Report No. EPGS-DOM.4-86MPA

Vitrinite reflectance (Ro)
of dispersed organics
from
Shell Mobil-Tetco
EAGLE D-21.

Vitrinite Reflectance (Ro) of dispersed organics from Shell Mobil-Tetco Eagle D-21.

"Quotation in full or in part from this report must be with the prior approval of the Eastern Petroleum Geology Subdivision of the Atlantic Geoscience Centre, Dartmouth, Nova Scotia".

G.S.C. Locality No: D80   Location: 43°50'06.73"N, 59°34'09.21"W

R.T. Elevation: 98'   Water Depth: 168'   Total Depth: 15290'

Sample Interval: 1680 - 15290'   Interval Studied: 2850 - 15140'

Release Date: July 2, 1972   Depth Units: Feet referenced to R.T.

Vitrinite Reflectance has been determined on 18 (20 attempted) samples (Table II) from Shell Mobil-Tetco Eagle D-21, which was classified as a wildcat well and is located on the Scotian Shelf, approximately 22km (14mi) southeast of Sable Island (Shell, 1972).

Data acquisition and manipulation for this report utilized the Zeiss Photomultiplier III Zonax microcomputer system with improvements in software to provide a dynamic histogram display as readings are acquired. Sample preparation followed the procedures listed in Appendix I. The analysis of the well revealed the thermal maturation intervals given in Table I. Specific maturation levels as set out in this report were based on those of Dow with modified terminology (1977, Appendix II).

Table I
Inferred Thermal Maturation Levels

Determined

Seaflr-6555'	0.19 - 0.4	% Ro	immature
6555 - 8536'	0.4 - 0.5	% Ro	immature approaching maturity
8536 - 10155'	0.5 - 0.6	% Ro	marginally mature
10155'	0.6	% Ro	onset of significant oil generation
12709'	0.8	% Ro	peak of oil generation
14691'	1.0	% Ro	onset of significant wet gas generation
15290'	1.17	% Ro	within oil window

Projected (at 0.160 log Ro/km)

| 16310' | 1.2 | % Ro | onset of significant dry gas generation |
| 17355' | 1.35 | % Ro | oil floor |

Note: Ro = R_o or reflectance of the vitrinite observed under oil (546nm).

Remarks

The sample coverage of vitrinite reflectance data (Figure 1; Table II) was
adequate over most of the well. The line through the data points represents
the best fit established by the least squares method. The slope of the line
is 0.160 log Ro/km.

South Venture O-59 which is located approximately 17 km NNW of Eagle D-21
had two distinct maturation gradients (Avery, 1984). The slope of the upper
line (above 15500') was 0.123 log Ro/km while the lower trend had a slope of
0.306 log Ro/km. Eagle D-21, however, has a single gradient which exhibits
a slightly more rapid increase in rank with depth than the upper trend in
South Venture O-59 but much less than that of the lower trend. The Eagle
D-21 well may not have been drilled deep enough to reach the inflection
point in the gradient that was seen in the South Venture O-59 and other
wells in the area.

Samples below 13000 ft. contained significant secondary populations of
higher reflectance values than those of the primary population.

TAI data reported on for Eagle D-21 (Barss, 1977) reached a maximum of 2-.
This is equivalent to 0.45 Ro at T.D., according to published relationships
(see Appendix II), so it is clear that recalibration is required for the
Scotian Shelf material.

The lithology strip plot (figure 1) was produced in its final ink copy form
directly from the 'Lithfile' database which extracts data from digitized
'CanStrat' logs. The package, based on the 'System 2000' database
management system on the Bedford Institute mainframe, was developed at EPG
by A. Fricker and implemented by G. Walls, D. Stewart and B. Perry. The
depth intervals were based on visually recognized major changes in lithology
as seen in the standard 'CanStrat' log.

These vitrinite reflectance maturation data provide evidence that the
thermal regime at Eagle D-21 was suitable for the generation and
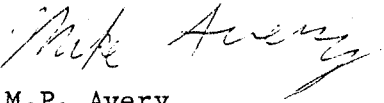preservation of oil within the drilled section.

References

Avery, M.P., 1984. Vitrinite reflectance (Ro) on the dispersed organics in
Mobil-Texaco-Pex South Venture O-59. Unpublished internal report no.
EPGS-DOM.2-84MPA.

Barss, M.S., 1977. Organic Matter Type and Thermal Alteration Index of
Shell-Mobil-Tetco Eagle D-21. Unpublished internal report no.
EPGS-DOM.5-77MSB.

Dow, W.G., 1977. Kerogen studies and geological interpretations. Journal of Geochemical Exploration, no. 7, p. 79-99.

Shell Canada, Ltd., 1972. Well history report Shell Mobil-Tetco Eagle D-21. Open file report, Department of Energy, Mines and Resources, Otttawa.

Wade, J.A., 1979. Stratigraphic Picks (Shell Mobil-Tetco Eagle D-21). Unpublished internal report no. EPGS-STRAT.33-79JAW.

April 22, 1986.

M.P. Avery
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Table II

Summary of vitrinite reflectance

Seq. #	Sample #	Depth in feet	Mean Ro (SD) non-rotated	Number of readings	
				Total	Edited
1	K0397A	2850-2880	.25($\overline{+}$.04)	39	26
2	K0391A	3840-3960	.32($\overline{+}$.06)	10	7
3	K0397B	7060-7090	.45($\overline{+}$.06)	83	47
4	K0392A	7680-7710	.43($\overline{+}$.04)	50	30
5	K0392B	7980-8010	.46($\overline{+}$.05)	93	37
6	K0392C	8280-8310	.47($\overline{+}$.06)	79	24
7	K0393A	8580-8610	.5 ($\overline{+}$.06)	99	47
8	K0393B	9180-9210	.56($\overline{+}$.08)	92	49
9	K0393C	10380-10410	.67($\overline{+}$.1)	84	52
10	K0394A	10680-10710	.61($\overline{+}$.08)	97	57
11	K0394B	11480-11510	.69($\overline{+}$.07)	63	45
12	K0394C	11980-12010	.75($\overline{+}$.11)	99	70
13	K0395A	12280-12310	.81($\overline{+}$.05)	72	31
14	K0395B	13010-13040	.76($\overline{+}$.07)	86	20
15	K0395C	13310-13340	.9 ($\overline{+}$.04)	87	15
16	K0396A	13710-13740	.84($\overline{+}$.06)	83	22
17	K0396B	14210-14240	.94($\overline{+}$.08)	76	25
18	K0396C	15010-15140	1.1 ($\overline{+}$.08)	88	35

Note :   All values are based on isolated kerogen mounts.

Table III
Formation Tops (Wade,1979)

Depth	Formation
in casing	Banquereau
5224'	Wyandot
5904'	Dawson Canyon
6160'	Logan Canyon
7063-7517'	Sable Member
10850'	Naskapi Member
11540'	Missisauga
14550'	Verrill Canyon
15290'	T.D.

Table IV
Biostrat Tops (Shell,1972)

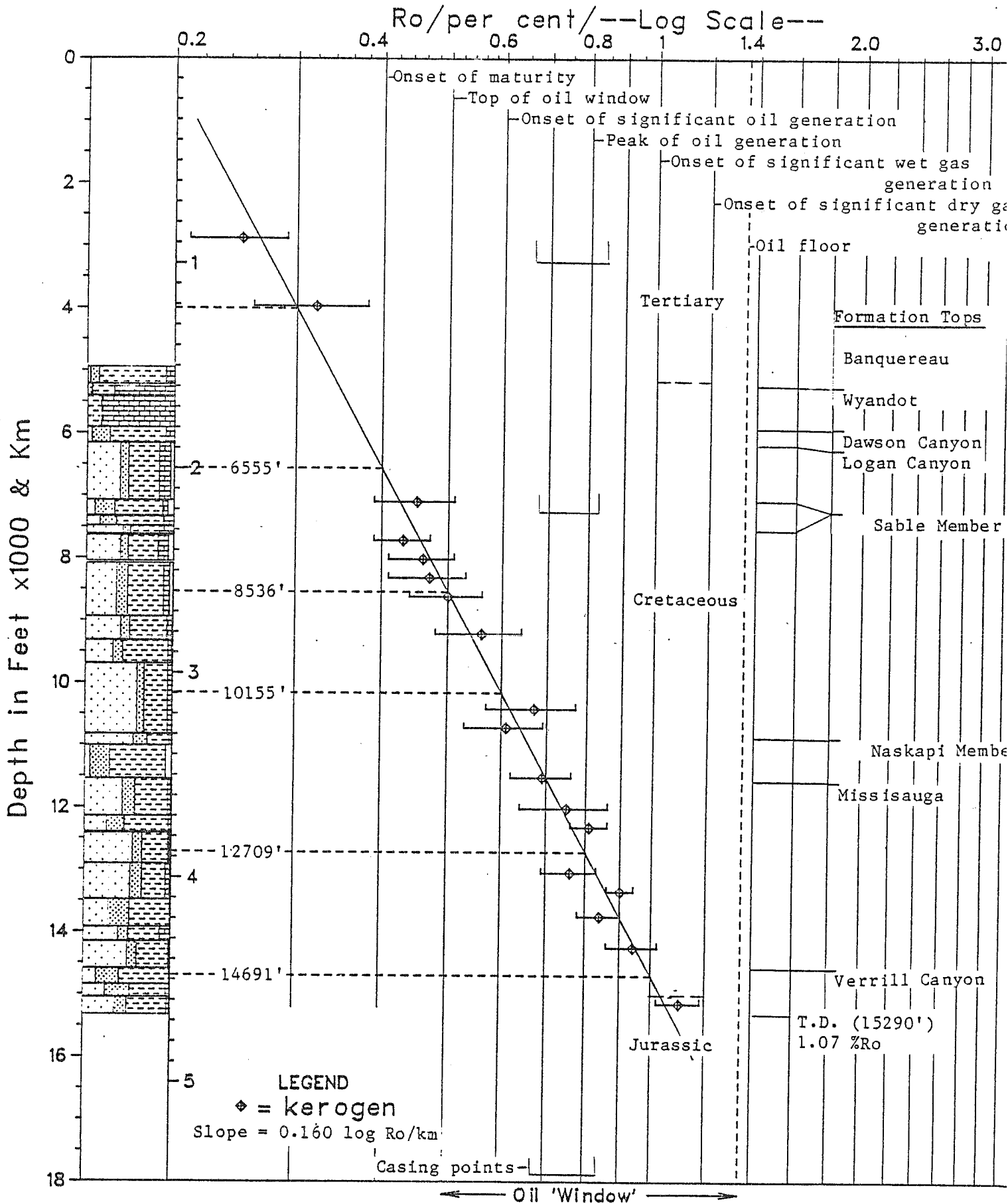| Depth	Top of
1592'	Upper Miocene to Pliocene
1892'	Upper Miocene
2008'	Lower Miocene
3752'	Eocene
4200'	Paleocene
? 5130'	Upper Cretaceous
6000'	Cenomanian
7448'	Albian
9205'	Aptian
12600'	Aptian to Barremian
14950'	Berriasian to Upper Jurassic

Fig.1 Eagle D-21

Sample Preparation Method

COGLA Lab preparation

Preliminary Wash
Samples dried 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

20-30 grams placed in 250ml plastic beaker.
Add 10% HCl till reaction ceases (removes carbonates).
Washed (rinsed) 3 times.
Conc. HF overnight (removes silicates).
Washed (rinsed) 3 times.
Heated (60-65°C) conc. HCl (remove fluorides caused by HF).
Washed 3 times.
Then put into 15ml test tube with 4-5ml 4% Alconox.
Differential centrifuge at 1500rpm for 90 sec.
Decant.
Wash 3 times with centrifuging.
Float off organic fraction using 2.0 S.G. Znbr solution.
Centrifuge 1000rpm, 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
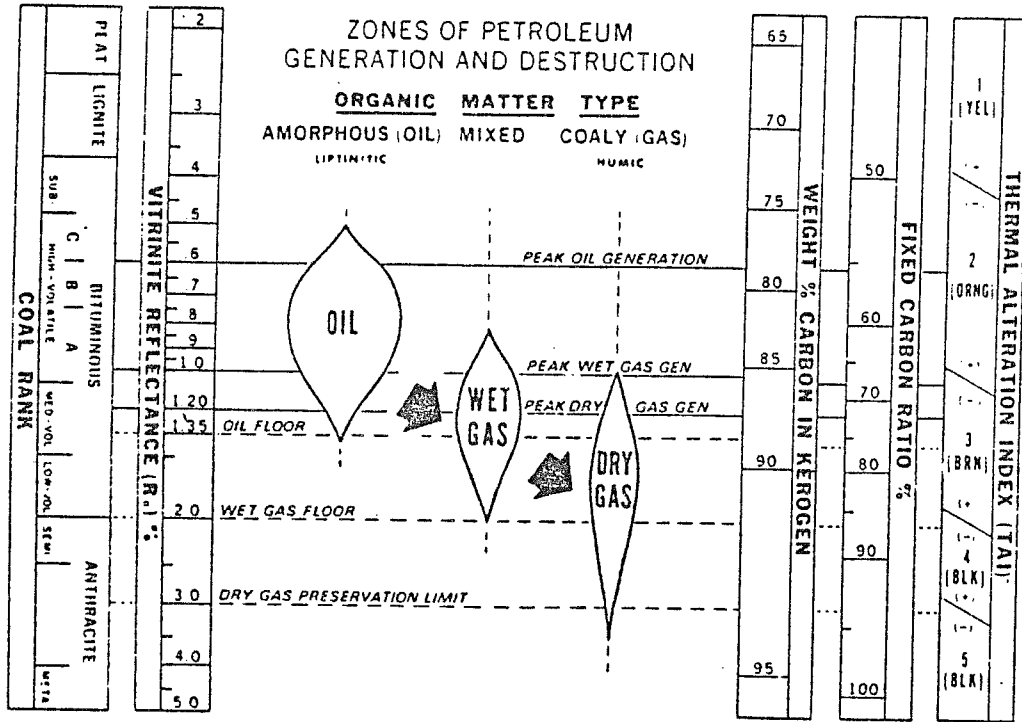
Excess water pipetted off.
Freeze dried.
Mounted using epoxy resin (EPO-TEK 301) in predrilled plastic stubs.
Polished using modified coal petrology polishing methods.
Examined under oil lens at approximately 800x mag'n.

Appendix II (Dow,1977)

ZONES OF PETROLEUM
GENERATION AND DESTRUCTION

Note: For these reports, 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 now used as the 'peak of oil generation' (Table I, Figure 1).

Vitrinite Reflectance Histograms

```
FILE >> K0397A     DESCRIPTION FOLLOWS :
DEPTH 2850-2880', EAGLE D-21. MPA. FEB-21-86

COL>     0      1      2      3      4      5      6      7      8      9

ROW           *.15   *.17   *.2    *.2    *.22   *.23   *.23   *.23   *.23
 1     *.23   *.24   *.24   *.24   *.26   *.26   *.26   *.26   *.27   *.27
 2     *.27   *.28   *.29   *.29   *.29   *.3    *.3     .34    .34    .34
 3      .36    .36    .37    .38    .38    .38    .39    .42    .43    .52

         SUM      NUMBER      MIN      MAX      MEAN     STAND.DEV.
 TOTAL > 11.42      39         .15      .52      .29        .08
*EDIT  >  6.41      26         .15      .3       .25        .04
```
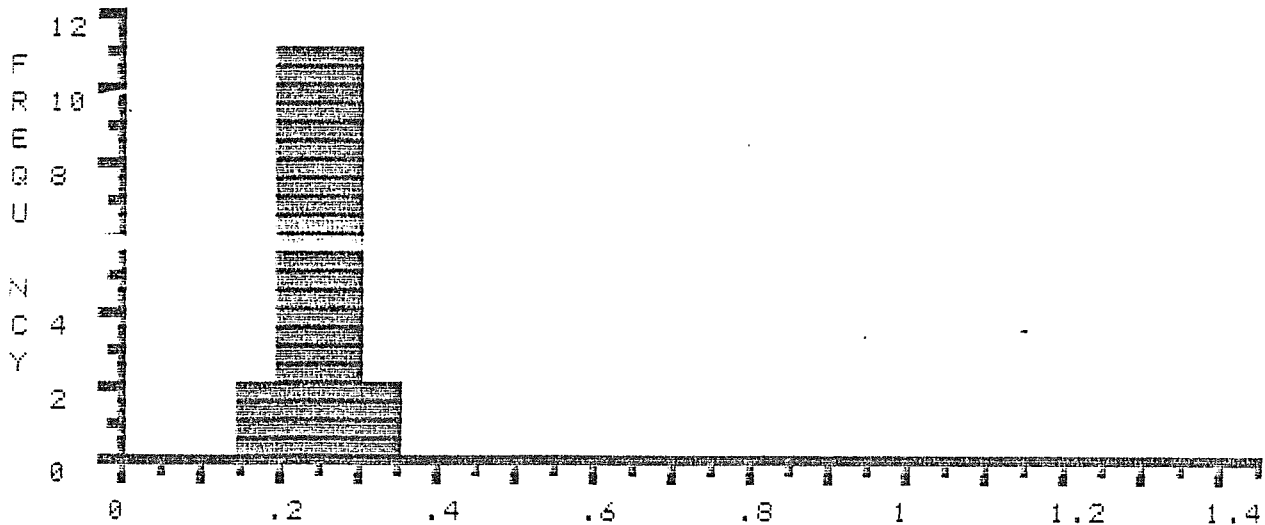
% REFLECTANCE
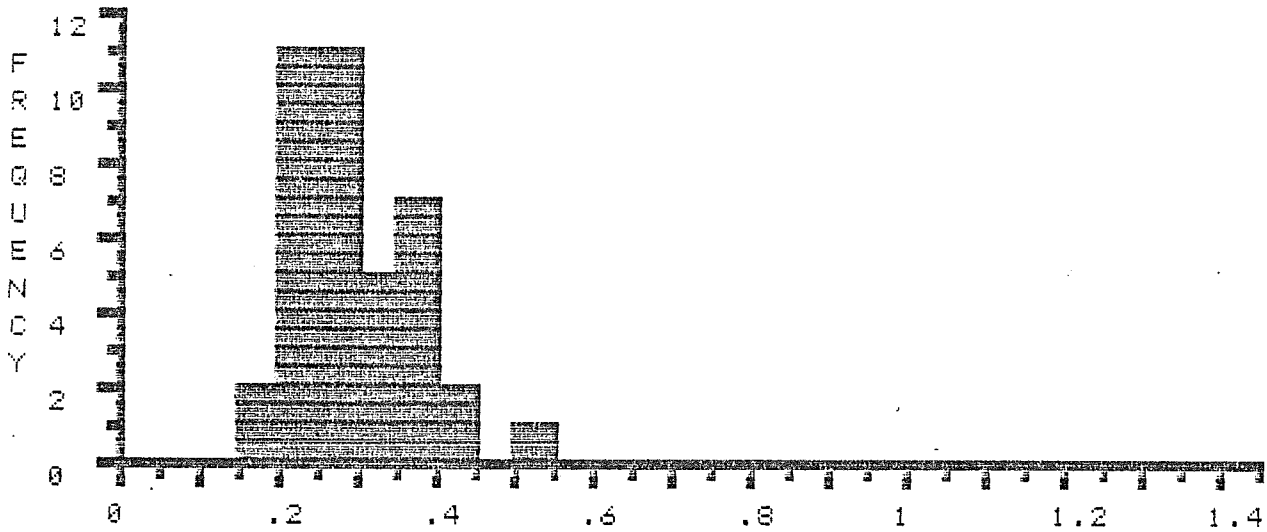
% REFLECTANCE * * EDITED * *

FILE >> K0391A   DESCRIPTION FOLLOWS :
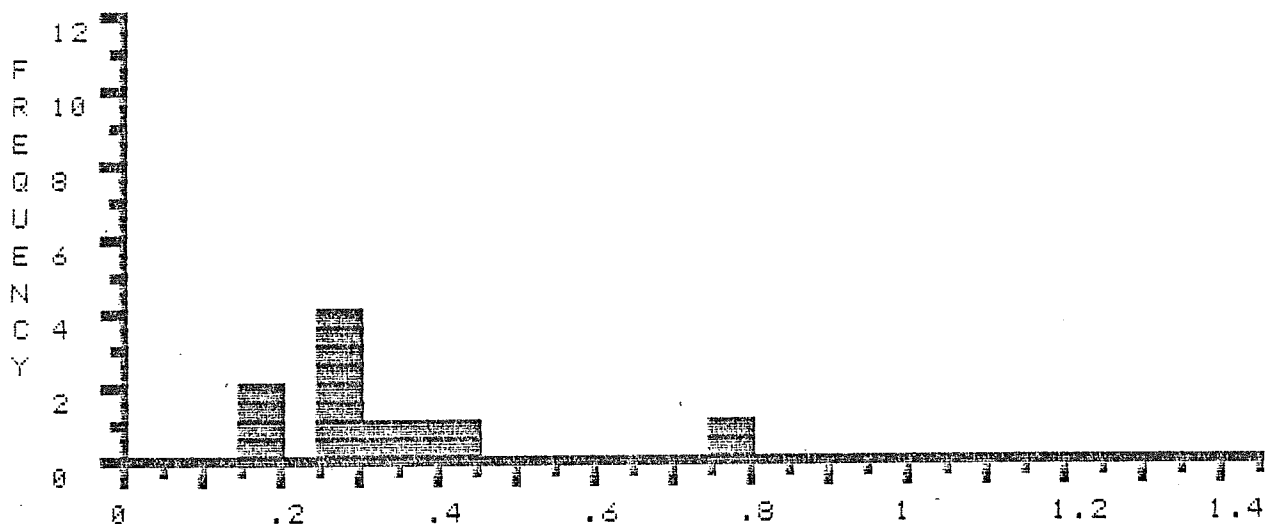DEPTH 3840-3960', EAGLE D-21, MPA, FEB-21-86

COL>   0   1   2   3   4   5   6   7   8   9

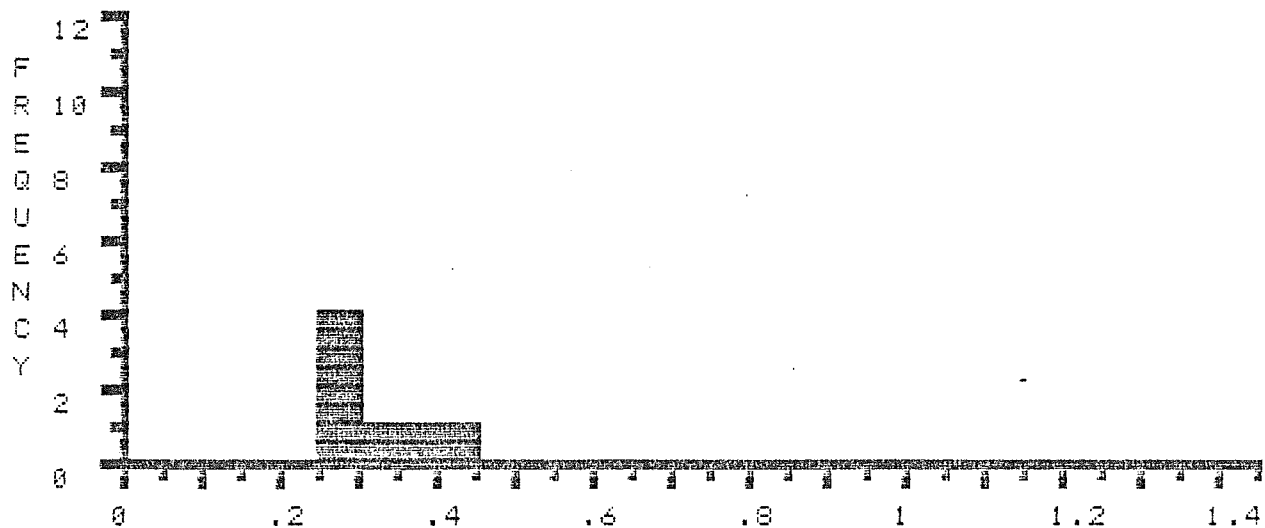ROW   .17   .18   *.26   *.28   *.29   *.29   *.33   *.36   *.44
:   .78

              SUM   NUMBER   MIN   MAX   MEAN   STAND.DEV.
  TOTAL > 3.38   10   .17   .78   .34   .17
 *EDIT > 2.25   7   .26   .44   .32   .06

                    % R E F L E C T A N C E

                    % R E F L E C T A N C E * * EDITED * *

```
FILE >> K0397B      DESCRIPTION FOLLOWS :
DEPTH 7060-7090', EAGLE D-21, MPA, FEB-21-86

COL>      0       1       2       3       4       5       6       7       8       9

ROW              .2    *.35    *.35    *.36    *.36    *.37    *.37    *.38    *.39
  1     *.39    *.39    *.4     *.4     *.4     *.41    *.41    *.41    *.41    *.43
  2     *.43    *.45    *.45    *.45    *.45    *.45    *.45    *.45    *.46    *.47
  3     *.48    *.48    *.48    *.49    *.5     *.5     *.5     *.51    *.51    *.53
  4     *.53    *.53    *.53    *.53    *.54    *.54    *.54    *.55    *.56    .58
  5      .58     .6      .61     .62     .63     .64     .65     .65     .69     .7
  6      .74     .8      .81     .81     .81     .82     .83     .87     .9      .9
  7      .97     .98    1.01    1.04    1.04    1.04    1.04    1.04    1.05    1.07
  8     1.08    1.21    1.35    1.43

            SUM       NUMBER      MIN       MAX       MEAN     STAND.DEV.
  TOTAL > 52.11        83         .2       1.43       .63        .26
 *EDIT  > 21.32        47        .35        .56       .45        .06
```
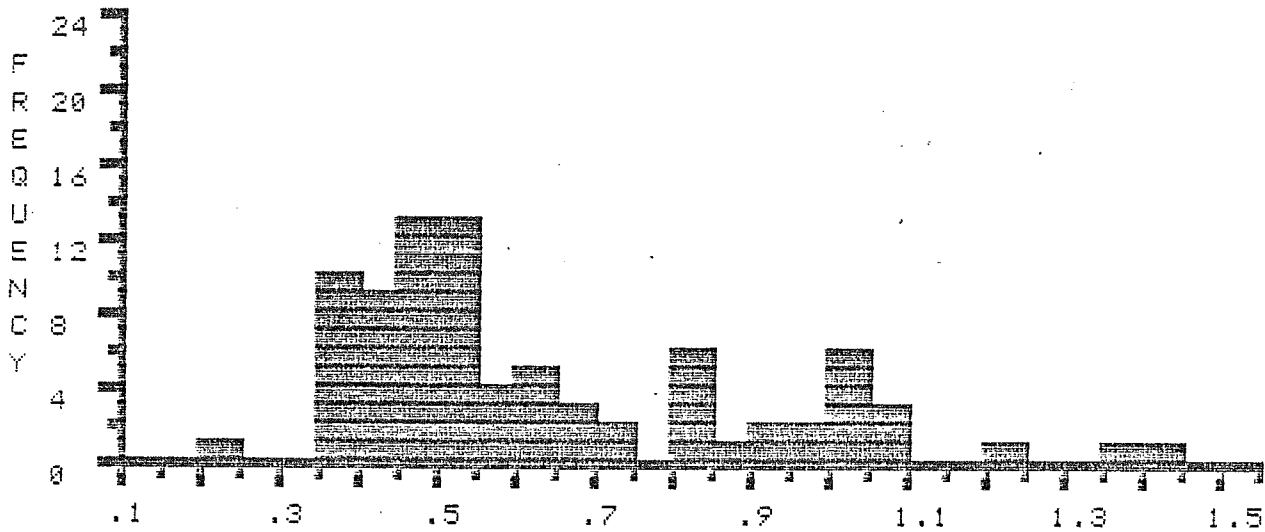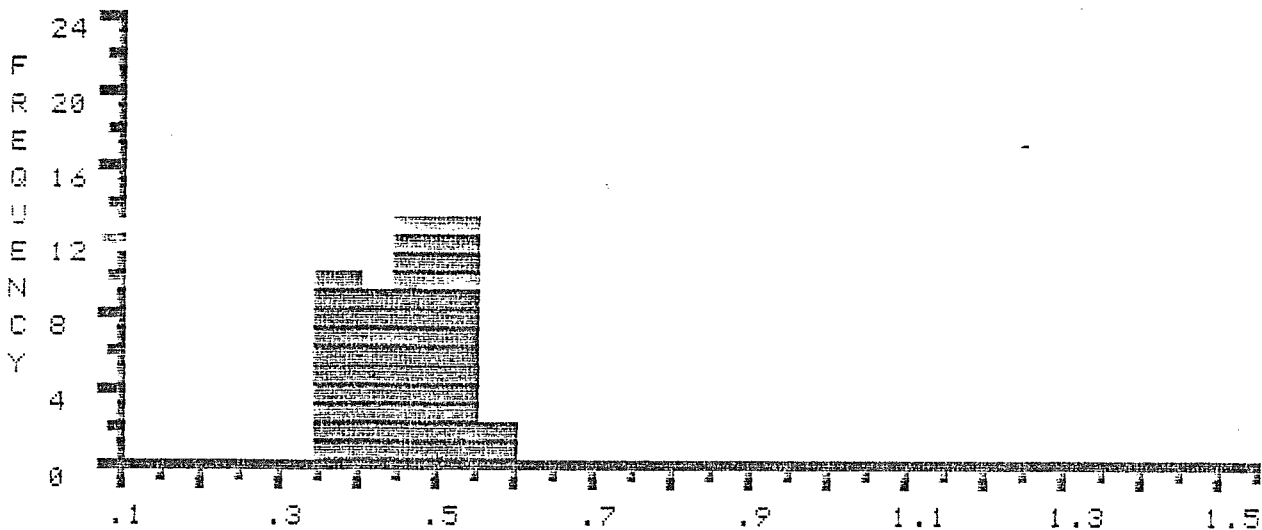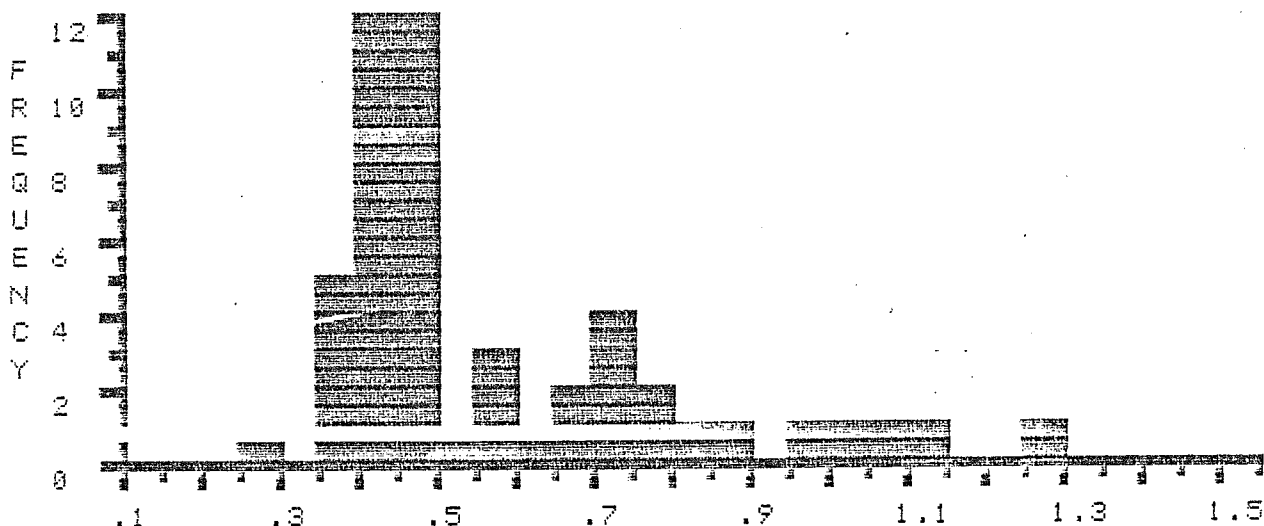
% REFLECTANCE

% REFLECTANCE * * EDITED * *

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.28	*.36	*.36	*.37	*.38	*.39	*.4	*.4	*.41
1	*.41	*.41	*.42	*.42	*.42	*.42	*.42	*.43	*.43	*.45
2	*.45	*.46	*.46	*.46	*.47	*.48	*.48	*.49	*.49	*.49
3	*.49	*.52	.55	.58	.59	.6	.67	.67	.71	.72
4	.74	.74	.76	.78	.8	.87	.97	1.04	1.07	1.14
5	1.28									

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	28.6	50	.28	1.28	.57	.22
*EDIT >	13.04	30	.36	.52	.43	.04

% REFLECTANCE

% REFLECTANCE * * EDITED * *
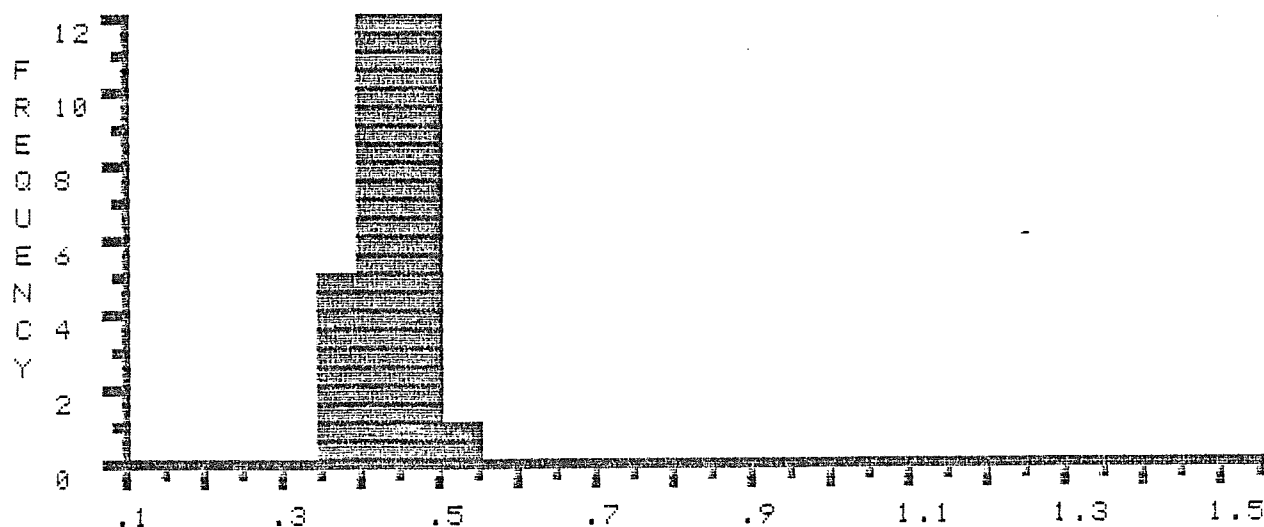
COL>	0	1	2	3	4	5	6	7	8	9
ROW		*.38	*.38	*.39	*.39	*.39	*.39	*.4	*.41	*.42
1	*.42	*.42	*.43	*.43	*.44	*.44	*.44	*.46	*.46	*.46
2	*.47	*.47	*.47	*.48	*.48	*.48	*.49	*.49	*.49	*.5
3	*.51	*.52	*.52	*.53	*.54	*.55	*.55	*.55	.59	.59
4	.6	.61	.62	.62	.63	.63	.63	.64	.65	.66
5	.66	.67	.68	.68	.68	.7	.71	.72	.74	.74
6	.74	.74	.75	.76	.76	.77	.77	.78	.79	.79
7	.8	.81	.81	.81	.82	.84	.86	.87	.88	.89
8	.9	.93	.93	.93	.94	.94	.95	1	1.05	1.07
9	1.1	1.13	1.13	1.17						

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	61.7	93	.38	1.17	.66	.21
*EDIT >	17.04	37	.38	.55	.46	.05

% REFLECTANCE

% REFLECTANCE * * EDITED * *
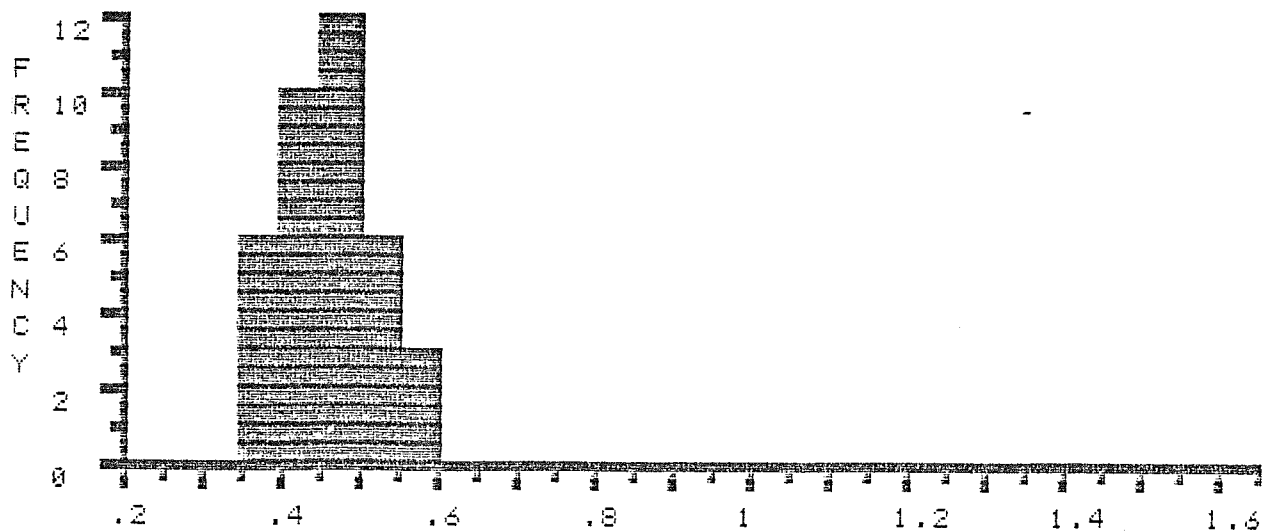
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FILE >> K0392C     DESCRIPTION FOLLOWS :
DEPTH 8280-8310', EAGLE D-21, MPA, FEB-22-86

COL>     0       1       2       3       4       5       6       7       8       9

ROW           *.37    *.37    *.39    *.4     *.4     *.41    *.42    *.43    *.43
 1    *.44    *.46    *.46    *.47    *.49    *.49    *.5     *.51    *.52    *.52
 2    *.53    *.55    *.55    *.56    *.58    .6      .61     .62     .62     .63
 3    .63     .64     .65     .65     .68     .69     .69     .69     .71     .71
 4    .72     .72     .72     .73     .73     .76     .76     .79     .8      .81
 5    .81     .82     .82     .83     .84     .84     .84     .86     .87     .87
 6    .88     .89     .89     .9      .91     .93     .93     .97     .97     .97
 7    .98     1       1       1.01    1.02    1.02    1.07    1.1     1.25    1.39

            SUM        NUMBER      MIN       MAX      MEAN     STAND.DEV.
 TOTAL >  57.09         79         .37      1.39      .72        .22
*EDIT  >  11.25         24         .37       .58      .47        .06
```
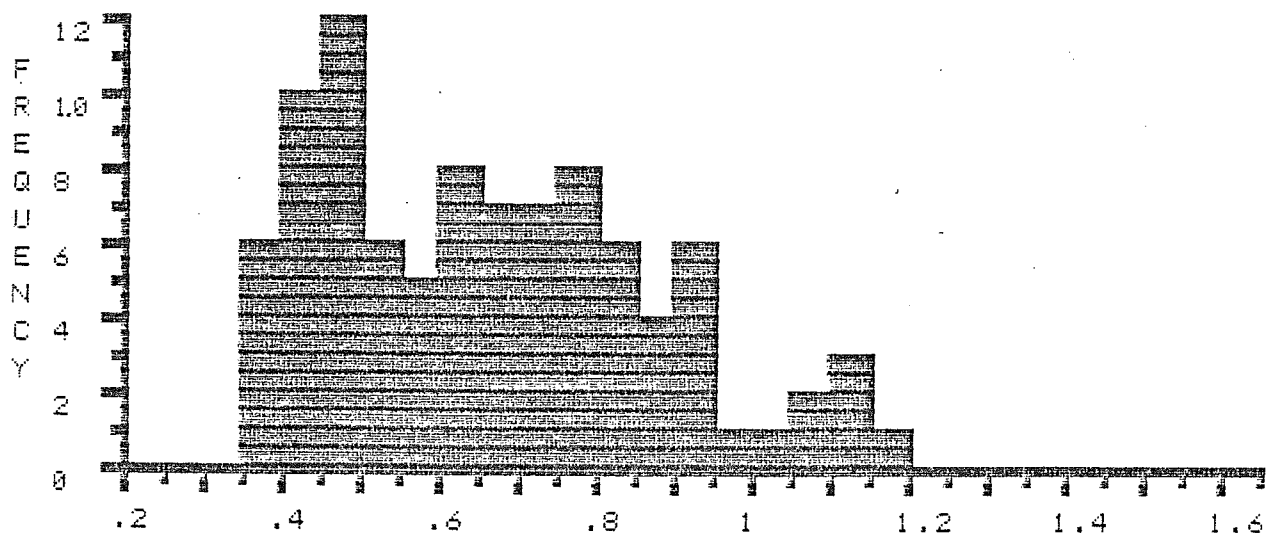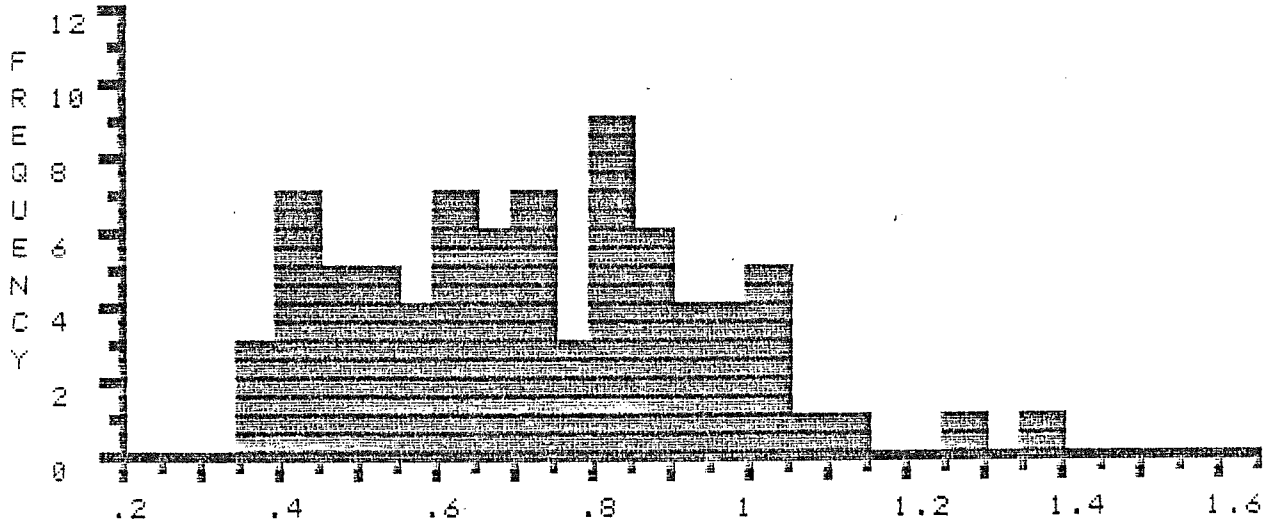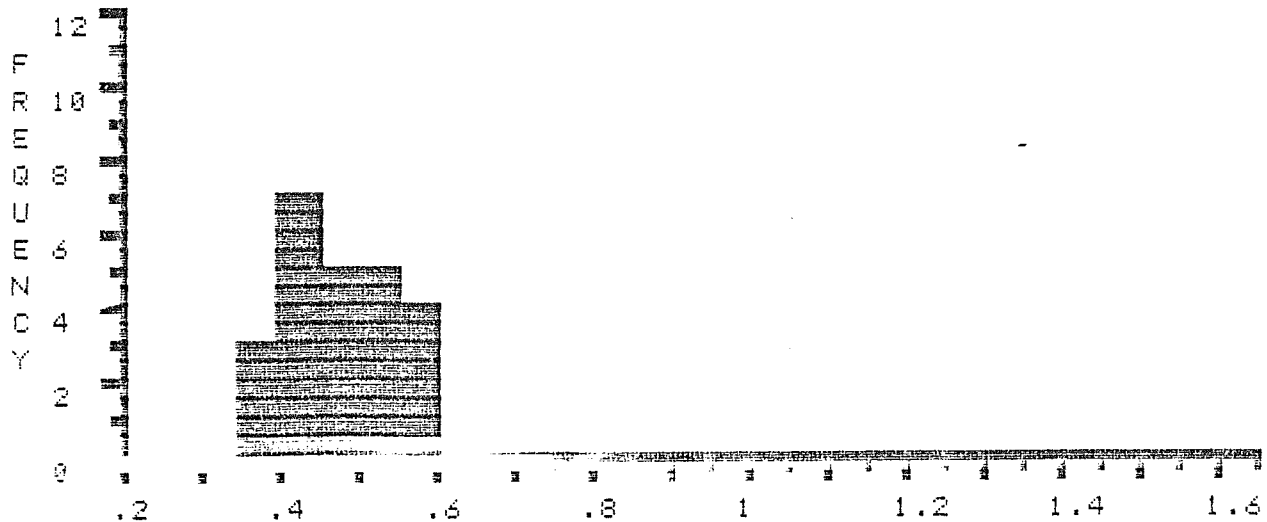
% REFLECTANCE

% REFLECTANCE * * EDITED * *

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FILE >> K0393A     DESCRIPTION FOLLOWS :
DEPTH 8580-8610', EAGLE D-21, MPA, FEB-22-86

COL>     0       1       2       3       4       5       6       7       8       9

ROW              .36    *.39    *.41    *.42    *.43    *.43    *.43    *.44    *.44
 1      *.45    *.46    *.46    *.46    *.47    *.47    *.47    *.48    *.48    *.48
 2      *.48    *.49    *.49    *.49    *.49    *.5     *.5     *.5     *.5     *.51
 3      *.51    *.51    *.52    *.53    *.54    *.54    *.55    *.56    *.56    *.56
 4      *.57    *.58    *.58    *.59    *.59    *.59    *.59    *.59    *.6      .63
 5       .64     .65     .65     .65     .67     .67     .67    -.68     .68     .69
 6       .7      .7      .72     .74     .74     .74     .74     .76     .77     .77
 7       .78     .79     .8      .81     .81     .81     .81     .82     .85     .85
 8       .85     .86     .86     .86     .88     .91     .92     .95     .99    1
 9      1       1.03    1.04    1.05    1.07    1.12    1.19    1.19    1.33    1.4

              SUM        NUMBER        MIN       MAX       MEAN      STAND.DEV.
 TOTAL  >   67.33         99          .36       1.4       .68         .22
*EDIT   >   23.68         47          .39       .6        .5          .06
```
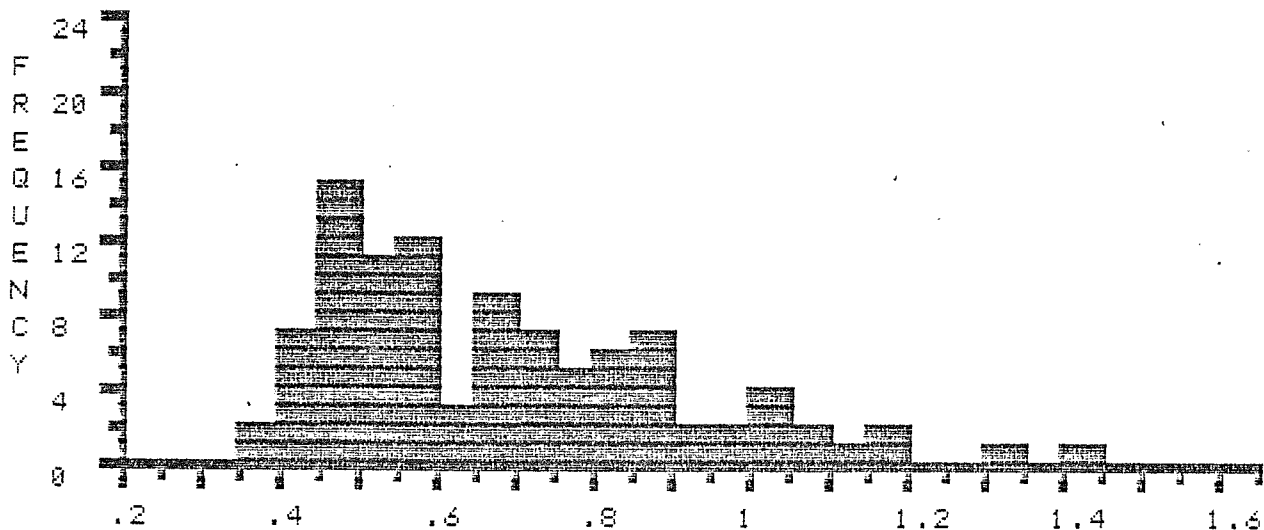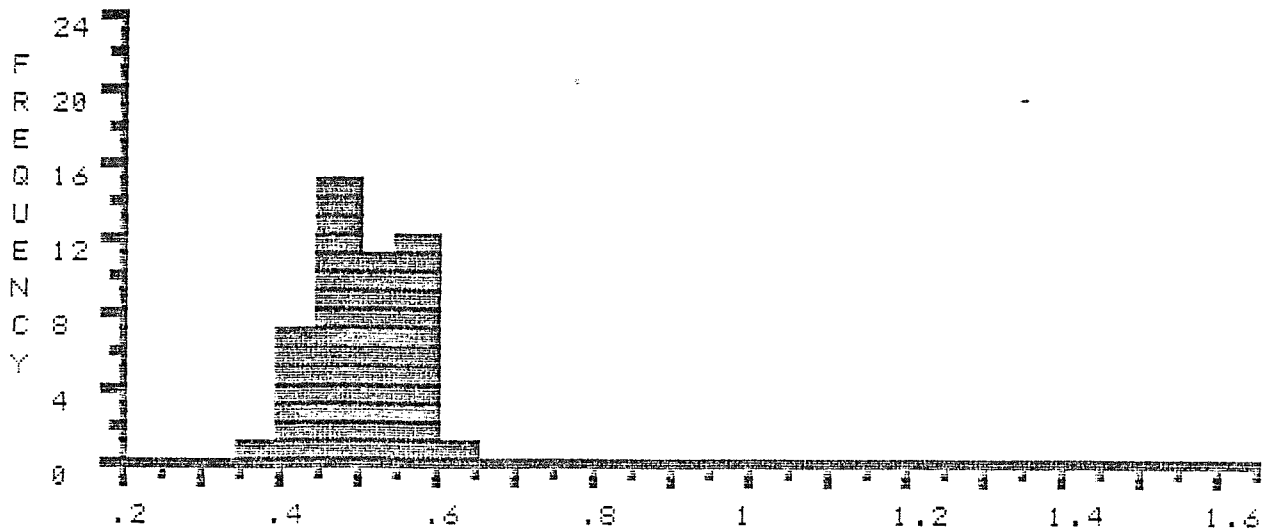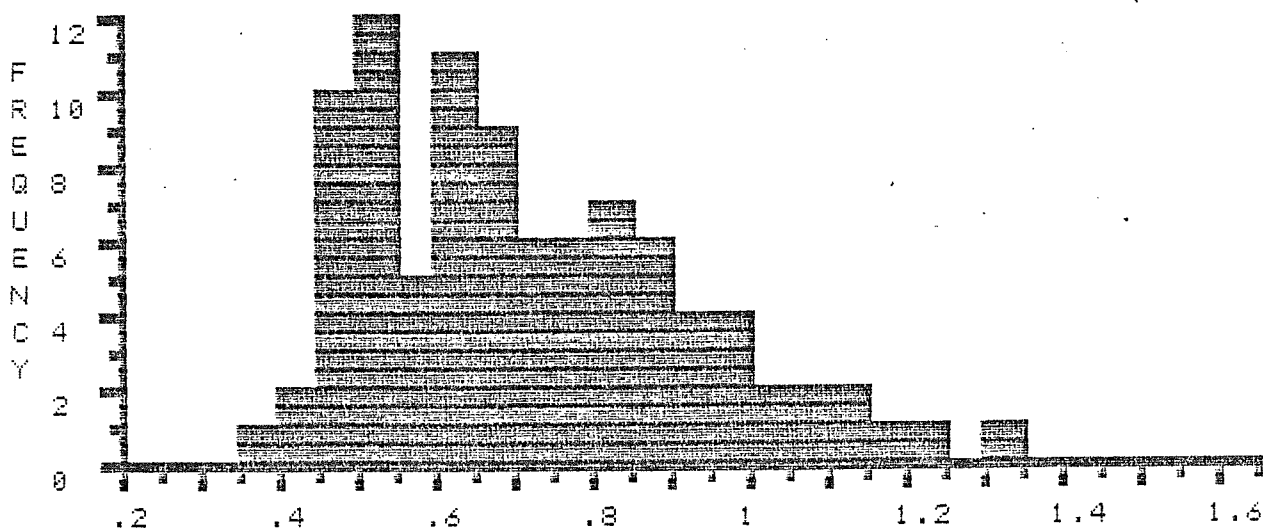
% REFLECTANCE

% REFLECTANCE * * EDITED * *

FILE >> K0393B   DESCRIPTION FOLLOWS :
DEPTH 9180-9210', EAGLE D-21, MPA, FEB-22-86
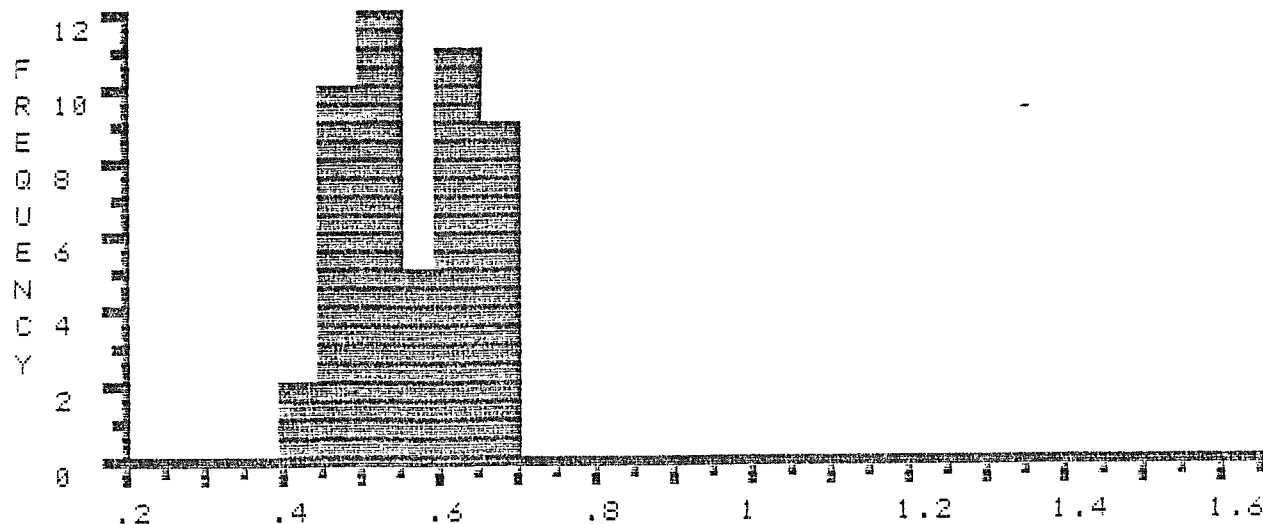
COL>	0	1	2	3	4	5	6	7	8	9
ROW		.35	*.43	*.43	*.45	*.46	*.47	*.47	*.48	*.48
1	*.49	*.49	*.49	*.49	*.5	*.5	*.5	*.5	*.51	*.52
2	*.52	*.52	*.53	*.53	*.54	*.54	*.56	*.57	*.57	*.59
3	*.59	*.6	*.61	*.61	*.61	*.62	*.62	*.62	*.63	*.63
4	*.64	*.64	*.65	*.66	*.67	*.67	*.67	*.68	*.68	*.69
5	*.69	.7	.71	.71	.72	.73	.73	.75	.76	.77
6	.78	.78	.79	.8	.81	.82	.83	.83	.84	.84
7	.85	.87	.88	.89	.89	.89	.9	.9	.91	.92
8	.95	.95	.96	.97	1	1	1.05	1.06	1.11	1.12
9	1.15	1.24	1.32							

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	65.44	92	.35	1.32	.71	.2
*EDIT >	27.61	49	.43	.69	.56	.08

% R E F L E C T A N C E

% R E F L E C T A N C E * * EDITED * *

FILE >> K0393C   DESCRIPTION FOLLOWS :
DEPTH 10380-10410', EAGLE D-31, MPA, FEB-22-86
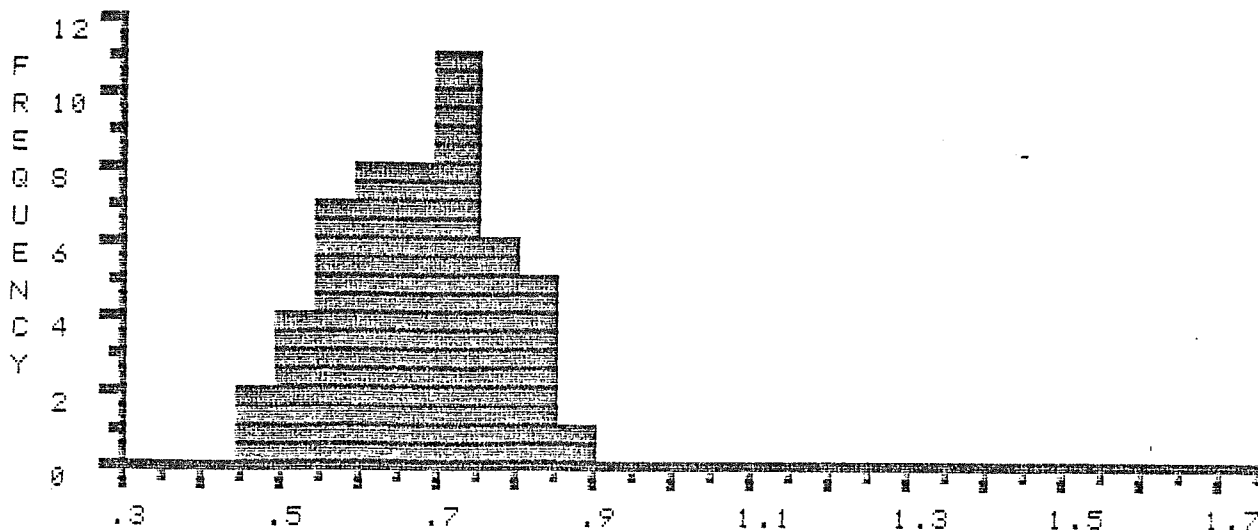
COL>	0	1	2	3	4	5	6	7	8	9
ROW		*.45	*.48	*.5	*.5	*.51	*.52	*.55	*.55	*.56
1	*.56	*.57	*.58	*.59	*.6	*.61	*.61	*.62	*.62	*.63
2	*.64	*.64	*.66	*.67	*.67	*.67	*.67	*.67	*.68	*.69
3	*.7	*.7	*.72	*.72	*.72	*.72	*.72	*.73	*.73	*.73
4	*.73	*.76	*.77	*.77	*.78	*.78	*.79	*.8	*.81	*.81
5	*.83	*.84	*.85	.89	.9	.92	.92	.93	.93	.94
6	.95	.95	.96	.96	1.01	1.03	1.04	1.05	1.05	1.07
7	1.08	1.11	1.11	1.15	1.16	1.18	1.19	1.19	1.21	1.21
8	1.25	1.28	1.32	1.32	1.39					

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	69.43	84	.45	1.39	.83	.23
*EDIT >	34.78	52	.45	.85	.67	.1

% REFLECTANCE
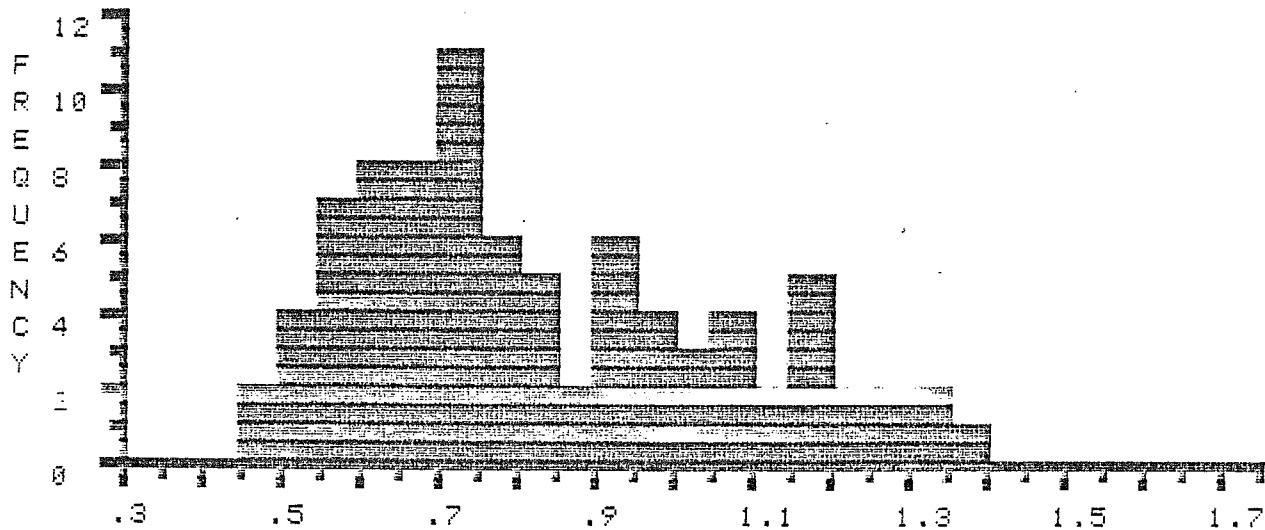
% REFLECTANCE * * EDITED * *

FILE >> K0394A   DESCRIPTION FOLLOWS :
DEPTH 10680-10710', EAGLE D-21, MPA, FEB-22-86

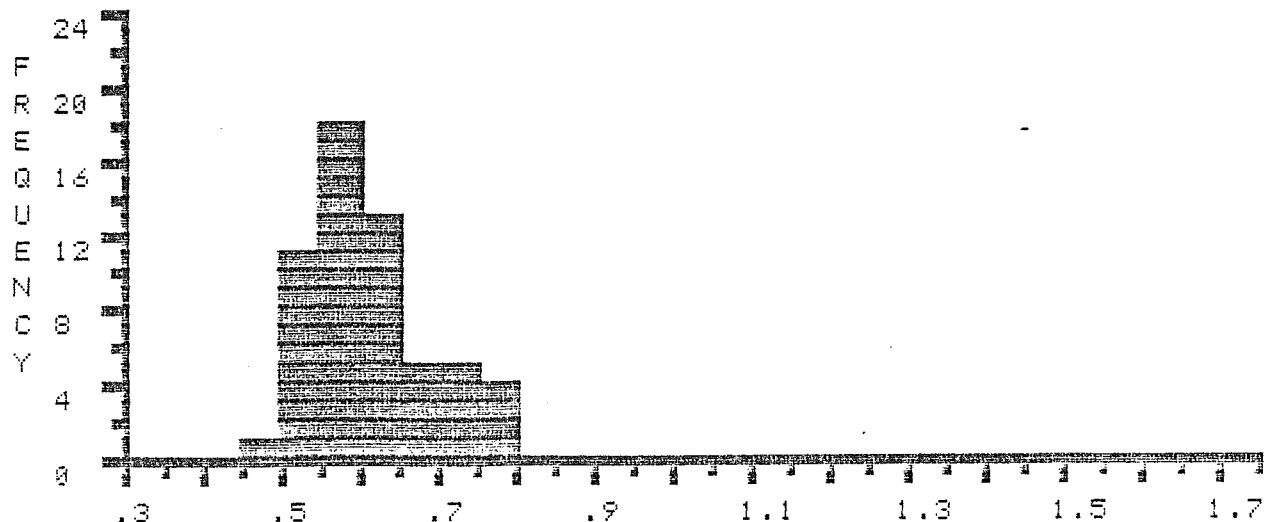| COL>	0	1	2	3	4	5	6	7	8	9
ROW		*.48	*.5	*.51	*.51	*.51	*.51	*.52	*.52	*.52
1	*.53	*.54	*.54	*.55	*.55	*.55	*.55	*.55	*.55	*.55
2	*.56	*.56	*.57	*.58	*.58	*.58	*.59	*.59	*.59	*.59
3	*.59	*.6	*.6	*.61	*.61	*.62	*.62	*.62	*.62	*.63
4	*.63	*.63	*.63	*.64	*.66	*.67	*.68	*.68	*.69	*.7
5	*.7	*.72	*.73	*.74	*.76	*.76	*.78	*.79	.8	.8
6	.8	.8	.82	.83	.84	.84	.86	.86	.86	.87
7	.88	.89	.9	.9	.9	.92	.93	.94	.97	.97
8	.98	.99	.99	.99	1	1.01	1.04	1.05	1.05	1.05
9	1.1	1.18	1.19	1.25	1.28	1.3	1.37	1.54		

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	74.08	97	.48	1.54	.76	.23
*EDIT >	34.54	57	.48	.79	.61	.08

% REFLECTANCE
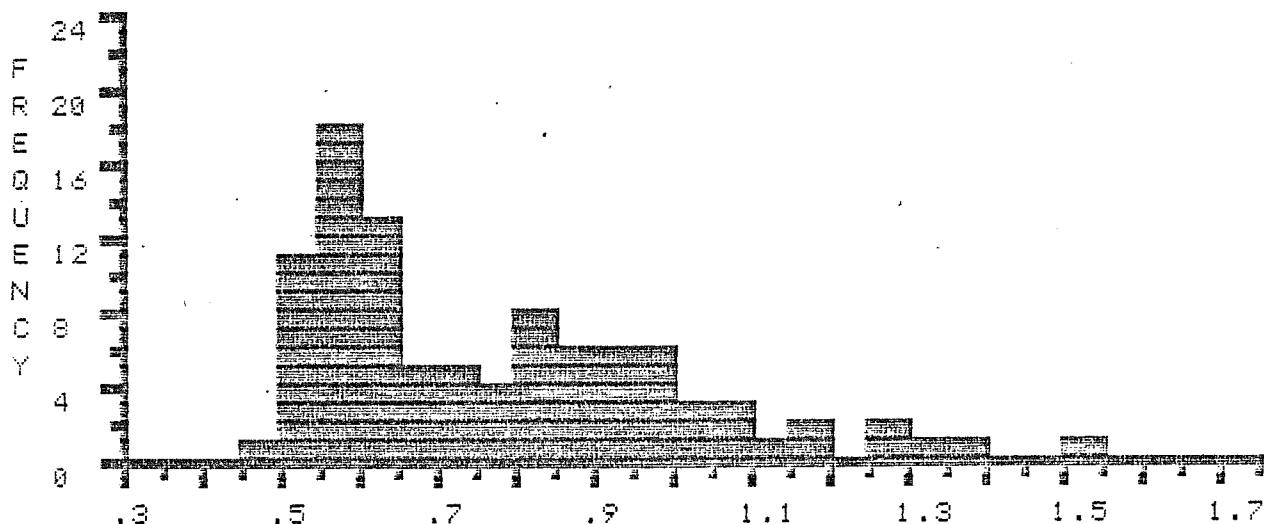
% REFLECTANCE * * EDITED * *

FILE >> K0394B   DESCRIPTION FOLLOWS :
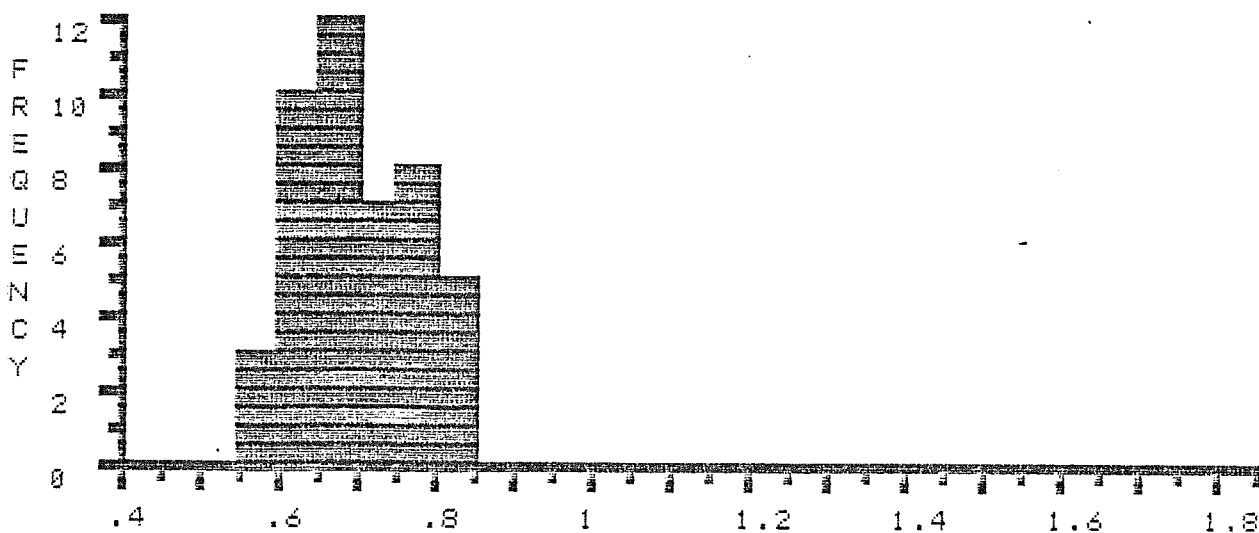DEPTH 11480-11510', EAGLE D-21, MPA, FEB-22-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		*.56	*.57	*.58	*.6	*.61	*.61	*.62	*.62	*.63
1	*.63	*.64	*.64	*.64	*.65	*.65	*.66	*.66	*.66	*.66
2	*.67	*.67	*.67	*.69	*.69	*.69	*.7	*.72	*.72	*.73
3	*.73	*.74	*.74	*.75	*.75	*.75	*.75	*.77	*.77	*.79
4	*.79	*.81	*.81	*.81	*.82	*.82	.85	.85	.85	.86
5	.86	.87	.89	.9	.9	.91	.97	1.01	1.04	1.19
6	1.25	1.26	1.32	1.32						

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	49.34	63	.56	1.32	.78	.18
*EDIT >	31.24	45	.56	.82	.69	.07

% REFLECTANCE
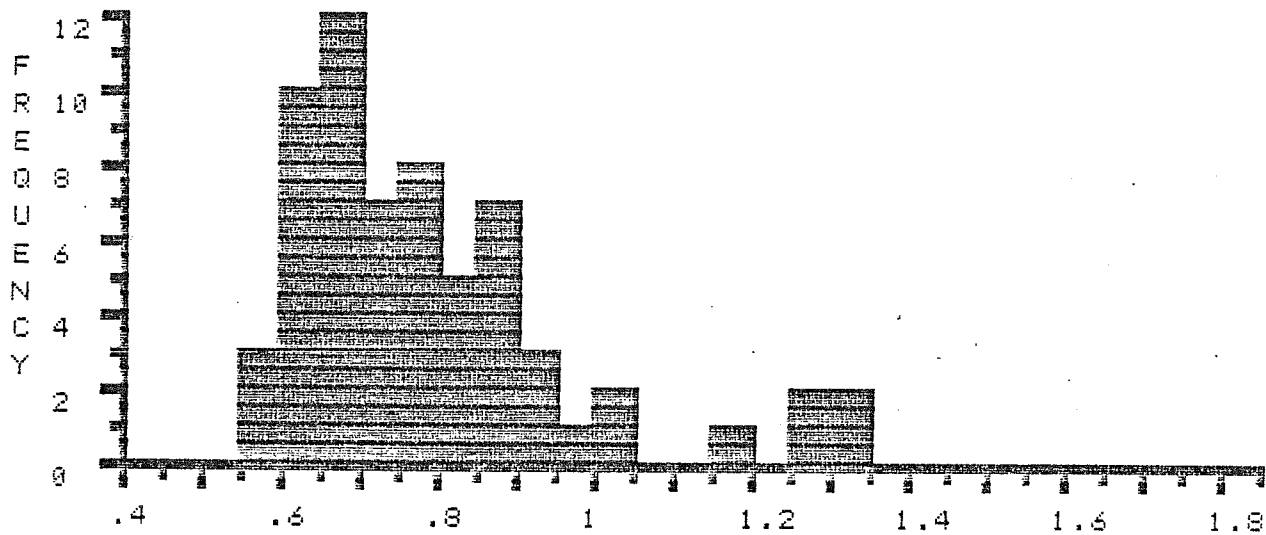
% REFLECTANCE * * EDITED * *

FILE >> K0394C   DESCRIPTION FOLLOWS :
DEPTH 11980-12010', EAGLE O-31, MPA, FEB-23-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.45	.49	*.52	*.53	*.57	*.57	*.59	*.59	*.61
1	*.61	*.61	*.61	*.62	*.64	*.64	*.65	*.66	*.67	*.67
2	*.68	*.68	*.69	*.69	*.69	*.69	*.69	*.7	*.71	*.72
3	*.72	*.73	*.73	*.73	*.73	*.74	*.74	*.76	*.76	*.76
4	*.77	*.77	*.77	*.77	*.78	*.78	*.78	*.8	*.81	*.81
5	*.82	*.82	*.82	*.83	*.84	*.85	*.85	*.85	*.85	*.85
6	*.86	*.86	*.88	*.89	*.89	*.9	*.91	*.92	*.92	*.93
7	*.94	*.95	*.96	.99	1	1.01	1.01	1.02	1.02	1.03
8	1.04	1.05	1.06	1.09	1.11	1.11	1.15	1.16	1.18	1.2
9	1.21	1.25	1.29	1.33	1.35	1.4	1.4	1.43	1.49	1.65

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	85.7	99	.45	1.65	.87	.24
*EDIT >	52.73	70	.52	.96	.75	.11

% REFLECTANCE
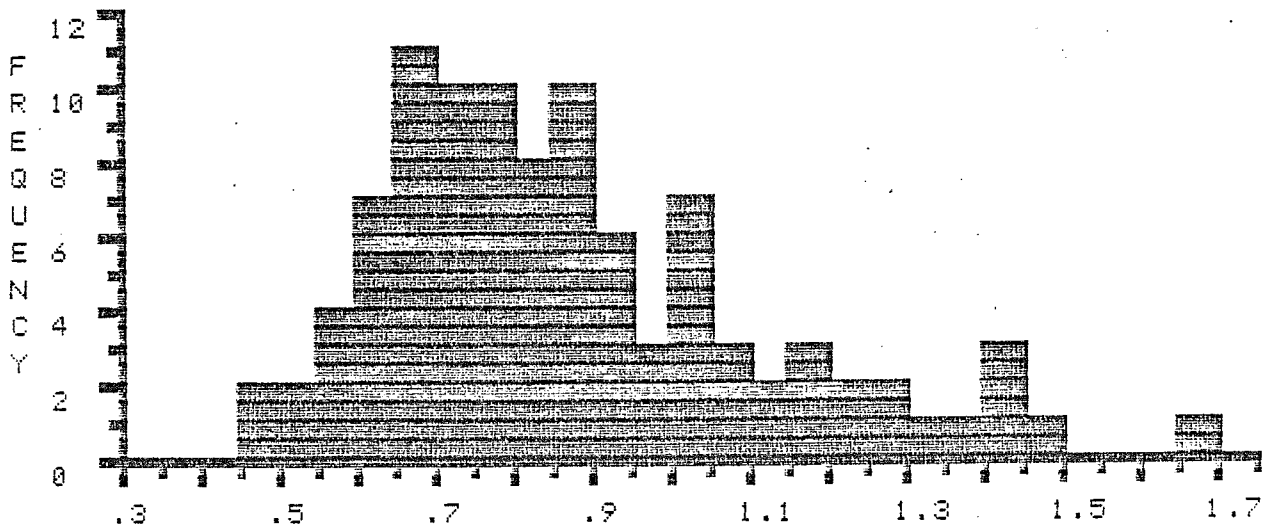
% REFLECTANCE * * EDITED * *
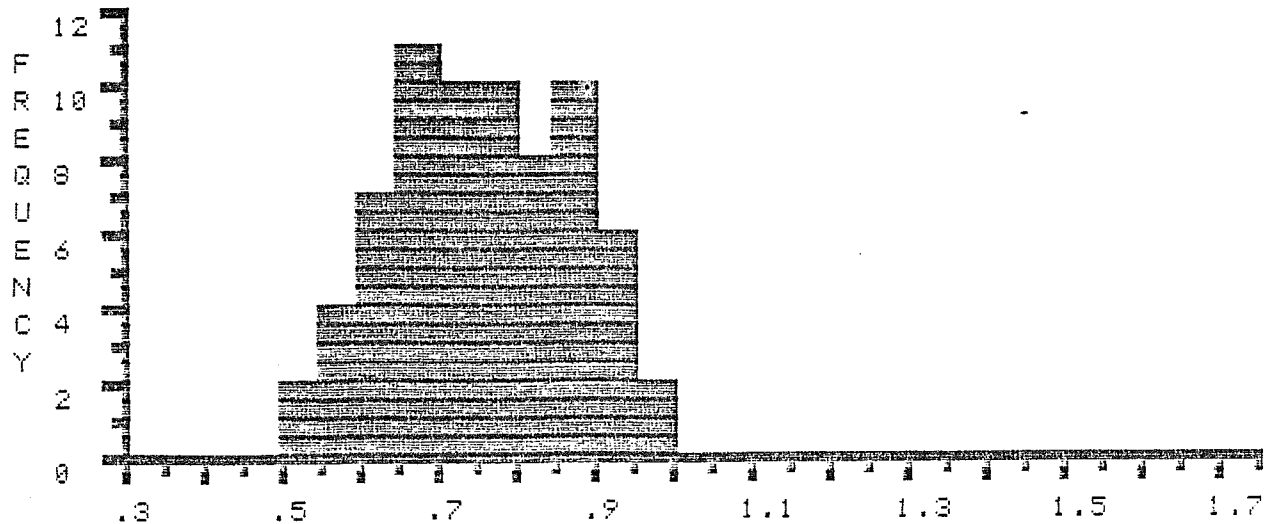
FILE >> K0395A   DESCRIPTION FOLLOWS :
DEPTH 12280-12310', EAGLE D-21, MPA, MAR-25-86

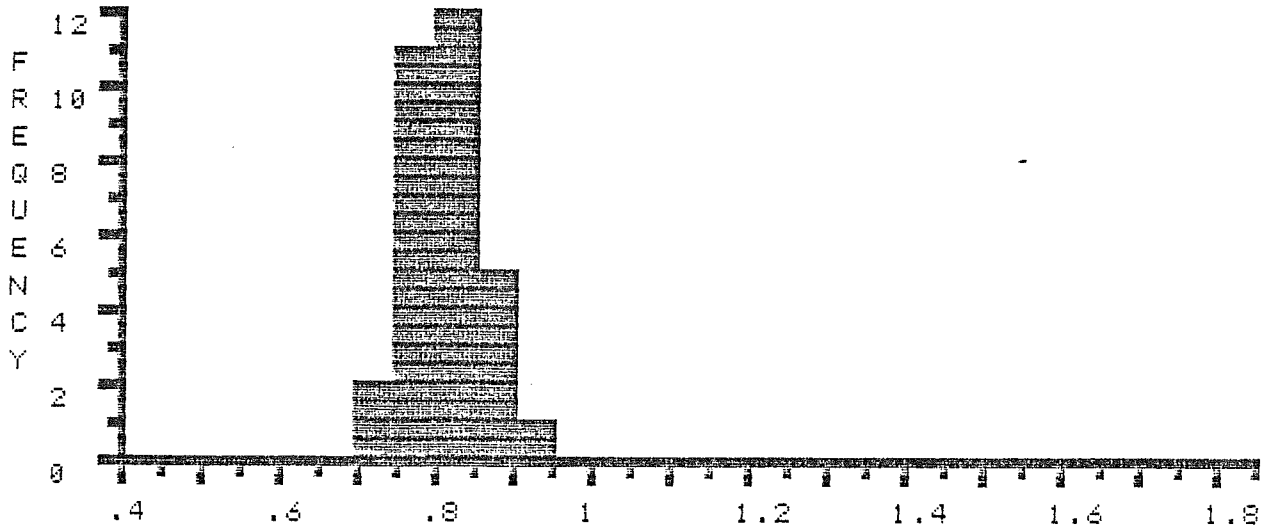| COL>	0	1	2	3	4	5	6	7	8	9
ROW		.58	.58	.59	.62	.63	.63	.66	.66	.68
1	.68	.69	.69	*.72	*.73	*.75	*.76	*.76	*.76	*.77
2	*.77	*.77	*.78	*.78	*.78	*.79	*.8	*.8	*.8	*.8
3	*.81	*.81	*.83	*.83	*.84	*.84	*.84	*.84	*.86	*.86
4	*.86	*.88	*.89	*.9	.94	.96	.98	.99	1	1
5	1.02	1.06	1.07	1.11	1.11	1.16	1.16	1.18	1.19	1.22
6	1.23	1.24	1.24	1.25	1.25	1.25	1.26	1.29	1.3	1.3
7	1.33	1.37	1.44							

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	66.6	72	.58	1.44	.92	.23
*EDIT >	25.01	31	.72	.9	.81	.05

% REFLECTANCE
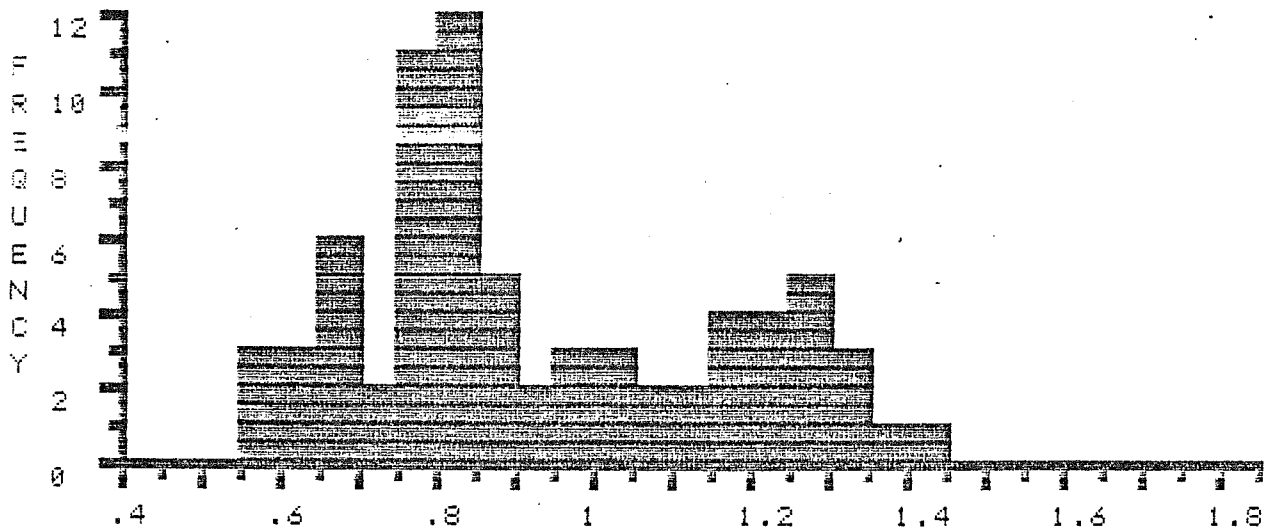
% REFLECTANCE * * EDITED * *

FILE >> K0395B   DESCRIPTION FOLLOWS :
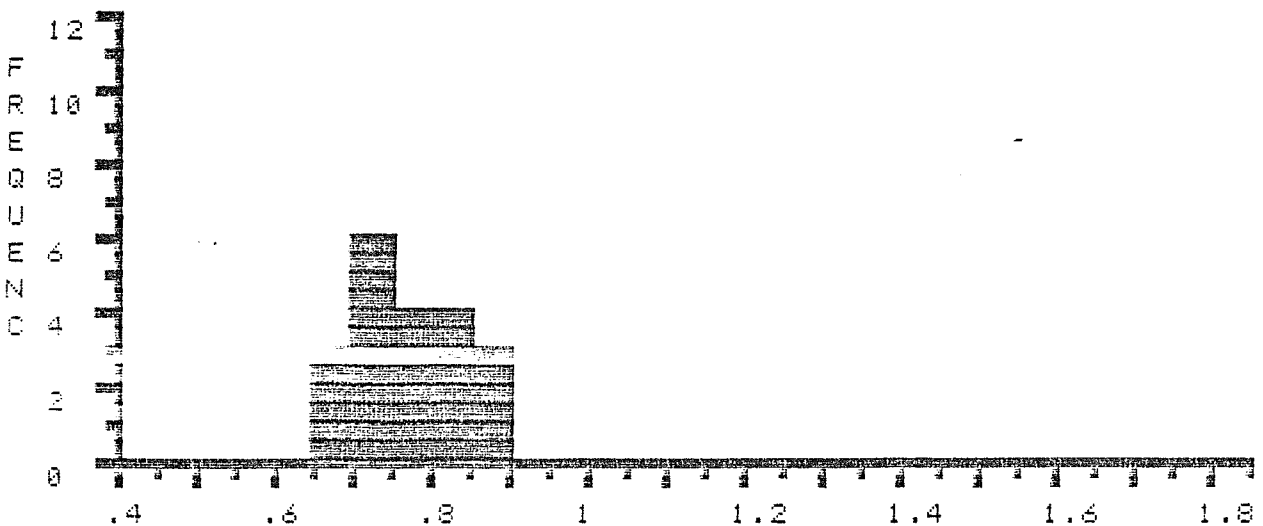DEPTH 13010-13040'. EAGLE D-21. MPA, MAR-25-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.59	.62	.63	.63	*.66	*.69	*.69	*.7	*.7
1	*.7	*.71	*.71	*.74	*.76	*.78	*.78	*.79	*.8	*.81
2	*.81	*.84	*.85	*.87	*.88	.9	.91	.93	.93	.95
3	.95	.95	.96	.96	.99	.99	1	1	1	1
4	1.01	1.02	1.02	1.02	1.04	1.04	1.06	1.06	1.06	1.06
5	1.07	1.08	1.08	1.08	1.11	1.11	1.11	1.12	1.13	1.14
6	1.14	1.14	1.15	1.17	1.18	1.18	1.19	1.19	1.21	1.22
7	1.23	1.23	1.3	1.3	1.32	1.33	1.36	1.37	1.37	1.4
8	1.49	1.5	1.52	1.52	1.62	1.65	1.71			

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	89.57	86	.59	1.71	1.04	.26
*EDIT >	15.27	20	.66	.88	.76	.07

% REFLECTANCE
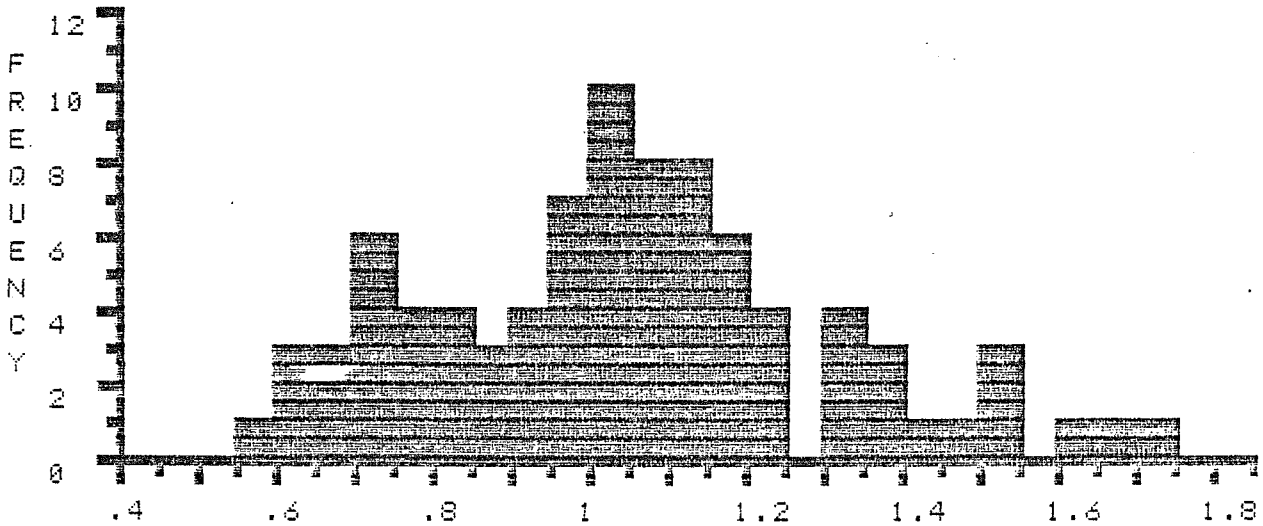
% REFLECTANCE * * EDITED * *

FILE >> K0395C   DESCRIPTION FOLLOWS :
DEPTH 13310-13340', EAGLE D-21, MPA, MAR-25-86

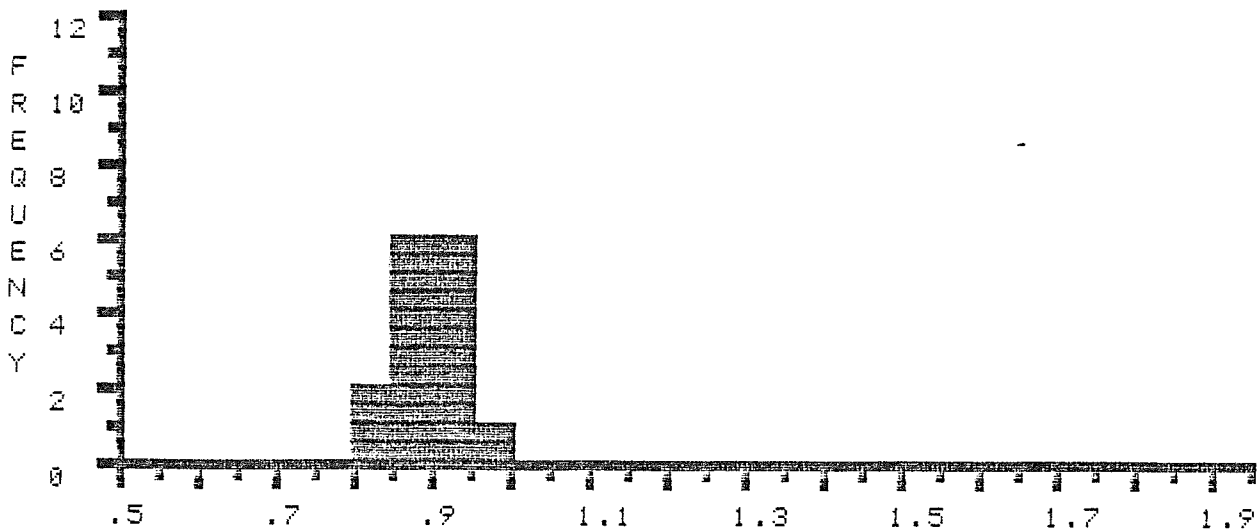| COL>	0	1	2	3	4	5	6	7	8	9
ROW		.63	.67	.67	.68	.69	.72	.75	.75	.76
1	.77	.78	.78	.79	.8	*.83	*.84	*.85	*.87	*.88
2	*.89	*.89	*.89	*.9	*.91	*.93	*.93	*.93	*.94	*.95
3	.98	.99	.99	1	1	1.02	1.02	1.04	1.05	1.05
4	1.05	1.05	1.06	1.09	1.1	1.11	1.12	1.13	1.16	1.17
5	1.17	1.18	1.19	1.19	1.21	1.22	1.22	1.23	1.23	1.24
6	1.24	1.24	1.26	1.26	1.26	1.26	1.29	1.29	1.31	1.33
7	1.35	1.36	1.37	1.38	1.38	1.38	1.4	1.4	1.42	1.47
8	1.48	1.52	1.54	1.57	1.59	1.62	1.7	1.74		

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	96.34	87	.63	1.74	1.11	.26
*EDIT >	13.43	15	.83	.95	.9	.04

% REFLECTANCE
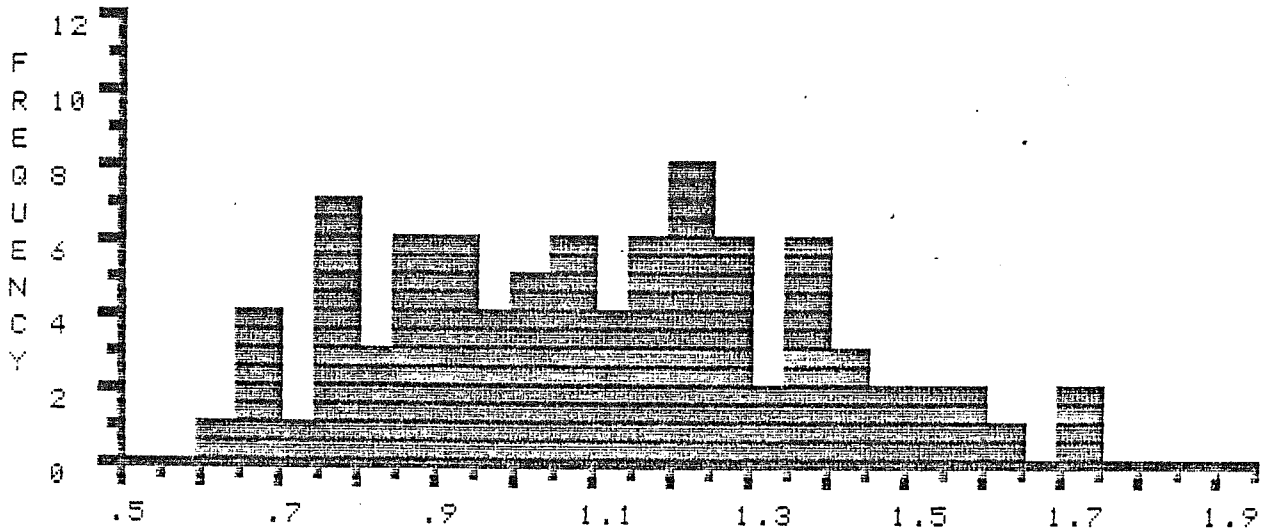
% REFLECTANCE * * EDITED * *

FILE >> K0396A   DESCRIPTION FOLLOWS :
DEPTH 13710-13740', EAGLE D-21, MPA. APR-8-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.59	.62	.68	.69	.7	*.73	*.75	*.76	*.78
1	*.79	*.8	*.8	*.8	*.86	*.86	*.87	*.87	*.87	*.87
2	*.88	*.88	*.89	*.89	*.89	*.89	*.91	*.92	.97	.98
3	1	1.01	1.01	1.03	1.03	1.03	1.03	1.04	1.05	1.06
4	1.06	1.07	1.07	1.07	1.07	1.09	1.09	1.1	1.15	1.15
5	1.15	1.16	1.17	1.17	1.18	1.18	1.19	1.2	1.21	1.24
6	1.25	1.29	1.29	1.32	1.32	1.33	1.34	1.35	1.36	1.37
7	1.39	1.39	1.4	1.42	1.45	1.46	1.47	1.48	1.55	1.6
8	1.63	1.63	1.63	1.82						

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	91.39	83	.59	1.82	1.1	.27
*EDIT >	18.56	22	.73	.92	.84	.06

% REFLECTANCE
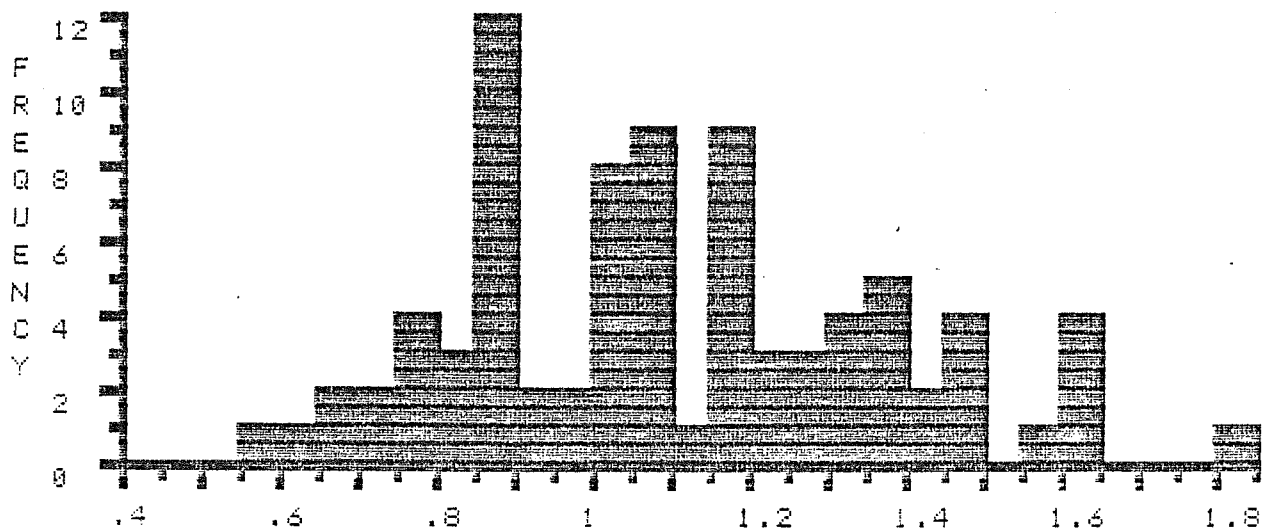
% REFLECTANCE * * EDITED * *
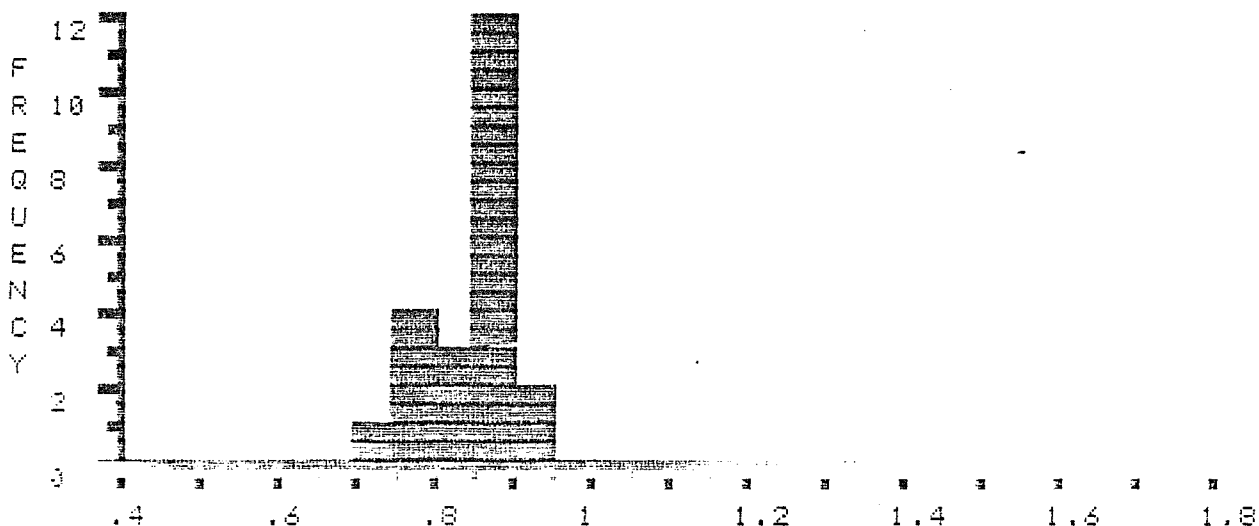
FILE >> K0396B   DESCRIPTION FOLLOWS :
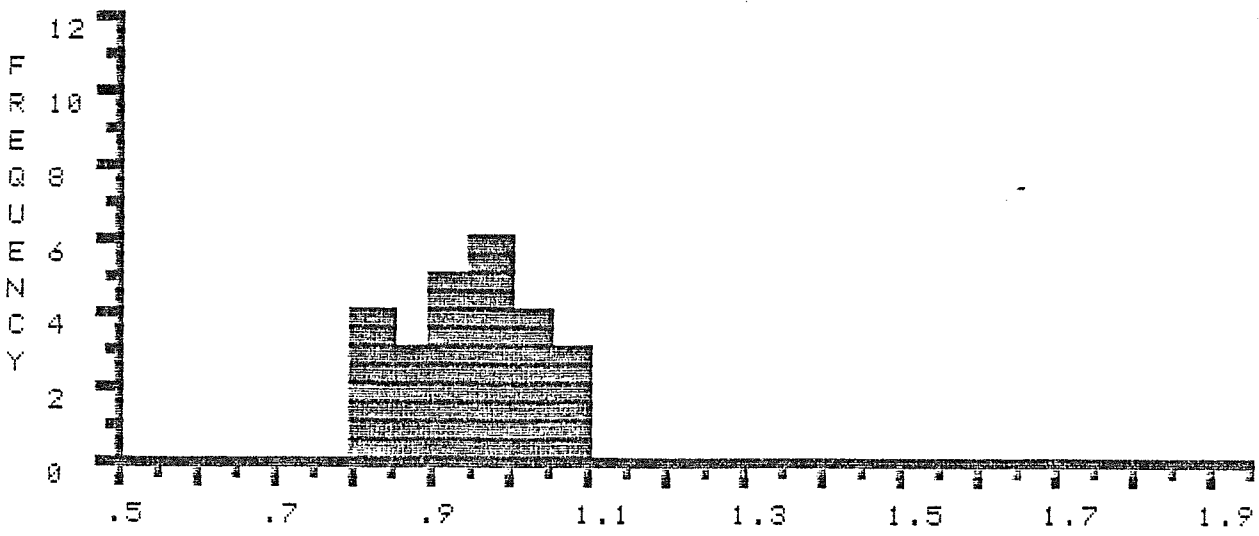DEPTH 14210-14240', EAGLE D-21, MPA, APR-9-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.66	.69	.74	*.8	*.81	*.82	*.83	*.85	*.88
1	*.88	*.9	*.9	*.94	*.94	*.94	*.95	*.96	*.97	*.97
2	*.98	*.99	*1.02	*1.03	*1.03	*1.04	*1.05	*1.05	*1.05	1.09
3	1.1	1.1	1.11	1.12	1.12	1.12	1.13	1.14	1.14	1.15
4	1.16	1.17	1.17	1.18	1.21	1.24	1.24	1.26	1.29	1.29
5	1.3	1.3	1.32	1.32	1.33	1.34	1.35	1.35	1.38	1.39
6	1.41	1.42	1.43	1.43	1.43	1.44	1.44	1.44	1.45	1.49
7	1.58	1.58	1.6	1.64	1.67	1.72	1.81			

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	89.56	76	.66	1.81	1.18	.26
*EDIT >	23.58	25	.8	1.05	.94	.08

% REFLECTANCE
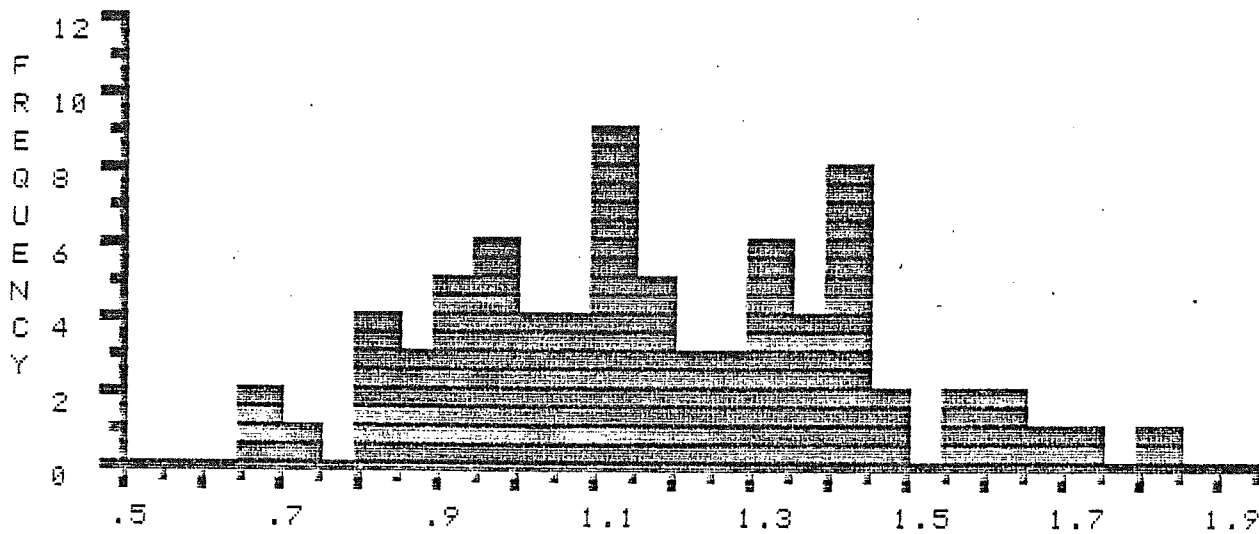
% REFLECTANCE * * EDITED * *

FILE >> K0396C   DESCRIPTION FOLLOWS :
DEPTH 15010-15140', EAGLE D-21, MPA, APR-9-86

COL>	0	1	2	3	4	5	6	7	8	9
ROW		.56	.86	.86	.9	*.97	*.98	*.98	*1.01	*1.02
1	*1.02	*1.02	*1.03	*..33	*1.03	*1.04	*1.05	*1.05	*1.05	*1.06
2	*1.07	*1.08	*1.08	*1.08	*1.1	*1.11	*1.13	*1.13	*1.13	*1.15
3	*1.16	*1.17	*1.18	*1.2	*1.2	*1.21	*1.24	*1.24	*1.25	*1.26
4	1.3	1.3	1.33	1.34	1.34	1.34	1.35	1.36	1.36	1.37
5	1.37	1.38	1.4	1.41	1.41	1.41	1.43	1.43	1.44	1.45
6	1.46	1.47	1.47	1.49	1.5	1.52	1.52	1.53	1.55	1.55
7	1.56	1.57	1.59	1.59	1.61	1.61	1.61	1.62	1.62	1.62
8	1.63	1.63	1.64	1.66	1.67	1.68	1.68	1.69	1.74	

	SUM	NUMBER	MIN	MAX	MEAN	STAND.DEV.
TOTAL >	115.29	88	.56	1.74	1.31	.25
*EDIT >	38.51	35	.97	1.26	1.1	.08

% R E F L E C T A N C E

% R E F L E C T A N C E * * EDITED * *