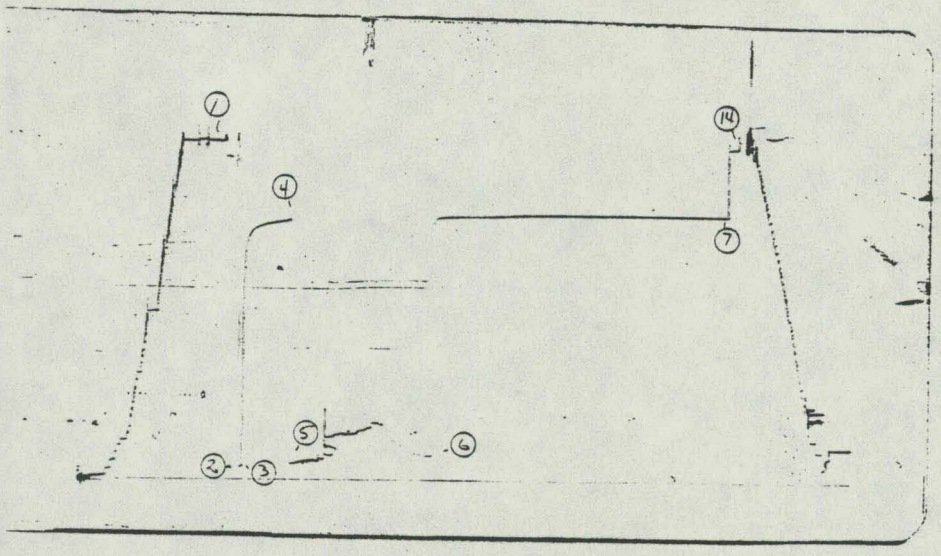
REF#:C-70-999-73029-66

TEST DATE: 85/12/17

PCI CANTERRA TWEED LAKE A-67
400/ 67.000 / 125.450 /00
DST#01
1290.00m to 1301.00m
BASAL SAND-MOUNT CLARKE

9211-P28-1-6 OH



DEPTH: 1292.00m

	PRESSURE kPa(a)
1) Initial Hydro :	16444.
2) 1st Flow Start:	724.
3) 1st Flow End :	845.
4) END 1st Shutin:	12738.
5) 2nd Flow Start:	965.
6) 2nd Flow End :	1293.
7) END 2nd Shutin:	13014.
14) Final Hydro. :	0.

TEST TIMES (MIN)	
1st FLOW :	4.0
SHUTIN:	82.0
2nd FLOW :	269.0
SHUTIN:	412.0

RECOVERY DATA

TOTAL FLUID RECOVERY WAS 60.00 M CONSISTING OF 1.00 M OF CONDENSATE AND 59.00 M OF GAS CUT DRILLING MUD. GAS TO SURFACE WITH A FINAL FLOW RATE OF 4 475.00 M3/D INCREASING TO 50 705.00 M3/D THEN DECREASING TO A CLOSING RATE OF 11 607.00 M3/D. CLOSED CHAMBER TEST WAS RUN DURING THE FIRST FLOW.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest HIGH PERMEABILITY within the interval tested. A Closed Chamber report is included for the first flow.
Changed the choke in the manifold at 170 minutes.
Reservoir calculations are included with this report.

TABLE OF CONTENTS

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

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

MICROFILMED
SUR MICROFILM:

NATIONAL OIL AND GAS LANDS ADMINISTRATION
ADMINISTRATION DU PÉTROLE ET GAZ DES TERRES DU CANADA
JAN 28 1986
ENGINEERING BRANCH
GÉNIE

LYNES UNITED SERVICES LTD
DST#01 REPORT

Well name : PCI CANTERRA TWEED LAKE A-67
Location : 400/ 67.000 / 125.450 /00
Interval : 1290.00m to 1301.00m
Test Date : 85/12/17
Test Type : INFLATE STRADDLE
Formation : BASAL SAND-MOUNT CLARKE

K.B.Elevation : 397.10m
Grd.Elevation : 390.90m
TD @ test Date: 1347.00m
Ticket Number : 73029
Unit Number :

Started in hole at : 0930 hrs
Tool opened at : 1358 hrs
Reverse circulated? NO
Contractor & Rig No: ATCO #76
Lynes#1 : 1 of 1 on the same trip.

Log Temp : 12.2C
Porosity : 11.0 %
Estimated Pay : 3.60m

Operator: PETRO-CANADA INC.
ROOM 937 WEST
150 - 6TH AVE. S.W.
CALGARY ALBERTA
T2P3E3

Company Rep : HOPE Y
Testers : HILLER E

5 REPORTS(S) TO: DIANE THEISEN
Company:

BLOW DESCRIPTION

Preflow: Closed Chamber was run by Lynes.
Final flow: Strong air blow immediately. Gas to surface in 1 minute.

TOTAL LIQUID RECOVERY : 60.00m

For DST# 1 through DST# 1

3 Fluid Samples
Sent to: CORE LABS

Btm. Hole Sampler #: 176,302
Sent to: CORE LABS

1.00m CONDENSATE.
59.00m GAS CUT DRILLING MUD.

GAS MEASUREMENTS Device: FLOOR MANIFOLD
Device:
Riser: 50.8mm

Bomb#: 6694
Sent to: CORE LABS

Gas Measurements Continued on Next Page

Dst#01
PCI CANTERRA TWEED LAKE A-67
1290.00m To 1301.00m

FLOW #	TIME MIN	CHOKE mm	READING kPa	CUBIC METRES/D
2	5.	9.52	230.	4475.0
2	10.	9.25	300.	5459.0
2	15.	9.52	400.	6867.0
2	20.	9.52	450.	7572.0
2	25.	9.52	410.	7008.0
2	30.	9.52	380.	6585.0
2	35.	9.52	310.	5600.0
2	40.	9.52	310.	5600.0
2	45.	9.52	300.	5459.0
2	50.	9.52	310.	5600.0
2	55.	9.52	280.	5178.0
2	60.	9.52	380.	6585.0
2	65.	9.52	400.	6867.0
2	70.	9.52	1000.	15389.0
2	75.	9.52	1400.	21141.0
2	80.	9.52	1450.	21864.0
2	85.	9.52	1500.	22588.0
2	90.	9.52	1540.	23168.0
2	95.	9.52	1500.	22588.0
2	100.	9.52	1540.	23168.0
2	105.	9.52	1400.	21141.0
2	110.	9.52	1420.	21430.0
2	115.	9.52	1410.	21285.0
2	120.	9.52	1410.	21285.0
2	125.	9.52	1490.	22443.0
2	130.	9.52	1580.	23748.0
2	135.	9.52	1600.	24038.0
2	140.	9.52	1650.	24765.0
2	145.	9.52	1730.	25930.0
2	150.	9.52	1750.	26221.0
2	155.	9.52	1800.	26951.0
2	160.	9.52	1880.	28120.0
2	165.	9.52	1880.	28120.0
2	170.	12.70	1840.	50705.0
2	175.	12.70	1600.	44266.0
2	180.	12.70	1500.	41594.0
2	185.	12.70	1250.	34945.0
2	190.	12.70	1140.	32033.0
2	195.	12.70	1020.	28865.0
2	200.	12.70	950.	27021.0
2	205.	12.70	920.	26232.0
2	210.	12.70	900.	25706.0
2	215.	12.70	800.	23081.0
2	220.	12.70	650.	19155.0
2	230.	12.70	530.	16026.0
2	240.	12.70	450.	13944.0
2	250.	12.70	450.	13944.0

Continued on next page

1290.00m To 1301.00m

Gas measurement readings continued

FLOW #	TIME MIN	CHOKE mm	READING kPa	CUBIC METRES/D
2	260.	12.70	400.	12645.0
2	269.	12.70	360.	11607.0

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00m to 1301.00m

TOOL SEQUENCE

SUB	LENGTH (m)
PUMP OUT SUB	.33
CROSS OVER SUB	.30
CROSS OVER SUB	.30
INSIDE RECORDER	1.38
CHOKE SUB	.30
HYDRAULIC TOOL	1.50
BTM. HOLE SAMPLER	1.03
BTM. HOLE SAMPLER	1.03
INSIDE RECORDER	1.38
HYDRAULIC JARS	2.22
SAFETY JOINT	.65
INFLATE PUMP	2.28
SCREEN	1.16
TOP INFLATE PACKER	1.78
PACKER STICK DOWN	.82
PORT SUB	.30
OUTSIDE RECORDER	2.06
SPACING	7.32
PACKER STICK UP	.50
BTM.INFLATE PACKER	1.90
PERFORATED SPACING	1.22
BAR STOP SUB	.30
BELLY SPRING	2.00
******** TOOL TOTAL	32.06

DRILL COLLARS
ID= 70.0mm: 170.17
ID= :
DRILL PIPE
OD=114.3mm: 1107.29
OD= :

COLLAR-PIPE TOTAL 1277.46

STICK UP ABOVE TABLE : 3.10
TOOL ABOVE INTERVAL : 15.64
TOTAL INTERVAL : 11.00
BOTTOM CHOKE SIZE: 12.70 mm

RECORDER SUMMARY

1) NUMBER : 001749
TYPE : DMRB
LOCATION: OUTSIDE
RANGE: 68900.00kPa(a)
DEPTH : 1292.00m

2) NUMBER : 013127 ABOVE
TYPE : K-3 INTERVAL
LOCATION: INSIDE RECORDER
RANGE: 19700.00kPa
DEPTH : 1282.00m

3) NUMBER : 013832
TYPE : K-3
LOCATION: OUTSIDE
RANGE: 19300.00kPa
DEPTH : 1292.00m

4) NUMBER : 013960 BELOW
TYPE : K-3 STRADDLE
LOCATION: INSIDE
RANGE: 19700.00kPa
DEPTH : 1303.00m

5) NUMBER : 019661
TYPE : K-3
LOCATION: OUTSIDE
RANGE: 22700.00kPa
DEPTH : 1292.00m

6) NUMBER : 021424 ABOVE
TYPE : K-3 SHUT-IN TOOL
LOCATION: INSIDE
CAPACITY: 42400.00kPa
DEPTH : 1276.00m

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 216.00mm Water Loss : 10.5cc/s
Hole Condition at Test Time : FAIR Filter Cake: 2.0 mm
Hole Conditioned Prior to Test? : YES
Mud Weight : 1270.0 kg/m3 Main Hole Size: 216.00mm
Mud Type : GEL CHEMICAL/SALT
Viscosity : 51.0s/l Temperature @1292.00m = 12.2C

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
1	INITIAL HYDROSTATIC			16444		
2	START OF 1st FLOW	0.0		724		
		1.0		707		
		2.0		741		
		3.0		810		
3	END OF 1st FLOW	4.0		845		
	1st SHUTIN PERIOD	0.0		845		
		1.0	2361	3206	5.0000	10.2788
		2.0	6653	7498	3.0000	56.2208
		4.0	9825	10670	2.0000	113.8404
		5.0	10342	11187	1.8000	125.1423
		6.0	10652	11497	1.6667	132.1810
		7.0	10859	11704	1.5714	136.9790
		8.0	10997	11842	1.5000	140.2259
		9.0	11083	11928	1.4444	142.2748
		10.0	11169	12014	1.4000	144.3386
		12.0	11273	12118	1.3333	146.8338
		13.0	11325	12169	1.3077	148.0894
		14.0	11376	12221	1.2857	149.3504
		15.0	11411	12255	1.2667	150.1949
		16.0	11428	12273	1.2500	150.6167
		17.0	11445	12290	1.2353	151.0417
		18.0	11480	12324	1.2222	151.8884
		20.0	11514	12359	1.2000	152.7400
		21.0	11531	12376	1.1905	153.1654
		22.0	11549	12393	1.1818	153.5939
		23.0	11549	12393	1.1739	153.5939
		24.0	11583	12428	1.1667	154.4503
		25.0	11583	12428	1.1600	154.4503
		26.0	11600	12445	1.1538	154.8780
		28.0	11618	12462	1.1429	155.3064
		29.0	11618	12462	1.1379	155.3064

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

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Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		30.0	11635	12480	1.1333	155.7379
		31.0	11652	12497	1.1290	156.1675
		32.0	11652	12497	1.1250	156.1675
		33.0	11669	12514	1.1212	156.5977
		34.0	11669	12514	1.1176	156.5977
		36.0	11687	12531	1.1111	157.0310
		37.0	11687	12531	1.1081	157.0310
		38.0	11704	12548	1.1053	157.4624
		39.0	11704	12548	1.1026	157.4624
		40.0	11721	12566	1.1000	157.8968
		41.0	11721	12566	1.0976	157.8968
		42.0	11721	12566	1.0952	157.8968
		44.0	11738	12583	1.0909	158.3294
		45.0	11738	12583	1.0889	158.3294
		46.0	11755	12600	1.0870	158.7625
		47.0	11755	12600	1.0851	158.7625
		48.0	11755	12600	1.0833	158.7625
		49.0	11755	12600	1.0816	158.7625
		50.0	11773	12617	1.0800	159.1988
		52.0	11773	12617	1.0769	159.1988
		53.0	11790	12635	1.0755	159.6331
		54.0	11790	12635	1.0741	159.6331
		55.0	11790	12635	1.0727	159.6331
		56.0	11790	12635	1.0714	159.6331
		57.0	11807	12652	1.0702	160.0681
		58.0	11807	12652	1.0690	160.0681
		60.0	11824	12669	1.0667	160.5061
		61.0	11824	12669	1.0656	160.5061
		62.0	11824	12669	1.0645	160.5061
		63.0	11824	12669	1.0635	160.5061
		64.0	11824	12669	1.0625	160.5061
		65.0	11824	12669	1.0615	160.5061
		66.0	11842	12686	1.0606*	160.9423
		68.0	11842	12686	1.0588*	160.9423
		69.0	11859	12704	1.0580*	161.3789
		70.0	11859	12704	1.0571*	161.3789

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		71.0	11859	12704	1.0563*	161.3789
		72.0	11859	12704	1.0556*	161.3789
		73.0	11859	12704	1.0548*	161.3789
		74.0	11859	12704	1.0541*	161.3789
		76.0	11876	12721	1.0526*	161.8188
		77.0	11876	12721	1.0519*	161.8188
		78.0	11876	12721	1.0513*	161.8188
		79.0	11893	12738	1.0506*	162.2567
		80.0	11893	12738	1.0500*	162.2567
		81.0	11893	12738	1.0494*	162.2567
4	END OF 1st SHUTIN	82.0	11893	12738	1.0488*	162.2567
5	START OF 2nd FLOW	0.0		965		
		2.0		776		
		5.0		827		
		7.0		879		
		9.0		914		
		12.0		983		
		14.0		1017		
		16.0		1034		
		18.0		1034		
		21.0		1000		
		23.0		965		
		25.0		914		
		28.0		983		
		30.0		965		
		32.0		931		
		34.0		914		
		37.0		983		
		39.0		965		
		41.0		931		
		44.0		1017		
		46.0		965		
		48.0		931		
		50.0		914		

* VALUES USED FOR EXTRAPOLATIONS

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PCI CANTERRA TWEED LAKE A-67
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Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		53.0		931		
		55.0		896		
		57.0		1034		
		60.0		1034		
		62.0		1017		
		64.0		983		
		66.0		2137		
		69.0		2068		
		71.0		2137		
		73.0		2189		
		76.0		2258		
		78.0		2293		
		80.0		2258		
		82.0		2293		
		85.0		2413		
		87.0		2396		
		89.0		2361		
		92.0		2379		
		94.0		2361		
		96.0		2482		
		98.0		2430		
		101.0		2258		
		103.0		2241		
		105.0		2224		
		108.0		2361		
		110.0		2430		
		112.0		2344		
		114.0		2293		
		117.0		2344		
		119.0		2465		
		121.0		2430		
		124.0		2482		
		126.0		2534		
		128.0		2534		
		130.0		2568		
		133.0		2551		

* VALUES USED FOR EXTRAPOLATIONS

DST#01
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1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		135.0		2568		
		137.0		2586		
		140.0		2637		
		142.0		2672		
		144.0		2706		
		146.0		2723		
		149.0		2706		
		151.0		2654		
		153.0		2982		
		156.0		2844		
		158.0		2827		
		160.0		2810		
		162.0		2810		
		165.0		2844		
		167.0		2672		
		169.0		2775		
		172.0		2775		
		174.0		2654		
		176.0		2568		
		178.0		2482		
		181.0		2499		
		183.0		2293		
		185.0		2206		
		188.0		2155		
		190.0		2137		
		192.0		2017		
		194.0		1931		
		197.0		1896		
		199.0		1948		
		201.0		1844		
		204.0		1775		
		206.0		1741		
		208.0		1724		
		210.0		1706		
		213.0		1586		
		215.0		1551		

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		217.0		1603		
		220.0		1500		
		222.0		1465		
		224.0		1431		
		226.0		1413		
		229.0		1396		
		231.0		1362		
		233.0		1431		
		236.0		1413		
		238.0		1362		
		240.0		1327		
		242.0		1327		
		245.0		1362		
		247.0		1327		
		249.0		1327		
		252.0		1310		
		254.0		1293		
		256.0		1293		
		258.0		1293		
		261.0		1293		
		263.0		1396		
		265.0		1344		
		268.0		1293		
6	END OF 2nd FLOW	269.0		1293		
	2nd SHUTIN PERIOD	0.0		1293		
		3.0	11618	12910	92.0000	166.6784
		7.0	11721	13014	40.0000	169.3590
		10.0	11721	13014	28.3000	169.3590
		13.0	11721	13014	22.0000	169.3590
		17.0	11721	13014	17.0588	169.3590
		20.0	11721	13014	14.6500	169.3590
		24.0	11721	13014	12.3750	169.3590
		27.0	11721	13014	11.1111	169.3590
		31.0	11721	13014	9.8065	169.3590

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		34.0	11721	13014	9.0294	169.3590
		38.0	11738	13031	8.1842	169.8070
		41.0	11721	13014	7.6585	169.3590
		44.0	11721	13014	7.2045	169.3590
		48.0	11721	13014	6.6875	169.3590
		51.0	11738	13031	6.3529	169.8070
		55.0	11738	13031	5.9636	169.8070
		58.0	11721	13014	5.7069	169.3590
		62.0	11721	13014	5.4032	169.3590
		65.0	11738	13031	5.2000	169.8070
		68.0	11721	13014	5.0147	169.3590
		72.0	11738	13031	4.7917	169.8070
		75.0	11721	13014	4.6400	169.3590
		79.0	11738	13031	4.4557	169.8070
		82.0	11738	13031	4.3293	169.8070
		86.0	11738	13031	4.1744	169.8070
		89.0	11738	13031	4.0674	169.8070
		92.0	11738	13031	3.9674	169.8070
		96.0	11738	13031	3.8438	169.8070
		99.0	11738	13031	3.7576	169.8070
		103.0	11738	13031	3.6505	169.8070
		106.0	11738	13031	3.5755	169.8070
		110.0	11738	13031	3.4818	169.8070
		113.0	11738	13031	3.4159	169.8070
		116.0	11738	13031	3.3534	169.8070
		120.0	11721	13014	3.2750	169.3590
		123.0	11721	13014	3.2195	169.3590
		127.0	11721	13014	3.1496	169.3590
		130.0	11721	13014	3.1000	169.3590
		133.0	11721	13014	3.0526	169.3590
		137.0	11721	13014	2.9927	169.3590
		140.0	11721	13014	2.9500	169.3590
		144.0	11721	13014	2.8958*	169.3590
		147.0	11721	13014	2.8571*	169.3590
		151.0	11721	13014	2.8079*	169.3590
		154.0	11721	13014	2.7727*	169.3590

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		157.0	11704	12997	2.7389*	168.9116
		161.0	11721	13014	2.6957*	169.3590
		164.0	11704	12997	2.6646*	168.9116
		168.0	11721	13014	2.6250*	169.3590
		171.0	11704	12997	2.5965*	168.9116
		175.0	11704	12997	2.5600*	168.9116
		178.0	11704	12997	2.5337*	168.9116
		181.0	11704	12997	2.5083*	168.9116
		185.0	11704	12997	2.4757*	168.9116
		188.0	11704	12997	2.4521*	168.9116
		192.0	11704	12997	2.4219*	168.9116
		195.0	11721	13014	2.4000*	169.3590
		199.0	11721	13014	2.3719*	169.3590
		202.0	11721	13014	2.3515*	169.3590
		205.0	11721	13014	2.3317*	169.3590
		209.0	11721	13014	2.3062*	169.3590
		212.0	11721	13014	2.2877*	169.3590
		216.0	11721	13014	2.2639*	169.3590
		219.0	11721	13014	2.2466*	169.3590
		223.0	11721	13014	2.2242*	169.3590
		226.0	11721	13014	2.2080*	169.3590
		229.0	11721	13014	2.1921*	169.3590
		233.0	11721	13014	2.1717*	169.3590
		236.0	11721	13014	2.1568*	169.3590
		240.0	11721	13014	2.1375*	169.3590
		243.0	11721	13014	2.1235*	169.3590
		247.0	11721	13014	2.1053*	169.3590
		250.0	11721	13014	2.0920*	169.3590
		253.0	11721	13014	2.0791*	169.3590
		257.0	11721	13014	2.0623*	169.3590
		260.0	11721	13014	2.0500*	169.3590
		264.0	11721	13014	2.0341*	169.3590
		267.0	11721	13014	2.0225*	169.3590
		271.0	11721	13014	2.0074*	169.3590
		274.0	11721	13014	1.9964*	169.3590
		277.0	11721	13014	1.9856*	169.3590

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		281.0	11721	13014	1.9715*	169.3590
		284.0	11721	13014	1.9613*	169.3590
		288.0	11721	13014	1.9479*	169.3590
		291.0	11721	13014	1.9381*	169.3590
		295.0	11721	13014	1.9254*	169.3590
		298.0	11721	13014	1.9161*	169.3590
		301.0	11721	13014	1.9070*	169.3590
		305.0	11721	13014	1.8951*	169.3590
		308.0	11721	13014	1.8864*	169.3590
		312.0	11721	13014	1.8750*	169.3590
		315.0	11721	13014	1.8667*	169.3590
		319.0	11721	13014	1.8558*	169.3590
		322.0	11721	13014	1.8478*	169.3590
		325.0	11721	13014	1.8400*	169.3590
		329.0	11721	13014	1.8298*	169.3590
		332.0	11721	13014	1.8223*	169.3590
		336.0	11721	13014	1.8125*	169.3590
		339.0	11721	13014	1.8053*	169.3590
		343.0	11721	13014	1.7959*	169.3590
		346.0	11721	13014	1.7890*	169.3590
		349.0	11721	13014	1.7822*	169.3590
		353.0	11721	13014	1.7734*	169.3590
		356.0	11721	13014	1.7669*	169.3590
		360.0	11721	13014	1.7583*	169.3590
		363.0	11721	13014	1.7521*	169.3590
		367.0	11721	13014	1.7439*	169.3590
		370.0	11721	13014	1.7378*	169.3590
		373.0	11721	13014	1.7319*	169.3590
		377.0	11704	12997	1.7241*	168.9116
		380.0	11721	13014	1.7184*	169.3590
		384.0	11721	13014	1.7109*	169.3590
		387.0	11721	13014	1.7054*	169.3590
		391.0	11721	13014	1.6982*	169.3590
		394.0	11721	13014	1.6929*	169.3590
		397.0	11721	13014	1.6877*	169.3590
		401.0	11721	13014	1.6808*	169.3590

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Test Type: INFLATE STRADDLE
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA	PRESSURE SQUARED kPa(a)^2/10^6
		404.0	11721	13014	1.6757*	169.3590
		408.0	11721	13014	1.6691*	169.3590
		411.0	11721	13014	1.6642*	169.3590
7	END OF 2nd SHUTIN	412.0	11721	13014	1.6626*	169.3590
14	FINAL HYDROSTATIC			0		

* VALUES USED FOR EXTRAPOLATIONS

1st SHUT-IN
HORNER EXTRAPOLATION 12972.07 kPa(a)
HORNER SLOPE 290.40967 (kPa(a)**2/10**6)/CYCLE

2nd SHUT-IN
HORNER EXTRAPOLATION 13022.97 kPa(a)
HORNER SLOPE .94848 (kPa(a)**2/10**6)/CYCLE

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00 m to 1301.00 m

Location: 400/ 67.000 / 125.450 /00
Formation: BASAL SAND-MOUNT CLARKE

Recorder Number: 001749
Recorder Depth: 1292.00 m
Subsea Depth: -894.90 m

PLOT SUMMARY:
****

HORNER PLOTS: Figs. 1

RESERVOIR CALCULATIONS: GAS CALCULATIONS BASED ON SECOND SHUT-IN
****

RESERVOIR PARAMETERS USED:
****

NET PAY....:	3.60 m	SPECIFIC GRAVITY:	.630
POROSITY...:	11. %	Z FACTOR:	.731
TEMPERATURE:	12.20 C	VISCOSITY:	.020 mPa.s
FLOW RATE..:	21141.0 m3/d	COMPRESSIBILITY:	.8510E-04 /kPa

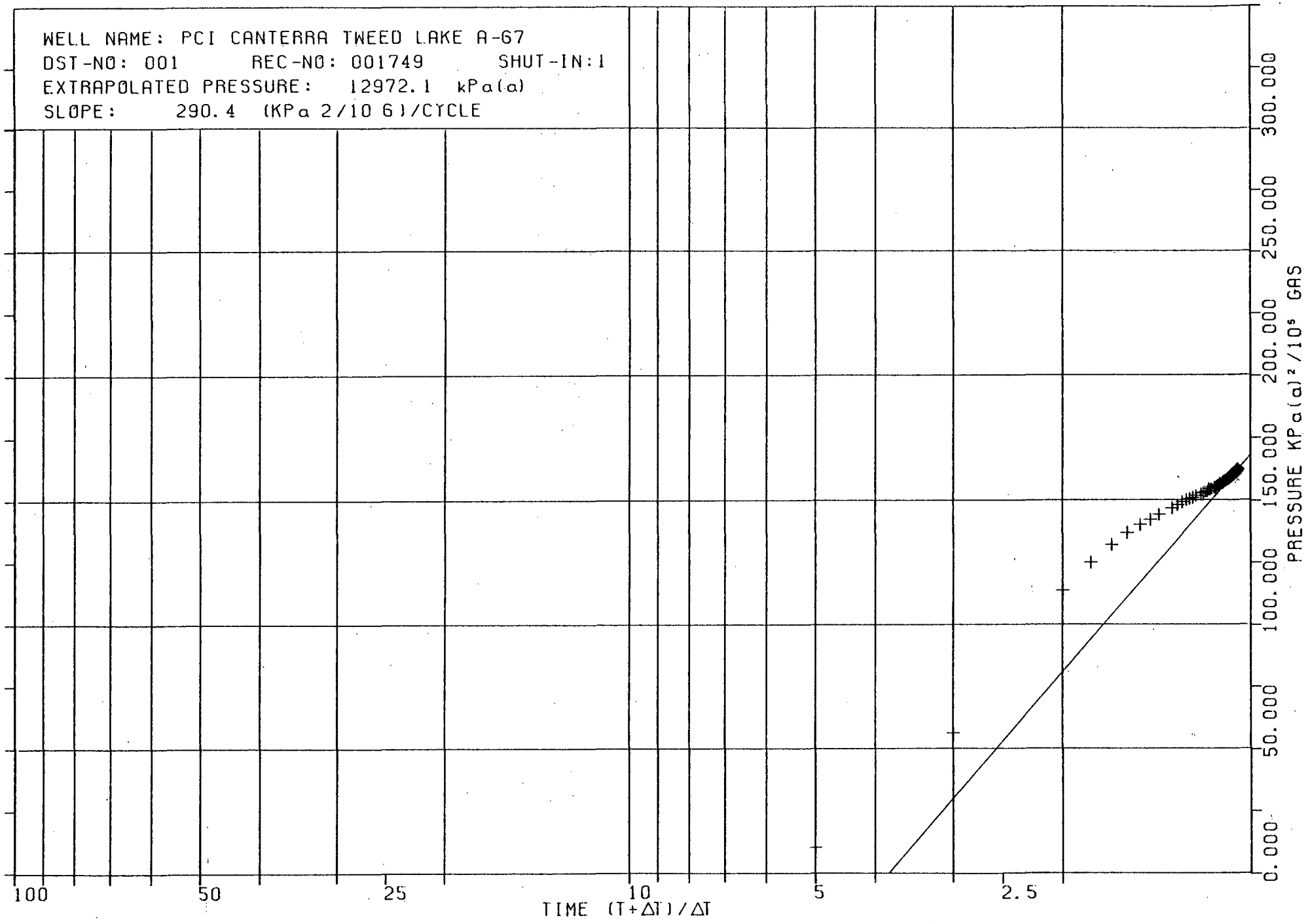
TOTAL FLOW TIME.....: 273.0 min.
FINAL FLOWING PRESSURE.: 1293. kPa(a)
HORNER SLOPE.....: .948 (kPa(a)**2/10**6)/cycle
HORNER EXTRAPOLATION...: 13023. kPa(a)
ASSUMED DRAINAGE RADIUS: 908.0 m
WELLBORE RADIUS.....: 108.00 mm

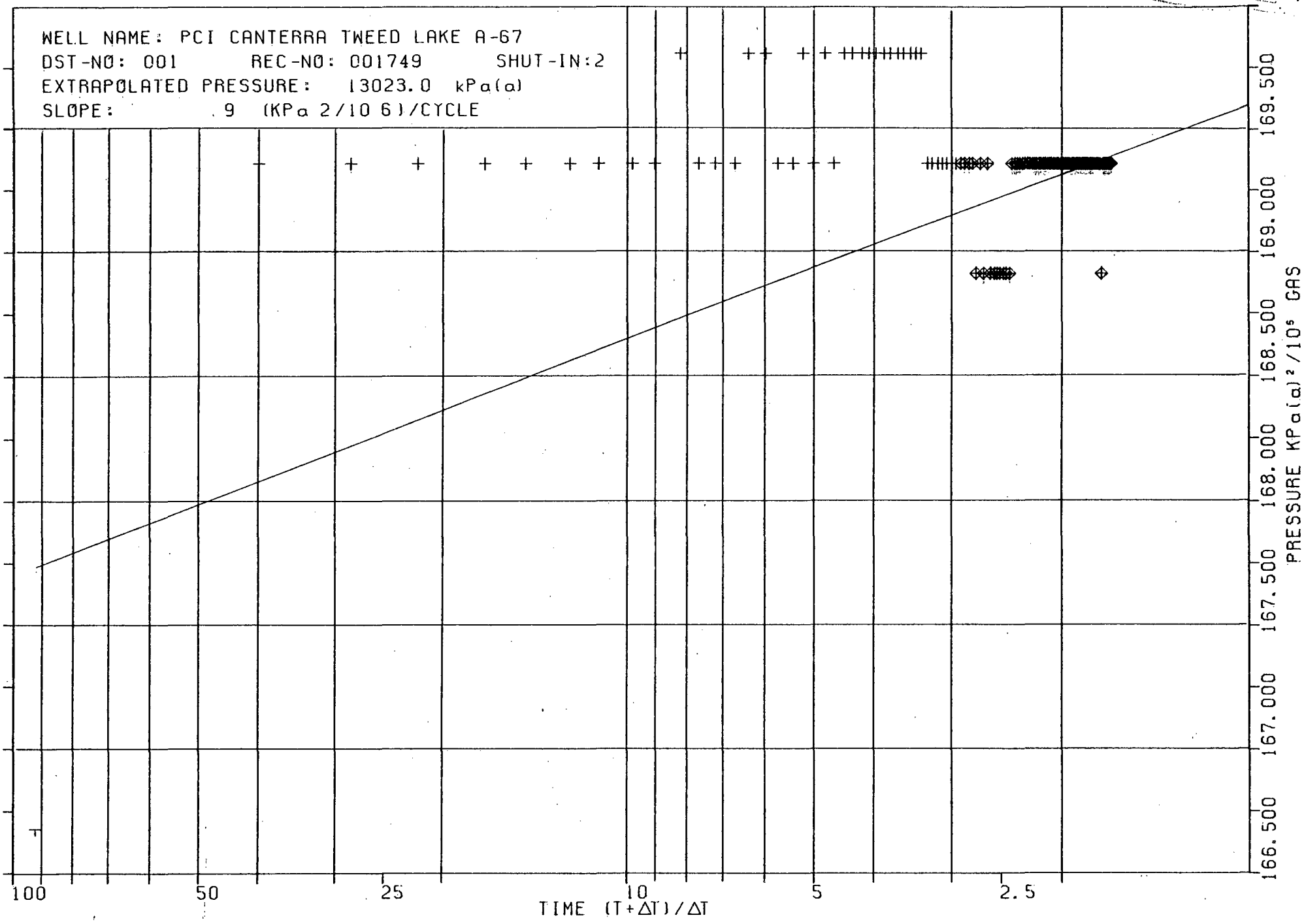
RESULTS:
****

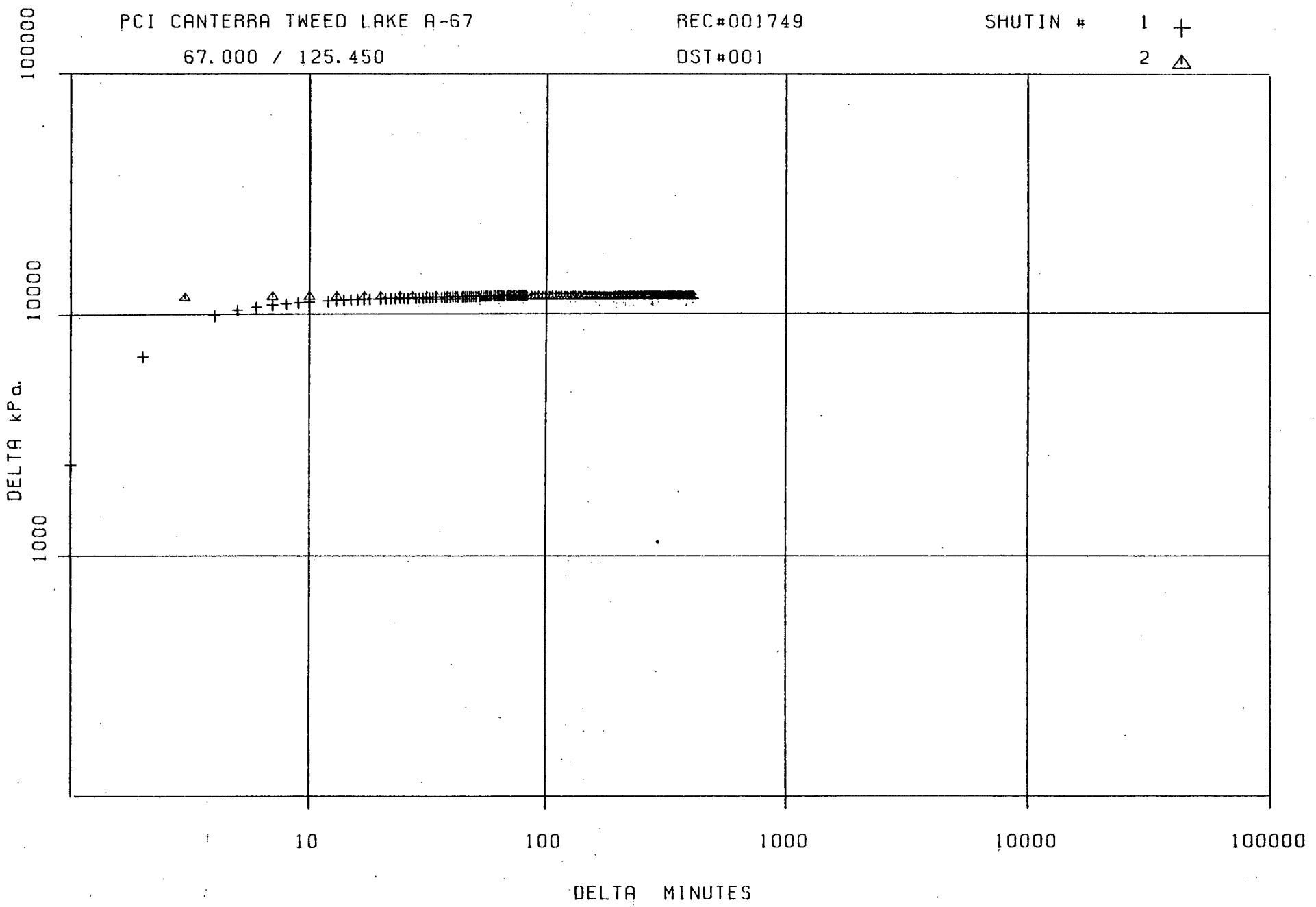
Effective permeability...(k)..:39.28 mD
Transmissibility.....(kh/u).:6932.19 mD.m/mPa.s
Flow Capacity.....(kh).:141.42 mD.m
Skin.....(s)..:197.09
Pressure Drop Across Skin.....:11518.18 kPa

Radius of Investigation.....:116.12 m

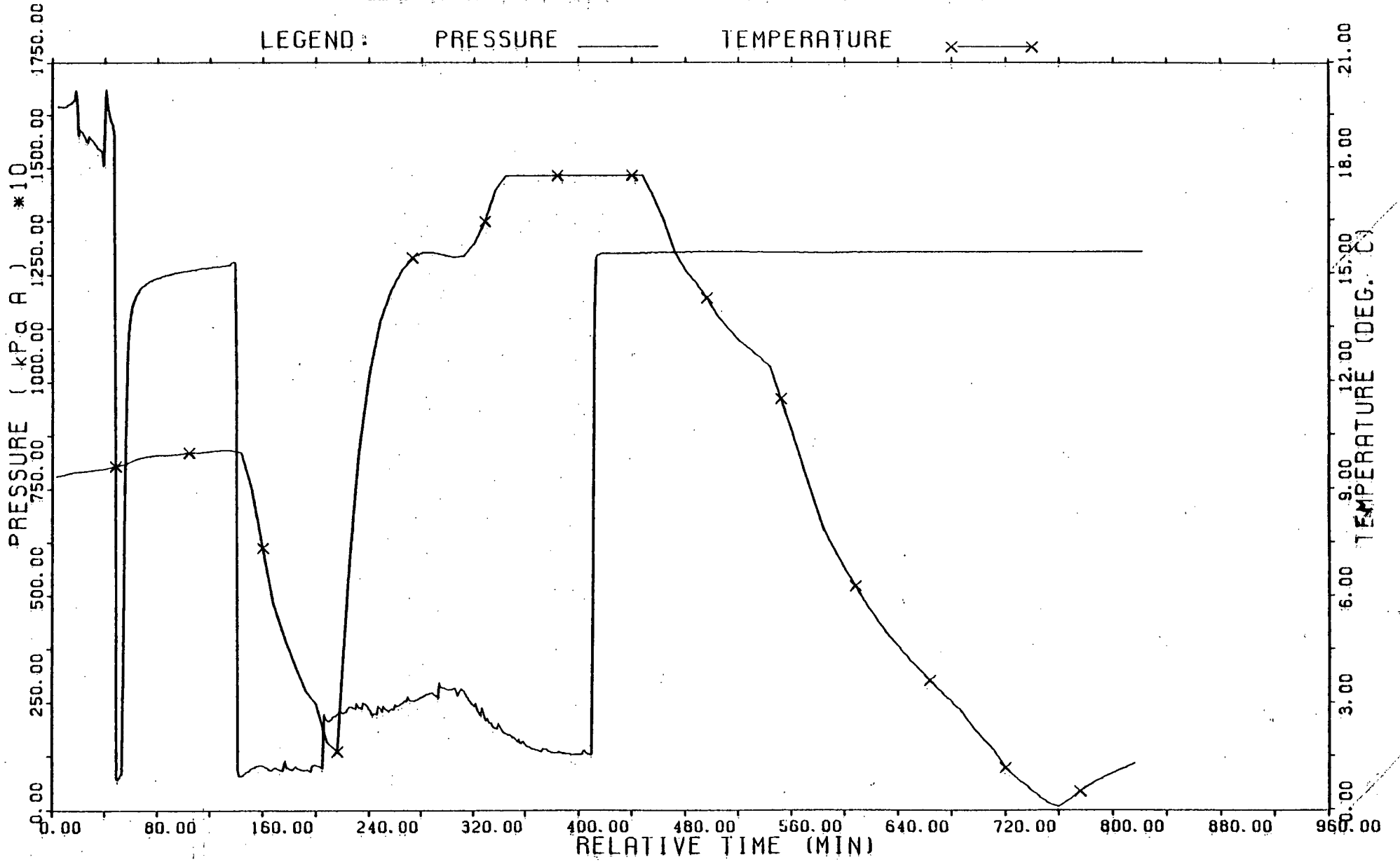
Calculated Damage Ratio.....:30.46
AOF.....:21346.89 m3/d
AOF with Damage Removed.....:650354.13 m3/d
Est. Stabilized AOF(No Damage):525234.50 m3/d
% Depletion.....:.00


WELL NAME: PCI CANTERRA TWEED LAKE A-67
DST-NO: 001 REC-NO: 001749 SHUT-IN:1
EXTRAPOLATED PRESSURE: 12972.1 kPa(a)
SLOPE: 290.4 (KPa 2/10 6)/CYCLE
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT
0.000
50.000
100.000
150.000
200.000
250.000
300.000
PRESSURE KPa(a)²/10⁵ GAS


WELL NAME: PCI CANTERRA TWEED LAKE A-67
DST-NO: 001 REC-NO: 001749 SHUT-IN:2
EXTRAPOLATED PRESSURE: 13023.0 kPa(a)
SLOPE: .9 (KPa 2/10 6)/CYCLE
169.500
169.000
168.500
168.000
167.500
167.000
166.500
PRESSURE KPa(a)²/10⁵ GAS
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT


PCI CANTERRA TWEED LAKE A-67
67.000 / 125.450
REC#001749
DST#001
SHUTIN # 1
2
100000
10000
1000
DELTA kPa
10
100
1000
10000
100000
DELTA MINUTES

PCI CANTERRA TWEED LAKE A-67
400 67.000 125.450 DST #1
ELECTRONIC GAUGE #1749



DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00m to 1301.00m

PRESSURE RECORDER NUMBER : 001749

DEPTH : 1292.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 68900.00kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 12.2 C

	PRESSURE kPa(a)
1) Initial Hydro :	16444.
2) 1st Flow Start:	724.
3) 1st Flow End :	845.
4) END 1st Shutin:	12738.
5) 2nd Flow Start:	965.
6) 2nd Flow End :	1293.
7) END 2nd Shutin:	13014.
14) Final Hydro. :	0.

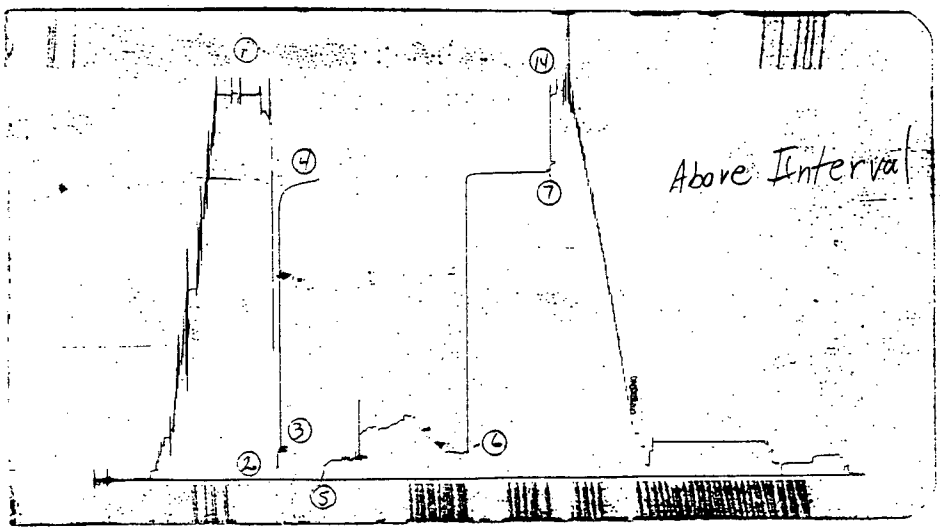
TEST TIMES (MIN)

1st FLOW :	4.0
SHUTIN:	82.0
2nd FLOW :	269.0
SHUTIN:	412.0

PRESSURE RECORDER NUMBER : 013127

DEPTH : 1282.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 19700.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16303.
2) 1st Flow Start:	435.
3) 1st Flow End :	1185.
4) END 1st Shutin:	12588.
5) 2nd Flow Start:	589.
6) 2nd Flow End :	1105.
7) END 2nd Shutin:	12874.
14) Final Hydro. :	16237.



ABOVE INTERVAL RECORDER

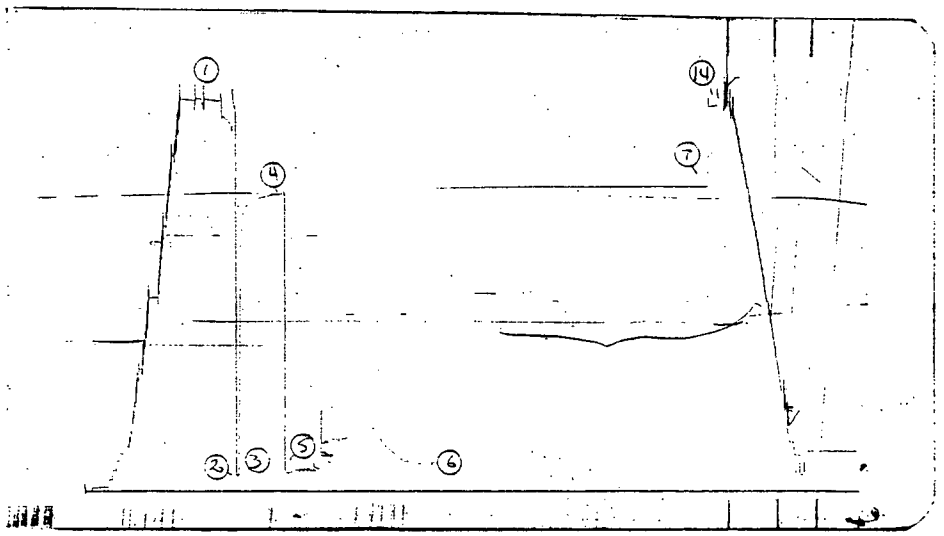
DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00m to 1301.00m

PRESSURE RECORDER NUMBER : 013832

DEPTH : 1292.00m
TYPE : K-3

LOCATION : OUTSIDE
CAPACITY : 19300.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16579.
2) 1st Flow Start:	639.
3) 1st Flow End :	704.
4) END 1st Shutin:	12605.
5) 2nd Flow Start:	786.
6) 2nd Flow End :	1220.
7) END 2nd Shutin:	12897.
14) Final Hydro. :	16555.



TEST TIMES (MIN)

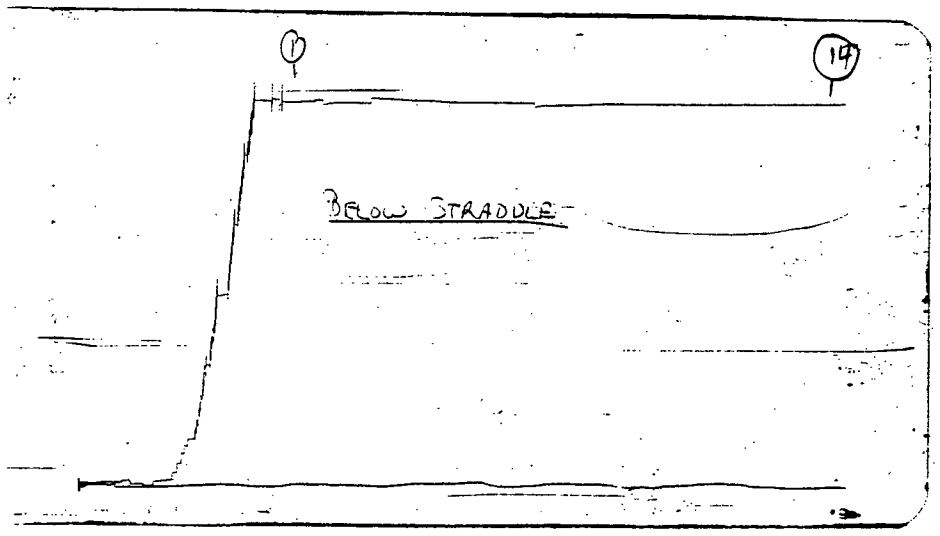
1st FLOW :	4.0
SHUTIN:	82.0
2nd FLOW :	269.0
SHUTIN:	412.0

PRESSURE RECORDER NUMBER : 013960

DEPTH : 1303.00m
TYPE : K-3

LOCATION : INSIDE
CAPACITY : 19700.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16502.
14) Final Hydro. :	16453.

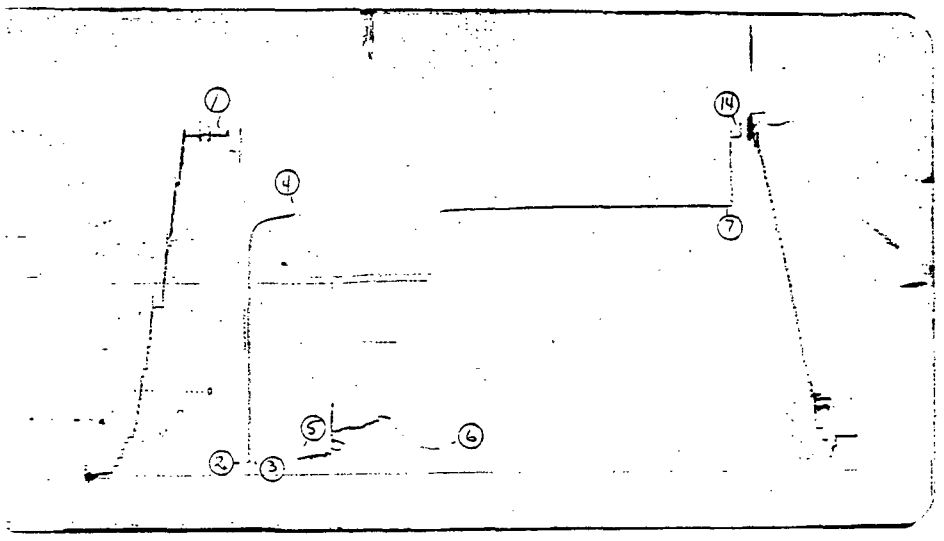


BELOW STRADDLE

DST#01
PCI CANTERRA TWEED LAKE A-67
1290.00m to 1301.00m

PRESSURE RECORDER NUMBER : 019661

DEPTH : 1292.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 22700.00 kPa

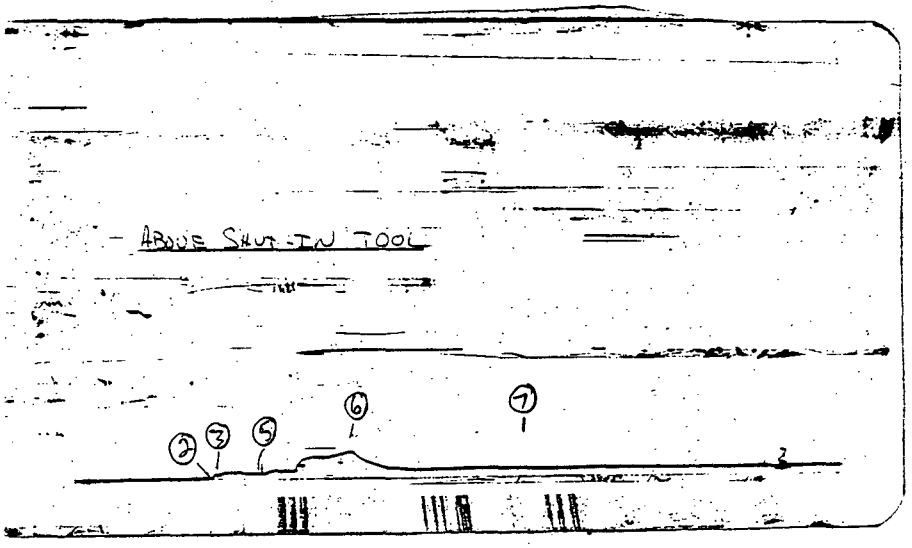


	PRESSURE kPa
1) Initial Hydro :	16490.
2) 1st Flow Start:	592.
3) 1st Flow End :	630.
4) END 1st Shutin:	12557.
5) 2nd Flow Start:	773.
6) 2nd Flow End :	1212.
7) END 2nd Shutin:	12879.
14) Final Hydro. :	16490.

TEST TIMES (MIN)	
1st FLOW :	4.0
SHUTIN:	82.0
2nd FLOW :	269.0
SHUTIN:	412.0

PRESSURE RECORDER NUMBER : 021424

DEPTH : 1276.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 42400.00 kPa



	PRESSURE kPa
1) Initial Hydro :	
2) 1st Flow Start:	0.
3) 1st Flow End :	274.
4) END 1st Shutin:	
5) 2nd Flow Start:	274.
6) 2nd Flow End :	2110.
7) END 2nd Shutin:	377.
14) Final Hydro. :	

ABOVE
SHUT-IN TOOL

LYNES UNITED SERVICES
1144 29th AVE. N.E., CALGARY
ALBERTA, T2E 7P1

CLOSED CHAMBER DST REPORT

Well name: PCI CANTERRA TWEED LAKE

Location: 67.000 - 125.450

DST No.: 1

Interval: 1290-1301 m

Date: 85/12/17

LYNES UNITED SERVICES, CALGARY, ALBERTA

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1. GENERAL INFORMATION

Company:	PETRO-CANADA	Date:	85/12/17
Well name:	PCI CANTERRA TWEED LAKE	Tester:	HILLER E
Well no:	67.000 - 125.450	CC Tester:	YELENIK B
DST #:	1	Ticket #:	15779
Interval:	1290-1301 m	Hole size:	216 mm
Formation:	BASAL SD-MT CLARKE		
Type of test:	INFLATE STRADDLE		
Primary objective of closed chamber:	PRECISION		
Cushion:	0.000 m	Volume:	0.000 m^3
Gas cushion:	0.000 kPa	Volume:	0.000 Sm^3
Chamber volume:	8.849 m^3	Sump volume:	.260 m^3

RECORDER DATA

DSR #:	243	DMR #:	1749	Depth:	1292 m
Above shut-in recorder #:		21424	Depth:	1276 m	
Surface probe #:		1528			

CONSTANTS AND FORMATION PARAMETERS

Bottom hole choke size(d):	12.7 mm	No. run:	1	Coeff(FP):	17.5
Est. form pressure:	13000 kPa	Est. form temp:	285.35 deg K		
Gas spec. gravity:	.6	(z):	.72		
Estimated gas-water ratio(R):	2.4	Surface pressure:	99.9431 kPa		

PRETEST CALCULATION RESULTS

	Max rate m^3/d	Max dp/dt kPa/min	Conversion m^3/d/kPa/min
Gas:	348264.60	2549.68	136.59
Gas saturated water:	2084.62 G/ 868.59 W	22.64	92.09
Gas free water:	868.59	7.38	117.77

2.1 Test Report Summary

A drill stem test was conducted on PCI CANTERRA TWEED LAKE 67.000-125.450 under closed chamber conditions according to LYNES STANDARD CLOSED CHAMBER TESTING PROCEDURE.

The surface pressure was monitored throughout the entire test. All measured data is presented both graphically and in tabular form in segments 3 and 4 of this report along with the calculated rates.

2.2 Results determined from the test data

1) PREFLOW PERIOD

Flow time 5.75 minutes
Surface pressure start 99.943 kPaa
Surface pressure end 245.447 kPaa

Indicated priduction: gas

Closed chamber flow rates:

Initial rate 93 m3/d
Maximum rate 6336 m3/d @ 5.25 minutes
Last rate 3580 m3/d
Average rate 3457 m3/d

2) INITIAL SHUT-IN PERIOD

Shut-in time 82 minutes
The surface pressure increased slightly then was stable during the shut-in.

3) REPORTED RECOVERY

1 m of consensate
59 m of gas cut drilling mud

4) PRESSURE READIGS FROM DOWNHOLE GAUGE

IF Start 0 kPa
IF End 274 kPa
FF Start 274 kPa
FF End 2110 kPa
FSI End 377 kPa

2.3 Comments on the test

The results indicate a zone that produced predominately gas during the test. The gas rate during the preflow was essentially increasing except for the very last gas rate. This rate may not be accurate as the tool

may have been closed in between the 5.5 and 5.75 minute reading. The increasing gas rate is probably a result of the formation cleaning up (the DST results indicate a damaged formation). The closed chamber preflow gas rate is less than the gas rate during the final flow. Again, this is probably a result of the formation cleaning up during the test.

Closed chamber testing was discontinued after the initial shut-in.

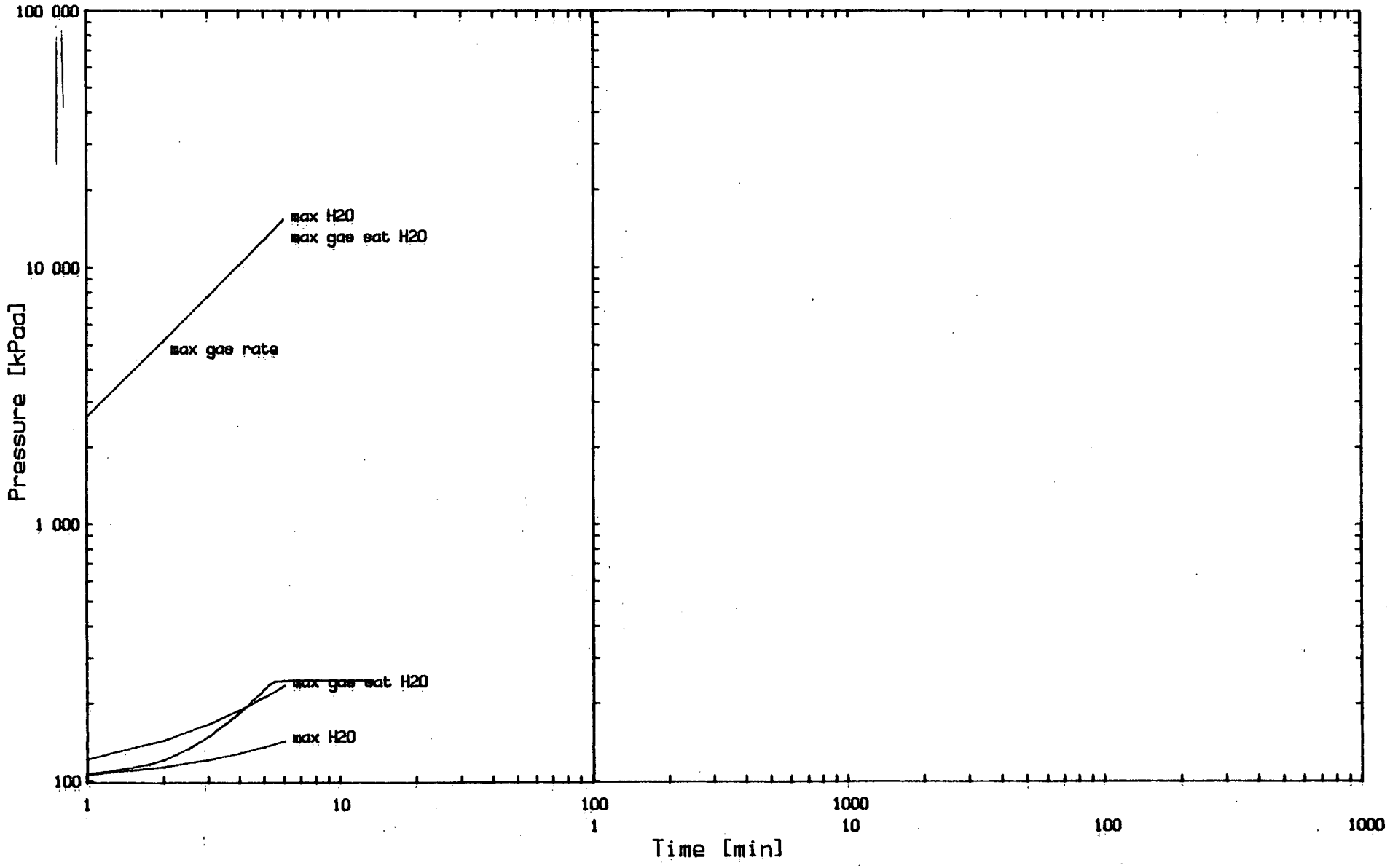
2.4 Conclusion

The DST and closed chamber results indicate a damaged zone that is cleaning up during the test.

LYNES UNITED SERVICES

PCI CANTERRA TWEED LAKE
67.000 - 125.450
DST# 1

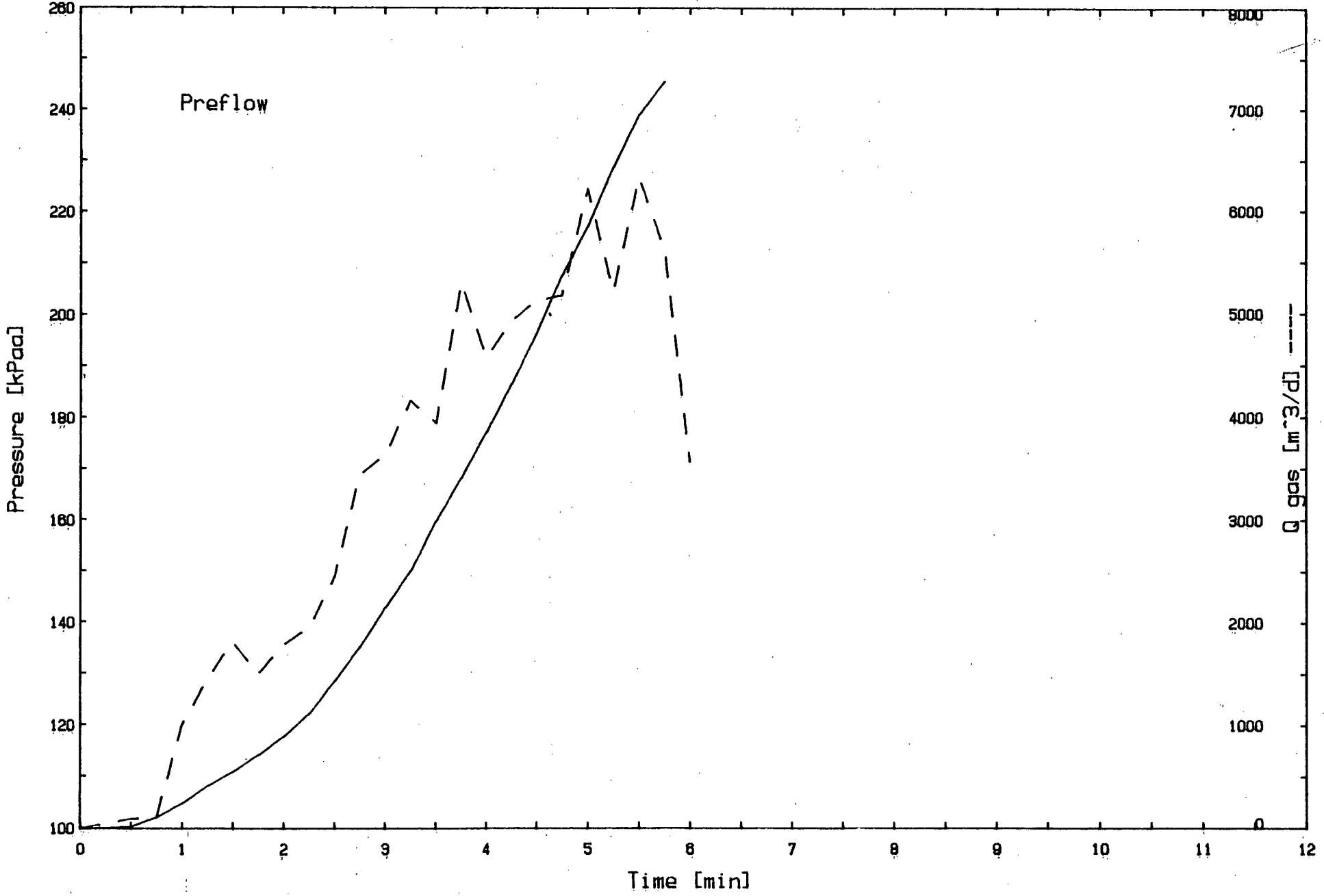
Fig. 3-1



LYNES UNITED SERVICES

PCI CANTERRA TWEED LAKE
67.000 - 125.450
DST# 1

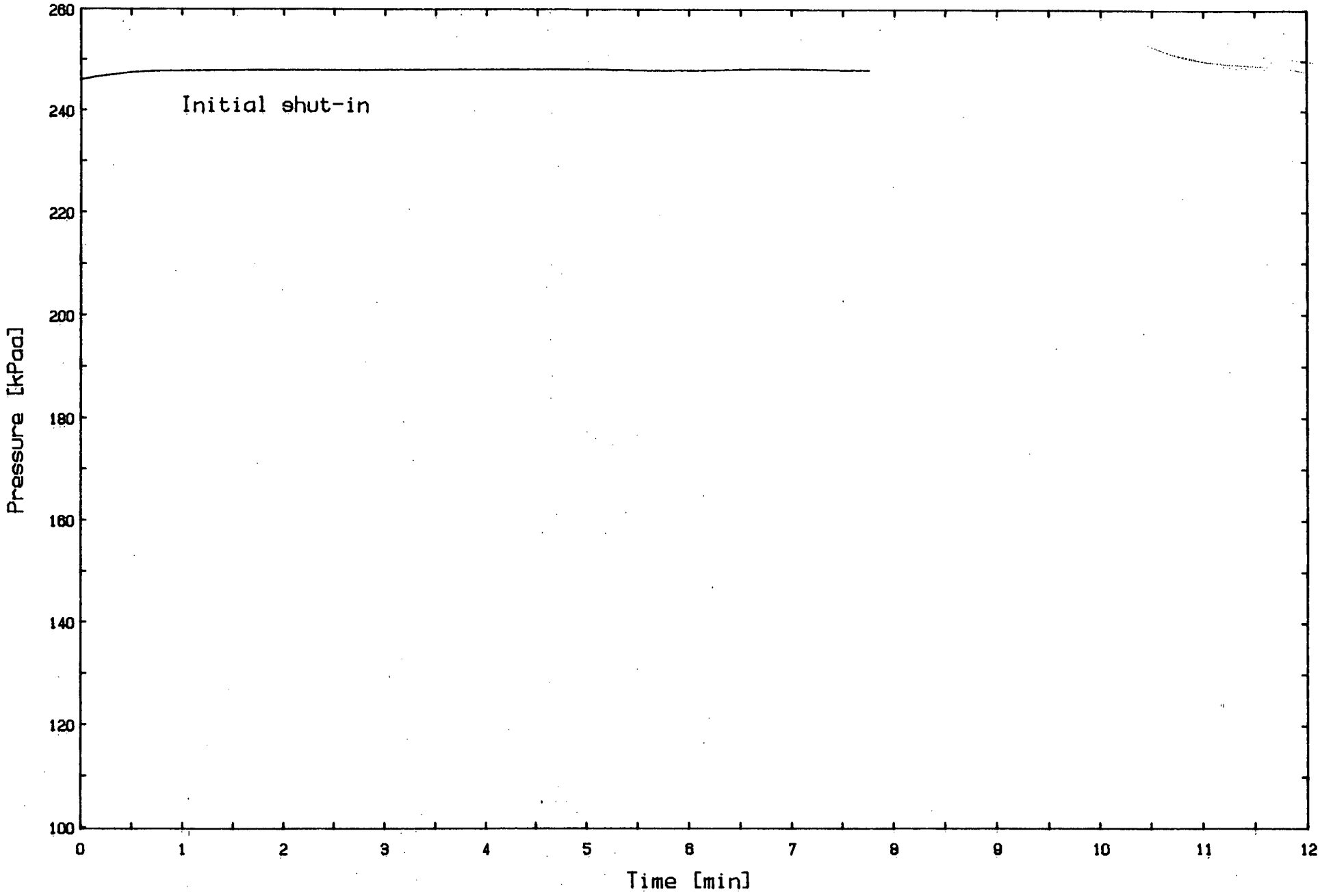
Fig. 3-2



LYNES UNITED SERVICES

PCI CANTERRA TWEED LAKE
67.000 - 125.450
DST# 1

Fig. 3-3



4. DATA LISTINGS

First flow (surface valve closed, downhole valve open)

Elapsed time min	Press kPaa	dp/dt kPa/min	Qg m^3/d
0.00	99.943	0.000	0.000
.25	100.113	.680	92.828
.50	100.322	.836	114.190
.75	102.157	7.340	1002.581
1.00	104.810	10.612	1449.508
1.25	108.128	13.272	1812.841
1.50	110.869	10.964	1497.588
1.75	114.134	13.060	1783.883
2.00	117.708	14.296	1952.710
2.25	122.179	17.884	2442.800
2.50	128.481	25.208	3443.196
2.75	135.138	26.628	3637.155
3.00	142.763	30.500	4166.037
3.25	149.998	28.940	3952.955
3.50	159.719	38.884	5311.219
3.75	168.111	33.568	4585.100
4.00	177.162	36.204	4945.154
4.25	186.555	37.572	5132.011
4.50	196.048	37.972	5186.648
4.75	207.435	45.548	6221.464
5.00	217.005	38.280	5228.718
5.25	228.602	46.388	6336.201
5.50	238.895	41.172	5623.740
5.75	245.447	26.208	3579.787

First shut-in (surface valve closed, downhole valve closed)

Elapsed time min	Press kPaa	dp/dt kPa/min
0.00	246.197	0.000
.25	247.099	3.608
.50	247.721	2.488
.75	248.011	1.160
1.00	248.044	.132
2.00	248.145	.101
3.00	248.175	.030
4.00	248.273	.098
5.00	248.240	-.033
6.00	248.134	-.106
7.00	248.245	.111

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APPENDIX A

A.1 PRETEST PLANNING PARAMETERS AND CALCULATIONS

1	Surface temperature	273.150 deg K	measured
2	Average chamber temperature	279.250 deg K	(est. form temp + surftemp)/2
3	Chamber deviation factor(z)	.950	given
4	Sump volume	.260 m^3	calculated
5	Top packer depth	1290.000 mKB	given
6	Bottom packer depth	1301.000 mKB	given
7	Test valve depth	1278.000 mKB	given
8	Stick up above KB	3.100 mKB	given
9	Total chamber length	1280.560 m	given
10	Lower drill collar length	170.170 m	given
11	Lower drill collar ID	70.000 mm	given
12	Lower drill collar capacity	.00385 m^3/m	calculated
13	Lower drill collar volume	.655 m^3	calculated
14	Upper drill collar length	0.000 m	given
15	Upper drill collar ID	0.000 mm	given
16	Upper drill collar capacity	0.00000 m^3/m	calculated
17	Upper drill collar volume	0.000 m^3	calculated
18	Lower drill pipe length	1107.290 m	given
19	Lower drill pipe size	114.300 mm	given
20	Lower drill pipe capacity	.00740 m^3/m	given
21	Lower drill pipe volume	8.194 m^3	calculated
22	Upper drill pipe length	0.000 m	given
23	Upper drill pipe size	0.000 mm	given
24	Upper drill pipe capacity	0.00000 m^3/m	given
25	Upper drill pipe volume	0.000 m^3	calculated
26	Total chamber volume	8.849 m^3	total of tubular volumes
27	Water cushion length	0.000 m	measured
28	Water cushion volume	0.000 m^3	calculated
29	Net air/gas volume	8.849 m^3	calculated
30	Minimum time to produce sump volume	.431 min	calculated
31	Corresponding surface pressure increase	3.275 kPa	calculated

A.2 MAXIMUM POSSIBLE RATES OF dp/dt AND FLOW:

32	Gas	2549.68 kPa/min	348264.60 m^3/d	
33	Gas saturated water	22.64 kPa/min	2084.62 G/	868.59 W m^3/d
34	Gas free water	7.38 kPa/min	868.59 m^3/d	

A.3 PRETEST PLANNING SUMMARY

From the above parameters it is clear that a surface pressure change greater than 2549.682 kPa/min would not occur during this test. Surface pressure changes greater than 22.637 kPa/min indicate hydrocarbon influx, and pressure changes less than 7.376 kPa/min may indicate liquid or low rate gas.

If gas is produced, a surface pressure increase of 1 kPa/min corresponds to 136.591 m^3/d of gas influx to the chamber.