6	34.0	479.08	1754.87										
210		06:00:00	6350	0	24.0	73.025	3950	30.5	34.0	478.30	1764.85	0.200	6.0	0.188	4.512	10.807	0.012	0.288	1.001	7	8000
211		06:30:00	6343	0	24.0	73.025	3950	30.3	34.0	476.73	1774.80										
212		07:00:00	6343	0	24.0	73.025	3950	30.3	34.0	476.73	1784.73	0.118	4.5	0.113	2.705	10.920	0.005	0.127	1.006	7	10000
213		07:30:00	6343	0	24.0	73.025	3950	30.3	34.0	476.73	1794.66										
214		08:00:00	6337	0	24.0	73.025	3950	30.3	33.0	477.65	1804.60	0.124	6.0	0.117	2.797	11.036	0.007	0.179	1.013	7	12000
215		08:30:00	6337	0	24.0	73.025	3950	30.3	33.0	477.65	1814.55										
216		09:00:00	6337	0	24.0	73.025	3950	30.3	33.0	477.65	1824.50	0.164	5.0	0.156	3.739	11.192	0.008	0.197	1.021	7	8000
217		09:30:00	6330	0	24.0	73.025	3950	30.4	34.0	477.51	1834.45										
218		10:00:00	6330	0	25.0	73.025	3975	30.4	34.0	479.05	1844.42	0.105	6.0	0.099	2.369	11.291	0.006	0.151	1.028	7	10000
219	1999/08/17	10:30:00	6330	0	25.0	73.025	4000	30.4	34.0	480.59	1854.41										
220		11:00:00	6330	0	26.0	73.025	4000	30.4	34.0	480.59	1864.42	0.105	2.5	0.102	2.457	11.393	0.003	0.063	1.030	7	10000
221		11:30:00	6330	0	27.0	73.025	4000	30.5	34.0	481.38	1874.44										
222		12:00:00	6330	0	26.0	73.025	3975	30.4	34.0	479.05	1884.45	0.138	5.0	0.131	3.146	11.524	0.007	0.166	1.037	7	14000
223		12:30:00	6330	0	28.0	73.025	3975	30.4	35.0	478.13	1894.42										
224		13:00:00	6330	0	27.0	73.025	4000	30.4	34.0	480.59	1904.41	0.092	3.0	0.089	2.142	11.613	0.003	0.066	1.040	7	12000
225		13:30:00	6330	0	28.0	73.025	4000	30.5	35.0	480.45	1914.42										
226		13:45:00	Open choke to 23.81mm.																		
227		14:00:00	5964	0	29.0	73.025	4100	31.0	36.0	489.58	1924.52	0.124	2.0	0.122	2.916	11.735	0.002	0.060	1.043	7	12000
228		14:04:00	Open choke to 24.61mm.																		
229	1999/08/17	14:30:00	5861	0	30.0	73.025	4175	31.6	36.0	498.89	1934.82										
230		15:00:00	5861	0	29.0	73.025	4175	31.5	36.0	498.10	1945.20	0.118	1.5	0.116	2.790	11.851	0.002	0.042	1.044	7	10000
231		15:30:00	5861	0	30.0	73.025	4175	31.5	36.0	498.10	1955.58										
232		16:00:00	5861	0	30.0	73.025	4175	31.5	36.0	498.10	1965.96	0.111	3.0	0.108	2.584	11.959	0.003	0.080	1.048	7	12000
233		16:30:00	5861	0	30.0	73.025	4175	31.5	36.0	498.10	1976.33										
234		17:00:00	5861	0	30.0	73.025	4175	31.5	36.0	498.10	1986.71	0.098	2.5	0.096	2.293	12.054	0.002	0.059	1.050	7	8000
235		17:30:00	5861	0	29.0	73.025	4175	31.5	36.0	498.10	1997.09										

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Lard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fid Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		ppm
236	1999/08/17	18:00:00	5854	0	27.0	73.025	4175	31.5	36.0	498.10	2007.47	0.133	3.0	0.129	3.096	12.183	0.004	0.096	1.054	7	10000
237		18:30:00	5854	0	27.0	73.025	4175	31.4	36.0	497.31	2017.84										
238		19:00:00	5854	0	26.0	73.025	4175	31.4	36.0	497.31	2028.20	0.105	3.0	0.102	2.444	12.285	0.003	0.076	1.057	7	8000
239	1999/08/17	19:30:00	5853	0	28.0	73.025	4175	31.4	36.0	497.31	2038.56										
240		20:00:00	5853	0	26.0	73.025	4150	31.5	36.0	496.58	2048.91	0.160	3.0	0.155	3.725	12.440	0.005	0.115	1.062	7	8000
241		20:30:00	5853	0	26.0	73.025	4150	31.5	36.0	496.58	2059.26										
242		21:00:00	5846	0	26.0	73.025	4150	31.5	36.0	496.58	2069.60	0.030	2.0	0.029	0.706	12.470	0.001	0.014	1.063	7	10000
243		21:30:00	5846	0	26.0	73.025	4150	31.4	36.0	495.79	2079.94										
244		22:00:00	5846	0	26.0	73.025	4150	31.4	36.0	495.79	2090.27	0.030	2.0	0.029	0.706	12.499	0.001	0.014	1.063		
245		22:30:00	5846	0	26.0	73.025	4150	31.3	36.0	495.00	2100.59										
246		22:30:00	Open choke to 25.4mm.																		
247		23:00:00	5743	0	24.0	73.025	4175	31.4	34.0	499.24	2110.94	0.120	2.0	0.118	2.822	12.617	0.002	0.058	1.066	7	8000
248		23:30:00	5743	0	24.0	73.025	4175	31.3	34.0	498.44	2121.34										
249	1999/08/18	00:00:00	5743	0	24.0	73.025	4125	31.3	34.0	495.38	2131.69	0.020	3.0	0.019	0.466	12.636	0.001	0.014	1.066	7	10000
250		00:00:00	Open choke to 26.19mm.																		
251		00:00:00	PRODUCTION TOTALS: Cum Gas = 2121.69 E3m3, Cum H2O = 1.066 m3, Cum Cond = 12.636 m3. A.P.I = 48.8 @ 15°C. Gastec = 0ppm.																		
252		00:30:00	5881	0	24.0	73.025	4125	31.6	35.0	496.79	2142.02										
253		01:00:00	5881	0	24.0	73.025	4125	31.6	35.0	496.79	2152.37	0.120	4.0	0.115	2.765	12.751	0.005	0.115	1.071	7	10000
254		01:30:00	5881	0	24.0	73.025	4100	31.6	35.0	495.25	2162.71										
255		01:35:00	Open choke to 26.98mm.																		
256		02:00:00	5626	0	25.0	73.025	4140	31.6	35.0	497.71	2173.05	0.150	4.0	0.144	3.456	12.895	0.006	0.144	1.077	7	12000
257	1999/08/18	02:30:00	5626	0	24.0	73.025	4140	31.4	35.0	496.13	2183.40										
258		03:00:00	5626	0	24.0	73.025	4125	31.4	35.0	495.21	2193.73	0.030	5.0	0.029	0.684	12.924	0.002	0.036	1.079	7	10000
259		03:10:00	Open choke to 27.78mm.																		
260		03:30:00	5591	0	24.0	73.025	4125	31.5	35.0	496.00	2204.05										
261		04:00:00	5591	0	24.0	73.025	4125	31.5	35.0	496.00	2214.39	0.150	4.0	0.144	3.456	13.068	0.006	0.144	1.085	7	10000
262		04:30:00	5591	0	24.0	73.025	4125	31.5	35.0	496.00	2224.72										
263		05:00:00	5591	0	24.0	73.025	4125	31.4	35.0	495.21	2235.05	0.100	6.0	0.094	2.256	13.162	0.006	0.144	1.091	7	10000
264		05:10:00	Open choke to 28.58mm.																		
265		05:30:00	5571	0	24.0	73.025	4150	31.3	35.0	495.95	2245.37										
266	1999/08/18	06:00:00	5571	0	24.0	73.025	4150	31.1	35.0	494.36	2255.69	0.060	4.0	0.058	1.382	13.219	0.002	0.058	1.093	7	8000
267		06:30:00	5571	0	24.0	73.025	4150	31.5	35.0	497.53	2266.02										
268		07:00:00	5571	0	23.0	73.025	4150	31.5	35.0	497.53	2276.38	0.164	3.5	0.158	3.798	13.378	0.006	0.138	1.099	7	10000
269		07:30:00	5599	0	23.0	73.025	4175	31.9	35.0	502.23	2286.80										
270		08:00:00	5571	0	23.0	73.025	4150	31.8	35.0	499.90	2297.24	0.164	8.0	0.151	3.621	13.529	0.013	0.315	1.112	7	12000
271		08:30:00	5571	0	22.0	73.025	4150	31.8	35.0	499.90	2307.65										
272		09:00:00	5571	0	23.0	73.025	4150	31.8	34.0	500.87	2318.08	0.124	6.0	0.117	2.797	13.645	0.007	0.179	1.119	7	14000
273		09:30:00	5571	0	23.0	73.025	4150	31.8	35.0	499.90	2328.50										
274		10:00:00	5571	0	23.0	73.025	4150	31.9	35.0	500.69	2338.92	0.164	3.5	0.158	3.798	13.803	0.006	0.138	1.125	7	12000
275		10:30:00	5571	0	23.0	73.025	4150	31.9	35.0	500.69	2349.36										
276	1999/08/18	11:00:00	5571	0	23.0	73.025	4150	31.8	35.0	499.90	2359.78	0.059	6.0	0.055	1.331	13.859	0.004	0.085	1.129	7	12000
277		11:30:00	5571	0	24.0	73.025	4150	31.8	35.0	499.90	2370.19										
278		12:00:00	5571	0	24.0	73.025	4150	31.7	35.0	499.11	2380.60	0.066	5.0	0.063	1.505	13.922	0.003	0.079	1.132	7	12000
279		12:30:00	5571	0	24.0	73.025	4150	31.8	35.0	499.90	2391.01										
280		13:00:00	5571	0	24.0	73.025	4150	31.8	35.0	499.90	2401.42	0.072	2.0	0.071	1.693	13.992	0.001	0.035	1.133	7	14000
281		13:30:00	5571	0	23.0	73.025	4150	31.8	35.0	499.90	2411.83										
282		14:00:00	5571	0	23.0	73.025	4175	31.9	36.0	501.26	2422.26	0.111	2.0	0.109	2.611	14.101	0.002	0.053	1.135	7	10000

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation: Matson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT °C	Orifice mm	Static kPa(g)	Diff kPa	Temp °C	Gas Rate 10 ³ m ³ /d	Cum Gas 10 ³ m ³	Fid Gain m ³	BSW %	Oil Gain m ³	Oil Rate m ³ /d	Cum Oil m ³	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Ph	Salinity ppm
283	1999/08/18	14:30:00	5571	0	24.0	73.025	4175	31.9	36.0	501.26	2432.71										
284		15:00:00	5571	0	25.0	73.025	4175	31.9	36.0	501.26	2443.15	0.085	5.0	0.081	1.938	14.182	0.004	0.102	1.140	7	14000
285		15:30:00	5571	0	26.0	73.025	4175	31.9	36.0	501.26	2453.59										
286	1999/08/18	16:00:00	5571	0	26.0	73.025	4200	31.8	36.0	502.00	2464.04	0.151	2.5	0.147	3.533	14.329	0.004	0.091	1.143		12000
287		16:30:00	5571	0	26.0	73.025	4200	31.8	36.0	502.00	2474.50										
288		17:00:00	5571	0	27.0	73.025	4200	31.8	36.0	502.00	2484.96	0.092	3.0	0.089	2.142	14.418	0.003	0.066	1.146	7	10000
289		17:30:00	5571	0	27.0	73.025	4200	31.8	36.0	502.00	2495.42										
290		18:00:00	5571	0	28.0	73.025	4200	31.8	36.0	502.00	2505.88	0.033	2.0	0.032	0.776	14.450	0.001	0.016	1.147	7	10000
291		18:30:00	5571	0	28.0	73.025	4200	31.7	36.0	501.21	2516.33										
292		19:00:00	5571	0	28.0	73.025	4200	31.7	36.0	501.21	2526.77	0.138	6.0	0.130	3.113	14.530	0.008	0.199	1.155	7	12000
293		19:30:00	5571	0	28.0	73.025	4200	31.7	36.0	501.21	2537.21										
294		20:00:00	5571	0	27.0	73.025	4200	31.7	36.0	501.21	2547.65	0.030	4.0	0.029	0.891	14.609	0.001	0.029	1.156	7	12000
295		20:30:00	5571	0	26.0	73.025	4200	31.7	36.0	501.21	2558.09										
296	1999/08/18	21:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2568.54	0.090	2.0	0.088	2.117	14.697	0.002	0.043	1.158	7	10000
297		21:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2578.98										
298		22:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2589.42	0.030	2.0	0.029	0.706	14.727	0.001	0.014	1.159	7	12000
299		22:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2599.86										
300		23:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2610.30	0.040	5.0	0.038	0.912	14.765	0.002	0.048	1.161	7	10000
301		23:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2620.75										
302	1999/08/19	00:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2631.19	0.040	5.0	0.038	0.912	14.803	0.002	0.048	1.163	7	10000
303		00:00:00	PRODUCTION TOTALS: Cum Gas = 2631.19 E3m3, Cum H2O = 1.163 m3, Cum Cond = 14.803 m3. A.P.I = 47.1 @ 15°C. Gastec = 0ppm.																		
304		00:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2641.63										
305		00:30:00	Dump valve on test separator stuck in open position for a couple of minutes.																		
306		01:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2652.07	0.085	7.0	0.079	1.897	14.882	0.006	0.143	1.169	7	10000
307		01:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2662.51										
308		02:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2672.95	0.046	4.0	0.044	1.060	14.926	0.002	0.044	1.171	7	10000
309		02:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2683.40										
310		03:00:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2693.84	0.090	5.0	0.085	2.052	15.011	0.005	0.108	1.175	7	8000
311		03:30:00	5571	0	24.0	73.025	4200	31.7	36.0	501.21	2704.28										
312		04:00:00	5571	0	24.0	73.025	4175	31.8	35.0	501.44	2714.72	0.060	6.0	0.056	1.354	15.068	0.004	0.086	1.179	7	8000
313	1999/08/19	04:30:00	5571	0	24.0	73.025	4175	31.8	35.0	501.44	2725.17										
314		05:00:00	5571	0	24.0	73.025	4175	31.7	35.0	500.65	2735.61	0.100	6.0	0.094	2.256	15.162	0.006	0.144	1.185	7	10000
315		05:30:00	5571	0	24.0	73.025	4175	31.7	35.0	500.65	2746.04										
316		06:00:00	5571	0	24.0	73.025	4175	31.7	35.0	500.65	2756.47	0.100	6.0	0.094	2.256	15.256	0.006	0.144	1.191	7	12000
317		06:30:00	5571	0	23.0	73.025	4175	31.7	35.0	500.65	2766.90										
318		07:00:00	5571	0	23.0	73.025	4150	31.7	35.0	499.11	2777.31	0.046	7.5	0.043	1.021	15.298	0.003	0.083	1.194	7	10000
319		07:30:00	5530	0	22.0	73.025	4150	31.7	34.0	500.08	2787.72										
320		08:00:00	5571	0	22.0	73.025	4150	31.4	34.0	497.71	2798.12	0.229	8.5	0.210	5.029	15.508	0.019	0.467	1.214	7	10000
321		08:30:00	5571	0	24.0	73.025	4150	31.5	34.0	498.50	2808.49										
322		08:45:00	H2S by Kitgawa = 1.5ppm.																		
323	1999/08/19	09:00:00	5571	0	24.0	73.025	4150	31.4	34.0	497.71	2818.87	0.170	9.0	0.155	3.713	15.662	0.015	0.367	1.229	7	12000
324		09:30:00	5571	0	24.0	73.025	4175	31.5	34.0	500.03	2829.26										
325		10:00:00	5571	0	24.0	73.025	4175	31.6	34.0	500.83	2839.69	0.105	9.0	0.096	2.293	15.758	0.009	0.227	1.238	7	14000
326		10:30:00	5571	0	24.0	73.025	4175	31.6	34.0	500.83	2850.12										
327		11:00:00	5571	0	24.0	73.025	4175	31.6	35.0	499.66	2860.55	0.077	6.0	0.072	1.737	15.830	0.005	0.111	1.243	7	8000
328		11:30:00	5571	0	24.0	73.025	4175	31.7	35.0	500.65	2870.97										
329		12:00:00	5571	0	25.0	73.025	4200	31.8	36.0	502.00	2881.41	0.077	6.5	0.072	1.728	15.902	0.005	0.120	1.248	7	4000

Paramount Resources.
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Lard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fld Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/1	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
330	1999/08/19	12:30:00	5571	0	26.0	73.025	4200	31.8	36.0	502.00	2891.87										
331		13:00:00	5571	0	26.0	73.025	4200	31.8	36.0	502.00	2902.33	0.077	3.0	0.075	1.793	15.977	0.002	0.055	1.250	7	6000
332		13:30:00	5571	0	26.0	73.025	4200	31.8	36.0	502.00	2912.79										
333	1999/08/19	14:00:00	5585	0	26.0	73.025	4200	31.8	36.0	502.00	2923.25	0.052	3.5	0.050	1.204	16.027	0.002	0.044	1.252	7	10000
334		14:30:00	5585	0	26.0	73.025	4200	31.9	36.0	502.79	2933.71										
335		15:00:00	5585	0	27.0	73.025	4200	31.9	36.0	502.79	2944.19	0.085	3.5	0.082	1.969	16.109	0.003	0.071	1.255	7	8000
336		15:30:00	5585	0	27.0	73.025	4200	31.8	36.0	502.00	2954.66										
337		16:00:00	5585	0	28.0	73.025	4225	31.9	36.0	504.32	2965.14	0.164	2.5	0.160	3.838	16.269	0.004	0.098	1.259	7	6000
338		16:30:00	5571	0	28.0	73.025	4225	31.8	36.0	503.53	2975.84										
339		17:00:00	5571	0	28.0	73.025	4225	31.9	36.0	504.32	2986.13	0.072	2.0	0.071	1.693	16.340	0.001	0.035	1.261	7	10000
340		17:30:00	5585	0	29.0	73.025	4225	31.9	36.0	504.32	2996.84										
341		18:00:00	5585	0	29.0	73.025	4225	31.9	36.0	504.32	3007.15	0.060	3.5	0.058	1.390	16.398	0.002	0.050	1.263	7	10000
342		18:30:00	5585	0	29.0	73.025	4225	31.8	36.0	503.53	3017.65										
343	1999/08/19	19:00:00	5571	0	30.0	73.025	4225	31.9	36.0	504.32	3028.14	0.066	4.0	0.063	1.521	16.461	0.003	0.063	1.265	7	8000
344		19:30:00	5571	0	30.0	73.025	4225	31.9	36.0	504.32	3038.65										
345		20:00:00	5571	0	29.0	73.025	4250	31.8	36.0	505.05	3049.17	0.020	3.0	0.019	0.466	16.480	0.001	0.014	1.266	7	8000
346		20:30:00	5571	0	26.0	73.025	4250	31.8	36.0	505.05	3059.69										
347		21:00:00	5571	0	25.0	73.025	4225	31.8	36.0	503.53	3070.19	0.020	3.0	0.019	0.466	16.500	0.001	0.014	1.267	7	8000
348		21:30:00	5571	0	25.0	73.025	4225	31.8	36.0	503.53	3080.68										
349		22:00:00	5571	0	25.0	73.025	4225	31.8	36.0	503.53	3091.17	1.300	4.0	1.248	25.952	17.743	0.052	1.248	1.319	7	8000
350		22:30:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3101.66										
351		23:00:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3112.15	0.010	5.0	0.009	0.228	17.757	0.001	0.012	1.319	7	8000
352		23:30:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3122.64										
353	1999/08/20	00:00:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3133.13	0.060	5.0	0.057	1.368	17.814	0.003	0.072	1.322	7	10000
354		00:00:00	PRODUCTION TOTALS: Cum Gas = 3133.13 E3m3, Cum H2O = 1.322 m3, Cum Cond = 17.814 m3, A.P.I = 47.9 @ 15°C, Gastec = Oppm.																		
355		00:30:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3143.62										
356		01:00:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3154.11	0.060	3.0	0.058	1.397	17.872	0.002	0.043	1.324	7	8000
357		01:30:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3164.60										
358		02:00:00	5571	0	24.0	73.025	4225	31.8	36.0	503.53	3175.09	0.050	4.0	0.048	1.152	17.920	0.002	0.048	1.326	7	8000
359		02:30:00	5571	0	24.0	73.025	4225	31.6	36.0	501.94	3185.57										
360	1999/08/20	03:00:00	5564	0	24.0	73.025	4200	31.2	35.0	498.20	3195.99	0.120	5.0	0.114	2.736	18.034	0.006	0.144	1.332	7	10000
361		03:30:00	5564	0	24.0	73.025	4200	31.2	35.0	498.20	3206.37										
362		04:00:00	5564	0	24.0	73.025	4175	31.2	35.0	496.68	3216.73	0.045	10.0	0.041	0.972	18.075	0.005	0.108	1.336	7	8000
363		04:30:00	5557	0	24.0	73.025	4175	31.2	35.0	496.68	3227.08										
364		05:00:00	5557	0	24.0	73.025	4175	31.2	35.0	496.68	3237.42	0.130	8.0	0.120	2.870	18.195	0.010	0.250	1.347	7	8000
365		05:30:00	5557	0	24.0	73.025	4175	31.2	34.0	497.64	3247.78										
366		06:00:00	5557	0	24.0	73.025	4175	31.3	34.0	498.44	3258.16	0.060	8.0	0.055	1.325	18.250	0.005	0.115	1.352	7	8000
367		06:30:00	5557	0	24.0	73.025	4175	31.3	35.0	497.48	3268.53										
368		07:00:00	5557	0	24.0	73.025	4175	31.3	34.0	498.44	3278.91	0.046	9.5	0.042	0.999	18.291	0.004	0.105	1.356	7	8000
369		07:30:00	5557	0	23.0	73.025	4175	31.3	34.0	498.44	3289.29										
370	1999/08/20	08:00:00	5544	0	23.0	73.025	4175	31.3	34.0	498.44	3299.67	0.177	10.0	0.159	3.823	18.451	0.018	0.425	1.374	7	12000
371		08:30:00	5557	0	23.0	73.025	4175	31.3	35.0	497.48	3310.05										
372		09:00:00	5530	0	23.0	73.025	4175	31.3	35.0	497.48	3320.41	0.170	2.0	0.167	3.998	18.617	0.003	0.082	1.377	7	10000
373		09:30:00	5537	0	23.0	73.025	4150	31.4	35.0	496.74	3330.77										
374		10:00:00	5544	0	24.0	73.025	4175	31.4	35.0	498.27	3341.13	0.072	3.5	0.069	1.668	18.687	0.003	0.060	1.380	7	10000
375		10:30:00	5544	0	24.0	73.025	4175	31.4	35.0	498.27	3351.51										
376		11:00:00	5551	0	24.0	73.025	4175	31.5	36.0	498.10	3361.89	0.072	2.5	0.070	1.685	18.757	0.002	0.043	1.381	7	8000

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Lard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fid Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/dd	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
377	1999/08/20	11:30:00	5557	0	24.0	73.025	4175	31.5	36.0	498.10	3372.27										
378		12:00:00	5551	0	24.0	73.025	4175	31.4	36.0	497.31	3382.64	0.052	8.5	0.048	1.142	18.805	0.004	0.106	1.386	7	4000
379		12:30:00	5557	0	24.0	73.025	4175	31.4	36.0	497.31	3393.00										
380	1999/08/20	13:00:00	5557	0	25.0	73.025	4175	31.4	36.0	497.31	3403.36	0.098	6.0	0.092	2.211	18.897	0.006	0.141	1.392	7	6000
381		13:30:00	5551	0	26.0	73.025	4175	31.4	36.0	497.31	3413.72										
382		14:00:00	5557	0	26.0	73.025	4175	31.4	36.0	497.31	3424.08	0.059	2.0	0.058	1.388	18.955	0.001	0.028	1.393	7	4000
383		14:30:00	5564	0	26.0	73.025	4175	31.4	36.0	497.31	3434.44										
384		15:00:00	5584	0	27.0	73.025	4175	31.3	36.0	496.52	3444.79	0.059	7.0	0.055	1.317	19.009	0.004	0.099	1.397	7	12000
385		15:30:00	5544	0	28.0	73.025	4175	31.3	36.0	496.52	3455.14										
386		16:00:00	5544	0	27.0	73.025	4200	31.3	36.0	498.04	3465.50	0.118	6.5	0.110	2.648	19.120	0.008	0.184	1.405	7	8000
387		16:30:00	5557	0	28.0	73.025	4200	31.3	36.0	498.04	3475.87										
388		17:00:00	5564	0	28.0	73.025	4200	31.3	36.0	498.04	3486.25	0.052	7.0	0.048	1.161	19.168	0.004	0.057	1.408	7	14000
389		17:30:00	5564	0	28.0	73.025	4225	31.3	36.0	499.55	3496.64										
390	1999/08/20	18:00:00	5571	0	28.0	73.025	4225	31.2	36.0	498.75	3507.04	0.052	3.0	0.050	1.211	19.219	0.002	0.037	1.410	7	8000
391		18:30:00	5550	0	30.0	73.025	4225	31.2	36.0	498.75	3517.43										
392		19:00:00	5557	0	30.0	73.025	4225	31.2	36.0	498.75	3527.82	0.059	4.5	0.056	1.352	19.275	0.003	0.064	1.412	7	10000
393		19:30:00	5564	0	29.0	73.025	4225	31.2	37.0	497.79	3538.20										
394		20:00:00	5564	0	29.0	73.025	4225	31.2	37.0	497.79	3548.57	0.010	4.0	0.010	0.230	19.284	0.000	0.010	1.413	7	10000
395		20:30:00	5557	0	27.0	73.025	4225	31.2	36.0	498.75	3558.95										
396		21:00:00	5550	0	25.0	73.025	4225	31.2	37.0	497.79	3569.33	0.020	4.0	0.019	0.461	19.304	0.001	0.019	1.414	7	10000
397		21:30:00	5550	0	25.0	73.025	4200	31.2	37.0	496.28	3579.69										
398		22:00:00	5550	0	25.0	73.025	4200	31.2	37.0	496.28	3590.03	0.060	6.0	0.056	1.354	19.360	0.004	0.086	1.417	7	8000
399		22:30:00	5544	0	25.0	73.025	4200	31.1	36.0	496.44	3600.37										
400	1999/08/20	23:00:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3610.71	0.080	8.0	0.074	1.766	19.434	0.006	0.154	1.424	7	10000
401		23:30:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3621.05										
402	1999/08/21	00:00:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3631.40	0.060	10.0	0.054	1.296	19.488	0.006	0.144	1.430	7	10000
403		00:00:00	PRODUCTION TOTALS: Cum Gas = 3631.40 E3m3, Cum H2O = 1.430 m3, Cum Cond = 19.488 m3. A.P.I. = 48.2 @ 15°C. Gastec = 0ppm.																		
404		00:30:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3641.74										
405		01:00:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3652.08	0.080	8.0	0.074	1.766	19.561	0.006	0.154	1.436	7	8000
406		01:30:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3662.42										
407	1999/08/21	02:00:00	5544	0	24.0	73.025	4200	31.1	36.0	496.44	3672.77	0.070	9.0	0.064	1.529	19.625	0.006	0.151	1.442	7	8000
408		02:30:00	5550	0	24.0	73.025	4200	31.1	36.0	496.44	3683.11										
409		03:00:00	5550	0	24.0	73.025	4200	31.1	36.0	496.44	3693.45	0.060	9.0	0.055	1.310	19.680	0.005	0.130	1.448	7	10000
410		03:30:00	5544	0	23.0	73.025	4200	31.1	36.0	496.44	3703.79										
411		04:00:00	5536	0	23.0	73.025	4200	31.1	36.0	496.44	3714.14	0.070	9.0	0.064	1.529	19.743	0.006	0.151	1.454	7	
412		04:30:00	5522	0	23.0	73.025	4200	31.0	36.0	495.64	3724.47										
413		05:00:00	5530	0	23.0	73.025	4200	31.0	36.0	495.64	3734.80	0.040	2.0	0.039	0.941	19.782	0.001	0.019	1.455	7	8000
414		05:30:00	5536	0	23.0	73.025	4200	31.0	36.0	495.64	3745.12										
415		06:00:00	5536	0	23.0	73.025	4200	31.0	36.0	495.64	3755.45	0.050	10.0	0.045	1.080	19.827	0.005	0.120	1.460	7	10000
416		06:30:00	5530	0	24.0	73.025	4200	31.1	36.0	496.44	3765.78										
417	1999/08/21	07:00:00	5530	0	24.0	73.025	4200	31.1	36.0	496.44	3776.13	0.098	6.0	0.092	2.211	19.920	0.006	0.141	1.466	7	10000
418		07:30:00	5530	0	24.0	73.025	4200	31.1	36.0	496.44	3786.47										
419		08:00:00	5523	0	24.0	73.025	4200	31.1	36.0	496.44	3796.81	0.144	8.5	0.132	3.162	20.051	0.012	0.294	1.478	7	18000
420		08:30:00	5523	0	24.0	73.025	4200	31.1	36.0	496.44	3807.15										
421		09:00:00	5523	0	24.0	73.025	4200	31.1	36.0	496.44	3817.50	0.098	8.0	0.090	2.164	20.142	0.008	0.188	1.486	7	24000
422		09:30:00	5523	0	24.0	73.025	4200	31.1	36.0	496.44	3827.84										
423		10:00:00	5523	0	25.0	73.025	4200	31.1	36.0	496.44	3838.18	0.052	8.0	0.048	1.148	20.189	0.004	0.100	1.490	7	20000

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount at al Lard
Formation: Matson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fid Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
424	1999/08/21	10:30:00	5530	0	25.0	73.025	4200	31.1	36.0	496.44	3848.52										
425		11:00:00	5530	0	25.0	73.025	4200	31.2	36.0	497.24	3858.87	0.072	8.5	0.066	1.581	20.255	0.006	0.147	1.496	7	20000
426		11:30:00	5523	0	25.0	73.025	4200	31.1	36.0	496.44	3869.22										
427	1999/08/21	12:00:00	5523	0	25.0	73.025	4200	31.1	36.0	496.44	3879.57	0.052	6.0	0.049	1.173	20.304	0.003	0.075	1.499	7	24000
428		12:30:00	5523	0	25.0	73.025	4200	31.1	36.0	496.44	3889.91										
429		13:00:00	5523	0	25.0	73.025	4200	31.0	36.0	495.84	3900.24	0.072	4.0	0.069	1.659	20.373	0.003	0.089	1.502	7	16000
430		13:30:00	5523	0	25.0	73.025	4200	31.0	36.0	495.84	3910.57										
431		14:00:00	5523	0	24.0	73.025	4200	31.0	36.0	495.84	3920.90	0.060	5.0	0.057	1.388	20.430	0.003	0.072	1.505	7	18000
432		14:09:00	Open choke to 29.37mm.																		
433		14:30:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3931.22										
434		15:00:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3941.55	0.052	3.5	0.050	1.204	20.480	0.002	0.044	1.507	7	18000
435		15:30:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3951.87										
436		16:00:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3962.20	0.068	6.0	0.062	1.489	20.542	0.004	0.095	1.511	7	10000
437	1999/08/21	16:30:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3972.52										
438		17:00:00	5502	0	24.0	73.025	4200	31.0	36.0	495.84	3982.85	0.068	5.0	0.063	1.505	20.605	0.003	0.079	1.514	7	12000
439		17:30:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	3993.18										
440		18:00:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4003.52	0.077	10.0	0.069	1.683	20.674	0.008	0.185	1.522	7	14000
441		18:30:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4013.86										
442		19:00:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4024.21	0.060	7.0	0.056	1.339	20.730	0.004	0.101	1.526	7	12000
443		19:30:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4034.55										
444		20:00:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4044.89	0.050	7.0	0.046	1.116	20.777	0.004	0.084	1.530	7	10000
445		20:30:00	5502	0	24.0	73.025	4225	30.9	36.0	496.34	4055.23										
446		21:00:00	5502	0	22.0	73.025	4225	30.9	36.0	496.34	4065.57	0.060	6.0	0.056	1.354	20.833	0.004	0.086	1.533	7	12000
447	1999/08/21	21:30:00	5502	0	23.0	73.025	4225	30.9	36.0	496.34	4075.91										
448		22:00:00	5502	0	22.0	73.025	4225	30.9	35.0	497.30	4086.26	0.050	4.0	0.048	1.152	20.881	0.002	0.048	1.535	7	12000
449		22:30:00	5502	0	22.0	73.025	4200	30.8	35.0	494.99	4096.59										
450		22:45:00	Open choke to 30.956mm.																		
451		23:00:00	5453	0	22.0	73.025	4200	30.9	36.0	494.84	4106.91	0.050	5.0	0.048	1.140	20.929	0.003	0.060	1.538	7	10000
452		23:30:00	5447	0	22.0	73.025	4200	31.0	36.0	495.84	4117.22										
453	1999/08/22	00:00:00	5495	0	22.0	73.025	4200	31.3	36.0	498.04	4127.57	0.060	3.0	0.058	1.397	20.987	0.002	0.043	1.540	7	12000
454		00:00:00	PRODUCTION TOTALS: Cum Gas = 4127.57 E3m3, Cum H2O = 1.540 m3, Cum Cond = 20.987 m3. A.P.I = 48.0 @ 15°C. Gastec = 0ppm.																		
455		00:30:00	5481	0	22.0	73.025	4200	31.1	36.0	496.44	4137.93										
456		01:00:00	5447	0	22.0	73.025	4200	31.2	36.0	497.24	4148.28	0.050	6.0	0.047	1.128	21.034	0.003	0.072	1.543	7	12000
457		01:30:00	5460	0	22.0	73.025	4200	31.2	36.0	497.24	4158.64										
458		02:00:00	5460	0	22.0	73.025	4200	31.2	36.0	497.24	4169.00	0.070	8.0	0.064	1.546	21.098	0.006	0.134	1.548	7	12000
459		02:30:00	5460	0	22.0	73.025	4200	31.2	36.0	497.24	4179.36										
460		03:00:00	5460	0	22.0	73.025	4175	31.1	35.0	495.88	4189.71	0.040	9.0	0.036	0.874	21.135	0.004	0.086	1.552	7	10000
461		03:30:00	5447	0	22.0	73.025	4175	31.1	35.0	495.88	4200.04										
462		04:00:00	5454	0	22.0	73.025	4175	31.1	35.0	495.88	4210.37	0.090	6.0	0.085	2.030	21.219	0.005	0.130	1.557	7	10000
463		04:30:00	5454	0	22.0	73.025	4175	31.1	35.0	495.88	4220.70										
464	1999/08/22	04:35:00	Open choke to 31.75mm.																		
465		05:00:00	5447	0	22.0	73.025	4200	31.1	36.0	496.44	4231.04	0.002	7.0	0.002	0.045	21.221	0.000	0.003	1.557	7	8000
466		05:30:00	5440	0	22.0	73.025	4200	31.1	35.0	497.40	4241.39										
467		06:00:00	5447	0	22.0	73.025	4200	31.1	35.0	497.40	4251.75	0.040	10.0	0.036	0.864	21.257	0.004	0.096	1.561	7	10000
468		06:30:00	5447	0	22.0	73.025	4200	31.1	35.0	496.44	4262.10										
469		07:00:00	5440	0	22.0	73.025	4200	31.1	35.0	497.40	4272.46	0.098	12.0	0.086	2.070	21.343	0.012	0.282	1.573	7	8000
470		07:30:00	5433	0	22.0	73.025	4175	31.1	36.0	494.93	4282.79										

Paramount Resources.
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Lard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pt	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fld Gain	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity ppm
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		
471	1999/08/22	07:44:00	Open choke to 33.34mm.																		
472		08:00:00	5406	0	22.0	73.025	4175	31.2	36.0	495.72	4293.11	0.039	3.0	0.038	0.908	21.381	0.001	0.028	1.574	7	10000
473		08:30:00	5406	0	23.0	73.025	4175	31.1	35.0	495.88	4303.44										
474	1999/08/22	09:00:00	5406	0	22.0	73.025	4175	31.1	35.0	495.88	4313.77	0.048	7.0	0.043	1.027	21.424	0.003	0.077	1.577	7	12000
475		09:30:00	5413	0	22.0	73.025	4200	31.1	36.0	496.44	4324.11										
476		10:00:00	5413	0	23.0	73.025	4200	31.2	36.0	497.24	4334.46	0.068	6.0	0.062	1.489	21.486	0.004	0.095	1.581	7	16000
477		10:30:00	5399	0	23.0	73.025	4200	31.2	36.0	497.24	4344.82										
478		11:00:00	5406	0	23.0	73.025	4200	31.2	36.0	497.24	4355.18	0.052	5.0	0.049	1.186	21.535	0.003	0.062	1.584	7	8000
479		11:30:00	5406	0	23.0	73.025	4200	31.2	36.0	497.24	4365.54										
480		12:00:00	5406	0	23.0	73.025	4175	31.1	36.0	494.93	4375.87	0.033	8.5	0.030	0.725	21.560	0.003	0.067	1.587	7	4000
481		12:30:00	5385	0	23.0	73.025	4150	31.0	36.0	492.62	4386.16										
482		12:32:00	Increase choke to 35.72mm.																		
483		13:00:00	5371	0	24.0	73.025	4175	31.2	36.0	495.72	4396.45	0.033	6.0	0.031	0.744	21.597	0.002	0.048	1.589	7	6000
484	1999/08/22	13:30:00	5378	0	24.0	73.025	4200	31.2	36.0	497.24	4406.80										
485		14:00:00	5385	0	24.0	73.025	4200	31.2	36.0	497.24	4417.16	0.052	2.0	0.051	1.223	21.648	0.001	0.025	1.590	7	8000
486		14:30:00	5378	0	24.0	73.025	4200	31.2	36.0	497.24	4427.51										
487		15:00:00	5364	0	24.0	73.025	4200	31.1	36.0	496.44	4437.87	0.330	10.5	0.295	7.088	21.943	0.035	0.832	1.624	7	14000
488		15:30:00	5364	0	24.0	73.025	4225	31.2	36.0	498.75	4448.23										
489		16:00:00	5371	0	25.0	73.025	4225	31.2	36.0	498.75	4458.62	0.068	4.0	0.063	1.521	22.006	0.003	0.063	1.627	7	16000
490		16:30:00	5385	0	26.0	73.025	4225	31.2	36.0	498.75	4469.01										
491		17:00:00	5378	0	26.0	73.025	4225	31.2	36.0	498.75	4479.40	0.072	7.5	0.067	1.598	22.073	0.005	0.120	1.632	7	12000
492		17:30:00	5385	0	27.0	73.025	4225	31.2	36.0	498.75	4489.79										
493		18:00:00	5371	0	27.0	73.025	4225	31.2	36.0	498.75	4500.19	0.060	5.5	0.057	1.361	22.130	0.003	0.079	1.636	7	14000
494	1999/08/22	18:30:00	5378	0	25.0	73.025	4225	31.2	35.0	499.71	4510.59										
495		19:00:00	5378	0	25.0	73.025	4225	31.2	36.0	498.75	4520.99	0.046	7.0	0.043	1.027	22.172	0.003	0.077	1.639	7	10000
496		19:30:00	5378	0	22.0	73.025	4225	31.2	36.0	498.75	4531.38										
497		20:00:00	5378	0	22.0	73.025	4250	31.2	36.0	500.26	4541.78	0.050	7.0	0.046	1.116	22.219	0.004	0.084	1.642	7	10000
498		20:30:00	5378	0	23.0	73.025	4250	31.2	36.0	500.26	4552.21										
499		21:00:00	5378	0	23.0	73.025	4250	31.2	36.0	500.26	4562.63	0.030	7.0	0.028	0.670	22.247	0.002	0.050	1.645	7	12000
500		21:30:00	5378	0	22.0	73.025	4250	31.2	36.0	500.26	4573.05										
501		22:00:00	5378	0	22.0	73.025	4250	31.1	36.0	499.45	4583.46	0.030	7.0	0.074	1.786	22.321	0.006	0.134	1.650	7	10000
502		22:30:00	5378	0	22.0	73.025	4250	31.1	36.0	499.45	4593.87										
503		23:00:00	5378	0	22.0	73.025	4250	31.1	36.0	499.45	4604.27	0.050	10.0	0.045	1.080	22.366	0.005	0.120	1.655	7	12000
504	1999/08/22	23:30:00	5370	0	22.0	73.025	4250	31.1	36.0	499.45	4614.68										
505	1999/08/23	00:00:00	5370	0	22.0	73.025	4250	31.1	36.0	499.45	4625.08	0.050	8.0	0.046	1.104	22.412	0.004	0.096	1.659	7	12000
506		00:00:00	PRODUCTION TOTALS: Cum Gas = 4625.08 E3m ³ , Cum H2O = 1.659 m ³ , Cum Cond = 22.412 m ³ , A.P.I. = 49.2 @ 15°C, Gastec = 0ppm.																		
507		00:30:00	5370	0	22.0	73.025	4250	31.1	36.0	499.45	4635.49										
508		01:00:00	5370	0	22.0	73.025	4250	31.1	36.0	499.45	4645.89	0.030	10.0	0.027	0.648	22.439	0.003	0.072	1.662	7	14000
509		01:30:00	5370	0	22.0	73.025	4250	31.1	36.0	499.45	4656.30										
510		02:00:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4666.70	0.060	9.0	0.055	1.310	22.494	0.005	0.130	1.668	7	10000
511	1999/08/23	02:30:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4677.09										
512		03:00:00	5370	0	22.0	73.025	4250	30.9	36.0	497.84	4687.47	0.060	8.0	0.055	1.325	22.549	0.005	0.115	1.672	7	12000
513		03:30:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4697.85										
514		04:00:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4708.23	0.050	10.0	0.045	1.080	22.594	0.005	0.120	1.677	7	12000
515		04:30:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4718.62										
516		05:00:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4729.01	0.040	10.0	0.036	0.864	22.630	0.004	0.096	1.681	7	12000
517		05:30:00	5370	0	22.0	73.025	4250	31.0	36.0	498.65	4739.40										

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

Paramount et al Liard
Formation: Mattson sand
Job Number: GP96

	Date	Clock Time	Pt	Pc	WHT °C	Orifice mm	Static kPa(g)	Diff kPa	Temp °C	Gas Rate 10 ³ m ³ /d	Cum Gas 10 ³ m ³	Fld Gain m ³	BSW %	Oil Gain m ³	Oil Rate m ³ /d	Cum Oil m ³	H2O Gain m ³	H2O Rate m ³ /d	Cum H2O m ³	Ph	Salinity ppm
518	1999/08/23	06:00:00	5370	0	22.0	73.025	4250	30.8	36.0	497.04	4749.77	0.020	4.0	0.019	0.481	22.649	0.001	0.019	1.682	7	10000
519		06:30:00	5384	0	22.0	73.025	4225	30.8	36.0	495.54	4760.11										
520		07:00:00	5364	0	22.0	73.025	4225	30.8	36.0	495.54	4770.43	0.072	9.0	0.066	1.572	22.715	0.008	0.156	1.689	7	14000
521	1999/08/23	07:30:00	5350	0	22.0	73.025	4200	30.9	35.0	495.80	4780.76										
522		08:00:00	5345	0	22.0	73.025	4200	31.0	35.0	496.60	4791.10	0.022	7.5	0.031	0.733	22.745	0.002	0.059	1.691	7	10000
523		08:30:00	5350	0	21.0	73.025	4200	31.1	36.0	496.44	4801.44										
524		09:00:00	5350	0	21.0	73.025	4200	31.1	36.0	496.44	4811.79	0.157	3.0	0.152	3.655	22.897	0.005	0.113	1.696	7	12000
525		09:30:00	5344	0	22.0	73.025	4200	31.0	36.0	495.54	4822.12										
526		10:00:00	5350	0	22.0	73.025	4200	31.0	36.0	495.64	4832.45	0.157	7.0	0.146	3.504	23.044	0.011	0.264	1.707	7	14000
527		10:30:00	5357	0	22.0	73.025	4200	31.0	36.0	495.64	4842.77										
528		11:00:00	5364	0	22.0	73.025	4200	30.9	36.0	494.84	4853.09	0.077	5.0	0.073	1.756	23.117	0.004	0.092	1.711	7	18000
529		11:15:00	Increase choke to 38.89mm.																		
530		11:30:00	5316	0	22.0	73.025	4200	31.0	36.0	495.64	4863.41										
531	1999/08/23	12:00:00	5323	0	23.0	73.025	4200	31.1	36.0	496.44	4873.74	0.072	10.0	0.085	1.555	23.181	0.007	0.173	1.718	7	20000
532		12:30:00	5330	0	23.0	73.025	4200	31.1	36.0	496.44	4884.09										
533		13:00:00	5323	0	23.0	73.025	4200	31.1	36.0	496.44	4894.43	0.052	4.0	0.050	1.198	23.231	0.002	0.050	1.720	7	18000
534		13:30:00	5309	0	24.0	73.025	4200	31.1	36.0	496.44	4904.77										
535		14:00:00	5316	0	24.0	73.025	4200	31.1	36.0	496.44	4915.11	0.092	5.0	0.087	2.098	23.319	0.005	0.110	1.725	7	18000
536		14:30:00	5330	0	24.0	73.025	4200	31.1	36.0	496.44	4925.45										
537		15:00:00	5330	0	25.0	73.025	4225	31.0	36.0	497.15	4935.80	0.046	2.5	0.045	1.076	23.364	0.001	0.028	1.726	7	22000
538		15:30:00	5316	0	25.0	73.025	4225	31.1	36.0	497.95	4946.17										
539		16:00:00	5323	0	26.0	73.025	4225	31.1	36.0	497.95	4956.54	0.098	2.0	0.096	2.305	23.460	0.002	0.047	1.728	7	20000
540		16:30:00	5330	0	24.0	73.025	4225	31.2	36.0	498.75	4966.92										
541	1999/08/23	17:00:00	5330	0	26.0	73.025	4225	31.2	36.0	498.75	4977.31	0.052	2.0	0.051	1.223	23.511	0.001	0.025	1.729	7	18000
542		17:30:00	5323	0	24.0	73.025	4225	31.1	36.0	497.95	4987.70										
543		18:00:00	5316	0	25.0	73.025	4225	30.9	36.0	496.34	4998.05	0.052	3.0	0.050	1.211	23.561	0.002	0.037	1.730	7	14000
544		18:30:00	5330	0	25.0	73.025	4225	30.9	36.0	496.34	5008.39										
545		19:00:00	5330	0	25.0	73.025	4225	30.8	36.0	495.54	5018.73	0.048	5.0	0.044	1.049	23.605	0.002	0.055	1.733	7	16000
546		19:30:00	5336	0	25.0	73.025	4300	30.8	37.0	499.06	5029.09										
547		20:00:00	5336	0	25.0	73.025	4275	30.8	37.0	497.57	5039.47	0.020	8.0	0.018	0.442	23.623	0.002	0.038	1.734	7	14000
548		20:30:00	5336	0	24.0	73.025	4275	30.9	37.0	498.38	5049.84										
549		21:00:00	5336	0	24.0	73.025	4275	30.9	37.0	498.38	5060.23	0.100	10.0	0.090	2.160	23.713	0.010	0.240	1.744	7	14000
550		21:30:00	5336	0	24.0	73.025	4275	30.9	37.0	498.38	5070.61										
551	1999/08/23	22:00:00	5336	0	24.0	73.025	4275	30.9	37.0	498.38	5080.99	0.060	8.0	0.055	1.325	23.758	0.005	0.115	1.749	7	16000
552		22:30:00	5336	0	24.0	73.025	4250	30.9	37.0	496.89	5091.36										
553		23:00:00	5336	0	24.0	73.025	4250	30.9	37.0	496.89	5101.71	0.060	5.0	0.057	1.368	23.825	0.003	0.072	1.752	7	12000
554		23:30:00	5336	0	24.0	73.025	4250	30.7	37.0	495.27	5112.05										
555	1999/08/24	00:00:00	5329	0	23.0	73.025	4250	30.7	36.0	496.23	5122.37	0.060	7.0	0.056	1.339	23.881	0.004	0.101	1.756	7	12000
556		00:00:00	PRODUCTION TOTAL S: Cum Gas = 5122.37 E3m3, Cum H2O = 1.756 m3, Cum Cond = 23.881 m3. A.P.I = 47.9 @ 15°C. Castec = 0ppm.																		
557		00:30:00	5329	0	23.0	73.025	4250	30.8	36.0	497.04	5132.72										
558	1999/08/24	01:00:00	5322	0	22.0	73.025	4250	30.8	36.0	497.04	5143.08	0.060	9.0	0.055	1.310	23.936	0.005	0.130	1.762	7	12000
559		01:30:00	5315	0	22.0	73.025	4250	30.8	36.0	497.04	5153.43										
560		02:00:00	5322	0	22.0	73.025	4225	30.8	36.0	495.54	5163.77	0.040	7.0	0.037	0.893	23.973	0.003	0.067	1.764	7	12000
561		02:30:00	5322	0	22.0	73.025	4225	31.0	36.0	497.15	5174.11										
562		03:00:00	5322	0	22.0	73.025	4200	30.9	36.0	494.84	5184.44	0.650	14.0	0.559	13.416	24.532	0.091	2.184	1.855	7	10000
563		03:30:00	5316	0	22.0	73.025	4200	30.9	36.0	494.84	5194.75										
564		03:35:00	Open choke to 40.48mm.																		

Paramount Resources
F-36
Start Test Date: 1999/08/12
Final Test Date: 1999/08/24

FieldNotes Field Measurements

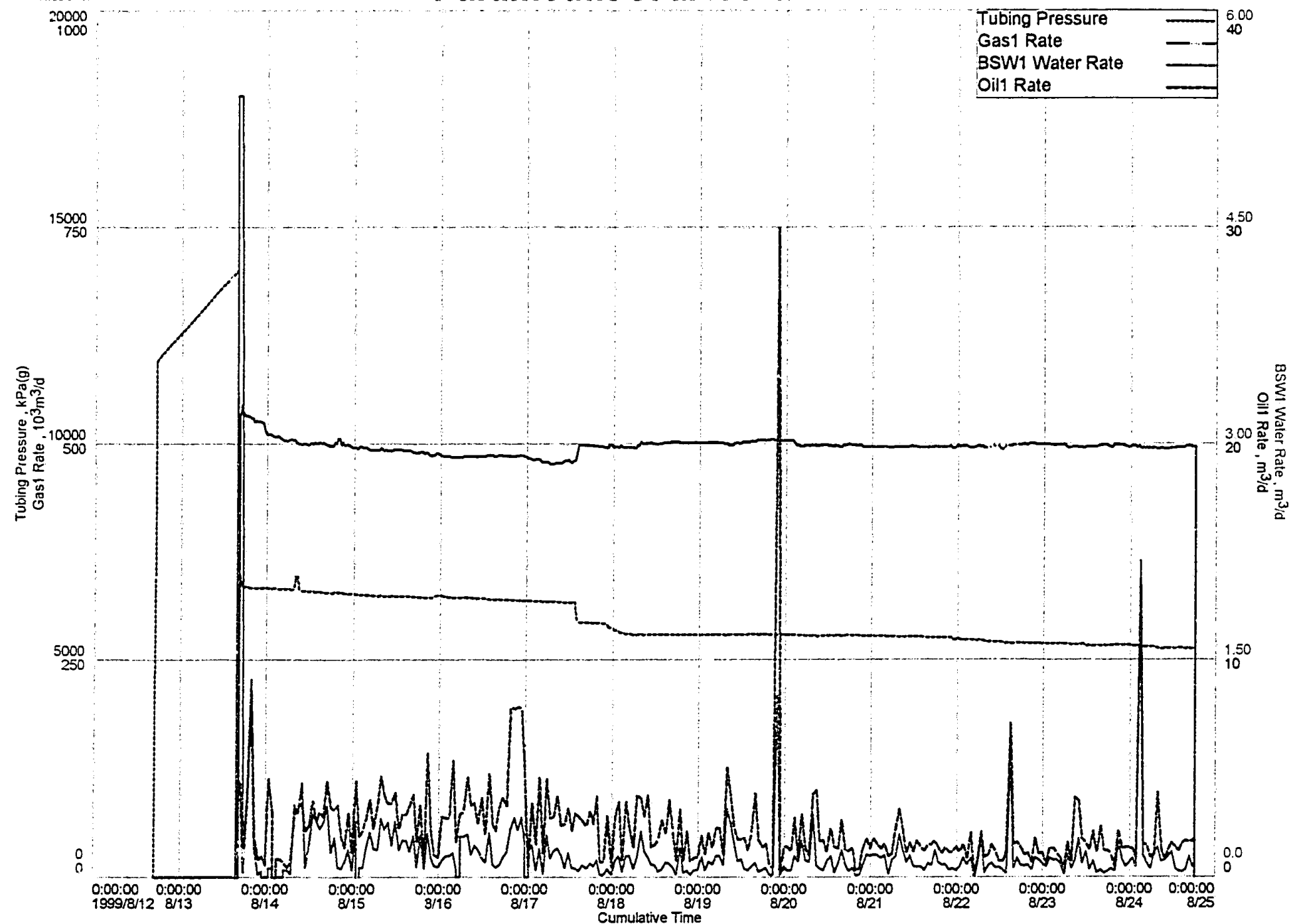
Paramount et al Liard
Formation: Mattson sand
Job Number: GP99

	Date	Clock Time	Pi	Pc	WHT	Orifice	Static	Diff	Temp	Gas Rate	Cum Gas	Fid Galr	BSW	Oil Gain	Oil Rate	Cum Oil	H2O Gain	H2O Rate	Cum H2O	Ph	Salinity
	yyyy/mm/d	hh:mm:ss	kPa(g)	kPa(g)	°C	mm	kPa(g)	kPa	°C	10 ³ m ³ /d	10 ³ m ³	m ³	%	m ³	m ³ /d	m ³	m ³	m ³ /d	m ³		ppm
565	1999/08/24	04:00:00	5288	0	22.0	73.025	4200	30.9	36.0	494.84	5205.06	0.070	9.0	0.064	1.529	24.596	0.006	0.151	1.862	7	14000
566		04:30:00	5303	0	23.0	73.025	4200	30.9	36.0	494.84	5215.37										
567		05:00:00	5303	0	23.0	73.025	4200	30.9	36.0	494.84	5225.68	0.065	6.0	0.061	1.486	24.657	0.004	0.094	1.866	7	14000
568	1999/08/24	05:05:00	Open choke to 42.07mm.																		
569		05:30:00	5295	0	22.0	73.025	4200	30.9	36.0	494.84	5235.99										
570		06:00:00	5295	0	22.0	73.025	4200	30.9	36.0	494.84	5246.30	0.040	6.0	0.038	0.902	24.694	0.002	0.058	1.868	7	14000
571		06:30:00	5295	0	22.0	73.025	4200	30.9	36.0	494.84	5256.61										
572		07:00:00	5295	0	22.0	73.025	4200	30.9	36.0	494.84	5266.92	0.052	14.0	0.045	1.073	24.739	0.007	0.175	1.875	7	16000
573		07:30:00	5275	0	22.0	73.025	4200	30.8	36.0	494.04	5277.22										
574		07:34:00	Increase choke to 50.8mm, choke is now full open.																		
575		08:00:00	5254	0	22.0	73.025	4200	30.8	36.0	494.04	5287.51	0.170	5.0	0.162	3.876	24.901	0.009	0.204	1.884	7	14000
576		08:30:00	5254	0	22.0	73.025	4200	30.9	36.0	494.84	5297.81										
577		09:00:00	5254	0	22.0	73.025	4200	30.9	36.0	494.84	5308.12	0.059	7.5	0.055	1.310	24.955	0.004	0.106	1.888	7	14000
578		09:30:00	5261	0	22.0	73.025	4200	30.8	36.0	494.04	5318.42										
579		10:00:00	5254	0	22.0	73.025	4200	30.8	36.0	494.04	5328.71	0.039	12.5	0.034	0.819	24.989	0.005	0.117	1.893	7	12000
580		10:30:00	5261	0	23.0	73.025	4200	30.8	36.0	494.04	5339.01										
581	1999/08/24	11:00:00	5261	0	23.0	73.025	4200	30.8	36.0	494.04	5349.30	0.059	10.0	0.053	1.274	25.042	0.006	0.142	1.899	7	12000
582		11:30:00	5261	0	22.0	73.025	4225	30.7	36.0	494.73	5359.60										
583		12:00:00	5261	0	23.0	73.025	4225	30.7	36.0	494.73	5369.90	0.072	10.0	0.065	1.555	25.107	0.007	0.173	1.906	7	12000
584		12:30:00	5261	0	22.0	73.025	4225	30.8	36.0	495.54	5380.22										
585		13:00:00	5261	0	22.0	73.025	4225	30.8	36.0	495.54	5390.54	0.060	4.0	0.058	1.382	25.165	0.002	0.058	1.909	7	12000
586		13:30:00	5268	0	23.0	73.025	4225	30.8	36.0	495.54	5400.87										
587		14:00:00	5268	0	23.0	73.025	4225	30.8	36.0	495.54	5411.19	0.052	3.0	0.050	1.211	25.215	0.002	0.037	1.910	7	10000
588		14:30:00	5268	0	23.0	73.025	4225	30.8	36.0	495.54	5421.52										
589		15:00:00	5268	0	24.0	73.025	4225	30.8	36.0	495.54	5431.84	0.066	2.0	0.065	1.552	25.280	0.001	0.032	1.911	7	12000
590		15:30:00	5254	0	24.0	73.025	4225	30.9	36.0	496.34	5442.17										
591		16:00:00	5254	0	24.0	73.025	4225	31.0	36.0	497.15	5452.52	0.072	3.0	0.070	1.676	25.350	0.002	0.052	1.914	7	14000
592		16:30:00	5261	0	24.0	73.025	4225	31.0	36.0	497.15	5462.88										
593		17:00:00	5247	0	24.0	73.025	4225	31.0	36.0	497.15	5473.23	0.072	8.0	0.066	1.590	25.416	0.006	0.138	1.919	7	8000
594	1999/08/24	17:30:00	5254	0	24.0	73.025	4225	30.9	36.0	496.34	5483.58										
595		18:00:00	5254	0	24.0	73.025	4225	30.9	36.0	496.34	5493.92	0.072	4.0	0.069	1.559	25.485	0.003	0.069	1.922	7	10000
596		18:30:00	5261	0	24.0	73.025	4225	30.9	36.0	496.34	5504.26	0.039	5.0	0.037	1.778	25.522	0.002	0.094	1.924	7	10000
597		18:30:00	Shut in at wing valve, Probe Tech tool to take buildups. Crew released.																		
598		18:31:00						0.000	0	0.0	0.0	0.000	0.0	0.000	0.000	25.522	0.000	0.000	1.924		

Paramount Resources
 R-36
 Start Test Date: 1999/08/12
 Final Test Date: 1999/08/24

Paramount et al Liard F-36

Paramount et al Liard
 Formation: Mattoon sand
 Job Number: QP99



Pressure Test Reports (5)

Baker Atlas
SLICKLINE DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Wayne Tomm
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Baker Atlas Slickline Division

WELL INFORMATION

Well Name	Paramount et al Ft. Liard
Well Location	F - 36
Field and Pool	Ft. Liard -
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1734.5 mCF
Mid-point of Perforated Intervals (MPP)	1621.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	177.8 mm
Production Tubing	88.9 mm

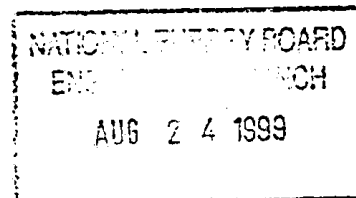
TEST INFORMATION

Test Number / Type of Test	Static Gradient
Date(s) of Test	August 13/99.
Dead-weight Gauge Tubing Pressure	13,910 kPa
Dead-weight Gauge Casing Pressure	0 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	August 13/99 @ 09:55.
Date / Time off Bottom	August 13/99 @ 10:05.

Probe Serial Number	P22 (TOP)	P66 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1738.81 mCF	1739.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	17124.80 kPag	17128.10 kPag
Maximum Recorded Probe Temperature	63.29 deg C	64.01 deg C
Final Buildup Pressure	N/A	N/A
Gradient Survey Information		
Extrapolated Pressure to MPP	16099.019 kPag	16090.708 kPag
Final Gradient at Depth	9.6107 kPa/m	9.5969 kPa/m
Job Number	N/A	





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Ft. Liard
F - 36
August 13/99.



PROBE INFORMATION

Probe Serial Number	P22 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-20.6 - 123.4 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P22MR15A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Aug 13/1999 @ 07:32:40
Program End Time	Aug 13/1999 @ 10:37:10
Total Samples Taken	370
Usage for this Test	0.0320 Ah
Generic Data File Name	P22AU13B.GEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 36
Date(s) of Test August 13/99.



PROBE INFORMATION

Probe Serial Number P66 (BOTTOM)
Model Level II
Pressure
 Calibrated Pressure Range 0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -21.0 - 124.2 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports P66OC05A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time Aug 13/1999 @ 07:34:21
Program End Time Aug 13/1999 @ 10:34:21
Total Samples Taken 361
Usage for this Test 0.0310 Ah
Generic Data File Name P66AU13B.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Ft. Liard
F - 36
August 13/99.



COMMENTS

Reported By

Jim O'Keefe



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Ft. Liard
F - 36
August 13/99.



Pressure vs. Depth

Probe Serial Number P22 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)	(deg C)	(deg C/m)
08:03	08:08	-1.190	13918.352	-	18.648	-
08:16	08:21	498.810	14627.312	1.4179	17.536	-0.0022
08:26	08:31	998.810	15279.844	1.3051	30.880	0.0267
08:36	08:41	1498.810	15881.639	1.2036	49.616	0.0375
08:42	08:47	1548.810	15942.710	1.2214	56.210	0.1319
08:48	08:53	1568.810	15966.800	1.2045	58.776	0.1283
08:54	08:59	1588.810	15990.309	1.1754	59.868	0.0546
09:00	09:05	1608.810	16014.320	1.2006	60.482	0.0307
09:06	09:11	1628.810	16147.809	6.6744	60.847	0.0183
09:12	09:17	1648.810	16308.611	8.0401	61.294	0.0223
09:18	09:23	1668.810	16468.797	8.0093	61.700	0.0203
09:24	09:30	1688.810	16651.969	9.1586	62.213	0.0257
09:31	09:36	1698.810	16742.686	9.0717	62.434	0.0221
09:37	09:42	1708.810	16837.697	9.5012	62.592	0.0158
09:43	09:48	1718.810	16932.094	9.4396	62.711	0.0119
09:49	09:54	1728.810	17028.148	9.6055	62.870	0.0159
09:55	10:05	1738.810	17124.256	9.6107	63.252	0.0382

Extrapolated to MPP:

Depth (m)	Pressure (kPag)	(deg C)
1621.500	16099.019	60.714

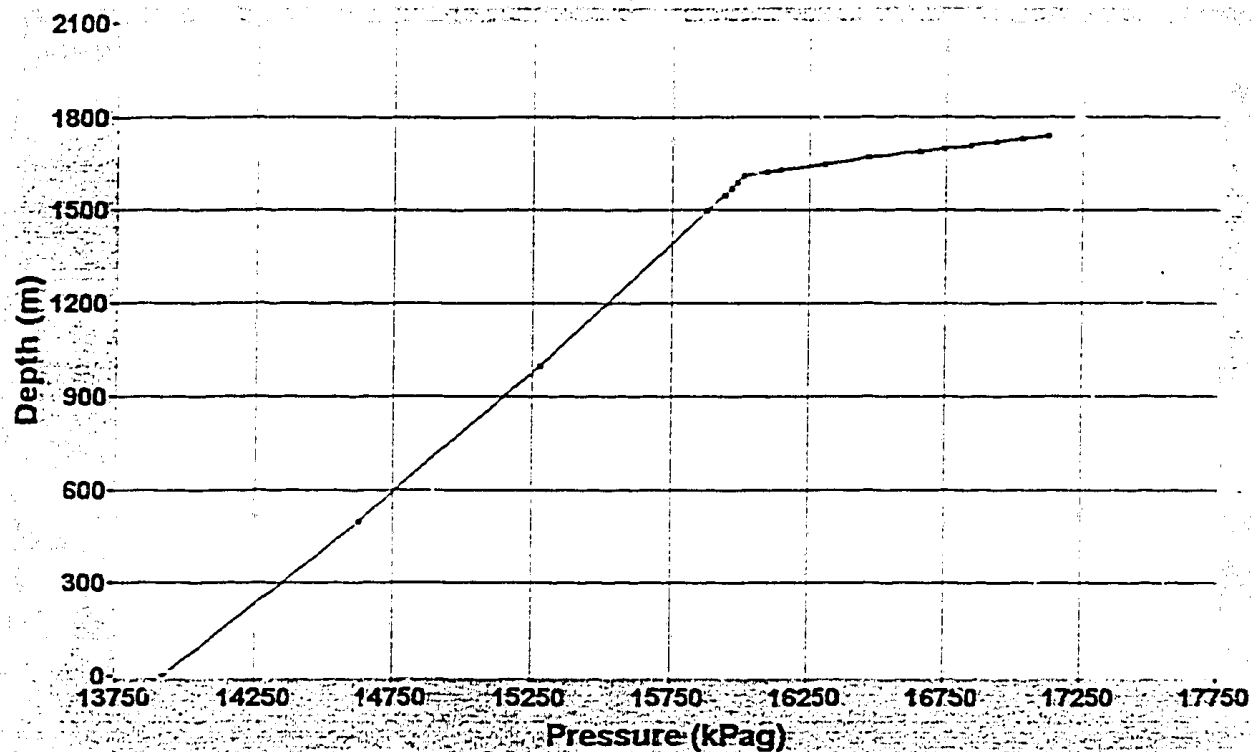


Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 36
Date(s) of Test August 13/99.

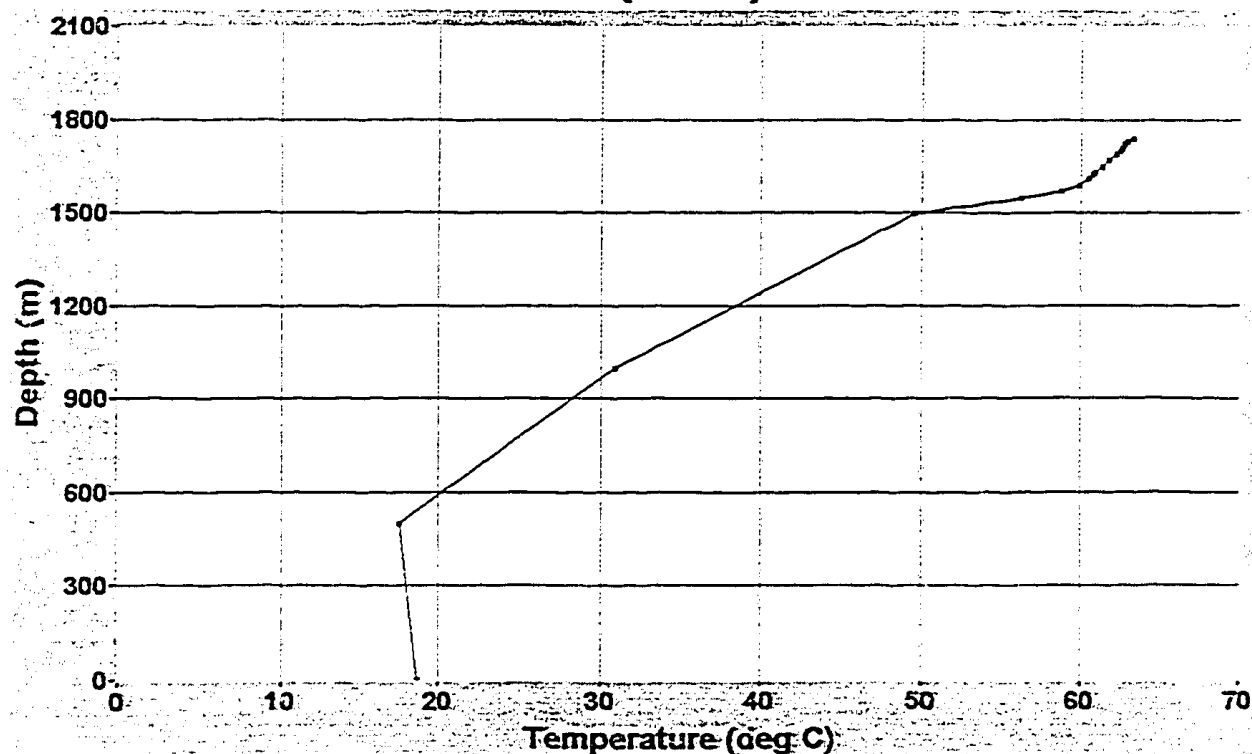


Probe Serial Number P22 (TOP)

P22 (TOP)



P22 (TOP)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 38
Date(s) of Test August 13/99.



Pressure vs. Depth

Probe Serial Number P66 (BOTTOM)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)	(deg C)	(deg C/m)
08:03	08:08	-0.110	13917.930	-	16.016	-
08:16	08:21	499.890	14649.309	1.4628	16.423	0.0008
08:26	08:31	999.890	15300.608	1.3026	30.073	0.0273
08:36	08:41	1499.890	15890.322	1.1794	49.382	0.0386
08:42	08:47	1549.890	15943.473	1.0630	56.866	0.1497
08:48	08:53	1569.890	15964.842	1.0685	59.349	0.1241
08:54	08:59	1589.890	15987.270	1.1214	60.494	0.0573
09:00	09:05	1609.890	16009.080	1.0905	61.198	0.0352
09:06	09:11	1629.890	16149.697	7.0309	61.625	0.0213
09:12	09:17	1649.890	16308.815	7.9559	61.950	0.0163
09:18	09:23	1669.890	16470.369	8.0777	62.431	0.0240
09:24	09:30	1689.890	16654.484	9.2058	62.916	0.0243
09:31	09:36	1699.890	16745.441	9.0957	63.133	0.0217
09:37	09:42	1709.890	16839.584	9.4143	63.295	0.0162
09:43	09:48	1719.890	16934.457	9.4873	63.412	0.0117
09:49	09:54	1729.890	17031.602	9.7145	63.610	0.0198
09:55	10:05	1739.890	17127.570	9.5969	63.976	0.0366

Extrapolated to MPP:	Depth (m)	Pressure (kPag)	(deg C)
	1621.500	16090.708	61.446



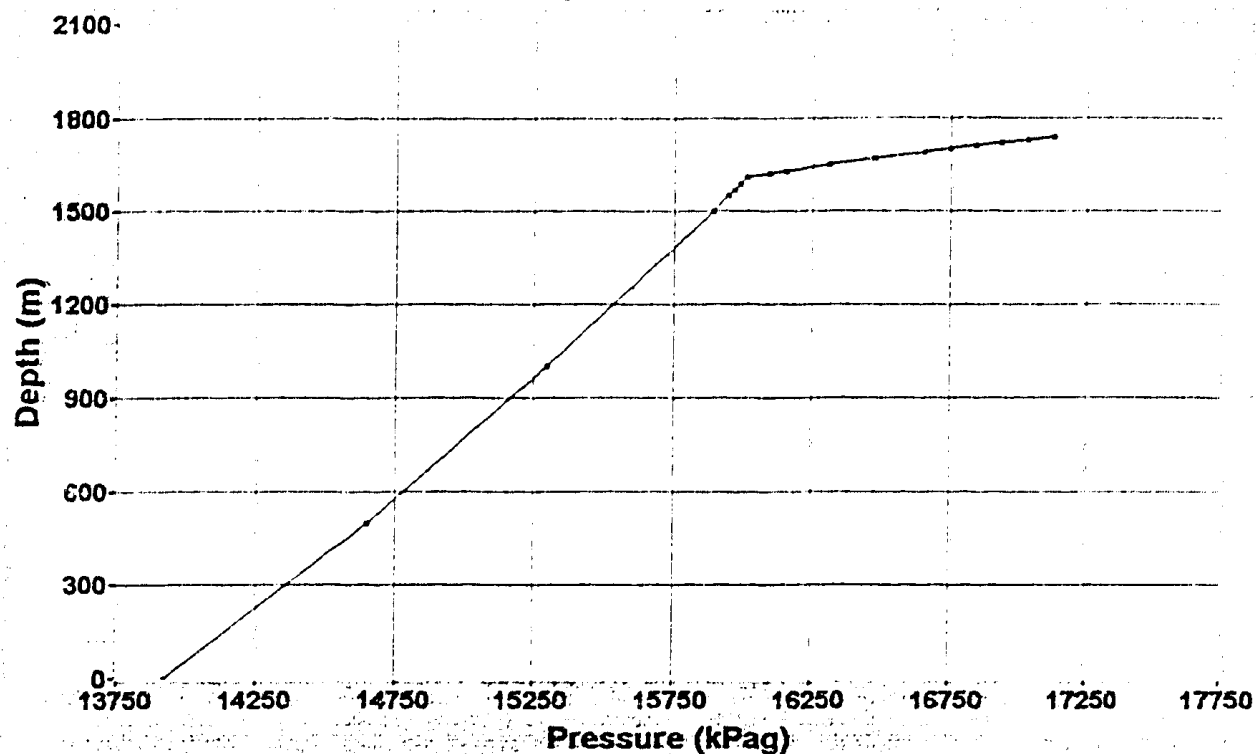
Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Ft. Liard
F - 3d
August 13/99.

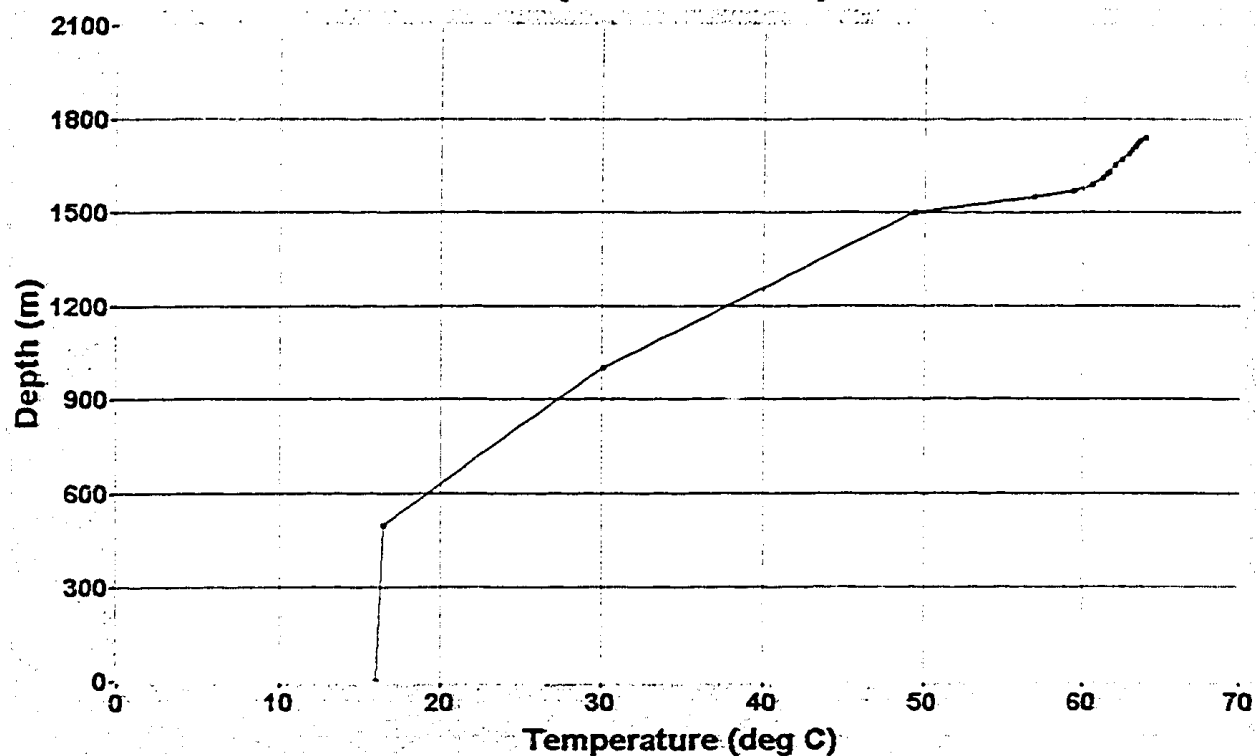


Probe Serial Number P66 (BOTTOM)

P66 (BOTTOM)



P66 (BOTTOM)

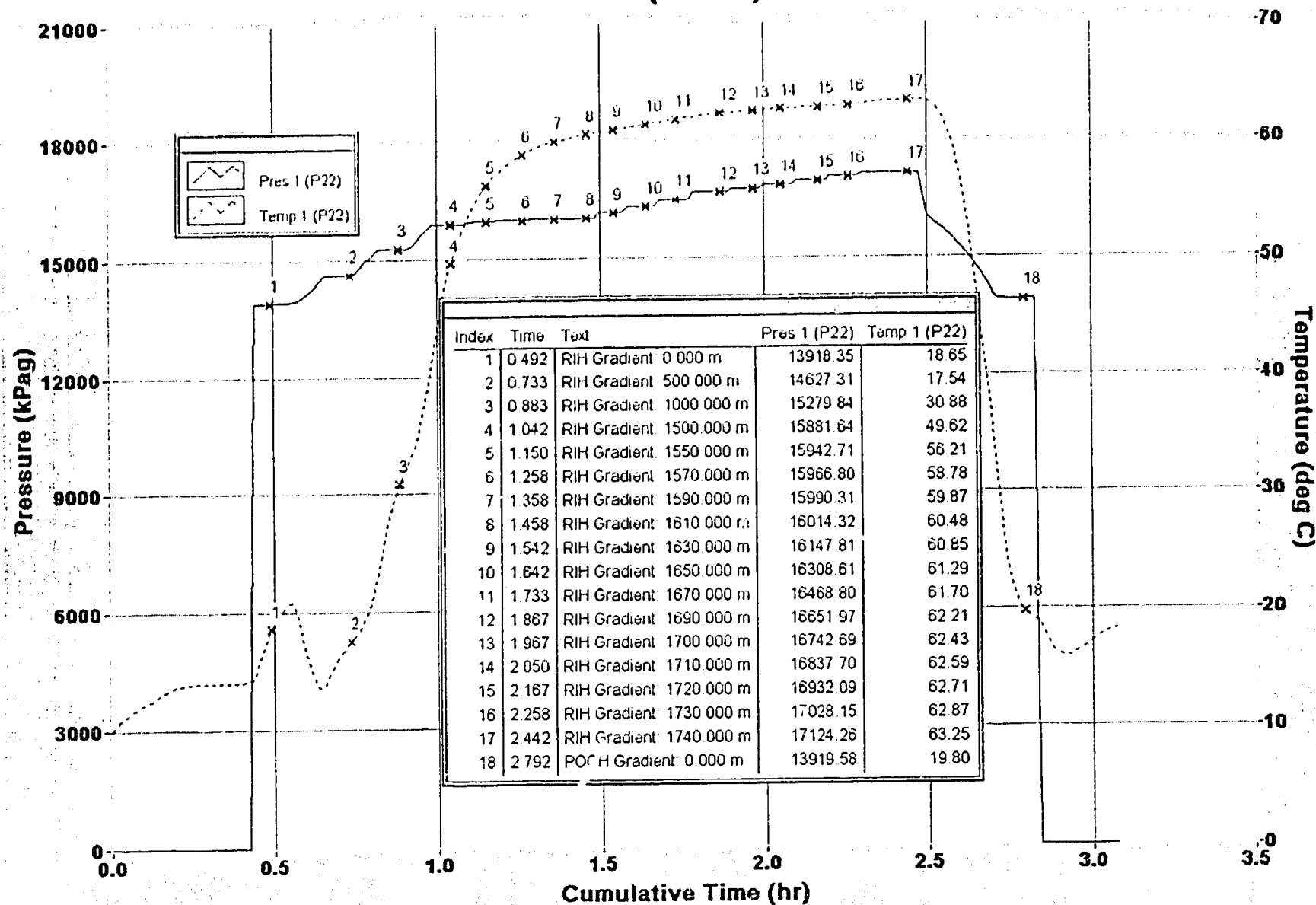




Company Name: PARAMOUNT RESOURCES LTD
Well Name: Paramount et al FT Land
Well Location: F-36
Date(s) of Test: August 1999



P22 (TOP)

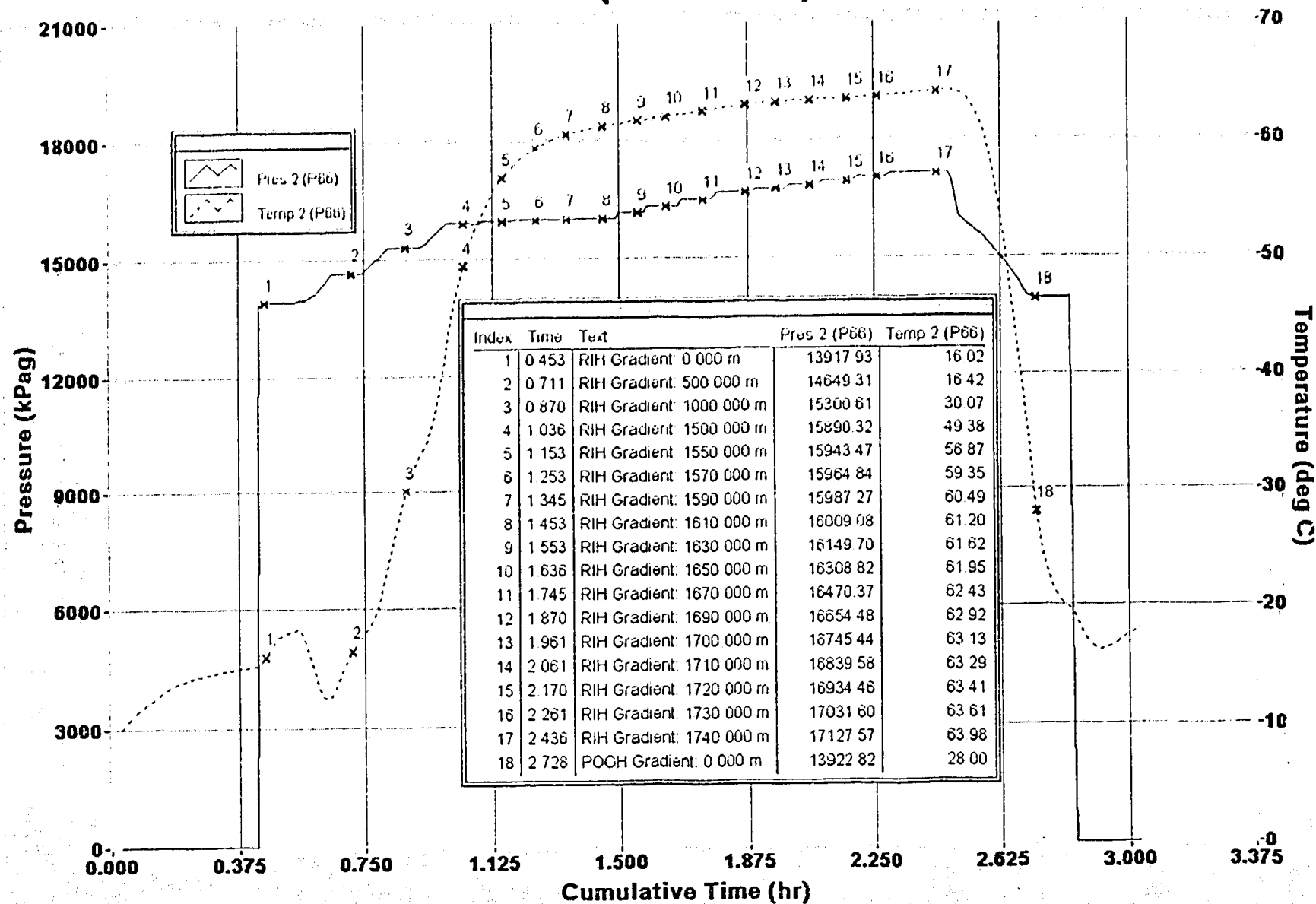




Company Name: PARAMOUNT FLOUIDS LTD
Well Name: Paramount of GFT Field
Well Location: F-30
Date(s) of Test: August 1999



P66 (BOTTOM)

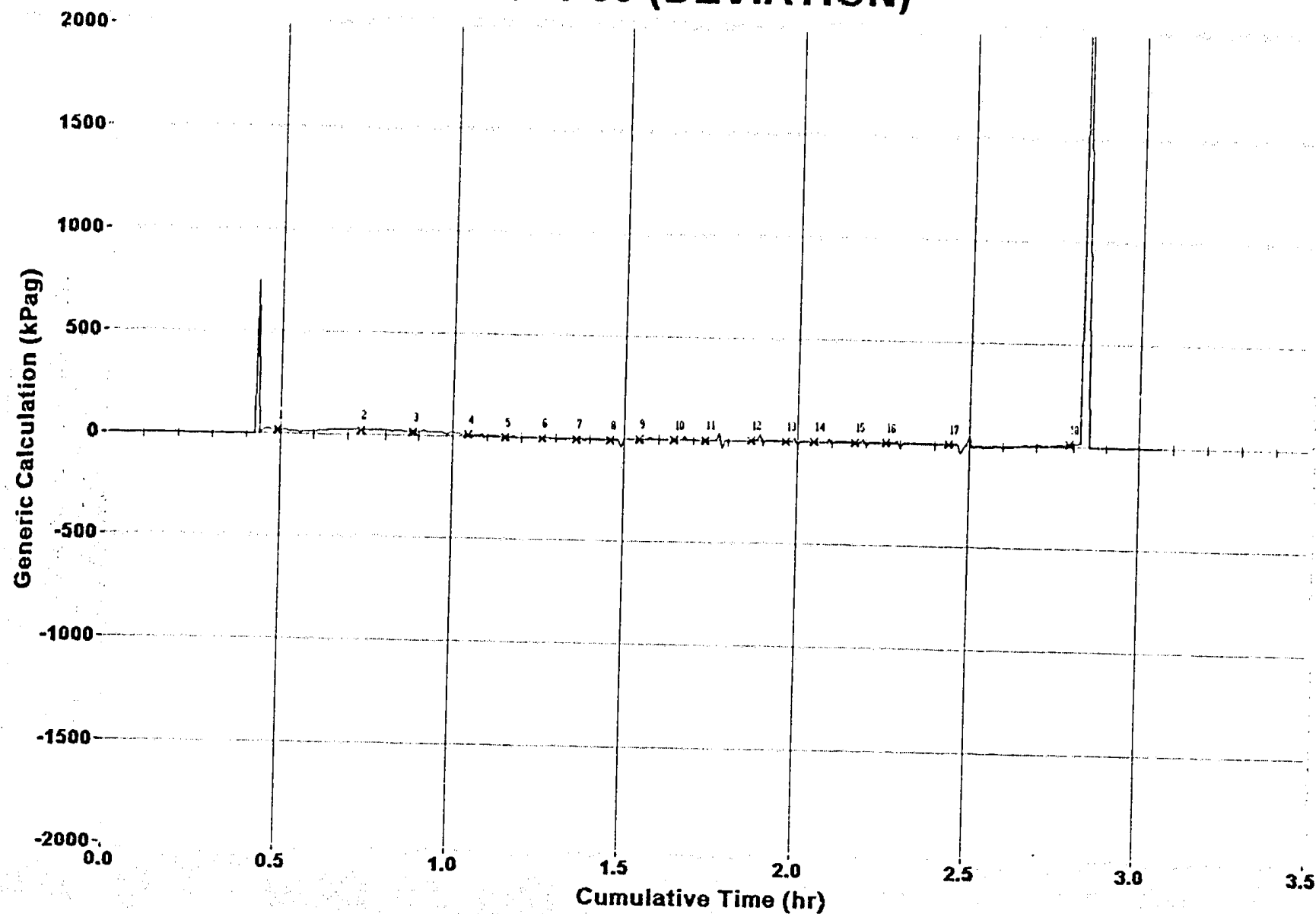




Company Name: PARAMOUNT RESOURCES LTD
Well Name: Paramount et al F1 Land
Well Location: F-36
Date(s) of Test: August 13/99



P22 - P66 (DEVIATION)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F-38
Date(s) of Test August 13/99.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	07:32:40	0.0000	0.000	10.048
1999/08/13	07:33:40	0.0167	0.000	10.596
1999/08/13	07:34:10	0.0250	0.000	10.823
1999/08/13	07:35:10	0.0417	0.000	11.193
1999/08/13	07:35:40	0.0500	0.000	11.304
1999/08/13	07:36:40	0.0667	0.000	11.670
1999/08/13	07:37:10	0.0750	0.000	11.808
1999/08/13	07:38:40	0.1000	0.000	12.224
1999/08/13	07:39:40	0.1167	0.000	12.448
1999/08/13	07:40:10	0.1250	0.000	12.576
1999/08/13	07:41:10	0.1417	0.000	12.841
1999/08/13	07:41:40	0.1500	0.000	13.013
1999/08/13	07:42:40	0.1667	0.000	13.276
1999/08/13	07:43:10	0.1750	0.000	13.416
1999/08/13	07:44:10	0.1917	0.000	13.627
1999/08/13	07:45:10	0.2083	0.000	13.748
1999/08/13	07:45:40	0.2167	0.000	13.827
1999/08/13	07:46:40	0.2333	0.000	13.877
1999/08/13	07:47:10	0.2417	0.000	13.919
1999/08/13	07:48:10	0.2583	0.000	13.978
1999/08/13	07:48:40	0.2667	0.000	13.982
1999/08/13	07:49:40	0.2833	0.000	14.000
1999/08/13	07:50:10	0.2917	0.000	13.996
1999/08/13	07:51:10	0.3083	0.000	13.996
1999/08/13	07:51:40	0.3167	0.000	13.991
1999/08/13	07:52:40	0.3333	0.000	13.958
1999/08/13	07:53:10	0.3417	0.000	13.954
1999/08/13	07:54:40	0.3667	0.000	14.008
1999/08/13	07:55:40	0.3833	0.000	13.984
1999/08/13	07:57:10	0.4083	0.000	14.092
1999/08/13	07:58:10	0.4250	0.000	14.210
1999/08/13	07:58:40	0.4333	8048.707	14.219
1999/08/13	07:59:40	0.4500	13896.457	15.322
1999/08/13	08:00:10	0.4583	13899.383	16.054
1999/08/13	08:01:10	0.4750	13912.024	17.512
1999/08/13	08:01:40	0.4833	13915.646	18.121
RIH Gradient: 0.000 m				
1999/08/13	08:02:10	0.4917	13918.352	18.648
1999/08/13	08:02:40	0.5000	13921.521	19.140
1999/08/13	08:03:10	0.5083	13921.905	19.499
1999/08/13	08:04:10	0.5250	13923.894	20.131
1999/08/13	08:04:40	0.5333	13924.735	20.392
1999/08/13	08:05:40	0.5500	13935.362	20.875
1999/08/13	08:06:10	0.5583	13958.005	20.890
1999/08/13	08:07:10	0.5750	13974.570	19.708
1999/08/13	08:08:10	0.5917	14039.309	17.741
1999/08/13	08:08:40	0.6000	14098.544	16.696
1999/08/13	08:09:40	0.6167	14232.104	14.881
1999/08/13	08:10:10	0.6250	14321.885	14.211
1999/08/13	08:11:10	0.6417	14494.222	13.509

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	07:34:21	0.0281	0.000	10.054
1999/08/13	07:35:21	0.0447	0.000	10.546
1999/08/13	07:35:51	0.0531	0.000	10.808
1999/08/13	07:36:51	0.0697	0.000	11.302
1999/08/13	07:37:21	0.0781	0.000	11.502
1999/08/13	07:38:21	0.0947	0.000	11.900
1999/08/13	07:38:51	0.1031	0.000	12.117
1999/08/13	07:39:51	0.1197	0.000	12.378
1999/08/13	07:40:21	0.1281	0.000	12.611
1999/08/13	07:41:21	0.1447	0.000	12.954
1999/08/13	07:42:21	0.1614	0.000	13.272
1999/08/13	07:42:51	0.1697	0.000	13.429
1999/08/13	07:43:21	0.1781	0.000	13.569
1999/08/13	07:44:21	0.1947	0.000	13.803
1999/08/13	07:45:21	0.2114	0.000	13.992
1999/08/13	07:46:21	0.2281	0.000	14.147
1999/08/13	07:46:51	0.2364	0.000	14.217
1999/08/13	07:47:51	0.2531	0.000	14.355
1999/08/13	07:48:21	0.2614	0.000	14.406
1999/08/13	07:49:21	0.2781	0.000	14.517
1999/08/13	07:49:51	0.2864	0.000	14.570
1999/08/13	07:50:51	0.3031	0.000	14.670
1999/08/13	07:51:21	0.3114	0.000	14.714
1999/08/13	07:52:21	0.3281	0.000	14.802
1999/08/13	07:52:51	0.3364	0.000	14.844
1999/08/13	07:53:51	0.3531	0.000	14.925
1999/08/13	07:54:21	0.3614	0.000	14.963
1999/08/13	07:55:21	0.3781	0.000	15.031
1999/08/13	07:55:51	0.3864	0.000	15.058
1999/08/13	07:56:51	0.4031	0.000	15.117
1999/08/13	07:57:51	0.4197	0.000	15.189
1999/08/13	07:58:21	0.4281	0.000	15.225
1999/08/13	07:59:21	0.4447	13902.163	15.643
RIH Gradient: 0.000 m				
1999/08/13	07:59:51	0.4531	13917.930	16.016
1999/08/13	08:00:51	0.4697	13930.433	16.776
1999/08/13	08:01:21	0.4781	13933.423	17.084
1999/08/13	08:02:21	0.4947	13937.327	17.554
1999/08/13	08:03:21	0.5114	13939.454	17.885
1999/08/13	08:03:51	0.5197	13940.103	18.006
1999/08/13	08:04:21	0.5281	13940.707	18.112
1999/08/13	08:05:21	0.5447	13941.478	18.267
1999/08/13	08:06:21	0.5614	13974.869	18.142
1999/08/13	08:06:51	0.5697	13977.992	17.633
1999/08/13	08:07:21	0.5781	13992.946	16.906
1999/08/13	08:07:51	0.5864	14022.576	16.076
1999/08/13	08:08:51	0.6031	14133.895	14.364
1999/08/13	08:09:21	0.6114	14195.631	13.642
1999/08/13	08:10:21	0.6291	14373.092	12.658
1999/08/13	08:10:51	0.6364	14462.532	12.477



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 38
Date(s) of Test August 13/99.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	08:11:40	0.6500	14578.259	13.606
1999/08/13	08:13:10	0.6750	14622.104	14.920
1999/08/13	08:14:10	0.6917	14623.768	15.809
1999/08/13	08:14:40	0.7000	14624.993	16.226
1999/08/13	08:15:40	0.7167	14626.177	16.933
1999/08/13	08:16:10	0.7250	14627.050	17.255
RIH Gradient: 500.000 m				
1999/08/13	08:16:40	0.7333	14627.312	17.536
1999/08/13	08:17:10	0.7417	14627.682	17.799
1999/08/13	08:17:40	0.7500	14667.015	18.011
1999/08/13	08:18:40	0.7667	14814.690	18.648
1999/08/13	08:19:40	0.7833	14958.337	19.719
1999/08/13	08:20:10	0.7917	15029.850	20.482
1999/08/13	08:21:10	0.8083	15170.897	22.352
1999/08/13	08:21:40	0.8167	15241.542	23.393
1999/08/13	08:22:40	0.8333	15276.802	25.638
1999/08/13	08:23:10	0.8417	15277.906	26.726
1999/08/13	08:24:10	0.8583	15279.255	28.633
1999/08/13	08:24:40	0.8667	15279.428	29.451
RIH Gradient: 1000.000 m				
1999/08/13	08:25:40	0.8833	15279.844	30.880
1999/08/13	08:26:10	0.8917	15279.869	31.501
1999/08/13	08:27:10	0.9083	15279.729	32.577
1999/08/13	08:27:40	0.9167	15294.363	33.042
1999/08/13	08:28:10	0.9250	15356.708	33.517
1999/08/13	08:29:10	0.9417	15502.099	34.883
1999/08/13	08:30:10	0.9583	15649.277	37.066
1999/08/13	08:31:40	0.9833	15863.752	41.268
1999/08/13	08:32:40	1.0000	15874.171	44.202
1999/08/13	08:33:10	1.0083	15876.152	45.526
1999/08/13	08:34:10	1.0250	15880.088	47.810
1999/08/13	08:34:40	1.0333	15881.088	48.763
RIH Gradient: 1500.000 m				
1999/08/13	08:35:10	1.0417	15881.639	49.616
1999/08/13	08:35:40	1.0500	15882.460	50.393
1999/08/13	08:36:10	1.0583	15883.216	51.094
1999/08/13	08:37:10	1.0750	15884.174	52.296
1999/08/13	08:37:40	1.0833	15893.369	52.771
1999/08/13	08:38:40	1.1000	15938.619	53.729
1999/08/13	08:39:10	1.1083	15938.863	54.231
1999/08/13	08:40:10	1.1250	15939.942	55.123
1999/08/13	08:40:40	1.1333	15940.382	55.506
RIH Gradient: 1550.000 m				
1999/08/13	08:41:40	1.1500	15942.710	56.210
1999/08/13	08:42:40	1.1667	15944.364	56.780
1999/08/13	08:43:10	1.1750	15947.995	56.938
1999/08/13	08:44:40	1.2000	15964.977	57.592
1999/08/13	08:45:40	1.2167	15965.356	57.996
1999/08/13	08:46:10	1.2250	15965.930	58.185
1999/08/13	08:46:40	1.2333	15965.716	58.339

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	08:11:51	0.6531	14635.142	12.882
1999/08/13	08:12:21	0.6614	14645.632	13.384
1999/08/13	08:13:21	0.6781	14648.060	14.530
1999/08/13	08:13:51	0.6864	14648.741	15.062
1999/08/13	08:14:51	0.7031	14649.174	16.006
RIH Gradient: 500.000 m				
1999/08/13	08:15:21	0.7114	14649.309	16.423
1999/08/13	08:16:21	0.7281	14649.300	17.156
1999/08/13	08:16:51	0.7364	14649.383	17.481
1999/08/13	08:17:51	0.7531	14716.514	18.065
1999/08/13	08:18:21	0.7614	14790.646	18.402
1999/08/13	08:19:21	0.7781	14936.508	19.406
1999/08/13	08:20:21	0.7947	15079.716	20.943
1999/08/13	08:20:51	0.8031	15150.479	21.908
1999/08/13	08:21:51	0.8197	15292.322	24.010
1999/08/13	08:22:21	0.8281	15299.494	25.153
1999/08/13	08:23:21	0.8447	15300.762	27.373
1999/08/13	08:23:51	0.8531	15300.883	28.362
RIH Gradient: 1000.000 m				
1999/08/13	08:24:51	0.8697	15300.608	30.073
1999/08/13	08:25:21	0.8781	15300.055	30.813
1999/08/13	08:26:21	0.8947	15299.271	32.113
1999/08/13	08:27:21	0.9114	15298.461	33.196
1999/08/13	08:27:51	0.9197	15334.961	33.674
1999/08/13	08:28:21	0.9281	15397.765	34.187
1999/08/13	08:29:21	0.9447	15548.349	35.713
1999/08/13	08:30:21	0.9614	15696.744	38.029
1999/08/13	08:31:21	0.9781	15837.731	40.739
1999/08/13	08:31:51	0.9864	15891.267	42.224
1999/08/13	08:32:51	1.0031	15891.553	45.042
1999/08/13	08:33:21	1.0114	15891.329	46.294
1999/08/13	08:34:21	1.0281	15890.809	48.454
RIH Gradient: 1500.000 m				
1999/08/13	08:34:51	1.0364	15890.322	49.382
1999/08/13	08:35:51	1.0531	15889.373	50.988
1999/08/13	08:36:21	1.0614	15888.848	51.681
1999/08/13	08:37:21	1.0781	15887.942	52.988
1999/08/13	08:37:51	1.0864	15920.990	53.393
1999/08/13	08:38:51	1.1031	15943.492	54.454
1999/08/13	08:39:21	1.1114	15943.400	54.954
1999/08/13	08:40:21	1.1281	15943.541	55.836
1999/08/13	08:40:51	1.1364	15943.511	56.214
RIH Gradient: 1550.000 m				
1999/08/13	08:41:51	1.1531	15943.473	56.866
1999/08/13	08:42:51	1.1697	15942.998	57.398
1999/08/13	08:43:21	1.1781	15962.822	57.623
1999/08/13	08:44:21	1.1947	15965.453	58.093
1999/08/13	08:44:51	1.2031	15965.430	58.319
1999/08/13	08:45:51	1.2197	15965.384	58.725
1999/08/13	08:46:21	1.2281	15965.230	58.900



Company Name: PARAMOUNT RESOURCES LTD.
 Well Name: Paramount et al Ft. Liard
 Well Location: F - 30
 Date(s) of Test: August 13/99.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	08:47:40	1.2500	15966.340	58.639
RIH Gradient: 1570.000 m				
1999/08/13	08:48:10	1.2583	15966.800	58.776
1999/08/13	08:48:40	1.2667	15966.019	58.866
1999/08/13	08:49:10	1.2750	15975.583	58.999
1999/08/13	08:50:10	1.2917	15989.939	59.190
1999/08/13	08:50:40	1.3000	15989.879	59.299
1999/08/13	08:51:40	1.3167	15990.111	59.497
1999/08/13	08:52:10	1.3250	15990.113	59.582
1999/08/13	08:53:10	1.3417	15990.207	59.737
1999/08/13	08:53:40	1.3500	15990.278	59.806
RIH Gradient: 1590.000 m				
1999/08/13	08:54:10	1.3583	15990.309	59.868
1999/08/13	08:55:10	1.3750	15990.242	59.974
1999/08/13	08:56:10	1.3917	16013.885	60.092
1999/08/13	08:56:40	1.4000	16013.964	60.152
1999/08/13	08:58:10	1.4250	16014.078	60.312
1999/08/13	08:59:10	1.4417	16014.108	60.401
1999/08/13	08:59:40	1.4500	16014.197	60.441
RIH Gradient: 1610.000 m				
1999/08/13	09:00:10	1.4583	16014.320	60.482
1999/08/13	09:00:40	1.4667	16014.267	60.514
1999/08/13	09:01:10	1.4750	16014.227	60.545
1999/08/13	09:02:10	1.4917	16135.452	60.655
1999/08/13	09:02:40	1.5000	16147.844	60.627
1999/08/13	09:03:40	1.5167	16147.915	60.716
1999/08/13	09:04:10	1.5250	16147.862	60.763
RIH Gradient: 1630.000 m				
1999/08/13	09:05:10	1.5417	16147.809	60.847
1999/08/13	09:06:10	1.5583	16147.783	60.919
1999/08/13	09:06:40	1.5667	16147.713	60.948
1999/08/13	09:07:40	1.5833	16308.718	61.018
1999/08/13	09:08:10	1.5917	16308.910	61.059
1999/08/13	09:09:10	1.6083	16308.770	61.142
1999/08/13	09:09:40	1.6167	16308.769	61.186
RIH Gradient: 1650.000 m				
1999/08/13	09:11:10	1.6417	16308.611	61.294
1999/08/13	09:12:10	1.6583	16308.575	61.354
1999/08/13	09:12:40	1.6667	16308.576	61.381
1999/08/13	09:13:40	1.6833	16468.719	61.438
1999/08/13	09:14:10	1.6917	16468.834	61.477
1999/08/13	09:15:10	1.7083	16468.840	61.569
1999/08/13	09:15:40	1.7167	16468.768	61.612
RIH Gradient: 1670.000 m				
1999/08/13	09:16:40	1.7333	16468.797	61.700
1999/08/13	09:17:40	1.7500	16468.627	61.770
1999/08/13	09:18:10	1.7583	16468.680	61.803
1999/08/13	09:19:10	1.7750	16487.836	61.882
1999/08/13	09:19:40	1.7833	16651.850	61.873
1999/08/13	09:20:40	1.8000	16652.170	61.944

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	08:47:21	1.2447	15964.939	59.211
RIH Gradient: 1570.000 m				
1999/08/13	08:47:51	1.2531	15964.842	59.349
1999/08/13	08:48:51	1.2697	15964.572	59.592
1999/08/13	08:49:21	1.2781	15978.852	59.652
1999/08/13	08:50:21	1.2947	15987.312	59.912
1999/08/13	08:50:51	1.3031	15987.513	60.031
1999/08/13	08:51:51	1.3197	15987.130	60.230
1999/08/13	08:52:21	1.3281	15987.225	60.326
RIH Gradient: 1590.000 m				
1999/08/13	08:53:21	1.3447	15987.270	60.494
1999/08/13	08:54:21	1.3614	15986.962	60.627
1999/08/13	08:54:51	1.3697	15986.896	60.690
1999/08/13	08:55:21	1.3781	15994.237	60.705
1999/08/13	08:56:21	1.3947	16007.884	60.803
1999/08/13	08:57:21	1.4114	16008.680	60.947
1999/08/13	08:57:51	1.4197	16008.836	61.006
1999/08/13	08:58:21	1.4281	16009.166	61.067
1999/08/13	08:59:21	1.4447	16008.854	61.151
RIH Gradient: 1610.000 m				
1999/08/13	08:59:51	1.4531	16009.080	61.198
1999/08/13	09:00:21	1.4614	16008.914	61.233
1999/08/13	09:00:51	1.4697	16009.035	61.272
1999/08/13	09:01:21	1.4781	16009.107	61.307
1999/08/13	09:02:21	1.4947	16149.450	61.326
1999/08/13	09:03:21	1.5114	16148.990	61.398
1999/08/13	09:03:51	1.5197	16148.702	61.435
1999/08/13	09:04:21	1.5281	16149.379	61.498
1999/08/13	09:04:51	1.5364	16149.657	61.548
RIH Gradient: 1630.000 m				
1999/08/13	09:05:51	1.5531	16149.697	61.625
1999/08/13	09:06:21	1.5614	16149.566	61.654
1999/08/13	09:07:21	1.5781	16308.767	61.690
1999/08/13	09:07:51	1.5864	16309.452	61.723
1999/08/13	09:08:51	1.6031	16309.318	61.803
1999/08/13	09:09:21	1.6114	16308.806	61.830
1999/08/13	09:10:21	1.6281	16308.867	61.913
RIH Gradient: 1650.000 m				
1999/08/13	09:10:51	1.6364	16308.815	61.950
1999/08/13	09:11:21	1.6447	16308.977	61.987
1999/08/13	09:11:51	1.6531	16309.074	62.020
1999/08/13	09:12:51	1.6697	16309.087	62.077
1999/08/13	09:13:21	1.6781	16464.255	62.105
1999/08/13	09:14:21	1.6947	16469.836	62.160
1999/08/13	09:14:51	1.7031	16470.242	62.214
1999/08/13	09:15:51	1.7197	16469.717	62.290
1999/08/13	09:16:21	1.7281	16470.189	62.347
RIH Gradient: 1670.000 m				
1999/08/13	09:17:21	1.7447	16470.369	62.431
1999/08/13	09:18:21	1.7614	16470.230	62.494



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Ward
Well Location F - 36
Date(s) of Test August 13/99.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	09:21:10	1.8083	16652.129	61.983
1999/08/13	09:22:10	1.8250	16652.072	62.060
1999/08/13	09:22:40	1.8333	16652.004	62.095
1999/08/13	09:23:40	1.8500	16651.988	62.159
1999/08/13	09:24:10	1.8583	16651.930	62.186
RIH Gradient: 1690.000 m				
1999/08/13	09:24:40	1.8667	16651.969	62.213
1999/08/13	09:25:10	1.8750	16651.846	62.234
1999/08/13	09:25:40	1.8833	16651.836	62.255
1999/08/13	09:27:10	1.9083	16742.721	62.289
1999/08/13	09:28:10	1.9250	16742.762	62.334
1999/08/13	09:29:40	1.9500	16742.641	62.395
RIH Gradient: 1700.000 m				
1999/08/13	09:30:40	1.9667	16742.686	62.434
1999/08/13	09:31:10	1.9750	16742.613	62.450
1999/08/13	09:32:10	1.9917	16757.941	62.475
1999/08/13	09:32:40	2.0000	16837.762	62.507
1999/08/13	09:33:40	2.0167	16837.795	62.538
1999/08/13	09:34:10	2.0250	16837.758	62.551
1999/08/13	09:35:10	2.0417	16837.684	62.578
RIH Gradient: 1710.000 m				
1999/08/13	09:35:40	2.0500	16837.697	62.592
1999/08/13	09:36:40	2.0667	16837.529	62.613
1999/08/13	09:37:10	2.0750	16837.512	62.623
1999/08/13	09:38:10	2.0917	16865.658	62.620
1999/08/13	09:38:40	2.1000	16932.184	62.634
1999/08/13	09:40:10	2.1250	16932.170	62.664
1999/08/13	09:41:10	2.1417	16932.064	62.684
1999/08/13	09:41:40	2.1500	16932.096	62.693
1999/08/13	09:42:10	2.1583	16932.010	62.701
RIH Gradient: 1720.000 m				
1999/08/13	09:42:40	2.1667	16932.094	62.711
1999/08/13	09:43:10	2.1750	16932.070	62.717
1999/08/13	09:44:10	2.1917	16948.525	62.728
1999/08/13	09:44:40	2.2000	17028.186	62.724
1999/08/13	09:45:40	2.2167	17028.049	62.756
1999/08/13	09:46:10	2.2250	17028.145	62.781
1999/08/13	09:47:10	2.2417	17028.152	62.828
1999/08/13	09:47:40	2.2500	17028.137	62.849
RIH Gradient: 1730.000 m				
1999/08/13	09:48:10	2.2583	17028.148	62.870
1999/08/13	09:48:40	2.2667	17028.143	62.890
1999/08/13	09:49:10	2.2750	17028.186	62.909
1999/08/13	09:50:40	2.3000	17124.797	62.953
1999/08/13	09:51:40	2.3167	17124.512	62.999
1999/08/13	09:52:40	2.3333	17124.592	63.055
1999/08/13	09:53:10	2.3417	17124.516	63.080
1999/08/13	09:54:10	2.3583	17124.514	63.124
1999/08/13	09:54:40	2.3667	17124.531	63.146
1999/08/13	09:56:10	2.3917	17124.396	63.192

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	09:18:51	1.7697	16470.156	62.521
1999/08/13	09:19:21	1.7781	16560.695	62.540
1999/08/13	09:20:21	1.7947	16654.758	62.608
1999/08/13	09:21:21	1.8114	16654.367	62.678
1999/08/13	09:21:51	1.8197	16654.090	62.709
1999/08/13	09:22:21	1.8281	16654.039	62.746
1999/08/13	09:23:21	1.8447	16654.264	62.822
1999/08/13	09:24:21	1.8614	16654.326	62.887
RIH Gradient: 1690.000 m				
1999/08/13	09:24:51	1.8697	16654.484	62.916
1999/08/13	09:25:21	1.8781	16654.557	62.944
1999/08/13	09:26:21	1.8947	16711.635	62.976
1999/08/13	09:27:21	1.9114	16746.174	63.019
1999/08/13	09:28:21	1.9281	16745.070	63.064
1999/08/13	09:28:51	1.9364	16745.936	63.082
1999/08/13	09:29:51	1.9531	16745.602	63.117
RIH Gradient: 1700.000 m				
1999/08/13	09:30:21	1.9614	16745.441	63.133
1999/08/13	09:31:21	1.9781	16745.141	63.159
1999/08/13	09:31:51	1.9864	16745.023	63.172
1999/08/13	09:32:51	2.0031	16840.363	63.215
1999/08/13	09:33:51	2.0197	16840.332	63.244
1999/08/13	09:34:21	2.0281	16840.150	63.256
1999/08/13	09:35:21	2.0447	16839.961	63.280
1999/08/13	09:35:51	2.0531	16839.818	63.289
RIH Gradient: 1710.000 m				
1999/08/13	09:36:21	2.0614	16839.584	63.295
1999/08/13	09:36:51	2.0697	16839.463	63.305
1999/08/13	09:37:21	2.0781	16839.502	63.317
1999/08/13	09:38:21	2.0947	16908.709	63.346
1999/08/13	09:39:21	2.1114	16935.197	63.365
1999/08/13	09:39:51	2.1197	16935.283	63.377
1999/08/13	09:40:21	2.1281	16935.209	63.387
1999/08/13	09:41:21	2.1447	16934.920	63.399
1999/08/13	09:42:21	2.1614	16934.896	63.416
RIH Gradient: 1720.000 m				
1999/08/13	09:42:51	2.1697	16934.457	63.412
1999/08/13	09:43:21	2.1781	16934.398	63.418
1999/08/13	09:44:21	2.1947	16985.242	63.432
1999/08/13	09:45:21	2.2114	17031.900	63.469
1999/08/13	09:45:51	2.2197	17031.854	63.492
1999/08/13	09:46:21	2.2281	17031.941	63.520
1999/08/13	09:47:21	2.2447	17031.654	63.565
RIH Gradient: 1730.000 m				
1999/08/13	09:48:21	2.2614	17031.602	63.610
1999/08/13	09:48:51	2.2697	17031.432	63.626
1999/08/13	09:49:21	2.2781	17031.102	63.637
1999/08/13	09:49:51	2.2864	17030.992	63.653
1999/08/13	09:50:51	2.3031	17125.621	63.707
1999/08/13	09:51:21	2.3114	17128.096	63.719



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 38
Date(s) of Test August 13/09.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	09:57:10	2.4083	17124.422	63.217
1999/08/13	09:57:40	2.4167	17124.307	63.227
1999/08/13	09:58:40	2.4333	17124.215	63.244
RIH Gradient: 1740.000 m				
1999/08/13	09:59:10	2.4417	17124.256	63.252
1999/08/13	10:00:10	2.4583	17124.180	63.265
1999/08/13	10:00:40	2.4667	17124.066	63.269
1999/08/13	10:01:40	2.4833	16845.635	63.279
1999/08/13	10:02:10	2.4917	16449.912	63.272
1999/08/13	10:03:10	2.5083	15968.892	63.113
1999/08/13	10:04:10	2.5250	15853.608	62.724
1999/08/13	10:04:40	2.5333	15797.531	62.437
1999/08/13	10:05:40	2.5500	15688.487	61.605
1999/08/13	10:06:10	2.5583	15632.333	61.054
1999/08/13	10:07:10	2.5750	15499.184	59.746
1999/08/13	10:07:40	2.5833	15425.832	58.943
1999/08/13	10:09:10	2.6083	15190.719	55.516
1999/08/13	10:10:10	2.6250	15019.605	52.291
1999/08/13	10:10:40	2.6333	14931.184	50.543
1999/08/13	10:12:10	2.6583	14651.680	44.962
1999/08/13	10:13:10	2.6750	14445.568	40.953
1999/08/13	10:13:40	2.6833	14318.261	38.863
1999/08/13	10:14:40	2.7000	14045.530	34.314
1999/08/13	10:15:40	2.7167	13933.312	29.423
1999/08/13	10:16:10	2.7250	13921.607	27.155
1999/08/13	10:17:10	2.7417	13919.593	23.825
1999/08/13	10:17:40	2.7500	13919.063	22.685
1999/08/13	10:18:40	2.7667	13919.298	21.119
1999/08/13	10:19:10	2.7750	13918.720	20.556
POOH Gradient: 0.000 m				
1999/08/13	10:20:10	2.7917	13919.580	19.798
1999/08/13	10:20:40	2.8000	13918.979	19.501
1999/08/13	10:21:40	2.8167	13920.604	19.170
1999/08/13	10:22:10	2.8250	13925.404	19.013
1999/08/13	10:23:10	2.8417	0.000	18.675
1999/08/13	10:23:40	2.8500	0.000	18.218
1999/08/13	10:25:10	2.8750	0.000	16.772
1999/08/13	10:26:10	2.8917	0.000	16.190
1999/08/13	10:26:40	2.9000	0.000	16.052
1999/08/13	10:27:40	2.9167	0.000	15.930
1999/08/13	10:28:10	2.9250	0.000	15.958
1999/08/13	10:29:10	2.9417	0.000	16.107
1999/08/13	10:29:40	2.9500	0.000	16.229
1999/08/13	10:30:40	2.9667	0.000	16.545
1999/08/13	10:31:10	2.9750	0.000	16.663
1999/08/13	10:32:10	2.9917	0.000	17.097
1999/08/13	10:32:40	3.0000	0.000	17.269
1999/08/13	10:33:40	3.0167	0.000	17.568
1999/08/13	10:34:10	3.0250	0.000	17.695
1999/08/13	10:35:40	3.0500	0.000	18.005

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	09:52:21	2.3281	17127.604	63.762
1999/08/13	09:52:51	2.3364	17127.631	63.790
1999/08/13	09:53:51	2.3531	17127.625	63.635
1999/08/13	09:54:21	2.3614	17127.617	63.854
1999/08/13	09:55:21	2.3781	17127.547	63.890
1999/08/13	09:56:21	2.3947	17127.676	63.923
1999/08/13	09:56:51	2.4031	17127.680	63.937
1999/08/13	09:57:51	2.4197	17127.400	63.953
1999/08/13	09:58:21	2.4281	17127.414	63.962
RIH Gradient: 1740.000 m				
1999/08/13	09:58:51	2.4364	17127.570	63.976
1999/08/13	09:59:21	2.4447	17127.492	63.982
1999/08/13	09:59:51	2.4531	17127.393	63.986
1999/08/13	10:00:51	2.4697	17127.395	64.000
1999/08/13	10:01:21	2.4781	17047.742	64.004
1999/08/13	10:02:21	2.4947	16306.846	63.975
1999/08/13	10:03:21	2.5114	15940.365	63.811
1999/08/13	10:03:51	2.5197	15882.081	63.611
1999/08/13	10:04:21	2.5281	15826.228	63.438
1999/08/13	10:05:21	2.5447	15715.005	62.697
1999/08/13	10:06:21	2.5614	15602.772	61.660
1999/08/13	10:06:51	2.5697	15537.124	61.074
1999/08/13	10:07:21	2.5781	15465.890	60.389
1999/08/13	10:08:21	2.5947	15316.240	58.613
1999/08/13	10:09:21	2.6114	15155.396	56.081
1999/08/13	10:09:51	2.6197	15070.902	54.535
1999/08/13	10:10:21	2.6261	14984.751	52.879
1999/08/13	10:11:21	2.6447	14807.106	49.427
1999/08/13	10:12:21	2.6614	14619.264	45.716
1999/08/13	10:13:21	2.6781	14404.095	41.761
1999/08/13	10:13:51	2.6864	14274.658	39.682
1999/08/13	10:14:51	2.7031	14003.364	35.097
1999/08/13	10:15:21	2.7114	13945.737	32.638
POOH Gradient: 0.000 m				
1999/08/13	10:16:21	2.7281	13922.821	28.003
1999/08/13	10:16:51	2.7364	13923.723	26.199
1999/08/13	10:17:51	2.7531	13926.653	23.645
1999/08/13	10:18:21	2.7614	13926.312	22.760
1999/08/13	10:19:21	2.7781	13931.030	21.465
1999/08/13	10:19:51	2.7864	13932.207	20.996
1999/08/13	10:20:51	2.8031	13933.991	20.308
1999/08/13	10:21:21	2.8114	13934.387	20.047
1999/08/13	10:22:21	2.8281	13948.502	19.686
1999/08/13	10:22:51	2.8364	3102.319	19.468
1999/08/13	10:23:51	2.8531	0.000	18.493
1999/08/13	10:24:51	2.8697	0.000	17.440
1999/08/13	10:25:21	2.8781	0.000	17.032
1999/08/13	10:26:21	2.8947	0.000	16.505
1999/08/13	10:26:51	2.9031	0.000	16.362
1999/08/13	10:27:51	2.9197	0.000	16.271



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Ft. Liard
Well Location F - 36
Date(s) of Test August 13/99.



Date	Time	Cum. T. 1 (P22)	Pres 1 (P22)	Temp 1 (P22)
		hr	kPag	deg C
1999/08/13	10:36:40	3.0667	0.000	18.177

Date	Time	Cum. T. 2 (P66)	Pres 2 (P66)	Temp 2 (P66)
		hr	kPag	deg C
1999/08/13	10:28:21	2.9281	0.000	16.301
1999/08/13	10:29:21	2.9447	0.000	16.466
1999/08/13	10:29:51	2.9531	0.000	16.592
1999/08/13	10:30:51	2.9697	0.000	16.909
1999/08/13	10:31:21	2.9781	0.000	17.091
1999/08/13	10:32:21	2.9947	0.000	17.464
1999/08/13	10:32:51	3.0031	0.000	17.650
1999/08/13	10:33:51	3.0197	0.000	17.842

Baker Atlas
SLICKLINE DIVISION

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Terry Stasiuk
Phone	# 266 - 2047
Fax	# 262 - 7944
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta

E-Mail Address	hkib@telusplanet.com
Service Company	Baker Atlas Slickline Division

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard -
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1734.5 mCF
Mid-point of Perforated Intervals (MPP)	1621.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	177.3 mm
Production Tubing	88.9 mm

TEST INFORMATION

Test Number / Type of Test	Buildup
Date(s) of Test	October 27/99 - December 08/99
Dead-weight Gauge Tubing Pressure	13620.0 kPa
Dead-weight Gauge Casing Pressure	0.0 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	October 27/99 @ 17:27.
Date / Time off Bottom	December 08/99 @ 11:25.

Probe Serial Number	V36 (TOP)	V40 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1369.81 mCF	1370.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	15414.19 kPag	15429.87 kPag
Maximum Recorded Probe Temperature	54.88 deg C	56.85 deg C
Final Buildup Pressure	15429.056 kPa	15410.420 kPa
Gradient Survey Information		
Extrapolated Pressure to MPP	N/A	N/A
Final Gradient at Depth	N/A	N/A
Job Number	N/A	



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test October 27/99 - December 08/99



PROBE INFORMATION

Probe Serial Number V36 (TOP)
Model Level II
Pressure
 Calibrated Pressure Range 0.0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -20.6 - 148.2 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports V36OC13A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	2 minutes	end of memory	Fill remaining memory

Program Start Time	Oct 27/1999 @ 17:05:18
Program End Time	Dec 08/1999 @ 13:01:18
Total Samples Taken	30119
Usage for this Test	2.6530 Ah
Generic Data File Name	V36DE08A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Liard
F - 38
October 27/99 - December 08/99



PROBE INFORMATION

Probe Serial Number	V40 (BOTTOM)
Model	Level II
Pressure	
Calibrated Pressure Range	0.0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-20.4 - 150.8 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	V40OC19A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	2 minutes	end of memory	Fill remaining memory

Program Start Time	Oct 27/1999 @ 17:06:54
Program End Time	Dec 08/1999 @ 12:54:54
Total Samples Taken	30115
Usage for this Test	2.6520 Ah
Generic Data File Name	V40DE08A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount at Liard
F - 38
October 27/99 - December 08/99



COMMENTS

Reported By

JIM O'KEEFE

DECEMBER 08/99 TBG: 13710.0 KPA CSG: 0.0 KPA

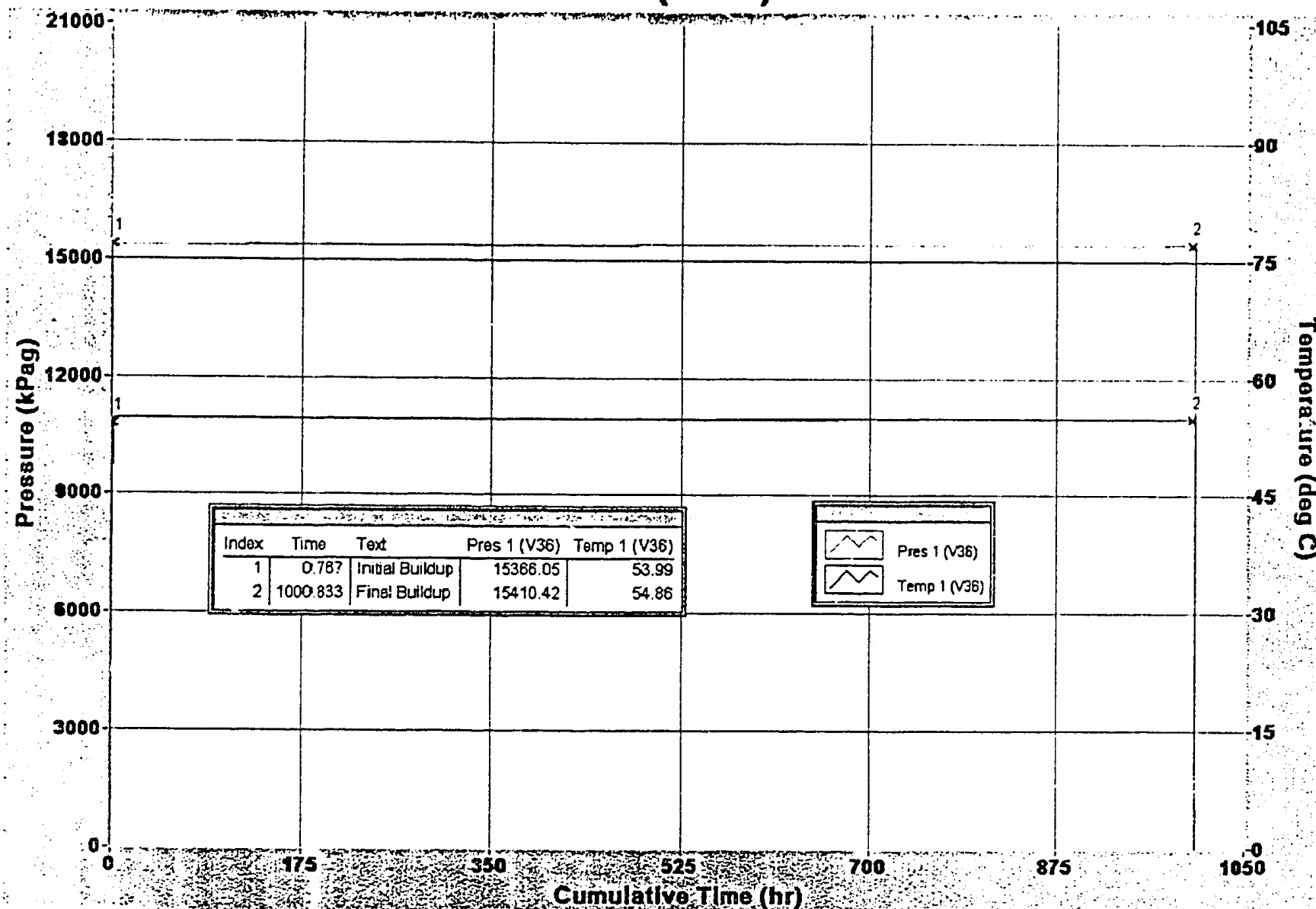
SURVEYED BY: MILT CAINES



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 38
Date(s) of Test October 27/99 - December 08/99



V36 (TOP)

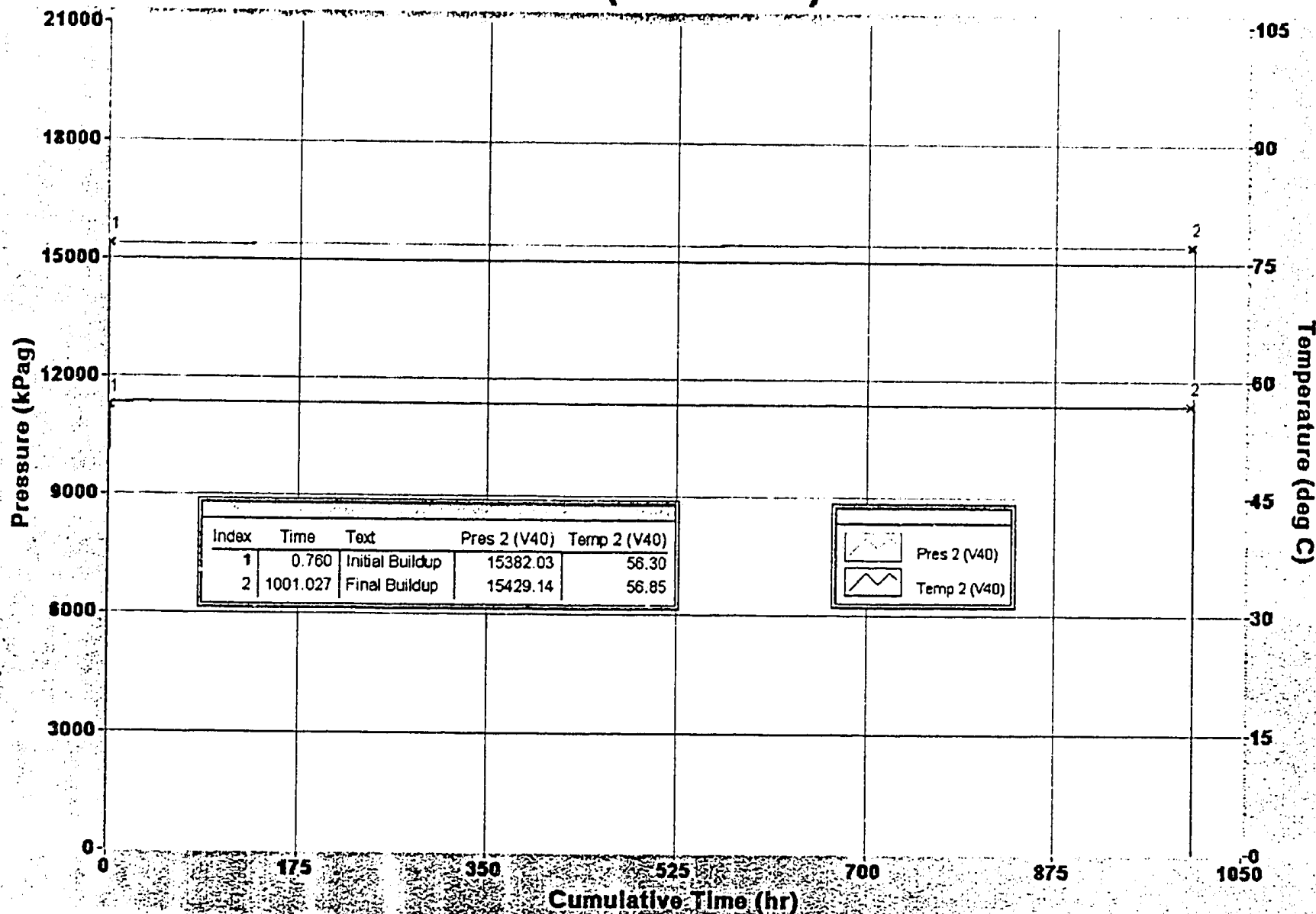




Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test October 27/99 - December 08/99



V40 (BOTTOM)

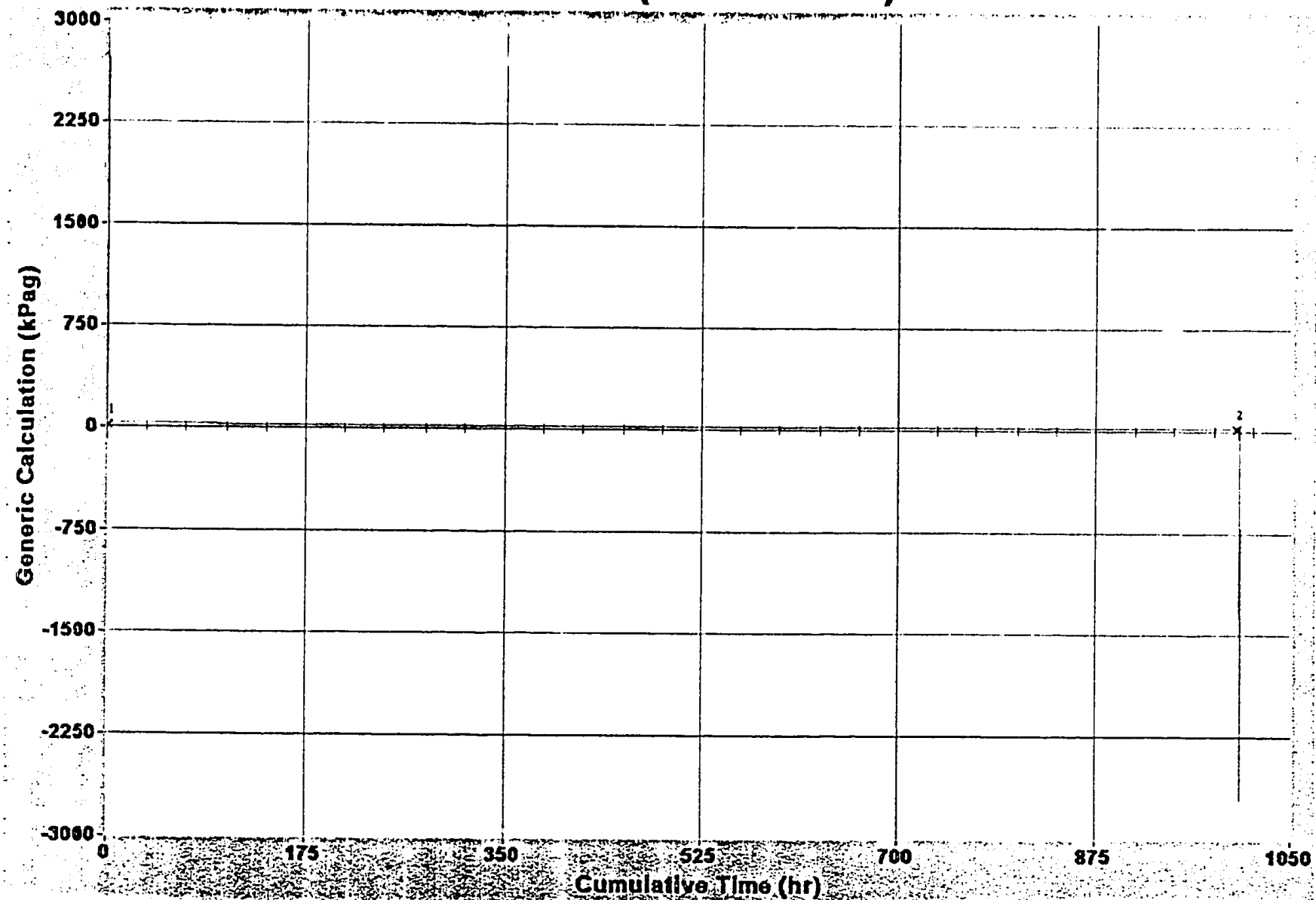




Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test October 27/99 - December 08/99



V36 - V40 (DEVIATION)





Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 38
Date(s) of Test October 27/99 - December 08/99



Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/10/27	17:05:18	0.0000	0.000	3.912
Initial Buildup				
1999/10/27	17:51:18	0.7667	15366.055	53.993
1999/10/27	20:35:18	3.5000	15353.400	54.724
1999/10/28	00:05:18	7.0000	15349.493	54.759
1999/10/28	03:35:18	10.5000	15348.574	54.789
1999/10/28	07:05:18	14.0000	15348.381	54.771
1999/10/28	10:35:18	17.5000	15348.528	54.771
1999/10/28	14:05:18	21.0000	15348.870	54.773
1999/10/28	17:35:18	24.5000	15349.146	54.773
1999/10/28	21:05:18	28.0000	15349.530	54.775
1999/10/29	00:35:18	31.5000	15349.935	54.777
1999/10/29	04:05:18	35.0000	15350.274	54.777
1999/10/29	07:35:18	38.5000	15350.636	54.777
1999/10/29	11:05:18	42.0000	15351.123	54.781
1999/10/29	14:35:18	45.5000	15351.360	54.777
1999/10/29	18:05:18	49.0000	15351.805	54.779
1999/10/29	21:35:18	52.5000	15352.166	54.779
1999/10/30	01:05:18	56.0000	15352.506	54.779
1999/10/30	04:35:18	59.5000	15352.890	54.779
1999/10/30	08:05:18	63.0000	15353.166	54.779
1999/10/30	11:35:18	66.5000	15353.572	54.779
1999/10/30	15:05:18	70.0000	15353.996	54.781
1999/10/30	18:35:18	73.5000	15354.422	54.785
1999/10/30	22:05:18	77.0000	15354.636	54.781
1999/10/31	01:35:18	80.5000	15354.976	54.781
1999/10/31	05:05:18	84.0000	15355.359	54.783
1999/10/31	08:35:18	87.5000	15355.722	54.785
1999/10/31	12:05:18	91.0000	15355.955	54.783
1999/10/31	15:35:18	94.5000	15356.317	54.785
1999/10/31	19:05:18	98.0000	15356.571	54.783
1999/10/31	22:35:18	101.5000	15356.955	54.787
1999/11/01	02:05:18	105.0000	15357.147	54.785
1999/11/01	05:35:18	108.5000	15357.423	54.785
1999/11/01	09:05:18	112.0000	15357.721	54.785
1999/11/01	12:35:18	115.5000	15358.104	54.787
1999/11/01	16:05:18	119.0000	15358.339	54.787
1999/11/01	19:35:18	122.5000	15358.595	54.787
1999/11/01	23:05:18	126.0000	15358.893	54.787
1999/11/02	02:35:18	129.5000	15359.169	54.787
1999/11/02	06:05:18	133.0000	15359.595	54.791
1999/11/02	09:35:18	136.5000	15359.765	54.789
1999/11/02	13:05:18	140.0000	15360.061	54.789
1999/11/02	16:35:18	143.5000	15360.315	54.789
1999/11/02	20:05:18	147.0000	15360.739	54.793
1999/11/02	23:35:18	150.5000	15360.847	54.789
1999/11/03	03:05:18	154.0000	15361.209	54.791
1999/11/03	06:35:18	157.5000	15361.465	54.791
1999/11/03	10:05:18	161.0000	15361.721	54.791
1999/11/03	13:35:18	164.5000	15362.123	54.795

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/10/27	17:06:54	0.0267	0.000	2.854
Initial Buildup				
1999/10/27	17:50:54	0.7600	15382.027	56.299
1999/10/27	20:36:54	3.5267	15377.880	56.683
1999/10/28	00:06:54	7.0267	15377.631	56.713
1999/10/28	03:36:54	10.5267	15377.439	56.721
1999/10/28	07:06:54	14.0267	15377.349	56.723
1999/10/28	10:36:54	17.5267	15377.358	56.726
1999/10/28	14:06:54	21.0267	15377.461	56.728
1999/10/28	17:36:54	24.5267	15377.475	56.732
1999/10/28	21:06:54	28.0267	15377.562	56.730
1999/10/29	00:36:54	31.5267	15377.754	56.732
1999/10/29	04:06:54	35.0267	15377.818	56.732
1999/10/29	07:36:54	38.5267	15377.928	56.730
1999/10/29	11:06:54	42.0267	15378.141	56.732
1999/10/29	14:36:54	45.5267	15378.201	56.732
1999/10/29	18:06:54	49.0267	15378.651	56.734
1999/10/29	21:36:54	52.5267	15378.823	56.734
1999/10/30	01:06:54	56.0267	15379.131	56.738
1999/10/30	04:36:54	59.5267	15379.243	56.738
1999/10/30	08:06:54	63.0267	15379.566	56.736
1999/10/30	11:36:54	66.5267	15379.738	56.736
1999/10/30	15:06:54	70.0267	15380.055	56.738
1999/10/30	18:36:54	73.5267	15380.298	56.736
1999/10/30	22:06:54	77.0267	15380.462	56.738
1999/10/31	01:36:54	80.5267	15380.785	56.738
1999/10/31	05:06:54	84.0267	15381.038	56.740
1999/10/31	08:36:54	87.5267	15381.150	56.738
1999/10/31	12:06:54	91.0267	15381.322	56.738
1999/10/31	15:36:54	94.5267	15381.666	56.738
1999/10/31	19:06:54	98.0267	15381.875	56.740
1999/10/31	22:36:54	101.5267	15381.961	56.740
1999/11/01	02:06:54	105.0267	15382.240	56.740
1999/11/01	05:36:54	108.5267	15382.455	56.740
1999/11/01	09:06:54	112.0267	15382.583	56.740
1999/11/01	12:36:54	115.5267	15382.987	56.742
1999/11/01	16:06:54	119.0267	15383.143	56.740
1999/11/01	19:36:54	122.5267	15383.357	56.740
1999/11/01	23:06:54	126.0267	15383.551	56.740
1999/11/02	02:36:54	129.5267	15383.890	56.742
1999/11/02	06:06:54	133.0267	15384.002	56.740
1999/11/02	09:36:54	136.5267	15384.216	56.740
1999/11/02	13:06:54	140.0267	15384.576	56.742
1999/11/02	16:36:54	143.5267	15384.727	56.742
1999/11/02	20:06:54	147.0267	15385.022	56.744
1999/11/02	23:36:54	150.5267	15385.157	56.742
1999/11/03	03:06:54	154.0267	15385.408	56.744
1999/11/03	06:36:54	157.5267	15385.602	56.744
1999/11/03	10:06:54	161.0267	15385.878	56.746
1999/11/03	13:36:54	164.5267	15386.091	56.746



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Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/11/03	17:05:18	168.0000	15362.313	54.793
1999/11/03	20:35:18	171.5000	15362.528	54.791
1999/11/04	00:05:18	175.0000	15362.931	54.793
1999/11/04	03:35:18	178.5000	15363.314	54.797
1999/11/04	07:05:18	182.0000	15363.463	54.793
1999/11/04	10:35:18	185.5000	15363.696	54.793
1999/11/04	14:05:18	189.0000	15363.952	54.793
1999/11/04	17:35:18	192.5000	15364.314	54.795
1999/11/04	21:05:18	196.0000	15364.549	54.795
1999/11/05	00:35:18	199.5000	15364.782	54.795
1999/11/05	04:05:18	203.0000	15365.061	54.795
1999/11/05	07:35:18	206.5000	15365.336	54.795
1999/11/05	11:05:18	210.0000	15365.740	54.798
1999/11/05	14:35:18	213.5000	15365.868	54.797
1999/11/05	18:05:18	217.0000	15366.188	54.797
1999/11/05	21:35:18	220.5000	15366.400	54.797
1999/11/06	01:05:18	224.0000	15366.656	54.797
1999/11/06	04:35:18	227.5000	15366.890	54.797
1999/11/06	08:05:18	231.0000	15367.229	54.798
1999/11/06	11:35:18	234.5000	15367.440	54.798
1999/11/06	15:05:18	238.0000	15367.718	54.798
1999/11/06	18:35:18	241.5000	15368.104	54.802
1999/11/06	22:05:18	245.0000	15368.187	54.798
1999/11/07	01:35:18	248.5000	15368.508	54.800
1999/11/07	05:05:18	252.0000	15368.718	54.798
1999/11/07	08:35:18	255.5000	15369.020	54.802
1999/11/07	12:05:18	259.0000	15369.189	54.800
1999/11/07	15:35:18	262.5000	15369.466	54.800
1999/11/07	19:05:18	266.0000	15369.743	54.800
1999/11/07	22:35:18	269.5000	15370.105	54.804
1999/11/08	02:05:18	273.0000	15370.233	54.802
1999/11/08	05:35:18	276.5000	15370.509	54.802
1999/11/08	09:05:18	280.0000	15370.721	54.802
1999/11/08	12:35:18	283.5000	15370.977	54.802
1999/11/08	16:05:18	287.0000	15371.190	54.802
1999/11/08	19:35:18	290.5000	15371.445	54.802
1999/11/08	23:05:18	294.0000	15371.827	54.806
1999/11/09	02:35:18	297.5000	15372.021	54.804
1999/11/09	06:05:18	301.0000	15372.337	54.808
1999/11/09	09:35:18	304.5000	15372.467	54.804
1999/11/09	13:05:18	308.0000	15372.723	54.804
1999/11/09	16:35:18	311.5000	15373.039	54.806
1999/11/09	20:05:18	315.0000	15373.423	54.810
1999/11/09	23:35:18	318.5000	15373.529	54.806
1999/11/10	03:05:18	322.0000	15373.742	54.806
1999/11/10	06:35:18	325.5000	15373.997	54.806
1999/11/10	10:05:18	329.0000	15374.295	54.808
1999/11/10	13:35:18	332.5000	15374.593	54.812
1999/11/10	17:05:18	336.0000	15374.721	54.808
1999/11/10	20:35:18	339.5000	15374.955	54.808

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/11/03	17:06:54	168.0267	15386.204	56.744
1999/11/03	20:36:54	171.5267	15386.439	56.744
1999/11/04	00:06:54	175.0267	15386.758	56.746
1999/11/04	03:36:54	178.5267	15386.930	56.746
1999/11/04	07:06:54	182.0267	15387.162	56.746
1999/11/04	10:36:54	185.5267	15387.377	56.746
1999/11/04	14:06:54	189.0267	15387.675	56.748
1999/11/04	17:36:54	192.5267	15387.906	56.750
1999/11/04	21:06:54	196.0267	15388.084	56.748
1999/11/05	00:36:54	199.5267	15388.357	56.750
1999/11/05	04:06:54	203.0267	15388.491	56.748
1999/11/05	07:36:54	206.5267	15388.830	56.750
1999/11/05	11:06:54	210.0267	15389.048	56.750
1999/11/05	14:36:54	213.5267	15389.259	56.750
1999/11/05	18:06:54	217.0267	15389.561	56.750
1999/11/05	21:36:54	220.5267	15389.786	56.754
1999/11/06	01:06:54	224.0267	15390.167	56.756
1999/11/06	04:36:54	227.5267	15390.259	56.754
1999/11/06	08:06:54	231.0267	15390.617	56.756
1999/11/06	11:36:54	234.5267	15390.747	56.756
1999/11/06	15:06:54	238.0267	15391.038	56.760
1999/11/06	18:36:54	241.5267	15391.275	56.758
1999/11/06	22:06:54	245.0267	15391.491	56.758
1999/11/07	01:36:54	248.5267	15391.663	56.758
1999/11/07	05:06:54	252.0267	15392.021	56.762
1999/11/07	08:36:54	255.5267	15392.072	56.758
1999/11/07	12:06:54	259.0267	15392.414	56.760
1999/11/07	15:36:54	262.5267	15392.538	56.760
1999/11/07	19:06:54	266.0267	15392.794	56.762
1999/11/07	22:36:54	269.5267	15393.030	56.762
1999/11/08	02:06:54	273.0267	15393.289	56.762
1999/11/08	05:36:54	276.5267	15393.417	56.762
1999/11/08	09:06:54	280.0267	15393.610	56.762
1999/11/08	12:36:54	283.5267	15393.971	56.764
1999/11/08	16:06:54	287.0267	15394.147	56.762
1999/11/08	19:36:54	290.5267	15394.297	56.762
1999/11/08	23:06:54	294.0267	15394.538	56.764
1999/11/09	02:36:54	297.5267	15394.766	56.764
1999/11/09	06:06:54	301.0267	15394.979	56.764
1999/11/09	09:36:54	304.5267	15395.173	56.764
1999/11/09	13:06:54	308.0267	15395.410	56.764
1999/11/09	16:36:54	311.5267	15395.748	56.766
1999/11/09	20:06:54	315.0267	15395.911	56.768
1999/11/09	23:36:54	318.5267	15396.048	56.766
1999/11/10	03:06:54	322.0267	15396.306	56.766
1999/11/10	06:36:54	325.5267	15396.564	56.766
1999/11/10	10:06:54	329.0267	15396.728	56.768
1999/11/10	13:36:54	332.5267	15397.014	56.766
1999/11/10	17:06:54	336.0267	15397.243	56.768
1999/11/10	20:36:54	339.5267	15397.395	56.768



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Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/11/11	00:05:18	343.0000	15375.190	54.808
1999/11/11	03:35:18	346.5000	15375.488	54.812
1999/11/11	07:05:18	350.0000	15375.679	54.810
1999/11/11	10:35:18	353.5000	15375.912	54.810
1999/11/11	14:05:18	357.0000	15376.104	54.810
1999/11/11	17:35:18	360.5000	15376.318	54.810
1999/11/11	21:05:18	364.0000	15376.530	54.810
1999/11/12	00:35:18	367.5000	15376.808	54.810
1999/11/12	04:05:18	371.0000	15377.062	54.812
1999/11/12	07:35:18	374.5000	15377.318	54.812
1999/11/12	11:05:18	378.0000	15377.589	54.814
1999/11/12	14:35:18	381.5000	15377.717	54.812
1999/11/12	18:05:18	385.0000	15377.951	54.812
1999/11/12	21:35:18	388.5000	15378.185	54.812
1999/11/13	01:05:18	392.0000	15378.398	54.812
1999/11/13	04:35:18	395.5000	15378.675	54.814
1999/11/13	08:05:18	399.0000	15378.803	54.812
1999/11/13	11:35:18	402.5000	15379.101	54.814
1999/11/13	15:05:18	406.0000	15379.335	54.814
1999/11/13	18:35:18	409.5000	15379.594	54.816
1999/11/13	22:05:18	413.0000	15379.806	54.816
1999/11/14	01:35:18	416.5000	15380.040	54.816
1999/11/14	05:05:18	420.0000	15380.254	54.816
1999/11/14	08:35:18	423.5000	15380.552	54.818
1999/11/14	12:05:18	427.0000	15380.657	54.816
1999/11/14	15:35:18	430.5000	15380.870	54.816
1999/11/14	19:05:18	434.0000	15381.126	54.816
1999/11/14	22:35:18	437.5000	15381.400	54.820
1999/11/15	02:05:18	441.0000	15381.487	54.816
1999/11/15	05:35:18	444.5000	15381.743	54.816
1999/11/15	09:05:18	448.0000	15381.978	54.818
1999/11/15	12:35:18	451.5000	15382.189	54.818
1999/11/15	16:05:18	455.0000	15382.361	54.818
1999/11/15	19:35:18	458.5000	15382.573	54.818
1999/11/15	23:05:18	462.0000	15382.848	54.820
1999/11/16	02:35:18	465.5000	15382.936	54.818
1999/11/16	06:05:18	469.0000	15383.359	54.824
1999/11/16	09:35:18	472.5000	15383.423	54.820
1999/11/16	13:05:18	476.0000	15383.550	54.820
1999/11/16	16:35:18	479.5000	15383.764	54.820
1999/11/16	20:05:18	483.0000	15384.020	54.824
1999/11/16	23:35:18	486.5000	15384.125	54.820
1999/11/17	03:05:18	490.0000	15384.359	54.822
1999/11/17	06:35:18	493.5000	15384.551	54.822
1999/11/17	10:05:18	497.0000	15384.743	54.822
1999/11/17	13:35:18	500.5000	15385.037	54.826
1999/11/17	17:05:18	504.0000	15385.146	54.824
1999/11/17	20:35:18	507.5000	15385.295	54.824
1999/11/18	00:05:18	511.0000	15385.423	54.822
1999/11/18	03:35:18	514.5000	15385.741	54.826

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/11/11	00:06:54	343.0267	15397.522	56.768
1999/11/11	03:36:54	346.5267	15397.738	56.768
1999/11/11	07:06:54	350.0267	15397.909	56.768
1999/11/11	10:36:54	353.5267	15398.248	56.770
1999/11/11	14:06:54	357.0267	15398.404	56.768
1999/11/11	17:36:54	360.5267	15398.650	56.772
1999/11/11	21:06:54	364.0267	15398.893	56.770
1999/11/12	00:36:54	367.5267	15398.935	56.770
1999/11/12	04:06:54	371.0267	15399.172	56.770
1999/11/12	07:36:54	374.5267	15399.444	56.772
1999/11/12	11:06:54	378.0267	15399.558	56.770
1999/11/12	14:36:54	381.5267	15399.832	56.772
1999/11/12	18:06:54	385.0267	15399.982	56.772
1999/11/12	21:36:54	388.5267	15400.155	56.772
1999/11/13	01:06:54	392.0267	15400.386	56.774
1999/11/13	04:36:54	395.5267	15400.562	56.772
1999/11/13	08:06:54	399.0267	15400.815	56.774
1999/11/13	11:36:54	402.5267	15400.986	56.774
1999/11/13	15:06:54	406.0267	15401.265	56.776
1999/11/13	18:36:54	409.5267	15401.374	56.774
1999/11/13	22:06:54	413.0267	15401.630	56.776
1999/11/14	01:36:54	416.5267	15401.674	56.774
1999/11/14	05:06:54	420.0267	15401.946	56.778
1999/11/14	08:36:54	423.5267	15402.101	56.776
1999/11/14	12:06:54	427.0267	15402.272	56.776
1999/11/14	15:36:54	430.5267	15402.532	56.776
1999/11/14	19:06:54	434.0267	15402.840	56.780
1999/11/14	22:36:54	437.5267	15402.897	56.776
1999/11/15	02:06:54	441.0267	15403.104	56.778
1999/11/15	05:36:54	444.5267	15403.232	56.778
1999/11/15	09:06:54	448.0267	15403.484	56.780
1999/11/15	12:36:54	451.5267	15403.737	56.782
1999/11/15	16:06:54	455.0267	15403.936	56.780
1999/11/15	19:36:54	458.5267	15404.081	56.782
1999/11/15	23:06:54	462.0267	15404.237	56.780
1999/11/16	02:36:54	465.5267	15404.468	56.782
1999/11/16	06:06:54	469.0267	15404.640	56.782
1999/11/16	09:36:54	472.5267	15404.791	56.782
1999/11/16	13:06:54	476.0267	15404.940	56.782
1999/11/16	16:36:54	479.5267	15405.091	56.782
1999/11/16	20:06:54	483.0267	15405.301	56.784
1999/11/16	23:36:54	486.5267	15405.414	56.782
1999/11/17	03:06:54	490.0267	15405.563	56.782
1999/11/17	06:36:54	493.5267	15405.799	56.782
1999/11/17	10:06:54	497.0267	15406.024	56.786
1999/11/17	13:36:54	500.5267	15406.091	56.786
1999/11/17	17:06:54	504.0267	15406.203	56.784
1999/11/17	20:36:54	507.5267	15406.434	56.786
1999/11/18	00:06:54	511.0267	15406.498	56.786
1999/11/18	03:36:54	514.5267	15406.777	56.786



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Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/11/18	07:05:18	518.0000	15385.829	54.824
1999/11/18	10:35:18	521.5000	15385.999	54.824
1999/11/18	14:05:18	525.0000	15386.169	54.824
1999/11/18	17:35:18	528.5000	15386.381	54.824
1999/11/18	21:05:18	532.0000	15386.571	54.826
1999/11/19	00:35:18	535.5000	15386.805	54.826
1999/11/19	04:05:18	539.0000	15386.997	54.826
1999/11/19	07:35:18	542.5000	15387.145	54.826
1999/11/19	11:05:18	546.0000	15387.486	54.830
1999/11/19	14:35:18	549.5000	15387.528	54.826
1999/11/19	18:05:18	553.0000	15387.805	54.828
1999/11/19	21:35:18	556.5000	15387.933	54.823
1999/11/20	01:05:18	560.0000	15388.188	54.828
1999/11/20	04:35:18	563.5000	15388.337	54.828
1999/11/20	08:05:18	567.0000	15388.551	54.828
1999/11/20	11:35:18	570.5000	15388.698	54.828
1999/11/20	15:05:18	574.0000	15388.891	54.828
1999/11/20	18:35:18	577.5000	15389.253	54.832
1999/11/20	22:05:18	581.0000	15389.253	54.828
1999/11/21	01:35:18	584.5000	15389.509	54.830
1999/11/21	05:05:18	588.0000	15389.679	54.830
1999/11/21	08:35:18	591.5000	15389.975	54.834
1999/11/21	12:05:18	595.0000	15390.019	54.830
1999/11/21	15:35:18	598.5000	15390.210	54.830
1999/11/21	19:05:18	602.0000	15390.444	54.830
1999/11/21	22:35:18	605.5000	15390.658	54.834
1999/11/22	02:05:18	609.0000	15390.828	54.832
1999/11/22	05:35:18	612.5000	15390.956	54.830
1999/11/22	09:05:18	616.0000	15391.190	54.832
1999/11/22	12:35:18	619.5000	15391.442	54.834
1999/11/22	16:05:18	623.0000	15391.574	54.832
1999/11/22	19:35:18	626.5000	15391.786	54.832
1999/11/22	23:05:18	630.0000	15392.019	54.834
1999/11/23	02:35:18	633.5000	15392.084	54.832
1999/11/23	06:05:18	637.0000	15392.444	54.836
1999/11/23	09:35:18	640.5000	15392.550	54.834
1999/11/23	13:05:18	644.0000	15392.720	54.834
1999/11/23	16:35:18	647.5000	15392.934	54.834
1999/11/23	20:05:18	651.0000	15393.168	54.838
1999/11/23	23:35:18	654.5000	15393.296	54.836
1999/11/24	03:05:18	658.0000	15393.424	54.834
1999/11/24	06:35:18	661.5000	15393.678	54.836
1999/11/24	10:05:18	665.0000	15393.848	54.836
1999/11/24	13:35:18	668.5000	15394.104	54.838
1999/11/24	17:05:18	672.0000	15394.231	54.836
1999/11/24	20:35:18	675.5000	15394.401	54.838
1999/11/25	00:05:18	679.0000	15394.571	54.836
1999/11/25	03:35:18	682.5000	15394.869	54.839
1999/11/25	07:05:18	686.0000	15394.978	54.838
1999/11/25	10:35:18	689.5000	15395.147	54.838

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/11/18	07:06:54	519.0267	15406.847	56.784
1999/11/18	10:36:54	521.5267	15407.078	56.786
1999/11/18	14:06:54	525.0267	15407.292	56.785
1999/11/18	17:36:54	528.5267	15407.520	56.789
1999/11/18	21:06:54	532.0267	15407.652	56.787
1999/11/19	00:36:54	535.5267	15407.717	56.787
1999/11/19	04:06:54	539.0267	15407.846	56.787
1999/11/19	07:36:54	542.5267	15408.206	56.789
1999/11/19	11:06:54	546.0267	15408.254	56.787
1999/11/19	14:36:54	549.5267	15408.424	56.787
1999/11/19	18:06:54	553.0267	15408.575	56.787
1999/11/19	21:36:54	556.5267	15408.811	56.787
1999/11/20	01:06:54	560.0267	15409.041	56.789
1999/11/20	04:36:54	563.5267	15409.171	56.789
1999/11/20	08:06:54	567.0267	15409.299	56.789
1999/11/20	11:36:54	570.5267	15409.557	56.789
1999/11/20	15:06:54	574.0267	15409.662	56.791
1999/11/20	18:36:54	577.5267	15409.857	56.789
1999/11/20	22:06:54	581.0267	15409.987	56.789
1999/11/21	01:36:54	584.5267	15410.157	56.791
1999/11/21	05:06:54	588.0267	15410.408	56.793
1999/11/21	08:36:54	591.5267	15410.479	56.791
1999/11/21	12:06:54	595.0267	15410.608	56.791
1999/11/21	15:36:54	598.5267	15410.844	56.791
1999/11/21	19:06:54	602.0267	15411.097	56.793
1999/11/21	22:36:54	605.5267	15411.248	56.791
1999/11/22	02:06:54	609.0267	15411.292	56.791
1999/11/22	05:36:54	612.5267	15411.462	56.793
1999/11/22	09:06:54	616.0267	15411.697	56.793
1999/11/22	12:36:54	619.5267	15411.908	56.795
1999/11/22	16:06:54	623.0267	15412.127	56.793
1999/11/22	19:36:54	626.5267	15412.234	56.793
1999/11/22	23:06:54	630.0267	15412.428	56.793
1999/11/23	02:36:54	633.5267	15412.530	56.795
1999/11/23	06:06:54	637.0267	15412.622	56.793
1999/11/23	09:36:54	640.5267	15412.960	56.795
1999/11/23	13:06:54	644.0267	15413.046	56.795
1999/11/23	16:36:54	647.5267	15413.195	56.795
1999/11/23	20:06:54	651.0267	15413.470	56.797
1999/11/23	23:36:54	654.5267	15413.583	56.795
1999/11/24	03:06:54	658.0267	15413.690	56.795
1999/11/24	06:36:54	661.5267	15413.855	56.797
1999/11/24	10:06:54	665.0267	15414.091	56.797
1999/11/24	13:36:54	668.5267	15414.221	56.797
1999/11/24	17:06:54	672.0267	15414.413	56.797
1999/11/24	20:36:54	675.5267	15414.564	56.797
1999/11/25	00:06:54	679.0267	15414.650	56.797
1999/11/25	03:36:54	682.5267	15414.800	56.797
1999/11/25	07:06:54	686.0267	15415.010	56.799
1999/11/25	10:36:54	689.5267	15415.144	56.797



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test October 27/99 - December 08/99



Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/11/25	14:05:18	693.0000	15395.296	54.838
1999/11/25	17:35:18	696.5000	15395.487	54.838
1999/11/25	21:05:18	700.0000	15395.680	54.838
1999/11/26	00:35:18	703.5000	15395.871	54.838
1999/11/26	04:05:18	707.0000	15396.020	54.838
1999/11/26	07:35:18	710.5000	15396.189	54.838
1999/11/26	11:05:18	714.0000	15396.508	54.841
1999/11/26	14:35:18	717.5000	15396.613	54.839
1999/11/26	18:05:18	721.0000	15396.783	54.839
1999/11/26	21:35:18	724.5000	15396.893	54.838
1999/11/27	01:05:18	728.0000	15397.125	54.839
1999/11/27	04:35:18	731.5000	15397.315	54.839
1999/11/27	08:05:18	735.0000	15397.487	54.839
1999/11/27	11:35:18	738.5000	15397.615	54.839
1999/11/27	15:05:18	742.0000	15397.827	54.839
1999/11/27	18:35:18	745.5000	15398.147	54.843
1999/11/27	22:05:18	749.0000	15398.189	54.841
1999/11/28	01:35:18	752.5000	15398.295	54.839
1999/11/28	05:05:18	756.0000	15398.529	54.841
1999/11/28	08:35:18	759.5000	15398.785	54.843
1999/11/28	12:05:18	763.0000	15398.891	54.841
1999/11/28	15:35:18	766.5000	15399.061	54.841
1999/11/28	19:05:18	770.0000	15399.188	54.841
1999/11/28	22:35:18	773.5000	15399.551	54.845
1999/11/29	02:05:18	777.0000	15399.615	54.843
1999/11/29	05:35:18	780.5000	15399.723	54.841
1999/11/29	09:05:18	784.0000	15399.977	54.843
1999/11/29	12:35:18	787.5000	15400.083	54.841
1999/11/29	16:05:18	791.0000	15400.318	54.843
1999/11/29	19:35:18	794.5000	15400.467	54.843
1999/11/29	23:05:18	798.0000	15400.637	54.843
1999/11/30	02:35:18	801.5000	15400.786	54.843
1999/11/30	06:05:18	805.0000	15401.021	54.845
1999/11/30	09:35:18	808.5000	15401.169	54.845
1999/11/30	13:05:18	812.0000	15401.382	54.845
1999/11/30	16:35:18	815.5000	15401.530	54.845
1999/11/30	20:05:18	819.0000	15401.849	54.849
1999/11/30	23:35:18	822.5000	15401.851	54.845
1999/12/01	03:05:18	826.0000	15402.021	54.845
1999/12/01	06:35:18	829.5000	15402.190	54.845
1999/12/01	10:05:18	833.0000	15402.340	54.845
1999/12/01	13:35:18	836.5000	15402.679	54.849
1999/12/01	17:05:18	840.0000	15402.660	54.845
1999/12/01	20:35:18	843.5000	15402.912	54.847
1999/12/02	00:05:18	847.0000	15403.021	54.845
1999/12/02	03:35:18	850.5000	15403.338	54.849
1999/12/02	07:05:18	854.0000	15403.424	54.849
1999/12/02	10:35:18	857.5000	15403.572	54.847
1999/12/02	14:05:18	861.0000	15403.742	54.847
1999/12/02	17:35:18	864.5000	15403.870	54.847

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/11/25	14:06:54	693.0267	15415.272	56.797
1999/11/25	17:36:54	696.5267	15415.498	56.801
1999/11/25	21:06:54	700.0267	15415.719	56.799
1999/11/26	00:36:54	703.5267	15415.805	56.799
1999/11/26	04:06:54	707.0267	15416.019	56.799
1999/11/26	07:36:54	710.5267	15416.310	56.803
1999/11/26	11:06:54	714.0267	15416.319	56.799
1999/11/26	14:36:54	717.5267	15416.528	56.801
1999/11/26	18:06:54	721.0267	15416.577	56.799
1999/11/26	21:36:54	724.5267	15416.793	56.799
1999/11/27	01:06:54	728.0267	15417.082	56.803
1999/11/27	04:36:54	731.5267	15417.259	56.801
1999/11/27	08:06:54	735.0267	15417.325	56.801
1999/11/27	11:36:54	738.5267	15417.475	56.801
1999/11/27	15:06:54	742.0267	15417.598	56.803
1999/11/27	18:36:54	745.5267	15417.775	56.801
1999/11/27	22:06:54	749.0267	15417.882	56.801
1999/11/28	01:36:54	752.5267	15418.056	56.801
1999/11/28	05:06:54	756.0267	15418.326	56.805
1999/11/28	08:36:54	759.5267	15418.372	56.803
1999/11/28	12:06:54	763.0267	15418.607	56.803
1999/11/28	15:36:54	766.5267	15418.693	56.803
1999/11/28	19:06:54	770.0267	15418.993	56.805
1999/11/28	22:36:54	773.5267	15419.017	56.803
1999/11/29	02:06:54	777.0267	15419.296	56.803
1999/11/29	05:36:54	780.5267	15419.316	56.803
1999/11/29	09:06:54	784.0267	15419.505	56.805
1999/11/29	12:36:54	787.5267	15419.720	56.805
1999/11/29	16:06:54	791.0267	15419.896	56.803
1999/11/29	19:36:54	794.5267	15420.042	56.805
1999/11/29	23:06:54	798.0267	15420.213	56.805
1999/11/30	02:36:54	801.5267	15420.361	56.807
1999/11/30	06:06:54	805.0267	15420.515	56.805
1999/11/30	09:36:54	808.5267	15420.708	56.805
1999/11/30	13:06:54	812.0267	15420.794	56.805
1999/11/30	16:36:54	815.5267	15420.900	56.805
1999/11/30	20:06:54	819.0267	15421.215	56.809
1999/11/30	23:36:54	822.5267	15421.285	56.807
1999/12/01	03:06:54	826.0267	15421.395	56.805
1999/12/01	06:36:54	829.5267	15421.629	56.807
1999/12/01	10:06:54	833.0267	15421.857	56.809
1999/12/01	13:36:54	836.5267	15421.859	56.807
1999/12/01	17:06:54	840.0267	15422.075	56.807
1999/12/01	20:36:54	843.5267	15422.225	56.807
1999/12/02	00:06:54	847.0267	15422.247	56.807
1999/12/02	03:36:54	850.5267	15422.548	56.807
1999/12/02	07:06:54	854.0267	15422.782	56.809
1999/12/02	10:36:54	857.5267	15422.911	56.809
1999/12/02	14:06:54	861.0267	15423.039	56.809
1999/12/02	17:36:54	864.5267	15423.143	56.811



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 38
Date(s) of Test October 27/99 - December 08/99



Date	Time	Cum. T. 1 (V36)	Pres 1 (V36)	Temp 1 (V36)
		hr	kPag	deg C
1999/12/02	21:05:18	868.0000	15404.104	54.849
1999/12/03	00:35:18	871.5000	15404.275	54.849
1999/12/03	04:05:18	875.0000	15404.446	54.849
1999/12/03	07:35:18	879.5000	15404.574	54.849
1999/12/03	11:05:18	882.0000	15404.828	54.851
1999/12/03	14:35:18	885.5000	15404.914	54.849
1999/12/03	18:05:18	889.0000	15405.147	54.849
1999/12/03	21:35:18	892.5000	15405.233	54.849
1999/12/04	01:05:18	896.0000	15405.361	54.849
1999/12/04	04:35:18	899.5000	15405.552	54.849
1999/12/04	08:05:18	903.0000	15405.724	54.849
1999/12/04	11:35:18	906.5000	15405.894	54.851
1999/12/04	15:05:18	910.0000	15406.105	54.851
1999/12/04	18:35:18	913.5000	15406.316	54.855
1999/12/04	22:05:18	917.0000	15406.361	54.851
1999/12/05	01:35:18	920.5000	15406.531	54.851
1999/12/05	05:05:18	924.0000	15406.722	54.853
1999/12/05	08:35:18	927.5000	15407.062	54.859
1999/12/05	12:05:18	931.0000	15407.062	54.855
1999/12/05	15:35:18	934.5000	15407.189	54.855
1999/12/05	19:05:18	938.0000	15407.424	54.857
1999/12/05	22:35:18	941.5000	15407.615	54.859
1999/12/06	02:05:18	945.0000	15407.764	54.857
1999/12/06	05:35:18	948.5000	15407.892	54.857
1999/12/06	09:05:18	952.0000	15408.062	54.857
1999/12/06	12:35:18	955.5000	15408.189	54.857
1999/12/06	16:05:18	959.0000	15408.424	54.859
1999/12/06	19:35:18	962.5000	15408.531	54.857
1999/12/06	23:05:18	966.0000	15408.659	54.857
1999/12/07	02:35:18	969.5000	15408.894	54.859
1999/12/07	06:05:18	973.0000	15409.168	54.863
1999/12/07	09:35:18	976.5000	15409.191	54.859
1999/12/07	13:05:18	980.0000	15409.361	54.859
1999/12/07	16:35:18	983.5000	15409.467	54.859
1999/12/07	20:05:18	987.0000	15409.785	54.863
1999/12/07	23:35:18	990.5000	15409.869	54.861
1999/12/08	03:05:18	994.0000	15410.039	54.861
1999/12/08	06:35:18	997.5000	15410.167	54.861
Final Buildup				
1999/12/08	09:55:18	1000.8333	15410.423	54.863
1999/12/08	10:05:18	1001.0000	15410.359	54.861

Date	Time	Cum. T. 2 (V40)	Pres 2 (V40)	Temp 2 (V40)
		hr	kPag	deg C
1999/12/02	21:06:54	868.0267	15423.319	56.809
1999/12/03	00:36:54	871.5267	15423.471	56.809
1999/12/03	04:06:54	875.0267	15423.513	56.809
1999/12/03	07:36:54	878.5267	15423.910	56.813
1999/12/03	11:06:54	882.0267	15424.001	56.811
1999/12/03	14:36:54	885.5267	15424.108	56.811
1999/12/03	18:06:54	889.0267	15424.302	56.811
1999/12/03	21:36:54	892.5267	15424.474	56.811
1999/12/04	01:06:54	896.0267	15424.592	56.815
1999/12/04	04:36:54	899.5267	15424.662	56.813
1999/12/04	08:06:54	903.0267	15424.812	56.813
1999/12/04	11:36:54	906.5267	15425.043	56.815
1999/12/04	15:06:54	910.0267	15425.202	56.819
1999/12/04	18:36:54	913.5267	15425.209	56.817
1999/12/04	22:06:54	917.0267	15425.437	56.821
1999/12/05	01:36:54	920.5267	15425.556	56.825
1999/12/05	05:06:54	924.0267	15425.755	56.849
1999/12/05	08:36:54	927.5267	15425.823	56.847
1999/12/05	12:06:54	931.0267	15426.018	56.847
1999/12/05	15:36:54	934.5267	15426.146	56.847
1999/12/05	19:06:54	938.0267	15426.355	56.849
1999/12/05	22:36:54	941.5267	15426.426	56.847
1999/12/06	02:06:54	945.0267	15426.598	56.847
1999/12/06	05:36:54	948.5267	15426.620	56.847
1999/12/06	09:06:54	952.0267	15427.000	56.849
1999/12/06	12:36:54	955.5267	15427.232	56.851
1999/12/06	16:06:54	959.0267	15427.157	56.847
1999/12/06	19:36:54	962.5267	15427.349	56.847
1999/12/06	23:06:54	966.0267	15427.479	56.847
1999/12/07	02:36:54	969.5267	15427.852	56.851
1999/12/07	06:06:54	973.0267	15427.925	56.849
1999/12/07	09:36:54	976.5267	15427.988	56.849
1999/12/07	13:06:54	980.0267	15428.246	56.849
1999/12/07	16:36:54	983.5267	15428.369	56.851
1999/12/07	20:06:54	987.0267	15428.581	56.853
1999/12/07	23:36:54	990.5267	15428.668	56.851
1999/12/08	03:06:54	994.0267	15428.798	56.851
1999/12/08	06:36:54	997.5267	15428.840	56.851
Final Buildup				
1999/12/08	10:06:54	1001.0267	15429.140	56.853

**Baker Atlas
SLICKLINE DIVISION**

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD
Representative	Mr. Terry Stasiuk
Phone	# 266 - 2047
Fax	# 262 - 7944
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W3
E-Mail Address	hkib@telusplanet.com
Service Company	Baker Atlas Slickline Division

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard -
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1734.5 mCF
Mid-point of Perforated Intervals (MPP)	1621.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	177.3 mCF
Production Tubing	88.9 mCF

TEST INFORMATION

Test Number / Type of Test	Static Gradient
Date(s) of Test	December 08/99
Dead-weight Gauge Tubing Pressure	13710.0 kPa
Dead-weight Gauge Casing Pressure	0.0 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	December 08/99 @ 14:27.
Date / Time off Bottom	December 08/99 @ 14:37.

Probe Serial Number	S39 (TOP)	S49 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1734.81 mCF	1735.81 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	16803.12 kPag	16794.69 kPag
Maximum Recorded Probe Temperature	63.21 deg C	62.79 deg C
Final Buildup Pressure	N/A	N/A
Gradient Survey Information		
Extrapolated Pressure to MPP	15776.688 kPa	15761.094 kPa
Final Gradient at Depth	7.2594 kPag/m	7.2171 kPag/m
Job Number	N/A	



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Lard
F - 38
December 08/99



PROBE INFORMATION

Probe Serial Number	S39 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0.0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-20.1 - 123.4 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	S39FE24A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time	Dec 08/1999 @ 12:27:10
Program End Time	Dec 08/1999 @ 15:07:40
Total Samples Taken	322
Usage for this Test	0.0280 Ah
Generic Data File Name	S39DE08A.GEN



Company Name: PARAMOUNT RESOURCES LTD
Well Name: Paramount et al Liard
Well Location: F - 38
Date(s) of Test: December 08/99



PROBE INFORMATION

Probe Serial Number: S49 (BOTTOM)
Model: Level II
Pressure:
 Calibrated Pressure Range: 0.0 - 41370 kPag
 Accuracy: 0.05% FS
 Resolution: 0.0015% FS
Temperature:
 Calibrated Temperature Range: -20.9 - 123.7 deg C
 Accuracy: 0.25% FS
 Resolution: 0.002% FS
Calibration File Used for Reports: S49MR23A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	30 seconds	end of memory	Fill remaining memory

Program Start Time: Dec 08/1999 @ 12:28:13
Program End Time: Dec 08/1999 @ 15:05:13
Total Samples Taken: 315
Usage for this Test: 0.0260 Ah
Generic Data File Name: S49DE08A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Liard
F - 38
December 08/99



COMMENTS

Reported By

JIM O'KEEFE

SURVEYED BY: MILT CAINES



Company Name PARAMOUNT RESOURCES LTD
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test December 08/99



Pressure vs. Depth

Probe Serial Number S39 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)	(deg C)	(deg C/m)
12:36	12:41	-1.190	13694.190	-	19.908	-
12:47	12:52	498.810	14394.377	1.4004	17.357	-0.0051
12:58	13:03	998.810	15024.108	1.2595	31.248	0.0278
13:08	13:13	1498.810	15608.346	1.1685	51.537	0.0406
13:14	13:19	1548.810	15664.843	1.1299	56.944	0.1081
13:20	13:25	1568.810	15685.465	1.0311	58.831	0.0944
13:26	13:31	1588.810	15709.749	1.2142	59.836	0.0502
13:32	13:37	1608.810	15733.104	1.1677	60.394	0.0279
13:38	13:43	1628.810	15801.795	3.4346	60.827	0.0216
13:44	13:49	1648.810	15983.887	9.1046	61.311	0.0242
13:50	13:55	1668.810	16176.248	9.6181	61.773	0.0231
13:56	14:02	1688.810	16369.554	9.6653	62.174	0.0201
14:03	14:08	1698.810	16468.340	9.8786	62.371	0.0197
14:09	14:14	1708.810	16564.418	9.6078	62.547	0.0176
14:15	14:20	1718.810	16661.199	9.6781	62.713	0.0166
14:21	14:26	1728.810	16759.559	9.8359	62.984	0.0271
14:27	14:37	1734.810	16803.115	7.2594	63.207	0.0372

Extrapolated to MPP:	Depth (m)	Pressure (kPag)	(deg C)
	1621.500	15776.688	60.669



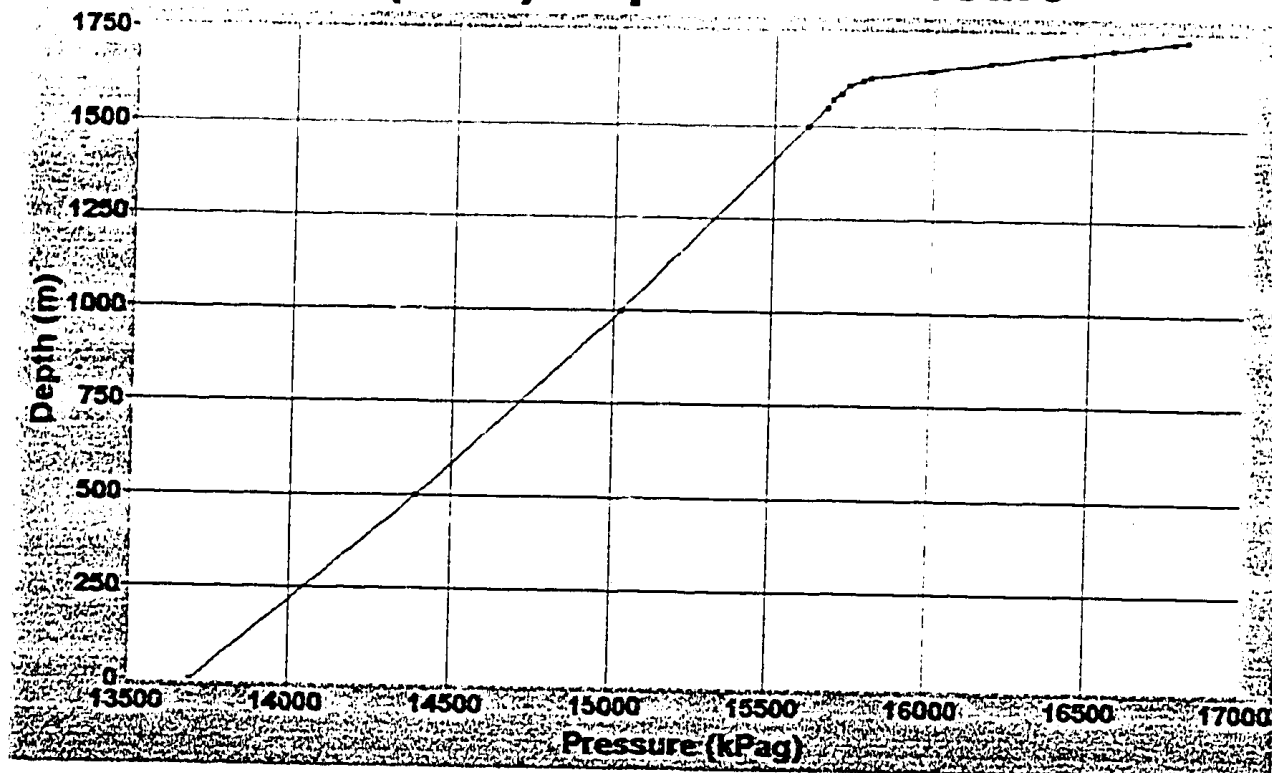
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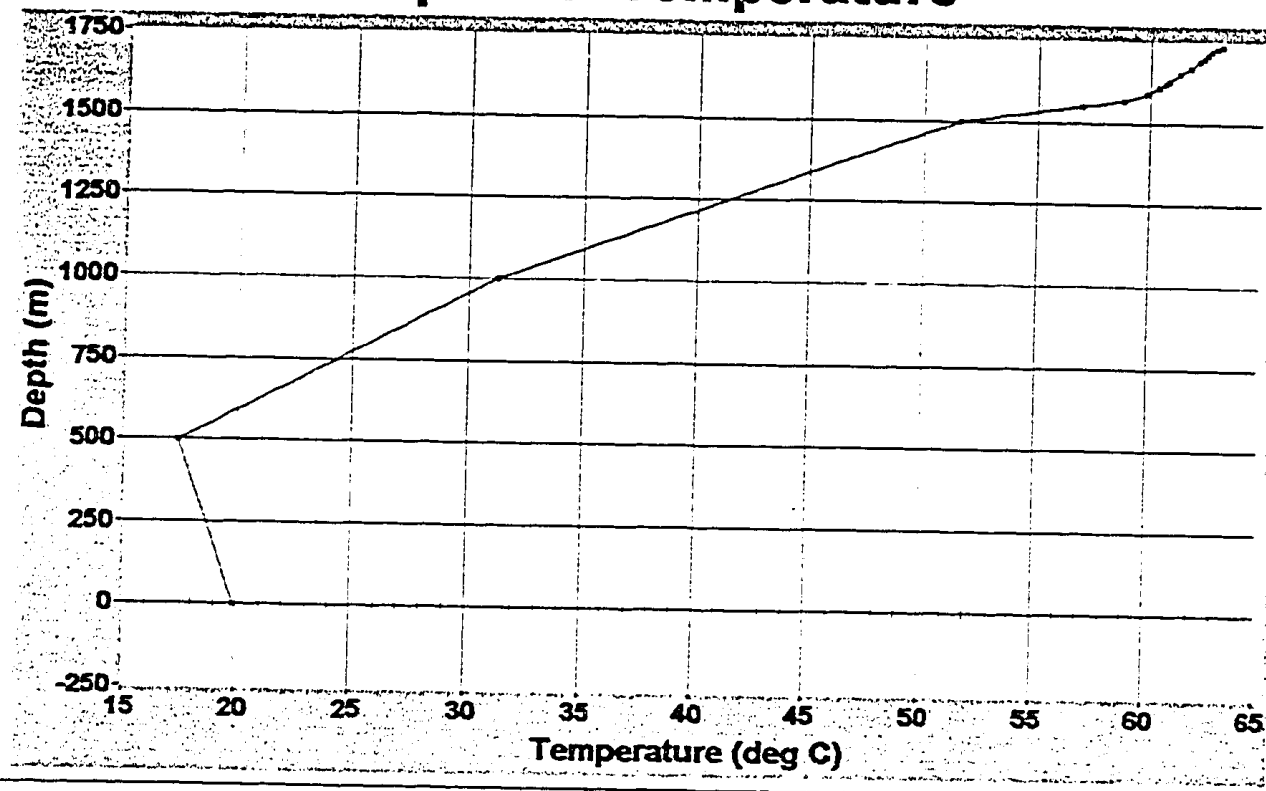


Probe Serial Number S39 (TOP)

S39 (TOP) Depth vs. Pressure



Depth vs. Temperature





Company Name PARAMOUNT RESOURCES LTD
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Pressure vs. Depth

Probe Serial Number S49 (BOTTOM)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)	(deg C)	(deg C/m)
12:36	12:41	-0.110	13683.631	-	17.688	-
12:47	12:52	499.890	14369.113	1.3710	16.937	-0.0015
12:58	13:03	999.890	15001.012	1.2638	30.933	0.0280
13:08	13:13	1499.890	15590.192	1.1784	50.977	0.0401
13:14	13:19	1549.890	15647.605	1.1483	56.134	0.1031
13:20	13:25	1569.890	15668.534	1.0464	58.311	0.1089
13:26	13:31	1589.890	15691.918	1.1692	59.336	0.0512
13:32	13:37	1609.890	15716.333	1.2208	59.927	0.0295
13:38	13:43	1629.890	15793.440	3.8554	60.353	0.0213
13:44	13:49	1649.890	15975.985	9.1272	60.858	0.0253
13:50	13:55	1669.890	16168.156	9.6085	61.330	0.0236
13:56	14:02	1689.890	16361.427	9.6635	61.736	0.0203
14:03	14:08	1699.890	16460.055	9.8628	61.932	0.0196
14:09	14:14	1709.890	16556.150	9.6096	62.110	0.0178
14:15	14:20	1719.890	16652.826	9.6676	62.270	0.0160
14:21	14:26	1729.890	16751.301	9.8475	62.546	0.0276
14:27	14:37	1735.890	16794.604	7.2171	62.785	0.0398

Extrapolated to MPP:	Depth (m)	Pressure (kPag)	(deg C)
	1621.500	15761.094	60.174



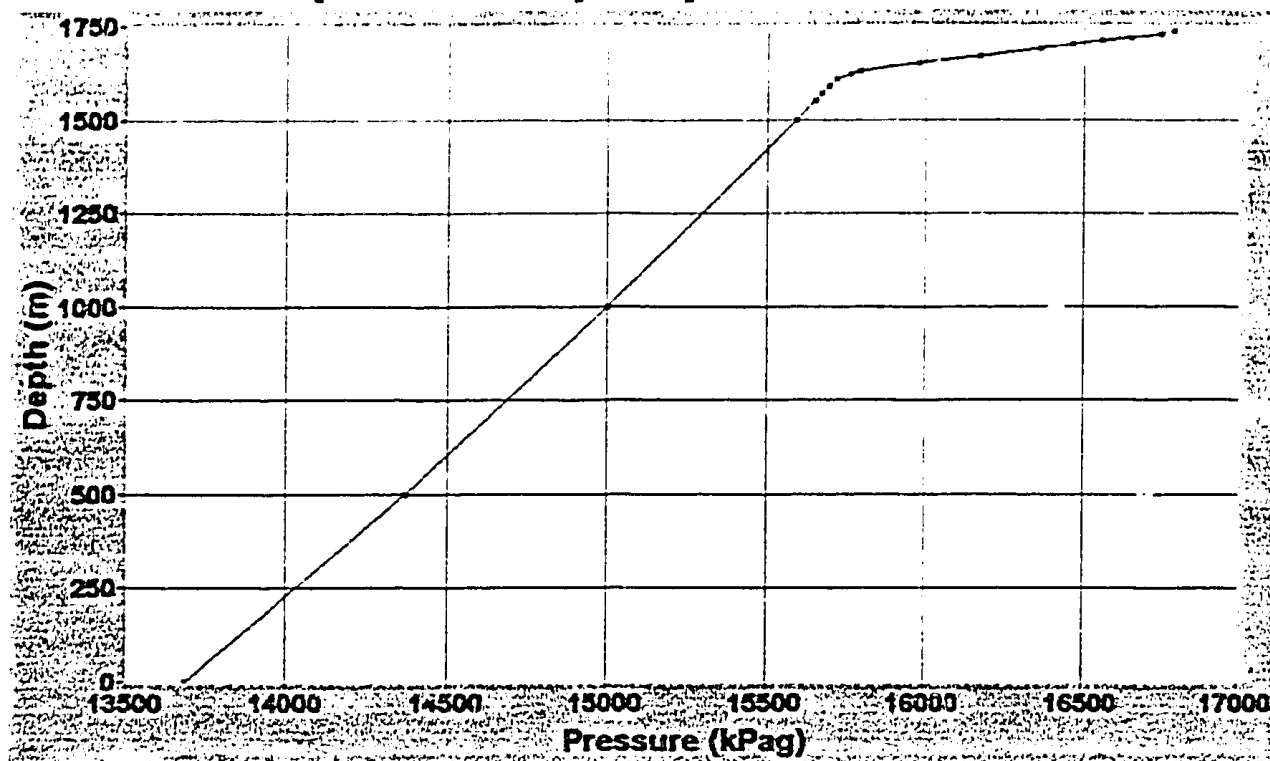
Company Name
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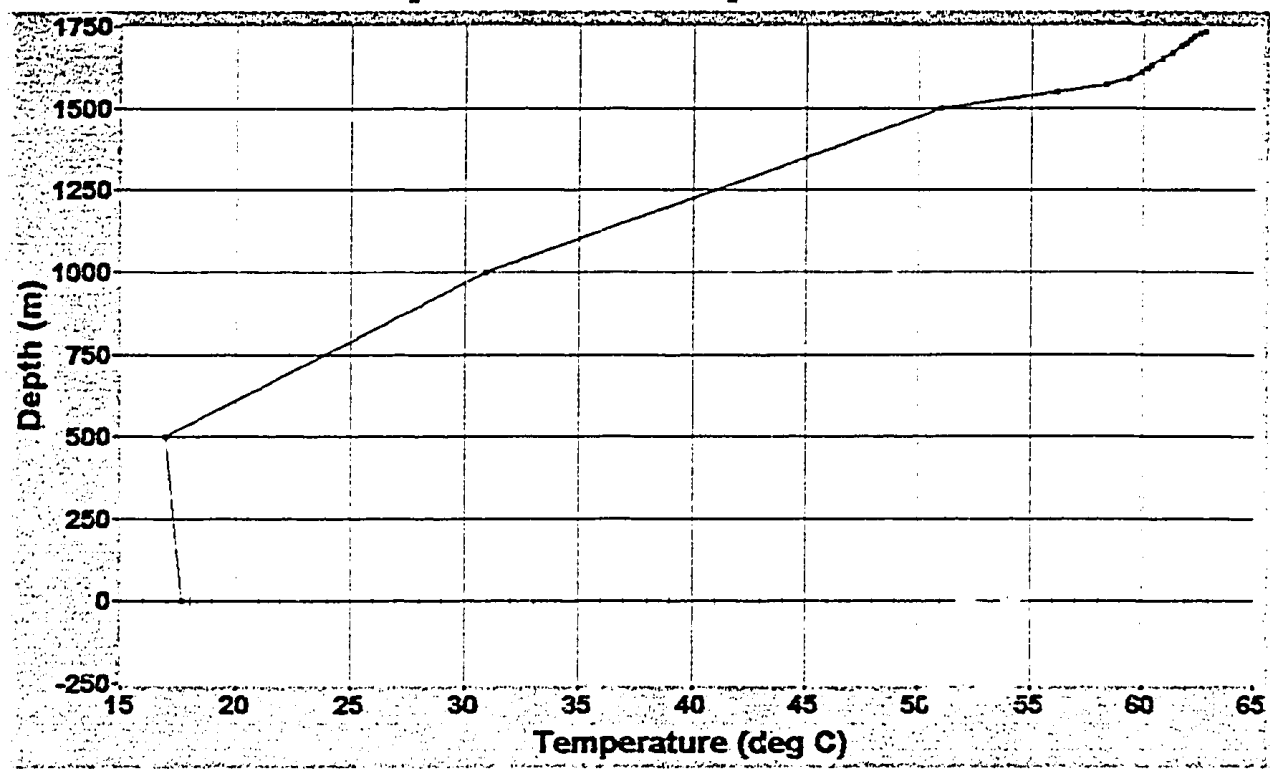


Probe Serial Number S49 (BOTTOM)

S49 (BOTTOM) Depth vs. Pressure



Depth vs. Temperature



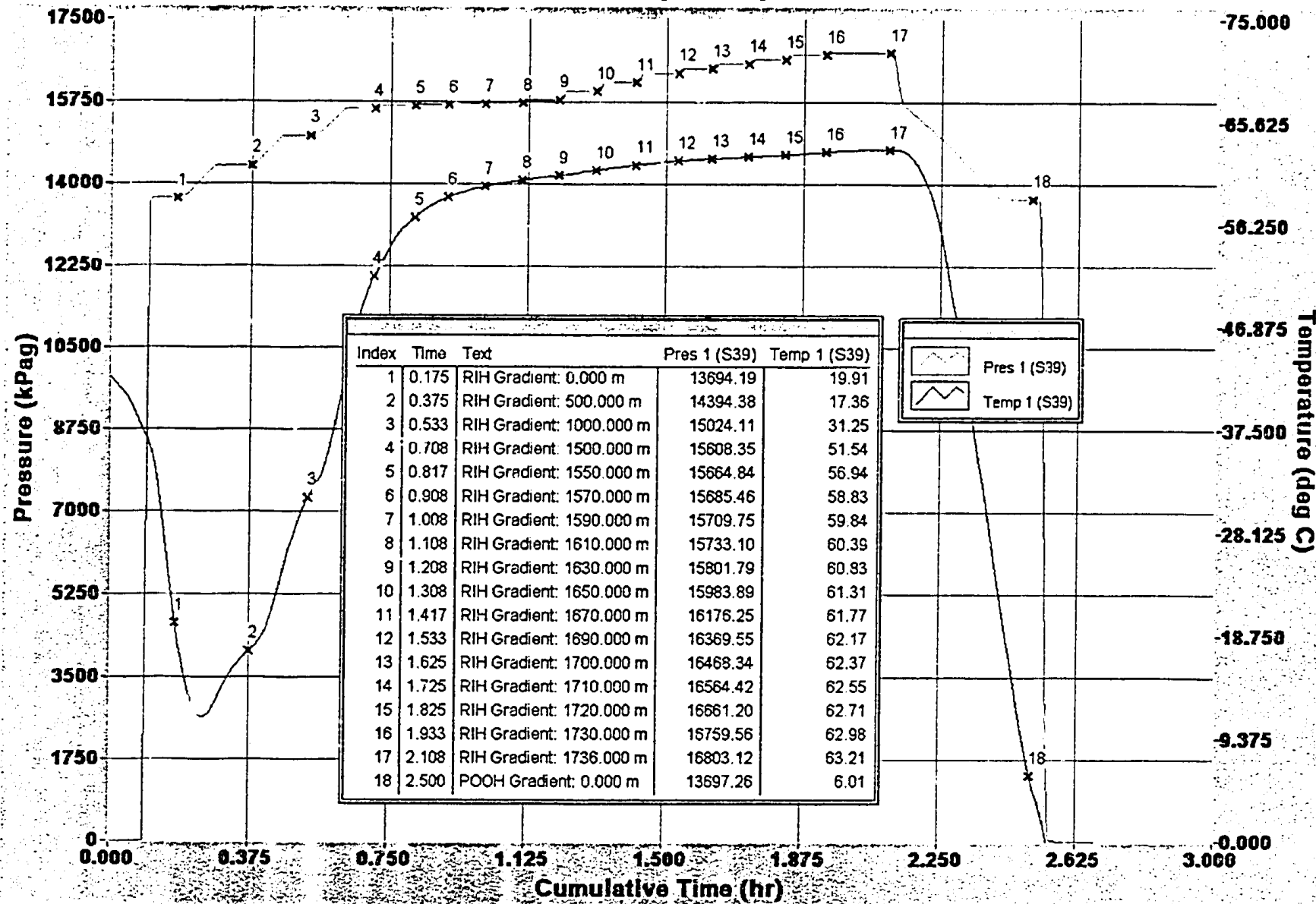


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S39 (TOP)

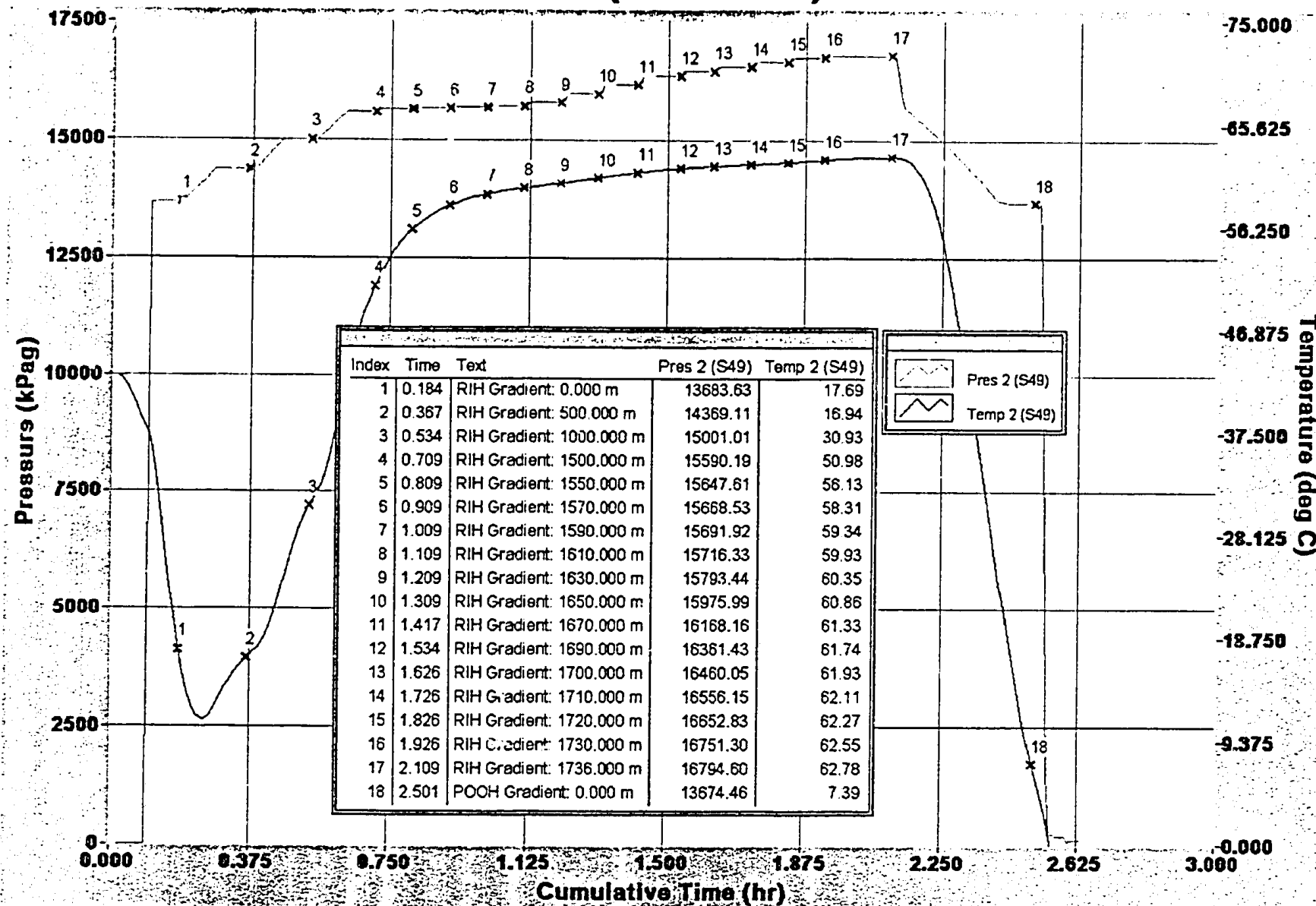




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S49 (BOTTOM)

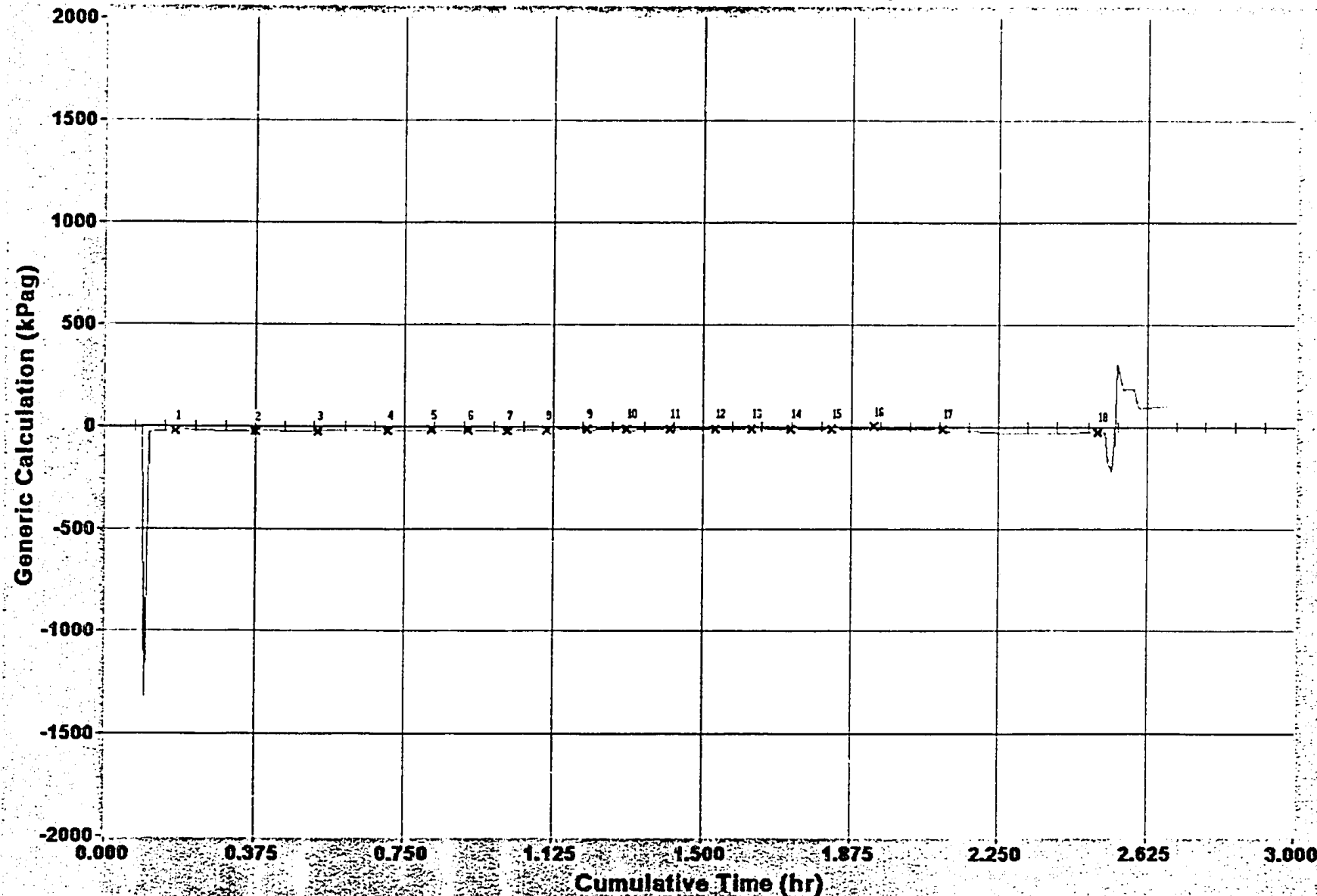




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S39 - S49 (DEVIATION)





Company Name PARAMOUNT RESOURCES LTD
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Date	Time	Cum. T. 1 (S39)	Pres 1 (S39)	Temp 1 (S39)
		hr	kPag	deg C
1999/12/08	12:27:10	0.0000	6.148	42.259
1999/12/08	12:28:10	0.0167	5.923	41.607
1999/12/08	12:28:40	0.0250	6.193	41.291
1999/12/08	12:29:40	0.0417	5.895	40.609
1999/12/08	12:30:40	0.0583	5.945	39.566
1999/12/08	12:31:10	0.0667	5.371	38.958
1999/12/08	12:32:10	0.0833	5.259	37.719
1999/12/08	12:33:10	0.1000	13603.678	36.551
1999/12/08	12:33:40	0.1083	13683.856	35.729
1999/12/08	12:34:40	0.1250	13695.823	32.451
1999/12/08	12:35:10	0.1333	13696.259	30.338
1999/12/08	12:36:10	0.1500	13694.503	25.939
1999/12/08	12:37:10	0.1667	13694.185	21.812
RIH Gradient: 0.000 m				
1999/12/08	12:37:40	0.1750	13694.190	19.908
1999/12/08	12:38:10	0.1833	13699.391	18.121
1999/12/08	12:38:40	0.1917	13737.229	16.455
1999/12/08	12:39:40	0.2083	13847.819	13.912
1999/12/08	12:40:40	0.2250	13979.144	12.296
1999/12/08	12:41:10	0.2333	14043.541	11.788
1999/12/08	12:42:10	0.2500	14169.472	11.325
1999/12/08	12:43:10	0.2667	14315.613	11.649
1999/12/08	12:43:40	0.2750	14386.421	12.093
1999/12/08	12:44:40	0.2917	14393.148	13.276
1999/12/08	12:45:40	0.3083	14394.170	14.407
1999/12/08	12:46:10	0.3167	14394.433	14.901
1999/12/08	12:47:10	0.3333	14394.730	15.766
1999/12/08	12:48:10	0.3500	14394.670	16.488
1999/12/08	12:48:40	0.3583	14394.633	16.805
RIH Gradient: 500.000 m				
1999/12/08	12:49:40	0.3750	14394.377	17.357
1999/12/08	12:50:40	0.3917	14471.962	17.853
1999/12/08	12:51:10	0.4000	14542.181	18.165
1999/12/08	12:52:10	0.4167	14681.314	19.126
1999/12/08	12:53:10	0.4333	14818.520	20.628
1999/12/08	12:53:40	0.4417	14887.258	21.547
1999/12/08	12:54:40	0.4583	15017.119	23.579
1999/12/08	12:55:40	0.4750	15025.049	25.764
1999/12/08	12:56:10	0.4833	15025.483	26.787
1999/12/08	12:57:10	0.5000	15025.567	28.567
1999/12/08	12:58:10	0.5167	15024.893	30.035
1999/12/08	12:58:40	0.5250	15024.603	30.667
RIH Gradient: 1000.000 m				
1999/12/08	12:59:10	0.5333	15024.108	31.248
1999/12/08	12:59:40	0.5417	15023.739	31.778
1999/12/08	13:00:40	0.5583	15086.498	32.728
1999/12/08	13:01:10	0.5667	15149.047	33.290
1999/12/08	13:02:10	0.5833	15267.747	34.956
1999/12/08	13:03:10	0.6000	15393.008	37.261
1999/12/08	13:03:40	0.6083	15455.914	38.581

Date	Time	Cum. T. 2 (S49)	Pres 2 (S49)	Temp 2 (S49)
		hr	kPag	deg C
1999/12/08	12:28:13	0.0175	0.000	42.727
1999/12/08	12:29:13	0.0342	0.000	42.228
1999/12/08	12:30:13	0.0508	0.000	41.290
1999/12/08	12:31:13	0.0675	0.000	40.093
1999/12/08	12:31:43	0.0758	0.000	39.408
1999/12/08	12:32:43	0.0925	0.000	38.027
1999/12/08	12:33:43	0.1092	13653.686	36.013
1999/12/08	12:34:13	0.1175	13666.583	34.302
1999/12/08	12:35:13	0.1342	13670.750	30.069
1999/12/08	12:36:13	0.1508	13677.630	25.615
1999/12/08	12:36:43	0.1592	13674.012	23.490
1999/12/08	12:37:43	0.1758	13673.865	19.485
RIH Gradient: 0.000 m				
1999/12/08	12:38:13	0.1842	13683.631	17.688
1999/12/08	12:38:43	0.1925	13724.477	16.089
1999/12/08	12:39:13	0.2008	13771.881	14.762
1999/12/08	12:40:13	0.2175	13903.206	12.847
1999/12/08	12:41:13	0.2342	14031.172	11.749
1999/12/08	12:41:43	0.2425	14094.250	11.472
1999/12/08	12:42:43	0.2592	14229.809	11.460
1999/12/08	12:43:43	0.2758	14367.669	12.180
1999/12/08	12:44:13	0.2842	14368.931	12.722
1999/12/08	12:45:13	0.3008	14369.491	13.836
1999/12/08	12:46:13	0.3175	14369.830	14.817
1999/12/08	12:46:43	0.3258	14370.025	15.250
1999/12/08	12:47:43	0.3425	14369.983	16.021
1999/12/08	12:48:43	0.3592	14369.155	16.651
RIH Gradient: 500.000 m				
1999/12/08	12:49:13	0.3675	14369.113	16.937
1999/12/08	12:50:13	0.3842	14393.665	17.481
1999/12/08	12:51:13	0.4008	14527.920	18.091
1999/12/08	12:51:43	0.4092	14597.742	18.530
1999/12/08	12:52:43	0.4258	14735.792	19.753
1999/12/08	12:53:43	0.4425	14872.356	21.432
1999/12/08	12:54:13	0.4508	14938.976	22.389
1999/12/08	12:55:13	0.4675	15001.009	24.460
1999/12/08	12:56:13	0.4842	15001.402	26.486
1999/12/08	12:56:43	0.4925	15001.042	27.376
1999/12/08	12:57:43	0.5092	15001.318	28.995
1999/12/08	12:58:43	0.5258	15001.153	30.339
RIH Gradient: 1000.000 m				
1999/12/08	12:59:13	0.5342	15001.012	30.933
1999/12/08	12:59:43	0.5425	15000.693	31.474
1999/12/08	13:00:13	0.5508	15015.631	31.976
1999/12/08	13:01:13	0.5675	15136.147	33.123
1999/12/08	13:01:43	0.5758	15193.040	33.921
1999/12/08	13:02:43	0.5925	15317.864	35.969
1999/12/08	13:03:43	0.6092	15443.056	38.476
1999/12/08	13:04:13	0.6175	15506.055	39.804
1999/12/08	13:05:13	0.6342	15591.728	42.509



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Date	Time	Cum. T. 1 (S39)	Pres 1 (S39)	Temp 1 (S39)
		hr	kPag	deg C
1999/12/08	13:04:40	0.6250	15579.979	41.317
1999/12/08	13:05:40	0.6417	15610.652	44.102
1999/12/08	13:06:10	0.6500	15610.604	45.397
1999/12/08	13:07:10	0.6667	15610.154	47.630
1999/12/08	13:08:10	0.6833	15609.462	49.435
1999/12/08	13:08:40	0.6917	15609.055	50.208
RIH Gradient: 1500.000 m				
1999/12/08	13:09:40	0.7083	15608.346	51.537
1999/12/08	13:10:40	0.7250	15659.947	52.647
1999/12/08	13:11:10	0.7333	15664.771	53.199
1999/12/08	13:12:10	0.7500	15664.716	54.251
1999/12/08	13:13:10	0.7667	15664.869	55.139
1999/12/08	13:13:40	0.7750	15664.932	55.517
1999/12/08	13:14:40	0.7917	15665.006	56.173
1999/12/08	13:15:10	0.8000	15664.947	56.454
RIH Gradient: 1550.000 m				
1999/12/08	13:16:10	0.8167	15664.843	56.944
1999/12/08	13:17:10	0.8333	15685.554	57.382
1999/12/08	13:18:10	0.8500	15685.604	57.807
1999/12/08	13:18:40	0.8583	15685.636	57.998
1999/12/08	13:19:40	0.8750	15685.587	58.327
1999/12/08	13:20:40	0.8917	15685.601	58.602
1999/12/08	13:21:10	0.9000	15685.507	58.721
RIH Gradient: 1570.000 m				
1999/12/08	13:21:40	0.9083	15685.465	58.831
1999/12/08	13:22:10	0.9167	15691.013	58.933
1999/12/08	13:23:10	0.9333	15709.616	59.133
1999/12/08	13:23:40	0.9417	15709.718	59.236
1999/12/08	13:24:40	0.9583	15709.726	59.423
1999/12/08	13:25:40	0.9750	15709.770	59.585
1999/12/08	13:26:10	0.9833	15709.744	59.654
1999/12/08	13:27:10	1.0000	15709.746	59.779
RIH Gradient: 1590.000 m				
1999/12/08	13:27:40	1.0083	15709.749	59.836
1999/12/08	13:28:10	1.0167	15713.591	59.886
1999/12/08	13:28:40	1.0250	15732.778	59.936
1999/12/08	13:29:40	1.0417	15732.999	60.050
1999/12/08	13:30:40	1.0583	15733.088	60.158
1999/12/08	13:31:10	1.0667	15733.083	60.206
1999/12/08	13:32:10	1.0833	15733.104	60.290
1999/12/08	13:33:10	1.1000	15733.088	60.363
RIH Gradient: 1610.000 m				
1999/12/08	13:33:40	1.1083	15733.104	60.394
1999/12/08	13:34:40	1.1250	15802.428	60.455
1999/12/08	13:35:40	1.1417	15802.005	60.540
1999/12/08	13:36:10	1.1500	15801.925	60.586
1999/12/08	13:37:10	1.1667	15801.854	60.671
1999/12/08	13:38:10	1.1833	15801.869	60.744
1999/12/08	13:38:40	1.1917	15801.827	60.775
1999/12/08	13:39:10	1.2000	15801.739	60.802

Date	Time	Cum. T. 2 (S49)	Pres 2 (S49)	Temp 2 (S49)
		hr	kPag	deg C
1999/12/08	13:06:13	0.6508	15591.729	45.054
1999/12/08	13:06:43	0.6592	15591.338	46.171
1999/12/08	13:07:43	0.6758	15590.100	48.070
1999/12/08	13:08:43	0.6925	15590.515	49.673
RIH Gradient: 1500.000 m				
1999/12/08	13:09:43	0.7092	15590.192	50.977
1999/12/08	13:10:13	0.7175	15603.521	51.554
1999/12/08	13:11:13	0.7342	15647.787	52.668
1999/12/08	13:12:13	0.7508	15647.610	53.699
1999/12/08	13:13:13	0.7675	15647.794	54.572
1999/12/08	13:13:43	0.7758	15647.659	54.944
1999/12/08	13:14:43	0.7925	15647.794	55.598
RIH Gradient: 1550.000 m				
1999/12/08	13:15:43	0.8092	15647.605	56.134
1999/12/08	13:16:13	0.8175	15649.673	56.366
1999/12/08	13:17:13	0.8342	15668.926	56.825
1999/12/08	13:18:13	0.8508	15667.925	57.230
1999/12/08	13:18:43	0.8592	15667.811	57.419
1999/12/08	13:19:43	0.8758	15668.492	57.780
1999/12/08	13:20:43	0.8925	15668.530	58.067
1999/12/08	13:21:13	0.9008	15668.509	58.194
RIH Gradient: 1570.000 m				
1999/12/08	13:21:43	0.9092	15668.534	58.311
1999/12/08	13:22:13	0.9175	15677.343	58.416
1999/12/08	13:23:13	0.9342	15692.595	58.629
1999/12/08	13:23:43	0.9425	15692.771	58.740
1999/12/08	13:24:43	0.9592	15692.792	58.932
1999/12/08	13:25:43	0.9758	15692.692	59.095
1999/12/08	13:26:13	0.9842	15692.623	59.166
1999/12/08	13:27:13	1.0008	15691.969	59.279
RIH Gradient: 1590.000 m				
1999/12/08	13:27:43	1.0092	15691.918	59.336
1999/12/08	13:28:13	1.0175	15699.635	59.415
1999/12/08	13:28:43	1.0258	15715.905	59.470
1999/12/08	13:29:43	1.0425	15716.306	59.587
1999/12/08	13:30:43	1.0592	15716.289	59.693
1999/12/08	13:31:13	1.0675	15716.326	59.741
1999/12/08	13:32:13	1.0842	15716.278	59.823
1999/12/08	13:33:13	1.1008	15716.245	59.894
RIH Gradient: 1610.000 m				
1999/12/08	13:33:43	1.1092	15716.333	59.927
1999/12/08	13:34:43	1.1258	15794.062	59.984
1999/12/08	13:35:43	1.1425	15793.659	60.071
1999/12/08	13:36:13	1.1508	15793.703	60.117
1999/12/08	13:37:13	1.1675	15793.649	60.199
1999/12/08	13:38:13	1.1842	15793.537	60.270
1999/12/08	13:38:43	1.1925	15793.422	60.301
RIH Gradient: 1630.000 m				
1999/12/08	13:39:43	1.2092	15793.440	60.353
1999/12/08	13:40:43	1.2258	15975.718	60.407



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		hr	kPag	deg C
RIH Gradient: 1630.000 m				
1999/12/08	13:39:40	1.2083	15801.795	60.827
1999/12/08	13:40:40	1.2250	15983.529	60.872
1999/12/08	13:41:10	1.2333	15983.808	60.912
1999/12/08	13:42:10	1.2500	15984.010	61.019
1999/12/08	13:43:10	1.2667	15984.102	61.121
1999/12/08	13:43:40	1.2750	15984.010	61.167
1999/12/08	13:44:40	1.2917	15983.896	61.245
1999/12/08	13:45:10	1.3000	15983.938	61.281
RIH Gradient: 1650.000 m				
1999/12/08	13:45:40	1.3083	15983.887	61.311
1999/12/08	13:46:10	1.3167	15985.222	61.332
1999/12/08	13:46:40	1.3250	16175.799	61.363
1999/12/08	13:47:10	1.3333	16176.097	61.397
1999/12/08	13:47:40	1.3417	16176.179	61.437
1999/12/08	13:48:40	1.3583	16176.287	61.526
1999/12/08	13:49:10	1.3667	16176.357	61.570
1999/12/08	13:50:10	1.3833	16176.297	61.650
1999/12/08	13:51:10	1.4000	16176.211	61.716
1999/12/08	13:51:40	1.4083	16176.232	61.746
RIH Gradient: 1670.000 m				
1999/12/08	13:52:10	1.4167	16176.248	61.773
1999/12/08	13:52:40	1.4250	16233.256	61.795
1999/12/08	13:53:40	1.4417	16369.345	61.852
1999/12/08	13:54:10	1.4500	16369.554	61.886
1999/12/08	13:55:10	1.4667	16369.611	61.958
1999/12/08	13:56:10	1.4833	16369.658	62.026
1999/12/08	13:56:40	1.4917	16369.609	62.056
1999/12/08	13:57:40	1.5083	16369.599	62.109
1999/12/08	13:58:40	1.5250	16369.545	62.155
RIH Gradient: 1690.000 m				
1999/12/08	13:59:10	1.5333	16369.554	62.174
1999/12/08	14:00:10	1.5500	16468.152	62.211
1999/12/08	14:01:10	1.5667	16468.158	62.251
1999/12/08	14:01:40	1.5750	16468.285	62.274
1999/12/08	14:02:40	1.5917	16468.238	62.310
1999/12/08	14:03:10	1.6000	16468.262	62.327
1999/12/08	14:04:10	1.6167	16468.260	62.357
RIH Gradient: 1700.000 m				
1999/12/08	14:04:40	1.6250	16468.340	62.371
1999/12/08	14:05:10	1.6333	16492.447	62.382
1999/12/08	14:06:10	1.6500	16564.266	62.410
1999/12/08	14:06:40	1.6533	16564.275	62.427
1999/12/08	14:07:40	1.6750	16564.387	62.465
1999/12/08	14:08:40	1.6917	16564.355	62.497
1999/12/08	14:09:10	1.7000	16564.340	62.513
1999/12/08	14:10:10	1.7167	16564.342	62.535
RIH Gradient: 1710.000 m				
1999/12/08	14:10:40	1.7250	16564.418	62.547
1999/12/08	14:11:10	1.7333	16603.516	62.558

Date	Time	Cum. T. 2 (S49)	Pres 2 (S49)	Temp 2 (S49)
		hr	kPag	deg C
1999/12/08	13:41:13	1.2342	15975.990	60.451
1999/12/08	13:41:43	1.2425	15976.062	60.503
1999/12/08	13:42:13	1.2508	15976.153	60.558
1999/12/08	13:43:13	1.2675	15976.160	60.662
1999/12/08	13:43:43	1.2758	15976.069	60.710
1999/12/08	13:44:43	1.2925	15976.067	60.793
RIH Gradient: 1650.000 m				
1999/12/08	13:45:43	1.3092	15975.985	60.858
1999/12/08	13:46:13	1.3175	15993.410	60.889
1999/12/08	13:47:13	1.3342	16168.240	60.956
1999/12/08	13:48:13	1.3508	16168.298	61.044
1999/12/08	13:49:13	1.3675	16168.323	61.131
1999/12/08	13:50:13	1.3842	16168.229	61.207
1999/12/08	13:50:43	1.3925	16168.196	61.242
1999/12/08	13:51:43	1.4092	16168.215	61.304
RIH Gradient: 1670.000 m				
1999/12/08	13:52:13	1.4175	16168.156	61.330
1999/12/08	13:53:13	1.4342	16361.117	61.384
1999/12/08	13:54:13	1.4508	16361.385	61.453
1999/12/08	13:55:13	1.4575	16361.485	61.526
1999/12/08	13:55:43	1.4758	16361.541	61.561
1999/12/08	13:56:43	1.4925	16361.445	61.620
1999/12/08	13:57:43	1.5092	16361.482	61.674
1999/12/08	13:58:13	1.5175	16361.438	61.697
RIH Gradient: 1690.000 m				
1999/12/08	13:59:13	1.5342	16361.427	61.736
1999/12/08	14:00:13	1.5508	16459.877	61.776
1999/12/08	14:00:43	1.5592	16460.006	61.797
1999/12/08	14:01:43	1.5758	16459.977	61.838
1999/12/08	14:02:43	1.5925	16460.041	61.874
1999/12/08	14:03:13	1.6008	16460.000	61.889
1999/12/08	14:04:13	1.6175	16460.029	61.918
RIH Gradient: 1700.000 m				
1999/12/08	14:04:43	1.6258	16460.055	61.932
1999/12/08	14:05:13	1.6342	16510.459	61.943
1999/12/08	14:05:43	1.6425	16556.191	61.957
1999/12/08	14:06:43	1.6592	16556.287	61.993
1999/12/08	14:07:43	1.6758	16556.256	62.030
1999/12/08	14:08:13	1.6842	16556.188	62.045
1999/12/08	14:09:13	1.7008	16556.154	62.076
1999/12/08	14:10:13	1.7175	16556.152	62.099
RIH Gradient: 1710.000 m				
1999/12/08	14:10:43	1.7258	16556.150	62.110
1999/12/08	14:11:43	1.7425	16652.773	62.133
1999/12/08	14:12:43	1.7592	16652.881	62.166
1999/12/08	14:13:13	1.7675	16652.881	62.181
1999/12/08	14:14:13	1.7842	16652.820	62.212
1999/12/08	14:15:13	1.8008	16652.822	62.239
1999/12/08	14:15:43	1.8092	16652.760	62.249
RIH Gradient: 1720.000 m				



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Liard
F - 36
December 08/99



Date	Time	Cum. T. 1 (S39)	Pres 1 (S39)	Temp 1 (S39)
		hr	kPag	deg C
1999/12/08	14:11:40	1.7417	16660.928	62.567
1999/12/08	14:12:40	1.7583	16661.092	62.599
1999/12/08	14:13:40	1.7750	16661.252	62.637
1999/12/08	14:14:10	1.7833	16661.146	62.651
1999/12/08	14:15:10	1.8000	16661.162	62.681
1999/12/08	14:16:10	1.8167	16661.232	62.704
RIH Gradient: 1720.000 m				
1999/12/08	14:16:40	1.8250	16661.199	62.713
1999/12/08	14:17:40	1.8417	16759.189	62.732
1999/12/08	14:18:40	1.8583	16759.404	62.783
1999/12/08	14:19:10	1.8667	16759.498	62.811
1999/12/08	14:20:10	1.8833	16759.602	62.866
1999/12/08	14:21:10	1.9000	16759.564	62.912
1999/12/08	14:21:40	1.9083	16759.570	62.933
1999/12/08	14:22:40	1.9250	16759.588	62.969
RIH Gradient: 1730.000 m				
1999/12/08	14:23:10	1.9333	16759.559	62.984
1999/12/08	14:23:40	1.9417	16803.000	62.999
1999/12/08	14:24:10	1.9500	16802.959	63.018
1999/12/08	14:25:10	1.9667	16803.049	63.056
1999/12/08	14:25:40	1.9750	16803.043	63.073
1999/12/08	14:26:40	1.9917	16803.068	63.103
1999/12/08	14:27:10	2.0000	16803.119	63.118
1999/12/08	14:28:10	2.0167	16803.066	63.139
1999/12/08	14:29:10	2.0333	16803.049	63.158
1999/12/08	14:29:40	2.0417	16803.035	63.166
1999/12/08	14:30:40	2.0583	16803.080	63.179
1999/12/08	14:31:40	2.0750	16803.055	63.190
1999/12/08	14:32:10	2.0833	16803.033	63.196
1999/12/08	14:33:10	2.1000	16803.059	63.204
RIH Gradient: 1736.000 m				
1999/12/08	14:33:40	2.1083	16803.115	63.207
1999/12/08	14:34:10	2.1167	16796.102	63.211
1999/12/08	14:34:40	2.1250	16491.506	63.212
1999/12/08	14:35:10	2.1333	16037.055	63.189
1999/12/08	14:35:40	2.1417	15730.582	63.124
1999/12/08	14:36:40	2.1583	15621.182	62.819
1999/12/08	14:37:10	2.1667	15565.226	62.588
1999/12/08	14:38:10	2.1833	15452.069	61.916
1999/12/08	14:39:10	2.2000	15337.949	60.898
1999/12/08	14:39:40	2.2083	15280.823	60.271
1999/12/08	14:40:40	2.2250	15166.861	58.800
1999/12/08	14:41:40	2.2417	15049.074	56.857
1999/12/08	14:42:10	2.2500	14988.530	55.657
1999/12/08	14:43:10	2.2667	14863.060	52.742
1999/12/08	14:44:10	2.2833	14735.963	49.498
1999/12/08	14:44:40	2.2917	14671.910	47.865
1999/12/08	14:45:40	2.3083	14541.598	44.552
1999/12/08	14:46:40	2.3250	14407.650	41.154
1999/12/08	14:47:10	2.3333	14339.488	39.433

Date	Time	Cum. T. 2 (S49)	Pres 2 (S49)	Temp 2 (S49)
		hr	kPag	deg C
1999/12/08	14:16:43	1.8258	16652.826	62.270
1999/12/08	14:17:43	1.8425	16751.021	62.297
1999/12/08	14:18:13	1.8508	16751.125	62.322
1999/12/08	14:19:13	1.8675	16751.250	62.381
1999/12/08	14:20:13	1.8842	16751.332	62.437
1999/12/08	14:20:43	1.8925	16751.305	62.462
1999/12/08	14:21:43	1.9092	16751.123	62.504
RIH Gradient: 1730.000 m				
1999/12/08	14:22:43	1.9258	16751.301	62.546
1999/12/08	14:23:13	1.9342	16765.342	62.562
1999/12/08	14:23:43	1.9425	16794.547	62.579
1999/12/08	14:24:13	1.9508	16794.654	62.598
1999/12/08	14:25:13	1.9675	16794.643	62.635
1999/12/08	14:25:43	1.9758	16794.617	62.652
1999/12/08	14:26:43	1.9925	16794.691	62.681
1999/12/08	14:27:43	2.0092	16794.641	62.706
1999/12/08	14:28:43	2.0258	16794.680	62.727
1999/12/08	14:29:43	2.0425	16794.654	62.742
1999/12/08	14:30:13	2.0508	16794.588	62.743
1999/12/08	14:31:13	2.0675	16794.562	62.761
1999/12/08	14:32:13	2.0842	16794.561	62.771
1999/12/08	14:32:43	2.0925	16794.635	62.777
RIH Gradient: 1736.000 m				
1999/12/08	14:33:43	2.1092	16794.604	62.785
1999/12/08	14:34:13	2.1175	16772.543	62.786
1999/12/08	14:35:13	2.1342	15976.776	62.748
1999/12/08	14:36:13	2.1508	15653.058	62.529
1999/12/08	14:37:13	2.1675	15541.089	62.100
1999/12/08	14:37:43	2.1758	15484.375	61.791
1999/12/08	14:38:43	2.1925	15368.777	60.912
1999/12/08	14:39:43	2.2092	15253.386	59.735
1999/12/08	14:40:13	2.2175	15195.890	59.045
1999/12/08	14:41:13	2.2342	15077.987	57.358
1999/12/08	14:42:13	2.2508	14954.979	55.132
1999/12/08	14:42:43	2.2592	14892.106	53.790
1999/12/08	14:43:43	2.2758	14764.857	50.806
1999/12/08	14:44:43	2.2925	14637.133	47.727
1999/12/08	14:45:13	2.3008	14572.091	46.161
1999/12/08	14:46:13	2.3175	14439.898	42.938
1999/12/08	14:47:13	2.3342	14303.655	39.592
1999/12/08	14:47:43	2.3425	14235.549	37.909
1999/12/08	14:48:43	2.3592	14095.875	34.509
1999/12/08	14:49:43	2.3758	13950.464	30.947
1999/12/08	14:50:13	2.3842	13875.866	29.108
1999/12/08	14:51:13	2.4008	13744.807	25.475
1999/12/08	14:52:13	2.4175	13684.022	22.056
1999/12/08	14:52:43	2.4258	13680.443	20.434
1999/12/08	14:53:43	2.4425	13666.051	17.096
1999/12/08	14:54:43	2.4592	13676.533	13.928
1999/12/08	14:55:13	2.4675	13676.087	12.458



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Liard
F - 38
December 08/99



Date	Time	Cum. T. 1 (S39)	Pres 1 (S39)	Temp 1 (S39)
		hr	kPag	deg C
1999/12/08	14:48:10	2.3500	14202.105	36.012
1999/12/08	14:49:10	2.3667	14060.871	32.572
1999/12/08	14:49:40	2.3750	13987.699	30.777
1999/12/08	14:50:40	2.3917	13840.625	27.106
1999/12/08	14:51:10	2.4000	13779.904	25.276
1999/12/08	14:52:10	2.4167	13713.664	21.783
1999/12/08	14:53:10	2.4333	13708.390	19.389
1999/12/08	14:54:10	2.4500	13704.255	14.830
1999/12/08	14:54:40	2.4583	13702.204	13.116
1999/12/08	14:55:40	2.4750	13698.818	9.963
1999/12/08	14:56:40	2.4917	13697.551	7.228
POOH Gradient: 0.000 m				
1999/12/08	14:57:10	2.5000	13697.259	6.010
1999/12/08	14:58:10	2.5167	13675.231	3.842
1999/12/08	14:59:10	2.5333	7354.588	1.857
1999/12/08	14:59:40	2.5417	2074.147	0.669
1999/12/08	15:00:40	2.5583	11.909	-2.476
1999/12/08	15:01:40	2.5750	9.663	-5.424
1999/12/08	15:02:10	2.5833	8.255	-6.637
1999/12/08	15:03:10	2.6000	5.572	-8.545
1999/12/08	15:04:10	2.6167	2.797	-9.993
1999/12/08	15:04:40	2.6250	1.854	-10.555
1999/12/08	15:05:40	2.6417	0.000	-11.355
1999/12/08	15:06:10	2.6500	0.000	-11.506
1999/12/08	15:07:10	2.6667	0.000	-11.535

Date	Time	Cum. T. 2 (S49)	Pres 2 (S49)	Temp 2 (S49)
		hr	kPag	deg C
1999/12/08	14:56:13	2.4842	13675.258	9.766
POOH Gradient: 0.000 m				
1999/12/08	14:57:13	2.5008	13674.463	7.389
1999/12/08	14:57:43	2.5092	13674.295	6.319
1999/12/08	14:58:43	2.5258	11318.672	4.358
1999/12/08	14:59:43	2.5425	1490.494	2.131
1999/12/08	15:00:13	2.5508	260.351	0.726
1999/12/08	15:01:13	2.5675	191.312	-2.114
1999/12/08	15:02:13	2.5842	196.079	-4.452
1999/12/08	15:02:43	2.5925	194.659	-5.415
1999/12/08	15:03:43	2.6092	97.441	-7.050
1999/12/08	15:04:43	2.6258	99.252	-8.312

N.E.B. COPY



**Baker Atlas
SLICKLINE DIVISION**

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LTD.
Representative	Mr. Terry Stasiuk
Phone	# 266 - 2047
Fax	# 262 - 7994
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W5
E-Mail Address	hkib@telusplanet.com
Service Company	Baker Atlas Slickline Division

WELL INFORMATION

Well Name	Paramount et al Liard
Well Location	F - 36
Field and Pool	Liard -
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1522.5 mCF
Mid-point of Perforated Intervals (MPP)	1515.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 m
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	177.8 mm
Production Tubing	86.9 mm

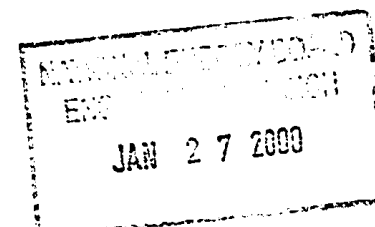
TEST INFORMATION

Test Number / Type of Test	Flow & Buildup
Date(s) of Test	January 08 - 21/00
Dead-weight Gauge Tubing Pressure	12990.0 kPa
Dead-weight Gauge Casing Pressure	2700.0 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	January 08/00 @ 15:06.
Date / Time off Bottom	January 21/00 @ 08:53.

Probe Serial Number	P53 (TOP)	P80 (TOP)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1528.81 mCF	1529.89 mCF

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	15065.14 kPag	15076.93 kPag
Maximum Recorded Probe Temperature	58.67 deg C	58.75 deg C
Final Buildup Pressure	13508.914 kPa	13514.824 kPa
Gradient Survey Information		
Extrapolated Pressure to MPP	N/A	N/A
Final Gradient at Depth	N/A	N/A
Job Number	N/A	





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 38
January 08 - 21/00



PROBE INFORMATION

Probe Serial Number	P53 (TOP)
Model	Level II
Pressure	
Calibrated Pressure Range	0.0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-20.6 - 123.5 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P53MR12A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	1 minute	end of memory	Fill remaining memory

Program Start Time	Jan 08/2000 @ 14:23:27
Program End Time	Jan 21/2000 @ 09:26:27
Total Samples Taken	18424
Usage for this Test	1.6220 Ah
Generic Data File Name	P53JA21A.GEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Land
Well Location F - 36
Date(s) of Test January 08 - 21/00



PROBE INFORMATION

Probe Serial Number P80 (TOP)
Model Level II
Pressure
 Calibrated Pressure Range 0.0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -21.2 - 123.4 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports P80MR03A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	25 seconds	Test mode
1	Overrun	1 minute	end of memory	Fill remaining memory

Program Start Time Jan 08/2000 @ 14:24:50
Program End Time Jan 21/2000 @ 09:19:50
Total Samples Taken 18416
Usage for this Test 1.6220 Ah
Generic Data File Name P80JA21A.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Land
F - 36
January 08 - 21/00



COMMENTS

Reported By

JIM O'KEEFE

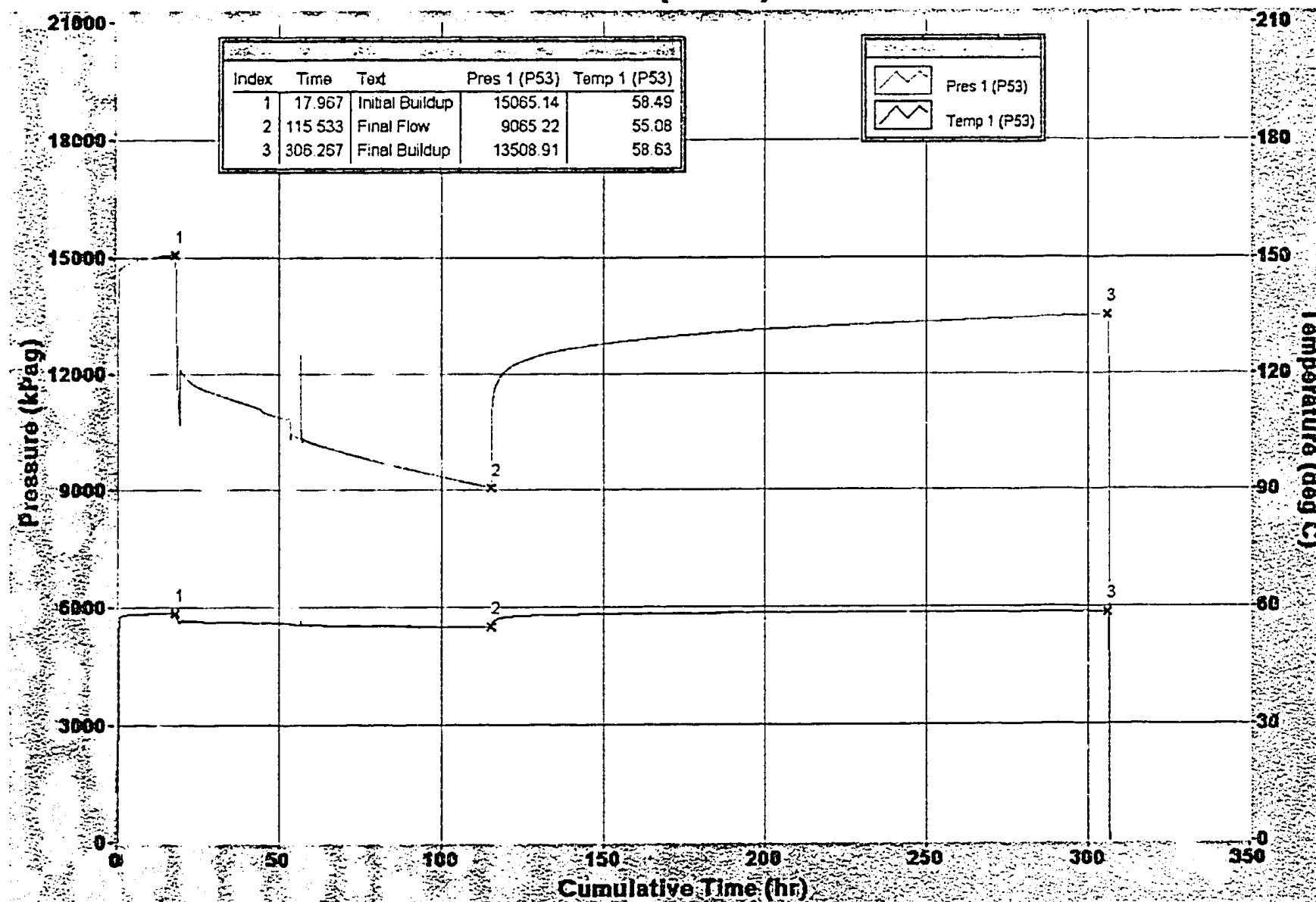
SURVEYED BY: DALE GOERTZEN



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 38
Date(s) of Test January 08 - 21/00



P53 (TOP)

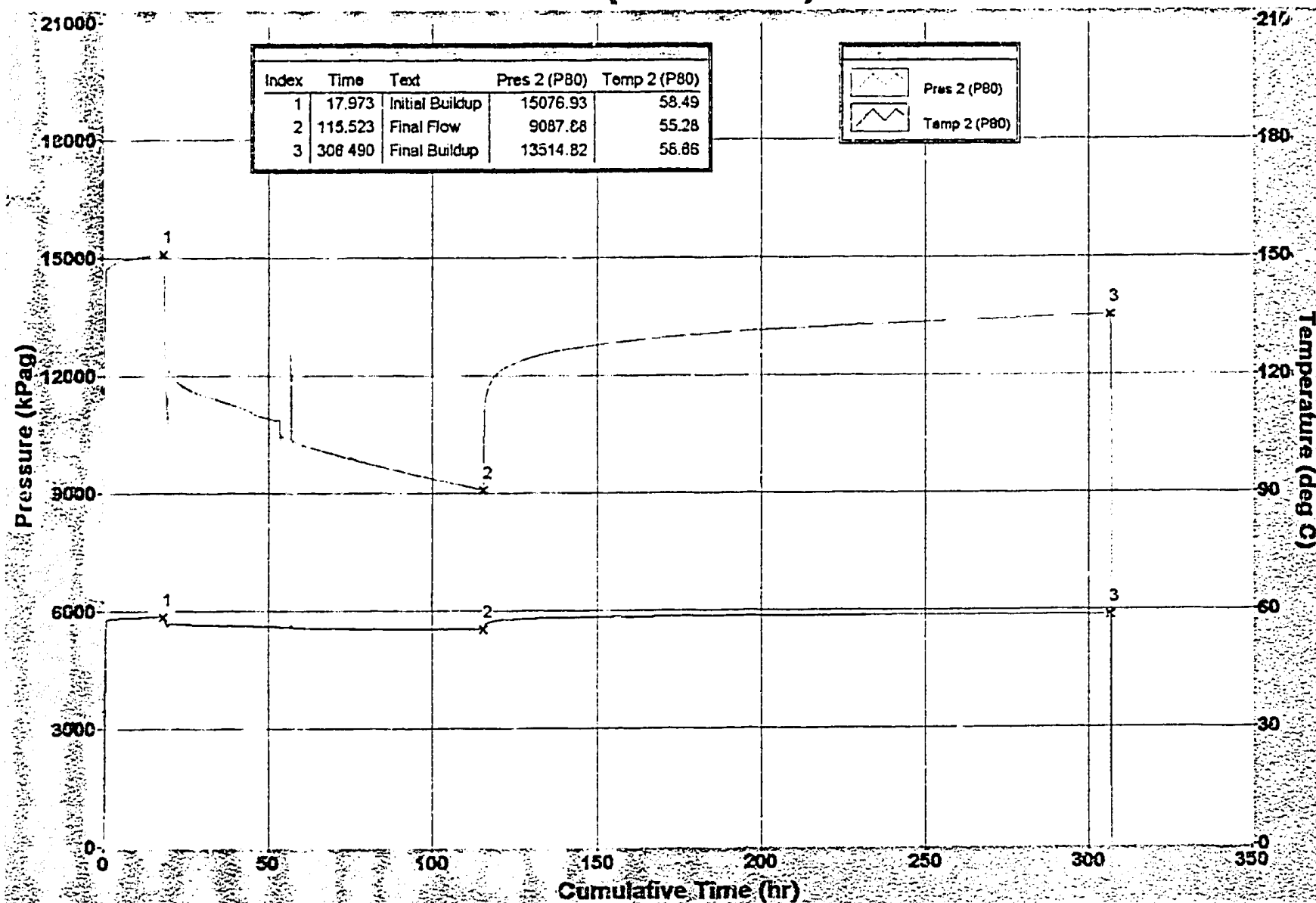




Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Lard
Well Location F - 36
Date(s) of Test January 08 - 21/00



P30 (BOTTOM)

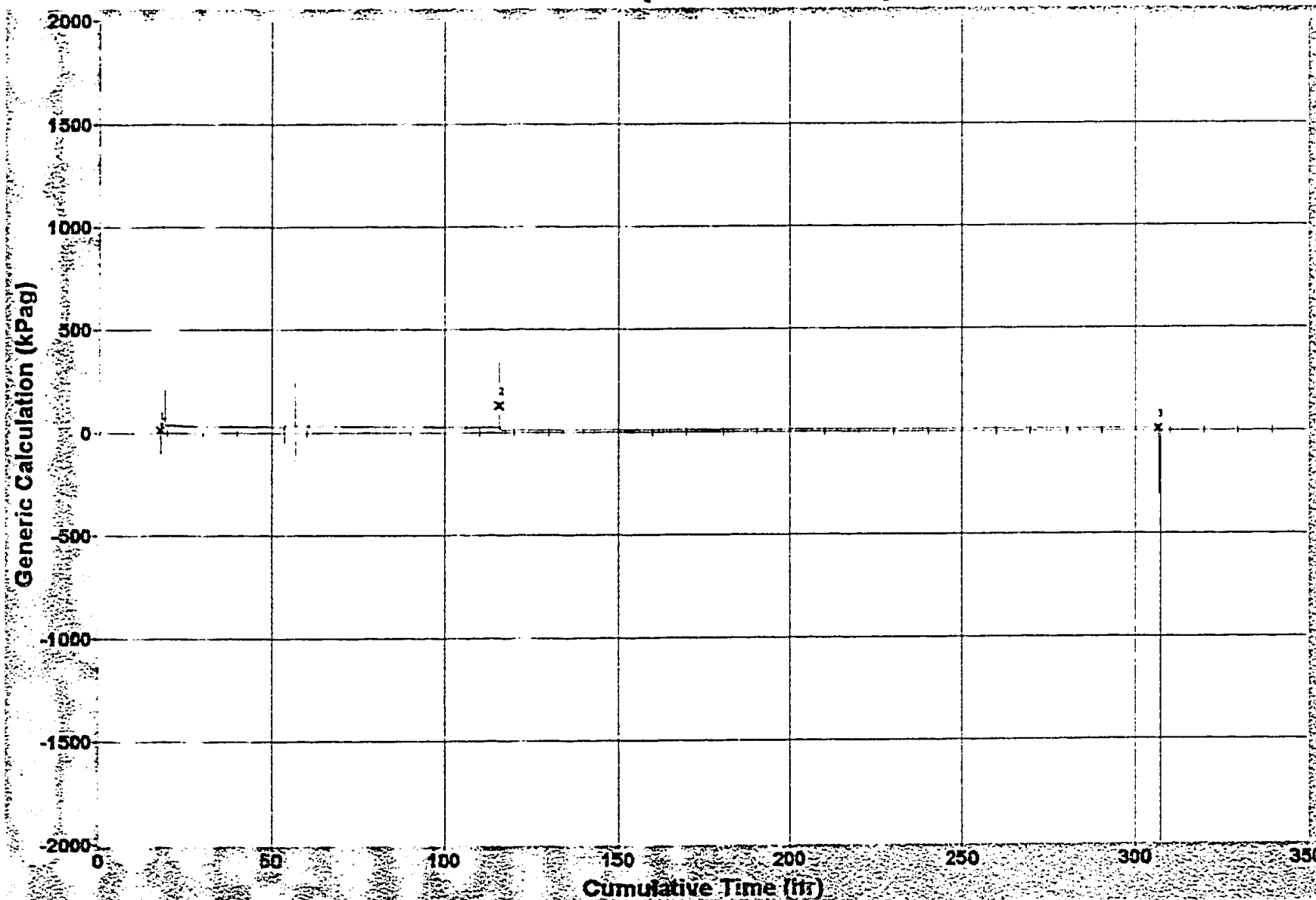




Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al Liard
Well Location F - 36
Date(s) of Test January 08 - 21/00



P53 - P80 (DEVIATION)





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD
Paramount et al Lard
F - 36
January 08 - 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/08	14:23:27	0.0000	0.900	17.304
2000/01/08	15:23:27	1.0000	14709.145	57.544
2000/01/08	16:23:27	2.0000	14775.836	58.050
2000/01/08	17:23:27	3.0000	14824.711	58.163
2000/01/08	18:23:27	4.0000	14863.516	58.238
2000/01/08	19:23:27	5.0000	14895.582	58.286
2000/01/08	20:23:27	6.0000	14921.744	58.332
2000/01/08	21:23:27	7.0000	14943.313	58.366
2000/01/08	22:23:27	8.0000	14962.028	58.401
2000/01/08	23:23:27	9.0000	14977.467	58.422
2000/01/09	00:23:27	10.0000	14991.271	58.441
2000/01/09	01:23:27	11.0000	15003.252	58.460
2000/01/09	02:23:27	12.0000	15014.272	58.474
2000/01/09	03:23:27	13.0000	15025.556	58.487
2000/01/09	04:23:27	14.0000	15034.797	58.498
2000/01/09	05:23:27	15.0000	15043.508	58.512
2000/01/09	06:23:27	16.0000	15051.556	58.521
2000/01/09	07:23:27	17.0000	15059.117	58.531
Initial Buildup				
2000/01/09	08:21:27	17.9667	15065.144	58.489
2000/01/09	08:23:27	18.0000	15063.360	58.489
2000/01/09	09:23:27	19.0000	11065.784	56.390
2000/01/09	10:23:27	20.0000	12030.521	56.665
2000/01/09	11:23:27	21.0000	11921.342	56.614
2000/01/09	12:23:27	22.0000	11830.531	56.584
2000/01/09	13:23:27	23.0000	11762.577	56.538
2000/01/09	14:23:27	24.0000	11703.411	56.502
2000/01/09	15:23:27	25.0000	11654.619	56.462
2000/01/09	16:23:27	26.0000	11620.218	56.431
2000/01/09	17:23:27	27.0000	11579.608	56.395
2000/01/09	18:23:27	28.0000	11545.869	56.370
2000/01/09	19:23:27	29.0000	11519.560	56.341
2000/01/09	20:23:27	30.0000	11490.629	56.322
2000/01/09	21:23:27	31.0000	11461.106	56.296
2000/01/09	22:23:27	32.0000	11433.370	56.279
2000/01/09	23:23:27	33.0000	11399.332	56.259
2000/01/10	00:23:27	34.0000	11374.194	56.240
2000/01/10	01:23:27	35.0000	11346.126	56.223
2000/01/10	02:23:27	36.0000	11317.678	56.206
2000/01/10	03:23:27	37.0000	11291.310	56.191
2000/01/10	04:23:27	38.0000	11264.638	56.174
2000/01/10	05:23:27	39.0000	11235.132	56.157
2000/01/10	06:23:27	40.0000	11213.559	56.143
2000/01/10	07:23:27	41.0000	11182.289	56.132
2000/01/10	08:23:27	42.0000	11145.795	56.107
2000/01/10	09:23:27	43.0000	11122.538	56.096
2000/01/10	10:23:27	44.0000	11099.143	56.082
2000/01/10	11:23:27	45.0000	11027.288	56.052
2000/01/10	12:23:27	46.0000	10980.062	56.021
2000/01/10	13:23:27	47.0000	10955.558	56.002

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/08	14:24:50	0.0231	0.000	17.367
2000/01/08	15:24:50	1.0231	14726.309	57.768
2000/01/08	16:24:50	2.0231	14790.021	58.086
2000/01/08	17:24:50	3.0231	14837.714	58.175
2000/01/08	18:24:50	4.0231	14876.135	58.236
2000/01/08	19:24:50	5.0231	14907.981	58.281
2000/01/08	20:24:50	6.0231	14933.921	58.323
2000/01/08	21:24:50	7.0231	14955.618	58.359
2000/01/08	22:24:50	8.0231	14974.086	58.393
2000/01/08	23:24:50	9.0231	14989.663	58.422
2000/01/09	00:24:50	10.0231	15003.407	58.444
2000/01/09	01:24:50	11.0231	15015.333	58.462
2000/01/09	02:24:50	12.0231	15026.472	58.479
2000/01/09	03:24:50	13.0231	15037.700	58.494
2000/01/09	04:24:50	14.0231	15046.948	58.511
2000/01/09	05:24:50	15.0231	15055.495	58.517
2000/01/09	06:24:50	16.0231	15063.437	58.524
2000/01/09	07:24:50	17.0231	15071.084	58.534
Initial Buildup				
2000/01/09	08:21:50	17.9731	15076.930	58.492
2000/01/09	08:24:50	18.0231	14929.204	58.490
2000/01/09	09:24:50	19.0231	11098.689	56.590
2000/01/09	10:24:50	20.0231	12063.502	56.829
2000/01/09	11:24:50	21.0231	11955.103	56.839
2000/01/09	12:24:50	22.0231	11864.051	56.793
2000/01/09	13:24:50	23.0231	11793.709	56.742
2000/01/09	14:24:50	24.0231	11730.081	56.695
2000/01/09	15:24:50	25.0231	11686.485	56.649
2000/01/09	16:24:50	26.0231	11652.722	56.618
2000/01/09	17:24:50	27.0231	11612.059	56.584
2000/01/09	18:24:50	28.0231	11575.742	56.542
2000/01/09	19:24:50	29.0231	11547.540	56.523
2000/01/09	20:24:50	30.0231	11521.259	56.496
2000/01/09	21:24:50	31.0231	11491.931	56.485
2000/01/09	22:24:50	32.0231	11462.248	56.469
2000/01/09	23:24:50	33.0231	11430.242	56.448
2000/01/10	00:24:50	34.0231	11402.526	56.414
2000/01/10	01:24:50	35.0231	11374.819	56.405
2000/01/10	02:24:50	36.0231	11345.892	56.374
2000/01/10	03:24:50	37.0231	11320.591	56.363
2000/01/10	04:24:50	38.0231	11292.635	56.347
2000/01/10	05:24:50	39.0231	11263.289	56.326
2000/01/10	06:24:50	40.0231	11241.055	56.315
2000/01/10	07:24:50	41.0231	11209.770	56.298
2000/01/10	08:24:50	42.0231	11172.833	56.283
2000/01/10	09:24:50	43.0231	11149.631	56.265
2000/01/10	10:24:50	44.0231	11125.871	56.256
2000/01/10	11:24:50	45.0231	11054.229	56.224
2000/01/10	12:24:50	46.0231	11008.583	56.199
2000/01/10	13:24:50	47.0231	10982.546	56.178



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LTD.
Paramount et al Lard
F - 36
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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/10	14:23:27	48.0000	10931.247	55.989
2000/01/10	15:23:27	49.0000	10909.055	55.974
2000/01/10	16:23:27	50.0000	10883.961	55.962
2000/01/10	17:23:27	51.0000	10862.475	55.949
2000/01/10	18:23:27	52.0000	10840.646	55.940
2000/01/10	19:23:27	53.0000	10855.872	55.941
2000/01/10	20:23:27	54.0000	10475.220	55.738
2000/01/10	21:23:27	55.0000	10396.363	55.664
2000/01/10	22:23:27	56.0000	10366.627	55.622
2000/01/10	23:23:27	57.0000	10926.913	56.153
2000/01/11	00:23:27	58.0000	10301.918	55.561
2000/01/11	01:23:27	59.0000	10257.125	55.517
2000/01/11	02:23:27	60.0000	10228.261	55.505
2000/01/11	03:23:27	61.0000	10196.357	55.462
2000/01/11	04:23:27	62.0000	10169.557	55.441
2000/01/11	05:23:27	63.0000	10140.612	55.418
2000/01/11	06:23:27	64.0000	10117.368	55.399
2000/01/11	07:23:27	65.0000	10095.692	55.382
2000/01/11	08:23:27	66.0000	10071.484	55.370
2000/01/11	09:23:27	67.0000	10045.193	55.353
2000/01/11	10:23:27	68.0000	10025.048	55.338
2000/01/11	11:23:27	69.0000	9998.236	55.323
2000/01/11	12:23:27	70.0000	9974.753	55.311
2000/01/11	13:23:27	71.0000	9949.307	55.298
2000/01/11	14:23:27	72.0000	9927.435	55.287
2000/01/11	15:23:27	73.0000	9902.489	55.275
2000/01/11	16:23:27	74.0000	9878.231	55.262
2000/01/11	17:23:27	75.0000	9858.423	55.254
2000/01/11	18:23:27	76.0000	9835.923	55.247
2000/01/11	19:23:27	77.0000	9810.985	55.233
2000/01/11	20:23:27	78.0000	9787.188	55.224
2000/01/11	21:23:27	79.0000	9766.199	55.214
2000/01/11	22:23:27	80.0000	9742.740	55.207
2000/01/11	23:23:27	81.0000	9723.033	55.199
2000/01/12	00:23:27	82.0000	9701.083	55.192
2000/01/12	01:23:27	83.0000	9682.547	55.184
2000/01/12	02:23:27	84.0000	9662.877	55.180
2000/01/12	03:23:27	85.0000	9647.945	55.177
2000/01/12	04:23:27	86.0000	9625.672	55.169
2000/01/12	05:23:27	87.0000	9606.511	55.163
2000/01/12	06:23:27	88.0000	9586.139	55.160
2000/01/12	07:23:27	89.0000	9565.347	55.156
2000/01/12	08:23:27	90.0000	9550.481	55.150
2000/01/12	09:23:27	91.0000	9529.587	55.146
2000/01/12	10:23:27	92.0000	9509.403	55.141
2000/01/12	11:23:27	93.0000	9486.743	55.137
2000/01/12	12:23:27	94.0000	9468.513	55.129
2000/01/12	13:23:27	95.0000	9448.228	55.131
2000/01/12	14:23:27	96.0000	9428.513	55.124
2000/01/12	15:23:27	97.0000	9411.967	55.124

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/10	14:24:50	48.0231	10957.605	56.161
2000/01/10	15:24:50	49.0231	10936.255	56.148
2000/01/10	16:24:50	50.0231	10911.028	56.134
2000/01/10	17:24:50	51.0231	10889.308	56.119
2000/01/10	18:24:50	52.0231	10867.044	56.111
2000/01/10	19:24:50	53.0231	10882.908	56.113
2000/01/10	20:24:50	54.0231	10494.434	55.919
2000/01/10	21:24:50	55.0231	10426.918	55.878
2000/01/10	22:24:50	56.0231	10397.869	55.847
2000/01/10	23:24:50	57.0231	10730.258	56.174
2000/01/11	00:24:50	58.0231	10330.995	55.742
2000/01/11	01:24:50	59.0231	10287.873	55.706
2000/01/11	02:24:50	60.0231	10258.433	55.671
2000/01/11	03:24:50	61.0231	10226.571	55.654
2000/01/11	04:24:50	62.0231	10199.363	55.627
2000/01/11	05:24:50	63.0231	10170.144	55.602
2000/01/11	06:24:50	64.0231	10145.594	55.585
2000/01/11	07:24:50	65.0231	10125.643	55.570
2000/01/11	08:24:50	66.0231	10100.951	55.572
2000/01/11	09:24:50	67.0231	10074.341	55.549
2000/01/11	10:24:50	68.0231	10054.540	55.547
2000/01/11	11:24:50	69.0231	10027.660	55.526
2000/01/11	12:24:50	70.0231	10003.495	55.513
2000/01/11	13:24:50	71.0231	9979.102	55.494
2000/01/11	14:24:50	72.0231	9955.074	55.487
2000/01/11	15:24:50	73.0231	9930.244	55.477
2000/01/11	16:24:50	74.0231	9906.025	55.464
2000/01/11	17:24:50	75.0231	9886.497	55.454
2000/01/11	18:24:50	76.0231	9863.659	55.452
2000/01/11	19:24:50	77.0231	9839.020	55.435
2000/01/11	20:24:50	78.0231	9815.145	55.428
2000/01/11	21:24:50	79.0231	9793.905	55.424
2000/01/11	22:24:50	80.0231	9769.830	55.415
2000/01/11	23:24:50	81.0231	9750.181	55.413
2000/01/12	00:24:50	82.0231	9727.736	55.405
2000/01/12	01:24:50	83.0231	9709.225	55.396
2000/01/12	02:24:50	84.0231	9689.779	55.390
2000/01/12	03:24:50	85.0231	9675.000	55.384
2000/01/12	04:24:50	86.0231	9652.165	55.383
2000/01/12	05:24:50	87.0231	9632.597	55.373
2000/01/12	06:24:50	88.0231	9611.595	55.367
2000/01/12	07:24:50	89.0231	9591.898	55.360
2000/01/12	08:24:50	90.0231	9575.907	55.360
2000/01/12	09:24:50	91.0231	9554.557	55.352
2000/01/12	10:24:50	92.0231	9534.158	55.347
2000/01/12	11:24:50	93.0231	9511.472	55.343
2000/01/12	12:24:50	94.0231	9493.050	55.334
2000/01/12	13:24:50	95.0231	9472.347	55.332
2000/01/12	14:24:50	96.0231	9452.976	55.328
2000/01/12	15:24:50	97.0231	9436.907	55.326



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount at a Ward
Well Location F - 36
Date(s) of Test January 08 - 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/12	16:23:27	98.0000	9394.894	55.120
2000/01/12	17:23:27	99.0000	9376.119	55.120
2000/01/12	18:23:27	100.0000	9356.747	55.112
2000/01/12	19:23:27	101.0000	9333.922	55.111
2000/01/12	20:23:27	102.0000	9316.553	55.105
2000/01/12	21:23:27	103.0000	9299.517	55.109
2000/01/12	22:23:27	104.0000	9277.696	55.101
2000/01/12	23:23:27	105.0000	9261.599	55.099
2000/01/13	00:23:27	106.0000	9242.549	55.098
2000/01/13	01:23:27	107.0000	9222.119	55.096
2000/01/13	02:23:27	108.0000	9203.652	55.094
2000/01/13	03:23:27	109.0000	9185.677	55.090
2000/01/13	04:23:27	110.0000	9167.171	55.088
2000/01/13	05:23:27	111.0000	9148.996	55.084
2000/01/13	06:23:27	112.0000	9131.262	55.086
2000/01/13	07:23:27	113.0000	9110.472	55.083
2000/01/13	08:23:27	114.0000	9092.111	55.081
2000/01/13	09:23:27	115.0000	9074.551	55.079
Final Flow				
2000/01/13	09:55:27	115.5333	9065.220	55.077
2000/01/13	10:23:27	116.0000	11320.129	56.275
2000/01/13	11:23:27	117.0000	11700.521	56.886
2000/01/13	12:23:27	118.0000	11874.074	57.187
2000/01/13	13:23:27	119.0000	11987.633	57.369
2000/01/13	14:23:27	120.0000	12071.481	57.493
2000/01/13	15:23:27	121.0000	12134.448	57.587
2000/01/13	16:23:27	122.0000	12184.725	57.662
2000/01/13	17:23:27	123.0000	12229.214	57.732
2000/01/13	18:23:27	124.0000	12267.294	57.774
2000/01/13	19:23:27	125.0000	12303.754	57.826
2000/01/13	20:23:27	126.0000	12336.049	57.863
2000/01/13	21:23:27	127.0000	12364.718	57.901
2000/01/13	22:23:27	128.0000	12392.251	57.931
2000/01/13	23:23:27	129.0000	12419.979	57.958
2000/01/14	00:23:27	130.0000	12444.978	57.985
2000/01/14	01:23:27	131.0000	12468.304	58.006
2000/01/14	02:23:27	132.0000	12491.188	58.027
2000/01/14	03:23:27	133.0000	12512.991	58.046
2000/01/14	04:23:27	134.0000	12533.021	58.065
2000/01/14	05:23:27	135.0000	12551.701	58.081
2000/01/14	06:23:27	136.0000	12569.818	58.102
2000/01/14	07:23:27	137.0000	12587.579	58.119
2000/01/14	08:23:27	138.0000	12605.175	58.130
2000/01/14	09:23:27	139.0000	12621.021	58.144
2000/01/14	10:23:27	140.0000	12635.810	58.153
2000/01/14	11:23:27	141.0000	12650.296	58.165
2000/01/14	12:23:27	142.0000	12663.795	58.176
2000/01/14	13:23:27	143.0000	12675.720	58.186
2000/01/14	14:23:27	144.0000	12689.220	58.195
2000/01/14	15:23:27	145.0000	12701.234	58.205

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/12	16:24:50	98.0231	9420.310	55.323
2000/01/12	17:24:50	99.0231	9400.183	55.321
2000/01/12	18:24:50	100.0231	9381.490	55.319
2000/01/12	19:24:50	101.0231	9359.079	55.309
2000/01/12	20:24:50	102.0231	9339.763	55.308
2000/01/12	21:24:50	103.0231	9322.577	55.300
2000/01/12	22:24:50	104.0231	9300.901	55.294
2000/01/12	23:24:50	105.0231	9285.151	55.296
2000/01/13	00:24:50	106.0231	9265.976	55.291
2000/01/13	01:24:50	107.0231	9246.479	55.287
2000/01/13	02:24:50	108.0231	9226.896	55.285
2000/01/13	03:24:50	109.0231	9209.423	55.283
2000/01/13	04:24:50	110.0231	9190.393	55.282
2000/01/13	05:24:50	111.0231	9171.694	55.282
2000/01/13	06:24:50	112.0231	9154.598	55.284
2000/01/13	07:24:50	113.0231	9131.711	55.280
2000/01/13	08:24:50	114.0231	9113.185	55.272
2000/01/13	09:24:50	115.0231	9096.617	55.276
Final Flow				
2000/01/13	09:54:50	115.5231	9087.876	55.275
2000/01/13	10:24:50	116.0231	11347.376	56.460
2000/01/13	11:24:50	117.0231	11714.635	57.041
2000/01/13	12:24:50	118.0231	11885.754	57.322
2000/01/13	13:24:50	119.0231	11998.564	57.502
2000/01/13	14:24:50	120.0231	12081.645	57.618
2000/01/13	15:24:50	121.0231	12144.089	57.701
2000/01/13	16:24:50	122.0231	12194.109	57.766
2000/01/13	17:24:50	123.0231	12238.108	57.823
2000/01/13	18:24:50	124.0231	12276.420	57.868
2000/01/13	19:24:50	125.0231	12312.503	57.908
2000/01/13	20:24:50	126.0231	12344.839	57.944
2000/01/13	21:24:50	127.0231	12373.245	57.976
2000/01/13	22:24:50	128.0231	12401.035	58.010
2000/01/13	23:24:50	129.0231	12428.616	58.035
2000/01/14	00:24:50	130.0231	12453.643	58.052
2000/01/14	01:24:50	131.0231	12477.091	58.077
2000/01/14	02:24:50	132.0231	12500.037	58.097
2000/01/14	03:24:50	133.0231	12521.771	58.116
2000/01/14	04:24:50	134.0231	12541.822	58.135
2000/01/14	05:24:50	135.0231	12560.629	58.154
2000/01/14	06:24:50	136.0231	12578.596	58.171
2000/01/14	07:24:50	137.0231	12596.245	58.184
2000/01/14	08:24:50	138.0231	12614.143	58.203
2000/01/14	09:24:50	139.0231	12629.909	58.219
2000/01/14	10:24:50	140.0231	12644.860	58.234
2000/01/14	11:24:50	141.0231	12659.438	58.249
2000/01/14	12:24:50	142.0231	12672.943	58.260
2000/01/14	13:24:50	143.0231	12686.051	58.275
2000/01/14	14:24:50	144.0231	12698.603	58.287
2000/01/14	15:24:50	145.0231	12710.529	58.292



Company Name PARAMOUNT RESOURCES LTD
Well Name Paramount et al Laird
Well Location F - 32
Date(s) of Test January 08 - 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/14	16:23:27	146.0000	12713.056	58.217
2000/01/14	17:23:27	147.0000	12724.805	58.230
2000/01/14	18:23:27	148.0000	12735.925	58.238
2000/01/14	19:23:27	149.0000	12746.971	58.247
2000/01/14	20:23:27	150.0000	12757.474	58.253
2000/01/14	21:23:27	151.0000	12768.258	58.264
2000/01/14	22:23:27	152.0000	12778.549	58.270
2000/01/14	23:23:27	153.0000	12788.831	58.276
2000/01/15	00:23:27	154.0000	12799.237	58.282
2000/01/15	01:23:27	155.0000	12809.137	58.287
2000/01/15	02:23:27	156.0000	12818.579	58.295
2000/01/15	03:23:27	157.0000	12829.104	58.301
2000/01/15	04:23:27	158.0000	12838.052	58.306
2000/01/15	05:23:27	159.0000	12847.231	58.314
2000/01/15	06:23:27	160.0000	12855.810	58.318
2000/01/15	07:23:27	161.0000	12864.160	58.326
2000/01/15	08:23:27	162.0000	12872.415	58.329
2000/01/15	09:23:27	163.0000	12880.684	58.337
2000/01/15	10:23:27	164.0000	12888.582	58.343
2000/01/15	11:23:27	165.0000	12896.590	58.347
2000/01/15	12:23:27	166.0000	12905.852	58.356
2000/01/15	13:23:27	167.0000	12913.399	58.358
2000/01/15	14:23:27	168.0000	12921.205	58.366
2000/01/15	15:23:27	169.0000	12928.815	58.366
2000/01/15	16:23:27	170.0000	12936.914	58.375
2000/01/15	17:23:27	171.0000	12944.746	58.375
2000/01/15	18:23:27	172.0000	12952.532	58.383
2000/01/15	19:23:27	173.0000	12960.176	58.394
2000/01/15	20:23:27	174.0000	12967.578	58.402
2000/01/15	21:23:27	175.0000	12975.006	58.402
2000/01/15	22:23:27	176.0000	12982.702	58.408
2000/01/15	23:23:27	177.0000	12989.989	58.408
2000/01/16	00:23:27	178.0000	12997.382	58.413
2000/01/16	01:23:27	179.0000	13004.436	58.415
2000/01/16	02:23:27	180.0000	13011.677	58.419
2000/01/16	03:23:27	181.0000	13019.358	58.421
2000/01/16	04:23:27	182.0000	13025.937	58.425
2000/01/16	05:23:27	183.0000	13032.282	58.423
2000/01/16	06:23:27	184.0000	13038.972	58.425
2000/01/16	07:23:27	185.0000	13045.688	58.429
2000/01/16	08:23:27	186.0000	13052.246	58.433
2000/01/16	09:23:27	187.0000	13058.465	58.434
2000/01/16	10:23:27	188.0000	13065.431	58.467
2000/01/16	11:23:27	189.0000	13071.293	58.465
2000/01/16	12:23:27	190.0000	13077.221	58.473
2000/01/16	13:23:27	191.0000	13082.991	58.473
2000/01/16	14:23:27	192.0000	13088.809	58.479
2000/01/16	15:23:27	193.0000	13094.371	58.477
2000/01/16	16:23:27	194.0000	13099.904	58.482
2000/01/16	17:23:27	195.0000	13105.129	58.482

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/14	16:24:50	146.0231	12722.338	58.304
2000/01/14	17:24:50	147.0231	12733.991	58.313
2000/01/14	18:24:50	148.0231	12745.022	58.323
2000/01/14	19:24:50	149.0231	12756.115	58.332
2000/01/14	20:24:50	150.0231	12766.627	58.342
2000/01/14	21:24:50	151.0231	12777.451	58.351
2000/01/14	22:24:50	152.0231	12767.850	58.359
2000/01/14	23:24:50	153.0231	12798.251	58.366
2000/01/15	00:24:50	154.0231	12808.675	58.374
2000/01/15	01:24:50	155.0231	12818.495	58.381
2000/01/15	02:24:50	156.0231	12828.080	58.387
2000/01/15	03:24:50	157.0231	12838.518	58.393
2000/01/15	04:24:50	158.0231	12847.593	58.400
2000/01/15	05:24:50	159.0231	12856.594	58.406
2000/01/15	06:24:50	160.0231	12865.163	58.412
2000/01/15	07:24:50	161.0231	12873.592	58.419
2000/01/15	08:24:50	162.0231	12881.906	58.425
2000/01/15	09:24:50	163.0231	12890.040	58.430
2000/01/15	10:24:50	164.0231	12898.018	58.434
2000/01/15	11:24:50	165.0231	12906.073	58.442
2000/01/15	12:24:50	166.0231	12915.293	58.449
2000/01/15	13:24:50	167.0231	12922.953	58.457
2000/01/15	14:24:50	168.0231	12930.672	58.463
2000/01/15	15:24:50	169.0231	12938.370	58.464
2000/01/15	16:24:50	170.0231	12946.380	58.470
2000/01/15	17:24:50	171.0231	12954.406	58.476
2000/01/15	18:24:50	172.0231	12962.137	58.480
2000/01/15	19:24:50	173.0231	12969.521	58.485
2000/01/15	20:24:50	174.0231	12976.898	58.489
2000/01/15	21:24:50	175.0231	12984.530	58.495
2000/01/15	22:24:50	176.0231	12992.183	58.498
2000/01/15	23:24:50	177.0231	12999.602	58.502
2000/01/16	00:24:50	178.0231	13006.812	58.506
2000/01/16	01:24:50	179.0231	13014.049	58.512
2000/01/16	02:24:50	180.0231	13021.192	58.514
2000/01/16	03:24:50	181.0231	13028.929	58.519
2000/01/16	04:24:50	182.0231	13035.423	58.521
2000/01/16	05:24:50	183.0231	13042.047	58.523
2000/01/16	06:24:50	184.0231	13048.742	58.529
2000/01/16	07:24:50	185.0231	13055.419	58.532
2000/01/16	08:24:50	186.0231	13061.924	58.536
2000/01/16	09:24:50	187.0231	13068.221	58.540
2000/01/16	10:24:50	188.0231	13074.475	58.544
2000/01/16	11:24:50	189.0231	13080.299	58.544
2000/01/16	12:24:50	190.0231	13086.220	58.549
2000/01/16	13:24:50	191.0231	13092.011	58.551
2000/01/16	14:24:50	192.0231	13097.870	58.555
2000/01/16	15:24:50	193.0231	13103.626	58.559
2000/01/16	16:24:50	194.0231	13109.132	58.563
2000/01/16	17:24:50	195.0231	13114.316	58.565



Company Name PARAMOUNT RESOURCES LTD.
Well Name Paramount et al. L141.3
Well Location F - 36
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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/16	18:23:27	196.0000	13110.419	58.488
2000/01/16	19:23:27	197.0000	13115.269	58.486
2000/01/16	20:23:27	198.0000	13120.185	58.494
2000/01/16	21:23:27	199.0000	13124.856	58.492
2000/01/16	22:23:27	200.0000	13129.459	58.494
2000/01/16	23:23:27	201.0000	13134.096	58.498
2000/01/17	00:23:27	202.0000	13138.723	58.500
2000/01/17	01:23:27	203.0000	13143.058	58.500
2000/01/17	02:23:27	204.0000	13147.468	58.503
2000/01/17	03:23:27	205.0000	13151.771	58.505
2000/01/17	04:23:27	206.0000	13155.810	58.507
2000/01/17	05:23:27	207.0000	13159.826	58.509
2000/01/17	06:23:27	208.0000	13163.785	58.511
2000/01/17	07:23:27	209.0000	13167.845	58.513
2000/01/17	08:23:27	210.0000	13172.604	58.517
2000/01/17	09:23:27	211.0000	13176.649	58.521
2000/01/17	10:23:27	212.0000	13180.883	58.521
2000/01/17	11:23:27	213.0000	13185.269	58.522
2000/01/17	12:23:27	214.0000	13189.713	58.524
2000/01/17	13:23:27	215.0000	13194.084	58.528
2000/01/17	14:23:27	216.0000	13197.951	58.528
2000/01/17	15:23:27	217.0000	13202.093	58.530
2000/01/17	16:23:27	218.0000	13206.193	58.532
2000/01/17	17:23:27	219.0000	13210.291	58.534
2000/01/17	18:23:27	220.0000	13214.412	58.536
2000/01/17	19:23:27	221.0000	13218.392	58.538
2000/01/17	20:23:27	222.0000	13222.411	58.540
2000/01/17	21:23:27	223.0000	13226.400	58.540
2000/01/17	22:23:27	224.0000	13230.315	58.542
2000/01/17	23:23:27	225.0000	13234.237	58.543
2000/01/18	00:23:27	226.0000	13238.166	58.547
2000/01/18	01:23:27	227.0000	13241.982	58.545
2000/01/18	02:23:27	228.0000	13245.901	58.547
2000/01/18	03:23:27	229.0000	13249.767	58.551
2000/01/18	04:23:27	230.0000	13253.554	58.551
2000/01/18	05:23:27	231.0000	13257.330	58.553
2000/01/18	06:23:27	232.0000	13261.208	58.555
2000/01/18	07:23:27	233.0000	13264.902	58.557
2000/01/18	08:23:27	234.0000	13268.679	58.559
2000/01/18	09:23:27	235.0000	13272.415	58.561
2000/01/18	10:23:27	236.0000	13275.959	58.561
2000/01/18	11:23:27	237.0000	13279.676	58.563
2000/01/18	12:23:27	238.0000	13283.229	58.564
2000/01/18	13:23:27	239.0000	13286.814	58.568
2000/01/18	14:23:27	240.0000	13290.389	58.570
2000/01/18	15:23:27	241.0000	13293.841	58.572
2000/01/18	16:23:27	242.0000	13297.496	58.574
2000/01/18	17:23:27	243.0000	13301.000	58.574
2000/01/18	18:23:27	244.0000	13304.473	58.576
2000/01/18	19:23:27	245.0000	13307.885	58.578

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/16	18:24:50	196.0231	13119.573	58.568
2000/01/16	19:24:50	197.0231	13124.580	58.572
2000/01/16	20:24:50	198.0231	13129.343	58.572
2000/01/16	21:24:50	199.0231	13133.990	58.574
2000/01/16	22:24:50	200.0231	13138.675	58.576
2000/01/16	23:24:50	201.0231	13143.240	58.578
2000/01/17	00:24:50	202.0231	13147.832	58.582
2000/01/17	01:24:50	203.0231	13152.199	58.581
2000/01/17	02:24:50	204.0231	13156.583	58.585
2000/01/17	03:24:50	205.0231	13160.956	58.587
2000/01/17	04:24:50	206.0231	13165.060	58.593
2000/01/17	05:24:50	207.0231	13168.907	58.593
2000/01/17	06:24:50	208.0231	13173.091	58.599
2000/01/17	07:24:50	209.0231	13177.104	58.599
2000/01/17	08:24:50	210.0231	13182.028	58.602
2000/01/17	09:24:50	211.0231	13185.730	58.602
2000/01/17	10:24:50	212.0231	13190.053	58.606
2000/01/17	11:24:50	213.0231	13194.504	58.606
2000/01/17	12:24:50	214.0231	13198.951	58.614
2000/01/17	13:24:50	215.0231	13203.285	58.612
2000/01/17	14:24:50	216.0231	13207.262	58.617
2000/01/17	15:24:50	217.0231	13211.380	58.617
2000/01/17	16:24:50	218.0231	13215.599	58.621
2000/01/17	17:24:50	219.0231	13219.593	58.621
2000/01/17	18:24:50	220.0231	13223.658	58.623
2000/01/17	19:24:50	221.0231	13227.803	58.625
2000/01/17	20:24:50	222.0231	13231.785	58.627
2000/01/17	21:24:50	223.0231	13235.817	58.631
2000/01/17	22:24:50	224.0231	13239.665	58.631
2000/01/17	23:24:50	225.0231	13243.521	58.632
2000/01/18	00:24:50	226.0231	13247.607	58.634
2000/01/18	01:24:50	227.0231	13251.419	58.636
2000/01/18	02:24:50	228.0231	13255.340	58.638
2000/01/18	03:24:50	229.0231	13259.237	58.640
2000/01/18	04:24:50	230.0231	13263.041	58.644
2000/01/18	05:24:50	231.0231	13266.836	58.646
2000/01/18	06:24:50	232.0231	13270.731	58.648
2000/01/18	07:24:50	233.0231	13274.485	58.649
2000/01/18	08:24:50	234.0231	13278.175	58.651
2000/01/18	09:24:50	235.0231	13281.920	58.655
2000/01/18	10:24:50	236.0231	13285.546	58.657
2000/01/18	11:24:50	237.0231	13289.229	58.657
2000/01/18	12:24:50	238.0231	13292.925	58.661
2000/01/18	13:24:50	239.0231	13296.431	58.663
2000/01/18	14:24:50	240.0231	13299.881	58.663
2000/01/18	15:24:50	241.0231	13303.448	58.665
2000/01/18	16:24:50	242.0231	13307.013	58.666
2000/01/18	17:24:50	243.0231	13310.622	58.668
2000/01/18	18:24:50	244.0231	13313.951	58.668
2000/01/18	19:24:50	245.0231	13317.450	58.670



Company Name PARAMOUNT RESOURCES LTD.
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Well Location F - 02
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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/18	20:23:27	246.0000	13311.448	58.582
2000/01/18	21:23:27	247.0000	13314.729	58.582
2000/01/18	22:23:27	248.0000	13318.090	58.582
2000/01/18	23:23:27	249.0000	13321.557	58.586
2000/01/19	00:23:27	250.0000	13324.918	58.586
2000/01/19	01:23:27	251.0000	13328.338	58.586
2000/01/19	02:23:27	252.0000	13331.691	58.587
2000/01/19	03:23:27	253.0000	13335.095	58.587
2000/01/19	04:23:27	254.0000	13338.456	58.591
2000/01/19	05:23:27	255.0000	13341.950	58.593
2000/01/19	06:23:27	256.0000	13345.332	58.593
2000/01/19	07:23:27	257.0000	13348.674	58.593
2000/01/19	08:23:27	258.0000	13352.004	58.595
2000/01/19	09:23:27	259.0000	13355.315	58.597
2000/01/19	10:23:27	260.0000	13358.606	58.595
2000/01/19	11:23:27	261.0000	13362.262	58.605
2000/01/19	12:23:27	262.0000	13365.759	58.610
2000/01/19	13:23:27	263.0000	13369.251	58.616
2000/01/19	14:23:27	264.0000	13372.411	58.612
2000/01/19	15:23:27	265.0000	13375.783	58.618
2000/01/19	16:23:27	266.0000	13378.953	58.616
2000/01/19	17:23:27	267.0000	13382.375	58.620
2000/01/19	18:23:27	268.0000	13385.708	58.618
2000/01/19	19:23:27	269.0000	13389.200	58.624
2000/01/19	20:23:27	270.0000	13392.482	58.620
2000/01/19	21:23:27	271.0000	13395.956	58.626
2000/01/19	22:23:27	272.0000	13399.146	58.624
2000/01/19	23:23:27	273.0000	13402.426	58.624
2000/01/20	00:23:27	274.0000	13405.880	58.626
2000/01/20	01:23:27	275.0000	13409.242	58.626
2000/01/20	02:23:27	276.0000	13412.496	58.628
2000/01/20	03:23:27	277.0000	13415.930	58.629
2000/01/20	04:23:27	278.0000	13419.252	58.629
2000/01/20	05:23:27	279.0000	13422.604	58.631
2000/01/20	06:23:27	280.0000	13425.926	58.631
2000/01/20	07:23:27	281.0000	13429.257	58.633
2000/01/20	08:23:27	282.0000	13432.508	58.635
2000/01/20	09:23:27	283.0000	13435.749	58.635
2000/01/20	10:23:27	284.0000	13439.061	58.637
2000/01/20	11:23:27	285.0000	13442.341	58.637
2000/01/20	12:23:27	286.0000	13445.663	58.637
2000/01/20	13:23:27	287.0000	13448.976	58.639
2000/01/20	14:23:27	288.0000	13452.368	58.641
2000/01/20	15:23:27	289.0000	13455.740	58.643
2000/01/20	16:23:27	290.0000	13459.011	58.645
2000/01/20	17:23:27	291.0000	13462.121	58.643
2000/01/20	18:23:27	292.0000	13465.411	58.645
2000/01/20	19:23:27	293.0000	13468.814	58.645
2000/01/20	20:23:27	294.0000	13471.975	58.645
2000/01/20	21:23:27	295.0000	13475.063	58.647

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/18	20:24:50	246.0231	13320.914	58.672
2000/01/18	21:24:50	247.0231	13324.271	58.674
2000/01/18	22:24:50	248.0231	13327.661	58.674
2000/01/18	23:24:50	249.0231	13331.146	58.676
2000/01/19	00:24:50	250.0231	13334.504	58.678
2000/01/19	01:24:50	251.0231	13337.884	58.680
2000/01/19	02:24:50	252.0231	13341.362	58.682
2000/01/19	03:24:50	253.0231	13344.870	58.682
2000/01/19	04:24:50	254.0231	13348.184	58.685
2000/01/19	05:24:50	255.0231	13351.554	58.685
2000/01/19	06:24:50	256.0231	13354.861	58.685
2000/01/19	07:24:50	257.0231	13358.271	58.689
2000/01/19	08:24:50	258.0231	13361.605	58.691
2000/01/19	09:24:50	259.0231	13364.997	58.691
2000/01/19	10:24:50	260.0231	13368.438	58.693
2000/01/19	11:24:50	261.0231	13371.797	58.695
2000/01/19	12:24:50	262.0231	13375.156	58.697
2000/01/19	13:24:50	263.0231	13378.505	58.697
2000/01/19	14:24:50	264.0231	13381.739	58.698
2000/01/19	15:24:50	265.0231	13385.099	58.700
2000/01/19	16:24:50	266.0231	13388.359	58.700
2000/01/19	17:24:50	267.0231	13391.729	58.700
2000/01/19	18:24:50	268.0231	13395.131	58.702
2000/01/19	19:24:50	269.0231	13398.552	58.704
2000/01/19	20:24:50	270.0231	13401.953	58.706
2000/01/19	21:24:50	271.0231	13405.208	58.708
2000/01/19	22:24:50	272.0231	13408.630	58.710
2000/01/19	23:24:50	273.0231	13411.979	58.710
2000/01/20	00:24:50	274.0231	13415.375	58.712
2000/01/20	01:24:50	275.0231	13418.692	58.714
2000/01/20	02:24:50	276.0231	13421.989	58.715
2000/01/20	03:24:50	277.0231	13425.359	58.715
2000/01/20	04:24:50	278.0231	13428.709	58.715
2000/01/20	05:24:50	279.0231	13432.100	58.719
2000/01/20	06:24:50	280.0231	13435.376	58.717
2000/01/20	07:24:50	281.0231	13438.803	58.721
2000/01/20	08:24:50	282.0231	13442.006	58.721
2000/01/20	09:24:50	283.0231	13445.335	58.725
2000/01/20	10:24:50	284.0231	13448.633	58.723
2000/01/20	11:24:50	285.0231	13451.877	58.727
2000/01/20	12:24:50	286.0231	13455.134	58.725
2000/01/20	13:24:50	287.0231	13458.628	58.729
2000/01/20	14:24:50	288.0231	13461.812	58.729
2000/01/20	15:24:50	289.0231	13465.238	58.732
2000/01/20	16:24:50	290.0231	13468.442	58.732
2000/01/20	17:24:50	291.0231	13471.719	58.734
2000/01/20	18:24:50	292.0231	13474.850	58.732
2000/01/20	19:24:50	293.0231	13478.438	58.734
2000/01/20	20:24:50	294.0231	13481.549	58.736
2000/01/20	21:24:50	295.0231	13484.564	58.736



Company Name PARAMOUNT RESOURCES LTD.
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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/20	22:23:27	296.0000	13478.082	58.647
2000/01/20	23:23:27	297.0000	13481.141	58.647
2000/01/21	00:23:27	298.0000	13484.290	58.649
2000/01/21	01:23:27	299.0000	13487.349	58.649
2000/01/21	02:23:27	300.0000	13490.427	58.649
2000/01/21	03:23:27	301.0000	13493.473	58.649
2000/01/21	04:23:27	302.0000	13496.562	58.650
2000/01/21	05:23:27	303.0000	13499.622	58.650
2000/01/21	06:23:27	304.0000	13502.722	58.650
2000/01/21	07:23:27	305.0000	13505.663	58.650
2000/01/21	08:23:27	306.0000	13505.582	58.637
Final Buildup				
2000/01/21	08:39:27	306.2687	13508.914	58.627
2000/01/21	09:23:27	307.0000	0.000	0.074

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/20	22:24:50	296.0231	13487.634	58.738
2000/01/20	23:24:50	297.0231	13490.905	58.740
2000/01/21	00:24:50	298.0231	13493.941	58.740
2000/01/21	01:24:50	299.0231	13496.938	58.740
2000/01/21	02:24:50	300.0231	13500.143	58.744
2000/01/21	03:24:50	301.0231	13503.283	58.744
2000/01/21	04:24:50	302.0231	13506.269	58.745
2000/01/21	05:24:50	303.0231	13509.410	58.745
2000/01/21	06:24:50	304.0231	13512.375	58.747
2000/01/21	07:24:50	305.0231	13515.382	58.747
2000/01/21	08:24:50	306.0231	13515.715	58.709
Final Buildup				
2000/01/21	08:52:50	306.4897	13514.824	58.656

N.E.B. COPY



**Baker Atlas
SLICKLINE DIVISION**

Pressure Test Report

COMPANY INFORMATION

Company Name	PARAMOUNT RESOURCES LIMITED
Representative	Mr. Terry Stasiuk
Phone	# 266 - 2047
Fax	# 262 - 7944
Address	4000, 350 - 7th Avenue S.W., Calgary, Alberta T2P - 3W3
E-Mail Address	hkib@telusplanet.com
Service Company	Baker Atlas Slickline Division

WELL INFORMATION

Well Name	Paramount et al liard
Well Location	F - 36
Field and Pool	Liard -
Status (Oil, Gas, Water, Injection)	Gaswell
Perforated Intervals	1508.5 - 1522.5 mCF
Mid-point of Perforated Intervals (MPP)	1515.5 mCF
Drilling Rig Number	N/A
Elevations	
Kelly Bushing (KB)	470.3 m
Casing Flange (CF)	464.8 m
KB-CF	5.5 mCF
Ground Level	N/A
Plug Back Total Depth	N/A
Total Depth	N/A
Production Casing	177.8 mm
Production Tubing	88.9 mm

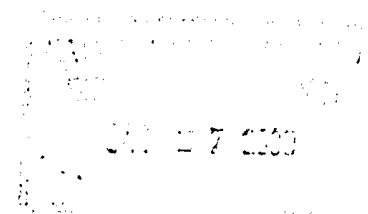
TEST INFORMATION

Test Number / Type of Test	Static Gradient
Date(s) of Test	January 21/00
Dead-weight Gauge Tubing Pressure	11800.0 kPa
Dead-weight Gauge Casing Pressure	0.0 kPa
Shut-in Date (Duration)	N/A
Date / Time on Bottom	January 21/00 @ 10:56.
Date / Time off Bottom	January 21/00 @ 11:06.

Probe Serial Number	P53 (TOP)	P80 (BOTTOM)
Probe Offset from End of Tool String	1.19 mCF	0.11 mCF
Run Depth at Probe Pressure Port	1514.31 mCF	1515.39

PRESSURE TEST RESULTS

Maximum Recorded Probe Pressure	13512.88 kPag	13525.69 kPag
Maximum Recorded Probe Temperature	58.01 deg C	58.17 deg C
Final Buildup Pressure	N/A	N/A
Gradient Survey Information		
Extrapolated Pressure to MPP	13513.441 kPa	13516.744 kPa
Final Gradient at Depth	0.9910 kPag/m	0.4350 kPag/m
Job Number	N/A	





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LIMITED
Paramount et al hard
F - 38
January 21/00



PROBE INFORMATION

Probe Serial Number P53 (TOP)
Model Level II
Pressure
 Calibrated Pressure Range 0.0 - 41370 kPag
 Accuracy 0.05% FS
 Resolution 0.0015% FS
Temperature
 Calibrated Temperature Range -20.6 - 123.5 deg C
 Accuracy 0.25% FS
 Resolution 0.002% FS
Calibration File Used for Reports P53MR12A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	30 seconds	Test mode
1	Overrun	15 seconds	end of memory	Fill remaining memory

Program Start Time Jan 21/2000 @ 09:49:47
Program End Time Jan 21/2000 @ 11:35:17
Total Samples Taken 423
Usage for this Test 0.0370 Ah
Generic Data File Name P53JA21B.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LIMITED
Paramount et al herd
F - 36
January 21/00



PROBE INFORMATION

Probe Serial Number	P80 (BOTTOM)
Model	Level II
Pressure	
Calibrated Pressure Range	0.0 - 41370 kPag
Accuracy	0.05% FS
Resolution	0.0015% FS
Temperature	
Calibrated Temperature Range	-21.2 - 123.4 deg C
Accuracy	0.25% FS
Resolution	0.002% FS
Calibration File Used for Reports	P80MR03A.CAL

PROGRAMMING DETAILS

<u>Step</u>	<u>Sample Mode</u>	<u>Period</u>	<u>Duration</u>	<u>Comment</u>
0	Pause	5 seconds	30 seconds	Test mode
1	Overrun	15 seconds	end of memory	Fill remaining memory

Program Start Time	Jan 21/2000 @ 09:51:34
Program End Time	Jan 21/2000 @ 11:33:49
Total Samples Taken	410
Usage for this Test	0.0360 Ah
Generic Data File Name	P80JA21B.GEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LIMITED
Paramount at aird
F-36
January 21/00



COMMENTS

Reported By

JIM O'KEEFE

SURVEYED BY: DALE GOERTZEN



Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LIMITED
Paramount et al land
F - 36
January 21/00



Pressure vs. Depth

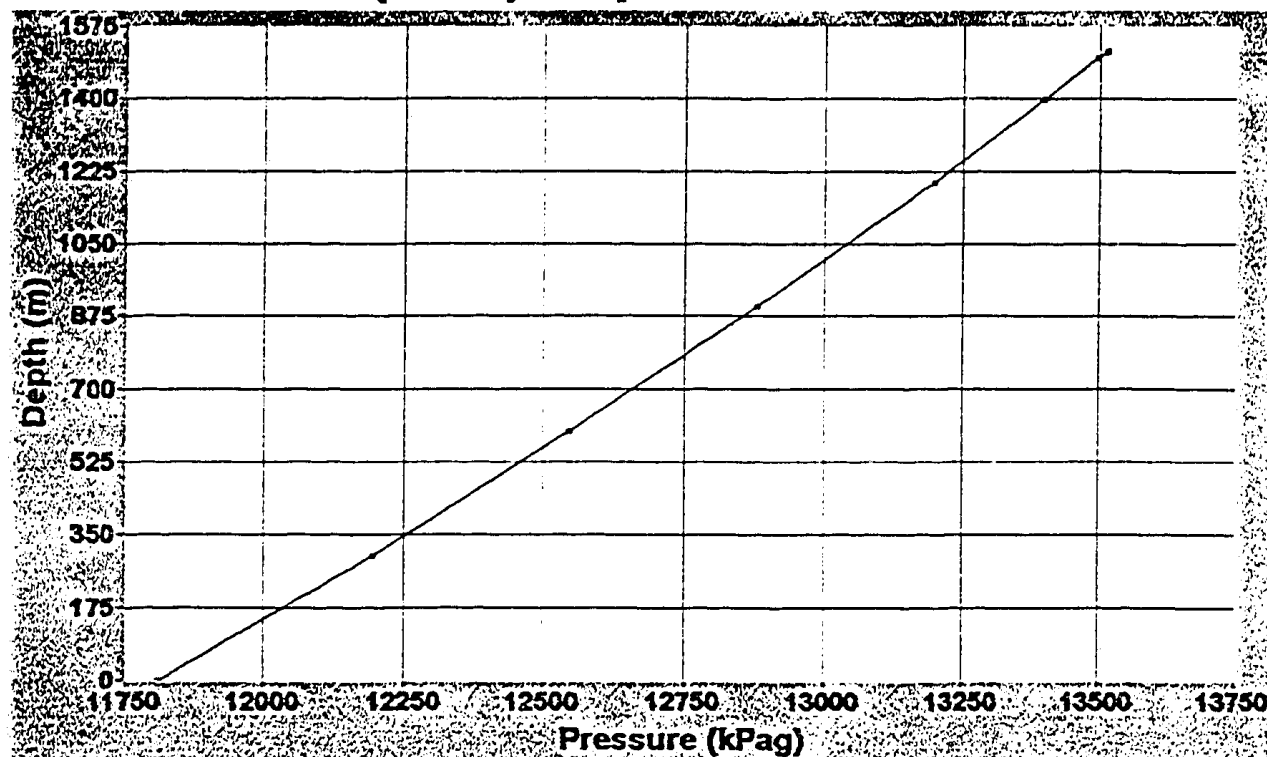
Probe Serial Number P53 (TOP)

Stop Time From	Stop Time To	Depth (m)	Pressure (kPag)	Gradient (kPag/m)
09:58	10:03	-1.190	11810.084	-
10:08	10:13	298.810	12193.294	1.2774
10:17	10:22	598.810	12545.610	1.1744
10:26	10:31	898.810	12880.107	1.1150
10:35	10:40	1198.810	13197.221	1.0570
10:43	10:48	1398.810	13397.167	0.9997
10:50	10:55	1498.810	13496.901	0.9973
10:56	11:06	1514.310	13512.262	0.9910

Extrapolated MPP Pressure:

1515.500 13513.441

P53 (TOP) Depth vs. Pressure





Company Name
Well Name
Well Location
Date(s) of Test

PARAMOUNT RESOURCES LIMITED
Paramount et al hard
F - 38
January 21/00



Pressure vs. Depth

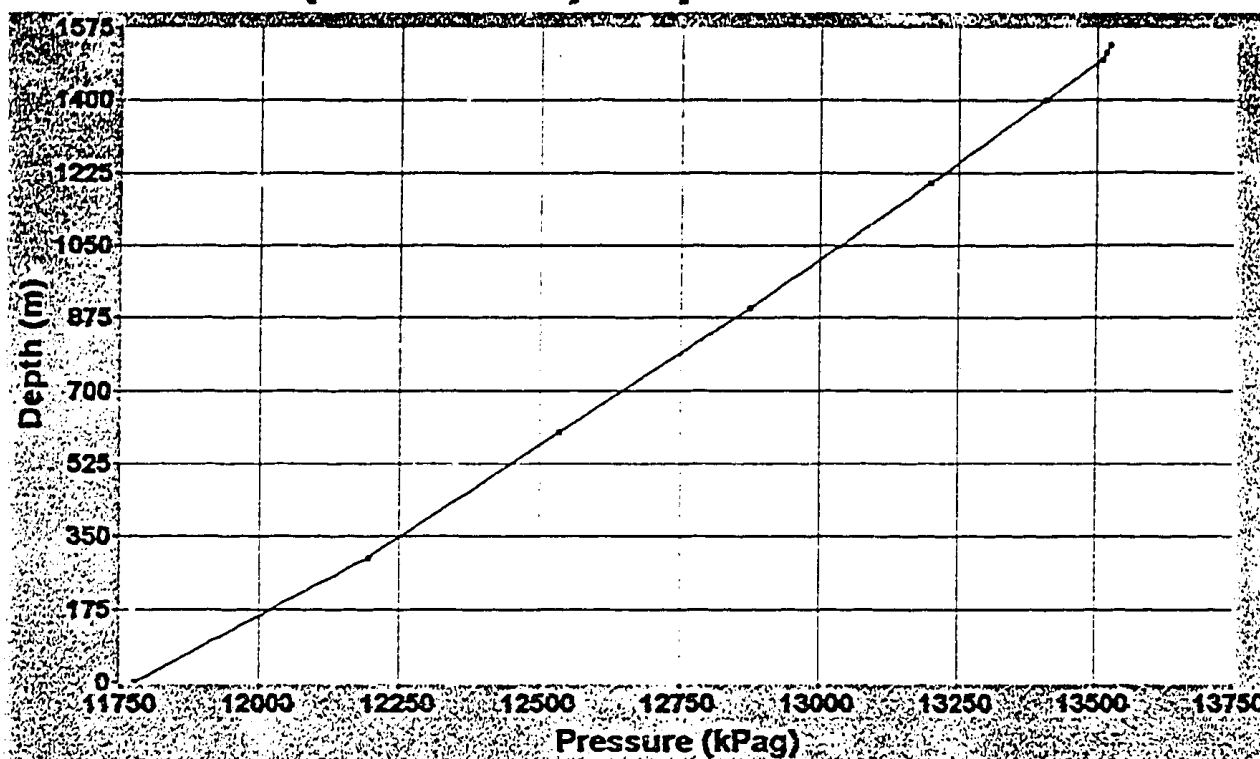
Probe Serial Number P80 (BOTTOM)

Stop Time From	Stop Time To	(m)	(kPag)	(kPag/m)
09:58	10:03	-0.110	11776.996	-
10:08	10:13	299.890	12196.292	1.3977
10:17	10:22	599.890	12533.315	1.1234
10:26	10:31	899.890	12875.857	1.1418
10:35	10:40	1199.890	13199.689	1.0794
10:43	10:48	1399.890	13406.562	1.0344
10:50	10:55	1499.890	13509.953	1.0339
10:56	11:06	1535.390	13525.396	0.4350

Extrapolated MPP Pressure:

1515.500 13516.744

P80 (BOTTOM) Depth vs. Pressure

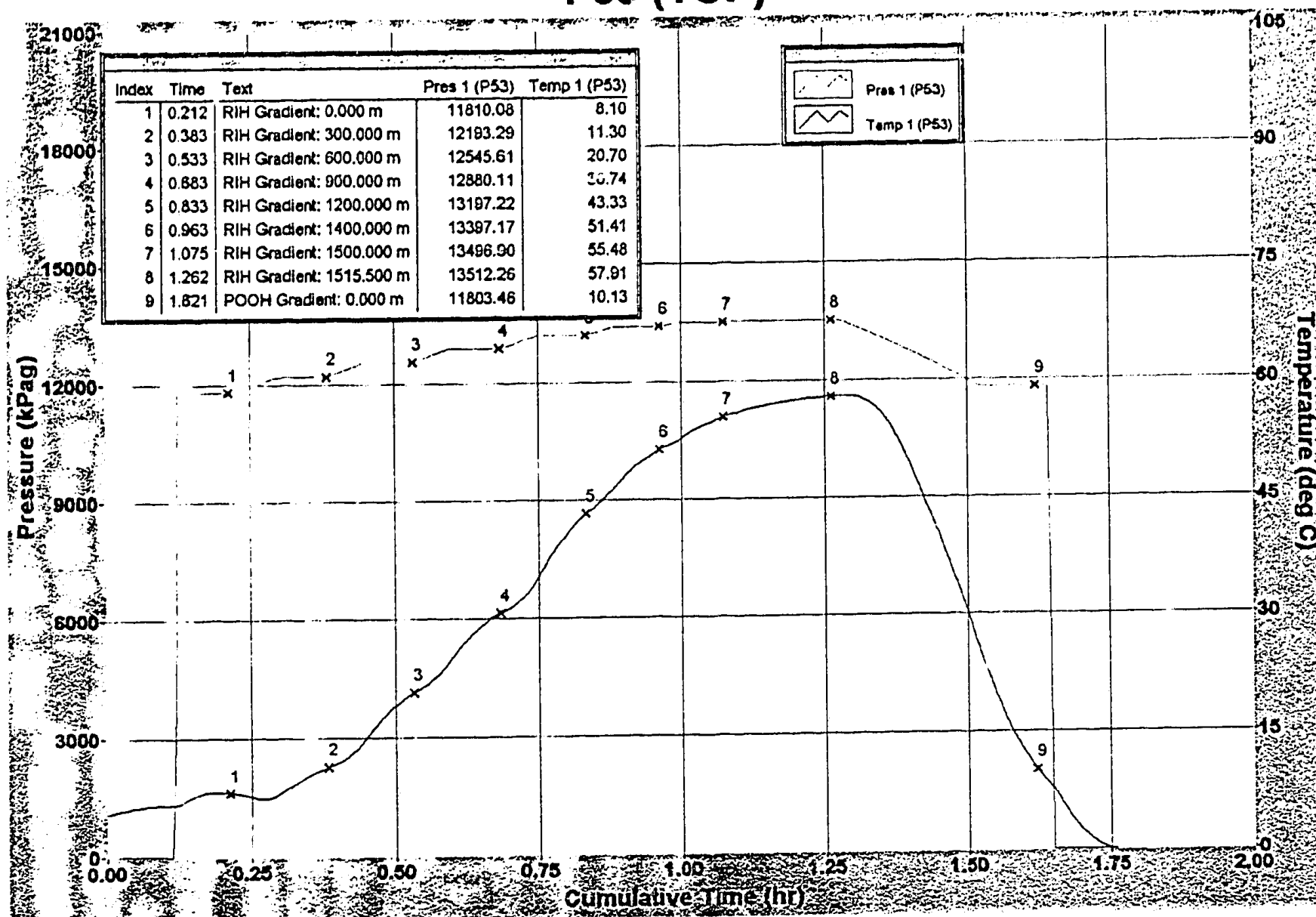




Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount et al lard
Well Location F - 38
Date(s) of Test January 21/00



P53 (TOP)

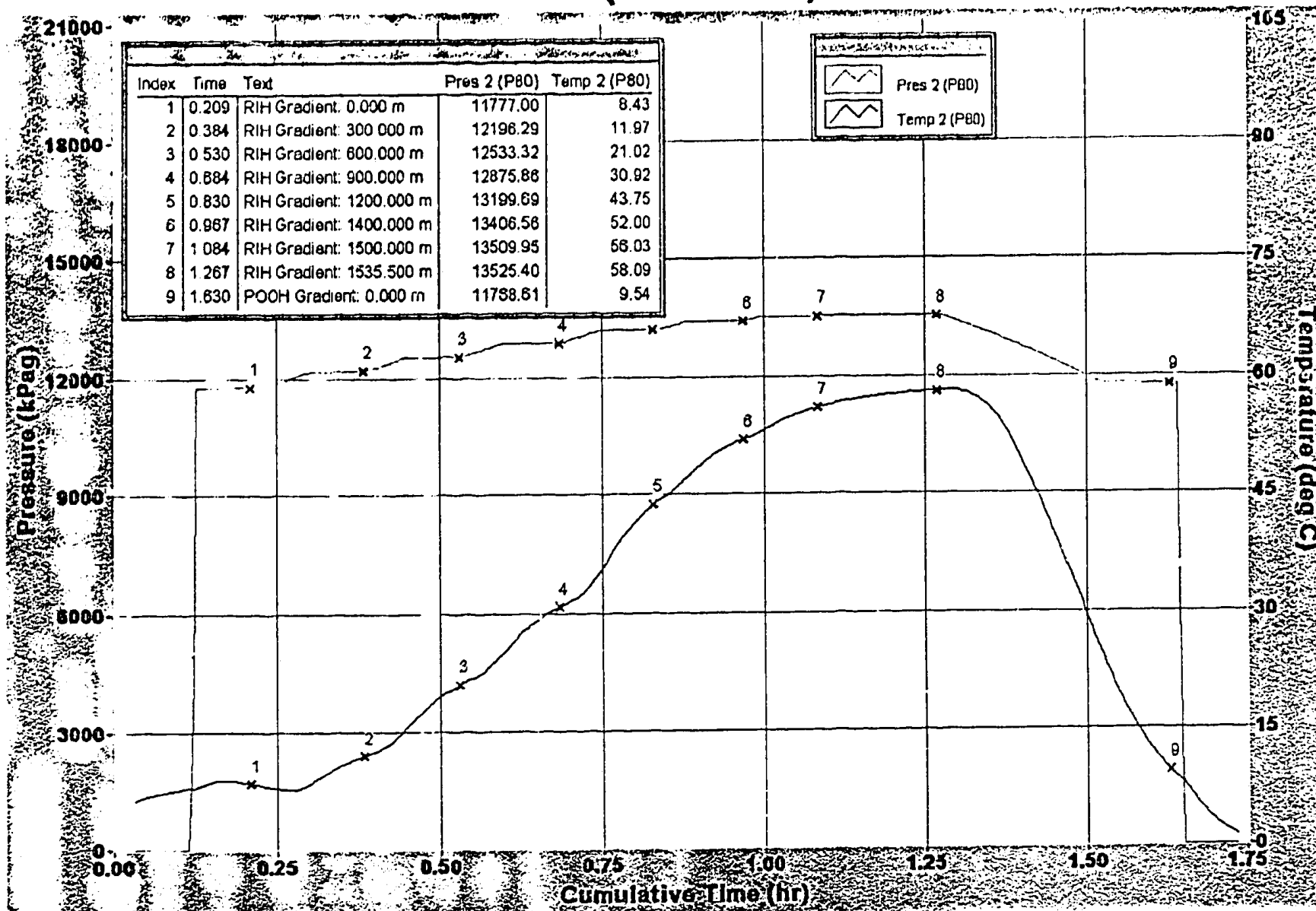




Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount at Alford
Well Location F-53
Date(s) of Test January 21/00



P80 (BOTTOM)

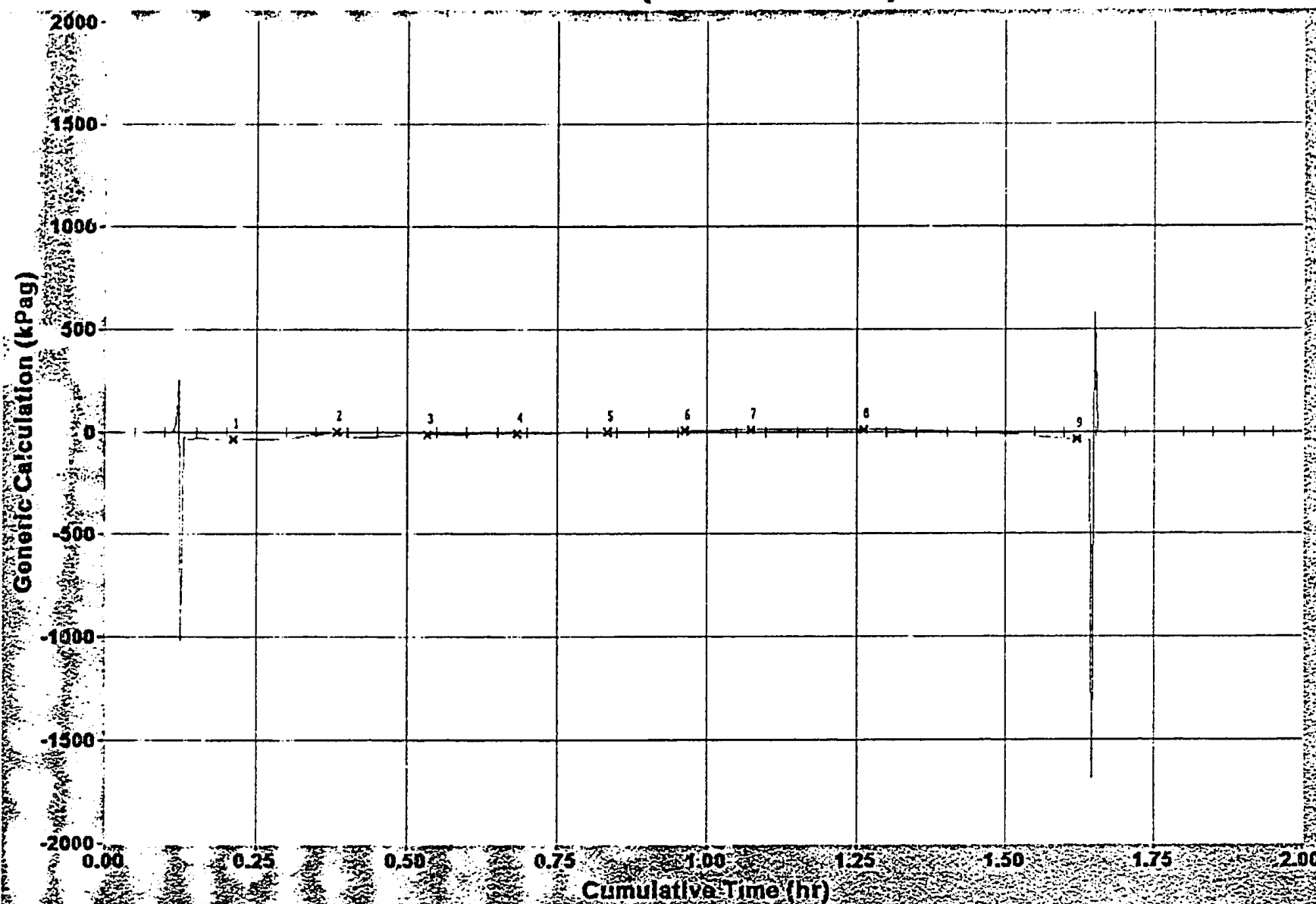




Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount et al iard
Well Location F - 38
Date(s) of Test January 21/00



P53 - P80 (DEVIATION)





Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount et al hard
Well Location F - 38
Date(s) of Test January 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	09:49:47	0.0000	0.000	5.396
2000/01/21	09:50:02	0.0042	0.000	5.447
2000/01/21	09:50:32	0.0125	0.000	5.638
2000/01/21	09:50:47	0.0167	0.000	5.684
2000/01/21	09:51:17	0.0250	0.000	5.786
2000/01/21	09:51:32	0.0292	0.000	5.777
2000/01/21	09:52:02	0.0375	0.000	5.977
2000/01/21	09:52:32	0.0458	0.000	6.147
2000/01/21	09:53:02	0.0542	0.000	6.232
2000/01/21	09:53:17	0.0583	0.000	6.325
2000/01/21	09:53:47	0.0667	0.000	6.387
2000/01/21	09:54:02	0.0708	0.000	6.464
2000/01/21	09:54:32	0.0792	0.000	6.449
2000/01/21	09:54:47	0.0833	0.000	6.473
2000/01/21	09:55:02	0.0875	0.000	6.567
2000/01/21	09:55:17	0.0917	0.000	6.580
2000/01/21	09:55:47	0.1000	0.000	6.609
2000/01/21	09:56:17	0.1083	0.000	6.605
2000/01/21	09:56:32	0.1125	0.000	6.632
2000/01/21	09:56:47	0.1167	1491.251	6.599
2000/01/21	09:57:17	0.1250	11772.045	6.698
2000/01/21	09:58:02	0.1375	11792.671	7.139
2000/01/21	09:58:32	0.1458	11800.194	7.506
2000/01/21	09:59:02	0.1542	11803.513	7.789
2000/01/21	09:59:47	0.1667	11806.515	8.075
2000/01/21	10:00:17	0.1750	11807.391	8.162
2000/01/21	10:00:47	0.1833	11808.091	8.200
2000/01/21	10:01:32	0.1958	11808.914	8.191
2000/01/21	10:02:02	0.2042	11809.681	8.156
RIH Gradient: 0.000 m				
2000/01/21	10:02:32	0.2125	11810.084	8.096
2000/01/21	10:03:17	0.2250	11823.624	7.969
2000/01/21	10:03:47	0.2333	11849.753	7.921
2000/01/21	10:04:02	0.2375	11861.401	7.865
2000/01/21	10:04:32	0.2458	11895.526	7.730
2000/01/21	10:04:47	0.2500	11914.518	7.679
2000/01/21	10:05:17	0.2583	11958.477	7.550
2000/01/21	10:05:32	0.2625	11980.554	7.448
2000/01/21	10:05:47	0.2667	12007.452	7.431
2000/01/21	10:06:17	0.2750	12063.400	7.396
2000/01/21	10:06:32	0.2792	12091.953	7.449
2000/01/21	10:07:02	0.2875	12148.097	7.606
2000/01/21	10:07:17	0.2917	12175.602	7.715
2000/01/21	10:07:47	0.3000	12188.148	8.037
2000/01/21	10:08:02	0.3042	12188.611	8.227
2000/01/21	10:08:32	0.3125	12189.990	8.644
2000/01/21	10:09:02	0.3208	12191.208	9.042
2000/01/21	10:09:32	0.3292	12192.198	9.425
2000/01/21	10:09:47	0.3333	12192.649	9.614
2000/01/21	10:10:17	0.3417	12192.887	9.947

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/21	09:51:34	0.0297	0.000	6.315
2000/01/21	09:51:49	0.0339	0.000	6.367
2000/01/21	09:52:19	0.0422	0.000	6.530
2000/01/21	09:52:34	0.0464	0.000	6.685
2000/01/21	09:53:04	0.0547	0.000	6.890
2000/01/21	09:53:19	0.0589	0.000	6.981
2000/01/21	09:53:49	0.0672	0.000	7.137
2000/01/21	09:54:04	0.0714	0.000	7.196
2000/01/21	09:54:49	0.0839	0.000	7.432
2000/01/21	09:55:34	0.0964	0.000	7.629
2000/01/21	09:56:04	0.1047	0.000	7.789
2000/01/21	09:56:19	0.1089	0.000	7.853
2000/01/21	09:56:49	0.1172	1770.677	7.872
2000/01/21	09:57:19	0.1256	11738.412	7.909
2000/01/21	09:57:49	0.1339	11756.582	8.172
2000/01/21	09:58:04	0.1381	11761.993	8.318
2000/01/21	09:58:34	0.1464	11769.170	8.593
2000/01/21	09:58:49	0.1506	11771.725	8.709
2000/01/21	09:59:19	0.1589	11774.322	8.840
2000/01/21	09:59:34	0.1631	11775.232	8.875
2000/01/21	10:00:04	0.1714	11776.059	8.881
2000/01/21	10:00:34	0.1797	11776.459	8.835
2000/01/21	10:01:19	0.1922	11776.807	8.692
2000/01/21	10:01:49	0.2006	11776.950	8.569
2000/01/21	10:02:04	0.2047	11776.964	8.500
RIH Gradient: 0.000 m				
2000/01/21	10:02:19	0.2089	11776.996	8.432
2000/01/21	10:02:34	0.2131	11777.020	8.362
2000/01/21	10:02:49	0.2172	11777.051	8.290
2000/01/21	10:03:19	0.2256	11792.743	8.153
2000/01/21	10:03:49	0.2339	11817.428	8.052
2000/01/21	10:04:19	0.2422	11846.299	7.927
2000/01/21	10:04:34	0.2464	11864.709	7.862
2000/01/21	10:05:04	0.2547	11903.485	7.730
2000/01/21	10:05:19	0.2589	11926.768	7.679
2000/01/21	10:05:49	0.2672	11976.770	7.637
2000/01/21	10:06:04	0.2714	12004.920	7.650
2000/01/21	10:06:49	0.2839	12089.446	7.846
2000/01/21	10:07:19	0.2922	12144.363	8.109
2000/01/21	10:07:34	0.2964	12153.104	8.286
2000/01/21	10:08:04	0.3047	12156.852	8.709
2000/01/21	10:08:19	0.3089	12159.855	8.933
2000/01/21	10:08:49	0.3172	12166.400	9.379
2000/01/21	10:09:04	0.3214	12170.006	9.591
2000/01/21	10:09:34	0.3297	12175.621	9.997
2000/01/21	10:10:04	0.3381	12179.920	10.370
2000/01/21	10:10:34	0.3464	12183.360	10.715
2000/01/21	10:10:49	0.3506	12176.235	10.880
2000/01/21	10:11:34	0.3631	12187.806	11.331
2000/01/21	10:12:04	0.3714	12191.524	11.605



Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount et al hard
Well Location F - 38
Date(s) of Test January 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	10:10:32	0.3458	12192.213	10.078
2000/01/21	10:10:47	0.3500	12192.925	10.254
2000/01/21	10:11:17	0.3583	12193.205	10.549
2000/01/21	10:11:47	0.3667	12193.435	10.826
2000/01/21	10:12:17	0.3750	12193.178	11.062
2000/01/21	10:12:32	0.3792	12193.222	11.178
RIH Gradient: 300.000 m				
2000/01/21	10:12:47	0.3833	12193.294	11.297
2000/01/21	10:13:02	0.3875	12205.793	11.442
2000/01/21	10:13:32	0.3958	12251.597	11.684
2000/01/21	10:14:02	0.4042	12296.784	11.957
2000/01/21	10:14:17	0.4083	12319.236	12.137
2000/01/21	10:14:47	0.4167	12367.255	12.563
2000/01/21	10:15:17	0.4250	12416.867	13.091
2000/01/21	10:15:47	0.4333	12468.633	13.651
2000/01/21	10:16:02	0.4375	12495.179	13.963
2000/01/21	10:16:32	0.4458	12540.267	14.623
2000/01/21	10:17:17	0.4583	12541.742	15.782
2000/01/21	10:17:47	0.4667	12542.691	16.516
2000/01/21	10:18:02	0.4708	12543.159	16.875
2000/01/21	10:18:32	0.4792	12544.370	17.563
2000/01/21	10:19:02	0.4875	12544.710	18.166
2000/01/21	10:19:32	0.4958	12545.012	18.722
2000/01/21	10:19:47	0.5000	12545.245	18.989
2000/01/21	10:20:17	0.5083	12544.900	19.461
2000/01/21	10:20:32	0.5125	12545.492	19.705
2000/01/21	10:21:02	0.5208	12545.888	20.144
2000/01/21	10:21:17	0.5250	12545.914	20.342
RIH Gradient: 600.000 m				
2000/01/21	10:21:47	0.5333	12545.610	20.702
2000/01/21	10:22:17	0.5417	12580.283	21.021
2000/01/21	10:22:47	0.5500	12625.472	21.398
2000/01/21	10:23:02	0.5542	12648.992	21.589
2000/01/21	10:23:32	0.5625	12695.557	22.037
2000/01/21	10:23:47	0.5667	12718.814	22.305
2000/01/21	10:24:17	0.5750	12764.391	22.880
2000/01/21	10:24:32	0.5792	12787.666	23.212
2000/01/21	10:24:47	0.5833	12811.055	23.562
2000/01/21	10:25:02	0.5875	12833.832	23.911
2000/01/21	10:25:32	0.5958	12876.586	24.673
2000/01/21	10:26:02	0.6042	12878.657	25.472
2000/01/21	10:26:17	0.6083	12879.031	25.868
2000/01/21	10:26:32	0.6125	12879.391	26.254
2000/01/21	10:26:47	0.6167	12879.714	26.625
2000/01/21	10:27:17	0.6250	12880.118	27.319
2000/01/21	10:27:47	0.6333	12880.289	27.952
2000/01/21	10:28:02	0.6375	12880.414	28.254
2000/01/21	10:28:17	0.6417	12880.367	28.533
2000/01/21	10:28:32	0.6458	12880.619	28.814
2000/01/21	10:29:02	0.6542	12880.795	29.323

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/21	10:12:19	0.3756	12192.659	11.732
RIH Gradient: 300.000 m				
2000/01/21	10:12:49	0.3839	12196.292	11.972
2000/01/21	10:13:19	0.3922	12219.495	12.203
2000/01/21	10:13:49	0.4006	12255.933	12.468
2000/01/21	10:14:04	0.4047	12274.021	12.630
2000/01/21	10:14:34	0.4131	12319.652	13.030
2000/01/21	10:14:49	0.4172	12344.560	13.264
2000/01/21	10:15:19	0.4256	12394.673	13.776
2000/01/21	10:15:34	0.4297	12421.100	14.058
2000/01/21	10:16:04	0.4381	12475.666	14.682
2000/01/21	10:16:34	0.4464	12518.029	15.371
2000/01/21	10:17:04	0.4547	12520.479	16.120
2000/01/21	10:17:19	0.4589	12522.020	16.498
2000/01/21	10:18:04	0.4714	12526.007	17.570
2000/01/21	10:18:34	0.4797	12527.914	18.213
2000/01/21	10:18:49	0.4839	12528.764	18.516
2000/01/21	10:19:19	0.4922	12530.047	19.075
2000/01/21	10:19:34	0.4964	12530.683	19.333
2000/01/21	10:20:04	0.5047	12531.608	19.816
2000/01/21	10:20:19	0.5089	12532.071	20.041
2000/01/21	10:20:49	0.5172	12532.857	20.463
2000/01/21	10:21:04	0.5214	12532.999	20.652
RIH Gradient: 600.000 m				
2000/01/21	10:21:34	0.5297	12533.315	21.020
2000/01/21	10:21:49	0.5339	12534.510	21.195
2000/01/21	10:22:19	0.5422	12572.797	21.523
2000/01/21	10:22:49	0.5506	12617.827	21.875
2000/01/21	10:23:34	0.5631	12688.369	22.515
2000/01/21	10:24:04	0.5714	12734.814	23.047
2000/01/21	10:24:19	0.5756	12758.113	23.348
2000/01/21	10:24:49	0.5839	12805.301	24.019
2000/01/21	10:25:04	0.5881	12828.808	24.381
2000/01/21	10:25:34	0.5964	12869.662	25.142
2000/01/21	10:26:04	0.6047	12871.653	25.923
2000/01/21	10:26:34	0.6131	12873.512	26.678
2000/01/21	10:26:49	0.6172	12874.128	27.040
2000/01/21	10:27:19	0.6256	12874.923	27.713
2000/01/21	10:27:34	0.6297	12875.297	28.025
2000/01/21	10:28:19	0.6422	12875.794	28.865
2000/01/21	10:28:49	0.6506	12876.042	29.357
2000/01/21	10:29:19	0.6589	12876.160	29.801
2000/01/21	10:30:04	0.6714	12876.041	30.405
2000/01/21	10:30:34	0.6797	12875.867	30.761
RIH Gradient: 900.000 m				
2000/01/21	10:30:49	0.6839	12875.857	30.925
2000/01/21	10:31:19	0.6922	12907.376	31.239
2000/01/21	10:31:34	0.6964	12928.248	31.405
2000/01/21	10:32:04	0.7047	12970.044	31.753
2000/01/21	10:32:34	0.7131	13011.542	32.182



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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	10:29:32	0.6625	12880.562	29.772
2000/01/21	10:29:47	0.6667	12880.462	29.983
2000/01/21	10:30:02	0.6708	12880.457	30.185
2000/01/21	10:30:32	0.6792	12880.098	30.555
RIH Gradient: 900.000 m				
2000/01/21	10:30:47	0.6833	12880.107	30.735
2000/01/21	10:31:17	0.6917	12907.371	31.037
2000/01/21	10:31:47	0.7000	12949.387	31.386
2000/01/21	10:32:17	0.7083	12991.401	31.767
2000/01/21	10:33:02	0.7208	13053.521	32.503
2000/01/21	10:33:32	0.7292	13095.252	33.164
2000/01/21	10:33:47	0.7333	13115.763	33.541
2000/01/21	10:34:17	0.7417	13156.938	34.425
2000/01/21	10:34:32	0.7458	13177.167	34.903
2000/01/21	10:35:02	0.7542	13196.185	35.899
2000/01/21	10:35:17	0.7583	13196.930	36.433
2000/01/21	10:35:32	0.7625	13197.457	36.969
2000/01/21	10:36:02	0.7708	13198.198	37.995
2000/01/21	10:36:17	0.7750	13198.275	38.474
2000/01/21	10:36:47	0.7833	13198.356	39.374
2000/01/21	10:37:02	0.7875	13198.700	39.806
2000/01/21	10:37:32	0.7958	13198.113	40.576
2000/01/21	10:37:47	0.8000	13198.075	40.941
2000/01/21	10:38:17	0.8083	13197.803	41.622
2000/01/21	10:38:47	0.8167	13197.560	42.244
2000/01/21	10:39:17	0.8250	13197.362	42.812
2000/01/21	10:39:32	0.8292	13197.361	43.080
RIH Gradient: 1200.000 m				
2000/01/21	10:39:47	0.8333	13197.221	43.334
2000/01/21	10:40:02	0.8375	13206.818	43.576
2000/01/21	10:40:32	0.8458	13241.104	44.050
2000/01/21	10:41:02	0.8542	13277.204	44.561
2000/01/21	10:41:17	0.8583	13295.390	44.843
2000/01/21	10:41:47	0.8667	13331.446	45.427
2000/01/21	10:42:17	0.8750	13368.213	46.078
2000/01/21	10:42:47	0.8833	13397.200	46.706
2000/01/21	10:43:02	0.8875	13397.125	47.026
2000/01/21	10:43:32	0.8958	13397.831	47.703
2000/01/21	10:43:47	0.9000	13397.619	48.010
2000/01/21	10:44:02	0.9042	13397.619	48.314
2000/01/21	10:44:32	0.9125	13397.485	48.886
2000/01/21	10:45:02	0.9208	13397.453	49.408
2000/01/21	10:45:32	0.9292	13397.334	49.884
2000/01/21	10:45:47	0.9333	13397.326	50.107
2000/01/21	10:46:17	0.9417	13397.141	50.514
2000/01/21	10:47:02	0.9542	13396.961	51.069
RIH Gradient: 1400.000 m				
2000/01/21	10:47:32	0.9625	13397.167	51.411
2000/01/21	10:47:47	0.9667	13397.177	51.564
2000/01/21	10:48:17	0.9750	13418.033	51.841

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/21	10:33:04	0.7214	13052.951	32.732
2000/01/21	10:33:19	0.7256	13073.915	33.064
2000/01/21	10:33:49	0.7339	13115.217	33.846
2000/01/21	10:34:04	0.7381	13135.940	34.297
2000/01/21	10:34:49	0.7506	13192.090	35.791
2000/01/21	10:35:19	0.7589	13194.781	36.887
2000/01/21	10:35:49	0.7672	13196.584	37.971
2000/01/21	10:36:34	0.7797	13198.325	39.453
2000/01/21	10:37:04	0.7881	13198.818	40.353
2000/01/21	10:37:19	0.7922	13199.004	40.770
2000/01/21	10:37:49	0.8006	13199.347	41.543
2000/01/21	10:38:04	0.8047	13199.507	41.905
2000/01/21	10:38:34	0.8131	13199.546	42.577
2000/01/21	10:39:04	0.8214	13199.643	43.191
RIH Gradient: 1200.000 m				
2000/01/21	10:39:34	0.8297	13199.689	43.752
2000/01/21	10:39:49	0.8339	13200.428	44.010
2000/01/21	10:40:19	0.8422	13228.905	44.507
2000/01/21	10:40:34	0.8464	13247.120	44.759
2000/01/21	10:41:19	0.8589	13301.802	45.573
2000/01/21	10:41:49	0.8672	13338.515	46.174
2000/01/21	10:42:19	0.8756	13375.121	46.800
2000/01/21	10:42:49	0.8839	13402.591	47.454
2000/01/21	10:43:04	0.8881	13403.176	47.788
2000/01/21	10:43:34	0.8964	13404.404	48.438
2000/01/21	10:43:49	0.9006	13404.749	48.745
2000/01/21	10:44:19	0.9089	13405.417	49.317
2000/01/21	10:44:34	0.9131	13405.661	49.582
2000/01/21	10:45:04	0.9214	13406.213	50.072
2000/01/21	10:45:19	0.9256	13406.264	50.296
2000/01/21	10:46:04	0.9381	13406.553	50.902
2000/01/21	10:46:49	0.9506	13406.603	51.418
2000/01/21	10:47:19	0.9589	13406.620	51.722
2000/01/21	10:47:34	0.9631	13406.604	51.863
RIH Gradient: 1400.000 m				
2000/01/21	10:47:49	0.9672	13406.562	51.997
2000/01/21	10:48:04	0.9714	13414.798	52.129
2000/01/21	10:48:34	0.9797	13447.439	52.384
2000/01/21	10:49:04	0.9881	13479.703	52.674
2000/01/21	10:49:19	0.9922	13494.392	52.840
2000/01/21	10:49:49	1.0006	13506.789	53.214
2000/01/21	10:50:04	1.0047	13507.268	53.411
2000/01/21	10:50:34	1.0131	13508.228	53.805
2000/01/21	10:50:49	1.0172	13508.695	53.994
2000/01/21	10:51:19	1.0256	13509.120	54.345
2000/01/21	10:51:49	1.0339	13509.448	54.660
2000/01/21	10:52:34	1.0464	13509.640	55.077
2000/01/21	10:53:04	1.0547	13509.759	55.325
2000/01/21	10:53:19	1.0589	13509.845	55.440
2000/01/21	10:53:49	1.0672	13509.956	55.653



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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	10:48:47	0.9833	13450.852	52.131
2000/01/21	10:49:17	0.9917	13482.166	52.435
2000/01/21	10:49:32	0.9958	13493.771	52.599
2000/01/21	10:50:02	1.0042	13496.416	52.983
2000/01/21	10:50:17	1.0083	13496.521	53.178
2000/01/21	10:50:47	1.0167	13496.690	53.548
2000/01/21	10:51:02	1.0208	13496.876	53.732
2000/01/21	10:51:32	1.0292	13497.089	54.076
2000/01/21	10:52:02	1.0375	13497.053	54.381
2000/01/21	10:52:32	1.0458	13497.111	54.662
2000/01/21	10:52:47	1.0500	13497.047	54.792
2000/01/21	10:53:17	1.0583	13497.042	55.045
2000/01/21	10:53:47	1.0667	13497.182	55.276
RIH Gradient: 1500.000 m				
2000/01/21	10:54:17	1.0750	13496.901	55.479
2000/01/21	10:54:32	1.0792	13496.898	55.576
2000/01/21	10:55:02	1.0875	13500.151	55.773
2000/01/21	10:55:32	1.0958	13511.311	55.938
2000/01/21	10:56:02	1.1042	13512.060	56.102
2000/01/21	10:56:17	1.1083	13512.068	56.186
2000/01/21	10:56:47	1.1167	13512.153	56.357
2000/01/21	10:57:02	1.1208	13512.127	56.435
2000/01/21	10:57:32	1.1292	13512.882	56.611
2000/01/21	10:57:47	1.1333	13512.744	56.680
2000/01/21	10:58:02	1.1375	13512.645	56.741
2000/01/21	10:58:17	1.1417	13512.155	56.791
2000/01/21	10:58:47	1.1500	13512.124	56.915
2000/01/21	10:59:17	1.1583	13512.010	57.024
2000/01/21	10:59:32	1.1625	13512.087	57.078
2000/01/21	10:59:47	1.1667	13512.017	57.129
2000/01/21	11:00:17	1.1750	13512.160	57.234
2000/01/21	11:01:02	1.1875	13512.033	57.363
2000/01/21	11:01:32	1.1958	13512.198	57.447
2000/01/21	11:02:02	1.2042	13511.960	57.516
2000/01/21	11:02:47	1.2167	13512.198	57.625
2000/01/21	11:03:17	1.2250	13512.049	57.681
2000/01/21	11:03:32	1.2292	13511.875	57.703
2000/01/21	11:04:02	1.2375	13511.789	57.755
2000/01/21	11:04:17	1.2417	13512.238	57.796
2000/01/21	11:04:47	1.2500	13512.365	57.849
2000/01/21	11:05:02	1.2542	13512.282	57.870
2000/01/21	11:05:17	1.2583	13512.128	57.889
RIH Gradient: 1515.500 m				
2000/01/21	11:05:32	1.2625	13512.262	57.912
2000/01/21	11:05:47	1.2667	13511.960	57.924
2000/01/21	11:06:02	1.2708	13511.662	57.935
2000/01/21	11:06:32	1.2792	13490.616	57.966
2000/01/21	11:06:47	1.2833	13469.474	57.987
2000/01/21	11:07:02	1.2875	13446.782	57.999
2000/01/21	11:07:32	1.2958	13398.753	58.001

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/21	10:54:04	1.0714	13509.861	55.753
2000/01/21	10:54:34	1.0797	13509.918	55.937
RIH Gradient: 1500.000 m				
2000/01/21	10:54:49	1.0839	13509.953	56.026
2000/01/21	10:55:04	1.0881	13513.960	56.110
2000/01/21	10:55:34	1.0964	13524.771	56.271
2000/01/21	10:55:49	1.1006	13525.176	56.354
2000/01/21	10:56:19	1.1089	13525.303	56.521
2000/01/21	10:56:34	1.1131	13525.394	56.604
2000/01/21	10:57:04	1.1214	13525.540	56.757
2000/01/21	10:57:19	1.1256	13525.617	56.829
2000/01/21	10:57:49	1.1339	13525.679	56.965
2000/01/21	10:58:19	1.1422	13525.649	57.086
2000/01/21	10:59:04	1.1547	13525.688	57.252
2000/01/21	10:59:34	1.1631	13525.620	57.351
2000/01/21	10:59:49	1.1672	13525.879	57.396
2000/01/21	11:00:19	1.1756	13525.536	57.482
2000/01/21	11:00:34	1.1797	13525.594	57.524
2000/01/21	11:01:04	1.1881	13525.568	57.600
2000/01/21	11:01:34	1.1964	13525.500	57.669
2000/01/21	11:02:04	1.2047	13525.546	57.735
2000/01/21	11:02:19	1.2089	13525.546	57.766
2000/01/21	11:02:49	1.2172	13525.477	57.823
2000/01/21	11:03:04	1.2214	13525.340	57.847
2000/01/21	11:03:19	1.2256	13525.359	57.874
2000/01/21	11:03:49	1.2339	13525.314	57.923
2000/01/21	11:04:19	1.2422	13525.394	57.969
2000/01/21	11:04:49	1.2506	13525.286	58.011
2000/01/21	11:05:34	1.2631	13525.388	58.072
RIH Gradient: 1535.500 m				
2000/01/21	11:05:49	1.2672	13525.396	58.089
2000/01/21	11:06:04	1.2714	13524.458	58.104
2000/01/21	11:06:19	1.2756	13516.940	58.123
2000/01/21	11:06:49	1.2839	13478.959	58.152
2000/01/21	11:07:04	1.2881	13456.363	58.165
2000/01/21	11:07:34	1.2964	13407.807	58.152
2000/01/21	11:08:04	1.3047	13358.589	58.065
2000/01/21	11:08:34	1.3131	13308.499	57.881
2000/01/21	11:08:49	1.3172	13282.982	57.757
2000/01/21	11:09:19	1.3256	13231.552	57.443
2000/01/21	11:09:34	1.3297	13205.774	57.253
2000/01/21	11:10:19	1.3422	13127.942	56.548
2000/01/21	11:11:04	1.3547	13047.232	55.549
2000/01/21	11:11:34	1.3631	12992.155	54.710
2000/01/21	11:11:49	1.3672	12964.114	54.226
2000/01/21	11:12:19	1.3756	12906.526	53.120
2000/01/21	11:12:34	1.3797	12877.315	52.506
2000/01/21	11:13:04	1.3881	12818.743	51.175
2000/01/21	11:13:19	1.3922	12789.536	50.479
2000/01/21	11:13:34	1.3964	12760.181	49.771



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Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	11:07:47	1.3000	13373.972	57.974
2000/01/21	11:08:17	1.3083	13324.181	57.857
2000/01/21	11:08:32	1.3125	13299.473	57.773
2000/01/21	11:08:47	1.3167	13273.884	57.650
2000/01/21	11:09:17	1.3250	13222.878	57.361
2000/01/21	11:09:32	1.3292	13197.770	57.202
2000/01/21	11:10:02	1.3375	13145.615	56.770
2000/01/21	11:10:17	1.3417	13120.543	56.552
2000/01/21	11:10:47	1.3500	13067.069	55.939
2000/01/21	11:11:02	1.3542	13040.199	55.593
2000/01/21	11:11:32	1.3625	12985.931	54.805
2000/01/21	11:12:02	1.3708	12930.154	53.850
2000/01/21	11:12:32	1.3792	12873.456	52.733
2000/01/21	11:12:47	1.3833	12844.701	52.104
2000/01/21	11:13:17	1.3917	12788.131	50.807
2000/01/21	11:13:32	1.3958	12759.676	50.125
2000/01/21	11:13:47	1.4000	12730.909	49.435
2000/01/21	11:14:17	1.4083	12672.942	48.030
2000/01/21	11:14:47	1.4167	12614.585	46.612
2000/01/21	11:15:17	1.4250	12555.325	45.157
2000/01/21	11:15:32	1.4292	12525.046	44.404
2000/01/21	11:16:02	1.4375	12465.322	42.883
2000/01/21	11:16:47	1.4500	12374.017	40.539
2000/01/21	11:17:17	1.4583	12311.908	38.931
2000/01/21	11:17:32	1.4625	12280.456	38.120
2000/01/21	11:18:02	1.4708	12217.373	36.482
2000/01/21	11:18:32	1.4792	12153.188	34.834
2000/01/21	11:19:02	1.4875	12087.883	33.116
2000/01/21	11:19:17	1.4917	12054.493	32.230
2000/01/21	11:19:47	1.5000	11986.818	30.413
2000/01/21	11:20:17	1.5083	11918.459	28.584
2000/01/21	11:20:47	1.5167	11848.441	26.718
2000/01/21	11:21:02	1.5208	11821.616	25.795
2000/01/21	11:21:32	1.5292	11805.749	24.010
2000/01/21	11:22:02	1.5375	11806.846	22.358
2000/01/21	11:22:32	1.5458	11805.487	20.692
2000/01/21	11:22:47	1.5500	11805.835	19.935
2000/01/21	11:23:17	1.5583	11805.601	18.443
2000/01/21	11:23:32	1.5625	11804.139	17.694
2000/01/21	11:24:02	1.5708	11803.834	16.348
2000/01/21	11:24:17	1.5750	11803.436	15.699
2000/01/21	11:24:47	1.5833	11803.161	14.498
2000/01/21	11:25:17	1.5917	11803.138	13.389
2000/01/21	11:25:47	1.6000	11803.000	12.352
2000/01/21	11:26:02	1.6042	11803.724	11.898
2000/01/21	11:26:32	1.6125	11803.302	10.970
2000/01/21	11:26:47	1.6167	11803.203	10.535
POOH Gradient: 0.000 m				
2000/01/21	11:27:02	1.6208	11803.462	10.130
2000/01/21	11:27:17	1.6250	11804.020	9.749

Date	Time	Cum. T. 2 (P80)	Pres 2 (P80)	Temp 2 (P80)
		hr	kPag	deg C
2000/01/21	11:13:49	1.4006	12730.409	49.949
2000/01/21	11:14:19	1.4089	12671.182	47.600
2000/01/21	11:14:49	1.4172	12611.422	45.124
2000/01/21	11:15:04	1.4214	12580.881	45.363
2000/01/21	11:15:49	1.4339	12489.601	43.051
2000/01/21	11:16:19	1.4422	12428.373	41.458
2000/01/21	11:16:34	1.4464	12397.340	40.657
2000/01/21	11:17:04	1.4547	12334.524	39.010
2000/01/21	11:17:34	1.4631	12271.329	37.372
2000/01/21	11:18:04	1.4714	12206.760	35.687
2000/01/21	11:18:19	1.4756	12174.600	34.871
2000/01/21	11:18:49	1.4839	12109.224	33.170
2000/01/21	11:19:04	1.4881	12076.346	32.308
2000/01/21	11:19:34	1.4964	12007.734	30.491
2000/01/21	11:19:49	1.5006	11973.234	29.584
2000/01/21	11:20:19	1.5089	11903.083	27.775
2000/01/21	11:20:49	1.5172	11831.925	25.975
2000/01/21	11:21:19	1.5256	11799.151	24.201
2000/01/21	11:21:34	1.5297	11792.450	23.360
2000/01/21	11:22:19	1.5422	11788.511	20.969
2000/01/21	11:22:49	1.5506	11785.358	19.481
2000/01/21	11:23:04	1.5547	11784.081	18.772
2000/01/21	11:23:34	1.5631	11781.336	17.416
2000/01/21	11:23:49	1.5672	11779.969	16.776
2000/01/21	11:24:04	1.5714	11778.676	16.158
2000/01/21	11:24:34	1.5797	11776.462	14.981
2000/01/21	11:24:49	1.5839	11775.426	14.425
2000/01/21	11:25:19	1.5922	11773.244	13.366
2000/01/21	11:25:34	1.5964	11772.770	12.883
2000/01/21	11:26:04	1.6047	11771.322	11.948
2000/01/21	11:26:19	1.6089	11771.104	11.519
2000/01/21	11:26:49	1.6172	11769.747	10.675
2000/01/21	11:27:19	1.6256	11768.839	9.903
POOH Gradient: 0.000 m				
2000/01/21	11:27:34	1.6297	11768.608	9.543
2000/01/21	11:27:49	1.6339	11755.934	9.197
2000/01/21	11:28:04	1.6381	11759.003	8.863
2000/01/21	11:28:49	1.6506	0.000	8.044
2000/01/21	11:29:19	1.6589	0.000	7.137
2000/01/21	11:29:34	1.6631	0.000	6.615
2000/01/21	11:30:04	1.6714	0.000	5.686
2000/01/21	11:30:34	1.6797	0.000	4.797
2000/01/21	11:31:04	1.6881	0.000	4.022
2000/01/21	11:31:19	1.6922	0.000	3.680
2000/01/21	11:31:49	1.7006	0.000	3.051
2000/01/21	11:32:04	1.7047	0.000	2.765
2000/01/21	11:32:34	1.7131	0.000	2.272
2000/01/21	11:32:49	1.7172	0.000	2.043
2000/01/21	11:33:19	1.7256	0.000	1.679



Company Name PARAMOUNT RESOURCES LIMITED
Well Name Paramount et al hard
Well Location F - 38
Date(s) of Test January 21/00



Date	Time	Cum. T. 1 (P53)	Pres 1 (P53)	Temp 1 (P53)
		hr	kPag	deg C
2000/01/21	11:27:32	1.6292	11803.854	9.357
2000/01/21	11:27:47	1.6333	11802.895	8.994
2000/01/21	11:28:02	1.6375	11796.862	8.675
2000/01/21	11:28:32	1.6458	7030.557	7.998
2000/01/21	11:29:02	1.6542	0.000	7.269
2000/01/21	11:29:17	1.6583	0.000	6.774
2000/01/21	11:29:32	1.6625	0.000	6.276
2000/01/21	11:30:02	1.6708	0.000	5.263
2000/01/21	11:30:47	1.6833	0.000	3.916
2000/01/21	11:31:17	1.6917	0.000	3.087
2000/01/21	11:31:47	1.7000	0.000	2.392
2000/01/21	11:32:32	1.7125	0.000	1.585
2000/01/21	11:33:02	1.7208	0.000	1.086
2000/01/21	11:33:32	1.7292	0.000	0.691
2000/01/21	11:34:17	1.7417	0.000	0.229
2000/01/21	11:34:47	1.7500	0.000	-0.027

AGAT Analysis Reports (20pp)



Wayne

Container Identification
PB 3A

Laboratory Number
WF42027A

Operator Name
PARAMOUNT RESOURCES LTD.

Unique Well Identifier
Well Name
PARAMOUNT ET AL LIARD F-36
Elevation
KB m GRD m

Field or Area
LIARD
Pool or Zone
NOT APPLICABLE
Sampler's Company
AGAT

Test Type
Test No.
Test Recovery
Name of Sampler

Test Interval or Perfs
Sampling Point
TEST SEPARATOR
Pressure (kPa)
Temperature (°C)
Separator Reservoir Source Sampled Received

Date Sampled
Aug 23, 1999
Date Received
Aug 25, 1999
Date Reported
Aug 26, 1999
Analyst
LN

Other Information

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	647.1	0.279	28.1
K	109.0	0.047	2.8
Ca	32.0	0.014	0.8
Mg	4.7	0.002	0.2
Fe	0.6	Trace	Trace

Anions

ION	mg/L	Mass Fraction	mmol/L
Cl	618.0	0.267	17.4
HCO ₃	842.2	0.364	13.8
SO ₄	61.9	0.027	0.6
CO ₃	Nil	Nil	Nil
OH	Nil	Nil	Nil

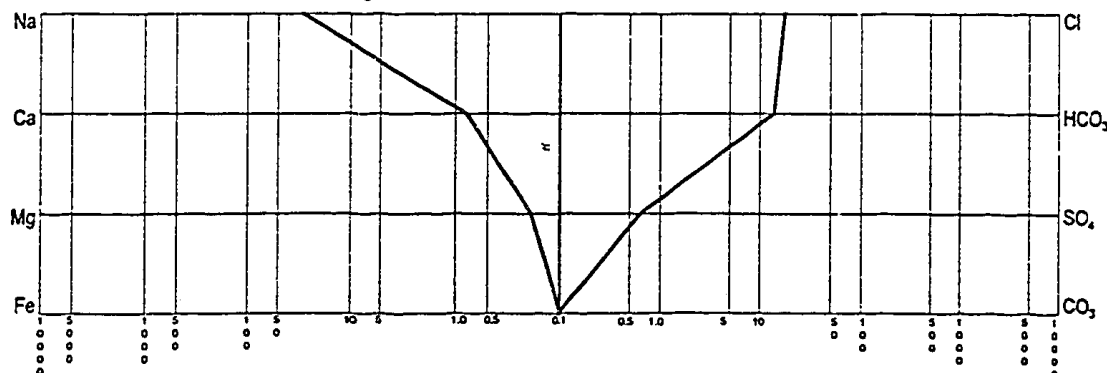
Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	2315
Observed Ph	6.88
H ₂ S (25°C) mg/L	N/D
Relative Density (25°C)	0.999
Resistivity / OHM·m (25°C)	3.215
Salinity ‰	0.11

Total Cations 32.9

Total Anions 32.5

Logarithmic Pattern mmol/L





GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 40019

LABORATORY NUMBER

GF42027A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

KB m ELEVATIONS

GAD m

PARAMOUNT et al LIARD F-36

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

RF

AGAT

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

TEST SEPARATOR

	SEPARATOR	TREATER	RESERVOIR	SOURCE	SAMPLED	RECEIVED
GAUGE PRESSURE kPa	4551			4551		4300
TEMPERATURE °C	35			35		21

DATE SAMPLED (Y-M-D)

99-08-23

DATE RECEIVED (Y-M-D)

99-08-25

DATE REPORTED (Y-M-D)

99-08-26

ANALYST

PL

NCO

OTHER INFORMATION

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL/m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0013	0.0013	
CO ₂	0.0126	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9569	0.9691	
C ₂	0.0187	0.0190	
C ₃	0.0051	0.0052	18.8
IC ₄	0.0013	0.0013	5.5
NC ₄	0.0014	0.0014	5.9
IC ₅	0.0011	0.0011	5.2
NC ₅	0.0005	0.0005	2.6
C ₆	0.0006	0.0006	3.2
C ₇	0.0003	0.0003	2.0
C ₈	0.0001	0.0001	0.8
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	44.0

GROSS HEATING VALUE MJ/m³
15°C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

39.13

AIR FREE AS RECEIVED

38.64

VAPOUR PRESSURE PENTANES PLUS

87.9 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.590

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.578

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

p_{PC} (abs)

4635 kPa

p_{TC}

196.3 K

ACID GAS FREE

p_{PC} (abs)

4600 kPa

p_{TC}

194.9 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.1

C₇₊

104.0

H₂S gm³

0.00

REMARKS

FIELD H₂S = 2ppm



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION

AGAT 30950

LABORATORY NUMBER

CF42027A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

SR m ELEVATIONS

GAD m

FIELD OR AREA

LIARD

POOL OR ZONE

NAME OF SAMPLER

COMPANY

AGAT

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

TEST SEPARATOR

* Bubble Point

GAUGE PRESSURE #Pa

SEPARATOR

4551

TREATER

RESERVOIR

SOURCE

4551

SAMPLED

RECEIVED

5200*

TEMPERATURE °C

26

26

21*

DATE SAMPLED (Y M D)

99-08-23

DATE RECEIVED (Y M D)

99-08-25

DATE REPORTED (Y M D)

99-08-25

ANALYST

CT

NCO

OTHER INFORMATION

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0002	0.0000	0.0000
CO ₂	0.0051	0.0020	0.0018
H ₂ S	0.0000	0.0000	0.0000
C ₁	0.1985	0.0281	0.0708
C ₂	0.0179	0.0048	0.0101
C ₃	0.0133	0.0052	0.0077
C ₄	0.0062	0.0032	0.0043
NC ₄	0.0095	0.0049	0.0063
NC ₅	0.0096	0.0061	0.0074
NC ₆	0.0096	0.0061	0.0073
C ₆	0.0309	0.0233	0.0264
C ₇ +	0.6992	0.9163	0.8579
C ₈			
C ₉			
C ₁₀			
C ₁₁			
C ₁₂ +			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇ + RESIDUE (15/15° C)

806.7

DENSITY

kg/m³

0.8074

RELATIVE DENSITY

43.6

API @ 15.5° C

148.4

RELATIVE MOLECULAR MASS

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

755.8

DENSITY

kg/m³

0.7565

RELATIVE DENSITY

55.4

API @ 15.5° C

113.2

RELATIVE MOLECULAR MASS

REMARKS:

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.0781 C₇ + 0.6503

File No. : CF42027A

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	0.0292	0.0222	0.0253
68.9- 98.3	HEPTANES-----C7	0.0352	0.0340	0.0349
98.3-125.6	OCTANES-----C8	0.0628	0.0691	0.0689
125.6-150.6	NONANES-----C9	0.0692	0.0855	0.0836
150.6-173.9	DECANES-----C10	0.1098	0.1501	0.1447
173.9-196.1	UNDECANES-----C11	0.0944	0.1420	0.1348
196.1-215.0	DODECANES-----C12	0.0590	0.0969	0.0910
215.0-235.0	TRIDECANES-----C13	0.0311	0.0554	0.0515
235.0-252.2	TETRADECANES-----C14	0.0177	0.0338	0.0312
252.2-270.6	PENTADECANES-----C15	0.0167	0.0342	0.0313
270.6-287.8	HEXADECANES-----C16	0.0084	0.0183	0.0166
287.8-302.8	HEPTADECANES-----C17	0.0055	0.0127	0.0116
302.8-317.2	OCTADECANES-----C18	0.0020	0.0050	0.0045
317.2-330.0	NONADECANES-----C19	0.0008	0.0021	0.0019
330.0-344.4	EICOSANES-----C20	0.0002	0.0007	0.0006
344.4-357.2	HENEICOSANES-----C21	0.0001	0.0003	0.0003
357.2-369.4	DOCOSANES-----C22	0.0000	0.0001	0.0001
369.4-380.0	TRICOSANES-----C23	0.0000	0.0000	0.0000
380.0-391.1	TETRACOSANES-----C24	0.0000	0.0000	0.0000
391.1-401.7	PENTACOSANES-----C25	0.0000	0.0000	0.0000
401.7-412.2	HEXACOSANES-----C26	0.0000	0.0000	0.0000
412.2-422.2	HEPTACOSANES-----C27	0.0000	0.0000	0.0000
422.2-431.7	OCTACOSANES-----C28	0.0000	0.0000	0.0000
431.7-441.1	NONACOSANES-----C29	0.0000	0.0000	0.0000
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0039	0.0030	0.0023
110.6	TOLUENE-----C7	0.0219	0.0194	0.0157
136.2	ETHYLBENZENE-----C8	0.0083	0.0086	0.0070
138.4-144.4	XYLENES-----C8	0.0470	0.0480	0.0391
168.9	1,2,4 TRIMETHYLBENZENE--C9	0.0174	0.0201	0.0161

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0017	0.0011	0.0011
72.2	METHYLCYCLOPENTANE-----MCC5	0.0127	0.0102	0.0096
81.1	CYCLOHEXANE-----CC6	0.0306	0.0248	0.0223
101.1	METHYLCYCLOHEXANE-----MCC6	0.0445	0.0420	0.0383

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.

3650 - 21st STREET N.E.
CALGARY, ALBERTA
CANADA T2E 6V6

AGAT® Laboratories



TEL: (403) 299-2000
FAX: (403) 299-2010
www.agatlabs.com

Certificate of Analysis

CLIENT NAME: PARAMOUNT RESOURCES LTD.

AGAT WORK ORDER 99F42027

ATTENTION: Wayne Tomm

Trace Sulphur Analysis (GC/SCD) - Gas

SAMPLE TYPE:	Gas	DATE SAMPLED:	Aug 23, 1999			
SAMPLE ID:	BAG1A	DATE RECEIVED:	Aug 25, 1999			
SAMPLE DESCRIPTION:	F-36 Paramount et al Liard F-36 TEST SEPARATOR	DATE REPORTED:	Aug 26, 1999			
PARAMETER	RESULTS	UNITS	M.D.L.	DATE ANALYZED	INITIALS	DATE PREPARED
Hydrogen Sulphide	1.6	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Carbonyl Sulphide	0.2	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Methyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Ethyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Methyl Sulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Carbon Disulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
2-Propyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
t-Butyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
1-Propyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Ethyl Methyl Sulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
s-Butyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Thiophene	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
i-Butyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Ethyl Sulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
n-Butyl Mercaptan	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
t-Butyl Methyl Sulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Methyl Disulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Ethyl Disulphide	<0.1	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999
Total Organic Sulphur	1.7	ppm (v/v)	0.1	Aug 25, 1999	RY	Aug 25, 1999

COMMENTS:

M.D.L. - Method Detection Limit

Identification based on retention time relative to standards.

All compounds quantified as ideal gases. Hydrogen sulphide quantified using it's standard response factor, all other compounds quantified using carbonyl sulphide's response factor.

Total organic sulphur includes compounds with chromatographic retention up to and including that of ethyl disulphide.

Certified By:

S. Warden

AGAT CERTIFICATE OF ANALYSIS

Accredited by the Standards Council of Canada, in cooperation with Canadian Association for Environmental Analytical Laboratories (SCC/CAEAL)

Accredited by the American Industrial Hygiene Association (AIHA)



WT

Container Identification PB-1		Laboratory Number O42149A											
Operator Name PARAMOUNT RESOURCES LTD.													
Unique Well Identifier	Well Name PARAMOUNT et al FORT LIARD F-36		Elevation KB m GRD m										
Field or Area FORT LIARD	Pool or Zone	Sampler's Company AGAT											
Test Type	Test No.	Test Recovery	Name of Sampler										
Test Interval or Perfs		Sampling Point TEST SEPARATOR	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Separator</th> <th>Reservoir</th> <th>Source</th> <th>Sampled</th> <th>Received</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	Separator	Reservoir	Source	Sampled	Received					
Separator	Reservoir	Source	Sampled	Received									
Date Sampled Aug 14, 1999	Date Received Aug 27, 1999	Date Reported Aug 31, 1999	Analyst V,J										
Other Information SAMPLED @ 09:00hrs													

Sample Properties

Colour of Clean Oil	Colour Number ASTM D-1500
Colorless	L-1 A.S.T.M.

B.S. & W. (Volume Fraction)

Water	Sediment	Total
Trace	Trace	Trace
Free Water		
2.92 vol %		

Density - After Cleaning

API Gravity @ 15°C	Relative	Absolute kg/m³
48.48	0.7862	785.5

Total Sulphur Mass Fraction	Pour Point / °C (A.S.T.M. D-97)
0.000043	<-50

Viscosity

Temp °C	Absolute mPa·s	Kinematic mm²·s⁻¹
25	0.87	1.12
38	0.71	0.92
50	0.60	0.79

Distillation

Volume Fraction	Temp / °C
0.05	92.1
0.10	103.3
0.15	111.3
0.20	118.4
0.25	126.5
0.30	134.6
0.35	141.7
0.40	149.8
0.45	156.9
0.50	165.0
0.55	173.0
0.60	183.2
0.65	190.2
0.70	198.3
0.75	209.5
0.80	222.6
0.85	235.8
0.90	255.0
0.95	285.3
F.B.P.	287.3

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

Initial Boiling Point 68.9

Absolute Barometric Pressure (kPa) 88.6
--

Room Temp (°C) 16.0

Characterization Factor 11.7

200 °C Naptha 0.71	275 °C Kerosene 0.93	350 °C Light Gas Oil 0.97
Recovered 0.97	Residue 0.02	Distillation Loss 0.01

Remarks:

The distillation temperatures have been corrected to 101.3 kPa (abs).
BS&W PERFORMED ON OIL PORTION ONLY.





Container Identification PB-2		Laboratory Number O42149B	
Operator Name PARAMOUNT RESOURCES LTD.			
Unique Well Identifier	Well Name PARAMOUNT et al FORT LIARD F-36		Elevation KB m GRD m
Field or Area FORT LIARD	Pool or Zone	Sampler's Company AGAT	
Test Type	Test No.	Test Recovery	Name of Sampler
Test Interval or Perfs		Sampling Point TEST SEPARATOR	Separator Reservoir Source Sampled Received Pressure (kPa) Temperature (°C)
Date Sampled Aug 19, 1999	Date Received Aug 27, 1999	Date Reported Aug 31, 1999	Analyst V,J
Other Information			

Sample Properties

Colour of Clean Oil	Colour Number ASTM D-1500
Colorless	L-1 A.S.T.M.

B.S. & W. (Volume Fraction)

Water	Sediment	Total
Trace	Trace	Trace
Free Sediment		2.56 vol%

Density - After Cleaning

API Gravity @ 15°C	Relative	Absolute kg/m³
45.71	0.7985	797.8

Total Sulphur Mass Fraction	Pour Point / °C (A.S.T.M. D-97)
0.000068	-48

Viscosity

Temp °C	Absolute mPa's	Kinematic mm²s-1
25	1.03	1.30
38	0.84	1.08
50	0.73	0.95

Distillation

Volume Fraction	Temp / °C
0.05	96.2
0.10	111.3
0.15	126.5
0.20	137.6
0.25	145.7
0.30	154.8
0.35	163.9
0.40	173.0
0.45	180.1
0.50	188.2
0.55	196.3
0.60	204.4
0.65	212.5
0.70	221.6
0.75	231.7
0.80	241.8
0.85	252.9
0.90	270.1
0.95	308.6
F.B.P.	309.6

Method A.S.T.M. -D86°

Initial Boiling Point 67.9

Absolute Barometric Pressure (kPa) 88.6
--

Room Temp (°C) 16.0

Characterization Factor 11.7

200 °C Naptha 0.57

275 °C Kerosene 0.91

350 °C Light Gas Oil 0.97

Recovered 0.97

Residue 0.02

Distillation Loss 0.01

Remarks:

The distillation temperatures have been corrected to 101.3 kPa (abs).
BS&W PERFORMED ON OIL PORTION ONLY.





Container Identification PB-3		Laboratory Number O42149C		
Operator Name PARAMOUNT RESOURCES LTD.				
Unique Well Identifier	Well Name PARAMOUNT et al FORT LIARD F-36	Elevation KB m GRD m		
Field or Area FORT LIARD	Pool or Zone	Sampler's Company AGAT		
Test Type	Test No.	Test Recovery	Name of Sampler	
Test Interval or Perfs		Sampling Point TEST SEPARATOR	Separator	Reservoir
		Pressure (kPa)	Source	Sampled
		Temperature (°C)	Received	
Date Sampled Aug 23, 1999	Date Received Aug 27, 1999	Date Reported Aug 31, 1999	Analyst V,J	
Other Information				

Sample Properties

Colour of Clean Oil	Colour Number ASTM D-1500
Colorless	L-1 A.S.T.M.

B.S. & W. (Volume Fraction)

Water	Sediment	Total
Trace	Trace	Trace
Free Sediment		
2.3 vol%		

Density - After Cleaning

API Gravity @ 15°C	Relative Absolute kg/m³
45.09	0.8013 800.6

Total Sulphur Mass Fraction	Pour Point / °C (A.S.T.M. D-97)
0.000090	-48

Viscosity

Temp °C	Absolute mPa·s	Kinematic mm²/s-1
25	1.11	1.40
38	0.97	1.23
50	0.85	1.09

Distillation

Volume Fraction	Temp / °C
0.05	106.3
0.10	123.5
0.15	135.6
0.20	144.7
0.25	152.8
0.30	161.9
0.35	170.0
0.40	178.1
0.45	186.2
0.50	193.3
0.55	199.3
0.60	208.4
0.65	215.5
0.70	224.6
0.75	233.7
0.80	243.8
0.85	257.0
0.90	272.2
0.95	311.6
F.B.P.	312.6

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

Initial Boiling Point 70.9

Absolute Barometric Pressure (kPa) 88.6
--

Room Temp (°C) 16.0

Characterization Factor 11.7

200 °C Naptha 0.56

275 °C Kerosene 0.91

350 °C Light Gas Oil 0.96

Recovered 0.96

Residue 0.02

Distillation Loss 0.02

Remarks:

The distillation temperatures have been corrected to 101.3 kPa (abs).
BS&W PERFORMED ON OIL PORTION ONLY.



3650 - 21st STREET N.E.
CALGARY, ALBERTA
CANADA T2E 6V6

AGAT® Laboratories



TEL: (403) 299-2000
FAX: (403) 299-2010
www.agatlabs.com

Certificate of Analysis

CLIENT NAME: PARAMOUNT RESOURCES LTD.

AGAT WORK ORDER 99C42149

ATTENTION: Wayne Tomm

VOC Analysis - Gas

SAMPLE TYPE:	Gas	DATE SAMPLED:	Aug 23, 1999			
SAMPLE ID:	40030C	DATE RECEIVED:	Aug 27, 1999			
SAMPLE DESCRIPTION:	F-36 Paramount etal Fort Liard (F-36) TEST SEPARATOR	DATE REPORTED:	Aug 30, 1999			
PARAMETER	RESULTS	UNITS	M.D.L.	DATE ANALYZED	INITIALS	DATE PREPARED
Benzene	23	ppm (v/v)	1	Aug 27, 1999	KW	Aug 27, 1999
Toluene	39	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Ethylbenzene	<10	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Xylenes	19	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999

COMMENTS:

M.D.L. - Method Detection Limit
Quantification based on ideal gas law.

Certified By:

G. Ward

AGAT CERTIFICATE OF ANALYSIS

Accredited by the Standards Council of Canada, in cooperation with Canadian Association for Environmental Analytical Laboratories (SCC/CAEAL)

Accredited by the American Industrial Hygiene Association (AIHA)

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CANADA T2E 6V6

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Certificate of Analysis

CLIENT NAME: PARAMOUNT RESOURCES LTD.

AGAT WORK ORDER 99C42149

ATTENTION: Wayne Tomm

VOC Analysis - Gas

SAMPLE TYPE:		Gas	DATE SAMPLED:		Aug 19, 1999		
SAMPLE ID:		40032B	DATE RECEIVED:		Aug 27, 1999		
SAMPLE DESCRIPTION:		F-38 Paramount etal Fort Liard (F-38) TEST SEPARATOR		DATE REPORTED:		Aug 30, 1999	
PARAMETER		RESULTS	UNITS	M.D.L.	DATE ANALYZED	INITIALS	DATE PREPARED
Benzene		27	ppm (v/v)	1	Aug 27, 1999	KW	Aug 27, 1999
Toluene		49	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Ethylbenzene		<10	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Xylenes		19	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999

COMMENTS:

M.D.L. - Method Detection Limit
Quantification based on ideal gas law.

Certified By:

G. Warder

AGAT CERTIFICATE OF ANALYSIS

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Certificate of Analysis

CLIENT NAME: PARAMOUNT RESOURCES LTD.

AGAT WORK ORDER 99C42149

ATTENTION: Wayne Tomm

VOC Analysis - Gas

SAMPLE TYPE:	Gas	DATE SAMPLED:	Aug 14, 1999			
SAMPLE ID:	TBAG1	DATE RECEIVED:	Aug 27, 1999			
SAMPLE DESCRIPTION:	F-36 Paramount etal Fort Llard (F-36) FLOW LINE	DATE REPORTED:	Aug 30, 1999			
PARAMETER	RESULTS	UNITS	M.D.L.	DATE ANALYZED	INITIALS	DATE PREPARED
Benzene	33	ppm (v/v)	1	Aug 27, 1999	KW	Aug 27, 1999
Toluene	51	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Ethylbenzene	<10	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999
Xylenes	17	ppm (v/v)	10	Aug 27, 1999	KW	Aug 27, 1999

COMMENTS:

M.D.L. - Method Detection Limit
Quantification based on ideal gas law.

Certified By:

S. Ward

AGAT CERTIFICATE OF ANALYSIS

Accredited by the Standards Council of Canada, in cooperation with Canadian Association for Environmental Analytical Laboratories (SCC/CAEAL)

Accredited by the American Industrial Hygiene Association (AIHA)



WT 7-1-1999

Container Identification PB 3A		Laboratory Number WF41946A	
Operator Name PARAMOUNT RESOURCES LTD.			
Unique Well Identifier	Well Name PARAMOUNT et al LAIRD		Elevation KB m GRD m
Field or Area LAIRD	Pool or Zone NOT APPLICABLE	Sampler's Company AGAT	
Test Type	Test No.	Test Recovery F-36	Name of Sampler
Test Interval or Perfs		Sampling Point TEST SEPARATOR SIGHT GLASS	Separator Reservoir Source Sampled Received Pressure (kPa) Temperature (°C)
Date Sampled Aug 19, 1999	Date Received Aug 21, 1999	Date Reported Aug 21, 1999	Analyst KK
Other Information F-36			

Cations

ION	mg/L	Mass Fraction	mmol/L
Na	1470.0	0.289	63.9
K	234.0	0.046	6.0
Ca	31.8	0.006	0.8
Mg	7.1	0.001	0.3
Fe	0.8	Trace	Trace

Anions

ION	mg/L	Mass Fraction	mmol/L
Cl	1757.0	0.345	49.6
HCO ₃	1485.8	0.292	24.3
SO ₄	107.9	0.021	1.1
CO ₃	Nil	Nil	Nil
OH	Nil	Nil	Nil

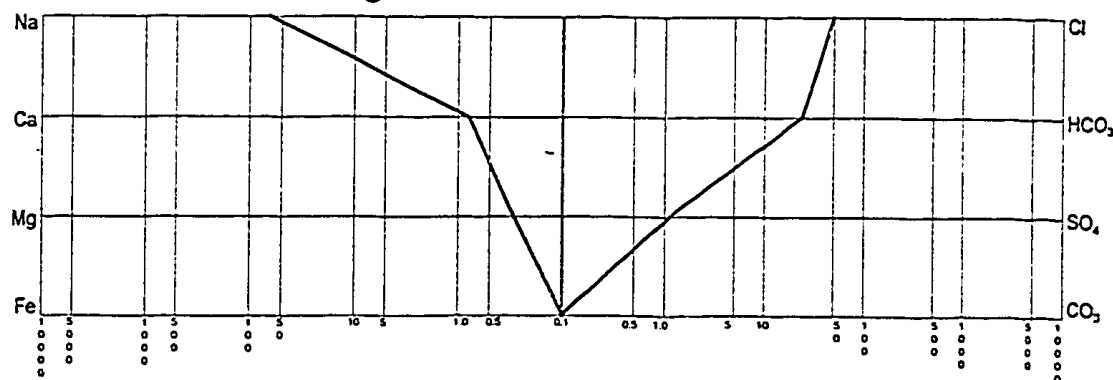
Other Measurements

Measurement	Value
Total Dissolved Solids (Calculated) mg/L	5094
Observed Ph	7.77
H ₂ S (25°C) mg/L	N/D
Relative Density (25°C)	1.002
Resistivity / OHM-m (25°C)	1.339
Salinity %	0.32

Total Cations 72.1

Total Anions 76.2

Logarithmic Pattern mmol/L





GAS ANALYSIS

CONTAINER IDENTIFICATION

AGAT 21181

LABORATORY NUMBER

GF41946A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

KLB 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 ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0032	0.0033	
CO ₂	0.0133	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9497	0.9622	
C ₂	0.0226	0.0229	
C ₃	0.0063	0.0064	23.3
NC ₄	0.0013	0.0014	5.9
NC ₄	0.0015	0.0016	6.5
NC ₅	0.0007	0.0007	3.5
NC ₅	0.0005	0.0005	2.6
C ₆	0.0004	0.0004	2.3
C ₇	0.0003	0.0004	2.1
C ₈	0.0001	0.0001	1.0
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	47.2

GROSS HEATING VALUE MJ/m³
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

C₇₊

104.3

H₂S g/m³

0.00

REMARKS

FIELD H₂S = 1.5 ppm



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION

AGAT 17688

LABORATORY NUMBER

CF41946A

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

ELEVATIONS

PARAMOUNT et al LAIRD

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LAIRD

RF

AGAT

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

SAMPLING POINT

TEST SEPARATOR

* Bubble Point

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

4413

4413

3800*

24

24

20*

DATE SAMPLED (Y M D)

99-08-19

DATE RECEIVED (Y M D)

99-08-21

DATE REPORTED (Y M D)

99-08-21

ANALYST

MH

NCO

OTHER INFORMATION

F-36

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0001	0.0000	0.0000
CO ₂	0.0044	0.0017	0.0015
H ₂ S	0.0000	0.0000	0.0000
C ₁	0.1500	0.0204	0.0519
C ₂	0.0170	0.0043	0.0093
C ₃	0.0131	0.0049	0.0074
C ₄	0.0054	0.0027	0.0036
NC ₄	0.0089	0.0044	0.0058
NC ₅	0.0083	0.0051	0.0062
NC ₆	0.0085	0.0052	0.0063
C ₆	0.0254	0.0183	0.0209
C ₇ +	0.7589	0.9330	0.8871
C ₈			
C ₉			
C ₁₀			
C ₁₁			
C ₁₂ +			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇ + RESIDUE (15/15° C)

802.5

0.8032

44.5

DENSITY

kg/m³

RELATIVE DENSITY

API @ 15.5° C

145.1

RELATIVE MOLECULAR MASS

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

763.6

0.7643

53.5

DENSITY

kg/m³

RELATIVE DENSITY

API @ 15.5° C

118.0

RELATIVE MOLECULAR MASS

REMARKS

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.0822 C₇ + 0.7007

File No. : CF41946A

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	0.0240	0.0175	0.0201
68.9- 98.3	HEPTANES-----C7	0.0418	0.0385	0.0401
98.3-125.6	OCTANES-----C8	0.0739	0.0776	0.0787
125.6-150.6	NONANES-----C9	0.0746	0.0879	0.0873
150.6-173.9	DECANES-----C10	0.1151	0.1503	0.1468
173.9-196.1	UNDECANES-----C11	0.0908	0.1304	0.1258
196.1-215.0	DODECANES-----C12	0.0548	0.0857	0.0818
215.0-235.0	TRIDECANES-----C13	0.0311	0.0526	0.0497
235.0-252.2	TETRADECANES-----C14	0.0199	0.0362	0.0341
252.2-270.6	PENTADECANES-----C15	0.0190	0.0371	0.0345
270.6-287.8	HEXADECANES-----C16	0.0092	0.0193	0.0178
287.8-302.9	HEPTADECANES-----C17	0.0055	0.0120	0.0111
302.8-317.2	OCTADECANES-----C18	0.0022	0.0051	0.0046
317.2-330.0	NONADECANES-----C19	0.0008	0.0020	0.0018
330.0-344.4	EICOSANES-----C20	0.0002	0.0005	0.0005
344.4-357.2	TRICOSANES-----C21	0.0001	0.0002	0.0002
357.2-369.4	DOCOSANES-----C22	0.0001	0.0003	0.0003
369.4-380.0	TRICOSANES-----C23	0.0001	0.0002	0.0002
380.0-391.1	TETRACOSANES-----C24	0.0000	0.0001	0.0001
391.1-401.7	PENTACOSANES-----C25	0.0001	0.0002	0.0002
401.7-412.2	HEXACOSANES-----C26	0.0000	0.0000	0.0000
412.2-422.2	HEPTACOSANES-----C27	0.0000	0.0000	0.0000
422.2-431.7	OCTACOSANES-----C28	0.0000	0.0000	0.0000
431.7-441.1	NONACOSANES-----C29	0.0000	0.0000	0.0000
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0046	0.0035	0.0029
110.6	TOLUENE-----C7	0.0270	0.0228	0.0189
136.2	ETHYLBENZENE-----C8	0.0090	0.0088	0.0072
138.4-144.4	XYLENES-----C8	0.0542	0.0527	0.0436
168.9	1,2,4 TRIMETHYLBENZENE--C9	0.0178	0.0197	0.0160

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.0014	0.0008	0.0008
72.2	METHYLCYCLOPENTANE-----MCC5	0.0149	0.0115	0.0109
81.1	CYCLOHEXANE-----CC6	0.0370	0.0285	0.0262
101.1	METHYLCYCLOHEXANE-----MCC6	0.0548	0.0493	0.0458

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.



HYDROCARBON LIQUID ANALYSIS

CONTAINER IDENTIFICATION PB #1		LABORATORY NUMBER CF41946B	
OPERATOR NAME PARAMOUNT RESOURCES LTD.			
UNIQUE WELL IDENTIFIER LAIRD	WELL NAME PARAMOUNT et al LAIRD		ELEVATIONS RB m: GRD m:
FIELD OR AREA LAIRD	POOL OR ZONE 	NAME OF SAMPLER RF	COMPANY AGAT
TEST TYPE 	NO 	TEST RECOVERY 	

TEST INTERVAL OR PERFS

SAMPLING POINT

TEST SEPARATOR

* Bubble Point

SEPARATOR	TREATER	RESERVOIR	SOURCE	SAMPLED	RECEIVED
 	 	 	 	 	

GAUGE PRESSURE #PSI: TEMPERATURE °C:

DATE SAMPLED (Y M D) 99-08-19	DATE RECEIVED (Y M D) 99-08-21	DATE REPORTED (Y M D) 99-08-21	ANALYST MH NCO	OTHER INFORMATION F-36
---	--	--	--------------------------	----------------------------------

COMP	MOLE FRACTION	MASS FRACTION	VOLUME FRACTION
N ₂	0.0000	0.0000	0.0000
CO ₂	0.0000	0.0000	0.0000
H ₂ S	0.0000	0.0000	0.0000
C ₁	0.0006	0.0001	0.0002
C ₂	0.0011	0.0002	0.0005
C ₃	0.0031	0.0010	0.0015
IC ₄	0.0028	0.0012	0.0016
NC ₄	0.0062	0.0025	0.0035
IC ₅	0.0090	0.0046	0.0059
NC ₅	0.0101	0.0052	0.0065
C ₆	0.0371	0.0224	0.0267
C ₇	0.9300	0.9628	0.9536
C ₈			
C ₉			
C ₁₀			
C ₁₂₊			
TOTAL	1.0000	1.0000	1.0000

OBSERVED PROPERTIES OF C₇+ RESIDUE (15/15° C)

803.9

0.8046

44.2

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

146.2

RELATIVE MOLECULAR MASS

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

796.8

0.7975

45.8

DENSITY kg/m³

RELATIVE DENSITY

API @ 15.5° C

141.2

RELATIVE MOLECULAR MASS

REMARKS

Calculations for C₆ and C₇ are based on Boiling Point Grouping. If Carbon Number Grouping had been done, the mole fractions would be C₆ 0.1027 C₇₊ 0.8623

File No. : CF41946B

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	0.0350	0.0214	0.0256
68.9- 98.3	HEPTANES-----C7	0.0506	0.0382	0.0416
98.3-125.6	OCTANES-----C8	0.0876	0.0754	0.0799
125.6-150.6	NONANES-----C9	0.0806	0.0779	0.0809
150.6-173.9	DECANES-----C10	0.1183	0.1266	0.1290
173.9-196.1	UNDECANES-----C11	0.1012	0.1192	0.1201
196.1-215.0	DODECANES-----C12	0.0783	0.1005	0.1002
215.0-235.0	TRIDECANES-----C13	0.0599	0.0832	0.0820
235.0-252.2	TETRADECANES-----C14	0.0417	0.0624	0.0613
252.2-270.6	PENTADECANES-----C15	0.0265	0.0425	0.0412
270.6-287.8	HEXADECANES-----C16	0.0147	0.0252	0.0243
287.8-302.8	HEPTADECANES-----C17	0.0073	0.0133	0.0128
302.8-317.2	OCTADECANES-----C18	0.0023	0.0043	0.0041
317.2-330.0	NONADECANES-----C19	0.0005	0.0011	0.0011
330.0-344.4	EICOSANES-----C20	0.0001	0.0003	0.0003
344.4-357.2	HENEICOSANES-----C21	0.0000	0.0001	0.0001
357.2-369.4	DOCOSANES-----C22	0.0000	0.0000	0.0000
369.4-380.0	TRICOSANES-----C23	0.0000	0.0000	0.0000
380.0-391.1	TETRACOSANES-----C24	0.0000	0.0000	0.0000
391.1-401.7	PENTACOSANES-----C25	0.0000	0.0000	0.0000
401.7-412.2	HEXACOSANES-----C26	0.0000	0.0000	0.0000
412.2-422.2	HEPTACOSANES-----C27	0.0000	0.0000	0.0000
422.2-431.7	OCTACOSANES-----C28	0.0000	0.0000	0.0000
431.7-441.1	NONACOSANES-----C29	0.0000	0.0000	0.0000
441.1 PLUS	TRIACONTANES PLUS-----C30+	0.0000	0.0000	0.0000

AROMATICS

80.0	BENZENES-----C6	0.0057	0.0033	0.0028
110.6	TOLUENE-----C7	0.0307	0.0213	0.0183
136.2	ETHYLBENZENE-----C8	0.0124	0.0099	0.0085
138.4-144.4	XYLENES-----C8	0.0627	0.0501	0.0433
168.9	1,2,4 TRIMETHYLBENZENE-----C9	0.0259	0.0234	0.0200

NAPHTHENES

48.9	CYCLOPENTANE-----CC5	0.021	0.0010	0.0011
72.2	METHYLCYCLOPENTANE-----MCC5	0.0173	0.0110	0.0109
81.1	CYCLOHEXANE-----CC6	0.0426	0.0270	0.0258
101.1	METHYLCYCLOHEXANE-----MCC6	0.0631	0.0466	0.0451

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.



GAS ANALYSIS

CONTAINER IDENTIFICATION

21181/17688

LABORATORY NUMBER

G41946RA

OPERATOR NAME

PARAMOUNT RESOURCES LTD.

UNIQUE WELL IDENTIFIER

WELL NAME

KB m ELEVATIONS

PARAMOUNT et al LAIRD F-36

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LAIRD

RF

AGAT

TEST TYPE

NO

TEST RECOVER ?

TEST INTERVAL OR PERFS

SAMPLING POINT

CALCULATED WELLSTREAM

GAUGE PRESSURE kPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

4413

4413

24

24

DATE SAMPLED (Y-M-D)

99-08-19

DATE RECEIVED (Y-M-D)

99-08-21

DATE REPORTED (Y-M-D)

99-08-31

ANALYST

GE

NCO

OTHER INFORMATION

COMP	MOLE FRACTION		PETROLEUM LIQUID CONTENT mL = m ³
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
N ₂	0.0032	0.0033	
CO ₂	0.0133	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.9490	0.9618	
C ₂	0.0226	0.0229	
C ₃	0.0063	0.0064	23.2
IC ₄	0.0013	0.0013	5.7
NC ₄	0.0015	0.0015	6.3
IC ₅	0.0007	0.0007	3.4
NC ₅	0.0005	0.0005	2.4
C ₆	0.0004	0.0004	2.2
C ₇	+ 0.0011	0.0011	6.8
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	50.0

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPa

MOISTURE AND ACID GAS FREE

39.29

AIR FREE AS RECEIVED

38.77

VAPOUR PRESSURE PENTANES PLUS

66.0 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.596

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.583

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

pPc (kPa)

4634

pTc

197.0 K

ACID GAS FREE

pPc (kPa)

4592

pTc

195.6 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.3

C₇+

100.2

H₂S g/m³

0.00

REMARKS

FIELD GOR = 178108m³/m³

3650 - 21st STREET N.E.
CALGARY, ALBERTA
CANADA T2E 6V6

AGAT[®] Laboratories



TEL: (403) 299-2000
FAX: (403) 299-2010
www.agatlabs.com

Accredited by the Canadian Association for Environmental Analytical Laboratories (CAEAL).
Accredited by the American Industrial Hygiene Association (AIHA).

PARAMOUNT RESOURCES LTD.

4000-350 7th Avenue SW

Calgary, AB

T2P 3W5

ATTENTION: WAYNE TOMM

Date Sampled: 99-09-19

Date Received: 99-09-21

Date Reported: 99-09-21

TRACE SULPHUR ANALYSIS (GC-SCD) - GAS

File Number: F41946	
Lab Number: SAMP1A	
Sample ID.: F-36, Paramount et al Liard, test separator, code 2480	
PARAMETER	CONCENTRATION (ppm, v/v)
i - Butyl mercaptan	<0.1
n - Butyl mercaptan	<0.1
s - Butyl mercaptan	<0.1
t - Butyl mercaptan	<0.1
t - Butyl methyl sulphide	<0.1
Carbon disulphide	<0.1
Carbonyl sulphide	<0.1
Ethyl disulphide	<0.1
Ethyl mercaptan	<0.1
Ethyl methyl sulphide	<0.1
Ethyl sulphide	<0.1
Hydrogen sulphide	1.8
Methyl disulphide	<0.1
Methyl mercaptan	<0.1
Methyl sulphide	<0.1
1 - Propyl mercaptan	<0.1
2 - Propyl mercaptan	<0.1
Thiophene	<0.1
Total organic sulphur	1.8

Method Detection Limit: 0.1 ppm (v/v)

Identification based on retention time relative to standards.

Certified By:

Brian Watson

Brian Watson, B.Sc.

Analyst, Trace Organics

AGAT[®] Laboratories



GAS ANALYSIS

CONTAINER IDENTIFICATION
AGAT 22123LABORATORY NUMBER
GF41766A

PARAMOUNT RESOURCES LTD.

OPERATOR NAME

UNIQUE WELL IDENTIFIER

WELL NAME

PARAMOUNT et al LIARD F-36

ELEVATION

ORD m

FIELD OR AREA

POOL OR ZONE

NAME OF SAMPLER

COMPANY

LIARD

RF

AGAT

TEST TYPE

NO

TEST RECOVERY

TEST INTERVAL OR PERFS

FLOW LINE

SAMPLING POINT

GAUGE PRESSURE MPa

TEMPERATURE °C

SEPARATOR

TREATER

RESERVOIR

SOURCE

SAMPLED

RECEIVED

4413

4413

3585

34

34

21

DATE SAMPLED (Y-M-D)

DATE RECEIVED (Y-M-D)

DATE REPORTED (Y-M-D)

ANALYST

OTHER INFORMATION

99-08-14

99-08-17

99-08-17

LQ

NCO

COMP.	MOLE FRACTION		PETROLEUM LIQUID CONTENT vol. % (wt. %)
	AIR FREE AS RECEIVED	AIR FREE ACID GAS FREE	
H ₂	TRACE	TRACE	
H ₂	0.0001	0.0001	
H ₂	0.0029	0.0029	
CO ₂	0.0116	0.0000	
H ₂ S	TRACE	TRACE	
C ₁	0.9471	0.9582	
C ₂	0.0231	0.0234	
C ₃	0.0075	0.0076	27.5
iC ₄	0.0015	0.0016	6.7
nC ₄	0.0023	0.0023	9.6
iC ₅	0.0009	0.0009	4.3
nC ₅	0.0008	0.0008	3.8
C ₆	0.0010	0.0010	5.3
C ₇	0.0009	0.0009	5.3
C ₈	0.0003	0.0003	2.3
C ₉	0.0000	0.0000	0.0
C ₁₀₊	0.0000	0.0000	0.0
TOTAL	1.0000	1.0000	64.8

GROSS HEATING VALUE MJ/m³
15° C AND 101.325 kPaMOISTURE AND
ACID GAS FREE
39.63AIR FREE
AS RECEIVED
39.17VAPOUR PRESSURE
PENTANES PLUS
60.1 kPa

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.599

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.589

PSEUDO CRITICAL PROPERTIES (CALCULATED)

AS SAMPLED

DPC (MM)

4628 kPa

PTD

197.7 K

ACID GAS FREE

DPC (MM)

4595 kPa

PTD

196.5 K

RELATIVE MOLECULAR MASS

TOTAL GAS

17.4

C₇₊

104.2

H₂S (ppm)

0.01

REMARKS:

FIELD H₂S = 0.5ppm

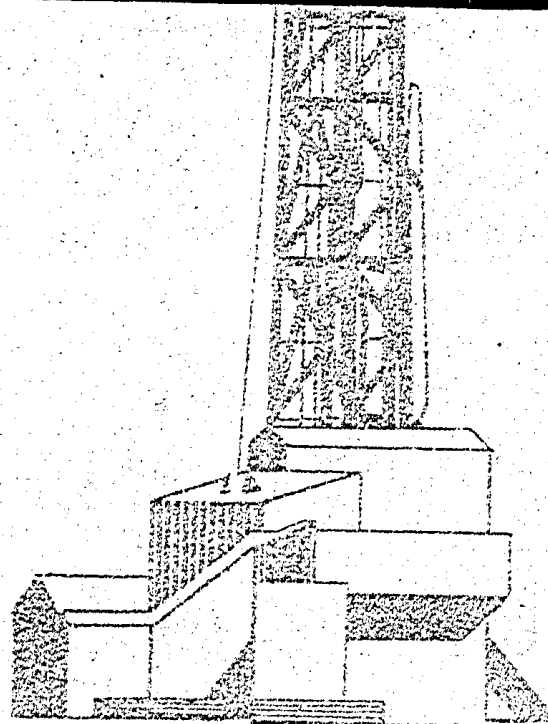
Geological Report (2)

N.E.B. COPY

1841

Geological Report

①



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CONTINENTAL LABORATORIES

CL CONSULTANTS LIMITED

1958 - 1998
"Logging the Past 40 Years"

PARAMOUNT et al
LIARD F-36
60° 05.46' 123° 22.06'

File No: 98N-2114

9211-833-11-1

Prepared by:

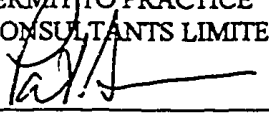
BARRY CLATTENBURG
Staff Wellsite Geologist
CL Consultants Limited

NATIONAL ENERGY BOARD
ENGINEERING DIVISION
APR - 3 1998

Prepared for:

Paul Collens
PARAMOUNT RESOURCES LIMITED

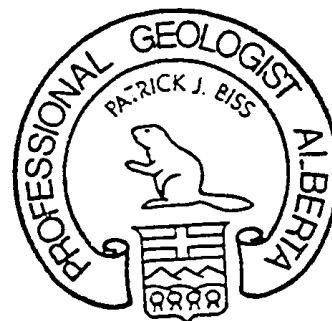
PERMIT TO PRACTICE
CL CONSULTANTS LIMITED

Signature: 

Date: April 1, 1998

PERMIT NUMBER: P 2911

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta



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Paramount et al Liard F-36
60.05.46 123.22.06

SYNOPSIS

OPERATOR: Paramount Resources Ltd.

WELL NAME: Paramount et al Liard F-36

LOCATION: 60o 05.46' 123o 22.06'

FIELD: Undefined

PROVINCE: Northwest Territories

ELEVATIONS: G.L. 464.8m K.B. 469.4m

SPUD DATE: March 3, 1998 00:15 hrs.

T.D. DATE: March 24, 1998 11:15 hrs.

CONTRACTOR: Akita Drilling Ltd Rig: 15

HOLE SIZE: Surface: 311mm Main: 222mm

MUD COMPANY: Concord Drilling Fluids Ltd.

MUD TYPE: Gel Chem

WIRELINE LOGGING CO.: Schlumberger

LOG RECORD:

- 1) DP SH SONIC/GR/CAL U DP MODE 1477.5m - 502m P&S MODE 1486.2m - 0m
- 2) PE/A IND-RXO SP CAL/ML GR/CNL/DENS 1484.5m - 502m
- 3) HR CNL DENS A IND 875m - 950m; 1100m - 1175m; 1400m - T.D.

TESTING COMPANY: Baker Tools/Delta P Test Corp.

TEST RECORD: DST #1 1145m - 1155m (Triassic)
DST #2 1115m - 1125m (Chinkeh)
DST #3 1455m - 1494m (Mattson)

DRILLING SUPERVISION: Mike Beaudin/Dave Campbell

GEOLOGICAL SUPERVISION: Barry C. Clattenburg

TOTAL DEPTH: DRILLER: 1494.0 metres LOGGER: 1486.5 metres

FORMATION TOPE (m)

FORMATION	PROGNOSIS		SAMPLES	LOGS	
	(subsea)	(KB)		(KB)	(subsea)
LOWER CRETACEOUS					
Lepine				390.5	+ 78.9
Scatter	- 357.2	826.6	784	789.5	- 320.1
Garbutt	- 600.2	1069.6	981	969.5	- 500.1
Chinkeh	- 690.2	1159.6	1107	1110.0	- 640.6
TRIASSIC	- 700.2	1169.6	1125	1125	- 655.6
PERMIAN					
Fantasque	- 760.2	1229.6	1225	1224.5	- 755.1
MISSISSIPPIAN					
Mattson	- 948.2	1417.6	1397	1398.5	- 929.1
T.D.	-1591.2	2060.6	1494	1486.5	-1017.1

DEVIATION SURVEY RECORD

<u>Depth (m)</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
31	1/8		
60	1/2		
90	7/8		
122	7/8		
155	3/4		
196	1/4		
225	3/4		
256	3/4		
285	1		
312	1/2		
340	1/4		
370	1/2		
398	1/2		
426	1		
456	1		
495	1		
534	1/2		
591	7/8		
650	7/8		
706	1		
764	7/8		
818	3/4		
871	1/4		
933	1/8		
986	1/4		
1050	1/4		
1113	1		
1156	1/4		
1213	1 1/8		
1262	1		
1318	2 3/4		
1354	3		
1383	3		
1440	3/4		
1484	1 1/2		

BIT RECORD

#	Type	Size	In	Out	Total	Hrs	FOB	RPM	Cond. T B G
1A	S44GF	311	0	236	236	22.75	6	190	6 1 01
2A	HW X1G	311	236	369	133	18.5	6-8	190	4 1 01
3A	SM H88S	311	369	502	133	22.5	8	190	1 4 01
1	SM F15HP	222	502	792	290	41.25	6-8	120	4 3 IN
2	S. ERA22	222	792	1145	353	54.0	10-12	120	5 2 01
3	S.GERA33	222	1145	1173	28	4.75	12	120	NO WEAR
3RR	S.GERA33	222	1173	1292	147	37.5	12	120-130	7 4 02
4	ATJM44G	222	1292	1348	56	17.5	10	130	8 3 02
5	R.EPH53A	222	1348	1368	20	6.25	8-10	100-140	5 1 01
6	S.GM84F	222	1368	1454	86	33.5	12-14	120	6 8 02
7	S.GM89TG	222	1454	1494	40	15.75	14-16	90-120	4 2 IN

BIT CONDITION

SCALE

Tooth Wear	(T)	0 - 8
Bearing Wear	(B)	0 - 8
Gauge	(G)	In or mm under

DAILY DRILLING CHRONOLOGY

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 3/98				00:15-02:00: Drill 311mm hole. 02:00-02:15: Survey. 02:15-05:00: Drill 311mm hole. 05:00-05:15: Survey. 05:15-07:00: Drill 311mm hole. 07:00-07:15: Survey. 07:15-08:00: Drill 311mm hole. 08:00-08:15: Rig service. 08:15-17:00: Rig repair. 17:00-17:15: Rig service. 17:15-21:15: Drill 311mm hole. 21:15-21:30: Survey. 21:30-24:00: Drill 311mm hole.
Mar. 4/98				00:00-00:45: Drill 311mm hole. 00:45-01:00: Rig service. 01:00-01:45: Drill 311mm hole. 01:45-02:00: Survey. 02:00-06:45: Drill 311mm hole. 06:45-07:00: Survey. 07:00-10:00: Drill 311 mm hole. 10:00-10:15: Survey. 10:15-10:30: Rig service. 10:30-12:30: P.O.H. with bit #1A. 12:30-15:15: R.I.H. with bit #2A. 15:15-18:15: Drill 311mm hole. 18:15-18:30: Rig service. 18:30-18:45: Survey. 18:45-22:15: Drill 311mm hole. 22:15-22:30: Survey. 22:30-24:00: Drill 311mm hole.
Mar. 5/97				00:00-01:00: Drill 311mm hole. 01:00-01:15: Rig service. 01:15-02:30: Drill 311mm hole. 02:30-02:45: Survey. 02:45-06:30: Drill 311mm hole. 06:30-06:45: Survey. 06:45-11:15: Drill 311mm hole. 11:15-11:30: Circulate sample. 11:30-11:45: Rig service. 11:45-16:00: Trip for bit 2A. 16:00-18:15: Ream bridges from 369-373m.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
				18:15-18:45: Drill 311mm hole. 18:45-19:00: Rig service. 19:00-19:45: Drill 311mm hole. 19:45-20:00: Survey. 20:00-23:45: Drill 311mm hole. 23:45-24:00: Survey.
Mar. 6/98				00:00-01:15: Drill 311mm hole. 01:15-01:30: Rig service. 01:30-05:45: Drill 311mm hole. 05:45-06:00: Survey. 06:00-07:00: Rig repair. 07:00-11:15: Drill 311mm hole. 11:15-11:30: Rig service. 11:30-11:45: Survey. 11:45-13:00: Rig repair. 13:00-18:15: Drill 311mm hole. 18:15-18:30: Rig service. 18:30-18:45: Survey. 18:45-20:15: Drill 311mm hole. 20:15-20:45: Circulate and condition hole. 20:45-23:45: Strap out with bit #3A. 23:45-24:00: Lay down 2 x 192mm D.C.s.
Mar. 7/98				00:00-00:45: Lay down 2 x 192mm D.C.s. 00:45-01:00: Safety meeting and rig to run 244.5mm surface casing. 01:00-01:15: Rig service. 01:15-09:00: Run surface casing. 09:00-09:30: Circulate casing. 09:30-11:00: Cement with Sanjel. 11:00-15:00: Wait on cement. 15:00-18:00: Cut conductor and surface casing. Rig out diverter equipment. 18:00-22:00: Wait on B.O.P. equipment. 22:00-24:00: Cut surface casing to height. Preheat and weld casing head.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 8/98				00:00-01:45: Cut surface casing to height. Preheat and weld casing head. 01:45-17:00: Nipple up Class IV B.O.P. stack as per NEB requirements. 17:00-18:30: Pressure test blind rams, HCR and manifold. 1400kPa low and 7000kPa high. 10 min. each. O.K. 18:30-18:45: Rig service. 18:45-20:00: Lay down 4 x 171mm DCs. 20:00-22:30: R.I.H. with bit #1. 22:30-24:00: Thaw kelly.
Mar. 9/98				00:00-03:00: Pressure test pipe rams, kelly cock, annular, stabbing valve, inside B.O.P. and all related subs and stock valves. 1400kPa low and 7000kPa high. 10 min. each. O.K. 03:00-04:45: Drill out float, cement, and shoe. 04:45-05:00: B.O.P. drill. 05:00-06:30: Drill 222mm hole from 502m to 512m. 06:30-08:00: Conduct formation leak off test. Leak off gradient confirmed a minimum of 23.05kPa/m. 08:00-09:30: Drill from 512m to 527m. 09:30-11:15: Pump out 3 singles D.P. 11:15-12:45: P.O.O.H. to change B.H.A. 12:45-13:00: Rig service. 13:00-13:15: B.O.P. drill. 13:15-14:30: Make up stabilized B.H.A. 14:30-16:00: R.I.H. with bit #1. 16:00-17:00: Ream B.H.A. to bottom. 17:00-19:30: Drill from 527m to 545m. 19:30-19:45: Survey. 19:45-20:00: Rig service. 20:00-24:00: Drill 222mm hole.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 10/98				00:00-05:00: Drill 222mm hole to 602m. 05:00-05:15: Survey. 05:15-05:30: Rig service. 05:30-08:30: Drill from 602m to 621m. 08:30-08:45: Rig service. 08:45-14:00: Drill from 621m to 659m. 14:00-14:15: Survey. 14:15-20:45: Drill from 659m to 698m. 20:45-21:00: Rig service. 21:00-22:00: Drill from 698m to 707m. 22:00-24:00: Work tight hole.
Mar. 11/98				00:00-01:00: Drill from 707m to 717m. 01:00-01:15: Survey. 01:15-01:30: Rig service. 01:30-08:30: Drill from 717m to 774m. 08:30-08:45: Survey. 08:45-09:00: Rig service. 09:00-12:00: Drill from 774m to 792m. 12:00-13:00: Circulate and condition hole. 13:00-16:00: Blow kelly and strap cut of hole with bit #1. 16:00-19:30: Change bit. Pick up 4 x 155mm D.C.s. R.I.H. with bit #2. 19:30-20:30: Wash to bottom from 750m to 792m. 20:30-24:00: Drill from 792m to 814m.
Mar. 12/98				00:00-02:30: Drill from 814m to 828m. 02:30-02:45: Survey. 02:45-03:00: Rig service. 03:00-05:00: Repair 2 broken valve keepers on PZ-8 mud pump. 05:00-08:00: Drill from 828m to 847m. 08:00-08:15: Rig service. 08:15-10:30: Drill from 847m to 866m. 10:30-10:45: B.O.P. drill. 10:45-14:00: Drill from 866m to 885m. 14:00-14:15: Survey. 14:15-17:30: Drill from 885m to 903m. 17:30-17:45: Rig service. 17:45-24:00: Drill from 903m to 935m.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 13/98				00:00-00:30: Drill from 932m to 942m. 00:30-00:45: Survey. 00:45-01:00: Rig service. 01:00-11:00: Drill from 942m to 999m. 11:00-11:15: Survey. 11:15-11:30: Rig service. 11:30-16:15: Drill from 999m to 1046m. 16:15-16:30: Rig service. 16:30-18:30: Drill from 1046m to 1065m. 18:30-18:45: Survey. 18:45-24:00: Drill from 1065m to 1113mm
Mar. 14/98				00:00-01:45: Drill from 1113m to 1122m. 01:45-02:00: Survey. 02:00-02:15: Rig service. 02:15-08:00: Drill from 1122m to 1145m. 08:00-08:15: Rig service. 08:15-08:45: Circulate bottom hole sample. 08:45-11:45: P.O.O.H. with bit #2. 11:45-12:45: R.I.H. with bit #3. 12:45-13:45: Slip and cut drilling line. 13:45-15:45: Finish R.I.H. with bit #3. 15:45-16:15: Break circulation and wash to bottom from 1130m to 1145m. 16:15-20:30: Drill from 1145m to 1170m. 20:30-21:00: Circulate bottom hole sample. 21:00-21:15: Survey. 21:15-21:30: Rig service. 21:30-22:00: Drill from 1170m to 1173.5m 22:00-22:45: Circulate bottom hole sample. 22:45-23:30: Wiper trip 5 stands of drill pipr. 23:30-24:00: Circulate and condition hole.
Mar. 15/98				00:00-00:45: Circulate and condition hole. 00:45-01:00: Rig service. 01:00-03:30: P.O.O.H. with bit #3. 03:30-04:30: Lay down B.H.A.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
				04:30-08:00: Make up Baker inflate tool for DST#1. 08:00-11:00: Strap in hole with DST#1. 11:00-11:30: Head up test tool; safety meeting. 11:30-14:00: Inflate packer and conduct DST#1. 14:00-14:30: Deflate packer and lay down 3 singles D.P. 14:30-19:45: Inflate packer and conduct DST#2. 19:45-24:00: Deflate packer and P.O.O.H. with test tools.
Mar. 16/98				00:00-01:30: P.O.O.H. with test tools. 01:30-04:30: Lay down test tools. 04:30-04:45: Rig service. 04:45-08:30: Make up stabilized B.H.A.; R.I.H. with bit #3RR. 08:30-08:45: Rig service. 08:45-09:15: Wash to bottom from 1160m to 1173m. 09:15-19:00: Drill from 1173m to 1227m. 19:00-19:30: Rig service. 19:30-24:00: Drill from 1227m to 1245m.
Mar. 17/98				00:00-00:15: Rig service. 00:15-08:00: Drill from 1245m to 1271m. 08:00-08:15: Rig service. 08:15-09:30: Drill from 1271m to 1275m. 09:30-10:00: Survey. 10:00-14:45: Drill from 1275m to 1292m. 14:45-15:15: Circulate bottoms up. 15:15-19:00: Strap out with bit #3RR. 19:00-23:00: R.I.H. with NB#4. 23:00-24:00: Ream (wash) to bottom from 1254m to 1292m.
Mar. 18/98				00:00-00:45: Ream (wash) to bottom. 00:45-01:15: Drill from 1292m to 1293m. 01:15-01:30: Rig service. 01:30-10:15: Drill from 1293m to 1322m. 10:15-10:30: Rig service. 10:30-13:30: Drill from 1322m to 1332m.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
				13:30-14:00: Survey. 14:00-17:00: Drill from 1332m to 1341m. 17:00-17:15: Rig service. 17:15-19:30: Drill from 1341m to 1348m. Kelly swivel packed up. Unable to continue drilling 19:30-20:30: Circulate bottoms up. 20:30-22:15: Pump out 9 singles of D.P. 22:15-22:30: B.O.P. drill. 22:30-24:00: Circulate and raise viscosity of mud.
Mar. 19/98				00:00-01:30: Circulate and condition. 01:30-05:00: Trip bit into surface casing. Broke 1 tong jaw. Unable to continue tripping 05:00-12:00: Wait on swivel and tong jaw Replace water pump on PZ-8 379 Cat engine. 12:00-15:15: Change out swivel and make up tong. 15:15-17:15: Finish P.O.O.H. with bit #4. 17:15-21:00: Change bit and B.H.A. R.I.H. with bit #5. 21:00-22:15: Ream 9 singles D.P. to bottom (1263m to 1348m). 22:15-24:00: Drill from 1348m to 1357m.
Mar. 20/98				00:00-04:30: Drill from 1357m to 1368m. 04:30-04:45: Rig service. 04:45-05:30: Circulate bottoms up. 05:30-06:00: Survey. 06:00-12:00: P.O.O.H. with bit #5. 12:00-13:45: Make up bit #6 and R.I.H. with B.H.A. and 1 single D.P. 13:45-14:00: Rig service. 14:00-14:45: Slip and cut drilling line. 14:45-17:15: Finish R.I.H. with bit #6 17:15-18:30: Wash 3 singles D.P. to bottom. 18:30-21:30: Drill from 1368m to 1374m.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 21/98				21:30-23:15: Top connection on swivel quill started leaking. Attempted to tighten unsuccessfully.
				23:15-24:00: Pump out singles of P.P.
				00:00-02:00: Pump out 11 singles D.P. and hoist bit into surface casing.
				02:00-02:15: Rig service.
				02:15-08:00: Circulate at reduced rate and wait on replacement swivel
				08:00-08:15: Rig service.
				08:15-17:00: Wait on replacement swivel
				17:00-18:15: Install swivel and kelly spinner.
				18:15-20:15: R.I.H. with bit #6.
				20:15-20:45: Wash 2 singles D.P. to bottom.
Mar. 22/98				20:45-24:00: Drill from 1374m to 1381m
				00:00-00:15: Rig service.
				00:15-04:30: Drill from 1381m to 1397m
				04:30-05:00: Survey.
				05:00-05:15: Work on shale shaker.
				05:15-09:45: Drill from 1397m to 1406m
				09:45-10:00: Rig service.
				10:00-17:45: Drill from 1406m to 1425m
Mar. 23/98				17:45-18:00: Rig service.
				18:00-24:00: Drill from 1425m to 1441m
				00:00-01:15: Drill from 1441m to 1444m
				01:15-01:30: Rig service.
				01:30-05:00: Drill from 1444m to 1454m
				05:00-05:30: Survey.
				05:30-05:45: Circulate and condition.
				05:45-06:30: Survey.
				06:30-08:00: Circulate and condition (mix barite) prior to P.O.O.H. to change bit #6
				08:00-08:15: Rig service.
				08:15-09:00: Circulate and condition.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
				09:00-15:00: P.O.O.H. with bit #6. Lay down stabilizers.
				15:00-18:30: R.I.H. with bit #7.
				18:30-19:00: Ream (clean) 4 singles D.P. to bottom.
				19:00-24:00: Drill from 1454m to 1466m
Mar. 24/98				00:00-01:15: Drill from 1466m to 1469m
				01:15-01:30: Rig service.
				01:30-08:00: Drill from 1469m to 1488m
				08:00-08:15: Rig service.
				08:15-11:15: Drill from 1488m to 1494m
				11:15-12:30: Circulate and condition.
				12:30-13:15: Wiper trip 5 stands D.P.
				13:15-14:45: Circulate and condition.
				14:45-19:30: P.O.O.H. to run DST #3.
				19:30-21:30: Make up Baker inflate bottom hole test tool.
				21:30-24:00: R.I.H. with DST #3.
Mar. 25/98				00:00-00:30: R.I.H. with DST #3.
				00:30-00:45: Safety meeting.
				00:45-08:00: Head up test tool; inflate packer and conduct DST #3.
				08:00-08:30: Deflate packer and pull loose.
				08:30-13:15: P.O.O.H. with DST #3.
				13:15-17:00: Recover recorders, service, and load out test tools.
				17:00-17:15: Rig service.
				17:15-24:00: Floor motor quit. Fuel pump not working. Wait on parts and mechanic.
Mar. 26/98				00:00-08:00: Rig to and log with Schlumberger.
				08:00-20:45: Open hole logging with Schlumberger.
				20:45-23:15: R.I.H. with bit #7RR for clean out trip.
				23:15-24:00: Circulate and condition.

DAILY DRILLING CHRONOLOGY (cont.)

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
Mar. 27/98				00:00-01:00: Circulate and condition. 01:00-01:30: Survey. 01:30-06:45: Lay down drill string. 06:45-07:00: Safety and procedure meeting. 07:00-08:00: Rig to and run 177.8mm casing.

DRILLSTEM TEST

DRILLSTEM TEST No. 1

Date: March 15, 1998
Formation: Triassic
Interval: 1145m to 1155m
Test type: Closed Chamber Inflate Straddle
Packers: Inflate 194mm
Hole size: 222mm
Drill pipe: OD: 101.6mm ID: 84.84mm
Collars: OD: 158.0mm ID: 63.0mm
Testing Company: Baker Tools/Delta P Test Corp.

PRESSURES:

Times:

	IH:	12581.9	kPa		
1st	IPF:	237.7	kPa	PF:	10 min.
	FPF:	184.5	kPa		
	ISI:	203.9	kPa	ISI:	60 min.
2nd	IF:	243.3	kPa	VO:	60 min.
	FF:	245.4	kPa		
	FSI:		kPa	FSI:	0 min.
	FH:		kPa	BHT:	38.01C

Results:

Flow Comments - PF. Increase in pressure was 0.2kPa (86.5 TO 86.7kPa) instantly then no further increases. Not enough pressure to allow real time tool to provide data.

Recovery - 0.5m drilling mud.

Test Comments - Testers felt test was mechanically successful and tool had not plugged off. Test was terminated after 60 minutes VO produced only 2kPa pressure increase. Test indicated no permeability in test interval.

DRILLSTEM TEST

DRILLSTEM TEST No. 2

Date: March 15, 1998
Formation: Chinkeh
Interval: 1115m to 1125m
Test type: Closed Chamber Inflate Straddle
Packers: Inflate 194mm
Hole size: 222mm
Drill pipe: OD: 101.6mm ID: 84.84mm
Collars: OD: 158.0mm ID: 63.0mm
Testing Company: Baker Tools/Delta P Test Corp.

PRESSURES:

Times:

IH:	12255 kPa	
1st IPF:	272.3 kPa	PF: 10 min.
FPP:	282.8 kPa	
ISI:	807.7 kPa	ISI: 60 min.
2nd IF:	321.2 kPa	VO: 90 min.
FF:	338.0 kPa	
FSI:	706.7 kPa	FSI: 180 min.
FH:	12195.6 kPa	BHT: 37.13C

Results:

Flow Comments - PF. Slow increase in pressure (272 TO 283kPa).
VO. Very slow increase in pressure from 321 to 338kPa over 90 minutes.

Recovery - 8.0m drilling mud. Salinity 2000ppm.

Test Comments - Low pressures and slow increases in pressures indicate a low permeability reservoir over the test interval. Test appears mechanically successful.

DRILLSTEM TEST

DRILLSTEM TEST No. 3

Date: March 24-25, 1998
Formation: Mattson
Interval: 1455m to 1494m
Test Type: Bottom Hole Inflate
Packers: Inflate 178 mm
Hole size: 222mm
Drill pipe: OD: 101.6mm ID: 84.84mm
Collars: OD: 158.0mm ID: 63.0mm
Testing Company: Baker Tools/Delta P Test Corp.

PRESSURES:

Times:

IH:	16237.0 kPa	
1st IPF:	5354.2 kPa	PF: 5 min.
1st FPF:	12735.1 kPa	
ISI:	16321.5 kPa	ISI: 60 min.
2nd IF:	6518.8 kPa	2nd VO: 60 min.
2nd FF:	2902.2 kPa	
2nd SI:	15537.8 kPa	2nd SI: 60 min.
3rd IF:	6159.4 kPa	3rd VO: 60 min.
3rd FF:	2592.1 kPa	
3rd SI:	14990.0 kPa	3rd SI: 90 min.
FH:	16181.7 kPa	BHT: 55.5C

Results:

Flow Comments - 6 metres of fill on bottom. Inflate packer. Tool skidded 2 metres. Stopped PF after 5 minutes because good flow and packer seat started to fail. GTS immediately. Strong 4 metre flare. Rates varied widely as intermittent plugging occurred. 2nd VO produced GTS immediately. Strong 5 metre flare. The ISI pressure was so close to hydrostatic that the validity could not be determined and it was decided to run a 3rd SI.

DRILLSTEM TEST (cont.)

DRILLSTEM TEST No. 3

During 2nd SI the chamber was left open to vent contents to flare. No significant liquids were expelled while flaring. Real time suggested possible depletion. The 3rd VO was ran in open mode throughout. Rates peaked at minute 20 and declined slowly and steadily. For 3rd SI chamber was left open to the pit. Real time again indicated possible depletion.

Recovery - 80 metres of fluid recovery. This consisted of 42 metres of drilling mud; 19 metres of slightly gassified mud; and 19 metres of gassified mud. Gas samples were collected on PF and at end of 2nd flow. 5 mud samples were collected from the fluid recovery. 2 bottom hole samplers were run.

Test Comments - The testers felt the test was mechanically successful. Paramount felt that the short PF time may not have allowed time for the tool to clean itself and may have affected results of the test. Depletion may be in the order of only 1% rather than the 3.5% indicated by the test results.

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
0 - 2	SILTSTONE - medium gray, very argillaceous, very slightly calcareous;
2 - 5	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, micaceous, argillaceous;
5 - 20	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, calcareous cemented;
20 - 30	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , moderately consolidated, moderately calcareous cemented, occasionally kaolin cemented, very micaceous;
30 - 35	SANDSTONE - light medium gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, grading to light medium gray silt;
35 - 40	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, slightly to medium calcareous in part;
40 - 47	SILTSTONE - medium gray, very fine grained in part;
47 - 49	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, grading to medium gray silt;
49 - 50	SILTSTONE - medium gray, argillaceous;
50 - 64	SANDSTONE - medium light gray, fine grained to medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , moderately consolidated, occasionally micaceous, quartz, chert, rock fragments, slightly calcareous, kaolin cemented in part;
64 - 67	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, calcareous cemented in part, kaolin cemented in part;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
67 - 69	SILTSTONE - medium gray, argillaceous;
69 - 71	SANDSTONE - medium light gray, fine grained to medium grained, subangular to angular, well sorted;
71 - 80	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , calcareous cemented;
80 - 82	SANDSTONE - medium light gray salt and pepper, fine grained to medium grained, subangular to angular, well sorted, trace intergranular porosity, calcareous to kaolin cemented;
82 - 86	SILTSTONE - medium gray, argillaceous, non to very slightly calcareous;
86 - 88	SANDSTONE - light medium gray salt and pepper, very fine grained, subangular to angular, well sorted, silty, argillaceous, calcareous cemented;
88 - 94	SILTSTONE - medium gray, argillaceous, very fine grained in part;
94 - 108	SILTSTONE - medium gray, non calcareous, laminae of very fine grained sand, very argillaceous;
108 - 114	SHALE - medium dark gray, blocky, non calcareous;
114 - 130	SANDSTONE - light medium gray, fine grained to medium grained, subangular to angular, well sorted, occurs as loose grains in sample;
130 - 160	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , moderately consolidated, kaolin cemented in part, occasionally medium grained in part;
160 - 170	SANDSTONE - light medium gray, very fine grained to fine grained, subangular to angular, well sorted, silty, slightly carbonaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

170 - 178	SANDSTONE - light medium gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , silty;
178 - 194	SANDSTONE - medium light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, rare laminae of brown dolomitic argillaceous siltstone, moderately silty;
194 - 224	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, well consolidated in part, occasionally carbonaceous;
224 - 235	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, slightly calcareous in part, very silty;
235 - 250	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, occasional carbonaceous laminae, well consolidated, slightly siliceous cemented, shale laminae, trace kaolin cement, very silty;
250 - 261	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, increasingly argillaceous;
261 - 269	SANDSTONE - medium light gray salt and pepper, very fine grained, subangular to angular, well sorted, shale laminae;
269 - 286	SHALE - dark gray, blocky to subfissile, micromicaceous in part, non calcareous, occasional thin interbedded very fine grained argillaceous sand;
286 - 294	SHALE - dark gray, carbonaceous in part, fish scales;
294 - 312	SHALE - dark gray, occasional thin interbedded very fine grained well consolidated silty sand, fish scales;
312 - 340	SHALE - dark gray, carbonaceous in part, fish scales, rare sand laminae;
340 - 370	SHALE - dark gray to black, carbonaceous, micromicaceous, non calcareous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
370 - 375	SHALE - very dark gray to black, carbonaceous in part, micromicaceous, non calcareous, occasionally silty;
375 - 380	SHALE - very dark gray to black, thinly interbedded very fine grained sand;
380 - 391	SHALE - very dark gray to black, carbonaceous in part, micromicaceous, non calcareous;
391 - 400	SANDSTONE - light gray to medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, argillaceous, slightly calcareous, fish scales, grading to silt, moderately silty;
400 - 407	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
407 - 409	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, silty, carbonaceous laminae in part, slightly to moderately calcareous, kaolin cement in part;
409 - 410	SHALE - very dark gray to black, silty;
410 - 413	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, moderately calcareous, kaolin cement in part;
413 - 414	SHALE - very dark gray;
414 - 421	SANDSTONE - medium light gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, moderately consolidated, calcareous cement in part, kaolin cement in part, rare fish scales;
421 - 431	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, argillaceous in part;
431 - 432	SHALE - very dark gray, blocky to subfissile, non calcareous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

432 - 437	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, slightly calcareous cemented, kaolin cemented, slightly siliceous cemented, carbonaceous laminae in part, moderately silty;
437 - 442	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , kaolin cemented, scattered glauconite;
442 - 443	SANDSTONE - very fine grained;
443 - 444	SHALE - very dark gray, non calcareous;
444 - 452	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , scattered glauconite;
452 - 474	SANDSTONE - medium light gray, very fine grained and some fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , siliceous cemented, scattered glauconite;
474 - 478	SILTSTONE - medium gray, non calcareous, very argillaceous;
478 - 479	SHALE - very dark gray, non calcareous;
479 - 481	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, very slightly calcareous, kaolin cement, slightly siliceous cemented, scattered glauconite, moderately silty;
481 - 483	SANDSTONE - medium light gray, very fine grained to fine grained and some medium grained, subangular to angular, moderately sorted, <u>trace intergranular porosity</u> , kaolin cement, siliceous cemented,, scattered glauconite;
483 - 489	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
489 - 496	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , kaolin cemented, siliceous cemented, scattered glauconite;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

496 - 499	SANDSTONE - medium light gray, very fine grained to fine grained, subangular to angular, well sorted, scattered glauconite;
499 - 502	SILTSTONE - medium gray, argillaceous;
502 - 513	SILTSTONE - medium gray, argillaceous;
513 - 524	SANDSTONE - medium light gray and light medium gray, very fine grained, subangular to angular, well sorted, silty, argillaceous in part, kaolin cement, loose fine to medium subrounded to rounded grains in sample, occasional glauconite;
524 - 527	SILTSTONE - medium gray, argillaceous, very fine grained;
527 - 539	SANDSTONE - light gray, very fine grained to medium grained and some coarse grained, subangular to angular, poorly sorted, occurs as abundant loose grains in sample, sample quality poor;
539 - 545	SILTSTONE - medium gray, grading to micromicaceous silty shale, very argillaceous;
545 - 547	SHALE - medium gray, micromicaceous, non calcareous, silty;
547 - 551	SILTSTONE - medium gray, argillaceous, grading to silty shale;
551 - 552	SHALE - dark gray, blocky to subfissile, micromicaceous, non calcareous, silty in part;
552 - 559	SILTSTONE - medium gray, argillaceous, very fine grained in part;
559 - 567	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, slightly siliceous cemented, slightly calcareous cemented, kaolin cemented, trace glauconite;
567 - 568	SHALE - dark gray to black, fissile, micromicaceous, non calcareous, moderately carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	<u>SAMPLE DESCRIPTION</u>
568 - 574	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, carbonaceous, moderately silty;
574 - 575	SHALE - dark gray to black, fissile, micromicaceous;
575 - 583	SILTSTONE - medium gray, very fine grained in part, very argillaceous;
583 - 584	SHALE - dark gray to black, fissile, micromicaceous;
584 - 587	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, carbonaceous, argillaceous, moderately silty;
587 - 597	SILTSTONE - medium gray, very fine grained in part;
597 - 605	SHALE - dark gray to black, fissile, micromicaceous, grading to silt in part;
605 - 610	SILTSTONE - medium gray, very argillaceous;
610 - 615	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, very silty, well consolidated, moderately carbonaceous;
615 - 623	SILTSTONE - medium gray, very fine grained in part;
623 - 625	SHALE - dark gray to black, non calcareous;
625 - 632	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, calcareous cemented in part, medium gray and carbonaceous in part, moderately silty, trace glauconite;
632 - 635	SHALE - dark gray to black;
635 - 658	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, medium gray and very carbonaceous in part, no observable porosity, moderately carbonaceous;
658 - 660	SHALE - dark gray to black, very carbonaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

660 - 661	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, carbonaceous, silty;
661 - 665	SILTSTONE - medium gray, carbonaceous, very argillaceous;
665 - 674	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, no observable porosity, very carbonaceous;
674 - 675	SILTSTONE - medium gray, carbonaceous;
675 - 677	SHALE - dark gray to black, non calcareous;
677 - 678	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, carbonaceous;
678 - 679	SHALE - dark gray to black, carbonaceous;
679 - 686	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, no oil staining, no fluorescence, no cut, no observable porosity, very carbonaceous;
686 - 692	SANDSTONE - light medium gray to medium gray, very fine grained, subangular to angular, well sorted, silty, very carbonaceous;
692 - 696	SILTSTONE - medium gray, carbonaceous;
696 - 699	SHALE - dark gray to black, blocky to fissile, non calcareous, micromicaceous in part, very carbonaceous;
699 - 701	SILTSTONE - medium gray, argillaceous, very fine grained in part, carbonaceous;
701 - 706	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, very carbonaceous;
706 - 709	SHALE - dark gray;
709 - 718	SILTSTONE - medium gray, carbonaceous, very fine grained in part, grading to silty shale in part, slightly calcareous, trace glauconite, trace pyrite;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

718 - 720	SHALE - dark gray;
720 - 725	SILTSTONE - medium gray, carbonaceous, very fine grained in part, grading to silty shale in part, slightly calcareous, trace glauconite, trace pyrite;
725 - 728	SHALE - dark gray, silty in part;
728 - 741	SILTSTONE - medium gray, carbonaceous, grading to silty shale, trace glauconite, trace pyrite;
741 - 747	SHALE - dark gray to gray black, blocky, micromicaceous, silty in part, trace pyrite;
747 - 753	SILTSTONE - medium gray, carbonaceous, argillaceous;
753 - 757	SHALE - dark gray to gray black, occasional thin interbedded very fine grained sand and argillaceous silt;
757 - 759	SILTSTONE - medium gray, very fine grained in part;
759 - 762	SHALE - dark gray to gray black;
762 - 772	SILTSTONE - medium gray, argillaceous, very fine grained in part;
772 - 776	SHALE - dark gray to gray black;
776 - 778	SILTSTONE - medium gray, grading to medium light gray slightly calcareous slightly siliceous cemented very fine grained sand;
778 - 784	SHALE - dark gray to gray black;
<u>Scatter</u>	<u>784m Sample 789.5m Log</u>
784 - 788	SANDSTONE - light medium gray, medium green in part, very fine grained, subangular to angular, well sorted, moderately consolidated, slightly argillaceous, carbonaceous in part, moderately calcareous, abundant glauconite;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

788 - 793	SANDSTONE - light medium gray salt and pepper, very fine grained, subangular to angular, well sorted, moderately calcareous cemented, slightly siliceous cemented, scattered glauconite;
793 - 804	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, very slightly calcareous, slightly siliceous cemented, silty, argillaceous, occasional carbonaceous laminae;
804 - 831	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, trace glauconite;
831 - 837	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, siliceous cemented, very slightly calcareous cemented, scattered glauconite;
837 - 838	SHALE - dark gray to gray black, subfissile, micromicaceous, non calcareous;
838 - 842	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
842 - 846	SHALE - dark gray to gray black;
846 - 857	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
857 - 858	SHALE - dark gray to gray black, non calcareous;
858 - 870	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted, occasional carbonaceous laminae;
870 - 871	SHALE - dark gray to gray black;
871 - 872	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
872 - 873	SHALE - dark gray to gray black, trace pyrite;
873 - 877	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;

LITHOLOGY

Formation tops Sample interval (in meters)	<u>SAMPLE DESCRIPTION</u>
877 - 881	SHALE - dark gray to gray black;
881 - 882	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
882 - 886	SHALE - dark gray to gray black;
886 - 887	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
887 - 888	SHALE - dark gray to gray black, non calcareous;
888 - 891	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
891 - 892	SHALE - dark gray to gray black;
892 - 893	SANDSTONE - light gray salt and pepper;
893 - 895	SHALE - dark gray to gray black, silty in part;
895 - 897	SANDSTONE - light gray salt and pepper, very fine grained, subangular to angular, well sorted;
897 - 898	SHALE - as above;
898 - 906	SANDSTONE - light brown gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>dull yellow fluorescence</u> , <u>milky white cut</u> , siliceous cemented, scattered glauconite;
906 - 908	SHALE - dark gray to gray black;
908 - 910	SANDSTONE - light brown gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>dull yellow fluorescence</u> , <u>milky white cut</u> , siliceous cemented, scattered glauconite;
910 - 911	SHALE - dark gray to gray black;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

911 - 915	SANDSTONE - light brown gray to medium gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , scattered glauconite;
915 - 921	SHALE - dark gray to gray black, occasionally silty, non calcareous;
921 - 927	SANDSTONE - brown gray to medium gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , carbonaceous, siliceous cemented;
927 - 930	SHALE - dark gray to gray black, blocky to subfissile, non calcareous, silty, very carbonaceous;
930 - 932	SHALE - dark gray to gray black, blocky to subfissile, non calcareous, silty, very carbonaceous;
932 - 938	SANDSTONE - medium gray to medium brown gray, very fine grained, subangular to angular, well sorted, <u>occasional dull yellow fluorescence</u> , <u>milky white cut</u> , moderately carbonaceous;
938 - 941	SHALE - dark gray to gray black, non calcareous;
941 - 952	SANDSTONE - medium brown gray, very fine grained, subangular to angular, well sorted, <u>scattered dull yellow fluorescence</u> , <u>milky white cut</u> , non calcareous, argillaceous, slightly siliceous cemented, silty, no observable porosity, very carbonaceous, trace glauconite;
952 - 961	SHALE - dark gray to gray black, grading to medium to dark gray very carbonaceous silt;
961 - 962	SILTSTONE - medium to dark gray, very carbonaceous;
962 - 963	SANDSTONE - medium brown gray, very fine grained, subangular to angular, well sorted, carbonaceous;
963 - 970	SHALE - dark gray to gray black, carbonaceous, non calcareous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

970 - 971	SILTSTONE - medium to dark gray, carbonaceous;
971 - 973	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, silty, argillaceous, non shows, tight;
973 - 976	SHALE - dark gray to gray black;
976 - 979	SANDSTONE - light medium gray to medium gray, very fine grained, subangular to angular, well sorted, argillaceous, silty, no observable porosity;
979 - 981	SILTSTONE - medium to dark gray, carbonaceous;
Garbutt	981m Sample 969.5m Log
981 - 1020	SHALE - dark gray to gray black, fissile to subfissile, splintery in part, micromicaceous in part, non calcareous;
1020 - 1040	SHALE - dark gray to gray black, micromicaceous in part, non calcareous, subfissile to fissile, rare gray brown very argillaceous silt laminae;
1040 - 1050	SHALE - dark gray to gray black, rare laminae of medium gray very argillaceous silt;
1050 - 1062	SHALE - dark gray to gray black, carbonaceous in part, non calcareous;
1062 - 1066	SHALE - dark gray to gray black, rare trace light gray bentonite;
1066 - 1070	SHALE - dark gray to gray black, rare trace pyrobitumen, non calcareous;
1070 - 1075	SHALE - dark gray to gray black, rare trace light gray bentonite;
1075 - 1107	SHALE - dark gray to gray black, rare light gray to light green bentonite laminae, very rare pyrobitumen;
Chinkeh	1107m Sample 1110m Log

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1107 - 1114	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>very rare slow blue white cut</u> , silty, slightly calcareous cemented, slightly siliceous cemented, slightly carbonaceous, <u>very rare oil staining</u> , moderately glauconitic;
1114 - 1119	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>rare pinpoint porosity</u> , <u>occasional dull yellow fluorescence</u> , <u>blue white cut</u> , well consolidated, siliceous cemented, scattered glauconite;
1119 - 1125	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , <u>occasional dull yellow fluorescence</u> , <u>slow blue white cut</u> , siliceous cemented, scattered glauconite;
Triassic	1125m Sample 1125m Log
1125 - 1130	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, siliceous cemented, dolomite cemented; SILTSTONE-medium gray, very argillaceous, siliceous cemented;
1130 - 1145	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, well consolidated, siliceous cemented, dolomite cemented, silty;
1145 - 1155	SANDSTONE - medium brown gray to light medium gray, very fine grained, subangular to angular, well sorted, no live oil staining, no fluorescence, no cut, silty, dolomite cemented in part, siliceous cemented in part, scattered pyrobitumen, no visible porosity;
1155 - 1174	SHALE - gray red to medium gray, blocky to subfissile, very slightly dolomitic;
1174 - 1184	SHALE - medium to dark gray, gray red;
1184 - 1188	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented, slightly siliceous cemented, argillaceous, grading to silt, very silty, scattered pyrite;



LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1188 - 1197	SHALE - medium gray to gray brown, thin interbeds of light medium gray silt and very fine grained glauconitic sand;
1197 - 1205	SHALE - medium gray to gray brown, very fine grained silty dolomite, cemented sand interbeds;
1205 - 1208	SILTSTONE - light medium gray, slightly argillaceous;
1208 - 1212	SANDSTONE - medium light gray, very fine grained, subangular to angular, well sorted, dolomitic cemented, very silty;
1212 - 1215	SHALE - medium gray to gray brown;
1215 - 1216	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented;
1216 - 1218	SHALE - gray brown, blocky to subfissile;
1218 - 1220	SANDSTONE - light medium gray, very fine grained, subangular to angular, well sorted, slightly dolomitic cemented;
1220 - 1222	SHALE - gray brown;
1222 - 1225	SHALE - medium gray;
Fantasque	1225m Sample 1224.5m Log
1225 - 1228	CHERT - medium dark gray, carbonaceous in part;
1228 - 1230	CHERT - medium dark gray, <u>trace microvuggy porosity</u> , <u>trace dull yellow fluorescence</u> , <u>streaming milky white cut</u> , very finely arenaceous in part, rarely spiculer, pyrobitumen in part, carbonaceous in part;
1230 - 1233	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, very well consolidated, very siliceous cemented, slightly dolomitic cemented, silty, abundant glauconite;
1233 - 1235	CHERT - medium dark gray, carbonaceous in part;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1235 - 1238	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, silty, very siliceous cemented, very well consolidated, abundant glauconite;
1238 - 1241	CHERT - medium dark gray;
1241 - 1242	SANDSTONE - medium dark gray, very fine grained, subangular to angular, well sorted, silty, very siliceous cemented, very well consolidated, abundant glauconite;
1242 - 1245	CHERT - medium gray to medium brown gray, spiculer in part, very slightly dolomitic, very rare trace pyrobitumen lined <u>microvuggy porosity</u> , very finely arenaceous and carbonaceous in part;
1245 - 1249	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, moderately sorted, subrounded in part, carbonaceous in part, siliceous cemented, very slightly dolomitic cemented, no visible porosity, abundant glauconite;
1249 - 1256	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, slightly argillaceous, siliceous cemented, slightly dolomitic cemented, subrounded in part, very carbonaceous;
1256 - 1257	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, <u>trace microvuggy porosity</u> , <u>trace dull yellow fluorescence</u> , <u>slow blue white cut</u> , trace pyrobitumen, rare pyrite replacement of spicula, <u>rare trace microvuggy porosity</u> , abundant glauconite;
1257 - 1260	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, siliceous cemented, trace pyrobitumen,
1260 - 1269	CHERT - medium brown gray, occasionally very finely arenaceous, slightly dolomitic in part, no observable porosity, occasional glauconite;
1269 - 1274	CHERT - dark gray to dark brown gray, very finely arenaceous and very carbonaceous in part, pyritic in part;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1274 - 1279	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, moderately sorted, rare rounded grains, very glauconitic;
1279 - 1292	CHERT - light brown gray, <u>trace microvuggy porosity</u> , very fine to finely glauconitic in part, scattered pyrite in part, <u>rare microvuggy and moldic porosity</u> ;
1292 - 1296	CHERT - medium brown gray to gray brown, <u>trace microvuggy porosity</u> , very finely glauconitic in part, very slightly dolomitic, rare sparry calcite, spiculer in part, pyritic;
1296 - 1299	CHERT - medium brown gray to gray brown, occasional carbonaceous laminae;
1299 - 1301	CHERT - medium brown gray to gray brown, abundant very fine to fine grained glauconite, pyrite, trace pyrobitumen, <u>trace microvuggy solution porosity</u> .
1301 - 1303	CHERT - medium brown gray to gray brown;
1303 - 1306	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very finely glauconitic;
1306 - 1308	CHERT - light gray brown;
1308 - 1309	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very finely glauconitic;
1309 - 1311	CHERT - light gray brown;
1311 - 1313	CHERT - light gray brown, <u>trace microvuggy porosity</u> , occasionally very fine glauconitic;
1313 - 1315	CHERT - light gray brown, rare white kaolinite laminae;
1315 - 1325	CHERT - light to medium gray brown, <u>trace microvuggy porosity</u> , rare kaolin laminae;
1325 - 1333	CHERT - dark brown gray to medium brown gray, argillaceous;
1333 - 1345	CHERT - medium to light gray brown, <u>trace microvuggy porosity</u> , spiculer in part, slightly dolomitic;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1345 - 1348	CHERT - medium to light blue gray, <u>poor microvuggy porosity</u> , <u>poor fracture porosity</u> , <u>dull yellow fluorescence</u> , <u>blue white cut</u> , fractures infilled with white flinty chert, rarely clear quartz, and very fine grained argillaceous carbonaceous <u>dolomitic oil stained sand</u> , fractures not completely infilled in part.
1348 - 1352	CHERT - medium to light blue gray, <u>poor vuggy porosity</u> , <u>poor fracture porosity</u> , <u>dull yellow fluorescence</u> , <u>blue white cut</u> , fractures infilled with very fine grained argillaceous carbonaceous <u>dolomitic oil stained sand</u> , white flinty fracture infilling;
1352 - 1360	CHERT - light blue gray to gray brown, <u>trace dull yellow fluorescence</u> , <u>trace blue white cut</u> , <u>rare microvuggy porosity</u> ;
1360 - 1369	SANDSTONE - dark brown gray, very fine grained, subangular to angular, moderately sorted, <u>trace pinpoint porosity</u> , <u>very rare dull yellow fluorescence</u> , <u>blue white cut</u> , carbonaceous, pyritic in part, pyrobituminous, slightly siliceous cemented, very dolomitic, very argillaceous, silty, rare subrounded glauconite grains at top of interval;
1369 - 1375	SILTSTONE - dark brown gray, very dolomitic, very carbonaceous, very argillaceous;
1375 - 1380	DOLOMITE - dark gray brown, microcrystalline, silty, pyritic, carbonaceous, very argillaceous;
1380 - 1389	DOLOMITE - dark gray brown, microcrystalline, very argillaceous, moderately limy;
1389 - 1397	SILTSTONE - dark gray, very carbonaceous, silty, shaley, dolomitic in part, very argillaceous, very calcareous;
Mattson	1397m Sample 1398.5m Log
1397 - 1402	SANDSTONE - light gray to light medium gray, very fine grained, subangular to angular, well sorted, <u>dull yellow fluorescence</u> , <u>blue white cut</u> , well consolidated, slightly siliceous cemented, pyrobituminous, very calcareous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1402 - 1407	SANDSTONE - light gray to light medium gray, very fine grained, subangular to angular, well sorted, well consolidated, slightly siliceous cemented, pyrobituminous, very calcareous;
1407 - 1408	SANDSTONE - light brown gray, black with heavy oil in part, very fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>immediate yellow white cut</u> , abundant pyrobitumen in part, <u>live black oil</u> , trace sparry calcite may indicate fracture porosity, very calcareous;
1408 - 1414	SANDSTONE - light gray, very fine grained, subangular to angular, well sorted, <u>trace pinpoint porosity</u> , calcareous cemented in part, siliceous cemented, very rare glauconite, trace pyrite,;
1414 - 1429	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , siliceous cemented, calcareous cemented, very rare glauconite, trace pyrite;
1429 - 1430	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>poor intergranular porosity</u> , <u>dull yellow fluorescence in part</u> , <u>blue white cut</u> ;
1430 - 1432	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, calcareous cement, siliceous cement;
1432 - 1435	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> ;
1435 - 1437	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> ;
1437 - 1441	SANDSTONE - light gray salt and pepper, very fine grained to fine grained, subangular to angular, well sorted, trace pyrobitumen, siliceous cemented, calcareous cemented, slightly pyritic, occasional carbonaceous laminae;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1441 - 1449	SANDSTONE - light gray to light medium gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , rare subrounded medium to coarse grains in limestone matrix, microcrystalline limestone interbeds;
1449 - 1455	SANDSTONE - light gray, brown gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>dull yellow fluorescence and blue white cut where brown gray</u> , pyrobitumen in part, occasional medium grains;
1455 - 1462	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, calcareous and siliceous cemented, no observable porosity
1462 - 1471	SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, <u>poor intergranular porosity</u> , <u>dull yellow fluorescence on wet sample</u> , <u>blue white cut</u> , siliceous cemented, calcareous cemented in part, pyrobituminous in part, rare blue gray chert fragments;
1471 - 1483	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , calcareous cemented, siliceous cemented;
1483 - 1494	SANDSTONE - light gray to light brown gray, very fine grained to fine grained, subangular to angular, well sorted, <u>rare intergranular porosity</u> , subrounded medium grains in sample, calcareous and siliceous cemented, medium gray and carbonaceous in part;
1494m	TOTAL DEPTH

GEOLOGICAL SUMMARY AND CONCLUSIONS

Paramount et al Liard F-36 located at 60o05.46' 123o 22.06' was drilled to test the Lower Cretaceous Chinkek formation for gas and the Mississippian Mattson sands for the presence of oil. The primary zone of interest was the Chinkeh. The secondary target was the Mattson.

The well is a structural play based on seismic data. Seismic line 2-264 indicates we are on the nose of a Liard Basin structure which is plunging to the south. Good correlation was expected with the Ucel Liard K-02 located approximately 14.5 kilometres to the northwest at 60-20-123-30.

The well was spudded March 3, 1998 at 00:15 hrs. As required 2 sets of sample vials were collected and washed for the National Energy Board and 1 set of sample vials for Paramount Resources Ltd. Samples were collected from surface to T.D. A Minipac 2100 gas detection system was set up and operating from surface to T.D.

No shows were encountered while drilling the 311mm surface hole. It was therefore decided not to open hole log this section of the hole. 244.5mm surface casing was landed at 502.0 metres.

On March 10th Geco Prakla shot an E-W seismic line across the F-36 lease. The line number is FTL11.

The Lower Cretaceous Scatter formation top came in at 784m (-315). Prognosed top of Scatter was -357m. The interval 898m to 928m contains oil shows with traces of pinpoint intergranular porosity. Gas readings over this interval increased from backgrounds of 20 - 37 units to 36 - 101 units.

The decision was made not to core the Chinkeh based on the time the coring would add to the number of days to drill the hole. It was decided that the Chinkeh would be tested soon after penetration to attempt to get pressures on an undamaged formation.

At 1107m drilling rate went from 7 min./m. to 9-10 min./m. Lithology changed from dark gray to grayish black non calcareous Garbutt shale to a medium light gray very fine grained sandstone, silty, slightly argillaceous, moderately glauconitic, slightly calcareous cemented and slightly siliceous cemented with very rare oil stain and a slow blue white cut. Only rare traces of pinpoint intergranular porosity was observed in samples. There were no increases in gas readings over the interval 1107m to 1125m. This interval was tentatively picked as the Chinkeh as the sample description compared well to that in the K-02 well. There was some discussion whether this zone might represent the Bluesky equivalent starting at -346 subsea in K-02. Further correlations of F-36 drilling rates and lithology with K-02 proved this to be incorrect.

GEOLOGICAL SUMMARY AND CONCLUSIONS (cont.)

Drilling was stopped at 1174 metres to run drillstem tests. D.S.T. #1 using an infate straddle tool was run over the interval 1145m - 1155m in the Triassic based on a gas detector increase from a background of 15 units to a maximum of 108 units. Lithology was a medium brown gray very fine grained sandstone, dolomitic and siliceous cemented, with no stain and no visible porosity. Gas readings may have been overlain slightly by the fact we had 100 units of trip gas after bit trip at 1144 metres. Times were 10-60-60. Preflow pressures decreased from 237.7 kPa to 184.5 kPa. Valve open produced a pressure increase of only 2.1 kPa over 60 minutes. Results indicated no permeability in this interval. D.S.T. #2 was run over the Chinkeh from 1115m - 1125m. Times were 10-60-90-180. PF pressures increased from 272.3 kPa to 282.8 kPa. I.S.I. pressures increased very slowly. V.O. pressures only increased from 321.2 to 338.0 kPa over 90 minutes. Recovery was 8.0 metres of drilling mud with a salinity of 2000 ppm. D.S.T. #2 indicated the interval has very low permeability. Both D.S.T.s appeared to be mechanically successful tests. Drilling continued with the interval 1228m to 1230m in the Permian Fantasque formation producing a gas increase from a background of 17 units to a maximum of 72 units. Samples indicated massive chert with traces of oil stain, dull yellow fluorescence, streaming milky white cut, and traces of microvuggy and moldic porosity. This zone should be looked at closely on logs. Traces of microvuggy porosity were also seen in the intervals 1255m - 1256m and 1282m - 1291m. There were no significant increases in gas readings over these intervals. The interval 1316m to 1320m produced a gas detector increase from a background of 10 units to 40 - 60 units. Lithology is chert with traces of microvuggy porosity in sample. From 1332m to 1334m gas increased from a background of 33 units to a maximum of 95 units. Again lithology was massive chert with traces of microvuggy porosity in sample.

From 1345m to 1348m the penetration rate increased from 19 min./m. to 9 -10 min./m. The gas detector readings increased from a background of 33 units to a maximum of 82 units. The kelly swivel started to leak at 1348m and we had to stop drilling and pull out of the hole. When we resumed drilling the penetration rate was 10.5 to 6.5 min/m. from 1348m - 1352m. The lithology in the interval 1345m to 1352m is medium to light bluish grey massive chert with evidence of fracturing. The fractures have been infilled with white and clear quartz, and with a very fine grained argillaceous, carbonaceous, dolomitic, oil stained sand. The oil staining gave a dull yellow fluorescence with a blue white cut. Scattered microvuggy porosity and evidence of fracture porosity caused by incomplete fracture filling are present in samples. We had 230 units of trip gas after the trip at 1348m and 222 units of trip gas after the trip at 1369m. This trip gas compares to 45 units of trip gas at 1292m and 40 units at 1173m. This increase in trip gas indicates some migration of gas into the hole and may be from the fracture zone from 1345m to 1352m. This zone warrants further evaluation.

The replacement kelly swivel failed at 1374m. and drilling had to be stopped. Trip gas at 1374m. was 327 units.



GEOLOGICAL SUMMARY AND CONCLUSIONS (cont.)

The top of the Mattson was picked at 1397m (-928 subsea) from a change in drilling rate from 18 min./m to 24 min./m. and a change in lithology from dark grey very carbonaceous siltstone to light to light medium grey very fine gained very calcareous sandstone. The sandstone at the top of the Mattson had dull yellow fluorescence and a blue white cut but no observable porosity in sample.

From 1407.4m - 1408.2m the drilling rate increased slightly from 28 to 23 min./m. and 1 lag time later live black oil was spotted on the shaker. Gas readings increased from a background of 25 units to a maximum of 2592 units over this interval. Samples from the interval were light brown grey to black (with live heavy black oil) very fine grained sandstone with abundant pyrobitumin in part, very calcareous, immediate yellow white cut and trace intergranular porosity. A trace of sparry calcite in the sample may indicate there is also some fracture porosity.

The shale shaker was cleaned of oil regularly however oil continued to accumulate on the screens. No significant gas increase occurred until 1428.6m - 1429.8m when the drilling rate increased from 20.5 min./m. to 12 min./m. The gas readings increased from a background of 75 units to a maximum of 1009 units. Fresh brownish black oil appeared on the shaker. Sample 1425 - 1430m contained a very light grey very fine to fine grained sandstone, calcareous and siliceous cemented with a rare trace of oil stain with dull yellow fluorescence and blue white cut and a trace of intergranular porosity.

The next increase in gas readings occurred from 1435m - 1436m and may represent connection gas. Maximum reading was 772 units. Gas reading increases also occurred from 1445 - 1446m with 552 units and from 1448m - 1449m with a maximum reading of 635 units. Drilling rates were only slightly faster in these intervals. Samples from 1435 - 1440m indicate light grey very fine grained sandstone with calcareous and silica cement, no apparent stain, and only rare traces of intergranular porosity. Samples from 1445 - 1450m indicate a light grey to light medium grey very fine to fine grained sandstone with very rare medium grains, no apparent stain, and traces of intergranular porosity.

Connection gas after running a survey prior to coming out of the hole for a bit change at 1454 metres was 1456 units. Trip gas at 1454 metres was 1965 units.

In the interval 1469 - 1471m the penetration rate went from 20 min./m to 14-15 min./m. Gas readings increased from a background of 130 units to 2862 units. There appeared to be fresh brownish black oil on the shaker which was sampled for later analysis. The lithology from 1462m - 1471m was light gray fine to medium grained sandstone, siliceous and calcareous cemented with dull yellow fluorescence on wet sample and blue white cut, a trace of oil stain, and scattered intergranular porosity. From 1479m - 1481m the penetration rate

GEOLOGICAL SUMMARY AND CONCLUSIONS (cont.)

went from 19.9 min./m. to 13.9-16.4 min./m. and the gas readings increased from a background of 224 units to 405 units. The lithology was light gray very fine to fine grained sandstone with a trace of intergranular porosity.

There were traces of blue gray chert fragments in the 1455m to 1494m samples but are probably not indicative of a conglomerate zone as no matrix or coarse to very coarse grains were present in the samples.

Drilling was stopped at 11:15 hours on March 24th and T.D. called at 1494 metres.

DST #3, a bottom hole inflate test, was run from 1455m to 1494 metres in the Mattson formation. Times were 5-60-60-60-60-90. 3 flow periods were run because ISI pressure appeared to be too high to be reliable. On PF and V.O. we had gas to surface immediately and a strong flare. Shut in pressures would appear to indicate a depleting reservoir; however the short preflow time may not have allowed time for the tool to clean itself and may have affected the results of the test. Depletion may be in the order of only 1% rather than the 3.5% indicated by the test.

A clean out trip was planned prior to logging; however, the rig's floor motor quit after running the bit and 1 drill collar in the hole. Rather than wait on rig repair for 24 hours it was decided to use the tugger line to remove the 1 drill collar from the hole and attempt to log. Because we had 6 metres of fill when we ran DST #3 we decided to run the DiPole Sonic and Platform Express in two separate runs. The DiPole Sonic was successfully run to bottom on the first attempt. Logger's T.D. was 1486.5 metres. Schlumberger had some tool problems with the Platform Express. When the caliper was opened it appeared to disturb the other tool readings. This problem was solved and logging continued. Washed out sections of hole affected density and microlog responses. High resolution CNL/DENS/A. IND was run over selected intervals. Logs indicated several gas zones in the Mattson that should be capable of production.

Because of time constraints due to spring break up road bans it was decided to run 177.8mm casing to T.D. without additional testing of this hole. DST #3 results in the Mattson, the appearance of live oil on the shaker, the active gas curve and observed porosity in samples suggest this hole has the potential to produce oil and gas. Perforating and testing through casing will be required to indicate which zones are produceable.

SUMMARY OF ZONES OF GAS INCREASES AND OIL SHOWS

Interval	Formation	P.R. Change(min/m)	Gas Change	Lithology
651-661m	Lepine	None	13 to 410	SS/no vis por
676-684m	Lepine	None	69 to 205	SS/no vis por
708-711m	Lepine	None	8 to 106	SS/SLT/no vis por
898-902m	Scatter	10.2 to 7.2-8.2	27 to 62	SS/os/tr pp por
903-906m	Scatter	None	26 to 59	SS/os/tr pp por
908-910m	Scatter	9.3 to 7.8-8.1	27 to 101	SS/os/tr pp por
911-915m	Scatter	10.1 to 9.1-7.7	37 to 70	SS/os/rr pp por
921-922m	Scatter	11.1 to 8.9	18 to 36	SS/os/rr pp por
925-928m	Scatter	8.6 to 11.2-12.2	20 to 70	SS/os/rr pp por
1107-1125m	Chinkeh	7 to 9-10	25-28 to 13-29	SS/os/tr pp por
1145-1151m	Triassic	None	15 to 108*	SS/no vis por
1228-1230m	Fantasque	10.6 to 6.8-9.7	17 to 72	CHT/os/tr mv por
1316-1317m	Fantasque	15.5 to 12.1	10 to 60	CHT/tr mv por
1319-1320m	Fantasque	23.2 to 11.3	10 to 40	CHT/tr mv por
1332-1334m	Fantasque	22.7 to 17-18.5	33 to 95	CHT/tr mv por
1345-1352m	Fantasque	19 to 9-10	33 to 82**	CHT/os/tr mvf por
1407.4-08.2m	Mattson	28 to 23	25 to 2592***	SS/lo/tr ig por
1428.6-29.8m	Mattson	20.5 to 12	75 to 1009****	SS/lo/tr ig por
1436-1437m	Mattson	17.6 to 22.4	372 to 772	SS/tr ig por
1445-1446m	Mattson	25.4 to 21.6	275 to 552	SS/r ig por
1448-1449m	Mattson	16.6 to 15	312 to 635	SS/r ig por
1469-1471m	Mattson	20 to 14-15	130 to 2862****	SS/lo/scat ig por
1479-1481m	Mattson	19.9 to 13.9-16.4	224 to 405	SS/tr ig por

*May be overlain by trip gas of 100 units at 1145m.

**Trip gas after trip at 1348m increased to 230 units.

***Live black oil on shaker.

****Live brown black oil on shaker.

SUMMARY OF TRIP GAS AND CONNECTION GAS

Depth	Trip Gas	Connection Gas
1145m	100	
1173m	40	
1292m	45	
1348m	230	
1369m	222	
1374m	327	
1444m		552
1454m	1965	1456
1488m		1005
1494m (wiper)	545	

MUD SAMPLES

MUD SAMPLES SENT TO AGAT LABS MARCH 25/98 WITH BAKER OIL TOOLS REPRESENTATIVE KEN WILLIS (Paramount et al Liard F-36).

SAMPLES FROM DST #3 FLUID RECOVERY:

Sample # 1. Collected 80 metres above test tool. 25oC. 160 mg/l Cl. pH 8.5.

Sample # 2. Collected 57 metres above test tool. 26oC. 160 mg/l Cl. pH 8.0.

Sample # 3. Collected 38 metres above test tool. 27oC. 160 mg/l Cl. pH 8.0.

Sample # 4. Collected 19 metres above test tool. 29oC. 160 mg/l Cl. pH 8.0.

Sample # 5. Collected at tool. 31oC. 160 mg/l Cl. pH 8.0.

MISCELLANEOUS SAMPLES:

Flowline Sample. Collected March 22/98 at 11:00 hrs. lagged from depth of 1407 metres. 92oF. 160 mg/l Cl. pH 9.0.

Flowline Sample. Collected March 22/98 at 20:15 hrs. lagged from depth of 1429 metres. 92oF. 160 mg/l Cl. pH 8.5.

Flowline Sample. Collected March 24/98 at 02:30 hrs. lagged from depth of 1471 metres. 92oF. 160 mg/l Cl. pH 9.0.

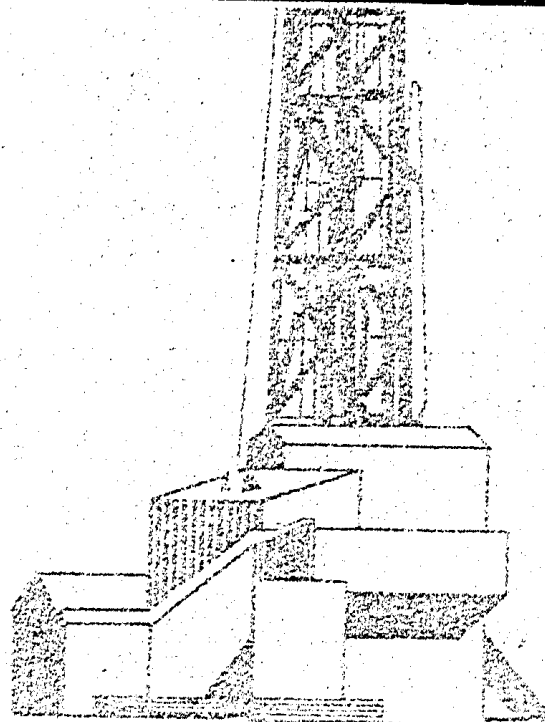
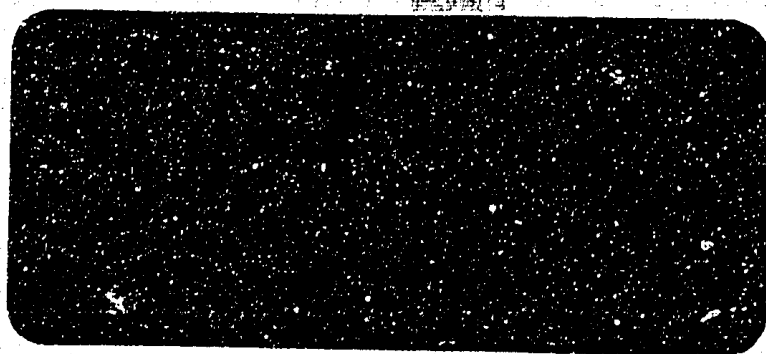
Flowline Sample. Collected March 24/98 at 13:30 hrs. at 1494 metres prior to running DST #3. 96oF. 160 mg/l Cl. pH 8.5.

*All salinity measurements were done by Concord Drilling Fluids representative Garth Shewchuk.

Geological Report

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***PARAMOUNT
ET AL LIARD F-36***

60° 05.46' 123° 22.06'

File No: 98N-2286

Prepared by:

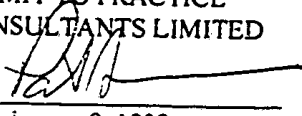
BARRY CLATTENBURG
Staff Wellsite Geologist
CL Consultants Limited

Prepared for:

Paul Collens

PAPAMOUNT RESOURCES LIMITED

PERMIT TO PRACTICE
CL CONSULTANTS LIMITED

Signature: 

Date: February 9, 1999

PERMIT NUMBER: P 2911

The Association of Professional Engineers,
Geologists and Geophysicists of Alberta



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SYNOPSIS

OPERATOR: Paramount Resources Ltd.

WELL NAME: Paramount et al Liard F-36

LOCATION: 60o 05.46' 123o 22.06'

FIELD: Undefined

PROVINCE: Northwest Territories

ELEVATIONS: G.L. 464.9m K.B. 470.3m

RE-ENTRY DATE: December 23, 1998 22:10 hrs.

T.D. DATE: January 31, 1999 23:00 hrs.

CONTRACTOR: Precision Drilling Ltd. Rig: 373

HOLE SIZE: 155.6 mm

COLLARS: 121 mm

MUD COMPANY: Baker Hughes Inteq

MUD TYPE: Nitrified Invert 1494m - 1566m/Invert 1566m - T.D.

WIRELINE LOGGING CO.: Baker Atlas

LOG RECORD: RUN NO. 2

- 1) HDIL-GR 1965.2m - 1494.0m
- 2) ZDL-CNL-GR-PE-XY CAL 1966.7m - 1494.0m
- 3) XMAC-GR 1960.7m - 250.0m
- 4) HEXDIP-CBIL-GR 1960.5m - 250.0m
- 5) MRIL-GR-CAV. 1842m-1923m; 1750m-78m; 1614m-43m; 1525m-78m)
- 6) VSP

RUN NO. 3

- 1) HDIL-GR 2107.3m - 1494.0m
- 2) ZDL-CNL-GR-PE-XY CAL 2108.8m - 1905.0m
- 3) XMAC-GR 2102.8m - 1905.0m

TESTING COMPANY: Baker Tools/Delta P Test Corp./Canada Tech Data

SYNOPSIS cont.

TEST RECORD:

Flow Test #1 1494m - 1539m (Mattson)
Flow Test #2 1494m - 1566m (Mattson)
DST #4 1559.7m - 1565.6m (Mattson)
DST #5 1662.0m - 1689.0m (Mattson)
DST #6 1763.0m - 1777.0m (Mattson)
DST #7 1757.0m - 1792.0m (Mattson)
DST #8 2085.0m - 2110.0m (Mississippian)

DRILLING SUPERVISION: Dennis McCulloch

GEOLOGICAL SUPERVISION: Barry C. Clattenburg

TOTAL DEPTH: DRILLER: 2110.0 metres LOGGER: 2109.8 metres

FORMATION TOPS (■)

PERIOD GROUP FORMATION (LOCAL UNITS)	PROGNOSIS		SAMPLES		LOGS	
	(subsea)	(KB)	(driller)	(KB)	(subsea)	
<u>PERMIAN</u>						
Mattson				1398	-928.6	
<u>MISSISSIPPIAN</u>						
Golata						
Flett			2087	2085	-1615	
T.D.			2110	2110	-1640	

DEVIATION SURVEY RECORD

Depth (m)	Deviation	Azimuth	Depth (m)	Deviation	Azimuth
1555	1.0		1874	2.54	230.31
1604	3.0		1894	2.77	252.32
1633	2.75		1913	2.71	256.73
1660	2.16		1932	1.40	277.41
1698	2.00		1951	0.72	357.56
1766	0.75		1970	1.98	50.37
1860	3.00		1989	3.31	60.03
1878	2.75		2008	5.30	67.39
1907	1.00		2016	6.64	68.49
1956	2.75		2025	7.81	69.78
2012	7.00		2029 (United GC)	7.60	77.60
1513 (Gyro/Data)	0.86	126.05	2038	6.40	81.50
1533	0.72	157.81	2048	5.10	83.10
1552	1.12	186.79	2057	4.50	88.90
1571	1.03	205.38	2067	3.80	100.50
1590	1.97	224.97	2076	3.00	95.00
1608	3.28	232.05	2110 (extrap.)	1.80	95.00
1628	2.75	234.00			
1647	2.34	238.91			
1665	2.59	240.08			
1684	2.21	253.51			
1702	2.05	262.91			
1722	2.02	260.05			
1741	2.01	260.01			
1760	1.62	277.77			
1779	1.29	296.82			
1798	1.01	301.07			
1818	1.10	281.19			
1837	0.96	264.76			
1856	1.77	232.41			

BIT RECORD

#	Type	Size (mm)	In	Out	Total (m)	Hrs drilled	FOB (daN)	RPM	Cond. T B G
1	H ATJ4	155	1494	1495	1	1.5	6	45	6-2-1
2	H STR30	155	1495	1524	29	21.50	10	55	6-3-1
3	SM F3	155	1524	1566	42	33.75	10	55	6-3-3
4	SEC PSF	155	1566	1569	3	2.25	5	55	5-3-3
5	R EHP62A	155	1569	1616	47	41.50	10	65	5-4-1
6	RBI C3LRRGS	155	1616	1641	25	25.75	10	65	4-3-1
7	R HP53A	155	1641	1663	22	20.25	6-10	65	4-3-1
8	H STR44CD	155	1663	1666	25	22.50	10	65	8-8-12
9	RBI C4LRG	155	1688	1689	1	1.25	4	65	1-1-1
10	H J4	155	1689	1690	1	1.50	8	50	8-4-1
11	H D41	155	1690	1701	11	17.50	5	55	80%
12	RBI C15LRG	155	1701	1716	15	17.0	8	55	8-8-1
13	RBI C47LRG	155	1716	1806	90	52.25	10-11	100	7-6-1
14	RBI C45LRG	155	1806	1872	66	51.25	10-12	70-75	7-4-3
15	R EHP62	155	1872	1940	68	56.00	11	75	7-4-9.5
16	H STR50	155	1940	1953	13	14.50	8-11	75	7-E-1
17	SM F570DP	155	1953	1968	15	16.75	11	75	3-E-1
18	(RR4)SEC PSF	155	1968	1968	0	CLEAN OUT TRIP AFTER LOGGING			
19	SEC HZM89F	155	1968	2020	52	36.50	10-14	75	8-6-9
20	RBI C45LRG	155	2020	2030	10	10.50	2-5	85-100	2-2-1
21	RBI C5LRGSP	155	2030	2110	80	30.75	10-12	80-100	6-4-1

BIT CONDITION		SCALE	
Tooth Wear	(T)	0 - 8	
Bearing Wear	(B)	0 - 8	
Gauge	(G)	in or (mm) under	
New Bit	T=0	B=0	G=in

DAILY DRILLING CHRONOLOGY

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
12/24/98	1500m	6m	1.5	Tag cement at 1475m. Drill out float, cement, and shoe. Drill to 1495m. Strap out of hole for bit change. R.I.H. Break circulation. Drill 155mm hole.
12/25/98	1524m	24m	20.0	Drill 155mm hole to 1524m. Blow pipe dry and P.O.O.H. for new bit.
12/26/98	1542m	18m	13.0	Trip out of hole for bit change. Make up B.H.A. and R.I.H. Change out seals on RBOP unit. Drill 155mm hole. Pull 2 suction valves on mud pump. Drill 155mm hole to 1542m. Shut in well and repair Entest valve in cellar. Blow hole dry and flow test well via annulus.
12/27/98	1566m	24m	20.0	Drill 155mm hole. Take on influx of gas at 1565.8m. Shut in well with pipe rams. Flow test with Entest equipment.
12/28/98	1566m	0m	0.0	Shut in well. Rig up Newsco. Displace gas to invert mud. Circulate and condition mud. Wiper trip. Lay down string float. Survey. Circulate and condition hole.
12/29/98	1566m	0m	0.0	Circulate bottoms up and pump pill. Trip out of hole. Remove RBOP element. Pick up test tools. Run DST #4. Trip out of hole.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
12/30/98	1569m	3m	2.25	Trip out of hole with DST #4. Recover and read recorders. Break and lay down test tools. Make up BHA and install RBOP. Run in hole with bit #4. Circulate and ream packer rubber to bottom. Drill 155mm hole to 1569m. Pump pill and trip out of hole. Rig out Alpine RBOP and Entest equipment.
12/31/98	1587m	18m	13.0	Nipple down RBOP and Entest equipment. Nipple up flow nipple and flow line. R.I.H. with bit #5 to 800m. Circulate bottoms up. Change heads and liners in pump. Finish running in hole. Ream 18m to bottom. Drill 155mm hole.
01/01/99	1610m	23m	23.0	Drill 155mm hole.
01/02/99	1622m	12m	15.0	Drill 155mm hole to 1616m. Survey. Pump pill. Trip out of hole for bit change. Make up BHA and R.I.H. Slip and cut 23m drilling line. Circulate bottoms up. Finish R.I.H. Clean 18m to bottom. No fill. Drill 155mm hole.
01/03/99	1641m	19m	17.0	Drill 155mm hole 1621m to 1641m. Survey. Pump pill. Trip out of hole for bit change. Make up BHA. R.I.H.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
01/04/99	1655m	14m	16.0	R.I.H. with bit #7. Break circulation at 700m and 1400m. Clean 9m to bottom. No fill. Drill 155mm hole. Work on pump. Drill 155mm hole.
01/05/99	1672m	17m	14.0	Drill 155mm hole to 1663m. Circulate up sample. Survey. Trip out of hole. Make up BHA and R.I.H. Break circulation at 700m and 1400m. Clean 12m to bottom. No fill. Drill 155mm hole to 1672m.
01/06/99	1688m	16m	17.0	Drill 155mm hole to 1688m. Circulate up sample and pump pill. Trip out of hole. Make up BHA and R.I.H. to bottom.
01/07/99	1689m	1m	1.0	R.I.H. with bit #9. Clean 1654m to 1683m. Ream under gauge hole 1683m to 1688m. Drill to 1689m. Circulate and condition mud. Wiper trip to casing. Trip out of hole to run DST #5. Pick up and make up test tool. Strap into hole. Make up test head.
01/08/99	1689m	0m	0.0	Perform DST #5. Pull test free and rig out test head. Trip out of hole. Hole not taking proper amount of fluid. Drop bar. Circulate. R.I.H. to 1490m. Circulate and condition mud. Pump pill. Trip out of hole. Recover recorders and lay down test tools.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
01/09/99	1691m	2m	4.0	Lay down test tools. Make up BHA & R.I.H. Clean 18m to bottom. Mill up packer rubber. Drill 155mm hole to 1690m. Pump pill and trip out of hole. Make up bit #11 and R.I.H. Circulate and ream 1520m to bottom. Pattern bit and drill 155mm hole.
01/10/99	1701m	10m	15.0	Drill 155mm hole to 1701m. Circulate. Survey. Pump pill and trip out of hole. Make up BHA and R.I.H. Clean 9m to bottom. No fill.
01/11/99	1716m	15m	17.0	Drill 155mm hole to 1716m. Jack and level rig. Pump pill and trip out of hole for bit change. Make up BHA and R.I.H. Slip and cut 30m drilling line.
01/12/99	1747m	31m	22.0	R.I.H. with bit #13. Clean 16m to bottom. No fill. Drill 155mm hole.
01/13/99	1794m	47m	22.5	Drill 155mm hole. Survey.
01/14/99	1810m	16m	12.75	Drill 155mm hole to 1806m. Circulate bottoms up. Pump pill and trip out of hole for bit change. R.I.H. Ream and clean 18m to bottom. Drill 155mm hole.
01/15/99	1841m	31m	23.0	Drill 155mm hole.
01/16/99	1871m	30m	23.25	Drill 155mm hole.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
01/17/99	1882m	11m	11.25	Drill 155mm hole to 1872m. Circulate and Survey. P.O.O.H. to change bit. R.I.H. with bit #15. Drill 155mm hole. Circulate and survey. Drill 155mm hole.
01/18/99	1910m	29m	22.00	Drill 155mm hole. Survey.
01/19/99	1940m	30m	23.25	Drill 155mm hole to 1940m.
01/20/99	1944m	4m	5.0	Pump pill. P.O.O.H. to change bit. R.I.H. with bit #16. Ream from 1910 to 1940m. Drill 155mm hole.
01/21/99	1959m	15m	15.25	Drill 155mm hole to 1953m. Pump pill. Strap out of hole. R.I.H. with bit #17. Drill 155mm hole.
01/22/99	1968m	9m	11.25	Drill 155mm hole to 1968m. Reached T.D. at 11:45 hrs. Circulate up sample. Pump pill. Wiper trip up into surface casing. Run back to bottom. Circulate and condition mud. Survey. Trip out of hole to log. Rig up line B.O.P. R.I.H. with Induction Log with Baker Atlas.
01/23/99	1968m	0m	0.00	Run HDIL-GR. Run ZDL-CNL-GR-PE-XYCAL. Run MAC-CAL. Run HEXDIP-CBIL-GR.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
01/24/99	1968m	0m	0.00	Run MRIL-GR-CAL. Run VSP. Rig out loggers. Rig out line BOP. Install flow nipple and line. R.I.H. with bit #18 for clean out trip.
01/25/99	1968m	0m	0.00	R.I.H. for clean out. Circulate and condition hole. Trip out of hole. Slip and cut drilling line. Wait on tester. Pick up tools for DST #6. Perform DST #6 over interval 1763-1777m. Packer seat failed. Real time data tool failed. Trip out of hole. Change out damaged packer rubbers.
01/26/99	1968m	0m	0.00	Make up DST #7. Wait on real time data recorder. Make up tool and R.I.H. Rig up testing head and pump up packer. Perform DST #7. Interval 1757-92m. Perform preflow and initial shut in. On VO lost packer seal. Took on fluid into tool. Close tool. Re-pump up packers and try to re-seat. Flowed slightly and died. Shut in tool. Pull packers free and drop bar. Reverse circulated out fluids. Trip out of hole to recover recorders.
01/27/99	1995m	27m	17.25	Lay down test tools. Rig service and function test blind rams. Decision made to continue to drill 155mm hole. Make up BHA and R.I.H. Clean 9m to bottom. 1m fill. Drill 155mm hole.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
01/28/99	2020m	25m	19.25	Drill 155mm hole to 2020m. Circulate up sample. Run survey. 2012m 7 degrees. Trip out of hole for bit change.
01/29/99	2030m	10m	10.50	Trip out of hole for nit change. R.I.H. with NB #20. Ream undergauge hole from 2014m to 2020m. Circulate and condition mud. Drill ahead to 2030m. Circulate up sample. Drop Gyro/Data tool and survey out of hole.
01/30/99	2049m	19m	10.00	Trip out of hole with Gyro/Data tool. Pick up United Geo Com directional tool and MWD tool. R.I.H. with tools. Test MWD and survey every 150m from 1494m to bottom.
01/31/99	2110m	61m	20.75	Directional drill 155mm hole to T.D. of 2110m. Reached T.D. at 23:0 hrs. January 31/99. Circulate up sample.
02/01/99	2110m	0m	0.00	Wait on orders. Wiper trip to surface casing. Circulate and condition hole. Trip out of hole. Lay down directional tools. Make up DST #8. R.I.H. and head up test tools.
02/02/99	2110m	0m	0.00	Perform DST #8. Pull packer free and trip out of the hole. Recover and read recorders. Load out test tools. Rig out flow nipple and flow line. Install in line B.O.P. Run log to bottom. Run HDIL-GR.

DAILY DRILLING CHRONOLOGY cont.

Date	Depth 24:00	Progress (24 hrs)	Drilling (hrs)	Rig activity 00:00 - 24:00
02/03/99	2110m	0m	0.00	Run HDIL-GR. Run CN-ZDL-GR-XY CAL. Run XMAC-GR-XY. Rig out loggers. Rig out line B.O.P. Install flow nipple. R.I.H. with DCs and 25 stands DP. Rig up lay down machine and lay down pipe and collars. Rig up power tongs and run 51 joints (714.44m) of 114.3mm Prudential casing. Install Cardium liner packer. Double strap and drift DP and R.I.H.

FLOW TEST

FLOW TEST NO. 1

Date: December 26/27, 1998

Formation: Mattson

Interval: 1494m to 1542m

Test Type: Flow Test Via Annulus

Hole Size: 155mm

Drill Pipe: OD: 88.9mm

Collars: OD: 121.0mm

Testing Company: Entest Corp./Baker Oil Tools

Measurement: Blew well dry and flowed through Entest 3" manifold with 2" variable choke using manifold pressure gauge and Baker flow conversion chart. Also see Entest chart results.

Samples: 2 gas samples collected. 1 mud sample (sample 1A) collected from flow line. Samples sent to AGAT Labs. Fort St. John, via Baker Oil Tools tester Ken Willis.

Results:	TIME	CHOKE(mm)	kPa	Rate (M3/D)
	22:55	25.40	800	8843
	23:00	25.40	800	8843
	23:10	19.05	1150	74785
	23:15	19.05	1300	83933
	23:20	19.05	1310	84603
	23:25	19.05	1350	87063
	23:30	19.05	1400	90143
	23:35	19.05	1400	90143
	23:40	19.05	1400	90143
	23:45	12.70	1950	53669
	23:50	12.70	2200	60437
	23:55	12.70	2450	67249
	00:00	12.70	2600	71357
	00:05	12.70	2700	74105
	00:10	12.70	2800	76859
	00:15	12.70	2810	77135
	00:20	12.70	2850	78239
	00:25	12.70	2900	79621
	00:30	12.70	2900	79621

FLOW TEST

FLOW TEST NO. 2

Date: December 27/28, 1998

Formation: Mattson

Interval: 1494m to 1566m

Test Type: Flow Test Via Annulus

Hole Size: 155mm

Drill Pipe: OD: 88.9mm

Collars: OD: 121.0mm

Testing Company: Entest Corp.

Measurement: Flowed through Entest 3" manifold with 2" variable choke using manifold pressure gauge and recorder at P tank.

Samples: 3 gas samples collected. 1 mud sample (sample 2A) collected at flow line. All samples sent to AGAT Lab, Fort St. John via Baker Tools tester, Ken Willis.

Results:	TIME	CHOKE(mm)	kPa	RATE (1000M3/D)
	23:45	21.43	7500	396.81
	23:50	21.43	7000	381.88
	23:55	21.43	7000	380.06
	00:05	15.87	6900	338.52
	00:10	15.87	7000	351.94
	00:20	7.14	8900	231.47
	00:30	7.14	10300	198.79
	00:45	7.14	11000	206.95
	01:00	7.14	11000	207.93
	01:15	7.14	11000	208.43
	01:30	12.70	9400	329.97
	01:40	12.70	8700	293.45
	01:50	12.70	8700	289.91
	02:00	12.70	8690	289.91
	02:10	12.70	8690	289.23

Comments: Choke was being cut by well blowing dry sand. Switched to other side of manifold for more accurate readings.

DRILLSTEM TEST

DRILLSTEM TEST No. 4

Date: December 29/30, 1998
Formation: Mattson
Interval: 1559.7m to 1565.6m
Test type: Bottom Hole Inflate
Packers: 136mm
Hole size: 155mm
Drill pipe: OD: 88.9mm ID: 70.21mm
Collars: OD: 121.0mm ID: 55.0mm
Testing Company: Baker Oil Tools/Delta P Test Corp.

	<u>PRESSURES:</u>	<u>Times:</u>
	IH: 17181 kPa	
1st	IPF: 10347 kPa	PF: 10 min.
	FPF: 11536 kPa	
	ISI: 15911 kPa	ISI: 60 min.
2nd	IF: 10817 kPa	VO: 120 min.
	FF: 11273 kPa	
	FSI: 15920 kPa	FSI: 30 min.
	FH: 17096 kPa	BHT: 57.4C

Results:

Flow comments: 2 gas bombs (30545, 30768) taken during main flow.
Recovery: No fluid in tool.
Test comments: Ran dual bottom hole samplers.
Lost packer seat 0.5 hour into ISI. Tried to re-inflate packer without success.
1 mud sample (sample A) collected from flow line prior to running test.
All samples sent to AGAT Lab, Fort St. John, via Baker Tools tester, Ken Willis.

DRILLSTEM TEST

DRILLSTEM TEST NO. 5

Date: January 7/8, 1999
Formation: Mattson
Interval: 1662.0m to 1689.0m
Test type: Bottom Hole Conventional
Packers: 136mm
Hole Size: 155mm
Drill Pipe: OD: 88.9mm ID: 70.21mm
Collars: OD: 121.0mm ID: 55.0mm
Testing Company: Baker Oil Tools/Canada Tech Data Acquisition

	<u>PRESSURES:</u>	<u>Times:</u>
	IH: 18450 kPa	
1st	IPF: 938 kPa	PF: 10 min.
	FPF: 543 kPa	
	ISI: 2391 kPa	ISI: 135 min.
2nd	IF: 458 kPa	VO: 150 min.
	FF: 550 kPa	
	FSI: 1693 kPa	FSI: 220 min.
3rd	IF: 783 kPa	3rd VO: 5 min.
	FF: 647 kPa	BHT: 59.8C
	FH: 18456 kPa	

Results:

Flow comments: PF: WAB increasing to SAB in 10 minutes. NGTS.
VO: SAB decreasing to VWAB in 2 minutes.

Recovery: Hole fill volumes were not correct when came out of hole with test tool. Dropped bar, circulated, and ran pipe back to bottom of casing to eliminate any possibility of a kick. Due to circulation pressures the pump-out sub was activated and no fluid recovery was obtained.

Test comments: Ran dual bottom hole samplers.
1 mud sample (sample 5-A) collected at flow line prior to running test.

DRILLSTEM TEST

DRILLSTEM TEST NO. 6

Date: January 25, 1999
Formation: Mattson
Interval: 1763.0m to 1777.0m
Test Type: Inflate Straddle
Hole Size: 155mm
Drill Pipe OD: 88.9mm ID: 70.21mm
Collars: OD: 121.0mm ID: 55.0mm
Testing Company: Baker Oil Tools/Canada Tech Data Acquisition

	<u>PRESSURES:</u>	<u>Times:</u>
	IH: 19794 kPa	
1st	IPF:	PF:
	FPF:	
	ISI:	ISI:
2nd	IF:	VO:
	FF:	
	FSI:	FSI:
	FH: 19746 kPa	BHT: 59.8C

Results

Flow comments:

Recovery:

Test comments: Misrun. Pumped up tool. Tried to set packer. Packer slid. Pumped up tool again. Unable to set packer. Appeared to have blown packer. Real time data tool failed. Top packer was gouged vertically and has 3 cleanly cut 0.75"-1.00" oval vertically aligned holes. Bottom packer damaged.

DRILLSTEM TEST

DRILLSTEM TEST NO. 7

Date: January 26, 1999
Formation: Mattson
Interval: 1757.0m to 1792.0m
Test Type: Inflate Straddle
Hole Size: 155mm
Drill Pipe: OD: 88.9mm ID: 70.21mm
Collars: OD: 121.0mm ID: 55.0mm
Testing Company: Baker Oil Tools/Delta P Test Corp.

PRESSURES:

Times:

IH: 19747 kPa	
1st IPF: 2358 kPa	PF: 10 min.
FPF: 2808 kPa	
ISI: 18152 kPa	ISI: 60 min.
2nd IF: 7279 kPa (real time)	VO:
FF:	
FSI: 18118 kPa (real time)	FSI: 60 min.
FH: 19732 kPa	BHT: 62.2C

Results

Flow comments: PF: Strong initial puff to SAB in 45 sec. GTS in 2.5 min.
Building throughout.
VO: Lost seal at start.

Recovery: Fluid in pipe appeared to be invert mud.

DRILLSTEM TEST cont.

DRILLSTEM TEST NO. 7

Test comments:

Lost packer seal at start of VO. Pulled up immediately to close tool. Hole took approximately 4m3 of mud to fill. Real time estimated 1200m of drilling fluid entered pipe. Pumped up tool to continue test. Obtained good seat. Opened tool. Flowed 5 litres of fluid then stopped. Shut in tool for 60 minutes. Deflated tool. Reversed circulation and caught samples.
1 mud sample (sample 7-MT) collected from mud tank prior to running test.
2 gas bombs (samples 7-01 and 7-02) were collected during preflow.
9 samples (samples 7A - 7I) were collected from drilling fluid in drill pipe.
Dual bottom hole samplers (nos. 7 & 77) were run.
All samples were sent to AGAT Labs via Baker Oil Tools tester Sheldon Prysunka.

DRILLSTEM TEST

DRILLSTEM TEST NO. 8

Date: February 1-2, 1999
Formation: Mississippian (Flett)
Interval: 2085.0m to 2110.0m
Test Type: Bottom Hole Conventional
Hole Size: 155mm
Drill Pipe: OD: 88.9mm ID: 70.21mm
Collars: OD: 121.0mm ID: 55.0mm
Testing Company: Baker Oil Tools/Delta P Test Corp.

PRESSURES:

TIMES:

IH: 23183 kPa	
1st IPF: 665 kPa	PF: 10 min.
FPF: 728 kPa	
ISI: 17352 kPa	ISI: 150 min.
2nd IF: 545 kPa	VO: 120 min.
FF: 1021 kPa	
FSI: 10349 kPa	FSI: 270 min.
FH: 23109 kPa	BHT: 70.7C

Results

Flow comments: PF: SAB in 35 sec. GTS in 5 min. Lazy 2m flame.
VO: GTS immediately. Lazy 2m flame decreasing to 1m lazy flame.

Recovery: Recovered 92m of fluid. Recovery as reported consisted of 27m of gassy inhibited water over 68m of gassy watery invert. Samples were taken as follows: sample 8-a 65m above tool; sample 8-b 46m above tool; sample 8-c 28m above tool; sample 8-d 9m above tool; sample 8-e At tool.

Test comments: 1 mud sample (sample 8-MT) caught at flow line prior to test.
1 gas sample (gas bomb #cz05278) was collected 9 min. into PF.
1 gas sample (gas bomb #cz06419) was collected 65 min. into VO.
1 water sample from rig water tank (sample 8-WT).
All samples sent to AGAT Labs, FSJ, via tester Dean Pangracs.

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1494 - 1500	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>pale greenish yellow fluorescence</u> , <u>blue white cut</u> , scattered disseminated very fine to fine pyrite, clear quartz, siliceous cemented, moderately calcareous cemented, no observable porosity;
1500 - 1501	SHALE - dark gray, blocky, very finely arenaceous in part, non calcareous, moderately carbonaceous, occasionally pyritic;
1501 - 1504	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>pale greenish yellow fluorescence</u> , <u>blue white cut</u> , scattered disseminated very fine to fine pyrite, clear quartz, siliceous cemented, moderately calcareous cemented, no observable porosity;
1504 - 1506	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, well sorted, no observable fluorescence, <u>slow blue white cut</u> , no observable porosity, moderately carbonaceous, moderately argillaceous, very pyritic;
1506 - 1507	SHALE - dark gray, blocky, very finely arenaceous in part, non calcareous, moderately carbonaceous, occasionally pyritic;
1507 - 1508	SANDSTONE - medium dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above, moderately carbonaceous, occasional pyrite;
1508 - 1512	SHALE - dark gray, as above, non calcareous, moderately carbonaceous, occasional pyrite;
1512 - 1517	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>scattered greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, rarely fine grained with <u>trace porosity</u> , rare streaks coarse to very coarse grains in argillaceous carbonaceous matrix with <u>porosity</u> , slightly calcareous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1517 - 1519	SHALE - dark gray, as above, non calcareous, moderately carbonaceous;
1519 - 1522	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered greenish yellow fluorescence</u> , <u>blue white cut</u> , moderately calcareous cemented, <u>very rare trace intergranular porosity</u> , very carbonaceous, moderately argillaceous;
1522 - 1525	SHALE - medium dark gray, blocky, hard, non calcareous, moderately silty and grading to very argillaceous siltstone, moderately carbonaceous;
1525 - 1527	SILTSTONE - medium dark gray, non calcareous, moderately carbonaceous, very argillaceous;
1527 - 1529	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, calcareous cemented, occasional pyrite;
1529 - 1533	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>trace greenish yellow fluorescence</u> , <u>slow blue cut</u> , siliceous cemented, slightly calcareous to dolomitic cemented, moderately argillaceous in part;
1533 - 1534	SHALE - dark gray, very silty, moderately carbonaceous;
1534 - 1540	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered intergranular porosity</u> , <u>very weak greenish yellow fluorescence</u> , <u>very slow blue cut</u> , siliceous cemented, moderately calcareous cemented in part, occasional loose medium grains in sample;
1540 - 1542	SHALE - dark gray, very silty, moderately carbonaceous;
1542 - 1545	SANDSTONE - light yellow brown to light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous cemented, trace loose medium grains in sample, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1545 - 1547	SHALE - dark gray, very silty, moderately carbonaceous;
1547 - 1549	SANDSTONE - light yellow brown to light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous cemented, trace loose medium grains in sample, no observable porosity;
1549 - 1551	SHALE - dark gray, very silty, moderately carbonaceous;
1551 - 1554	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly calcareous cemented, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , no observable porosity;
1554 - 1555	SHALE - dark gray, very silty, moderately carbonaceous;
1555 - 1559	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , slightly argillaceous, very siliceous cemented, slightly calcareous cemented, no observable porosity, very silty;
1559 - 1560	SHALE - dark gray, very silty, moderately carbonaceous;
1560 - 1562	SANDSTONE - medium gray, very fine grained, subangular to angular, well sorted, <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , slightly argillaceous, very siliceous cemented, slightly calcareous cemented, no observable porosity, very silty;
1562 - 1563	SHALE - dark gray, very silty, moderately carbonaceous;
1563 - 1566	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered intergranular porosity</u> , <u>scattered pale greenish yellow fluorescence</u> , <u>very slow blue cut</u> , siliceous cemented, slightly calcareous cemented;
1566 - 1568	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , very fine disseminated pyrite, very slightly calcareous, siliceous cemented, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1568 - 1570	SHALE - dark gray, non calcareous, grading to very argillaceous siltstone, very silty, moderately carbonaceous;
1570 - 1573	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite;
1573 - 1574	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence</u> and <u>cut</u> as above, <u>trace intergranular porosity</u> ;
1574 - 1576	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite;
1576 - 1584	SANDSTONE - light yellow brown, very fine grained to very fine grained, subangular to angular, well sorted, <u>green yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, trace pyrite, moderately calcareous to dolomite cemented, <u>rare trace intergranular porosity</u> ;
1584 - 1586	DOLOMITE - medium brown, microcrystalline, slow blue cut, very fine disseminated pyrite, very fine grains of quartz, spicular, no visible porosity;
1586 - 1591	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, moderately calcareous to dolomite cemented, trace pyrite, no observable porosity;
1591 - 1596	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>very slow bluish cut</u> , siliceous cemented, dolomite cemented, pyrobituminous, no visible porosity, moderately argillaceous;
1596 - 1598	SHALE - dark gray, as above, moderately silty;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1598 - 1602	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, calcareous to dolomite cemented, <u>very rare trace intergranular porosity</u> , trace pyrite;
1602 - 1603	SHALE - dark gray, siliceous, very dolomitic, very silty and grading to argillaceous siltstone;
1603 - 1604	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, as above, no visible porosity;
1604 - 1605	SHALE - dark gray, siliceous, very dolomitic, very silty and grading to argillaceous siltstone;
1605 - 1608	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, <u>slow bluish cut</u> , dolomitic cement, occasional medium quartz grains, argillaceous, no visible porosity;
1608 - 1609	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, <u>trace intergranular porosity</u> ;
1609 - 1610	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence and cut as above</u> , no observable porosity;
1610 - 1612	SILTSTONE - dark gray, medium brown gray, very argillaceous, very dolomitic cemented, non shows, <u>tight</u> ;
1612 - 1615	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, slightly dolomitic cemented, <u>trace intergranular porosity in part</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1615 - 1617	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, silty, pyrobituminous and carbonaceous, siliceous cemented, slightly dolomitic cemented, <u>slow bluish cut</u> , <u>rare intergranular porosity</u> , moderately argillaceous;
1617 - 1618	SANDSTONE - light yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, slightly dolomitic cemented, <u>trace intergranular porosity</u> in part;
1618 - 1619	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, silty, pyrobituminous and carbonaceous, siliceous cemented, slightly dolomitic cemented, <u>slow bluish cut</u> , <u>rare intergranular porosity</u> , moderately argillaceous;
1619 - 1621	SANDSTONE - light yellow brown, occasionally light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , siliceous cemented, very slightly dolomitic cemented, rare white kaolin laminae, very rare very carbonaceous shaley laminae;
1621 - 1629	SANDSTONE - light to medium yellow brown, light gray in part, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , kaolin laminae, siliceous cement, <u>trace intergranular porosity</u> where fine to medium grained;
1629 - 1630	SHALE - dark gray, as above, very carbonaceous;
1630 - 1637	SANDSTONE - medium yellow brown, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence</u> , <u>blue white cut</u> , kaolin laminae, siliceous cemented, <u>trace to scattered porosity</u> where fine to medium grained;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1637 - 1641	SANDSTONE - medium yellow brown, medium gray in part, very fine grained to fine grained, subangular to angular, subrounded where medium grained, well sorted, <u>greenish yellow fluorescence</u> , <u>spotty slow blue white cut</u> , kaolin laminae, siliceous cement, slightly to moderately dolomitic cemented, <u>fair porosity</u> where fine to medium grained;
1641 - 1646	SANDSTONE - medium yellow brown, medium gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>very slow bluish cut</u> , very silty, siliceous cemented, dolomitic cemented, carbonaceous in part, no observable porosity, moderately argillaceous;
1646 - 1647	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, trace kaolin laminae, siliceous cemented, dolomitic cemented, <u>rare intergranular porosity</u> ;
1647 - 1648	SILTSTONE - dark gray, slightly dolomitic, very argillaceous;
1648 - 1653	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , scattered silt size pyrite, siliceous cemented, kaolin laminae, <u>very rare intergranular porosity</u> in sample;
1653 - 1657	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, silty, argillaceous in part, occasional pyrobitumin, no observable porosity;
1657 - 1660	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , scattered silt size pyrite, siliceous cemented, kaolin laminae, <u>very rare intergranular porosity</u> in sample;
1660 - 1663	SILTSTONE - dark gray, <u>occasional dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , very fine grained in part, siliceous cemented, slightly dolomitic cemented, carbonaceous and pyrobituminous in part, very argillaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1663 - 1664	SANDSTONE - light gray, light yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, <u>rare greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, slightly dolomitic cemented, occasional pyrobitumin, <u>trace intergranular porosity</u> ;
1664 - 1666	SILTSTONE - dark gray, no fluorescence, slow bluish cut, carbonaceous, siliceous cemented, moderately dolomitic cemented, very fine grained in part, no visible porosity, very argillaceous;
1666 - 1671	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>bluish white cut</u> , rare medium grains in matrix, siliceous cemented, moderately dolomitic cemented, <u>rare intergranular porosity</u> ;
1671 - 1673	SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, <u>scattered greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, <u>trace intergranular porosity</u> ;
1673 - 1679	SANDSTONE - light gray, medium yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> in part, siliceous cemented, slightly dolomitic cemented, streaks of fine to medium grained with subrounded medium gray chert, <u>occasional intergranular porosity</u> ;
1679 - 1681	SANDSTONE - dark gray, medium yellow brown, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , silty, argillaceous, scattered pyrobitumin, no observable porosity;
1681 - 1683	SANDSTONE - light gray, medium yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> in part, siliceous cemented, slightly dolomitic cemented, streaks of fine to medium grained, <u>occasional intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1683 - 1688	SANDSTONE - dark gray, dark yellow brown, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , silty in part, siliceous cemented, slightly dolomitic cemented, argillaceous, carbonaceous and pyrobituminous, no visible porosity;
1688 - 1691	SANDSTONE - dark gray, dark yellow brown, very fine grained, subangular to angular, well sorted, as above, siliceous cemented, slightly dolomitic cemented, carbonaceous and pyrobituminous in part, moderately argillaceous;
1691 - 1698	SANDSTONE - medium gray, medium brown gray, very light gray in part, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , <u>occasional greenish yellow fluorescence with bright bluish white cut</u> , fine to medium grained in part, pyrobitumin in part, siliceous cemented, slightly to moderately dolomitic cemented, rare glauconite;
1698 - 1700	SILTSTONE - very dark gray, siliceous cemented, very fine grained in part, shaly in part, moderately argillaceous, occasional pyrite;
1700 - 1701	SANDSTONE - very light gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut in part</u> , siliceous cemented, slightly to moderately dolomitic cemented, no visible porosity;
1701 - 1702	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>very slow bluish cut</u> , streaks of fine to medium grained and cherty in part, siliceous cemented, <u>scattered intergranular porosity</u> , scattered pyrite;
1702 - 1710	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>very slow bluish cut</u> , fine to medium grained and cherty in part, siliceous cemented, <u>scattered intergranular porosity</u> , scattered pyrite;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1710 - 1713	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, medium gray and argillaceous in part, trace pyrobitumin, as above, slightly argillaceous;
1713 - 1716	SANDSTONE - light gray to light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered greenish yellow fluorescence, very slow bluish cut, siliceous cemented, very slightly dolomitic cemented, rarely fine to medium grained, no observable porosity;</u>
1716 - 1718	SANDSTONE - as above, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence, slow bluish cut,</u> as above, trace medium gray pyritic shaly laminae;
1718 - 1724	SANDSTONE - very light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence, slow bluish cut in part, occasionally fine to medium grained, trace pyrobitumin, siliceous cemented, slightly dolomitic cemented, scattered intergranular porosity, trace pyrite;</u>
1724 - 1730	SANDSTONE - light medium gray, very fine grained to fine grained, subangular to angular, well sorted, <u>fluorescence as above, occasional bright bluish white cut, occasionally fine to medium grained, scattered pyrobitumin, trace intergranular porosity;</u>
1730 - 1734	SANDSTONE - light medium gray, light yellow brown in part, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part, slow bluish cut, trace carbonaceous laminae, thin dark gray argillaceous siltstone interbeds, no observable porosity;</u>
1734 - 1737	SANDSTONE - light medium gray, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part, slow bluish cut, carbonaceous laminae, siliceous cemented, dolomitic cemented in part, pyrobitumin, scattered intergranular porosity;</u>

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1737 - 1741	SANDSTONE- medium gray in part, very fine grained to fine grained, subangular to angular, well sorted, as above, no observable porosity, moderately argillaceous;
1741 - 1748	SANDSTONE - light gray, very fine grained to very fine grained, subangular to angular, well sorted, as above, interbeds of dark gray very argillaceous siltstone, no observable porosity, moderately argillaceous;
1748 - 1754	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , fine to medium grained in part, rare kaolin laminae, siliceous cemented, rare carbonaceous laminae, <u>scattered intergranular porosity</u> ;
1754 - 1756	SANDSTONE - as above, medium gray and fine to medium grained in part with <u>trace intergranular porosity</u> in sample.
1756 - 1765	SANDSTONE - light yellow brown, light gray, very fine to fine grained, as above, rare pyrobitumin, occasional shaly laminae, <u>trace intergranular porosity</u> ;
1765 - 1768	SANDSTONE - medium gray, light gray to light medium brown in part, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, scattered very fine disseminated pyrite, no observable porosity;
1768 - 1773	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, very rare pyrobitumin, <u>trace to scattered porosity</u> in sample;
1773 - 1775	SILTSTONE - dark gray, very fine grained, very slightly dolomitic, very argillaceous;
1775 - 1777	SANDSTONE - light gray, light yellow brown, fine grained to medium grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, <u>trace porosity</u> in sample;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1777 - 1782	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>scattered dull greenish yellow fluorescence</u> , <u>slow bluish white cut</u> , occasional thin interbeds of medium gray shale, siliceous cemented, <u>rare intergranular porosity</u> ;
1782 - 1785	SHALE - dark gray, interbedded with sandstone, as above, very silty;
1785 - 1789	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , fine to medium grained in part, rare kaolin laminae, siliceous cemented, rare carbonaceous laminae, <u>scattered intergranular porosity</u> , trace pyrite, dark gray and pyrobituminous with <u>scattered intergranular porosity</u> in part;
1789 - 1791	SHALE - dark gray, as interbeds in sand, very silty;
1791 - 1794	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish to bright bluish white cut</u> where dark gray and pyrobituminous, siliceous cemented, moderately dolomitic cemented in part, fine to medium grained in part, <u>trace intergranular porosity</u> ;
1794 - 1796	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, as above, no observable porosity, trace pyrite;
1796 - 1798	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, moderately silty;
1798 - 1803	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part</u> , <u>slow bluish cut</u> , rarely medium grained, siliceous cemented, moderately dolomitic cemented in part, <u>trace intergranular porosity</u> , scattered pyrite;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1803 - 1804	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, moderately silty;
1804 - 1806	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence in part</u> , <u>slow bluish cut</u> , rarely medium grained, siliceous cemented, moderately dolomitic cemented in part, <u>trace intergranular porosity</u> , scattered pyrite;
1806 - 1807	SHALE - medium to dark gray, grading to very argillaceous silty sandstone in part, moderately silty;
1807 - 1811	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly dolomitic cemented, no visible porosity, moderately silty, moderately argillaceous;
1811 - 1817	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , fine to medium grained in part, siliceous cemented, slightly dolomitic cemented, rarely cherty, <u>trace intergranular porosity</u> ;
1817 - 1820	SILTSTONE - dark gray, silty, non calcareous, very fine grained in part, slightly dolomitic cemented, moderately carbonaceous;
1820 - 1822	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, grading to very argillaceous siltstone, moderately silty;
1822 - 1823	SILTSTONE - dark gray, as above, very argillaceous;
1823 - 1829	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> , <u>slow bluish cut</u> , siliceous cemented, slightly dolomitic cemented, fine to medium grained in part, <u>trace intergranular porosity</u> ;
1829 - 1831	SHALE - dark gray, slightly dolomitic cemented, carbonaceous, grading to very argillaceous siltstone, moderately silty;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1831 - 1835	SILTSTONE - dark gray, as above, very argillaceous;
1835 - 1837	SANDSTONE - light yellow brown, light gray, very fine grained to fine grained and some medium grained, subangular to angular, well sorted, <u>dull yellow fluorescence in part with slow bluish cut</u> , siliceous cemented, very rare glauconite, trace pyrobitumin, occasional carbonaceous shaly laminae, <u>rare intergranular porosity</u> ;
1837 - 1839	SHALE - dark gray, as above, silty, moderately carbonaceous;
1839 - 1841	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, trace shaly laminae, rarely pyrobituminous, occasional thin interbeds of very dolomitic sandstone;
1841 - 1843	SHALE - dark gray, as above;
1843 - 1844	SANDSTONE - light gray, light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, trace shaly laminae, rarely pyrobituminous, occasional thin interbeds of very dolomitic sandstone;
1844 - 1846	SILTSTONE - dark gray, as above;
1846 - 1855	SANDSTONE - dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>slow bluish cut in part</u> , very siliceous cemented, moderately argillaceous, moderately pyrobituminous, slightly to moderately dolomitic cemented, fine to medium grained with <u>trace porosity</u> in part;
1855 - 1859	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, very siliceous and cherty, no observable porosity, moderately argillaceous;
1859 - 1861	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, as above, no shows, no observable porosity;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1861 - 1862	SHALE - dark gray, as above;
1862 - 1870	SANDSTONE - light gray, light yellow brown, rarely medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>dull greenish yellow fluorescence</u> and <u>bluish white cut</u> where medium yellow brown, siliceous cemented, trace pyrite, <u>trace intergranular porosity</u> in part;
1870 - 1873	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, very siliceous cemented in part, non to moderately dolomitic cemented, rarely fine to medium grained with <u>trace intergranular porosity</u> ;
1873 - 1876	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, non apparent fluorescence, <u>slow bluish cut</u> , siliceous cemented, slightly to moderately dolomitic cemented, very carbonaceous, moderately argillaceous;
1876 - 1878	SANDSTONE - light yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace intergranular porosity</u> , as above, <u>trace intergranular porosity</u> where fine to medium grained;
1878 - 1880	SANDSTONE - medium gray, very fine grained to fine grained, subangular to angular, well sorted, non apparent fluorescence, <u>slow bluish cut</u> , siliceous cemented, slightly to moderately dolomitic cemented, very carbonaceous, moderately argillaceous;
1880 - 1882	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasionally fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1882 - 1884	SANDSTONE - light to medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , occasional carbonaceous laminae, siliceous cemented, rare kaolin infilling, <u>trace intergranular porosity</u> ;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1884 - 1886	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasional fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1886 - 1891	SANDSTONE - light gray, light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, occasional carbonaceous laminae, <u>very rare trace intergranular porosity</u> ;
1891 - 1892	SANDSTONE - dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, siliceous cemented, slightly to moderately dolomitic cemented, occasionally fine to medium grained, no visible porosity, very carbonaceous, moderately argillaceous;
1892 - 1894	SANDSTONE - light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, occasional carbonaceous laminae, <u>trace intergranular porosity</u> ;
1894 - 1901	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, dark gray shale interbeds, very carbonaceous, moderately argillaceous;
1901 - 1903	SANDSTONE - light to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, slightly blue cut, siliceous cemented, as above, <u>trace intergranular porosity</u> ;
1903 - 1909	SANDSTONE - dark gray, very fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish white cut</u> , silty, dark gray shale interbeds, very carbonaceous, moderately argillaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

1909 - 1914	SANDSTONE - medium grey to medium yellow brown, very fine to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, trace carbonaceous laminae, moderately carbonaceous, moderately argillaceous, <u>trace intergranular porosity</u> ;
1914 - 1915	SHALE - dark gray, silty, micromicaceous, non dolomitic, very carbonaceous;
1915 - 1916	SANDSTONE - medium grey to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, as above, <u>trace intergranular porosity</u> ;
1916 - 1918	SHALE - dark gray, as above, very carbonaceous;
1918 - 1923	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1923 - 1925	SILTSTONE - dark gray, very finely arenaceous in part, shaley in part, very argillaceous, very carbonaceous;
1925 - 1928	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, <u>rare intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1928 - 1929	SHALE - dark gray, as above, very carbonaceous;
1929 - 1930	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1930 - 1933	SANDSTONE - medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cement, moderately argillaceous, moderately carbonaceous;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1933 - 1934	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1934 - 1935	SHALE - dark gray, as above, very carbonaceous;
1935 - 1936	SANDSTONE - medium yellow brown to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , carbonaceous laminae, trace dark gray very argillaceous very carbonaceous siltstone interbeds, <u>trace intergranular porosity</u> , moderately argillaceous, moderately carbonaceous;
1936 - 1939	SANDSTONE - medium yellow brown, medium gray, dark gray, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, trace pyrite, scattered very dark gray to black carbonaceous silty shaly laminae, <u>very rare trace intergranular porosity</u> ;
1939 - 1943	SANDSTONE - medium to dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no fluorescence, <u>slow bluish cut</u> , scattered to abundant carbonaceous very silty laminae, siliceous cemented, occasionally medium grained with <u>trace intergranular porosity</u> ;
1943 - 1948	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish cut</u> , siliceous cemented, scattered carbonaceous silty laminae, <u>trace intergranular porosity</u> ;
1948 - 1950	SANDSTONE - medium yellow brown, medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, scattered very silty carbonaceous laminae;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1950 - 1952	SANDSTONE - light gray, very fine grained to medium grained, subangular to subrounded, well sorted, no fluorescence, <u>slow bluish white cut</u> , siliceous cemented, slightly dolomitic cemented in part, <u>trace intergranular porosity</u> ;
1952 - 1957	SHALE - very dark gray to black, blocky, silty in part, very carbonaceous, interbedded with very fine to fine grained sandstone, as above;
1957 - 1958	SANDSTONE - medium gray to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, no visible fluorescence, <u>slow bluish white cut</u> , siliceous cemented, abundant very argillaceous micromicaceous carbonaceous laminae, <u>trace porosity in part</u> ;
1958 - 1962	SANDSTONE - medium gray to medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, no visible fluorescence, <u>slow bluish white cut</u> , siliceous cemented, abundant argillaceous very carbonaceous micromicaceous shaley laminae and interbeds;
1962 - 1966	SANDSTONE - light gray to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence, bright white cut</u> , siliceous cemented, slightly dolomitic cemented, abundant carbonaceous laminae, dark gray very argillaceous and silty in part;
1962 - 1964	SANDSTONE - light gray to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence, bright white cut</u> , siliceous cemented, slightly dolomitic cemented, abundant carbonaceous laminae, dark gray very argillaceous and silty in part;
1964 - 1966	SANDSTONE - medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1966 - 1967	SANDSTONE - medium yellow brown, light gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>trace greenish yellow fluorescence, bright white cut, siliceous cemented, slightly dolomitic cemented, as above, trace intergranular porosity;</u>
1967 - 1968	SANDSTONE - medium to dark gray, very fine grained to fine grained, subangular to angular, well sorted, as above;
1968 - 1973	SANDSTONE - light to medium gray, medium yellow brown, dark gray in part, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, slightly dolomitic cemented in part, abundant very dark gray very carbonaceous shaly laminae, <u>rare porosity;</u>
1973 - 1974	SHALE - very dark gray, non calcareous, very carbonaceous;
1974 - 1978	SANDSTONE - fine grained to medium grained, subangular to subrounded, well sorted, as above, shaly carbonaceous laminae;
1978 - 1979	SHALE - very dark gray, non calcareous, very carbonaceous;
1979 - 1983	SANDSTONE - fine grained to medium grained, subangular to subrounded, well sorted, as above, abundant carbonaceous laminae, <u>trace porosity;</u>
1983 - 1987	SANDSTONE - very fine grained to fine grained, subangular to angular, well sorted, as above, abundant very carbonaceous laminae;
1987 - 1988	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented, rare carbonaceous material, trace intergranular porosity;</u>
1988 - 1989	SHALE - very dark gray, non calcareous, very carbonaceous;
1989 - 1990	SANDSTONE - medium yellow brown, fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented, rare carbonaceous material, trace intergranular porosity;</u>

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
1990 - 1991	SHALE - very dark gray, as above, very carbonaceous;
1991 - 1994	SANDSTONE - light gray, very fine grained to fine grained, subangular to angular, well sorted, siliceous cemented, abundant carbonaceous laminae, <u>rare trace porosity</u> ;
1994 - 1995	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
1995 - 1998	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented</u> , abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
1998 - 1999	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
1999 - 2001	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented</u> , abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
2001 - 2003	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2003 - 2005	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented</u> , abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity</u> ;
2005 - 2006	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2006 - 2012	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional fluorescence and cut as above, siliceous cemented</u> , abundant carbonaceous laminae, <u>trace intergranular porosity</u> ;

LITHOLOGY

Formation tops Sample interval (in meters)	SAMPLE DESCRIPTION
2012 - 2013	SHALE - very dark gray, micromicaceous, non calcareous, very carbonaceous;
2013 - 2014	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, <u>occasional fluorescence and cut as above, siliceous cemented, carbonaceous laminae, trace intergranular porosity;</u>
2014 - 2015	SANDSTONE - light gray, medium yellow brown, very fine grained to fine grained and some medium grained, subangular to subrounded, well sorted, <u>occasional dull greenish yellow fluorescence, bluish white cut, siliceous cemented,</u> abundant carbonaceous laminae as above, very siliceous appearance in part, <u>rare trace porosity;</u>
2015 - 2020	SANDSTONE - medium yellow brown, occasional medium gray and argillaceous, very fine grained to medium grained, subangular to subrounded, well sorted, siliceous cemented, carbonaceous laminae as above;
2020 - 2023	SANDSTONE - medium to dark gray, medium yellow brown, very fine grained to fine grained, subangular to angular, well sorted, <u>trace greenish yellow fluorescence, bluish cut,</u> very siliceous cemented, light gray and very slightly dolomitic cement in part, argillaceous and silty, muscovite, abundant very carbonaceous micromicaceous laminae;
2023 - 2024	SHALE - very dark gray, non calcareous, micromicaceous, very carbonaceous;
2024 - 2026	SANDSTONE - medium to dark gray, very fine grained to fine grained, angular to subangular, well sorted, <u>trace greenish yellow fluorescence, bluish fluorescence, siliceous cemented,</u> abundant carbonaceous laminae, argillaceous and silty in part;
2026 - 2027	SHALE - very dark gray, non calcareous, micromicaceous, very carbonaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

2027 - 2029	SANDSTONE - medium to dark gray, very fine grained to fine grained, angular to subangular, well sorted, <u>trace greenish yellow fluorescence</u> , <u>bluish fluorescence</u> , siliceous cemented, abundant carbonaceous laminae, argillaceous and silty in part;
2029 - 2031	SANDSTONE - light gray, fine grained to medium grained, subangular to subrounded, well sorted, <u>dull greenish yellow fluorescence</u> , <u>bluish cut</u> , siliceous cement, <u>trace intergranular porosity</u> ;
2031 - 2033	SHALE - very dark gray, non calcareous, very carbonaceous, soft, occasional white kaolinitic specks;
2033 - 2035	SANDSTONE - light to medium gray, dark gray in part, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>bluish white cut</u> , abundant carbonaceous laminae, siliceous cemented, dolomitic cemented in part;
2035 - 2043	SANDSTONE - light to medium gray, very fine grained to medium grained, subangular to subrounded, well sorted, <u>poor intergranular porosity</u> , <u>blue white cut</u> , siliceous cemented, slightly to moderately dolomite cemented, shale interbeds, carbonaceous lm, <u>rare intergranular porosity</u> , very argillaceous;
2043 - 2044	SHALE - very dark gray, non calcareous, very carbonaceous;
2044 - 2049	SANDSTONE - dark gray to dark brown gray, very fine grained to fine grained, subangular to angular, well sorted, no apparent fluorescence, <u>bluish white cut</u> , very argillaceous and carbonaceous, moderately siliceous cemented, slightly dolomitic cemented, with shale interbeds;
2049 - 2059	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, siliceous cemented, occasional carbonaceous shaly laminae, <u>very rare trace intergranular porosity</u> ;
2059 - 2060	SHALE - light medium gray to very dark gray, non calcareous, kaolin specks, sand lenses and laminae, very carbonaceous;

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

2060 - 2067	SANDSTONE - light gray to medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, as above, scattered dark gray carbonaceous laminae, siliceous cemented, moderately dolomitic cemented in part, dark gray very fine grained cherty laminae, <u>very rare trace of intergranular porosity</u> ;
2067 - 2070	SHALE - dark gray, non calcareous, very carbonaceous;
2070 - 2077	SANDSTONE - dark yellow brown, medium gray, very fine grained to fine grained, subangular to angular, well sorted, as above, very siliceous cemented, slightly dolomitic cemented, very rare glauconite, no visible porosity;
2077 - 2080	SANDSTONE - medium yellow brown, very fine grained to medium grained, subangular to subrounded, well sorted, very siliceous, very limy in part, trace fossil fragments in sample, no visible porosity;
2080 - 2082	SILTSTONE - dark yellow brown, limy in part, rare Crinoid, trace other fossils and fossil fragments, very argillaceous;
2082 - 2083	SHALE - dark gray, as above, very carbonaceous, white chalky kaolinite laminae, rare Ostracod and Byrozoan, very rare waxy green shale;
2083 - 2085	SANDSTONE - medium yellow brown, dark gray, very fine grained to fine grained, subangular to angular, well sorted, silty, limy in part, rare fossils, no visible porosity, moderately argillaceous, abundant chalky kaolinite interbeds;
2085 - 2086	SILTSTONE - dark yellow brown, limy in part, rare Crinoid, trace other fossils, very argillaceous;
2086 - 2087	SHALE - dark gray, abundant chalky kaolin laminae and interbeds, very carbonaceous;

Mississippian (Flett) 2087m Sample 2085m Log

LITHOLOGY

Formation tops
Sample interval
(in meters)

SAMPLE DESCRIPTION

2087 - 2093	LIMESTONE - medium to dark yellow brown, very fine grained to fine grained, no fluorescence, <u>slow bluish cut</u> , dark gray and argillaceous in part, rare pellets, rare Oolite, trace kaolin, slightly dolomitic, no visible porosity;
2093 - 2099	LIMESTONE - medium to dark yellow brown, occasionally pale yellow brown, very fine grained to coarse grained, very argillaceous where dark yellow brown, no visible porosity in sample;
2099 - 2103	LIMESTONE - very fine grained to coarse grained, as above, occasional shale laminae, fossils, rare Coral, scattered chert laminae with very coarse rounded quartz, chert, fossil fragments and rock fragments;
2103 - 2110	LIMESTONE - dark yellow brown, very fine grained to coarse grained, very argillaceous in part, dolomitic in part, abundant dark brown chert laminae, chalky kaolin laminae in part, rare Brachiopod, rare Ostracod, no shows, no visible porosity;
2110m	TOTAL DEPTH

GEOLOGICAL SUMMARY AND CONCLUSIONS

Paramount et al Liard F-36 located at 60o 05.46' 123o 22.06' was re-entered December 23, 1998.

This hole had been drilled to 1494 metres in March, 1998. Drilling was suspended in the Permian Mattson Sands due to spring break-up, deteriorating lease road conditions, and road bans. 177.8 mm casing was set at 1494.0 metres.

The purpose of the re-entry was to deepen the hole to 1970 metres and evaluate the Mattson sands.

Hole size was 155.6mm. In order to avoid formation damage and prevent invasion of the formation by drilling fluids, drilling took place with nitrogen, using a calcium chloride invert mud. The well was drilled underbalanced until 1566m when gas flow required the weighting up of the mud and discontinuance of drilling with nitrogen.

A wellsite geologist was on location from drill out at 1494 metres to T.D. 5 metre samples were collected and washed from 1495 metres to T.D. As required 2 sets of washed samples were processed for the National Energy Board and 1 set for Paramount Resources Ltd. 1 set of washed, dried, bagged samples was also collected for the National Energy Board.

A Continental Laboratories Minipac 2100 gas detection system was set up and operated from drill out to T.D. Due to the closed system nature of nitrogen drilling gas readings were taken from the standpipe on the gas separation tank until 1569 metres when readings were taken from a gas trap located in the shaker box.

Gas readings to 1524 metres ranged from 5 to 79 units. There was no flow into the well despite the fact we were drilling well under balanced. Gas readings while tripping for a new bit at 1524 metres varied widely from a low of 44 units to a high of 9558 units indicating gas migration into the hole.

Gas readings increased significantly starting at 1532 metres. Gas readings went from a background of 50 - 117 units to 3362 units. No flow into the well was encountered at that time. Gas readings continued to increase until the well began to flow at 15:30 hours, December 26, at a depth of 1537 metres. The flare stack was ignited and drilling continued. Drilling rates from 1534 metres to 1539 metres were 18 to 26 minutes/metre. Lithology was a very fine to fine grained sandstone with pale greenish yellow fluorescence, bluish white cut, and scattered intergranular porosity. Drilling was stopped at 1542 metres to run a flow test through the annulus. The flow rate from flow test No. 1 was 79621m³/day (2.8mmft³/day) as measured through a 12.7 mm choke. No liquids appeared to have entered the wellbore.

GEOLOGICAL SUMMARY AND CONCLUSIONS cont.

Underbalanced drilling with nitrified invert continued. A drilling break occurred at 1563.0 metres to 1565.8 metres. The drilling rate increased from 41 minutes/metre to 6.8-10.7 minutes/metre. The well flow increased significantly and the well was shut in. Lithology was interpreted as a fine grained sandstone with scattered intergranular porosity. Sample quality was poor; therefore, the possibility exists that the gas came from fracture porosity. Flow test No. 2 was conducted through the annulus at 1565.8 metres. A flow rate of 289230 m³/day (10.2mmft³/day) through a 12.70mm choke was obtained. No liquids appeared to have entered the wellbore. Because of high pressures the decision was made to kill the well and run a DST.

DST #1,2,3 were run on original well prior to this re-entry.

DST #4, a bottom hole inflate test, was run over the interval 1559.7 metres to 1565.6 metres. Times were 10-60-120-30. PF produced GTS in 90 seconds. Final PF pressure was 11536kPa. Pressure at the end of the 1st shut in was 15911kPa. On VO had GTS immediately. Pressure at end of VO was 11273kPa. Surface pressure at floor manifold stabilized at 3500kPa through a 19.07mm choke. This calculated as a gas rate of 223080m³/day (7.9mmft³/day). Lost packer seat 0.5 hour into the FSI. Tried unsuccessfully to re-inflate packer. FSI pressure was 15920kPa. There was no liquid recovery. DST #1 indicated a dry gas reservoir with excellent permeability.

A drilling break occurred from 1608 metres to 1609 metres. Penetration rate went from 81 minutes/metre to 16.8 minutes/metre. 0.4 metre of this interval drilled in 2.5 minutes and may have indicated a fracture. Gas readings over the interval 1608 metres to 1609 metres increased from background gas readings of 56 to 75 units to a peak of 2777 units. Mud weight was 1100 kg/m³. Lithology in samples was a light yellowish brown, very fine to fine grained sandstone with greenish yellow fluorescence and bluish white cut. The sand was silica cemented and exhibited traces of intergranular porosity in samples. There was no sign of oil over the shaker. Background gas after 1609 metres was 411 to 484 units. Trip gas after trip at 1615 metres peaked at 3552 units. It was decided not to test this zone on penetration. Penetration rate increase, good gas detection response, and an increase in background gas after penetration indicated good potential from this interval.

There were traces of porosity in samples from 1621 metres to 1641 metres. There were no large increases in gas readings over this interval. Lithology was a light to medium yellow brown, very fine to fine grained sandstone with greenish yellow fluorescence and bluish white cut. There were streaks of fine to medium grained sand. The interval 1637 metres to 1641 metres exhibited an increase in gas readings from 70 units to a peak of 194 units, despite a decrease in penetration rate from 30 minutes/metre to 82 - 138 minutes/metre. This was probably attributable to a worn bit. The 1635 - 1641 metre sample showed fair porosity in sample (10 - 12% in part).

GEOLOGICAL SUMMARY AND CONCLUSIONS cont.

Drilling rate changed in the interval 1648 metres to 1653 metres from 80 - 101 minutes/metre to 23 - 37 minutes/metre. No increase in gas readings occurred over this interval. Samples showed a light grey, very fine to fine grained, siliceous cemented sandstone with greenish yellow fluorescence, a slow bluish cut, and very rare traces of intergranular porosity.

A drilling break from 1668 metres to 1673 metres produced a penetration rate change from 48 minutes/metre to 23 - 34 minutes/metre. Gas readings increased gradually from 51 units at 1670 metres to 138 units at 1673 metres. The faster drilling from 1671 metres to 1673 metres is a light medium grey, fine to medium grained, siliceous cemented sandstone with scattered greenish yellow fluorescence, bluish white cut, and traces of intergranular porosity in samples.

Although there were no fast drilling breaks samples in the interval 1673 metres to 1683 metres samples indicated a light grey, very fine to fine grained sandstone with streaks of fine to medium grained sandstone, with a dull greenish yellow fluorescence, slow bluish cut, and occasional intergranular porosity in samples. Gas readings showed a slow increase from 26 units at 1668 metres to 182 units at 1682 metres. Based on a probable correlation with a cored sand (Core #3) in the UCEL Liard K-02 well, and porosity in samples a decision was made to run DST #5, a bottom hole conventional test, over the interval 1662 metres to 1689 metres.

DST #5 times were 10-135-150-220. PF produced a weak air blow increasing to strong air blow in 10 minutes with no gas to surface. Initial PF pressure was 938 kPa. Final PF pressure was 543 kPa. ISI pressure was 2391 kPa. VO produced a strong air blow decreasing to very weak air blow in 2 minutes. IF pressure was 458 kPa with FF pressure of 550 kPa. FSI pressure was 1693 kPa. A 3rd VO for 5 minutes was performed in an attempt to catch a sample of gas in the bottom hole samplers. Hole fill volumes were not correct when we came out of hole with the test tool; therefore, the bar was dropped and pipe was run back to bottom of the casing to eliminate any possibility of a kick. Due to circulation pressure the pump-out sub was activated and no fluid recovery was obtained. DST #5 indicated the test interval contained a very low permeability reservoir.

Drilling continued with a number of drilling breaks and low magnitude increases in gas readings from 1691 metres to 1968 metres. Gas increases were in the order of 157 to 291 units. Traces of porosity were observed in the very fine to fine grained, siliceous cemented, sandstones. Scattered intergranular porosity was observed in samples where grain size increased to fine to medium grained. Oil shows were weak with dull greenish yellow fluorescence and slow bluish cut. Because of the lower magnitude of the gas detector responses it was decided not to test any additional sands until logs were run and permeability could be assessed. The chart at the end of the geological summary includes drilling breaks, gas detector response, and lithology from 1691

GEOLOGICAL SUMMARY AND CONCLUSIONS cont.

metres to 1768 metres.

A depth correction of +1.5 metres was made following strap in and out at 1953 metres. T.D. of 1968 metres was reached at 11:45 hours, January 22, 1999. Logging took place using Baker Atlas equipment. Logger's T.D. was 1967.7 metres. The following logs were run: High Definition Induction-Gamma Ray Log (1965.2 metres to 1894.0 metres); Compensated Z-Densilog Compensated Neutron Gamma Ray XY Caliper Log (1966.7 metres to 1494.0 metres); Multipole Array Acoustilog- Gamma Ray (1960.7 metres to 250.0 metres); Hexagonal Diplog (1960.5 metres to 250.0 metres); Circumferential Borehole Imaging Log (1967.2 metres to 250.0 metres); Magnetic Resonance Imaging Log (over selected intervals); and a Vertical Seismic Profile.

Logs confirmed the presence of gas at those intervals that produced high gas detector responses and the presence of porosity as seen in samples and inferred by drilling breaks. Zones of gas crossover include 1534.5 metres to 1538.0 metres; 1563.5 metres - 1567.5 metres; 1617.5 metres to 1629.9 metres; and 1631.0 metres to 1636.0 metres. Logs indicated 1534.4 metres to 1535.5 metres may be a gas cap overlaying an oil bearing zone from 1535.5 metres to 1540.0 metres. The MRIL log indicated 1617 metres to 1637 metres to be oil bearing.

After evaluation of the logs it was decided to run 2 DSTs. DST #6, a straddle inflate, was run over the interval 1763.0 metres to 1777.0 metres. DST #6 was declared a misrun after lost packer seat on preflow.

DST #7, an inflate straddle over the interval 1757.0 metres to 1792.0 metres, produced a strong air blow and gas to surface in 2.5 minutes. Initial shut in was 60 minutes. On valve open lost packer seal immediately. 1200 metres of drilling mud entered the drill pipe. Flow rate on preflow was 35902m³/day (1.27mmft³/day). Initial shut in pressure was 18152 kPa. Real time reported final shut in pressure of 18118 kPa.

DST #8 (1613 - 1641 metres) was cancelled. The decision was made to deepen the hole to penetrate the Mississippian Flett formation.

Drilling recommenced at 06:00 hrs on January 27, 1999. At bit trip at 2020 metres the survey indicated a deviation of 7 degrees at 2012 metres. A new bit was run in to hole and fanned to prevent deviation from increasing. A Gyro Data survey tool was dropped and tripped to retrieve and read recorder. It showed a maximum deviation of 7.8 degrees with an azimuth of 69.81 degrees. Samples showed no indication of the Flett limestone. The deviation appeared to be caused by the presence of the known thrust fault which trends northwest to southeast in the structure. Directional drillers were called in and drilling continued using a mud motor and MWD tool. The purpose of the directional drilling was to get the hole gradually back to vertical.

GEOLOGICAL SUMMARY AND CONCLUSIONS cont.

There were a number of drilling breaks from 2030 metres to 2089 metres but no associated significant gas reading increases.

The Mississippian unconformity was marked by the presence of large amounts of chalky kaolinite in samples. The top of the true Mississippian (Flett) was picked at 2087 metres; however, because drilling took place using directional tools with alternating periods of sliding and rotating, and frequent weight and rpm changes the penetration rate curve was not totally reflective of lithology and made it difficult to pick the formation tops.

At 2090 metres the gas increased from 35 units to 6814 units. There was no associated drilling break and samples indicated a medium yellow brown, very fine to finely grained limestone with no observable porosity. This suggested a fracture as the origin of this gas. Background gas increased in magnitude by a factor of 5 after this zone was penetrated.

T.D. at 2110 metres was reached at 23:00 hrs, January 31, 1999. The decision was made to run a bottom hole DST over the interval 2085 metres to 2110 metres. DST #8 produced a strong air blow in 35 seconds and gas to surface in 5 minutes on preflow. After an initial shut in of 150 minutes with an ISI pressure of 17352kPa, a valve open of 120 minutes produced gas to surface immediately with a lazy 2 metre flame decreasing to a lazy 1 metre flame. Final shut in pressure was 10349kPa after a final shut in period of 270 minutes. Recovery was 27 metres of gassy inhibited water over 68 metres of gassy watery invert. DST #8 may indicate a low permeability or depleting reservoir over the test interval.

Logging run no. 3 used Baker Atlas equipment. Logger's T.D. was 2109.8 metres. The following logs were run: High Definition Induction-Gamma Ray Log (2107.3 metres to 1494.0 metres); Compensated Z-Densilog-Compensated Neutron-Gamma Ray-XY Caliper Log (2108.8 metres to 1905.0 metres); Multipole Array Accoustilog-Gamma Ray (2102.8 metres to 1905.0 metres).

A 114.3mm liner was run to the bottom of the hole.

A number of the Mattson sands should be capable of production.

Perforating and testing through casing will be required to indicate which of the Mattson sands and fracture zones are produceable and the rate of production for each zone.

SUMMARY OF DRILLING BREAKS AND GAS INCREASES

Interval	Formation	P.R. Change(min/m)	Gas Change(units)	Lithology
1512-17m	Mattson	81 to 7-24	4 to 72	SS/os/tr por
1527-40m	Mattson	70 to 12-39	118 to 3996(flow)*	SS/os/scat por
1563-65.8m	Mattson	41 to 7-11(frac?)	No Readings(flow)*	SS/os/scat por
1573-74m	Mattson	37 to 18	83 to 108	SS/os/tr por
1576-84m	Mattson	56 to 17-30	72 to 112	SS/os/tr por
1599-02m	Mattson	59 to 35-47	72 to 90	SS/os/rr por
1608-10m	Mattson	81 to 17	75 to 2777	SS/os/tr por
1612-14m	Mattson	87 to 38-48	585 to 484	SS/os/tr por
1622-29m	Mattson	51 to 34-52	73 to 81	SS/os/tr por
1630-37m	Mattson	84 to 16-35	103 to 72	SS/os/scat por
1637-41m	Mattson	30 to 82-138	70 to 194	SS/os/tr por
1648-53m	Mattson	80-101 to 23-37	45 to 52	SS/os/rr por
1657-60m	Mattson	89 to 41-55	94 to 62	SS/os/rr por
1663-64m	Mattson	69 to 31	39 to 49	SS/os/rr por
1668-70m	Mattson	49 to 28-34	26 to 51	SS/os/rr por
1671-73m	Mattson	45 to 15-23	88 to 138	SS/os/rr por
1675-77m	Mattson	51 to 37-42	129 to 146	SS/os/occ por
1681-83m	Mattson	72 to 51-54	175 to 182	SS/os/occ por
1684-86m	Mattson	54 to 82 (bit?)	135 to 160	SS/os/tr por
1691-98m	Mattson	140 to 42-73	100 to 21-33	SS/os/scat por
1701-02m	Mattson	84 to 59	18 to 100	SS/os/tr por
1704-10m	Mattson	78 to 31-52	44 to 34-53	SS/os/scat por
1713-16m	Mattson	91 to 58	26 to 40	SS/tr por
1718-24m	Mattson	75 to 19-45	46 to 163	SS/os/scat por
1734-37m	Mattson	43 to 23-27	66 to 200	SS/os/scat por
1748-51m	Mattson	46 to 36-29	51 to 66	SS/os/tr por
1751-52m	Mattson	29 to 13	66 to 191	SS/os/scat por
1753-57m	Mattson	35 to 16-28	52 to 108	SS/os/scat por
1758-62m	Mattson	36 to 23-28	99 to 148	ss/os/scat por
1763-65m	Mattson	42 to 28-34	72 to 99	SS/os/scat por
1768-73m	Mattson	33 to 11-17	57 to 173	SS/os/scat por
1775-77m	Mattson	38 to 16-20	81 to 120	SS/os/tr por
1785-89m	Mattson	50 to 11-17	72 to 291	SS/os/scat por
1791-94m	Mattson	40 to 13-19	81 to 189	SS/os/tr por
1798-03m	Mattson	50 to 32-41	81 to 68	SS/os/tr por
1804-06m	Mattson	50 to 37-40	62 to 74	SS/os/tr por
1811-13m	Mattson	52 to 30	44 to 112	SS/os/tr por
1814-17m	Mattson	42 to 34-39	46 to 39	SS/os/tr por
1823-28m	Mattson	48 to 25-33	No Increase	SS/os/tr por
1835-37m	Mattson	43 to 22-27	25 to 87	SS/os/tr por
1851-54m	Mattson	46 to 24-27	59 to 81	SS/tr por
1859-61m	Mattson	54 to 35-40	38 to 40	SS/tr por
1864-66m	Mattson	39 to 27-32	38 to 66	SS/os/tr por
1876-78m	Mattson	78 to 52-53	14 to 7-10	SS/tr por
1882-84m	Mattson	90 to 32-42	7 to 49	SS/os/tr por

SUMMARY OF DRILLING BREAKS AND GAS INCREASES cont.

1892-94m	Mattson	61 to 34-35	21 to 42	SS/os/tr por
1901-03m	Mattson	44 to 33-35	33 to 65	SS/os/tr por
1909-16m	Mattson	51 to 38-44	20 to 34	SS/tr por
1918-23m	Mattson	49 to 29-41	13 to 27	SS/tr por
1929-30m	Mattson	64 to 41	27 to 51	SS/tr por
1933-34m	Mattson	51 to 35	31 to 34	SS/tr por
1935-36m	Mattson	55 to 37	No Increase	SS/tr por
1957-58m	Mattson	73 to 31	35 to 38	SS/tr por
1966-67m	Mattson	72 to 49	12 to 26	SS/tr por
2013-14m	Mattson	61 to 27	20 to 50	SS/tr por
2024-25m	Mattson	70 to 50	12 to 61	SS/rr por
2029-30m	Mattson	63 to 37	9 to 13	SS/rr por
2049-53m	Mattson	20-30 to 12-14	No Increase	SS/rr por
2089-90m	Miss.	No Change(frac?)	35 to 6814	LS/n v por
2095-98	Miss.	20 to 15-19	70 to 215	LS/n v por

NOTE: Most significant intervals are in bold type.
Gas readings are maximum reading in the interval.
os indicates significant fluorescence and cut.

*Underbalanced drilling with nitrified invert.

Flow Test No. 1: 1542m - 1494m 79621m3/day (2.8mmft3/day).

Flow Test No. 2: 1566m - 1494m 289230m3/day (10.2mmft3/day).

DST #4: 1559.7m - 1565.6m FSI 15920KPa 223080m3/day (7.9mmft3/day).

DST #5 1662m - 1689m FSI 1693KPa NGTS. Low Permeability Reservoir.

DST #6 1763m - 1792m Misrun.

DST #7 1757m - 1792m FSI 18119KPa GTS. 35902m3/day (1.27mmft3/day).

DST #8 2085m - 2110m FSI 10349KPa GTS. TSTM.

SUMMARY OF TRIP GAS AND CONNECTION GAS

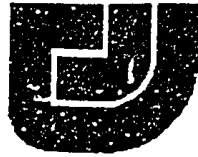
<u>Depth (m)</u>	<u>Trip Gas (units)</u>	<u>Connection Gas (units)</u>
1495	631	
1524	9558	
1525		1143
1615	3552	
1616		1009
1626		1525
1636 (survey)		2342
1641	1966	
1654		3908
1663	4122	2290
1668	5318	
1673		319
1682		1035
1689	5332	
1691		183
1698 (survey)		130
1700		385
1701	9294	
1713		546
1716	9979*	
1720		876
1729		1491
1740		776
1749		1632
1759		1492
1768 (survey)		5595
1777		971
1786		199
1796		601
1806	9979	
1815		1671
1824		363
1834		294
1844		55
1853		927
1863		503
1872	7032	
1873		330
1882 (survey)		2855
1891		364
1900		443
1910 (survey)		3834
1919		577
1929		105
1938		503

SUMMARY OF TRIP GAS AND CONNECTION GAS

<u>Depth (m)</u>	<u>Trip Gas (units)</u>	<u>Connection Gas (units)</u>
1940	2787	
1948		187
1953	4614	
1959		280
1968 (wiper trip)	1998	
1968 (clean out trip)	5648	
1968	4380	
1977		173
1986		208
1996		79
2005		497
2013		3898
2015		2728
2020	3976	
2025		3054
2031		537
2031	3664	
2036		64
2040 (survey)		226
2049 (survey)		38
2059 (survey)		30
2069 (survey)		81
2079 (survey)		125
2088 (survey)		190
2098 (survey)		1596
2107		515
2110 (wiper trip)		3653

*Maximum gas detector reading

***LEGIBILITY
OF LOG
COULD VARY
DUE TO
COLOR
CONTENT***



CL Consultants
Limited

SAMPLE LOG

FILE: 98N-2286

COMPANY: Paramount Resources Ltd.

WELL: Paramount et al Liard F-36

LOCATION: 60o 05.46' 123o 22.06'

FIELD: Undefined

PROVINCE: N.W.T.

GEOLOGIST: Barry C. Clattenburg

SPUD DATE: Re-entry 12/23/98

FINISH DATE: February 5, 1999

ELEVATION K.B.: 470.3 m

ELEVATION G.L.: 464.8 m

K.B. - CSG BOWL: 5.5 m

DATA FROM: 1490 m

T.D. DRILLER: 2110 m

T.D. LOGGER: 2109.8 m

HOLE SIZE: 155.6 mm

ANNOTATED COPY
Do Not Destroy

PRODUCING FORMATION: Mattson

BOTTOM FORMATION: Mississippian (Flett)

STATUS: Potential Gas Well

CASING: 114.3mm liner to bottom.

RIG RELEASED: Unreleased

CONTRACTOR: Precision Drilling Rig 373

MUD SYSTEM: Nitrified Invert/Invert

SAMPLE QUALITY: Fair to Good

REMARKS: Re-entry of 177.8mm Cased Hole at 1495 metres.

REMARKS:

DST #1: See Detailed Test Reports

E.LOGS #2: HDIL-GR/ZDL-CNL-GR-NYCAL/XMAC-GR/HXDIP-CBIL-GR/MRIL-GR-CAL/VSP

E.LOGS #3: HDIL-GR/ZDL-CNL-GR-NYCAL/XMAC-GR

ALL LITHOLOGIC SYMBOLS ARE CANSTRAT COMPATIBLE

OIL STAIN

- dead
- questionable (no fluorescence in solvent)
- spotty (fluorescence in solvent)
- live

POROSITY

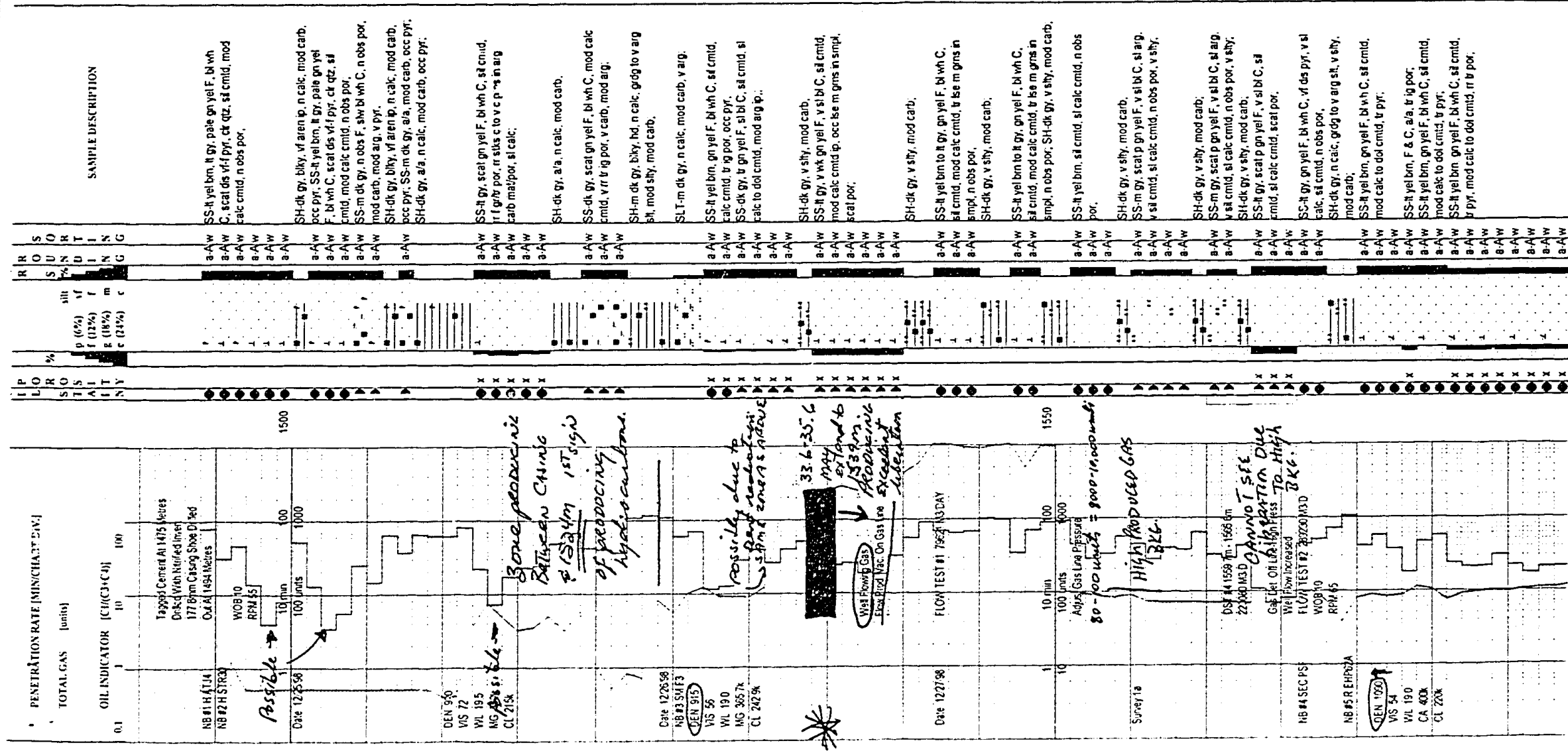
- e - earthy
- f - fracture
- m - mudite
- o - interfoliitic/petrolitic; organic
- p - pinpoint
- v - vuggy
- x - intergranular/fragmental/crystalline

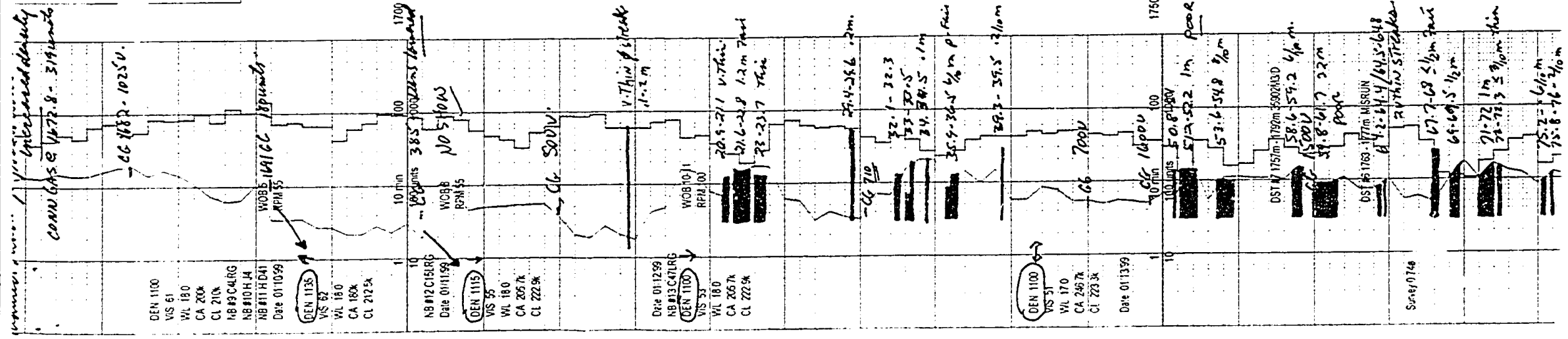
ROUNDNESS

- R - rounded
- r - subrounded
- a - subangular
- A - angular

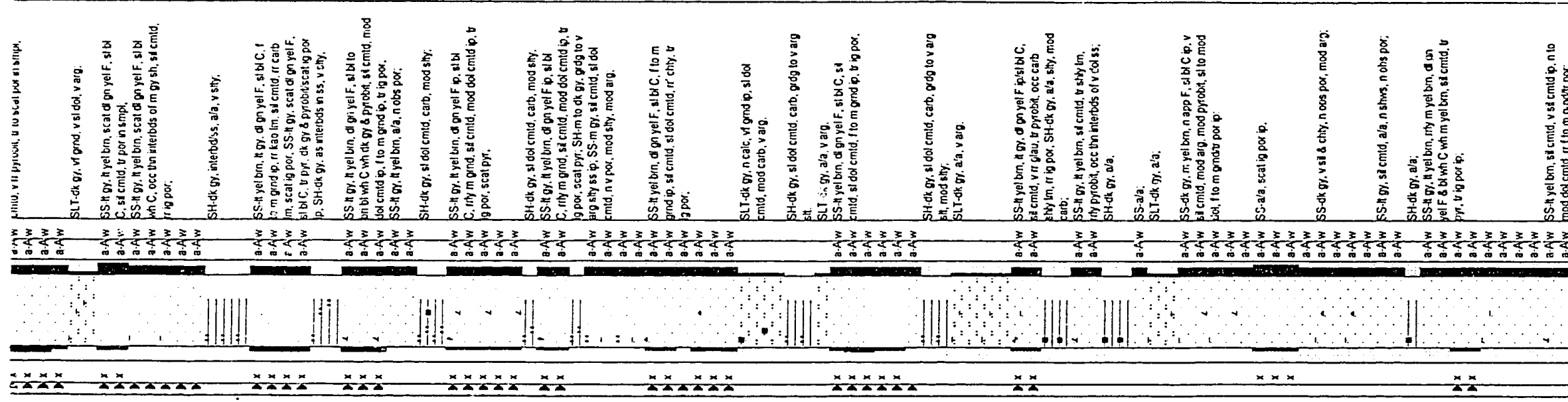
SORTING

- w - well
- m - moderate
- p - poor

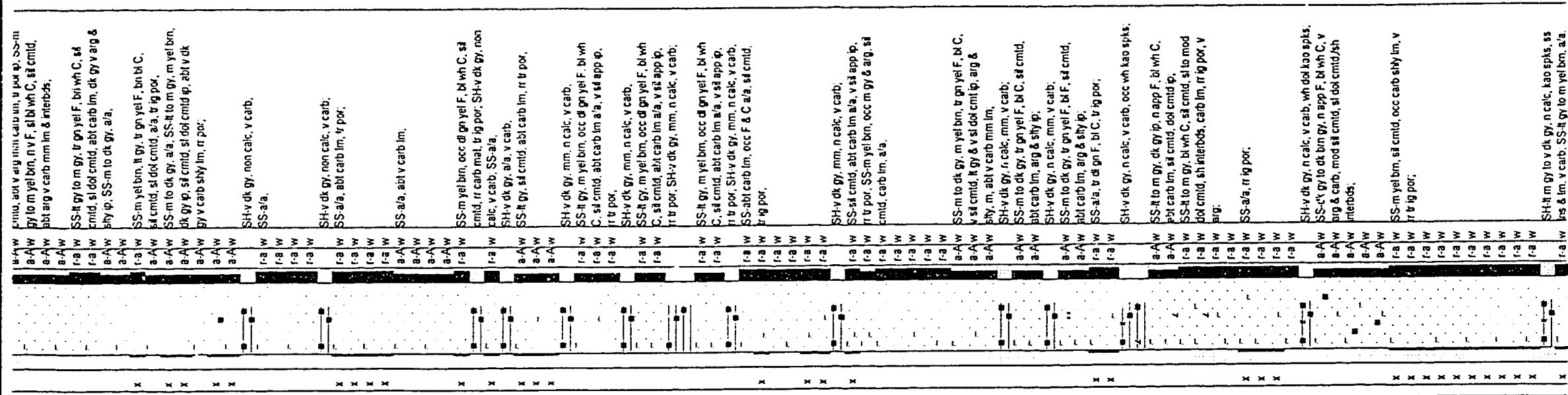




aAw	U p. sil cmlid, sil dol cmlid, sil oit to m
aAw	gnd/ m gy r chl, occ ig por;
aAw	
aAw	
aAw	SS-dk gy, m yel brn, n F, sil bl C, shly, arg,
aAw	scal pyrobit, n obs por;
aAw	SS-l gy, m yel brn ip, scal di yel F, sil bl
aAw	C p, sil cmlid, sil dol cmlid, sils of f to m
aAw	gnd, occ ig por, SS-dk gy, dk yel brn, n F,
aAw	sil bl C, shly ip, sil cmlid, sil dol cmlid, arg,
aAw	carb & pyrobit, n v por;
aAw	
aAw	SS-dk gy, dk yel brn, a/a, sil cmlid, s' dol
aAw	cmlid, carb & pyrobit ip, mod arg;
aAw	
aAw	SS-m gy, m brn gy, v h gy ip, occ gn yel
aAw	Flint bl wh C, f to m gnd ip, pyrobit ip;
aAw	sil cmlid, sil to mod dol cmlid, rr glau, SS-m
aAw	gy, m brn gy, v h gy ip, occ gn yel; Flint bl
aAw	wh C, f to m gnd ip, pyrobit ip, sil cmlid,
aAw	sil to mod dol cmlid, rr glau, tr scal ig por,
aAw	
aAw	SLT-v dk gy, sil cmlid, v f gnd ip, shly ip,
aAw	mod arg, occ pyr;
aAw	SS-v h gy, n F, sil bl C ip, sil cmlid, sil to
aAw	mod dol cmlid, n v por, SS-h gy to h yel
aAw	brn, scal di gn yel F, v sil n C, sils of f
aAw	to m gnd & chy ip, sil cmlid, scal ig por,
aAw	scal pyr, SS-h gy to h yel brn, scal di gn
aAw	yel F, v sil bl C, sils of f to m gnd & chy
aAw	ip, sil cmlid, scal ig por, scal pyr;
aAw	
aAw	SS-a/a, m gy ip, tr pyrobit, sl arg;
aAw	
aAw	SS-h gy to h yel brn, scal di gn yel F, sil
aAw	bl C, sil cmlid, v sil dol cmlid, rhy f to m
aAw	gnd, tr to n obs por;
aAw	SS-scal di yel F, sil bl C, a/a, tr m gy pyr
aAw	shly lm;
aAw	SS-v h gy, h yel brn, di gn yel F, sil bl C
aAw	ip, occ f to m gnd, tr pyrobit, sil cmlid, sil
aAw	dol cmlid, scal ig por;
aAw	
aAw	SS-h m gy, F a/a, occ brl bl wh C, occ f to
aAw	m gnd, scal pyrobit, tr ig por;
aAw	
aAw	SS-h m gy, h yel brn ip, di gn yel F ip, sil
aAw	bl C, tr carb lm, trn dk gy arg sil interbds,
aAw	n obs por;
aAw	
aAw	SS-h m gy, h gy, di gn yel F ip, sil bl C,
aAw	carb lm, sil cmlid, dol cmlid ip, pyrobit, scal
aAw	ig por;
aAw	SS-m gy ip, a/a, n obs por, mod arg;
aAw	
aAw	SS-h gy, a/a, interbds of dk gy v arg sil,
aAw	mod dol cmlid ip, n obs por;
aAw	
aAw	SS-h yel brn, h gy, di gn yel F, sil bl C, f
aAw	to m gnd ip, rr kao lm, sil cmlid, rr carb
aAw	lm, scal ig por;
aAw	
aAw	SS-a/a, m gy & f to m gnd ip tr ig por;
aAw	
aAw	SS-a/a, rr pyrobit;
aAw	
aAw	SS-a/a, occ shly lm;
aAw	
aAw	SS-m gy, h gy to h m brn ip, sil cmlid, scal
aAw	v f dis pyr, n obs por;
aAw	
aAw	SS-h yel brn, di gn yel F, sil bl C, sil
aAw	cmlid, v rr pyrobit, tr to scal por in smpl;
aAw	
aAw	SLT-dk gy, v f gnd, v sil dol, v arg;
aAw	
aAw	SS-h gy, h yel brn, scal di gn yel F, sil bl
aAw	C, sil cmlid, tr por in smpl



24



SURVEY PLAN

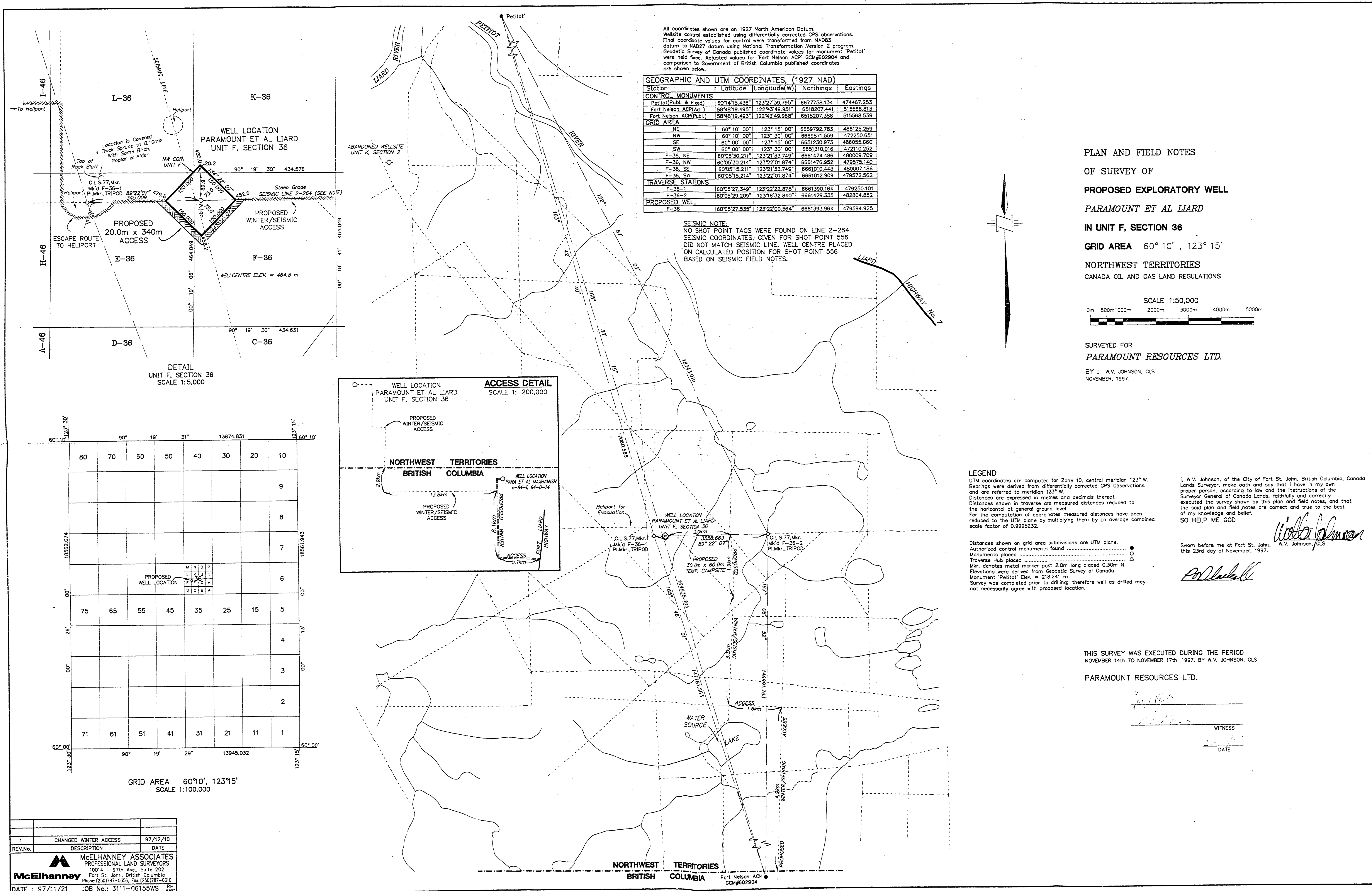
OVERSIZED

DOCUMENT

FILMED

ON

35mm



**Figure IV-1
Stratigraphic Chart**

