PETRO-CANADA INCORPORATED

PCI et al N.W. Tweed Lake C-12

WELL HISTORY REPORT

Prepared by: R. Hallsworth
April 21, 1986

PCI et al N.W. Tweed Lake C-12

WELL HISTORY REPORT

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PCI et al N.W. Tweed Lake C-12

A. INTRODUCTION

1. Summary

PCT et al N.W. Tweed Lake C-12, located in the Colville Lake area of the Northwest Territories was drilled to a total depth of 1365 m. Drilling was completed in 31 days.

Petro-Canada Incorporated of Calgary operated the well. Atco Drilling Ltd. of Calgary, the contractor, used Atco/Equtak Rig #76, a diesel mechnical rig built in 1983.

The location co-ordinates for this well are 67° 01' 01.8355" North Latitude and 126° 03' 03.4261" West Longitude. Ground elevation is 290.31 m above sea level.

This oil test well bottomed in the Proteroyoic Clastic Sequence at a depth of 1365 m. The primary objective was the Lower Cambrian Mt. Clark formation. Secondary objective was the Mt. Cap High Gamma Ray Shale.

PCI et al N.W. Tweed Lake C-12 was spudded on 1986-02-25 at 1900 hours. A 311mm hole was drilled and reamed to 609mm at a depth of 18 m. 508mm conductor casing was set at 18 m. A 311mm hole was again drilled and reamed to 444mm at a depth of 63 m. 339mm conductor casing was set at a depth of 62.7 m.

A 311mm hole was drilled to 122 m with water as the drilling fluid. At 122 m, drilling resumed with air as the drilling fluild. At 162m, the hole was displaced to foam and drilling was continued.

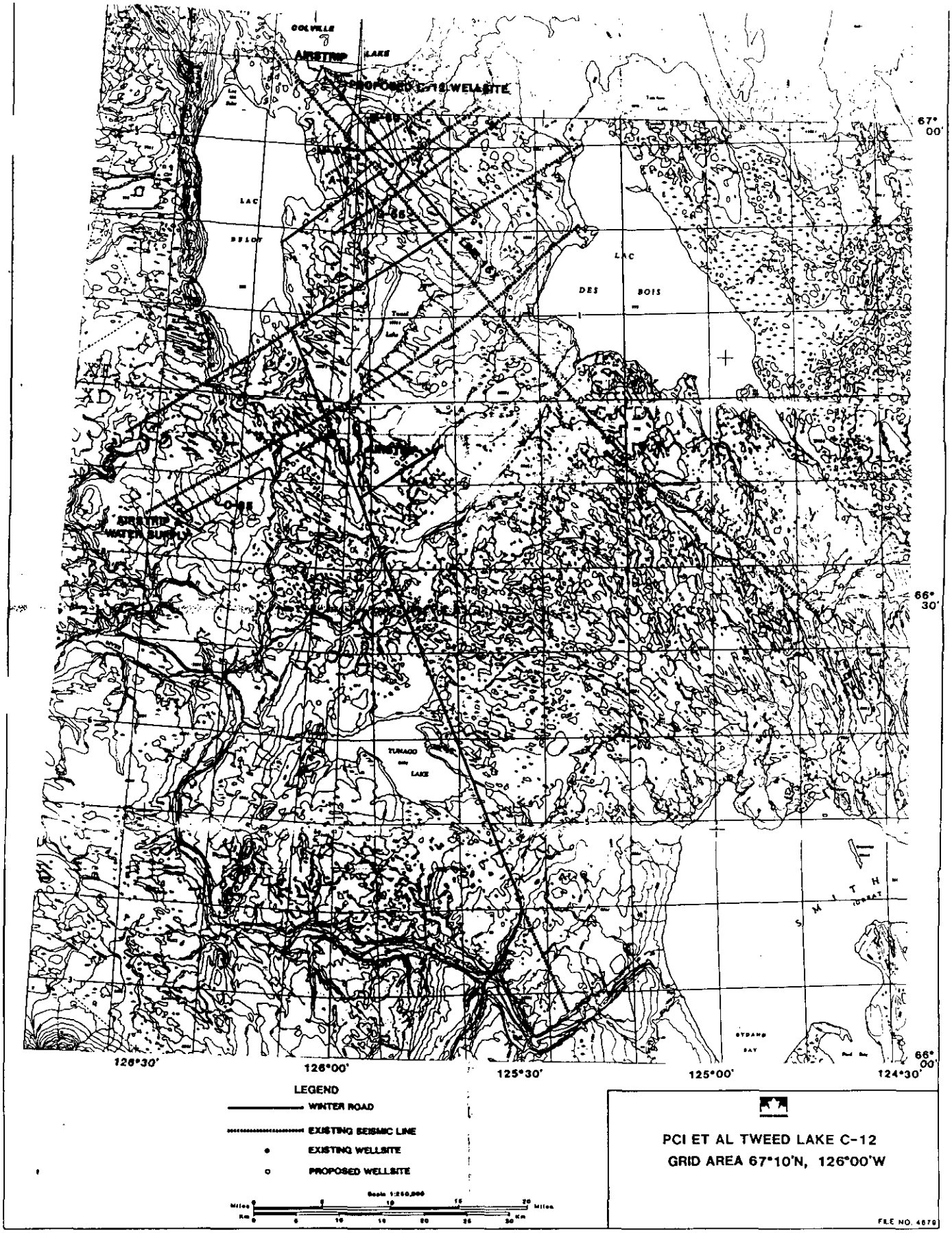
First flow of water occurred at 396 m. The estimated flow was 16 m^3/hour and the salinity was less than 100 mg/l. From 463 m, water production varied between 31 and 48 m^3/hour; salinity 100 mg/l, calcium content 200 mg/l. Drilling continued to 870 m. The hole was logged from 869 - 12.5 m. Surface casing was set at 870.0 m.

The 216mm main hole was drilled with gel mud to 902 m, and with a salt saturated mud from 902 - 1365 m.

Two rat-hole cores were cut, from 1312 - 1323 m, and from 1323 - 1328.8 m. The hole was logged from 1364 - 800 m.

Four DST's were run and as a result three abandonment plugs were set. Atco/Equtak #76 was released on 86-04-02 at 04 hours.

2. Location Map - Figure 1


COLVILLE LAKE
AIRSTRIP
PROPOSED C-12 WELLSITE
LAC
DES
BOIS
AIRSTRIP
WATER SUPPLY
TURAGO LAKE
67° 00'
66° 30'
66° 00'
126°30'
126°00'
125°30'
125°00'
124°30'
LEGEND
WINTER ROAD
EXISTING SEISMIC LINE
EXISTING WELLSITE
PROPOSED WELLSITE
Scale 1:250,000
Miles
Km
PCI ET AL TWEED LAKE C-12
GRID AREA 67°10'N, 126°00'W
FILE NO. 4679

B. GENERAL DATA

1.	Well Name and Number:	PCI et al N.W. Tweed Lake C-12 Grid Area: 67-10-126-00
2.	Well Location:	North Latitude: 67° 01' 01.8355" West Longitude: 126° 03' 03.4261"
3.	Unique Well Identifier:	300C126710126000
4.	Operator:	Petro-Canada Incorporated P.O. Box 2844 Calgary, Alberta T2P 3E3
	Contractor:	Atco Drilling Limited #700, 800 - 6th Avenue, S.W. Calgary, Alberta
5.	Drilling Units:	Name: Atco/Equtak Rig #76 Type: Triple diesel mechnical Yearbuilt: 1983 Location: Nisku, Alberta
6.	Position Keeping:	Not applicable to this well.
7.	Support Craft:	Not applicable to this well.
8.	Drilling Unit Performance:	Not applicable to this well.
9.	Difficulties and Delays:	No difficulties or delays were encountered that were not directly associated with downhole operations.

C. SUMMARY OF DRILLING OPERATIONS

1.	Elevations:	Ground: 290.31 Kelly Bushing: 296.46
2.	Total Depth:	Drilled: 1365 m Logged: 1365 m
3.	Date and Hour Spudded:	86-02-25 1900 hours
4.	Date Drilling Completed:	86-03-27 0900 hours
5.	Date of Rig Release:	86-04-02 0400 hours
6.	Well Status:	Abandoned

7. Hole Sizes and Depths:

Class	Bit Number	Size (mm)	Depth (m) In	Depth (m) Out	Metres Drilled	Remarks
Conductor	1A	311	0	18	18	Pilot hole
	1HO	609	0	18	18	Reamed hole to 609 m.
	RR1A	311	18	38	20	
	2A	311	38	63	25	
	2HO	444	18	63	45	Reamed to 444mm.
Surface	1B	311	63	122	59	
	2B	311	122	173	51	
	3B	311	173	360	187	
	4B	311	360	559	199	
	5B	311	559	651	92	
	6B	311	651	708	57	
	7B	311	708	870	162	
Main	RR8C	216	870	880	10	Drilled out cement.
	RR9C	216	880	1221	341	
	10C	216	1221	1312	91	
	11C	159	1312	1323	11	Coring
	RR12C	216	1323	1323	-	Ream hole 1312-1323
	13C	199	1323	1328.8	5.8	Coring
	14C	216	1328.8	1365	36.2	Ream 1323-1328.8. Drill ahead to 1365 m.

8. Casing and Cementing Details

Hole Classification	Conductor	Conductor	Surface		Main
Hole Size (mm)	609	444.5	311		216
Casing Size: mm	508	339	244		Abandoned
Weight - kg/m	139.9	101	53.57 + 59.52		-
Grade	K-55	K-55	K-55 + L80		-
Coupling	BT&C	BT&C	LT&C		-
Number of Joints:	2	5	72		-
Number of Centralizers:	-	2	8		-
Date of Run	86-02-26	86-03-02	86-03-17		-
Shoe Depth (m)	-	62.7	870.0		-
Tonnes of Cement:	17	28	5	13	
Type of Cement:	Class G	Class G	Class G	Class G	
Additives	3% CaCl2	3% CaCl2	2% CaCl2	2% CaCl2	
Height of Cement:	Surface	Surface	Surface	590 m	
Based on:	-	Returns to Surface	Returns to Surface	Caliper Log	

9. Sidetracked Hole - Not applicable to this well.

10. Drilling Fluid

Gel-chem was used from surface to 63 m; water was used from 63 m to 122 m. Air drilling from 122 m to 162 m; air foam fluid was used to 870 m. From 870 m to 902 m gel chem mud was used. A saturated salt mud was used from 902 - 1365 m.

Summary of Mud Properties:

Section	Interval	Weight kg/m	Funnel Vis (s/l)	Water Loss(cm^3)	PH (ave)	Cl 10^3 mg/l
	0- 36	1080-1140	45-100	13.1	11	1.6-3.0
	63- 122	Water	-	-	-	-
	122- 162	Air	-	-	-	-
	162- 870	Air Foam	-	-	-	-
	870- 902	1185	32	-	12	-
	902-1365	1220-1285	35-63	13.9	10.25	158-180

11. Fishing Operation

The crossover sub between the 229mm D.C. and the 171mm D.C. twisted off while drilling at 173 m. Top of the fish was at 135.24mm. RIH with fishing tools, engaged fish and POOH.

12. Well Kicks - None

13. Formation Leak-off Tests

A pressure integrity test was run on day 23 after drilling out the surface casing shoe at 870 m and drilling a 216mm hole to 875 m. Mud (density 1025 kg/m^3) was used for the test and a pressure of 7000 kPa at surface was reached (equivalent mud weight 1840 kg/m^3). The formation did not breakdown. The formation integrity was 18.1 kPa/m.

14. Time Breakdown

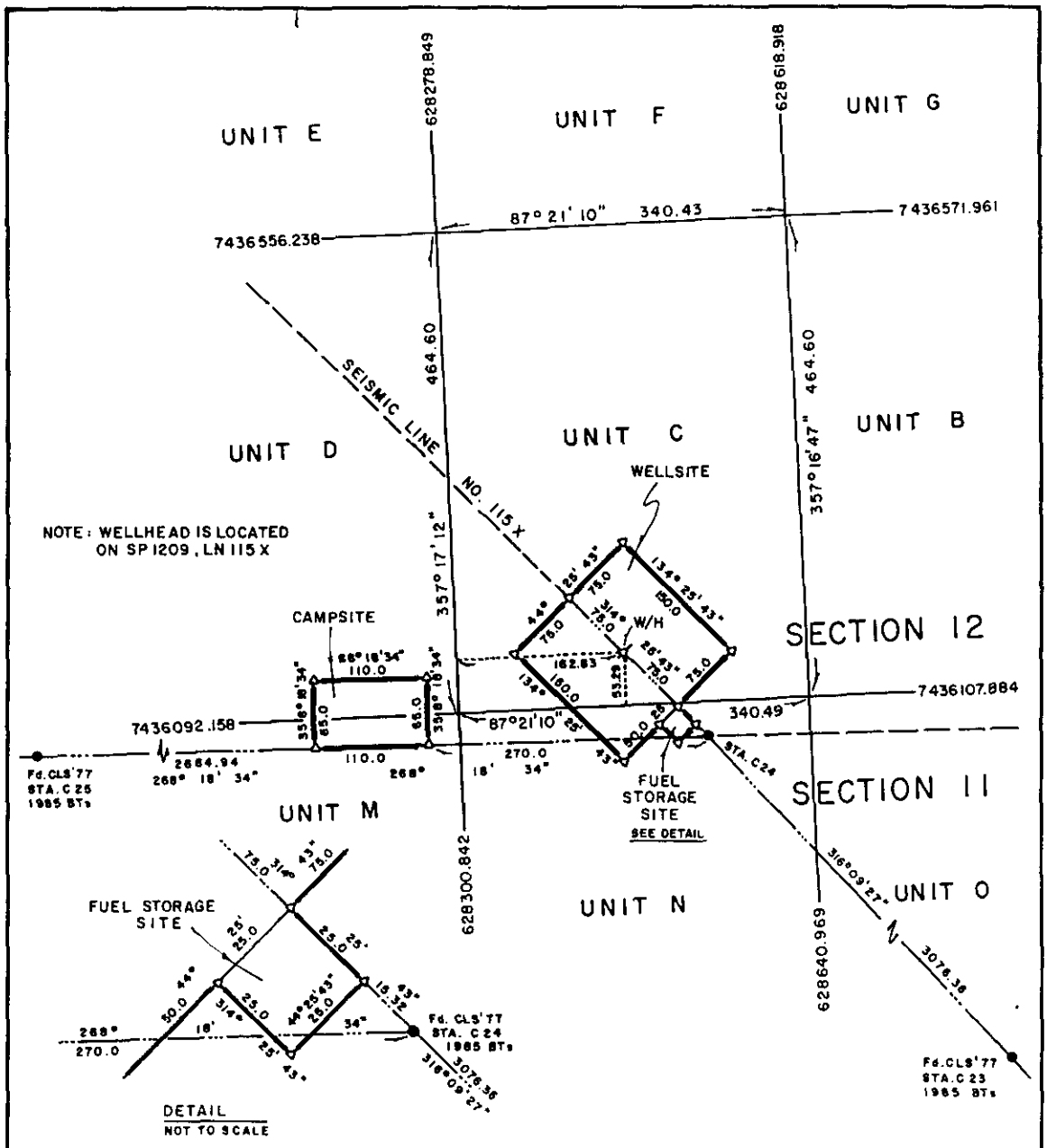
	Conductor	Surface	Main	Total
Drill	21.50	215.25	94.75	331.50
Trip	12.75	17.50	14.50	44.75
Ream/Clean	25.50		0.5	26.0
Conditioning	19.75	4.50	4.75	29.0
Rig Service	2.5	8.25	5.0	15.75
Mechanical Downtime	0.5	13.75	-	14.25
Survey	0.5	10.0	4.25	14.75
Csg-Cmt-WOC	28.50	20.50	22.50	71.50
Head-up/Pressure Test	21.25	14.25	1.50	37.0
Coring			72.75	72.75
Logging		20.50	31.25	51.75
DST			71.75	71.75
Drill Out Cement		7.75	5.25	13.0
Rig Up Air		1.0		1.0
BOP Drill			1.0	1.0
Maintenance	4.0	9.75		13.75
Unload Hole		9.0		9.0
Fishing		11.0		11.0
Inspect Drill Collars		6.5		6.5
W.O. Water		0.5		0.5
Tear Out			12.5	12.5
TOTAL	136.75	370.0	342.25	849.0

15. Deviation Survey

16. Abandonment Plugs

Type of Plug	Interval	Felt	Cement & Additives	Fluid between Plugs
1. Cement	1365-1240	-	7.4 tonnes + 0.5% T.I.	Salt saturated, gel-chem mud
2. Cement	904-840	852.8	3.4 tonnes + 2% CaC12	Salt saturated, gel-chem mud
3. Cement	10-Surface		0.9 tonnes	

17. Composite Well Record



N.T.S. MAP SHEET: 96-M-1	METRIC	NORTHWEST TERRITORIES

PETRO-CANADA INC.

PRELIMINARY SKETCH SHOWING WELL LOCATION

PCI ET AL TWEED LAKE C-12

UNIT C, SECTION 12, GRID AREA 67° 10', 126° 00'

PETRO-CANADA INC.

CERTIFIED CORRECT:
THIS 11th. DAY OF OCTOBER, A.D. 1985.

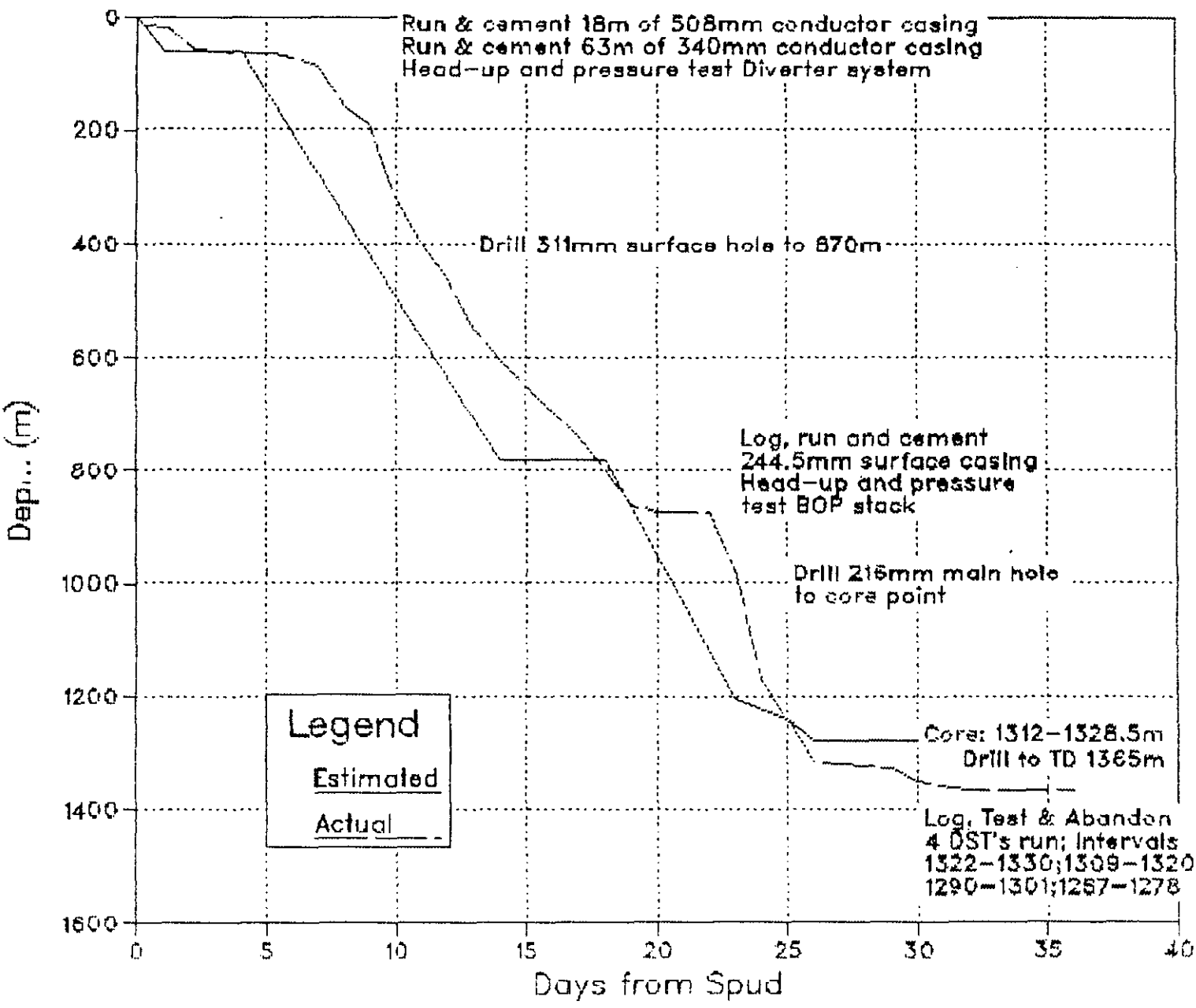
CANADA LANDS SURVEYOR

ELEVATION	GEOGRAPHIC CO-ORD'S.	U.T.M. CO-ORDINATES
ON GROUND AT WELLHEAD : 289.85	NORTH LATITUDE: 67° 01' 01.8355" (67.01717653°) WEST LONGITUDE 126° 03' 03.4261" (126.05095169°)	NORTHING 7,436,152.904 EASTING 628,460.977 CO-ORDINATES ARE COMPUTED FOR ZONE 9 CENTRAL MERIDIAN 129° W.

LEGEND	AREAS REQUIRED	
Survey Monument found ●	WELLSITE = 5.56 Acres 2.250 ha.	HOSFORD, IMPEY, WELTER AND ASSOCIATES LTD.
Survey Monument placed ○	CAMPSITE = 1.77 Acres 0.715 ha.	P.O. BOX 1409, YELLOWKNIFE, X1A 2P1 NORTHWEST TERRITORIES
Traverse Station ⊿	FUEL SITE = 0.15 Acres 0.063 ha.	
SCALE 1:5000	TOTAL = 7.48 Acres 3.028 ha	FILE NO. Y85034-R1 DATE: OCT. 11/85 ck'd

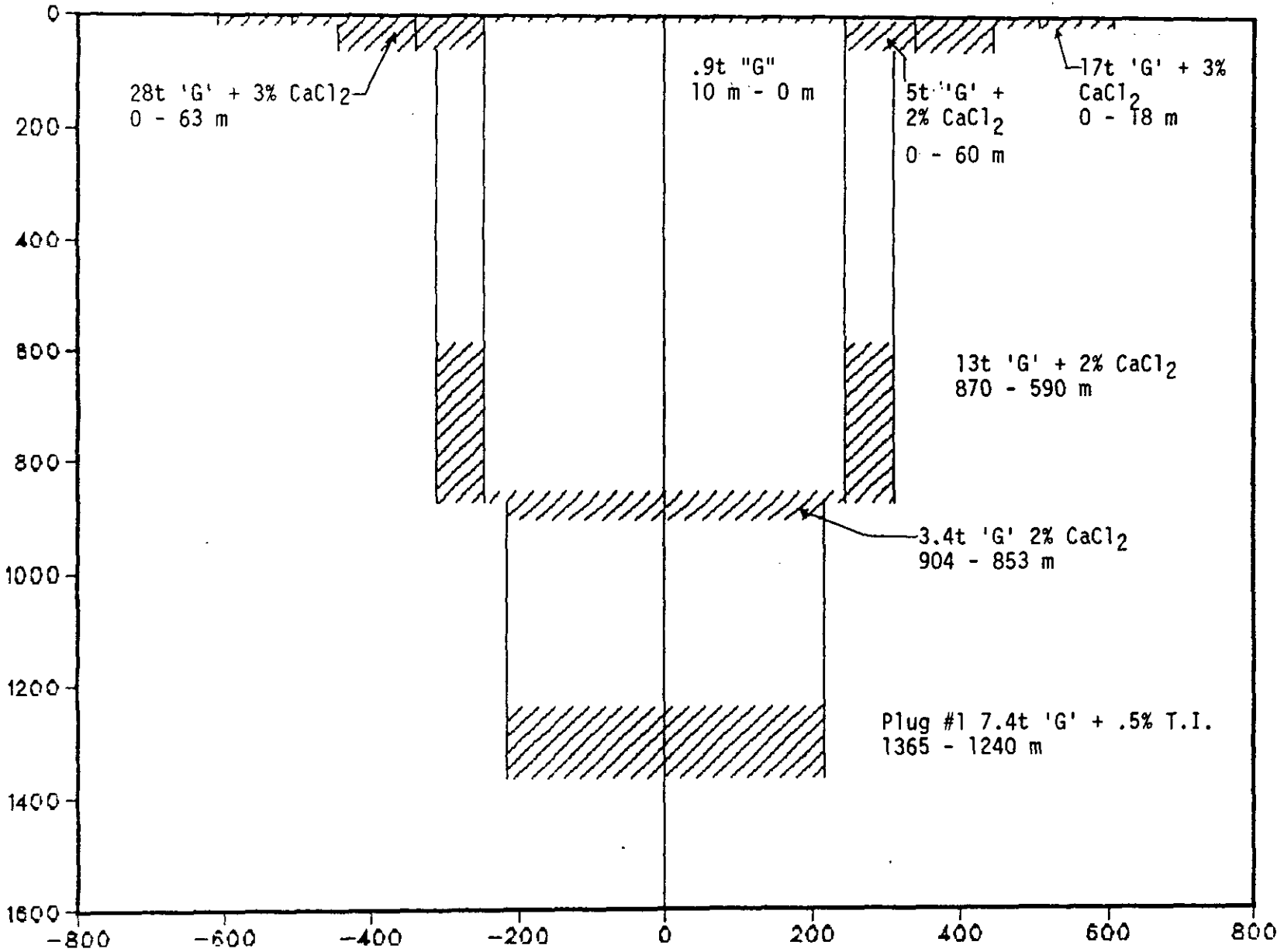
REVISED: JAN 21/'86

PCI et al N.W.TWEED LAKE C-12
Planned Penetration Curve



Spud date:86/02/25

Wellbore Profile
PCI ET AL N.W. TWEED LAKE C-12



EXACT RADIUS OF CURVATURE METHOD

TIE-IN LOCATION

MEASURED DEPTH	0.0	M
TRUE VERTICAL DEPTH	0.0	M
DISTANCE NORTH	0.0	M
DISTANCE EAST	0.0	M

BOTTOM HOLE LOCATION

COURSE LENGTH	11.1	M
COURSE AZIMUTH	75.4	DEG
MEASURED DEPTH	1362.0	M
TRUE VERTICAL DEPTH	1361.8	M
DISTANCE NORTH	2.8	M
DISTANCE EAST	10.8	M

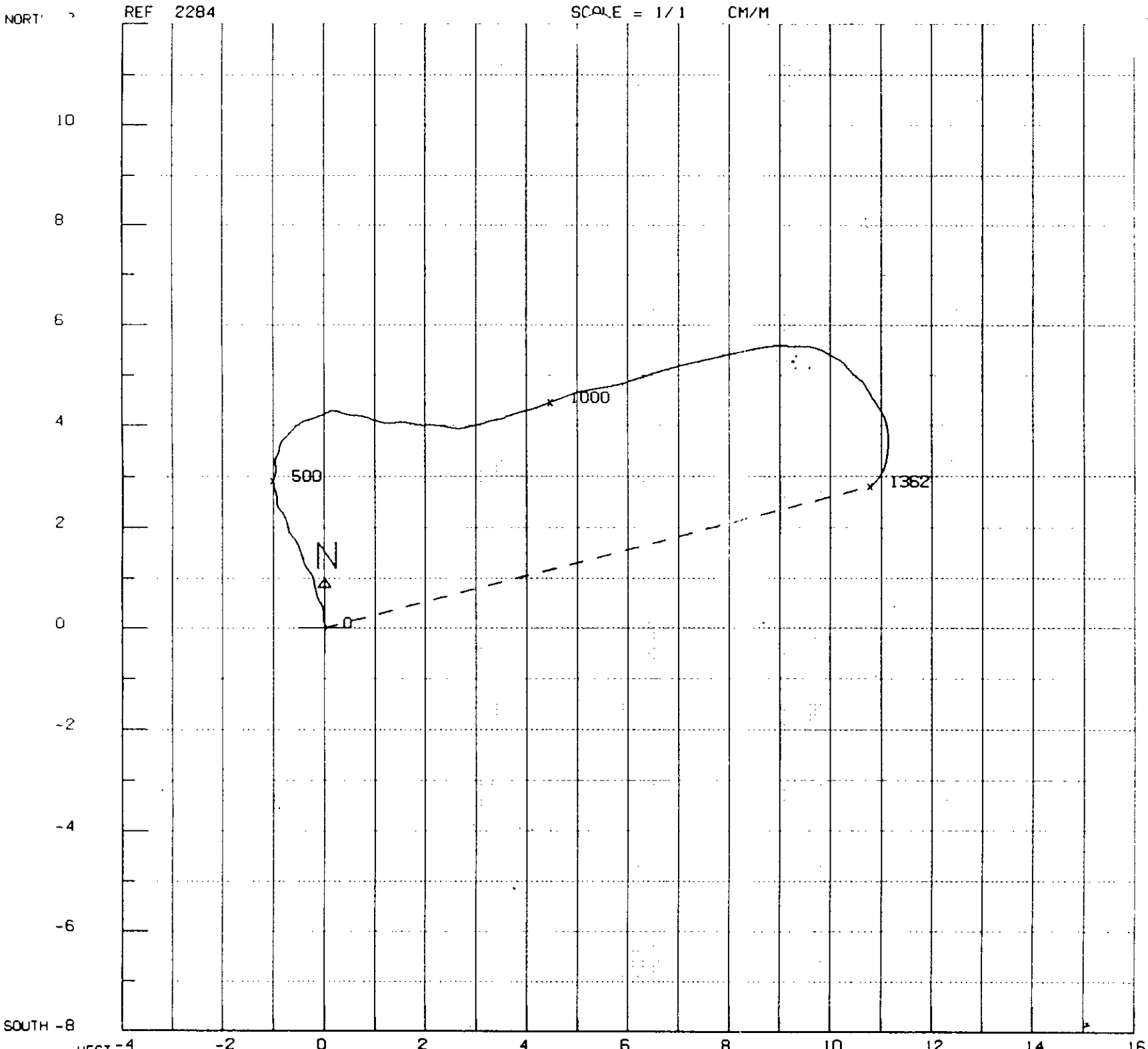
MEAS. DEPTH M	DEVIATION DEGREES	AZIMUTH DEGREES	TRUE VERTICAL DEPTH M	COORDINATES + NORTH - SOUTH	COORDINATES + EAST - WEST	COURSE LENGTH M	DOG-L SEVERI DEG /
0.0	0.0	0	0.0	0.0	0.0	0.0	0.0
20.0	0.0	47	20.0	0.0	0.0	0.0	0.0
40.0	0.0	94	40.0	0.0	0.0	0.0	0.0
60.0	0.0	141	60.0	0.0	0.0	0.0	0.0
70.8	0.0	167	70.8	0.0	0.0	0.0	0.0
80.0	0.0	106	80.0	0.0	0.0	0.0	0.1
100.0	0.1	33	100.0	0.0	0.0	0.0	0.1
120.0	0.2	338	120.0	0.1	0.0	0.1	0.1
140.0	0.3	343	140.0	0.1	0.0	0.1	0.2
160.0	0.4	360	160.0	0.3	0.0	0.3	0.0
180.0	0.5	343	180.0	0.4	0.0	0.4	0.1
200.0	0.5	332	200.0	0.6	-0.1	0.6	0.1
220.0	0.6	351	220.0	0.8	-0.2	0.8	0.0
240.0	0.4	347	240.0	0.9	-0.2	1.0	0.1
260.0	0.5	325	260.0	1.1	-0.3	1.1	0.1
280.0	0.6	327	280.0	1.2	-0.4	1.3	0.1
300.0	0.7	345	300.0	1.4	-0.4	1.5	0.1
320.0	0.5	340	320.0	1.6	-0.5	1.7	0.1
340.0	0.6	318	340.0	1.8	-0.6	1.9	0.1
360.0	0.6	342	360.0	1.9	-0.7	2.1	0.1
380.0	0.4	348	380.0	2.1	-0.7	2.2	0.1
400.0	0.5	323	400.0	2.3	-0.8	2.4	0.1
420.0	0.3	318	420.0	2.4	-0.9	2.5	0.1
440.0	0.4	359	440.0	2.5	-0.9	2.7	0.1
460.0	0.4	353	460.0	2.6	-0.9	2.8	0.1
480.0	0.4	343	480.0	2.8	-1.0	2.9	0.1
500.0	0.4	5	500.0	2.9	-1.0	3.1	0.2
520.0	0.4	15	520.0	3.0	-1.0	3.2	0.1
540.0	0.4	353	540.0	3.2	-0.9	3.3	0.1
560.0	0.5	6	560.0	3.3	-1.0	3.4	0.2
580.0	0.4	23	580.0	3.4	-0.9	3.6	0.1
600.0	0.4	10	600.0	3.6	-0.9	3.7	0.1
620.0	0.6	41	620.0	3.7	-0.8	3.8	0.2
640.0	0.7	40	640.0	3.9	-0.7	3.9	0.0
660.0	0.9	62	660.0	4.0	-0.5	4.1	0.1
680.0	0.8	72	680.0	4.1	-0.2	4.1	0.0
700.8	0.6	65	700.0	4.2	0.0	4.2	0.0
720.0	0.6	89	720.0	4.3	0.2	4.3	0.3
740.0	0.6	104	740.0	4.2	0.4	4.2	0.0
760.0	0.8	97	760.0	4.2	0.6	4.2	0.2
780.0	0.9	109	780.0	4.1	0.9	4.2	0.1
800.0	0.7	102	800.0	4.1	1.2	4.2	0.2
820.0	0.7	85	820.0	4.0	1.4	4.3	0.1
840.0	0.8	99	840.0	4.0	1.7	4.4	0.1
860.0	0.7	95	860.0	4.0	1.9	4.4	0.2
880.0	1.1	96	880.0	4.0	2.2	4.6	0.2
900.0	1.0	97	900.0	3.9	2.6	4.7	0.2
920.0	1.0	76	920.0	4.0	2.9	4.9	0.1
940.0	1.2	75	940.0	4.1	3.3	5.2	0.1

MEAS. DEPTH M	DEVIATION DEGREES	AZIMUTH DEGREES	TRUE VERTICAL DEPTH M	COORDINATES + NORTH - SOUTH	COORDINATES + EAST - WEST	COURSE LENGTH M	DOG-L SEVERI DEG /
960.0	1.2	71	959.9	4.2	3.7	5.6	0.1
980.0	1.2	74	979.9	4.3	4.1	5.9	0.0
1000.0	1.3	70	999.9	4.5	4.5	6.3	0.0
1020.0	1.4	72	1019.9	4.6	4.9	6.7	0.2
1040.0	1.5	80	1039.9	4.7	5.4	7.2	0.0
1060.0	1.6	73	1059.9	4.8	6.0	7.7	0.2
1080.0	1.7	73	1079.9	5.0	6.5	8.2	0.1
1100.0	1.9	75	1099.9	5.2	7.1	8.8	0.1
1120.0	1.8	77	1119.9	5.4	7.8	9.4	0.1
1140.0	1.6	78	1139.9	5.5	8.4	10.0	0.3
1160.0	1.4	87	1159.9	5.6	8.9	10.5	0.2
1180.0	1.1	90	1179.9	5.6	9.3	10.9	0.2
1200.0	1.2	109	1199.9	5.5	9.7	11.2	0.3
1220.0	1.0	118	1219.9	5.4	10.0	11.4	0.1
1240.0	1.1	139	1239.9	5.2	10.3	11.5	0.1
1260.0	1.0	133	1259.9	4.9	10.6	11.7	0.2
1280.0	1.1	150	1279.9	4.6	10.8	11.7	0.1
1300.0	1.1	147	1299.8	4.3	11.0	11.8	0.2
1320.0	1.4	174	1319.8	3.9	11.1	11.8	0.3
1340.0	1.6	191	1339.8	3.3	11.1	11.6	0.4
1360.0	1.6	227	1359.8	2.8	10.8	11.2	0.6
1362.0	1.6	227	1361.8	2.8	10.8	11.1	0.0

BOTTOM HOLE LOCATION

COURSE LENGTH	11.1	M
COURSE AZIMUTH	75.4	DEGREES
MEASURED DEPTH	1362.0	M
TRUE VERTICAL DEPTH	1361.8	M
DISTANCE NORTH	2.8	M
DISTANCE EAST	10.8	M

EXACT RADIUS OF CURVATURE METHOD


NORTH
REF 2284
SCALE = 1/1 CM/M
10
8
6
4
2
0
-2
-4
-6
SOUTH -8
WEST -4
-2
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12
14
16
500
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1362
N
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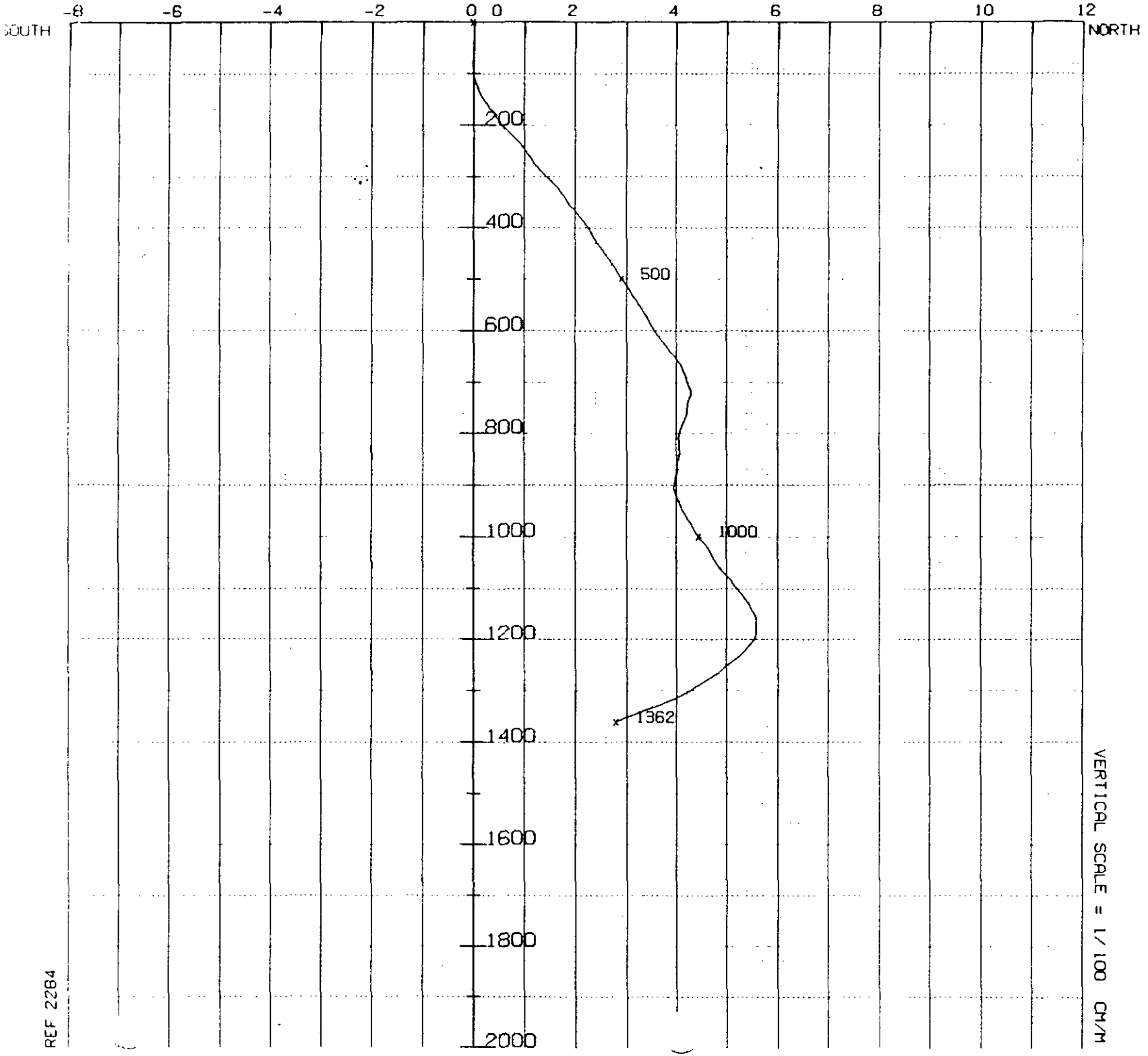
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SOUTH
NORTH
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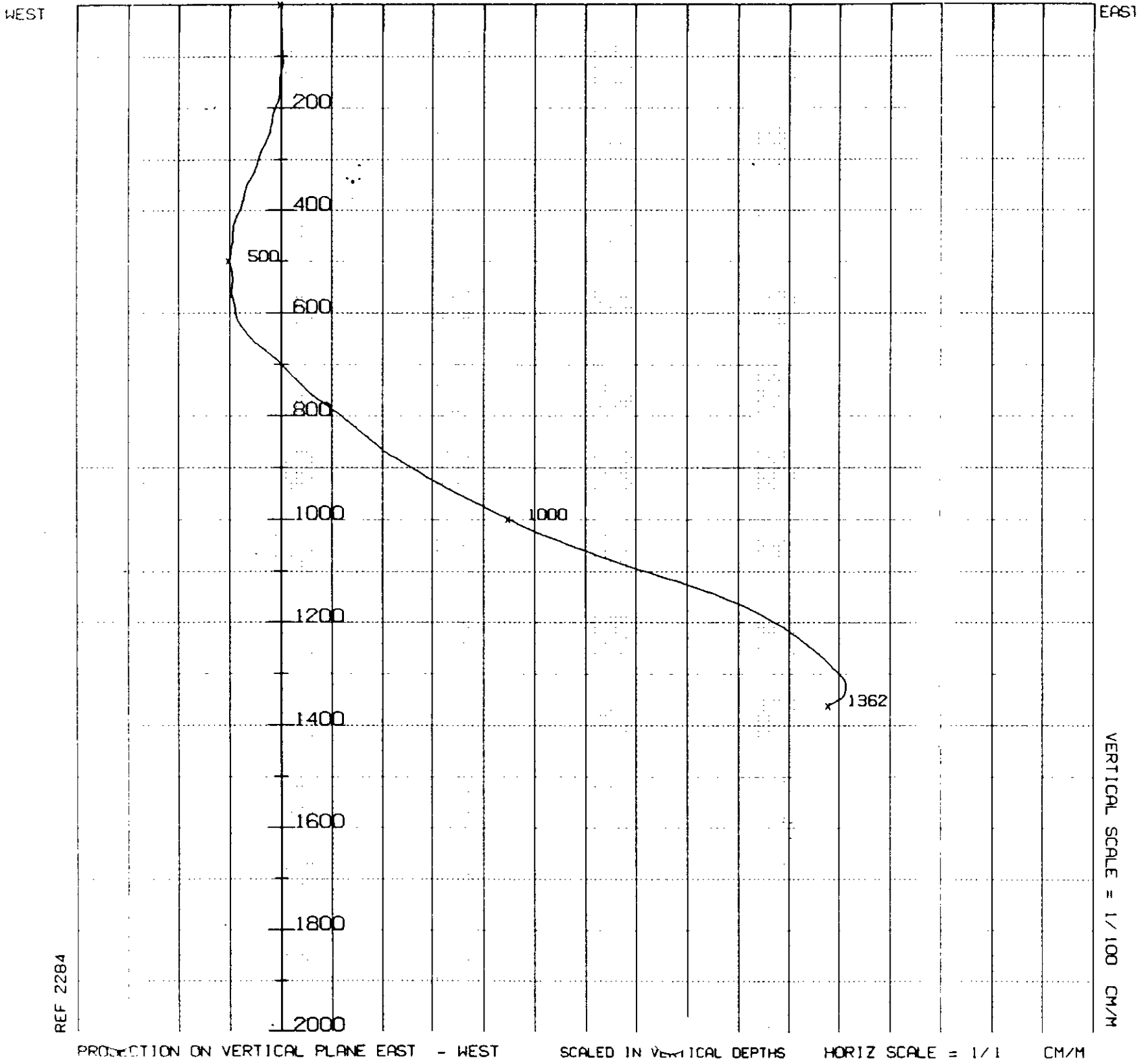
WEST
EAST
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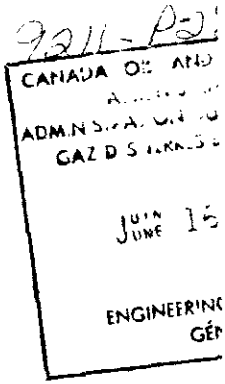
600
800
1000
1000
1200
1362
1400
1600
1800
2000
REF 2284
PROJECTION ON VERTICAL PLANE EAST - WEST
SCALED IN VERTICAL DEPTHS
HORIZ SCALE = 1/1 CM/M
VERTICAL SCALE = 1/100 CM/M

CORE LABORATORIES - CANADA, LTD.

CA

Petroleum Reservoir Engineering



CORE ANALYSIS

PETRO-CANADA EXPLORATION INC.
PCI ET AL N.W. TWEED LAKE C-12
WILDCAT, N.W.T.,
67 01'01.83" N LAT. 126 03'03.42" W LONG.
86-03-28

CORE LABORATORIES - CANADA, LTD.

COMPANY	PETRO-CANADA EXPLORATION INC.	FORMATION	MT. CLARK
WELL	PCI ET AL N.W. TWEED LAKE C-12	CORING EQUIPMENT	DIAMOND
FIELD	WILDCAT, N.W.T.	CORE DIAMETER.(mm)	88
LOCATION	67 01'01.83" N LAT. 126 03'03.42" W LONG.	CORING FLUID	WATER BASED MUD

PAGE
FILE
DATE
ANALYS

FULL DIAMETER ANALYSIS

Sample Number	Depth Metres (m)	m Rep.	Sample Length	Permeability to Air Millidarcys mD Max.	mD 90 deg.	mD V	Perm. X m	Porosity	Porosity X m	Density kg/m3 Bulk	Grain	Residual Sat (Frac of Po Oil	
	CORE NO. 1	1312.00 m - 1323.20	(core received	10.45 m)	(8 Boxes)								
-	1312.00-12.04	0.04	-	-	-	-	-	-	-	-	-	-	
SP 1	1312.04-12.24	0.20	-	0.29	-	-	0.058	0.088	0.018	-	2660	trace	0
2	1312.24-12.43	0.19	.08	0.09	0.06	0.05	0.017	0.080	0.015	2450	2660	0.000	0
3	1312.43-12.58	0.15	.06	0.17	0.17	<0.01	0.026	0.102	0.015	2380	2660	0.000	0
SP 4	1312.58-12.72	0.14	-	0.06	-	-	0.009	0.050	0.007	-	2660	trace	0
5	1312.72-12.93	0.21	.11	0.05	-	0.02	0.011	0.072	0.015	2450	2640	0.000	0
SP 6	1312.93-13.00	0.07	-	0.04	-	-	0.003	0.058	0.004	-	2650	0.122	0
AST2	1313.00-13.08	0.08	-	0.09	0.06	0.05	0.007	0.080	0.006	2450	2660	0.000	0
AST6	1313.08-13.16	0.08	-	0.04	-	-	0.003	0.058	0.005	-	2650	0.122	0
7	1313.16-13.49	0.33	.12	0.64	0.61	0.08	0.211	0.078	0.026	2430	2640	0.122	0
SP 8	1313.49-13.57	0.08	-	0.24	-	-	0.019	0.074	0.006	-	2640	0.154	0
9	1313.57-13.73	0.16	.05	0.22	-	-	0.035	0.062	0.010	2490	2650	0.000	0
AST8	1313.73-13.79	0.06	-	0.24	-	-	0.015	0.074	0.004	-	2640	0.154	0
10	1313.79-14.37	0.58	.09	*	0.73	*	0.423	0.079	0.046	2430	2640	0.127	0
SP 11	1314.37-14.48	0.11	-	0.26	-	-	0.029	0.069	0.008	-	2650	0.079	0
AST10	1314.48-14.63	0.15	-	*	0.73	*	0.110	0.079	0.012	2430	2640	0.127	0
12	1314.63-15.08	0.45	.12	0.66	0.59	0.48	0.297	0.074	0.033	2450	2640	0.066	0
SP 13	1315.08-15.19	0.11	-	0.15	-	-	0.017	0.056	0.006	-	2640	0.150	0
-	1315.19-15.24	0.05	-	-	-	-	-	-	-	-	-	-	
AST13	1315.24-15.29	0.05	-	0.15	-	-	0.008	0.056	0.003	-	2640	0.150	0
SP 14	1315.29-15.47	0.18	-	0.34	-	-	0.061	0.063	0.011	-	2660	0.133	0
15	1315.47-15.68	0.21	.10	0.08	-	-	0.017	0.061	0.013	2480	2640	0.140	0
SP 16	1315.68-15.75	0.07	-	0.11	-	-	0.008	0.059	0.004	-	2650	0.094	0

CORE LABORATORIES - CANADA, LTD.

COMPANY PETRO-CANADA EXPLORATION INC. FORMATION MT. CLARK PAGE
WELL PCI ET AL N.W. TWEED LAKE C-12 CORING EQUIPMENT DIAMOND FILE

FULL DIAMETER ANALYSIS

Sample Number	Depth Metres (m)	m Rep.	Sample Length	Permeability to Air Millidarcys mD Max.	mD 90 deg.	mD V	Perm. X m	Porosity	Porosity X m	Density kg/m3 Bulk	Grain	Residual Sat (Frac of Po Oil	
	CORE NO. 1 CONTINUED												
17	1315.75-16.18	0.43	.05	*	0.83	*	0.357	0.105	0.045	2360	2630	0.000	0.
SP 18	1316.18-16.33	0.15	-	0.17	-	-	0.026	0.051	0.008	-	2650	0.163	0.
19	1316.33-16.68	0.35	.18	0.36	-	-	0.126	0.065	0.023	2470	2640	0.147	0.
20	1316.68-16.96	0.28	.18	0.84	0.78	0.43	0.235	0.066	0.018	2470	2640	0.236	0.
21	1316.96-17.15	0.19	.12	0.07	0.04	<0.01	0.013	0.073	0.014	2470	2660	0.000	0.
SP 22	1317.15-17.28	0.13	-	0.39	-	-	0.051	0.090	0.012	-	2650	trace	0.
AST21	1317.28-17.84	0.56	-	0.07	0.04	<0.01	0.039	0.073	0.041	2470	2660	0.000	0.
-	1317.84-19.62	1.78	-	-	-	-	-	-	-	-	-	-	-
23	1319.62-19.81	0.19	.11	20.5	20.0	2.58	3.895	0.083	0.016	2450	2670	0.000	0.
24	1319.81-19.96	0.15	.11	7.36	4.83	1.17	1.104	0.081	0.012	2440	2660	0.000	0.
SP 25	1319.96-20.06	0.10	-	0.21	-	-	0.021	0.090	0.009	-	2660	0.068	0.
26	1320.06-20.32	0.26	.06	0.36	0.33	0.33	0.094	0.066	0.017	2470	2650	0.117	0.
-	1320.32-20.45	0.13	-	-	-	-	-	-	-	-	-	-	-
AST26	1320.45-20.50	0.05	-	0.36	0.33	0.33	0.018	0.066	0.003	2470	2650	0.117	0.
SP 27	1320.50-20.60	0.10	-	1.21	-	-	0.121	0.043	0.004	-	2730	0.071	0.
28	1320.60-20.76	0.16	.10	30.9	25.0	1.11	4.945	0.055	0.009	2520	2670	0.081	0.
-	1320.76-20.81	0.05	-	-	-	-	-	-	-	-	-	-	-
AST28	1320.81-20.91	0.10	-	30.9	25.0	1.11	3.088	0.055	0.005	2520	2670	0.081	0.
SP 29	1320.91-21.10	0.19	-	0.09	-	-	0.017	0.034	0.006	-	2660	0.144	0.
30	1321.10-21.25	0.15	.10	0.13	0.10	<0.01	0.020	0.061	0.009	2510	2680	0.000	0.
SP 31	1321.25-21.94	0.69	-	0.69	-	-	0.476	0.085	0.059	-	2660	0.123	0.
32	1321.94-22.22	0.28	.16	0.21	0.17	<0.01	0.059	0.101	0.028	2390	2660	0.000	0.
33	1322.22-22.45	0.23	.11	0.11	0.11	<0.01	0.025	0.059	0.014	2560	2720	0.000	0.
LC	1322.45-23.20	0.75	-	-	-	-	-	-	-	-	-	-	-

CORE LABORATORIES - CANADA, LTD.

COMPANY PETRO-CANADA EXPLORATION INC.
WELL PCI ET AL N.W. TWEED LAKE C-12

FORMATION MT. CLARK
CORING EQUIPMENT DIAMOND

PAGE
FILE

FULL DIAMETER ANALYSIS

Sample Number	Depth Metres (m)	m Rep.	Sample Length	Permeability to Air Millidarcys mD Max.	mD 90 deg.	mD V	Perm. X m	Porosity	Porosity X m	Density:kg/m3 Bulk	Grain	Residual Sat (Frac of Po Oil	
	CORE NO. 2	1323.20 m - 1328.80	(core received	5.10 m) (	5 Boxes)								
SP 34	1323.20-23.38	0.18	-	0.51	-	-	0.092	0.062	0.011	-	2650	0.200	0.
SP 35	1323.38-23.53	0.15	-	0.21	-	-	0.032	0.050	0.007	-	2650	0.219	0.
36	1323.53-23.63	0.10	.06	0.58	-	0.31	0.058	0.058	0.006	2500	2660	0.128	0.
SP 37	1323.63-23.75	0.12	-	0.05	-	-	0.006	0.031	0.004	-	2650	0.150	0.

CORE LABORATORIES - CANADA, LTD.

COMPANY PETRO-CANADA EXPLORATION INC.
WELL PCI ET AL N.W. TWEED LAKE C-12

FORMATION PROTEROZOIC
CORING EQUIPMENT DIAMOND

PAGE
FILE

FULL DIAMETER ANALYSIS

Sample Number	Depth Metres (m)	Rep.	Sample Length	Permeability to Air Millidarcys mD Max.	mD 90 deg.	mD V	Perm. X mD	Porosity	Porosity X	Porosity m	Density kg/m3 Bulk	Density kg/m3 Grain	Residual Sat (Frac of Po Oil	
	CORE NO. 2 CONTINUED													
-	1323.75-24.59	0.84	-	-	-	-	-	-	-	-	-	-	-	-
38	1324.59-24.93	0.34	.07	0.82	0.16	0.26	0.279	0.005	0.002	2820	2830	0.000	0.	
39	1324.93-25.11	0.18	.07	21.0	0.44	1.12	3.779	0.028	0.005	2720	2800	trace	0.	
SP 40	1325.11-25.23	0.12	-	<0.01	-	-	-	0.010	0.001	-	2860	0.000	0.	
AST38	1325.23-25.54	0.31	-	0.82	0.16	0.26	0.254	0.005	0.002	2820	2830	0.000	0.	
-	1325.54-25.73	0.19	-	-	-	-	-	-	-	-	-	-	-	-
41	1325.73-26.07	0.34	.10	2.04	0.55	0.06	0.694	0.005	0.002	2910	2930	0.000	0.	
-	1326.07-26.76	0.69	-	-	-	-	-	-	-	-	-	-	-	-
42	1326.76-27.43	0.67	.12	*	23.6	*	15.812	0.005	0.003	3130	3140	0.000	0.	
-	1327.43-27.54	0.11	-	-	-	-	-	-	-	-	-	-	-	-
43	1327.54-27.73	0.19	.08	1.49	0.28	6.13	0.283	0.030	0.006	2720	2810	0.257	0.	
SP 44	1327.73-27.83	0.10	-	0.02	-	-	0.002	0.041	0.004	-	2700	0.144	0.	
45	1327.83-27.99	0.16	.09	15.4	12.8	1.55	2.465	0.117	0.019	2460	2790	0.049	0.	
AST43	1327.99-28.16	0.17	-	1.49	0.28	6.13	0.253	0.030	0.005	2720	2810	0.257	0.	
-	1328.16-28.26	0.10	-	-	-	-	-	-	-	-	-	-	-	-
SP 46	1328.26-28.30	0.04	-	52.8	-	-	2.112	0.331	0.013	-	2700	0.059	0.	
LC	1328.30-28.80	0.50	-	-	-	-	-	-	-	-	-	-	-	-

CORE LABORATORIES - CANADA, LTD.

WELL PCI ET AL N.W. TWEED LAKE C-12 PAGE

FORMATION MT. CLARK

SUMMARY INTERVAL 1312.00-1323.75 FILE

TOTAL 11.75

METRES ANALYZED 8.95

METRES NOT ANALYZED: TOTAL 2.80 DENSE 2.05 LOST 0.75 *NA 0.00 DRILLED 0.00

SUMMARY OF ANALYZED CORE:		METRES	FRACTION OF ANALYZED CORE	WEIGHTED AVERAGE POROSITY	POROSITY METRES	WEIGHTED AV. HORIZONTAL PERMEABILITY	PERMEABILITY METRES	WEIGHTED AVERAGE RESID. OIL	W A TC
TOTAL		8.950	1.000	0.072	0.648	1.821	16.298	0.074	
BY PERMEABILITY RANGES	(K max)								
LESS THAN	0.01 mD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.01 -	0.09 mD	2.040	0.228	0.064	0.130	0.069	0.142	0.033	
0.10 -	0.49 mD	3.020	0.337	0.071	0.215	0.246	0.744	0.068	
0.50 -	0.99 mD	3.190	0.356	0.080	0.256	0.708	2.259	0.106	
1.00 -	9.98 mD	0.250	0.028	0.066	0.016	4.900	1.225	0.019	
GREATER THAN	9.99 mD	0.450	0.050	0.067	0.030	26.509	11.929	0.039	

*NOT ANALYZED BY REQUEST

CORE LABORATORIES - CANADA, LTD.

WELL PCI ET AL N.W. TWEED LAKE C-12 PAGE

FORMATION PROTEROZOIC

SUMMARY INTERVAL 1323.75-1328.80 FILE

TOTAL 5.05

METRES ANALYZED 2.62

METRES NOT ANALYZED: TOTAL 2.43 DENSE 1.93 LOST 0.50 *NA 0.00 DRILLED 0.00 F

SUMMARY OF ANALYZED CORE:		METRES	FRACTION OF ANALYZED CORE	WEIGHTED AVERAGE POROSITY	POROSITY METRES	WEIGHTED AV. HORIZONTAL PERMEABILITY	PERMEABILITY METRES	WEIGHTED AVERAGE RESID. OIL	W AV TO
TOTAL		2.620	1.000	0.023	0.061	9.898	25.934	0.082	
BY PERMEABILITY RANGES	(K max)								
LESS THAN	0.01 mD	0.120	0.046	0.010	0.001	0.005	0.001	0.000	
0.01 -	0.09 mD	0.100	0.038	0.041	0.004	0.020	0.002	0.144	
0.10 -	0.49 mD	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
0.50 -	0.99 mD	0.650	0.248	0.005	0.003	0.820	0.533	0.000	
1.00 -	9.98 mD	0.700	0.267	0.018	0.013	1.757	1.230	0.222	
GREATER THAN	9.99 mD	1.050	0.401	0.038	0.040	23.017	24.168	0.042	

*NOT ANALYZED BY REQUEST

CORE LABORATORIES - CANADA, LTD.

CODE KEY - DESCRIPTIONS

anhy = Anhydrite
AST = Appears similiar to
bk = Break
bldr = Boulder
c = Coarse
calc = Calcite (areous)
carb = Carbonaceous
cbl = Cobble
CEC = Cation exchange capacity
csl = Conglomerate
cht = Chert
coal = Coal/Coal Inclusion
dol = Dolomite
f = Fine
fest = Ironstone
foss = Fossil (iferous)
frac = Fracture
fri = Friable
glauc = Glauconite (ic)
grnl = Granule
gyp = Gypsum
h frac = Horizontal fracture
hal = Halite (Salt)
i = Intergranular
lam = Laminae (Laminated)
lmy = Limy
ls = Limestone
lv = Large vug
m = Medium
mi = Mud invaded
mic = Micaceous
mshy or shy = Moderately shaly (20-40%)
mv = Medium vug
NA = Not analysed by request
NP = No permeability measurement
ool = Oolitic
OB = Overburden
P = Preserved for future studies
pbl = Pebble
POA = portion removed for oil analysis
ppv = Pinpoint Vug
PSA = Particle size analysis
pyr = Pyrite (ic)
pyrbit = Pyrobitumen
SCAL = removed for s
sdy = Sandy
SEM = Scanning elec
sh = Shale
sltst = Siltstone
slty = Silty
ss = Sandstone
sshy = Slightly Shal
sty = Stylolite (ic
sulf = Sulphur
sv = small vug
tr = Trace
TS = Thin section
uncons = Unconsolidate
vfrac = Vertical frac
vf = Very fine
VOB = Vertical over
vshy = Very shaly (>
vug = Vuggy (ular)
* = broken core
** = Permeability
SA = Sieve Analysi

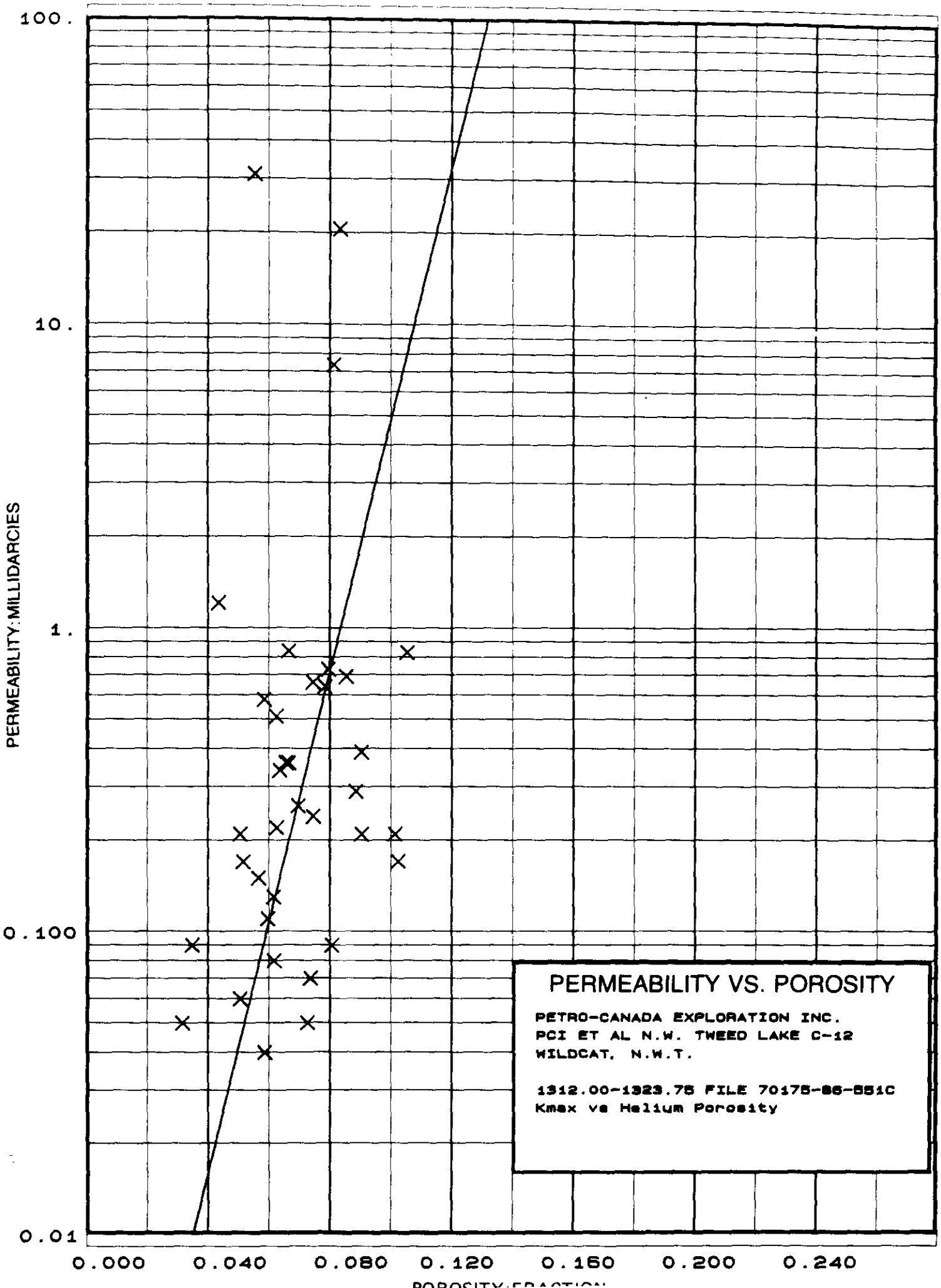
CLEANING

Solvent	TOLUENE
Extraction Equipment	CO2 EXTRACTOR
Extraction Time	4 DAYS
Drying Equipment	GRAVITY OVEN
Drying Time	48 HOURS
Drying Temperature	132 DEG.C

ANALYSIS

Pore volume measured by Boyle's Law in a Hassl
X Grain vol msrd by Boyle's Law in a modified U.
X Grain volume measured by Boyle's Law in a matr
X Bulk volume measured by calipering
Bulk Volume by Archimedes Principle
Porosity determined by summation of fluids (re
Fluid saturations by retort on end pieces of f
X Fluid saturation by retort
Water saturations by Dean-Stark
Oil saturations by weight difference in Dean-S
Permeabilities measured on 20mm cubes
X Permeabilities measured on 25.4 mm diameter dr
X Core Gamma Composite
Core Gamma Spectral

REMARKS:


100.
10.
1.
0.100
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PERMEABILITY:MILLIDARCIES
0.000
0.040
0.080
0.120
0.160
0.200
0.240
POROSITY:FRACTION
PERMEABILITY VS. POROSITY
PETRO-CANADA EXPLORATION INC.
PCI ET AL N.W. TWEED LAKE C-12
WILDCAT, N.W.T.
1312.00-1323.75 FILE 70175-86-851C
Kmax vs Helium Porosity

PERMEABILITY VS POROSITY

COMPANY: PETRO-CANADA EXPLORATION INC.

WELL : PCI ET AL N.W. TWEED

FIELD : WILDCAT, N.W.T.

PROVINCE:

FORMATION: MT. CLARK

AIR PERMEABILITY : MD - MAXIMUM (UNCORRECTED FOR SLIPP
POROSITY : FRACTION (HELIUM

DEPTH INTERVAL	METERS ANALYZED	RANGE & SYMBOL	PERMEABILITY MINIMUM	PERMEABILITY MAXIMUM	POROSITY MIN.	POROSITY MAX.	POROSITY AVERAGE	PERMEABILITY A ARITHMETIC	HARMO
1312.00 - 1323.75	8.95	1 (X)	0.000	100.0	0.000	0.480	0.072	1.8	0

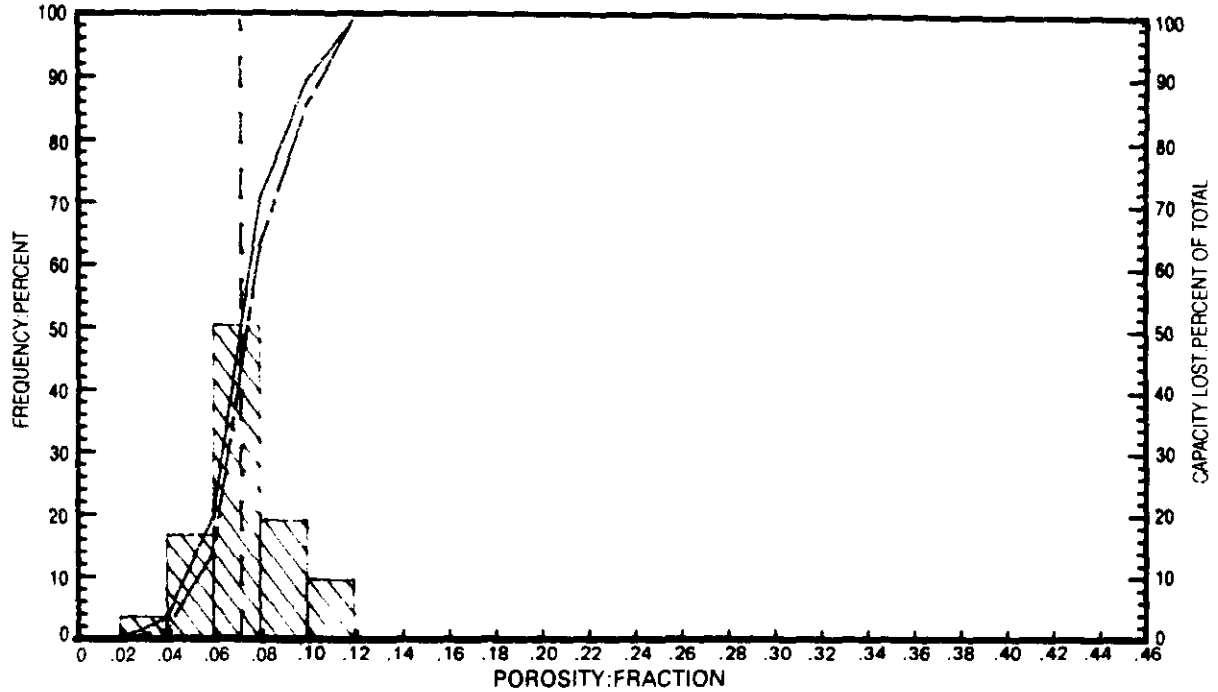
EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :

LOG(K) = (SLOPE)(POROSITY) + LOG OF INTERCEPT

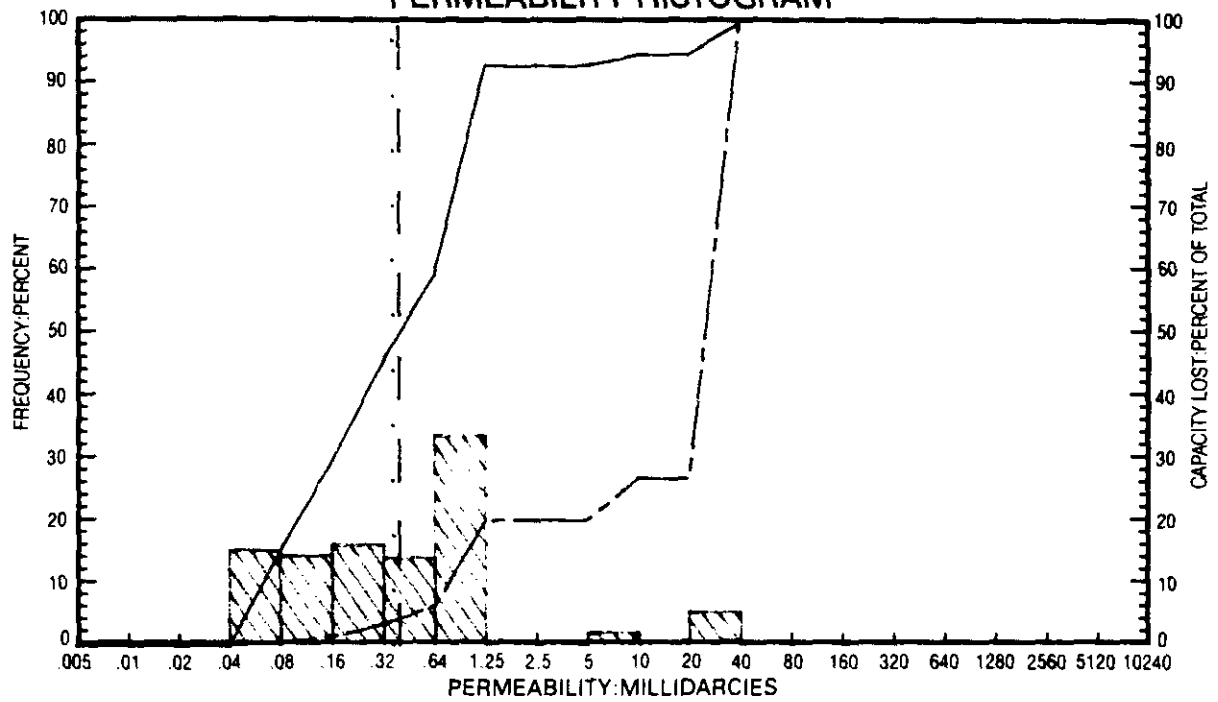
K = ANTILOG((SLOPE)(POROSITY) + LOG OF INTERCEPT)

RANGE	EQUATION OF THE LINE
1	PERM = ANTILOG((0.4103)(POROSITY) + -3.4211)

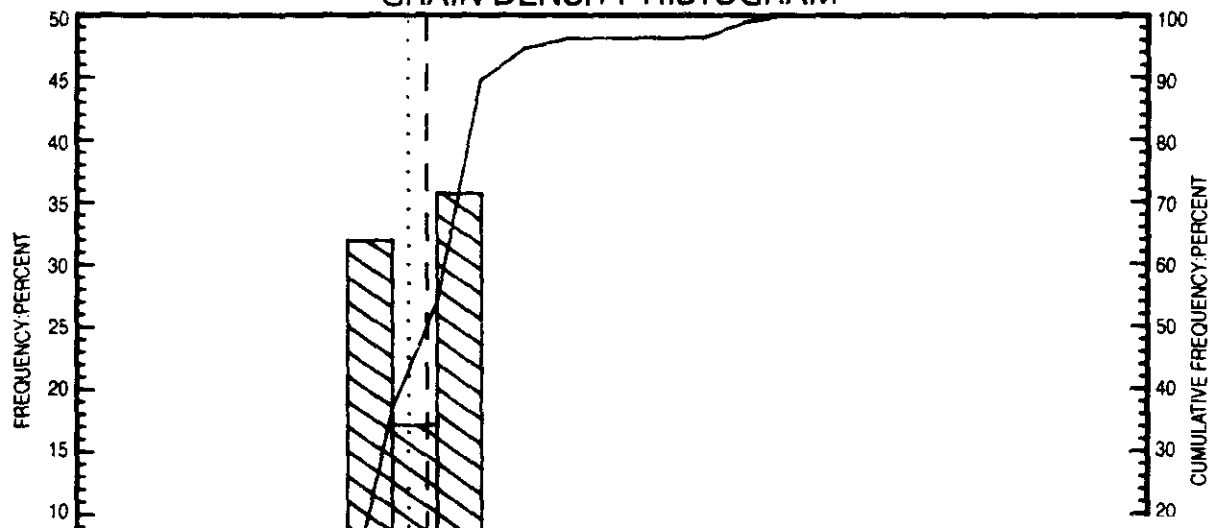
POROSITY HISTOGRAM



PERMEABILITY HISTOGRAM



GRAIN DENSITY HISTOGRAM



STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE (
PROVINCE:

AIR PERMEABILITY	: MD.	(MAXIMUM)	RANGE USED	0.000 TO	100.
POROSITY	: FRACTION	(HELIUM)	RANGE USED	0.000 TO	.46

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS	: 1312.00 - 1323.75	INTERVAL LENGTH	: 11.75
METRES ANALYZED IN ZONE	: 8.95	LITHOLOGY EXCLUDED	: NONE

DATA SUMMARY

POROSITY	PERMEABILITY AVERAGES		
AVERAGE	ARITHMETIC	HARMONIC	GEOMETRIC
0.072	1.8	0.18	0.35

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PA
FI

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE
PROVINCE:

GROUPING BY POROSITY RANGES

POROSITY RANGE	METRES IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.020 -0.040	0.3	0.033	0.072	0.075	3.5	3.5
0.040 -0.060	1.5	0.054	0.374	5.5	16.9	20.3
0.060 -0.080	4.5	0.071	0.288	0.410	50.7	71.1
0.080 -0.100	1.7	0.085	0.724	3.3	19.3	90.4
0.100 -0.120	0.9	0.103	0.402	0.513	9.6	100.0

TOTAL NUMBER OF METRES = 8.95

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE C
PROVINCE:

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	METRES IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.039 - 0.078	1.4	0.060	0.061	0.065	15.3	15.3
0.078 - 0.156	1.3	0.103	0.105	0.060	14.3	29.6
0.156 - 0.312	1.4	0.218	0.221	0.079	16.1	45.7
0.312 - 0.625	1.3	0.393	0.399	0.067	14.0	59.7
0.625 - 1.250	3.0	0.734	0.741	0.081	33.6	93.3
5.- 10.	0.2	7.4	7.4	0.081	1.7	95.0
20.- 40.	0.4	26.	27.	0.067	5.0	100.0

TOTAL NUMBER OF METRES = 8.95

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PA
FI

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE
PROVINCE:

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.000	0.0	0.0	8.9	100.0	0.072	0.072
0.020	0.0	0.0	8.9	100.0	0.072	0.072
0.040	0.3	1.6	8.6	98.4	0.074	0.072
0.060	1.8	14.2	7.1	85.8	0.078	
0.080	6.4	63.7	2.6	36.3	0.091	
0.100	8.1	86.3	0.9	13.7	0.103	
0.120	8.9	100.0	0.0	0.0		

TOTAL STORAGE CAPACITY IN POROSITY-METRES = 0.648

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

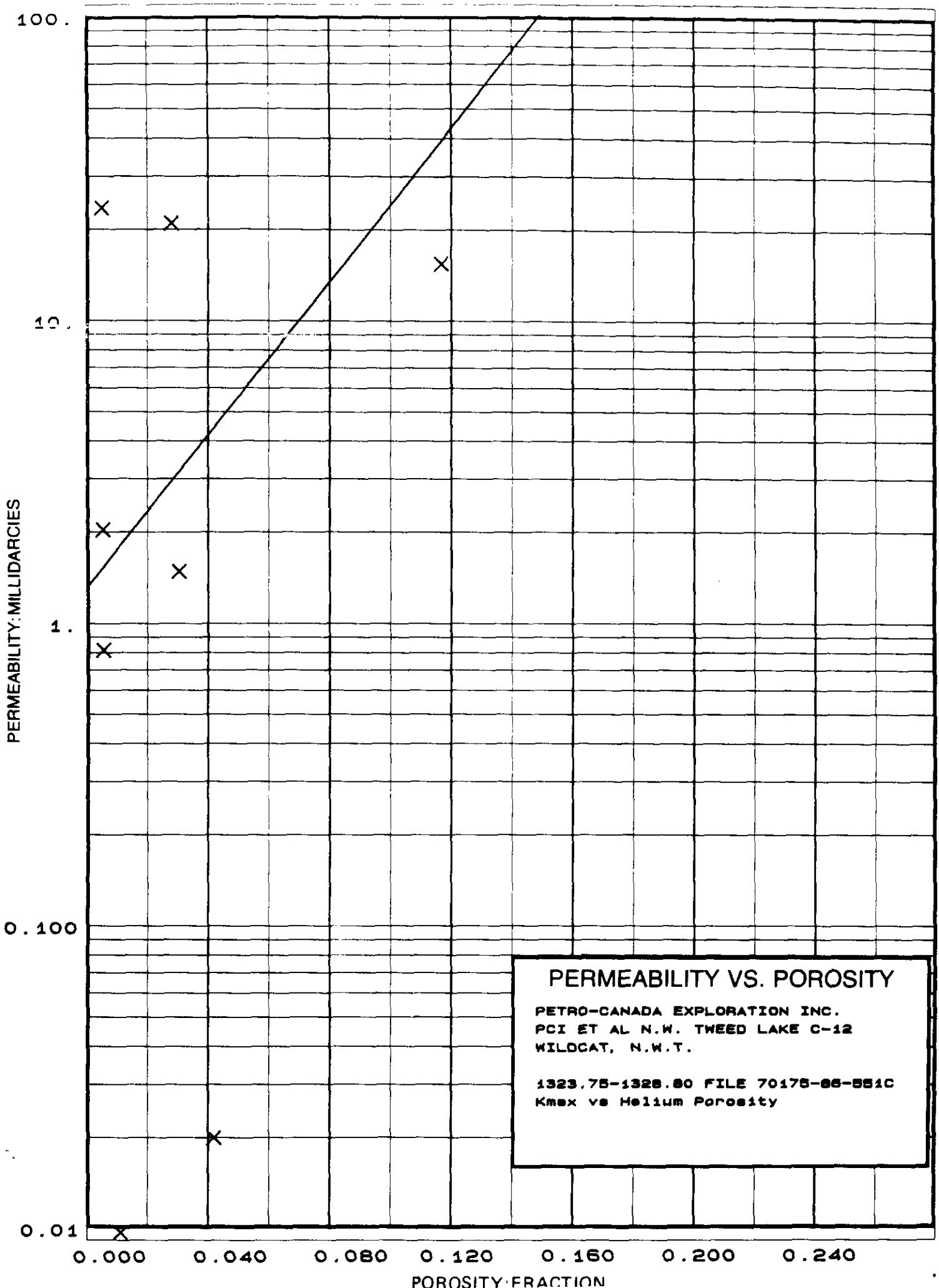
COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE C
PROVINCE:

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	GEOM MEDIAN
0.005	0.0	0.0	8.9	100.0	0.35	0.39
0.010	0.0	0.0	8.9	100.0	0.35	0.39
0.020	0.0	0.0	8.9	100.0	0.35	0.39
0.039	0.0	0.0	8.9	100.0	0.35	0.39
0.078	1.4	0.5	7.6	99.5	0.49	0.57
0.156	2.7	1.3	6.3	98.7	0.67	0.69
0.312	4.1	3.3	4.9	96.7	0.93	0.82
0.625	5.3	6.4	3.6	93.6	1.26	
1.250	8.4	20.0	0.6	80.0	18.96	25.20
2.500	8.4	20.0	0.6	80.0	18.96	25.20
5.	8.4	20.0	0.6	80.0	18.96	25.20
10.	8.5	26.8	0.4	73.2	25.98	
20.	8.5	26.8	0.4	73.2	25.98	
40.	8.9	100.0	0.0	0.0		

TOTAL FLOW CAPACITY IN MILLIDARCY-METRES(ARITHMETIC) = 16.30


100.
10.
1.
0.100
0.01
PERMEABILITY:MILLIDARCIES
0.000
0.040
0.080
0.120
0.160
0.200
0.240
POROSITY:FRACTION
PERMEABILITY VS. POROSITY
PETRO-CANADA EXPLORATION INC.
PCI ET AL N.W. TWEED LAKE C-12
WILDCAT, N.W.T.
1323.75-1328.80 FILE 70175-86-551C
Kmax vs Helium Porosity

PERMEABILITY VS POROSITY

COMPANY: PETRO-CANADA EXPLORATION INC.

WELL : PCI ET AL N.W. TWEED L

FIELD : WILDCAT, N.W.T.

PROVINCE:

FORMATION: PROTEROZOIC

AIR PERMEABILITY : MD - MAXIMUM (UNCORRECTED FOR SLIPPA
POROSITY : FRACTION (HELIUM

DEPTH INTERVAL	METERS ANALYZED	RANGE & SYMBOL	PERMEABILITY MINIMUM	PERMEABILITY MAXIMUM	POROSITY MIN.	POROSITY MAX.	POROSITY AVERAGE	PERMEABILITY AV ARITHMETIC	PERMEABILITY AV HARMON
1323.75 - 1328.80	2.62	1 (X)	0.000	100.0	0.000	0.480	0.023	9.9	0.

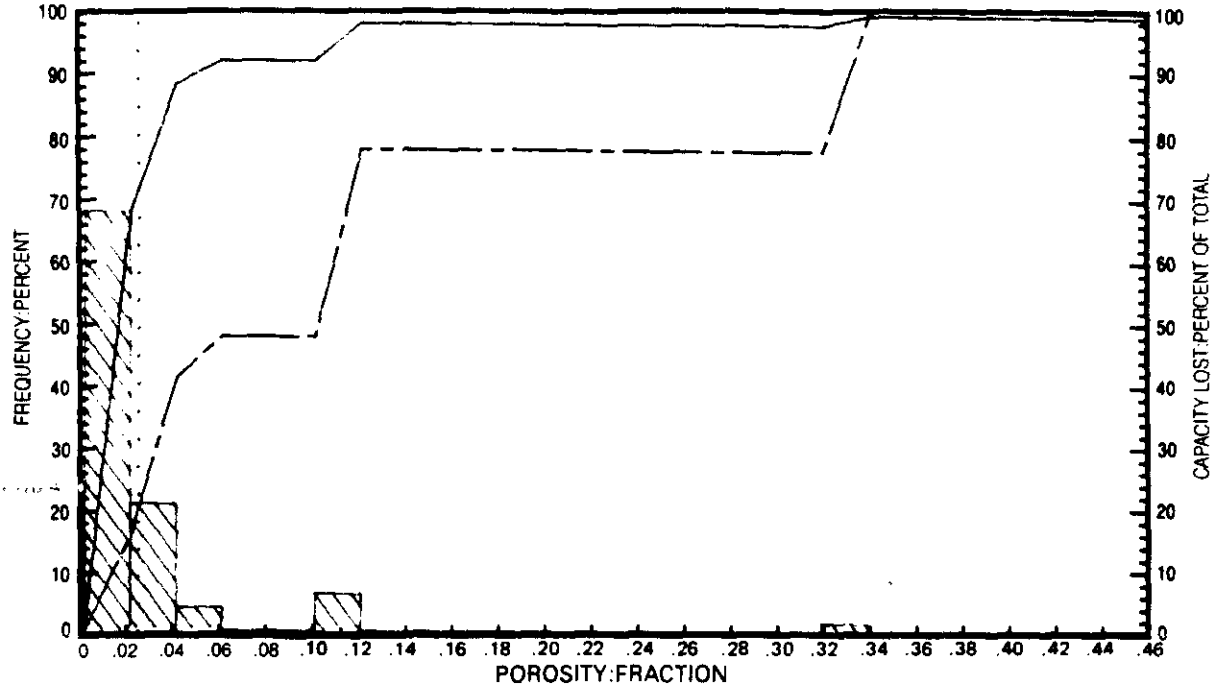
EQUATION OF REDUCED LINE RELATING PERMEABILITY(K) TO POROSITY :

LOG(K) = (SLOPE)(POROSITY) + LOG OF INTERCEPT

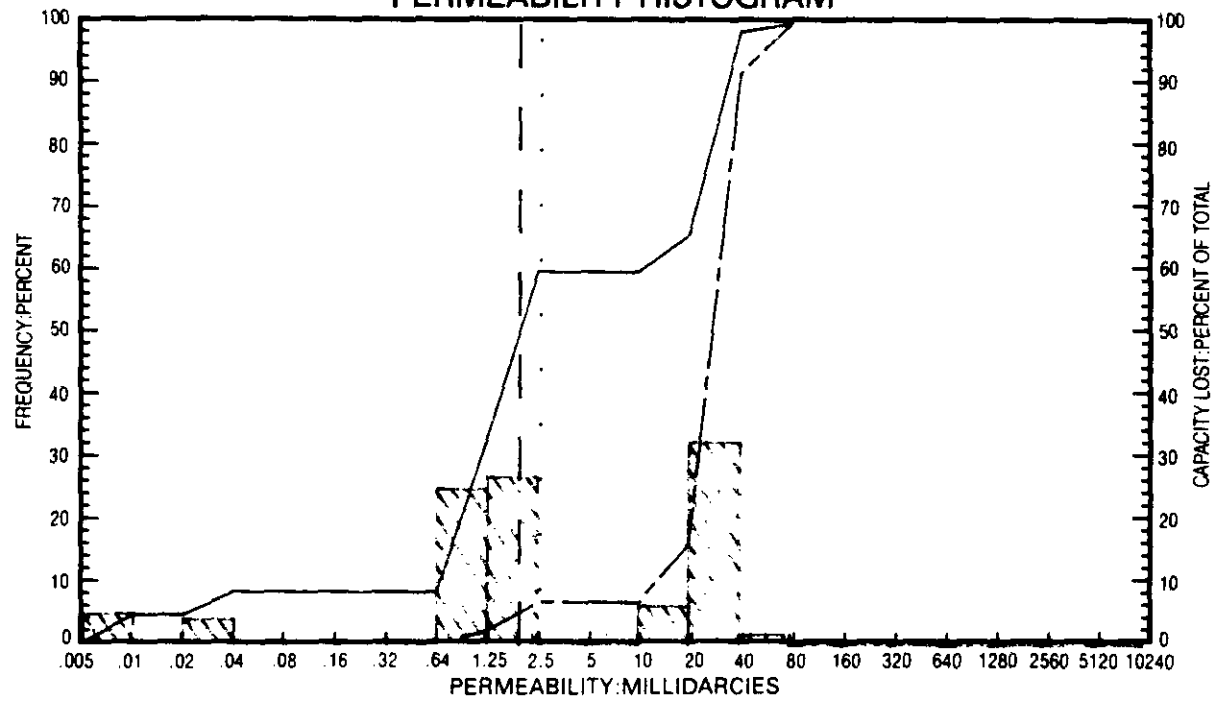
K = ANTILOG((SLOPE)(POROSITY) + LOG OF INTERCEPT)

RANGE	EQUATION OF THE LINE
1	PERM = ANTILOG((0.1252)(POROSITY) + 0.1196)

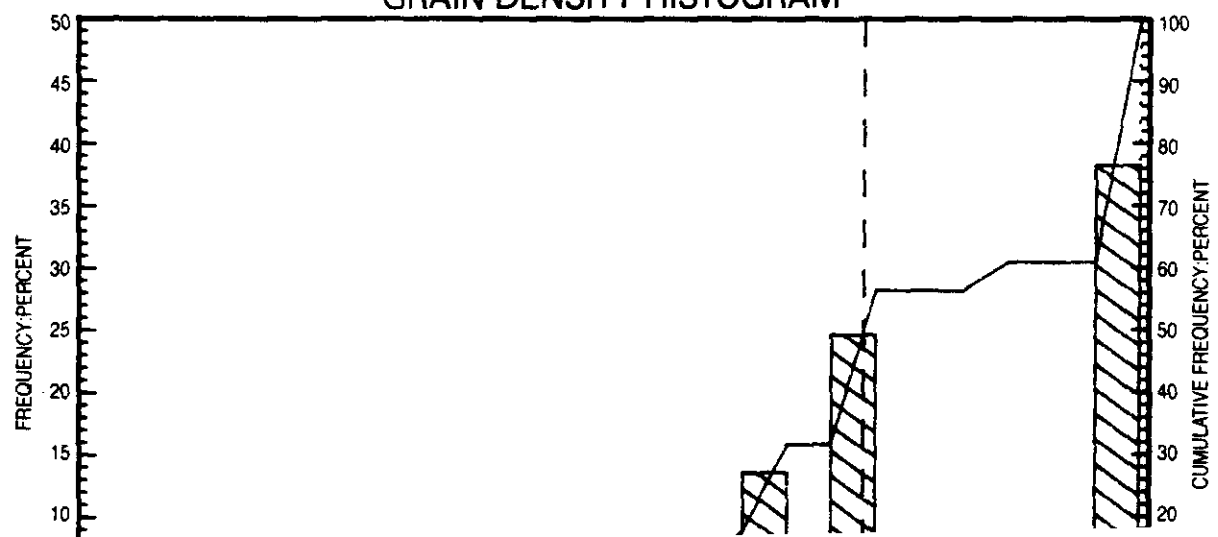
POROSITY HISTOGRAM



PERMEABILITY HISTOGRAM



GRAIN DENSITY HISTOGRAM



STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PA(
FI(

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE (
PROVINCE:

AIR PERMEABILITY : MD. (MAXIMUM) RANGE USED 0.000 TO 100.
POROSITY : FRACTION (HELIUM) RANGE USED 0.000 TO .46

(PERMEABILITY UNCORRECTED FOR SLIPPAGE)

DEPTH LIMITS : 1323.75 - 1328.80 INTERVAL LENGTH : 5.05
METRES ANALYZED IN ZONE : 2.62 LITHOLOGY EXCLUDED : NONE

DATA SUMMARY

POROSITY	PERMEABILITY AVERAGES		
AVERAGE	ARITHMETIC	HARMONIC	GEOMETRIC
0.023	9.9	0.09	2.6

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

PA
FI

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE
PROVINCE:

GROUPING BY POROSITY RANGES

POROSITY RANGE	METRES IN RANGE	AVERAGE POROSITY	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.000 -0.020	1.8	0.005	2.5	9.6	67.9	67.9
0.020 -0.040	0.5	0.029	3.6	8.0	20.6	88.5
0.040 -0.060	0.1	0.041	0.020	0.020	3.8	92.4
0.100 -0.120	0.2	0.117	15.	15.	6.1	98.5
0.320 -0.340	0.0	0.331	53.	53.	1.5	100.0

TOTAL NUMBER OF METRES = 2.62

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE C
PROVINCE:

GROUPING BY PERMEABILITY RANGES

PERMEABILITY RANGE	METRES IN RANGE	AVERAGE PERM. (GEOM.)	AVERAGE PERM. (ARITH)	AVERAGE POROSITY	FREQUENCY (PERCENT)	CUMULATIVE FREQUENCY (%)
0.005 - 0.010	0.1	0.005	0.005	0.010	4.6	4.6
0.020 - 0.039	0.1	0.020	0.020	0.041	3.8	8.4
0.625 - 1.250	0.7	0.820	0.820	0.005	24.8	33.2
1.250 - 2.500	0.7	1.7	1.8	0.018	26.7	59.9
10.- 20.	0.2	15.	15.	0.117	6.1	66.0
20.- 40.	0.9	23.	23.	0.010	32.4	98.5
40.- 80.	0.0	53.	53.	0.331	1.5	100.0

TOTAL NUMBER OF METRES = 2.62

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE C
PROVINCE:

POROSITY-METRES OF STORAGE CAPACITY LOST FOR SELECTED POROSITY CUT OFF

POROSITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	ARITH MEAN	MEDIAN
0.000	0.0	0.0	2.6	100.0	0.023	
0.020	1.8	15.5	0.8	84.5	0.062	
0.040	2.3	41.3	0.3	58.7	0.120	0.106
0.060	2.4	47.9	0.2	52.1	0.160	0.112
0.080	2.4	47.9	0.2	52.1	0.160	
0.100	2.4	47.9	0.2	52.1	0.160	
0.120	2.6	78.4	0.0	21.6	0.331	0.330
0.140	2.6	78.4	0.0	21.6	0.331	0.330
0.160	2.6	78.4	0.0	21.6	0.331	0.330
0.180	2.6	78.4	0.0	21.6	0.331	0.330
0.200	2.6	78.4	0.0	21.6	0.331	0.330
0.220	2.6	78.4	0.0	21.6	0.331	0.330
0.240	2.6	78.4	0.0	21.6	0.331	0.330
0.260	2.6	78.4	0.0	21.6	0.331	0.330
0.280	2.6	78.4	0.0	21.6	0.331	0.330
0.300	2.6	78.4	0.0	21.6	0.331	
0.320	2.6	78.4	0.0	21.6	0.331	
0.340	2.6	100.0	0.0	0.0	0.000	

TOTAL STORAGE CAPACITY IN POROSITY-METRES = 0.061

STATISTICAL DATA FOR POROSITY AND PERMEABILITY HISTOGRAM

COMPANY: PETRO-CANADA EXPLORATION INC.
FIELD : WILDCAT, N.W.T.

WELL : PCI ET AL N.W. TWEED LAKE C
PROVINCE:

MILLIDARCY-METRES OF FLOW CAPACITY LOST FOR SELECTED PERMEABILITY CUT OFF

PERMEABILITY CUT OFF	METRES LOST	CAPACITY LOST (%)	METRES REMAINING	CAPACITY REMAINING (%)	GEOM MEAN	GEOM MEDIAN
0.005	0.0	0.0	2.6	100.0	2.59	1.93
0.010	0.1	0.0	2.5	100.0	3.49	2.05
0.020	0.1	0.0	2.5	100.0	3.49	2.05
0.039	0.2	0.0	2.4	100.0	4.33	2.15
0.078	0.2	0.0	2.4	100.0	4.33	2.15
0.156	0.2	0.0	2.4	100.0	4.33	2.15
0.312	0.2	0.0	2.4	100.0	4.33	2.15
0.625	0.2	0.0	2.4	100.0	4.33	2.15
1.250	0.9	2.1	1.8	97.9	8.04	20.25
2.500	1.6	6.8	1.1	93.2	22.35	26.93
5.	1.6	6.8	1.1	93.2	22.35	26.93
10.	1.6	6.8	1.1	93.2	22.35	26.93
20.	1.7	16.3	0.9	83.7	23.90	
40.	2.6	91.9	0.0	8.1	52.80	
80.	2.6	100.0	0.0	0.0	1.00	

TOTAL FLOW CAPACITY IN MILLIDARCY-METRES(ARITHMETIC) = 25.93

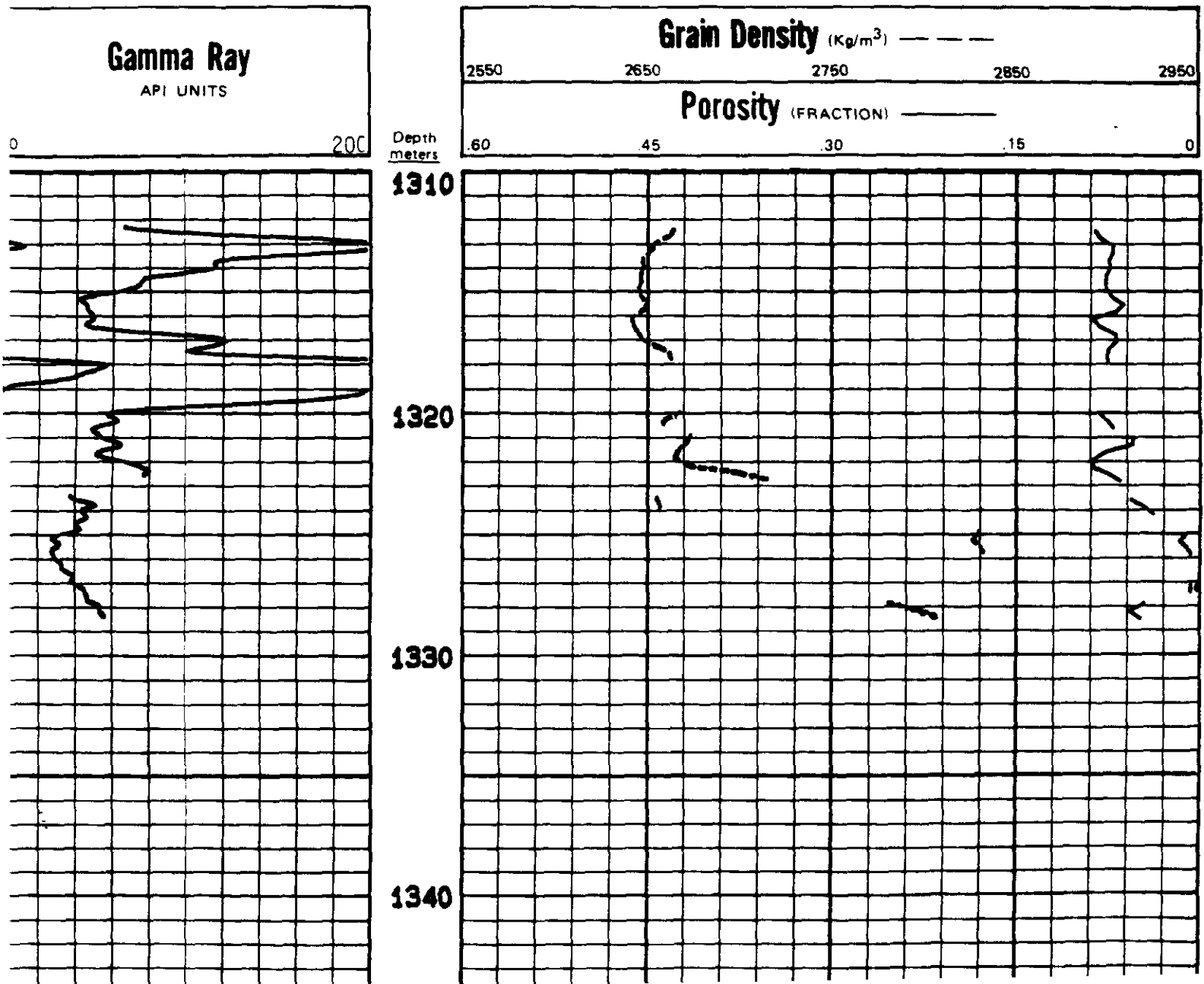
CORE LABORATORIES – CANADA, LTD.

LAB *Petroleum Reservoir Engineering*

COMPANY	PETRO-CANADA EXPLORATION INC.	FILE NO.	70175-86-551C
WELL	PCI ET AL N.W.TWEED LAKE C-12	DATE	
FIELD	WILDCAT, N.W.T.	FORMATION MT. CLARK/PROTEROZOIC	ELEV.
PROVINCE		DRLG. FLD. WATER BASE MUD	CORES 1,2
LOCATION	67 01'01.83" N LAT. 126 03'03.42" W LONG.		

CORRELATION COREGRAPH

VERTICAL SCALE. 10cm = 24m



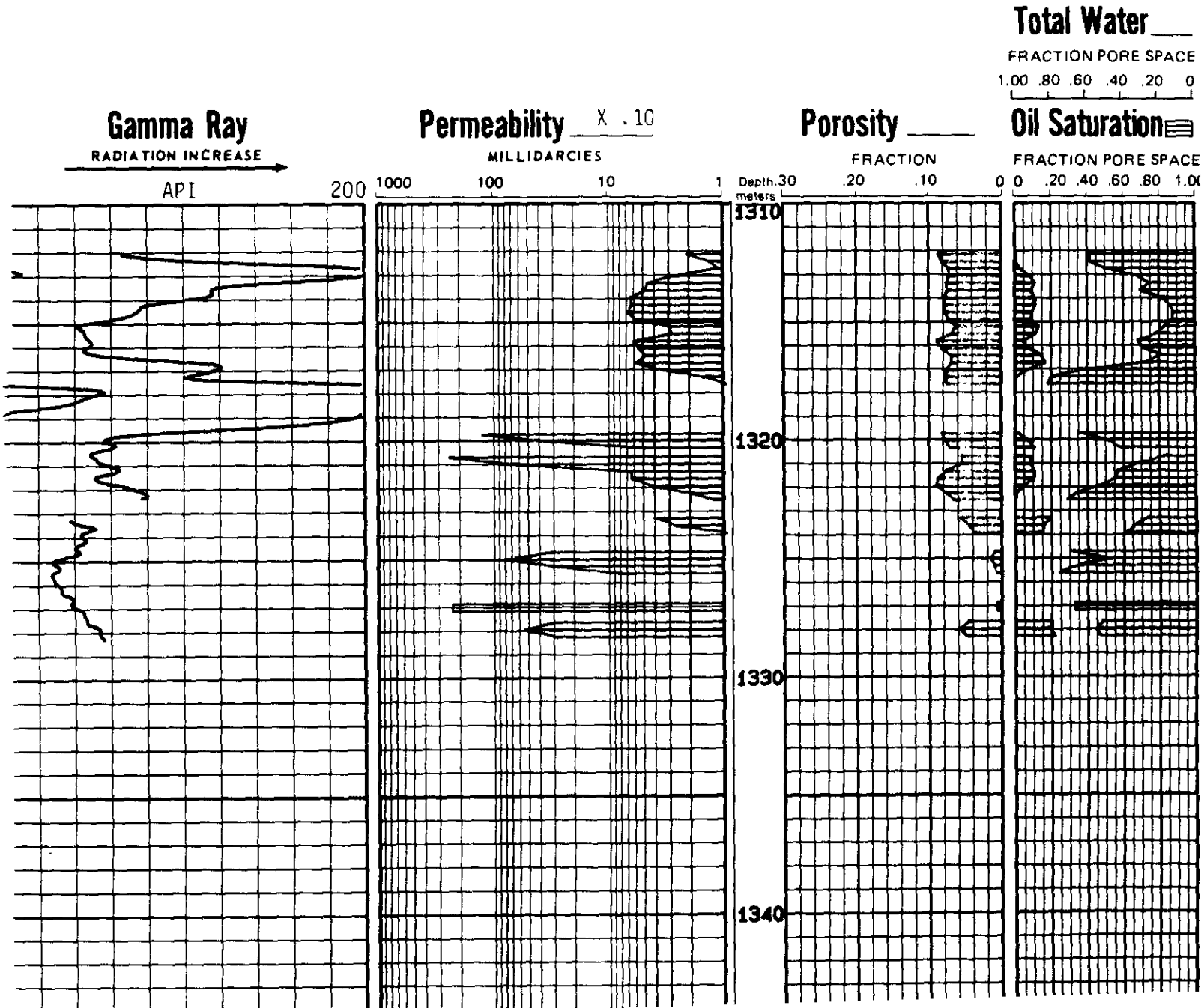
CORE LABORATORIES – CANADA, LTD.

LAB *Petroleum Reservoir Engineering*

COMPANY	PETRO-CANADA EXPLORATION INC.	FILE NO.	70175-86-551C
WELL	PCI ET AL N.W. TWEED LAKE C-12	DATE	
FIELD	WILDCAT, N.W.T.	FORMATION MT. CLARK/PROTEROZOIC	ELEV.
PROVINCE		DRLG. FLD. WATER BASE MUD	CORES 1,2
LOCATION	67 01'01.83" N LAT. 126 03'03.42" W LONG.		

CORRELATION COREGRAPH

VERTICAL SCALE: 10cm = 24m



9211-P2E-1-9 Clg

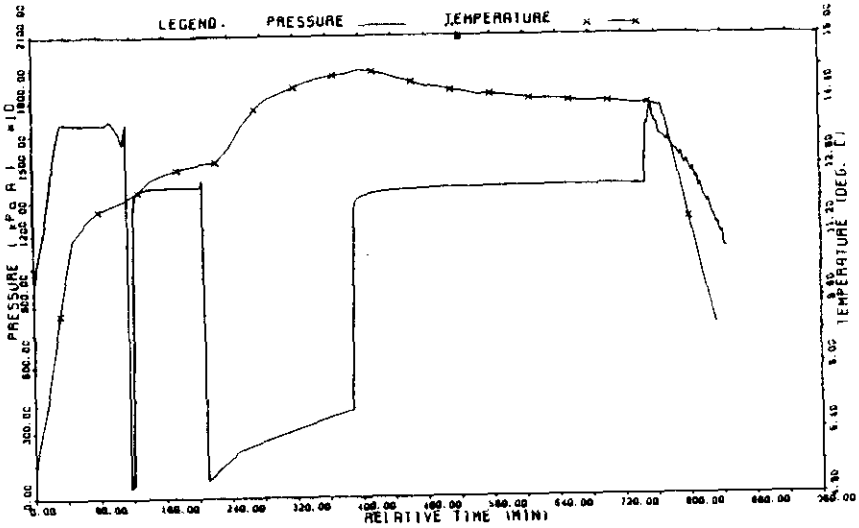
REF#:C-70-999-74228-66

TEST DATE: 86/03/28

PCI ET AL N.W. TWEED LAKE C-12
400/ 67.010 / 126.030 /00
DST#01
1322.00m to 1330.00m
PROTEROZEIC

CALGARY COPY

RECORDER # 002007



DEPTH: 1324.00m

	PRESSURE kPa(a)
1) Initial Hydro :	17021.
2) 1st Flow Start:	465.
3) 1st Flow End :	595.
4) END 1st Shutin:	14203.
5) 2nd Flow Start:	758.
6) 2nd Flow End :	4025.
7) END 2nd Shutin:	14186.
14) Final Hydro. :	17021.

TEST TIMES (MIN)	
1st FLOW :	4.0
SHUTIN:	84.0
2nd FLOW :	178.0
SHUTIN:	358.0

RECOVERY DATA

TOTAL FLUID RECOVERY OF 341.00 M CONSISTED OF 28.00 M OF SALT WATER CUT DRILLING FLUID - 144.00 M OF CLOUDY MUDDY GAS CUT SALT WATER - AND 169.00 M OF GAS CUT BRACKISH SALT WATER. THIS TEST WAS RUN UNDER CLOSED CHAMBER CONDITIONS.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest AVERAGE PERMEABILITY within the interval tested. The drilling fluid contained 176,000 PPM Chlorides. The hydrogen sulphide concentration was greater than 100 PPM.

TABLE OF CONTENTS

LYNES UNITED SERVICES LTD
DST#01 REPORT

Well name : PCI ET AL N.W. TWEED LAKE C-12
Location : 400/ 67.010 / 126.030 /00
Interval : 1322.00m to 1330.00m
Test Date : 86/03/28
Test Type : INFLATE STRADDLE
Formation : PROTEROZEIC

K.B.Elevation : 296.20m
Grd.Elevation : 290.30m
TD @ test Date: 1365.00m
Ticket Number : 74228
Unit Number :

Started in hole at : 2350 hrs
Tool opened at : 0311 hrs
Reverse circulated?: NO
Contractor & Rig No: ATCO #R-76
Lynes#1 : 1 of 1 on the same trip.

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

Company Rep : HELINSKY G
Testers : FORBES G

5 REPORTS(S) TO: DIANNE THEISEN
Company:

BLOW DESCRIPTION

Closed Chamber.

TOTAL LIQUID RECOVERY : 341.00m

For DST# 1 through DST# 1

4 Fluid Samples
Sent to: CORE LAB

Sample Salinity :187000.0g/m3

Btm. Hole Sampler #: 153,61
Sent to: CORE LAB
CORE LAB

28.00m SALT WATER CUT DRILLING FLUID.
144.00m CLOUDY MUDDY GAS CUT SALT WATER.
169.00m GAS CUT BRACKISH SALT WATER.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

SUB	LENGTH (m)
PUMP OUT SUB	.45
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
PORTED COMB SUB	.31
OUTSIDE RECORDER	2.06
SPACING	4.31
PACKER STICK UP	.50
BTM INFLATE PACKER	1.90
BELLY SPRING	2.00

RECORDER SUMMARY

1) NUMBER : 002007 ELECTRONIC GAUGE.
TYPE : DMRB PRESSURES AND
LOCATION: OUTSIDE TEMPERATURE.
RANGE: 34500.00kPa(a)
DEPTH : 1324.00m

2) NUMBER : 009488 ABOVE HYDRAULIC
TYPE : K-3 TOOL.
LOCATION: INSIDE
RANGE: 21000.00kPa
DEPTH : 1309.00m

3) NUMBER : 009496 ABOVE INTERVAL.
TYPE : K-3 STYLUS SET TOO
LOCATION: INSIDE LIGHT.
RANGE: 22100.00kPa
DEPTH : 1316.00m

4) NUMBER : 019664 STYLUS SET TOO
TYPE : K-3 LIGHT.
LOCATION: OUTSIDE
RANGE: 22400.00kPa
DEPTH : 1324.00m

******** TOOL TOTAL	27.36
DRILL COLLARS	
ID= 65.0mm:	169.23
ID= :	
DRILL PIPE	
OD=114.3mm:	1143.86
OD= :	
COLLAR-PIPE TOTAL	1313.09

STICK UP ABOVE TABLE : 6.55
TOOL ABOVE INTERVAL : 15.46
TOTAL INTERVAL : 8.00
BOTTOM CHOKE SIZE: 12.70 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 222.00mm Water Loss : 7.4cc/s
Hole Condition at Test Time : GOOD Filter Cake: 1.5 mm
Hole Conditioned Prior to Test? : YES
Mud Weight : 1280.0 kg/m3 Main Hole Size: 222.00mm
Mud Type : GEL CHEMICAL & SALT
Viscosity : 65.0s/l Temperature @1324.00m = 15.1C

DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00 m to 1330.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: PROTEROZEIC

Recorder Number: 002007
Recorder Depth: 1324.00 m
Subsea Depth: -1027.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
1	INITIAL HYDROSTATIC			17021	
2	START OF 1st FLOW	0.0		465	
		2.0		526	
3	END OF 1st FLOW	4.0		595	
	1st SHUTIN PERIOD	0.0		595	
		2.0	12514	13109	3.0000
		4.0	13238	13833	2.0000
		6.0	13376	13971	1.6667
		10.0	13471	14065	1.4000
		12.0	13496	14091	1.3333
		14.0	13514	14108	1.2857
		16.0	13531	14126	1.2500
		18.0	13540	14134	1.2222
		20.0	13548	14143	1.2000
		22.0	13548	14143	1.1818
		26.0	13565	14160	1.1538*
		28.0	13565	14160	1.1429*
		30.0	13565	14160	1.1333*
		32.0	13574	14169	1.1250*
		34.0	13574	14169	1.1176*
		36.0	13583	14177	1.1111*
		38.0	13583	14177	1.1053*
		42.0	13583	14177	1.0952*
		44.0	13591	14186	1.0909*
		46.0	13591	14186	1.0870*
		48.0	13591	14186	1.0833*
		50.0	13591	14186	1.0800*
		52.0	13591	14186	1.0769*
		54.0	13600	14195	1.0741*
		58.0	13600	14195	1.0690*
		60.0	13600	14195	1.0667*
		62.0	13600	14195	1.0645*

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00 m to 1330.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: PROTEROZEIC

Recorder Number: 002007
Recorder Depth: 1324.00 m
Subsea Depth: -1027.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		64.0	13600	14195	1.0625*
		66.0	13600	14195	1.0606*
		68.0	13600	14195	1.0588*
		70.0	13600	14195	1.0571*
		74.0	13600	14195	1.0541*
		76.0	13600	14195	1.0526*
		78.0	13600	14195	1.0513*
		80.0	13609	14203	1.0500*
		82.0	13609	14203	1.0488*
4	END OF 1st SHUTIN	84.0	13609	14203	1.0476*
5	START OF 2nd FLOW	0.0		758	
		8.0		1034	
		18.0		1439	
		26.0		1681	
		36.0		2051	
		44.0		2232	
		54.0		2370	
		64.0		2517	
		72.0		2629	
		82.0		2767	
		90.0		2870	
		100.0		3008	
		108.0		3120	
		118.0		3249	
		128.0		3387	
		136.0		3490	
		146.0		3620	
		154.0		3723	
		164.0		3852	
		172.0		3947	
6	END OF 2nd FLOW	178.0		4025	
	2nd SHUTIN PERIOD	0.0		4025	

* VALUES USED FOR EXTRAPOLATIONS

DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00 m to 1330.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: PROTEROZEIC

Recorder Number: 002007
Recorder Depth: 1324.00 m
Subsea Depth: -1027.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		10.0	9618	13643	19.2000
		22.0	9799	13824	9.2727
		34.0	9885	13910	6.3529
		46.0	9946	13971	4.9565
		56.0	9980	14005	4.2500
		68.0	10006	14031	3.6765
		80.0	10032	14057	3.2750
		90.0	10049	14074	3.0222
		102.0	10066	14091	2.7843
		114.0	10084	14108	2.5965*
		126.0	10092	14117	2.4444*
		136.0	10101	14126	2.3382*
		148.0	10109	14134	2.2297*
		160.0	10118	14143	2.1375*
		170.0	10118	14143	2.0706*
		182.0	10127	14151	2.0000*
		194.0	10136	14161	1.9381*
		206.0	10135	14160	1.8835*
		216.0	10135	14160	1.8426*
		228.0	10144	14169	1.7982*
		240.0	10144	14169	1.7583*
		250.0	10144	14169	1.7280*
		262.0	10152	14177	1.6947*
		274.0	10152	14177	1.6642*
		286.0	10152	14177	1.6364*
		296.0	10152	14177	1.6149*
		308.0	10161	14186	1.5909*
		320.0	10161	14186	1.5687*
		330.0	10161	14186	1.5515*
		342.0	10161	14186	1.5322*
		354.0	10161	14186	1.5141*
7	END OF 2nd SHUTIN	358.0	10161	14186	1.5084*
14	FINAL HYDROSTATIC			17021	

* VALUES USED FOR EXTRAPOLATIONS

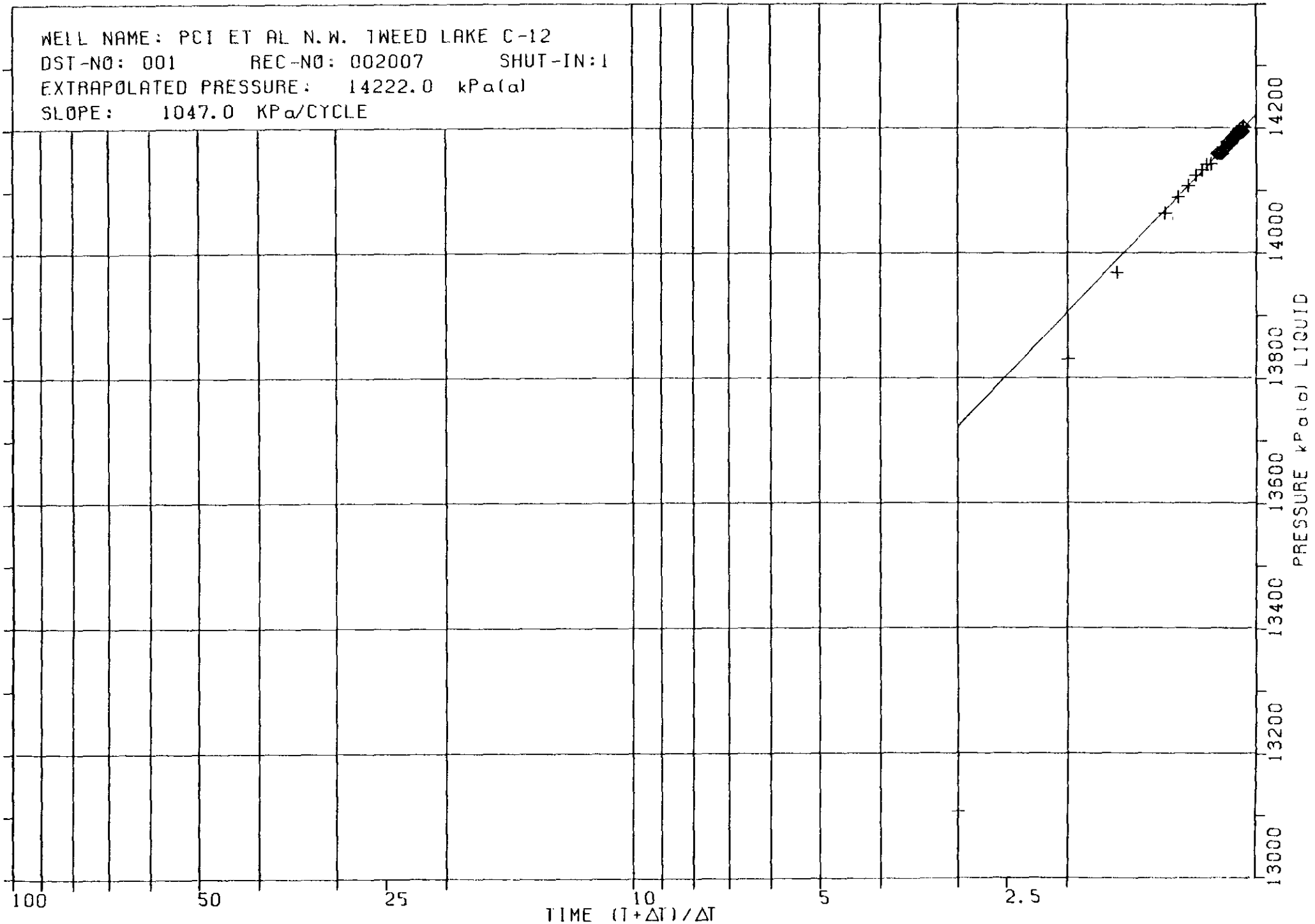
DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00 m to 1330.00 m

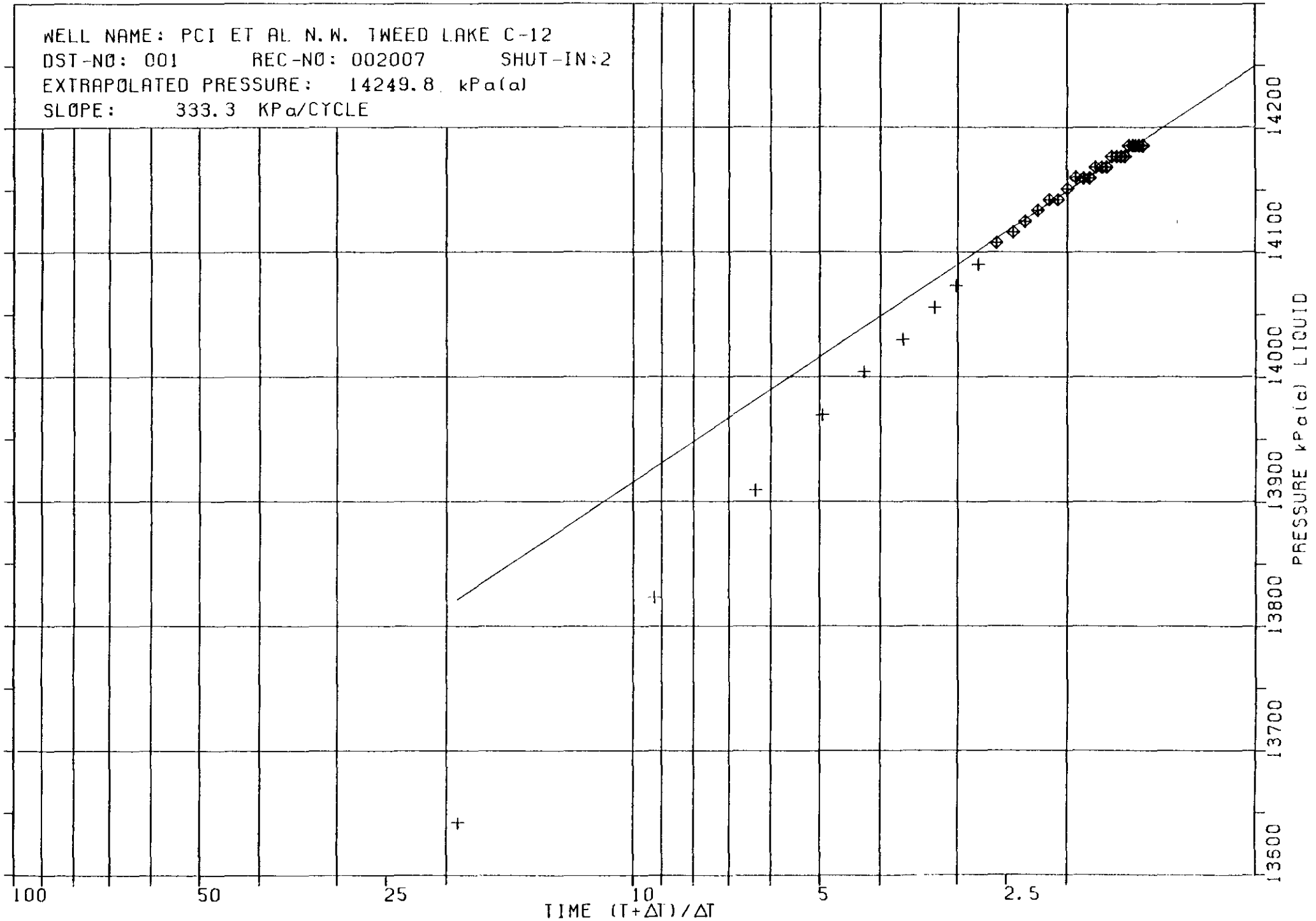
Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: PROTEROZOIC

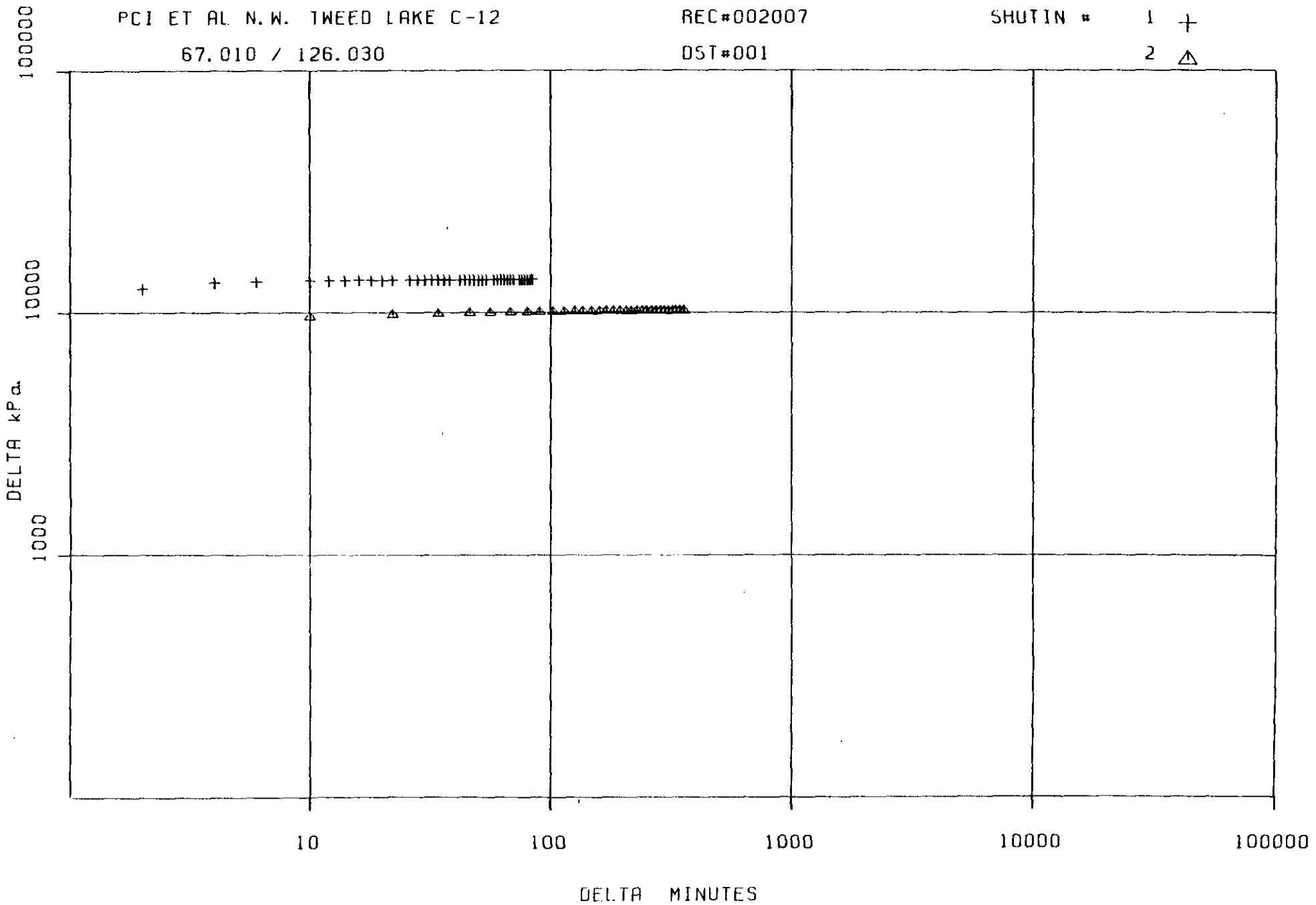
Recorder Number: 002007
Recorder Depth: 1324.00 m
Subsea Depth: -1027.80 m

1st SHUT-IN
HORNER EXTRAPOLATION 14221.98 kPa(a)
HORNER SLOPE 1047.04224 kPa/cycle

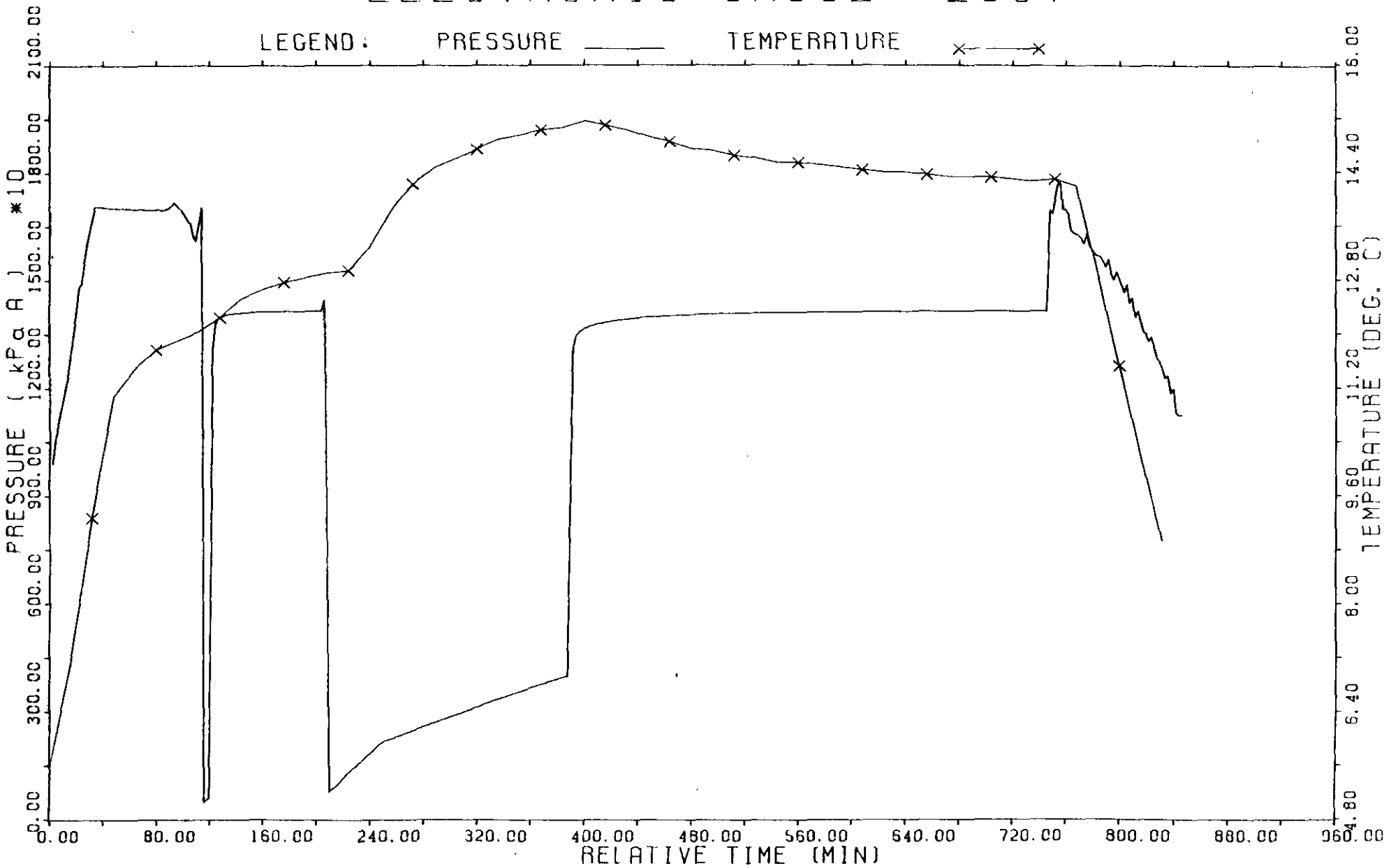
2nd SHUT-IN
HORNER EXTRAPOLATION 14249.82 kPa(a)
HORNER SLOPE 333.32440 kPa/cycle


WELL NAME: PCI ET AL N.W. TWEED LAKE C-12
DST-NO: 001 REC-NO: 002007 SHUT-IN:1
EXTRAPOLATED PRESSURE: 14222.0 kPa(a)
SLOPE: 1047.0 KPa/CYCLE
14200
14000
13800
13600
13400
13200
13000
PRESSURE kPa(a) LIQUID
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT


WELL NAME: PCI ET AL N.W. TWEED LAKE C-12
DST-NO: 001 REC-NO: 002007 SHUT-IN:2
EXTRAPOLATED PRESSURE: 14249.8 kPa(a)
SLOPE: 333.3 KPa/CYCLE
14200
14100
14000
13900
13800
13700
13600
PRESSURE kPa(a) LIQUID
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT


PCI ET AL N.W. TWEED LAKE C-12
67.010 / 126.030
REC#002007
DST#001
SHUTIN #
1
2
100000
10000
1000
DELTA kPa
10
100
1000
10000
100000
DELTA MINUTES

PCI ET AL N. W. TWEED LAKE C-12
67.010 / 126.030 DST #1
ELECTRONIC GAUGE #2007



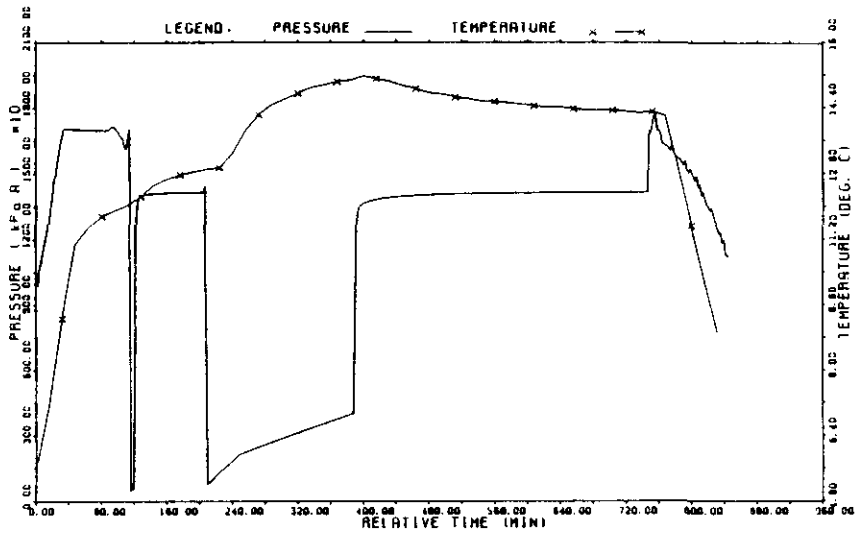
DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00m to 1330.00m

PRESSURE RECORDER NUMBER : 002007

DEPTH : 1324.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 15.1 C

	PRESSURE kPa(a)
1) Initial Hydro :	17021.
2) 1st Flow Start:	465.
3) 1st Flow End :	595.
4) END 1st Shutin:	14203.
5) 2nd Flow Start:	758.
6) 2nd Flow End :	4025.
7) END 2nd Shutin:	14186.
14) Final Hydro. :	17021.



ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

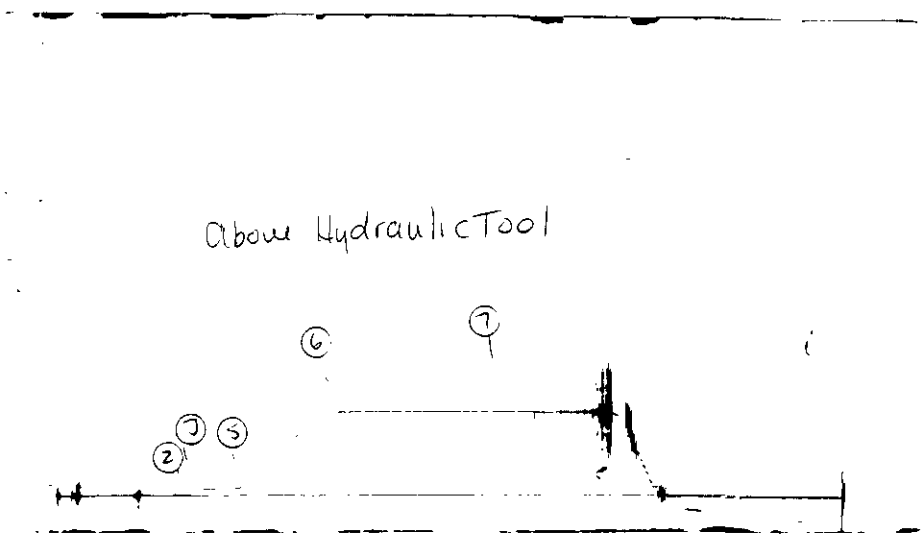
TEST TIMES(MIN)

1st FLOW :	4.0
SHUTIN:	84.0
2nd FLOW :	178.0
SHUTIN:	358.0

PRESSURE RECORDER NUMBER : 009488

DEPTH : 1309.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

	PRESSURE kPa
1) Initial Hydro :	
2) 1st Flow Start:	9.
3) 1st Flow End :	282.
4) END 1st Shutin:	
5) 2nd Flow Start:	343.
6) 2nd Flow End :	3804.
7) END 2nd Shutin:	3804.
14) Final Hydro. :	



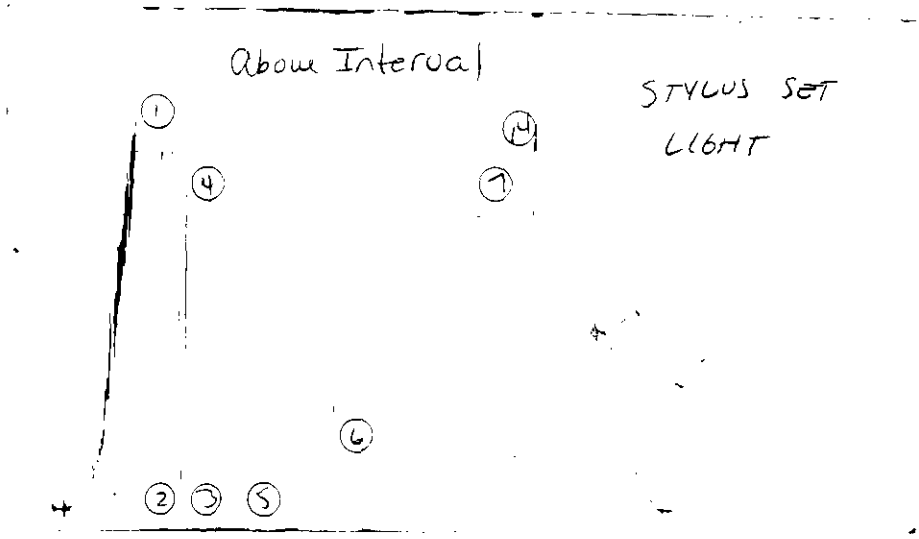
ABOVE HYDRAULIC
TOOL.

DST#01
PCI ET AL N.W. TWEED LAKE C-12
1322.00m to 1330.00m

PRESSURE RECORDER NUMBER : 009496

DEPTH : 1316.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 22100.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16839.
2) 1st Flow Start:	387.
3) 1st Flow End :	441.
4) END 1st Shutin:	13993.
5) 2nd Flow Start:	684.
6) 2nd Flow End :	3661.
7) END 2nd Shutin:	13891.
14) Final Hydro. :	16682.



ABOVE INTERVAL.
STYLUS SET TOO LIGHT.

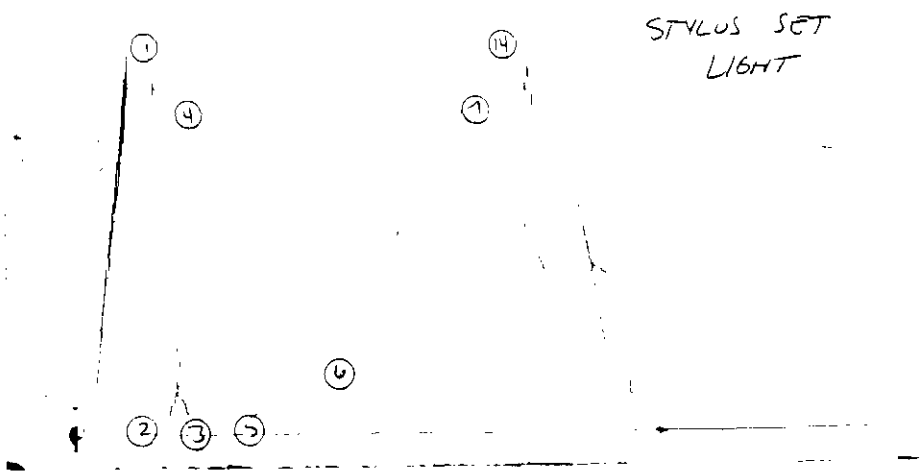
TEST TIMES(MIN)

1st FLOW :	4.0
SHUTIN:	84.0
2nd FLOW :	178.0
SHUTIN:	358.0

PRESSURE RECORDER NUMBER : 019664

DEPTH : 1324.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 22400.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16987.
2) 1st Flow Start:	1519.
3) 1st Flow End :	2077.
4) END 1st Shutin:	14078.
5) 2nd Flow Start:	779.
6) 2nd Flow End :	3878.
7) END 2nd Shutin:	14041.
14) Final Hydro. :	16969.



STYLUS SET TOO LIGHT.

9211-P2E-1-9 CG

E.F.#.: C-70-999-74228-66

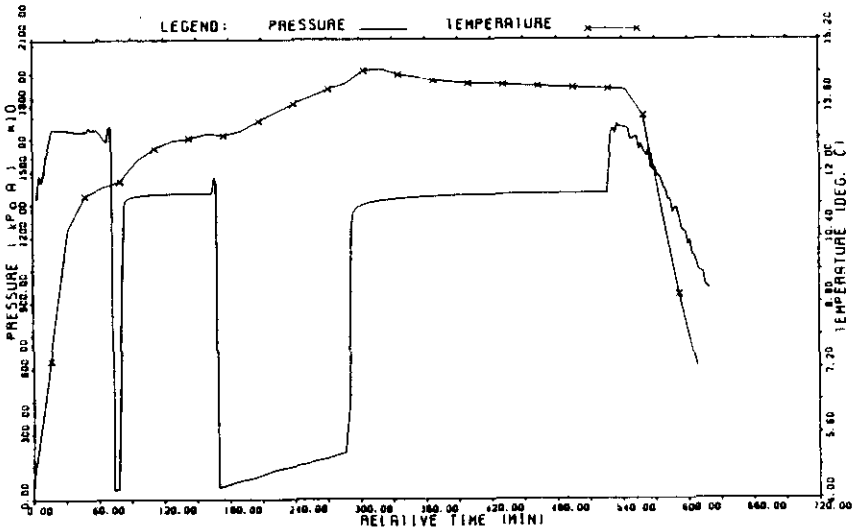
TEST DATE: 86/03/29

PCI ET AL N.W. TWEED LAKE C-12
400/ 67.010 / 126.030 /00
DST#02
1309.00m to 1320.00m
MOUNT CLARK

CALGARY COPY

DEPTH: 1311.00m

RECORDER # 002007



	PRESSURE kPa(a)
1) Initial Hydro :	16909.
2) 1st Flow Start:	422.
3) 1st Flow End :	483.
4) END 1st Shutin:	14048.
5) 2nd Flow Start:	552.
6) 2nd Flow End :	2112.
7) END 2nd Shutin:	14022.
14) Final Hydro. :	16711.

TEST TIMES (MIN)	
1st FLOW :	4.0
SHUTIN:	86.0
2nd FLOW :	116.0
SHUTIN:	240.0

RECOVERY DATA

TOTAL FLUID RECOVERY CONSISTED OF 170.00 M OF SALT WATER CUT DRILLING FLUID.
THIS TEST WAS RUN UNDER CLOSED CHAMBER CONDITIONS.

REMARKS AND TEST SUMMARY

Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut- in curves suggest AVERAGE PERMEABILITY within the interval tested. The test results suggest formation damage. The drilling fluid contained 176,000 PPM chlorides.

TABLE OF CONTENTS

LYNES UNITED SERVICES LTD
DST#02 REPORT

Well name : PCI ET AL N.W. TWEED LAKE C-12
Location : 400/ 67.010 / 126.030 /00
Interval : 1309.00m to 1320.00m
Test Date : 86/03/29
Test Type : INFLATE STRADDLE
Formation : MOUNT CLARK

K.B.Elevation : 296.20m
Grd.Elevation : 290.30m
TD @ test Date: 1365.00m
Ticket Number : 74229
Unit Number :

Started in hole at : 1925 hrs
Tool opened at : 2207 hrs
Reverse circulated?: NO
Contractor & Rig No: ATCO #R-76
Lynes#2 : 1 of 1 on the same trip.

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

Company Rep : HELINSKY G
Testers : FORBES G

5 REPORTS(S) TO: DIANNE THEISEN
Company:

BLOW DESCRIPTION

Closed chamber.

TOTAL LIQUID RECOVERY : 170.00m

For DST# 2 through DST# 2

3 Fluid Samples
Sent to: CORE LAB

Btm. Hole Sampler #: 192,230
Sent to: CORE LAB
CORE LAB

170.00m SALT WATER CUT DRILLING FLUID.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

SUB	LENGTH (m)
PUMP OUT SUB	.45
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
PORTED COMB SUB	.31
OUTSIDE RECORDER	2.06
SPACING	7.31
PACKER STICK UP	.50
BTM INFLATE PACKER	1.90
BELLY SPRING	2.00

RECORDER SUMMARY

1) NUMBER : 002007 ELECTRONIC GAUGE.
TYPE : DMRB PRESSURES AND
LOCATION: OUTSIDE TEMPERATURE.
RANGE: 34500.00kPa(a)
DEPTH : 1311.00m

2) NUMBER : 009488 ABOVE HYDRAULIC
TYPE : K-3 TOOL.
LOCATION: INSIDE
RANGE: 21000.00kPa
DEPTH : 1296.00m

3) NUMBER : 009496 ABOVE INTERVAL.
TYPE : K-3 STYLUS SET TOO
LOCATION: INSIDE LIGHT.
RANGE: 22100.00kPa
DEPTH : 1303.00m

4) NUMBER : 019664 STYLUS SET TOO
TYPE : K-3 LIGHT.
LOCATION: OUTSIDE
RANGE: 21000.00kPa
DEPTH : 1311.00m

******** TOOL TOTAL	30.36
DRILL COLLARS	
ID= 65.0mm:	168.18
ID= :	
DRILL PIPE	
OD=114.3mm:	1134.07
OD= :	
COLLAR-PIPE TOTAL	1302.25

STICK UP ABOVE TABLE : 8.71
TOOL ABOVE INTERVAL : 15.46
TOTAL INTERVAL : 11.00
BOTTOM CHOKE SIZE: 12.70 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 225.00mm Water Loss : 7.4cc/s
Hole Condition at Test Time : GOOD Filter Cake: 1.5 mm
Hole Conditioned Prior to Test? : NO
Mud Weight : 1280.0 kg/m3 Main Hole Size: 222.00mm
Mud Type : GEL CHEMICAL & SALT
Viscosity : 65.0s/l Temperature @1311.00m = 14.4C

DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00 m to 1320.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 002007
Recorder Depth: 1311.00 m
Subsea Depth: -1014.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
1	INITIAL HYDROSTATIC			16909	
2	START OF 1st FLOW	0.0		422	
		2.0		457	
3	END OF 1st FLOW	4.0		483	
	1st SHUTIN PERIOD	0.0		483	
		4.0	10316	10799	2.0000
		6.0	13126	13609	1.6667
		8.0	13281	13764	1.5000
		10.0	13341	13824	1.4000
		12.0	13384	13867	1.3333
		14.0	13410	13893	1.2857
		16.0	13427	13910	1.2500*
		20.0	13462	13945	1.2000*
		22.0	13471	13953	1.1818*
		24.0	13479	13962	1.1667*
		26.0	13488	13971	1.1538*
		28.0	13496	13979	1.1429*
		30.0	13496	13979	1.1333*
		32.0	13505	13988	1.1250*
		36.0	13514	13996	1.1111*
		38.0	13522	14005	1.1053*
		40.0	13522	14005	1.1000*
		42.0	13522	14005	1.0952*
		44.0	13522	14005	1.0909*
		46.0	13531	14014	1.0870*
		48.0	13531	14014	1.0833*
		52.0	13540	14022	1.0769*
		54.0	13540	14022	1.0741*
		56.0	13540	14022	1.0714*
		58.0	13540	14022	1.0690*
		60.0	13548	14031	1.0667*
		62.0	13548	14031	1.0645*

* VALUES USED FOR EXTRAPOLATIONS

DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00 m to 1320.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 002007
Recorder Depth: 1311.00 m
Subsea Depth: -1014.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		64.0	13548	14031	1.0625*
		68.0	13548	14031	1.0588*
		70.0	13557	14039	1.0571*
		72.0	13557	14039	1.0556*
		74.0	13557	14039	1.0541*
		76.0	13557	14039	1.0526*
		78.0	13557	14039	1.0513*
		80.0	13557	14039	1.0500*
		84.0	13557	14039	1.0476*
4	END OF 1st SHUTIN	86.0	13565	14048	1.0465*
5	START OF 2nd FLOW	0.0		552	
		8.0		672	
		14.0		776	
		20.0		853	
		28.0		939	
		34.0		1017	
		42.0		1155	
		48.0		1258	
		56.0		1370	
		62.0		1439	
		68.0		1500	
		76.0		1586	
		82.0		1646	
		90.0		1767	
		96.0		1836	
		104.0		1948	
		110.0		2043	
6	END OF 2nd FLOW	116.0		2112	
	2nd SHUTIN PERIOD	0.0		2112	
		8.0	11023	13135	16.0000
		14.0	11325	13436	9.5714
		22.0	11480	13591	6.4545

* VALUES USED FOR EXTRAPOLATIONS

DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00 m to 1320.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

Recorder Number: 002007
Recorder Depth: 1311.00 m
Subsea Depth: -1014.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		28.0	11540	13652	5.2857
		36.0	11600	13712	4.3333
		42.0	11635	13746	3.8571
		48.0	11669	13781	3.5000
		56.0	11695	13807	3.1429
		62.0	11721	13833	2.9355
		70.0	11747	13858	2.7143
		76.0	11755	13867	2.5789
		84.0	11773	13884	2.4286
		90.0	11790	13902	2.3333*
		96.0	11799	13910	2.2500*
		104.0	11807	13919	2.1538*
		110.0	11816	13927	2.0909*
		118.0	11824	13936	2.0169*
		124.0	11833	13945	1.9677*
		132.0	11842	13953	1.9091*
		138.0	11850	13962	1.8696*
		144.0	11850	13962	1.8333*
		152.0	11859	13971	1.7895*
		158.0	11868	13979	1.7595*
		166.0	11876	13988	1.7229*
		172.0	11876	13988	1.6977*
		180.0	11876	13988	1.6667*
		186.0	11885	13996	1.6452*
		192.0	11885	13996	1.6250*
		200.0	11893	14005	1.6000*
		206.0	11893	14005	1.5825*
		214.0	11893	14005	1.5607*
		220.0	11902	14014	1.5455*
		228.0	11902	14014	1.5263*
		234.0	11902	14014	1.5128*
7	END OF 2nd SHUTIN	240.0	11911	14022	1.5000*
14	FINAL HYDROSTATIC			16711	

* VALUES USED FOR EXTRAPOLATIONS

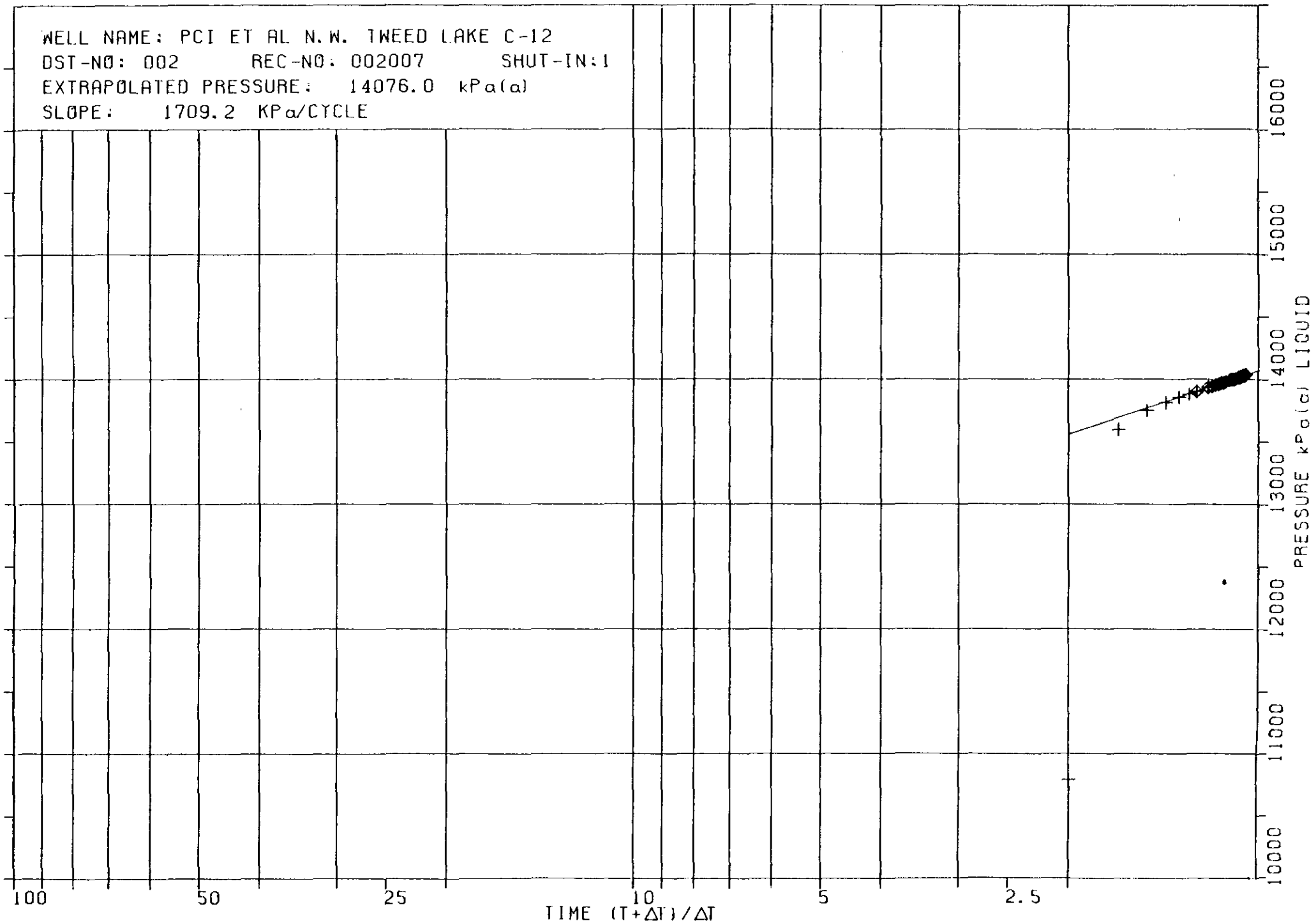
DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00 m to 1320.00 m

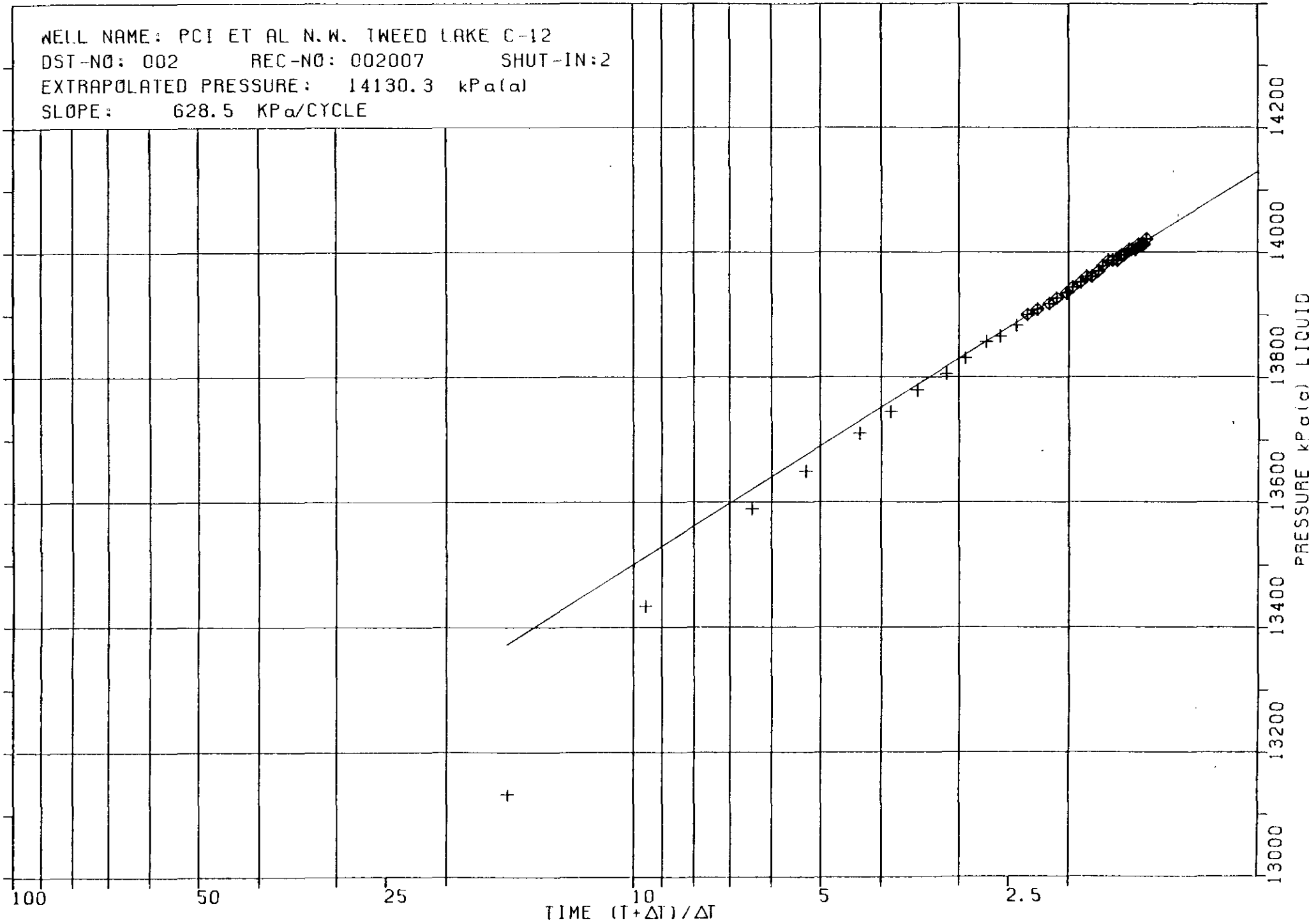
Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CLARK

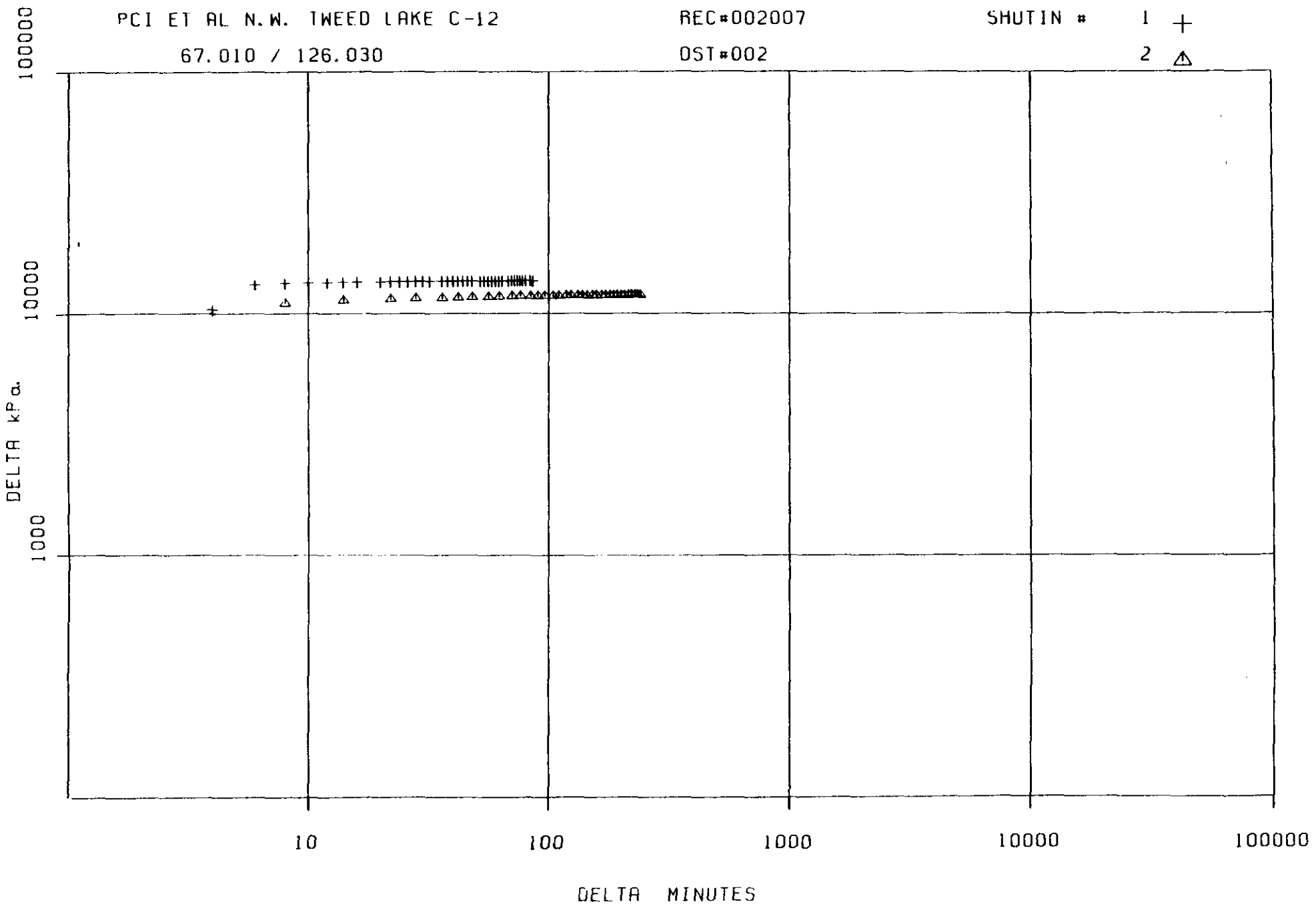
Recorder Number: 002007
Recorder Depth: 1311.00 m
Subsea Depth: -1014.80 m

1st SHUT-IN
HORNER EXTRAPOLATION 14076.04 kPa(a)
HORNER SLOPE 1709.22925 kPa/cycle

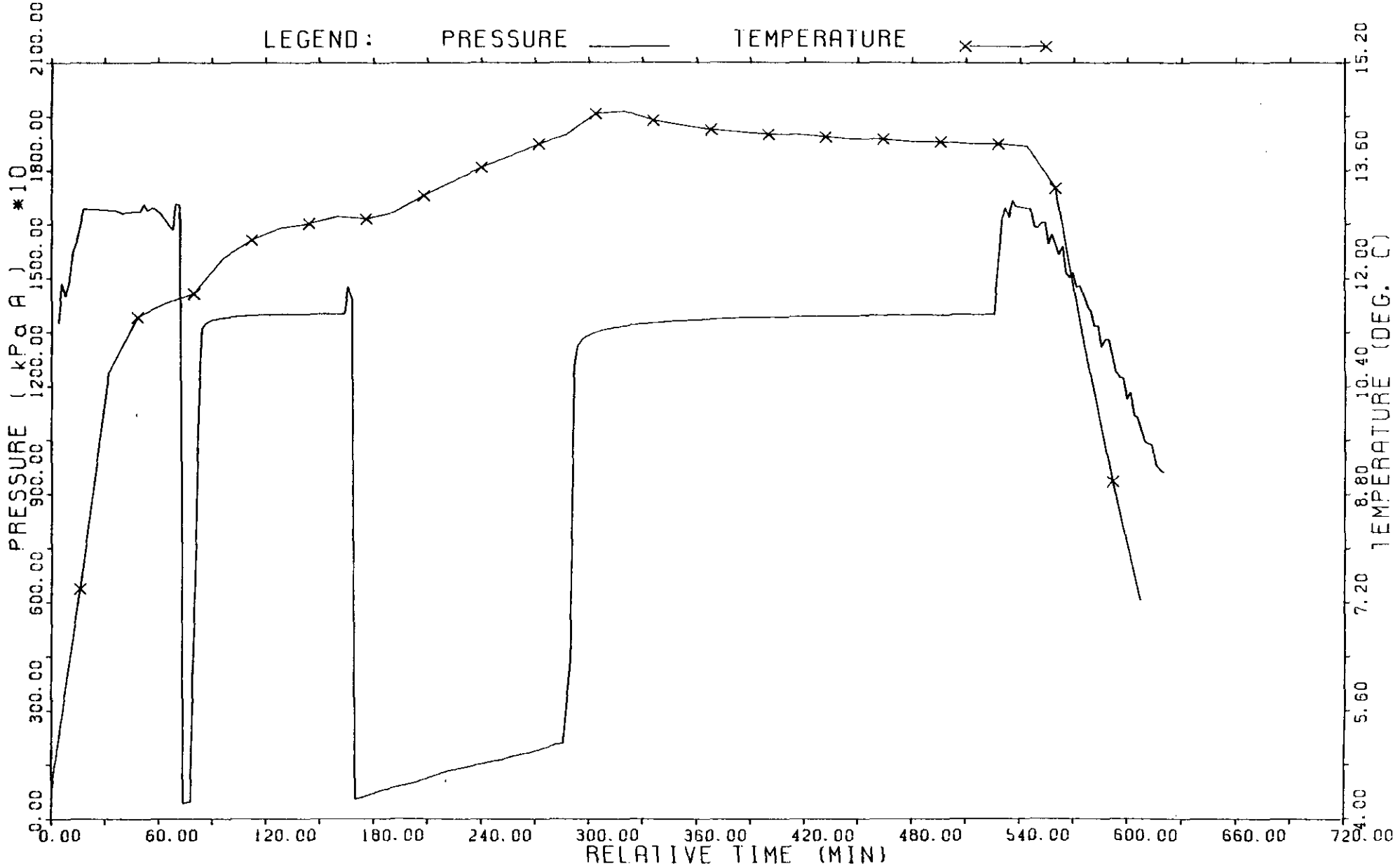
2nd SHUT-IN
HORNER EXTRAPOLATION 14130.30 kPa(a)
HORNER SLOPE 628.48828 kPa/cycle


WELL NAME: PCI ET AL N.W. TWEED LAKE C-12
DST-NO: 002 REC-NO: 002007 SHUT-IN:1
EXTRAPOLATED PRESSURE: 14076.0 kPa(a)
SLOPE: 1709.2 KPa/CYCLE
16000
15000
14000
13000
12000
11000
10000
PRESSURE kPa(a) LIQUID
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT


WELL NAME: PCI ET AL N.W. TWEED LAKE C-12
DST-NO: 002 REC-NO: 002007 SHUT-IN:2
EXTRAPOLATED PRESSURE: 14130.3 kPa(a)
SLOPE: 628.5 KPa/CYCLE
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT
13000
13200
13400
13600
13800
14000
14200
PRESSURE kPa(a) LIQUID


PCI ET AL N.W. TWEED LAKE C-12
67.010 / 126.030
REC#002007
OST#002
SHUTIN # 1
2
100000
10000
1000
DELTA kPa
10
100
1000
10000
100000
DELTA MINUTES

PCI ET AL N.W. TWEED LAKE C-12
67.010 / 126.030 DST #2
ELECTRONIC GAUGE #2007



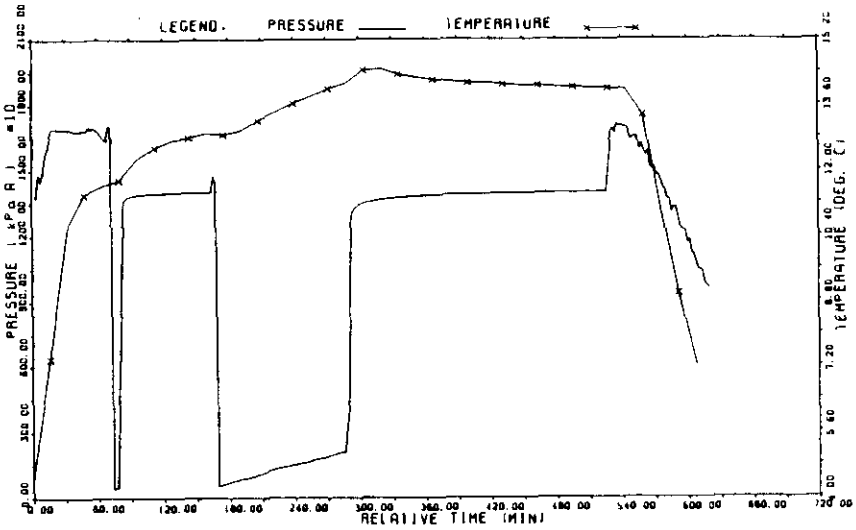
DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00m to 1320.00m

PRESSURE RECORDER NUMBER : 002007

DEPTH : 1311.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 14.4 C

	PRESSURE kPa(a)
1) Initial Hydro :	16909.
2) 1st Flow Start:	422.
3) 1st Flow End :	483.
4) END 1st Shutin:	14048.
5) 2nd Flow Start:	552.
6) 2nd Flow End :	2112.
7) END 2nd Shutin:	14022.
14) Final Hydro. :	16711.



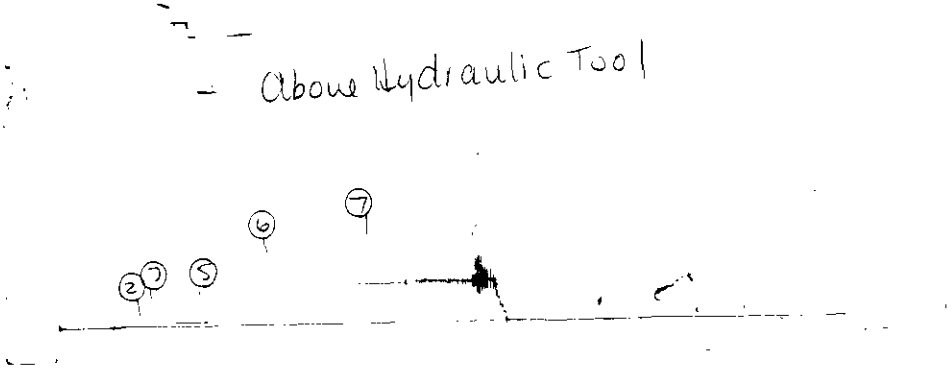
ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

TEST TIMES(MIN)
1st FLOW : 4.0
SHUTIN: 86.0
2nd FLOW : 116.0
SHUTIN: 240.0

PRESSURE RECORDER NUMBER : 009488

DEPTH : 1296.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

	PRESSURE kPa
1) Initial Hydro :	
2) 1st Flow Start:	18.
3) 1st Flow End :	167.
4) END 1st Shutin:	
5) 2nd Flow Start:	185.
6) 2nd Flow End :	1839.
7) END 2nd Shutin:	1839.
14) Final Hydro. :	



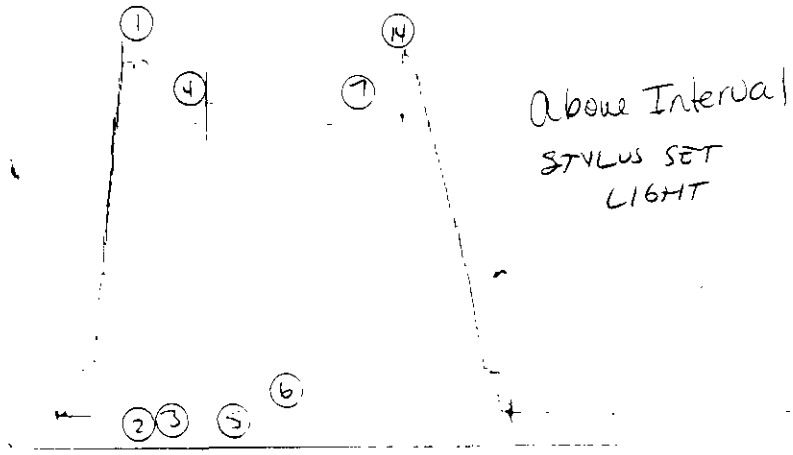
ABOVE HYDRAULIC
TOOL.

DST#02
PCI ET AL N.W. TWEED LAKE C-12
1309.00m to 1320.00m

PRESSURE RECORDER NUMBER : 009496

DEPTH : 1303.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 22100.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16719.
2) 1st Flow Start:	360.
3) 1st Flow End :	360.
4) END 1st Shutin:	13817.
5) 2nd Flow Start:	522.
6) 2nd Flow End :	1854.
7) END 2nd Shutin:	13799.
14) Final Hydro. :	16608.



ABOVE INTERVAL.
STYLUS SET TOO
LIGHT.

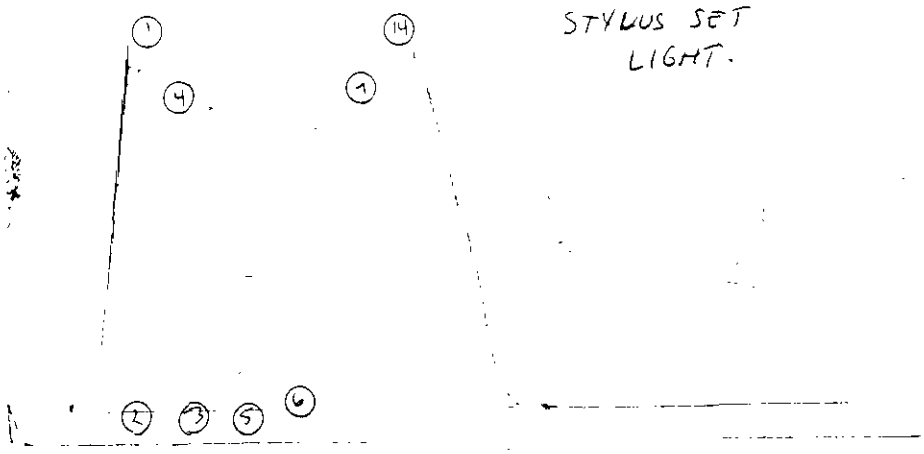
TEST TIMES(MIN)

1st FLOW :	4.0
SHUTIN:	86.0
2nd FLOW :	116.0
SHUTIN:	240.0

PRESSURE RECORDER NUMBER : 019664

DEPTH : 1311.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16856.
2) 1st Flow Start:	500.
3) 1st Flow End :	481.
4) END 1st Shutin:	13928.
5) 2nd Flow Start:	606.
6) 2nd Flow End :	2019.
7) END 2nd Shutin:	13900.
14) Final Hydro. :	16697.



STYLUS SET TOO
LIGHT.

4311-P3E 1-7 CCG

RTI#:C-70-999-74228-66

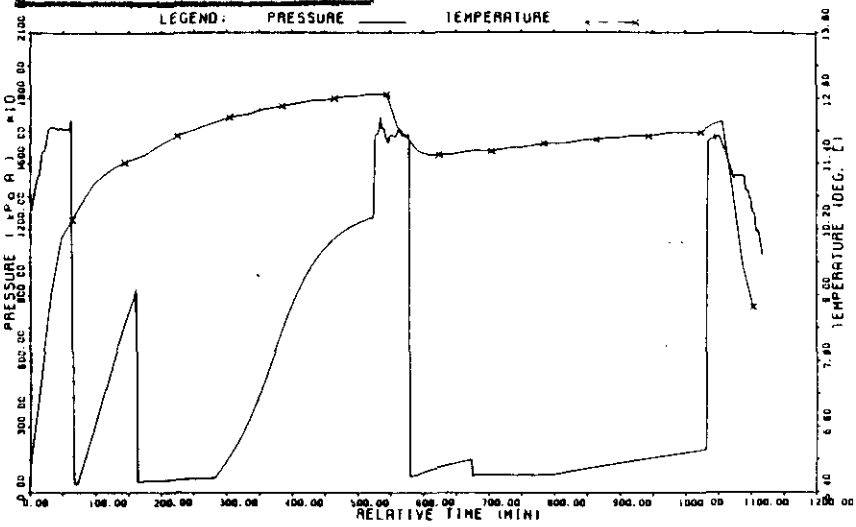
TEST DATE: 86/03/30

PCI ET AL N.W. TWEED LAKE C-12
400/ 67.010 / 126.030 /00
DST#03
1290.00m to 1301.00m
MOUNT CAP

CALGARY COPY

DEPTH: 1292.00m

RECORDER # 002007



	PRESSURE kPa(a)
1) Initial Hydro :	16573.
2) 1st Flow Start:	345.
3) 1st Flow End :	362.
4) END 1st Shutin:	8867.
5) 2nd Flow Start:	440.
6) 2nd Flow End :	664.
7) END 2nd Shutin:	12617.
14) Final Hydro. :	16375.

TEST TIMES (MIN)	
1st FLOW :	4.0
SHUTIN:	86.0
2nd FLOW :	118.0
SHUTIN:	242.0

RECOVERY DATA

TOTAL FLUID RECOVERED FOR DST #3 AND #4 CONSISTED OF 37.00 M OF DRILLING FLUID. THIS TEST WAS RUN UNDER CLOSED CHAMBER CONDITIONS.

REMARKS AND TEST SUMMARY

This is the first of two tests run on the same trip in the hole. Test results indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest VERY LOW PERMEABILITY within the interval tested. The initial and the final shut-ins were incremented but not extrapolated due to insufficient curve development. The recorder run above the hydraulic tool indicates that approximately 26.00 meters of the fluid recovered was produced on this test.

TABLE OF CONTENTS

LYNES UNITED SERVICES LTD
DST#03 REPORT

Well name : PCI ET AL N.W. TWEED LAKE C-12
Location : 400/ 67.010 / 126.030 /00
Interval : 1290.00m to 1301.00m
Test Date : 86/03/30
Test Type : INFLATE STRADDLE
Formation : MOUNT CAP

K.B.Elevation : 296.20m
Grd.Elevation : 290.30m
TD @ test Date: 1365.00m
Ticket Number : 74230
Unit Number :

Started in hole at : 1645 hrs
Tool opened at : 1935 hrs
Reverse circulated?: NO
Contractor & Rig No: ATCO #R-76
Lynes#3 : 1 of 2 on the same trip.

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

Company Rep : HELINSKY G
Testers : FORBES G

5 REPORTS(S) TO: DIANNE THEISEN
Company:

BLOW DESCRIPTION

Closed Chamber.

TOTAL LIQUID RECOVERY : 37.00m

For DST# 3 through DST# 4

2 Fluid Samples
Sent to: CORE LAB - CALGARY

Sample Salinity :227000.0g/m3

37.00m DRILLING FLUID.

GAS MEASUREMENTS

No Gas Measurements

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00m to 1301.00m

TOOL SEQUENCE

SUB	LENGTH (m)
PUMB OUT SUB	.45
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
PORTED COMB SUB	.31
OUTSIDE RECORDER	2.06
SPACING	7.31
PACKER STICK UP	.50
BTM INFLATE PACKER	1.90
BELLY SPRING	2.00

RECORDER SUMMARY

1) NUMBER : 002007 ELECTRONIC GAUGE.
TYPE : DMRB PRESSURES AND
LOCATION: OUTSIDE TEMPERATURE.
RANGE: 34500.00kPa(a)
DEPTH : 1292.00m

2) NUMBER : 009488 ABOVE HYDRAULIC
TYPE : K-3 TOOL.
LOCATION: INSIDE
RANGE: 21000.00kPa
DEPTH : 1277.00m

3) NUMBER : 009496 ABOVE INTERVAL.
TYPE : K-3 STYLUS SET TOO
LOCATION: INSIDE LIGHT.
RANGE: 22100.00kPa
DEPTH : 1284.00m

4) NUMBER : 019664 STYLUS SET TOO
TYPE : K-3 LIGHT.
LOCATION: OUTSIDE
RANGE: 22400.00kPa
DEPTH : 1292.00m

******** TOOL TOTAL	30.36
DRILL COLLARS	
ID= 65.0mm:	168.33
ID= :	
DRILL PIPE	
OD=114.0mm:	1115.01
OD= :	
COLLAR-PIPE TOTAL	1283.34

STICK UP ABOVE TABLE : 8.80
TOOL ABOVE INTERVAL : 15.46
TOTAL INTERVAL : 11.00
BOTTOM CHOKE SIZE: 12.70 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 225.00mm Water Loss : 7.0cc/s
Hole Condition at Test Time : GOOD Filter Cake: 1.5 mm
Hole Conditioned Prior to Test? : YES
Mud Weight : 1260.0 kg/m3 Main Hole Size: 222.00mm
Mud Type : SALT GEL
Viscosity : 60.0s/l Temperature @1292.00m = 12.6C

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00 m to 1301.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CAP

Recorder Number: 002007
Recorder Depth: 1292.00 m
Subsea Depth: -995.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
1	INITIAL HYDROSTATIC			16573	
2	START OF 1st FLOW	0.0		345	
		2.0		353	
3	END OF 1st FLOW	4.0		362	
	1st SHUTIN PERIOD	0.0		362	
		2.0	121	483	3.0000
		4.0	353	715	2.0000
		6.0	569	931	1.6667
		10.0	982	1344	1.4000
		12.0	1189	1551	1.3333
		14.0	1388	1750	1.2857
		16.0	1586	1948	1.2500
		18.0	1801	2163	1.2222
		20.0	2008	2370	1.2000
		22.0	2215	2577	1.1818
		26.0	2637	2999	1.1538
		28.0	2844	3206	1.1429
		30.0	3060	3422	1.1333
		32.0	3284	3646	1.1250
		34.0	3499	3861	1.1176
		36.0	3706	4068	1.1111
		38.0	3921	4283	1.1053
		42.0	4352	4714	1.0952
		44.0	4421	4783	1.0909
		46.0	4637	4999	1.0870
		48.0	4844	5206	1.0833
		50.0	5059	5421	1.0800
		52.0	5266	5628	1.0769
		54.0	5481	5843	1.0741
		58.0	5895	6257	1.0690
		60.0	6102	6464	1.0667
		62.0	6300	6662	1.0645

* VALUES USED FOR EXTRAPOLATIONS

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00 m to 1301.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CAP

Recorder Number: 002007
Recorder Depth: 1292.00 m
Subsea Depth: -995.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		64.0	6490	6852	1.0625
		66.0	6688	7050	1.0606
		68.0	6886	7248	1.0588
		70.0	7076	7438	1.0571
		74.0	7446	7808	1.0541
		76.0	7627	7989	1.0526
		78.0	7808	8170	1.0513
		80.0	7989	8351	1.0500
		82.0	8162	8524	1.0488
		84.0	8334	8696	1.0476
4	END OF 1st SHUTIN	86.0	8505	8867	1.0465
5	START OF 2nd FLOW	0.0		440	
		6.0		491	
		14.0		543	
		20.0		526	
		26.0		534	
		34.0		552	
		40.0		560	
		48.0		577	
		54.0		577	
		62.0		595	
		68.0		603	
		74.0		612	
		82.0		629	
		88.0		629	
		96.0		646	
		102.0		646	
		110.0		655	
		116.0		664	
6	END OF 2nd FLOW	118.0		664	
	2nd SHUTIN PERIOD	0.0		664	
		8.0	310	974	16.2500

* VALUES USED FOR EXTRAPOLATIONS

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00 m to 1301.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CAP

Recorder Number: 002007
Recorder Depth: 1292.00 m
Subsea Depth: -995.80 m

TIME-PRESSURE LISTING

CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
		14.0	569	1232	9.7143
		20.0	845	1508	7.1000
		28.0	1232	1896	5.3571
		34.0	1543	2206	4.5882
		42.0	1982	2646	3.9048
		48.0	2361	3025	3.5417
		56.0	2904	3568	3.1786
		62.0	3335	3999	2.9677
		68.0	3784	4447	2.7941
		76.0	4413	5076	2.6053
		82.0	4921	5585	2.4878
		90.0	5602	6266	2.3556
		96.0	6119	6783	2.2708
		104.0	6791	7455	2.1731
		110.0	7274	7938	2.1091
		116.0	7739	8403	2.0517
		124.0	8300	8963	1.9839
		130.0	8696	9360	1.9385
		138.0	9179	9842	1.8841
		144.0	9506	10170	1.8472
		152.0	9894	10558	1.8026
		158.0	10152	10816	1.7722
		164.0	10377	11040	1.7439
		172.0	10652	11316	1.7093
		178.0	10833	11497	1.6854
		186.0	11049	11712	1.6559
		192.0	11187	11850	1.6354
		200.0	11359	12023	1.6100
		206.0	11462	12126	1.5922
		212.0	11566	12230	1.5755
		220.0	11687	12350	1.5545
		226.0	11764	12428	1.5398
		234.0	11868	12531	1.5214
		240.0	11928	12592	1.5083
7	END OF 2nd SHUTIN	242.0	11954	12617	1.5041

* VALUES USED FOR EXTRAPOLATIONS

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00 m to 1301.00 m

Location: 400/ 67.010 / 126.030 /00
Test Type: INFLATE STRADDLE
Formation: MOUNT CAP

Recorder Number: 002007
Recorder Depth: 1292.00 m
Subsea Depth: -995.80 m

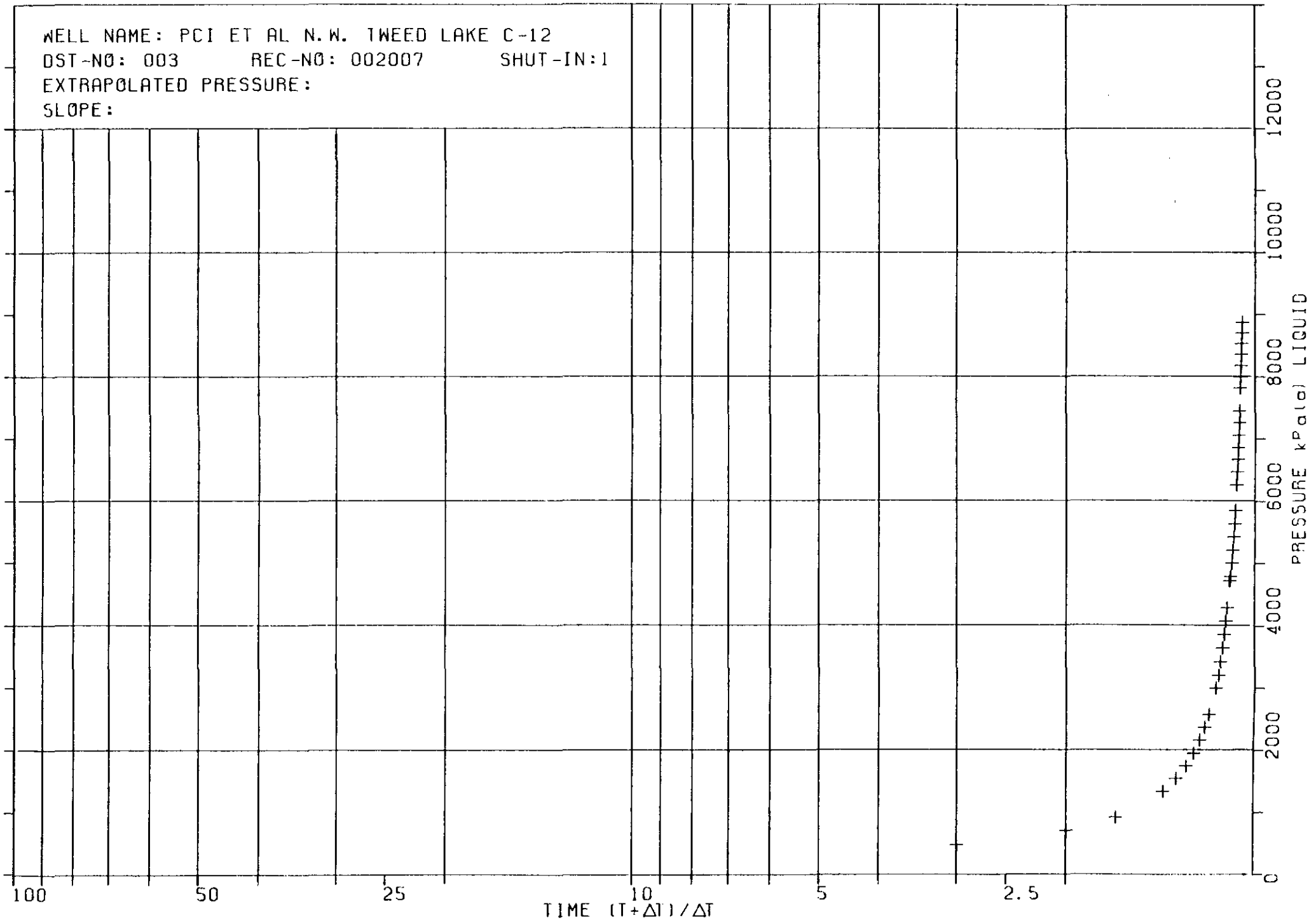
TIME-PRESSURE LISTING

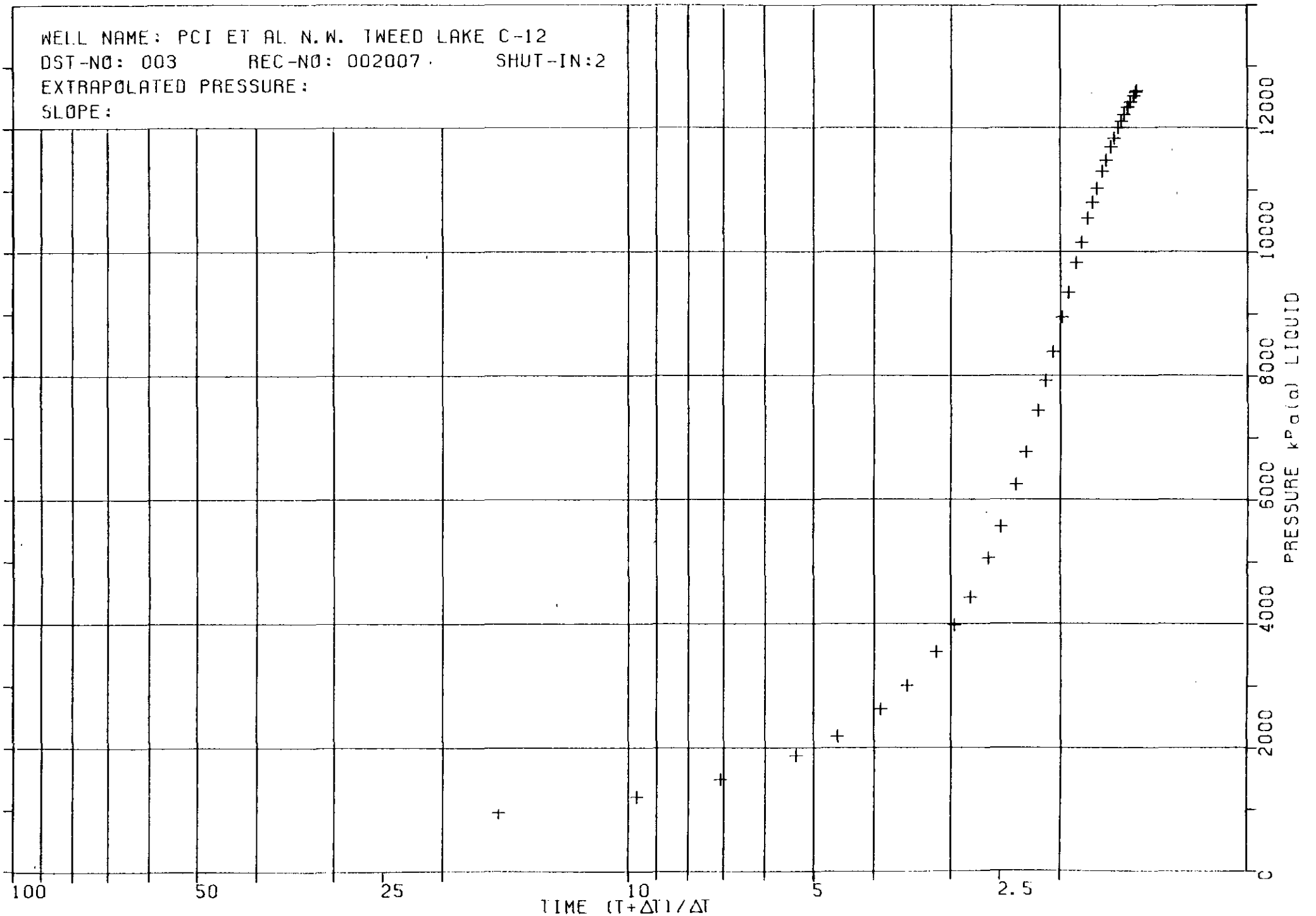
CHART LABEL	COMMENTS	TIME MIN.	DELTA P kPa	PRESSURE kPa(a)	(T+dt)/dt ABSCISSA
14	FINAL HYDROSTATIC			16375	

* VALUES USED FOR EXTRAPOLATIONS

1st SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle

2nd SHUT-IN
HORNER EXTRAPOLATION .00 kPa(a)
HORNER SLOPE .00000 kPa/cycle


WELL NAME: PCI ET AL N.W. TWEED LAKE C-12
DST-NO: 003 REC-NO: 002007 SHUT-IN:1
EXTRAPOLATED PRESSURE:
SLOPE:
12000
10000
8000
6000
4000
2000
0
PRESSURE kPa(a) LIQUID
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT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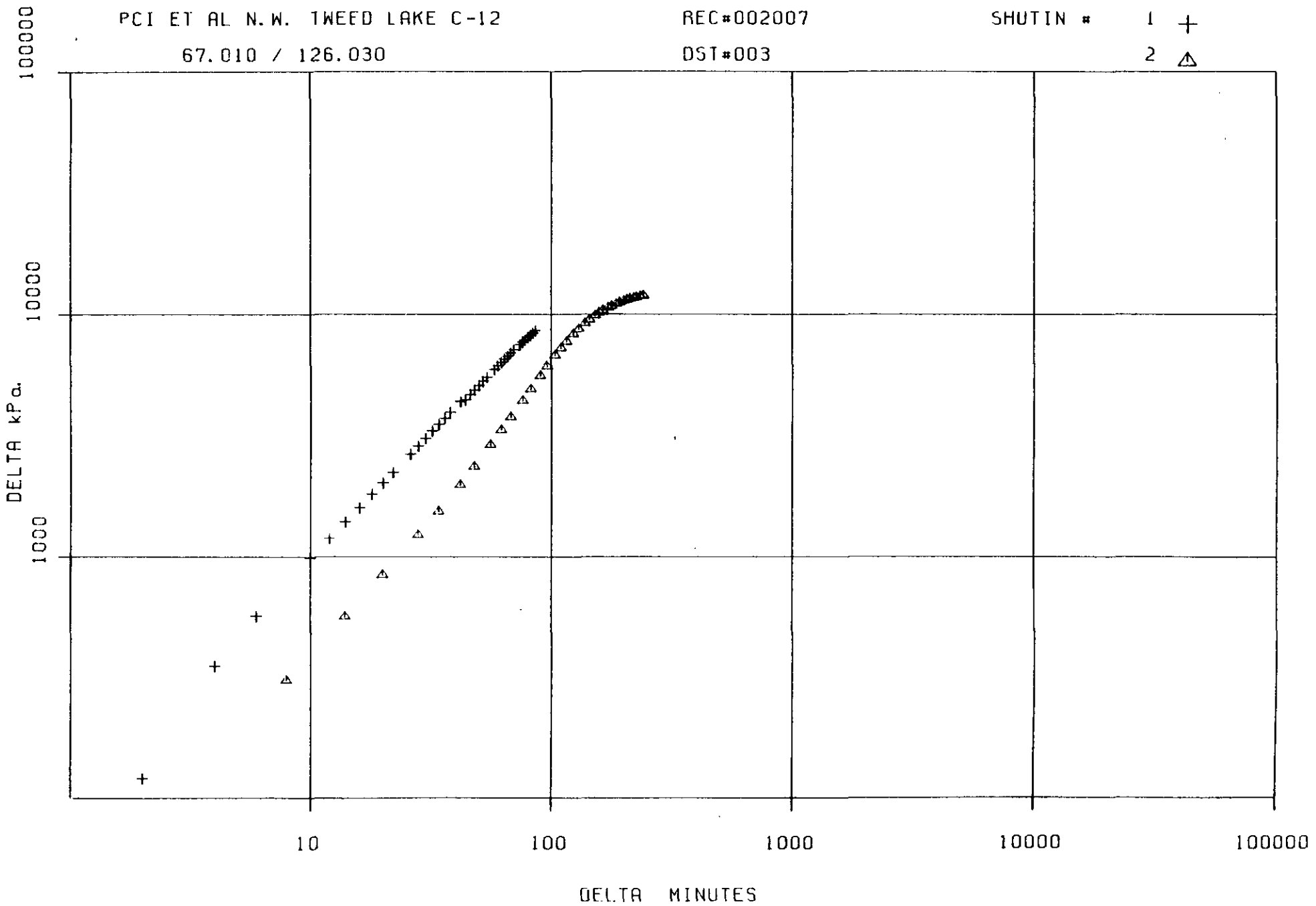
DST-NO: 003 REC-NO: 002007 SHUT-IN:2
EXTRAPOLATED PRESSURE:
SLOPE:
100
50
25
10
5
2.5
TIME (T+ΔT)/ΔT
0
2000
4000
6000
8000
10000
12000
PRESSURE kPa(a) LIQUID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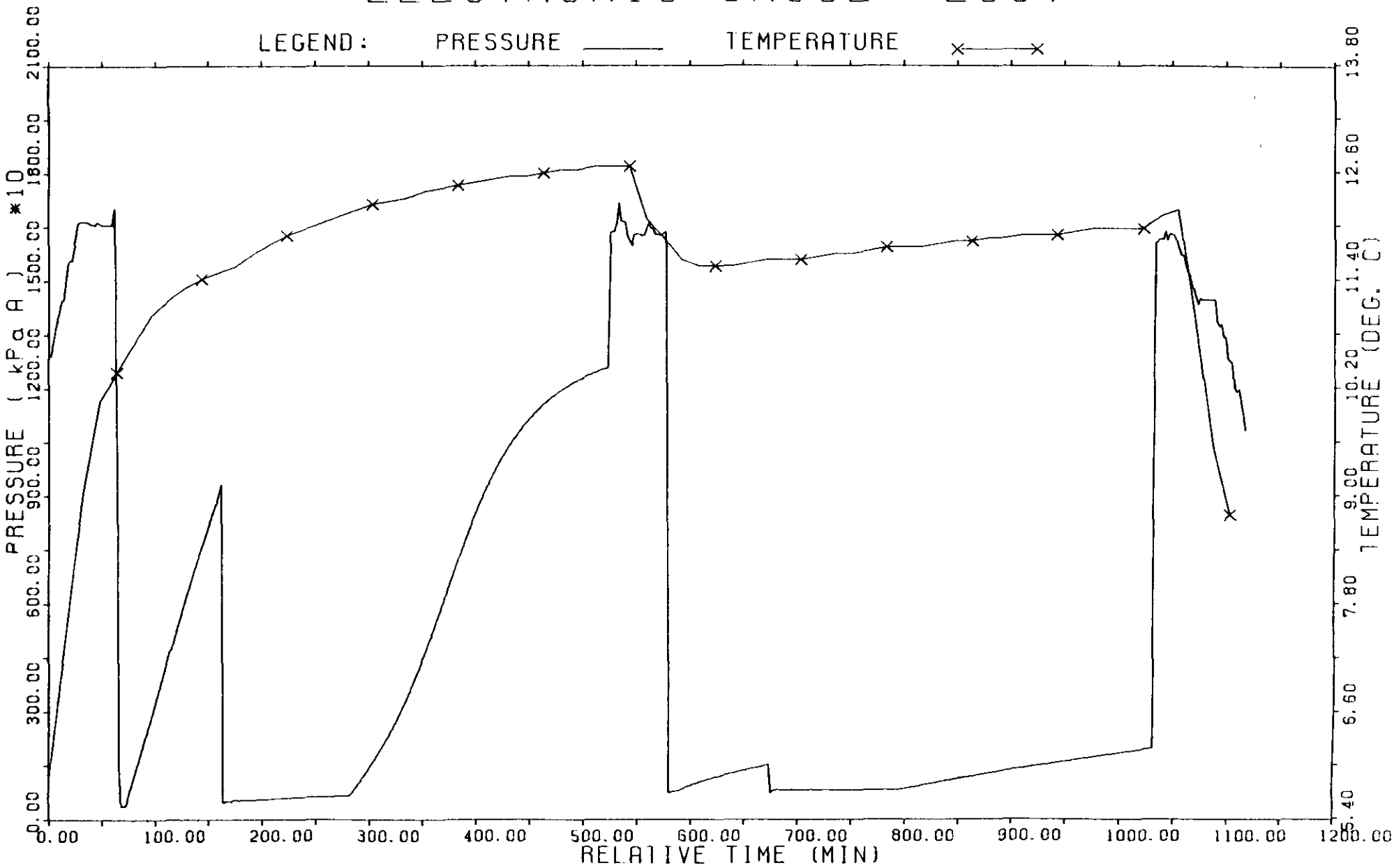
67.010 / 126.030
REC#002007
DST#003
SHUTIN # 1
2
100000
10000
1000
DELTA kPa
10
100
1000
10000
100000
DELTA MINUTES

PCI ET AL N.W. TWEED LAKE C-12
67.010/126.030 DST #3 & #4
ELECTRONIC GAUGE #2007



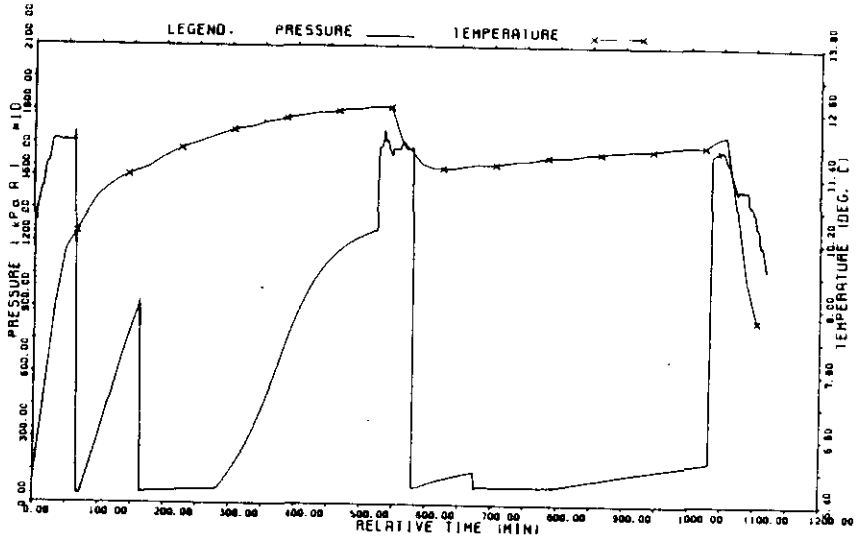
DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00m to 1301.00m

PRESSURE RECORDER NUMBER : 002007

DEPTH : 1292.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 12.6 C

	PRESSURE kPa(a)
1) Initial Hydro :	16573.
2) 1st Flow Start:	345.
3) 1st Flow End :	362.
4) END 1st Shutin:	8867.
5) 2nd Flow Start:	440.
6) 2nd Flow End :	664.
7) END 2nd Shutin:	12617.
14) Final Hydro. :	16375.



ELECTRONIC GAUGE.
PRESSURES AND
TEMPERATURE.

TEST TIMES(MIN)

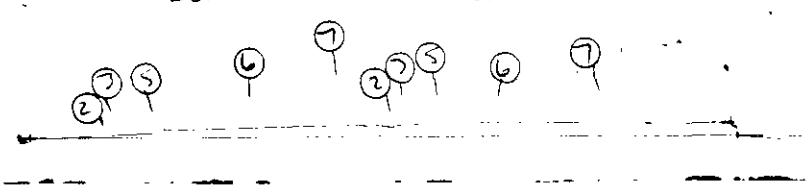
1st FLOW :	4.0
SHUTIN:	86.0
2nd FLOW :	118.0
SHUTIN:	242.0

PRESSURE RECORDER NUMBER : 009488

DEPTH : 1277.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

	PRESSURE kPa
1) Initial Hydro :	
2) 1st Flow Start:	114.
3) 1st Flow End :	141.
4) END 1st Shutin:	
5) 2nd Flow Start:	220.
6) 2nd Flow End :	457.
7) END 2nd Shutin:	457.
14) Final Hydro. :	

Above Hydraulic Tool



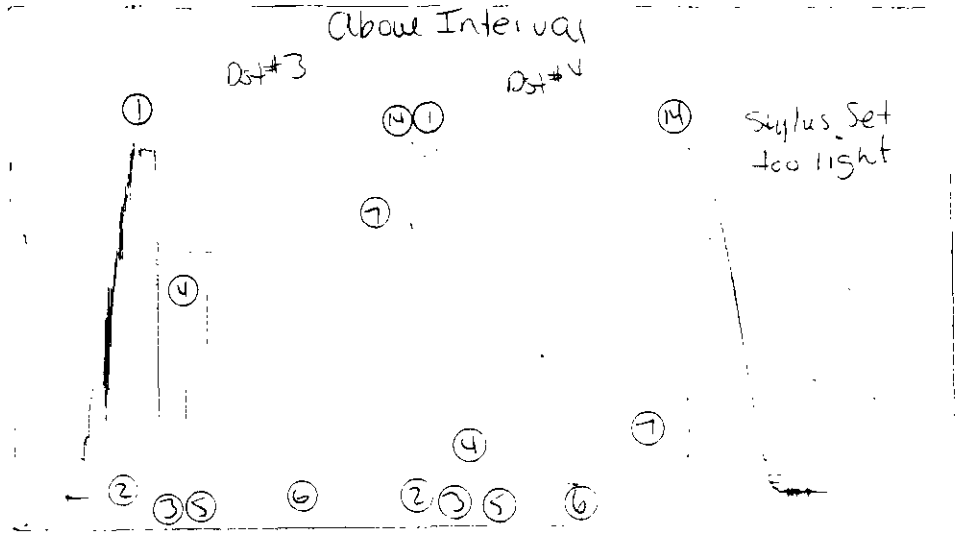
ABOVE HYDRAULIC
TOOL.

DST#03
PCI ET AL N.W. TWEED LAKE C-12
1290.00m to 1301.00m

PRESSURE RECORDER NUMBER : 009496

DEPTH : 1284.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 22100.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16451.
2) 1st Flow Start:	495.
3) 1st Flow End :	441.
4) END 1st Shutin:	8758.
5) 2nd Flow Start:	540.
6) 2nd Flow End :	720.
7) END 2nd Shutin:	12488.
14) Final Hydro. :	16257.



ABOVE INTERVAL.
STYLUS SET TOO LIGHT.

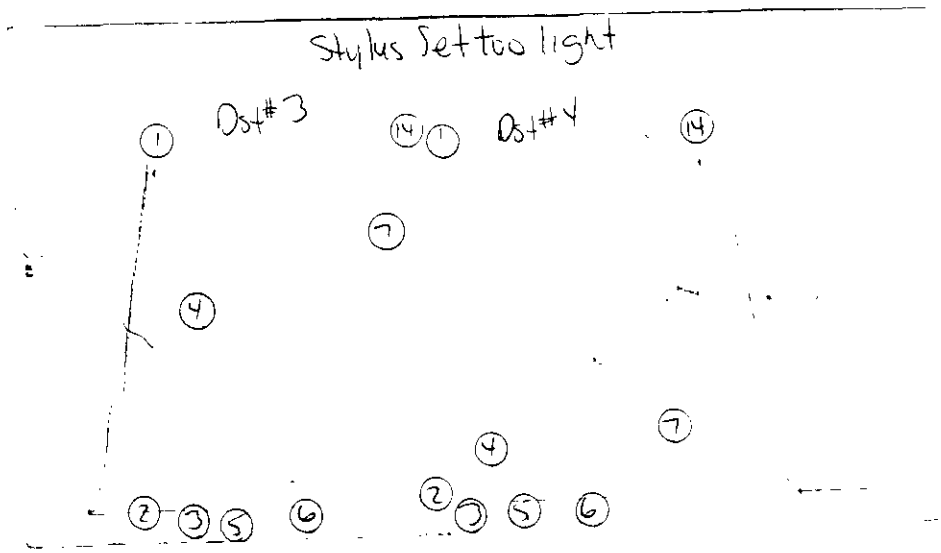
TEST TIMES (MIN)

1st FLOW :	4.0
SHUTIN:	86.0
2nd FLOW :	118.0
SHUTIN:	242.0

PRESSURE RECORDER NUMBER : 019664

DEPTH : 1292.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 22400.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16509.
2) 1st Flow Start:	462.
3) 1st Flow End :	413.
4) END 1st Shutin:	8796.
5) 2nd Flow Start:	481.
6) 2nd Flow End :	712.
7) END 2nd Shutin:	12517.
14) Final Hydro. :	16303.



STYLUS SET TOO LIGHT.

9211-P28-1-9 Cle

REF#:C-70-999-74228-66

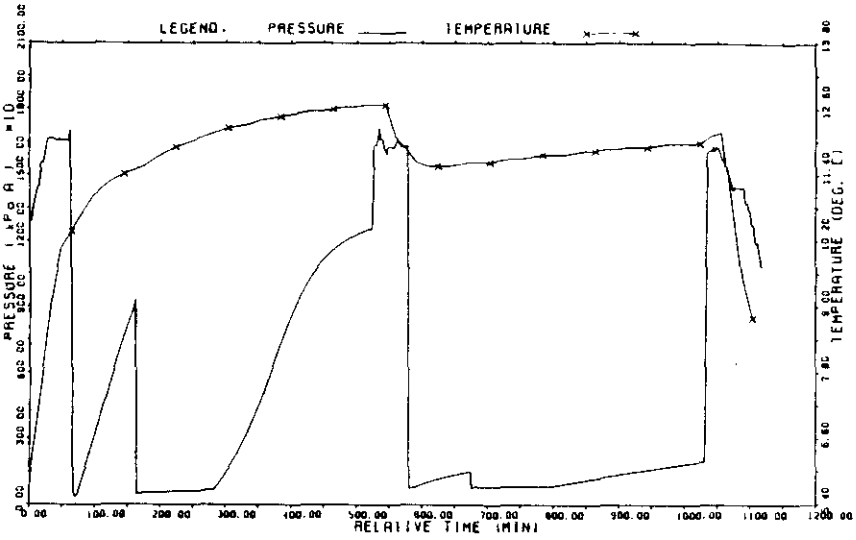
TEST DATE: 86/03/31

PCI ET AL N.W. TWEED LAKE C-12
400/ 67.010 / 126.030 /00
DST#04
1267.00m to 1278.00m
MOUNT CAP

CALGARY COPY

DEPTH: 1269.00m

RECORDER # 002007



	PRESSURE kPa(a)
1) Initial Hydro :	16280.
2) 1st Flow Start:	741.
3) 1st Flow End :	784.
4) END 1st Shutin:	1500.
5) 2nd Flow Start:	733.
6) 2nd Flow End :	827.
7) END 2nd Shutin:	1974.
14) Final Hydro. :	16134.

TEST TIMES (MIN)	
1st FLOW :	6.0
SHUTIN:	90.0
2nd FLOW :	120.0
SHUTIN:	240.0

RECOVERY DATA

TOTAL FLUID RECOVERY FOR DST #3 AND #4 CONSISTED OF 37.00 M OF DRILLING FLUID. THIS TEST WAS RUN UNDER CLOSED CHAMBER CONDITIONS.

REMARKS AND TEST SUMMARY

This is the second of two tests run on the same trip in the hole. Test result indicate a mechanically successful test. Bottom hole pressures and the shape of the shut-in curves suggest VIRTUALLY NO PERMEABILITY within the interval tested. The recorder run above the hydraulic tool indicates that approximately 11.00 meters of the fluid recovered was produced on this test.

TABLE OF CONTENTS

LYNES UNITED SERVICES LTD
DST#04 REPORT

Well name : PCI ET AL N.W. TWEED LAKE C-12
Location : 400/ 67.010 / 126.030 /00
Interval : 1267.00m to 1278.00m
Test Date : 86/03/31
Test Type : INFLATE STRADDLE
Formation : MOUNT CAP

K.B.Elevation : 296.20m
Grd.Elevation : 290.30m
TD @ test Date: 1365.00m
Ticket Number : 74231
Unit Number :

Started in hole at : 1645 hrs
Tool opened at : 0409 hrs
Reverse circulated?: NO
Contractor & Rig No: ATCO #R-76
Lynes#4 : 2 of 2 on the same trip.

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

Company Rep : HELINSKY G
Testers : FORBES G

5 REPORTS(S) TO: DIANNE THEISEN
Company:

BLOW DESCRIPTION

Closed Chamber.

TOTAL LIQUID RECOVERY : 37.00m

Sample Salinity :227000.0g/m3

For DST# 3 through DST# 4
2 Fluid Samples
Sent to: CORE LAB - CALGARY
Btm. Hole Sampler #: 244,93
Sent to: CORE LAB - CALGARY

37.00m DRILLING FLUID.

GAS MEASUREMENTS

No Gas Measurements

TOOL SEQUENCE

SUB	LENGTH (m)
PUMB OUT SUB	.45
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
PORTED COMB SUB	.31
OUTSIDE RECORDER	2.06
SPACING	7.31
PACKER STICK UP	.50
BTM INFLATE PACKER	1.90
BELLY SPRING	2.00

RECORDER SUMMARY

1)	NUMBER :	002007	ELECTRONIC GAUGE.
	TYPE :	DMRB	PRESSURES AND
	LOCATION:	OUTSIDE	TEMPERTURE.
	RANGE:	34500.00kPa(a)	
	DEPTH :	1269.00m	
2)	NUMBER :	009488	ABOVE HYDRAULIC
	TYPE :	K-3	TOOL.
	LOCATION:	INSIDE	
	RANGE:	21000.00kPa	
	DEPTH :	1254.00m	
3)	NUMBER :	009496	ABOVE INTERVAL.
	TYPE :	K-3	STYLUS SET TOO
	LOCATION:	INSIDE	LIGHT.
	RANGE:	22100.00kPa	
	DEPTH :	1261.00m	
4)	NUMBER :	019664	STYLUS SET TOO
	TYPE :	K-3	LIGHT.
	LOCATION:	OUTSIDE	
	RANGE:	22400.00kPa	
	DEPTH :	1269.00m	

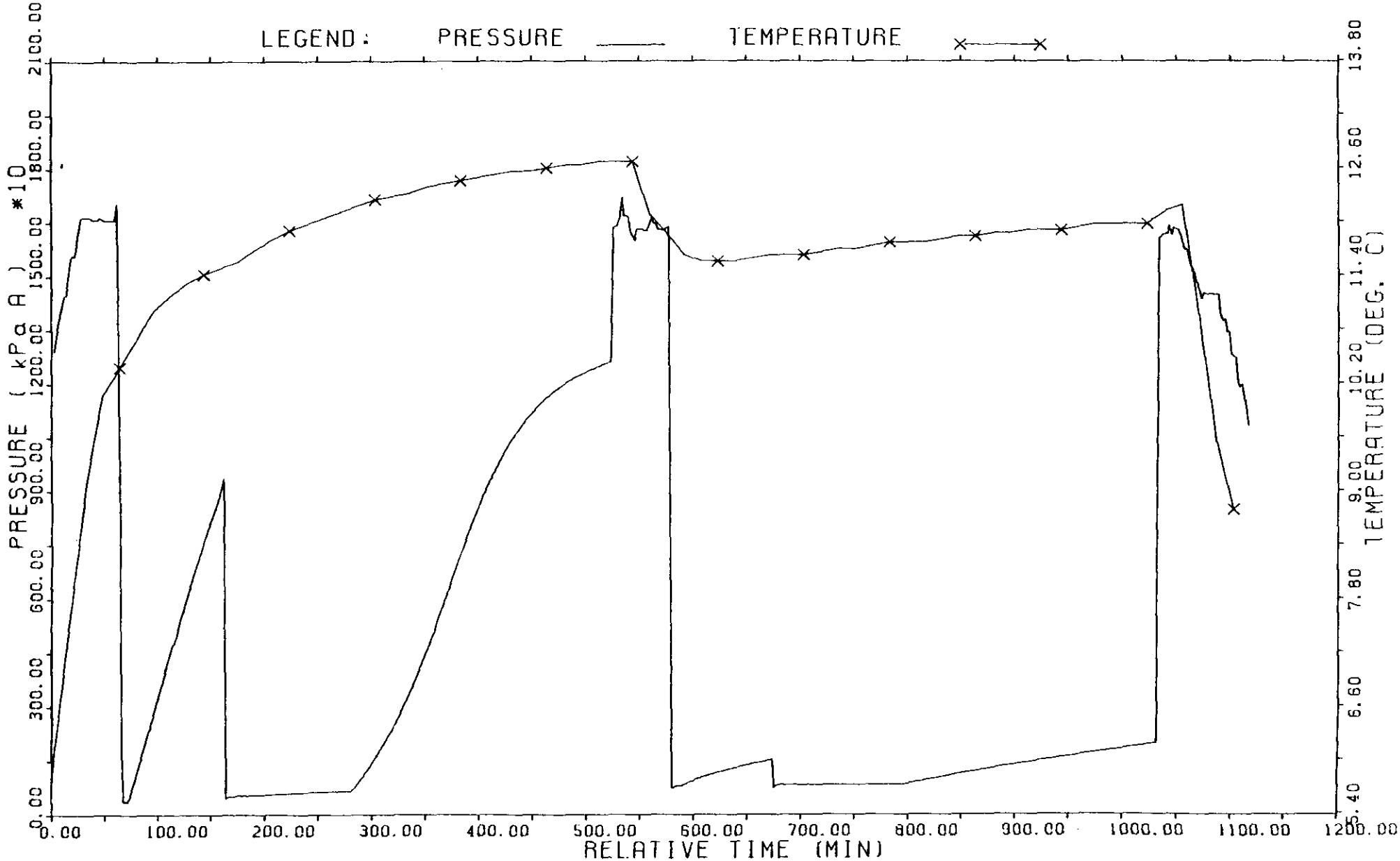
******** TOOL TOTAL	30.36
DRILL COLLARS	
ID= 65.0mm:	168.33
ID= :	
DRILL PIPE	
OD=114.0mm:	1086.51
OD= :	
COLLAR-PIPE TOTAL	1254.84

STICK UP ABOVE TABLE : 3.30
TOOL ABOVE INTERVAL : 15.46
TOTAL INTERVAL : 11.00
BOTTOM CHOKE SIZE: 12.70 mm

MUD AND HOLE DATA

Calipered Hole Size @ Test Depth: 225.00mm
Hole Condition at Test Time : GOOD
Hole Conditioned Prior to Test? : NO
Mud Weight : 1260.0 kg/m3
Mud Type : SALT GEL
Viscosity : 60.0s/l
Water Loss : 7.0cc/s
Filter Cake: 1.5 mm
Main Hole Size: 222.00mm
Temperature @1269.00m = 12.1C

PCI ET AL N.W. TWEED LAKE C-12
67.010/126.030 DST #3 & #4
ELECTRONIC GAUGE #2007



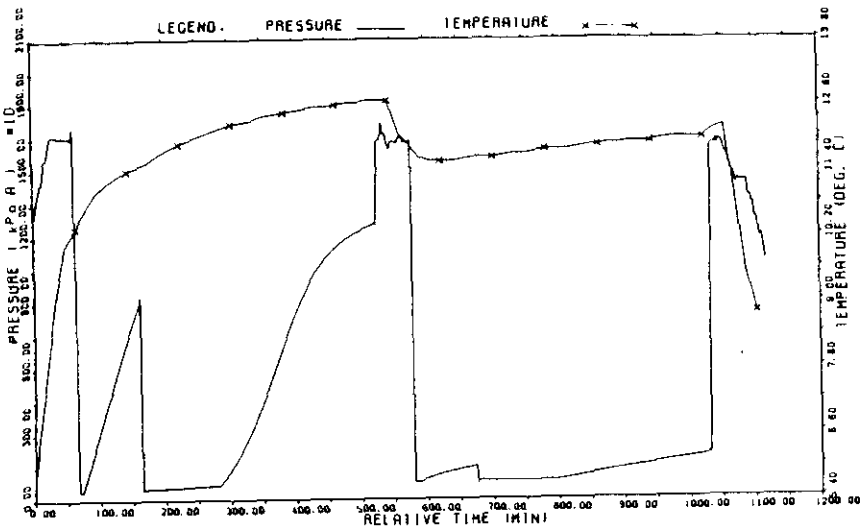
DST#04
PCI ET AL N.W. TWEED LAKE C-12
1267.00m to 1278.00m

PRESSURE RECORDER NUMBER : 002007

DEPTH : 1269.00m LOCATION : OUTSIDE
TYPE : DMRB CAPACITY : 34500.00kPa(a)

***** TEMPERATURE AT RECORDER DEPTH = 12.1 C

	PRESSURE kPa(a)
1) Initial Hydro :	16280.
2) 1st Flow Start:	741.
3) 1st Flow End :	784.
4) END 1st Shutin:	1500.
5) 2nd Flow Start:	733.
6) 2nd Flow End :	827.
7) END 2nd Shutin:	1974.
14) Final Hydro. :	16134.



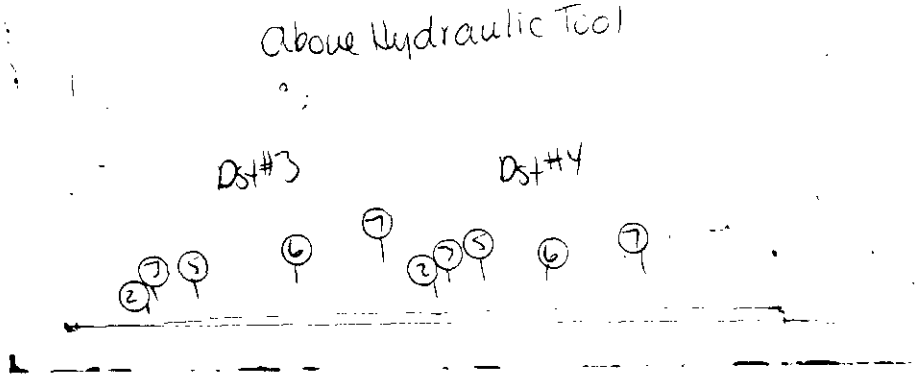
ELECTRONIC GAUGE.
PRESSURES AND
TEMPERTURE.

TEST TIMES(MIN)
1st FLOW : 6.0
SHUTIN: 90.0
2nd FLOW : 120.0
SHUTIN: 240.0

PRESSURE RECORDER NUMBER : 009488

DEPTH : 1254.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 21000.00 kPa

	PRESSURE kPa
1) Initial Hydro :	
2) 1st Flow Start:	457.
3) 1st Flow End :	484.
4) END 1st Shutin:	
5) 2nd Flow Start:	572.
6) 2nd Flow End :	616.
7) END 2nd Shutin:	642.
14) Final Hydro. :	



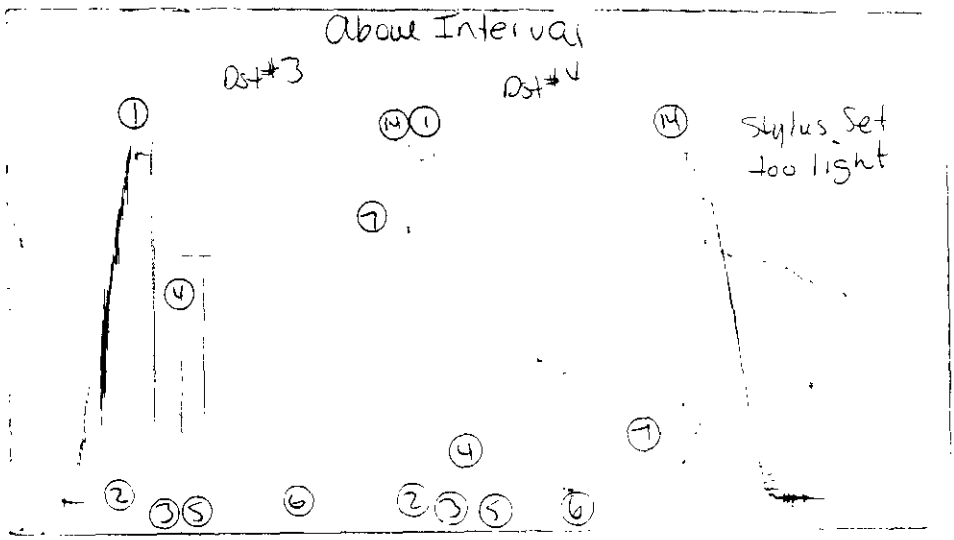
ABOVE HYDRAULIC
TOOL.

DST#04
PCI ET AL N.W. TWEED LAKE C-12
1267.00m to 1278.00m

PRESSURE RECORDER NUMBER : 009496

DEPTH : 1261.00m LOCATION : INSIDE
TYPE : K-3 CAPACITY : 22100.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16164.
2) 1st Flow Start:	873.
3) 1st Flow End :	900.
4) END 1st Shutin:	1368.
5) 2nd Flow Start:	900.
6) 2nd Flow End :	963.
7) END 2nd Shutin:	1935.
14) Final Hydro. :	16035.



ABOVE INTERVAL.
STYLUS SET TOO LIGHT.

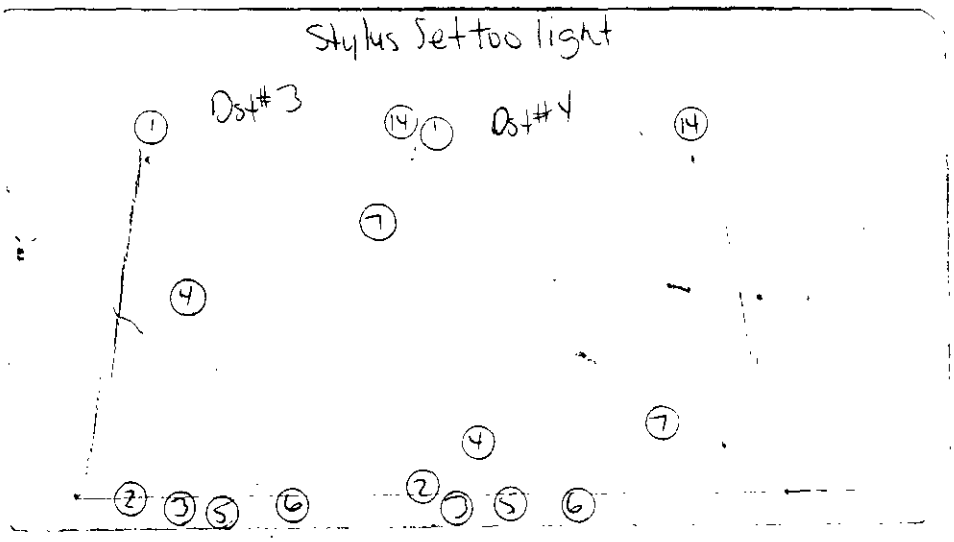
TEST TIMES(MIN)

1st FLOW :	6.0
SHUTIN:	90.0
2nd FLOW :	120.0
SHUTIN:	240.0

PRESSURE RECORDER NUMBER : 019664

DEPTH : 1269.00m LOCATION : OUTSIDE
TYPE : K-3 CAPACITY : 22400.00 kPa

	PRESSURE kPa
1) Initial Hydro :	16200.
2) 1st Flow Start:	808.
3) 1st Flow End :	865.
4) END 1st Shutin:	1404.
5) 2nd Flow Start:	808.
6) 2nd Flow End :	846.
7) END 2nd Shutin:	1913.
14) Final Hydro. :	16078.



STYLUS SET TOO LIGHT.

GEOLOGICAL WELLSITE REPORT

FOR

P.C.I. et al TWEED LAKE C-12

UNIT C, SEC. 12, GRID AREA 67° 10', 126° 00'

CALGARY COPY

Prepared For

PETRO-CANADA INC.

By

M. Diamond

PRO GEO CONSULTANTS

April, 1986

TABLE OF CONTENTS

WELL SUMMARY

WELL NAME:	P.C.I. et al TWEED LAKE C-12
COORDINATES:	Lat. 67° 10' 01.8355", Long. 126° 03', 03.4261"
LOCATION:	UNIT C, Sec. 12, Grid Area 67° 10', 126° 00'
ELEVATIONS:	Ground: 290.31m KB: 296.46m
OPERATOR:	Petro-Canada Inc.
DRILLING CONTRACTOR:	Atco Drilling Ltd. Rig #76
WELLSITE SUPERVISION:	Toolpusher: Rick Holmes Engineer: B. Hook Geologist: M. Diamond
WELL SPUDDED:	1900 hours 1986/02/25
DRILLING COMPLETED:	0915 hours 1986/03/27
BIT SIZES:	Surface: 311mm Downhole: 216mm
CASING SIZES:	Surface: 244mm Production:
TOTAL DEPTH:	Driller: 1366.0 Logger: 1364.0
BOTTOM HOLE FORMATION:	Proterozoic
CORES CUT:	#1: 1312.0 - 1323.2m #2 1323.2 - 1328.8m
LOGS RUN:	Run #1: DI-SFL-SP-GR; CNL-LDT-MGT-BHCS; HD Run #2 DIL-MSFL; CNL-LDT-NGT; BHCS; ML; HDT
DRILL STEM TESTS:	DST #1 1322 - 1330 Proterozoic DST #2 1309 - 1320 Mt. Clarke DST #3 1290 - 1301 Mt. Cap DST #4 1267 - 1278 Mt. Cap
RIG RELEASED:	0400 hours 1986/04/02
WELL STATUS:	Abandoned

DAILY SUMMARY

1986/02/25

- Rig up, drill mouse hole and rat hole
- Spud in at 1900 hours, 1986/02/25
- Drill 311mm hole to 18m

1986/02/26

- Drill 311mm pilot hole to 18m, pick up 609mm hole opener
- Hoist and clean out
- Run 508mm conductor pipe
- Rig up and cement with 17 tonnes Oilwell class G + 3% $CaCl_2$

1986/02/27

- WOC, and drill out with 311mm bit
- Drill ahead and survey
- Work tight hole

1986/02/28

- Ream to 58m, drill 3m, hoist, tight hole
- Ream to 20m to 37m, hoist, repair pump, mix mud, circulate

1986/03/01

- Drill 61m to 63m, hoist to pick up hole opener
- Ream from 0 - 63m
- Circulate and condition, hoist to run 339mm casing

1986/03/02

- POOH to run casing
- WOC to 1430 hours, weld casing bowl

1986/03/03

- Make up bottom hole assembly
- Pressure test
- Drill out cement
- Drill ahead and survey to 85m

1986/03/04

- Rig up for air drilling
- POOH for new bit
- RIH with bit 28-
- Rig up and drill with air and foam

1986/03/05

- Drill ahead 311mm hole to 162m
- Twist off, top of fish at 136.24m
- RIH and engage fish
- POOH and lay down fish
- Drill ahead and survey to 192m

1986/03/06

- Drill ahead and survey from 192 - 322m

1986/03/07

- Drill ahead and survey from 322 - 360m
- POOH with bit #3B
- Make up and RIH with bit #4B
- Drill ahead and survey from 360 - 399m
- Encountered water flow at 396m (100 bbls/hr) fresh 100 ppm

1986/03/08

- Drill ahead and survey from 399 - 400m
- Change blooey line from sump to bush
- Drill ahead and survey from 400 - 463m

1986/03/09

- Drill ahead and survey from 463 - 550m
- Water at 200 - 300 bbls/hr, water is fresh 100 ppm

1986/03/10

- Drill ahead from 550 - 559m
- Unload hole and change compressor booster motor
- Drill ahead and survey from 559 - 604m

1986/03/11

- Drill ahead and survey from 604 - 651m
- Problems with air booster
- POOH, change air compressor

1986/03/12

- Air driller changing out air compressor
- RIH and unload hole
- Drill ahead and survey 651 - 696m

1986/03/13

- Drill ahead and survey from 696 - 708m
- Lay down damaged jars
- Drill ahead and survey from 708 - 737m
- Water flowing at 400 bbl/hr

1986/03/14

- Drill ahead and survey from 737 - 798m
- Water flowing at a rate of 400 bbl/hr
- Work on air drillers mist pump
- Drill ahead 788 - 794m

1986/03/15

- Drill ahead and survey from 794 - 859m
- Water flowing at 400 bbl/hr
- Work on mist pump
- Drill from 859 - 860m

1986/03/16

- Drill ahead from 860 - 863m
- Work on mist pump, unload pump
- Dummy trip to collars
- Circulate and condition hole
- POOH to log
- Rig to run logs
- Log with Schlumberger

1986/03/17

- Rig up and run 244mm casing
- Nipple up BOP's

1986/03/18

- Nipple up BOP's and pressure test
- Drill out float collar

1986/03/19

- Drill out cement and shoe
- Circulate and condition mud

1986/03/20

- Drill ahead and survey to 1170m

1986/03/21

- Drill ahead and survey to 1221m
- Hoist out bit #9C
- RIH with bit #10C
- Drill and survey to 1238m

1986/03/22

- Drill ahead and survey to 1312m
- Circulate sample
- POOH
- Hold BOP drill

1986/03/23

- Circulate and condition hole for core #1
- Cut core #1

1986/03/24

- Cut core #1, 1312 - 1323m - jammed off, recover core #1
- RIH with core barrel, cut core #2

1986/03/25

- Cut core #2, 1323 - 1328.8m, jammed off
- POOH with core #2

1986/03/26

- POOH with core #2, 1323.0 - 1328.8m, 5.8m cut
- Recover 5.5m core #2
- RIH with bit 11C J33
- Drill ahead from 1328.8 - 1351m

1986/03/27

- Drill ahead 1351 to 1365m, total depth
- Circulte and condition hole
- Rig to and log with Schlumberger: DLL-MSFL-GR; CNL-LDT-NGT; BHCS

1986/03/28

- Run DST #1 1322 - 1330m

1986/03/30

- Run DST #2, 1308 - 1320m

1986/03/31

- Run DST #3, 1267 - 1278m
- Run DST #4, 1290 - 1301m

1986/04/01

- Rig up to run plugs
- Run two plugs
- Lay down drill pipe
- Tear out BOP
- Clean mud tanks

1986/04/02

- Release rig at 0400 hours

CASING SUMMARY

Conductor Casing

Ran 5 joints 339.7mm, 101.2 kg/m, K-55 LT&C conductor casing. Cemented by Dowell with 28 tonnes Oilwell "G" + 3% $CaCl_2$. Landed 63m. Plug down at 0634 hours, 1986/03/02. Good cement returns to surface.

Intermediate Casing

Ran 72 joints 455mm, 47 kg/m, ST&C intermediate casing. Cemented by Dowell with 13 tonnes Class "G" + 2% $CaCl_2$. Landed at 870m. Plug down at 1100 a.m., 1986/03/17. Good cement returns to surface.

DRILLSTEM TEST SUMMARY

DST #1 1322 - 1330m Fm: Proterozoic Type: Inflate Straddle

TIMES:	6/90/180/360
PF:	closed chamber
VO:	Built approx 1 kPa steady incline to 20 kPa
RECOVERY:	28m salt water cut drilling fluid 144m muddy gas cut salt water 169m gas cut brackish water
HP:	16931/16837 kPa
SIP:	14022/14022 kPa
FP:	769/481/3822 kPa
OTHER:	Brackish salt water measured at least 60 ppm H_2S

DST #2 Interval: 1309 - 1320 Fm: Mt. Clarke Type: Closed Chamber Inflate Straddle

TIMES:	6/90/120/240
PF:	no surface pressures
VO:	" " "
RECOVERY:	170m salt H_2O cut drilling mud
HP:	16828/16744 kPa
SIP:	13928/13881 kPa
FP:	577/385/2019 kPa
OTHER:	

DST #3 Interval: 1290 - 1301 Fm: Mt. Cap Type: Closed Chamber Inflate Straddle

TIMES:	6/90/120/240
PF:	0 - 6 kPa
VO:	no surface pressure
RECOVERY:	37m drilling fluid (227,000 ppm)
HP:	16650/16462 kPa
SIP:	9226/12423 kPa
FP:	481/635/385 kPa
OTHER:	

DST #4 Interval: 1267-1278m Fm: Mt. Cap Type: Closed Chamber Inflate Straddle

TIMES:	6/90/120/240
PF:	
VO:	
RECOVERY:	
HP:	16369/16275 kPa
SIP:	1827/1827 kPa
FP:	673/673/769 kPa

ABANDONMENT SUMMARY

Plug #1 Interval: 1365 - 1240m

Cemented with 7.4 tonnes Class "G" with 0.5/TI.
Plug down at 0103 hours 1986/04/01.

Plug #2 Interval: 904 - 840m

Cemented with 3.4 tonnes Class "G" with 2% $CaCl_2$.
Plug down at 0217 hours, 1986/04/01.

GEOLOGICAL SUMMARY

P.C.I. et al N.W. Tweed Lake C-12 was spudded 1900 hours 1986/02/25 for the purpose of drilling down into the Proterozoic and investigating the primary target for hydrocarbon potential, the Mount Clarke sands.

No problems were encountered during drilling, and no porosity or hydrocarbon potential was observed above the Mount Clarke. Core point, at 1312.0m, was picked on the basis of the Mount Cap and High Gamma Ray shale tops. Two cores were run i.e.: from 1312.0 - 1323.2m, and from 1323.2 - 1328.8m. On recovery the cores were found to contain the complete section of the Mount Clarke sands and five meters of the Proterozoic, occuring as a tight dolomite in the base of core #2. Although the Mount Clarke consisted of very fine to fine grained tight sands, oil staining and bleeding oil was observed scattered through the core (i.e. see detailed core description).

From subsequent log evaluation, DST's were run over the Mount Clarke and Proterozoic respectively. The Dolomite of the Proterozoic had an average porosity of 0 - 3% and a resistivity in the order of 80 ohms from 1322 - 1330m, however subsequent testing recovered muddy, gas cut, salt water.

DST #2 was run through the Mount Clarke formation from 1309 - 1320m, from log evaluation the sands were found to have an average porosity of 9% and resistivities ranging from 25 ohms to 30 ohms. However, the test recovered salt water.

Two further DST's were run over the Mount cap formation from 1290 - 1301m, and 1267 - 1278m. Recoveries consisted of salt cut drilling mud.

The well was subsequently plugged and abandoned.

FORMATION TOPS

FORMATION	SAMPLE		LOG	
	Depth (m)	Subsea (m)	Depth (m)	Subsea (m)
Franklin Mountain	232.0	64.46	236.0	60.46
Saline River	870.0	- 573.54	871.0	- 574.54
Salt Member	902.0	- 605.54	900.0	- 603.54
Shale Marker	966.0	- 669.54	956.0	- 659.54
Mt. Cap	1139.0	- 842.54	1148.0	- 851.54
High G.R. Shale	1247.0	- 950.54	1244.0	- 947.54
Mt. Clarke	1312.0	-1015.54	1311.0	-1014.54
Proterozoic	1323.0	-1026.54	1324.0	-1027.54
T.D.	1365.0	-1068.54	1365.0	-1068.54

SAMPLE DESCRIPTIONS

Depth (m)	Description
20 - 34	Dolomite with Interbedded Dolomite/Siltstone and traces of Sandstone horizons Dolomite; medium to light brown, firm to hard, generally finely crystalline, predominantly wackestone/packstone, sucrosic texture developing, interbedded with noncrystalline to microcrystalline mudstone/wackestone horizons, trace argillaceous locally grain supported and arenaceous on occasion, poor to trace fair intercrystal, line porosity, no visible live stain, no shows, trace pyrobitumen in local pore spaces. Dolomite/Siltstone; light grey to grey/brown, firm, moderately compacted and indurated, quartz and dolomite grains in dolomitic matrix, trace very finely disseminated pyrite, locally becoming sandy in nature. Sandstone; white to light grey, firm to hard, fine grained locally coarse grained, predominantly frosty/white quartz, dolomitic cement, poor to moderately sorted, argillaceous, poor intercrystalline porosity, no shows - local shale and chert horizons

34 - 47 Dolomite; medium/brown, firm to hard, generally microcrystalline to trace finely crystalline, grading from a general wackestone to packstone horizons,

47 - 51 Dolomite; light to medium grey, brown, firm to hard, grading from noncrystalline mudstone to interbedded microcrystalline and trace finely crystalline wackestone/packstone, trace sucrosic texture developing on occasion, locally grading to dolomite/limestone, trace argillaceous and grain supported dolomite/siltstone, poor to fair intercrystalline porosity, no visible live stain, no shows
Limestone; light grey, firm to hard, generally noncrystalline to trace microcrystalline, locally soft chalky and argillaceous, generally mudstone/wackestone, locally grading to dolomite/limestone, poor porosity, no shows

51 - 63m Dolomite; brown, light to medium grey, noncrystalline to microcrystalline, trace finely crystalline and grain supported argillaceous horizons, generally as previously described, poor porosity, no shows;
Limestone; light grey, noncrystalline/microcrystalline, poor porosity, no shows
Sandstone; frosty/white, medium to coarse grained, locally fine grained, generally unconsolidated, predominantly quartzose, cement generally absent, locally silica cemented, poor to moderately sorted, fair porosity when consolidated, no shows, trace rounded black/grey chert - rounded fragments of red basalt associated with sand

63 - 71m Dolomite; light brown, firm to hard, grading from noncrystalline to microcrystalline, trace finely crystalline, local sucrosic texture developing, generally wackestone/packstone, grading to dolomite/limestone on occasion, locally trace argillaceous and grain supported, poor to fair intercrystalline porosity, trace fair pinpoint, no visible live stain, no shows, trace pyrobitumen in local pore spaces.
Limestone; light grey, firm, generally noncrystalline mudstone, grading to dolomite/limestone, trace argillaceous, poor porosity, no shows

71 - 87m Dolomite; light to medium brown, firm to hard, grading from noncrystalline mudstone to a general microcrystalline wackestone and trace finely crystalline packstone, microsucrosic texture developing in places, grading to dolomite/limestone, trace argillaceous, poor to fair intercrystalline porosity, trace good pinpoint, no visible live stain, no shows

Dolomite/limestone; cream to light brown, firm, generally microcrystalline to finely crystalline, microsucrosic texture developing in finely crystalline, predominantly wackestone/packstone, grading to horizons of limestone, poor to fair intercrystalline porosity, fair pinpoint in places, no shows
Limestone; light to medium brown, firm, noncrystalline

87 - 98m — Dolomite; light to medium brown, firm to hard, microcrystalline to finely crystalline, predominantly wackestone grading to packstone, microsucrosic texture developing, grading to interbedded dolomite/limestone, locally trace argillaceous, poor to trace fair intercrystalline porosity, no visible live stain, no shows; traces of bitumen on occasion
Dolomite/Limestone; light to medium brown, firm to hard, predominantly noncrystalline to microcrystalline, generally wackestone, trace finely crystalline horizons with microsucrosic texture developing, trace argillaceous, poor to trace fair intercrystalline porosity, no visible live stain, no shows
- trace very rare opaque chert

98 - 112m — Dolomite; light to medium brown, microcrystalline, trace finely crystalline, generally wackestone/packstone, locally argillaceous and grain supported, poor to trace fair intercrystalline porosity, no visible live stain, no shows; trace pyrite and rare bitumen
Dolomite/Limestone; light brown, cream, firm, microcrystalline, generally wackestone, trace argillaceous and grain supported in places, poor intercrystalline porosity, no shows

112 - 124m — Dolomite; light to medium/brown, firm to hard, generally microcrystalline trace finely crystalline microsucrosic texture developing on occasion, generally wackestone, trace argillaceous, grading to dolomite/limestone, poor intercrystalline porosity, no shows
Dolomite/Limestone; light brown, firm, noncrystalline to microcrystalline, wackestone, trace argillaceous locally grain supported, trace very finely disseminated pyrite, poor porosity, no shows

124 - 137m — Dolomite; light grey, grey/brown, firm to hard, generally noncrystalline to microcrystalline, trace finely crystalline horizon, predominantly mudstone grading to mudstone/wackestone, trace sucrosic texture trace argillaceous, locally very argillaceous and grain supported, poor ineffective porosity, no visible live stain, no shows
- trace rare angular, clear to opaque chert

137 - 151m Dolomite; light to medium brown, grey/brown, light grey, firm to hard, generally noncrystalline to microcrystalline, trace rare horizons of finely crystalline, predominantly mudstone/wackestone, grading to dolomite/limestone on occasion, trace argillaceous to locally very argillaceous horizons, grain supported, generally poor intercrystalline porosity, no visible live stain, no shows
- trace angular opaque chert

151 - 167m Dolomite; cream to light grey/brown, grey/brown, firm to hard, generally noncrystalline to microcrystalline, generally mudstone/wackestone, trace argillaceous and grain supported siltstone, trace very finely disseminated pyrite, locally grading to dolomite/limestone, poor ineffective porosity, no shows

167 - 183m Dolomite; light grey to cream, grey/brown, firm to hard, locally soft and argillaceous, generally noncrystalline to microcrystalline, trace finely crystalline horizons, generally mudstone/wackestone, local sucrosic texture developing in finely crystalline, grading to dolomite/limestone in places, interbedded with grain supported dolomite/siltstone, poor porosity, no shows
- trace angular opaque chert

183 - 195m Dolomite; predominantly grey, brown, firm to hard, generally noncrystalline to microcrystalline, trace finely crystalline with local sucrosic texture developing, trace very finely disseminated pyrite, predominantly mudstone/wackestone, trace argillaceous in places, locally very argillaceous, poor intercrystalline porosity, no visible live stain, no shows
- trace opaque amorphous chert

195 - 208m Dolomite; light brown, trace grey, firm to hard, noncrystalline to microcrystalline, trace finely crystalline horizons, generally mudstone/wackestone trace sucrosic texture in finely crystalline horizons, trace argillaceous, generally poor intercrystalline porosity, no visible live stain, no shows, trace bitumen in local pore spaces

208 - 223m Dolomite; light to medium brown, cream, firm to hard, grading from noncrystalline mudstone to microcrystalline and finely crystalline wackestone/packstone, trace pyrite, slightly argillaceous and grain supported horizons of siltstone, poor intercrystalline porosity, no visible live stain, no shows

223 - 232m Dolomite; light grey, cream, medium brown, firm to hard, grading from a microcrystalline/finely crystalline, trace cryptocrystalline, wackestone/packstone, sucrosic texture, trace pyrite, local argillaceous and shale horizons, poor intercrystalline porosity, no visible live stain, no shows
- trace minor white chert, hard, angular, amorphous

232 - 238m Dolomite; cream to light grey, locally brown, firm to hard, grading from noncrystalline to microcrystalline, locally interbedded with finely and cryptocrystalline horizons, sucrosic texture, generally wackestone/packstone, poor to trace fair intercrystalline porosity, no visible live stain, no shows
Chert; white to light grey, locally opaque, massive amorphous, conchoidal fracture, bedded

238 - 247m Dolomite; white to light grey, firm to generally hard, microcrystalline to finely crystalline and sucrosic texture, locally grading to dolomite/limestone, trace argillaceous, poor to fair intercrystalline porosity, no visible live stain no shows
Chert; white to light grey, hard, amorphous, bedded

247 - 260m Dolomite; white to cream, predominantly light grey, firm to hard, generally microcrystalline to finely crystalline, horizons of cryptocrystalline wackestone/packstone trace very finely disseminated pyrite, sucrosic texture developing, generally poor to trace fair intercrystalline porosity, no visible live stain, no shows
- minor bedded white/grey chert

260 - 287m Dolomite; cream to light grey, firm to hard, predominantly microcrystalline to finely crystalline, horizons of noncrystalline mudstone and cryptocrystalline packstone, sucrosic texture developing, local trace argillaceous, poor to trace fair intercrystalline porosity, no visible live stain, no shows
Chert; white to grey, hard, amorphous, bedded, conchoidal fracture

287 - 301m Dolomite; light grey, white, brown, firm to hard, generally microcrystalline to finely crystalline, generally wackestone/packstone, trace very finely disseminated pyrite, sucrosic texture developing, trace argillaceous horizons, poor to trace fair intercrystalline porosity, no visible live stain, no shows
- trace minor white/grey chert, angular, hard, amorphous

301 - 310m Dolomite; cream to light grey, hard, predominantly microcrystalline to finely crystalline, trace cryptocrystalline horizons, predominantly wackestone/packstone, trace very finely disseminated pyrite, locally grading to dolomite/limestone, on occasion, trace argillaceous, poor intercrystalline porosity, trace fair in places, no visible live stain, no shows
Chert; white to light grey, hard, amorphous, bedded
- trace shaley horizons, green, soft, subfissile, slight calcareous matrix

310 - 315m Sample not caught

315 - 320m Dolomite; cream to light brown, firm to hard, generally microcrystalline to finely crystalline, predominantly wackestone, trace wackestone/packstone, sucrosic texture developing on occasion, trace pyrite, generally poor to trace fair intercrystalline porosity, no visible live stain, no shows
Chert; white to cream, hard, amorphous, bedded
- trace shaley, green, soft waxy subfissile

320 - 325m Sample not caught

325 - 342m Dolomite; cream to light grey, buff/brown, firm to hard, generally microcrystalline to finely crystalline on occasion developing sucrosic texture, predominantly wackestone grading to wackestone/packstone, trace pyrite, becoming slightly argillaceous on occasion, generally poor to trace fair intercrystalline porosity, no visible lives stain, no shows
Chert; white to cream, hard, amorphous, bedded - trace green, soft, waxy shale

342 - 361m Dolomite; cream to light grey, light brown, firm to hard, microcrystalline to finely crystalline, grading to cryptocrystalline horizons, sucrosic texture developing, generally wackestone/packstone, trace very finely disseminated pyrite, locally trace argillaceous horizons, poor to fair intercrystalline porosity, no visible live stain, no shows
Chert; white to cream, light grey, hard, amorphous conchoidal fracture, bedded
- trace soft, green, shale

361 - 375m Dolomite; cream to light grey, light buff, hard, grading from noncrystalline mudstone to microcrystalline and finely crystalline horizons of wackestone/packstone, local sucrosic texture developing, grading to dolomite/limestone in places, generally poor intercrystalline porosity, no visible live stain, no shows
Chert; white to cream, hard, amorphous, bedded

375 - 392m Dolomite; light grey, dark grey, locally cream/light brown, firm to hard, predominantly noncrystalline to microcrystalline, mudstone/wackestone, trace argillaceous and grading to dolomite/siltstone, trace pyrite, cherty, poor intercrystalline porosity, no shows
Dolomite/Siltstone; cream to grey, firm, moderately well compacted and indurated, generally quartz and dolomite grains in dolomitic matrix, local sandy nature

392 - 400m Dolomite; cream to light buff/brown, firm to hard, noncrystalline mudstone, microcrystalline, locally grading to dolomitic limestone, trace cherty, grading to interbedded siltstone, poor porosity, no shows
Shale; light grey, green, soft to firm, generally subfissile/blocky, slight to noncalcareous matrix, generally silty to very silty nature, grading to interbedded siltstone
Siltstone; light grey/green, firm, moderately compacted and indurated, generally quartz grains in a shaley matrix, local sandy nature

400 - 415m No returns

415 - 426m Dolomite; light buff/brown, cream to light grey, firm to hard, predominantly microcrystalline, trace finely crystalline, wackestone, grading to wackestone/packstone, trace argillaceous grading to very argillaceous horizons of grain supported dolomite/siltstone trace very finely disseminated pyrite, poor intercrystalline porosity, no visible live stain, no shows

426 - 447m Dolomite; cream to predominantly light brown, firm to hard, generally noncrystalline to microcrystalline, grading to finely crystalline horizons, predominantly wackestone/packstone, trace pyrite, trace argillaceous to locally grain supported dolomite/siltstone poor intercrystalline porosity, no shows
Shale; light grey/green, soft to firm, subfissile/blocky, waxy, slight calcareous matrix

447 - 462m Dolomite; cream to light buff, light grey, firm to hard, predominantly noncrystalline to microcrystalline, grading from mudstone to wackestone, trace finely crystalline horizon, with sucrosic texture, trace very finely disseminated pyrite, local cherty horizons, trace argillaceous, generally poor intercrystalline porosity, no visible live stain, no shows

462 - 476m Dolomite; cream to light grey, grey/brown, firm to hard, genrally noncrystalline to microcrystalline, predominantly mudstone/wackestone, finely crystalline horizons, generally grading to argillaceous dolomite, poor intercrystalline porosity, no shows
Dolomite/Siltstone; light grey to grey/brown, firm to hard, moderately well compacted and indurated, quartz and dolomite grains in dolomitic matrix, local sandy nature

476 - 491m Dolomite; cream to light medium grey, brown, firm to hard, noncrystalline to microcrystalline/finely crystalline horizons, local cherty dolomites, sucrosic texture in finely crystalline, trace argillaceous dolomites, poor intercrystalline porosity, no shows
Shale; grey, grey/green, soft to firn, subfissile/blocky, slight to noncalcareous matrix, generally silty to very silty shale, grading tointerbedded siltstone

491 - 507m Dolomite; medium to dark brown, firm to hard, predominantly microcrystalline wackestone, trace finely crystalline, local horizons of cherty dolomite, trace pyrite, argillaceous on occasion grading to dolomite/siltstone, poor intercrystalline porosity, no visible live stain, no shows; trace bitumen

507 - 523m Dolomite; light grey to light brown, firm to hard, grading from noncrystalline mudstone to horizons of microcrystalline, finely crystalline, wackestone/packstone, trace very finely disseminated pyrite, trace argillaceous to locally very argillaceous, grading to quartz and dolomite grain supported dolomite/siltstone, local cherty horizons, poor to trace fair intercrystalline porosity, no visible live stain, no shows
Shale; pale green,soft, subfissile/blocky, slight to noncalcareous matrix

523 - 532m Dolomite; light grey to cream, firm to hard, generally noncrystalline to microcrystalline, trace finely crystalline horizons, predominantly mudstone grading to wackestone/packstone, trace pyrite, developing microsucrosic texture/trace argillaceous, poor ineffective porosity, no visible live stain, no shows
Dolomite/Siltstone; light grey, firm, moderately well compacted and indurated, quartz and dolomite grains in a dolomite matrix, local sandy nature - trace shaley

532 - 541m Dolomite; light grey, cream, light buff, grey/brown, firm to hard, noncrystalline to microcrystalline, generally mudstone/wackestone, trace pyrite, trace argillaceous grading to dolomite/siltstone, poor intercrystalline porosity, no shows

541 - 556m Dolomite; cream to grey/brown, firm to hard, generally noncrystalline to microcrystalline, predominantly mudstone/wckestone, trace pyrite, argillaceous on occasion grading to dolomite/siltstone, local cherty dolomite, trace dolomite/limestone in places, poor intercrystalline porosity, no shows
Dolomite/Siltstone; cream to light grey, firm, moderately compacted and indurated, quartz dolomite grains in dolomitic matrix, local sandy nature

556 - 578m Dolomite; light to medium grey/brown, firm to hard, grading from noncrystalline mudstone to microcrystalline and trace finely crystalline wackestone, trace pyrite, local sucrosic texture developing on occasion, grading to traces of dolomite/limestone, trace argillaceous to very argillaceous dolomite/siltstone, poor intercrystalline porosity, no visible live stain, no shows

578 - 602m Dolomite; medium brown, light grey, cream, firm to hard, generally noncrystalline to microcrystalline trace finely crystalline, predominantly mudstone/wackestone, trace argillaceous to very argillaceous horizons, trace very finely disseminated, local traces of dolomite/limestone, rare cherty horizons, poor intercrystalline porosity generally, no visible live stain, no shows

602 - 606m Dolomite; light grey, cream, brown, firm to hard, generally noncrystalline to microcrystalline, trace finely crystalline horizons developing sucrosic texture on occasion, generally mudstone/wackestone, trace cherty dolomite, trace argillaceous to locally very argillaceous grading to interbedded siltstone and dolomitic siltstone, poor intercrystalline porosity, no visible live stain, no shows

606 - 618m Dolomite; cream to light grey, light buff/brown, firm to hard, generally noncrystalline mudstone grading to microcrystalline wackestone, trace very finely disseminated pyrite, locally grading to dolomitic/limestone on occasion, locally argillaceous grained to dolomitic/siltstone, poor intercrystalline porosity, no visible live stain, no shows

618 - 637m Dolomite; light grey to brown, locally cream soft and ragillaceous, generally noncrystalline mudstone, grading to microcrytalline wackestone, trace argillaceous to very argillaceous horizons, grading to dolomitic/siltstone trace very finely disseminated pyrite, poor ineffective porosity, no visible live stain, no shows
Dolomite/siltstone; light grey, brown, firm to hard, moderately well compacted and indurated, locally grading to grain supported siltstone
Shale; light grey/green, soft to firm, subfissile/blocky slight to noncalcareous matrix

637 - 651m Dolomite; cream to light buff/brown, firm to hard, noncrystalline mudstone to microcrystalline wackestone, trace finely crystalline horizons developing sucrosic texture, trace very finely disseminated pyrite, becoming argillaceous grading to interbedded dolomite/siltstone, locally grain supported with sandy nature, generally poor intercrystalline porosity, no visible live stain, trace bitumen in places
Shale; green, soft, waxy, subfissile, slight to noncalcareous matrix

651 - 662m Dolomite; white to cream to light grey, firm to hard, predominantly microcrystalline wackestone, interbedded with noncrystalline mudstone and trace finely crystalline horizons, trace very finely disseminated pyrite, locally becoming argillaceous and in places grading to dolomite/siltstone, poor ineffective porosity, no shows

662 - 676m Dolomite; cream to light buff/brown, firm to hard, locally soft and chalky (argillaceous), generally noncrystalline mudstone grading to microcrystalline wackestone, local finely and cryptocrystalline facies with sucrosic texture, locally argillaceous to very argillaceous grain supported dolomite/siltstone, rare chert generally poor intercrystalline porosity, no visible live stain, no shows
Shale; ligt green, soft, waxy, subfissile, slight to noncalcareous matrix, silty nature

676 - 691m Dolomite; predominantly light brown, cream, light grey, firm to hard, noncrystalline to microcrystalline, predominantly mudstone/wackestone, local trace finely crystalline with sucrosic texture developing trace pyrite, locally argillaceous to very argillaceous, generally poor porosity, no visible live stain, no shows
Dolomite/Siltstone; light buff to cream, firm, moderately well compacted and indurated, generally grain supported, dolomite and quartz grains in dolomitic matrix - trace soft, green, waxy shale

691 - 698m Dolomite; cream to white, light buff/brown, noncrystalline mudstone grading to microcrystalline wackestone, trace argillaceous to very argillaceous grading to grain supported dolomitic silstone, poor intercrystalline porosity, no visible live stain, no shows

698 - 709m Dolomite; dark brown, grey, firm to hard, generally noncrystalline mudstone grading to microcrystalline wackestone, trace pyrite, locally grading to interbedded dolomite/limestone, trace argillaceous to locally very argillaceous, grading to dolomite/siltstone, generally poor intercrystalline porosity, no shows

709 - 717m Dolomite; light to medium brown, locally cream to light grey, soft to firm, generally noncrystalline to microcrystalline, predominantly mudstone/wackestone, local horizons of finely crystalline, developing microsucrosic texture, trace dolomite/limestone, becoming argillaceous and grading to dolomite/limestone, poor intercrystalline porosity, no shows

717 - 731m Dolomite; predominantly medium to dark brown, grey/brown, firm to hard, predominantly noncrystalline mudstone, interbedded with microcrystalline wackestone, locally grading to dolomite/limestone, trace argillaceous to locally very argillaceous horizons of dolomitic siltstone, poor ineffective porosity, no shows

731 - 750m Dolomite; predominantly medium to dark brown, medium grey, firm to hard, locally soft and argillaceous, predominantly noncrystalline mudstone, local horizons of microcrystalline, trace grading to dolomite/limestone on occasion, trace very finely disseminated pyrite, local cherty dolomite, grading to argillaceous to very argillaceous horizons to dolomite/siltstone, poor inef-fective porosity, no visible live stain, no shows

750 - 776m Dolomite; predominantly light grey/cream, brown, firm to hard, generally grading from noncrystalline mudstone to trace microcrystalline wackestone, trace finely crystalline horizons, trace sucrosic texture developing on occasion, grading in places to dolomite/limestone, poor ineffective porosity, no shows

776 - 801m Dolomite; light grey, dark brown, firm to hard, grading from subcrystalline to microcrystalline, trace argillaceous to locally very argillaceous grading to interbedded dolomite/siltstone, trace pyrite, thin partings of dolomite/limestone, poor ineffective porosity, no visible live stain, no shows

801 - 807m Dolomite; light buff/brown, local grey facies, firm to hard. Locally soft chalky and argillaceous, predominantly subcrystalline to microcrystalline, grading from mudstone to wackestone, locally becoming very calcareous grading to dolomite/limestone, trace chalky limestone, trace argillaceous to locally very argillaceous horizons, poor ineffective porosity, no visible live stain, no shows
Shale; dark grey to locally light green, soft to firm, subfissile/blocky, waxy in green, slight to noncalcareous matrix, generally silty nature

807 - 835m Dolomite; light buff/brown, firm to hard, predominantly subcrystalline mudstone with interbedded wackestone, locally very calcareous and grading to interbedded dolomite/limestone, poor ineffective porosity, no shows
Limestone; cream to light buff, soft to firm, generally subcrystalline mudstone, trace argillaceous, poor porosity, no shows
Shale; dark grey, slightly micromicaceous, subfissile blocky, soft to firm, slight to noncalcareous matrix, silty nature

835 - 857m Dolomite; predominantly light brown, locally buff/brown, firm to hard, grading from subcrystalline to microcrystalline, trace very finely crystalline horizons, predominantly mudstone/wackestone, locally very calcareous grading to dolomite/limestone, trace argillaceous to locally very argillaceous grading to in-terbedded dolomite/siltstone, locally grain supported, poor ineffective porosity, no visible live stain, no shows
Shale; dark grey, grey/green, slightly micromicaceous, generally subfissile/blocky, firm, locally waxy in green, trace pyrite, slight to noncalcareous matrix, silty nature

857 - 862m Shale; predominantly red/brown, grey/green, light green, slightly micromicaceous, subfissile blocky predominantly, slightly fissile, firm to slightly brittle, slight to noncalcareous matrix, silty nature, grading to interbedded siltstone
Dolomite; cream, red/brown, generally subcrystalline mudstone grading to microcrystalline wackestone, locally grading to dolomite/limestone, argillaceous, poor porosity, no shows

862 - 870m Shale; red/brown, grey/green, light green, slightly micromicaceous in places, subfissile to fissile, firm to slightly brittle in fissile component, waxy, soft in green, slight to noncalcareous matrix, generally silty to very silty shale, grading to interbedded siltstone

870 - 887m — Shale; predominantly red/brown, grey/green, slightly micromicaceous, generally subfissile/blocky, firm to slightly brittle in fissile component, trace very finely disseminated pyrite, slight to noncalcareous matrix, generally silty to very silty shale grading to interbedded siltstone
Dolomite; cream to light grey, red/brown, firm to hard, locally soft and argillaceous, predominantly subcrystalline mudstone grading to interbedded microcrystalline wackestone, locally becoming very calcareous grading to dolomite/limestone, trace argillaceous to very argillaceous grading to interbedded dolomite/siltstone, poor porosity, no shows trace anhydrite; white to clear, firm, crystalline, partially dolomitized

887 - 902m — Shale; light green, grey/green, locally red/brown, slightly micromicaceous, subfissile, blocky soft to firm, slightly fissile and brittle, slight to noncalcareous matrix, generally silty to very silty nature grading to interbedded siltstone
Dolomite; grey to red/brown, firm to hard, generally subcrystalline mudstone, trace microcrystalline horizons, trace argillaceous to very argillaceous, locally partially replaced with anhydrite, poor ineffective porosity, no shows, - trace anhydrite parting

902 - 916m — Shale; green to red/brown, slightly micromicaceous, subfissile, soft/waxy, slight to noncalcareous matrix, silty to very silty shale
Dolomite/Siltstone; grey, red/brown, firm, moderately well compacted and indurated, locally quartz and dolomite grain supported, trace anhydritic
Salt; clear to amber, firm, occuring as massive halite - trace anhydrite stringers, white to cream firm to hard, crystalline

916 - 922 — Shale; green to red/brown, subfissile, soft/waxy, slight to noncalcareous matrix, silty to very silty, trace anhydritic - trace salt; clear to yellow, halite

922 - 946 — Shale; pale green, soft/waxy, subfissile, locally becoming silty to very silty shale grading to interbedded dolomite/siltstone
Salt; clear to amber/yellow, firm, massive halite

946 - 966 — Shale; light green, grey, slightly micromicaceous, subfissile/blocky, waxy and salt in green facies
Dolomite; light grey, soft to firm, occuring as subcrystalline mudstone, generally argillaceous to very argillaceous dolomite/siltstone, partially replaced with anhydrite on occasion, poor ineffective porosity, no shows

Salt; white to clear, yellow/amber, occuring as massive halite
Anhydrite; white to cream, firm to hard, massive, partially dolomitized

966 - 977m — Shale; predominantly light green, light grey, slightly micromicaceous, subfissile/blocky, soft to firm, slightly waxy in green, slight to noncalcareous matrix, locally anhydritic, trace argillaceous to very argillaceous, interbedded with anhydrite, clay
Anhydrite; white to clear soft to firm, massive
Salt; clear to amber/yellow, occuring as halite

977 - 1003m — Salt; interbedded white/frosty to clear, with amber/yellow, firm, bedded, occuring as massive, halite
- trace horizons of soft, green, waxy shale
- anhydrite, white to cream, light grey, soft/chalky, locally dolomitic

1003 - 1016m — Salt orange/yellow, white/frosty, firm, vitreous lustre/bedded, occuring as halite
- trace shale and anhydrite partings

1016 - 1042m — Salt; white to frosty, trace orange/yellow, vitreous lustre, occuring as massive halite
Anhydrite; white to cream, soft to firm, massive and clay textures
- trace dolomite/siltstone and shale

1042 - 1060m — Salt; interbedded white/frosty and amber/yellow, occuring as, massive, bedded, halite
- trace Anhydrite, white to light grey, soft to firm, occuring as subcrystalline and chalky textures

1060 - 1082m — Salt; white to clear/frosty, light orange/yellow, vitreous lustre, occuring as massive halite, bedded, trace very finely disseminated pyrite
- trace anhydrite and shale horizons

1082 - 1100m — Shale; clear to frosty, yellow-orange, vitreous, occuring as massive halite
Anhydrite; light grey, white/cream, soft to firm, occuring as massive anhydrite and anhydritic clay
Shale; light green, soft, waxy
Dolomite/Siltstone; light grey, firm, moderately compacted and indurated, anhydritic, trace subcrystalline dolomite, poor ineffective porosity, no shows

1100 - 1124m Salt; clear to white predominantly, vitreous lustre, bedded, occuring as halite
Shale; light grey/green, soft to firm, subfissile waxy, slight to noncalcareous matrix, anhydritic
Anhydrite light grey/white, soft to firm, chalky and crystalline, dolomitic in places

1124 - 1139m Salt; white, clear, frosty, trace yellow, firm, bedded, massive, vitreous, occuring as halite
Dolomite; light brown, grey/brown, firm, subcrystalline mudstone, generally very argillaceous, anhydritic, poor porosity, no shows
shale; light grey/green, grey, soft/waxy,
Anhydrite; cream - light grey, massive and chalky textures

1139 - 1145m Shale; medium to dark grey, medium grey/green, subfissile/blocky, slight to noncalcareous matrix, slightly micromicaceous, soft to firm, generally silty to very silty shale, grading to interbedded siltstone
Dolomite; medium to light brown, firm, generally subcrystalline to microcrystalline, mudstone/wackestone, trace finely crystalline horizons with sucrosic texture developing, locally very argillaceous grading to dolomitic/siltstone, partially anhydritic, poor ineffective porosity, trace fair pinpoint in places, no visible live stain, no shows

1145 - 1162m Shale; predominantly dark grey, medium grey/green, slightly micromicaceous, subfissile to fissile, firm to slightly brittle in fissile component, slight to noncalcareous matrix, trace argillaceous to very argillaceous, grading to interbedded siltstone
Dolomite; medium brown, light grey/brown, soft to firm, subcrystalline mudstone, generally argillaceous to very argillaceous, grading to dolomite/siltstone, trace microcrystalline wackestone and finely crystalline horizons, locally grained to dolomite/limestone, poor ineffective porosity, no visible live stain, no shows
Anhydrite; cream to light grey, soft to firm, chalky and crystalline, dolomitic

1162 - 1174m Interbedded Shale, Dolomite, thin stringers of Limestone;
Shale; dark grey-green, slightly micromicaceous, subfissile to fissile, firm to slightly brittle in fissile, slightly waxy in green, slight to noncalcareous matrix, silty shale

Dolomite; light buff/brown, soft to firm, generally subcrystalline mudstone, generally interbedded with argillaceous to very argillaceous dolomite, grain supported with sandy nature on occasion, locally dolomite/limestone horizons, poor ineffective porosity, no shows
Limestone; buff to dark brown, soft - firm, subcrystalline mudstone, trace argillaceous to very argillaceous, poor porosity, no shows
- trace anhydrite stringers and occasional brown, amorphous, bedded, chert

1174 - 1191m Predominantly interbedded Shale and Dolomite local stringers of Limestone
Shale; dark grey, green, generally as above
Dolomite; light buff/brown, dark brown, soft to firm, generally subcrystalline mudstone, trace microcrystalline horizons, generally occuring as argillaceous dolomite to dolomitic siltone, generally poor ineffective porosity, no shows
LImestone; cream to light brown, soft to firm, subcrystalline mudstone, argillaceous, poor porosity, no shows
- trace brown chert and anhydrite stringers

1191 - 1199m Shale; medium to dark grey, grey/green, green, slightly micromicaceous, subfissile to fissile, firm to slightly brittle in fissile component, slightly to noncalcareous matrix, silty nature,
Dolomite; light to medium brown, firm to hard, predominantly subcrystalline to microcrystalline, grading from mudstone/wackestone, trace argillaceous and grading to grain supported dolomite/siltstone, poor ineffective porosity, no shows
Limestone; cream to light buff, generally soft argillaceous chalky mudstone, poor porosity, no shows
- chert, brown, hard, amorphous, bedded

1199 - 1222m Shale; medium to dark grey/green, slightly micromicaceous, subfissile to fissile, firm to slightly brittle in fissile component, trace pyrite, slight to noncalcareous matrix, locally grained to silty to very silty shale
Dolomite; as previous, medium brown, generally argillaceous to very argillaceous, poor porosity, no shows
Limestone; cream to light buff/brown, soft to firm, subcrystalline mudstone with chalky argillaceous texture, locally dolomitic, poor ineffective porosity no shows

1222 - 1247m Shale; dark grey to black, dark grey/green, slightly micromicaceous to micromicaceous, subfissile to fissile, firm to slightly brittle in fissile component, local waxy texture, slight to noncalcareous matrix, interbedded with siltstone
Limestone; cream to brown, soft to hard, grading from subcrystalline to microcrystalline, horizons, soft chalky mudstone, locally dolomitic, trace argillaceous, poor porosity, no shows
Dolomite; medium brown, light buff, soft to hard, subcrystalline mudstone to trace microcrystalline generally grading to argillaceous horizons of dolomitic siltstone, poor porosity, no shows
- trace anhydritic stringers, white, firm, microcrystalline
- rare brown angular chert

1247 - 1255m Shale; dark grey to black, dark grey/green, as above
Dolomite; grey brown to dark brown, light buff, firm to hard, grading from subcrystalline to microcrystalline horizons, grading from mudstone/wackestone, interbedded horizons of grain supported dolomite/siltstone, quartz and dolomite grains in dolomitic matrix with local sandy nature poor ineffective porosity, no visible live stain, no shows

1255 - 1269m SHale; predominantly dark grey/green, slightly micromicaceous to micromicaceous, subfissile/blocky, firm to slightly brittle in fissile component, slight to noncalcareous matrix, locally becoming silty to very silty shale
Dolomite; cream to predominantly medium to dark brown, firm to hard, predominantly microcrystalline wackestone interbedded with subcrystalline mudstone, trace finely crystalline horizons, becoming argillaceous to very argillaceous horizons of dolomite/siltstone with trace sandy nature on occasion, poor ineffective porosity, no shows

1269 - 1272m Shale; dark grey/green, subfissile/blocky as above
Sandstone; white to cream, firm to slightly friable, predominantly very fine (trace fine) grained, frosty/white quartz predominantly, glauconitic, dolomitic cement, moderately well sorted, generally grading from argillaceous to very argillaceous sandstone to sandy siltstone, poor porosity, no visible live stain, no shows

1272 - 1274m Interbedded dolomitic siltstone and grain supported clay

1310 - 1312m Shale; dark grey/green, subfissile/blocky as above
Dolomite; dark brown predominantly, medium brown, hard, microcrystalline to trace finely crystalline, predominantly wackestone, trace pyrite, trace argillaceous grading to very argillaceous dolomitic/siltstone, poor ineffective porosity, no shows

Core #1 1312.0 - 1323.20 Cut 11.20m Recovered 10.45m

Core #2 1323.20 - 1328.80m Cut 5.6m Recovered 5.3m

1328.8 - 1342m Dolomite; cream to light brown, firm to hard, generally subcrystalline to microcrystalline, mudstone/wackestone, trace finely crystalline on rare occasions, grading in places to dolomite/limestone, trace argillaceous to very argillaceous lenses, generally poor ineffective porosity, no visible live stain, no shows to trace rare yellow/green fluorescence in solvent, fading quickly (possible cavings from cored interval)
Shale; grey to green, trace red/brown, soft and waxy in green subfissile/blocky, silty nature
Siltstone; light grey to cream, firm moderately well compacted and indurated, generally quartz grain supported, dolomitic matrix, sandy in nature grading to fine grained quartz sandstone, poor ineffective porosity, no shows
- trace rare basalt; green/red, firm to hard, hematite, andesitic, associated with traces of metasediments cream to pink quartzite

1342 - 1358m Dolomite; medium to dark brown, cream firm to hard, locally soft chalky and argillaceous, subcrystalline mudstone to microcrystalline horizons, grading to dolomite/limestone on occasion, trace argillaceous to dolomite/siltstone, poor intercrystalline porosity, no shows
Chert; white, opaque, brown, hard, amorphous, bedded
Dolomite/Limestone; cream to white, soft, chalky subcrystalline mudstone, poor ineffective porosity, no shows
Shale; red/brown, grey/green, subfissile/blocky, silty nature
- white/pink, hard, quartzite
- basalt, red/brown, red/green, andesitic, occuring as rare fragments

1358 - 1365m Dolomite; predominantly cream to light grey, grey/brown, firm to hard, locally soft, chalky and argillaceous, generally subcrystalline mudstone, locally grading to dolomite/limestone, poor ineffective porosity, no visible live stain, no shows

TOTAL DEPTH 1365.0m

DETAILED CORE DESCRIPTIONS

Core #1 1312.0 - 1323.20m Cut 11.20m Recovered 10.45m

Depth	Description
1312.0 - 1313.48m	(1.48m) Predominantly (argillaceous) Sandstone; with thin lenses of dolomite/siltstone, shale Sandstone; light grey, grey/green, firm to hard, predominantly very fine to locally trace fine grained, frosty/white quartz, trace rare glauconite and flakes of mica, silica cemented trace dolomitic, moderately well sorted, subangular to angular grains, argillaceous grading to sandy siltstone, poor ineffective porosity, trace visible bleeding light brown oil, strong petroliferous odor from 1313.13 - 1313.48m (after one hour at surface), bright yellow green dry fluorescence strong cloudy yellow/green fluorescence in solvent, trace rare flecks of bitumen in local pore spaces Shale; dark grey to grey/brown, slightly micromicaceous, subfissile to slightly fissile, firm to slightly brittle, grading to very silty shale to interbedded siltstone Dolomitic Siltstone; grey/brown, light grey, firm to hard, moderately well compacted and indurated, dolomitic matrix, generally grain supported with sandy nature - evidence of minor slump and contorted bedding
1313.48 - 1315.89m	(2.41m) Predominantly sandstone with minor interbedded shaley siltstone Sandstone; medium brown to dark grey, firm to hard, predominantly very fine grained coarsening to very fine to fine grained at base, predominantly clear to frosty quartz grains with trace of shale fragments and very rare glauconitic fragments combination of silica cement with minor calcareous cement, moderately well sorted, subangular to angular grains, trace argillaceous to very argillaceous horizons grading to sandy siltstone and shaley siltstone, poor ineffective porosity, traces of pyrobitumen in local pore spaces becoming abundant, trace bubbling gas escaping from minor hairline fractures, trace spotty bleeding light brown oil at base of interval (1315.87m), pale yellow green dry fluorescence, strong cloudy yellow/green fluorescence in solvent - no discernable sedimentary structures

1315.89 - 1316.08m Sandstone; with thin lenses of slightly contorted shale and minor evidence of slump bedding
Sandstone; light grey, firm to slightly friable, predominantly very fine grained to trace fine grained in places, clear to frosty/quartz, flakes of clear mica and minor shale fragments, silica cement, moderately well sorted, subangular to angular grains, generally silty nature grading to localized horizons of sandy siltstone, poor intergranular porosity, no visible live stain, no shows, trace dead oil stain(?) and pyrobitumen

1316.08 - 1316.86m (0.78m) Sandstone; predominantly dark grey with horizons of light grey sandstone as above
Sandstone; dark grey, firm to hard, slightly friable on occasion, on fresh surfaces, very fine to predominantly fine grained, clear to frosty quartz, silica cemented, moderately to moderately well sorted, subangular to angular grains, trace argillaceous, poor intergranular porosity, trace fine pinpoint bleeding oil with yellow/green dry fluorescence, moderately streaming yellow fluorescence in solvent abundant pyrobitumen throughout plugging porosity

1316.86 - 1319.81m (3.05m) Interbedded dolomite/siltstone and shale
Dolomite/Siltstone; dark brown, firm to hard, moderately well compacted and indurated, generally quartz grain supported and micaceous, sandy nature grading to argillaceous sandstone, poor porosity in sandstone, no shows
Shale; dark grey to grey/green, slightly micromicaceous,

1319.81 - 1320.39m (0.58m) Predominantly Sandstone with local green shale "blebs" at top of interval
Sandstone; medium to dark grey, firm to friable, medium to predominantly coarse grained, clear to frosty/white quartz, rare flecks of glauconite, rare scattered subangular fragments of grey/white chert, trace very finely disseminated pyrite on occasion, and shale fragments, silica and predominantly clay cement, poor to moderately sorted, subangular to subrounded grains, poor to trace fair intergranular porosity (appearing partially plugged with argillaceous cement), patchy green, dry fluorescence throughout, associated with bleeding light brown oil stain, cloudy yellow fluorescence in solvent, strong petroliferus odor

1320.39 - 1321.22m (0.93m) Sandstone; white horizons of credulated shaley bitumen
Sandstone; light grey to dark grey, firm to hard, slightly friable in places, grading from very fine grained at to of interval (from 1320.39 - 1320.72m) medium to coarse grained at base, predominantly frosty/white - clear quartz, trace shale fragments and abundant horizons of pyrobitumen, silica and clay cemented, moderately well sorted at top of interval, poor to moderately sorted at base, trace argillaceous to very argillaceous, generally poor ineffective porosity (plugged with pyrobitumen in dark grey facies) spotty pinpoint bleeding oil with yellow green dry fluorescence, moderately well streaming yellow fluorescence in solvent where stained
N.B. - patchy - even light brown bleeding oil from 1321.0 - 1321.22m

1321.22 - 1321.64m (0.42m) Sandstone; light grey to grey/green, firm to friable, ranging from very fine grained through to medium and coarse grains, predominantly frosty to clear quartz, trace rare white chert, green shale blebs, horizons of abundant pockets of pyrite, clay and silica cement moderately developed, poorly sorted, subangular to subrounded grains, trace argillaceous to very argillaceous lenses, poor to fair intergranular porosity (apparent plugging by argillaceous matrix) patchy to spotty yellow dry fluorescence, moderately streaming yellow fluorescence in solvent over interval, strong petro-odor, light brown bleeding oil

1321.64 - 1322.75m (1.1m) Sandstone; light grey to green, firm to friable, poorly sorted, very fine to coarse grains of clear to frosty quartz, trace green shale and clay blebs grading to soft green horizons, silica and clay cemented grained to clay matrix subangular to subrounded grains, abundant pyrite in places, poor intergranular porosity, no visible live stain, no shows, no fluorescence

END OF CORE #1

Core #2 1323.20 - 1328.80m Cut 5.6m Recovered 5.3m

Depth	Description
1323.20 - 1323.67m	(0.47m) Sandstone; white to light brown, predominantly hard to firm, generally fine grained to trace fine grained, predominantly clear to frosty quartz, silica cemented, moderately to moderately well sorted subangular to angular grains, trace argillaceous, poor to trace fair intergranular porosity, bubbling light yellow/brown bleeding oil (after 20 minutes at surface) bright yellow/green dry fluorescence, cloudy yellow fluorescence in solvent
1323.67 - 1325.12m	Dolomite; light to medium grey, locally brown, firm to hard, generally subcrystalline to microcrystalline, grading mudstone - wackestone, trace very finely disseminated pyrite, trace argillaceous grading to thin horizons of dolomite/siltstone and thin shale lenses, local spots grading to dolomite/limestone, stylolites occuring at 1324.42; 1325.04m, vertical hairline fractures, generally poor intercrystalline porosity, bleeding light yellow/brown oil occuring from fractures, bright yellow/green fluorescence
1325.12 - 1325.35m	(0.23m) Dolomite; light grey/brown, firm to hard, predominantly microcrystalline wackestone to subcrystalline mudstone, trace argillaceous, trace very finely disseminated pyrite, poor intercrystalline porosity, generally trace spotty brown stain, live bleeding light yellow/brown oil originating from horizontal fractures, bright yellow/green fluorescence, moderately streaming yellow green fluorescence where stained
1325.35 - 1326.89m	(1.54m) Dolomite; light to medium grey/brown, firm to hard, predominantly subcrystalline to trace microcrystalline, generally mudstone to mudstone/wackestone horizons, trace argillaceous, fairly abundant vertical hairline fractures, generally poor intercrystalline porosity, bleeding light yellow/brown oil originating from fractures, bright yellow/green fluorescence associated with oil

1326.89 - 1328.43m Dolomite; light to medium grey, subcrystalline to microcrystalline as above, fractured and vuggy (vugs 4mm - 10mm in size), white to cream to pink to light grey quartzite infilling fractures, generally poor intercrystalline porosity, trace fair pinpoint and vuggy towards top of interval, bleeding light yellow/brown oil from fractures and vugs (drying out towards base of interval), bright yellow/green fluorscence associated with oil
- local shale and silty horizons with slightly crenulated nature

END OF CORE #2