

PARAMOUNT

ET AL

CAMERON C-50

9211-P33-3-1



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

E.A.: 213
D.A.: 1338

Nova Scotia
Newfoundland
Gulf of St. Lawrence

☐ West Coast
☐ Northern
☐ Hudson Bay

☐ Exploratory
☒ Development
☐ Delineation
Service

☒
☐
☐
☐

AUTHORITY TO DRILL A WELL

APPLICATION

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 et al Cameron C-50
Operator: Paramount Resources Ltd. Drilling Program No.: N/A
Contractor: Cactus Drilling Permit or Lease No.: N/A
Drilling Rig ~~XXXX~~: #21 Estimated Well Cost: Less than one (1) million dollars
Location-Unit: C Section: 50 Grid Area: 60-10-117-30
Coordinates: Lat.: 60° 09' 03.65" N Long.: 117° 38' 40.64" W
Area: Cameron Hills, N.W.T. Field/Pool: N/A
Elevation ~~xx~~/KB: 687.60 m (ASL) ~~Sealoor~~ Ground 683.60 m ~~#887~~
Approx. Spud Date: March 10, 1986 Estimated Days on Location: 25
Anticipated Total Depth: 1455 m KB Target Horizon(s) Slave Point
Sulphur Point
UWI: 30°C506Q10117300

EVALUATION PROGRAM

Ten-metre sample intervals N/A
Five-metre sample intervals As specified from under conductor casing to T.D.
Canned sample intervals at 10 m intervals for geochemical analysis
Conventional cores at not anticipated
Logs and Tests as specified in drilling program, velocity survey DIL/CDL-CNS-GR tests
to be conducted across zones indicating potential hydrocarbons
(i.e. target zones)

CASING AND CEMENTING PROGRAM

O.D.	Weight:	Grade:	Setting Depth (m KB)	Cementing Program (Volumes):
244	53.57 kg/m	J-55	380 m	Class G 100% excess + 2% CaCl ₂
139	20.83 kg/m	J-55	1455 m	Class G + 0.75% T-10 20% excess

Please refer to the attached drilling program see "cementing program"

B.O.P. Equipment: one (1) 203 mm (8") 21,000 KPa (3000 lb) Shaffer-spherical
one (1) 203 mm (8") 21,000 KPa (3000 lb) Shaffer LWP - SGL
one (1) 203 mm (8") 21,000 KPa (3000 lb) Shaffer LWP - SGL

Other Information: Please refer to the attached detailed Drilling Program see
"Rig Inventory"

Signed: Dennis P. Besler

Title: President

Date: 1986.02.05

Company: Ridgestarr Petroleum Management Ltd.

APPROVAL

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

Signed: W. J. Klonas

Engineering Branch

Date: 7 Mar 86

File: 9211-P33-3-1

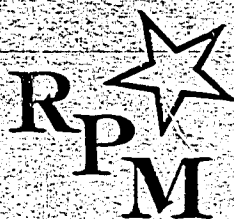
Department of Energy
Mines and Resources

Ministère de l'Énergie,
des Mines et des Ressources

Department of Indian Affairs
and Northern Development

Ministère des Affaires indiennes
et du Nord Canadien

Canada



OTTAWA COPY

WELL HISTORY REPORT

PARAMOUNT ET AL CAMERON C-50

9211-P33-3-1

RIDGESTARR PETROLEUM
MANAGEMENT LTD.

Petroleum Consultants

1608,840-7th Ave. S.W. Calgary Alberta T2P 3G2

Telephone 234-7712

ACTION SLIP

WELL HISTORY REPORTS

Project No:9211-P33-3-1.....

The following action has been taken:

Receipt acknowledged

Well Card made

Reports for review list edited

Reports labelled

Confidential sections removed:

(micro) Paleontological

Palynological

OR Source Rock Analyses

Geochemical analyses

Other

Land Management Memo

REVIEW AND APPROVAL made by: 

ENGINEERING BRANCH

RESOURCE MANAGEMENT *Word 861202*

ENVIRONMENTAL PROT. *21/1/86*

LANDWELL per 27/6/86

86014

MAKE COMMENTS ON ATTACHED SHEET

PROJECT NUMBER

9211-P33-3-1

COMPANY

PARAMOUNT ET AL CAMERON C-50

REPORT TITLE

WELL HISTORY REPORT

COMMENTS:

- Missing signed Termination Record
See Yellowknife Comments

Ris Released date: 1986-03-26

Classification of well: Exploratory

Rain

26-09-10

FINAL WELL REPORT

PARAMOUNT ET AL CAMERON C-50

N.W.T.

Well drilled by Cactus Drilling Ltd. (Contractor)

for

Paramount Resources Ltd. (Operator)

March, 1986

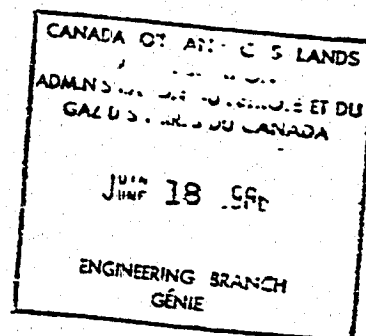
Operator's Representative

Ridgestar Petroleum Management Ltd.
1608, 840 Seventh Avenue S. W.
Calgary, Alberta T2P 3G2

Field Superintendent - Mr. John Dortch

June 9, 1986

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INTRODUCTION

FINAL WELL REPORT C-50

INTRODUCTION

a) SUMMARY

- i) Location: Cameron Hills, N.W.T.
Lat. 60 degrees 09' 03.65" N
Long. 117 degrees 38' 40.64" N
- ii) Operation: Drill a wildcat well for the purpose of producing hydrocarbons
- iii) Operator: Paramount Resources Limited
4100 First Canadian Centre
350 Seventh Avenue S. W.
Calgary, Alberta T2P 3W5
- iv) Contractor: Cactus Drilling Ltd.
P.O. Box 1508
Calgary, Alberta
T2P 2L6
- v) Drilling Unit: Refer to Appendix "A"
- vi) Locality Map: Refer to Appendix "B"

This well was spudded on March 9, 1986 to test all formations down to basement on a seismically defined structure. Only minor lost circulation problems were encountered between 550 and 570 m, and minor deviation occurred below 1400 m. The hole reached T.D. on 22 March, 1986. Tests were run in the Keg River and the Sulphur Point formations. The Keg River yielded minor gas and oil flecked mud. The Sulphur Point test yielded gas at about 3.76 MMcf/d. Insufficient time remained before spring break up to further evaluate the well. It was cased and suspended for further testing on March 26, 1986.

GENERAL DATA

GENERAL DATA

- i) Well Name and Number: Paramount et al Cameron Hills C-50
- ii) Surveying System: Conventional Traverse
- iii) Unique Well Identifier: 300C506010117390
- iv) Operator: Paramount Resources Ltd.
4100, 350 Seventh Avenue S. W.
Calgary, Alberta T2P 3W5
- Contractor: Cactus Drilling Ltd.
P.O. Box 1508
Calgary, Alberta T2P 2L6
- v) Drilling Unit: Cactus Drilling Rig 21
For detailed description see
Appendix "A"
- vi) Support Craft: Aircraft owned by Skocdopole
Brothers Aviation Ltd. -
used for crew change and
transport of miscellaneous
supplies



SUMMARY OF DRILLING OPERATIONS

SUMMARY OF DRILLING OPERATIONS

i)	Elevations:	RT/KB 692.69 m	
		GL 688.39 m	
ii)	Total Depth:	Drilled 1569 m	
		Logged 1568.7 m	
iii)	Spud Date:	86/03/09 2400 hours	
		Completed drilling 86/03/22	
		Rig Released 86/03/26	
iv)	Well Status:	Suspended	
		(Production casing to 1569 m with	
		wellhead pressure tested and in	
		place)	
v)	Hole Size and	Hole Size	Depth
	Depth:	444 mm	58.00 m
		311 mm	390.00 m
		216 mm	1569.00 m



Canada Oil and Gas Administration du pétrole
Lands Administration et du gaz des terres du Canada

Nova Scotia ☐
Newfoundland ☐
Gulf of St. Lawrence ☐

West Coast ☐
Northern ☐
Hudson Bay ☐

Well Status
Suspended ☐
Completed ☐
Abandoned ☐

Drill

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. Cameron G-50 Area: Cameron Hills, NWT
Grid Area: N/A Field/Pool: Wildcat
Permit or Lease No.: 213 Final Coordinates: Lat: 68°09'03.65"N Long: 112°38'40.64"W
Drilling Unit: Cactus Rm. 21 Elevations-RT/KB: 692.69 SFGL: 688.39
Spud Date: 86/03/09 Rig Released: 86/03/26 Total Depth: 1569

CASING AND CEMENTING

O.D.	Weight	Grade	Depth Set	Cement and Additives
139.7	90.78	K-55	58	9 tonnes Class "G" 0.1:0 + 3% CaCl ₂
244.5	53.57	K-55	390	26 tonnes Class "G" 0.1:0 + 3% CaCl ₂
199.7	20.83	J-55	1569	70 tonnes Class "G" + 25% T-10 + .2% RF + 3 sacks celloflake

PLUGGING PROGRAM

Approval of the following program was obtained by (person) from
(person) of the Canada Oil and Gas Lands Administration by means of
..... on 19

Type of Plug	Interval	Felt	Cement and Additives
None			

Lost Circulation/Overpressure Zones: Last circulation at 560 m

Equipment left on Seafloor (Describe): N/A

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

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: P. Eng. Title: President
Name: Dennis P. Besler Date: 1986 05 26
Ridgestarr Petroleum Management Ltd.

Acknowledged by:
Engineering Branch

Date:

File:

Department of Energy,
Mines and Resources

Department of Indian Affairs
and Northern Development

Ministère de l'Énergie,
des Mines et des Ressources

Ministère des Affaires indiennes
et du Nord canadien

Canada

*Signature copy
in file*

vi) Casing and Cement Record:

Casing

	<u>Size</u> (mm)	<u>Weight</u> (kg/m)	<u>Grade</u>	<u>Make</u>	<u>Joints</u>	<u>Thread</u>	<u>Depth</u> (m)	<u>Date</u> <u>Set</u>
a)	339.7	90.78	K-55	N/A	5	Buttress	58.00	86/03/11
b)	244.5	53.57	K-55	ST&C	31	8rd	390.00	86/03/14
c)	139.7	20.83	J-55	LT&C	123	8rd	1569.30	86/03/26

Cement

- a) 9 tonnes. Class "G" 0:1:0 + 3% CaCl₂
- b) 26.7 tonnes, Class "G" Oilwell + 3% CaCl₂, 2.0 cu. m cement returns
- c) 70 tonnes, Class "G" + .75% T-10 + .2% R.F., 3 sacks celloflake, lost circulation 8.5 cu. m from plug down

(Refer to Appendix "C")

vii) Sidetracked Hole: N/A

viii) Drilling Fluid:

The intention was to drill as far as possible with water treated only with SAPP (Sodium Acid Pyrophosphate) to prevent wetting of the shales. When lost circulation occurred at 522-566 m, it was necessary to convert to a simple Gel-Benex system to maintain a viscosity of 55-60 S/L. Sawdust was used to remedy lost circulation. This system was used for the remainder of the hole.

ix) Fishing Operations: N/A

x) Well Kicks: None

xi) Formation Leak Off Test:

With casing at 390 m, drilled 5 m and slowly pumped fluid until pressure reached 7000 kPa. Formation did not break down. Refer to Appendix "D"

xii) Time Distribution

Date	Drilling	Tripping	Rig Ser.	Reaming	Circulate	Survey	Miscellaneous
1986	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)	(hours)
03/10	7.50				3.00	.50	Rig up 13.00
03/11	5.75	3.00	.75	1.25	5.25		Cement and run casing 8.00
03/12	3.50	3.75	.75		1.00		Nipple up BOP's 12.00 Clean pump 3.00
03/13	12.25	2.25	.75			1.50	Plug flow lines 7.25
03/14	7.00	4.25	.75			.50	Plug flow lines 11.50
03/15		2.75	.75		2.25		Cement and run casing 13.50 Nipple up BOP's 4.75 0
03/16	15.00	1.00	.75		2.25	.25	Pressure test 3.75 Nipple up BOP's 1.00
03/17	16.00	3.00	.75	1.00	3.00	.25	
03/18	23.00		.75			.25	
03/19	15.50	4.25	.75	3.25		.25	
03/20	13.50	5.00	.75	3.25	.75	.75	
03/21	22.50		.75			.75	
03/22	16.25	5.50	.75	.50	.75	.25	
03/23	11.75	4.75	.75		3.00	.75	Logging 3.00
03/24		7.75	.75				Logging 13.00 DST 2.50
03/25		14.50					DST 9.50

<u>Date</u>	<u>Drilling</u>	<u>Tripping</u>	<u>Rig Ser.</u>	<u>Reaming</u>	<u>Circulate</u>	<u>Survey</u>	<u>Miscellaneous</u>
1986	(hours)	(hours)	(hour)	(hours)	(hours)	(hours)	(hours)
03/26		13.00			3.00		Run casing 8.00
03/27					1.00		Cement 1.25 Tear out 5.75

RIG RELEASED 86 03 26 1600 hours

xii) Deviation Survey N/A

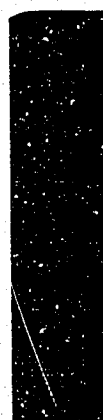
xiv) Bit Record

Figure 1 consists of eight cross-sectional diagrams of a tooth, labeled from 'NEW' to 'T8'. Each diagram shows the tooth's profile and the internal pulp space. As the tooth progresses from 'NEW' to 'T8', the crown height decreases, and the pulp space becomes increasingly filled with a dark material, representing the progression of tooth dullness and wear.

_____ Of _____

NEW	T1	T2	T3	T4	T5
DEGREE OF TOOTH DULLNESS					

Province			Field			LSD	Section	Township	Range	Operator						Operators Representative																						
NWT			Cameron Hills			Canada	C	50	W	Paramount Resources						J. Dortch																						
Location					Contractor					Rig No.	Drawworks					Tool Pusher					Elevation:																	
Cameron Hills C-50					Cactus					21	500 EMSCO					Brian Evayshyn					688.39																	
DRILL COLLARS	No.	O.D.	I.D.	Year / Month / Day				Time 00:00 to 24:00				PUMPS	Type	Liner	Lic. Formation:																							
	1	6	171	77									1	D700	127	Precambrian																						
	2	12	159	77									2	D500	127	Lic. Depth: 1550																						
TOOL JOINTS	Make	Size	Type	O.D.	Under Inter.				Field Salesman				Lic. Number:																									
	1	HTW	XH	114					George																													
	2				Total Depth				Stockpoint				Lic. Date:																									
					Release				Hi-Level				Stkpt. Code																									
Lost Circulation Depths			Key Seat Depths			Other Remarks - Reaming, Re-Drilling, Etc.											MUD TYPE			SPECIAL ADDITIVES			Daywork:	From:														
552			N.A.														TO 390 M. Gel/chem						X	To:														
556																	TO 770 M. H-2-0						Meterage:	From:														
																	TO T.D. M. Gel/chem							To:														
(1)			No.	Size	Make	Type	Jets	Serial	Depth Out	Metre Drilled	Hours	Accum. Hours	Metres Per Hour	DULL COND.				SHOCK TOOL	No. of DC	Force WL on Bit daN	R.P.M.	Vert. Dev.	Pump Pres. 000	SPM		Mud		Remarks Formation Etc.										
(2)														T	B	G	OTHER						1	2	Density	Vis	WL											
(3)																																						
			1A	222	HTW	J-2	Open	10342	55	55	7.5	7.5	7.3	3	3	1	X	X	4	2	140	1/4	2	60	60	1080	70											
			2A	444	Smith	FDT	Open	FE405	58	58	5.75	13.25	10.0	3	2	1	X	X	4	2	140	1/4	2	60	60	1080	70											
			Conductor Hole												13.25 hours																							
			3A	311	HTW	X3A	14	XC387	215	215	12	12	20.3	4	2	1	X	X	6	10	140	1/2	5	60	60	1090	45											
			4A	311	HTW	X3A	14	4387	390	175	9.75	21.75	16.7	4	3	1	X	X	18	10	140	1/4	5	60	60	1100	70											
			Surface Hole												21.75 hours																							
			1	216	Reed	HP12	8.7	RWH445	657	399	22.50	22.50	15.2	3	2	1		X	18	14	90	1/4	9	64	64	1070	52											
			2	216	HTW	J11	9.5	17858	266	609	51.75	74.25	11.7	4	2	1		X	18	16	90	2	92	64	64	1120	65											
			3	216	Smith	F-2	9.5	FE1021	1445	179	32.25	106.5	5.5	8	3	0		X	18	16	80	1 1/4	92	64	64	1100	68											
			4	216	Reed	HP53	9.5	439794	1569	124	26.75	133.25	4.6	8	3	0		X	18	18	80	1 1/4	92	64	64	1110	90											
			Main Hole																																			
			133.25 rotating hours												5.5 days																							
			Average 11.7 m per hr																																			



GEOLOGY

GEOLOGY

i) Drill Cuttings

Taken from surface to T.D., except from 552 to 566 m, where lost circulation occurred. 1 litre unwashed samples were put in plastic containers and and were taken every 10 m.

Washed samples were put in sample bags and were taken every 5 m; out of the bagged samples 2 glass vial samples and 1 plastic vial sample were obtained. All of the above, except for the plastic vial sample was shipped to ISPG in Calgary.

ii) Cores - no cores were obtained.

iii) Lithology - Refer to Appendix "E"

iv) Stratigraphic Column - Refer to Appendix "E"

WELL EVALUATION

WELL EVALUATION

i) Down Hole Logs:

<u>Date</u> 1986	<u>Run Number</u>	<u>Type</u>	<u>Interval</u> (m)	<u>Service Company</u>
03/23	One	CD/CN	1568.0-390.0	Computalog
03/03	One	DIL	1569.0-390.0	Computalog
03/25	One	Borehole Volume Integration	1569.0-390.0	Computalog

(Refer to Appendix "G")

ii) Other Logs: Nil

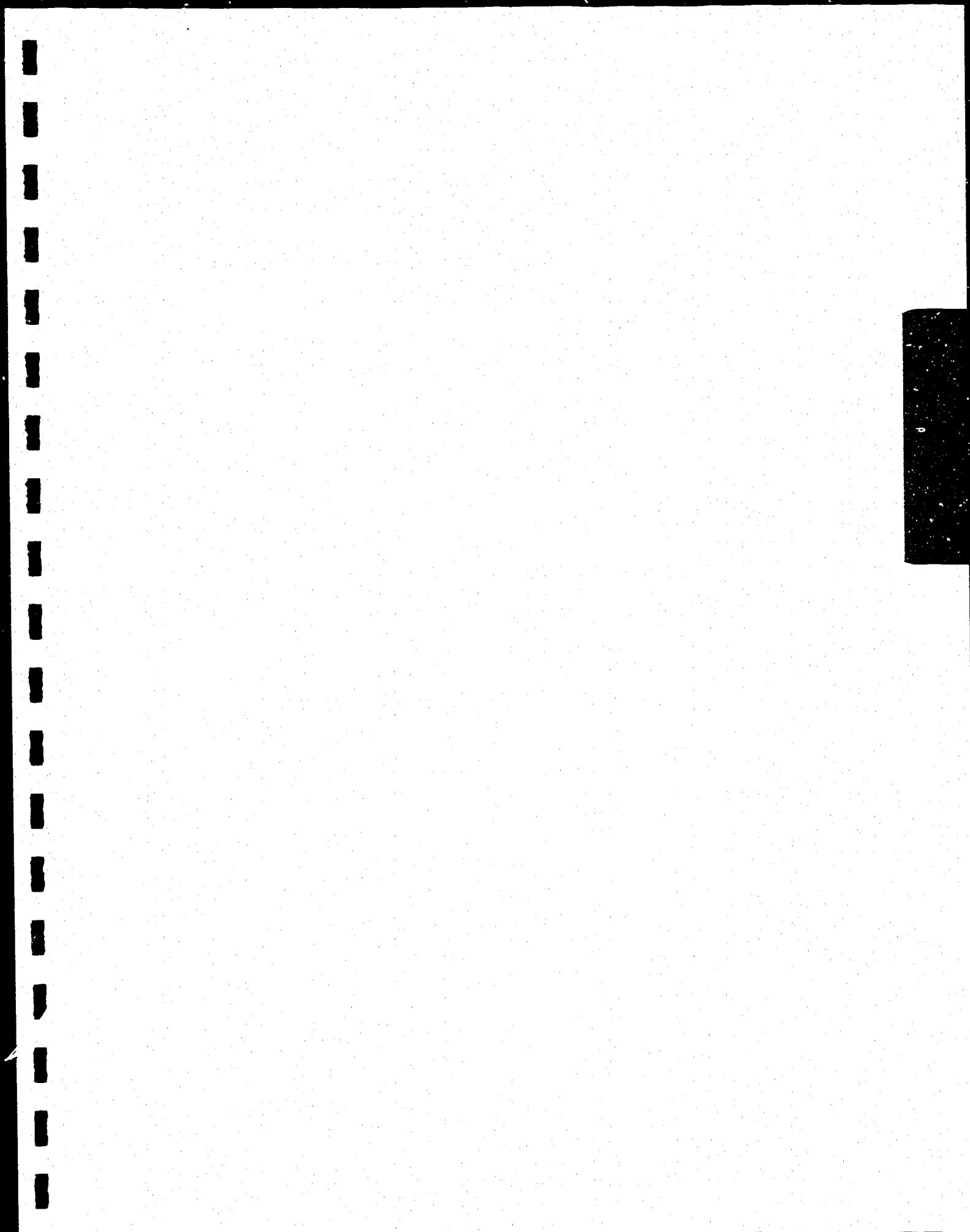
iii) Velocity Survey: Refer to Appendix "G"

iv) Formation Stimulation N/A

v) Formation and Production Testing N/A

<u>Date</u> 1986	<u>Interval</u> m	<u>Type</u>	<u>Contractor</u>	<u>Results</u>
03/24	1452-1465	DST	Lynes	Refer to Appendix "F"
03/25	1353-1366	DST	Lynes	Refer to Appendix "F"

vi) Deviation Survey N/A



APPENDICES TO WELL HISTORY REPORT

APPENDICES TO WELL HISTORY REPORT

- i) Fluid Analysis - Not Applicable
- ii) Reservoir Engineering Data - not available



APPENDIX "A"

DRILLING RIG INVENTORY

CACTUS DRILLING RIG 21

DETAILED INVENTORY

MAST:

Lee C. Moore 38.7m, s/n T3392, rated cap. 126,000 daN; c/w crown w/5 x 36" and 1 x 56" sheaves grooved for 1½ line, racking platform, ladders, crown safety platform, stand pipe, tong counter weights, stand-pipe, and catline sheaves.

SUBSTRUCTURE:

Main sub 3.58m H x 14.6m L, Pony sub .61m H x 14.6m L. Sub is sheeted in w/steel, includes stairs, handrails and ramp.

DRAWWORKS:

Continental Emsco GC500, s/n 185, c/w Emsco Model TB breakout and Emsco GB spinning catheads. 40R Hydro-matic brake, s/n A12808, mounted on drawworks in Gear Matic model 5 survey winch, s/n 5-1246, c/w line Gear Matic tugger winch model 14-11-10-11, s/n 14-1241. Control Drilling automatic driller.

COMPOUND:

Continental Emsco model GB 83M, s/n 33, 2 - engine drives c/w piping, air lines, and controls.

ENGINES:

2 - Caterpillar D 379B, s/n 68B1804 and 68B1285, c/w starters and Barber shut-offs. Total power of 835 kw.

AIR COMPRESSORS:

1 - Gardiner Denver ADRA 1002, s/n 870, 1 - Gardiner Denver ADS 1007, s/n 17024.

HOOK BLOCK:

National model 542E200, s/n 1427.

ROTARY TABLE:

Oilwell 20.5, c/w split master bushing and sprocket, s/n CDRT21.

SWIVEL:

Emsco model LB200, s/n 79.

MUD PUMPS:

1 - Emsco D-700, s/n 1, c/w hydril K20-3000 pulsation dampner, shear relief valve, gauge, suction, mud line, valves, guards, and V belts. Completely rigged up in steel house 3.0m W x 8.23m L.

1 - Emsco D-500, s/n 446, c/w hydril K20-3000 pulsation dampner, shear relief valve, gauge, suction, mud line and valves, guards and V belts. All Completely rigged up in steel building 3.0m W x 8.23m L.



B.O.P.'s:

1 - Hydril GK 12-900 Spherical. 2 - Shaffer Type E single gate, 12" - 3000 psi c/w 4½ and blind rams.
1 - Drilling spool, 12 - 900 x 12 - 900, c/w 2 - 3" 900 flanged outlets.

ACCUMULATOR:

Payne w/5 - station remote, 8 bottles (545 litres),
2 - nitrogen bottles charged w/ P30 Williams pump
powered by 7.5 hp, 3450 r.p.m. 3 sh. electric motor.

BLEED-OFF MANIFOLD:

3" 5000 psi National Bell valve w/1 - Flo-Lite remote choke 3", and 1 - Willis M3 3" manual choke. 36" Poor Boy degasser, 3" inlet and 6" outlets.

FLARE LINE:

45.7m of 76mm complete with flanges.

LIGHT PLANTS:

1 - Caterpillar D3306, s/n 66D40372, 230 hp and 1855 r.p.m. 1 - 155 Caterpillar 155 kw, 1200 r.p.m. 230 volt, 3 ph.

1 - 671 GM, 1800 r.p.m. w/125 kw generator, 230 volts 3 ph.

BOILERS:

1 - A 6569, 48 hp Frost Locomotive style. 1 - A 176171 100 hp Napanee.

MUD TANKS:

Shaker tank 13.4m L x 3.0m W x 1.8m H c/w 1 - Swaco super screen shale shaker, ditches, guns, equalizers, clean out gates, stairs, and hand rails. Fisher pump model FP9-v2.5 x 5.5.

SUCTION TANK:

15.5m L x 3.0m W x 1.8m H includes mud mixing house, 2.7m L x 3.0m W x 2.4m H, on one end c/w Galigher D4VRG200 pump and 60 hp electric motor, mud hopper and valves w/piping for low pressure mixing systems.

TANKS AND BUILDINGS:

1 - Dog house 7.9m L x 3.0m W x 3.0m H lined and insulated, 1 - Chromalox electric heater, knowledge box, tool board, bench, cupboard and air conditioner.

1 - Combination Building. Light plant, accumulator, change house, 13.4m L x 3.0m W x 3.0m H c/w lockers, storage bins, water, fuel and hydraulic lines, rig master electrical panel.

1 - Tool House, 7.62m L x 3.0m W x 3.0m H, c/w dog house supports, oil storage tanks, bins, cupboards and work bench.

WATER AND FUEL TANK:

10.36m L x 3.0m OD c/w water and fuel lines, ladders, manhole and decking. One only Monarch water pump model NE 2½ M9S type A c/w 20 hp Baldor electric motor. 2 - Monarch model 4 MT Type A fuel pumps 2 hp electric motor.



MISCELLANEOUS:

1 - Kelly hose 3" x 55' c/w 4" connections. 2 - shock hoses 3" x 12' c/w 4" connections. Kelly is 4½ x 40' square. 1 - Baash Ross 2RCS4 kelly drive bushing. Web Wilson AAX tongs c/w jaws 3½ - 10 3/4. Baash Ross Type DU 4½" slips, Baash Ross type C 5½ - 7" slips. 1 - Baash Ross safety clamp. 1 - GJ MGG 4½" 18° elevator. 1 - BJ AA 7" elevator. Elevator links Web Wilson 2 3/4 x 96". Drilling line is 1½ x 1500'. 23 pieces of matting.

TOOLPUSHER
WELLSITE UNIT:

All Fab Industries 3.0m W x 10.97m L, s/n 801032S658WS c/w air conditioning and fully equipped.

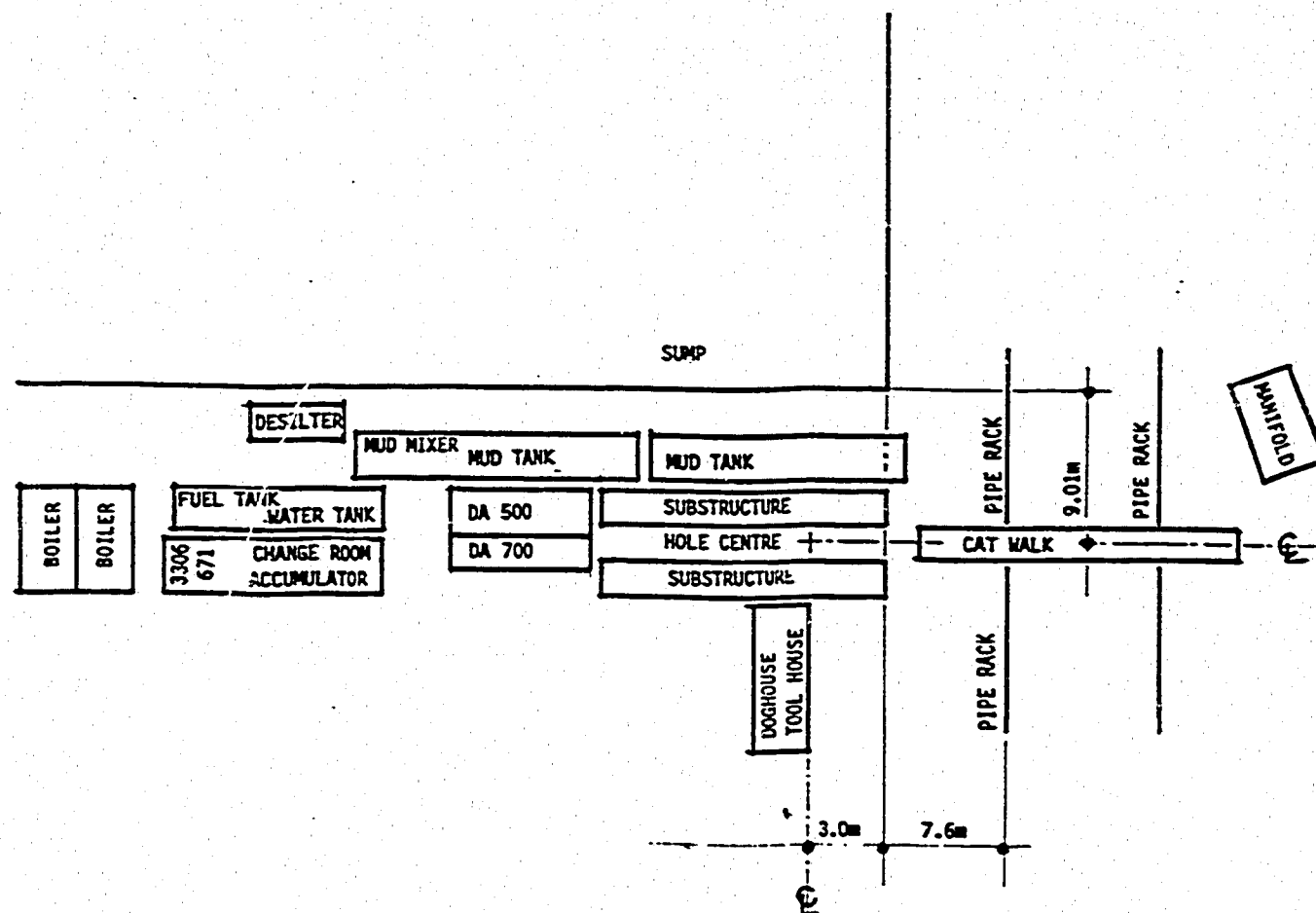
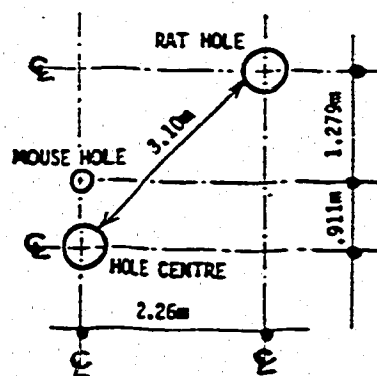
DRILL COLLARS:

6 - 6 3/4 x 5" H90, 12 - 6½ x 4½ H90 collars.

DRILL PIPE

1700m of 4½ XH Grade 'E' premium pipe.





CACTUS DRILLING
#500, 622 - 5th Ave. S.W.,
Calgary, Alberta. T2P 0M6

CACTUS RIG NO. 21
MOUSE HOLE/RAT HOLE DIAGRAM
LEASE LAYOUT

January 14, 1986
Not to Scale.

CACTUS RIG NO. 21

CREW STATUS TRAINING

DATE: WINTER 1986

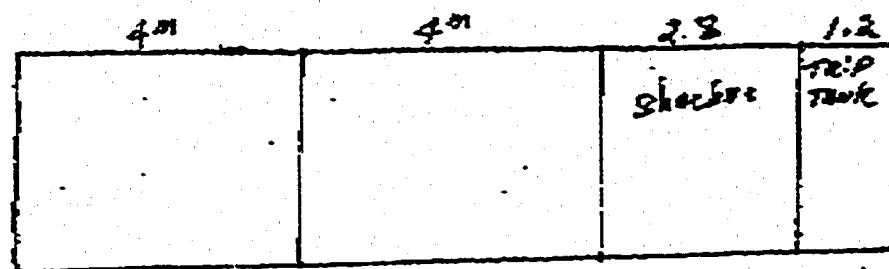
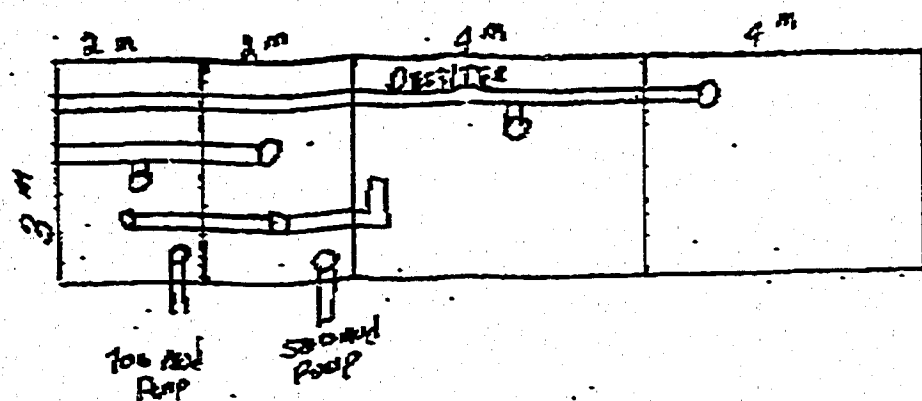
CLASSIFICATION	NAME	FIRST AID	H ₂ S	BOP	WELL CONTROL	BOILERS	DEFENSIVE DRIVING	OTHER COURSES	TIME WITH CACTUS	TIME IN POSITION
RIG MANAGERS	BRIAN EVANYSHYN	JUN. 84	MAY. 85	APR. 84	SEP. 85	MAR. 82	AUG. 80	BOILER COMPOUND FIRE EXTINGUISHER	DEC. 70	RELIEF PUSH 5 - YEARS
	(DRILLER/RELIEF TOOL PUSHER) TERRY GRAHAM	APR. 84	APR. 84	MAY. 84	AUG. 85	NOV. 80	APR. 84	CPR APRIL 1984	JAN. 80	JAN. 80
DRILLERS	GERALD HUSEBY	APR. 84	APR. 84	JUL. 85		NOV. 81	APR. 84		AUG. 78	OCT. 85
	BOB LOTOSKI	DEC. 85	DEC. 85	SEP. 84		FEB. 80	JUN. 75	ROSS HILL SCR/ GYRO @ MAG SURVEYING/ STEERING TOOL PRINCIPALS OF SUPERVISION	JAN. 86	5 YEARS DRILLING EXPERIENCE. JAN. 86
	(RELIEF DRILLER AND DERRICKMAN) ROBIN LUFT*		JAN. 86	DEC. 84					JAN. 86	4-YEARS DRILLING EXPERIENCE.
ASSISTANT DRILLERS OR DERRICKMEN										
	* NOTE: ROBIN LUFT IS ENROLLED IN A FIRST AID COURSE IN FEBRUARY 1986.									

MOBILE TELEPHONE NOs

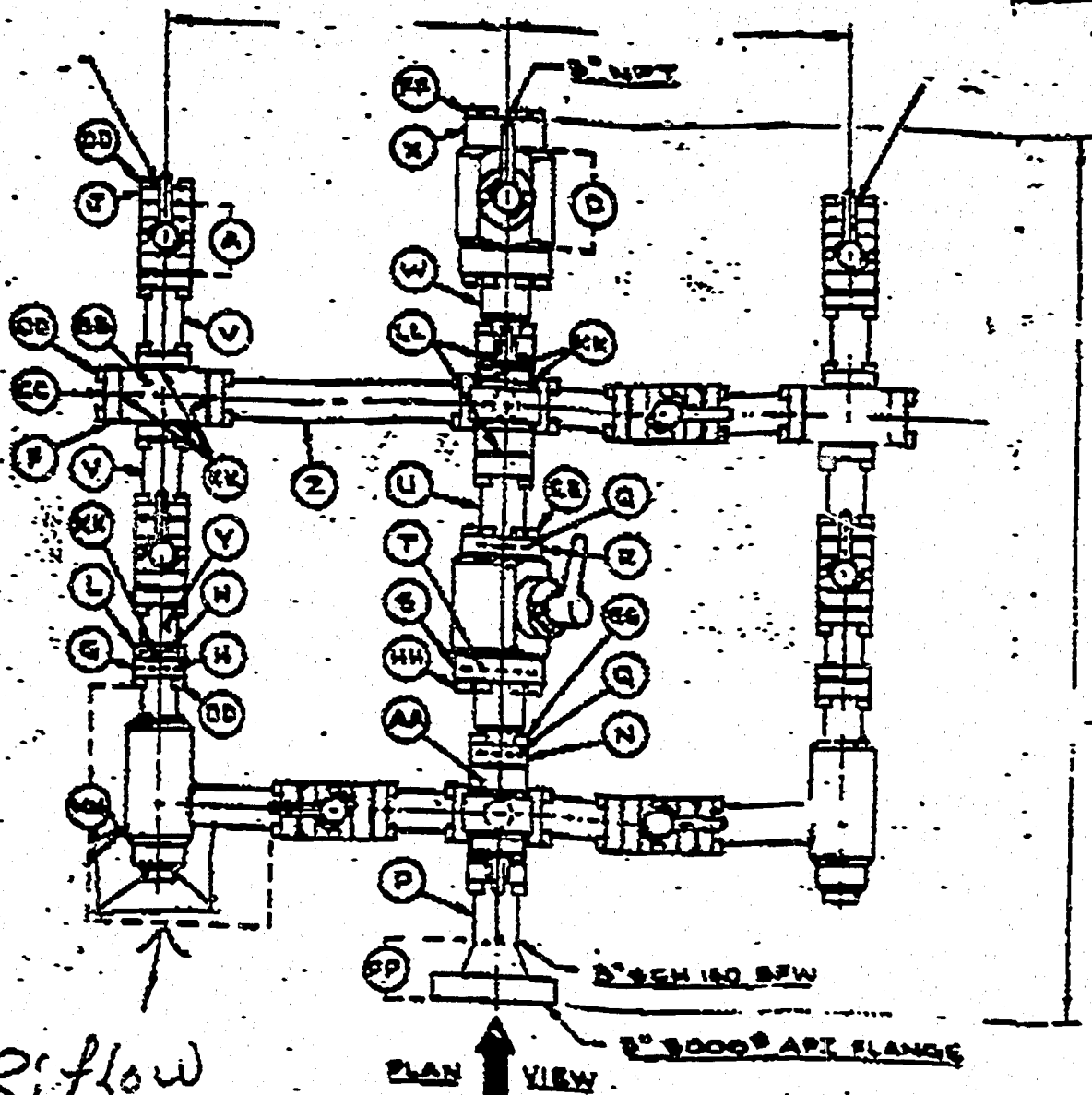
TRUCK - XJ6-0929

BASE - XJ7-6542

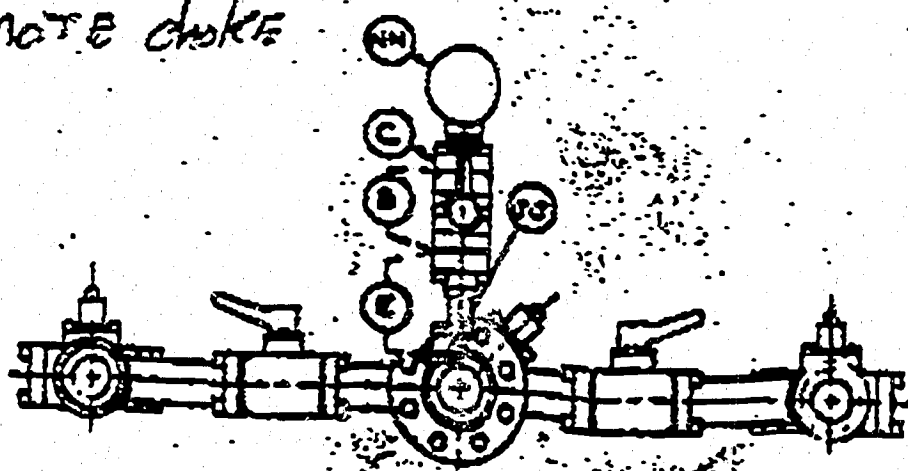
CACTUS R-4 21
 mud tank volume 109 m



Height 1.52 m



TR: flow
Remote choke

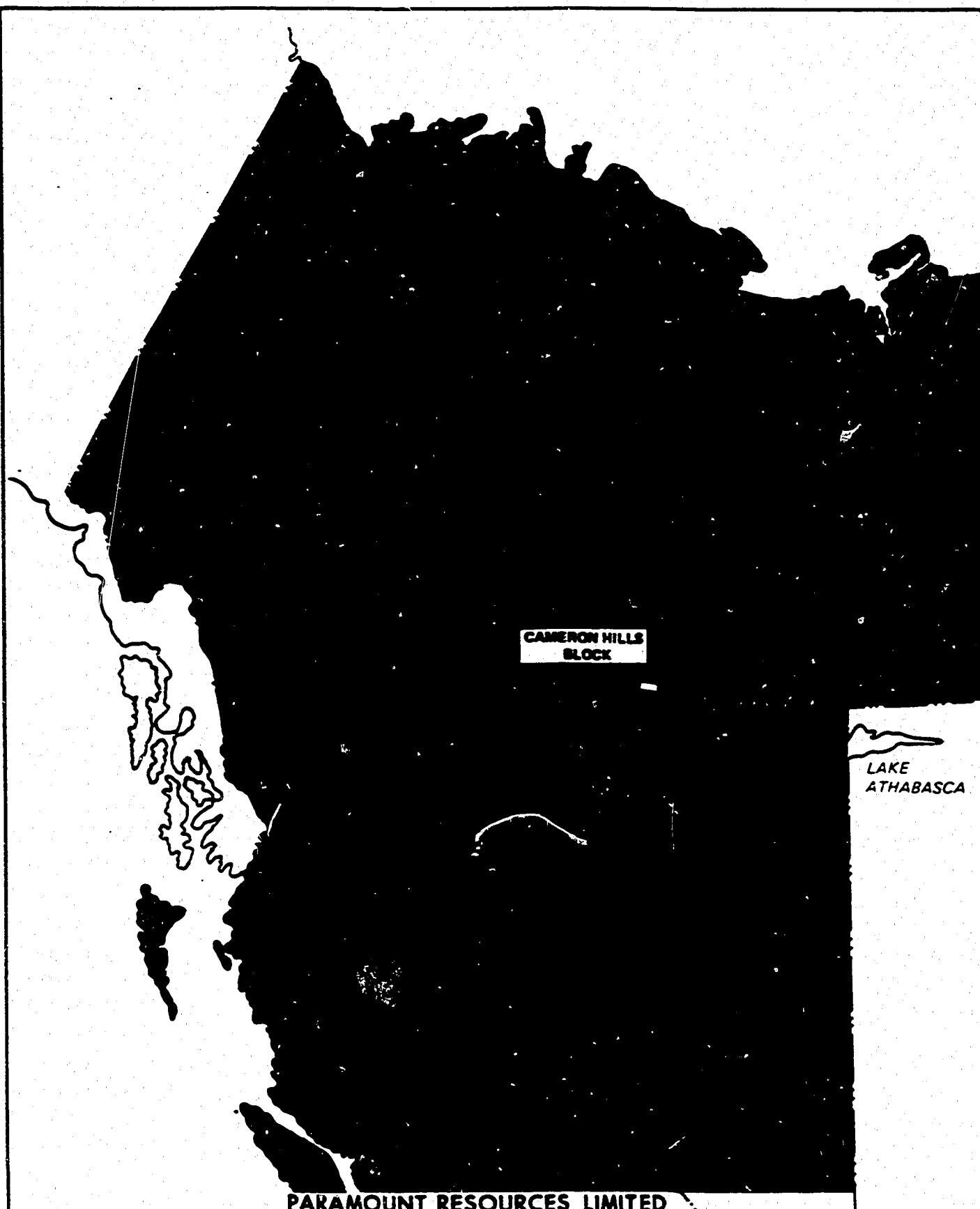


CACTUS 21
3x3 NATURAL manifold 34000 kpa

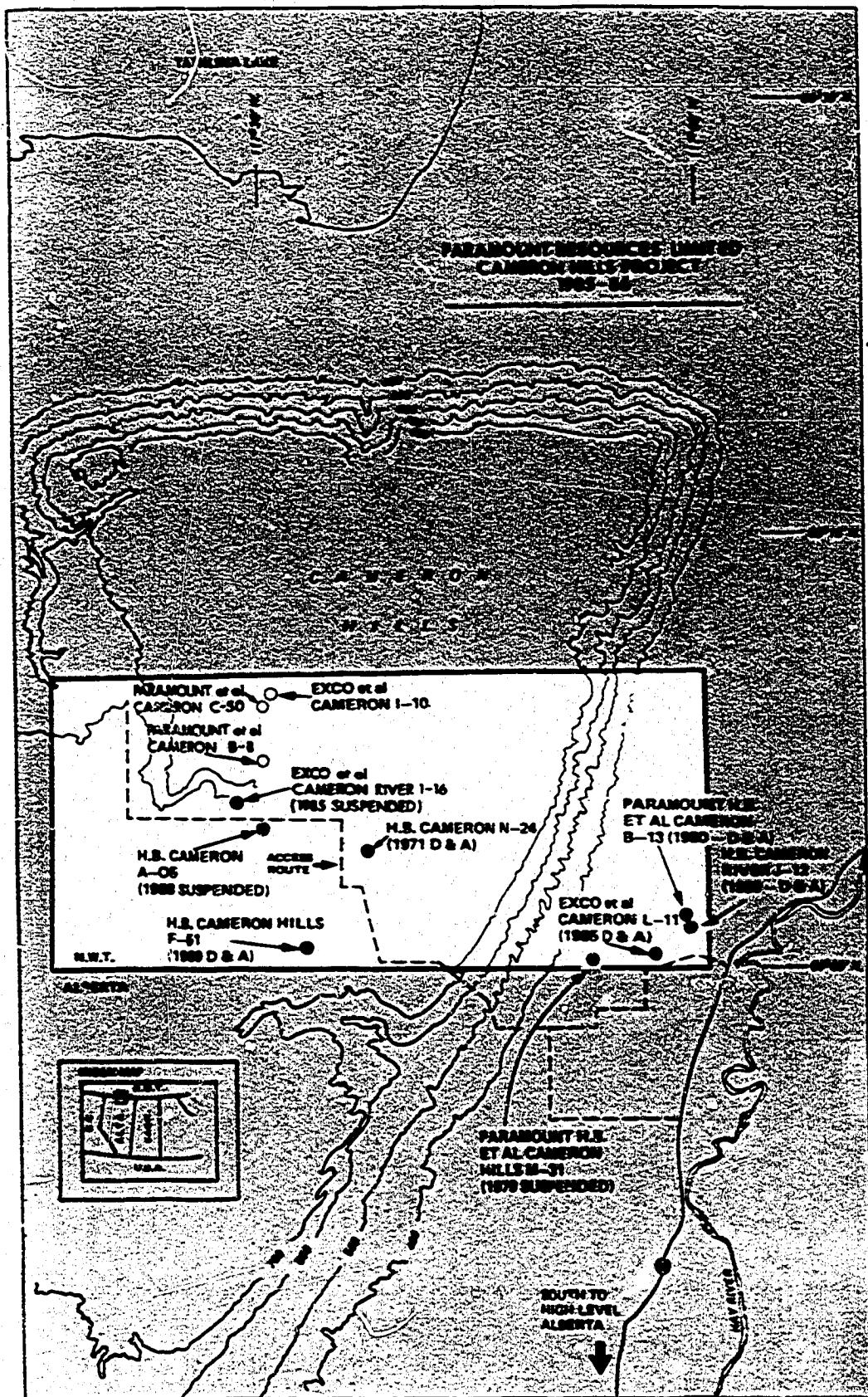


APPENDIX "B"

LOCALITY MAPS

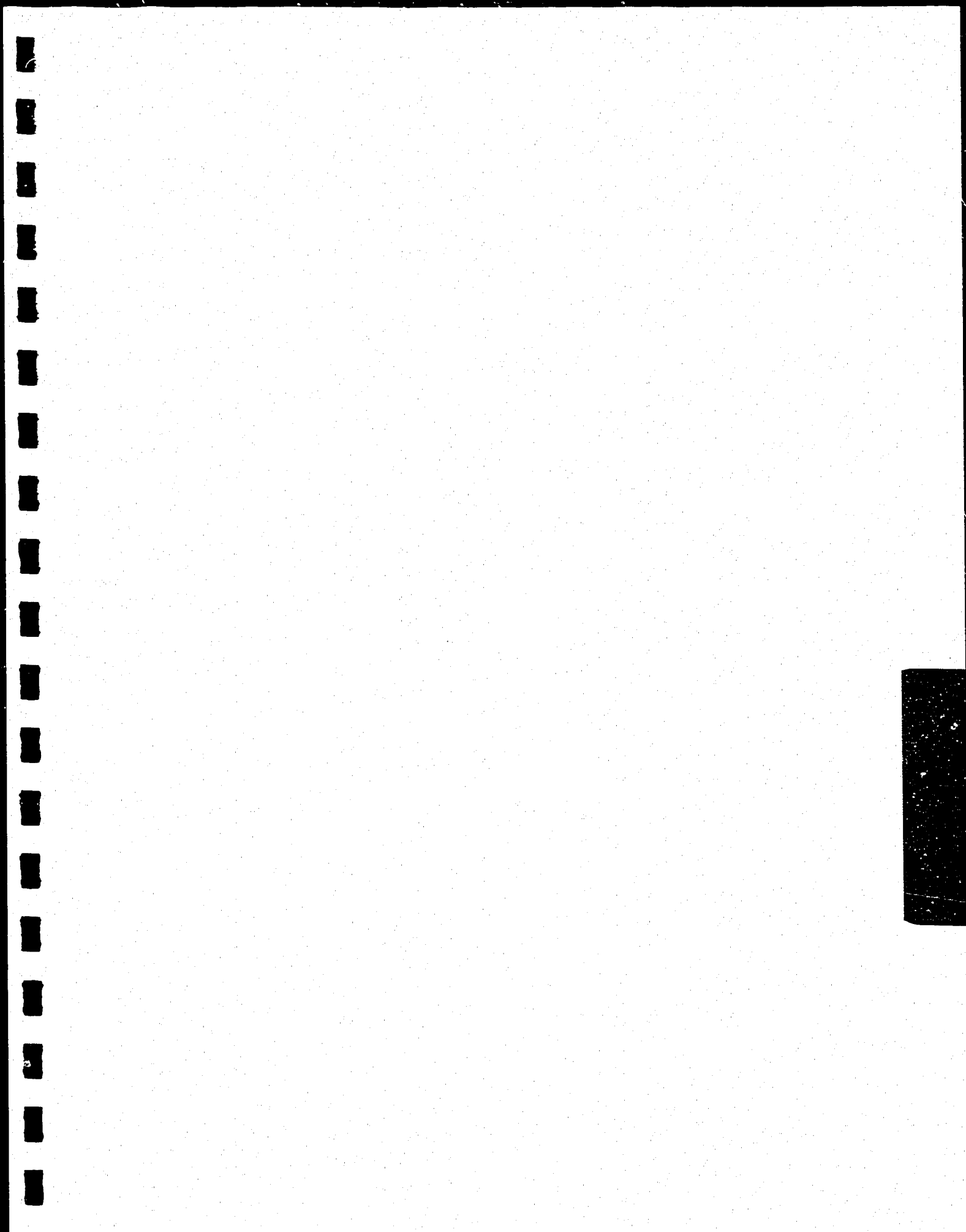


PARAMOUNT RESOURCES LIMITED
SHOWING 1985-1986 CAMERON HILLS PROJECT



SCALE - 1:797,276
1" = 12.8 KILOMETERS

KILOMETERS
0 10 20



APPENDIX "C"
CEMENTING REPORT



CEMENTING TREATMENT REPORT

CUSTOMER Paramount			LOCATION C-50			SERVICE ORDER G6271		DATE March 10, 1986	
MAILING ADDRESS						WELL NAME			
TYPE OF JOB		Surface _____ Intermediate _____		Production _____ Liner _____		Abandonment _____		CONTRACTOR	
Multistage _____ Plug Back _____		Squeeze _____ Pumping _____		Other <u>X</u>		Cactus #21		PROVINCE Alberta	

WELL DATA

Hole Size 431.8 mm Total Depth 58.83 m Mud Type _____ Viscosity _____ mPa's Density _____ kg/m³

Conductor CASING OR LINER	Size <u>339.7</u> mm	Lin. Density <u>90.78</u> kg/m	Grade <u>K-55</u>	Depth <u>58.83</u> m	TYPE OF PLUGS
---------------------------------	----------------------	--------------------------------	-------------------	----------------------	---------------

Size _____ mm Lin. Density _____ kg/m Grade _____ Depth _____ m Top _____ mm W _____ R _____

Depth 58.83 m TYPE OF PLUGS

Depth _____ m Top _____ mm W _____ R _____

TOTAL _____ m Btm _____ mm W/ _____ R

DRILL PIPE Size _____ mm Lin. Density _____ kg/m Grade _____ Depth _____ m TYPE OF HEAD _____

Size _____ mm Lin. Density _____ kg/m Grade _____ Depth _____ m _____ PL _____ Swage _____ Oth. _____

PERFORATIONS: From _____ m To _____ m PUMP OUT LINES: _____ Yes X No RETURNS: X CEMENT _____ MUD _____ OTHER _____

From _____ m To _____ m FLOAT HOLDING: Yes X No X FULL PARTIAL NIL AMT _____ m

From _____ m To _____ m TYPE OF PACKER or SPECIAL TOOL: _____ DEPTH _____ m

TEMPERATURE	MIXING WATER	DRY CEMENT	SLURRY
°C	°C	°C	°C

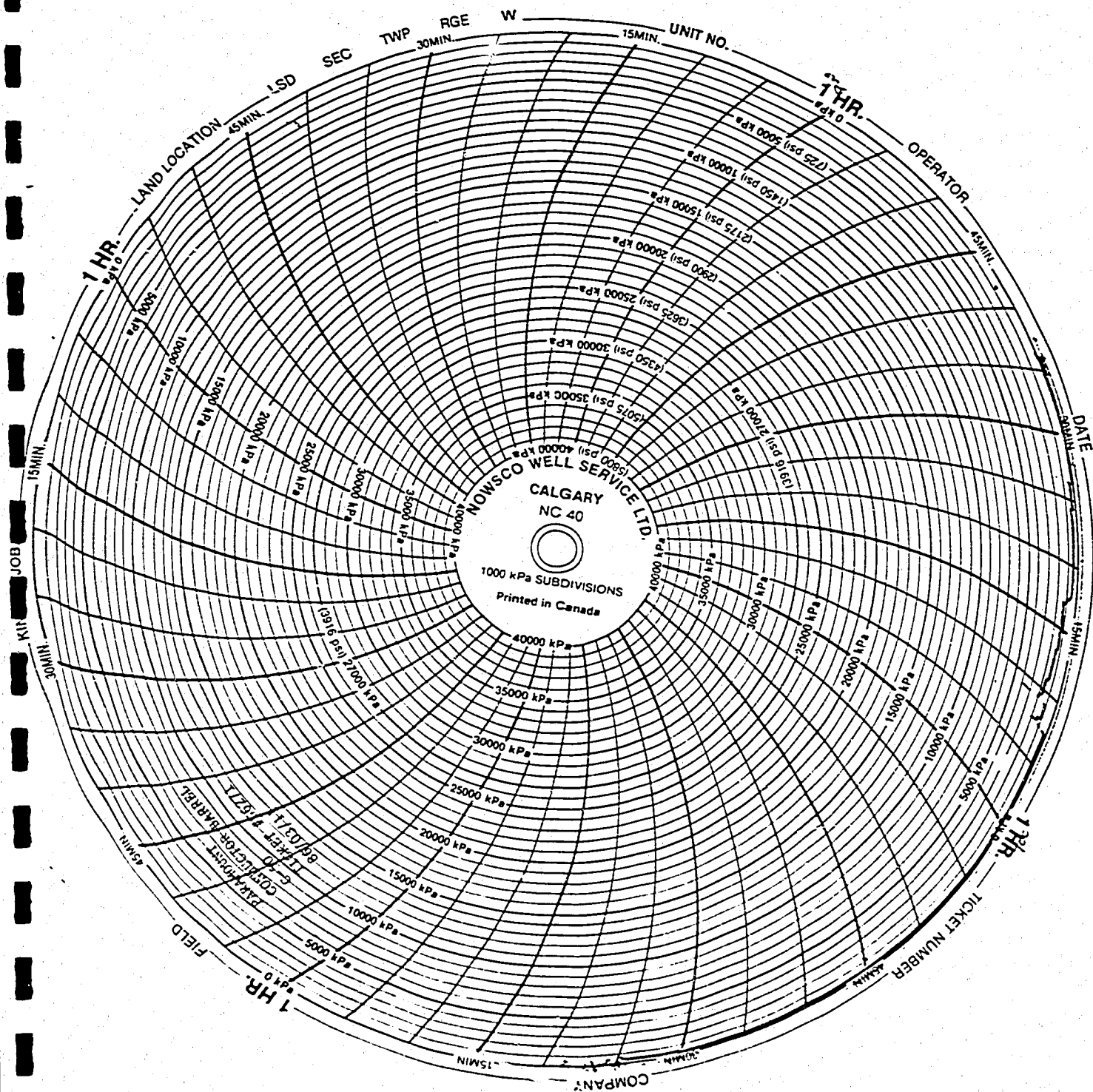
TIME ARRIVED AT LOCATION 15:00/10 TIME LEFT LOCATION 09:00/11

[illegible]

CASING OR LINER DATA

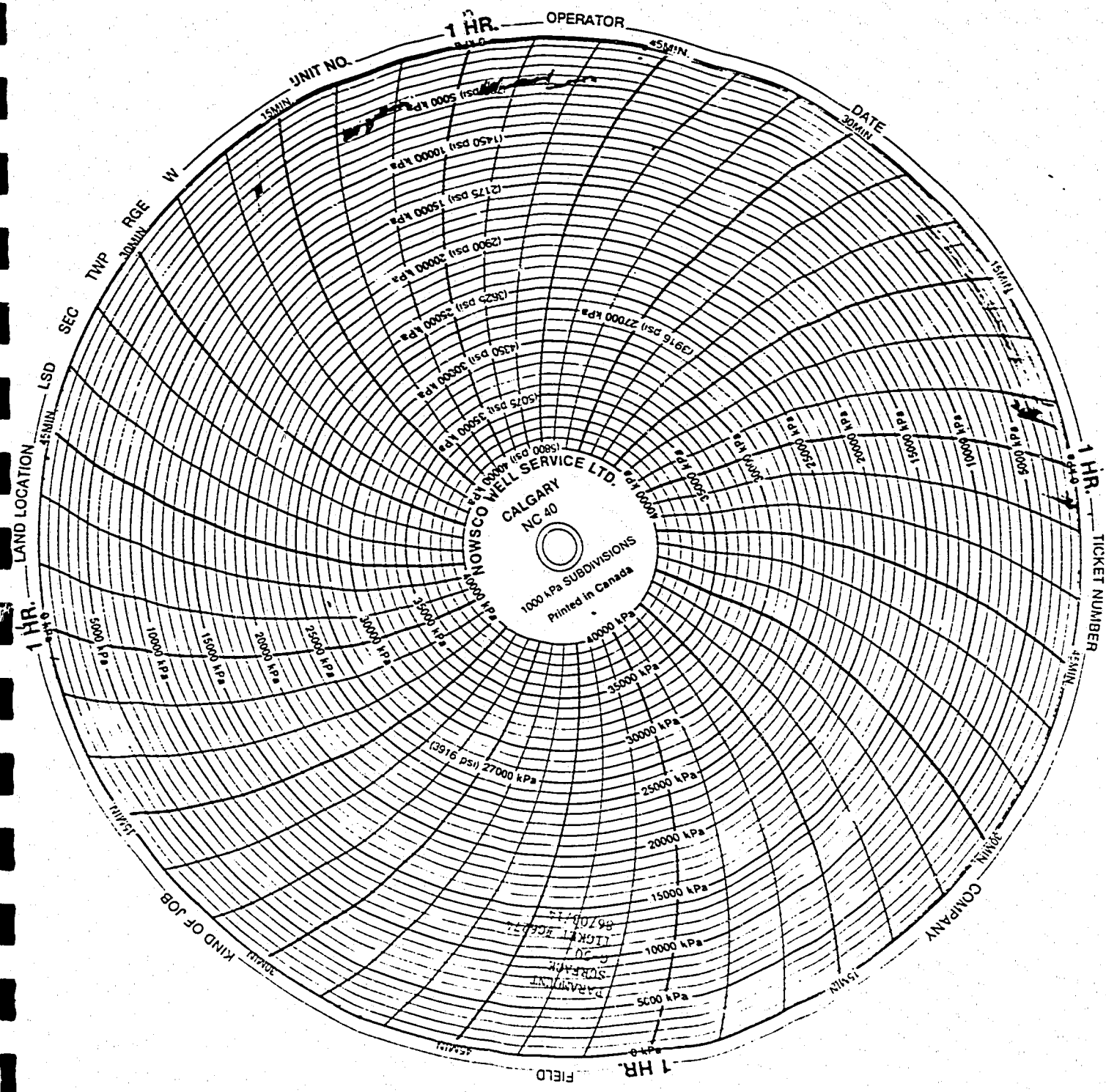
PLUG BACK DATA

[illegible]





CUSTOMER REPRESENTATIVE



1 HR. OPERATOR

UNIT NO.

DATE

1 HR. TICKET NUMBER

COMPANY

1 HR. FIELD

KIND OF JOB

LAND LOCATION

LSD

SEC

TWP

RGE

W

HOWSCO WELL SERVICE LTD.
CALGARY
NC 40
1000 kPa SUBDIVISIONS
Printed in Canada

30000 kPa
(4350 psi) 10000 kPa
(2175 psi) 15000 kPa
(2190 psi) 20000 kPa
(2925 psi) 25000 kPa
(3650 psi) 30000 kPa
(5175 psi) 35000 kPa
(5190 psi) 40000 kPa
(5190 psi) 45000 kPa
(5190 psi) 50000 kPa
(5190 psi) 55000 kPa
(5190 psi) 60000 kPa
(5190 psi) 65000 kPa
(5190 psi) 70000 kPa
(5190 psi) 75000 kPa
(5190 psi) 80000 kPa
(5190 psi) 85000 kPa
(5190 psi) 90000 kPa
(5190 psi) 95000 kPa
(5190 psi) 100000 kPa

30000 kPa
25000 kPa
20000 kPa
15000 kPa
10000 kPa
5000 kPa



TIME ARRIVED AT LOCATION 04:00/26 TIME LEFT LOCATION 11:00/26

CEMENT DATA				Density kg/m³		Yield, m³/t	Total Yield, m³	
	Amount, t	Cement Blend	Additives	Slurry	D.M. Foamed		Slurry	D.M. Foamed
Scavenger								
Fill	70	0.1.0	.75% T-10, .2% R-5	1901		.757	52.9	
Tail In								
Fill								
Tail In								

CASING OR LINER DATA

PLUG BACK DATA

[illegible]

UNIT NO.

1 HR.

OPERATOR

45MIN.

DATE

30MIN.

PARAMOUNT
LONGSTREET
C-50
TICKET 8C6656
86/08/26

UNIT NO.

15MIN.

10000 kPa
(1450 psi)
15000 kPa
(2175 psi)
20000 kPa
(2900 psi)
25000 kPa
(3625 psi)
30000 kPa
(4350 psi)
35000 kPa
(5075 psi)
40000 kPa
(5800 psi)

(3916 psi) 27000 kPa

15MIN.

1 HR.

TICKET NUMBER

45MIN.

COMPANY

30MIN.

MONSIEUR SERVICE LTD.

CALGARY

NC 40

100 kPa SUBDIVISIONS

Printed in Canada

10000 kPa

15000 kPa

20000 kPa

25000 kPa

30000 kPa

35000 kPa

40000 kPa

45000 kPa

50000 kPa

55000 kPa

60000 kPa

65000 kPa

70000 kPa

75000 kPa

80000 kPa

85000 kPa

90000 kPa

95000 kPa

100000 kPa

105000 kPa

110000 kPa

115000 kPa

120000 kPa

125000 kPa

130000 kPa

135000 kPa

140000 kPa

145000 kPa

150000 kPa

155000 kPa

160000 kPa

165000 kPa

170000 kPa

175000 kPa

180000 kPa

185000 kPa

190000 kPa

195000 kPa

200000 kPa

205000 kPa

210000 kPa

215000 kPa

220000 kPa

225000 kPa

230000 kPa

235000 kPa

240000 kPa

245000 kPa

250000 kPa

255000 kPa

260000 kPa

265000 kPa

270000 kPa

275000 kPa

280000 kPa

285000 kPa

290000 kPa

295000 kPa

300000 kPa

305000 kPa

310000 kPa

315000 kPa

320000 kPa

325000 kPa

330000 kPa

335000 kPa

340000 kPa

345000 kPa

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375000 kPa

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385000 kPa

390000 kPa

395000 kPa

400000 kPa

405000 kPa

410000 kPa

415000 kPa

420000 kPa

425000 kPa

430000 kPa

435000 kPa

440000 kPa

445000 kPa

450000 kPa

455000 kPa

460000 kPa

465000 kPa

470000 kPa

475000 kPa

480000 kPa

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510000 kPa

515000 kPa

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680000 kPa

685000 kPa

690000 kPa

695000 kPa

700000 kPa

705000 kPa

710000 kPa

715000 kPa

720000 kPa

725000 kPa

730000 kPa

735000 kPa

740000 kPa

745000 kPa

750000 kPa

755000 kPa

760000 kPa

765000 kPa

770000 kPa

775000 kPa

780000 kPa

785000 kPa

790000 kPa

795000 kPa

800000 kPa

805000 kPa

810000 kPa

815000 kPa

820000 kPa

825000 kPa

830000 kPa

835000 kPa

840000 kPa

845000 kPa

850000 kPa

855000 kPa

860000 kPa

865000 kPa

870000 kPa

875000 kPa

880000 kPa

885000 kPa

890000 kPa

895000 kPa

900000 kPa

905000 kPa

910000 kPa

915000 kPa

920000 kPa

925000 kPa

930000 kPa

935000 kPa

940000 kPa

945000 kPa

950000 kPa

955000 kPa

960000 kPa

965000 kPa

970000 kPa

975000 kPa

980000 kPa

985000 kPa

990000 kPa

995000 kPa

1000000 kPa

1005000 kPa

1010000 kPa

1015000 kPa

1020000 kPa

1025000 kPa

1030000 kPa

1035000 kPa

1040000 kPa

1045000 kPa

1050000 kPa

1055000 kPa

1060000 kPa

1065000 kPa

1070000 kPa

1075000 kPa

1080000 kPa

1085000 kPa

1090000 kPa

1095000 kPa

1100000 kPa

1105000 kPa

1110000 kPa

1115000 kPa

1120000 kPa

1125000 kPa

1130000 kPa

1135000 kPa

1140000 kPa

1145000 kPa

1150000 kPa

1155000 kPa

1160000 kPa

1165000 kPa

1170000 kPa

1175000 kPa

1180000 kPa

1185000 kPa

1190000 kPa

1195000 kPa

1200000 kPa

1205000 kPa

1210000 kPa

1215000 kPa

1220000 kPa

1225000 kPa

1230000 kPa

1235000 kPa

1240000 kPa

1245000 kPa

1250000 kPa

1255000 kPa

1260000 kPa

1265000 kPa

1270000 kPa

1275000 kPa

1280000 kPa

1285000 kPa

1290000 kPa

1295000 kPa

1300000 kPa

1305000 kPa

1310000 kPa

1315000 kPa

1320000 kPa

1325000 kPa

1330000 kPa



APPENDIX "D"

FORMATION LEAK-OFF TEST

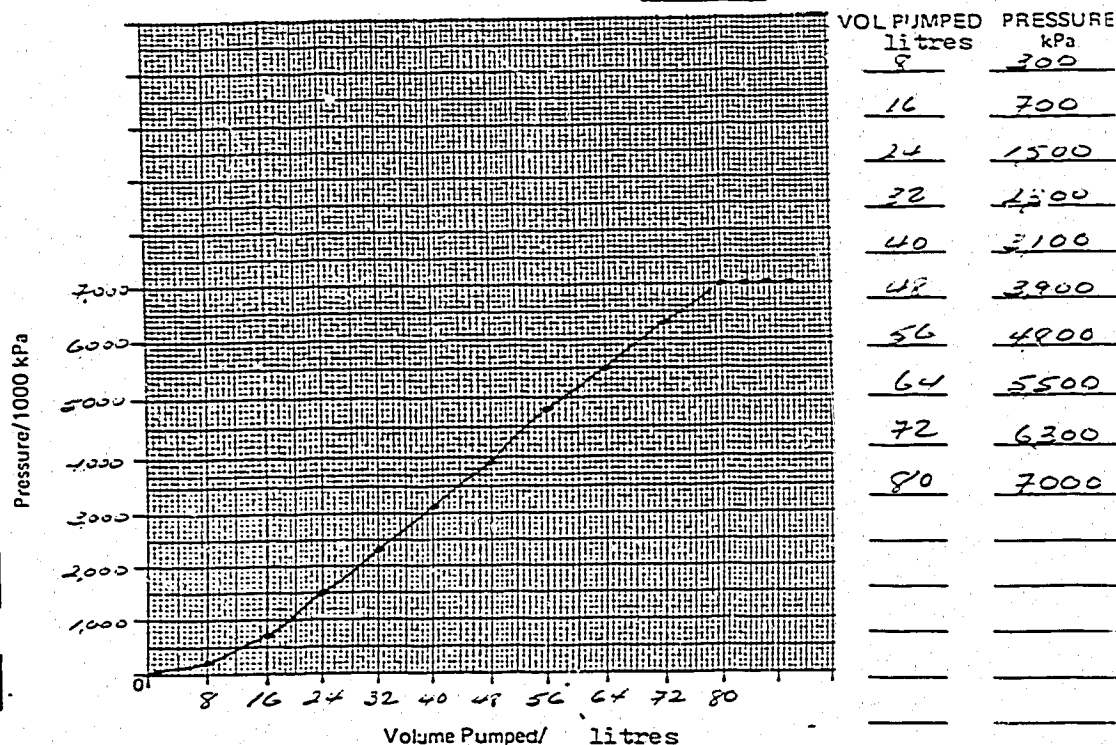
(A DIVISION OF TOM DUBOIS POWER TONG LTD.)
FORMATION PRESSURE TEST

MAXIMUM TEST PRESSURE - LESSER OF

(1) B.O.P. Rating 21000 kPa _____ kPa (1)

(2) Weakest Casing: _____ mm _____ 'cg/m _____ Grade _____ kPa (2)

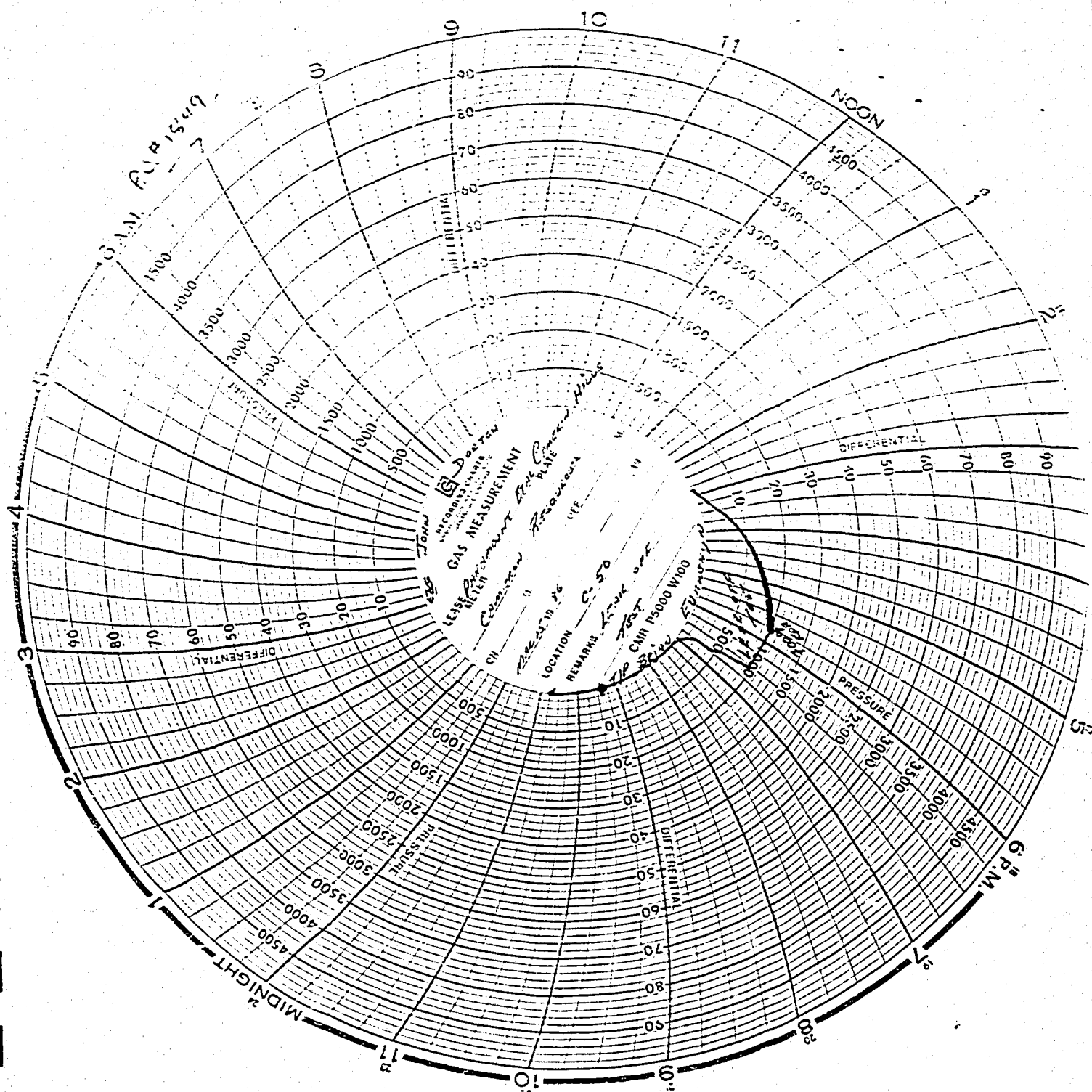
Burst Rating (kPa) _____ x 0.75 = _____



Depth of casing	a)	<u>390</u>	m		
Mud gradient	b) (mud density $\times$ 0.00981)	<u>9.71</u>	kPa/m		
Hydrostatic pressure	c) (a $\times$ b)	<u>3825.9</u>	kPa		
Leak-off pressure	d) (see note below)	<u>7000</u>	kPa		
Total pressure (at shoe)	e) (c + d)	<u>10825.9</u>	kPa		
Formation gradient	f) (e $\div$ a)	<u>27.255712</u>	kPa/m		
Maximum allowable mud density with no annulus pressure	g) (f $\div$ 0.00981)	<u>2729.6342</u>	kg/m ³		

Note: The last point ON the straight

Note: The last point ON the straight line plotted above is the leak-off pressure that you enter in line (c).





APPENDIX "E"

LITHOLOGY

GEOLOGICAL REPORT
PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

PREPARED FOR
PARAMOUNT RESOURCES LTD.

March, 1986

A handwritten signature in dark ink, appearing to read 'H. Steghaus', is written over the printed name.

H. Steghaus, Ph.D., P. Geol.

TABLE OF CONTENTS

	<u>Page No.</u>
PERTINENT DATA	1
GEOLOGICAL MARKERS	2
SAMPLE DESCRIPTION	3
D.S.T. SUMMARY	8

PERTINENT DATA

WELL NAME: PARAMOUNT ET AL CAMERON C-50

LOCATION: C-50 GRID AREA 60-10-117-30

ELEVATIONS: Ground: 688.39m K.B.: 692.69m

TOTAL DEPTH: Driller: 1569.0m Logger: 1568.6m

WELL TYPE: Exploratory

STATUS: Gas Well

OPERATOR: PARAMOUNT RESOURCES LTD.

CONTRACTOR: CACTUS DRILLING, RIG # 21

SPUD DATE: March 9, 1986 24⁰⁰h

RIG RELEASED: March 26, 1986 16⁰⁰h

DITCH SAMPLES: Company: 400 - 1569 m Government: 400 - 1569 m

CORED INTERVALS: None

D.S.T.: 2

LOG RECORD: Computalog, DIL 390.0 - 1568.0 m
CDCNL 390.0 - 1568.7 m
Sonic 390.0 - 1566.2 m

CASING RECORD: 244.5 mm, Surface: 390.00 m
139.7 mm, Surface: 1569.30 m

GEOLOGICAL MARKERS

<u>MARKERS</u>	<u>PROGNOSIS</u> <u>m</u>	<u>SAMPLE</u> <u>m</u>	<u>LOG</u> <u>m</u>	<u>SUBSEA</u> <u>m</u>	<u>THICKNESS</u> <u>m</u>
Wabamum	358.2	-	462.0	230.7	85.0
Winterburn	-	-	547.0	145.7	247.7
Twin Falls	708.2	800	794.7	-102.0	151.3
Hay River	-	955	946.0	-253.3	296.0
Beaverhill Lake	-	1245	1242.0	-549.3	26.0
Muskwa	-	1270	1268.0	-575.0	24.5
Slave Point	1248.8	1295	1293.25	-599.8	
Fort Vermilion	-	1325	1324.0	-	48.5
Watt Mountain	1313.2	1350	1341.0	-648.3	11.0
Sulphur Point	1322.1	1355	1352.5	-659.3	13.0
Muskeg	1348.2	1370	1365.0	-672.3	89.5
Keg River	1403.2	1460	1454.5	-761.8	69.5
Chinchaga	-	1525	1522.0	-831.3	21.0
Predevonian	1438.2	1550	1529.5	-852.3	

SAMPLE DESCRIPTION

PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

- 1225 - 1235 m Shale, green gray to brown and dark gray, slightly calcareous to calcareous, part micromicaceous, part micropyrritic; stringers of siltstone, gray, calcareous; small gastropod at 1230 m
- 1235 - 1240 m Shale, green gray, calcareous, part micromicaceous, micropyrritic
stringers of siltstone, gray, calcareous
- BEAVERHILL LAKE 1245 m
- 1240 - 1245 m Shale, black to dark gray, non - to highly calcareous, micropyrritic, some pieces micromicaceous; stringers of limestone, gray
- 1245 - 1250 m Shale, black brown to black, highly calcareous, micropyrritic, some pieces micromicaceous, part bituminous
- 1250 - 1255 m Shale, black, calcareous, micropyrritic, part micromicaceous, some pieces silty; stringers of siltstone, gray, calcareous
- 1255 - 1265 m Shale, green gray, calcareous; stringers of siltstone, buff, calcareous
- MUSKWA 1270 m
- 1265 - 1270 m Shale, gray, to dark gray, calcareous, slightly pyritic; some shale, black, calcareous, micropyrritic, part bituminous; stringers of limestone, light gray to buff, microcrystalline
- 1270 - 1275 m Shale, black to black brown, calcareous, bituminous; limestone, buff to gray and tan crypto - to microcrystalline, pyritic, some Brachiopod debris and crinoid ossicles

PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

- 1275 - 1285 m Shale, gray to dark gray and brown, part calcareous, part micropyrritic; limestone as above, no crinoids
- 1285 - 1290 m Shale, greenish gray, calcareous; some limestone, light gray to buff, microcrystalline, pyritic
- SLAVE POINT 1295 m
- 1290 - 1295 m Limestone, brown to gray and buff, crypto - to microcrystalline, finely pyritic, argillaceous; shale, gray to dark gray, part micropyrritic
- 1295 - 1300 m Limestone as above
- 1300 - 1305 m Limestone, buff to brown, crypto to microcrystalline, part fragmental or pelletoidal, little fair intergranular and bioclastic porosity, some faint oil stains, few Brachiopod and colonial coral fragments
- 1305 - 1310 m Limestone, buff to brown, micro - cryptocrystalline, few pieces pelletoidal, some stylolites, few ostracods little coarse calcite, probable vug and fracture fill, little very poor intercrystalline and pin-point porosity
- 1310 - 1325 m Limestone, buff to dark brown, micro - to cryptocrystalline, part fragmental, some stylolites, some very poor pin-point porosity, some faint oil stain, few Brachiopod and crinoid fragments, trace pyrobitumen
- FORT VERMILION 1330 m
- 1325 - 1335 m Limestone, brown to buff, micro - to cryptocrystalline, part fragmental or pelletoidal, few closed microfractures; little anhydrite, buff to white, microcrystalline
- 1335 - 1340 m Limestone, brown to gray and buff, micro - to cryptocrystalline, anhydritic; anhydrite, tan to buff, microcrystalline

PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

- 1340 - 1345 m Limestone, tan to cream, micro - to cryptocry-
stalline, part pelletoidal, part finely pyritic;
some anhydrite as above
- WATT MOUNTAIN 1350 m
- 1345 - 1350 m Limestone as above; some coarse white calcite;
little shale, gray to green, calcareous, part waxy,
part micropyrritic
- SULPHUR POINT 1355 m
- 1350 - 1355 m Dolomite, tan to light brown, finely to micro-
crystalline, some faint oil stain
- 1355 - 1360 m Dolomite, light brown to white, medium to micro-
crystalline, little very poor vuggy porosity, selective
oil staining, yellow fluorescence
- 1360 - 1365 m Dolomite, light brown to white, finely to micro-
crystalline, fair to good intercrystalline and
vuggy porosity, light oil staining, yellow
fluorescence, white cut
- MUSKEG 1370 m
- 1365 - 1370 m Dolomite as above
some shale, gray, calcareous;
little anhydrite, white to cream, microcrystalline
- 1370 - 1385 m Anhydrite, white to tan, microcrystalline;
stringers of shale, gray to green gray, part calcareous
- 1385 - 1390 m As above;
stringers of dolomite, tan to light brown, very
finely to finely crystalline, fair vuggy and trace
intercrystalline porosity, part oil stained
- 1390 - 1395 m Anhydrite, white to tan, microcrystalline;
stringers of shale, gray to green gray, part
calcareous
- 1395 - 1400 m Dolomite, brown, very finely to microcrystalline,
some very poor, intercrystalline porosity, oil
stained

PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

- 1400 - 1420 m Anhydrite, tan to white, microcrystalline;
stringers of shale, green gray to gray, part
calcareous
- 1420 - 1425 m As above; anhydrite part dolomitic with trace
pin-point porosity
- 1425 - 1430 m Anhydrite, white to tan, microcrystalline;
dolomite, tan, very finely to microcrystalline,
some poor intercrystalline porosity, some faint
oil staining;
stringers of shale, gray and dark gray, calcareous
- 1430 - 1435 m As above; dolomite, tan to brown, trace poor vuggy
porosity
- 1435 - 1440 m Dolomite, tan to light brown, very finely to micro-
crystalline, little poor to fair intercrystalline
porosity, some oil staining
shale and some anhydrite as above
- 1440 - 1445 m White anhydrite grading to brown dolomite,
microcrystalline, dolomite part oil stained;
stringers of shale, gray to dark gray, part micropyritic
- 1445 - 1450 m Anhydrite, tan to white, microcrystalline;
stringers of shale, green gray, more or less calcareous
- 1450 - 1455 m Shale, greenish gray;
some anhydrite as above;
some dolomite, brown, microcrystalline, dense
- KEG RIVER 1460 m
- 1455 - 1460 m Dolomite, light brown to black brown, very finely
crystalline, some very poor vuggy and intercrystalline
porosity;
stringers of shale, dark gray to gray
- 1460 - 1465 m Dolomite, tan to brown, very finely crystalline, fair
intercrystalline porosity, selective light oil staining
- 1465 - 1470 m Dolomite, tan to dark brown, very finely crystalline,
little poor vuggy porosity, some pieces faintly
oil stained

PARAMOUNT ET AL CAMERON C-50
C-50 GRID AREA 60-10-117-30

- 1470 - 1475 m Dolomite, cream to dark brown, finely to very finely crystalline, some poor to fair vuggy porosity
- 1475 - 1480 m Dolomite, tan to brown, very finely to microcrystalline
- 1480 - 1485 m Dolomite, brown to tan and dark brown, finely to very finely crystalline, some medium, crystalline clear vug lining, some vuggy porosity
- 1485 - 1500 m Dolomite black to tan, finely to microcrystalline; little clear medium crystalline vug lining, some questionable Amphipora and crinoid fragments, little vuggy porosity
- 1500 - 1510 m Dolomite, black brown to cream, finely to microcrystalline, vug lining common, probable fair vuggy porosity, trace dark oil staining, few crinoids
- 1510 - 1515 m Dolomite, black brown to buff, very finely to microcrystalline, some crinoid debris, some clear vug lining, probable some fair vuggy porosity
- 1515 - 1520 m Dolomite, black brown to buff, very finely to microcrystalline, trace crinoid debris and few questionable Amphipora
- CHINCHAGA 1525 m
- 1520 - 1530 m Anhydrite, tan to buff, cryptocrystalline, few pieces micropyrritic
- 1530 - 1545 m Anhydrite as above;
Anhydrite, white to light gray, cryptocrystalline, hard, lumpy, mineralized, disseminated fine crystals or small veins, part pyrite (?)
- PREDEVONIAN 1550 m
- 1545 - 1568 m Varicoloured metamorphics, siliceous (?), mineralized, few scattered quartz grains

D.S.T. SUMMARY

Test #1

1452 - 1465 m, Keg River

10/60/60/120

PF: WAB - SAB in 2 min; NGTS

VO: SAB

Recovery: 100 m gas cut sour mud; 32 m watery gas
cut and slightly oil flecked mud

IHP: 15835 kPa

FHP: 15835 kPa

PFP: 1231 kPa

IFP: 633 kPa

FFP: 1042 kPa

ISIP: 10400 kPa

FSIP: 10400 kPa

Test #2

1353 - 1366 m, Sulphur Point

10/75/60/120

PF: VSAB; GTS

VO: GTS immediately

Recovery: 130 gassified inhibitor cut mud

IHP: 14888 kPa

FHP: 14888 kPa

PFP: 8868 kPa

IFP: 8676 kPa

FFP: 9251 kPa

ISIP: 9921 kPa

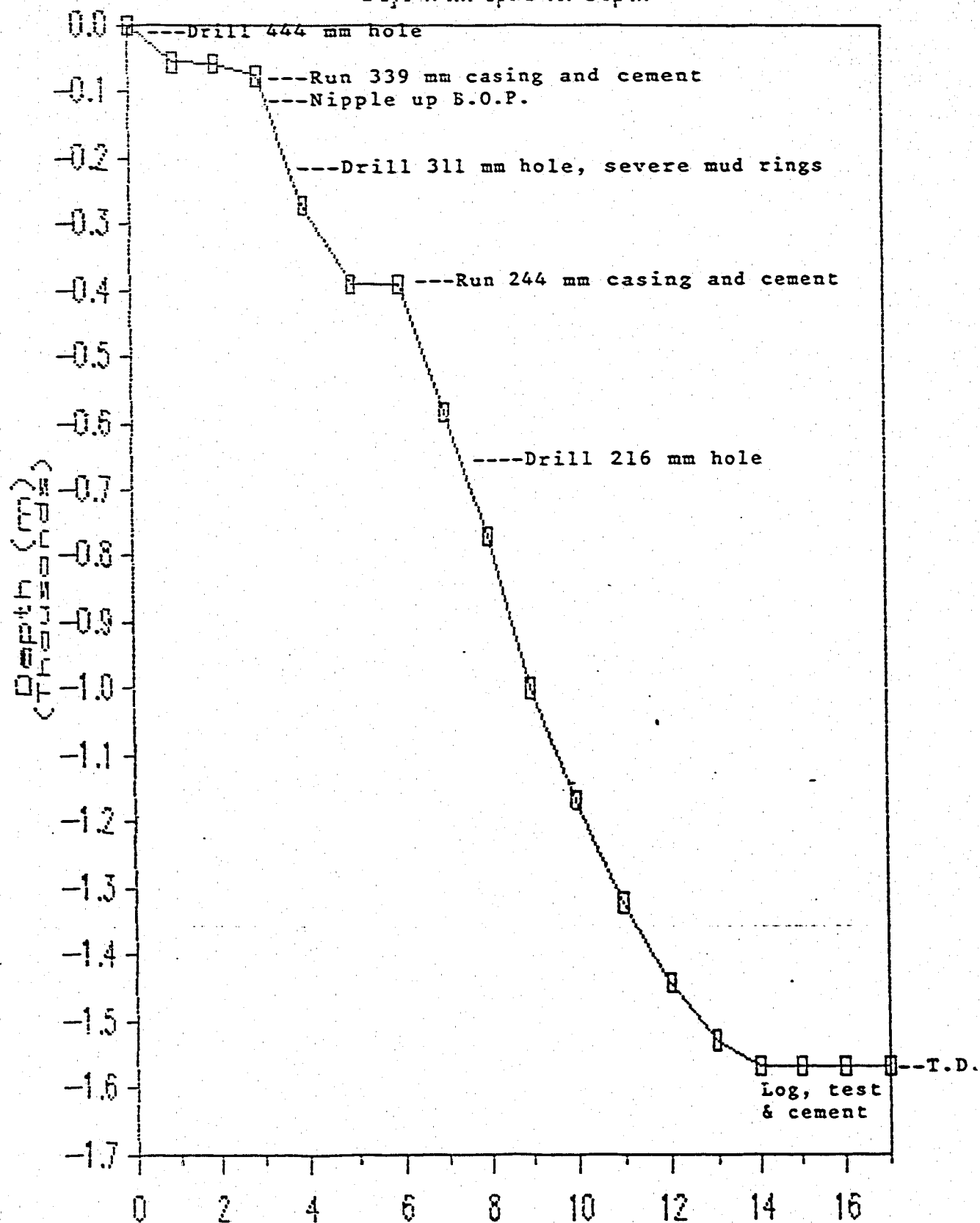
FSIP: 9875 kPa

Gas Measurements:	Time	Orifice mm	Pressure kPa	m ³ /d
	2315	25.4	1100	102018
	2325	25.4	1100	111516
	2335	25.4	1150	116000 (?)
	2345	25.4	1150	106000 (?)
	2355	25.4	1150	106000
	2400	25.4	1150	106000

Note: Data supplied by tester show some inconsistencies.
Check final test report.

DRILLING CURVE FOR C-50 WELL

Days from Spud vs. Depth



Days From Spud
Figure 2.

APPENDIX "F"

FORMATION TESTING



PARAMOUNT ET AL CAMERON C-50
 400/ 60.936 / 117.380 /00
 DST#01
 1452.00m to 1465.00m
 KEG RIVER

DEPTH: 1454.00m

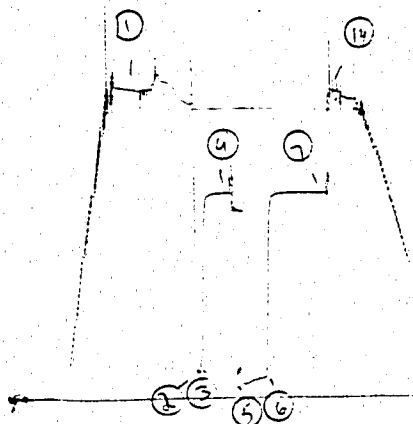
RECORDER # 021353

PRESSURE
kPa

- 1) Initial Hydro : 15863.
- 2) 1st Flow Start: 1231.
- 3) 1st Flow End : 1942.
- 4) END 1st Shutin: 10534.
- 5) 2nd Flow Start: 1089.
- 6) 2nd Flow End : 1061.
- 7) END 2nd Shutin: 10534.
- 14) Final Hydro. : 15305.

TEST TIMES (MIN)

1stFLOW : 10.0
 SHUTIN: 60.0
 2ndFLOW : 60.0
 SHUTIN: 120.0



RECOVERY DATA

TOTAL FLUID RECOVERY WAS 132.00 M CONSISTING OF 100.00 M OF GASSY (H₂S) MUD AND VERY SLIGHTLY OIL FLECKED - GASSY - WATERY MUD. GAS TO SURFACE; TOO SMALL TO MEASURE.

REMARKS AND TEST SUMMARY

Bottom hole pressures and the shape of the shut-in curves suggest AVERAGE PERMEABILITY within the interval tested. The flow pressures indicate minor tool plugging during the preflow and the start of the final flow. This did not seriously affect the test results. The test results suggest formation damage. Prior to starting the test, 100 liters of inhibitor was added to the drill pipe. The concentration of the hydrogen sulphide was 500 ppm.

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PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Flow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

Well name : PARAMOUNT ET AL CAMERON C-50
Location : 400/ 60.936 / 117.380 /00
Interval : 1452.00m to 1465.00m
Test Date : 86/03/24
Test Type : INFLATE STRADDLE
Formation : KEG RIVER

K.B.Elevation : 692.69m
Grd.Elevation : 688.39m
TD @ test Date: 1569.00m
Ticket Number : 73000
Unit Number : M-5

Started in hole at : 0130 hrs
Tool opened at :
Reverse circulated?: NO
Contractor & Rig No: CACTUS #21
Lines#1 : 1 of 1 on the same trip.

Operator: PARAMOUNT RESOURCES LTD.
4100
350 - 7TH AVE. S.W.
CALGARY ALBERTA
T2P3W5

Company Rep : DORTCH J
Testers : SOUKEROFF M

10 REPORTS(S) TO: G. NEUFELD
Company: RIDGSTAR PETROLEUM
MANAGEMENT LTD.
1608,840-7TH AVE.SW.

BLOW DESCRIPTION

Pre-flow: Weak air blow increasing to strong in 3 minutes. No gas to surface.
Final flow: Strong air blow. Gas to surface in 45 minutes with a lazy 1.00 M
flame; too small to measure.

TOTAL LIQUID RECOVERY : 132.00m

For DST# 1 through DST# 1
3 Fluid Samples
Sent to: CHEMEX

Sample Salinity :50000.0g/m3

Btm. Hole Sampler #: 191
Sent to: CHEMEX

100.00m GASSY (H2S) MUD.
32.00m GASSY, WATERY AND VERY SLIGHTLY OIL FLECKED MUD.

GAS MEASUREMENTS

Bomb#: 11465
Sent to: CHEMEX

No Gas Measurements

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.30
DOUBLEP IN SUB	.30
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
HYDRAULIC JARS	2.22
INSIDE RECORDER	1.38
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.02
CROSS OVER SUB	.30
DRILL COLLAR	8.76
CROSS OVER SUB	.30
PACKER STICK UP	.50
BTM. INFLATE PACKER	1.90
BELLY SPRING	2.60

1) NUMBER	: 002002	ELECTRONIC GAUGE
TYPE	: DMRB	MALFUNCTIONED, NO
LOCATION:	OUTSIDE	READINGS OBTAINED.
RANGE:	34500.00kPa(a)	
DEPTH	: 1454.00m	
2) NUMBER	: 009490	
TYPE	: K-3	
LOCATION:	OUTSIDE	
RANGE:	21000.00kPa	
DEPTH	: 1454.00m	
3) NUMBER	: 020425	ABOVE INTERVAL.
TYPE	: K-3	
LOCATION:	INSIDE	
RANGE:	19700.00kPa	
DEPTH	: 1445.00m	
4) NUMBER	: 021353	
TYPE	: K-3	
LOCATION:	OUTSIDE	
RANGE:	23000.00kPa	
DEPTH	: 1454.00m	

***** TOOL TOTAL 30.10

DRILL COLLARS

ID= 58.0mm: 101.90
ID= :

DRILL PIPE

OD=114.3mm: 1348.05
OD= :

COLLAR-PIPE TOTAL 1449.95

STICK UP ABOVE TABLE : 10.55

TOOL ABOVE INTERVAL : 12.60

TOTAL INTERVAL : 13.00

BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth:	218.00mm	Water Loss :	8.5cc/s
Hole Condition at Test Time	: FAIR	Filter Cake:	1.2 mm
Hole Conditioned Prior to Test?	: NO		
Mud Weight	: 1120.0 kg/m3	Main Hole Size:	216.00mm
Mud Type	: GEL CHEMICAL		
Viscosity	: 94.0s/l	Temperature @1454.00m	=

Location: 400/ 60.936 / 117.380 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 021353
Recorder Depth: 1454.00 m
Subsea Depth: -761.31 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa	ABSCISSA
1	INITIAL HYDROSTATIC			15863	
2	START OF 1st FLOW	0.0		1231	
	1st SHUTIN PERIOD	0.0		1942	
		2.0	681	2623	6.0000
		4.0	2080	4022	3.5000
		6.0	3995	5937	2.6667
		8.0	5910	7852	2.2500
		10.0	6945	8887	2.0000
		12.0	7893	9835	1.8333
		14.0	8247	10189	1.7143
		16.0	8372	10314	1.6250
		18.0	8429	10371	1.5556
		20.0	8477	10419	1.5000
		25.0	8534	10476	1.4000*
		30.0	8553	10495	1.3333*
		35.0	8553	10495	1.2857*
		40.0	8563	10505	1.2500*
		45.0	8573	10515	1.2222*
		50.0	8582	10524	1.2000*
		55.0	8582	10524	1.1818*
4	END OF 1st SHUTIN	60.0	8592	10534	1.1667*
5	START OF 2nd FLOW	0.0		1089	
	2nd SHUTIN PERIOD	0.0		1061	
		2.0	663	1724	36.0000
		4.0	1970	3031	18.5000
		6.0	3890	4951	12.6667
		8.0	5824	6885	9.7500
		10.0	7165	8226	8.0000
		12.0	8496	9557	6.8333
		14.0	8946	10007	6.0000

* VALUES USED FOR EXTRAPOLATIONS

Location: 400/ 60.936 / 117.380 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 021353
Recorder Depth: 1454.00 m
Subsea Depth: -761.31 m

TIME-PRESSURE LISTING

PART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE(T+dt)/dt kPa	ABSCISSA
		16.0	9157	10218	5.3750
		18.0	9253	10314	4.8889
		20.0	9310	10371	4.5000
		25.0	9377	10438	3.8000
		30.0	9415	10476	3.3333*
		35.0	9434	10495	3.0000*
		40.0	9444	10505	2.7500*
		45.0	9454	10515	2.5556*
		50.0	9463	10524	2.4000*
		55.0	9463	10524	2.2727*
		60.0	9463	10524	2.1667*
		65.0	9463	10524	2.0769*
		70.0	9463	10524	2.0000*
		75.0	9463	10524	1.9333*
		80.0	9463	10524	1.8750*
		85.0	9463	10524	1.8235*
		90.0	9463	10524	1.7778*
		95.0	9473	10534	1.7368*
		100.0	9473	10534	1.7000*
		105.0	9473	10534	1.6667*
		110.0	9473	10534	1.6364*
		115.0	9473	10534	1.6087*
7	END OF 2nd SHUTIN	120.0	9473	10534	1.5833*
	FINAL HYDROSTATIC			15305	

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PARAMOUNT ET AL CAMERON C-50
1452.00 m to 1465.00 m

p.3b

Location: 400/ 60.936 / 117.380 /00
Test Type: INFLATE STRADDLE
Formation: KEG RIVER

Recorder Number: 021353
Recorder Depth: 1454.00 m
Subsea Depth: -761.31 m

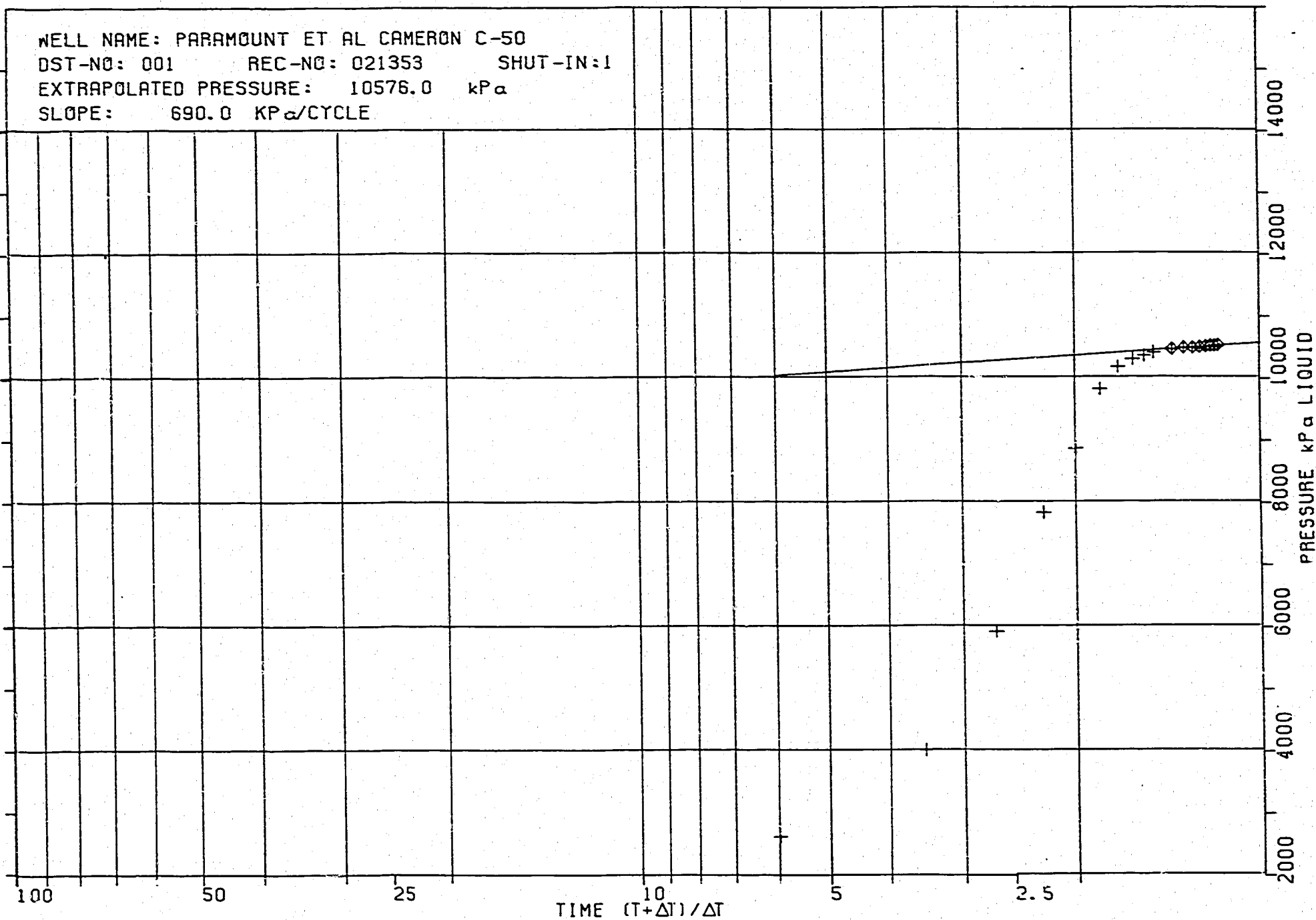
1st SHUT-IN

HORNER EXTRAPOLATION 10576.02 kPa
HORNER SLOPE 689.95337 kPa/cycle

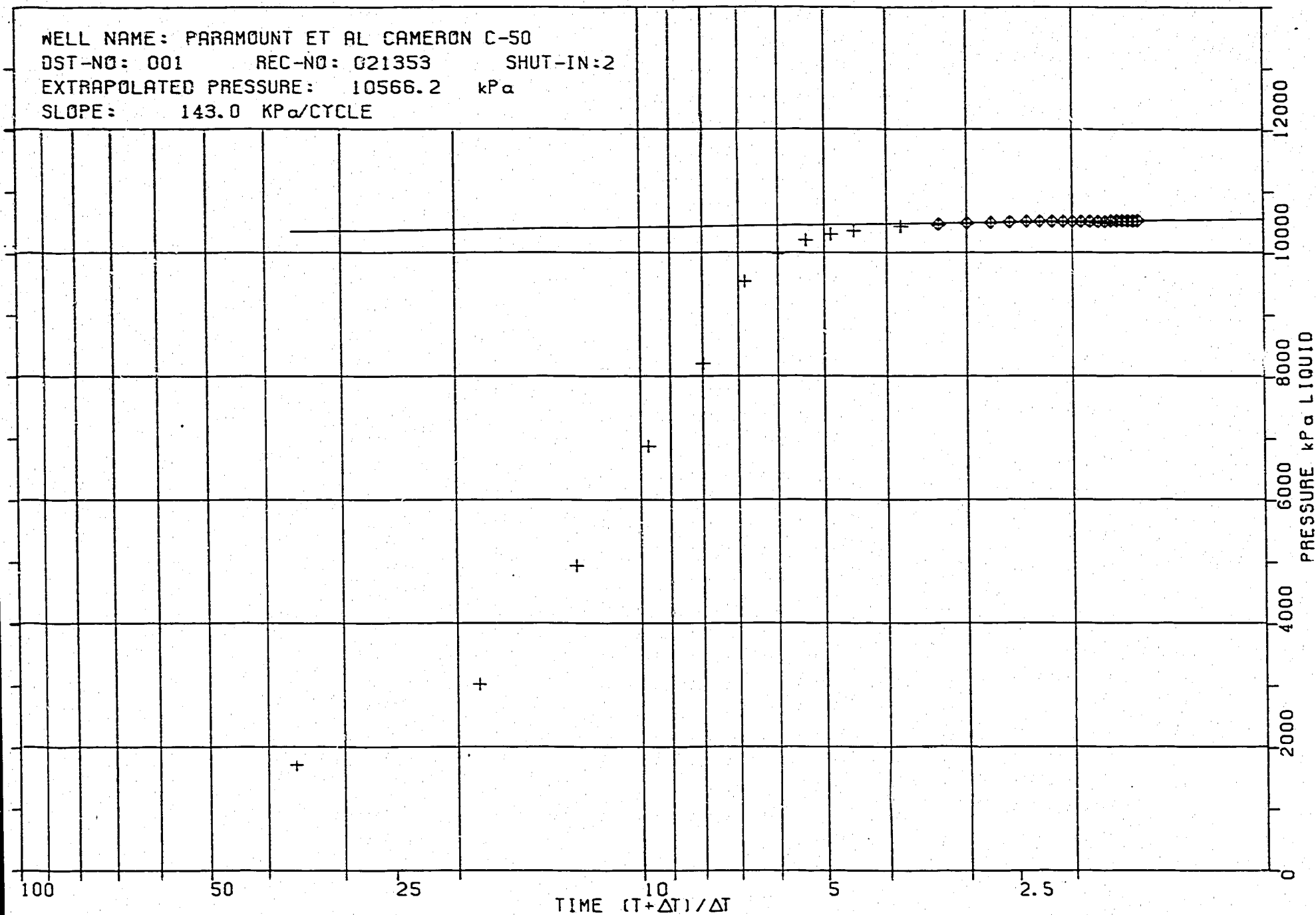
2nd SHUT-IN

HORNER EXTRAPOLATION 10566.19 kPa
HORNER SLOPE 143.02509 kPa/cycle

WELL NAME: PARAMOUNT ET AL CAMERON C-50
DST-NO: 001 REC-NO: 021353 SHUT-IN: 1
EXTRAPOLATED PRESSURE: 10576.0 kPa
SLOPE: 690.0 kPa/CYCLE



WELL NAME: PARAMOUNT ET AL CAMERON C-50
DST-NO: 001 REC-NO: G21353 SHUT-IN: 2
EXTRAPOLATED PRESSURE: 10566.2 kPa
SLOPE: 143.0 kPa/CYCLE



PARAMOUNT ET AL CAMERON C-50

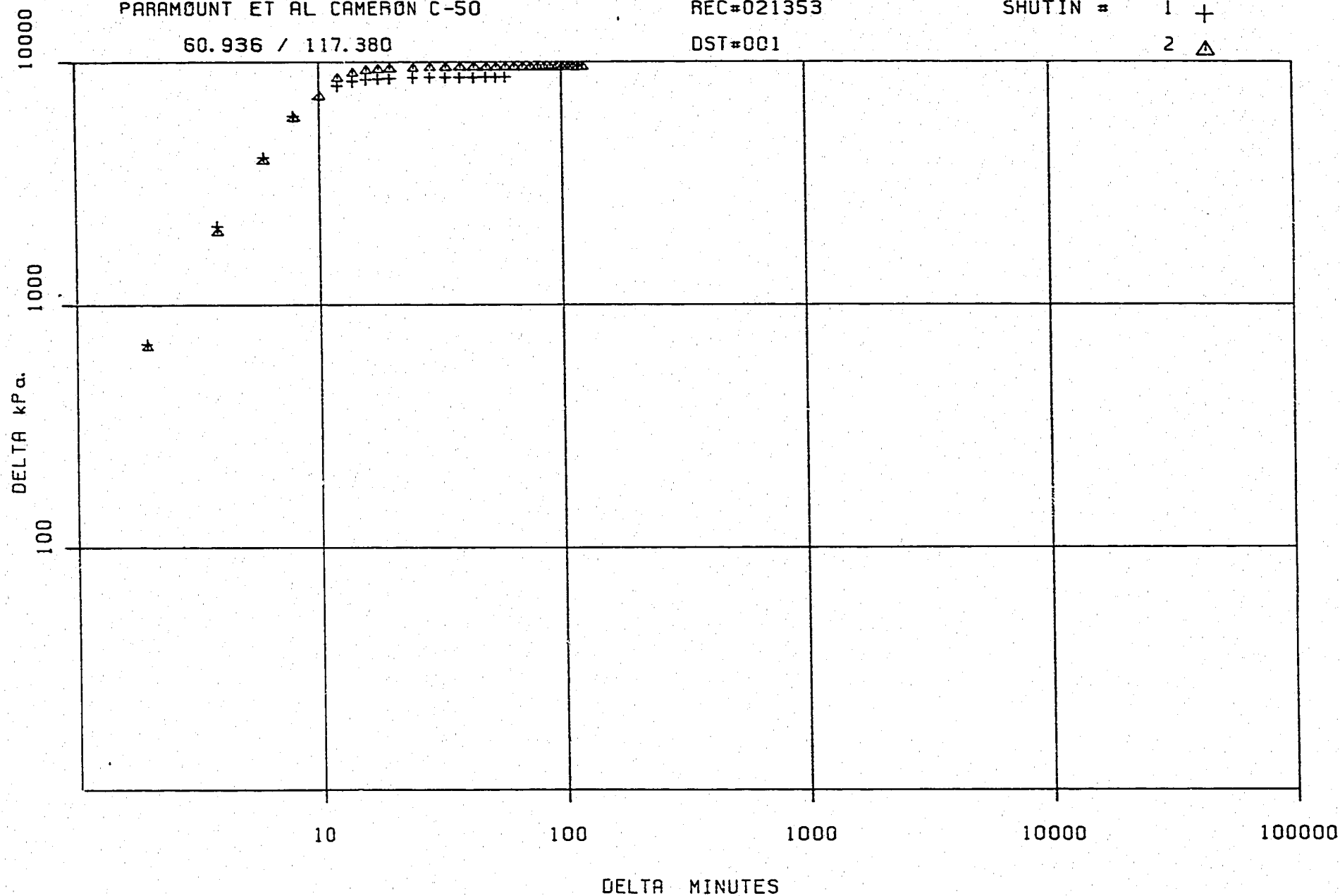
REC#021353

SHUTIN # 1 +

60.936 / 117.380

DST#001

2 Δ



DST#01
PARAMOUNT ET AL CAMERON C-50
1452.00m to 1465.00m

PRESSURE RECORDER NUMBER : 002002

DEPTH : 1454.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

PRESSURE
kPa(a)

***** TEMPERATURE AT RECORDER DEPTH =

1) Initial Hydro :
14) Final Hydro. :

ELECTRONIC GAUGE
MALFUNCTIONED, NO
READINGS OBTAINED.

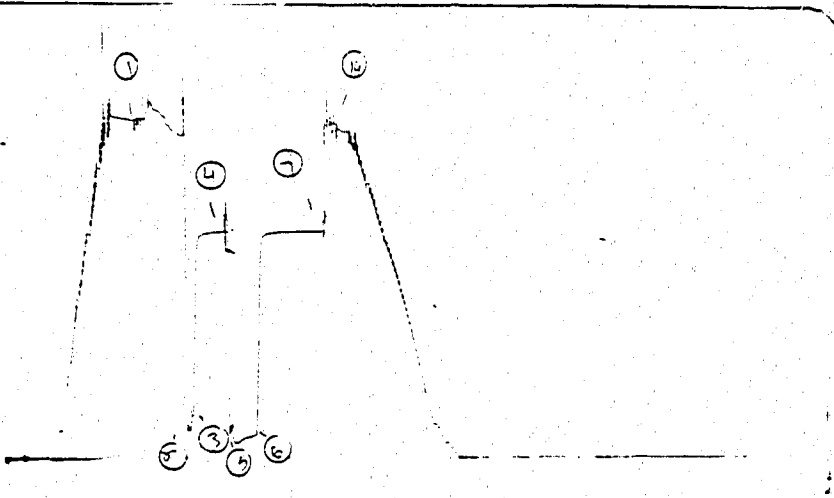
TEST TIMES (MIN)
1st FLOW : 10.0
SHUTIN: 60.0
2nd FLOW : 60.0
SHUTIN: 120.0

PRESSURE RECORDER NUMBER : 009490

DEPTH : 1454.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

PRESSURE
kPa

1) Initial Hydro : 15742.
2) 1st Flow Start: 1140.
3) 1st Flow End : 1860.
4) END 1st Shutin: 10455.
5) 2nd Flow Start: 1009.
6) 2nd Flow End : 1009.
7) END 2nd Shutin: 10455.
14) Final Hydro. : 15238.



DST#01
PARAMOUNT ET AL CAMERON C-50
1452.00m to 1455.00m

PRESSURE RECORDER NUMBER : 020425

DEPTH : 1445.00m

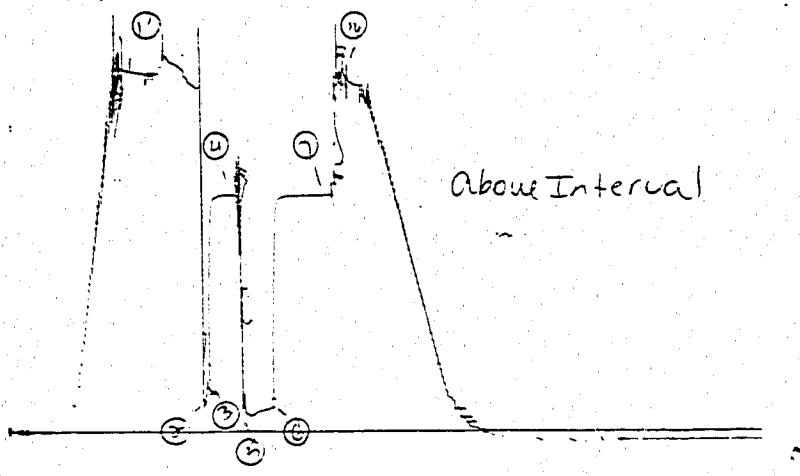
LOCATION : INSIDE

TYPE : K-3

CAPACITY : 19700.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 15799.
- 2) 1st Flow Start: 1379.
- 3) 1st Flow End : 2306.
- 4) END 1st Shutin: 10464.
- 5) 2nd Flow Start: 1001.
- 6) 2nd Flow End : 1075.
- 7) END 2nd Shutin: 10464.
- 14) Final Hydro. : 15292.



ABOVE INTERVAL.

TEST TIMES (MIN)

- 1st FLOW : 10.0
SHUTIN: 60.0
2nd FLOW : 60.0
SHUTIN: 120.0

PRESSURE RECORDER NUMBER : 021353

DEPTH : 1454.00m

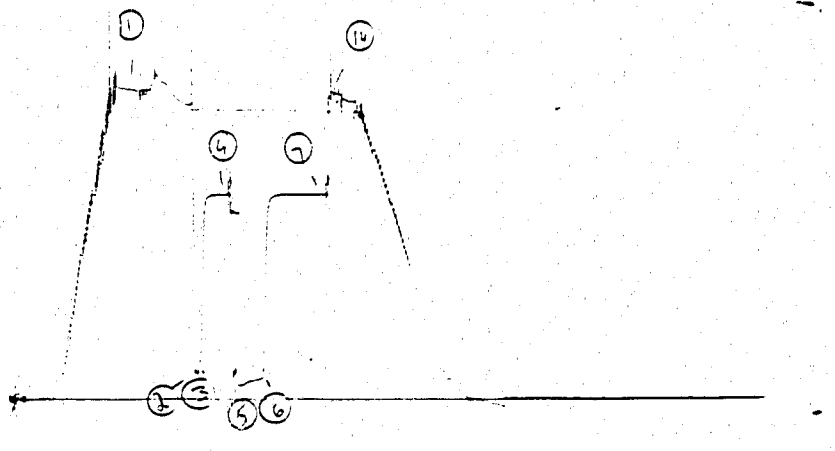
LOCATION : OUTSIDE

TYPE : K-3

CAPACITY : 23000.00 kPa

PRESSURE
kPa

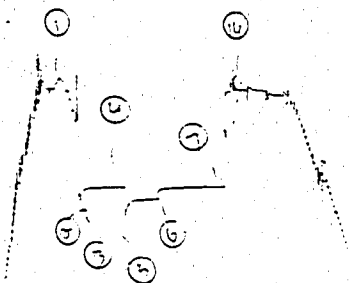
- 1) Initial Hydro : 15863.
- 2) 1st Flow Start: 1231.
- 3) 1st Flow End : 1942.
- 4) END 1st Shutin: 10534.
- 5) 2nd Flow Start: 1089.
- 6) 2nd Flow End : 1061.
- 7) END 2nd Shutin: 10534.
- 14) Final Hydro. : 15305.



PARAMOUNT ET AL CAMERON C-50
400/ 60.936 / 117.380 /00
DST#02
1353.00m to 1366.00m
SULPHUR POINT

DEPTH: 1355.00m

RECORDER # 021353

PRESSURE
kPa

- 1) Initial Hydro : 15986.
- 2) 1st Flow Start: 9710.
- 3) 1st Flow End : 9442.
- 4) END 1st Shutin: 10419.
- 5) 2nd Flow Start: 8523.
- 6) 2nd Flow End : 9825.
- 7) END 2nd Shutin: 10390.
- 14) Final Hydro. : 15788.

TEST TIMES (MIN)

1stFLOW : 10.0
SHUTIN: 75.0
2ndFLOW : 60.0
SHUTIN: 120.0

RECOVERY DATA

TOTAL FLUID RECOVERY CONSISTED OF 130.00 M OF GASIFIED INHIBITOR CUT MUD.
GAS TO SURFACE ON FINAL FLOW WITH A RATE OF 102 018.00 M3/D DECREASING TO A
CLOSING RATE OF 106 000.00 M3/D.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressure and the shape of the shut-in curves suggest HIGH PERMEABILITY within the interval tested. Prior to starting the test, 100 liters of inhibitor was added to the drill pipe.

The initial shut-in stabilized in 20 minutes at 10 419.00 kPa and the final shut-in stabilized in 65 minutes at 10 390.00 kPa, therefore no extrapolations were performed.

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PAGE 1	PAGE 2	PAGE 3	PAGE 4
General Data	Tool Sequence	PRESSURE	Plot Summary
Flow Description	Recorder Summary	-TIME	Reservoir Calculations
Liquid Recovery	Mud and Hole Data	LISTING	-Parameters used
Gas Measurements			-Results

***** RECORDER PAGES & FIGURES *****

LYNES UNITED SERVICES LTD
DST#02 REPORT

p.1

Well name : PARAMOUNT ET AL CAMERON C-50
Location : 400/ 60.936 / 117.380 /00
Interval : 1353.00m to 1366.00m
Test Date : 86/03/25
Test Type : INFLATE STRADDLE
Formation : SULPHUR POINT

K.B.Elevation : 692.69m
Grd.Elevation : 688.39m
TD @ test Date: 1569.00m
Ticket Number : 74301
Unit Number : M-5

Started in hole at : 1730 hrs
Tool opened at : 2128 hrs
Reverse circulated?: NO
Contractor & Rig No: CACTUS #21
Lines#2 : 1 of 1 on the same trip.

Operator: PARAMOUNT RESOURCES LTD.
4100
350 - 7TH AVE.. S.W.
CALGARY ALBERTA
T2P3W5

Company Rep : DORTCH J
Testers : SOUKEROFF M

10 REPORTS(S) TO: G. NEUFELD
Company: RIDGSTAR PETROLEUM
MANAGEMENT LTD.
1608,840-7TH AVE.SW.

BLOW DESCRIPTION

Reflow: Weak air blow increasing to very strong in 30 seconds. Gas to surface in 3 minutes.
Final flow: Very strong gas blow with gas to surface immediately. Fluid to surface in 22 minutes.

TOTAL LIQUID RECOVERY : 130.00m

For DST# 2 through DST# 2
3 Fluid Samples
Sent to: CHEMEX

Btm. Hole Sampler #: 214
Sent to: CHEMEX

130.00m GASIFIED INHIBITOR CUT MUD.

GAS MEASUREMENTS Device: CRITICAL FLOW PROVER.
Device:
Riser: 50.8mm

Bomb#: 5006
Sent to: CHEMEX

TIME MIN	CHOKE mm	READING kPa	m3/d	F#	TIME MIN	CHOKE mm	READING kPa	m3/d		
2	15	25.40	1000	1020	18.0	2	45	25.40	1050	106000.0
2	25	25.40	1100	1115	16.0	2	55	25.40	1050	106000.0
2	35	25.40	1150	116000.0	2	60	25.40	1050	106000.0	

TOOL SEQUENCE

RECORDER SUMMARY

SUB	LENGTH (m)
PUMP OUT SUB	.30
DOUBLEP IN SUB	.30
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
HYDRAULIC JARS	2.22
INSIDE RECORDER	1.38
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.02
CROSS OVER SUB	.30
DRILL COLLAR	8.76
CROSS OVER SUB	.30
PACKER STICK UP	.50
BTM. INFLATE PACKER	1.90
BELLY SPRING	2.60

1) NUMBER	: 009490	
TYPE	: K-3	
LOCATION:	OUTSIDE	
RANGE:	21000.00kPa	
DEPTH	: 1355.00m	
2) NUMBER	: 020425	ABOVE INTERVAL.
TYPE	: K-3	
LOCATION:	INSIDE	
RANGE:	19700.00kPa	
DEPTH	: 1345.00m	
3) NUMBER	: 021353	
TYPE	: K-3	
LOCATION:	OUTSIDE	
RANGE:	23000.00kPa	
DEPTH	: 1355.00m	

***** TOOL TOTAL 30.10

DRILL COLLARS

ID= 58.0mm: 101.90
ID= :

DRILL PIPE

OD=114.3mm: 1243.45
CD= :

COLLAR-PIPE TOTAL 1345.35

STICK UP ABOVE TABLE : 4.95
TOOL ABOVE INTERVAL : 12.60
TOTAL INTERVAL : 13.00
BOTTOM CHOKE SIZE: 25.40 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 220.00mm	Water Loss : 8.5cc/s
Hole Condition at Test Time : FAIR	Filter Cake: 1.2 mm
Hole Conditioned Prior to Test? : NO	
Mud Weight : 1120.0 kg/m3	Main Hole Size: 216.00mm
Mud Type : GEL CHEMICAL	
Viscosity : 94.0s/l	Temperature @1355.00m =

Location: 400/ 60.936 / 117.380 /00
Test Type: INFLATE STRADDLE
Formation: SULPHUR POINT

Recorder Number: 021353
Recorder Depth: 1355.00 m
Subsea Depth: -662.31 m

TIME-PRESSURE LISTING

HART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE (T+dt)/dt kPa	PRESSURE ABSCISSA SQUARED kPa ² /10 ⁶
1	INITIAL HYDROSTATIC			15986	
2	START OF 1st FLOW	0.0		9710	
	1st SHUTIN PERIOD	0.0		9442	
		2.0	862	10304	6.0000
		4.0	910	10352	3.5000
		6.0	939	10381	2.6667
		8.0	948	10390	2.2500
		10.0	958	10400	2.0000
		12.0	958	10400	1.8333
		14.0	967	10409	1.7143
		15.0	967	10409	1.6667
		18.0	967	10409	1.5556
		20.0	977	10419	1.5000
		25.0	977	10419	1.4000
		30.0	977	10419	1.3333
		35.0	977	10419	1.2857
		40.0	977	10419	1.2500
		45.0	977	10419	1.2222
		50.0	977	10419	1.2000
		55.0	977	10419	1.1818
		60.0	977	10419	1.1667
		65.0	977	10419	1.1538
		70.0	977	10419	1.1429
4	END OF 1st SHUTIN	75.0	977	10419	1.1333
5	START OF 2nd FLOW	0.0		8523	
	2nd SHUTIN PERIOD	0.0		9825	
		2.0	422	10247	36.0000
		4.0	469	10294	18.5000
		6.0	489	10314	12.6667
		8.0	508	10333	9.7500

* VALUES USED FOR EXTRAPOLATIONS

DST#02
PARAMOUNT ET AL CAMERON C-50
1353.00 m to 1366.00 m

p.3a

Location: 400/ 60.936 / 117.380 /00
Test Type: INFLATE STRADDLE
Formation: SULPHUR POINT

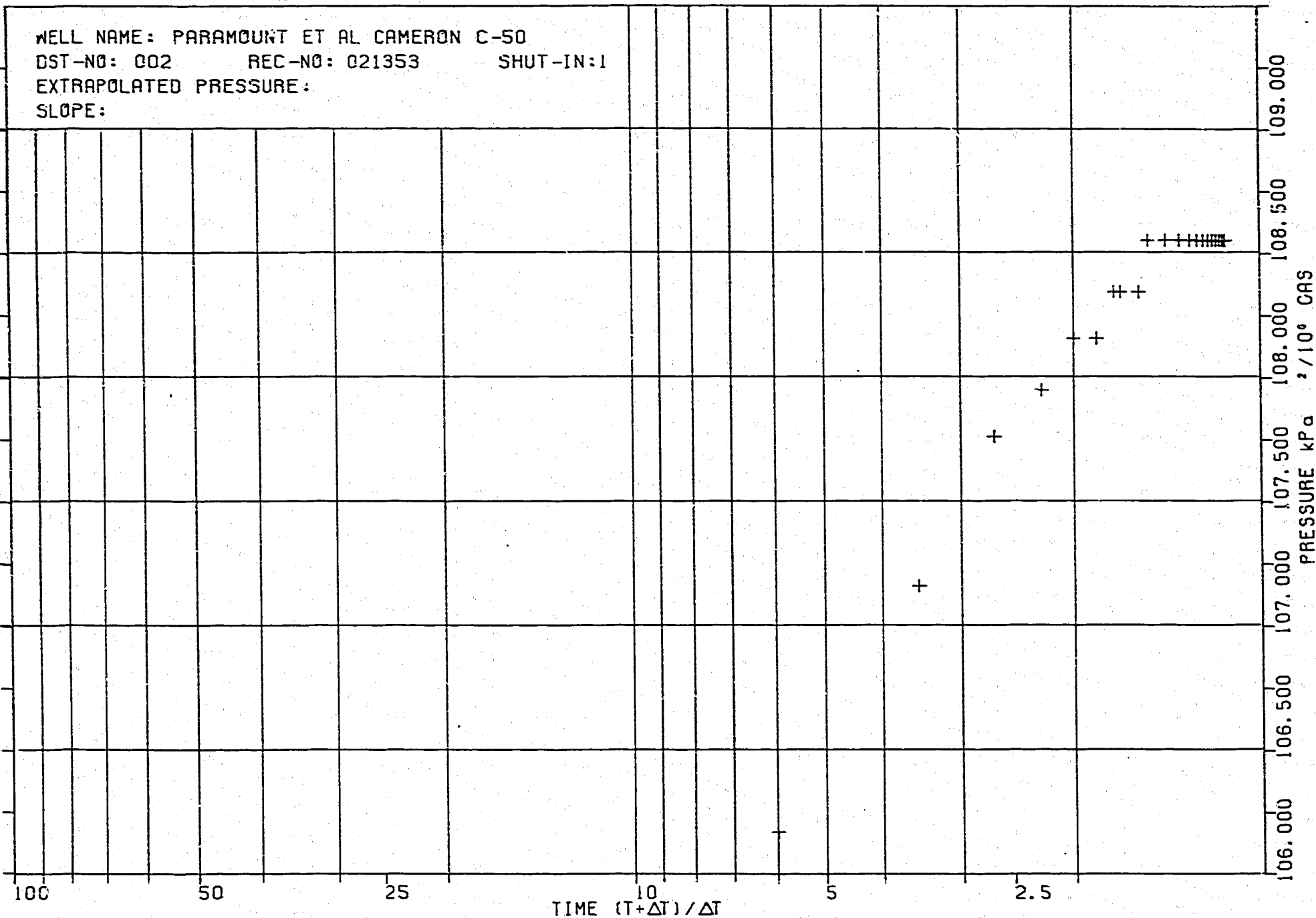
Recorder Number: 021353
Recorder Depth: 1355.00 m
Subsea Depth: -662.31 m

TIME-PRESSURE LISTING

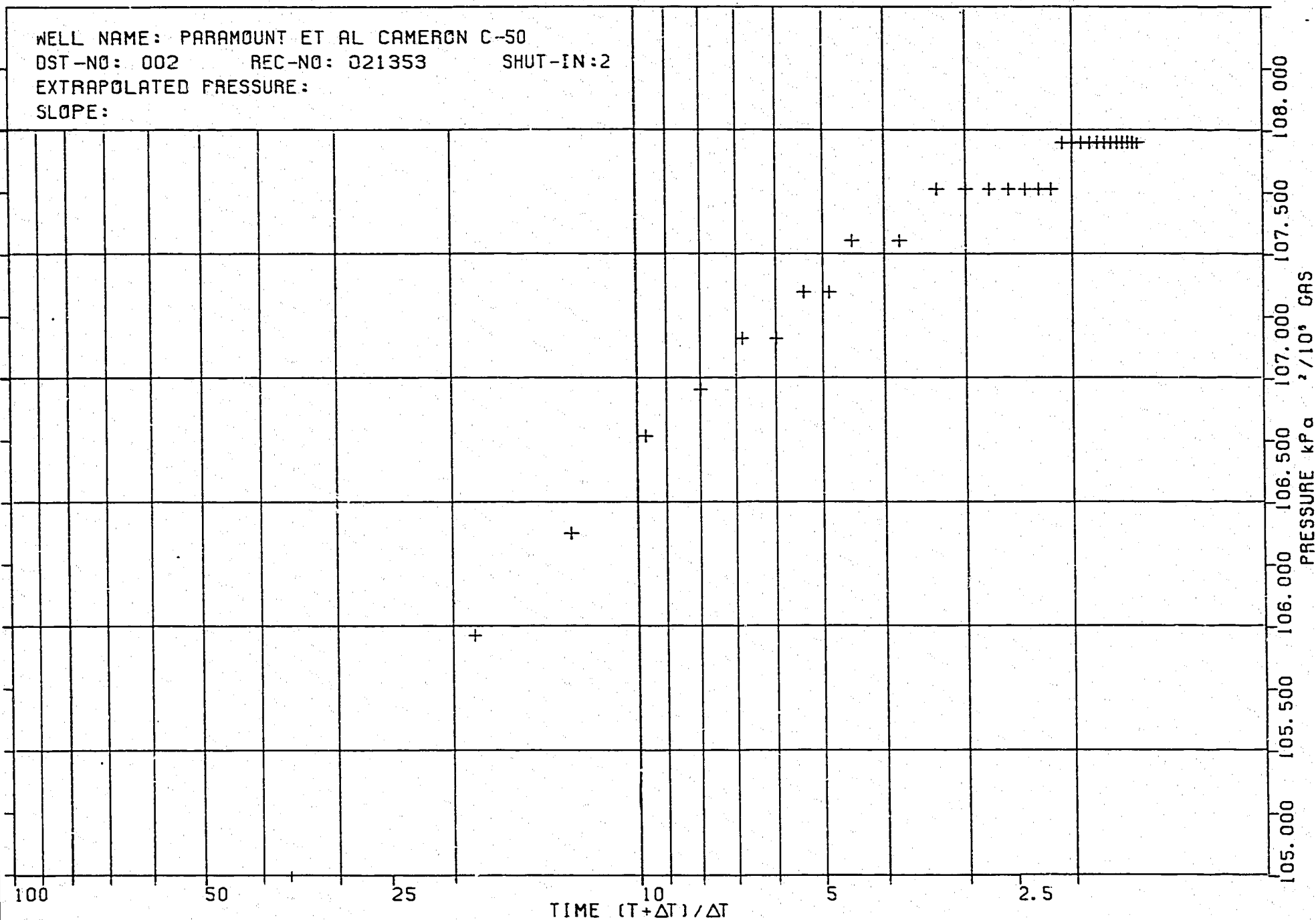
CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE (T+dt)/dt kPa	ABSCISSA	PRESSURE SQUARED kPa $\times 10^{-6}$
		10.0	517	10342	8.0000	106.9570
		12.0	527	10352	6.8333	107.1639
		14.0	527	10352	6.0000	107.1639
		16.0	536	10361	5.3750	107.3503
		18.0	536	10361	4.8889	107.3503
		20.0	546	10371	4.5000	107.5577
		25.0	546	10371	3.8000	107.5577
		30.0	556	10381	3.3333	107.7652
		35.0	556	10381	3.0000	107.7652
		40.0	556	10381	2.7500	107.7652
		45.0	556	10381	2.5556	107.7652
		50.0	556	10381	2.4000	107.7652
		55.0	556	10381	2.2727	107.7652
		60.0	556	10381	2.1667	107.7652
		65.0	565	10390	2.0769	107.9521
		70.0	565	10390	2.0000	107.9521
		75.0	565	10390	1.9333	107.9521
		80.0	565	10390	1.8750	107.9521
		85.0	565	10390	1.8235	107.9521
		90.0	565	10390	1.7778	107.9521
		95.0	565	10390	1.7368	107.9521
		100.0	565	10390	1.7000	107.9521
		105.0	565	10390	1.6667	107.9521
		110.0	565	10390	1.6364	107.9521
		115.0	565	10390	1.6087	107.9521
7	END OF 2nd SHUTIN	120.0	565	10390	1.5833	107.9521
	FINAL HYDROSTATIC			15788		

* VALUES USED FOR EXTRAPOLATIONS

WELL NAME: PARAMOUNT ET AL CAMERON C-50
DST-NO: 002 REC-NO: 021353 SHUT-IN:1
EXTRAPOLATED PRESSURE:
SLOPE:



WELL NAME: PARAMOUNT ET AL CAMERON C-50
DST-NO: 002 REC-NO: 021353 SHUT-IN:2
EXTRAPOLATED PRESSURE:
SLOPE:



PARAMOUNT ET AL CAMERON C-50

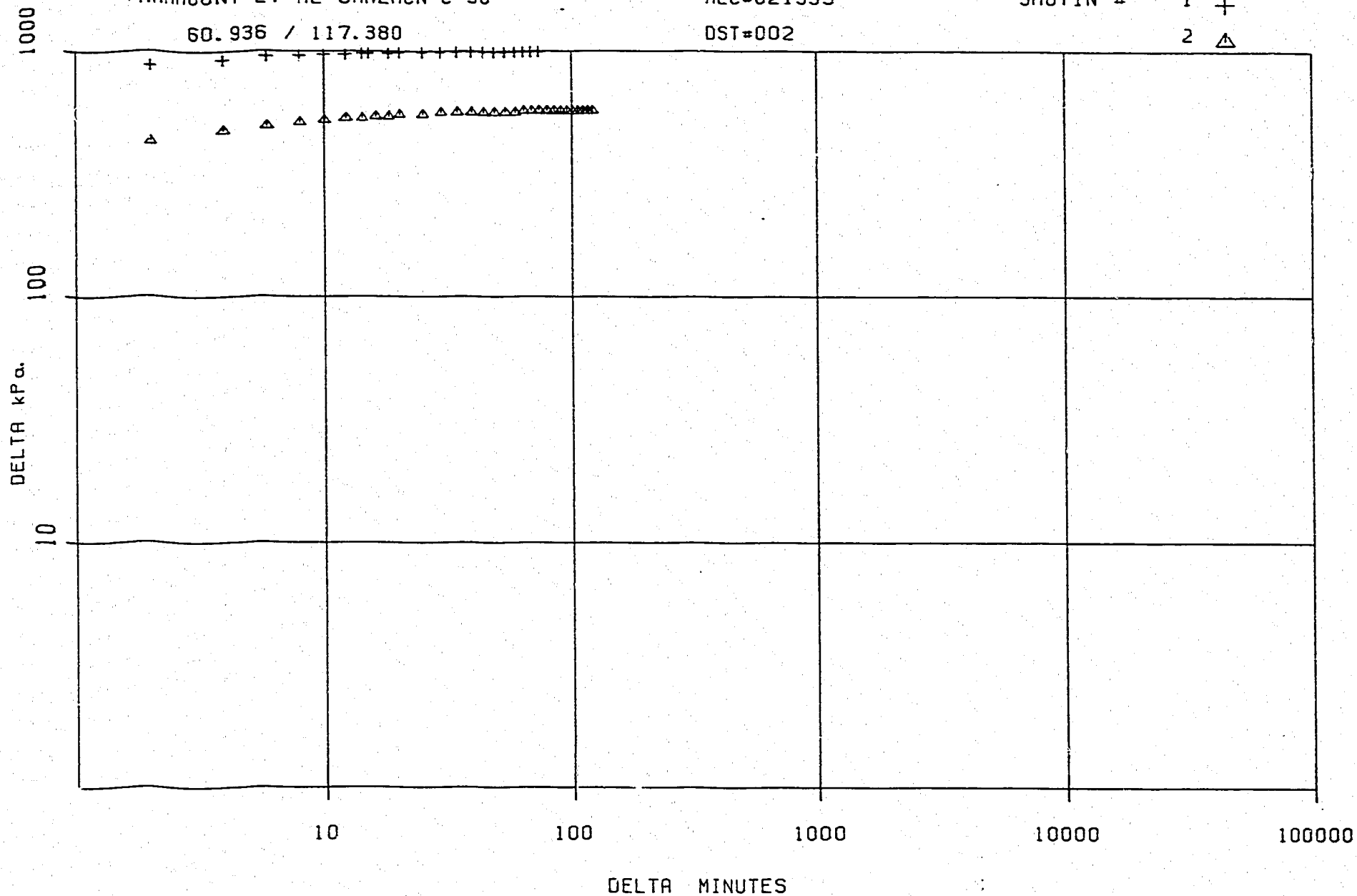
REC#021353

SHUTIN # 1 +

60.936 / 117.380

DST#002

2 Δ



DST#02
PARAMOUNT ET AL CAMERON C-50
1353.00m to 1366.00m

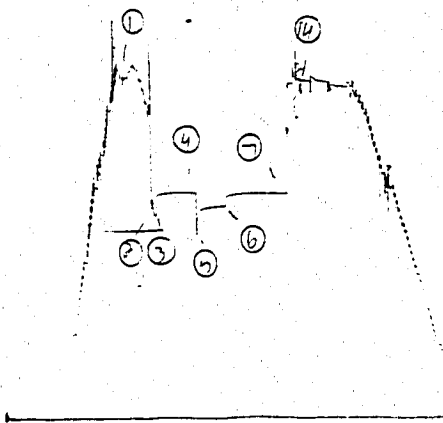
PRESSURE RECORDER NUMBER : 009490

DEPTH : 1355.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 21000.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 16015.
- 2) 1st Flow Start: 9714.
- 3) 1st Flow End : 9445.
- 4) END 1st Shutin: 10498.
- 5) 2nd Flow Start: 8490.
- 6) 2nd Flow End : 9887.
- 7) END 2nd Shutin: 10463.
- 14) Final Hydro. : 15812.



TEST TIMES (MIN)

- 1st FLOW : 10.0
SHUTIN: 75.0
2nd FLOW : 60.0
SHUTIN: 120.0

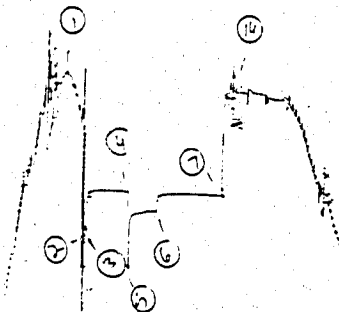
PRESSURE RECORDER NUMBER : 020425

DEPTH : 1345.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 19700.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 15889.
- 2) 1st Flow Start: 8112.
- 3) 1st Flow End : 8382.
- 4) END 1st Shutin: 10375.
- 5) 2nd Flow Start: 7026.
- 6) 2nd Flow End : 9550.
- 7) END 2nd Shutin: 10326.
- 14) Final Hydro. : 15652.



ABOVE INTERVAL

ABOVE INTERVAL.

DST#02
PARAMOUNT ET AL CAMERON C-50
1353.00m to 1366.00m

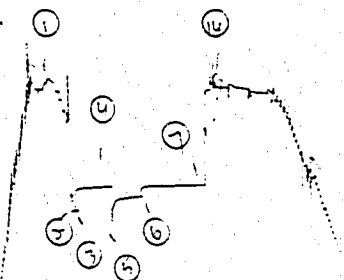
PRESSURE RECORDER NUMBER : 021353

DEPTH : 1355.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 23000.00 kPa

PRESSURE
kPa

- 1) Initial Hydro : 15986.
- 2) 1st Flow Start: 9710.
- 3) 1st Flow End : 9442.
- 4) END 1st Shutin: 10419.
- 5) 2nd Flow Start: 8523.
- 6) 2nd Flow End : 9825.
- 7) END 2nd Shutin: 10390.
- 14) Final Hydro. : 15783.



TEST TIMES (MIN)

1st FLOW : 10.0
SHUTIN: 75.0
2nd FLOW : 60.0
SHUTIN: 120.0

CHEMEX**Labs Alberta (1984) Ltd.****GAS
ANALYSIS**

CONTAINER IDENTITY: **T001 #191**

LABORATORY NUMBER: **85-6935-1**

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

WELL NAME: **PARAMOUNT ET AL CAMERON HILLS c-50**

FIELD OF AREA: **CAMERON HILLS**

POOL OR ZONE: **KEG RIVER**

NAME OF SAMPLER: **132 METRES**

TEST RECOVERY: **132 METRES**

TEST TYPE: **QST** NO: **1**

MULTIPLE RECOVERY: ☐

TEST INTERVAL FROM: **1452.0** m TO: **1465.0** m

PERFORATIONS FROM: **1452.0** m TO: **1465.0** m

SAMPLING POINT: **DOWNHOLE SAMPLER**

AMT & TYPE OF CUSHION: **132 METRES**

MUD RESISTIVITY: **692.69** @ 25°C

TYPE OF PRODUCTION: **PUMPING** ☐ **FLOWING** ☐ **GAS LIFT** ☐ **SWAB** ☐

PRODUCTION RATES: **WATER** ☐ mld **OIL** ☐ mld **GAS** ☐ 103mld

GAUGE PRESSURE - KPa: **SEPARATOR** ☐ **TREATER** ☐ **AS RECEIVED** ☐

TEMPERATURES °C: **SEPARATOR** ☐ **TREATER** ☐ **AS RECEIVED** ☐

DATE SAMPLED: **86-03-24** DATE RECEIVED: **86-03-31** DATE REPORTED: **86-04-10** ANALYST: **R.A.**

COMP	MOL FRACTION AIR FREE AS RECD	MOL FRACTION AIR FREE ACID GAS FREE	LIQUID VOLUME ml (m) AIR FREE AS RECD
H ₂	0.0021	0.0021	
He	0.0000	0.0000	
N ₂	0.0197	0.0201	
CO ₂	0.0194	0.0000	
H ₂ S	0.0000	0.0000	
C ₁	0.8805	0.8978	
C ₂	0.0407	0.0415	
C ₃	0.0186	0.0190	68.04
iC ₄	0.0030	0.0031	13.04
nC ₄	0.0056	0.0057	23.46
iC ₅	0.0029	0.0030	14.10
nC ₅	0.0029	0.0030	13.96
C ₆	0.0030	0.0031	16.13
C ₇₊	0.0016	0.0016	9.61
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	153.34

PROPERTIES**RELATIVE DENSITY**

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED
0.653

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED
0.636**CALCULATED PSEUDO CRITICAL PROPERTIES**

AS SAMPLED

PPC
4643.1

PTC

204.7

ACID GAS FREE

PPC

4583.9

PTC

202.8**CALCULATED GROSS HEATING VALUE (mj/m³)**

@ 101.35 KPa @ 15 °C

A.P.M.C. (AGA #5)

40.52

MOISTURE AND ACID GAS FREE

41.40

@ 14.65 PSIA @ 60 °F DRY

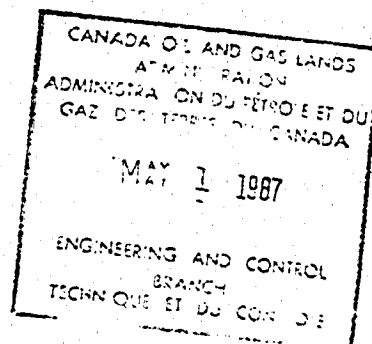
ACID GAS FREE

41.19

ACID GAS INCL

40.38

REMARKS



DOWNHOLE SAMPLER RECEIVED AT 670 KPa
CONTAINED 12,579 ML GAS, 200 ML OIL, 1800 ML
MUDDY WATER
H₂S = 1.58%

CHEMEX Labs Alberta (1984) Ltd.

OIL
ANALYSIS

CONTAINER IDENTITY TOOL #191		LABORATORY NUMBER 85-6935-2	
OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.			
LICENCE NO. CPA NUMBER		WELL NAME PARAMOUNT ET AL CAMERON HILLS c-50	
FIELD OR AREA CAMERON HILLS		ELEVATIONS METERS 692.69 688.39	
POOL OR ZONE KEG RIVER		NAME OF SAMPLER LYNES UNITED	
TEST RECOVERY 132 METRES			
TEST TYPE NO DST 1		SAMPLING POINT DOWNHOLE SAMPLER	
MULTIPLE RECOVERY ☐		AMT & TYPE OF CUSHION MUD RESISTIVITY @25°C	
TEST INTERVAL FROM 1452.0 m		TYPE OF PRODUCTION PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐	
TO 1465.0 m		PRODUCTION RATES WATER m/d OIL m/d GAS 100m/d	
PERFORATIONS FROM m		GAUGE PRESSURE - kPa SEPARATOR TREATER AS RECEIVED	
TO m		TEMPERATURES °C SEPARATOR TREATER AS RECEIVED	
DATE SAMPLED Y M D H M 86-03-24		DATE RECEIVED Y M D 86-03-31	
DATE REPORTED Y M D 86-04-10		ANALYST R.P.	

SAMPLE PROPERTIES

COLOR OF CLEAN OIL BROWN		
VOLUME FRACTION		
WATER 0.890	BS 0.080	TOTAL BS & W 0.970
DENSITY OF CLEAN OIL @ 15°C		
RELATIVE 0.859	API 33.2	ABSOLUTE 859.
TOTAL SULPHUR MASS FRACTION 0.0098	RVP 	POUR POINT °C ASTM -15

TEMP °C	DYNAMIC mPa.s	KINEMATIC mm ² /s
30	6.23	7.34
40	4.84	5.74
50	3.87	4.64

REMARKS

DISTILLATION

VOLUME FRACTION DISTILLED	TEMP °C	METHOD 	BAROM PRESS kPa
		ROOM TEMP °C 	INITIAL BOIL PT °C
		DISTILLATION SUMMARY VOLUME FRACTION	
		204 °C NAPHTHA 	274 °C KEROSENE
		343 °C LIGHT GAS/OIL 	RECOVERED
		RESIDUE 	DISTILLATION LOSS
		RELATIVE DENSITY	
		DISTILLATE 	RESIDUE
		BASE TYPE	
		CHARACTERIZATION FACTOR	
FBP 			
CRACKED 			

DOWNHOLE SAMPLER RECEIVED AT 670 KPA
CONTAINED 12579 ML GAS, 200 ML OIL, 1300 ML WATER
H2S = 1.58%
INSUFFICIENT SAMPLE FOR DISTILLATION

CHEMEX Labs Alberta (1984) Ltd.

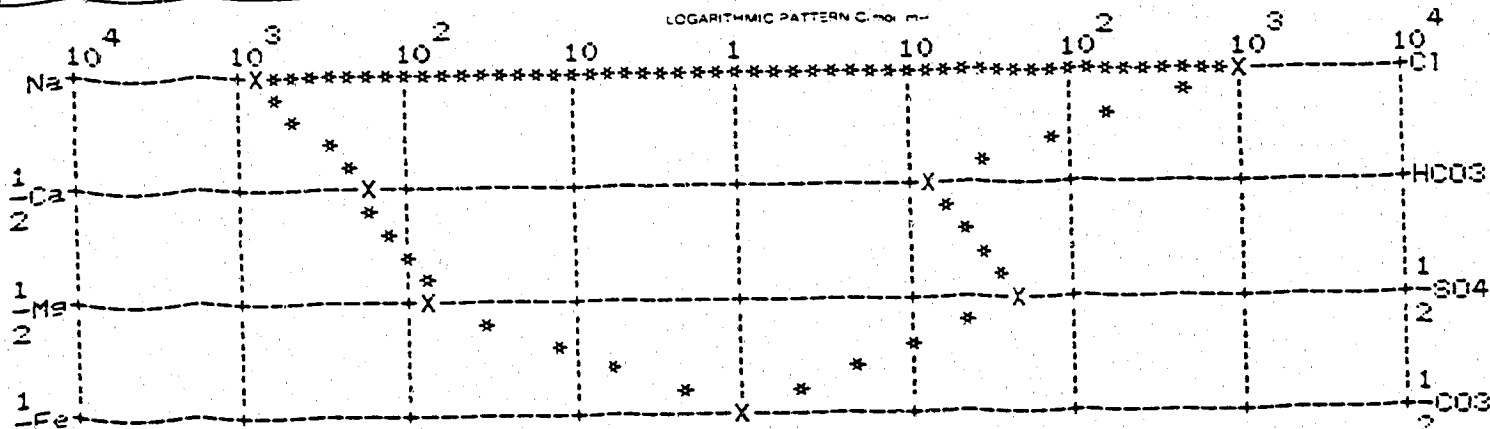
WATER
ANALYSIS

CONTAINER IDENTITY TOOL # 191		LABORATORY NUMBER 85-6935-3	
OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.			
LICENCE NO.	WELL NAME PARAMOUNT ET AL CAMERON HILLS c-50		ELEVATIONS METERS 692.69 688.39
CPANUMBER	NAME OF SAMPLER LYNES UNITED		COMPANY
FIELD OR AREA CAMERON HILLS	POOL OR ZONE KEG RIVER	TEST RECOVERY 132 METRES	
TEST TYPE DST	NO 1	SAMPLING POINT DOWNHOLE SAMPLER	
MULTIPLE RECOVERY	AMT & TYPE OF CUSHION		MUD RESISTIVITY @ 25 °C
TEST INTERVAL FROM 1452.0 m	TYPE OF PRODUCTION PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐		PRODUCTION RATES
TO 1465.0 m	WATER m/d		OIL m/d
PERFORATIONS FROM	GAS 10 m/d		TEMPERATURES °C
TO	SEPARATOR TREATER AS RECEIVED		SEPARATOR TREATER AS RECEIVED
DATE SAMPLED Y M D H M 86-03-24	DATE RECEIVED Y M D 86-03-31	DATE REPORTED Y M D 86-04-10	ANALYST Y.B./B.D.

ION	C g. m-3	MASS FRACTION	C mol. m-3
Na	19400		843.5
K	550		14.1
Ca	3600		90.0
Mg	970		40.4
Ba			
Sr			
Fe	0.44		<1

ION	C g. m-3	MASS FRACTION	C mol. m-3
Cl	39600		1115.5
Br			
I			
HCO ₃	918		15.0
SO ₄	2800		29.2
CO ₃	0		-
OH	0		
H ₂ S	PRESENT		

TOTAL SOLIDS g. m-3	
BY EVAPORATION @ 110 °C	BY EVAPORATION @ 180 °C
ATIGNITION 63140	CALCULATED 67372
PROPERTIES	
RELATIVE DENSITY 1.051 @ 25 °C	REFRACTIVE INDEX 1.345 @ 25 °C
OBSERVED PH 7.6 @ 25 °C	RESISTIVITY Ω m 0.154 @ 25 °C



REMARKS

DOWNHOLE SAMPLER RECEIVED AT 670 KPA
CONTAINED 12579 ML GAS, 200 ML OIL, 1800 ML WATER
H₂S = 1.58%

CHEMEX Labs Alberta (1984) Ltd.

GAS ANALYSIS

CONTAINER IDENTITY TOOL #214		LABORATORY NUMBER 85-6935-4	
OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.			
LICENCE NO. 		WELL NAME PARAMOUNT ET AL CAMERON HILLS c-50	
CPANUMBER 		ELEVATIONS METERS KB 692.69 GRD 688.39	
FIELD OR AREA CAMERON HILLS		POOL OR ZONE SULPHUR POINT	NAME OF SAMPLER
COMPANY LYNES UNITED			
TEST RECOVERY 130 METRES			
TEST TYPE QST 2		SAMPLING POINT DOWNHOLE SAMPLER	
MULTIPLE RECOVERY 		AMT. & TYPE OF CUSHION 	
TEST INTERVAL FROM 1353.0 TO 1366.0		MUD RESISTIVITY @25°C 	
PERFORATION FROM TO 		TYPE OF PRODUCTION PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐	
		PRODUCTION RATES WATER m³/d OIL m³/d GAS 10³ m³/d	
		GAUGE PRESSURE - KPa SEPARATOR TREATER AS RECEIVED 	
		TEMPERATURES °C SEPARATOR TREATER AS RECEIVED 	
DATE SAMPLED Y M D 86-03-25		DATE RECEIVED Y M D 86-03-31	DATE REPORTED Y M D 86-04-10
		ANALYST R.A.	

COMP	VOL FRACTION AIR FREE AS REC'D	VOL FRACTION ACID GAS FREE	LIQUID VOLUME ml. m³ AIR FREE AS REC'D
H ₂	0.0000	0.0000	
He	0.0009	0.0009	
N ₂	0.0457	0.0479	
CO ₂	0.0430	0.0000	
H ₂ S	0.0020	0.0000	
C ₁	0.8765	0.9177	
C ₂	0.0131	0.0137	
C ₃	0.0078	0.0082	28.53
iC ₄	0.0014	0.0015	6.09
nC ₄	0.0039	0.0041	16.34
iC ₅	0.0016	0.0017	7.78
nC ₅	0.0019	0.0020	9.15
C ₆	0.0013	0.0014	6.99
C ₇₊	0.0009	0.0009	5.41
C ₈			
C ₉			
C ₁₀			
TOTAL	1.0000	1.0000	80.29

PROPERTIES

RELATIVE DENSITY

MOISTURE FREE AS SAMPLED

MEASURED

CALCULATED

0.649

MOISTURE AND ACID GAS FREE

MEASURED

CALCULATED

0.609

CALCULATED PSEUDO CRITICAL PROPERTIES

AS SAMPLED

ACID GAS FREE

P_{PC}

4694.1

P_{TC}

199.0

P_{PC}

4564.0

P_{TC}

193.9

CALCULATED GROSS HEATING VALUE (mj/m³)

@ 101.35 KPa @ 15 °C

@ 14.65 PSIA @ 60 °F DRY

A.P.M.C. (AGA #5)

36.34

MOISTURE AND ACID GAS FREE

38.07

ACID GAS FREE

37.88

ACID GAS INCL

36.21

REMARKS

DOWNHOLE SAMPLER RECEIVED AT 7450 KPa
CONTAINED 22884 ML GAS, 15 ML WATER
H₂S = 0.20%

CHEMEX Labs Alberta (1984) Ltd.

WATER
ANALYSIS

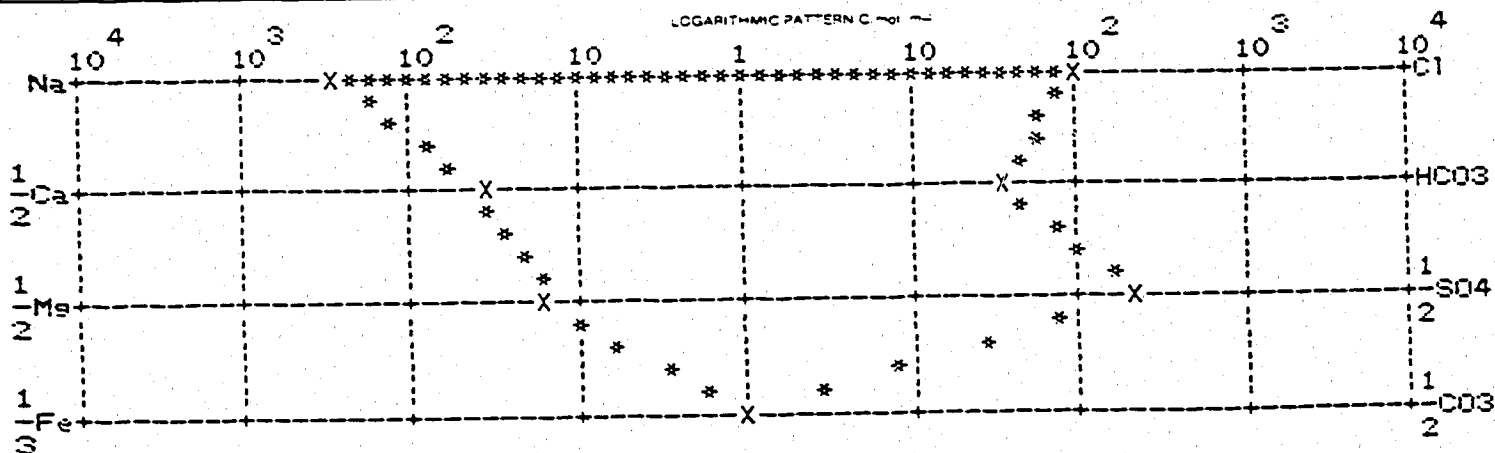
CONTAINER IDENTITY PLASTIC		LABORATORY NUMBER 35-6935-5	
LICENCE NO. 		OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.	
CPA NUMBER 		WELL NAME PARAMOUNT ET AL CAMERON HILLS c-50	
FIELD OR AREA CAMERON HILLS		POOL OR ZONE SULPHUR POINT	
TEST RECOVERY 130 METRES		NAME OF SAMPLER 	
TEST TYPE DST NO 2		ELEVATIONS KB 692.69 METERS GSD 688.39	
MULTIPLE RECOVERY 		COMPANY LYNES UNITED	
TEST INTERVAL FROM 1353.0 m TO 1366.0 m		MUD RESISTIVITY 0.25 cP	
PERFORATIONS FROM m TO m		TYPE OF PRODUCTION PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐	
DATE SAMPLED Y M D H M 86-03-25		DATE RECEIVED Y M D 86-03-31	
DATE REPORTED Y M D 86-04-10		ANALYST Y.B./B.D.	

ION	C g. m ⁻³	MASS FRACTION	C mol. m ⁻³
Na	6900		300.0
K	85		2.2
Ca	910		22.8
Mg	222		9.3
Ba			
Sr			
Fe	0.22		<1

ION	C g. m ⁻³	MASS FRACTION	C mol. m ⁻³
Cl	3790		106.8
Br			
I			
HCO ₃	2520		41.3
SO ₄	10600		110.4
CO ₃	0		
OH	0		
H ₂ S	PRESENT		

TOTAL SOLIDS C g	
BY EVAPORATION @ 110 °C 24780	BY EVAPORATION @ 180 °C 23747
ATIGNITION 24780	CALCULATED 23747

PROPERTIES	
RELATIVE DENSITY 1.017 @ 25 °C	REFRACTIVE INDEX 1.336 @ 25 °C
OBSERVED PH 7.3 @ 25 °C	RESISTIVITY Ω m 0.454 @ 25 °C



REMARKS

CHEMEX Labs Alberta (1984) Ltd.

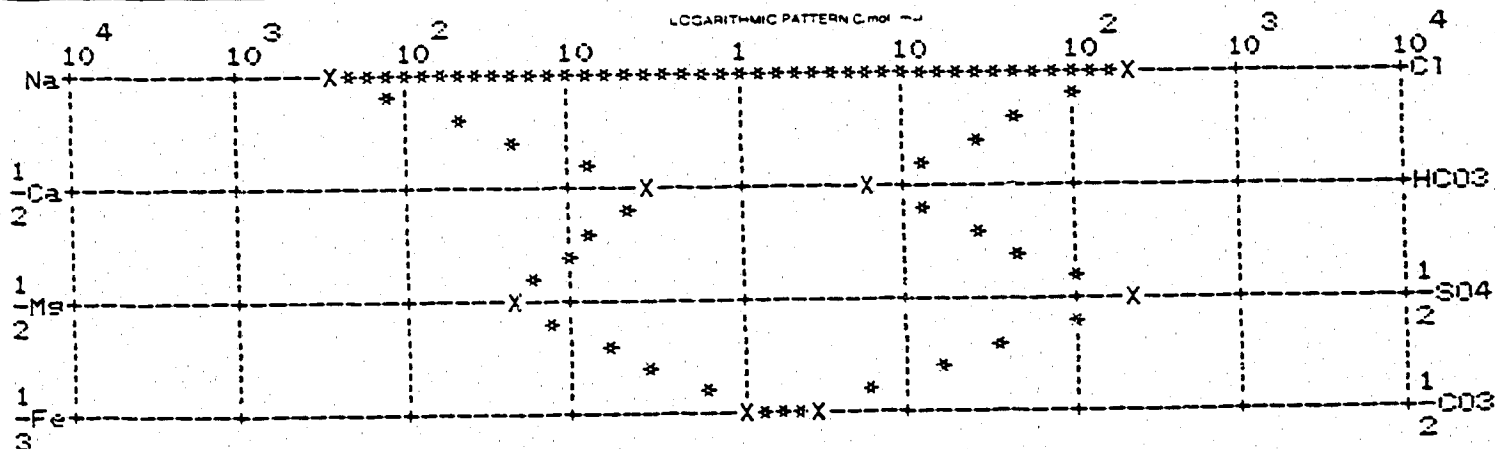
WATER
ANALYSIS

CONTAINER IDENTITY TOOL #214		LABORATORY NUMBER 35-6935-6	
OPERATOR NAME AND ADDRESS PARAMOUNT RESOURCES LTD.			
LICENCE NO. 	WELL NAME PARAMOUNT ET AL CAMERON HILLS c-50		ELEVATIONS METERS 692.69 688.39
CPANUMBER 	POOL OR ZONE SULPHUR POINT	NAME OF SAMPLER 	COMPANY LYNES UNITED
FIELD OR AREA CAMERON HILLS	TEST RECOVERY 130 METRES		
TEST TYPE DST	NO 2	SAMPLING POINT DOWNHOLE SAMPLER	
MULTIPLE RECOVERY 		AMT & TYPE OF CUSHION 	
TEST INTERVAL FROM 1353.0 m		MUD RESISTIVITY @ 25°C	
TO 1366.0 m		TYPE OF PRODUCTION PUMPING ☐ FLOWING ☐ GAS LIFT ☐ SWAB ☐	
PERFORATIONS FROM m		PRODUCTION RATES WATER m³/d OIL m³/d GAS m³/d	
TO m		TEMPERATURES °C SEPARATOR TREATER AS RECEIVED 	
DATE SAMPLED Y M D H M 86-03-25		DATE RECEIVED Y M D 86-03-31	DATE REPORTED Y M D 86-04-10
		ANALYST Y.B./B.D.	

ION	C g. m.⁻³	MASS FRACTION	C mol. m.⁻³
Na	9100		395.7
K	145		3.7
Ca	94		2.4
Mg	261		10.9
Ba			
Sr			
Fe	13		<1

ION	C g. m.⁻³	MASS FRACTION	C mol. m.⁻³
Cl	7830		220.6
Br			
I			
HCO₃	410		6.7
SO₄	10600		110.4
CO₃	101		1.7
OH	0		
H₂S	ABSENT		

TOTAL SOLIDS g. m.⁻³	
BY EVAPORATION @ 110°C 30000	BY EVAPORATION @ 180°C 28346
ATIGNITION 30000	
CALCULATED 28346	
PROPERTIES	
RELATIVE DENSITY @ 25°C 1.021	REFRACTIVE INDEX @ 25°C 1.336
OBSERVED PH @ 25°C 8.5	RESISTIVITY Ω m @ 25°C 0.410



REMARKS



Canada Oil and Gas Administration du pétrole
Lands Administration et du gaz des terres du Canada

Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☒	Northern	☐	Suspended	☒
Gulf of St. Lawrence	☐	Hudson Bay	☐	Completed	☐
				Abandoned	☐

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. Cameron..G-50..... Area: ..Cameron Falls.. NWT
Grid Area: ..60-10-117-30..... Field/Pool: ..Wildcat.....
Permit or Lease No.: ..213..... Final Coordinates: Lat: ..68°09'03.65"N. Long: ..117°38'40.64"W
Drilling Unit: ..Cactus Rig 21..... Elevations-RT/KB: ..692.69..... GL: ..688.39.....
Spud Date: ..86/03/09..... Rig Released: ..86/03/26..... Total Depth: ..1569.....

CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
..339.7.....	..90.78.....	..K-55.....	..58.....	..9 tonnes, Class "G" .0:1:0 + 3% CaCl ₂
..244.5.....	..53.57.....	..K-55.....	..390.....	..26 tonnes, Class "G" .0:1:0 + 3% CaCl ₂
..199.7.....	..20.83.....	..J-55.....	..1569.....	..70 tonnes, Class "G" .0:1:0 + 75% T-10 + .2% RF + 3 sacks celloflake

PLUGGING PROGRAM

Approval of the following program was obtained by (person) from
(person) of the Canada Oil and Gas Lands Administration by means of
..... on 19 ..

Type of Plug:	Interval:	Felt:	Cement and Additives:
..None.....			
.....			
.....			
.....			
.....			
.....			

Lost Circulation/Overpressure Zones: Lost circulation at 560 m.....

Equipment left on Seafloor (Describe): N/A

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

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: P. Eng. Title: ..President.....
Name: ..Dennis P. Besler..... Date: ..1986 05 26.....
Ridgestarr Petroleum Management Ltd.

Acknowledged by:
Engineering Branch

Date: ..16 Sep 86.....

File:

Department of Energy,
Mines and Resources

Ministère de l'Énergie,
des Mines et des Ressources

Department of Indian Affairs
and Northern Development

Ministère des Affaires indiennes
et du Nord canadien

Canada



Canada Oil and Gas
Lands Administration

Administration du pétrole
et du gaz des terres du Canada

M/F

		Well Status			
Nova Scotia	☐	West Coast	☐	Suspended	☒
Newfoundland	☐	Northern	☒	Completed	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	Abandoned	☐

APPLICATION TO ALTER CONDITION OF A WELL

This application form is to be submitted in triplicate to the District Conservation Engineer at least 45 days before commencement of operations.

Well Name: PARAMOUNT ET AL CAMERON C-50 Area: N.W.T.
Coordinates: Lat: 60° 09' 03.69" Long: 117° 38' 32.69"
Operator: PARAMOUNT RESOURCES LTD. Contractor: Flint Engineering
Drilling Rig or Unit: RIG #771 Depth: 1569 M
Date ATDW Issued: 1986-03-07 Date of Last Operation: 1986-03-26
UWI: 300C506010117300

TYPE OF OPERATION

COMPLETE WELL IN THE KEG RIVER FORMATION.

SUMMARY OF PROPOSED OPERATIONS

SEE ATTACHED COMPLETION PROGRAM.

Signed: [Signature] Title: DRILLING MANAGER
Date: OCTOBER 2, 1989 Company: PARAMOUNT RESOURCES LTD.

APPROVAL

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

Signed: [Signature]
Conservation Engineer
Date: 90-02-07
ATDW No: 1338 File: 9211-P33-3-1

Department of Energy,
Mines and Resources

Ministère de l'Énergie,
des Mines et des Ressources

Department of Indian Affairs
and Northern Development

Ministère des Affaires Indiennes
et du Nord canadien

Canada

PARAMOUNT RESOURCES LTD.

COMPLETION PROGRAM

PARAMOUNT ET AL CAMERON C-50

LOCATION: C-50, Grid Area 60-10, 117-30

ELEVATIONS: K.B. - 692.7
GRD - 688.4
K.B. GRD - 4.3

TOTAL DEPTH: Driller 1569 m, Logger 1568.6 m

CASING: SURFACE: 244.5 mm 20.83 kg/m K-55, LT&C
Casing, landed at 390.0 mKB

PRODUCTION: 139.7 mKB, 20.83 kg/m J-55, LT&C
Casing, Landed at 1569.3 mKB

DST NO. 1: Sulphur Point Formation, 1353 m to 1366 m, 25.4 mm
choke, 106000 m³/day. B.H.P. 10.405 kPa (1500 psi).

N.B. Cement Bond Log and G.R./N have been run, and excellent bonding
throughout with cement top at 412 mKB. Plug back depth logger
1549 mKB.

RECOMMENDED PROCEDURE:

STEP 1:

1. Move to location with rig, pump, tank, boiler, and 2 - 63 m³ tanks.
Spot as per C.O.G.L.A. Regulations.
2. Remove wellhead, install B.O.P., and pressure test to 14 mPa
3. Run in with 121 mm bit and 127 mm casing scraper, tally and run 73 mm,
J-55 tubing to plug back depth.
4. Circulate well bore to salt water hauled in from Zama. Drill and
clean out to plug back depth of 1555 mKB or top of float collar.
5. Trip out and rack tubing, remove scraper, and bit.
6. Rig up perforating truck with enough lubricator to cover gun. Run in
with 88.9 mm casing gun at 13 spm and perforate interval 1466.5 m to
1467.5 m (Keg River).
7. Run 73 mm tubing and land with pup joints to within .3 of a metre off
bottom.

8. Head up wellhead complete with adjustable choke and "D" type wing valve assembly.
9. Displace 1 m₃ of 15% M.C.A. followed with 4 m₃ of 28% H.C.L. to bottom, bring M.C.A. by perfs holding 10500 kPa on annulus. When acid all in tubing, follow with N₂ wash zone in .05 m₃ washes increasing 1400 kPa/wash or until break²down. Squeeze at as high a rate possible without exceeding 28000 kPa, overflush 50%. Record instantaneous, and S.I. for 10 minutes and open to flow or swab for clean up.
10. Take good samples and cuts and report to Calgary Office. If this zone is wet proceed as follows.

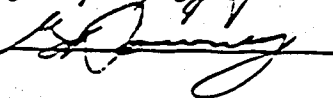
STEP II:

1. Circulate well to salt water.
2. Break down well head and install B.O.P.
3. Pull tubing.
4. Run in 114.3 mm bridge plug on Wireline and set at +1464 mKB ensure that not in a casing collar. Pressure test 15 minutes at 14000 kPa.
5. Run in with 88.9 mm Gris Gun at 13 S.P.M. with enough lubricator to cover gun and perf interval 1459.5 to 1461 mKB (Keg River).
6. Rerun 73 mm tubing and run to within 15 to 25 cm of bridge plug and remove B.O.P. and head up.
7. Displace 1 m₃ of 15% M.C.A., followed with 4 m₃ of 28% H.C.L. Holding 10500 kPa back pressure on annulus, wash M.C.A. by perfs in 95 L washes increasing annulus pressure to 2100 kPa/wash until break down. When acid all in tubing, displace with N₂ and squeeze at as high a rate possible without exceeding 28000 kPa. Overflush acid 50% with N₂, record instantaneous and leave S.I. for 10 minutes, open to flow or swab and evaluate.
8. Obtain good wellhead cuts, and get a closed chamber gas sample off annulus and submit to A.G.A.T. for complete analysis and H₂S content. A packer may not be necessary if H₂S content is minimal.

PROGRAM PREPARED BY:



PROGRAM APPROVED BY:





Nova Scotia	☐	West Coast	☐	Well Status	
Newfoundland	☐	Northern	☒	Suspended	☐
Gulf of St. Lawrence	☐	Hudson Bay	☐	Completed	☒
				Abandoned	☐

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 Cameron C-50 Area: Cameron Hills, N.W.T.
Grid Area: 60-110-117-30 Field/Pool: N/A
Permit or Lease No.: N88A058 Final Coordinates: Lat: 60° 9' 3.65" N Long: 117° 38' 40.64" W
Drilling Unit: Cactus Rig #21 Elevations-RT/KB: 692.69 m SFIGL: 688.39 m
Spud Date: 1986-03-09 Rig Released: 1986-03-26 Total Depth: 1569 m
Re-entered: 1990-02-06 Rig Released: 1990-02-15 Flint #771 Service Rig
UWI: 300CS06010117300 CASING AND CEMENTING

O.D.:	Weight:	Grade:	Depth Set:	Cement and Additives:
<u>339.7 mm</u>	<u>90.78 kg/m</u>	<u>K-55</u>	<u>58 mKB</u>	<u>9 T. Class 'G'. 0:1:0. + 3% CaCl₂.</u>
<u>244.5 mm</u>	<u>53.57 kg/m</u>	<u>K-55</u>	<u>390 mKB</u>	<u>26 T. Class 'G'. 0:1:0. + 3% CaCl₂.</u>
<u>139.7 mm</u>	<u>20.83 kg/m</u>	<u>J-55</u>	<u>1568 mKB</u>	<u>70 T. Class 'G'. + 0.75% T-10 + 0.2% RF + 3 Sacks Celloflake.</u>

PLUGGING PROGRAM

Approval of the following program was obtained by (person) from
(person) of the Canada Oil and Gas Lands Administration by means of
..... on 19 ..

Type of Plug:	Interval:	Felt:	Cement and Additives:
<u>Bridge Plug</u>	<u>1462 mKB</u>		
<u>Bridge Plug</u>	<u>1458 mKB</u>		

Lost Circulation/Overpressure Zones: Lost Circulation at 560 m.

Equipment left on Seafloor (Describe): N/A

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

Cores: Type: N/A Intervals: N/A

Other Downhole Completion/Suspension Equipment: 73 mm J-55 Tubing Landed at 1457.7 mKB.

Perforated Zones: 1466.5 m - 1467.5 mKB, 1459.5 m - 1461.0 mKB, 1456.0 m - 1457.0

CERTIFICATION

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

Signed: P. G. Besler P. Eng.
Name: P. G. Besler

Title: Assistant Drilling Manager
Date: November 5, 1990

Acknowledged by: [Signature]
Engineering Branch

Date: 90-11-19

File: 9211-P33-3-1