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Vitrinite reflectance (Ro)
of dispersed organics
from
Shell Petro-Canada et al.
Glenelg J-48

Report No. EPGS-DOM.2-90MPA

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Vitrinite reflectance (Ro) of dispersed organics from Shell Petro-Canada et al.
Glenelg J-48

G.S.C. Locality No.: D226 Location: 43°37'38.57"N, 60°06'24.84"W

R.T. Elevation: 24m Water Depth: 82m Total Depth: 5250m

Sampled Interval: 370 - 5250m Interval Studied: 580 - 5250m

Depth Units: Metres referenced to R.T.

Vitrinite reflectance has been determined on 25 rotary cuttings samples (Table II) from Shell Petro-Canada et al. Glenelg J-48 which was classified as a wildcat well and is located on the Scotian Shelf approximately 302 km east southeast of Halifax, Nova Scotia. The well was designated a gas discovery and was plugged and abandoned.

Data acquisition and manipulation for this report utilized the Zeiss Photo-multiplier III system interfaced with a microcomputer which provides reliable data acquisition and fast statistical summaries.

Sample preparation followed the procedures listed in Appendix I. The analysis of the well revealed the thermal maturation intervals given in Table I. The specific maturation levels, as set out in this report, were based on those of Dow (1977) with modified terminology (Appendix II).

Table I
Inferred Thermal Maturation Levels*

(Seafloor)-1717m	0.21 - 0.4	% Ro	immature
1717-2313m	0.4 - 0.5	% Ro	immature approaching maturity
2313-2801m	0.5 - 0.6	% Ro	marginally mature
2801m	0.6	% Ro	onset of significant oil generation
3570m	0.8	% Ro	peak of oil generation
4167m	1.0	% Ro	onset of significant wet gas generation
4654m	1.2	% Ro	onset of significant dry gas generation
4969m	1.35	% Ro	oil floor
6020m	(2.0)	% Ro	wet gas preservation limit
7104m	(3.0)	% Ro	dry gas preservation limit
5250m	1.50	% Ro	maturity at total depth

Note: () indicate Ro extrapolated at 0.162 log Ro/km

* Maturation levels are provided for all types of organic matter. Actual hydrocarbon products depend on type of organic matter present.

Remarks

Sample coverage for vitrinite reflectance analysis (Figure 1, Table II) was very good over the section penetrated by Glenelg J-48. The data are plotted on a log Ro vs. linear depth scale and a linear regression line was calculated by the least squares method (Figure 1). The 'error bars' plotted on the maturation profile indicate one standard deviation on either side of the mean and may be deceptively small for samples with very few readings. The slope of the maturation line is 0.162 log Ro/km.

Selection of the reflectance population which represented the true maturation of the sediments was aided significantly by the histogram display plot (Figure 2). This interpretation tool helps to reveal linear trends (populations) in the Ro data. It also demonstrates the effects of cavings, geology, casing points and other factors on the vitrinite reflectance populations.

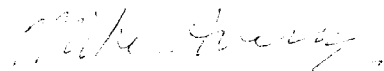
The lithology strip plot (Figure 1) was produced directly from the Basin Analysis Subdivision's LITHFILE database which extracts data from digitized CANSTRAT logs.

The vitrinite reflectance data provides evidence that the thermal regime at Glenelg J-48 (between 2313 and 5250m) is suitable for the generation and preservation of hydrocarbons within the drilled section assuming potential source rocks and traps were present.

References

Dow, W.G., 1977. Kerogen studies and geological interpretations. Journal of Geochemical Exploration, no. 7, p. 77-99

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Table II

Summary of kerogen - based vitrinite reflectance

Seq. #	Sample #	Depths in metres	Mean Ro (SD) non-rotated	Number of Readings	
				Total	Edited
1	K0729A	580-620	0.25(±.04)	45	24
2	K0729B	760-800	0.26(±.04)	34	16
3	K0729C	940-980	0.36(±.06)	22	22
4	K0730A	1120-1160	0.38(±.07)	28	27
5	K0730B	1290-1330	0.40(±.06)	43	41
6	K0730C	1470-1510	0.36(±.00)	1	1
7	K0731B	1860-1900	0.38(±.05)	26	17
8	K0731C	2130-2170	0.45(±.04)	31	23
9	K0732A	2610-2650	0.52(±.09)	49	44
10	K0732B	2790-2830	0.58(±.07)	57	30
11	K0732C	2970-3010	0.63(±.05)	35	29
12	K0733A	3150-3180	0.70(±.12)	74	71
13	K0733B	3350-3390	0.71(±.07)	58	50
14	K0733C	3530-3570	0.72(±.07)	53	45
15	K0734A	3830-3870	0.78(±.07)	53	43
16	K0734B	4010-4020	0.78(±.08)	56	43
17	PH1681	4185-4190	0.81(±.07)	24	10
18	PH1682	4385-4390	1.15(±.07)	46	18
19	K0735A	4450-4490	1.13(±.10)	19	14
20	PH1683	4565-4570	1.05(±.08)	25	17
21	PH1684	4745-4750	1.20(±.10)	14	13
22	PH1685	4905-4910	1.38(±.00)	8	1
23	K0736A	5045-5055	1.43(±.08)	6	3
24	PH1686	5145-5148	1.87(±.16)	53	51
25	PH1687	5240-5250	1.88(±.14)	17	15

Note: Samples with 'K' prefix are kerogen concentrate preparations.
 Samples with 'PH' prefix are whole rocks preparations.

Table III

Formation Tops (Wade, pers. comm.)

Formation	Depth
Banquereau	in casing
Wyandot	1646m
Dawson Canyon	1775m
Petrel Mbr	1797-1799m
Logan Canyon	1975m
Marmora Mbr	1975m
Sable Mbr	2138m
Cree Mbr	2302m
Naskapi Mbr	3131m
Missisauga	3469m
upper mbr	3469m
Top OP approx.	4000m
"O" Marker	4268-4331m
middle mbr	4331m
Verrill Canyon	4614m
T.D.	5250m

Vitrinite Reflectance

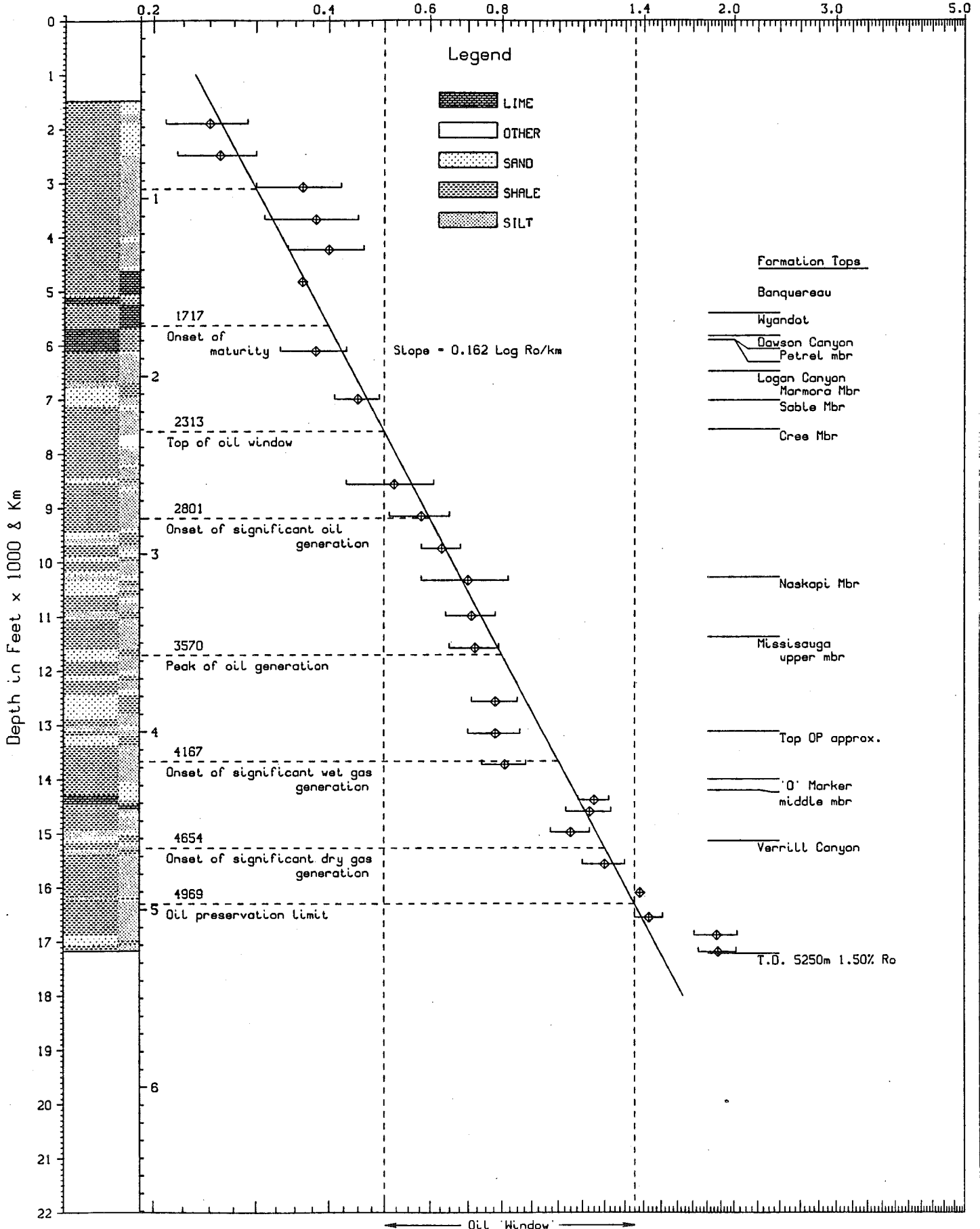


Fig. 1 Glenelg J-48 < Maturation Profile >

Vitrinite Reflectance

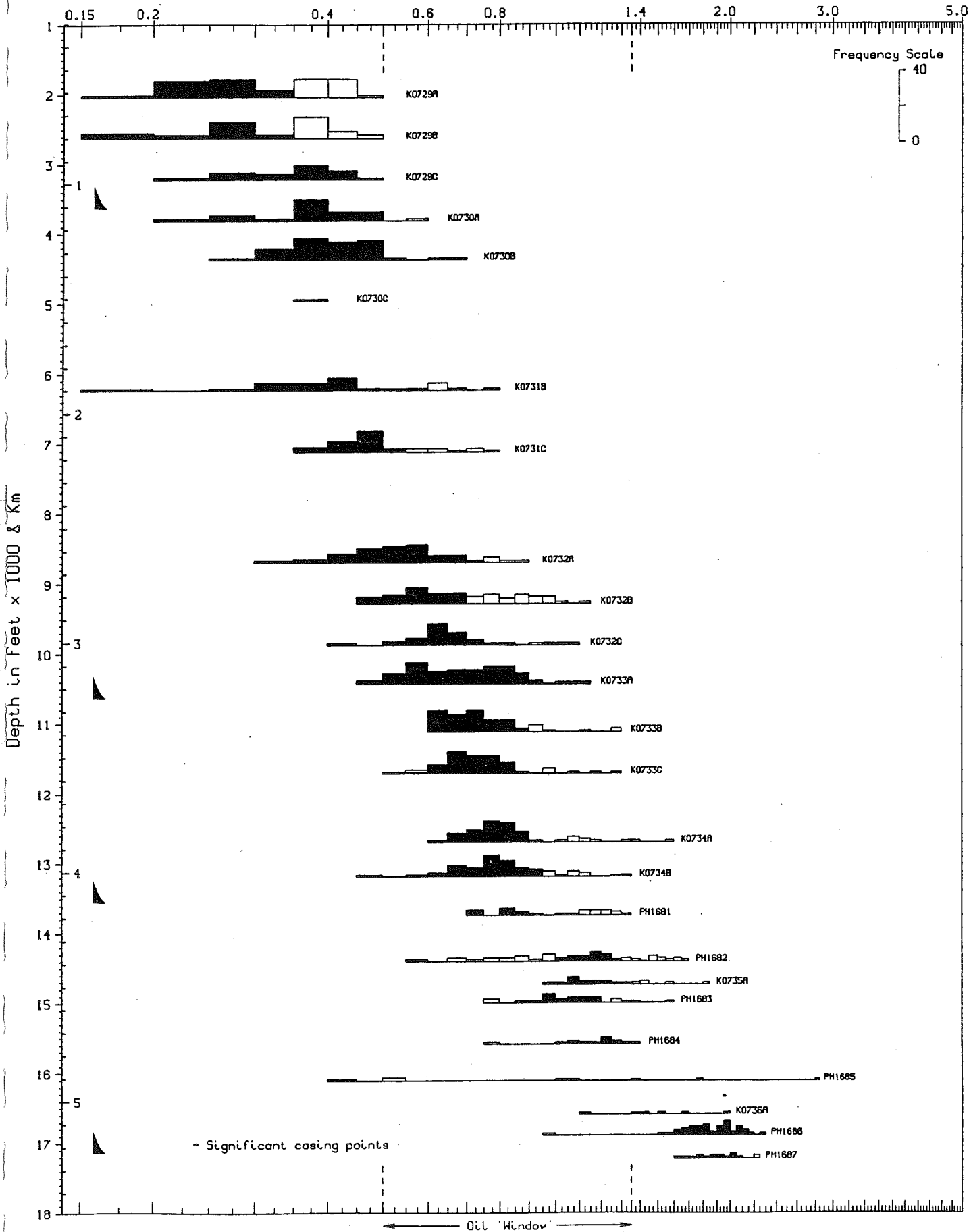


Fig. 2. Glenora 1-48

< Histograms >

APPENDIX I

Sample Preparation Method

Kerogen Concentrate

COGLA Lab preparation

Preliminary wash

Dry samples in oven

Split: a. all of coarse to Petrology Lab
b. ½ medium to Palynology Lab
c. rest of medium and all of fine combined for Micropaleo Lab

Split "b" is delivered to Palynology Lab and treated as follows:

PALYNOLOGY Lab preparation

Place 20-30 grams 250 ml plastic beaker.

Add 10% HCl till reaction ceases (removes carbonates).

Wash (rinsed) 3 times.

Conc. HF overnight (removes silicates).

Wash (rinsed) 3 times.

Heat (60-65 C) conc. HCl (remove fluorides caused by HF).

Wash 3 times.

Transfer to 15 ml test tube with 4-5 ml 4% Alconox.

Differential centrifuge at 1500 rpm for 90 sec.

Decant.

Wash 3 times with centrifuging.

Float off organic fraction using 2.0 S.G. Znbr solution.

Centrifuge 1000 rpm, 8 min.

Float fraction into second test tube.

Wash 3 times with centrifuging.

Kerogen smear slide made.

Remaining kerogen material delivered to Vitrinite Reflectance Lab.

VITRINITE REFLECTANCE Lab preparation

Pipette off excess water.

Freeze dry.

Mount using epoxy resin (Struer's EPOFIX) in predrilled plastic tubes.

Polish to obtain low relief, scratch free surface.

Examine under oil lens, incident light at approximately 800x mag'n.

Whole Rock (VR lab prep only)

Preliminary wash & Air dry.

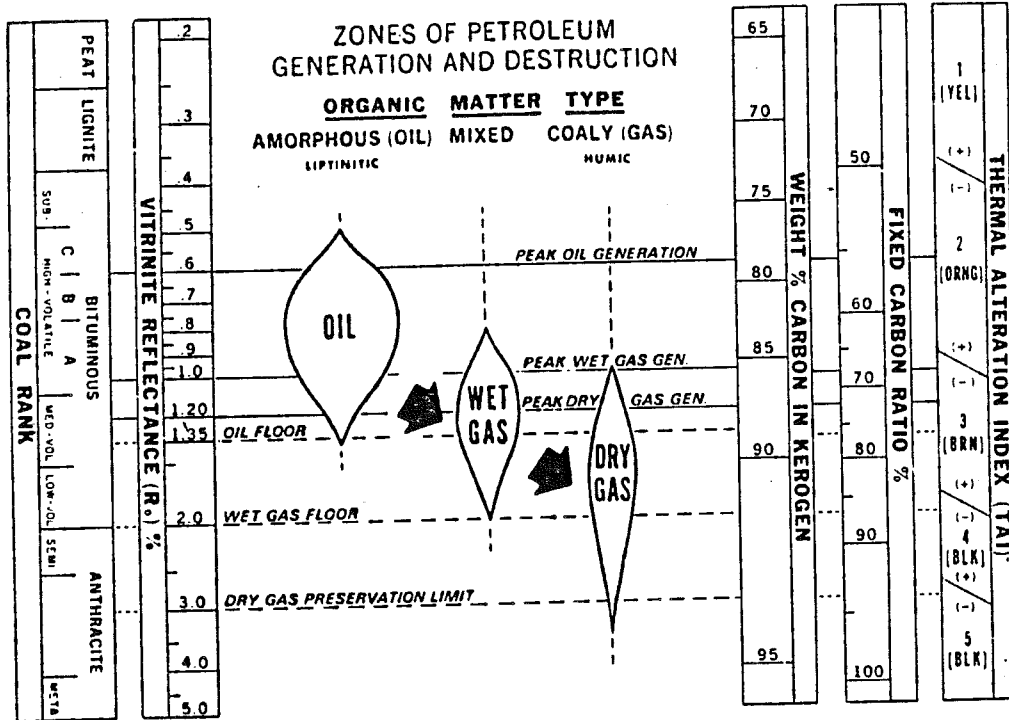
Crush to 1mm.

Mold into 1" stub with epoxy resin (EPOFIX).

Polish to obtain low relief, scratch free surface.

Examine under oil lens, incident light at approximately 800x mag'n.

Appendix II (Dow, 1977)



Note: In this report, the terminology used to describe the various maturation levels has been modified. The 'peak' designation, as used in this figure, has been changed to 'onset of significant' and 0.8 Ro is here used as the 'peak of oil generation' (Table I, Figure 1).

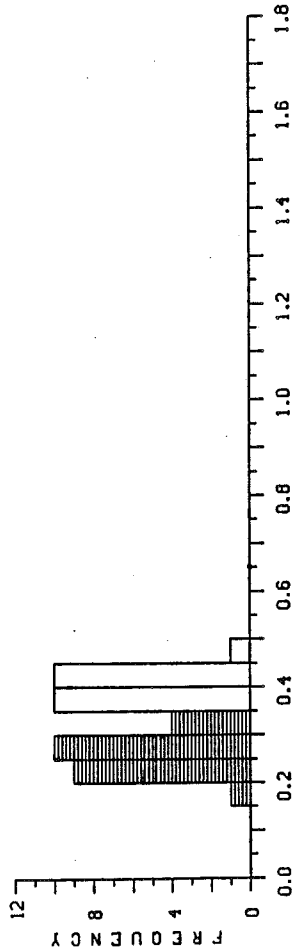
Appendix III
Reflectance Histograms

K0729A, 560-620M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.19<	.21<	.21<	.22<	.22<	.23<	.23<	.24<	.24<	.24<
1	.25<	.25<	.25<	.26<	.26<	.26<	.26<	.27<	.27<	.27<
2	.30<	.31<	.33<	.34<	.35<	.36<	.37<	.37<	.38<	.38<
3	.38<	.38<	.38<	.38<	.40<	.40<	.41<	.41<	.41<	.41<
4	.42<	.42<	.43<	.43<	.46<					

TOTAL	MEAN	STAND DEV	PTS	MIN	MAX	SUM
EDIT<	.32	.08	45	.19	.46	14.42
	.25	.04	24	.19	.34	6.10

REFLECTANCE HISTOGRAM

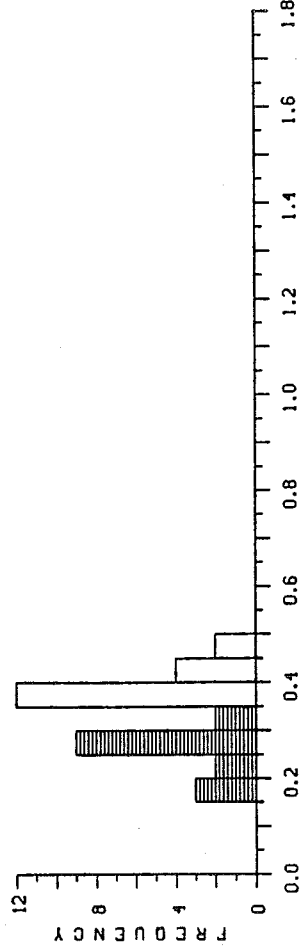


K0729B, 760-800M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.19<	.19<	.19<	.23<	.24<	.25<	.26<	.26<	.26<	.27<
1	.27<	.28<	.28<	.28<	.30<	.34<	.35<	.35<	.35<	.35<
2	.36<	.37<	.37<	.37<	.38<	.38<	.38<	.38<	.40<	.42<
3	.43<	.43<	.48<	.48<						

TOTAL	MEAN	STAND DEV	PTS	MIN	MAX	SUM
EDIT<	.33	.08	34	.19	.48	11.12
	.26	.04	16	.19	.34	4.09

REFLECTANCE HISTOGRAM

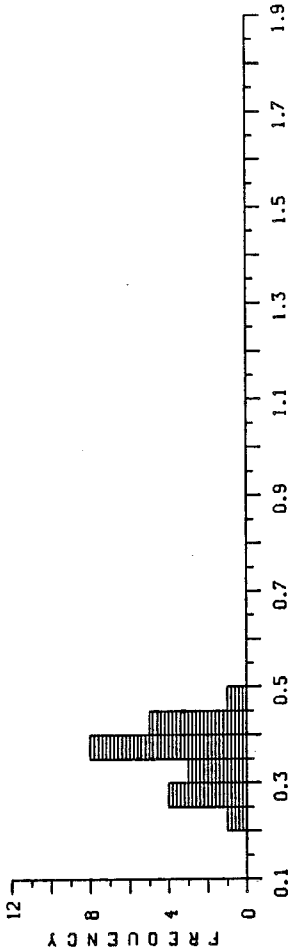


K0729C, 940-980M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.22<	.25<	.29<	.29<	.29<	.31<	.33<	.33<	.36<	.36<
1	.38<	.39<	.39<	.39<	.39<	.39<	.41<	.41<	.42<	.42<
2	.44<	.45<								

TOTAL	MEAN	STAND DEV	PTS	MIN	MAX	SUM
EDIT<	.36	.06	22	.22	.45	7.92
	.36	.06	22	.22	.45	7.92

REFLECTANCE HISTOGRAM

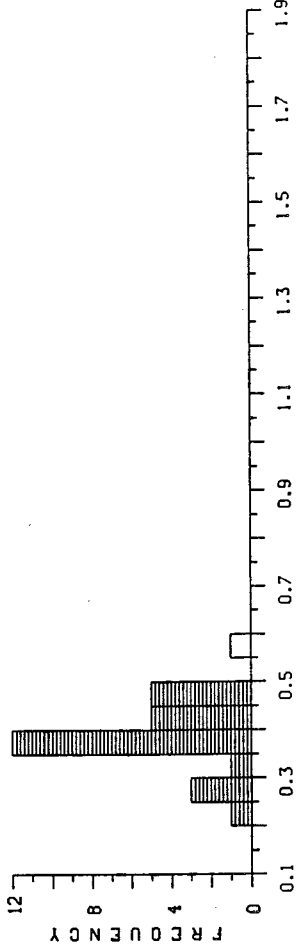


K0730A, 1120-1160M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.20<	.25<	.25<	.28<	.30<	.35<	.35<	.36<	.36<	.36<
1	.36<	.37<	.38<	.38<	.38<	.38<	.39<	.41<	.41<	.42<
2	.43<	.43<	.45<	.45<	.47<	.49<	.49<	.55		

TOTAL	MEAN	STAND DEV	PTS	MIN	MAX	SUM
EDIT<	.38	.08	28	.20	.55	10.70
	.38	.07	27	.20	.49	10.15

REFLECTANCE HISTOGRAM

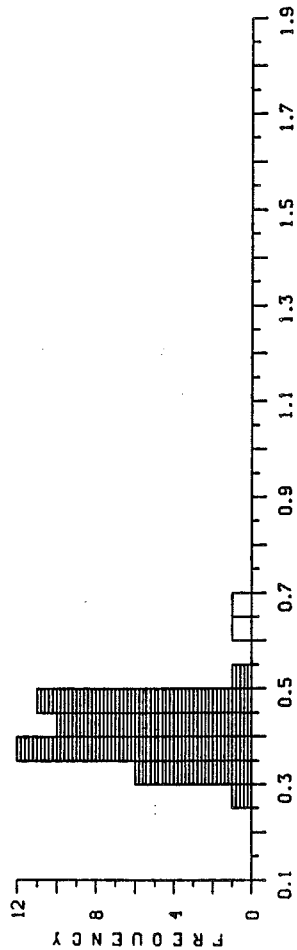


K07308, 1290-1330M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.25<	.30<	.30<	.33<	.34<	.34<	.34<	.35<	.35<	.37<
1	.37<	.38<	.38<	.38<	.38<	.38<	.39<	.39<	.39<	.41<
2	.41<	.42<	.42<	.43<	.43<	.44<	.44<	.44<	.44<	.45<
3	.45<	.45<	.45<	.46<	.47<	.47<	.47<	.47<	.48<	.49<
4	.50<	.62	.68							

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.42	.08	43	.25	.68	17.90
EDIT<	.40	.06	41	.25	.50	16.60

REFLECTANCE HISTOGRAM

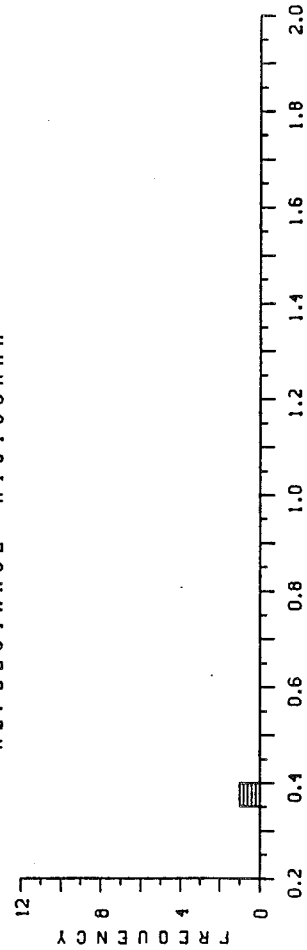


K0730C, 1470-1510M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.36<									

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.36	.00	1	.36	.36	.36
EDIT<	.36	.00	1	.36	.36	.36

REFLECTANCE HISTOGRAM

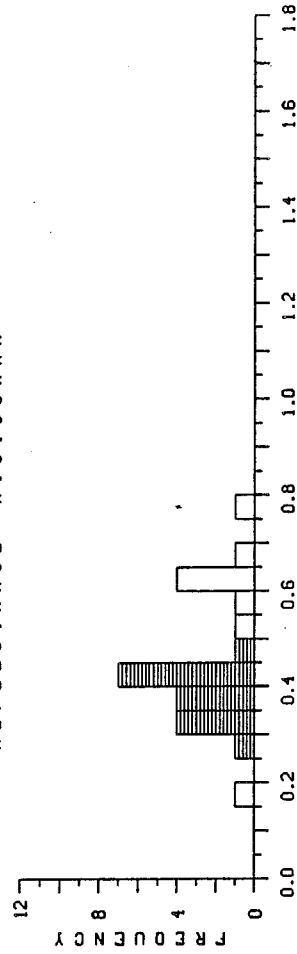


K0731B, 1860-1900M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.19	.28<	.30<	.32<	.32<	.33<	.37<	.38<	.38<	.39<
1	.40<	.41<	.42<	.43<	.43<	.44<	.44<	.46<	.54	.59
2	.60	.61	.61	.62	.65	.79				

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.45	.14	26	.19	.79	11.70
EDIT<	.38	.05	17	.28	.46	6.50

REFLECTANCE HISTOGRAM

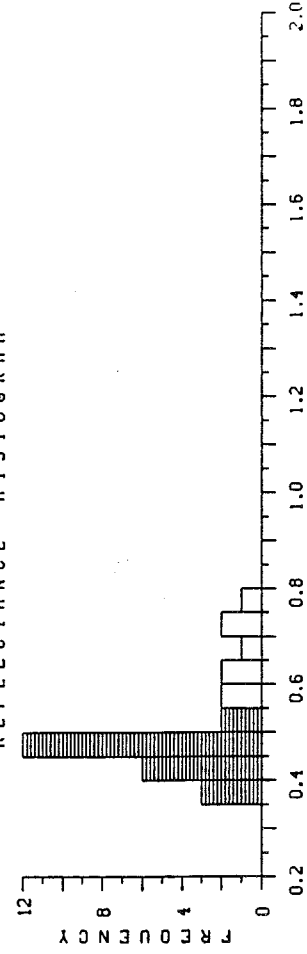


K0731C, 2130-2170M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.38<	.39<	.39<	.40<	.41<	.42<	.43<	.44<	.44<	.45<
1	.45<	.45<	.46<	.46<	.47<	.47<	.47<	.47<	.48<	.49<
2	.49<	.52<	.54<	.58	.59	.61	.64	.67	.70	.70
3	.79									

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.51	.10	31	.38	.79	15.66
EDIT<	.45	.04	23	.38	.54	10.38

REFLECTANCE HISTOGRAM

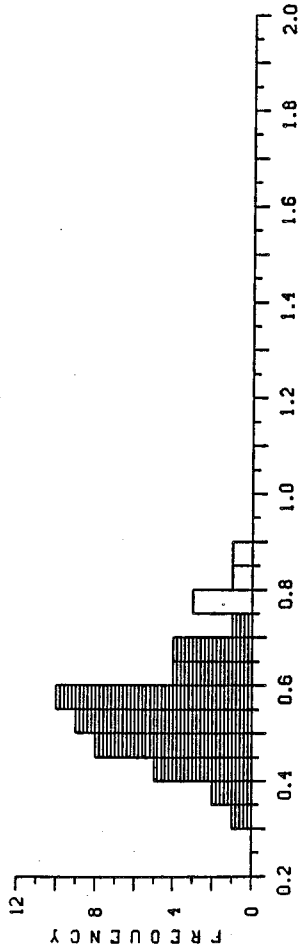


K0732A,2610-2650M,GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.32<	.35<	.38<	.40<	.41<	.41<	.42<	.44<	.45<	.45<
1	.46<	.47<	.47<	.48<	.49<	.49<	.50<	.51<	.51<	.51<
2	.51<	.52<	.54<	.54<	.55<	.55<	.55<	.55<	.55<	.56<
3	.56<	.57<	.58<	.59<	.59<	.60<	.61<	.63<	.63<	.66<
4	.66<	.68<	.69<	.70<	.75	.78	.78	.81	.85	

TOTAL	MEAN	STAND	DEV	PTS	MIN	MAX	SUM
EDIT<	.55	.12	.09	49	.32	.85	27.05
	.52			44	.32	.70	23.08

REFLECTANCE HISTOGRAM

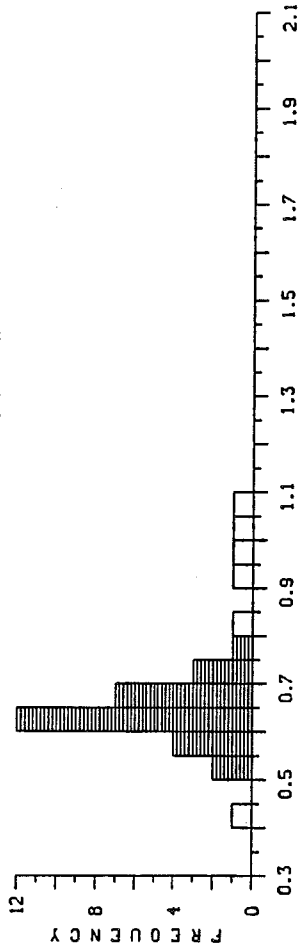


K0732C,2970-3010M,GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.43	.54<	.54<	.56<	.56<	.58<	.58<	.60<	.60<	.61<
1	.61<	.62<	.62<	.62<	.62<	.63<	.63<	.63<	.64<	.65<
2	.66<	.67<	.67<	.68<	.68<	.69<	.69<	.71<	.71<	.75<
3	.81	.90	.99	1.01	1.08					

TOTAL	MEAN	STAND	DEV	PTS	MIN	MAX	SUM
EDIT<	.67	.14	.05	35	.43	1.08	23.60
	.63			29	.54	.75	18.38

REFLECTANCE HISTOGRAM

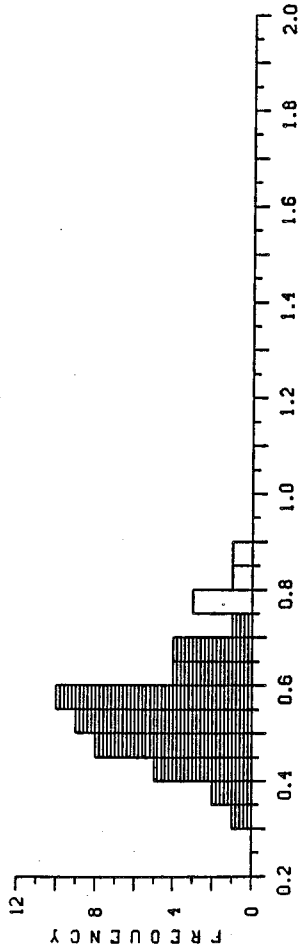


K0732B,2790-2830M,GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.46<	.46<	.46<	.49<	.51<	.52<	.54<	.54<	.54<	.56<
1	.56<	.56<	.57<	.58<	.58<	.59<	.59<	.59<	.61<	.61<
2	.63<	.63<	.63<	.64<	.65<	.67<	.67<	.67<	.68<	.68<
3	.71	.71	.73	.74	.75	.75	.76	.77	.78	.82
4	.82	.83	.85	.85	.88	.88	.88	.90	.91	.91
5	.94	.96	.97	.97	.98	1.00	1.12			

TOTAL	MEAN	STAND	DEV	PTS	MIN	MAX	SUM
EDIT<	.71	.16	.07	57	.46	1.12	40.66
	.58			30	.46	.68	17.46

REFLECTANCE HISTOGRAM

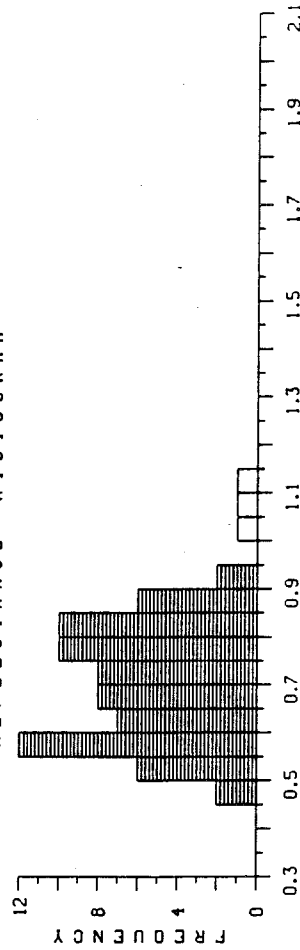


K0733A,3150-3180M,GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.46<	.49<	.51<	.52<	.53<	.53<	.53<	.54<	.55<	.55<
1	.56<	.56<	.56<	.56<	.57<	.58<	.58<	.59<	.59<	.59<
2	.60<	.60<	.60<	.61<	.64<	.64<	.64<	.65<	.67<	.67<
3	.67<	.68<	.68<	.68<	.69<	.70<	.70<	.70<	.71<	.72<
4	.72<	.72<	.74<	.75<	.75<	.75<	.76<	.77<	.78<	.78<
5	.79<	.79<	.79<	.80<	.82<	.82<	.82<	.83<	.83<	.84<
6	.84<	.84<	.84<	.85<	.85<	.86<	.86<	.88<	.88<	.89<
7	.93<	1.00	1.09	1.10						

TOTAL	MEAN	STAND	DEV	PTS	MIN	MAX	SUM
EDIT<	.71	.14	.12	74	.46	1.10	52.62
	.70			71	.46	.93	49.43

REFLECTANCE HISTOGRAM

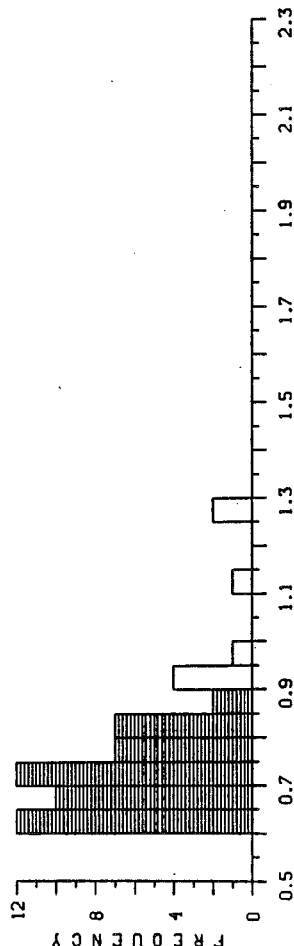


K07338, 3350-3390M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.60<	.60<	.60<	.60<	.62<	.63<	.63<	.64<	.64<	.64<
1	.64<	.64<	.65<	.66<	.66<	.68<	.68<	.68<	.69<	.69<
2	.69<	.69<	.70<	.70<	.70<	.71<	.71<	.72<	.72<	.73<
3	.73<	.73<	.74<	.74<	.75<	.76<	.76<	.77<	.77<	.78<
4	.78<	.81<	.81<	.82<	.82<	.83<	.83<	.83<	.86<	.87<
5	.90	.93	.94	.94	.96	1.10	1.25	1.28		

MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.14	58	.60	1.28	44.03
EDIT<	.07	50	.60	.87	35.73

REFLECTANCE HISTOGRAM

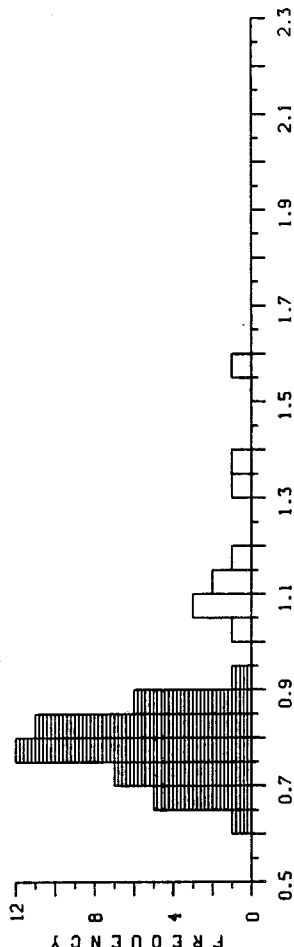


K07348, 3830-3870M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.62<	.67<	.67<	.69<	.69<	.69<	.71<	.71<	.72<	.73<
1	.73<	.74<	.74<	.76<	.76<	.76<	.77<	.77<	.77<	.77<
2	.77<	.78<	.79<	.79<	.79<	.80<	.80<	.80<	.81<	.81<
3	.82<	.83<	.83<	.84<	.84<	.84<	.85<	.86<	.86<	.88<
4	.88<	.89<	.92<	1.04	1.05	1.06	1.08	1.11	1.13	1.17
5	1.32	1.37	1.55							

MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.19	53	.62	1.55	45.43
EDIT<	.07	43	.62	.92	33.55

REFLECTANCE HISTOGRAM

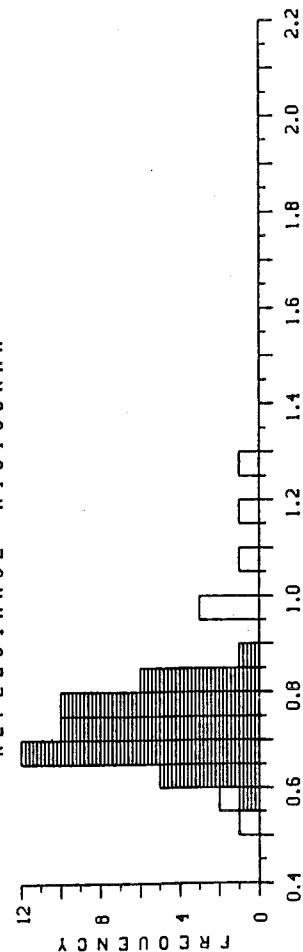


K0733C, 3530-3570M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.54	.55	.59<	.60<	.61<	.61<	.63<	.63<	.65<	.65<
1	.66<	.67<	.67<	.68<	.68<	.68<	.68<	.68<	.69<	.69<
2	.70<	.70<	.71<	.73<	.73<	.73<	.73<	.73<	.74<	.74<
3	.75<	.75<	.76<	.77<	.77<	.77<	.77<	.78<	.78<	.79<
4	.80<	.80<	.80<	.81<	.83<	.84<	.87<	.95	.96	.99
5	1.08	1.17	1.27							

MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.14	53	.54	1.27	39.93
EDIT<	.07	45	.59	.87	32.42

REFLECTANCE HISTOGRAM

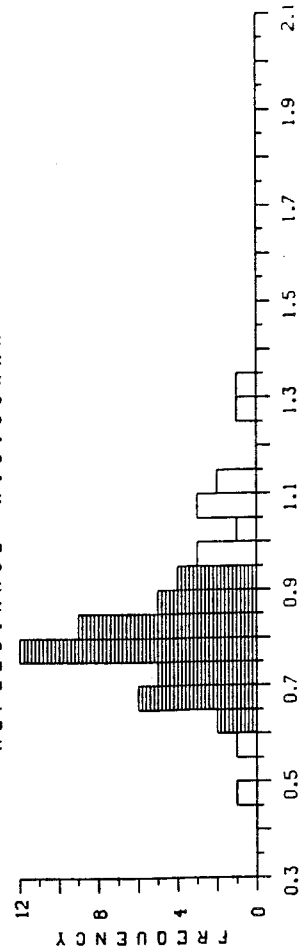


K0734B, 4010-4020M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.46	.58	.61<	.62<	.67<	.67<	.68<	.68<	.68<	.69<
1	.70<	.71<	.73<	.74<	.74<	.76<	.76<	.76<	.76<	.77<
2	.77<	.77<	.78<	.78<	.78<	.79<	.79<	.81<	.81<	.82<
3	.82<	.83<	.83<	.83<	.84<	.84<	.87<	.87<	.88<	.88<
4	.89<	.91<	.92<	.93<	.94<	.96	.98	.99	1.00	1.06
5	1.07	1.09	1.10	1.13	1.25	1.34				

MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	.16	56	.46	1.34	46.72
EDIT<	.08	43	.61	.94	33.71

REFLECTANCE HISTOGRAM

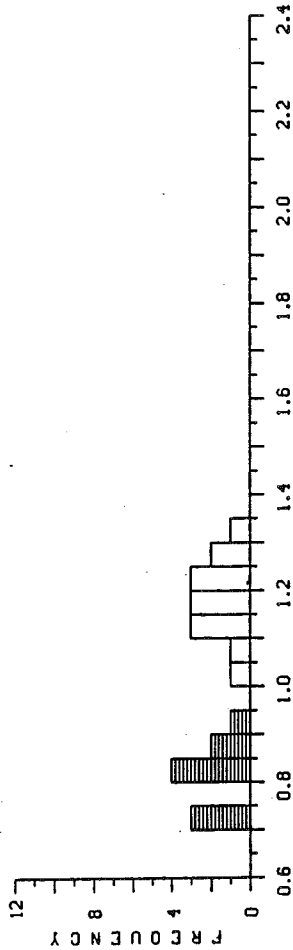


PH1681, 4185-4190M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.71<	.72<	.74<	.81<	.81<	.83<	.84<	.87<	.88<	.90<
1	1.01	1.07	1.10	1.10	1.12	1.17	1.17	1.19	1.21	1.23
2	1.24	1.26	1.28	1.30						

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	1.02	.20	24	.71	1.30	24.56
EDIT<	.81	.07	10	.71	.90	8.11

REFLECTANCE HISTOGRAM

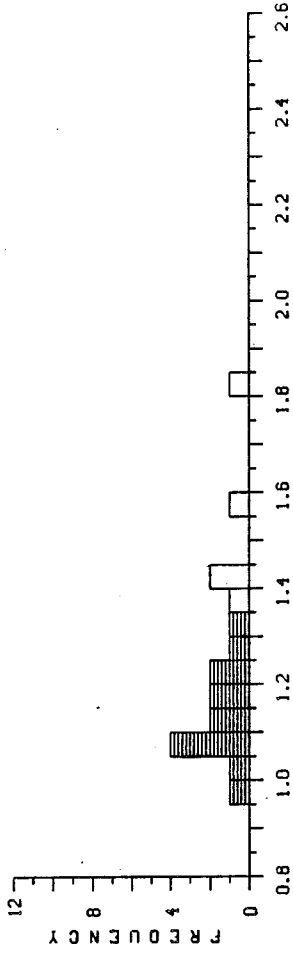


K0735R, 4450-4490M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.96<	1.03<	1.05<	1.08<	1.08<	1.09<	1.10<	1.14<	1.15<	1.16<
1	1.21<	1.24<	1.27<	1.31<	1.37	1.41	1.44	1.57	1.80	

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	1.23	.21	19	.96	1.80	23.46
EDIT<	1.13	.10	14	.96	1.31	15.87

REFLECTANCE HISTOGRAM

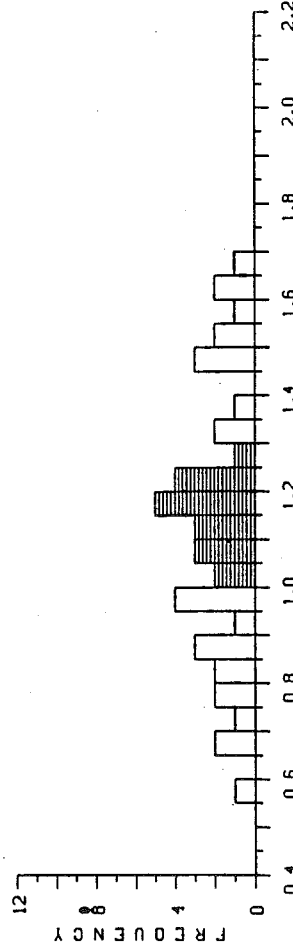


PH1682, 4385-4390M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.59	.67	.67	.72	.75	.77	.80	.81	.86	.88
1	.89	.92	.95	.95	.96	.99	1.03<	1.04<	1.05<	1.07<
2	1.08<	1.13<	1.13<	1.14<	1.15<	1.15<	1.19<	1.19<	1.19<	1.20<
3	1.22<	1.22<	1.23<	1.25<	1.31	1.33	1.37	1.47	1.47	1.47
4	1.52	1.53	1.59	1.61	1.63	1.65				

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	1.13	.28	46	.59	1.65	51.79
EDIT<	1.15	.07	18	1.03	1.25	20.66

REFLECTANCE HISTOGRAM

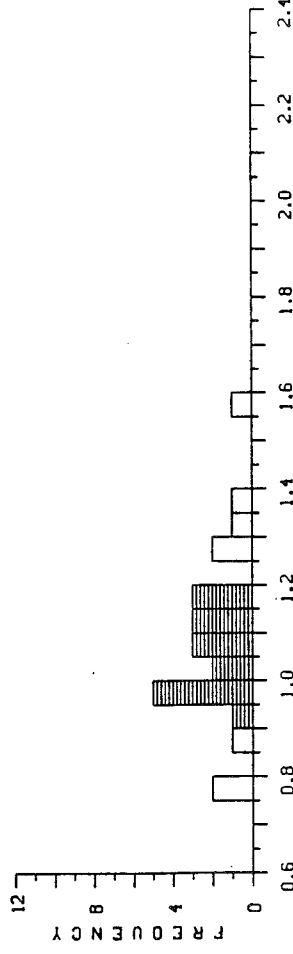


PH1683, 4565-4570M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROM	.75	.78	.88	.91<	.95<	.99<	.99<	.99<	.99<	1.01<
1	1.01<	1.06<	1.07<	1.08<	1.11<	1.14<	1.14<	1.15<	1.16<	1.17<
2	1.26	1.29	1.31	1.36	1.57					

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	1.08	.18	25	.75	1.57	27.12
EDIT<	1.05	.08	17	.91	1.17	17.92

REFLECTANCE HISTOGRAM

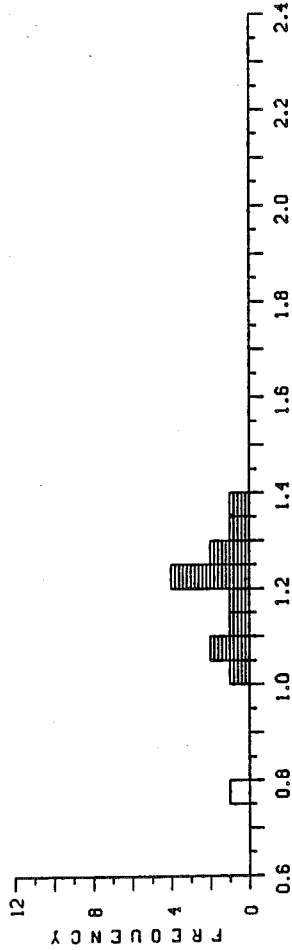


PH1684, 4745-4750M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.79	1.04<	1.07<	1.07<	1.12<	1.18<	1.20<	1.22<	1.23<	1.24<
EDIT<	1.25<	1.28<	1.34<	1.38<						

MEAN	STAND DEV	PTS	MIN	MAX	SUM
1.17	.15	14	.79	1.38	16.41
1.20	.10	13	1.04	1.38	15.62

REFLECTANCE HISTOGRAM

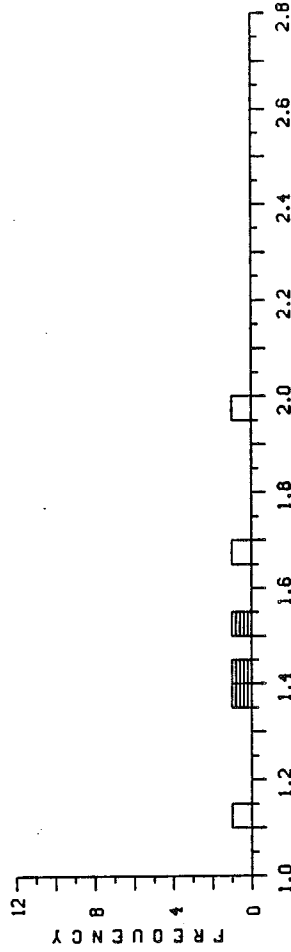


K07368, 5045-5055M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	1.10	1.38<	1.43<	1.51<	1.68	1.95				

MEAN	STAND DEV	PTS	MIN	MAX	SUM
1.51	.29	6	1.10	1.95	9.03
1.43	.08	3	1.36	1.51	4.30

REFLECTANCE HISTOGRAM

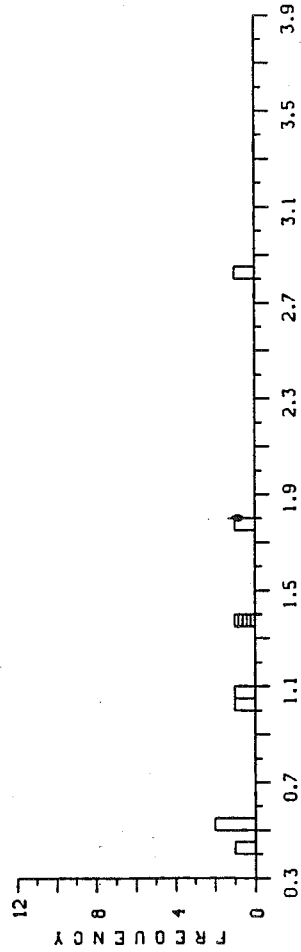


PH1685, 4905-4910M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.42	.53	.54	1.03	1.05	1.38<	1.75	2.80		

MEAN	STAND DEV	PTS	MIN	MAX	SUM
1.19	.80	8	.42	2.80	9.50
1.38	.00	1	1.38	1.38	1.38

REFLECTANCE HISTOGRAM

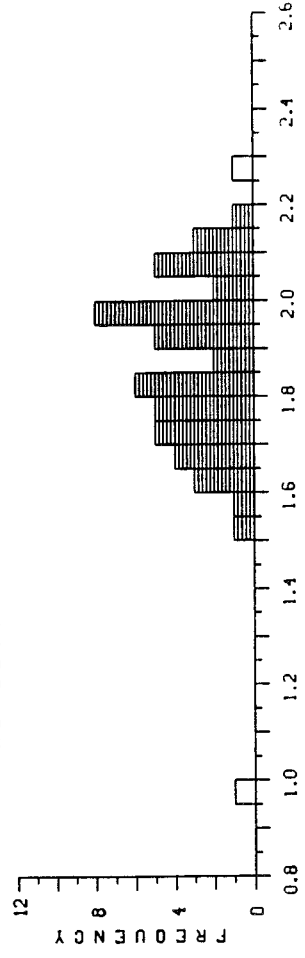


PH1686, 5145-5148M, GLENELG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	.97	1.51<	1.59<	1.63<	1.64<	1.64<	1.65<	1.66<	1.68<	1.69<
1	1.70<	1.71<	1.71<	1.72<	1.74<	1.75<	1.76<	1.78<	1.78<	1.79<
2	1.80<	1.80<	1.81<	1.81<	1.84<	1.84<	1.87<	1.88<	1.90<	1.92<
3	1.92<	1.93<	1.94<	1.95<	1.97<	1.98<	1.99<	1.99<	1.99<	1.99<
4	1.99<	2.00<	2.04<	2.05<	2.06<	2.08<	2.08<	2.08<	2.10<	2.12<
5	2.12<	2.17<	2.29							

MEAN	STAND DEV	PTS	MIN	MAX	SUM
1.86	.21	53	.97	2.29	98.40
1.87	.16	51	1.51	2.17	95.14

REFLECTANCE HISTOGRAM



PH1687,5240-5250M,6LENEIG J-48

COL >	1	2	3	4	5	6	7	8	9	0
ROW	1.64<	1.66<	1.73<	1.76<	1.78<	1.83<	1.86<	1.89<	1.93<	1.94<
1	1.98<	2.00<	2.03<	2.04<	2.09<	2.23	2.23			

	MEAN	STAND DEV	PTS	MIN	MAX	SUM
TOTAL	1.92	.18	17	1.64	2.23	32.62
EDIT<	1.88	.14	15	1.64	2.09	28.16

REFLECTANCE HISTOGRAM

