ROBERTSON RESEARCH (U.S.) INC.

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GEOCHEMICAL ANALYSIS OF NORTH ALEUTIAN SHELF, COST NO. 1 WELL, ALASKA

by
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PROJECT NO. RRUS/823/T/135/2

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I
SUMMARY

The stratigraphic section encountered by the North Aleutian Shelf, COST No. 1 well contains abundant, primarily gas-generating, terrestrial organic matter, concentrated in four coal-bearing intervals. Sufficient thermal maturation for oil-generation occurs below 12,700 feet and for gas generation below 15,700 feet. A distinct maturity anomaly, possibly representing about a thousand feet of eroded section, occurs at about 15,700 feet which may or may not represent the Mesozoic-Cenozoic boundary. The section above this anomaly was deposited under conditions of essentially continuous sedimentation and is presently at its maximum burial depth.

Minor shows of biogenic gas occur in sandstone samples above about 2,600 feet and thermally generated wet gas is present mainly below 15,700 feet. Organic extracts in core samples from below 15,000 feet resemble mature crude oil but very little of this material is present and no shows of migrated crude oil are indicated.

II
INTRODUCTION

Robertson Research (U.S.) Inc. was contracted by ARCO Exploration Company, as operator on behalf of a group of companies, to perform organic geochemical analyses on samples from the North Aleutian Shelf, COST No. 1 well, Alaska.

The geochemical study was carried out in accordance with an analytical program recommended by Robertson Research (U.S.) Inc. and approved with modifications, by ARCO. Thirteen weekly data reports were issued to the participants during the course of the study. This report presents all the data generated by the project.

Samples were selected by ARCO and every sample received was analysed. Canned cuttings samples at 60 foot intervals were analysed for C_1-C_6 hydrocarbons in the headspace gas, washed, described, and a representative sample selected for total organic carbon (TOC) analysis. Samples with 0.3 weight percent or more TOC were analysed with Rock-Eval pyrolysis. Sidewall cores at about 100 foot intervals and representative plugs and chips from 19 conventional cores were analysed in the same manner with the exception of C_1-C_6 hydrocarbon analysis. Sidewall core samples were not taken from below 13,300 feet. On the basis of these preliminary results, cuttings and sidewall core samples were selected at about 300 foot intervals and from each conventional core for kerogen isolation, vitrinite reflectance, spore coloration index, and elemental analysis. A few samples with low organic contents did not yield suffficient kerogen for elemental analysis. Soxhlet extraction, elution chromatography, and saturate fraction gas chromatography were restricted to conventional core samples. A detailed listing of the analyses performed on each sample is provided in Appendix I. Analytical data recorded in Appendices II-X are selected parameters plotted on the Figures.

Four canned mud samples, collected during the time maximum gas levels were being circulated out of the well at total depth were received after all other analyses were complete. Data from these samples are presented in Appendix X.

In most cases, data from cuttings samples are not plotted on the same figures as data from sidewall cores and conventional cores. The only exceptions are the vitrinite reflectance and spore coloration maturation profiles (Figures 5 and 6). This was done because the cuttings samples were not picked or higraded to isolate various lithologies. Rather, the most typical or average lithologic mix in each sample was analysed. Conventional cores and sidewall cores generally represent single lithologies. Cuttings data, therefore, provide the average for the interval the sample represents, while the core and sidewall core data depict the range in values for the various lithologies present. Neither is precise, but, when taken together, they provide the best possible representation of the stratigraphic section penetrated by the well.

The lithologies shown on many of the figures were derived from a mud log supplied by ARCO and occasionally modified by our own sample descriptions. No additional background information such as geological ages or geothermal gradients was made available to aid in interpretation of the data. Important questions relating to burial history, time of generation, volume of effective source beds in the basin, and the amount of oil and gas likely to be available for migration cannot be addressed by the data available to us. The conclusions drawn, therefore, may need adjustment when viewed along with other geological data information.

III
DISCUSSION

ORGANIC MATTER CONCENTRATION

The organic matter content of rocks is measured by the weight percent organic carbon they contain. The distribution of organic carbon in samples from the North Aleutian Shelf COST No. 1 well is shown on Figures 1 (cuttings) and 2 (sidewall cores and conventional cores). The conventional core data shown on Figure 2 (bars with dots) are averages for all the samples analysed in each core.

The stratigraphic section encountered by the well is generally very high in organic carbon although it appears that much of the organic matter is concentrated in thinly bedded coals or in coaly fragments in clastic rocks. Organic matter is most abundant between 2,600 and 4,200 feet; between 7,500 and 9,700 feet; between 13,000 and 15,700 feet; and between 16,800 and 17,150 feet (TD). Very little organic carbon in cuttings samples is believed due to cavings.

A very close parallel exists between the percent organic carbon present and the source potential as defined by the magnitude of the pyrolysis S_2 peak, especially in the cuttings samples (compare Figures 1 and 3). This demonstrates that pyrolysis data can be used as an organic richness indicator if the organic matter present is not oxidized or too thermally mature. On the basis of organic content alone, therefore, most of the section penetrated by the well, especially the four organic-rich intervals, have very good source potential and should be capable of yielding large quantities of hydrocarbons. Whether these hydrocarbons will be oil or gas and whether generation and expulsion has been achieved, depends upon the type and thermal maturity of the organic matter present.

ORGANIC MATTER TYPE

Introduction

The type of organic matter present, and hence its capability to generate oil or gas, was determined by a number of techniques including visual examination with reflected and transmitted light microscopy, elemental analysis used in combination with vitrinite reflectance maturity data, and Rock-Eval pyrolysis. Supporting evidence of organic matter type is provided by C_1-C_5 headspace gas analysis and organic extract data.

Optical methods of kerogen type analysis have the ability to discriminate the various components of organic matter mixtures and are valid regardless of rank. Chemical or physical methods, on the other hand, can reveal the actual capacity of organic matter to generate hydrocarbons but reflect only the average of the kerogen mixture present. The best results are achieved when subjective optical studies are used in combination with objective chemical data.

Optical Methods

The visual percent of oil-generating kerogen (amorphous + exinite) as determined by reflected light microscopy is plotted on Figures 1 and 2. Because amorphous kerogen is considerably less dense than other kerogen types, relatively high visual percentages must be present before oil can be generated and expelled. Our experience indicates that samples with less than about 35 visual percent amorphous kerogen will yield primarily dry gas and that oil source beds contain 65 percent or more of oil-generating components. Intermediate kerogen mixtures will expel primarily wet gas and condensate although a complete transition probably exists.

Some variation between reflected and transmitted light data is apparent and is due to the nature of the two techniques. Exinite is generally higher in reflected light because fluorescence is used in its identification. Amorphous material is usually higher with transmitted light because finely divided material and degraded vitrinite are often classified with the amorphous fraction. Finally, high rank vitrinite, oxidized vitrinite, and inertinite cannot always be resolved with transmitted light but they are readily apparent under reflected light.

Visual kerogen analysis reveals that dry gas-generating organic matter predominates throughout most of the section penetrated by the well, especially in the most organic-rich, coaly intervals. Oil-generating kerogen is most abundant in the shale and siltstone section between about 10,000 and 11,500 feet and below 15,700 feet but no samples are classified as primarily oil-generating. On the basis of visual kerogen analysis alone, therefore, very little oil-generating capability is observed although a few shales below 15,700 feet may be capable of yielding crude oil as well as gas.

Elemental Analysis

The relative amount of hydrogen, as expressed by atomic H/C ratios, can also be used as a kerogen type indicator because oil-generating kerogens contain more hydrogen than gas-generating kerogens of equivalent rank. Increasing rank, however, causes atomic H/C ratios to decrease as hydrogen-rich oil and gas are evolved. The oil and gas "fields" shown on Figures 8 and 9 were derived from the vitrinite reflectance maturation profile (Figure 5) and a modified version of the vitrinite reflectance-atomic H/C plot shown in Dow, 1977. Plotting atomic H/C ratios in this way permits the data to be used as an indication of kerogen type because the effects of increasing maturity have been removed.

Elemental analysis data are in good agreement with visual kerogen data and indicate a primarily dry gas-generating capability in most of the samples analysed.

As expected, more variation exists in core and sidewall core samples than in cuttings samples. The relatively amorphous-rich kerogen-bearing shale and siltstone sequence between 10,000 and 11,500 feet appears to be slightly less capable of yielding crude oil by elemental analysis. It is possible that at least part of the "amorphous" fraction is actually degraded, or finely divided vitrinite or low yield, oxidized amorphous material with very low oil-generating capability. A few conventional cores with high atomic H/C ratios contain solid bituminous material (Appendix V) which may be responsible for the high hydrogen content. This is especially true for several samples which fall into the oil "field" below 15,700 feet. Except for the possibility of a few thin zones, therefore, elemental analysis reveals very little oil-generating capability throughout the section penetrated by the well.

Rock-Eval Pyrolysis

Data obtained from Rock-Eval pyrolysis can also be used as a general indication of kerogen type as well as the actual remaining potential to generate hydrocarbons. We have already mentioned the good source potential due to very high S_2 values in the most organic-rich zones. Pyrolysis S_2/S_3 ratios can generally be used as a kerogen type indicator and values in excess of 5.0 are usually taken to signify oil-generating capability. On the basis of this parameter, most of the organic-rich zones below about 7,000 feet appear to have primarily an oil-generating capability. We have found, however, that pyrolysis S_2/S_3 ratios are usually misleading in highly organic-rich samples, especially if solid bitumen is present. A good oil-generating potential, therefore, may not be present in these organic-rich, coaly inter-

vals. The shale section below 15,700 feet exhibits primarily a gas-generating capability in most of the cuttings samples but the cores appear to be oil-generating. This is similar to the elemental analysis results and is probably due, at least in part, to solid bitumen in the samples (Clementz, 1979).

A more reliable pyrolysis kerogen type indicator is the hydrogen index, calculated from organic carbon and pyrolysis S_2 values. When plotted against oxygen indices on a van Krevelen-type diagram (Figures 10, 11, and 12), kerogen type can be determined. Hydrogen index values are comparable to atomic H/C ratios determined with elemental analysis. Most of the samples analysed have low hydrogen indices (less than 300) and are classified as Type III, gas-generating kerogen. A number of samples plot on the mature end of the Type I, oil-generating kerogen line but this is due to very low oxygen index values, apparently caused by solid bitumen, rather than to advanced thermal maturity. Oil-generating kerogens with the rank of the subject samples should have hydrogen indices greater than 600. A few samples with very high hydrogen indies may also contain bitumen- saturated vitrinite.

Elemental analysis and Rock-Eval pyrolysis both confirm the visual kerogen conclusions that dry gas-generating organic matter predominates in the subject well. Some oil-generating capability may occur in thin shale zones especially below 15,700 feet. Many of the organic-rich, coaly samples contain solvent insoluble solid bitumen which distorts the analytical results. The relatively low hydrogen content and minor quantities of this solid bitumen suggest that it probably should not be considered to be a significant potential source for crude oil.

Free Hydrocarbons

Supporting evidence for kerogen type is provided by the hydrocarbon gas and solvent extractable material present although it is realized that

these components could be migrated as well as indigenous. Indigenous free hydrocarbons also reflect thermal maturity as well as kerogen type.

Headspace gas in nearly all of the samples analysed consists primarily of methane. Wet gas is common only below 15,700 feet in thermally mature rocks (greater than 0.6 R_o). If primarily oil source beds were present, especially below 12,000 feet, wet gas percentages should be substantially higher, possibly above 90 percent. Pentane and heavier gases (C_6+) should also be abundant if effective oil source rocks were present. Headspace gas data, therefore, supports the conclusion that very little oil-generating capability exists.

Relatively low productivity indices (S_1/S_1+S_2) from Rock-Eval pyrolysis indicates only minor quantities of free hydrocarbons are present in the samples analysed (Figure 3). This is verified by very low organic extract/organic carbon ratios in all of the conventional core samples analysed (Figure 14). Low percent saturates, high percent NSO compounds, high pristane/phytane ratios, and high carbon preference indices all indicate an abundance of gas-generating, terrestrial organic matter in most of the samples analysed.

ORGANIC MATTER MATURITY

Introduction

The thermal maturity of organic matter and, therefore, whether oil or gas generation capability has been realized, was determined with basically the same techniques used to define organic matter type. Vitrinite reflectance, spore coloration index, and pyrolysis Tmax values are all kerogen maturity indicators. Additional maturity evidence is supplied by headspace gas and organic extract data. The same arguments pertaining to the strengths and weaknesses of optical versus chemical and physical methods of kerogen type analysis, can be applied here as well.

Optical Methods

Because of the abundance of terrestrial kerogen in most of the samples analysed, vitrinite reflectance data are generally very good and provide the most reliable maturity indicator for the subject well. Strong, unimodal, reflectance histograms were obtained on most samples, resulting in a reasonably good maturation profile for the well (Figure 5). The only significant problems are high rank, recycled organic matter in some shallow samples, occasional oxidized vitrinite, solid bitumen, and pseudovitrinite, and minor caving in a few of the cutting samples. Methods of dealing with the sources of contamination are described in Dow and O'Connor, 1981.

The vitrinite reflectance maturation profile indicates the section above about 12,700 feet is thermally immature (less than 0.6 R_o) and has not reached peak oil or gas generation (Figure 7). The interval between 12,700 feet and 15,700 feet is within the oil-generating matu-

rity zone but has probably not reached peak generation and expulsion maturity. At about 15,700 feet, a significant maturity anomaly is present. A sudden increase in maturity occurs at about this depth and the rate of maturity increase is slightly greater below this depth. The only reasonable explanation for this anomaly is that an erosional surface representing about a thousand feet of section, occurs at this point in the stratigraphic section and that the thermal history of the deeper rocks was different than of the shallow rocks. Whether this maturity anomaly represents the Mesozoic-Cenozoic boundary or an unconformity within the Mesozoic section is not known, as no biostratigraphic data were supplied to support it. Projection of the maturation profile to 0.2 R_o near the present surface indicates that very little erosion has occurred and the section to about 15,700 feet was deposited under essentially continuous sedimentation with no significant periods of erosion. The section below the 15,700 foot maturity anomaly is well within the oil-generation maturity zone. Below about 20,000 feet (1.4 R_o) crude oil is not likely to be preserved.

Spore coloration index (SCI) data are generally poor in quality due to an abundance of recycled or oxidized organic matter and apparent discoloration, possibly caused by bituminous material, especially those associated with coal samples. Degraded spores are also thinner and appear lower in maturity. Nevertheless, a maturation profile based on SCI data (Figure 6) is very similar to the vitrinite reflectance profile and reveals the same general features. Correlation of the interpreted SCI data and the vitrinite reflectance data is also quite good (Figure 7).

The conclusions drawn by vitrinite reflectance and SCI maturity interpretations are supported by kerogen fluorescence intensity (Figures 1 and 2). Fluorescence intensity increases as the top of the oil-generation maturity zone is approached and remains high in most samples within the oil-generation zone.

Rock-Eval Pyrolysis

Pyrolysis Tmax values can be used as a general indication of thermal maturity but, because they are obtained on whole rock samples, can be affected by recycled or oxidized organic matter, caving, or solid bitumen. Solid bitumen typically results in substantially reduced Tmax values (Clementz, 1979).

Pyrolysis Tmax data (Figures 3 and 4) point to virtually the same conclusions as other maturation indices. The top of the oil-generating maturity zone (435° C) is difficult to pick but most samples below about 11,400 feet have T-max values greater than 435°C. A distinct maturity offset is present at about 15,700 feet and the rate of maturity increase below the anomaly is slightly greater than above the anomaly. Organic-rich samples with solid bitumen contents have reduced Tmax values and many shallow samples have relatively high Tmax values due to recycled organic matter. Pyrolysis Tmax maturity data, therefore, provides confirmation for the kerogen type and maturity conclusions described previously.

Free Hydrocarbons

Additional evidence of kerogen maturity is supplied by headspace gas and organic extract data. As mentioned previously, these components could be migrated as well as indigenous and may reflect kerogen type as well as maturity.

Fairly high quantities of gas are present in the section above 5,000 feet but methane predominates and is probably largely biogenic in origin. Wet gas percent and total gas to organic carbon ratios gradually increase in response to maturity, especially below the top of the oil generation zone at about 12,700 feet. Significant percentages of wet

gas and C_5-C_6 + hydrocarbons occur only below about 15,700 feet coincident with the top of the thermal maturation anomaly. An increase in n-butane/iso-butane ratios at this point also marks the maturity anomaly.

High carbon preference indices in the organic extracts from above 15,000 feet indicate maturities of less than about 0.8 R_o as well as the presence of terrestrial kerogen. Increasing saturate and aromatic contents and decreasing NSO compounds and asphaltenes also reflect increasing thermal maturity (Figure 14). These changes are especially significant at the 15,700 foot maturation anomaly.

HYDROCARBON SHOWS

Although minor quantities of gaseous and liquid free hydrocarbons are present, especially in samples from below 15,700 feet, there is little direct evidence of migrated oil or gas or of significant petroleum shows in any of the samples analysed.

Headspace gas analysis suggests the presence of biogenic methane in shallow sandstones, especially above about 2,600 feet (Figure 13). The gas in all of the other samples is in proportion to the amount, type, and maturity of kerogen present and, therefore, is probably most entirely indigenous.

Low productivity indices from pyrolysis and low total extract to organic carbon ratios throughout the section penetrated by the well are consistent with the type and maturity of the kerogen present and do not reveal the present of migrated crude oil or effective oil source beds. This is supported by kerogen composition data. Saturate fraction gas chromatograms on core samples from below about 15,000 feet (Appendix IX) resemble a mature crude oil but very little of this material is present and oil shows are not indicated.

Four canned drilling mud samples, collected at the time that maximum gas levels were being circulated out of the well, at total depth, were found to contain primarily light (C_1-C_5) hydrocarbons, especially methane (Appendix X). The composition of the gas is fairly similar to the headspace gas recovered from samples below 12,000 feet and probably originated in this portion of the section. The low relative amounts of pentanes and heavier gases supports the lack of oil-generating capability in the shale near the total depth.

IV
CONCLUSIONS

Geochemical data on samples from the North Aleutian Shelf, COST No. 1 well, Alaska are very consistent and point to the following conclusions:

1. Organic matter is abundant throughout most of the section encountered by the well and is especially high in four coal-bearing intervals between 2,600 feet and total depth. On this basis alone, a substantial hydrocarbon generation potential exists in the basin.

2. Terrestrial, dry gas-generating organic matter predominates throughout the section analysed. Very little oil-generating capability was identified.

3. Sufficient maturity for peak oil-generation occurs only below 12,700 feet and for dry gas generation below about 15,700 feet. Crude oil could be preserved to about 20,000 feet.

4. A maturity anomaly, probably representing about a thousand feet of eroded section, occurs at about 15,700 feet. The section above the anomaly probably represents essentially continuous sedimentation.

5. Minor shows of gas occur in samples from below 15,700 feet and biogenic methane appears to be present in a few sands above 2,600 feet.

6. Shows of free liquid hydrocarbons were not observed.

V

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NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

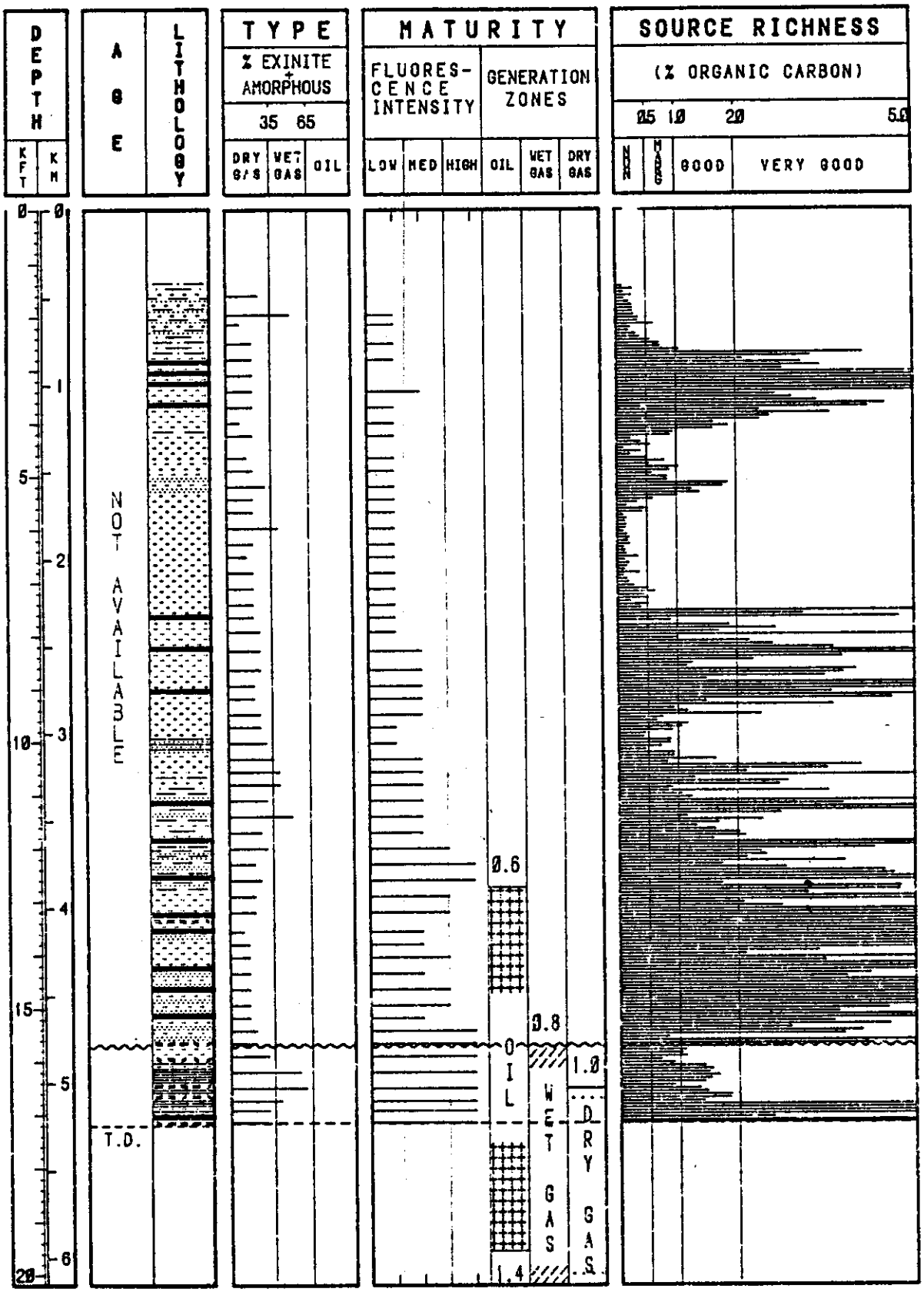


FIGURE 1: SUMMARY PLOTS SHOWING KEROGEN TYPES, MATURITY, AND SOURCE RICHNESS (SEE APPENDICES III AND V)

NORTH ALEUTIAN SHELF #1 COST WELL (SWC & CORE-mean)

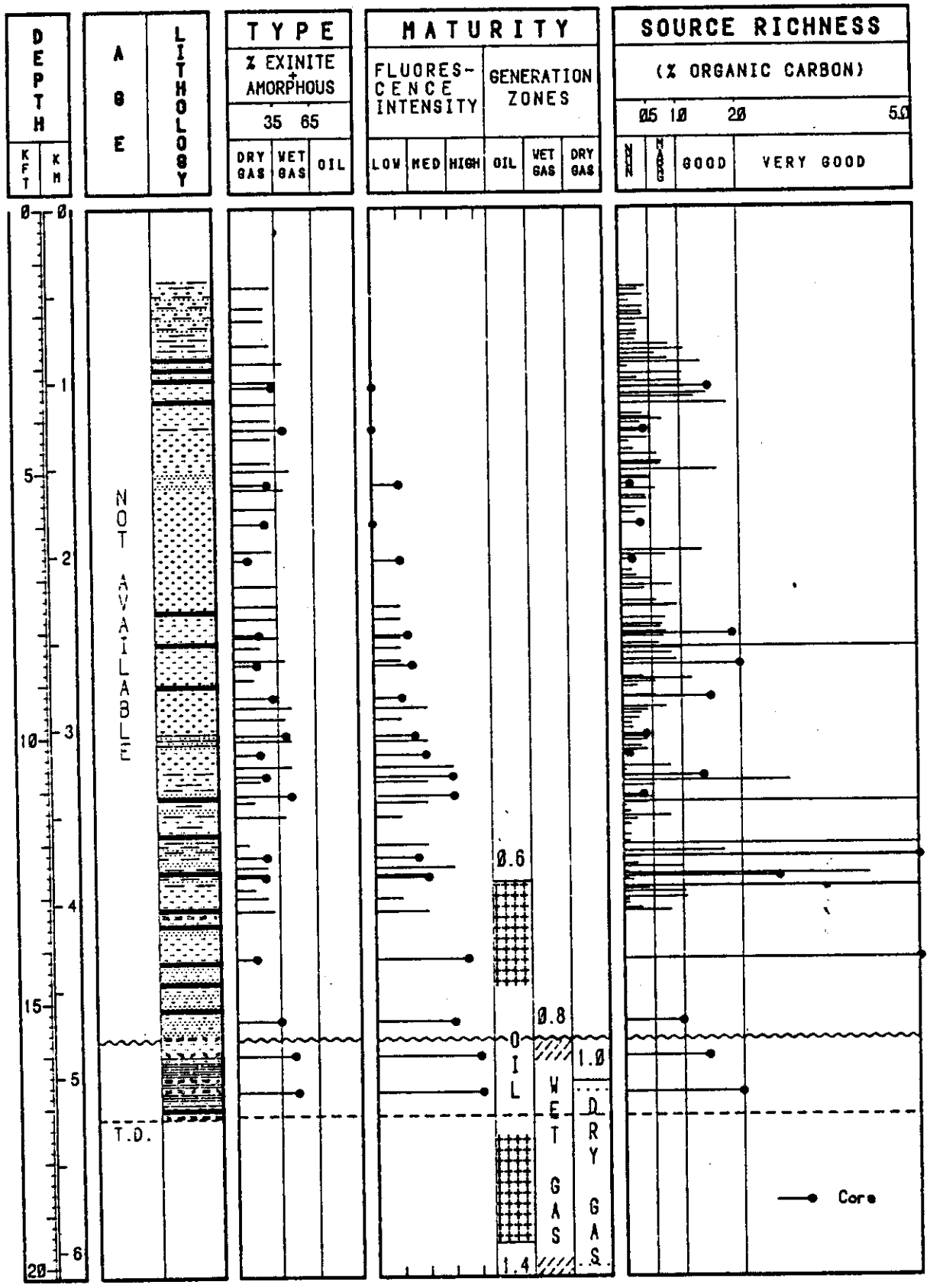


FIGURE 2: SUMMARY PLOTS SHOWING KEROGEN TYPES, MATURITY, AND SOURCE RICHNESS (SEE APPENDICES III AND V)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

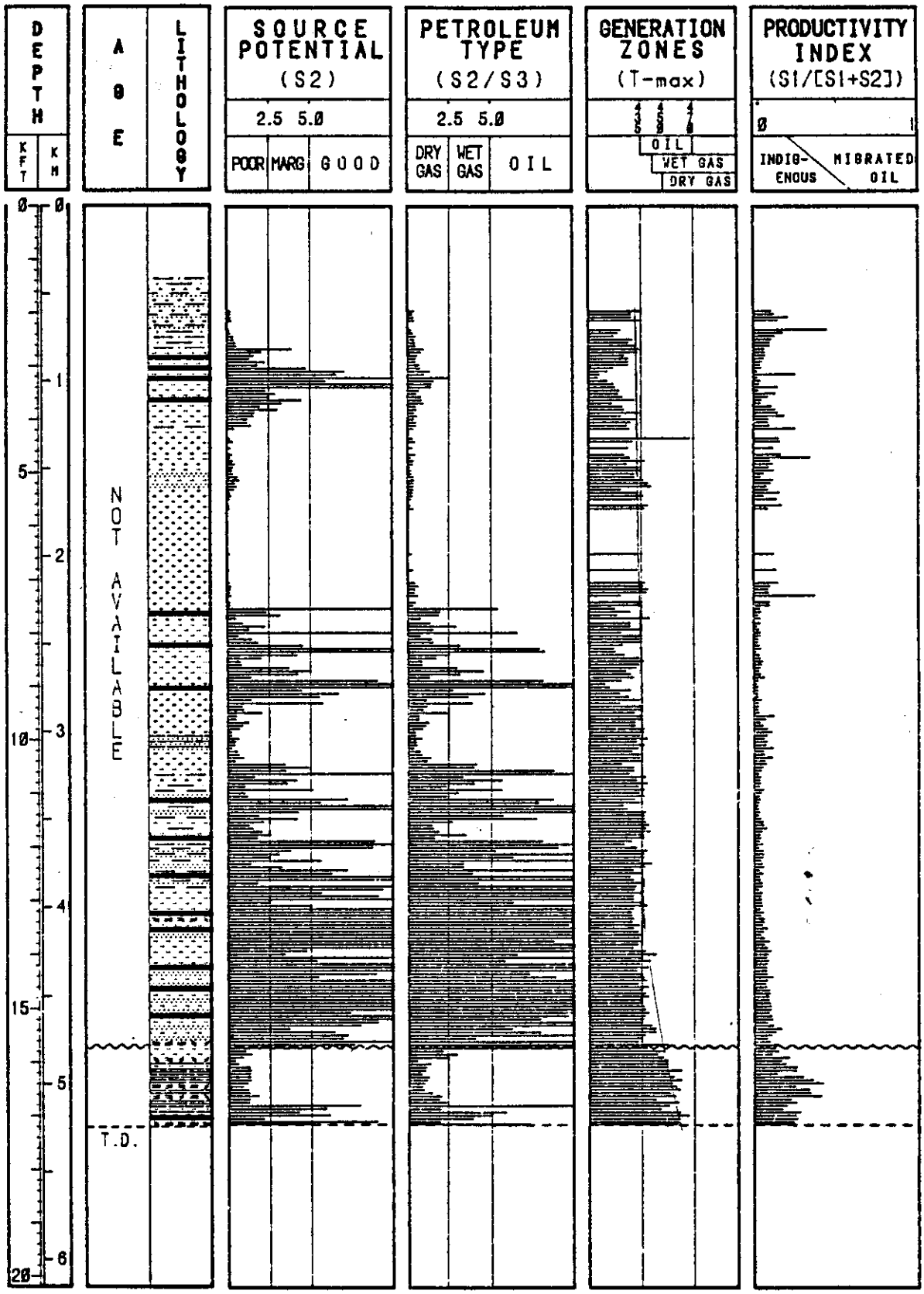


FIGURE 3: SUMMARY PLOTS OF ROCK-EVAL PYROLYSIS DATA (APPENDIX IV)

NORTH ALEUTIAN SHELF #1 COST WELL (SWC & CORE-mean)

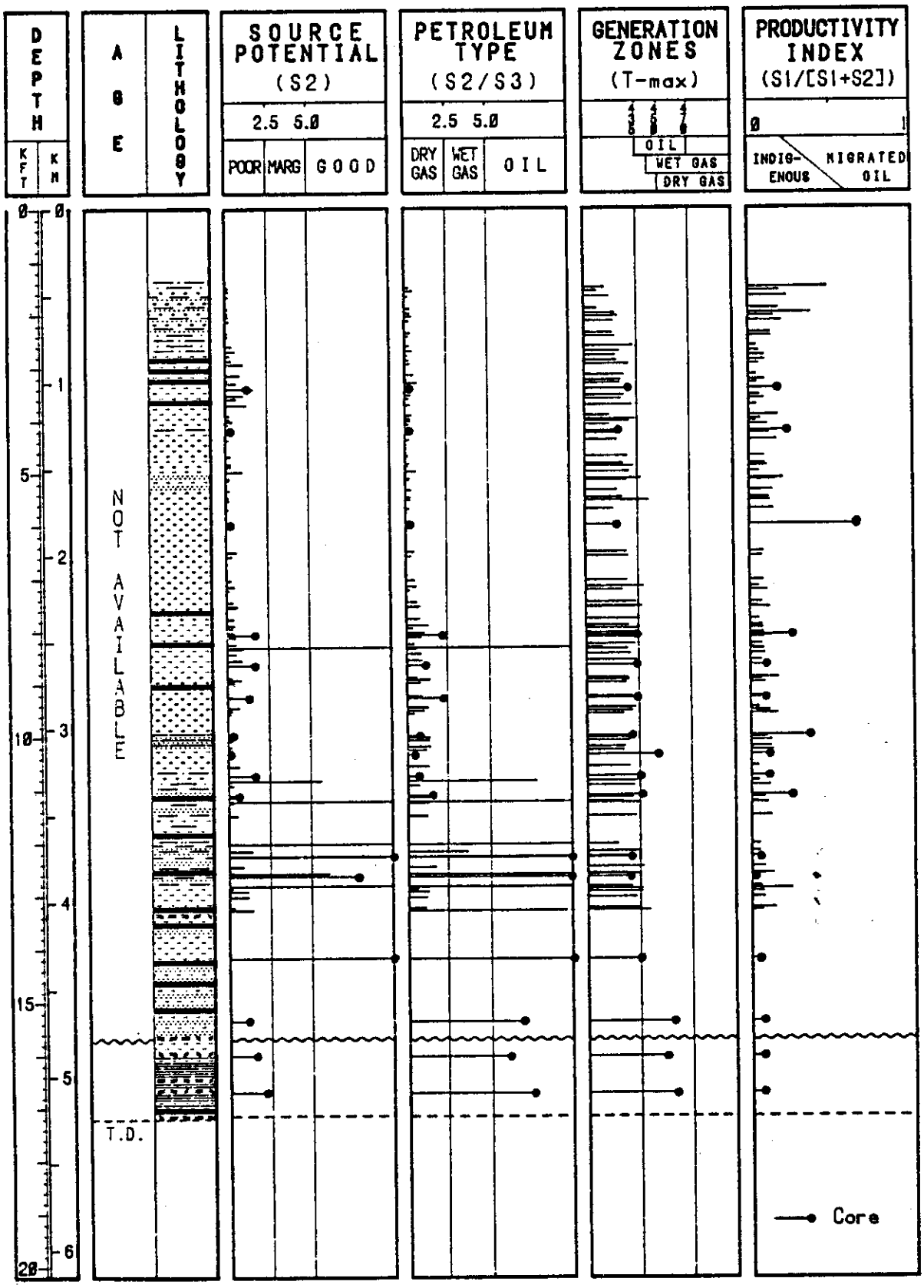


FIGURE 4: SUMMARY PLOTS OF ROCK-EVAL PYROLYSIS DATA (APPENDIX IV)

NORTH ALEUTIAN SHELF #1 COST WELL

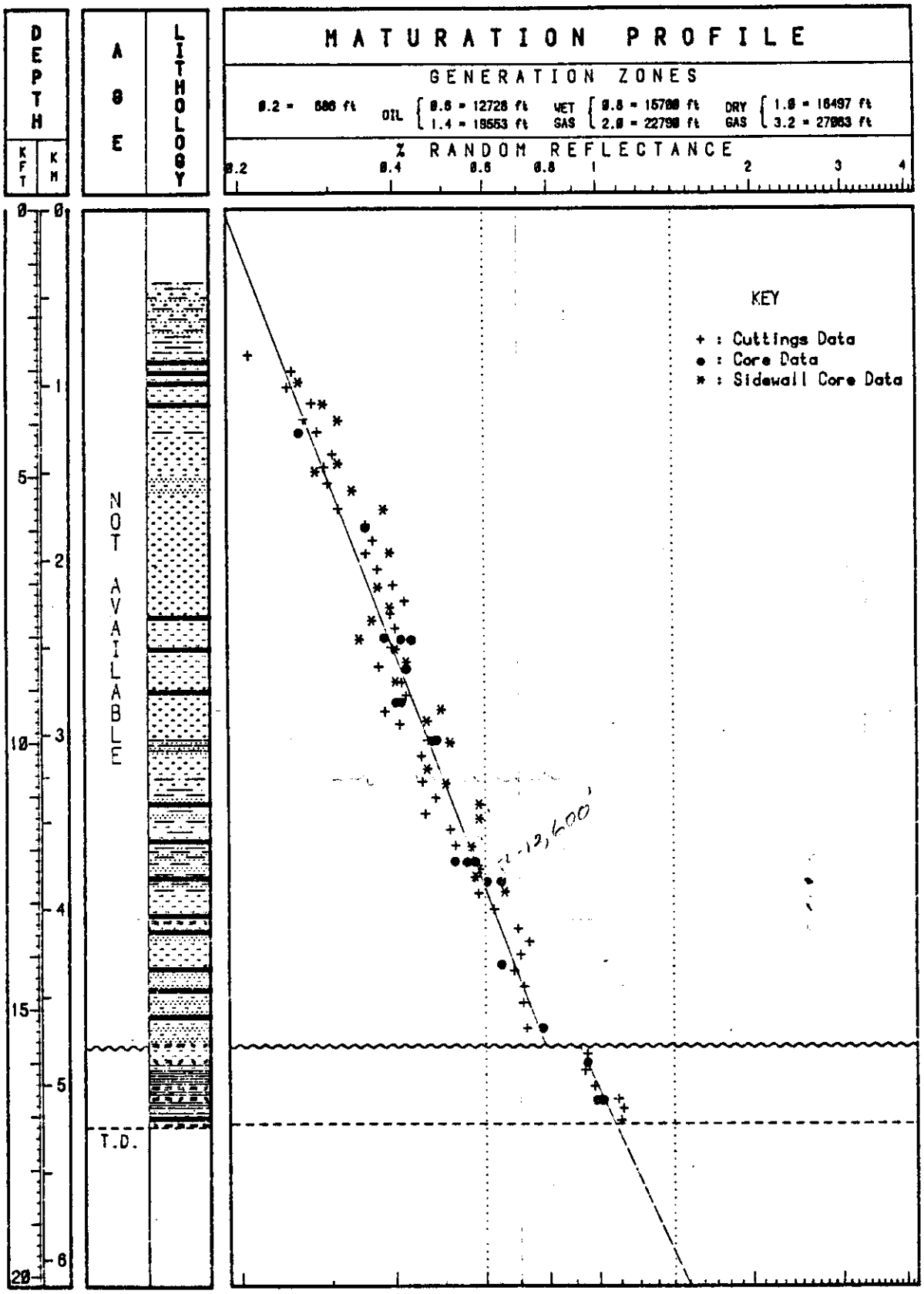


FIGURE 5: MATURATION PROFILE, BASED ON VITRINITE REFLECTANCE DATA (APPENDIX V)

NORTH ALEUTIAN SHELF #1 COST WELL

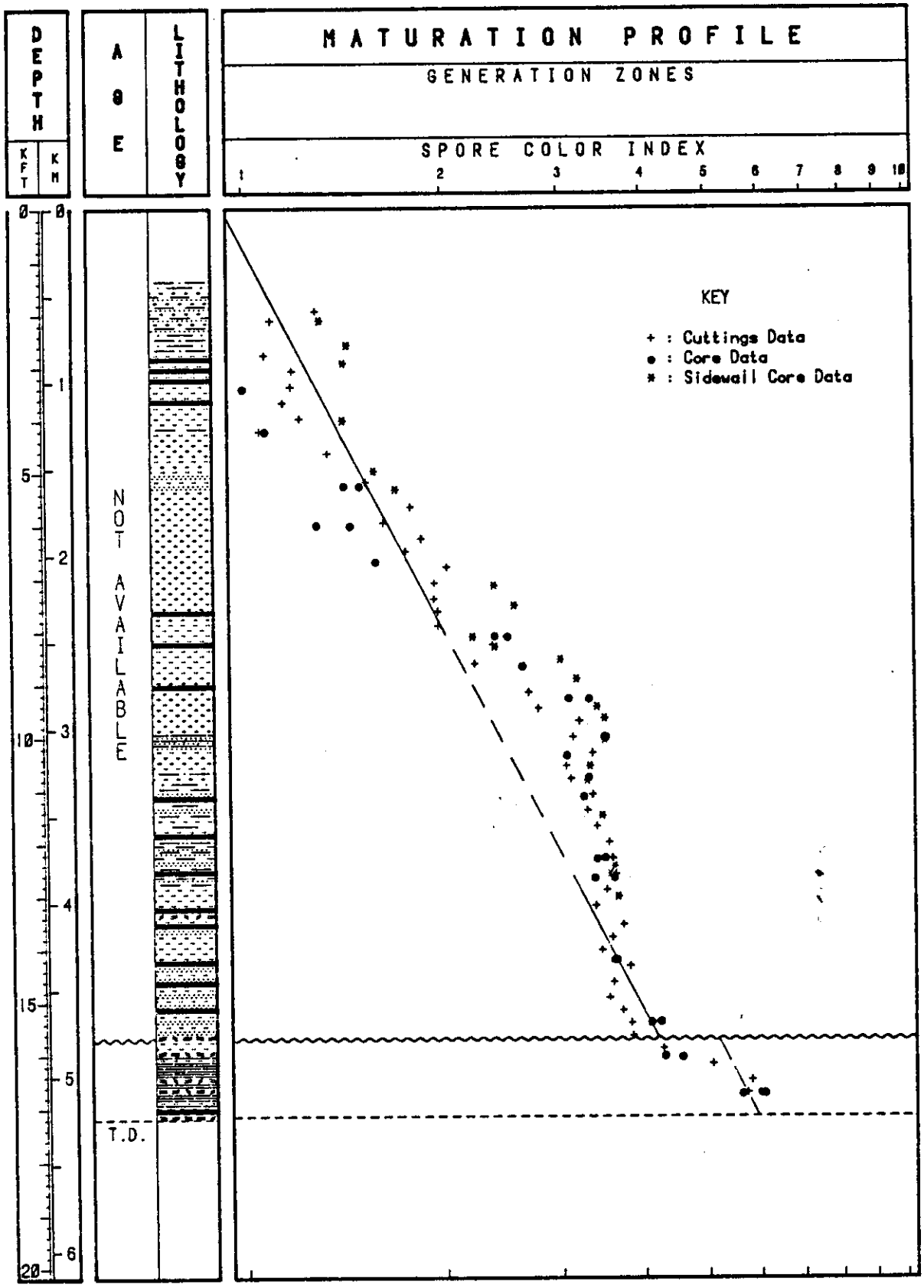


FIGURE 6: MATURATION PROFILE, BASED ON SPORE COLOR DATA (APPENDIX VI)

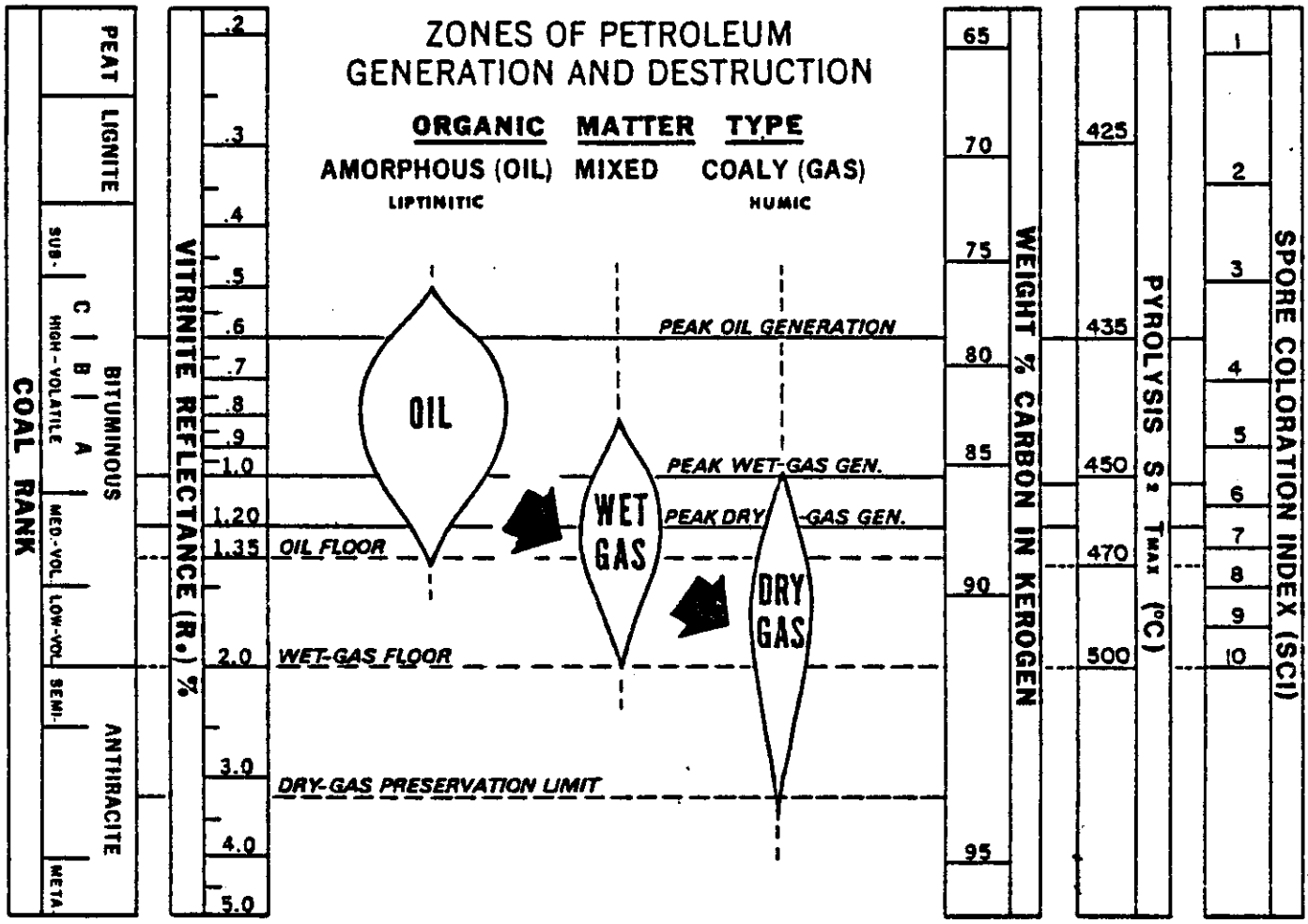


FIGURE 7: CORRELATION OF VARIOUS MATURATION INDICES AND ZONES OF PETROLEUM GENERATION AND DESTRUCTION.

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

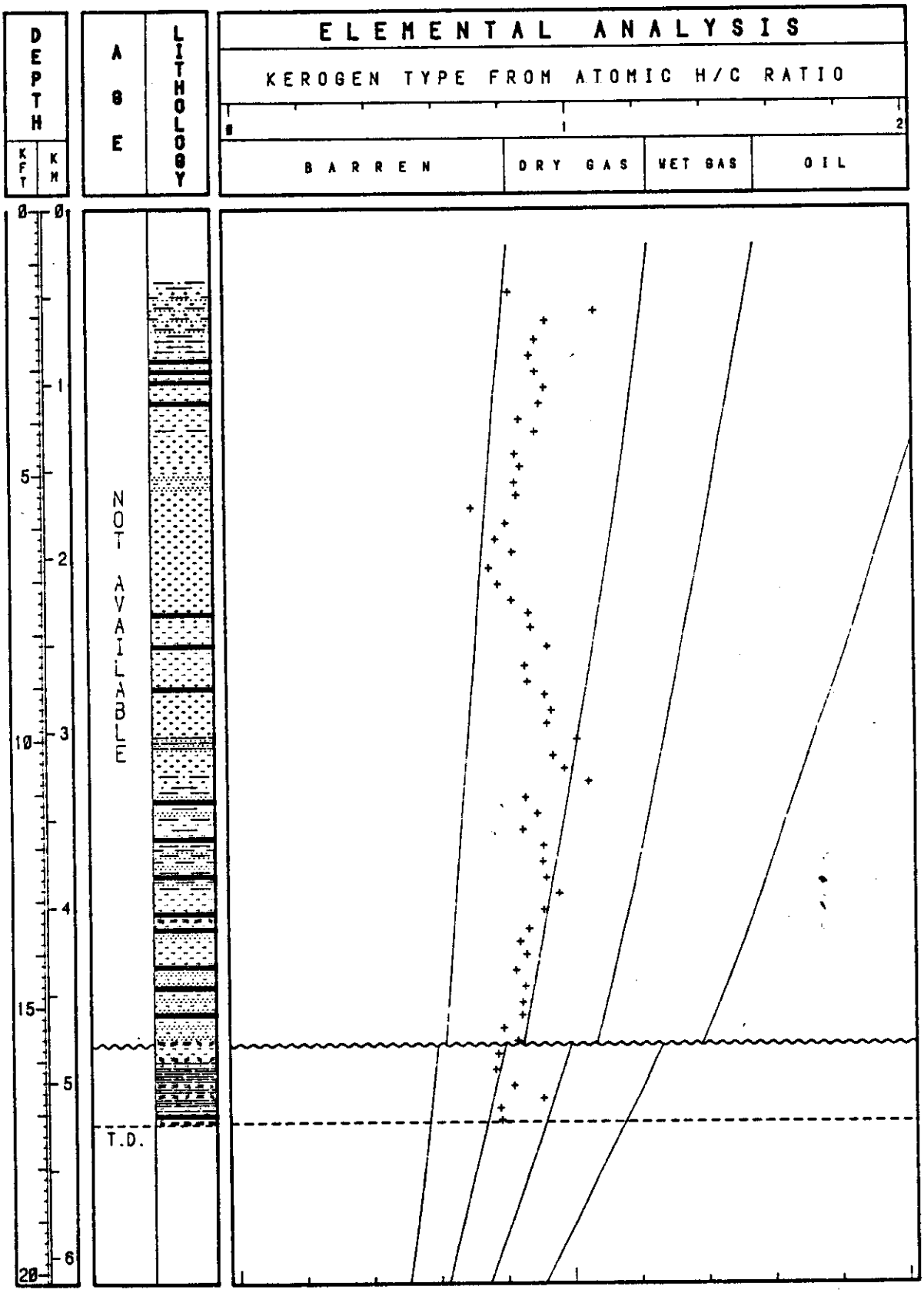


FIGURE 8: SUMMARY PLOT SHOWING KEROGEN TYPE DERIVED FROM ELEMENTAL ANALYSIS AND VITRINITE REFLECTANCE DATA (APPENDIX VII)

NORTH ALEUTIAN SHELF #1 COST WELL (SWC & CORE)

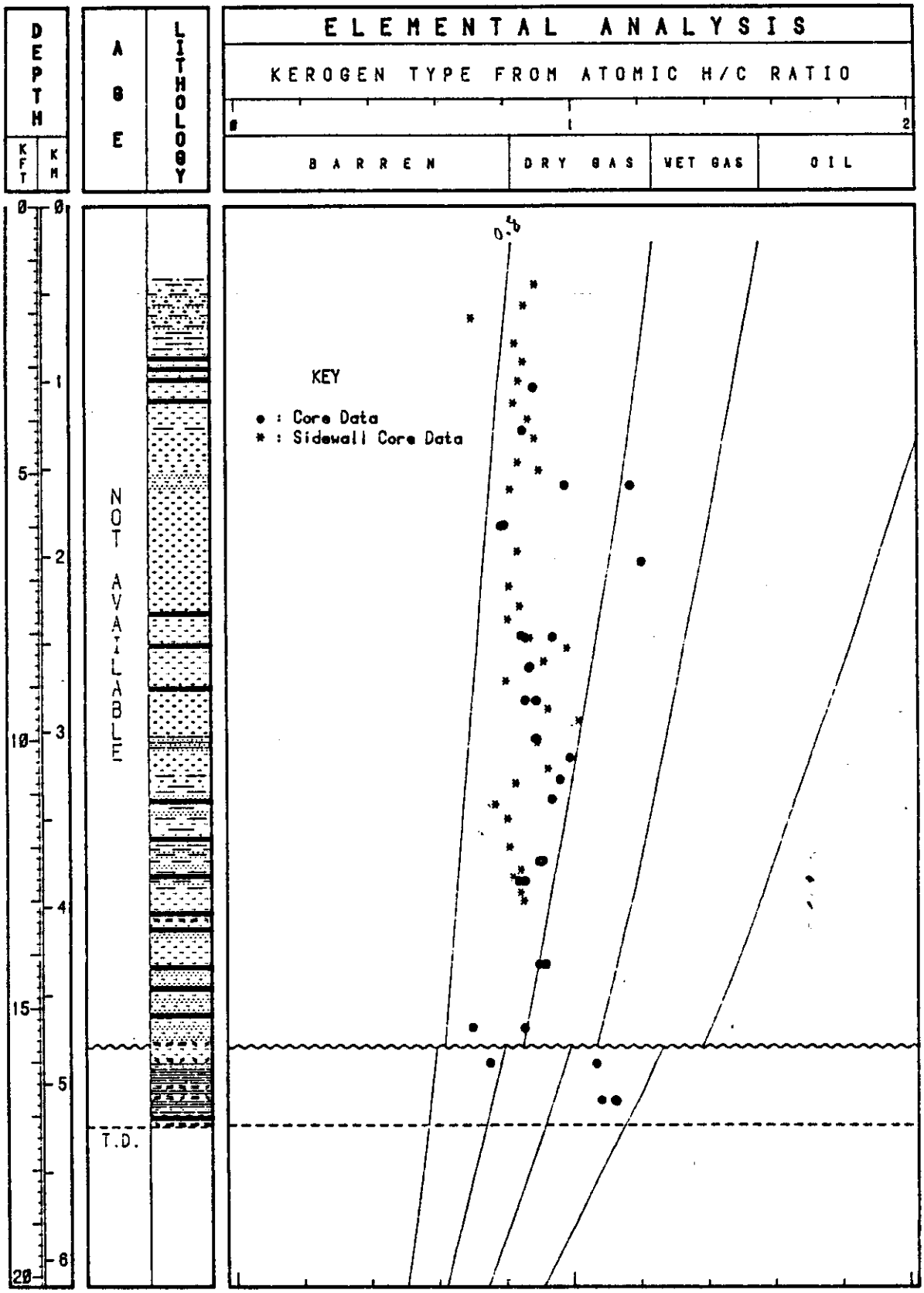


FIGURE 9: SUMMARY PLOT SHOWING KEROGEN TYPE DERIVED FROM ELEMENTAL ANALYSIS AND VITRINITE REFLECTANCE DATA (APPENDIX VII)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

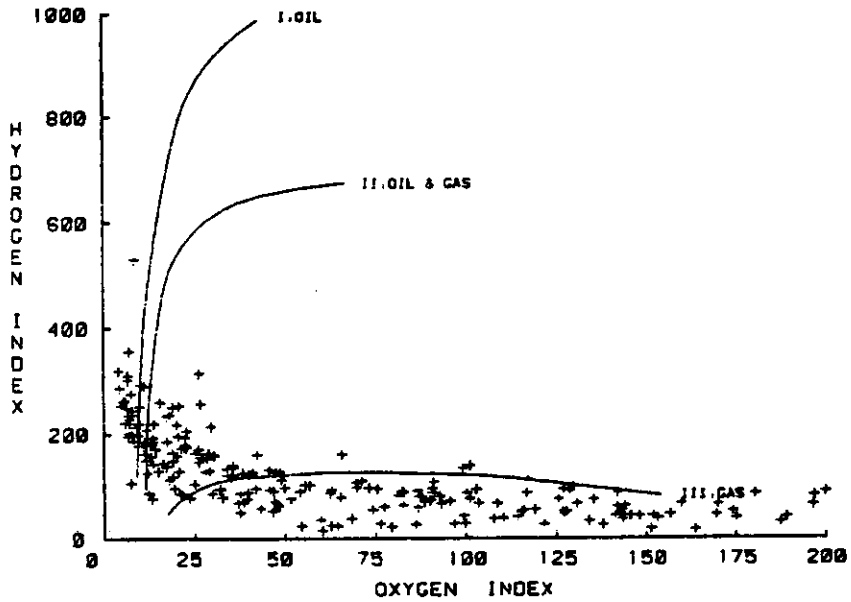


FIGURE 10.1: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL. PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

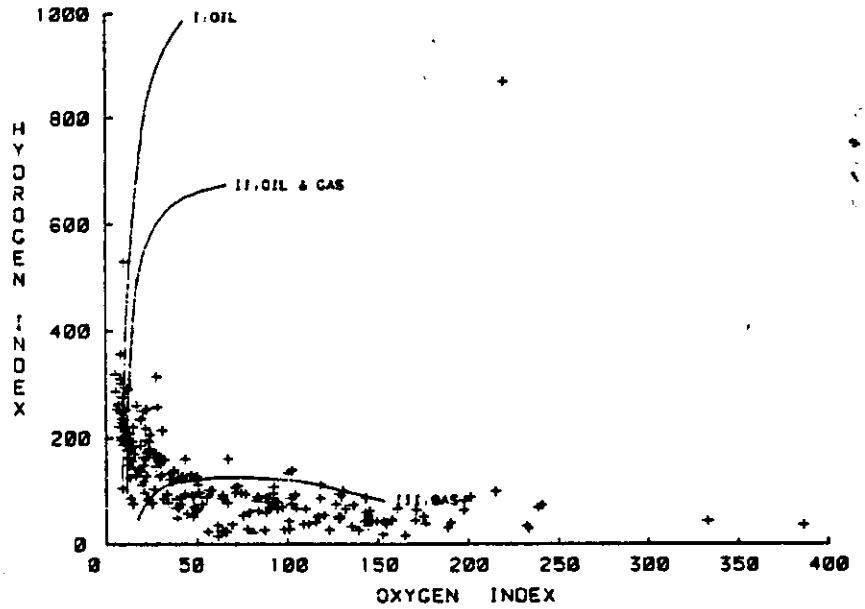


FIGURE 10.2: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL. PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

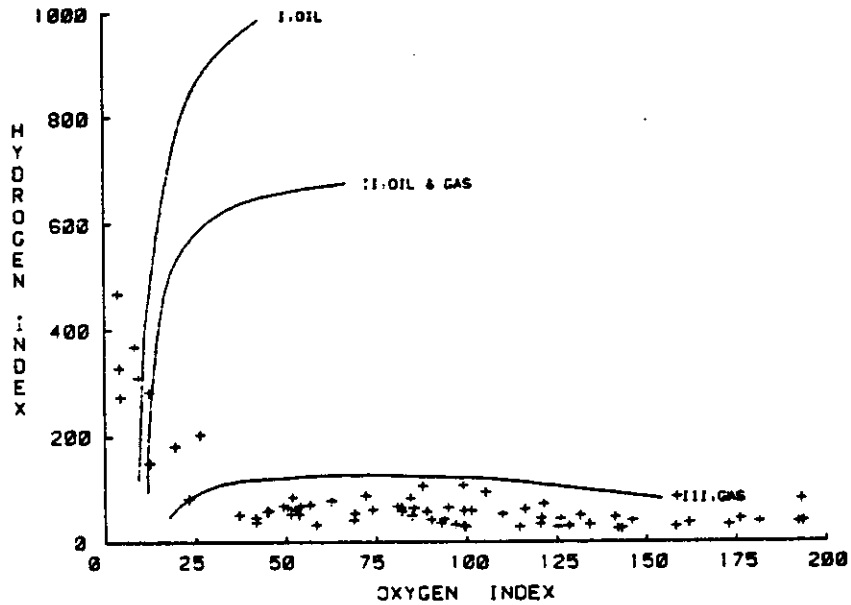


FIGURE 11.1: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

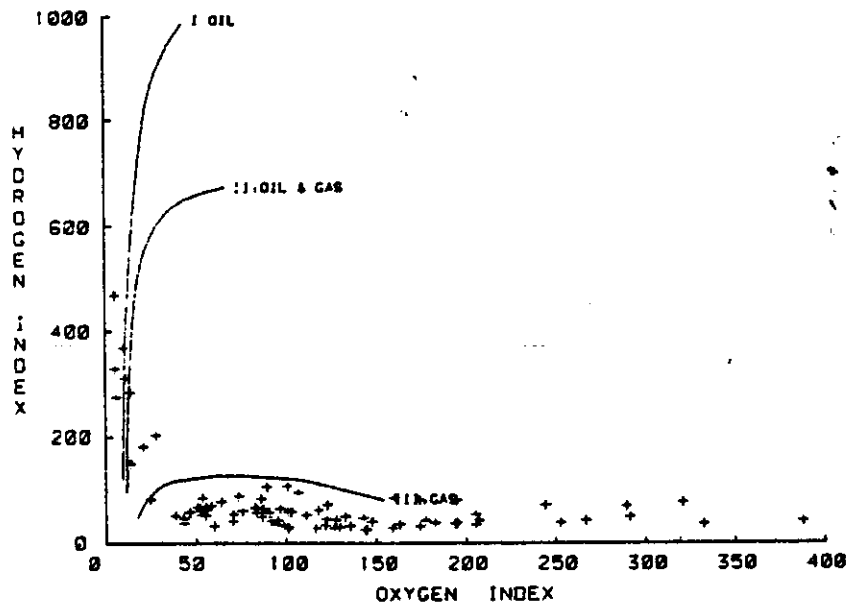


FIGURE 11.2: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

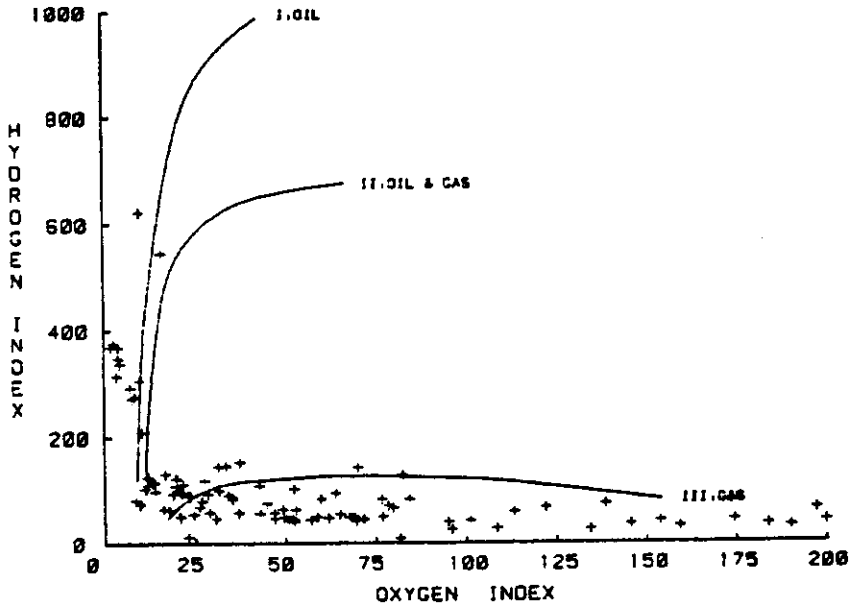


FIGURE 12.1: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL. PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

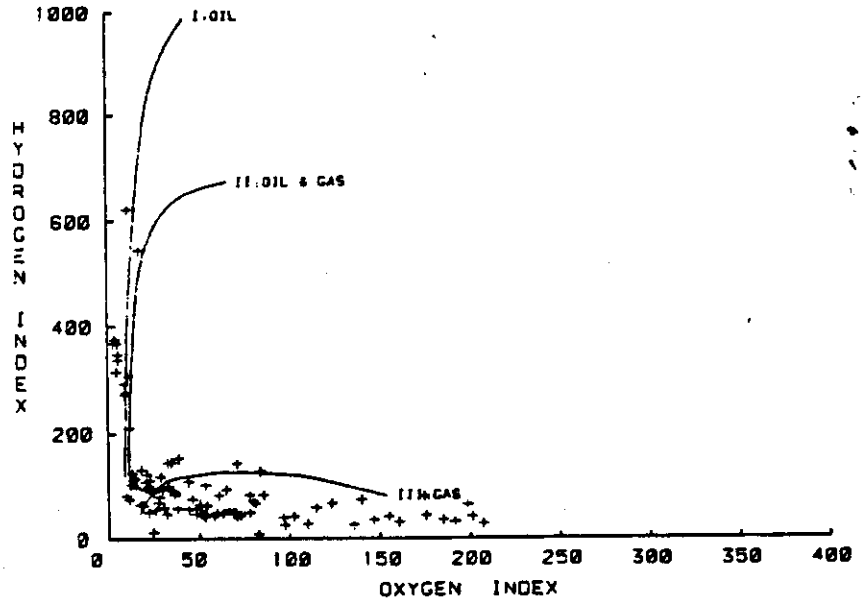


FIGURE 12.2: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL. PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

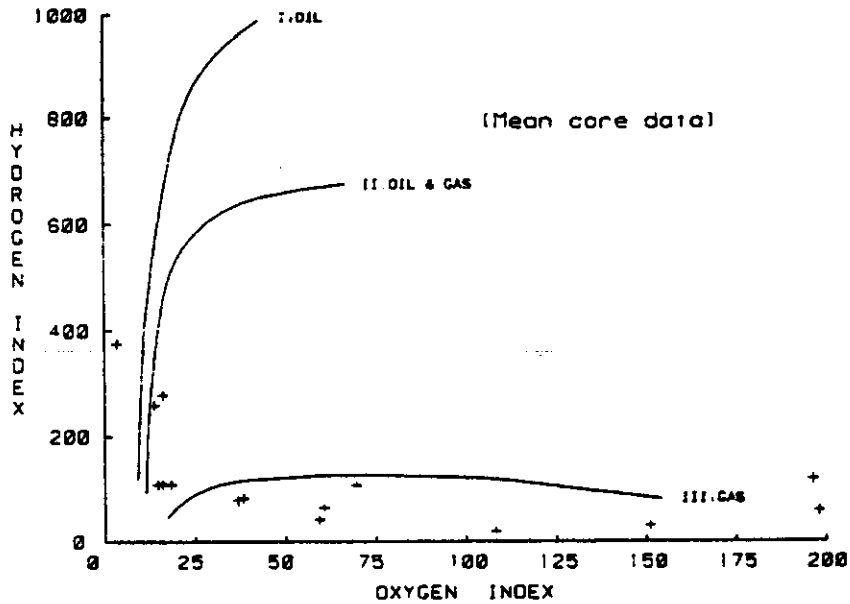


FIGURE 12.3: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

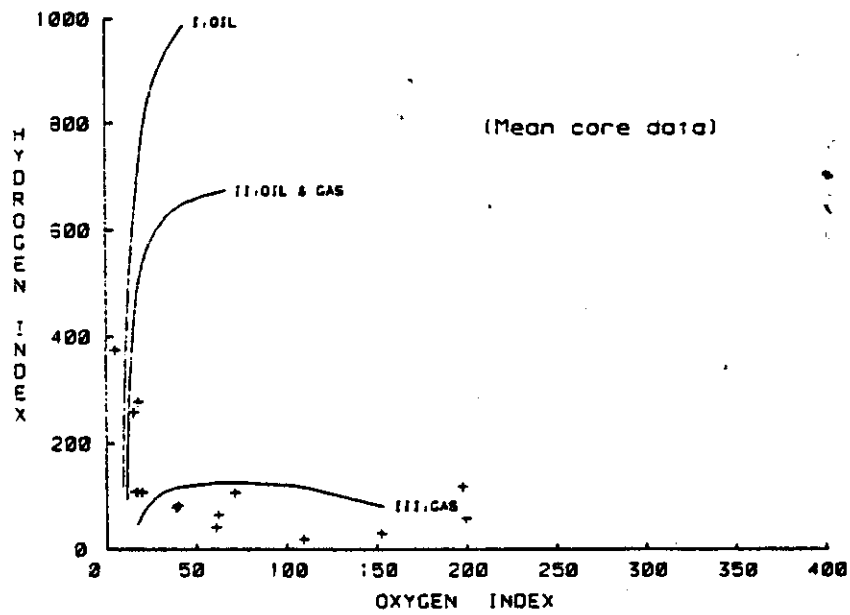


FIGURE 12.4: KEROGEN TYPE DETERMINATION FROM ROCK-EVAL PYROLYSIS DATA (APPENDIX IV).

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

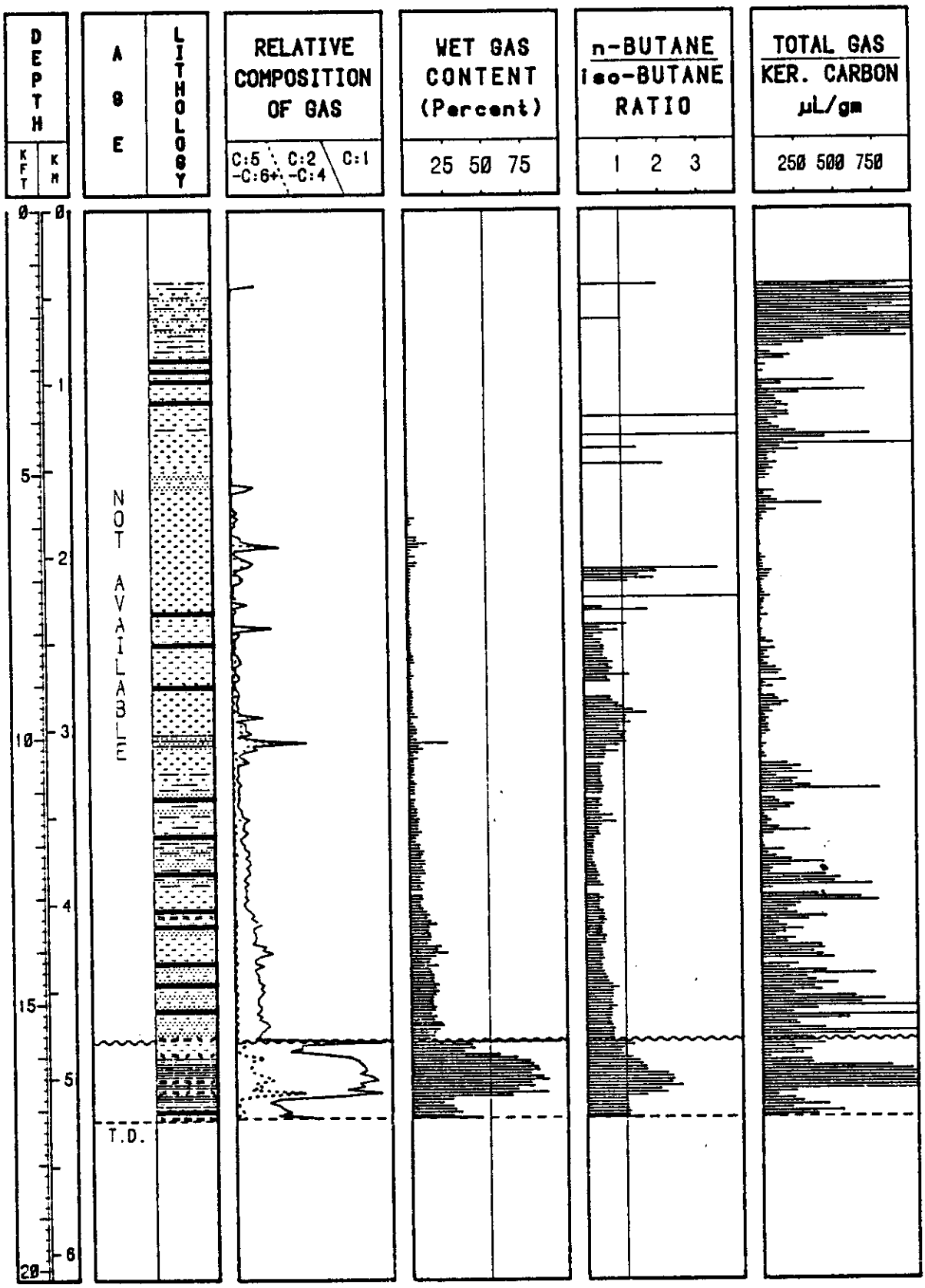


FIGURE 13: SUMMARY PLOTS OF HEADSPACE GAS DATA (APPENDIX VIII)

NORTH ALEUTIAN SHELF #1 COST WELL (CORE-mean)

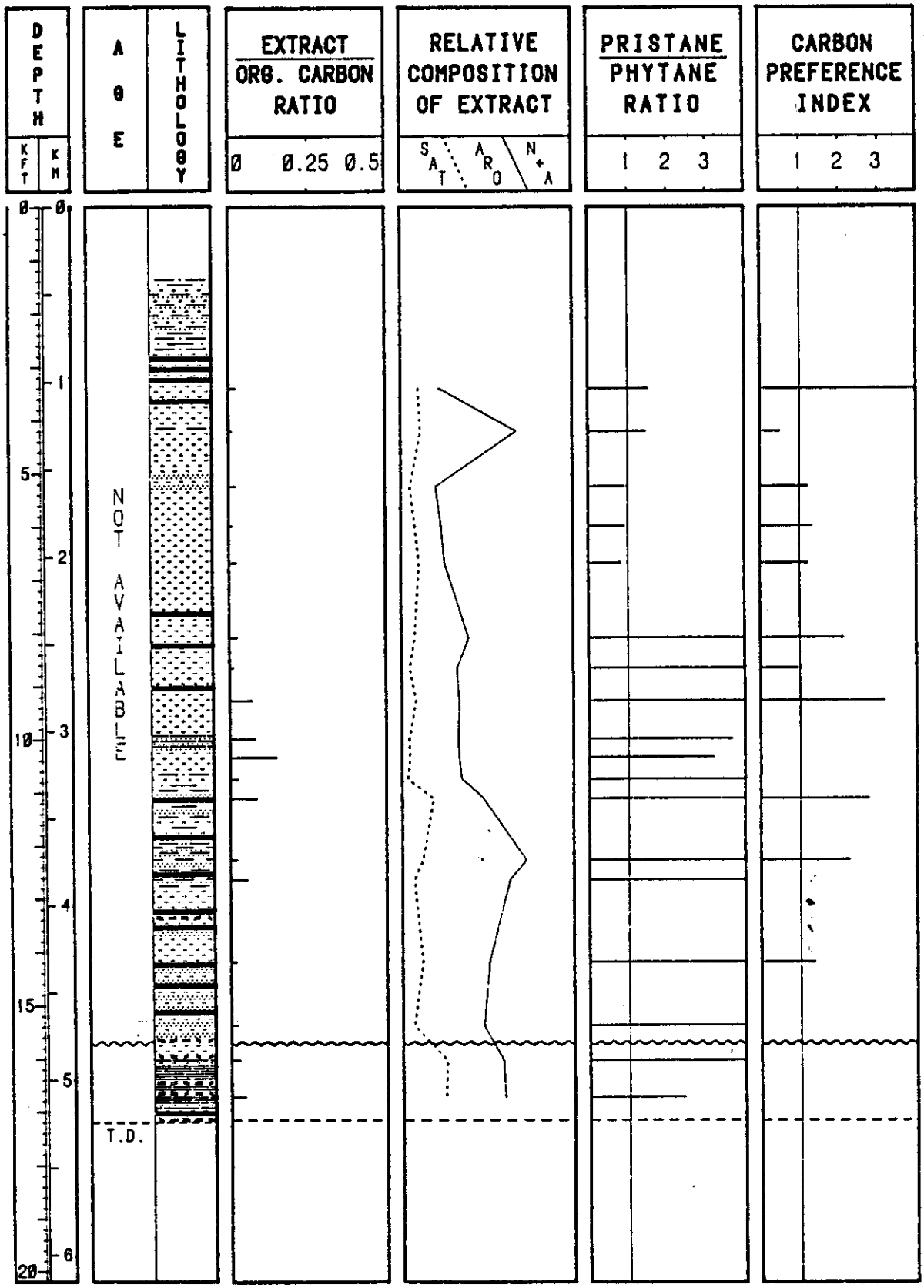


FIGURE 14: SUMMARY PLOTS OF ORGANIC EXTRACT DATA (APPENDIX IX)

APPENDIX I

DETAILS OF ANALYSES

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
1	1390-440 : 1415	X	-	-	-	-	X	-	-	-
2	1440-500 : 1470	X	-	-	-	-	X	-	-	-
3	1500-560 : 1530	X	-	-	-	-	X	-	-	-
4	1560-620 : 1590	X	-	X	X	X	X	-	-	-
5	1620-680 : 1650	X	-	-	-	-	X	-	-	-
6	1680-740 : 1710	X	-	-	-	-	X	-	-	-
7	1740-800 : 1770	X	-	-	-	-	X	-	-	-
8	1800-860 : 1830	X	-	-	-	-	X	-	-	-
9	1860-920 : 1890	X	-	-	-	-	X	-	-	-
10	1920-980 : 1950	X	X	X	X	X	X	-	-	-
11	1980-040 : 2010	X	X	-	-	-	X	-	-	-
12	2040-100 : 2070	X	X	-	-	-	X	-	-	-
13	2100-160 : 2130	X	X	X	X	X	X	-	-	-
14	2160-220 : 2190	X	-	-	-	-	X	-	-	-
15	2220-280 : 2250	X	-	-	-	-	X	-	-	-
16	2280-340 : 2310	X	X	-	-	-	X	-	-	-
17	2340-400 : 2370	X	X	-	-	-	X	-	-	-
18	2400-460 : 2430	X	X	-	-	-	X	-	-	-
19	2460-520 : 2490	X	X	X	X	X	X	-	-	-
20	2520-580 : 2550	X	X	-	-	-	X	-	-	-
21	2580-640 : 2610	X	X	-	-	-	X	-	-	-
22	2640-700 : 2670	X	X	-	-	-	X	-	-	-
23	2700-760 : 2730	X	X	-	-	-	X	-	-	-
24	2760-820 : 2790	X	X	X	X	X	X	-	-	-
25	2820-880 : 2850	X	X	-	-	-	X	-	-	-
26	2880-940 : 2910	X	X	-	-	-	X	-	-	-
27	2940-000 : 2970	X	X	-	-	-	X	-	-	-
28	3000-060 : 3030	X	X	-	-	-	X	-	-	-
29	3060-120 : 3090	X	X	X	X	X	X	-	-	-
30	3120-180 : 3150	X	X	-	-	-	X	-	-	-
31	3180-240 : 3210	X	X	-	-	-	X	-	-	-
32	3240-300 : 3270	X	X	-	-	-	X	-	-	-
33	3300-360 : 3330	X	X	-	-	-	X	-	-	-
34	3360-420 : 3390	X	X	X	X	X	X	-	-	-
35	3420-480 : 3450	X	X	-	-	-	X	-	-	-
36	3480-540 : 3510	X	X	-	-	-	X	-	-	-
37	3540-600 : 3570	X	X	-	-	-	X	-	-	-
38	3600-660 : 3630	X	X	-	-	-	X	-	-	-
39	3660-720 : 3690	X	X	X	X	X	X	-	-	-
40	3720-780 : 3750	X	X	-	-	-	X	-	-	-
41	3780-840 : 3810	X	X	-	-	-	X	-	-	-
42	3840-900 : 3870	X	X	-	-	-	X	-	-	-
43	3900-960 : 3930	X	X	-	-	-	X	-	-	-
44	3960-020 : 3990	X	X	X	X	X	X	-	-	-
45	4020-080 : 4050	X	X	-	-	-	X	-	-	-
46	4080-140 : 4110	X	X	-	-	-	X	-	-	-
47	4140-200 : 4170	X	X	-	-	-	X	-	-	-
48	4200-260 : 4230	X	-	X	X	X	X	-	-	-
49	4260-320 : 4290	X	-	-	-	-	X	-	-	-
50	4320-380 : 4350	X	X	-	-	-	X	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
51	4380-440 : 4410	X	X	-	-	-	X	-	-	-
52	4440-500 : 4470	X	-	-	-	-	X	-	-	-
53	4500-560 : 4530	X	X	-	-	-	X	-	-	-
54	4560-620 : 4590	X	-	-	-	-	X	-	-	-
55	4620-680 : 4650	X	X	X	X	X	X	-	-	-
56	4680-740 : 4710	X	X	-	-	-	X	-	-	-
57	4740-800 : 4770	X	X	-	-	-	X	-	-	-
98	4800-860 : 4830	X	X	-	-	-	X	-	-	-
99	4860-920 : 4890	X	X	X	X	X	X	-	-	-
100	4920-980 : 4950	X	X	-	-	-	X	-	-	-
101	4980-040 : 5010	X	X	-	-	-	X	-	-	-
102	5040-100 : 5070	X	X	-	-	-	X	-	-	-
103	5100-160 : 5130	X	X	-	-	-	X	-	-	-
104	5160-220 : 5190	X	X	X	X	X	X	-	-	-
105	5220-280 : 5250	X	X	-	-	-	X	-	-	-
106	5280-340 : 5310	X	X	-	-	-	X	-	-	-
107	5340-400 : 5370	X	X	-	-	-	X	-	-	-
108	5400-460 : 5430	X	X	X	X	X	X	-	-	-
110	5460-520 : 5490	X	X	-	-	-	X	-	-	-
111	5520-580 : 5550	X	-	-	-	-	X	-	-	-
112	5580-640 : 5610	X	X	-	-	-	X	-	-	-
113	5640-700 : 5670	X	X	X	X	X	X	-	-	-
114	5700-760 : 5730	X	-	-	-	-	X	-	-	-
115	5760-820 : 5790	X	-	-	-	-	X	-	-	-
116	5820-880 : 5850	X	-	-	-	-	X	-	-	-
117	5880-940 : 5910	X	-	-	-	-	X	-	-	-
118	5940-000 : 5970	X	-	X	X	X	X	-	-	-
119	6000-060 : 6030	X	-	-	-	-	X	-	-	-
120	6060-120 : 6090	X	-	-	-	-	X	-	-	-
121	6120-180 : 6150	X	-	-	-	-	X	-	-	-
122	6180-240 : 6210	X	-	-	-	-	X	-	-	-
123	6240-300 : 6270	X	-	X	X	X	X	-	-	-
124	6300-360 : 6330	X	-	-	-	-	X	-	-	-
125	6360-420 : 6390	X	-	-	-	-	X	-	-	-
126	6420-480 : 6450	X	-	-	-	-	X	-	-	-
127	6480-540 : 6510	X	X	X	X	X	X	-	-	-
128	6540-600 : 6570	X	-	-	-	-	X	-	-	-
129	6600-660 : 6630	X	-	-	-	-	X	-	-	-
130	6660-720 : 6690	X	-	-	-	-	X	-	-	-
131	6720-780 : 6750	X	-	-	-	-	X	-	-	-
132	6780-840 : 6810	X	X	X	X	X	X	-	-	-
133	6840-900 : 6870	X	-	-	-	-	X	-	-	-
134	6900-960 : 6930	X	-	-	-	-	X	-	-	-
135	6960-020 : 6990	X	-	-	-	-	X	-	-	-
136	7020-080 : 7050	X	X	-	-	-	X	-	-	-
137	7080-140 : 7110	X	X	X	X	X	X	-	-	-
138	7140-200 : 7170	X	X	-	-	-	X	-	-	-
139	7200-260 : 7230	X	X	-	-	-	X	-	-	-
140	7260-320 : 7290	X	X	-	-	-	X	-	-	-
141	7320-380 : 7350	X	-	-	-	-	X	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
142	7380-440 : 7410	X	X	X	X	X	X	-	-	-
143	7440-500 : 7470	X	X	-	-	-	X	-	-	-
164	7500-560 : 7530	X	X	-	-	-	X	-	-	-
165	7560-620 : 7590	X	X	-	-	-	X	-	-	-
166	7620-680 : 7650	X	X	X	X	X	X	-	-	-
167	7680-740 : 7710	X	X	-	-	-	X	-	-	-
168	7770-830 : 7800	X	X	-	-	-	X	-	-	-
169	7830-890 : 7860	X	X	-	-	-	X	-	-	-
170	7890-950 : 7920	X	X	X	X	X	X	-	-	-
171	7950-010 : 7980	X	X	-	-	-	X	-	-	-
172	8010-070 : 8040	X	X	-	-	-	X	-	-	-
173	8070-130 : 8100	X	X	-	-	-	X	-	-	-
174	8130-190 : 8160	X	X	-	-	-	X	-	-	-
175	8190-250 : 8220	X	X	-	-	-	X	-	-	-
176	8250-310 : 8280	X	X	X	X	X	X	-	-	-
177	8310-370 : 8340	X	X	-	-	-	X	-	-	-
178	8370-430 : 8400	X	X	-	-	-	X	-	-	-
179	8430-490 : 8460	X	X	-	-	-	X	-	-	-
180	8490-550 : 8520	X	X	-	-	-	X	-	-	-
181	8550-610 : 8580	X	X	-	-	-	X	-	-	-
182	8610-670 : 8640	X	X	X	X	X	X	-	-	-
183	8670-730 : 8700	X	X	-	-	-	X	-	-	-
184	8730-790 : 8760	X	X	-	-	-	X	-	-	-
185	8790-850 : 8820	X	X	-	-	-	X	-	-	-
186	8850-910 : 8880	X	X	-	-	-	X	-	-	-
187	8910-970 : 8940	X	X	X	X	X	X	-	-	-
188	8970-030 : 9000	X	X	-	-	-	X	-	-	-
189	9030-090 : 9060	X	X	-	-	-	X	-	-	-
190	9090-150 : 9120	X	X	-	-	-	X	-	-	-
191	9150-210 : 9180	X	X	X	X	X	X	-	-	-
192	9210-270 : 9240	X	X	-	-	-	X	-	-	-
193	9270-330 : 9300	X	X	-	-	-	X	-	-	-
194	9330-390 : 9360	X	X	-	-	-	X	-	-	-
195	9390-450 : 9420	X	X	-	-	-	X	-	-	-
196	9450-510 : 9480	X	X	X	X	X	X	-	-	-
197	9510-570 : 9540	X	X	-	-	-	X	-	-	-
198	9570-630 : 9600	X	X	-	-	-	X	-	-	-
199	9630-690 : 9660	X	X	-	-	-	X	-	-	-
200	9690-750 : 9720	X	X	X	X	X	X	-	-	-
201	9750-810 : 9780	X	X	-	-	-	X	-	-	-
202	9810-870 : 9840	X	X	-	-	-	X	-	-	-
203	9870-930 : 9900	X	X	-	-	-	X	-	-	-
204	9930-990 : 9960	X	X	-	-	-	X	-	-	-
205	9990-050 : 10020	X	X	X	X	X	X	-	-	-
206	10050-110 : 10080	X	X	-	-	-	X	-	-	-
207	10110-170 : 10140	X	X	-	-	-	X	-	-	-
208	10170-230 : 10200	X	X	-	-	-	X	-	-	-
209	10230-290 : 10260	X	X	-	-	-	X	-	-	-
210	10290-350 : 10320	X	X	X	X	X	X	-	-	-
211	10350-410 : 10380	X	X	-	-	-	X	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
212	10410-470 : 10440	X	X	-	-	-	X	-	-	-
213	10470-530 : 10500	X	X	-	-	-	X	-	-	-
214	10530-590 : 10560	X	X	X	X	X	X	-	-	-
215	10590-650 : 10620	X	X	-	-	-	X	-	-	-
216	10650-710 : 10680	X	X	-	-	-	X	-	-	-
217	10710-770 : 10740	X	X	-	-	-	X	-	-	-
218	10770-830 : 10800	X	X	X	X	X	X	-	-	-
275	10830-890 : 10860	X	X	-	-	-	X	-	-	-
276	10890-950 : 10920	X	X	-	-	-	X	-	-	-
277	10950-010 : 10980	X	X	-	-	-	X	-	-	-
278	11010-070 : 11040	X	X	-	-	-	X	-	-	-
279	11070-130 : 11100	X	X	X	X	X	-	-	-	-
280	11130-190 : 11160	X	X	-	-	-	X	-	-	-
281	11190-250 : 11220	X	X	-	-	-	X	-	-	-
282	11250-310 : 11280	X	X	-	-	-	X	-	-	-
283	11310-370 : 11340	X	X	-	-	-	X	-	-	-
284	11370-430 : 11400	X	X	X	X	X	X	-	-	-
285	11430-490 : 11460	X	X	-	-	-	X	-	-	-
286	11490-550 : 11520	X	X	-	-	-	X	-	-	-
287	11550-610 : 11580	X	X	-	-	-	X	-	-	-
288	11610-670 : 11640	X	X	-	-	-	X	-	-	-
289	11670-730 : 11700	X	X	X	X	X	X	-	-	-
290	11730-790 : 11760	X	X	-	-	-	X	-	-	-
291	11790-850 : 11820	X	X	-	-	-	X	-	-	-
292	11850-910 : 11880	X	X	-	-	-	X	-	-	-
293	11910-970 : 11940	X	X	-	-	-	X	-	-	-
294	11970-030 : 12000	X	X	X	X	X	X	-	-	-
295	12030-090 : 12060	X	X	-	-	-	X	-	-	-
316	12090-150 : 12120	X	X	-	-	-	X	-	-	-
317	12150-210 : 12180	X	X	-	-	-	X	-	-	-
318	12210-270 : 12240	X	X	-	-	-	X	-	-	-
319	12270-330 : 12300	X	X	X	X	X	X	-	-	-
320	12330-390 : 12360	X	X	-	-	-	X	-	-	-
321	12390-450 : 12420	X	X	-	-	-	X	-	-	-
322	12450-510 : 12480	X	X	-	-	-	X	-	-	-
323	12510-570 : 12540	X	X	-	-	-	X	-	-	-
324	12570-630 : 12600	X	X	X	X	X	X	-	-	-
325	12630-690 : 12660	X	X	-	-	-	X	-	-	-
326	12690-750 : 12720	X	X	-	-	-	X	-	-	-
327	12750-810 : 12780	X	X	-	-	-	X	-	-	-
328	12810-870 : 12840	X	X	-	-	-	X	-	-	-
329	12870-930 : 12900	X	X	X	X	X	X	-	-	-
330	12930-990 : 12960	X	X	-	-	-	X	-	-	-
331	12990-050 : 13020	X	X	-	-	-	X	-	-	-
332	13050-110 : 13080	X	X	-	-	-	X	-	-	-
333	13110-170 : 13140	X	X	-	-	-	X	-	-	-
334	13170-230 : 13200	X	X	X	X	X	X	-	-	-
335	13230-290 : 13260	X	X	-	-	-	X	-	-	-
425	13290-350 : 13320	X	X	-	-	-	X	-	-	-
426	13350-410 : 13380	X	X	-	-	-	X	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
427	13410-470 : 13440	X	X	-	-	-	X	-	-	-
428	13470-530 : 13500	X	X	-	-	-	X	-	-	-
429	13530-590 : 13560	X	X	X	X	X	X	-	-	-
430	13590-650 : 13620	X	X	-	-	-	X	-	-	-
431	13650-710 : 13680	X	X	-	-	-	X	-	-	-
432	13710-770 : 13740	X	X	-	-	-	X	-	-	-
433	13770-830 : 13800	X	X	X	X	X	X	-	-	-
434	13830-890 : 13860	X	X	-	-	-	X	-	-	-
440	13890-950 : 13920	X	X	-	-	-	X	-	-	-
441	13950-010 : 13980	X	X	-	-	-	X	-	-	-
442	14010-070 : 14040	X	X	X	X	X	X	-	-	-
443	14070-130 : 14100	X	X	-	-	-	X	-	-	-
444	14130-190 : 14160	X	X	-	-	-	X	-	-	-
445	14190-250 : 14220	X	X	-	-	-	X	-	-	-
446	14250-310 : 14280	X	X	-	-	-	X	-	-	-
447	14310-370 : 14340	X	X	X	X	X	X	-	-	-
448	14370-430 : 14400	X	X	-	-	-	X	-	-	-
449	14430-490 : 14460	X	X	-	-	-	X	-	-	-
450	14490-550 : 14520	X	X	-	-	-	X	-	-	-
451	14550-610 : 14580	X	X	-	-	-	X	-	-	-
452	14610-670 : 14640	X	X	X	X	X	X	-	-	-
453	14670-730 : 14700	X	X	-	-	-	X	-	-	-
454	14730-790 : 14760	X	X	-	-	-	X	-	-	-
455	14790-850 : 14820	X	X	-	-	-	X	-	-	-
456	14850-910 : 14880	X	X	-	-	-	X	-	-	-
457	14910-970 : 14940	X	X	X	X	X	X	-	-	-
458	14970-030 : 15000	X	X	-	-	-	X	-	-	-
459	15030-090 : 15060	X	X	-	-	-	X	-	-	-
460	15090-150 : 15120	X	X	-	-	-	X	-	-	-
461	15150-210 : 15180	X	X	X	X	X	X	-	-	-
465	15210-270 : 15240	X	X	-	-	-	X	-	-	-
466	15270-330 : 15300	X	X	-	-	-	X	-	-	-
467	15330-390 : 15360	X	X	-	-	-	X	-	-	-
468	15390-450 : 15420	X	X	X	X	X	X	-	-	-
469	15450-510 : 15480	X	X	-	-	-	X	-	-	-
470	15510-570 : 15540	X	X	-	-	-	X	-	-	-
471	15570-630 : 15600	X	X	-	-	-	X	-	-	-
472	15630-690 : 15660	X	X	X	X	X	X	-	-	-
473	15690-750 : 15720	X	X	-	-	-	X	-	-	-
474	15750-810 : 15780	X	X	-	-	-	X	-	-	-
475	15810-870 : 15840	X	X	-	-	-	X	-	-	-
476	15870-930 : 15900	X	X	X	X	X	X	-	-	-
495	15930-990 : 15960	X	X	-	-	-	X	-	-	-
496	15990-050 : 16020	X	X	-	-	-	X	-	-	-
497	16050-110 : 16080	X	X	-	-	-	X	-	-	-
498	16110-170 : 16140	X	X	-	-	-	X	-	-	-
499	16170-230 : 16200	X	X	X	X	X	X	-	-	-
500	16230-290 : 16260	X	X	-	-	-	X	-	-	-
501	16290-350 : 16320	X	X	-	-	-	X	-	-	-
502	16350-410 : 16380	X	X	-	-	-	X	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION		ANALYSES CARRIED OUT								
RRUS	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
503	16410-470 : 16440	X	X	-	-	-	X	-	-	-
504	16470-530 : 16500	X	X	X	X	X	X	-	-	-
505	16530-590 : 16560	X	X	-	-	-	X	-	-	-
514	16590-650 : 16620	X	X	-	-	-	X	-	-	-
515	16650-710 : 16680	X	X	-	-	-	X	-	-	-
516	16710-770 : 16740	X	X	X	X	X	X	-	-	-
517	16770-830 : 16800	X	X	-	-	-	X	-	-	-
518	16830-890 : 16860	X	X	-	-	-	X	-	-	-
519	16890-950 : 16920	X	X	X	X	X	X	-	-	-
520	16950-010 : 16980	X	X	-	-	-	X	-	-	-
521	17010-070 : 17040	X	X	-	-	-	X	-	-	-
522	17070-130 : 17100	X	X	-	-	-	X	-	-	-
523	17130-155 : 17143	X	X	X	X	X	X	-	-	-

LEGEND FOR 'DETAILS OF ANALYSIS' TABLE

TOC : Total Organic Carbon
REV : Rock-Eval Pyrolysis
REF : Vitrinite Reflectance
SCI : Spore Coloration Index
ELM : Elemental Analysis
HSP : Headspace Gas Analysis
EXT : Solvent Extraction
SEP : Separation by Column Chrom.
GCR : Gas Chromatography

- : No analyses carried out
X : Analysis carried out
O : Composite sample (see RRUS nos)

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			ANALYSES CARRIED OUT								
RRUS	ID /	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
62	SWC	1488	X	X	X	X	X	-	-	-	-
63	SWC	1553	X	X	-	-	-	-	-	-	-
109	SWC	1656	X	X	-	-	-	-	-	-	-
64	SWC	1670	X	-	-	-	-	-	-	-	-
65	SWC	1768	X	-	-	-	-	-	-	-	-
66	SWC	1880	X	X	X	X	X	-	-	-	-
67	SWC	1972	X	X	-	-	-	-	-	-	-
68	SWC	2028	X	X	-	-	-	-	-	-	-
69	SWC	2120	X	X	X	X	X	-	-	-	-
70	SWC	2222	X	-	-	-	-	-	-	-	-
71	SWC	2344	X	X	-	-	-	-	-	-	-
72	SWC	2410	X	X	-	-	-	-	-	-	-
73	SWC	2506	X	-	-	-	-	-	-	-	-
74	SWC	2592	X	X	X	X	X	-	-	-	-
75	SWC	2688	X	X	-	-	-	-	-	-	-
76	SWC	2772	X	X	-	-	-	-	-	-	-
77	SWC	2866	X	X	-	-	-	-	-	-	-
78	SWC	2935	X	X	X	X	X	-	-	-	-
79	SWC	3012	X	-	-	-	-	-	-	-	-
80	SWC	3140	X	X	-	-	-	-	-	-	-
81	SWC	3238	X	X	-	-	-	-	-	-	-
82	SWC	3294	X	X	X	X	X	-	-	-	-
83	SWC	3402	X	X	-	-	-	-	-	-	-
84	SWC	3524	X	X	-	-	-	-	-	-	-
85	SWC	3589	X	X	-	-	-	-	-	-	-
86	SWC	3709	X	X	X	X	X	-	-	-	-
87	SWC	3906	X	X	-	-	-	-	-	-	-
88	SWC	3976	X	X	-	-	-	-	-	-	-
89	SWC	4016	X	X	X	X	X	-	-	-	-
90	SWC	4080	X	X	-	-	-	-	-	-	-
91	SWC	4242	X	X	-	-	-	-	-	-	-
92	SWC	4373	X	X	X	X	X	-	-	-	-
93	SWC	4444	X	-	-	-	-	-	-	-	-
94	SWC	4584	X	-	-	-	-	-	-	-	-
95	SWC	4680	X	X	-	-	-	-	-	-	-
96	SWC	4824	X	X	X	X	X	-	-	-	-
97	SWC	4870	X	X	-	-	-	-	-	-	-
341	SWC	4975	X	X	X	X	X	-	-	-	-
342	SWC	5107	X	X	-	-	-	-	-	-	-
343	SWC	5136	X	X	-	-	-	-	-	-	-
344	SWC	5331	X	X	X	X	X	-	-	-	-
345	SWC	5470	X	X	-	-	-	-	-	-	-
346	SWC	5524	X	X	-	-	-	-	-	-	-
347	SWC	5691	X	X	X	X	-	-	-	-	-
348	SWC	5781	X	-	-	-	-	-	-	-	-
349	SWC	6500	X	X	X	X	X	-	-	-	-
350	SWC	6584	X	X	-	-	-	-	-	-	-
351	SWC	6875	X	-	-	-	-	-	-	-	-
352	SWC	6976	X	-	-	-	-	-	-	-	-
353	SWC	7038	X	X	-	-	-	-	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			ANALYSES CARRIED OUT								
RRUS	ID /	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
354	SWC	7155	X	X	X	X	X	-	-	-	-
355	SWC	7226	X	X	-	-	-	-	-	-	-
356	SWC	7450	X	X	-	-	-	-	-	-	-
357	SWC	7532	X	X	X	X	X	-	-	-	-
358	SWC	7552	X	X	-	-	-	-	-	-	-
359	SWC	7772	X	X	X	X	X	-	-	-	-
360	SWC	7894	X	X	-	-	-	-	-	-	-
361	SWC	7947	X	X	-	-	-	-	-	-	-
362	SWC	8033	X	X	-	-	-	-	-	-	-
363	SWC	8089	X	X	-	-	-	-	-	-	-
364	SWC	8124	X	X	X	X	X	-	-	-	-
365	SWC	8249	X	X	-	-	-	-	-	-	-
366	SWC	8314	X	X	X	X	X	-	-	-	-
367	SWC	8341	X	X	-	-	-	-	-	-	-
368	SWC	8433	X	X	-	-	-	-	-	-	-
369	SWC	8558	X	X	X	X	X	-	-	-	-
370	SWC	8886	X	X	-	-	-	-	-	-	-
371	SWC	8923	X	X	X	X	X	-	-	-	-
372	SWC	8980	X	X	-	-	-	-	-	-	-
373	SWC	9059	X	-	-	-	-	-	-	-	-
374	SWC	9239	X	X	-	-	-	-	-	-	-
375	SWC	9448	X	X	X	X	X	-	-	-	-
376	SWC	9511	X	X	-	-	-	-	-	-	-
377	SWC	9568	X	X	-	-	-	-	-	-	-
378	SWC	9663	X	-	X	X	X	-	-	-	-
379	SWC	9752	X	-	-	-	-	-	-	-	-
380	SWC	9843	X	-	-	-	-	-	-	-	-
381	SWC	9960	X	-	-	-	-	-	-	-	-
382	SWC	10010	X	X	-	-	-	-	-	-	-
383	SWC	10069	X	X	X	X	X	-	-	-	-
384	SWC	10185	X	X	-	-	-	-	-	-	-
385	SWC	10250	X	X	-	-	-	-	-	-	-
386	SWC	10269	X	-	-	-	-	-	-	-	-
387	SWC	10557	X	X	X	X	X	-	-	-	-
388	SWC	10638	X	-	-	-	-	-	-	-	-
389	SWC	10732	X	-	-	-	-	-	-	-	-
390	SWC	10832	X	X	X	X	X	-	-	-	-
391	SWC	10921	X	X	-	-	-	-	-	-	-
392	SWC	11109	X	-	-	-	-	-	-	-	-
393	SWC	11145	X	X	-	-	-	-	-	-	-
394	SWC	11224	X	X	X	X	-	-	-	-	-
395	SWC	11249	X	X	-	-	-	-	-	-	-
396	SWC	11304	X	-	-	-	-	-	-	-	-
397	SWC	11410	X	-	-	-	-	-	-	-	-
398	SWC	11494	X	X	X	X	X	-	-	-	-
399	SWC	11556	X	-	-	-	-	-	-	-	-
400	SWC	11637	X	-	-	-	-	-	-	-	-
401	SWC	11662	X	-	-	-	-	-	-	-	-
402	SWC	11849	X	-	-	-	-	-	-	-	-
403	SWC	11974	X	-	-	-	-	-	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			ANALYSES CARRIED OUT								
RRUS	ID /	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
404	SWC	12021	X	X	X	X	X	-	-	-	-
405	SWC	12159	X	X	-	-	-	-	-	-	-
406	SWC	12252	X	X	-	-	-	-	-	-	-
407	SWC	12396	X	-	-	-	-	-	-	-	-
408	SWC	12449	X	X	X	X	X	-	-	-	-
409	SWC	12552	X	-	-	-	-	-	-	-	-
410	SWC	12577	X	X	-	-	-	-	-	-	-
411	SWC	12585	X	X	X	X	X	-	-	-	-
412	SWC	12677	X	-	-	-	-	-	-	-	-
413	SWC	12703	X	-	-	-	-	-	-	-	-
414	SWC	12820	X	X	-	-	-	-	-	-	-
415	SWC	12825	X	X	-	-	-	-	-	-	-
416	SWC	12868	X	X	X	X	X	-	-	-	-
417	SWC	12921	X	X	-	-	-	-	-	-	-
418	SWC	12933	X	-	-	-	-	-	-	-	-
419	SWC	13026	X	X	X	X	X	-	-	-	-
420	SWC	13075	X	-	-	-	-	-	-	-	-
421	SWC	13136	X	-	-	-	-	-	-	-	-
422	SWC	13231	X	X	-	-	-	-	-	-	-
423	SWC	13269	X	-	-	-	-	-	-	-	-
424	SWC	13275	X	X	X	X	X	-	-	-	-

LEGEND FOR 'DETAILS OF ANALYSIS' TABLE

TOC : Total Organic Carbon
REV : Rock-Eval Pyrolysis
REF : Vitrinite Reflectance
SCI : Spore Coloration Index
ELM : Elemental Analysis
HSP : Headspace Gas Analysis
EXT : Solvent Extraction
SEP : Separation by Column Chrom.
GCR : Gas Chromatography

- : No analyses carried out
X : Analysis carried out
O : Composite sample (see RRUS nos)

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION				ANALYSES CARRIED OUT								
RRUS	ID	/	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
61	CORE	1	3392.0	X	X	X	X	X	-	X	X	X
58	CORE	2	4193.5	X	X	-	-	-	-	-	-	-
59	CORE	2	4197.8	X	X	X	X	X	-	X	X	X
60	CORE	2	4199.6	X	X	-	-	-	-	-	-	-
144	CORE	3	5229.3	X	-	-	-	-	-	-	-	-
145	CORE	3	5230.2	X	-	-	-	-	-	-	-	-
146	CORE	3	5231.9	X	-	X	X	X	-	X	X	X
147	CORE	3	5235.2	X	-	-	-	-	-	-	-	-
148	CORE	3	5235.6	X	-	X	X	X	-	-	-	-
149	CORE	3	5238.2	X	-	-	-	-	-	-	-	-
150	CORE	3	5241.1	X	-	-	-	-	-	-	-	-
151	CORE	3	5242.2	X	-	-	-	-	-	-	-	-
152	CORE	3	5245.2	X	-	-	-	-	-	-	-	-
153	CORE	4	5971.4	X	X	-	-	-	-	-	-	-
154	CORE	4	5972.3	X	-	-	-	-	-	-	-	-
155	CORE	4	5974.5	X	X	X	X	X	-	X	X	X
156	CORE	4	5976.9	X	-	-	-	-	-	-	-	-
157	CORE	4	5980.4	X	-	-	-	-	-	-	-	-
158	CORE	4	5983.3	X	-	-	-	-	-	-	-	-
159	CORE	4	5986.6	X	X	-	-	-	-	-	-	-
160	CORE	4	5989.7	X	X	-	-	-	-	-	-	-
161	CORE	4	5991.3	X	X	X	X	X	-	-	-	-
162	CORE	4	5994.7	X	X	-	-	-	-	-	-	-
163	CORE	5	6669.8	X	-	X	X	X	-	X	X	X
219	CORE	6	8050.7	X	X	X	X	X	-	X	X	X
220	CORE	7	8057.4	X	X	-	-	-	-	-	-	-
221	CORE	7	8060.3	X	X	-	-	-	-	-	-	-
222	CORE	7	8062.9	X	X	-	-	-	-	-	-	-
223	CORE	7	8065.3	X	X	-	-	-	-	-	-	-
224	CORE	7	8067.9	X	X	-	-	-	-	-	-	-
225	CORE	7	8071.2	X	X	-	-	-	-	-	-	-
226	CORE	7	8074.4	X	X	-	-	-	-	-	-	-
227	CORE	7	8077.3	X	X	X	X	X	-	X	X	X
228	CORE	7	8079.5	X	X	-	-	-	-	-	-	-
229	CORE	7	8080.6	X	X	-	-	-	-	-	-	-
230	CORE	7	8082.3	X	-	-	-	-	-	-	-	-
231	CORE	7	8085.1	X	X	-	-	-	-	-	-	-
232	CORE	7	8087.8	X	X	-	-	-	-	-	-	-
233	CORE	7	8091.6	X	X	-	-	-	-	-	-	-
234	CORE	7	8092.7	X	X	X	X	X	-	X	X	X
235	CORE	8	8633.4	X	X	-	-	-	-	-	-	-
236	CORE	8	8635.9	X	X	-	-	-	-	-	-	-
237	CORE	8	8636.3	X	X	X	X	X	-	X	X	X
238	CORE	8	8641.9	X	X	-	-	-	-	-	-	-
239	CORE	8	8646.6	X	X	-	-	-	-	-	-	-
240	CORE	8	8649.4	X	-	-	-	-	-	-	-	-
241	CORE	8	8653.5	X	X	X	X	X	-	X	X	X
242	CORE	8	8654.5	X	X	-	-	-	-	-	-	-
243	CORE	8	8656.0	X	-	-	-	-	-	-	-	-
244	CORE	9	9257.5	X	X	X	X	X	-	X	X	X

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			ANALYSES CARRIED OUT								
RRUS	ID /	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
245	CORE 9	9262.3	X	X	-	-	-	-	-	-	-
246	CORE 9	9263.5	X	X	X	X	X	-	X	X	X
247	CORE 9	9264.0	X	X	-	-	-	-	-	-	-
248	CORE 10	9945.7	X	-	-	-	-	-	-	-	-
249	CORE 10	9949.7	X	-	-	-	-	-	-	-	-
250	CORE 10	9951.2	X	X	-	-	-	-	-	-	-
251	CORE 10	9956.3	X	-	-	-	-	-	-	-	-
252	CORE 10	9957.5	X	-	-	-	-	-	-	-	-
253	CORE 10	9958.3	X	-	-	-	-	-	-	-	-
254	CORE 10	9961.8	X	X	-	-	-	-	-	-	-
255	CORE 10	9963.4	X	X	-	-	-	-	-	-	-
256	CORE 10	9966.9	X	X	-	-	-	-	-	-	-
257	CORE 10	9969.2	X	X	-	-	-	-	-	-	-
258	CORE 10	9970.8	X	-	-	-	-	-	-	-	-
259	CORE 10	9972.4	X	X	X	X	X	-	X	X	X
260	CORE 10	9974.8	X	X	-	-	-	-	-	-	-
261	CORE 10	9979.4	X	X	-	-	-	-	-	-	-
262	CORE 10	9981.2	X	X	-	-	-	-	-	-	-
263	CORE 10	9982.0	X	X	-	-	-	-	X	X	X
264	CORE 10	9983.8	X	X	X	X	X	-	-	-	-
265	CORE 11	10326.4	X	X	X	X	X	-	X	X	X
266	CORE 11	10328.3	X	X	-	-	-	-	-	-	-
267	CORE 11	10328.7	X	X	-	-	-	-	-	-	-
268	CORE 11	10330.2	X	X	-	-	-	-	-	-	-
269	CORE 11	10334.8	X	X	-	-	-	-	-	-	-
270	CORE 12	10731.0	X	X	-	-	-	-	-	-	-
271	CORE 12	10733.9	X	X	-	-	-	-	-	-	-
272	CORE 12	10735.9	X	X	-	-	-	-	-	-	-
273	CORE 12	10737.8	X	X	-	-	-	-	-	-	-
274	CORE 12	10738.4	X	X	X	X	X	-	X	X	X
296	CORE 13	11085.2	X	-	-	-	-	-	-	-	-
297	CORE 13	11089.5	X	-	-	-	-	-	-	-	-
298	CORE 13	11093.6	X	-	-	-	-	-	-	-	-
299	CORE 13	11098.2	X	X	-	-	-	-	-	-	-
300	CORE 13	11098.7	X	X	-	-	-	-	-	-	-
301	CORE 13	11100.8	X	-	-	-	-	-	-	-	-
302	CORE 13	11102.5	X	X	X	X	X	-	X	X	X
303	CORE 13	11103.2	X	X	-	-	-	-	-	-	-
304	CORE 13	11108.0	X	-	-	-	-	-	-	-	-
305	CORE 14	12249.0	X	X	-	-	-	-	-	-	-
306	CORE 14	12251.2	X	X	X	X	X	-	X	X	X
307	CORE 14	12253.3	X	-	-	-	-	-	-	-	-
308	CORE 14	12255.5	X	-	-	-	-	-	-	-	-
309	CORE 14	12259.1	X	X	-	-	-	-	-	-	-
310	CORE 14	12262.4	X	X	X	X	X	-	-	-	-
311	CORE 14	12264.4	X	X	-	-	-	-	-	-	-
312	CORE 14	12265.2	X	X	-	-	-	-	-	-	-
313	CORE 14	12268.6	X	X	-	-	-	-	-	-	-
314	CORE 14	12269.3	X	X	X	X	X	-	X	X	X
315	CORE 14	12269.8	X	X	-	-	-	-	-	-	-

DETAILS OF ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			ANALYSES CARRIED OUT								
RRUS	ID /	DEPTH (Feet)	TOC	REV	REF	SCI	ELM	HSP	EXT	SEP	GCR
336	CORE 15	12630.9	X	X	-	-	-	-	-	-	-
337	CORE 15	12632.1	X	X	-	-	-	-	-	-	-
338	CORE 15	12634.4	X	X	X	X	X	-	X	X	X
462	CORE 15	12634.8	X	X	X	X	X	-	X	X	X
463	CORE 15	12635.4	X	X	-	-	-	-	-	-	-
339	CORE 15	12636.0	X	X	-	-	-	-	-	-	-
340	CORE 15	12639.6	X	-	-	-	-	-	-	-	-
435	CORE 16	14167.4	X	X	-	-	-	-	-	-	-
436	CORE 16	14167.7	X	X	-	-	-	-	-	-	-
437	CORE 16	14179.1	X	X	X	X	X	-	X	X	X
464	CORE 16	14179.4	X	X	X	X	X	-	X	X	X
439	CORE 16	14183.8	X	X	-	-	-	-	-	-	-
438	CORE 16	14186.2	X	X	-	-	-	-	-	-	-
477	CORE 17	15347.8	X	X	-	-	-	-	-	-	-
478	CORE 17	15349.7	X	X	-	-	-	-	-	-	-
479	CORE 17	15351.8	X	X	-	-	-	-	-	-	-
480	CORE 17	15354.6	X	X	X	X	X	-	X	X	X
481	CORE 17	15359.6	X	X	-	-	-	-	-	-	-
482	CORE 17	15364.7	X	X	-	-	-	-	-	-	-
483	CORE 17	15366.3	X	X	-	-	-	-	-	-	-
484	CORE 17	15367.3	X	X	-	-	-	-	-	-	-
485	CORE 17	15368.5	X	X	X	X	X	-	X	X	X
486	CORE 18	16006.9	X	X	-	-	-	-	-	-	-
487	CORE 18	16009.3	X	X	X	X	X	-	X	X	X
488	CORE 18	16011.8	X	X	-	-	-	-	-	-	-
489	CORE 18	16017.4	X	X	-	-	-	-	-	-	-
490	CORE 18	16020.6	X	X	-	-	-	-	-	-	-
491	CORE 18	16023.1	X	X	-	-	-	-	-	-	-
492	CORE 18	16025.4	X	X	-	-	-	-	-	-	-
493	CORE 18	16027.0	X	X	-	-	-	-	-	-	-
494	CORE 18	16029.0	X	X	X	X	X	-	X	X	X
506	CORE 19	16701.2	X	X	-	-	-	-	-	-	-
507	CORE 19	16703.7	X	X	X	X	X	-	X	X	X
508	CORE 19	16705.3	X	X	-	-	-	-	-	-	-
509	CORE 19	16707.5	X	X	-	-	-	-	-	-	-
510	CORE 19	16714.6	X	X	X	X	X	-	X	X	X
511	CORE 19	16716.2	X	X	-	-	-	-	-	-	-
512	CORE 19	16717.9	X	X	-	-	-	-	-	-	-
513	CORE 19	16719.6	X	X	X	X	X	-	X	X	X

LEGEND FOR 'DETAILS OF ANALYSIS' TABLE

TOC : Total Organic Carbon
REV : Rock-Eval Pyrolysis
REF : Vitrinite Reflectance
SCI : Spore Coloration Index
ELM : Elemental Analysis
HSP : Headspace Gas Analysis
EXT : Solvent Extraction
SEP : Separation by Column Chrom.
GCR : Gas Chromatography

- : No analyses carried out
X : Analysis carried out
O : Composite sample (see RRUS nos)

APPENDIX II

LITHOLOGICAL DESCRIPTIONS

ABBREVIATIONS USED IN LITHOLOGICAL DATA SHEETS

ANH	-	anhydrite
ANH DOL	-	anhydritic dolomite
ANH LST	-	anhydritic limestone
arg	-	argillaceous
ARG DOL	-	argillaceous dolomite
ARG LST	-	argillaceous limestone
ARG SLTST	-	argillaceous siltstone
ARG SST	-	argillaceous sandstone
bit	-	bitumen/bituminous
BIT	-	bitumen
bl	-	blue
blk	-	black
BRECC	-	breccia
brn	-	brown
brn-blk	-	brownish-black
BSMNT	-	basement
calc	-	calcareous
CALC DOL	-	calcareous dolomite
carb	-	carbonaceous
cgl	-	conglomeratic
CGL	-	conglomerate
chert	-	chert/cherty
CHERT	-	chert
CHK	-	chalk
cly	-	clay
CLY	-	clay
CLYST	-	claystone
cmt	-	cement
CMT	-	cement
coal	-	coal/coaly
COAL	-	coal
crs	-	coarse
dirty	-	dirty
dk	-	dark
dk gy	-	dark gray
DOL	-	dolomite
DOL LST	-	dolomitic limestone
fer	-	ferruginous
fn	-	fine
foss	-	fossils/fossiliferous
frags	-	fragments
fri	-	friable
glassy	-	glassy
glauc	-	glauconite/glauconitic
GLAUC	-	glauconite
gn	-	green
gy	-	gray
gy-blk	-	grayish-black
gy-brn	-	grayish-brown
gy-gn	-	grayish-green
gy-red	-	grayish-red
gy-wht	-	grayish-white
GYP	-	gypsum
hd	-	hard
I/B	-	inter-bedded
ign	-	igneous
IGN	-	igneous
lam	-	laminae/laminated
LCM	-	lost circulation material
LIG	-	lignite
lns	-	lens(es)
LST	-	limestone
lt	-	light
lt brn	-	light brown
lt gy	-	light gray
MARB	-	marble
marble	-	marble
MARL	-	marl
mass	-	massive
MDST	-	mudstone
med	-	medium
met	-	metamorphic/metamorphosed
MET	-	metamorphic
mic	-	mica/micaceous
MICA	-	mica
min	-	mineral
mnr	-	minor
mtl	-	mottled
mtrx	-	matrix
MUD	-	mud
N/A	-	not available
occ	-	occasional
ol	-	olive
ol-brn	-	olive-brown
ol-gy	-	olive-gray
ool	-	oolitic
pp	-	purple
pyr	-	pyrite/pyritic
PYR	-	pyrite
qtz	-	quartz/quartzitic
QTZ	-	quartz
QTZT	-	quartzite
red	-	red
red-brn	-	reddish-brown
SALT	-	salt
schist	-	schist/schistos
sft	-	soft
SH	-	shale
SHELL	-	shell
shly	-	shaley
sl	-	slight(ly)
SLT	-	silt
SLTST	-	siltstone
slty	-	silty
SLTY CLYST	-	silty claystone
SLTY DOL	-	silty dolomite
SLTY LST	-	silty limestone
SLTY MARL	-	silty marl
SLTY MDST	-	silty mudstone
SLTY SH	-	silty shale
SND	-	sand
sndy	-	sandy
SNDY CLYST	-	sandy claystone
SNDY DOL	-	sandy dolomite
SNDY LST	-	sandy limestone
SNDY MARL	-	sandy marl
SNDY MDST	-	sandy mudstone
SNDY SH	-	sandy shale
SST	-	sandstone
tr	-	trace(s)
TUFF	-	tuff
unconsol	-	unconsolidated
v	-	very
vcrs	-	very coarse
vfn	-	very fine
vgt	-	variegated
volc	-	volcanic
VOLC	-	volcanic(s)
walnut	-	walnut
wht	-	white
WOOD FIBER	-	wood fiber
xln	-	crystalline
yel	-	yellow

LIST OF LITHOLOGY SYMBOLS USED IN FIGURES

10 : GAP

20 : CLY/CLYST

31 : MDST

41 : SH

50 : SLTST

61 : SST,fn

62 : SST,med

63 : SST,crs

70 : CGL+

80 : CGL-

90 : MARL

100 : LST

110 : DOL

320 : CHK

820 : SHELL DEBRIS

120 : ANH

130 : SALT

140 : COAL

146 : COAL(1),Thin

150 : IGN/IGN BSMNT

151 : BSMNT(UD)

153 : BSMNT(MET)

154 : TUFF BANDS

160 : CHERT

161 : BRECCIA

170 : SLTY CLY(ST)

180 : SNDY CLY(ST)

171 : SLTY SH

181 : SNDY SH

191 : SLTY MDST

201 : SNDY MDST

210 : SLTY MARL

220 : SNDY MARL

230 : ARG LST

240 : ARG DOL

250 : SNDY LST

260 : SNDY DOL

270 : SLTY LST

280 : SLTY DOL

291 : DOL LST

292 : CALC DOL

300 : ANH LST

310 : ANH DOL

340 : I/B SST/SH

350 : I/B SST/MDST

360 : I/B SST/CLYST

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
1 1390-440 : 1415	90% CLYST,gy-wht,calc 5% SLTST,lt gy 5% QTZ SND,crs
2 1440-500 : 1470	60% CLYST,a/a 20% SND,med/crs,met 10% SST,fn/crs,lt brn,calc 10% SHELL
3 1500-560 : 1530	90% SND,fn/crs,met/ign,vgt,cgl 10% CLYST,a/a
4 1560-620 : 1590	85% SND,a/a 10% SST,a/a 5% CLYST,a/a
5 1620-680 : 1650	90% SND,a/a 10% SST,a/a
6 1680-740 : 1710	95% SND,a/a 5% SST,a/a
7 1740-800 : 1770	100% SND,a/a
8 1800-860 : 1830	80% SND,a/a 10% SHELL 10% SLTST,gy,sl sndy,hd
9 1860-920 : 1890	80% SND,a/a 15% SST,fn/med,brn,v calc 5% SHELL
10 1920-980 : 1950	85% SND,a/a 10% SLTST,a/a 5% SHELL,a/a
11 1980-040 : 2010	80% SND,a/a 15% SST,a/a 5% SLTST,a/a
12 2040-100 : 2070	70% SND,a/a 25% SST,a/a 5% SHELL
13 2100-160 : 2130	60% SND,a/a 40% SST,a/a
14 2160-220 : 2190	75% SND,a/a 25% SST,a/a
15 2220-280 : 2250	60% SND,a/a 35% SST,a/a 5% SLTST,a/a
16 2280-340 : 2310	90% SND,a/a 10% SST,a/a
17 2340-400 : 2370	50% SND,a/a 50% CLYST,lt gy-brn,calc,sft,sl sndy
18 2400-460 : 2430	80% CLYST,a/a 20% SND,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
19	2460-520 : 2490	90% CLYST,lt gy-brn,calc,sndy,tr carb 10% SND,fn/crs,ign/met,vgt
20	2520-580 : 2550	90% CLYST,a/a 10% SND,a/a
21	2580-640 : 2610	90% CLYST,a/a 10% SND,a/a tr WOOD FIBRE,brn-blk
22	2640-700 : 2670	70% CLYST,gy-brn,sndy,? carb,mic,calc 30% WOOD FIBRE,brn-blk
23	2700-760 : 2730	80% SLTST,lt brn,sndy,mic,sl calc,? carb 20% WOOD FIBRE,a/a
24	2760-820 : 2790	80% SLTST,a/a 15% WOOD FIBRE,a/a 5% SND,crs,ign,vgt
25	2820-880 : 2850	75% SLTST,a/a 20% WOOD FIBRE,a/a 5% SHELL
26	2880-940 : 2910	60% SLTST,a/a 30% WOOD FIBRE 10% SLTST/SST,fn/crs,brn,mic
27	2940-000 : 2970	70% SLTST,a/a 20% WOOD FIBRE,a/a 10% SLTST/SST,a/a
28	3000-060 : 3030	70% SLTST,a/a 25% WOOD FIBRE,a/a 5% COAL/LIG
29	3060-120 : 3090	50% SLTST,a/a 40% WOOD FIBRE,a/a 10% COAL/LIG,a/a
30	3120-180 : 3150	60% SLTST,a/a 30% WOOD FIBRE,a/a 10% COAL/LIG,a/a
31	3180-240 : 3210	40% SLTST,a/a 30% WOOD FIBRE,a/a 15% COAL/LIG,a/a 15% SLTST/SST,a/a
32	3240-300 : 3270	60% SLTST/SST,a/a 15% COAL/LIG,a/a 25% WOOD FIBRE,a/a
33	3300-360 : 3330	70% SLTST/SST,a/a 25% COAL/LIG,a/a 5% WOOD FIBRE,a/a
34	3360-420 : 3390	75% SLTST/SST,a/a 15% COAL/LIG,a/a 10% WOOD FIBRE,a/a
35	3420-480 : 3450	80% SLTST,a/a 10% SLTST/SST,a/a 10% WOOD FIBRE,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
36	3480-540 : 3510	60% SLTST/SST,fn/crs,lt brn/brn,tr mic 30% SLTST,lt brn,sl sndy,sl calc,coal 10% WOOD FIBRE,brn-blk
37	3540-600 : 3570	40% SLTST,a/a 40% SND,fn/med,qtz 10% WOOD FIBRE,a/a 10% COAL/LIG
38	3600-660 : 3630	80% SLTST/SST,fn/crs,lt brn/brn,mic,carb 15% COAL,a/a 5% WOOD FIBRE,a/a
39	3660-720 : 3690	80% SLTST/SST,a/a 15% COAL,a/a 5% WOOD FIBRE,a/a
40	3720-780 : 3750	90% SLTST/SST,a/a 10% COAL,a/a tr WOOD FIBRE,a/a
41	3780-840 : 3810	85% SLTST/SST,a/a 15% COAL,a/a tr WOOD FIBRE,a/a
42	3840-900 : 3870	80% SLTST/SST,a/a 10% SND,a/a 10% COAL,a/a
43	3900-960 : 3930	60% SLTST/SST,a/a 25% SND,a/a 10% COAL,a/a 5% SHELL
44	3960-020 : 3990	90% SLTST/SST,a/a 5% COAL,a/a 5% SHELL,a/a
45	4020-080 : 4050	95% SLTST/SST,a/a 5% COAL,a/a tr SHELL,a/a
46	4080-140 : 4110	95% SLTST/SST,fn/med,lt brn,tr mic 5% SND,a/a tr COAL,a/a
47	4140-200 : 4170	70% CLYST,lt gy-brn,calc,sft 25% SLTST/SST,a/a 5% SND,med/crs,volc,vgt
48	4200-260 : 4230	40% SLTST/SST,a/a 25% SST,med/crs,wht/lt brn 25% SND,a/a 10% SHELL tr WOOD FIBRE
49	4260-320 : 4290	90% SND,fn/crs,volc/qtz,vgt 10% SHELL tr WOOD FIBRE,a/a
50	4320-380 : 4350	85% SND,a/a 10% SLTST/SST,a/a 5% SHELL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS ID / DEPTH (Feet)			DESCRIPTION OF ANALYSED SAMPLES
51	4380-440 :	4410	50% SLTST/SST,fn/med,lt brn,tr mic 35% SND,fn/crs,volc/qtz,vgt,v hd 15% SHELL
52	4440-500 :	4470	95% SND,a/a 5% SLTST/SST,a/a
53	4500-560 :	4530	90% SND,a/a 10% SLTST/SST,a/a
54	4560-620 :	4590	75% SND,a/a,glauc 15% SST,fn/crs,volc/qtz,vgt,glauc 10% SLTST/SST,a/a
55	4620-680 :	4650	90% SND,a/a 10% SLTST/SST,a/a
56	4680-740 :	4710	50% SND,a/a 50% SLTST/SST,a/a
57	4740-800 :	4770	70% SLTST,lt gy-brn,sl calc,sl sndy 20% SND,a/a 10% SST,a/a
98	4800-860 :	4830	45% SLTST,a/a 45% SND,a/a 10% SST,a/a
99	4860-920 :	4890	90% SND,a/a 10% SLTST,a/a
100	4920-980 :	4950	70% SND,a/a 20% SST,a/a 10% SLTST,a/a
101	4980-040 :	5010	60% SND,a/a 20% SST,a/a 20% SLTST,a/a
102	5040-100 :	5070	70% SST,a/a 20% SLTST,a/a 10% SND,a/a tr COAL/LIG
103	5100-160 :	5130	50% SST,a/a 30% SLTST,a/a 15% SND,a/a 5% COAL
104	5160-220 :	5190	35% SST,a/a 30% SND,a/a 30% SLTST/SST,a/a 5% COAL/LIG,brn-blk
105	5220-280 :	5250	60% SST,a/a 35% SLTST/SST,a/a 5% COAL,a/a
106	5280-340 :	5310	70% SST,a/a 20% SLTST/SST,a/a 5% SND,a/a 5% COAL,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
107	5340-400 : 5370	90% SND,fn/crs,ign/qtz,vgt,v hd 10% SLTST/SST,fn/med,lt brn,tr carb tr COAL/LIG
108	5400-460 : 5430	80% SND,a/a 20% SLTST/SST,a/a
110	5460-520 : 5490	95% SND,med/crs,qtz/ign,vgt,v hd 5% SLTST/SST,a/a
111	5520-580 : 5550	SND,a/a
112	5580-640 : 5610	90% SND,a/a 10% SLTST/SST,a/a
113	5640-700 : 5670	90% SND,a/a 10% SLTST/SST,a/a
114	5700-760 : 5730	SND,a/a
115	5760-820 : 5790	95% SND,a/a 5% SLTST/SST,a/a
116	5820-880 : 5850	SND,a/a
117	5880-940 : 5910	SND,a/a
118	5940-000 : 5970	95% SND,a/a 5% SLTST/SST,a/a
119	6000-060 : 6030	95% SND,a/a 5% SLTST/SST,a/a
120	6060-120 : 6090	95% SND,a/a 5% SLTST/SST,a/a
121	6120-180 : 6150	95% SND,a/a 5% SLTST/SST,a/a
122	6180-240 : 6210	SND,a/a
123	6240-300 : 6270	SND,a/a tr COAL
124	6300-360 : 6330	SND,a/a
125	6360-420 : 6390	SND,a/a
126	6420-480 : 6450	SND,a/a
127	6480-540 : 6510	95% SND,a/a 5% COAL
128	6540-600 : 6570	SND,a/a
129	6600-660 : 6630	SND,a/a tr COAL,a/a
130	6660-720 : 6690	SND,a/a
131	6720-780 : 6750	SND,a/a
132	6780-840 : 6810	SND,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
133	6840-900 : 6870	100% SND,med/crs,qtz/volc,vgt,v hd
134	6900-960 : 6930	100% SND,a/a
135	6960-020 : 6990	100% SND,a/a
136	7020-080 : 7050	100% SND,a/a tr COAL
137	7080-140 : 7110	95% SND,a/a 5% SST/SLTST,fn/med,lt gy-brn,tr carb
138	7140-200 : 7170	90% SND,a/a 10% SST/SLTST,a/a
139	7200-260 : 7230	95% SND,a/a 5% SST/SLTST,a/a tr COAL,a/a
140	7260-320 : 7290	85% SND,a/a 15% SST/SLTST,a/a
141	7320-380 : 7350	100% SND,a/a
142	7380-440 : 7410	100% SND,a/a tr COAL,a/a
143	7440-500 : 7470	95% SND,a/a 5% SST/SLTST,a/a
164	7500-560 : 7530	70% SND,a/a 25% COAL 5% SST/SLTST,a/a
165	7560-620 : 7590	85% SND,a/a 10% COAL,a/a 5% SST/SLTST,a/a
166	7620-680 : 7650	80% SND,a/a 15% COAL,a/a 5% SST/SLTST,a/a
167	7680-740 : 7710	60% SST,fn/crs,vgt,cly mtrx,glauc 25% SND,a/a 10% SST/SLTST,a/a 5% COAL
168	7770-830 : 7800	50% SND,a/a 30% SST,a/a 10% SST/SLTST,a/a 10% COAL
169	7830-890 : 7860	65% SND,a/a 20% SST,a/a 10% COAL 5% SST/SLTST,a/a
170	7890-950 : 7920	50% SST/SLTST,a/a 25% SND,a/a 20% SST,a/a 5% COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
171	7950-010 : 7980	50% SST/SLTST,fn/med,lt/gy-brn,carb 25% QTZ SST,fn/crs,gy-brn,carb,mic 20% SND,fn/crs,qtz,vgt 5% COAL
172	8010-070 : 8040	50% SST/SLTST,a/a 20% SND,a/a 15% QTZ SST,a/a 15% SLTST,gy-brn,sl sndy tr COAL
173	8070-130 : 8100	70% SST/SLTST,a/a 20% SLTST,a/a 10% QTZ SST,a/a tr COAL
174	8130-190 : 8160	50% SND,a/a 35% SLTST,a/a 10% SST/SLTST,a/a 5% COAL
175	8190-250 : 8220	70% SND,a/a 20% SST/SLTST,a/a 5% QTZ SST,a/a 5% COAL
176	8250-310 : 8280	40% COAL 20% QTZ SST,a/a 20% SST/SLTST,a/a 20% SND,a/a
177	8310-370 : 8340	60% COAL 25% SST/SLTST,a/a 15% QTZ SST,a/a
178	8370-430 : 8400	60% SLTST,a/a 20% SST/SLTST,a/a 15% QTZ SND,a/a 5% COAL
179	8430-490 : 8460	60% SLTST,a/a 30% SST/SLTST,a/a 10% QTZ SST,a/a
180	8490-550 : 8520	60% SST/SLTST,a/a 30% SLTST,a/a 10% QTZ SST,a/a tr COAL
181	8550-610 : 8580	60% SLTST,a/a 30% SST/SLTST,a/a 10% QTZ SST,a/a tr COAL
182	8610-670 : 8640	50% SLTST,a/a 25% SST/SLTST,a/a 15% QTZ SST,a/a 10% COAL
183	8670-730 : 8700	60% SST/SLTST,a/a 25% SLTST,a/a 10% COAL,a/a 5% QTZ SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
184 8730-790 : 8760	50% SLTST,gy-brn,carb 40% SST/SLTST,fn/med,lt/gy-brn,carb 10% QTZ SST,fn/crs,gy-brn tr COAL
185 8790-850 : 8820	60% QTZ SND,fn/crs,vgt,volc 30% SST/SLTST,a/a 10% QTZ SST,a/a tr COAL
186 8850-910 : 8880	40% SST/SLTST,a/a 40% QTZ SND,a/a 10% QTZ SST,a/a 10% COAL
187 8910-970 : 8940	80% COAL 10% SST/SLTST,a/a 10% QTZ SST,a/a
188 8970-030 : 9000	60% QTZ SND,a/a 20% COAL 20% SST/SLTST,a/a
189 9030-090 : 9060	50% QTZ SND,a/a 25% SST/SLTST,a/a 15% COAL 10% QTZ SST,a/a
190 9090-150 : 9120	60% QTZ SND,a/a 30% QTZ SST,a/a 10% COAL
191 9150-210 : 9180	40% QTZ SST,a/a 25% QTZ SND,a/a 25% SST/SLTST,a/a 10% COAL
192 9210-270 : 9240	50% QTZ SST,a/a 40% SST/SLTST,a/a 10% QTZ SND,a/a tr COAL
193 9270-330 : 9300	50% SST/SLTST,a/a 35% QTZ SST,a/a 10% COAL 5% QTZ SND,a/a
194 9330-390 : 9360	60% SST/SLTST,a/a 40% QTZ SST,a/a
195 9390-450 : 9420	60% QTZ SND,a/a 30% SST/SLTST,a/a 10% QTZ SST,a/a tr COAL
196 9450-510 : 9480	60% QTZ SND,a/a 25% QTZ SST,a/a 15% SST/SLTST,a/a tr COAL
197 9510-570 : 9540	75% QTZ SND,a/a 15% QTZ SST,a/a 10% SST/SLTST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
198	9570-630 : 9600	50% QTZ SND,fn/crs,gy-wht 40% QTZ SST,fn/crs,gy-brn,mic 10% SST/SLTST,fn/med,lt/gy-brn
199	9630-690 : 9660	60% QTZ SND,a/a 25% SST/SLTST,a/a 15% QTZ SST,a/a tr COAL
200	9690-750 : 9720	50% QTZ SND,a/a 25% QTZ SST,a/a 10% SST/SLTST,a/a 5% SLTST,gy-brn,carb tr COAL
201	9750-810 : 9780	70% QTZ SND,a/a 20% SLTST,a/a 10% QTZ SST,a/a tr COAL
202	9810-870 : 9840	45% QTZ SND,a/a 45% QTZ SST,a/a 10% SST/SLTST,a/a
203	9870-930 : 9900	70% QTZ SND,a/a 20% QTZ SST,a/a 10% SLTST,a/a
204	9930-990 : 9960	40% QTZ SND,a/a 40% QTZ SST,a/a 10% SST/SLTST,a/a 10% SH,gy-gn,sl calc,sft
205	9990-050 : 10020	40% QTZ SND,a/a 30% QTZ SST,a/a 20% SH,a/a 10% SLTST,a/a
206	10050-110 : 10080	50% SLTST,a/a 30% QTZ SST,a/a 20% SH,a/a
207	10110-170 : 10140	60% SST/SLTST,a/a 35% QTZ SST,a/a 5% SH,a/a
208	10170-230 : 10200	60% SLTST,a/a 30% QTZ SST,a/a 10% QTZ SND,a/a tr COAL
209	10230-290 : 10260	60% QTZ SST,a/a 30% QTZ SND,a/a 10% SST/SLTST,a/a tr COAL
210	10290-350 : 10320	40% QTZ SND,a/a 30% QTZ SST,a/a 25% SLTST,a/a 5% COAL
211	10350-410 : 10380	70% QTZ SND,a/a 20% SLTST,a/a 10% QTZ SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
212	10410-470 : 10440	85% QTZ SND,fn/crs,gy-wht 10% QTZ SST,fn/crs,lt/gy-brn,glauc,mic 5% SLTST,gy-brn,carb tr COAL
213	10470-530 : 10500	65% QTZ SND,a/a 20% QTZ SST,a/a 10% SLTST,a/a 5% COAL,bit
214	10530-590 : 10560	50% SLTST,a/a 40% QTZ SND,a/a 10% CLYST,vgt,sft,carb,? bit tr COAL,a/a
215	10590-650 : 10620	60% QTZ SND,a/a 20% QTZ SST,a/a 15% SLTST,a/a 5% COAL,a/a
216	10650-710 : 10680	40% QTZ SND,a/a 40% CLYST,a/a 20% QTZ SST,a/a tr COAL,a/a
217	10710-770 : 10740	40% CLYST,a/a 30% QTZ SND,a/a 20% QTZ SST,a/a 10% SLTST,a/a
218	10770-830 : 10800	45% CLYST,a/a 35% QTZ SND,a/a 20% QTZ SST,a/a
275	10830-890 : 10860	70% CLYST,vgt,mic,tr carb,sft 30% SST,fn/crs,wht/lt brn,mic,cly mtrx
276	10890-950 : 10920	30% SST,a/a 30% CLYST,a/a 25% QTZ SND,a/a 15% COAL,bit
277	10950-010 : 10980	60% SST,a/a 30% CLYST,a/a 10% SST/SLTST,fn/med,gy-brn
278	11010-070 : 11040	60% CLYST,a/a 40% SST,a/a
279	11070-130 : 11100	60% CLYST,a/a 25% SST,a/a 15% COAL
280	11130-190 : 11160	55% CLYST,a/a 30% SST,a/a 15% COAL
281	11190-250 : 11220	40% CLYST,a/a 35% SST,a/a 25% COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
282	11250-310 : 11280	50% CLYST,vgt,mic,sft 30% COAL 20% SST,fn/crs,wht/lt brn,cly mtrx
283	11310-370 : 11340	80% CLYST,a/a 20% SST,a/a tr COAL
284	11370-430 : 11400	50% CLYST,a/a 50% SST,a/a tr COAL
285	11430-490 : 11460	40% CLYST,a/a 20% SLTST,lt/gy-brn,carb,sft 20% SST,a/a 20% COAL
286	11490-550 : 11520	35% CLYST,a/a 30% SLTST,a/a 20% SST,a/a 15% COAL
287	11550-610 : 11580	50% SST,a/a 20% SLTST,a/a 20% CLYST,a/a 10% COAL
288	11610-670 : 11640	50% SLTST,a/a 30% SST,a/a 20% CLYST,a/a tr COAL
289	11670-730 : 11700	60% SLTST,a/a 15% COAL 15% CLYST,a/a 10% SST,a/a
290	11730-790 : 11760	35% SLTST,a/a 30% CLYST,a/a 20% SST,a/a 15% COAL
291	11790-850 : 11820	40% SLTST,a/a 40% CLYST,a/a 10% SST,a/a 10% COAL
292	11850-910 : 11880	40% CLYST,a/a 30% SLTST,a/a 20% COAL 10% SST,a/a
293	11910-970 : 11940	50% COAL 30% CLYST,a/a 20% SLTST,a/a
294	11970-030 : 12000	30% SLTST,a/a 30% COAL 25% CLYST,a/a 15% SST,a/a
295	12030-090 : 12060	50% SLTST,a/a 30% COAL 20% SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
316	12090-150 : 12120	40% SST,fn/med,vgt,cly mtrx 35% MDST,gn/gy-brn,carb 15% COAL 10% SH,gy
317	12150-210 : 12180	50% MDST,a/a 30% SST,a/a 10% COAL 10% SH,a/a
318	12210-270 : 12240	50% MDST,a/a 20% SH,a/a 15% SST,a/a 15% COAL
319	12270-330 : 12300	45% SST,a/a 45% MDST,a/a 5% SH,a/a 5% COAL
320	12330-390 : 12360	60% MDST,a/a 20% SH,a/a 10% SST,a/a 10% COAL
321	12390-450 : 12420	40% MDST,a/a 30% SLTST,gy-brn,carb 15% COAL 10% SST,a/a 5% SH,a/a
322	12450-510 : 12480	45% SLTST,a/a 25% MDST,a/a 15% COAL,a/a 15% SST,a/a
323	12510-570 : 12540	45% SLTST,a/a 25% SST,a/a 25% COAL,a/a 5% MDST,a/a
324	12570-630 : 12600	40% COAL 35% SLTST,a/a 20% MDST,a/a 5% SST,a/a
325	12630-690 : 12660	40% MDST,a/a 35% SLTST,a/a 15% SH,a/a 10% COAL
326	12690-750 : 12720	30% MDST,a/a 30% SLTST,a/a 15% COAL,a/a 15% SH,a/a 10% SST,a/a
327	12750-810 : 12780	40% MDST,a/a 30% SST,a/a 15% SH,a/a 15% COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
328	12810-870 : 12840	60% SLTST,lt/gy-brn,carb 20% COAL 10% SST,fn/med,vgt,hd 10% CHERT,lt brn
329	12870-930 : 12900	50% SLTST,a/a 25% COAL 15% SST,a/a 10% CHERT,a/a tr SH,dk gy-brn,carb lam
330	12930-990 : 12960	50% SLTST,a/a 25% COAL 15% CHERT,a/a 10% SST,a/a
331	12990-050 : 13020	60% SLTST,a/a 10% SST,a/a 10% COAL 10% SH,a/a 10% CHERT,a/a
332	13050-110 : 13080	65% SLTST,a/a 15% COAL 10% SST,a/a 10% CHERT,a/a
333	13110-170 : 13140	40% SLTST,a/a 30% COAL 15% SST,a/a 15% CHERT,a/a
334	13170-230 : 13200	50% SLTST,a/a 25% COAL 10% SST,a/a 10% SH,a/a 5% CHERT,a/a
335	13230-290 : 13260	40% SST,a/a 30% COAL 20% SLTST,a/a 10% SH,a/a
425	13290-350 : 13320	30% SLTST,a/a 30% VOLC/TUFF,vgt 20% COAL,a/a 20% SST,a/a
426	13350-410 : 13380	40% COAL,a/a 30% SLTST,a/a 20% VOLC/TUFF,a/a 10% SST,a/a
427	13410-470 : 13440	40% SLTST,a/a 25% VOLC/TUFF,a/a 25% COAL 10% SST,a/a
428	13470-530 : 13500	50% COAL 15% SLTST,a/a 15% VOLC/TUFF,a/a 10% SST,a/a 10% SH,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
429	13530-590 : 13560	50% SLTST,lt/gy-brn,carb frags 25% COAL 15% TUFF SND,vgt 10% SST,vfn/med,vgt,hd
430	13590-650 : 13620	50% SLTST,a/a 25% SST,a/a 15% COAL 10% TUFF SND,a/a
431	13650-710 : 13680	40% SLTST,a/a 40% SST,a/a 20% COAL,a/a
432	13710-770 : 13740	40% SLTST,a/a 35% SST,a/a 15% COAL 10% TUFF SND,a/a
433	13770-830 : 13800	70% COAL 15% SLTST,a/a 15% SST,a/a
434	13830-890 : 13860	50% SLTST,a/a 30% SST,a/a 10% COAL 10% CHERT,lt brn
440	13890-950 : 13920	45% SLTST,a/a 25% SST,a/a 15% CHERT,a/a 15% COAL
441	13950-010 : 13980	40% SLTST,a/a 30% SST,a/a 25% SH,dk brn,carb frags 5% CHERT,a/a
442	14010-070 : 14040	55% SLTST,a/a 20% COAL 15% SST,a/a 10% CHERT,a/a
443	14070-130 : 14100	50% SLTST,a/a 20% SST,a/a 15% CHERT,a/a 10% COAL 5% SH,a/a
444	14130-190 : 14160	60% SLTST,a/a 20% COAL 10% SST,a/a 10% CHERT,a/a
445	14190-250 : 14220	45% SLTST,a/a 25% COAL 15% SST,a/a 15% CHERT,a/a
446	14250-310 : 14280	40% COAL 25% SLTST,a/a 25% CHERT,a/a 10% SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
447	14310-370 : 14340	40% SST,fn/crs,vgt,hd,ign/qtz 20% SLTST,lt/gy-brn,shly,carb frags 20% CHERT,wht 10% COAL 10% SST,fn/med,lt brn,qtz
448	14370-430 : 14400	45% SLTST,a/a 25% CHERT,a/a 15% COAL 15% SST,fn/med,lt brn,qtz
449	14430-490 : 14460	40% SLTST,a/a 20% SST,fn/crs,vgt,ign/qtz 20% CHERT,a/a 20% COAL
450	14490-550 : 14520	40% SLTST,a/a 25% SST,a/a 25% COAL 10% CHERT,a/a
451	14550-610 : 14580	30% SLTST,a/a 30% SST,a/a 20% COAL 20% CHERT,a/a
452	14610-670 : 14640	40% COAL 25% SLTST,a/a 25% SST,a/a 10% CHERT,a/a
453	14670-730 : 14700	50% COAL 30% SLTST,a/a 20% SST,a/a
454	14730-790 : 14760	40% SST,a/a 30% SLTST,a/a 20% COAL 10% CHERT,a/a
455	14790-850 : 14820	40% SST,a/a 30% SLTST,a/a 20% COAL 10% CHERT,a/a
456	14850-910 : 14880	50% SLTST,a/a 25% COAL 15% SST,a/a 10% CHERT,a/a
457	14910-970 : 14940	50% SLTST,a/a 20% COAL 20% CHERT,a/a 10% SST,a/a
458	14970-030 : 15000	40% SST,a/a 35% SLTST,a/a 15% COAL 10% CHERT,a/a
459	15030-090 : 15060	40% SST,a/a 40% SLTST,a/a 10% COAL 10% CHERT,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
460	15090-150 : 15120	40% SLTST,lt/gy-brn,sndy,carb frags 20% SST,fn/med,vgt,hd,qtz/volc 20% COAL 10% CHERT,wht,? TUFF 10% SH,dk gy-brn,coal
461	15150-210 : 15180	60% SST,a/a 20% COAL 10% SLTST,a/a 10% CHERT,a/a
465	15210-270 : 15240	35% SLTST,a/a 20% SH,a/a 20% CHERT,a/a 15% COAL 10% SST,a/a
466	15270-330 : 15300	30% SLTST,a/a 25% SST,a/a 20% CHERT,a/a 15% COAL 10% SH,a/a
467	15330-390 : 15360	40% SST,a/a,vfn/med 40% SLTST,a/a 30% CHERT,a/a 10% COAL
468	15390-450 : 15420	50% SLTST,a/a 40% SST,a/a 10% COAL
469	15450-510 : 15480	50% SST,a/a 40% SLTST,a/a 10% COAL
470	15510-570 : 15540	40% SST,a/a 30% SLTST,a/a 15% COAL 15% VOLC/TUFF,wht/gy-gn,sft
471	15570-630 : 15600	40% SLTST,a/a 30% SST,a/a 15% COAL 15% VOLC/TUFF,a/a
472	15630-690 : 15660	60% SLTST,a/a 20% SST,a/a 10% VOLC/TUFF,a/a 10% COAL
473	15690-750 : 15720	70% SLTST,a/a 15% SST,a/a 10% VOLC/TUFF,a/a 5% COAL
474	15750-810 : 15780	85% SLTST,dk brn,shly,sl calc,sl carb 15% SST,a/a tr VOLC/TUFF,gy-gn,hd
475	15810-870 : 15840	80% SLTST,a/a 15% SST,a/a 5% VOLC/TUFF,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
476	15870-930 : 15900	60% SLTST,dk brn,shly,sl carb 20% SST,fn/med,vgt,hd,qtz/volc 20% VOLC/TUFF,gy-gn,hd
495	15930-990 : 15960	70% VOLC/TUFF,a/a 20% SLTST,a/a 10% SST,a/a
496	15990-050 : 16020	30% SLTST,a/a 30% SH,dk gy-brn,mass 20% SST,a/a 20% VOLC/TUFF,a/a
497	16050-110 : 16080	80% SH,a/a 10% SST,a/a 10% VOLC/TUFF,a/a
498	16110-170 : 16140	85% SH,a/a 10% SST,a/a 5% VOLC/TUFF,a/a
499	16170-230 : 16200	90% SH,a/a 10% SST,a/a
500	16230-290 : 16260	90% SH,a/a 10% SST,a/a
501	16290-350 : 16320	90% SH,a/a 10% SST,a/a tr SLTST,a/a
502	16350-410 : 16380	80% SH,a/a 10% SST,a/a 10% SLTST,a/a
503	16410-470 : 16440	60% SH,a/a 30% SST,a/a 10% SLTST,a/a
504	16470-530 : 16500	70% SLTST,a/a 20% SST,a/a 10% VOLC,a/a
505	16530-590 : 16560	SH,a/a tr SST,a/a
514	16590-650 : 16620	95% SH,a/a 5% VOLC/TUFF,lt gy-brn tr SST,a/a
515	16650-710 : 16680	40% SH,a/a 35% TUFF SND,vgt 15% SST,a/a 10% COAL
516	16710-770 : 16740	70% SH,a/a 20% SST,fn/crs,vgt,hd,qtz/volc 10% TUFF SND,a/a
517	16770-830 : 16800	45% SH,a/a 30% COAL 15% SST,a/a 10% VOLC/TUFF,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
518	16830-890 : 16860	35% SH,dk gy-brn,mass 25% SLTST,dk brn,shly,sl carb 20% COAL 10% SST,fn/crs,vgt,hd,qtz/volc 10% VOLC/TUFF,lt gy-brn
519	16890-950 : 16920	35% SH,a/a 30% SLTST,a/a 15% COAL 10% SST,a/a 10% VOLC/TUFF,a/a
520	16950-010 : 16980	45% SH,a/a 25% COAL 15% SLTST,a/a 15% SST,a/a
521	17010-070 : 17040	40% SH,a/a 25% SLTST,a/a 15% SST,a/a 10% COAL 10% VOLC/TUFF,a/a
522	17070-130 : 17100	60% COAL 20% SH,a/a 10% SLTST,a/a 10% VOLC/TUFF,a/a
523	17130-155 : 17143	40% SH,a/a 20% TUFF SND,gy-gn 20% COAL 20% SLTST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID /	DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
62	SWC	1488	80% CLYST,lt gy-brn 20% SST,med,lt brn,tr pyr
63	SWC	1553	SST,vfn/med,ign/qtz,gy-brn,arg
109	SWC	1656	SST,a/a
64	SWC	1670	SND,vfn/med,ign/qtz,gy-brn,cly mtrx
65	SWC	1768	SLTST/SST,vfn/med,ign/qtz,brn,v sft
66	SWC	1880	SLTST/SST,a/a
67	SWC	1972	CLYST,a/a
68	SWC	2028	SLTST/SST,a/a
69	SWC	2120	SLTST/SST,a/a
70	SWC	2222	SST,a/a
71	SWC	2344	SST,a/a
72	SWC	2410	SST,a/a
73	SWC	2506	CLYST,lt gy-brn,sndy
74	SWC	2592	CLYST,a/a,tr carb
75	SWC	2688	CLYST,a/a
76	SWC	2772	SST,a/a
77	SWC	2866	SST,a/a
78	SWC	2935	SLTST/SST,fn/med,lt brn/gy-brn,sft
79	SWC	3012	SND,a/a
80	SWC	3140	SLTST,lt brn,tr mic,tr carb
81	SWC	3238	SND,vfn/fn,gy-brn,cly mtrx,tr mic
82	SWC	3294	SLTST/SST,a/a,tr carb
83	SWC	3402	SST,a/a,tr COAL
84	SWC	3524	SLTST/SST,a/a
85	SWC	3589	SLTST/SST,a/a
86	SWC	3709	95% SLTST/SST,a/a 5% COAL tr WOOD FIBRE
87	SWC	3906	SST,a/a
88	SWC	3976	SLTST/SST,a/a
89	SWC	4016	90% CLYST,a/a 10% COAL
90	SWC	4080	CLYST,a/a
91	SWC	4242	SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID /	DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
92	SWC	4373	SLTST/SST,fn/med,gy-brn,qtz/volc,cly
93	SWC	4444	SST,vfn/med,gy-brn,qtz/ign,glauc
94	SWC	4584	SST,vfn/fn,gy-brn,qtz,tr mic,cly mtrx
95	SWC	4680	SLTST,lt gy-brn,sft,sl sndy,tr carb
96	SWC	4824	SLTST,a/a
97	SWC	4870	SLTST/SST,a/a
341	SWC	4975	SLTST,a/a
342	SWC	5107	SLTST,a/a
343	SWC	5136	SLTST,fn/crs,vgt,ign/qtz,mic,carb
344	SWC	5331	SLTST,a/a,tr carb
345	SWC	5470	SLTST,a/a
346	SWC	5524	SLTST/SST,a/a
347	SWC	5691	SLTST/SST,a/a
348	SWC	5781	SST,a/a
349	SWC	6500	SLTST/SST,a/a
350	SWC	6584	SLTST,a/a
351	SWC	6875	80% CLYST,dk gy-brn,unconsol 20% SND,fn/med,wht/lt brn,qtz
352	SWC	6976	SST,fn/med,dk vgt,qtz,tr carb
353	SWC	7038	70% SLTST,a/a 30% I/B SST,a/a
354	SWC	7155	SLTST,a/a
355	SWC	7226	SST,a/a
356	SWC	7450	70% SLTST/CLYST,a/a 30% I/B SST,a/a tr COAL,lam
357	SWC	7532	70% CLYST,a/a 30% I/B SST,a/a
358	SWC	7552	70% SST,a/a 30% SLTST,a/a
359	SWC	7772	80% SLTST,a/a 20% I/B SST,a/a
360	SWC	7894	60% SST,a/a 40% SLTST,a/a
361	SWC	7947	60% SLTST/CLYST,a/a 40% I/B SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID /	DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
362	SWC	8033	60% SLTST,gy-brn,sft,tr carb 40% SLTST/SST,vfn/med,lt/gy-brn,qtz,cly
363	SWC	8089	SST,fn/med,dk vgt,qtz,tr carb
364	SWC	8124	70% SLTST,a/a 30% SST,a/a
365	SWC	8249	SLTST/CLYST,a/a
366	SWC	8314	COAL
367	SWC	8341	SLTST/SST,a/a,carb
368	SWC	8433	SLTST,a/a
369	SWC	8558	CLYST,dk gy-brn,unconsol
370	SWC	8886	70% SST,a/a 30% SLTST,a/a
371	SWC	8923	80% SST,fn/med,dk vgt,qtz,cly mtrx 20% COAL,sft
372	SWC	8980	85% CLYST,a/a 15% SST,a/a
373	SWC	9059	90% SST,a/a 10% CLYST,a/a
374	SWC	9239	90% SST,a/a 10% CLYST,a/a
375	SWC	9448	SLTST/CLYST,a/a
376	SWC	9511	70% SST,a/a 30% SLTST,a/a
377	SWC	9568	100% SLTST/SST,a/a
378	SWC	9663	SLTST/SST,a/a,v sndy
379	SWC	9752	80% SST,a/a,slty 20% SLTST/SST,a/a
380	SWC	9843	SST,a/a,slty
381	SWC	9960	80% SST,a/a,slty 20% SLTST/SST,a/a
382	SWC	10010	70% SLTST/SST,a/a 30% SLTST/CLYST,a/a
383	SWC	10069	SLTST/CLYST,a/a
384	SWC	10185	SLTST/SST,a/a
385	SWC	10250	60% SLTST/SST,a/a 40% SLTST/CLYST,a/a
386	SWC	10269	SST,a/a,slty
387	SWC	10557	CLYST,lt brn,sft,carb

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID /	DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
388	SWC	10638	SST,vfn/med,gn/brn,sft,cly mtrx
389	SWC	10732	90% SST,a/a,mic 10% MUD ?
390	SWC	10832	95% SLTST/SST,fn/med,red-brn,carb 5% COAL
391	SWC	10921	SLTST/SST,a/a
392	SWC	11109	SLTST,gy-brn,sft,sndy
393	SWC	11145	SLTST,a/a tr COAL,a/a
394	SWC	11224	COAL
395	SWC	11249	SST,a/a
396	SWC	11304	SST,vfn/med,gn
397	SWC	11410	CLYST,lt brn,sft
398	SWC	11494	SLTST,lt brn/brn,sft,tr carb
399	SWC	11556	SLTST/SST,a/a
400	SWC	11637	CLYST,a/a
401	SWC	11662	CLYST,a/a
402	SWC	11849	VOLC TUFF,gy-brn,sft
403	SWC	11974	CLYST,a/a
404	SWC	12021	COAL
405	SWC	12159	CLYST,brn/gy-brn,sft,carb,sndy
406	SWC	12252	70% COAL 15% VOLC TUFF,a/a 15% MUD,dk brn
407	SWC	12396	VOLC TUFF,a/a
408	SWC	12449	SLTST/SST,a/a
409	SWC	12552	SST,fn/crs,lt/gy-gn,qtz
410	SWC	12577	SLTST/SST,vfn/med,brn/lt brn
411	SWC	12585	90% SLTST/SST,a/a 10% COAL
412	SWC	12677	VOLC TUFF,a/a
413	SWC	12703	SST,a/a
414	SWC	12820	60% SLTST/SST,brn/gn,sft mtrx 40% COAL
415	SWC	12825	COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID /	DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
416	SWC	12868	SLTST/SST,vfn/med,lt/gy-brn,tr carb
417	SWC	12921	SLTST/SST,vfn/med,gy-brn,v carb
418	SWC	12933	CLYST,brn/gn,sft
419	SWC	13026	CLYST,a/a,v carb
420	SWC	13075	VOLC TUFF,lt brn
421	SWC	13136	SLTST/SST,fn/crs,brn/gn,sft,qtz
422	SWC	13231	SLTST,brn/gn,sft
423	SWC	13269	SLTST,a/a
424	SWC	13275	95% VOLC TUFF,a/a 5% COAL,lam

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
61	CORE 1 : 3392.0	CLYST,lt gy-brn,tr carb,tr mic
58	CORE 2 : 4193.5	SNDY CLYST,fn/med,gy-brn,mic
59	CORE 2 : 4197.8	SNDY CLYST,a/a
60	CORE 2 : 4199.6	SST,fn/med,lt brn/gy-brn,arg,mic
144	CORE 3 : 5229.3	SST,fn/med,gy-wht/blk,fri,cly mtrx
145	CORE 3 : 5230.2	SST,a/a
146	CORE 3 : 5231.9	SST,a/a
147	CORE 3 : 5235.2	SST,a/a,glauc
148	CORE 3 : 5235.6	SST,vfn/med,vgt,hd,calc cmt,glauc
149	CORE 3 : 5238.2	SST,fn/med,gy-wht/blk,fri,cly mtrx
150	CORE 3 : 5241.1	SST,a/a
151	CORE 3 : 5242.2	SST,a/a
152	CORE 3 : 5245.2	SST,a/a
153	CORE 4 : 5971.4	95% SLTST/SST,fn/crs,lt gy-brn,mic,cly 5% COAL/LIG
154	CORE 4 : 5972.3	SLTST/SST,a/a tr COAL/LIG
155	CORE 4 : 5974.5	95% SLTST/SST,a/a 5% COAL
156	CORE 4 : 5976.9	SLTST/SST,a/a tr COAL
157	CORE 4 : 5980.4	SLTST/SST,a/a tr COAL
158	CORE 4 : 5983.3	SLTST/SST,a/a
159	CORE 4 : 5986.6	95% SLTST/SST,a/a 5% COAL
160	CORE 4 : 5989.7	95% SLTST/SST,a/a 5% COAL
161	CORE 4 : 5991.3	90% SLTST/SST,a/a 10% COAL
162	CORE 4 : 5994.7	SLTST/SST,a/a tr COAL
163	CORE 5 : 6669.8	SST,fn/crs,gy-wht/blk,fri,cly mtrx tr COAL
219	CORE 6 : 8050.7	SST/SLTST,fn/med,gy-brn,carb
220	CORE 7 : 8057.4	95% SST/SLTST,a/a 5% COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
221	CORE 7 : 8060.3	90% SST/SLTST,fn/med,gy-brn,carb 10% COAL
222	CORE 7 : 8062.9	90% SST,vfn/med,gy-brn,slty,carb 10% COAL
223	CORE 7 : 8065.3	SST/SLTST,a/a
224	CORE 7 : 8067.9	80% SST/SLTST,a/a 20% SST,a/a tr COAL
225	CORE 7 : 8071.2	SST/SLTST,a/a
226	CORE 7 : 8074.4	85% SST/SLTST,a/a 15% COAL
227	CORE 7 : 8077.3	SLTST,lt gy-brn,carb,mic tr COAL
228	CORE 7 : 8079.5	SLTST,a/a
229	CORE 7 : 8080.6	SST/SLTST,a/a
230	CORE 7 : 8082.3	SST,a/a
231	CORE 7 : 8085.1	60% SST/SLTST,a/a 40% SST,a/a
232	CORE 7 : 8087.8	SST,a/a tr COAL
233	CORE 7 : 8091.6	60% SST/SLTST,a/a 40% SLTST,a/a
234	CORE 7 : 8092.7	60% SST/SLTST,a/a 20% SST,a/a 20% COAL
235	CORE 8 : 8633.4	SST,fn/crs,lt brn,glauc,sl calc,cly tr COAL
236	CORE 8 : 8635.9	SST,a/a tr COAL
237	CORE 8 : 8636.3	85% SST,a/a 15% COAL,lam
238	CORE 8 : 8641.9	90% SST,a/a 10% COAL,a/a
239	CORE 8 : 8646.6	95% SST,a/a 5% COAL
240	CORE 8 : 8649.4	SST,a/a
241	CORE 8 : 8653.5	95% SST,a/a 5% COAL
242	CORE 8 : 8654.5	SST/SLTST,a/a
243	CORE 8 : 8656.0	SST,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/323/T/135/02

SAMPLE IDENTIFICATION RRUS	ID / DEPTH (Feet)	DESCRIPTION OF ANALYSED SAMPLES
244	CORE 9 : 9257.5	SST/SLTST,fn/med,gy-brn,carb lam
245	CORE 9 : 9262.3	SST/SLTST,a/a
246	CORE 9 : 9263.5	60% SST/SLTST,a/a 40% SST,fn/med,lt brn,slty
247	CORE 9 : 9264.0	SLTST,gy,sndy lam,tr carb
248	CORE 10 : 9945.7	SLTST/SST,vfn/med,gy-brn,glauc,pyr
249	CORE 10 : 9949.7	SLTST/SST,a/a
250	CORE 10 : 9951.2	SLTST/SST,a/a tr COAL,lam
251	CORE 10 : 9956.3	90% SLTST/SST,a/a 10% SST/SLTST,a/a,lam
252	CORE 10 : 9957.5	SLTST/SST,vfn/med,gy-brn,glauc
253	CORE 10 : 9958.3	SLTST/SST,a/a
254	CORE 10 : 9961.8	SLTST/SST,a/a
255	CORE 10 : 9963.4	SLTST/SST,a/a
256	CORE 10 : 9966.9	SLTST/SST,a/a
257	CORE 10 : 9969.2	SLTST/SST,a/a
258	CORE 10 : 9970.8	SLTST/SST,a/a
259	CORE 10 : 9972.4	SLTST/SST,a/a
260	CORE 10 : 9974.8	SLTST/SST,a/a
261	CORE 10 : 9979.4	SLTST/SST,a/a
262	CORE 10 : 9981.2	SST/SLTST,gy,sndy lam,glauc,tr carb
263	CORE 10 : 9982.0	SST/SLTST,a/a tr COAL,lam
264	CORE 10 : 9983.8	SST/SLTST,a/a tr COAL,a/a
265	CORE 11 : 10326.4	75% SLTST/SST,vfn/med,lt gn,cly mtrx 25% SHELL
266	CORE 11 : 10328.3	95% SLTST/SST,a/a 5% SHELL
267	CORE 11 : 10328.7	80% SLTST/SST,a/a 20% SHELL
268	CORE 11 : 10330.2	50% SLTST/SST,a/a 50% SHELL
269	CORE 11 : 10334.8	SST,fn/crs,gn,cly mtrx,glauc
270	CORE 12 : 10731.0	80% SH,dk gy-brn,carb lam 20% CLYST,ol-gy/brn,mic,sft

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			DESCRIPTION OF ANALYSED SAMPLES
RRUS	ID /	DEPTH (Feet)	
271	CORE 12	10733.9	CLYST,ol-gy/brn,sl sndy,mic,sft
272	CORE 12	10735.9	CLYST,lt brn,sndy,mic,sft
273	CORE 12	10737.8	95% CLYST,a/a 5% COAL
274	CORE 12	10738.4	80% SH,dk gy-brn 20% COAL,lam
296	CORE 13	11085.2	SST,fn/crs,gy-gn,cgl,arg
297	CORE 13	11089.5	SST,a/a
298	CORE 13	11093.6	SST,a/a
299	CORE 13	11098.2	MDST,gy-brn,shly
300	CORE 13	11098.7	85% MDST,a/a 15% SST,fn/crs,gy,cgl,carb
301	CORE 13	11100.8	60% SLTST,lt gy-brn,mic,sl sndy 40% SST,a/a
302	CORE 13	11102.5	50% SLTST,a/a 30% SST,a/a 20% carb lam
303	CORE 13	11103.2	MDST,gy-brn,tr carb,sl calc
304	CORE 13	11108.0	SLTST,lt/gy-brn,calc
305	CORE 14	12249.0	SST,vfn/med,gy-brn,slty,glauc
306	CORE 14	12251.2	90% SH ?,gy,coal lam 10% COAL,bit ?
307	CORE 14	12253.3	SST,fn/med,gn,tr carb
308	CORE 14	12255.5	SST,a/a tr COAL/BIT,lam
309	CORE 14	12259.1	95% MDST,gy-brn,mass,coal lam 5% COAL/BIT
310	CORE 14	12262.4	60% COAL,bit 40% SH,a/a
311	CORE 14	12264.4	95% MDST,a/a 5% COAL
312	CORE 14	12265.2	95% SH,a/a 5% COAL
313	CORE 14	12268.6	MDST,gy-brn,mass,shly
314	CORE 14	12269.3	50% COAL 50% SH,a/a
315	CORE 14	12269.8	95% SH,gy-gn,fri,coal 5% COAL
336	CORE 15	12630.9	95% MDST,a/a 5% COAL

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			DESCRIPTION OF ANALYSED SAMPLES
RRUS	ID /	DEPTH (Feet)	
337	CORE 15	12632.1	95% MDST,gy-brn,mass,v hd 5% SH,gy,coal frags tr COAL
338	CORE 15	12634.4	90% SH,gy,coal frags,slty 10% COAL,bit ?
462	CORE 15	12634.8	85% SH,gy-brn,slty,coal lam 15% COAL
463	CORE 15	12635.4	MDST,dk gy-brn,mass,coal lam
339	CORE 15	12636.0	95% MDST,dk gy-brn,mass 5% COAL,lam
340	CORE 15	12639.6	SST,fn/med,lt gy,v hd
435	CORE 16	14167.4	SH,brn-blk,sndy lam,coal lam
436	CORE 16	14167.7	SH,a/a
437	CORE 16	14179.1	SH,a/a
464	CORE 16	14179.4	SH,dk gy-brn,v hd,coal lam
439	CORE 16	14183.8	80% SH,dk gy-brn,coal lam 20% MDST,gn brn,coal lam
438	CORE 16	14186.2	60% SH,a/a 40% SST,vfn,lt gy/gy,v hd
477	CORE 17	15347.8	80% SST,fn/crs,vgt,qtz/volc,v hd 20% SLTST lns,gy,v hd
478	CORE 17	15349.7	MDST,gy,mass
479	CORE 17	15351.8	95% SST,vfn/med,lt/dk gy,hd,dirty,mic 5% COAL,lns
480	CORE 17	15354.6	SST,a/a,coal lam
481	CORE 17	15359.6	SST,a/a
482	CORE 17	15364.7	SST,a/a
483	CORE 17	15366.3	95% MDST,dk gy-brn,mass 5% SST lns,a/a
484	CORE 17	15367.3	MDST,a/a
485	CORE 17	15368.5	MDST,a/a
486	CORE 18	16006.9	SH,dk gy-brn
487	CORE 18	16009.3	SH,a/a
488	CORE 18	16011.8	SH,a/a
489	CORE 18	16017.4	SH,a/a
490	CORE 18	16020.6	SH,a/a

LITHOLOGICAL DESCRIPTIONS

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			DESCRIPTION OF ANALYSED SAMPLES
RRUS	ID /	DEPTH (Feet)	
491	CORE 18	16023.1	SH,dk gy-brn,mass
492	CORE 18	16025.4	SH,a/a
493	CORE 18	16027.0	SH,a/a
494	CORE 18	16029.0	SH,a/a
506	CORE 19	16701.2	80% SH,a/a 20% SLTST,gy-brn,mass,shly
507	CORE 19	16703.7	SH,a/a
508	CORE 19	16705.3	SLTST,dk gy,shly,tr carb
509	CORE 19	16707.5	SLTST,a/a,carb frags
510	CORE 19	16714.6	SH,gy-brn,mass,slty
511	CORE 19	16716.2	SLTST,a/a
512	CORE 19	16717.9	SH,dk gy-brn,sl carb
513	CORE 19	16719.6	SLTST,a/a,sl sndy

APPENDIX III

TOTAL ORGANIC CARBON DATA

Total organic carbon is determined by pulverizing the sample, treating a carefully weighed portion with warm hydrochloric acid to remove carbonate minerals, and analysing the residue for carbon content with a Leco carbon analyser. It is generally accepted that samples with less than about 0.5 percent TOC cannot yield sufficient petroleum to form commercial deposits and are therefore considered nonsources; samples with between 0.5 and 1.0 TOC are rated as marginal in source quality; and samples with more than 1.0 TOC are considered to be good in source quality.

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
1415	0.08	4410	0.55
1470	0.26	4470	0.10
1530	0.11	4530	0.39
1590	0.25	4590	0.22
1650	0.12	4650	0.50
1710	0.20	4710	0.79
1770	0.25	4770	0.53
1830	0.26	4830	1.02
1890	0.26	4890	0.87
1950	0.28	4950	0.57
2010	0.36	5010	0.83
2070	0.35	5070	0.83
2130	0.61	5130	1.85
2190	0.23	5190	1.76
2250	0.20	5250	1.24
2310	0.31	5310	1.37
2370	0.38	5370	0.97
2430	0.55	5430	0.59
2490	0.71	5490	0.32
2550	0.72	5550	0.15
2610	1.04	5610	0.45
2670	4.13	5670	0.41
2730	3.25	5730	0.09
2790	2.11	5790	0.15
2850	3.09	5850	0.12
2910	3.41	5910	0.14
2970	2.77	5970	0.13
3030	5.31	6030	0.09
3090	7.46	6090	0.15
3150	5.92	6150	0.19
3210	6.54	6210	0.16
3270	5.61	6270	0.20
3330	9.69	6330	0.10
3390	7.57	6390	0.12
3450	2.66	6450	0.14
3510	2.93	6510	0.34
3570	3.35	6570	0.11
3630	4.50	6630	0.19
3690	4.21	6690	0.15
3750	2.39	6750	0.11
3810	3.57	6810	0.36
3870	2.55	6870	0.09
3930	2.39	6930	0.15
3990	1.61	6990	0.18
4050	1.86	7050	0.27
4110	1.60	7110	0.50
4170	0.93	7170	0.61
4230	0.88	7230	0.50
4290	0.22	7290	0.50
4350	0.39	7350	0.21

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
7410	0.51	10440	4.07
7470	0.38	10500	3.50
7530	7.56	10560	2.14
7590	3.10	10620	5.00
7650	4.72	10680	1.27
7710	0.88	10740	2.84
7800	1.86	10800	2.70
7860	2.64	10860	0.89
7920	1.69	10920	3.52
7980	5.89	10980	1.05
8040	0.98	11040	1.22
8100	2.20	11100	5.64
8160	2.59	11160	3.77
8220	3.61	11220	6.99
8280	13.55	11280	8.56
8340	18.82	11340	2.71
8400	3.75	11400	1.13
8460	2.27	11460	2.40
8520	1.25	11520	1.67
8580	1.14	11580	1.30
8640	3.99	11640	1.61
8700	3.78	11700	2.02
8760	3.46	11760	2.11
8820	1.47	11820	1.59
8880	6.59	11880	4.97
8940	26.45	11940	13.61
9000	20.21	12000	4.29
9060	3.58	12060	2.38
9120	5.28	12120	2.47
9180	4.60	12180	2.14
9240	1.47	12240	3.79
9300	3.60	12300	1.73
9360	0.92	12360	2.80
9420	1.15	12420	4.47
9480	2.38	12480	4.63
9540	0.74	12540	5.86
9600	0.63	12600	7.20
9660	1.15	12660	1.72
9720	1.05	12720	4.74
9780	0.89	12780	4.72
9840	0.44	12840	3.17
9900	0.41	12900	4.93
9960	0.86	12960	5.52
10020	0.85	13020	2.09
10080	0.71	13080	2.73
10140	0.44	13140	6.57
10200	0.92	13200	6.00
10260	0.92	13260	6.89
10320	1.62	13320	7.21
10380	0.81	13380	14.00

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
13440	7.59	15360	2.88
13500	16.25	15420	4.07
13560	11.38	15480	3.77
13620	7.02	15540	0.80
13680	9.27	15600	5.26
13740	6.07	15660	4.16
13800	18.88	15720	2.87
13860	5.54	15780	1.08
13920	3.35	15840	1.03
13980	2.11	15900	1.10
14040	5.85	15960	0.67
14100	3.46	16020	0.89
14160	6.16	16080	1.41
14220	5.27	16140	1.54
14280	7.08	16200	1.49
14340	4.22	16260	1.65
14400	3.82	16320	1.52
14460	6.25	16380	1.41
14520	8.54	16440	0.90
14580	7.46	16500	1.33
14640	11.17	16560	1.45
14700	15.53	16620	1.86
14760	6.24	16680	1.84
14820	6.40	16740	1.40
14880	9.33	16800	7.59
14940	6.05	16860	6.64
15000	4.52	16920	5.63
15060	3.68	16980	6.45
15120	6.07	17040	2.58
15180	5.67	17100	8.91
15240	3.60	17143	5.94
15300	4.54		

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
1488	0.41	7155	0.84
1553	0.30	7226	0.37
1656	0.38	7450	0.57
1670	0.10	7532	0.92
1768	0.15	7552	0.77
1880	0.38	7772	0.72
1972	0.36	7894	0.67
2028	0.38	7947	0.64
2120	0.46	8033	0.73
2222	0.26	8089	0.38
2344	0.29	8124	0.69
2410	0.28	8249	0.61
2506	0.25	8314	49.47
2592	0.81	8341	0.97
2688	1.06	8433	0.83
2772	0.58	8558	0.90
2866	0.79	8886	0.33
2935	1.35	8923	1.16
3012	0.12	8980	0.54
3140	1.04	9059	0.24
3238	0.28	9239	0.54
3294	1.03	9448	0.72
3402	1.08	9511	0.41
3524	1.45	9568	0.30
3589	1.23	9663	0.26
3709	1.79	9752	0.14
3906	0.36	9843	0.16
3976	0.46	9960	0.22
4016	0.69	10010	0.38
4080	0.32	10069	0.40
4242	0.30	10185	0.30
4373	0.44	10250	0.40
4444	0.13	10269	0.22
4584	0.21	10557	0.79
4680	0.60	10638	0.04
4824	0.68	10732	0.13
4870	0.66	10832	2.80
4975	1.61	10921	0.51
5107	0.44	11109	0.08
5136	0.48	11145	0.47
5331	0.57	11224	19.13
5470	0.40	11249	0.39
5524	0.42	11304	0.04
5691	0.41	11410	0.11
5781	0.23	11494	0.78
6500	1.35	11556	0.22
6584	0.73	11637	0.08
6875	0.17	11662	0.11
6976	0.24	11849	0.11
7038	0.47	11974	0.09

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
12021	30.89	12825	51.97
12159	1.69	12868	0.41
12252	12.31	12921	1.03
12396	0.22	12933	0.11
12449	0.99	13026	1.05
12552	0.06	13075	0.07
12577	0.28	13136	0.08
12585	4.14	13231	0.29
12677	0.07	13269	0.09
12703	0.15	13275	0.78
12820	12.84		

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
3392.0	1.47	9262.3	0.50
4193.5	0.30	9263.5	1.93
4197.8	0.52	9264.0	1.28
4199.6	0.32	9945.7	0.22
5229.3	0.12	9949.7	0.19
5230.2	0.19	9951.2	0.30
5231.9	0.20	9956.3	0.26
5235.2	0.10	9957.5	0.26
5235.6	0.17	9958.3	0.25
5238.2	0.14	9961.8	0.40
5241.1	0.10	9963.4	0.30
5242.2	0.14	9966.9	0.35
5245.2	0.12	9969.2	0.38
5971.4	0.31	9970.8	0.26
5972.3	0.24	9972.4	0.78
5974.5	0.39	9974.8	0.35
5976.9	0.25	9979.4	0.32
5980.4	0.26	9981.2	0.47
5983.3	0.13	9982.0	0.45
5986.6	0.32	9983.8	0.53
5989.7	0.38	10326.4	0.29
5991.3	0.43	10328.3	0.04
5994.7	0.34	10328.7	0.09
6669.8	0.17	10330.2	0.06
8050.7	2.68	10334.8	0.04
8057.4	1.91	10731.0	0.34
8060.3	2.84	10733.9	0.67
8062.9	2.38	10735.9	0.48
8065.3	1.23	10737.8	0.27
8067.9	1.88	10738.4	4.92
8071.2	0.43	11085.2	0.10
8074.4	4.98	11089.5	0.07
8077.3	2.66	11093.6	0.04
8079.5	1.25	11098.2	0.44
8080.6	0.71	11098.7	0.28
8082.3	0.10	11100.8	0.24
8085.1	1.36	11102.5	1.24
8087.8	0.61	11103.2	0.30
8091.6	0.71	11108.0	0.08
8092.7	3.77	12249.0	0.14
8633.4	0.60	12251.2	5.23
8635.9	0.74	12253.3	0.03
8636.3	6.34	12255.5	0.04
8641.9	3.57	12259.1	0.97
8646.6	3.19	12262.4	35.89
8649.4	0.09	12264.4	0.61
8653.5	2.28	12265.2	1.11
8654.5	0.76	12268.6	0.80
8656.0	0.16	12269.3	28.77
9257.5	2.16	12269.8	0.24

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
12630.9	3.65	15367.3	0.78
12632.1	0.66	15368.5	0.82
12634.4	1.74	16006.9	1.35
12634.8	5.87	16009.3	1.76
12635.4	5.14	16011.8	1.48
12636.0	1.20	16017.4	1.22
12639.6	0.09	16020.6	0.98
14167.4	13.91	16023.1	0.88
14167.7	17.84	16025.4	2.05
14179.1	18.69	16027.0	1.45
14179.4	17.18	16029.0	1.58
14183.8	10.19	16701.2	2.17
14186.2	3.98	16703.7	2.22
15347.8	0.42	16705.3	2.03
15349.7	0.91	16707.5	2.76
15351.8	0.51	16714.6	1.17
15354.6	2.59	16716.2	1.93
15359.6	1.06	16717.9	1.21
15364.7	0.67	16719.6	2.34
15366.3	0.62		

TOTAL ORGANIC CARBON DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (Feet)	TOC (%)	DEPTH (Feet)	TOC (%)
3392.0	1.47	10329.7	0.10
4197.0	0.38	10735.4	1.34
5236.5	0.14	11097.7	0.31
5982.1	0.31	12260.7	6.71
6669.8	0.17	12634.7	2.62
8074.2	1.84	14177.3	13.63
8645.3	1.97	15358.9	0.93
9261.8	1.47	16018.9	1.42
9966.1	0.36	16710.8	1.98

(Mean data for cores as used in figures)

APPENDIX IV

ROCK-EVAL PYROLYSIS DATA

Rock-Eval data are expressed as mg/g of rock and include four basic parameters: 1) S_1 represents the quantity of free hydrocarbons present in the rock and is roughly analogous to the solvent extractable portion of the organic matter; 2) S_2 represents the quantity of hydrocarbons released by the kerogen in the sample during pyrolysis; 3) S_3 is related to the amount of oxygen present in the kerogen; and 4) T-max, in °C, is the temperature at which the maximum rate of generation (of the S_2 peak) occurs and can be used as an estimate of thermal maturity.

In addition, the ratio S_2/S_3 provides a general indication of kerogen quality (type) and reveals whether oil or gas are likely to be generated. The ratio $S_1/(S_1+S_2)$, or the productivity index, is an indication of the relative amount of free hydrocarbons (in place or migrated) present in the sample. Hydrogen and oxygen index values are in mg of hydrocarbons (S_2 peak) or carbon dioxide (S_3 peak) per gram of organic carbon. When plotted against each other on a van Krevelen-type diagram, information on kerogen type and maturity can be obtained.

Data are interpreted in the following manner:

Source Potential - values of S2	<2.5	: poor
	2.5-5.0	: marginal
	>5.0	: good
Petroleum Type - value of S2/S3	<2.5	: dry gas
	2.5-5.0	: wet gas
	>5.0	: oil
Generation Zones - values of T-max	<435	: immature
	435-470	: oil
	450 +	: gas

Productivity Index - high values of S1/(S1+S2) indicate migrated hydrocarbons.

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
1950	0.014	0.125	0.438	0.286	0.099	435
2010	0.019	0.141	0.679	0.208	0.119	428
2070	0.037	0.147	0.494	0.297	0.202	428
2130	0.037	0.222	0.655	0.339	0.143	435
2310	0.071	0.091	0.580	0.156	0.439	421
2370	0.029	0.140	0.581	0.241	0.170	419
2430	0.045	0.323	0.779	0.414	0.121	416
2490	0.037	0.326	1.013	0.322	0.102	429
2550	0.046	0.455	1.222	0.372	0.092	426
2610	0.052	0.528	1.316	0.401	0.090	431
2670	0.232	3.824	4.239	0.902	0.057	433
2730	0.131	2.017	2.674	0.754	0.061	432
2790	0.108	1.544	2.849	0.542	0.066	423
2850	0.077	1.300	3.062	0.425	0.056	426
2910	0.110	2.230	5.437	0.410	0.047	426
2970	0.063	1.806	2.858	0.632	0.034	426
3030	0.199	4.727	6.823	0.693	0.040	416
3090	0.118	7.056	5.438	1.298	0.016	412
3150	2.141	6.557	6.917	0.948	0.246	407
3210	0.156	10.386	4.283	2.425	0.015	406
3270	0.212	5.939	3.886	1.529	0.035	412
3330	0.368	13.367	9.779	1.367	0.027	416
3390	1.606	10.050	7.486	1.342	0.138	417
3450	0.057	2.290	3.767	0.608	0.024	420
3510	0.416	2.858	6.258	0.457	0.127	419
3570	0.215	2.490	3.378	0.737	0.079	422
3630	0.198	4.445	5.823	0.763	0.043	430
3690	0.115	3.238	3.685	0.879	0.034	415
3750	0.218	1.923	4.693	0.410	0.102	422
3810	0.426	2.986	6.425	0.465	0.125	423
3870	0.258	1.592	4.999	0.319	0.139	433
3930	0.338	1.548	3.117	0.497	0.179	421
3990	0.108	1.170	3.851	0.304	0.085	431
4050	0.097	1.138	2.673	0.426	0.079	428
4110	0.137	1.397	3.193	0.438	0.089	425
4170	0.124	0.384	1.351	0.284	0.244	427
4350	0.017	0.099	0.474	0.210	0.145	467
4410	0.053	0.294	0.787	0.374	0.153	429
4530	0.018	0.144	0.681	0.211	0.113	426
4650	0.046	0.250	0.638	0.392	0.157	423
4710	0.066	0.131	1.194	0.110	0.336	427
4770	0.027	0.268	0.921	0.291	0.093	437
4830	0.054	0.442	1.725	0.256	0.110	425
4890	0.028	0.300	3.346	0.090	0.085	433
4950	0.031	0.240	1.888	0.127	0.114	435
5010	0.017	0.278	1.915	0.145	0.057	430
5070	0.021	0.557	1.969	0.283	0.035	430
5130	0.083	0.676	2.037	0.332	0.110	436
5190	0.046	0.426	1.511	0.282	0.097	439
5250	0.040	0.517	1.882	0.275	0.072	441

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
5310	0.032	0.362	1.321	0.274	0.082	421
5370	0.022	0.127	0.582	0.218	0.150	433
5430	0.011	0.187	0.789	0.237	0.055	436
5490	0.014	0.089	0.741	0.120	0.132	433
5610	0.013	0.066	0.735	0.089	0.163	439
5670	0.010	0.108	0.408	0.264	0.081	437
6510	0.011	0.082	0.468	0.176	0.116	435
6810	0.011	0.071	0.285	0.250	0.129	432
7050	0.012	0.072	0.206	0.348	0.141	437
7110	0.017	0.170	0.298	0.570	0.092	436
7170	0.012	0.139	0.381	0.365	0.081	439
7230	0.010	0.108	0.322	0.335	0.084	438
7290	0.104	0.182	0.340	0.535	0.363	421
7410	0.011	0.113	0.277	0.409	0.089	435
7470	0.013	0.132	0.544	0.242	0.089	434
7530	0.351	11.406	2.125	5.368	0.030	417
7590	0.092	2.291	1.214	1.887	0.039	427
7650	0.061	3.123	1.735	1.801	0.019	418
7710	0.016	0.468	0.650	0.720	0.032	440
7800	0.031	0.882	0.694	1.271	0.034	427
7860	0.029	2.222	0.781	2.847	0.013	427
7920	0.033	1.265	0.867	1.458	0.026	433
7980	0.357	9.932	1.518	6.544	0.035	421
8040	0.021	0.633	0.911	0.696	0.032	435
8100	0.027	1.426	1.041	1.370	0.019	433
8160	0.035	1.789	1.209	1.480	0.019	434
8220	0.141	4.514	1.467	3.078	0.030	422
8280	0.909	23.637	3.008	7.857	0.037	416
8340	0.275	32.208	3.938	8.180	0.008	417
8400	0.123	4.167	1.821	2.288	0.029	423
8460	0.070	1.992	1.224	1.627	0.034	433
8520	0.039	0.738	0.964	0.765	0.050	436
8580	0.035	0.804	1.024	0.786	0.042	433
8640	0.127	3.688	1.269	2.907	0.033	431
8700	0.125	4.869	1.085	4.486	0.025	424
8760	0.144	4.226	1.372	3.080	0.033	427
8820	0.083	1.366	1.105	1.236	0.057	429
8880	0.179	9.017	1.113	8.102	0.019	421
8940	0.431	48.403	2.882	16.796	0.009	410
9000	0.749	36.042	2.527	14.262	0.020	413
9060	0.093	4.461	1.685	2.648	0.020	427
9120	0.113	6.674	1.463	4.562	0.017	420
9180	0.100	5.519	1.552	3.556	0.018	426
9240	0.057	1.382	1.330	1.039	0.039	433
9300	0.119	5.708	1.507	3.786	0.020	420
9360	0.021	0.811	0.754	1.076	0.025	434
9420	0.017	0.902	1.064	0.848	0.019	435
9480	0.051	2.005	0.887	2.261	0.025	430
9540	0.063	0.483	0.802	0.603	0.115	435
9600	0.032	0.465	0.789	0.590	0.064	435

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
9660	0.040	1.227	1.044	1.175	0.032	430
9720	0.042	0.845	0.850	0.995	0.047	430
9780	0.051	0.644	0.801	0.804	0.074	436
9840	0.020	0.177	0.502	0.353	0.103	436
9900	0.015	0.189	0.520	0.363	0.074	433
9960	0.037	0.597	0.821	0.728	0.058	438
10020	0.033	0.420	0.977	0.429	0.073	431
10080	0.028	0.379	0.844	0.450	0.069	436
10140	0.022	0.182	0.650	0.279	0.110	432
10200	0.029	0.531	0.796	0.667	0.051	428
10260	0.037	0.623	0.813	0.767	0.056	433
10320	0.107	0.906	0.694	1.305	0.105	433
10380	0.028	0.408	0.374	1.089	0.064	435
10440	0.251	3.419	0.841	4.066	0.068	421
10500	0.252	4.832	1.234	3.915	0.050	429
10560	0.139	3.474	0.398	8.736	0.038	429
10620	0.234	10.779	0.988	10.912	0.021	426
10680	0.060	1.570	0.481	3.264	0.037	437
10740	0.120	4.110	0.733	5.608	0.028	431
10800	0.123	3.556	0.906	3.925	0.033	438
10860	0.026	0.978	0.433	2.258	0.026	432
10920	0.285	5.098	0.912	5.587	0.053	436
10980	0.040	0.982	0.333	2.945	0.039	433
11040	0.030	1.146	0.508	2.257	0.026	436
11100	0.250	7.203	0.827	8.705	0.033	430
11160	0.138	5.549	0.709	7.829	0.024	433
11220	0.221	12.910	0.549	23.498	0.017	422
11280	0.437	18.659	1.148	16.253	0.023	425
11340	0.117	4.217	0.345	12.237	0.027	437
11400	0.039	1.820	0.322	5.657	0.021	436
11460	0.143	4.148	0.539	7.698	0.033	436
11520	0.112	2.104	0.805	2.614	0.051	437
11580	0.069	1.244	0.904	1.376	0.053	439
11640	0.114	1.467	1.006	1.458	0.072	437
11700	0.089	2.025	1.142	1.774	0.042	440
11760	0.079	2.545	0.741	3.435	0.030	436
11820	0.061	1.725	1.128	1.530	0.034	436
11880	0.216	8.828	1.093	8.076	0.024	428
11940	1.576	31.860	2.414	13.197	0.047	423
12000	0.193	8.729	0.968	9.022	0.022	431
12060	0.197	3.741	0.717	5.215	0.050	438
12120	0.169	3.065	0.285	10.758	0.052	436
12180	0.119	2.374	0.379	6.267	0.048	436
12240	0.203	5.609	0.422	13.283	0.035	433
12300	0.061	1.319	0.403	3.269	0.044	441
12360	0.186	3.217	0.978	3.290	0.055	437
12420	0.184	7.175	0.486	14.752	0.025	429
12480	0.313	6.222	1.637	3.801	0.048	434
12540	0.310	11.431	0.559	20.465	0.026	427
12600	0.567	16.855	0.545	30.938	0.033	429

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
12660	0.082	1.766	0.423	4.174	0.045	435
12720	0.466	10.300	0.454	22.662	0.043	431
12780	0.208	9.349	0.354	26.430	0.022	430
12840	0.237	5.602	0.331	16.949	0.041	434
12900	0.334	9.059	0.383	23.672	0.036	429
12960	0.558	13.602	0.320	42.510	0.039	429
13020	0.101	2.442	0.388	6.292	0.040	435
13080	0.231	5.004	0.466	10.737	0.044	438
13140	0.370	12.727	0.415	30.695	0.028	429
13200	0.745	14.012	0.452	31.026	0.050	428
13260	0.556	16.027	0.444	36.089	0.034	428
13320	1.047	17.497	0.543	32.203	0.056	429
13380	2.867	49.573	0.926	53.544	0.055	428
13440	0.926	19.359	2.008	9.643	0.046	433
13500	4.118	50.787	4.228	12.012	0.075	429
13560	1.620	29.415	0.565	52.019	0.052	432
13620	0.819	21.634	0.439	49.335	0.036	434
13680	1.581	26.847	0.918	29.255	0.056	433
13740	1.072	11.606	1.325	8.761	0.085	435
13800	3.635	59.861	0.717	83.507	0.057	432
13860	0.991	12.570	0.378	33.251	0.073	429
13920	0.492	4.720	0.442	10.679	0.094	437
13980	0.299	3.399	0.522	6.511	0.081	444
14040	0.935	12.383	0.498	24.847	0.070	435
14100	0.475	5.326	0.920	5.791	0.082	440
14160	1.002	12.676	0.709	17.887	0.073	433
14220	1.170	15.229	0.574	26.549	0.071	439
14280	1.420	18.501	0.398	46.490	0.071	431
14340	0.708	8.938	1.230	7.268	0.073	434
14400	0.656	5.440	0.614	8.862	0.108	436
14460	1.280	15.613	0.599	26.046	0.076	438
14520	1.305	18.681	0.473	39.457	0.065	432
14580	2.958	39.368	0.613	64.202	0.070	439
14640	3.248	33.495	0.703	47.662	0.088	435
14700	4.434	44.163	0.619	71.311	0.091	437
14760	1.300	14.453	1.054	13.715	0.083	439
14820	1.295	13.941	0.432	32.267	0.085	435
14880	2.570	25.518	0.679	37.605	0.092	434
14940	1.616	15.221	0.257	59.168	0.096	436
15000	1.269	11.652	0.690	16.885	0.098	437
15060	0.686	7.356	0.243	30.233	0.085	439
15120	1.281	11.758	1.220	9.634	0.098	437
15180	1.165	9.816	1.236	7.942	0.106	436
15240	0.724	9.035	0.738	12.239	0.074	435
15300	0.980	7.978	0.415	19.215	0.109	441
15360	0.699	3.670	0.589	6.229	0.160	444
15420	0.914	6.377	0.804	7.934	0.125	444
15480	0.821	7.206	0.494	14.592	0.102	437
15540	0.536	6.916	1.746	3.962	0.072	434
15600	1.273	13.033	0.980	13.305	0.089	432

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
15660	1.209	7.580	0.544	13.947	0.138	452
15720	0.680	4.838	0.400	12.084	0.123	438
15780	0.164	0.989	0.491	2.014	0.142	450
15840	0.154	1.344	0.465	2.890	0.103	445
15900	0.219	0.841	0.356	2.359	0.207	449
15960	0.066	0.351	0.774	0.454	0.158	452
16020	0.123	0.541	0.427	1.269	0.185	452
16080	0.427	1.250	1.219	1.026	0.255	452
16140	0.435	1.315	1.395	0.942	0.249	461
16200	0.193	1.272	1.736	0.733	0.132	453
16260	0.516	1.266	1.074	1.179	0.289	456
16320	0.706	1.302	1.253	1.039	0.351	461
16380	0.777	1.102	1.224	0.901	0.413	455
16440	0.266	0.836	1.140	0.733	0.241	458
16500	0.555	1.139	1.331	0.856	0.328	460
16560	0.617	1.227	0.901	1.361	0.335	454
16620	1.178	1.770	0.922	1.919	0.400	457
16680	0.341	1.251	0.704	1.776	0.214	444
16740	0.404	1.209	0.554	2.185	0.250	459
16800	1.899	7.925	0.540	14.670	0.193	453
16860	1.160	5.871	3.085	1.903	0.165	447
16920	1.590	4.215	0.725	5.818	0.274	460
16980	2.046	6.110	1.231	4.963	0.251	466
17040	0.723	2.103	0.550	3.826	0.256	460
17100	2.756	8.966	4.916	1.824	0.235	459
17143	1.344	5.043	0.706	7.140	0.210	458

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
1950	45	156	0.28
2010	39	189	0.36
2070	42	141	0.35
2130	36	107	0.61
2310	29	187	0.31
2370	37	153	0.38
2430	59	142	0.55
2490	46	143	0.71
2550	63	170	0.72
2610	51	127	1.04
2670	93	103	4.13
2730	62	82	3.25
2790	73	135	2.11
2850	42	99	3.09
2910	65	159	3.41
2970	65	103	2.77
3030	89	128	5.31
3090	95	73	7.46
3150	111	117	5.92
3210	159	65	6.54
3270	106	69	5.61
3330	138	101	9.69
3390	133	99	7.57
3450	86	142	2.66
3510	98	214	2.93
3570	74	101	3.35
3630	99	129	4.50
3690	77	88	4.21
3750	80	196	2.39
3810	84	180	3.57
3870	62	196	2.55
3930	65	130	2.39
3990	73	239	1.61
4050	61	144	1.86
4110	87	200	1.60
4170	41	145	0.93
4350	25	121	0.39
4410	53	143	0.55
4530	37	175	0.39
4650	50	128	0.50
4710	17	151	0.79
4770	51	174	0.53
4830	43	169	1.02
4890	34	385	0.87
4950	42	331	0.57
5010	33	231	0.83
5070	67	237	0.83
5130	37	110	1.85
5190	24	86	1.76
5250	42	152	1.24

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
5310	26	96	1.37
5370	13	60	0.97
5430	32	134	0.59
5490	28	232	0.32
5610	15	163	0.45
5670	26	100	0.41
6510	24	138	0.34
6810	20	79	0.36
7050	26	76	0.27
7110	34	60	0.50
7170	23	62	0.61
7230	22	64	0.50
7290	36	68	0.50
7410	22	54	0.51
7470	35	143	0.38
7530	151	28	7.56
7590	74	39	3.10
7650	66	37	4.72
7710	53	74	0.88
7800	47	37	1.86
7860	84	30	2.64
7920	75	51	1.69
7980	169	26	5.89
8040	65	93	0.98
8100	65	47	2.20
8160	69	47	2.59
8220	125	41	3.61
8280	174	22	13.55
8340	171	21	18.82
8400	111	49	3.75
8460	88	54	2.27
8520	59	77	1.25
8580	71	90	1.14
8640	92	32	3.99
8700	129	29	3.78
8760	122	40	3.46
8820	93	75	1.47
8880	137	17	6.59
8940	183	11	26.45
9000	178	13	20.21
9060	125	47	3.58
9120	126	28	5.28
9180	120	34	4.60
9240	94	90	1.47
9300	159	42	3.60
9360	88	82	0.92
9420	78	93	1.15
9480	84	37	2.38
9540	65	108	0.74
9600	74	125	0.63

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
9660	107	91	1.15
9720	81	81	1.05
9780	72	90	0.89
9840	40	114	0.44
9900	46	127	0.41
9960	69	95	0.86
10020	49	115	0.85
10080	53	119	0.71
10140	41	148	0.44
10200	58	86	0.92
10260	68	88	0.92
10320	56	43	1.62
10380	50	46	0.81
10440	84	21	4.07
10500	138	35	3.50
10560	162	19	2.14
10620	216	20	5.00
10680	124	38	1.27
10740	145	26	2.84
10800	132	34	2.70
10860	110	49	0.89
10920	145	26	3.52
10980	94	32	1.05
11040	94	42	1.22
11100	128	15	5.64
11160	147	19	3.77
11220	185	8	6.99
11280	218	13	8.56
11340	156	13	2.71
11400	161	28	1.13
11460	173	22	2.40
11520	126	48	1.67
11580	96	70	1.30
11640	91	62	1.61
11700	100	57	2.02
11760	121	35	2.11
11820	109	71	1.59
11880	178	22	4.97
11940	234	18	13.61
12000	203	23	4.29
12060	157	30	2.38
12120	124	12	2.47
12180	111	18	2.14
12240	148	11	3.79
12300	76	23	1.73
12360	115	35	2.80
12420	161	11	4.47
12480	134	35	4.63
12540	195	10	5.86
12600	234	8	7.20

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
12660	103	25	1.72
12720	217	10	4.74
12780	198	7	4.72
12840	177	10	3.17
12900	184	8	4.93
12960	246	6	5.52
13020	117	19	2.09
13080	183	17	2.73
13140	194	6	6.57
13200	234	8	6.00
13260	233	6	6.89
13320	243	8	7.21
13380	354	7	14.00
13440	255	26	7.59
13500	313	26	16.25
13560	258	5	11.38
13620	308	6	7.02
13680	290	10	9.27
13740	191	22	6.07
13800	317	4	18.88
13860	227	7	5.54
13920	141	13	3.35
13980	161	25	2.11
14040	212	9	5.85
14100	154	27	3.46
14160	206	12	6.16
14220	289	11	5.27
14280	261	6	7.08
14340	212	29	4.22
14400	142	16	3.82
14460	250	10	6.25
14520	219	6	8.54
14580	528	8	7.46
14640	300	6	11.17
14700	284	4	15.53
14760	232	17	6.24
14820	218	7	6.40
14880	274	7	9.33
14940	252	4	6.05
15000	258	15	4.52
15060	200	7	3.68
15120	194	20	6.07
15180	173	22	5.67
15240	251	21	3.60
15300	176	9	4.54
15360	127	20	2.88
15420	157	20	4.07
15480	191	13	3.77
15540	865	218	0.80
15600	248	19	5.26

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
15660	182	13	4.16
15720	169	14	2.87
15780	92	45	1.08
15840	131	45	1.03
15900	76	32	1.10
15960	52	116	0.67
16020	61	48	0.89
16080	89	86	1.41
16140	85	91	1.54
16200	85	117	1.49
16260	77	65	1.65
16320	86	82	1.52
16380	78	87	1.41
16440	93	127	0.90
16500	86	100	1.33
16560	85	62	1.45
16620	95	50	1.86
16680	68	38	1.84
16740	86	40	1.40
16800	104	7	7.59
16860	88	46	6.64
16920	75	13	5.63
16980	95	19	6.45
17040	82	21	2.58
17100	101	55	8.91
17143	85	12	5.94

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
1488	0.100	0.112	0.646	0.173	0.472	413
1553	0.035	0.155	0.329	0.470	0.185	408
1656	0.042	0.141	0.953	0.148	0.229	416
1880	0.026	0.123	0.456	0.269	0.176	408
1972	0.057	0.096	0.358	0.268	0.375	420
2028	0.023	0.131	0.352	0.372	0.147	422
2120	0.039	0.158	0.743	0.213	0.198	419
2344	0.013	0.088	0.280	0.315	0.128	418
2410	0.013	0.084	0.483	0.175	0.131	420
2592	0.014	0.338	1.663	0.204	0.041	432
2688	0.030	0.522	1.390	0.376	0.054	423
2772	0.019	0.198	1.918	0.103	0.089	420
2866	0.029	0.293	1.526	0.192	0.091	421
2935	0.059	1.022	4.304	0.238	0.054	429
3140	0.034	0.835	1.792	0.466	0.040	426
3238	0.008	0.081	2.160	0.037	0.093	424
3294	0.026	0.578	0.842	0.686	0.043	423
3402	0.317	1.605	7.047	0.228	0.165	427
3524	0.064	1.024	3.512	0.292	0.059	426
3589	0.056	0.595	3.559	0.167	0.086	424
3709	0.052	1.228	5.148	0.239	0.041	431
3906	0.032	0.152	0.452	0.336	0.172	416
3976	0.013	0.191	0.808	0.237	0.065	433
4016	0.015	0.366	1.404	0.260	0.040	429
4080	0.016	0.133	0.847	0.157	0.106	416
4242	0.011	0.085	0.384	0.222	0.116	420
4373	0.023	0.117	0.549	0.213	0.161	421
4680	0.023	0.242	2.314	0.104	0.087	428
4824	0.024	0.251	1.231	0.204	0.088	425
4870	0.026	0.231	2.181	0.106	0.101	432
4975	0.052	0.922	1.626	0.567	0.054	429
5107	0.039	0.157	0.844	0.186	0.197	437
5136	0.020	0.114	0.685	0.166	0.152	427
5331	0.025	0.161	0.564	0.286	0.134	421
5470	0.013	0.106	0.457	0.233	0.111	424
5524	0.017	0.130	0.562	0.232	0.118	442
5691	0.015	0.093	0.581	0.161	0.139	418
6500	0.047	0.555	1.261	0.440	0.078	427
6584	0.021	0.284	1.064	0.267	0.069	428
7038	0.015	0.189	0.422	0.447	0.076	427
7153	0.020	0.402	0.710	0.566	0.048	438
7226	0.013	0.122	0.753	0.161	0.100	424
7450	0.024	0.327	0.563	0.580	0.070	433
7532	0.025	0.582	0.751	0.775	0.042	437
7552	0.064	0.489	0.729	0.671	0.115	432
7772	0.018	0.377	0.494	0.762	0.047	434
7894	0.032	0.447	0.358	1.248	0.067	428
7947	0.022	0.289	0.901	0.321	0.072	435
8033	0.031	0.370	0.371	0.996	0.076	432
8089	0.022	0.149	0.259	0.574	0.129	437

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
8124	0.038	0.452	0.555	0.815	0.078	433
8249	0.033	0.481	1.175	0.409	0.063	432
8314	3.286	180.867	3.883	46.582	0.018	410
8341	0.065	0.811	1.533	0.529	0.074	427
8433	0.044	0.490	0.610	0.804	0.083	429
8558	0.054	0.837	0.943	0.887	0.061	433
8886	0.039	0.200	0.382	0.523	0.163	427
8923	0.048	0.766	0.564	1.358	0.058	428
8980	0.030	0.339	0.459	0.739	0.081	426
9239	0.023	0.187	0.223	0.839	0.108	430
9448	0.028	0.620	0.515	1.203	0.043	432
9511	0.025	0.206	0.218	0.947	0.109	430
9568	0.024	0.130	0.361	0.360	0.155	424
10010	0.022	0.217	0.170	1.277	0.092	427
10069	0.030	0.223	0.177	1.260	0.120	428
10185	0.020	0.147	0.109	1.349	0.117	425
10250	0.026	0.177	0.164	1.077	0.128	424
10557	0.024	0.601	0.490	1.226	0.038	428
10832	0.237	5.607	0.720	7.787	0.040	433
10921	0.035	0.282	0.452	0.624	0.110	431
11145	0.025	0.298	0.234	1.273	0.078	430
11224	1.832	58.732	1.684	34.871	0.030	423
11249	0.027	0.266	0.219	1.216	0.093	434
11494	0.060	0.458	0.407	1.128	0.116	432
12021	3.802	83.663	1.179	70.990	0.043	420
12159	0.063	1.357	0.381	3.563	0.044	434
12252	1.443	34.510	1.435	24.045	0.040	426
12449	0.064	0.819	0.507	1.615	0.073	437
12577	0.029	0.196	0.338	0.580	0.129	425
12585	0.460	6.060	0.488	12.431	0.071	434
12820	1.595	59.824	0.394	151.648	0.026	424
12825	9.098	169.312	1.797	94.217	0.051	429
12868	0.039	0.123	0.237	0.520	0.239	436
12921	0.075	1.072	0.899	1.192	0.066	436
13026	0.086	1.107	1.035	1.069	0.072	432
13231	0.039	0.236	0.243	0.970	0.141	433
13275	0.090	1.394	0.146	9.578	0.061	441

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
1488	27	158	0.41
1553	52	110	0.30
1656	37	251	0.38
1880	32	120	0.38
1972	27	99	0.36
2028	34	93	0.38
2120	34	162	0.46
2344	30	97	0.29
2410	30	173	0.28
2592	42	205	0.81
2688	49	131	1.06
2772	34	331	0.58
2866	37	193	0.79
2935	76	319	1.35
3140	80	172	1.04
3238	29	772	0.28
3294	56	82	1.03
3402	149	653	1.08
3524	71	242	1.45
3589	48	289	1.23
3709	69	288	1.79
3906	42	126	0.36
3976	42	176	0.46
4016	53	203	0.69
4080	42	265	0.32
4242	28	128	0.30
4373	27	125	0.44
4680	40	386	0.60
4824	37	181	0.68
4870	35	330	0.66
4975	57	101	1.61
5107	36	192	0.44
5136	24	143	0.48
5331	28	99	0.57
5470	27	114	0.40
5524	31	134	0.42
5691	23	142	0.41
6500	41	93	1.35
6584	39	146	0.73
7038	40	90	0.47
7155	48	85	0.84
7226	33	204	0.37
7450	57	99	0.57
7532	63	82	0.92
7552	63	95	0.77
7772	52	69	0.72
7894	67	53	0.67
7947	45	141	0.64
8033	51	51	0.73
8089	39	68	0.38

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
8124	66	80	0.69
8249	79	193	0.61
8314	366	8	49.47
8341	84	158	0.97
8433	59	74	0.83
8558	93	105	0.90
8886	61	116	0.33
8923	66	49	1.16
8980	63	85	0.54
9239	35	41	0.54
9448	86	72	0.72
9511	50	53	0.41
9568	43	120	0.30
10010	57	45	0.38
10069	56	44	0.40
10185	49	36	0.30
10250	44	41	0.40
10557	76	62	0.79
10832	200	26	2.80
10921	55	89	0.51
11145	63	50	0.47
11224	307	9	19.13
11249	68	56	0.39
11494	59	52	0.78
12021	271	4	30.89
12159	80	23	1.69
12252	280	12	12.31
12449	83	51	0.99
12577	70	121	0.28
12585	146	12	4.14
12820	466	3	12.84
12825	326	3	51.97
12868	30	58	0.41
12921	104	87	1.03
13026	105	99	1.05
13231	81	84	0.29
13275	179	19	0.78

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
3392.0	0.225	1.207	11.842	0.102	0.157	428
4193.5	0.024	0.089	0.569	0.157	0.211	418
4197.8	0.061	0.036	0.423	0.085	0.630	422
4199.6	0.026	0.077	0.306	0.252	0.249	423
5971.4	0.010	0.092	0.492	0.186	0.096	414
5974.5	0.009	0.102	0.422	0.241	0.084	426
5986.6	0.060	0.108	0.464	0.234	0.355	417
5989.7	0.011	0.093	0.509	0.182	0.103	426
5991.3	0.015	0.146	0.789	0.185	0.095	425
5994.7	0.028	0.089	0.699	0.127	0.243	418
8050.7	0.106	2.184	1.593	1.371	0.046	434
8057.4	0.031	1.410	0.849	1.660	0.022	437
8060.3	0.097	2.520	0.961	2.622	0.037	435
8062.9	0.077	1.337	1.109	1.205	0.054	436
8065.3	0.045	0.775	0.602	1.288	0.054	431
8067.9	0.066	1.001	0.457	2.191	0.062	437
8071.2	0.024	0.350	0.328	1.066	0.064	429
8074.4	0.152	4.898	1.557	3.145	0.030	427
8077.3	0.117	3.815	0.882	4.326	0.030	430
8079.5	0.039	1.024	0.437	2.345	0.037	435
8080.6	0.021	0.657	0.451	1.456	0.031	438
8085.1	0.039	1.063	0.361	2.941	0.035	429
8087.8	0.017	0.331	0.259	1.276	0.048	432
8091.6	0.017	0.319	0.216	1.481	0.051	432
8092.7	0.105	2.379	0.600	3.962	0.042	440
8633.4	0.018	0.315	3.527	0.089	0.055	430
8635.9	0.029	0.302	0.745	0.406	0.087	440
8636.3	0.143	5.407	2.207	2.450	0.026	425
8641.9	0.078	1.899	2.311	0.822	0.040	443
8646.6	0.078	1.483	1.569	0.945	0.050	432
8653.5	0.064	1.276	0.834	1.529	0.048	436
8654.5	0.017	0.470	0.399	1.177	0.035	429
9257.5	0.194	1.238	0.619	2.001	0.136	431
9262.3	0.067	0.200	0.260	0.770	0.250	430
9263.5	0.124	1.773	0.543	3.268	0.066	437
9264.0	0.143	1.371	0.542	2.528	0.094	432
9951.2	0.023	0.142	0.202	0.702	0.139	435
9961.8	0.020	0.160	0.277	0.578	0.112	424
9963.4	0.020	0.146	0.229	0.636	0.120	431
9966.9	0.018	0.148	0.198	0.744	0.108	429
9969.2	0.023	0.174	0.259	0.673	0.115	429
9972.4	0.026	0.075	0.178	0.421	0.259	425
9974.8	0.023	0.286	0.294	0.973	0.073	432
9979.4	0.017	0.148	0.197	0.752	0.105	428
9981.2	0.022	0.210	0.242	0.866	0.095	428
9982.0	0.017	0.189	0.228	0.828	0.084	429
9983.8	0.037	0.203	0.502	0.405	0.155	434
10326.4	0.025	0.125	0.206	0.606	0.166	423
10328.3	0.015	0.049	0.184	0.265	0.235	470
10328.7	0.016	0.056	0.177	0.318	0.223	426

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

	DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
11	10330.2	0.012	0.047	0.341	0.137	0.202	441
	10334.8	0.018	0.023	0.174	0.133	0.445	476
	10731.0	0.026	0.129	1.777	0.073	0.166	438
	10733.9	0.030	0.278	1.166	0.238	0.099	438
12	10735.9	0.043	0.377	0.831	0.454	0.101	441
	10737.8	0.023	0.106	0.539	0.198	0.175	435
	10738.4	0.134	6.946	3.423	2.030	0.019	426
	11098.2	0.030	0.212	0.302	0.701	0.124	434
	11098.7	0.024	0.135	0.163	0.827	0.151	436
13	11102.5	0.202	1.873	0.459	4.084	0.098	432
	11103.2	0.032	0.172	0.339	0.508	0.158	445
	12249.0	0.014	0.055	0.215	0.258	0.197	429
	12251.2	0.179	10.829	0.523	20.687	0.016	432
	12259.1	0.030	0.674	0.757	0.890	0.043	434
14	12262.4	3.987	112.160	1.146	97.902	0.034	414
	12264.4	0.021	0.442	0.843	0.524	0.045	429
	12265.2	0.032	0.724	0.881	0.822	0.043	441
	12268.6	0.031	0.525	0.973	0.539	0.056	434
	12269.3	1.500	77.582	2.144	36.186	0.019	418
	12269.8	0.026	0.145	1.046	0.139	0.150	425
	12630.9	0.252	11.053	0.346	31.985	0.022	430
	12632.1	0.036	0.833	0.542	1.537	0.041	430
15	12634.4	0.111	2.484	0.541	4.591	0.043	438
	12634.8	0.478	17.041	0.410	41.559	0.027	421
	12635.4	0.389	14.077	0.416	33.833	0.027	421
	12636.0	0.046	1.208	0.623	1.938	0.036	433
	14167.4	2.739	47.956	0.508	94.320	0.054	437
	14167.7	5.694	65.335	0.282	231.833	0.080	436
16	14179.1	8.324	68.312	0.656	104.159	0.109	437
	14179.4	6.559	64.088	0.395	162.442	0.093	433
	14183.8	1.490	34.125	0.417	81.740	0.042	436
	14186.2	1.238	24.662	0.380	64.922	0.048	433
	15347.8	0.066	0.198	0.210	0.943	0.250	458
	15349.7	0.182	0.615	0.235	2.618	0.228	454
	15351.8	0.071	0.231	0.238	0.971	0.236	457
17	15354.6	0.419	2.079	0.212	9.795	0.168	466
	15359.6	0.215	0.516	0.217	2.376	0.294	469
	15364.7	0.151	3.630	0.105	34.468	0.040	455
	15366.3	0.076	0.384	0.108	3.538	0.166	444
	15367.3	0.158	0.729	0.164	4.444	0.178	452
	15368.5	0.095	0.726	0.187	3.882	0.115	450
	16006.9	0.216	1.241	0.248	5.003	0.148	452
	16009.3	0.245	1.708	0.239	7.139	0.126	457
	16011.8	0.192	1.721	0.403	4.271	0.101	450
18	16017.4	0.185	1.335	0.259	5.158	0.122	456
	16020.6	0.134	0.718	0.093	7.761	0.157	451
	16023.1	0.106	0.939	0.169	5.557	0.101	449
	16025.4	0.414	2.655	0.338	7.867	0.135	450
	16027.0	0.225	1.433	0.293	4.889	0.136	453
	16029.0	0.289	1.903	0.307	6.201	0.132	452

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
16701.2	0.417	2.379	0.252	9.432	0.149	456
16703.7	0.769	2.514	0.296	8.489	0.234	458
16705.3	0.430	2.316	0.257	9.021	0.157	455
16707.5	0.653	3.402	0.320	10.634	0.161	458
16714.6	0.212	1.026	0.271	3.783	0.171	460
16716.2	0.392	1.784	0.360	4.950	0.180	460
16717.9	0.295	1.150	0.251	4.581	0.204	457
16719.6	0.601	2.385	0.251	9.497	0.201	463

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
3392.0	82	806	1.47
4193.5	30	190	0.30
4197.8	7	81	0.52
4199.6	24	96	0.32
5971.4	30	159	0.31
5974.5	26	108	0.39
5986.6	34	145	0.32
5989.7	24	134	0.38
5991.3	34	183	0.43
5994.7	26	205	0.34
8050.7	81	59	2.68
8057.4	74	44	1.91
8060.3	89	34	2.84
8062.9	56	47	2.38
8065.3	63	49	1.23
8067.9	53	24	1.88
8071.2	81	76	0.43
8074.4	98	31	4.98
8077.3	143	33	2.66
8079.5	82	35	1.25
8080.6	93	64	0.71
8085.1	78	27	1.36
8087.8	54	43	0.61
8091.6	45	30	0.71
8092.7	63	16	3.77
8633.4	53	588	0.60
8635.9	41	101	0.74
8636.3	85	35	6.34
8641.9	53	65	3.57
8646.6	46	49	3.19
8653.5	56	37	2.28
8654.5	62	53	0.76
9257.5	57	29	2.16
9262.3	40	52	0.50
9263.5	92	28	1.93
9264.0	107	42	1.28
9951.2	47	67	0.30
9961.8	40	69	0.40
9963.4	49	76	0.30
9966.9	42	57	0.35
9969.2	46	68	0.38
9972.4	10	23	0.78
9974.8	82	84	0.35
9979.4	46	62	0.32
9981.2	45	52	0.47
9982.0	42	51	0.45
9983.8	38	95	0.53
10326.4	43	71	0.29
10328.3	122	460	0.04
10328.7	63	197	0.09

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
10330.2	78	568	0.06
10334.8	58	434	0.04
10731.0	38	523	0.34
10733.9	41	174	0.67
10735.9	79	173	0.48
10737.8	39	199	0.27
10738.4	141	70	4.92
11098.2	48	69	0.44
11098.7	48	58	0.28
11102.5	151	37	1.24
11103.2	57	113	0.30
12249.0	40	153	0.14
12251.2	207	10	5.23
12259.1	69	78	0.97
12262.4	313	3	35.89
12264.4	72	138	0.61
12265.2	65	79	1.11
12268.6	66	122	0.80
12269.3	270	7	28.77
12269.8	60	436	0.24
12630.9	303	9	3.65
12632.1	126	82	0.66
12634.4	143	31	1.74
12634.8	290	7	5.87
12635.4	274	8	5.14
12636.0	101	52	1.20
14167.4	345	4	13.91
14167.7	366	2	17.84
14179.1	365	4	18.69
14179.4	373	2	17.18
14183.8	335	4	10.19
14186.2	620	10	3.98
15347.8	47	50	0.42
15349.7	68	26	0.91
15351.8	45	47	0.51
15354.6	80	8	2.59
15359.6	49	20	1.06
15364.7	542	16	0.67
15366.3	62	17	0.62
15367.3	94	21	0.78
15368.5	88	23	0.82
16006.9	92	18	1.35
16009.3	97	14	1.76
16011.8	116	27	1.48
16017.4	109	21	1.22
16020.6	73	9	0.98
16023.1	107	19	0.88
16025.4	130	16	2.05
16027.0	99	20	1.45
16029.0	120	19	1.58

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
16701.2	110	12	2.17
16703.7	113	13	2.22
16705.3	114	13	2.03
16707.5	123	12	2.76
16714.6	88	23	1.17
16716.2	92	19	1.93
16717.9	95	21	1.21
16719.6	102	11	2.34

ROCK-EVAL PYROLYSIS RAW DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	S1	S2	S3	S2/S3	S1/(S1+S2)	T-MAX
3392.0	0.225	1.207	11.842	0.102	0.157	428
4197.0	0.018	0.067	0.410	0.165	0.211	421
5984.7	0.179	0.105	0.545	0.192	0.630	421
8073.6	0.532	1.604	0.744	2.156	0.249	433
8643.2	0.168	1.593	1.503	1.060	0.096	434
9261.8	0.105	1.145	0.535	2.142	0.084	433
9971.5	0.094	0.171	0.248	0.689	0.355	429
10329.7	0.007	0.060	0.206	0.292	0.103	447
10735.4	0.165	1.567	2.619	0.598	0.095	436
11100.7	0.192	0.598	0.391	1.530	0.243	437
12262.1	1.093	22.571	1.286	17.550	0.046	428
12633.9	0.171	7.783	0.404	19.241	0.022	429
14177.3	1.955	50.746	0.412	123.236	0.037	435
15358.9	0.058	1.012	0.144	7.004	0.054	456
16018.9	0.087	1.517	0.254	5.983	0.054	452
16710.8	0.140	2.120	0.281	7.548	0.062	458

HYDROGEN AND OXYGEN INDICES FROM ROCK-EVAL PYROLYSIS DATA, WITH TOC DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH (FEET)	HYDROGEN INDEX (mg HC/g TOC)	OXYGEN INDEX (mg CO2/g TOC)	TOC (%)
3392.0	82	806	1.47
4197.0	18	108	0.38
5984.7	29	151	0.36
8073.6	82	38	1.96
8643.2	64	60	2.50
9261.8	78	36	1.47
9971.5	41	59	0.42
10329.7	58	198	0.10
10735.4	117	196	1.34
11100.7	106	69	0.57
12262.1	275	16	8.20
12633.9	256	13	3.04
14177.3	372	3	13.63
15358.9	109	16	0.93
16018.9	107	18	1.42
16710.8	107	14	1.98

(Mean core data as used in figures)

APPENDIX V

REFLECTED LIGHT MICROSCOPY DATA

A sample of ground rock is treated successively with hydrochloric and hydrofluoric acids to concentrate the kerogen, freeze-dried, mounted in an epoxy plug, and polished. Kerogen type is identified with the aid of blue light fluorescence.

The visual kerogen analysis data table contains visual percentage estimates of each principle kerogen type and kerogen background fluorescence data. This data is also displayed on the histograms with relative amounts of solid bitumen and coked material.

The histograms show measured reflectance values of all vitrinite present and on all material with the visual appearance of vitrinite. Shaded values (marked with *) are those used to calculate the interpreted vitrinite reflectance maturities. Unshaded values are interpreted to be oxidized vitrinite, recycled vitrinite, or possibly misidentified material such as solid bitumen, pseudo-vitrinite, or semifusinite. When samples analysed contain no vitrinite, nonindigenous vitrinite or have an insufficient number of readings to allow a reliable maturity determination to be made, then the mean value for that sample is shown as N. D. (Not Determined). Alternate maturity calculations are possible on a few samples. The histograms are identified by a Robertson Research sequence number (RRUS No.) and depth or other notation.

ABBREVIATIONS USED IN VISUAL KEROGEN ANALYSIS DATA SHEET AND HISTOGRAMS

Am	:	Amorphous Kerogen
Ex	:	Exinite
Vit	:	Vitrinite
Inert	:	Inertinite
R_o	:	Vitrinite Reflectance Mean in Immersion Oil
Bkg Fl	:	Background Fluorescence

Robertson Research

VISUAL KEROGEN ANALYSIS - REFLECTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			REFLECT.	KEROGEN CHARACTERISTICS					TOC
RRUS	ID /	DEPTH (Feet)	Ro %	Am%	Ex%	Vit%	Inert%	Fluor	%
4	CTGS.	1590	----	20	5	70	5	None	0.25
10	CTGS.	1950	----	45	5	45	5	Low	0.28
13	CTGS.	2130	----	5	5	85	5	Low	0.61
19	CTGS.	2490	----	10	10?	75	5	Low	0.71
24	CTGS.	2790	0.21	10	10?	70	10	Low	2.11
29	CTGS.	3090	0.25	10	10	75	5	None	7.46
34	CTGS.	3390	0.25	10	10	70	10	Med	7.57
39	CTGS.	3690	0.28	10	10	70	10	Low	4.21
44	CTGS.	3990	0.27	5	5	85	5	Low	1.61
48	CTGS.	4230	0.28	10	10	75	5	Low	0.88
55	CTGS.	4650	0.30	10	5	75	10	Low	0.50
99	CTGS.	4890	0.29	10	10	75	5	Low	0.87
104	CTGS.	5190	0.30	20	10	65	5	Low	1.76
108	CTGS.	5430	----	10	10	75	5	Low	0.59
113	CTGS.	5670	0.31	10	10	75	5	Low	0.41
118	CTGS.	5970	0.35	30	10	50	10	Low	0.13
123	CTGS.	6270	0.36	10	10	75	5	Low	0.20
127	CTGS.	6510	0.35	5	10	80	5	Low	0.34
132	CTGS.	6810	0.37	15	5	75	5	Low	0.36
137	CTGS.	7110	0.40	15	5	75	5	Low	0.50
142	CTGS.	7410	0.42	15	5	70	10	Low	0.51
166	CTGS.	7650	0.39	10	10	75	5	Low	4.72
170	CTGS.	7920	0.40	15	10	70	5	Low	1.69
176	CTGS.	8280	0.39	15	10	70	5	Med	13.55
182	CTGS.	8640	0.37	15	10	65	10	Med	3.99
187	CTGS.	8940	0.41	10	10	75	5	Med	26.45
191	CTGS.	9180	0.42	10	10	75	5	Med	4.60
196	CTGS.	9480	0.38	15	10	70	5	Med	2.38
200	CTGS.	9720	0.41	20	5	65	10	Low	1.05
205	CTGS.	10020	0.46	25?	5	65	5	Low	0.85
210	CTGS.	10320	0.45	25	10	55	10	Med	1.62
214	CTGS.	10560	----	30	10	50	10	Med	2.14
218	CTGS.	10800	0.45	30	10	50	10	Med	2.70
279	CTGS.	11100	0.48	20	10	65	5	Med	5.64
284	CTGS.	11400	0.46	40	10	45	5	Med	1.13
289	CTGS.	11700	0.51	20	5	65	10	Med	2.02
294	CTGS.	12000	0.52	20	10	60	10	High	4.29
319	CTGS.	12300	0.55	10	10	75	5	V Hi	1.73
324	CTGS.	12600	0.57	15	10	70	5	V Hi	7.20
329	CTGS.	12900	0.58	10	10	70	10	High	4.93
334	CTGS.	13200	0.62	15	5	75	5	High	6.00
429	CTGS.	13560	0.69	5	5	85	5	Med	11.38
433	CTGS.	13800	0.73	10?	5	80	5	Med	18.88
442	CTGS.	14040	0.70	10?	5	80	5	High	5.85
447	CTGS.	14340	0.68	10	5	80	5	Med	4.22
452	CTGS.	14640	0.71	10	5	80	5	High	11.17
457	CTGS.	14940	0.71	10?	5	80	5	High	6.05
461	CTGS.	15180	----	10?	5	80	5	Med	5.67
468	CTGS.	15420	----	15	5	75	5	V Hi	4.07
472	CTGS.	15660	----	15	5	70	10	V Hi	4.16

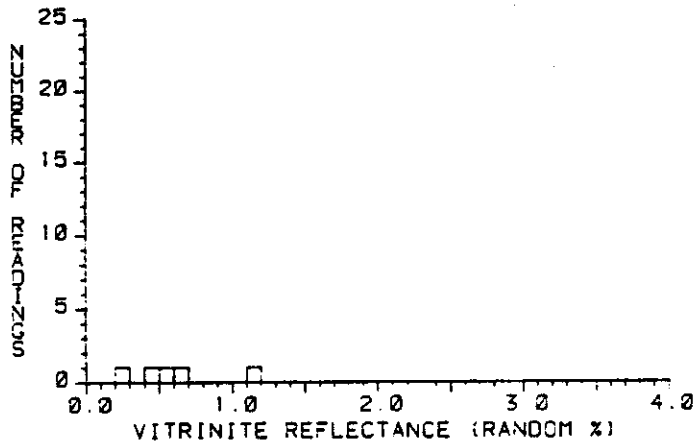
VISUAL KEROGEN ANALYSIS - REFLECTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			REFLECT.	KEROGEN CHARACTERISTICS					TOC
RRUS	ID /	DEPTH (Feet)	Ro %	Am%	Ex%	Vit%	Inert%	Fluor	%
476	CTGS.	15900	0.94	20	10	65	5	V Hi	1.10
499	CTGS.	16200	0.93	50	5	35	10	V Hi	1.49
504	CTGS.	16500	0.97?	55	5	30	10	V Hi	1.33
516	CTGS.	16740	1.08	35	5	45	15	V Hi	1.40
519	CTGS.	16920	1.11	25	5	60	10	V Hi	5.63
523	CTGS.	17143	1.10	25	tr	65	10	V Hi	5.94

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 4
ID : CTGS.

DEPTH : 1590.0 Ft
: 484.6 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

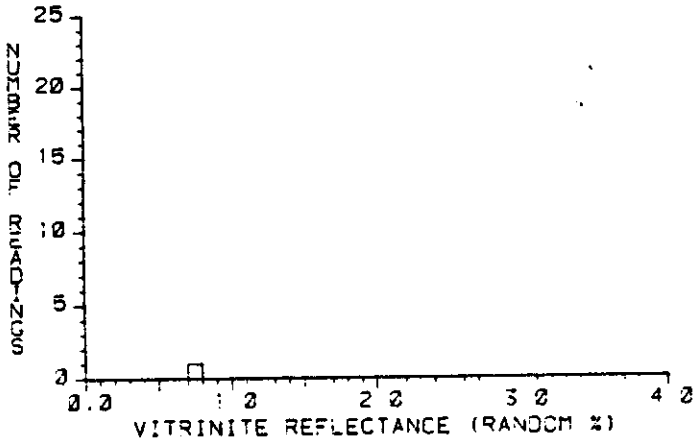
ORDERED REFLECTANCE VALUES:

0.28
0.48
0.52
0.69
1.14

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	None
Bitumen	:	None
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 10
ID : CTGS.

DEPTH : 1950.0 Ft
: 594.4 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

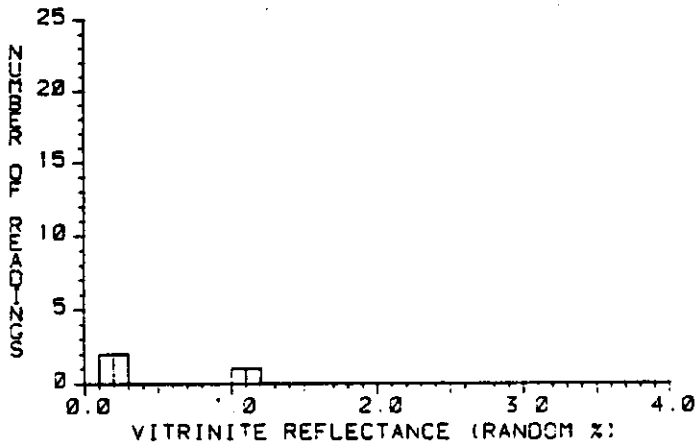
ORDERED REFLECTANCE VALUES:

0.71

KEROGEN DESCRIPTION

Amorphous	:	45 %
Exinite	:	5 %
Vitrinite	:	45 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 13
ID : CTGS.

DEPTH : 2130.0 Ft
: 649.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

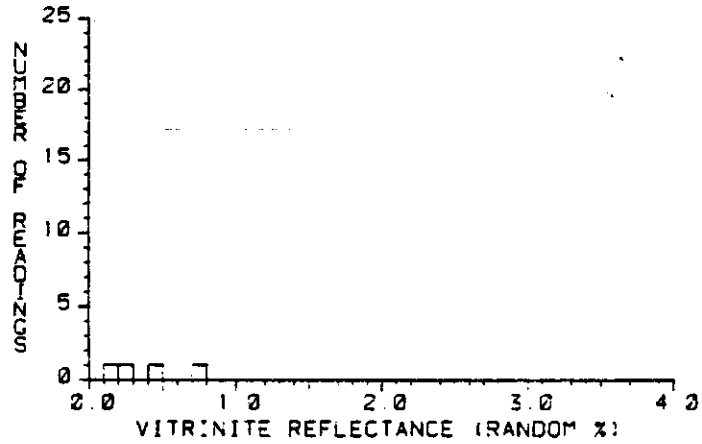
ORDERED REFLECTANCE VALUES:

0.14
0.18
0.22
0.22
1.07
1.11

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 19
ID : CTGS.

DEPTH : 2490.0 Ft
: 759.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

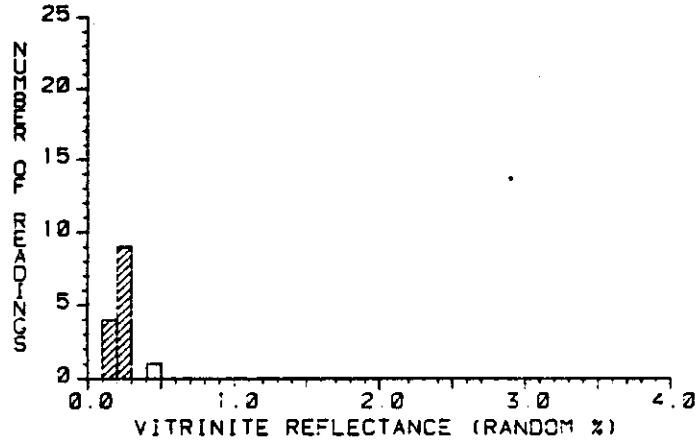
ORDERED REFLECTANCE VALUES:

0.16
0.23
0.48
0.70

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	? 10 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 24
ID : CTGS.

DEPTH : 2790.0 Ft
: 850.4 M

* = Ro MATURITY

VALUES : 13

MEAN : 0.21
STD DEV : 0.03
MEDIAN : 0.21
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

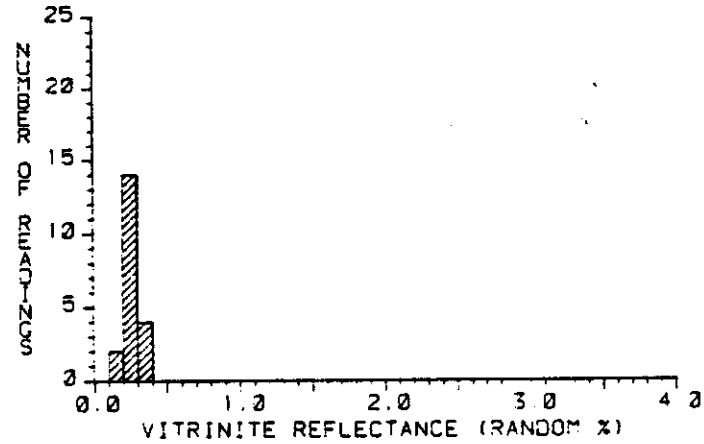
*0.16 *0.23
*0.16 *0.24
*0.18 *0.26
*0.18 0.42
*0.20
*0.21
*0.21
*0.22
*0.22
*0.23

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : ? 10 %
Vitrinite : 70 %
Inertinite : 10 %

Back Fluor : Low
Bitumen : ?Med
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 29
ID : CTGS.

DEPTH : 3090.0 Ft
: 941.8 M

* = Ro MATURITY

VALUES : 20

MEAN : 0.25
STD DEV : 0.04
MEDIAN : 0.25
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

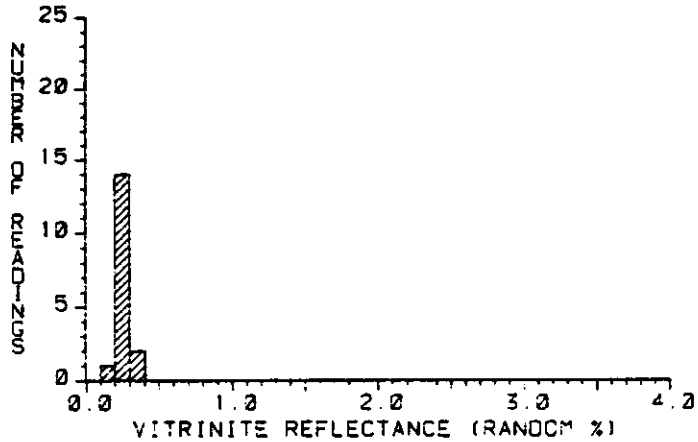
*0.17 *0.25
*0.19 *0.25
*0.22 *0.25
*0.22 *0.26
*0.22 *0.27
*0.23 *0.28
*0.23 *0.31
*0.23 *0.31
*0.24 *0.33
*0.24 *0.35

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 75 %
Inertinite : 5 %

Back Fluor : None
Bitumen : None
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 34
ID : CTGS.

DEPTH : 3390.0 Ft
: 1033.3 M

* = Ro MATURITY

VALUES : 17

MEAN : 0.25
STD DEV : 0.04
MEDIAN : 0.25
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

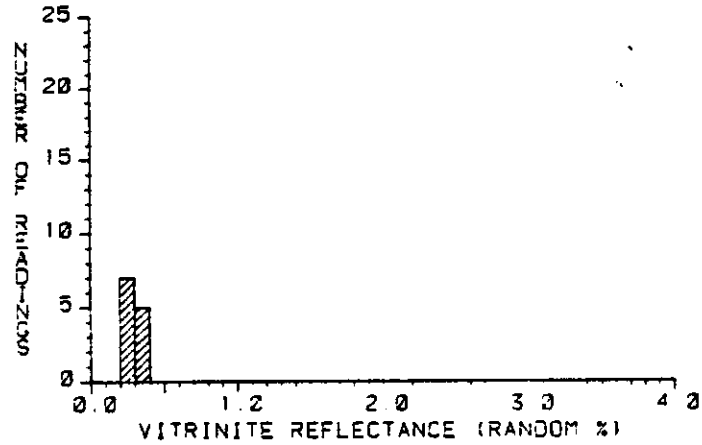
*0.15 *0.26
*0.21 *0.26
*0.21 *0.26
*0.22 *0.27
*0.22 *0.28
*0.23 *0.30
*0.24 *0.35
*0.24
*0.25
*0.25

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 70 %
Inertinite : 10 %

Back Fluor : Med
Bitumen : Med
Coke : Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 39
ID : CTGS.

DEPTH : 3690.0 Ft
: 1124.7 M

* = Ro MATURITY

VALUES : 12

MEAN : 0.28
STD DEV : 0.05
MEDIAN : 0.27
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

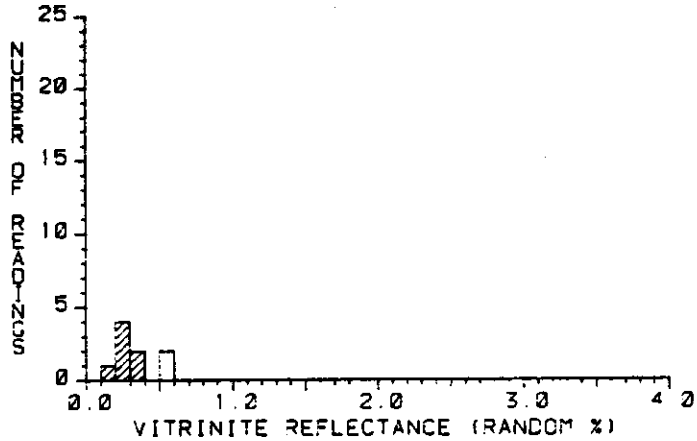
*0.21 *0.32
*0.23 *0.38
*0.23
*0.24
*0.26
*0.26
*0.27
*0.30
*0.30
*0.31

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 70 %
Inertinite : 10 %

Back Fluor : Low
Bitumen : Small
Coke : tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 44
ID : CTGS.

DEPTH : 3990.0 Ft
: 1216.2 M

* = Ro MATURITY

VALUES : 7

MEAN : 0.27
STD DEV : 0.04
MEDIAN : 0.28
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

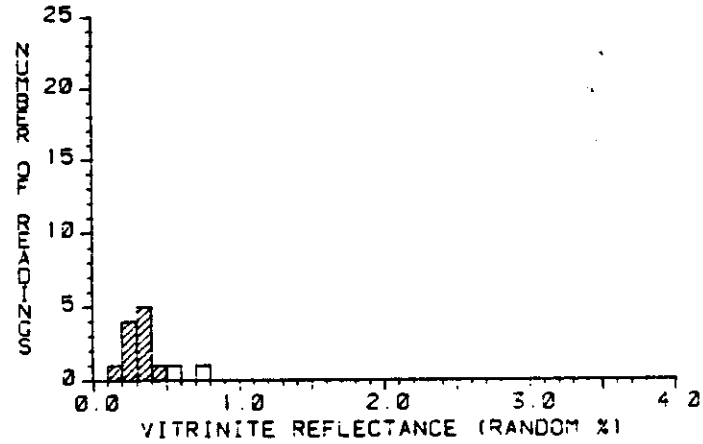
*0.19
*0.22
*0.27
*0.28
*0.28
*0.30
*0.32
0.50
0.53

KEROGEN DESCRIPTION

Amorphous : 5 %
Exinite : 5 %
Vitrinite : 85 %
Inertinite : 5 %

Back Fluor : Low
Bitumen : None
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 48
ID : CTGS.

DEPTH : 4230.0 Ft
: 1289.3 M

* = Ro MATURITY

VALUES : 11

MEAN : 0.28
STD DEV : 0.07
MEDIAN : 0.30
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

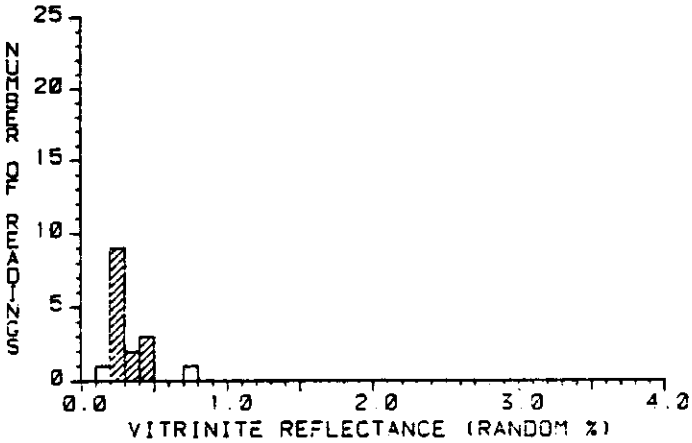
*0.18 *0.44
*0.21 0.56
*0.21 0.70
*0.24
*0.26
*0.30
*0.31
*0.31
*0.32
*0.33

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 75 %
Inertinite : 5 %

Back Fluor : Low
Bitumen : None
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 55
ID : CTGS.

DEPTH : 4650.0 Ft
: 1417.3 M

* = Ro MATURITY

VALUES : 14

MEAN : 0.30
STD DEV : 0.08
MEDIAN : 0.28
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

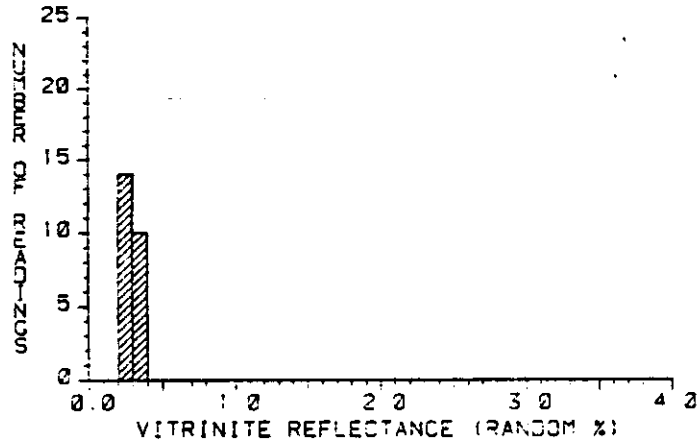
ORDERED REFLECTANCE VALUES:

0.19	*0.30
*0.23	*0.31
*0.23	*0.43
*0.25	*0.43
*0.25	*0.46
*0.25	0.77
*0.27	
*0.27	
*0.28	
*0.28	

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	5 %
Vitrinite	75 %
Inertinite	10 %
Back Fluor	Low
Bitumen	None
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 99
ID : CTGS.

DEPTH : 4890.0 Ft
: 1490.5 M

* = Ro MATURITY

VALUES : 24

MEAN : 0.29
STD DEV : 0.05
MEDIAN : 0.28
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

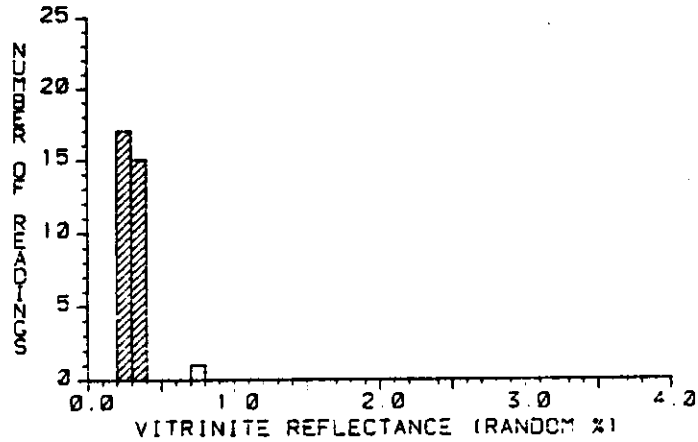
ORDERED REFLECTANCE VALUES:

*0.20	*0.28	*0.37
*0.22	*0.28	*0.37
*0.23	*0.28	*0.37
*0.24	*0.29	*0.39
*0.24	*0.30	
*0.26	*0.30	
*0.27	*0.31	
*0.27	*0.32	
*0.27	*0.32	
*0.27	*0.35	

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	10 %
Vitrinite	75 %
Inertinite	5 %
Back Fluor	Low
Bitumen	Small
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 104
ID : CTGS.

DEPTH : 5190.0 Ft
: 1581.9 M

* = Ro MATURITY

VALUES : 32

MEAN : 0.30
STD DEV : 0.04
MEDIAN : 0.29
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

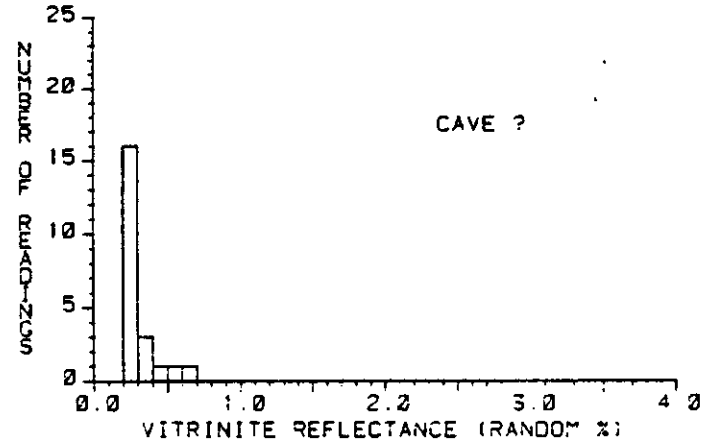
ORDERED REFLECTANCE VALUES:

*0.21	*0.28	*0.31	*0.37
*0.23	*0.28	*0.32	*0.38
*0.24	*0.28	*0.32	0.70
*0.24	*0.28	*0.33	
*0.25	*0.29	*0.33	
*0.25	*0.29	*0.33	
*0.25	*0.29	*0.35	
*0.26	*0.30	*0.35	
*0.26	*0.30	*0.36	
*0.28	*0.30	*0.36	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 108
ID : CTGS.

DEPTH : 5430.0 Ft
: 1655.1 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

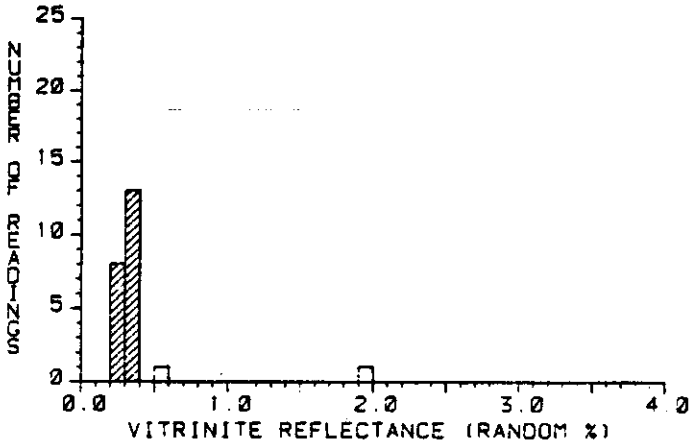
ORDERED REFLECTANCE VALUES:

0.20	0.26	0.56
0.21	0.27	0.62
0.22	0.27	
0.24	0.28	
0.24	0.28	
0.25	0.29	
0.25	0.30	
0.25	0.30	
0.25	0.33	
0.26	0.47	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 113
ID : CTGS.

DEPTH : 5670.0 Ft
: 1728.2 M

* = Ro MATURITY

VALUES : 21

MEAN : 0.31
STD DEV : 0.04
MEDIAN : 0.31
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

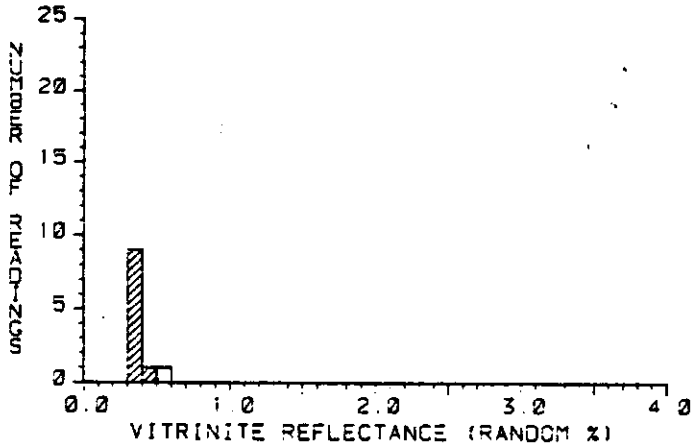
ORDERED REFLECTANCE VALUES:

*0.24	*0.31	*0.38
*0.25	*0.32	0.56
*0.26	*0.32	1.94
*0.27	*0.32	
*0.28	*0.32	
*0.28	*0.33	
*0.29	*0.35	
*0.29	*0.36	
*0.30	*0.37	
*0.30	*0.38	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 118
ID : CTGS.

DEPTH : 5970.0 Ft
: 1819.7 M

* = Ro MATURITY

VALUES : 10

MEAN : 0.35
STD DEV : 0.03
MEDIAN : 0.35
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

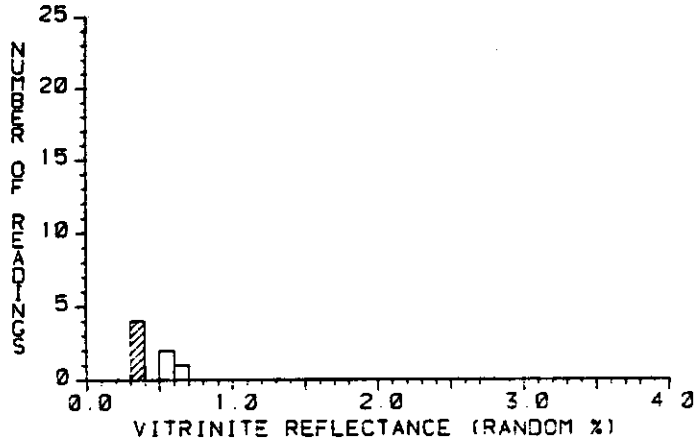
ORDERED REFLECTANCE VALUES:

*0.32	0.51
*0.32	4.28
*0.33	
*0.33	
*0.34	
*0.35	
*0.35	
*0.36	
*0.39	
*0.42	

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	10 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 123
ID : CTGS.

DEPTH : 6270.0 Ft
: 1911.1 M

* = Ro MATURITY

VALUES : 4

MEAN : 0.36
STD DEV : 0.03
MEDIAN : 0.38
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

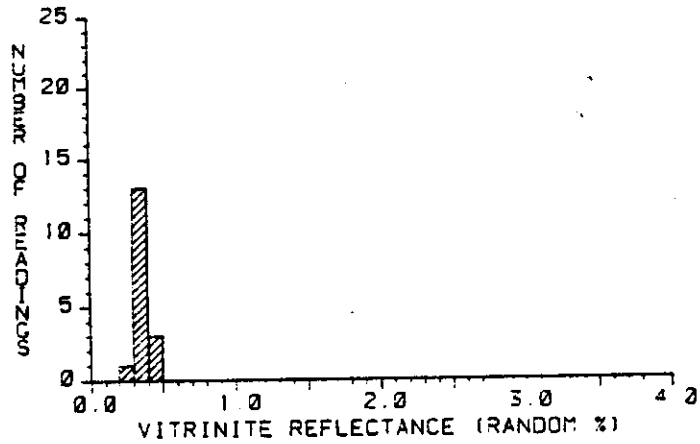
*0.32
*0.36
*0.38
*0.39
0.54
0.54
0.60

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 75 %
Inertinite : 5 %

Back Fluor : Low
Bitumen : None
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 127
ID : CTGS.

DEPTH : 6510.0 Ft
: 1984.2 M

* = Ro MATURITY

VALUES : 17

MEAN : 0.35
STD DEV : 0.04
MEDIAN : 0.34
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

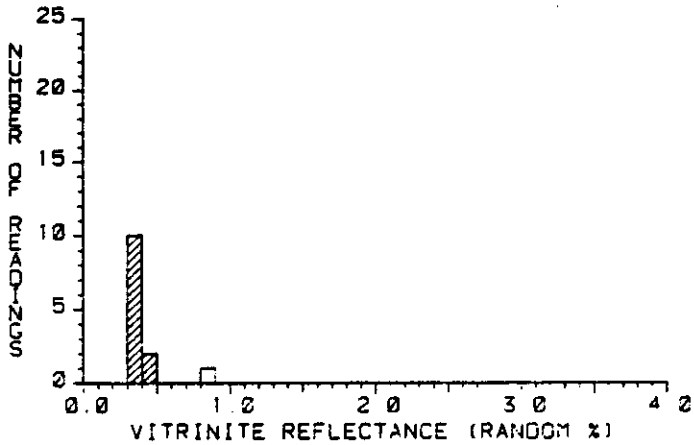
*0.28 *0.35
*0.30 *0.36
*0.32 *0.37
*0.33 *0.37
*0.33 *0.40
*0.33 *0.41
*0.34 *0.46
*0.34
*0.34
*0.34

KEROGEN DESCRIPTION

Amorphous : 5 %
Exinite : 10 %
Vitrinite : 80 %
Inertinite : 5 %

Back Fluor : Low
Bitumen : None
Coke : tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 132
ID : CTGS.

DEPTH : 6810.0 Ft
: 2075.7 M

* = Ro MATURITY

VALUES : 12

MEAN : 0.37
STD DEV : 0.03
MEDIAN : 0.36
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

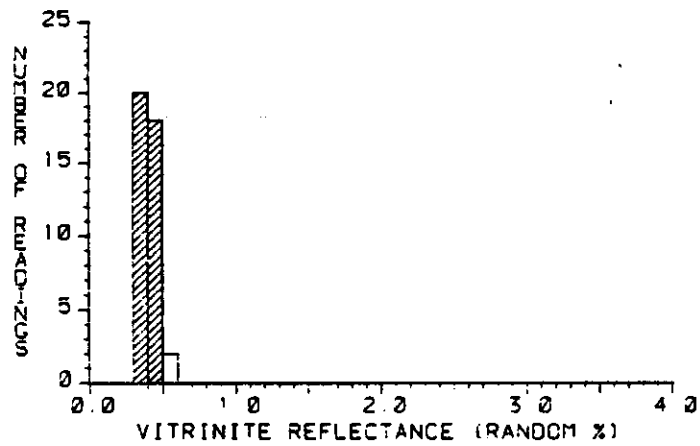
ORDERED REFLECTANCE VALUES:

*0.31	*0.43
*0.34	*0.44
*0.35	0.89
*0.36	
*0.36	
*0.36	
*0.36	
*0.37	
*0.38	
*0.38	

KEROGEN DESCRIPTION

Amorphous	15 %
Exinite	5 %
Vitrinite	75 %
Inertinite	5 %
Back Fluor	Low
Bitumen	None
Coke	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 137
ID : CTGS.

DEPTH : 7110.0 Ft
: 2167.1 M

* = Ro MATURITY

VALUES : 38

MEAN : 0.40
STD DEV : 0.04
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

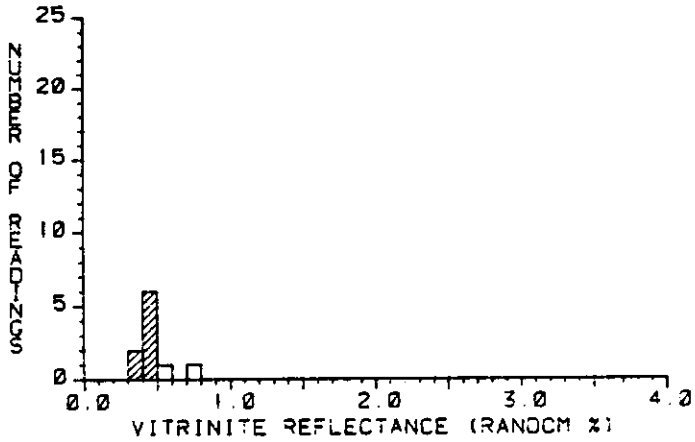
ORDERED REFLECTANCE VALUES:

*0.30	*0.37	*0.40	*0.43
*0.33	*0.38	*0.40	*0.43
*0.34	*0.38	*0.41	*0.43
*0.35	*0.39	*0.41	*0.43
*0.36	*0.39	*0.42	*0.44
*0.36	*0.39	*0.42	*0.46
*0.36	*0.39	*0.42	*0.47
*0.36	*0.39	*0.42	*0.47
*0.36	*0.39	*0.43	0.52
*0.37	*0.39	*0.43	0.54

KEROGEN DESCRIPTION

Amorphous	15 %
Exinite	5 %
Vitrinite	75 %
Inertinite	5 %
Back Fluor	Low
Bitumen	None
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 142
ID : CTGS.

DEPTH : 7410.0 Ft
: 2258.6 M

* = Ro MATURITY

VALUES : 8

MEAN : 0.42
STD DEV : 0.04
MEDIAN : 0.44
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

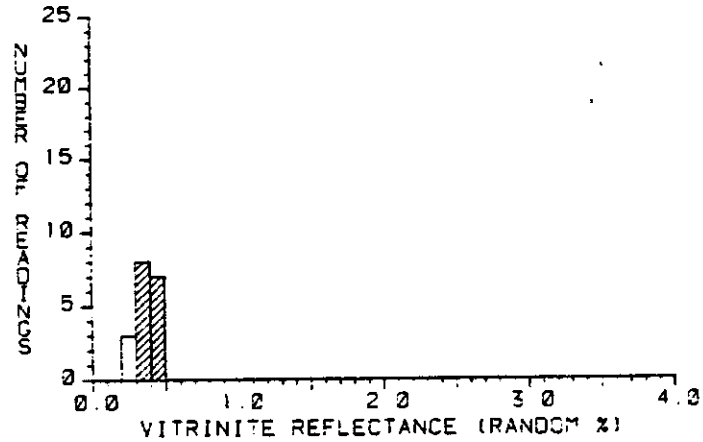
*0.33
*0.39
*0.40
*0.43
*0.44
*0.44
*0.45
*0.46
0.58
0.76

KEROGEN DESCRIPTION

Amorphous : 15 %
Exinite : 5 %
Vitrinite : 70 %
Inertinite : 10 %

Back Fluor : Low
Bitumen : Med
Coke : tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 166
ID : CTGS.

DEPTH : 7650.0 Ft
: 2331.7 M

* = Ro MATURITY

VALUES : 15

MEAN : 0.39
STD DEV : 0.02
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

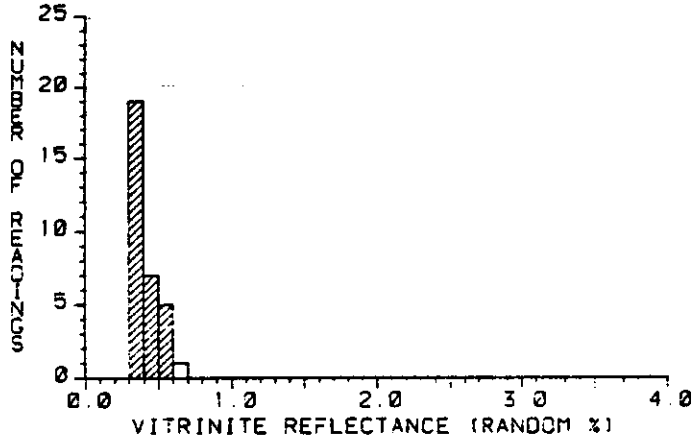
0.25	*0.39
0.27	*0.40
0.29	*0.40
*0.34	*0.41
*0.36	*0.41
*0.37	*0.41
*0.37	*0.43
*0.38	*0.43
*0.38	
*0.39	

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 75 %
Inertinite : 5 %

Back Fluor : Low
Bitumen : None
Coke : tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 170
ID : CTGS.

DEPTH : 7920.0 Ft
: 2414.0 M

* = Ro MATURITY

VALUES : 31

MEAN : 0.40
STD DEV : 0.06
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

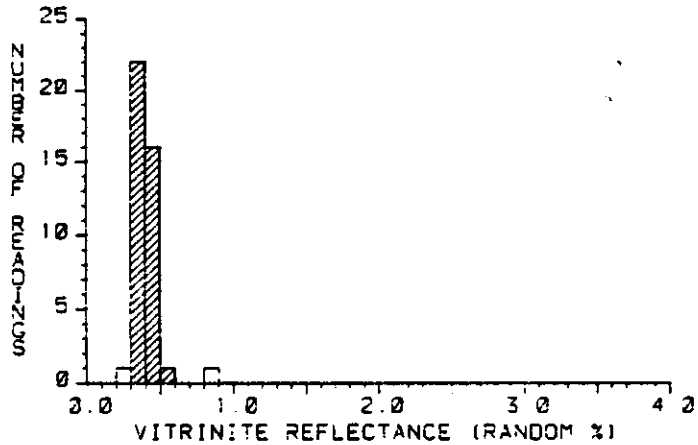
ORDERED REFLECTANCE VALUES:

*0.31	*0.37	*0.41	*0.51
*0.32	*0.37	*0.43	0.61
*0.33	*0.37	*0.43	
*0.34	*0.38	*0.44	
*0.34	*0.38	*0.45	
*0.34	*0.39	*0.49	
*0.34	*0.39	*0.50	
*0.35	*0.39	*0.50	
*0.36	*0.39	*0.50	
*0.36	*0.41	*0.51	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	10 %
Vitrinite :	70 %
Inertinite :	5 %
Back Fluor :	Low
Bitumen :	?Med
Coke :	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 176
ID : CTGS.

DEPTH : 8280.0 Ft
: 2523.7 M

* = Ro MATURITY

VALUES : 39

MEAN : 0.39
STD DEV : 0.04
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

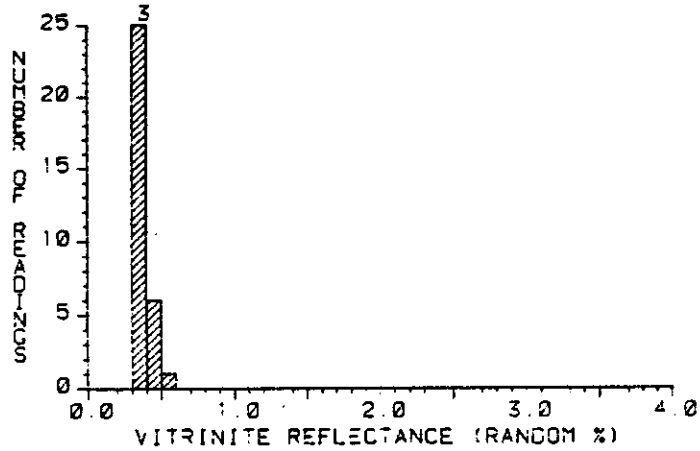
ORDERED REFLECTANCE VALUES:

0.28	*0.36	*0.39	*0.41	0.84
*0.32	*0.36	*0.39	*0.41	
*0.35	*0.37	*0.39	*0.42	
*0.35	*0.37	*0.40	*0.42	
*0.35	*0.37	*0.40	*0.43	
*0.35	*0.38	*0.40	*0.43	
*0.35	*0.38	*0.41	*0.44	
*0.36	*0.38	*0.41	*0.44	
*0.36	*0.38	*0.41	*0.46	
*0.36	*0.38	*0.41	*0.57	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	10 %
Vitrinite :	70 %
Inertinite :	5 %
Back Fluor :	Med
Bitumen :	None
Coke :	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 182
ID : CTGS.

DEPTH : 8640.0 Ft
: 2633.5 M

* = Ro MATURITY

VALUES : 35

MEAN : 0.37
STD DEV : 0.04
MEDIAN : 0.36
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

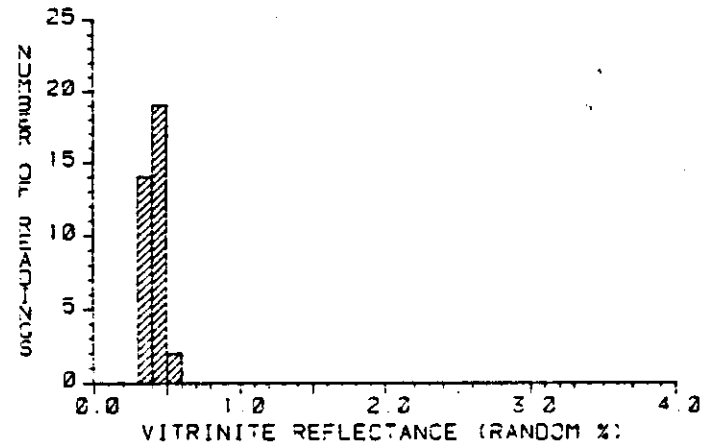
*0.31	*0.35	*0.38	*0.40
*0.32	*0.35	*0.38	*0.41
*0.32	*0.36	*0.38	*0.42
*0.33	*0.36	*0.38	*0.45
*0.33	*0.36	*0.38	*0.56
*0.33	*0.36	*0.39	
*0.34	*0.36	*0.39	
*0.34	*0.36	*0.39	
*0.34	*0.36	*0.40	
*0.34	*0.37	*0.40	

KEROGEN DESCRIPTION

Amorphous : 15 %
Exinite : 10 %
Vitrinite : 65 %
Inertinite : 10 %

Back Fluor : Med
Bitumen : ?Small
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 187
ID : CTGS.

DEPTH : 8940.0 Ft
: 2724.9 M

* = Ro MATURITY

VALUES : 35

MEAN : 0.41
STD DEV : 0.05
MEDIAN : 0.41
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

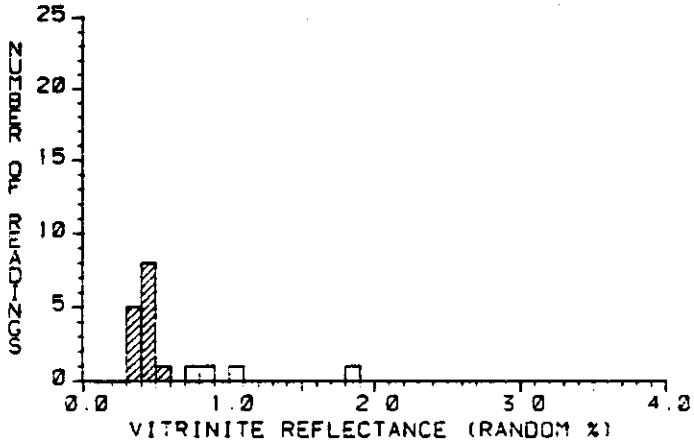
*0.32	*0.38	*0.42	*0.46
*0.34	*0.38	*0.42	*0.48
*0.34	*0.39	*0.43	*0.49
*0.35	*0.39	*0.43	*0.51
*0.37	*0.40	*0.43	*0.53
*0.37	*0.40	*0.44	
*0.37	*0.41	*0.44	
*0.38	*0.41	*0.44	
*0.38	*0.42	*0.44	
*0.38	*0.42	*0.45	

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 75 %
Inertinite : 5 %

Back Fluor : Med
Bitumen : Small
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 191
ID : CTGS.

DEPTH : 9180.0 Ft
: 2798.1 M

* = Ro MATURITY

VALUES : 14

MEAN : 0.42
STD DEV : 0.06
MEDIAN : 0.42
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

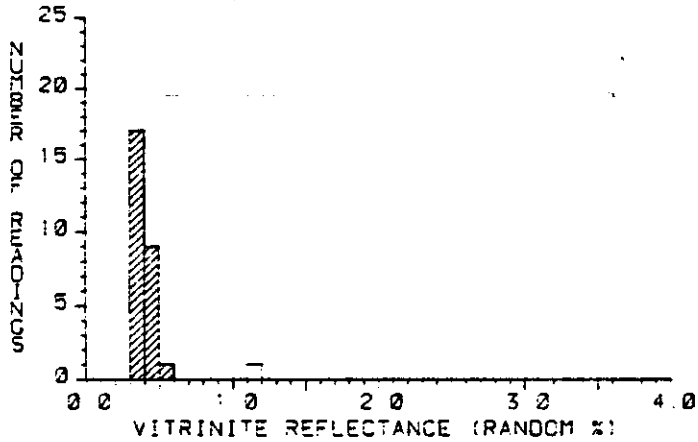
ORDERED REFLECTANCE VALUES:

*0.32	*0.45
*0.35	*0.48
*0.37	*0.49
*0.38	*0.55
*0.38	0.77
*0.41	0.87
*0.42	1.02
*0.42	1.84
*0.42	
*0.43	

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	10 %
Vitrinite	75 %
Inertinite	5 %
Back Fluor	Med
Bitumen	Small
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 196
ID : CTGS.

DEPTH : 9480.0 Ft
: 2889.5 M

* = Ro MATURITY

VALUES : 27

MEAN : 0.38
STD DEV : 0.05
MEDIAN : 0.36
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

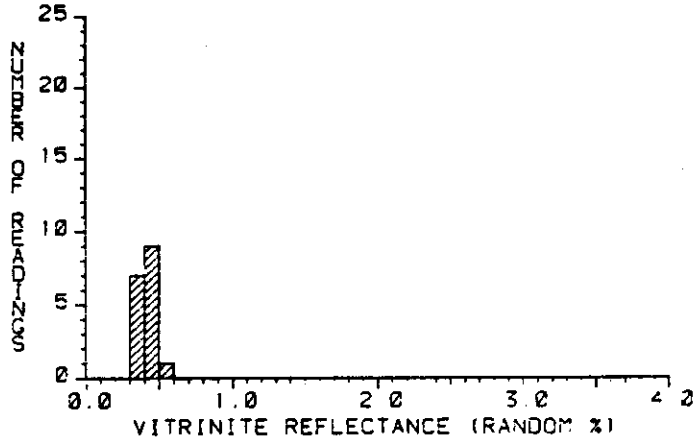
ORDERED REFLECTANCE VALUES:

*0.31	*0.35	*0.41
*0.33	*0.36	*0.43
*0.33	*0.36	*0.44
*0.33	*0.36	*0.44
*0.33	*0.37	*0.46
*0.34	*0.39	*0.47
*0.34	*0.39	*0.53
*0.34	*0.40	1.16
*0.34	*0.40	
*0.35	*0.40	

KEROGEN DESCRIPTION

Amorphous	15 %
Exinite	10 %
Vitrinite	70 %
Inertinite	5 %
Back Fluor	Med
Bitumen	None
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 200
ID : CTGS.

DEPTH : 9720.0 Ft
: 2962.7 M

* = Ro MATURITY

VALUES : 17

MEAN : 0.41
STD DEV : 0.04
MEDIAN : 0.40
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

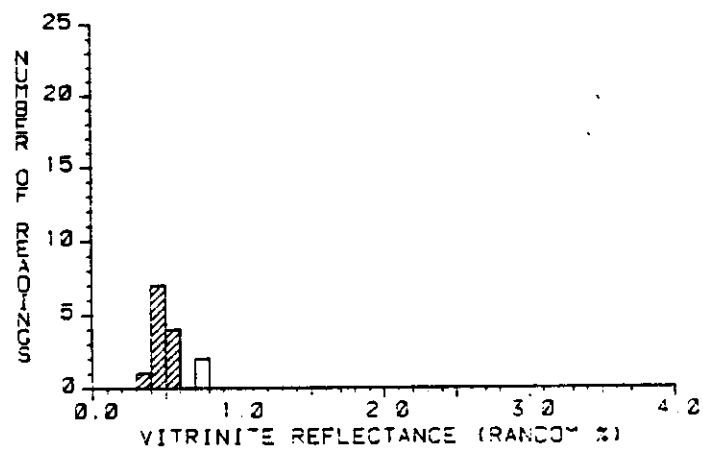
ORDERED REFLECTANCE VALUES:

*0.35	*0.41
*0.37	*0.42
*0.37	*0.42
*0.38	*0.43
*0.38	*0.43
*0.38	*0.44
*0.39	*0.55
*0.40	
*0.40	
*0.41	

KEROGEN DESCRIPTION

Amorphous	20 %
Exinite	5 %
Vitrinite	65 %
Inertinite	10 %
Back Fluor	Low
Bitumen	Med
Coke	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 205
ID : CTGS.

DEPTH : 10020.0 Ft
: 3054.1 M

* = Ro MATURITY

VALUES : 12

MEAN : 0.46
STD DEV : 0.04
MEDIAN : 0.47
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

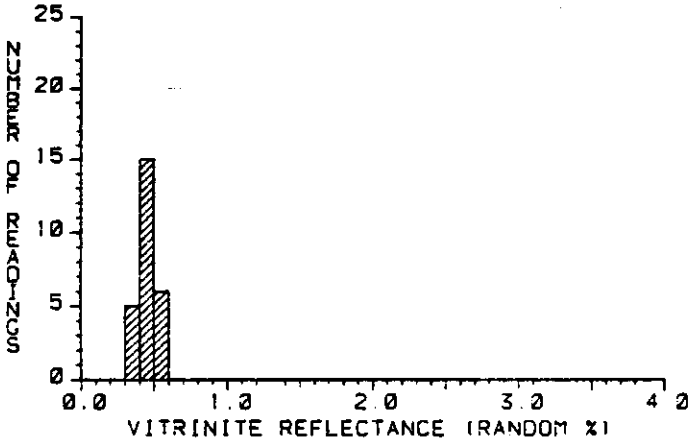
ORDERED REFLECTANCE VALUES:

*0.39	*0.51
*0.40	*0.51
*0.41	0.72
*0.45	0.78
*0.45	
*0.46	
*0.47	
*0.48	
*0.50	
*0.51	

KEROGEN DESCRIPTION

Amorphous	? 25 %
Exinite	5 %
Vitrinite	65 %
Inertinite	5 %
Back Fluor	Low
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 210
ID : CTGS.

DEPTH : 10320.0 Ft
: 3145.5 M

* = Ro MATURITY

VALUES : 26

MEAN : 0.45
STD DEV : 0.05
MEDIAN : 0.45
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

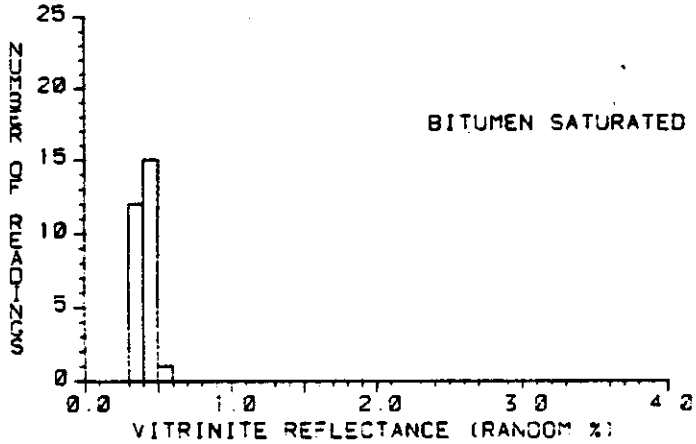
ORDERED REFLECTANCE VALUES:

*0.35	*0.43	*0.50
*0.37	*0.43	*0.50
*0.39	*0.45	*0.53
*0.39	*0.45	*0.53
*0.39	*0.45	*0.54
*0.41	*0.45	*0.55
*0.41	*0.46	
*0.41	*0.47	
*0.42	*0.48	
*0.42	*0.49	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	10 %
Vitrinite	:	55 %
Inertinite	:	10 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



BITUMEN SATURATED

RRUS No. : 214
ID : CTGS.

DEPTH : 10560.0 Ft
: 3218.7 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

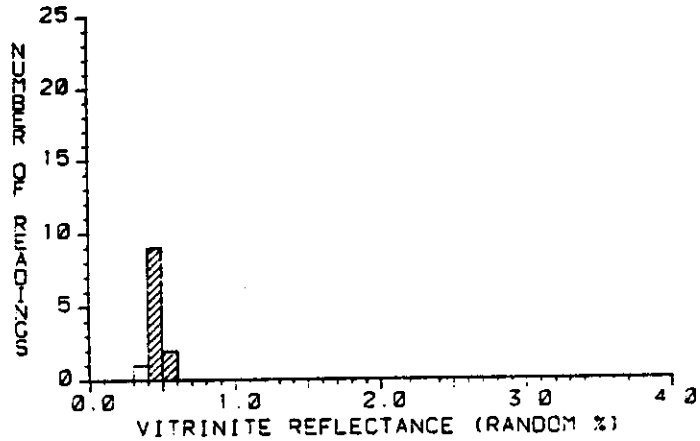
ORDERED REFLECTANCE VALUES:

0.34	0.39	0.43
0.36	0.39	0.43
0.36	0.40	0.43
0.36	0.40	0.44
0.36	0.40	0.45
0.37	0.40	0.45
0.38	0.41	0.47
0.38	0.41	0.52
0.38	0.42	
0.38	0.42	

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	10 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 218
ID : CTGS.

DEPTH : 10800.0 Ft
: 3291.8 M

* = Ro MATURITY

VALUES : 11

MEAN : 0.45
STD DEV : 0.04
MEDIAN : 0.45
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

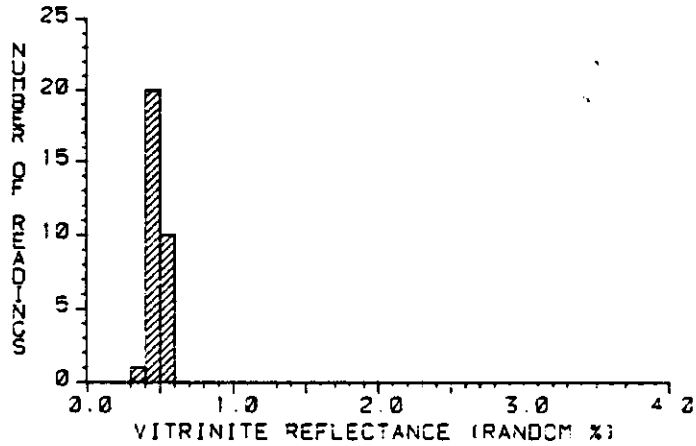
ORDERED REFLECTANCE VALUES:

0.35	*0.50
*0.40	*0.52
*0.41	
*0.42	
*0.43	
*0.43	
*0.45	
*0.45	
*0.47	
*0.48	

KEROGEN DESCRIPTION

Amorphous :	30 %
Exinite :	10 %
Vitrinite :	50 %
Inertinite :	10 %
Back Fluor :	Med
Bitumen :	High
Coke :	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 279
ID : CTGS.

DEPTH : 11100.0 Ft
: 3383.3 M

* = Ro MATURITY

VALUES : 31

MEAN : 0.48
STD DEV : 0.04
MEDIAN : 0.48
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

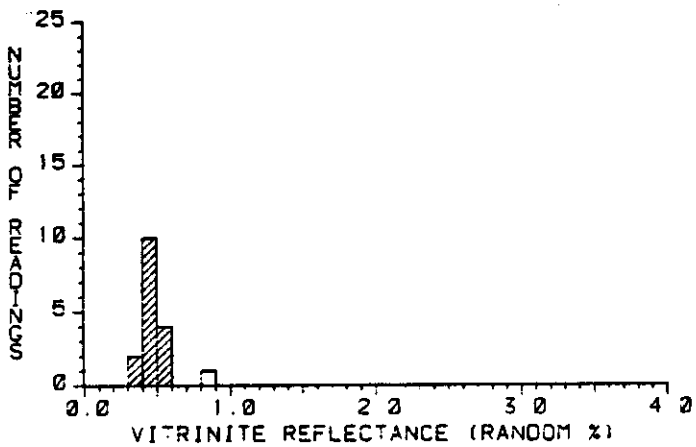
ORDERED REFLECTANCE VALUES:

*0.36	*0.47	*0.49	*0.58
*0.41	*0.47	*0.50	
*0.42	*0.47	*0.50	
*0.42	*0.48	*0.51	
*0.43	*0.48	*0.51	
*0.45	*0.48	*0.51	
*0.45	*0.49	*0.51	
*0.46	*0.49	*0.52	
*0.46	*0.49	*0.53	
*0.46	*0.49	*0.53	

KEROGEN DESCRIPTION

Amorphous :	20 %
Exinite :	10 %
Vitrinite :	65 %
Inertinite :	5 %
Back Fluor :	Med
Bitumen :	Med
Coke :	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 284
ID : CTGS.

DEPTH : 11400.0 Ft
: 3474.7 M

* = Ro MATURITY

VALUES : 16

MEAN : 0.46
STD DEV : 0.05
MEDIAN : 0.47
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

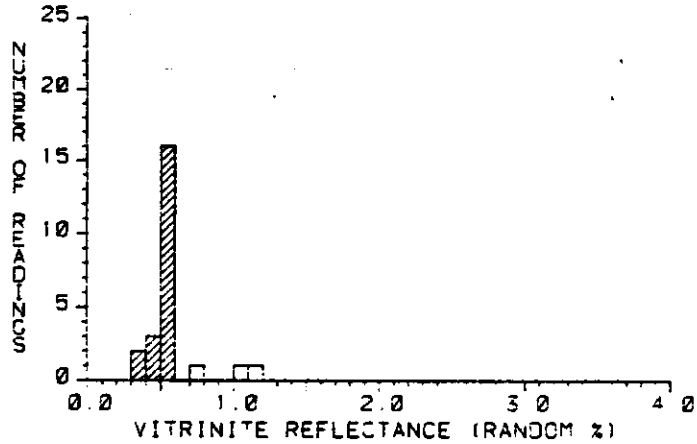
ORDERED REFLECTANCE VALUES:

*0.34	*0.48
*0.39	*0.49
*0.40	*0.50
*0.40	*0.51
*0.44	*0.53
*0.45	*0.53
*0.45	0.84
*0.45	
*0.47	
*0.47	

KEROGEN DESCRIPTION

Amorphous	40 %
Exinite	10 %
Vitrinite	45 %
Inertinite	5 %
Back Fluor	Med
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 289
ID : CTGS.

DEPTH : 11700.0 Ft
: 3566.2 M

* = Ro MATURITY

VALUES : 21

MEAN : 0.51
STD DEV : 0.06
MEDIAN : 0.54
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

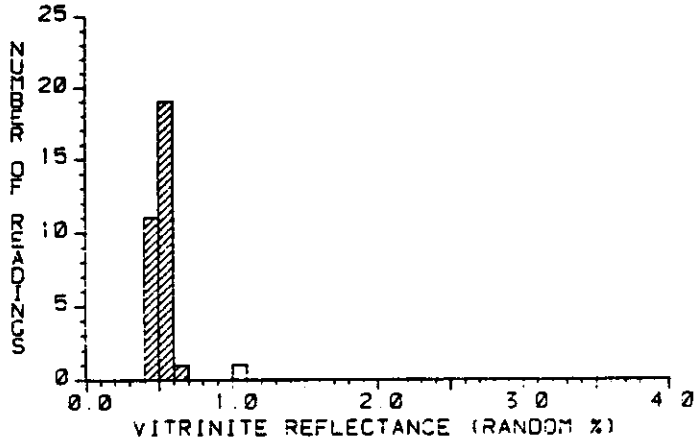
ORDERED REFLECTANCE VALUES:

*0.38	*0.54	*0.58
*0.39	*0.54	0.79
*0.40	*0.54	1.05
*0.42	*0.54	1.12
*0.46	*0.55	
*0.50	*0.55	
*0.51	*0.55	
*0.52	*0.56	
*0.53	*0.56	
*0.53	*0.56	

KEROGEN DESCRIPTION

Amorphous	20 %
Exinite	5 %
Vitrinite	65 %
Inertinite	10 %
Back Fluor	Med
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 294
ID : CTGS.

DEPTH : 12000.0 Ft
: 3657.6 M

* = Ro MATURITY

VALUES : 31

MEAN : 0.52
STD DEV : 0.05
MEDIAN : 0.52
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

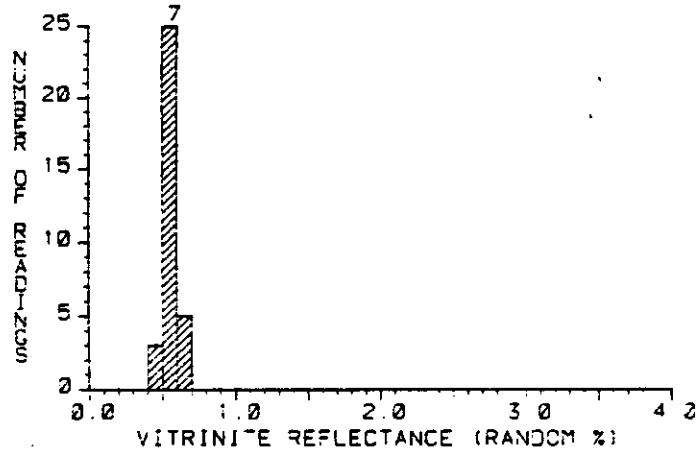
ORDERED REFLECTANCE VALUES:

*0.43	*0.49	*0.55	*0.64
*0.44	*0.50	*0.56	1.08
*0.45	*0.51	*0.57	
*0.46	*0.51	*0.57	
*0.46	*0.51	*0.57	
*0.46	*0.52	*0.58	
*0.47	*0.53	*0.58	
*0.47	*0.53	*0.59	
*0.48	*0.55	*0.59	
*0.49	*0.55	*0.59	

KEROGEN DESCRIPTION

Amorphous	20 %
Exinite	10 %
Vitrinite	60 %
Inertinite	10 %
Back Fluor	High
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 319
ID : CTGS.

DEPTH : 12300.0 Ft
: 3749.0 M

* = Ro MATURITY

VALUES : 40

MEAN : 0.55
STD DEV : 0.04
MEDIAN : 0.56
MODE 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

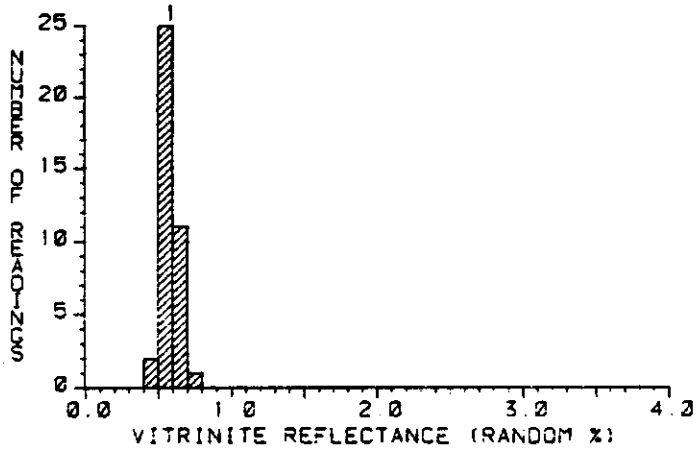
ORDERED REFLECTANCE VALUES:

*0.47	*0.51	*0.56	*0.58
*0.48	*0.52	*0.56	*0.58
*0.48	*0.52	*0.56	*0.58
*0.50	*0.52	*0.57	*0.58
*0.50	*0.53	*0.57	*0.59
*0.50	*0.54	*0.57	*0.60
*0.50	*0.54	*0.57	*0.61
*0.51	*0.55	*0.57	*0.62
*0.51	*0.55	*0.57	*0.62
*0.51	*0.55	*0.58	*0.66

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	10 %
Vitrinite	75 %
Inertinite	5 %
Back Fluor	V High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 324
ID : CTGS.

DEPTH : 12600.0 Ft
: 3840.5 M

* = Ro MATURITY

VALUES : 40

MEAN : 0.57
STD DEV : 0.05
MEDIAN : 0.56
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

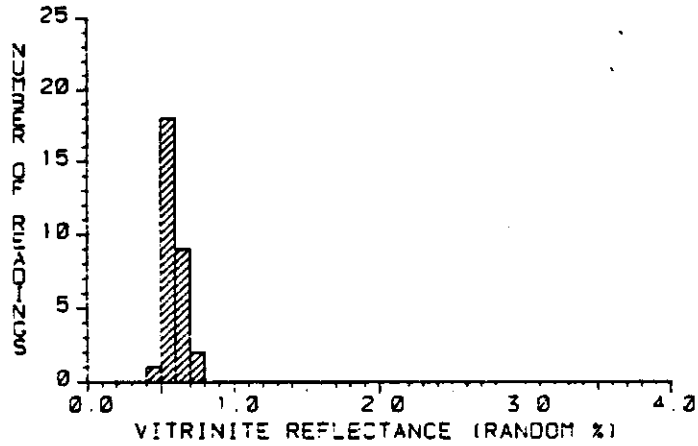
ORDERED REFLECTANCE VALUES:

*0.47	*0.54	*0.56	*0.61
*0.48	*0.54	*0.56	*0.61
*0.50	*0.54	*0.57	*0.62
*0.50	*0.55	*0.57	*0.62
*0.51	*0.55	*0.57	*0.63
*0.51	*0.56	*0.57	*0.63
*0.51	*0.56	*0.58	*0.64
*0.52	*0.56	*0.59	*0.64
*0.52	*0.56	*0.60	*0.68
*0.53	*0.56	*0.61	*0.73

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	V High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 329
ID : CTGS.

DEPTH : 12900.0 Ft
: 3931.9 M

* = Ro MATURITY

VALUES : 30

MEAN : 0.58
STD DEV : 0.05
MEDIAN : 0.57
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

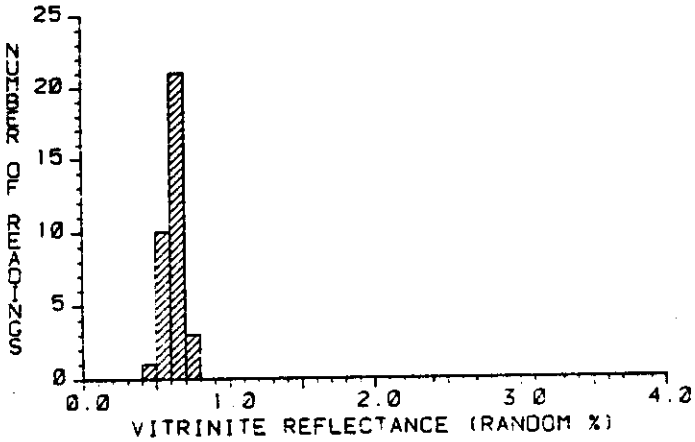
ORDERED REFLECTANCE VALUES:

*0.45	*0.55	*0.60
*0.51	*0.56	*0.60
*0.52	*0.56	*0.61
*0.53	*0.56	*0.61
*0.53	*0.57	*0.61
*0.54	*0.57	*0.61
*0.54	*0.58	*0.63
*0.54	*0.59	*0.66
*0.55	*0.59	*0.71
*0.55	*0.60	*0.72

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 334
ID : CTGS.

DEPTH : 13200.0 Ft
: 4023.4 M

* = Ro MATURITY

VALUES : 35

MEAN : 0.62
STD DEV : 0.06
MEDIAN : 0.63
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

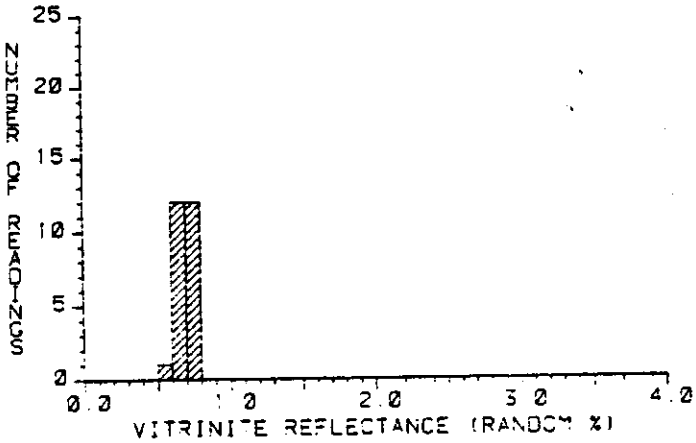
ORDERED REFLECTANCE VALUES:

*0.46	*0.59	*0.63	*0.68
*0.53	*0.61	*0.63	*0.69
*0.54	*0.61	*0.63	*0.71
*0.54	*0.61	*0.64	*0.73
*0.55	*0.62	*0.65	*0.75
*0.55	*0.62	*0.65	
*0.57	*0.62	*0.66	
*0.57	*0.63	*0.67	
*0.57	*0.63	*0.67	
*0.58	*0.63	*0.68	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	High
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 429
ID : CTGS.

DEPTH : 13560.0 Ft
: 4133.1 M

* = Ro MATURITY

VALUES : 25

MEAN : 0.69
STD DEV : 0.06
MEDIAN : 0.69
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

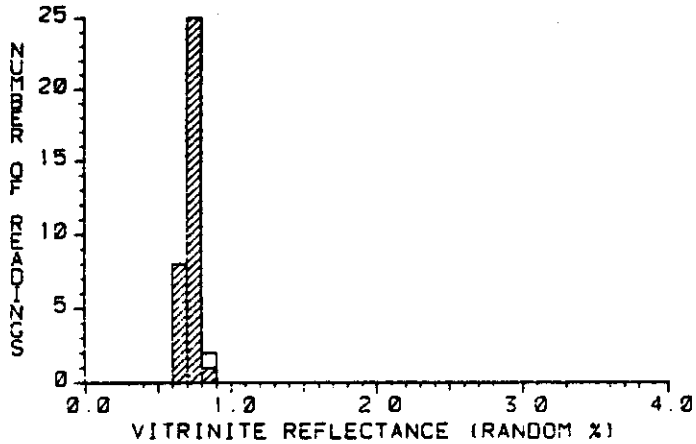
ORDERED REFLECTANCE VALUES:

*0.55	*0.68	*0.74
*0.60	*0.68	*0.75
*0.60	*0.69	*0.78
*0.61	*0.71	*0.79
*0.63	*0.71	*0.79
*0.66	*0.72	
*0.66	*0.72	
*0.66	*0.72	
*0.67	*0.73	
*0.68	*0.73	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 433
ID : CTGS.

DEPTH : 13800.0 Ft
: 4206.2 M

* = Ro MATURITY

VALUES : 34

MEAN : 0.73
STD DEV : 0.05
MEDIAN : 0.73
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

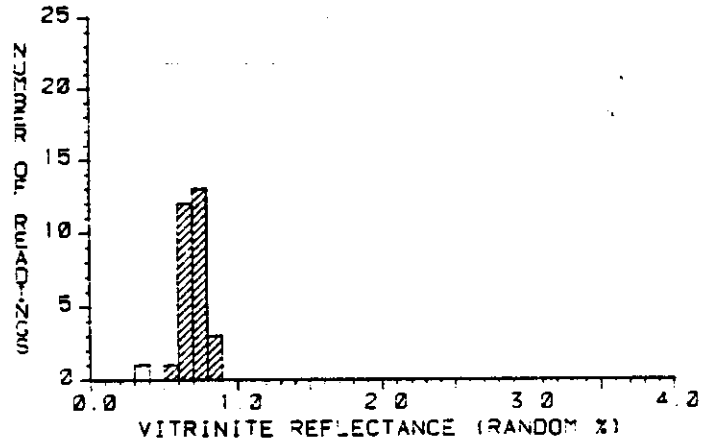
ORDERED REFLECTANCE VALUES:

*0.62	*0.71	*0.75	*0.78
*0.62	*0.71	*0.76	*0.79
*0.65	*0.72	*0.76	*0.79
*0.66	*0.72	*0.76	*0.80
*0.67	*0.73	*0.76	0.89
*0.68	*0.73	*0.76	
*0.68	*0.73	*0.76	
*0.69	*0.73	*0.76	
*0.70	*0.74	*0.77	
*0.70	*0.75	*0.77	

KEROGEN DESCRIPTION

Amorphous	? 10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	Med
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 442
ID : CTGS.

DEPTH : 14040.0 Ft
: 4279.4 M

* = Ro MATURITY

VALUES : 29

MEAN : 0.70
STD DEV : 0.07
MEDIAN : 0.70
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

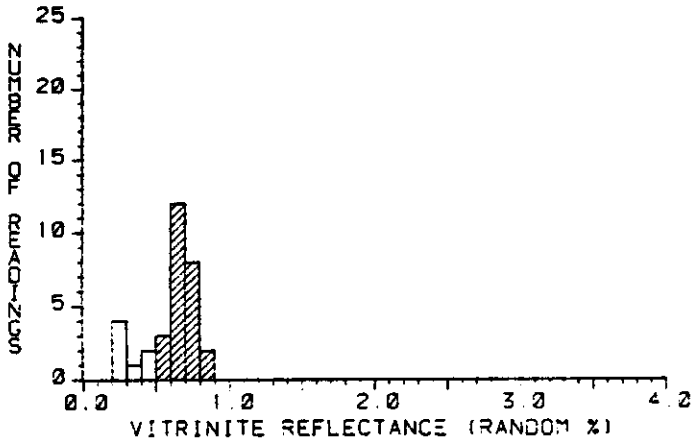
ORDERED REFLECTANCE VALUES:

0.34	*0.65	*0.73
*0.59	*0.65	*0.75
*0.61	*0.66	*0.76
*0.61	*0.67	*0.76
*0.61	*0.70	*0.79
*0.62	*0.70	*0.79
*0.62	*0.71	*0.79
*0.63	*0.71	*0.80
*0.63	*0.71	*0.80
*0.64	*0.72	*0.85

KEROGEN DESCRIPTION

Amorphous	? 10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 447
ID : CTGS.

DEPTH : 14340.0 Ft
: 4370.8 M

* = Ro MATURITY

VALUES : 25

MEAN : 0.68
STD DEV : 0.07
MEDIAN : 0.68
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

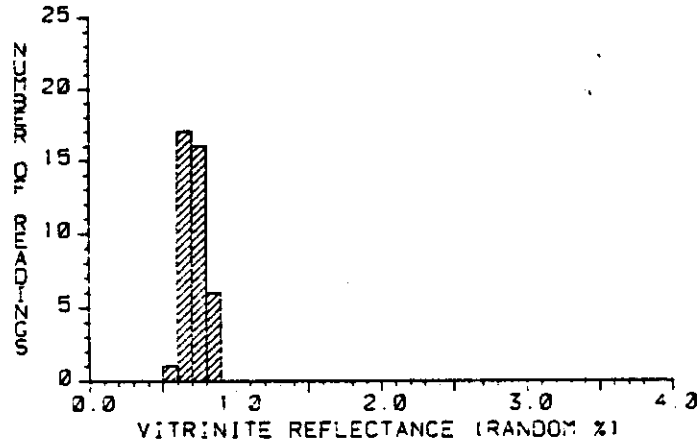
ORDERED REFLECTANCE VALUES:

0.26	*0.62	*0.69	*0.81
0.28	*0.62	*0.69	*0.85
0.29	*0.62	*0.70	
0.29	*0.63	*0.70	
0.32	*0.64	*0.71	
0.47	*0.64	*0.71	
0.48	*0.65	*0.72	
*0.56	*0.66	*0.72	
*0.57	*0.68	*0.75	
*0.58	*0.68	*0.77	

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	Med
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 452
ID : CTGS.

DEPTH : 14640.0 Ft
: 4462.3 M

* = Ro MATURITY

VALUES : 40

MEAN : 0.71
STD DEV : 0.07
MEDIAN : 0.70
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

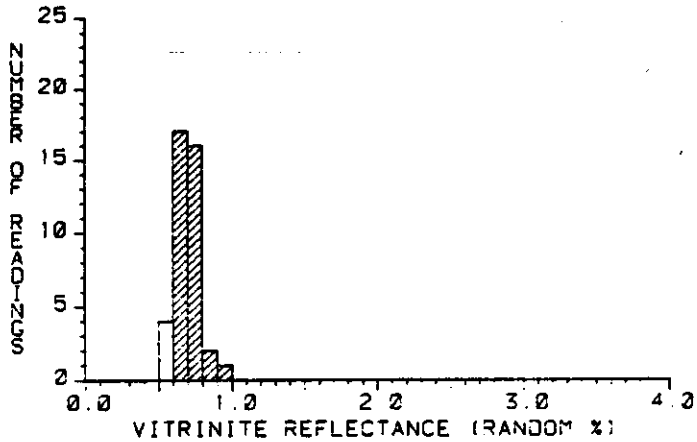
ORDERED REFLECTANCE VALUES:

*0.58	*0.67	*0.70	*0.75
*0.61	*0.67	*0.70	*0.77
*0.61	*0.67	*0.71	*0.78
*0.61	*0.68	*0.72	*0.78
*0.63	*0.68	*0.73	*0.80
*0.64	*0.69	*0.73	*0.80
*0.64	*0.69	*0.74	*0.80
*0.64	*0.69	*0.75	*0.81
*0.65	*0.70	*0.75	*0.82
*0.66	*0.70	*0.75	*0.86

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	High
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 457
ID : CTGS.

DEPTH : 14940.0 Ft
: 4553.7 M

* = Ro MATURITY

VALUES : 36

MEAN : 0.71
STD DEV : 0.07
MEDIAN : 0.70
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

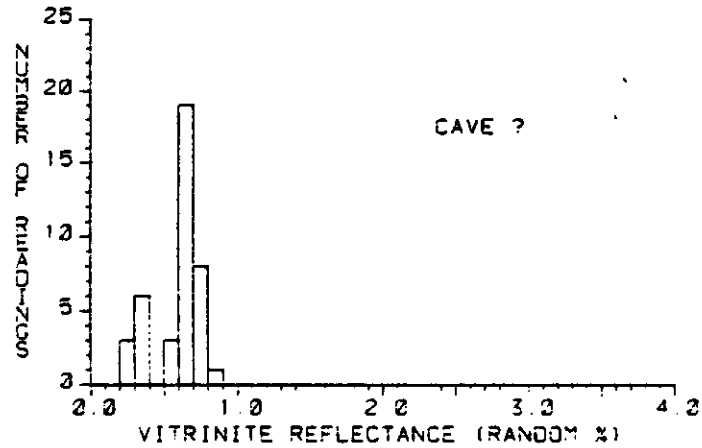
ORDERED REFLECTANCE VALUES:

0.52	*0.64	*0.69	*0.76
0.53	*0.65	*0.70	*0.76
0.58	*0.65	*0.72	*0.76
0.58	*0.65	*0.70	*0.76
*0.60	*0.67	*0.71	*0.77
*0.60	*0.68	*0.71	*0.78
*0.61	*0.68	*0.73	*0.79
*0.61	*0.68	*0.73	*0.80
*0.63	*0.69	*0.74	*0.84
*0.63	*0.69	*0.74	*0.91

KEROGEN DESCRIPTION

Amorphous	? 10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	High
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 461
ID : CTGS.

DEPTH : 15180.0 Ft
: 4626.9 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

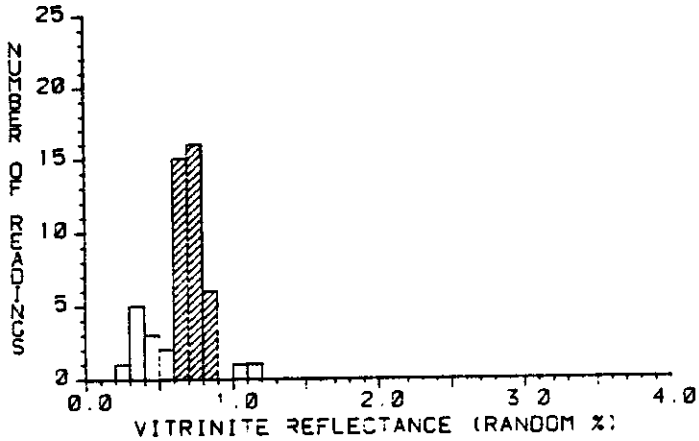
ORDERED REFLECTANCE VALUES:

0.27	0.58	0.65	0.69
0.28	0.59	0.65	0.70
0.29	0.60	0.66	0.70
0.31	0.60	0.67	0.72
0.33	0.61	0.67	0.72
0.35	0.62	0.68	0.75
0.36	0.62	0.68	0.75
0.36	0.62	0.69	0.76
0.39	0.63	0.69	0.76
0.55	0.64	0.69	0.83

KEROGEN DESCRIPTION

Amorphous	? 10 %
Exinite	5 %
Vitrinite	80 %
Inertinite	5 %
Back Fluor	Med
Bitumen	Small
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 468
ID : CTGS.

DEPTH : 15420.0 Ft
: 4700.0 M

* = Ro MATURITY

VALUES : 37

MEAN : 0.72
STD DEV : 0.08
MEDIAN : 0.72
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

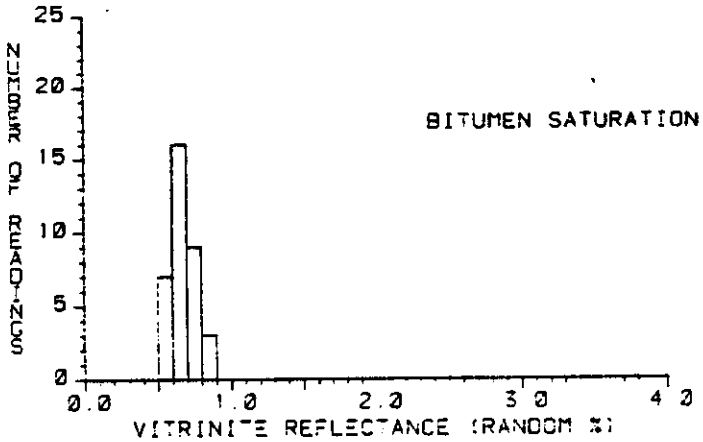
ORDERED REFLECTANCE VALUES:

0.28	0.57	*0.67	*0.72	*0.79
0.30	*0.60	*0.67	*0.73	*0.79
0.32	*0.60	*0.68	*0.73	*0.80
0.33	*0.61	*0.68	*0.73	*0.80
0.33	*0.62	*0.68	*0.73	*0.81
0.39	*0.62	*0.68	*0.74	*0.84
0.40	*0.63	*0.70	*0.75	*0.88
0.43	*0.63	*0.70	*0.76	*0.89
0.48	*0.64	*0.72	*0.77	1.04
0.54	*0.65	*0.72	*0.78	1.10

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	V High
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL -



RRUS No. : 472
ID : CTGS.

DEPTH : 15660.0 Ft
: 4773.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

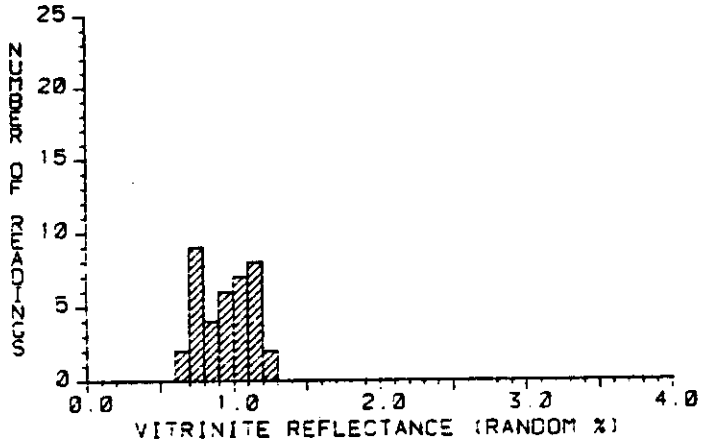
ORDERED REFLECTANCE VALUES:

0.53	0.63	0.68	0.77
0.55	0.63	0.68	0.78
0.55	0.64	0.69	0.82
0.56	0.64	0.70	0.84
0.56	0.65	0.70	0.87
0.58	0.65	0.71	
0.59	0.66	0.71	
0.60	0.66	0.72	
0.61	0.66	0.75	
0.62	0.66	0.77	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	V High
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 476
ID : CTGS.

DEPTH : 15900.0 Ft
: 4846.3 M

* = Ro MATURITY

VALUES : 38

MEAN : 0.94
STD DEV : 0.16
MEDIAN : 0.96
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

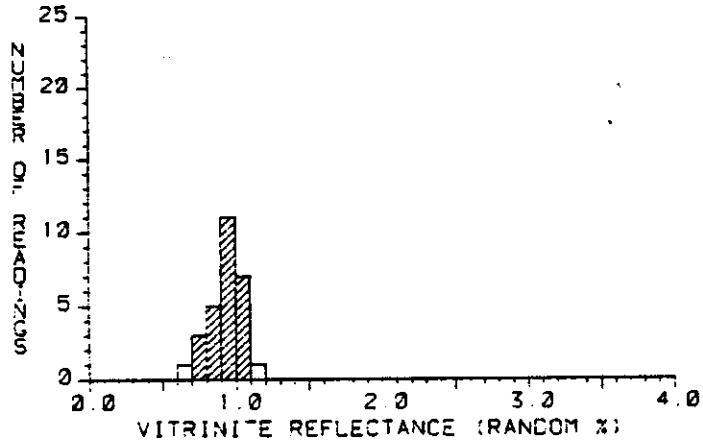
ORDERED REFLECTANCE VALUES:

*0.64	*0.79	*0.97	*1.11
*0.64	*0.80	*1.00	*1.12
*0.72	*0.82	*1.00	*1.15
*0.76	*0.83	*1.01	*1.16
*0.77	*0.84	*1.01	*1.16
*0.77	*0.92	*1.01	*1.18
*0.77	*0.95	*1.02	*1 20
*0.78	*0.95	*1.08	*1.20
*0.78	*0.95	*1.10	
*0.79	*0.96	*1.10	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	5 %
Back Fluor	:	V High
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 499
ID : CTGS.

DEPTH : 16200.0 Ft
: 4937.8 M

* = Ro MATURITY

VALUES : 26

MEAN : 0.93
STD DEV : 0.09
MEDIAN : 0.95
MODE : 0.95

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

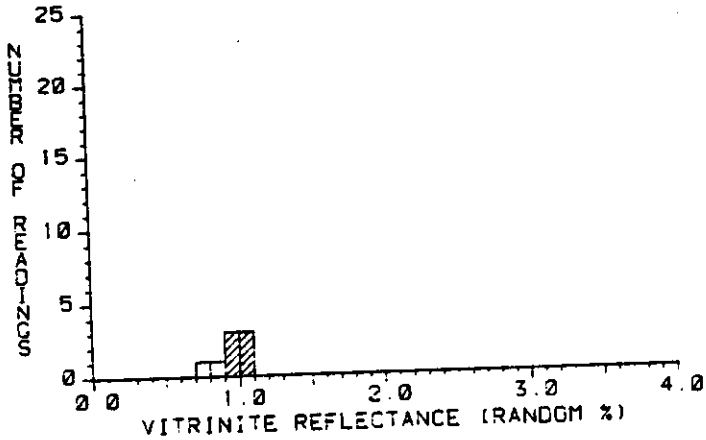
ORDERED REFLECTANCE VALUES:

0.66	*0.91	*1.20
*0.75	*0.92	*1.01
*0.76	*0.93	*1.02
*0.77	*0.94	*1.03
*0.83	*0.95	*1.05
*0.85	*0.95	*1.07
*0.86	*0.96	*1.07
*0.86	*0.96	1.13
*0.89	*0.97	
*0.91	*0.98	

KEROGEN DESCRIPTION

Amorphous	:	50 %
Exinite	:	5 %
Vitrinite	:	35 %
Inertinite	:	10 %
Back Fluor	:	V High
Bitumen	:	None
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 504
ID : CTGS.

DEPTH : 16500.0 Ft
: 5029.2 M

* = Ro MATURITY

VALUES : 6

MEAN : 0.97
STD DEV : 0.07
MEDIAN : 1.00
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

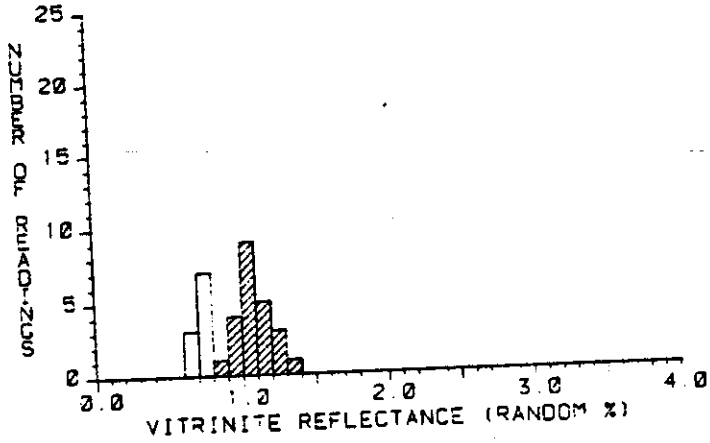
0.77
0.82
*0.90
*0.90
*0.91
*1.00
*1.05
*1.07

KEROGEN DESCRIPTION

Amorphous : 55 %
Exinite : 5 %
Vitrinite : 30 %
Inertinite : 10 %

Back Fluor : V High
Bitumen : Small
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 516
ID : CTGS.

DEPTH : 16740.0 Ft
: 5102.4 M

* = Ro MATURITY

VALUES : 23

MEAN : 1.08
STD DEV : 0.12
MEDIAN : 1.06
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

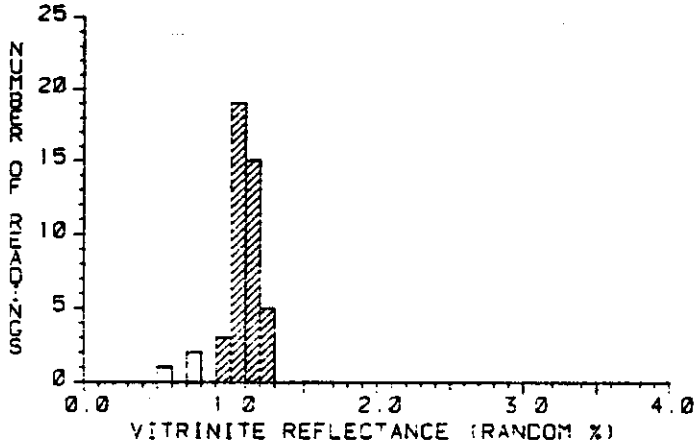
0.62	*0.87	*1.05	*1.25
0.68	*0.92	*1.06	*1.29
0.69	*0.95	*1.06	*1.31
0.70	*0.99	*1.07	
0.71	*0.99	*1.15	
0.73	*1.00	*1.15	
0.73	*1.00	*1.17	
0.76	*1.00	*1.17	
0.78	*1.01	*1.19	
0.78	*1.05	*1.20	

KEROGEN DESCRIPTION

Amorphous : 35 %
Exinite : 5 %
Vitrinite : 45 %
Inertinite : 15 %

Back Fluor : V High
Bitumen : High
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 519
ID : CTGS.

DEPTH : 16920.0 Ft
: 5157.2 M

* = Ro MATURITY

VALUES : 42

MEAN : 1.11
STD DEV : 0.08
MEDIAN : 1.09
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

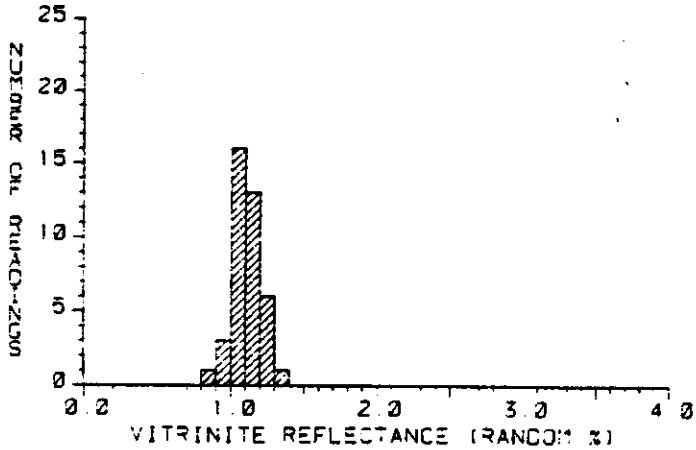
ORDERED REFLECTANCE VALUES:

0.58	*1.03	*1.08	*1.17	*1.20
0.73	*1.03	*1.08	*1.17	*1.20
0.74	*1.05	*1.09	*1.18	*1.22
*0.95	*1.05	*1.09	*1.18	*1.23
*0.95	*1.06	*1.09	*1.18	*1.25
*0.98	*1.06	*1.10	*1.19	
*1.00	*1.07	*1.13	*1.19	
*1.00	*1.07	*1.13	*1.19	
*1.02	*1.07	*1.17	*1.19	
*1.22	*1.07	*1.17	*1.19	

KEROGEN DESCRIPTION

Amorphous	25 %
Exinite	5 %
Vitrinite	60 %
Inertinite	10 %
Back Fluor	V High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 523
ID : CTGS.

DEPTH : 17143.0 Ft
: 5225.2 M

* = Ro MATURITY

VALUES : 40

MEAN : 1.10
STD DEV : 0.10
MEDIAN : 1.10
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

*0.83	*1.04	*1.10	*1.14
*0.90	*1.05	*1.11	*1.16
*0.93	*1.05	*1.11	*1.19
*0.94	*1.05	*1.12	*1.23
*1.00	*1.05	*1.12	*1.23
*1.00	*1.06	*1.12	*1.24
*1.01	*1.07	*1.12	*1.26
*1.02	*1.07	*1.13	*1.28
*1.03	*1.08	*1.13	*1.29
*1.03	*1.08	*1.14	*1.30

KEROGEN DESCRIPTION

Amorphous	25 %
Exinite	tr %
Vitrinite	65 %
Inertinite	10 %
Back Fluor	V High
Bitumen	High
Coke	None

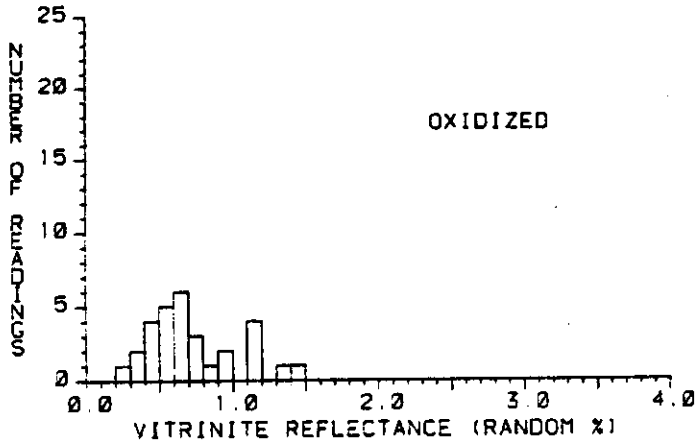
VISUAL KEROGEN ANALYSIS - REFLECTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			REFLECT.	KEROGEN CHARACTERISTICS					TOC
RRUS	ID /	DEPTH (Feet)	Ro %	Am%	Ex%	Vit%	Inert%	Fluor	%
62	SWC	1488	----	20	10	50	20	None	0.41
66	SWC	1880	----	20	5	45	30	None	0.38
69	SWC	2120	----	20	5	45	30	None	0.46
74	SWC	2592	----	15	15	50	20	None	0.81
78	SWC	2935	----	20	20	40	20	None	1.35
82	SWC	3294	0.26	20	15	50	15	None	1.03
86	SWC	3709	0.29	20	15	50	15	None	1.79
89	SWC	4016	0.31	15	15	55	15	None	0.69
92	SWC	4373	----	20	10	50	20	None	0.44
96	SWC	4824	0.31	20	10	50	20	None	0.68
341	SWC	4975	0.28	30	15	45	10	None	1.61
344	SWC	5331	0.33	30	10	45	15	None	0.57
347	SWC	5691	0.38	25	10	45	20	None	0.41
349	SWC	6500	0.39	15	15	55	15	None	1.35
354	SWC	7155	0.37	20	15	50	15	None	0.84
357	SWC	7532	0.39	20	15	50	15	Low	0.92
359	SWC	7772	0.36	25	10	50	15	Low	0.72
364	SWC	8124	0.34	20	15	50	15	Low	0.69
366	SWC	8314	0.40	0	20	70	10	Low	49.47
369	SWC	8558	0.42	30	10	50	10	Low	0.90
371	SWC	8923	0.40	10	5	75	10	None	1.16
375	SWC	9448	0.49	35	10	45	10	Med	0.72
378	SWC	9663	0.46	30	10	45	15	Low	0.26
383	SWC	10069	0.51	30	15	40	15	Med	0.40
387	SWC	10557	0.46	35	10	50	5	High	0.79
390	SWC	10832	0.50	10?	10	80	0	Med	2.80
394	SWC	11224	0.58	5?	10	85	0	Med	19.13
398	SWC	11494	0.58	25	15	50	10	Low	0.78
404	SWC	12021	0.56	5	5	90	0	Med	30.89
408	SWC	12449	0.58	15	10	65	10	High	0.99
411	SWC	12585	0.57	15	10	70	5	Med	4.14
415	SWC	12868	0.65	5	10	80	5	None	0.41
419	SWC	13026	----	15	10	70	5	Low	1.05
424	SWC	13275	----	20	10	65	5	Med	0.78

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 62
ID : SWC

DEPTH : 1488.0 Ft
: 453.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

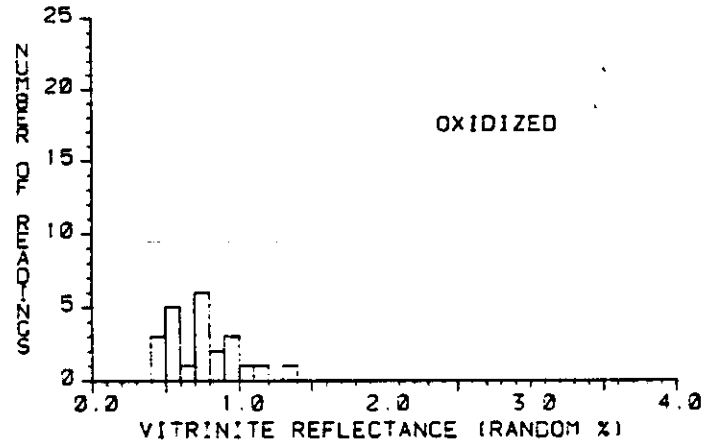
ORDERED REFLECTANCE VALUES:

0.23	0.57	0.75
0.35	0.59	0.87
0.36	0.60	0.91
0.40	0.60	0.91
0.41	0.65	1.10
0.43	0.66	1.14
0.46	0.68	1.17
0.51	0.68	1.18
0.52	0.70	1.37
0.55	0.73	1.47

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	?Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 66
ID : SWC

DEPTH : 1880.0 Ft
: 573.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

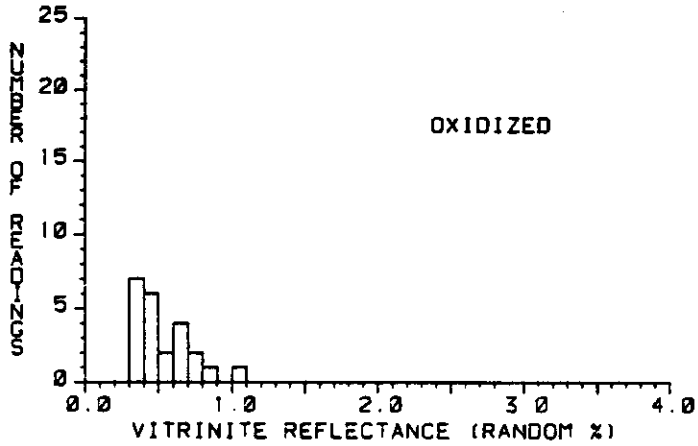
ORDERED REFLECTANCE VALUES:

0.43	0.70	1.07
0.45	0.74	1.12
0.47	0.74	1.35
0.50	0.74	
0.51	0.79	
0.53	0.80	
0.58	0.85	
0.58	0.92	
0.64	0.94	
0.70	0.99	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	45 %
Inertinite	:	30 %
Back Fluor	:	None
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 69
ID : SWC

DEPTH : 2120.0 Ft
: 646.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

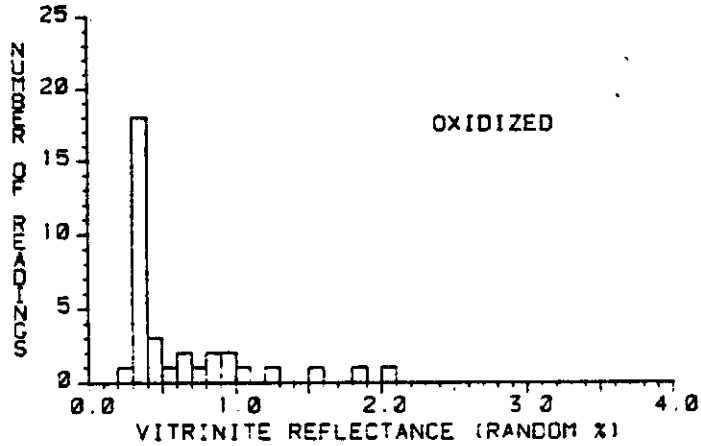
ORDERED REFLECTANCE VALUES:

0.32	0.44	0.74
0.33	0.47	0.81
0.35	0.47	1.01
0.36	0.50	
0.37	0.58	
0.38	0.61	
0.39	0.62	
0.41	0.66	
0.41	0.67	
0.43	0.71	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	45 %
Inertinite	:	30 %
Back Fluor	:	None
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 74
ID : SWC

DEPTH : 2592.0 Ft
: 790.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

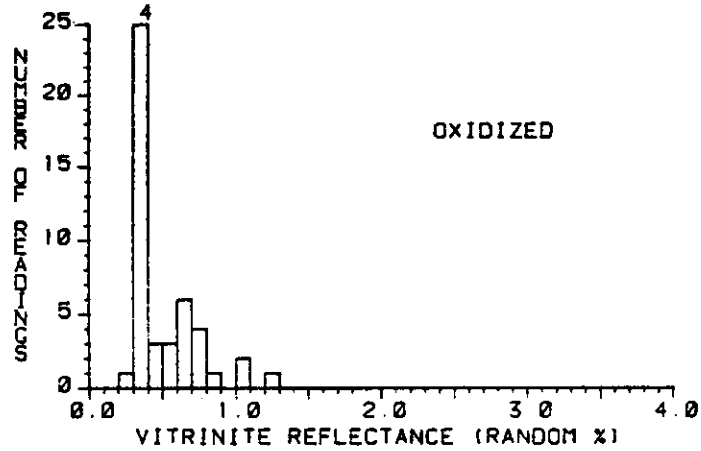
ORDERED REFLECTANCE VALUES:

0.28	0.34	0.43	1.06
0.32	0.35	0.43	1.26
0.32	0.35	0.50	1.58
0.32	0.37	0.62	1.81
0.33	0.38	0.64	2.09
0.33	0.38	0.73	
0.33	0.38	0.80	
0.34	0.39	0.83	
0.34	0.39	0.90	
0.34	0.42	0.90	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 78
ID : SWC

DEPTH : 2935.0 Ft
: 894.6 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

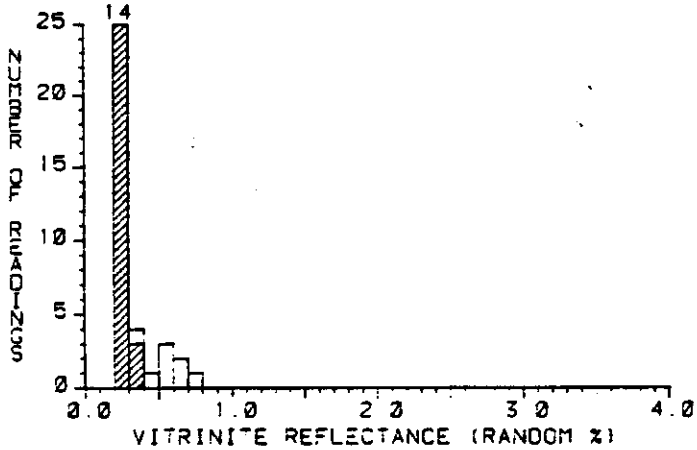
ORDERED REFLECTANCE VALUES:

0.23	0.30	0.33	0.40	0.66
0.30	0.31	0.33	0.43	0.69
0.30	0.31	0.34	0.43	0.70
0.30	0.31	0.34	0.50	0.70
0.30	0.31	0.34	0.57	0.71
0.30	0.31	0.35	0.59	0.79
0.30	0.31	0.35	0.62	0.80
0.30	0.31	0.35	0.64	1.01
0.30	0.32	0.36	0.65	1.07
0.30	0.32	0.38	0.65	1.20

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	20 %
Vitrinite	:	40 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	?Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 82
ID : SWC

DEPTH : 3294.0 Ft
: 1004.0 M

* = Ro MATURITY

VALUES : 42

MEAN : 0.26
STD DEV : 0.02
MEDIAN : 0.26
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

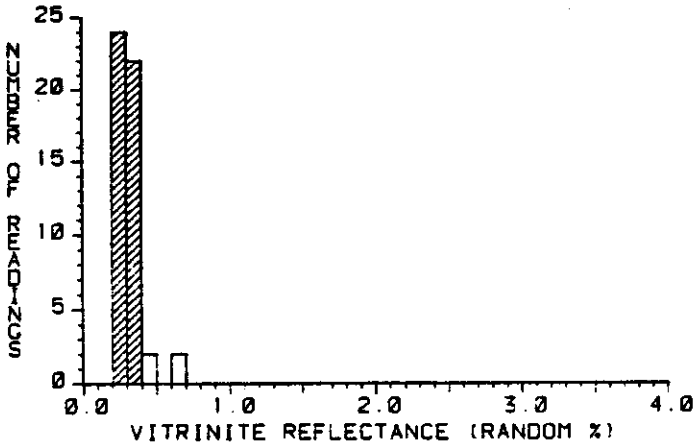
ORDERED REFLECTANCE VALUES:

*0.20	*0.24	*0.26	*0.27	*0.30
*0.21	*0.24	*0.26	*0.27	*0.32
*0.23	*0.25	*0.26	*0.28	0.38
*0.23	*0.25	*0.26	*0.28	0.46
*0.23	*0.25	*0.26	*0.28	0.51
*0.23	*0.25	*0.26	*0.28	0.51
*0.24	*0.25	*0.26	*0.29	0.52
*0.24	*0.25	*0.26	*0.29	0.60
*0.24	*0.26	*0.27	*0.29	0.67
*0.24	*0.26	*0.27	*0.30	0.73

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	None
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 86
ID : SWC

DEPTH : 3709.0 Ft
: 1130.5 M

* = Ro MATURITY

VALUES : 46

MEAN : 0.29
STD DEV : 0.03
MEDIAN : 0.29
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

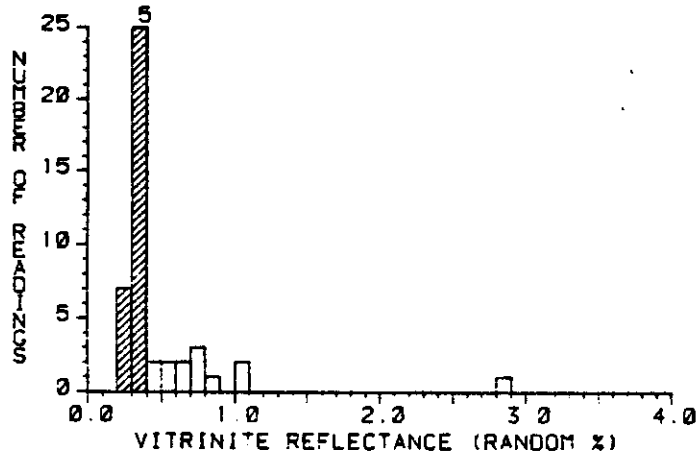
ORDERED REFLECTANCE VALUES:

*0.23	*0.27	*0.29	*0.30	*0.31
*0.25	*0.27	*0.29	*0.30	*0.32
*0.25	*0.28	*0.29	*0.31	*0.32
*0.25	*0.28	*0.29	*0.31	*0.33
*0.26	*0.28	*0.30	*0.31	*0.34
*0.26	*0.28	*0.30	*0.31	*0.37
*0.26	*0.28	*0.30	*0.31	0.46
*0.26	*0.28	*0.30	*0.31	0.49
*0.26	*0.28	*0.30	*0.31	0.65
*0.26	*0.28	*0.30	*0.31	0.66

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	None
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 89
ID : SWC

DEPTH : 4016.0 Ft
: 1224.1 M

* = Ro MATURITY

VALUES : 37

MEAN : 0.31
STD DEV : 0.03
MEDIAN : 0.31
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

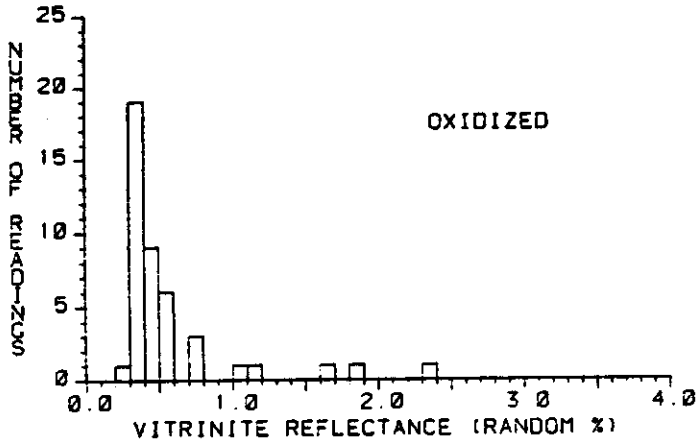
ORDERED REFLECTANCE VALUES:

*0.22	*0.30	*0.31	*0.33	0.54
*0.25	*0.30	*0.31	*0.34	0.61
*0.27	*0.30	*0.31	*0.35	0.63
*0.28	*0.30	*0.31	*0.35	0.73
*0.29	*0.30	*0.32	*0.35	0.78
*0.29	*0.30	*0.32	*0.36	0.79
*0.29	*0.31	*0.32	*0.36	0.84
*0.30	*0.31	*0.32	0.40	1.01
*0.30	*0.31	*0.32	0.42	1.03
*0.30	*0.31	*0.33	0.52	2.85

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	55 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	None
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 92
ID : SWC

DEPTH : 4373.0 Ft
: 1332.9 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

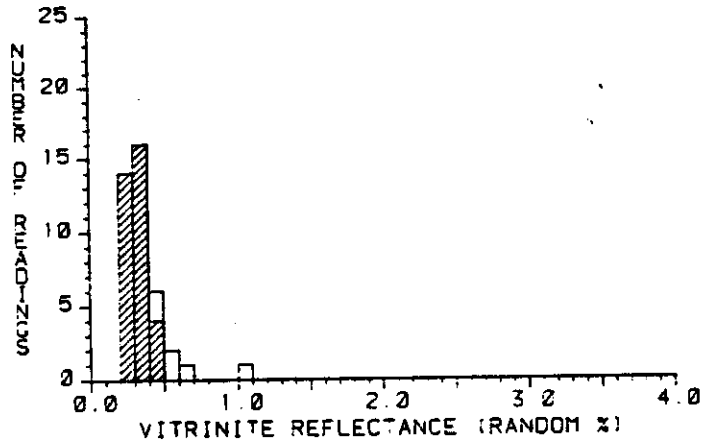
ORDERED REFLECTANCE VALUES:

0.24	0.36	0.40	0.53	1.60
0.31	0.36	0.40	0.54	1.87
0.32	0.36	0.40	0.54	2.37
0.32	0.37	0.42	0.59	
0.32	0.38	0.42	0.59	
0.33	0.39	0.43	0.76	
0.33	0.39	0.44	0.78	
0.33	0.39	0.45	0.78	
0.34	0.39	0.47	1.00	
0.34	0.39	0.53	1.13	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	?Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 96
ID : SWC

DEPTH : 4824.0 Ft
: 1470.4 M

* = Ro MATURITY

VALUES : 34

MEAN : 0.31
STD DEV : 0.05
MEDIAN : 0.30
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

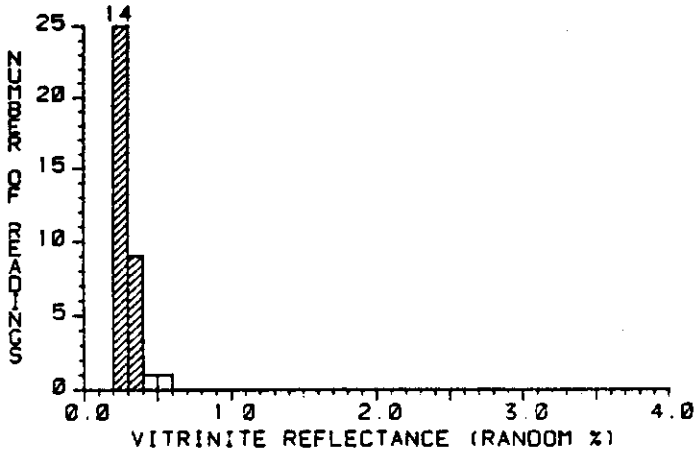
ORDERED REFLECTANCE VALUES:

*0.24	*0.29	*0.31	*0.40
*0.24	*0.29	*0.31	*0.41
*0.25	*0.29	*0.31	*0.42
*0.25	*0.29	*0.31	*0.44
*0.25	*0.30	*0.31	0.48
*0.27	*0.30	*0.33	0.49
*0.27	*0.30	*0.34	0.50
*0.27	*0.30	*0.36	0.54
*0.28	*0.31	*0.37	0.63
*0.29	*0.31	*0.39	1.05

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 341
ID : SWC

DEPTH : 4975.0 Ft
: 1516.4 M

* = Ro MATURITY

VALUES : 48

MEAN : 0.28
STD DEV : 0.03
MEDIAN : 0.28
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

*0.22	*0.25	*0.28	*0.28	*0.30
*0.22	*0.25	*0.28	*0.28	*0.30
*0.23	*0.26	*0.28	*0.29	*0.30
*0.23	*0.27	*0.28	*0.29	*0.31
*0.23	*0.27	*0.28	*0.29	*0.31
*0.25	*0.27	*0.28	*0.29	*0.32
*0.25	*0.27	*0.28	*0.29	*0.32
*0.25	*0.27	*0.28	*0.29	*0.34
*0.25	*0.27	*0.28	*0.29	0.47
*0.25	*0.27	*0.28	*0.30	0.52

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	15 %
Vitrinite	:	45 %
Inertinite	:	10 %
Back Fluor	:	None
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL

RRUS No. : 344
ID : SWC

DEPTH : 5331.0 Ft
: 1624.9 M

* = Ro MATURITY

VALUES : 21

MEAN : 0.33
STD DEV : 0.04
MEDIAN : 0 32
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

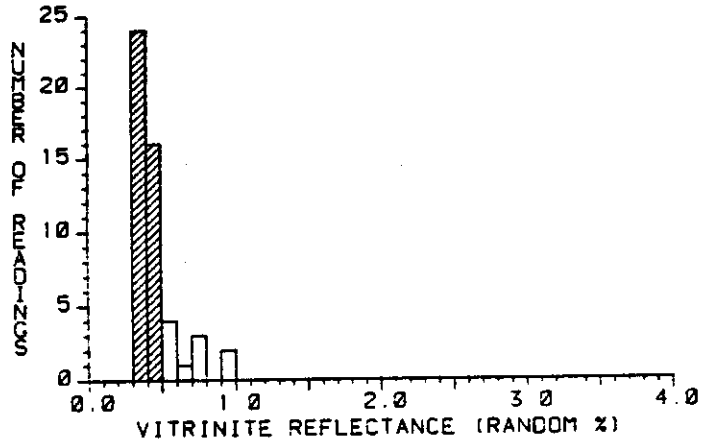
ORDERED REFLECTANCE VALUES:

*0.28	*0.32	*0.41	1.44
*0.29	*0.33	0.48	
*0.29	*0.33	0.50	
*0.29	*0.33	0.51	
*0.30	*0.34	0.52	
*0.30	*0.34	0.53	
*0.31	*0.35	0.62	
*0.32	*0.38	0.64	
*0.32	*0.38	0.72	
*0.32	*0.40	0.88	

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	45 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 347
ID : SWC

DEPTH : 5691.0 Ft
: 1734.6 M

* = Ro MATURITY

VALUES : 40

MEAN : 0.38
STD DEV : 0.05
MEDIAN : 0.37
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

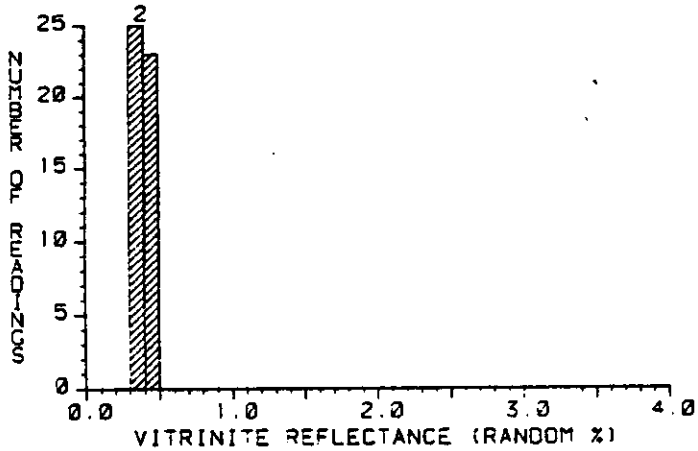
ORDERED REFLECTANCE VALUES:

*0.30	*0.34	*0.37	*0.41	0.56
*0.30	*0.35	*0.38	*0.43	0.56
*0.31	*0.36	*0.39	*0.43	0.58
*0.32	*0.36	*0.39	*0.44	0.58
*0.32	*0.36	*0.40	*0.44	0.64
*0.32	*0.36	*0.40	*0.44	0.73
*0.34	*0.36	*0.40	*0.46	0.75
*0.34	*0.37	*0.41	*0.47	0.75
*0.34	*0.37	*0.41	*0.47	0.90
*0.34	*0.37	*0.41	*0.47	0.96

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	10 %
Vitrinite	:	45 %
Inertinite	:	20 %
Back Fluor	:	None
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 349
ID : SWC

DEPTH : 6500.0 Ft
: 1981.2 M

* = Ro MATURITY

VALUES : 60

MEAN : 0.39
STD DEV : 0.03
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

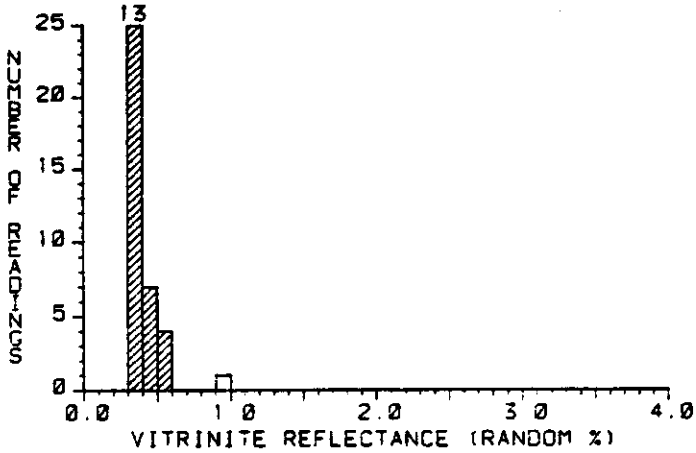
ORDERED REFLECTANCE VALUES:

*0.34	*0.36	*0.38	*0.41	*0.43
*0.34	*0.36	*0.38	*0.41	*0.43
*0.34	*0.36	*0.38	*0.41	*0.43
*0.35	*0.37	*0.38	*0.41	*0.43
*0.35	*0.37	*0.39	*0.41	*0.43
*0.35	*0.37	*0.39	*0.41	*0.44
*0.35	*0.37	*0.39	*0.41	*0.44
*0.35	*0.37	*0.40	*0.42	*0.45
*0.36	*0.37	*0.40	*0.42	*0.47
*0.36	*0.37	*0.40	*0.42	*0.48

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	55 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 354
ID : SWC

DEPTH : 7155.0 Ft
: 2180.8 M

* = Ro MATURITY

VALUES : 49

MEAN : 0.37
STD DEV : 0.06
MEDIAN : 0.35
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

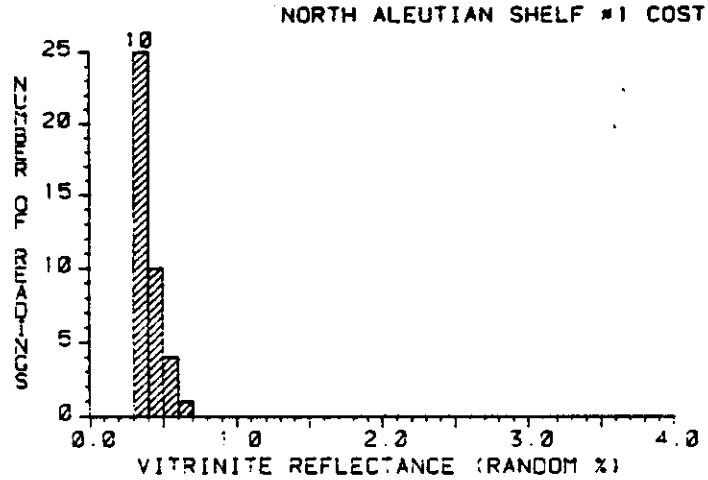
ORDERED REFLECTANCE VALUES:

*0.30	*0.33	*0.35	*0.37	*0.41
*0.31	*0.34	*0.35	*0.38	*0.42
*0.31	*0.34	*0.35	*0.38	*0.45
*0.31	*0.34	*0.35	*0.38	*0.45
*0.31	*0.34	*0.35	*0.38	*0.48
*0.32	*0.34	*0.36	*0.39	*0.50
*0.33	*0.34	*0.36	*0.39	*0.51
*0.33	*0.34	*0.36	*0.39	*0.51
*0.33	*0.34	*0.36	*0.40	*0.52
*0.33	*0.35	*0.37	*0.41	0.98

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	None
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 357
ID : SWC

DEPTH : 7532.0 Ft
: 2295.8 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.39
STD DEV : 0.07
MEDIAN : 0.36
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

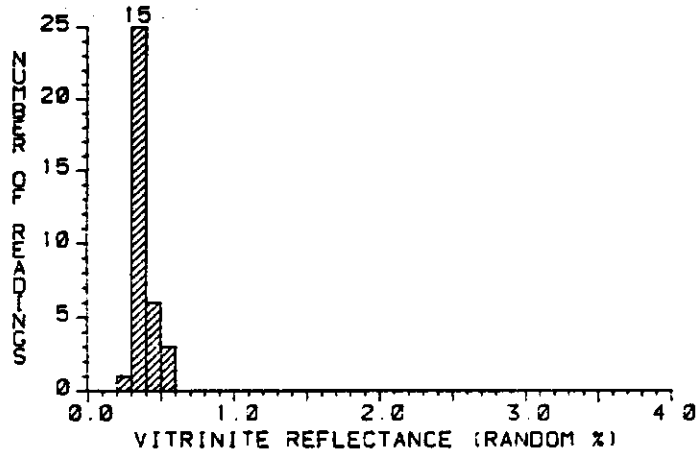
ORDERED REFLECTANCE VALUES:

*0.30	*0.33	*0.35	*0.38	*0.43
*0.30	*0.33	*0.35	*0.39	*0.45
*0.31	*0.33	*0.36	*0.39	*0.47
*0.31	*0.34	*0.36	*0.39	*0.49
*0.32	*0.34	*0.36	*0.39	*0.49
*0.32	*0.34	*0.36	*0.40	*0.54
*0.32	*0.34	*0.37	*0.41	*0.55
*0.32	*0.35	*0.37	*0.41	*0.55
*0.32	*0.35	*0.38	*0.41	*0.56
*0.33	*0.35	*0.38	*0.43	*0.60

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	Low
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 359
ID : SWC

DEPTH : 7772.0 Ft
: 2368.9 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.36
STD DEV : 0.06
MEDIAN : 0.35
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

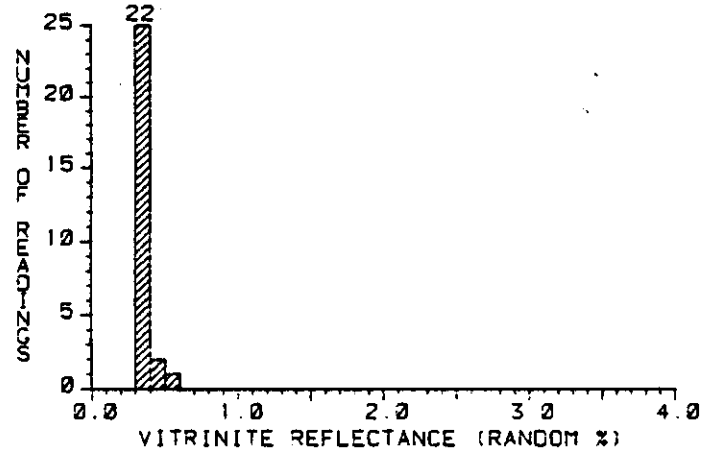
ORDERED REFLECTANCE VALUES:

*0.28	*0.33	*0.34	*0.36	*0.39
*0.30	*0.33	*0.35	*0.36	*0.41
*0.30	*0.33	*0.35	*0.36	*0.41
*0.31	*0.33	*0.35	*0.36	*0.42
*0.31	*0.33	*0.35	*0.37	*0.43
*0.31	*0.34	*0.35	*0.37	*0.44
*0.32	*0.34	*0.35	*0.37	*0.46
*0.32	*0.34	*0.35	*0.37	*0.52
*0.32	*0.34	*0.35	*0.38	*0.52
*0.33	*0.34	*0.36	*0.38	*0.59

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	Low
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 364
ID : SWC

DEPTH : 8124.0 Ft
: 2476.2 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.34
STD DEV : 0.04
MEDIAN : 0.34
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

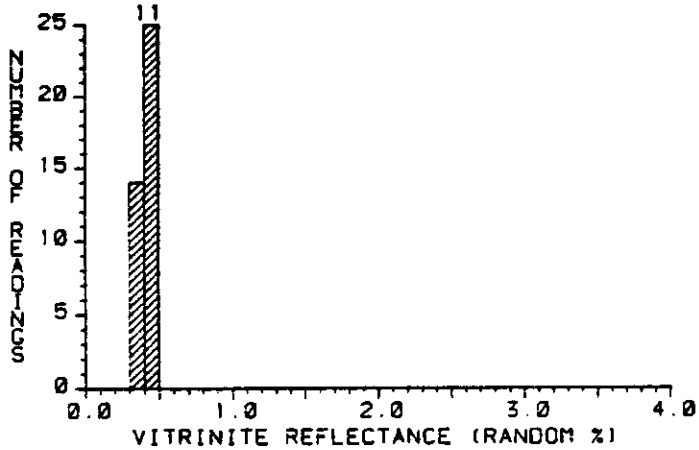
ORDERED REFLECTANCE VALUES:

*0.30	*0.31	*0.33	*0.34	*0.36
*0.30	*0.31	*0.33	*0.35	*0.36
*0.30	*0.31	*0.33	*0.35	*0.36
*0.30	*0.32	*0.34	*0.35	*0.37
*0.30	*0.32	*0.34	*0.35	*0.37
*0.31	*0.32	*0.34	*0.35	*0.37
*0.31	*0.32	*0.34	*0.35	*0.38
*0.31	*0.32	*0.34	*0.35	*0.40
*0.31	*0.32	*0.34	*0.35	*0.43
*0.31	*0.33	*0.34	*0.36	*0.55

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 366
ID : SWC

DEPTH : 8314.0 Ft
: 2534.1 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.40
STD DEV : 0.02
MEDIAN : 0.41
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

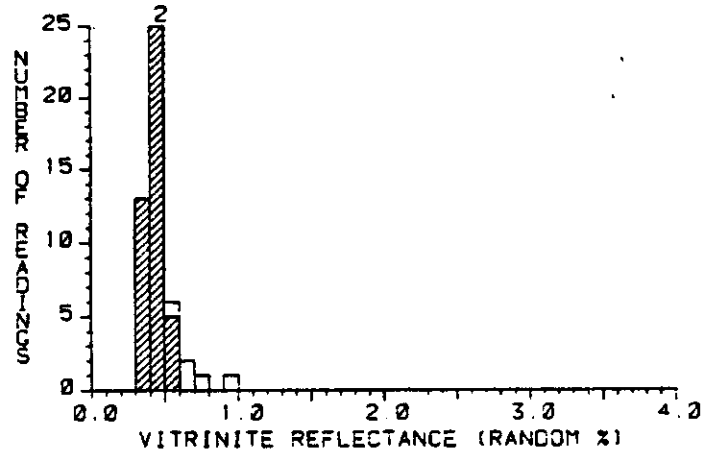
ORDERED REFLECTANCE VALUES:

*0.36	*0.38	*0.40	*0.41	*0.42
*0.36	*0.38	*0.41	*0.42	*0.42
*0.36	*0.39	*0.41	*0.42	*0.42
*0.37	*0.39	*0.41	*0.42	*0.42
*0.37	*0.40	*0.41	*0.42	*0.43
*0.37	*0.40	*0.41	*0.42	*0.43
*0.38	*0.40	*0.41	*0.42	*0.43
*0.38	*0.40	*0.41	*0.42	*0.43
*0.38	*0.40	*0.41	*0.42	*0.44
*0 38	*0.40	*0.41	*0.42	*0.44

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	20 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 369
ID : SWC

DEPTH : 8558.0 Ft
: 2608.5 M

* = Ro MATURITY

VALUES : 45

MEAN : 0.42
STD DEV : 0 05
MEDIAN : 0.41
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

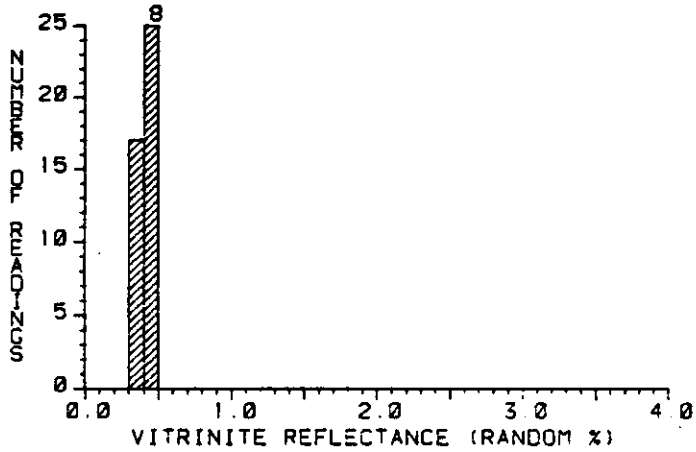
ORDERED REFLECTANCE VALUES:

*0.34	*0.38	*0.41	*0.44	*0.50
*0.35	*0.39	*0.41	*0.44	*0.51
*0.36	*0.39	*0.41	*0.44	*0.52
*0.36	*0.40	*0.41	*0.45	*0.53
*0.37	*0 40	*0.41	*0.45	*0.54
*0.37	*0.40	*0.41	*0.45	0.58
*0.38	*0.40	*0.42	*0.46	0.62
*0.38	*0.40	*0.42	*0.48	0.65
*0.38	*0.40	*0.42	*0.49	0.74
*0.38	*0.41	*0.43	*0.49	0.90

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	10 %
Back Fluor	:	Low
Bitumen	:	None
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 371
ID : SWC

DEPTH : 8923.0 Ft
: 2719.7 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.40
STD DEV : 0.02
MEDIAN : 0.40
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

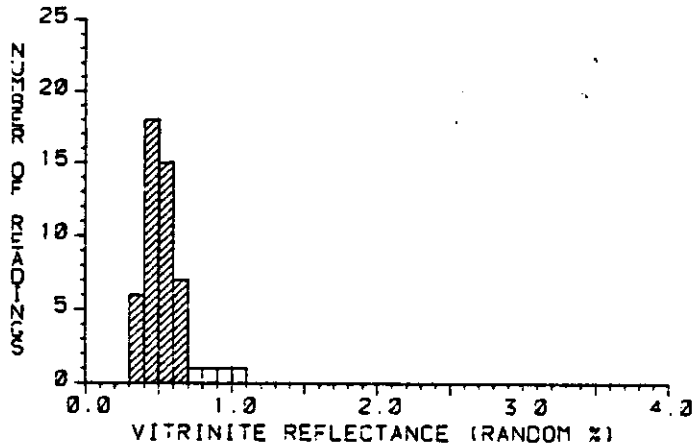
*0.34	*0.38	*0.40	*0.40	*0.41
*0.36	*0.38	*0.40	*0.40	*0.41
*0.36	*0.39	*0.40	*0.40	*0.42
*0.37	*0.39	*0.40	*0.41	*0.42
*0.37	*0.39	*0.40	*0.41	*0.43
*0.37	*0.39	*0.40	*0.41	*0.43
*0.38	*0.39	*0.40	*0.41	*0.43
*0.38	*0.40	*0.40	*0.41	*0.44
*0.38	*0.40	*0.40	*0.41	*0.44
*0.38	*0.40	*0.40	*0.41	*0.46

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 5 %
Vitrinite : 75 %
Inertinite : 10 %

Back Fluor : None
Bitumen : Med
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 375
ID : SWC

DEPTH : 9448.0 Ft
: 2879.8 M

* = Ro MATURITY

VALUES : 46

MEAN : 0.49
STD DEV : 0.09
MEDIAN : 0.49
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

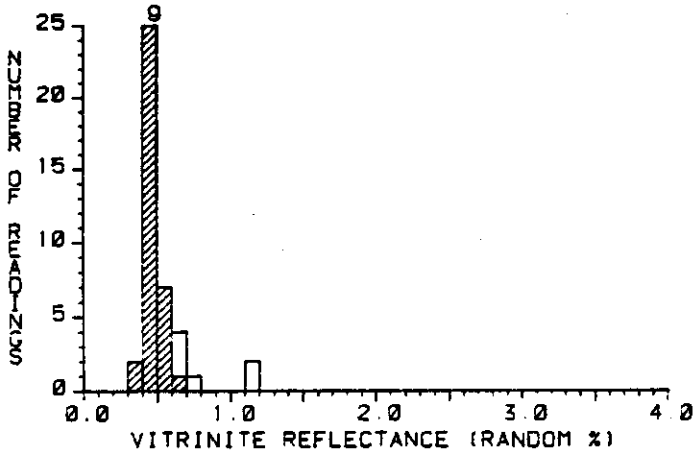
*0.32	*0.42	*0.47	*0.55	*0.61
*0.33	*0.43	*0.48	*0.55	*0.61
*0.34	*0.43	*0.48	*0.56	*0.61
*0.35	*0.43	*0.49	*0.56	*0.62
*0.36	*0.43	*0.51	*0.57	*0.63
*0.39	*0.44	*0.52	*0.57	*0.65
*0.40	*0.45	*0.53	*0.58	0.72
*0.40	*0.45	*0.53	*0.58	0.88
*0.40	*0.45	*0.55	*0.59	0.95
*0.41	*0.47	*0.55	*0.60	1.00

KEROGEN DESCRIPTION

Amorphous : 35 %
Exinite : 10 %
Vitrinite : 45 %
Inertinite : 10 %

Back Fluor : Med
Bitumen : Small
Coke : tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 378
ID : SWC

DEPTH : 9663.0 Ft
: 2945.3 M

* = Ro MATURITY

VALUES : 44

MEAN : 0.46
STD DEV : 0.06
MEDIAN : 0.45
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

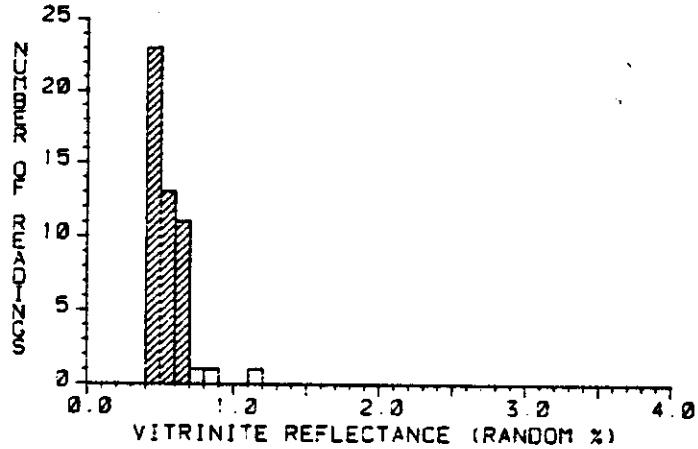
ORDERED REFLECTANCE VALUES:

*0.36	*0.41	*0.44	*0.47	*0.57
*0.37	*0.41	*0.44	*0.47	*0.57
*0.40	*0.42	*0.45	*0.47	*0.58
*0.40	*0.42	*0.45	*0.47	*0.60
*0.40	*0.42	*0.45	*0.48	0.67
*0.41	*0.43	*0.45	*0.49	0.67
*0.41	*0.43	*0.46	*0.51	0.68
*0.41	*0.43	*0.46	*0.53	0.77
*0.41	*0.43	*0.46	*0.56	1.11
*0.41	*0.44	*0.46	*0.56	1.12

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	45 %
Inertinite	:	15 %
Back Fluor	:	Low
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 383
ID : SWC

DEPTH : 10069.0 Ft
: 3069.0 M

* = Ro MATURITY

VALUES : 47

MEAN : 0.51
STD DEV : 0.08
MEDIAN : 0.50
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

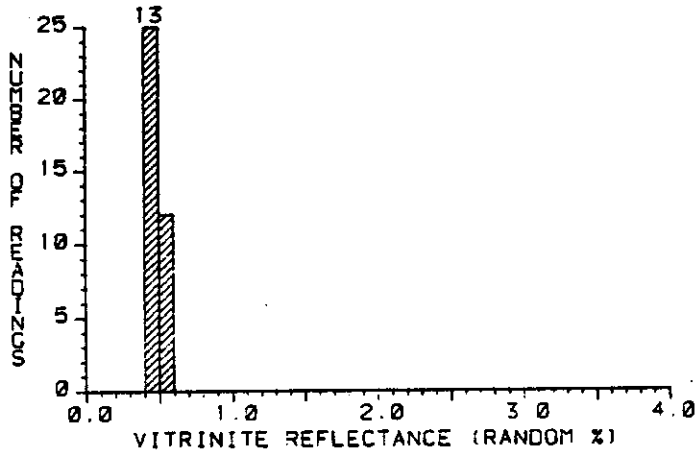
ORDERED REFLECTANCE VALUES:

*0.40	*0.44	*0.47	*0.55	*0.61
*0.40	*0.45	*0.47	*0.56	*0.62
*0.40	*0.45	*0.48	*0.57	*0.63
*0.42	*0.45	*0.50	*0.58	*0.64
*0.42	*0.45	*0.51	*0.59	*0.64
*0.43	*0.46	*0.51	*0.59	*0.64
*0.43	*0.46	*0.52	*0.60	*0.68
*0.43	*0.46	*0.54	*0.60	0.73
*0.43	*0.46	*0.55	*0.60	0.81
*0.43	*0.47	*0.55	*0.60	1.19

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	15 %
Vitrinite	:	40 %
Inertinite	:	15 %
Back Fluor	:	Med
Bitumen	:	Small
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 387
ID : SWC

DEPTH : 10557.0 Ft
: 3217.8 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.46
STD DEV : 0.03
MEDIAN : 0.46
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

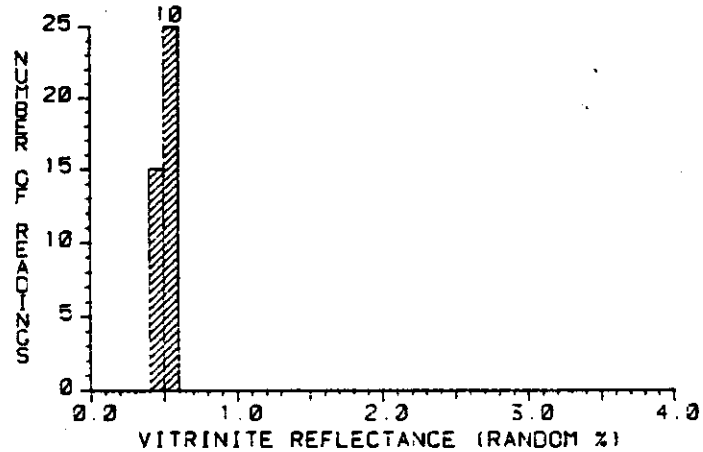
ORDERED REFLECTANCE VALUES

*0.40	*0.43	*0.45	*0.47	*0.50
*0.40	*0.43	*0.45	*0.47	*0.50
*0.41	*0.43	*0.46	*0.47	*0.50
*0.41	*0.44	*0.46	*0.48	*0.50
*0.41	*0.45	*0.46	*0.48	*0.50
*0.42	*0.45	*0.46	*0.48	*0.51
*0.42	*0.45	*0.46	*0.48	*0.51
*0.42	*0.45	*0.47	*0.49	*0.51
*0.42	*0.45	*0.47	*0.50	*0.52
*0.42	*0.45	*0.47	*0.50	*0.53

KEROGEN DESCRIPTION

Amorphous	:	35 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	5 %
Back Fluor	:	High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 390
ID : SWC

DEPTH : 10832.0 Ft
: 3301.6 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.50
STD DEV : 0.03
MEDIAN : 0.50
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

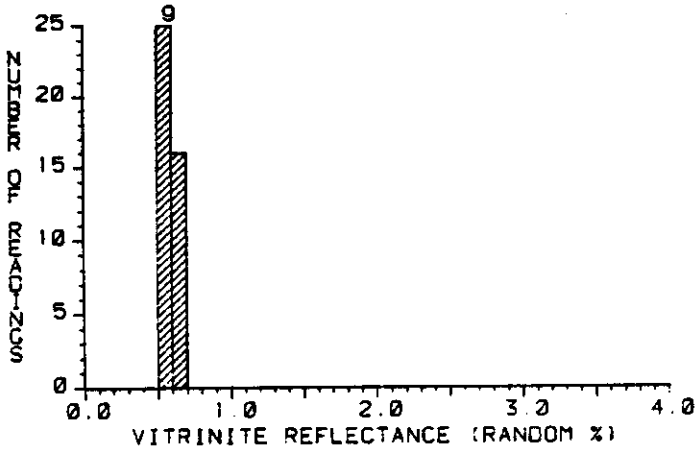
ORDERED REFLECTANCE VALUES

*0.41	*0.47	*0.50	*0.51	*0.52
*0.43	*0.48	*0.50	*0.51	*0.52
*0.43	*0.48	*0.50	*0.51	*0.52
*0.43	*0.49	*0.50	*0.51	*0.53
*0.45	*0.49	*0.50	*0.51	*0.53
*0.45	*0.50	*0.50	*0.51	*0.53
*0.45	*0.50	*0.50	*0.51	*0.54
*0.45	*0.50	*0.51	*0.51	*0.55
*0.46	*0.50	*0.51	*0.52	*0.55
*0.46	*0.50	*0.51	*0.52	*0.56

KEROGEN DESCRIPTION

Amorphous	:	? 10 %
Exinite	:	10 %
Vitrinite	:	80 %
Inertinite	:	0 %
Back Fluor	:	Med
Bitumen	:	?High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 394
ID : SWC

DEPTH : 11224.0 Ft
: 342.1 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.58
STD DEV : 0.03
MEDIAN : 0.58
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

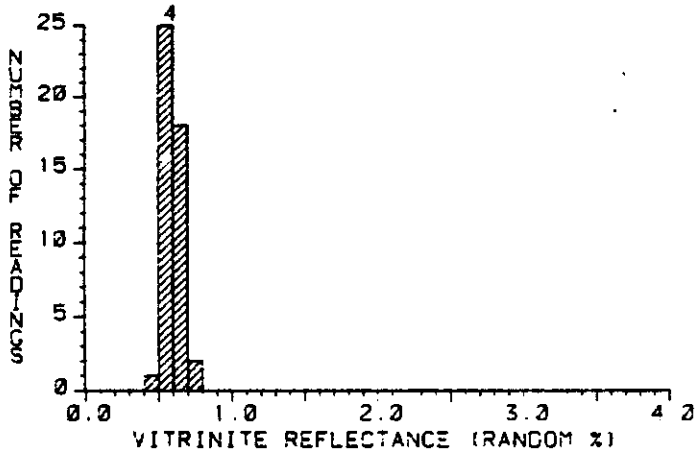
ORDERED REFLECTANCE VALUES:

*0.52	*0.56	*0.57	*0.59	*0.61
*0.52	*0.56	*0.58	*0.59	*0.61
*0.53	*0.56	*0.58	*0.59	*0.61
*0.53	*0.56	*0.58	*0.59	*0.62
*0.53	*0.57	*0.58	*0.60	*0.62
*0.54	*0.57	*0.58	*0.60	*0.62
*0.54	*0.57	*0.58	*0.60	*0.63
*0.55	*0.57	*0.58	*0.60	*0.63
*0.55	*0.57	*0.59	*0.60	*0.65
*0.56	*0.57	*0.59	*0.61	*0.65

KEROGEN DESCRIPTION

Amorphous	: ?	5 %
Exinite	:	10 %
Vitrinite	:	85 %
Inertinite	:	0 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 398
ID : SWC

DEPTH : 11494.0 Ft
: 3503.4 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.58
STD DEV : 0.06
MEDIAN : 0.57
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

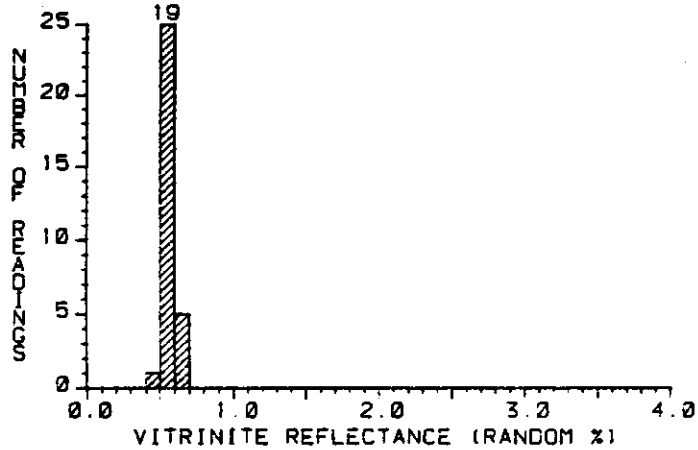
ORDERED REFLECTANCE VALUES:

*0.48	*0.52	*0.56	*0.60	*0.63
*0.50	*0.54	*0.56	*0.60	*0.63
*0.50	*0.54	*0.56	*0.60	*0.63
*0.50	*0.54	*0.56	*0.60	*0.63
*0.50	*0.54	*0.56	*0.61	*0.65
*0.50	*0.54	*0.57	*0.62	*0.65
*0.31	*0.55	*0.57	*0.62	*0.67
*0.51	*0.55	*0.58	*0.62	*0.68
*0.52	*0.55	*0.58	*0.62	*0.70
*0.52	*0.56	*0.59	*0.63	*0.74

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	10 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 404
ID : SWC

DEPTH : 12021.0 Ft
: 3664.0 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.56
STD DEV : 0.03
MEDIAN : 0.55
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

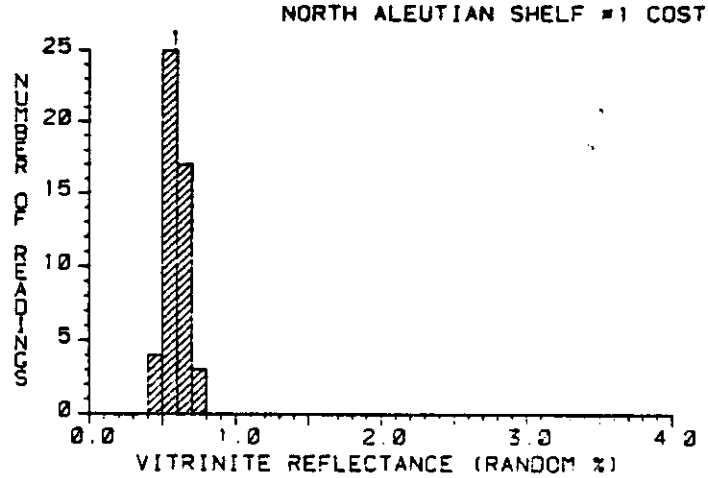
ORDERED REFLECTANCE VALUES:

*0.45	*0.54	*0.55	*0.57	*0.59
*0.50	*0.54	*0.55	*0.57	*0.59
*0.50	*0.54	*0.55	*0.57	*0.59
*0.51	*0.54	*0.55	*0.57	*0.59
*0.52	*0.54	*0.55	*0.57	*0.59
*0.53	*0.54	*0.55	*0.57	*0.60
*0.53	*0.55	*0.55	*0.57	*0.60
*0.53	*0.55	*0.56	*0.58	*0.60
*0.53	*0.55	*0.56	*0.58	*0.62
*0.54	*0.55	*0.56	*0.58	*0.68

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	90 %
Inertinite	:	0 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 408
ID : SWC

DEPTH : 12449.0 Ft
: 3794.5 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.58
STD DEV : 0.07
MEDIAN : 0.56
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

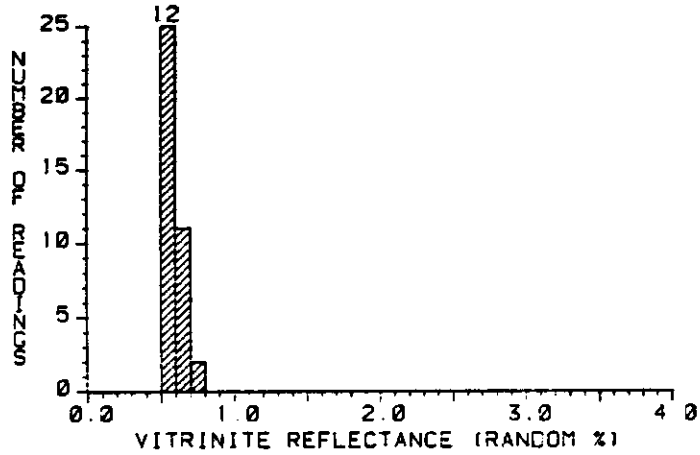
ORDERED REFLECTANCE VALUES:

*0.45	*0.52	*0.55	*0.60	*0.64
*0.45	*0.52	*0.55	*0.61	*0.64
*0.48	*0.52	*0.55	*0.61	*0.65
*0.48	*0.53	*0.55	*0.61	*0.66
*0.50	*0.53	*0.56	*0.61	*0.67
*0.51	*0.53	*0.56	*0.61	*0.68
*0.51	*0.54	*0.57	*0.62	*0.69
*0.51	*0.55	*0.57	*0.62	*0.71
*0.51	*0.55	*0.58	*0.64	*0.73
*0.52	*0.55	*0.59	*0.64	*0.73

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	10 %
Back Fluor	:	High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 411
ID : SWC

DEPTH : 12585.0 Ft
: 3835.9 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.57
STD DEV : 0.05
MEDIAN : 0.55
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

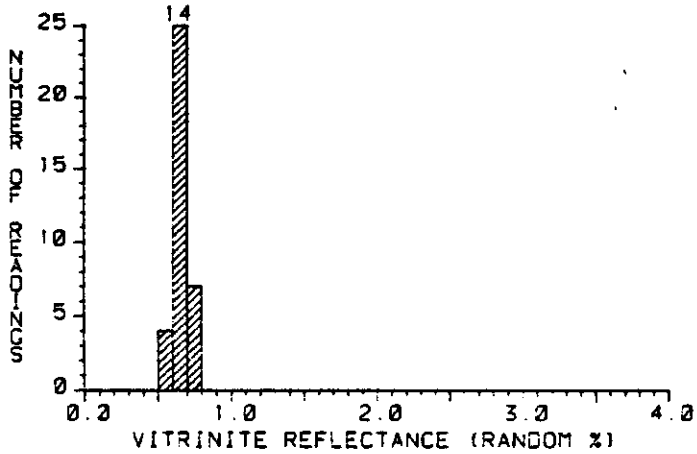
ORDERED REFLECTANCE VALUES:

*0.50	*0.52	*0.54	*0.57	*0.62
*0.50	*0.53	*0.54	*0.57	*0.62
*0.50	*0.53	*0.55	*0.57	*0.65
*0.50	*0.53	*0.55	*0.58	*0.65
*0.50	*0.53	*0.55	*0.58	*0.65
*0.50	*0.53	*0.55	*0.58	*0.65
*0.51	*0.53	*0.56	*0.59	*0.65
*0.51	*0.53	*0.56	*0.60	*0.66
*0.52	*0.54	*0.56	*0.61	*0.70
*0.52	*0.54	*0.57	*0.61	*0.71

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 415
ID : SWC

DEPTH : 12868.0 Ft
: 3922.2 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.65
STD DEV : 0.04
MEDIAN : 0.66
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

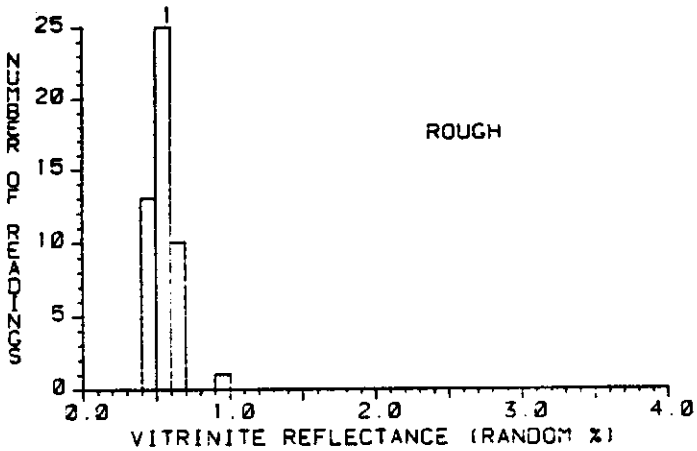
ORDERED REFLECTANCE VALUES:

*0.54	*0.63	*0.64	*0.66	*0.68
*0.59	*0.63	*0.65	*0.66	*0.68
*0.59	*0.63	*0.65	*0.67	*0.69
*0.59	*0.63	*0.66	*0.67	*0.70
*0.60	*0.63	*0.66	*0.67	*0.70
*0.62	*0.63	*0.66	*0.67	*0.70
*0.62	*0.63	*0.66	*0.67	*0.70
*0.62	*0.63	*0.66	*0.67	*0.71
*0.62	*0.63	*0.66	*0.67	*0.72
*0.62	*0.64	*0.66	*0.68	*0.74

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	80 %
Inertinite	:	5 %
Back Fluor	:	None
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 419
ID : SWC

DEPTH : 13026.0 Ft
: 3970.3 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

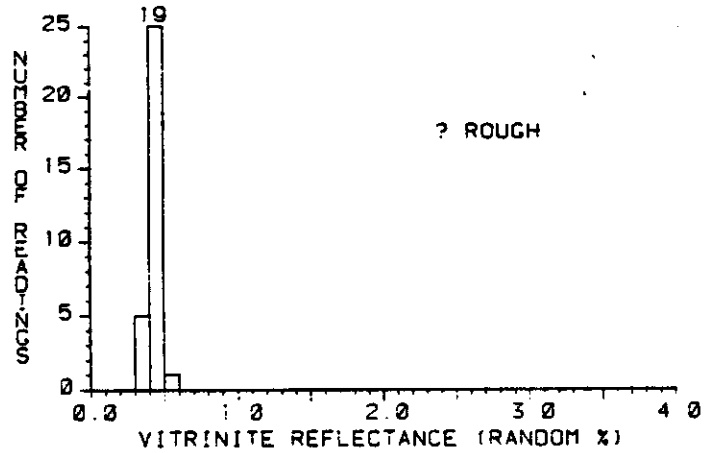
ORDERED REFLECTANCE VALUES:

0.42	0.48	0.53	0.56	0.60
0.43	0.49	0.53	0.57	0.61
0.43	0.49	0.53	0.57	0.61
0.45	0.50	0.54	0.57	0.61
0.46	0.50	0.55	0.58	0.62
0.46	0.51	0.55	0.58	0.63
0.47	0.52	0.55	0.58	0.63
0.47	0.52	0.55	0.58	0.65
0.47	0.53	0.56	0.59	0.68
0.48	0.53	0.56	0.60	0.91

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 424
ID : SWC

DEPTH : 13275.0 Ft
: 4046.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

0.37	0.40	0.41	0.44	0.46
0.38	0.41	0.42	0.44	0.46
0.38	0.41	0.42	0.44	0.46
0.39	0.41	0.42	0.45	0.46
0.39	0.41	0.43	0.45	0.47
0.40	0.41	0.43	0.45	0.47
0.40	0.41	0.43	0.45	0.47
0.40	0.41	0.43	0.45	0.48
0.40	0.41	0.44	0.46	0.48
0.40	0.41	0.44	0.46	0.54

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	None

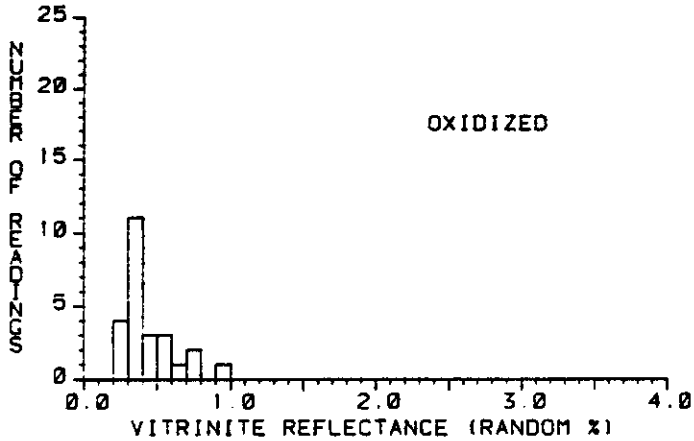
VISUAL KEROGEN ANALYSIS - REFLECTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			REFLECT.	KEROGEN CHARACTERISTICS					TOC
RRUS	ID /	DEPTH (Feet)	Ro %	Am%	Ex%	Vit%	Inert%	Fluor	%
61	CORE 1	3392.0	----	15?	15	50	20	None	1.47
59	CORE 2	4197.8	0.26	20	20	30?	30	None	0.52
146	CORE 3	5231.9	----	15	15	65?	5	Med	0.20
148	CORE 3	5235.6	----	15	10	70?	5	None	0.17
155	CORE 4	5974.5	0.35	15	10	70?	5	None	0.39
161	CORE 4	5991.3	----	15	10	70?	5	None	0.43
163	CORE 5	6669.8	----	5	5	85?	5	Low	0.17
219	CORE 6	8050.7	0.38	10	10	70	10	Low	2.68
227	CORE 7	8077.3	0.41	10	20	65	5	Low	2.66
234	CORE 7	8092.7	0.43	5	5	85	5	Med	3.77
237	CORE 8	8636.3	----	10	10	75	5	Med	6.34
237A	CORE 8	8636.3	0.42	5	5	80?	10	Med	6.34
237B	CORE 8	8636.3	----	5	5	50	40	Med	6.34
241	CORE 8	8653.5	----	10	5	70	15	Low	2.28
244	CORE 9	9257.5	0.41	20	5	65	10	Low	2.16
246	CORE 9	9263.5	0.40	25	10	55	10	Low	1.93
259	CORE 10	9972.4	0.48	30	10	50	10	Low	0.78
263	CORE 10	9983.8	0.47	35	5	50	10	Med	0.53
265	CORE 11	10326.4	----	10	10	70	10	Med	0.29
274	CORE 12	10738.4	----	20?	5	70?	5	High	4.92
302	CORE 13	11102.5	----	40?	5	50?	5	High	1.24
306	CORE 14	12251.2	0.52	10	15	70	5	High	5.23
310	CORE 14	12262.4	0.57	15	5	70	10	Low	35.89
314	CORE 14	12269.3	0.55	15	10	70	5	Low	28.77
338	CORE 15	12634.4	0.64	15	10	70	5	Low	1.74
462	CORE 15	12634.8	0.60	15	5	70	10	High	5.87
437	CORE 16	14179.1	0.64	5	5	85	5	High	18.69
464	CORE 16	14179.4	----	15	5	75	5	V Hi	17.18
480	CORE 17	15354.6	----	10	tr	85	5	Med	2.59
485	CORE 17	15368.5	0.77	50	5	35	10	V Hi	0.82
487	CORE 18	16009.3	0.94	35	5	50	10	V Hi	1.76
494	CORE 18	16029.0	----	40	10	35	15	V Hi	1.58
507	CORE 19	16703.7	0.99	35	15?	30	20	V Hi	2.22
510	CORE 19	16714.6	1.01	40	10?	20	30	V Hi	1.17
513	CORE 19	16719.6	0.98	40	5?	35	20	V Hi	2.34

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 61
ID : CORE 1

DEPTH : 3392.0 Ft
: 1033.9 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

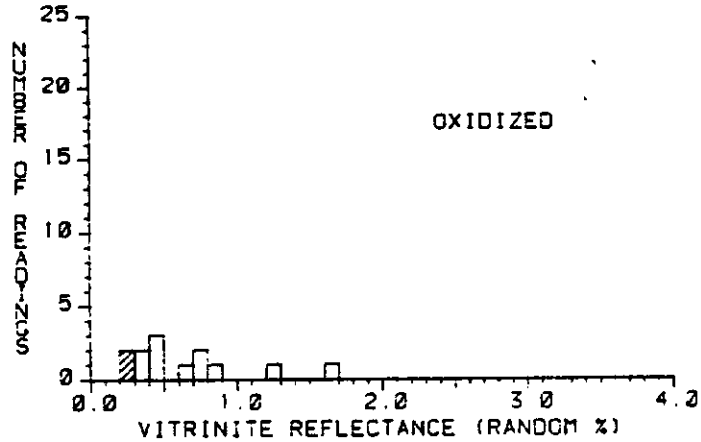
ORDERED REFLECTANCE VALUES:

0.28	0.31	0.59
0.28	0.33	0.65
0.29	0.35	0.72
0.29	0.36	0.74
0.30	0.36	0.95
0.30	0.42	
0.30	0.43	
0.30	0.46	
0.31	0.50	
0.31	0.55	

KEROGEN DESCRIPTION

Amorphous	: ? 15 %
Exinite	: 15 %
Vitrinite	: 50 %
Inertinite	: 20 %
Back Fluor	: None
Bitumen	: Small
Coke	: Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 59
ID : CORE 2

DEPTH : 4197.8 Ft
: 1279.5 M

* = Ro MATURITY

VALUES : 2

MEAN : 0.26
STD DEV : 0.00
MEDIAN : 0.26
MODE : 0.25

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

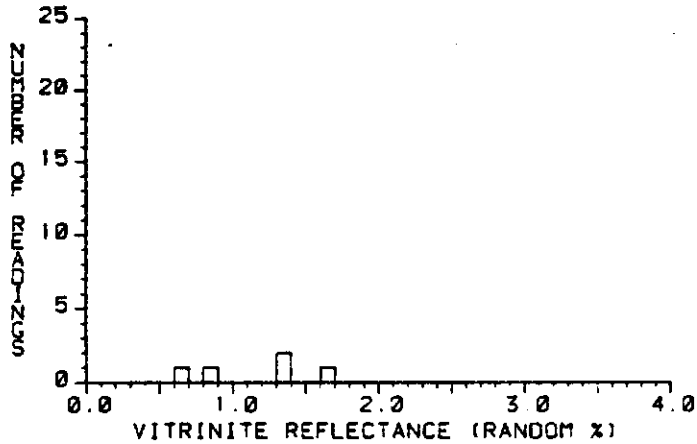
ORDERED REFLECTANCE VALUES:

*0.26	0.85
*0.26	1.21
0.36	1.60
0.39	
0.40	
0.40	
0.43	
0.65	
0.71	
0.72	

KEROGEN DESCRIPTION

Amorphous	: 20 %
Exinite	: 20 %
Vitrinite	: ? 30 %
Inertinite	: 30 %
Back Fluor	: None
Bitumen	: ?Med
Coke	: Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 146
ID : CORE 3

DEPTH : 5231.9 Ft
: 1594.7 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

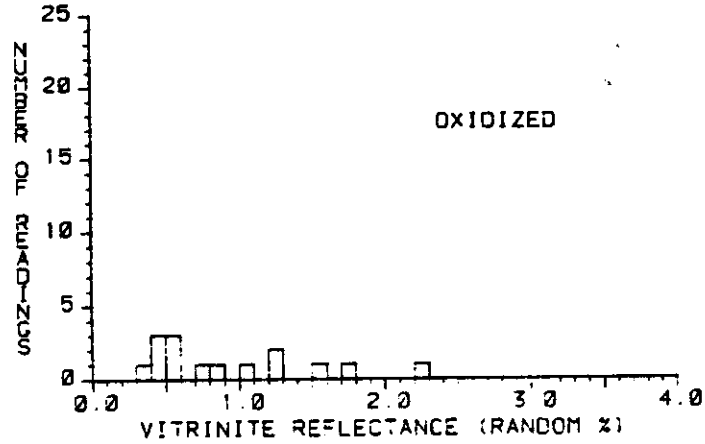
ORDERED REFLECTANCE VALUES:

0.61
0.87
1.36
1.37
1.67

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	? 65 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	?Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 148
ID : CORE 3

DEPTH : 5235.6 Ft
: 1595.8 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

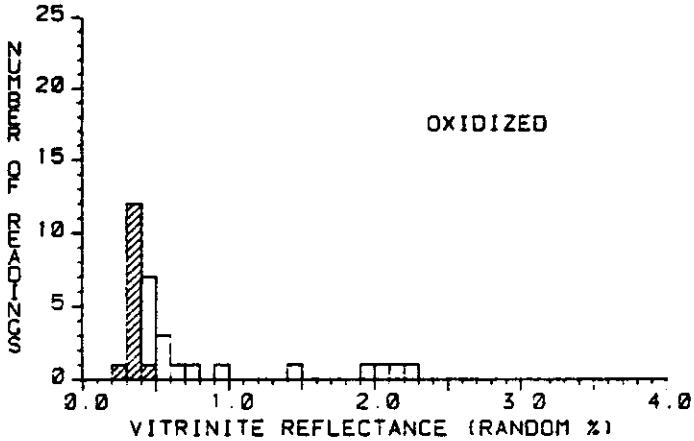
ORDERED REFLECTANCE VALUES:

0.35	1.25
0.43	1.25
0.45	1.53
0.46	1.75
0.53	2.27
0.54	
0.57	
0.75	
0.86	
1.07	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	? 70 %
Inertinite	:	5 %
Back Fluor	:	None
Bitumen	:	?Med
Coke	:	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 155
ID : CORE 4

DEPTH : 5974.5 Ft
: 1821.0 M

* = Ro MATURITY

VALUES : 14

MEAN : 0.35
STD DEV : 0.04
MEDIAN : 0.37
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

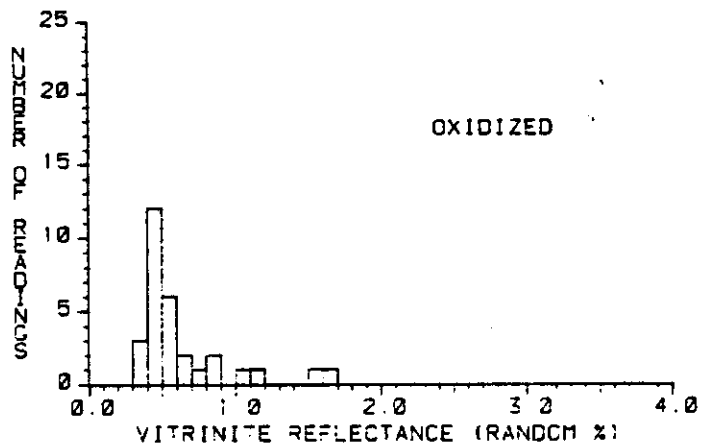
ORDERED REFLECTANCE VALUES:

*0.26	*0.38	0.54	2.20
*0.30	*0.39	0.56	
*0.30	*0.39	0.59	
*0.32	*0.40	0.65	
*0.34	0.42	0.78	
*0.35	0.43	0.97	
*0.36	0.44	1.43	
*0.37	0.46	1.90	
*0.37	0.46	2.05	
*0.38	0.47	2.18	

KEROGEN DESCRIPTION

Amorphous	15 %
Exinite	10 %
Vitrinite	? 70 %
Inertinite	5 %
Back Fluor	None
Bitumen	?Med
Coke	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 161
ID : CORE 4

DEPTH : 5991.3 Ft
: 1826.1 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

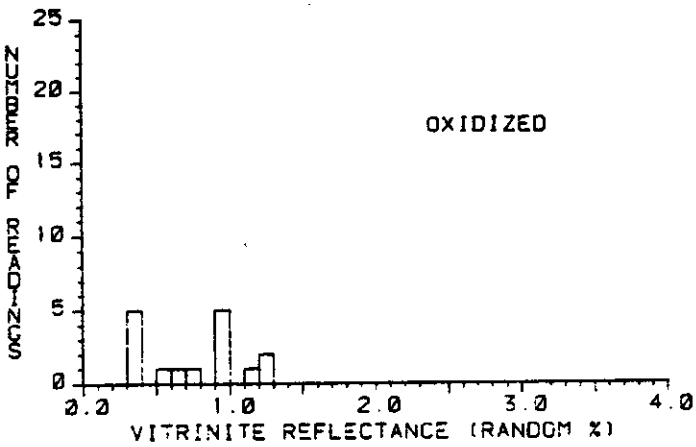
ORDERED REFLECTANCE VALUES:

0.31	0.44	0.59
0.36	0.45	0.64
0.39	0.47	0.65
0.40	0.48	0.71
0.40	0.48	0.84
0.40	0.50	0.86
0.41	0.51	1.01
0.41	0.53	1.13
0.43	0.55	1.55
0.43	0.59	1.63

KEROGEN DESCRIPTION

Amorphous	15 %
Exinite	10 %
Vitrinite	? 70 %
Inertinite	5 %
Back Fluor	None
Bitumen	?Med
Coke	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 163
ID : CORE 5

DEPTH : 6669.8 Ft
: 2033.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

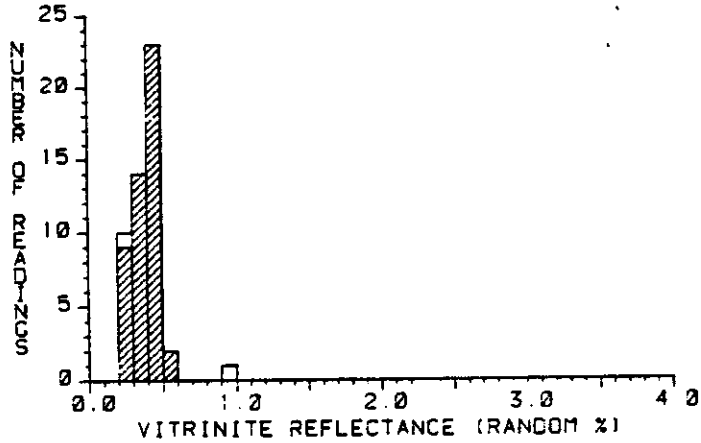
ORDERED REFLECTANCE VALUES:

0.33	0.94
0.33	0.96
0.34	0.96
0.38	1.16
0.39	1.23
0.57	1.23
0.68	
0.76	
0.93	
0.93	

KEROGEN DESCRIPTION

Amorphous	5 %
Exinite	5 %
Vitrinite	? 85 %
Inertinite	5 %
Back Fluor	Low
Bitumen	?Med
Coke	Small

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 219
ID : CORE 6

DEPTH : 8050.7 Ft
: 2453.9 M

* = Ro MATURITY

VALUES : 48

MEAN : 0.38
STD DEV : 0.07
MEDIAN : 0.40
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

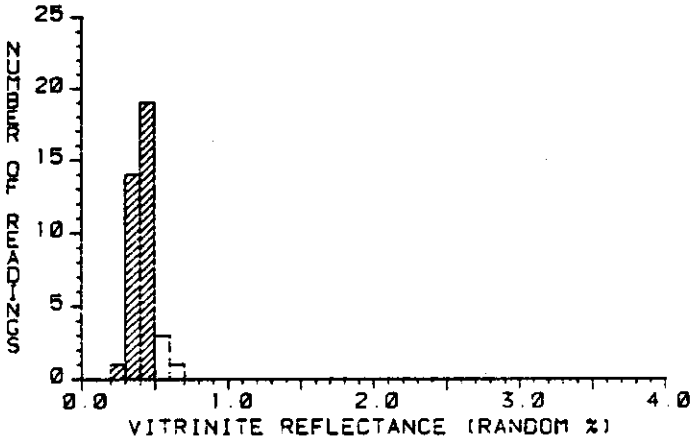
ORDERED REFLECTANCE VALUES:

0.23	*0.30	*0.35	*0.41	*0.45
*0.27	*0.30	*0.36	*0.41	*0.45
*0.27	*0.30	*0.38	*0.42	*0.45
*0.27	*0.30	*0.39	*0.42	*0.45
*0.28	*0.30	*0.40	*0.43	*0.46
*0.28	*0.30	*0.40	*0.43	*0.47
*0.29	*0.31	*0.40	*0.43	*0.48
*0.29	*0.33	*0.41	*0.44	*0.51
*0.29	*0.33	*0.41	*0.44	*0.51
*0.29	*0.34	*0.41	*0.45	0.95

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	10 %
Vitrinite	70 %
Inertinite	10 %
Back Fluor	Low
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 227
ID : CORE 7

DEPTH : 8077.3 Ft
: 2462.0 M

* = Ro MATURITY

VALUES : 34

MEAN : 0.41
STD DEV : 0.06
MEDIAN : 0.41
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

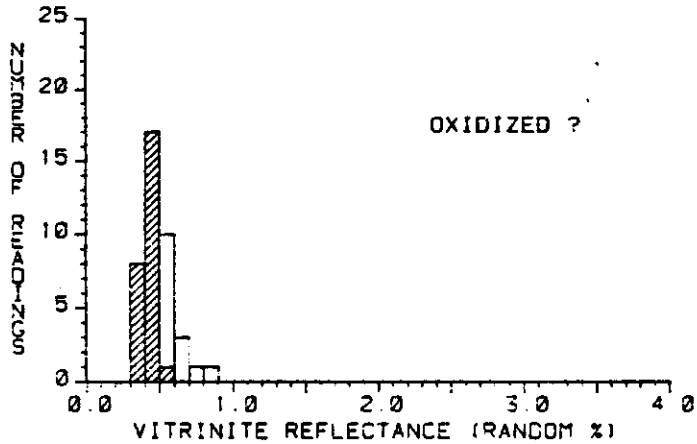
ORDERED REFLECTANCE VALUES:

*0.27	*0.38	*0.43	*0.48
*0.30	*0.38	*0.44	*0.48
*0.30	*0.38	*0.44	*0.49
*0.33	*0.38	*0.45	*0.49
*0.34	*0.39	*0.45	0.51
*0.34	*0.40	*0.45	0.53
*0.35	*0.40	*0.45	0.55
*0.36	*0.41	*0.47	0.63
*0.37	*0.43	*0.47	
*0.38	*0.43	*0.47	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	20 %
Vitrinite	:	65 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	Med
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 234
ID : CORE 7

DEPTH : 8092.7 Ft
: 2466.7 M

* = Ro MATURITY

VALUES : 26

MEAN : 0.43
STD DEV : 0.06
MEDIAN : 0.45
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

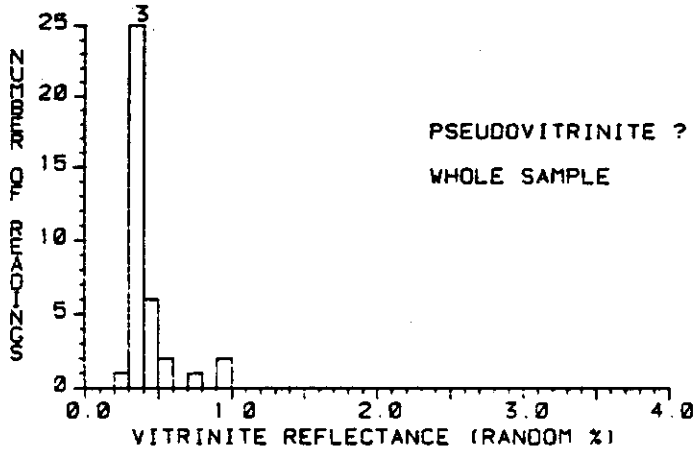
ORDERED REFLECTANCE VALUES:

*0.32	*0.44	*0.48	0.57
*0.32	*0.44	*0.48	0.57
*0.34	*0.45	*0.49	0.58
*0.34	*0.45	*0.49	0.59
*0.35	*0.45	*0.49	0.59
*0.36	*0.46	*0.50	0.62
*0.36	*0.47	0.54	0.62
*0.38	*0.47	0.54	0.65
*0.42	*0.47	0.55	0.75
*0.42	*0.48	0.56	0.87

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



PSEUDOVITRINITE ?

WHOLE SAMPLE

RRUS No. : 237
ID : CORE 8

DEPTH : 8636.3 Ft
: 2632.3 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

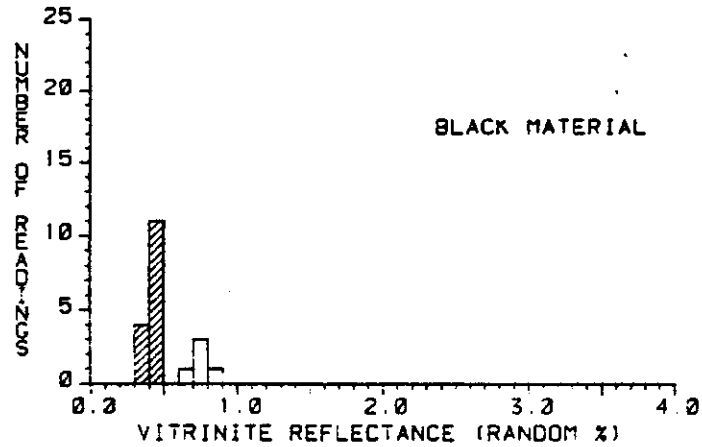
ORDERED REFLECTANCE VALUES:

0.29	0.34	0.36	0.42
0.30	0.34	0.37	0.43
0.32	0.34	0.37	0.43
0.32	0.34	0.37	0.45
0.33	0.35	0.38	0.46
0.33	0.35	0.38	0.50
0.33	0.35	0.38	0.50
0.34	0.35	0.39	0.70
0.34	0.36	0.39	0.97
0.34	0.36	0.41	0.98

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



BLACK MATERIAL

RRUS No. : 237A
ID : CORE 8

DEPTH : 8636.3 Ft
: 2632.3 M

* = Ro MATURITY

VALUES : 15

MEAN : 0.42
STD DEV : 0.04
MEDIAN : 0.43
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

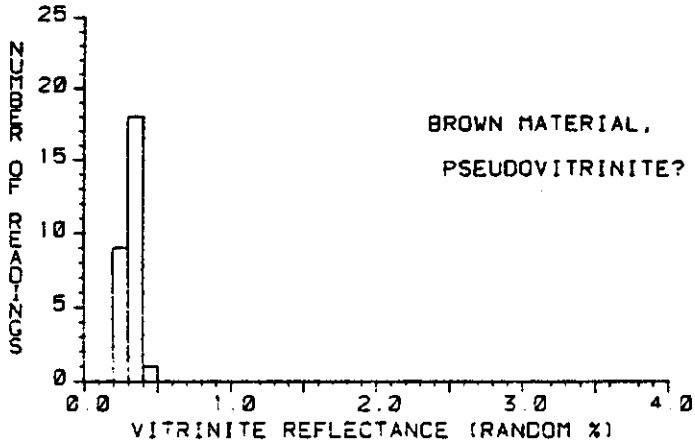
ORDERED REFLECTANCE VALUES:

*0.33	*0.44
*0.35	*0.45
*0.36	*0.46
*0.37	*0.46
*0.40	*0.49
*0.42	0.64
*0.43	0.76
*0.43	0.77
*0.44	0.77
*0.44	0.82

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	? 80 %
Inertinite	:	10 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



BROWN MATERIAL,

PSEUDOVITRINITE?

RRUS No. : 2378
ID : CORE 8

DEPTH : 8636.3 Ft
: 2632.3 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

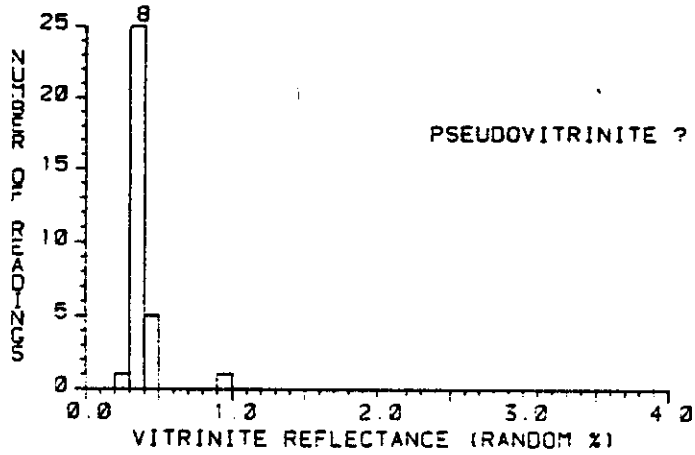
ORDERED REFLECTANCE VALUES:

0.27	0.30	0.33
0.27	0.31	0.33
0.27	0.31	0.34
0.28	0.31	0.34
0.28	0.32	0.34
0.29	0.32	0.34
0.29	0.32	0.36
0.29	0.32	0.40
0.29	0.32	
0.30	0.33	

KEROGEN DESCRIPTION

Amorphous	5 %
Exinite	5 %
Vitrinite	50 %
Inertinite	40 %
Back Fluor	Med
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



PSEUDOVITRINITE ?

RRUS No. : 241
ID : CORE 8

DEPTH : 8653.5 Ft
: 2637.6 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

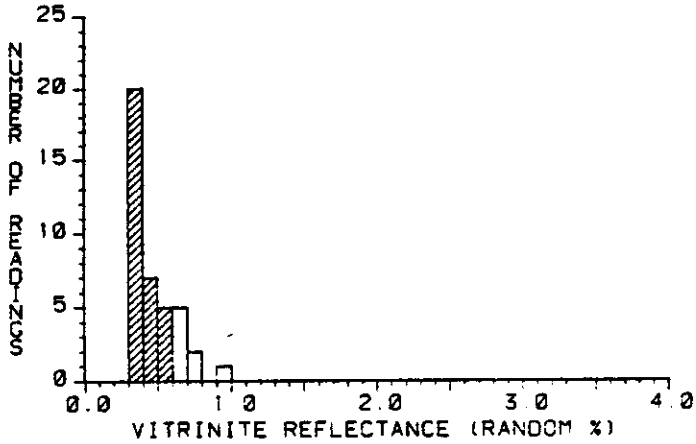
ORDERED REFLECTANCE VALUES:

0.29	0.33	0.35	0.38
0.30	0.33	0.35	0.38
0.31	0.34	0.35	0.39
0.31	0.34	0.36	0.39
0.32	0.34	0.36	0.40
0.33	0.34	0.36	0.41
0.33	0.34	0.36	0.42
0.33	0.35	0.37	0.42
0.33	0.35	0.37	0.46
0.33	0.35	0.37	0.93

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	5 %
Vitrinite	70 %
Inertinite	15 %
Back Fluor	Low
Bitumen	?Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 244
ID : CORE 9

DEPTH : 9257.5 Ft
: 2821.7 M

* = Ro MATURITY

VALUES : 32

MEAN : 0.41
STD DEV : 0.06
MEDIAN : 0.39
MODE : 0.35

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

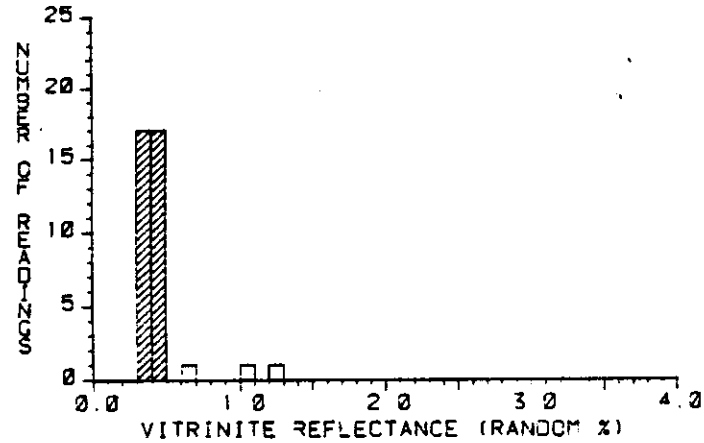
*0.33	*0.38	*0.40	*0.54
*0.36	*0.38	*0.40	*0.57
*0.36	*0.38	*0.41	0.67
*0.36	*0.38	*0.42	0.68
*0.36	*0.39	*0.42	0.69
*0.36	*0.39	*0.44	0.69
*0.37	*0.39	*0.45	0.69
*0.37	*0.39	*0.51	0.73
*0.37	*0.39	*0.52	0.74
*0.37	*0.39	*0.53	0.91

KEROGEN DESCRIPTION

Amorphous : 20 %
Exinite : 5 %
Vitrinite : 65 %
Inertinite : 10 %

Back Fluor : Low
Bitumen : High
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 246
ID : CORE 9

DEPTH : 9263.5 Ft
: 2823.5 M

* = Ro MATURITY

VALUES : 34

MEAN : 0.40
STD DEV : 0.03
MEDIAN : 0.40
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

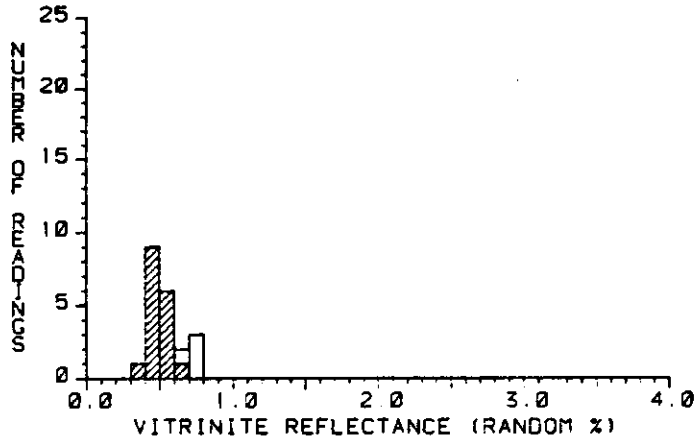
*0.34	*0.38	*0.41	*0.44
*0.36	*0.38	*0.41	*0.45
*0.37	*0.38	*0.41	*0.47
*0.37	*0.39	*0.41	*0.48
*0.37	*0.39	*0.42	0.61
*0.37	*0.39	*0.42	1.03
*0.37	*0.39	*0.42	1.25
*0.38	*0.40	*0.43	
*0.38	*0.40	*0.44	
*0.38	*0.40	*0.44	

KEROGEN DESCRIPTION

Amorphous : 25 %
Exinite : 10 %
Vitrinite : 55 %
Inertinite : 10 %

Back Fluor : Low
Bitumen : Med
Coke : None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 259
ID : CORE 10

DEPTH : 9972.4 Ft
: 3039.6 M

* = Ro MATURITY

VALUES : 17

MEAN : 0.48
STD DEV : 0.05
MEDIAN : 0.49
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

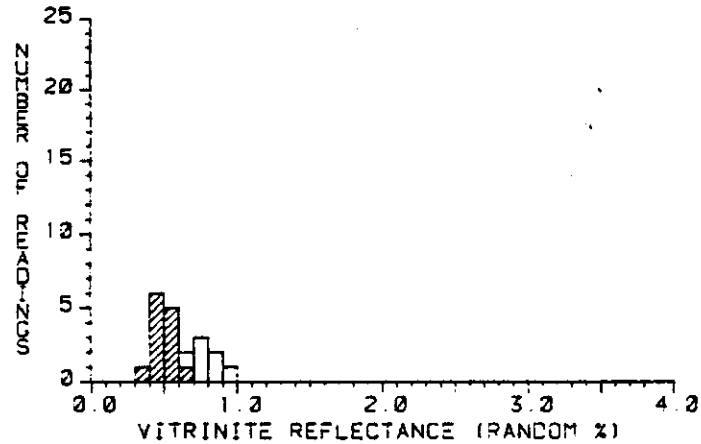
ORDERED REFLECTANCE VALUES:

*0.39	*0.50	0.76
*0.41	*0.50	
*0.41	*0.50	
*0.43	*0.51	
*0.44	*0.52	
*0.47	*0.55	
*0.48	*0.60	
*0.49	0.66	
*0.49	0.71	
*0.49	0.72	

KEROGEN DESCRIPTION

Amorphous	30 %
Exinite	10 %
Vitrinite	50 %
Inertinite	10 %
Back Fluor	Low
Bitumen	Small
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 263
ID : CORE 10

DEPTH : 9983.8 Ft
: 3043.1 M

* = Ro MATURITY

VALUES : 13

MEAN : 0.47
STD DEV : 0.07
MEDIAN : 0.45
MODE : 0.45

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

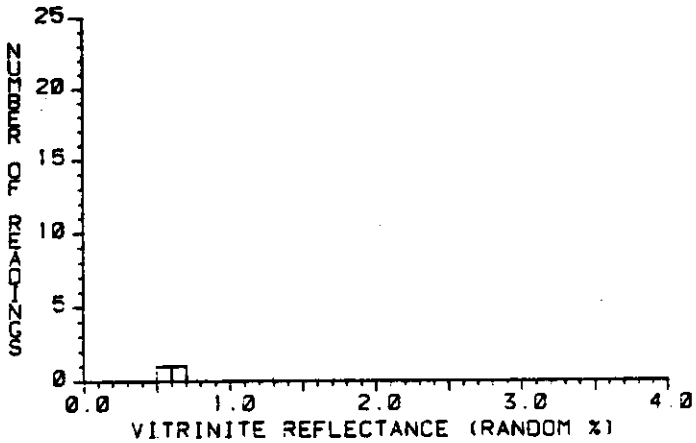
ORDERED REFLECTANCE VALUES:

*0.31	*0.53
*0.40	*0.55
*0.41	*0.60
*0.43	0.67
*0.44	0.70
*0.45	0.72
*0.45	0.73
*0.50	0.80
*0.52	0.81
*0.53	0.93

KEROGEN DESCRIPTION

Amorphous	35 %
Exinite	5 %
Vitrinite	50 %
Inertinite	10 %
Back Fluor	Med
Bitumen	Small
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 265
ID : CORE 11

DEPTH : 10326.4 Ft
: 3147.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

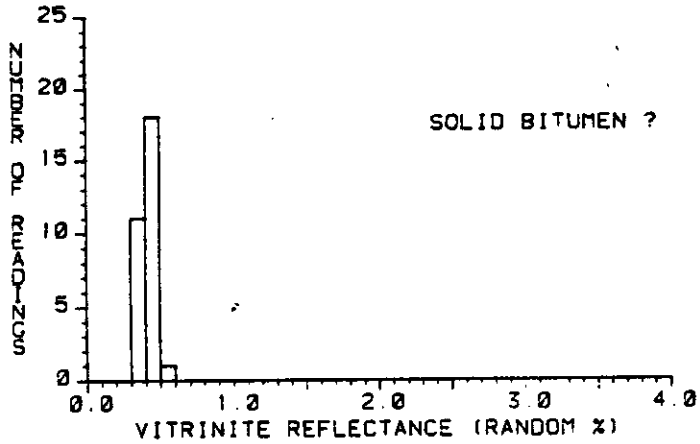
ORDERED REFLECTANCE VALUES:

0.53
0.60

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	Med
Bitumen	:	Med
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 274
ID : CORE 12

DEPTH : 10738.4 Ft
: 3273.1 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

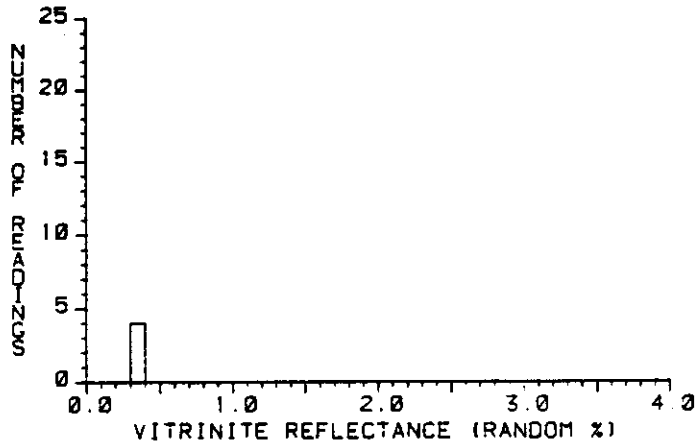
ORDERED REFLECTANCE VALUES:

0.34	0.39	0.41
0.35	0.40	0.41
0.35	0.40	0.41
0.36	0.40	0.41
0.37	0.40	0.41
0.37	0.40	0.41
0.37	0.40	0.42
0.38	0.40	0.44
0.39	0.40	0.48
0.39	0.41	0.54

KEROGEN DESCRIPTION

Amorphous	:	? 20 %
Exinite	:	5 %
Vitrinite	:	? 70 %
Inertinite	:	5 %
Back Fluor	:	High
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 302
ID : CORE 13

DEPTH : 11102.5 Ft
: 3384.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

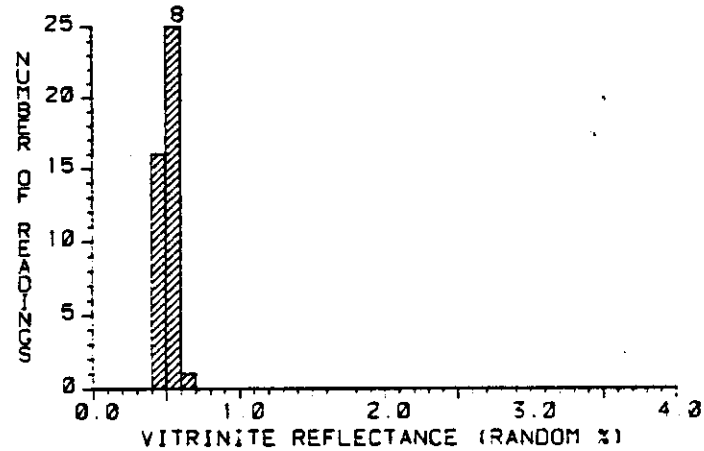
ORDERED REFLECTANCE VALUES:

0.34
0.35
0.35
0.36

KEROGEN DESCRIPTION

Amorphous	? 40 %
Exinite	5 %
Vitrinite	? 50 %
Inertinite	5 %
Back Fluor	High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 306
ID : CORE 14

DEPTH : 12251.2 Ft
: 3734.2 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.52
STD DEV : 0.05
MEDIAN : 0.52
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

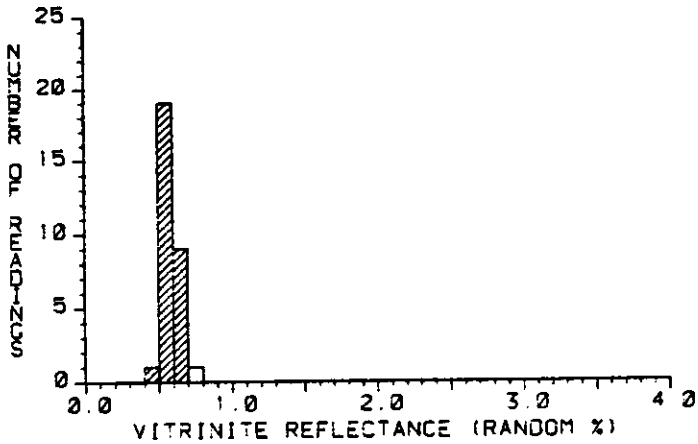
ORDERED REFLECTANCE VALUES:

*0.40	*0.48	*0.51	*0.53	*0.56
*0.42	*0.49	*0.51	*0.54	*0.57
*0.43	*0.49	*0.52	*0.54	*0.57
*0.44	*0.49	*0.52	*0.54	*0.57
*0.44	*0.49	*0.52	*0.54	*0.57
*0.45	*0.49	*0.52	*0.54	*0.57
*0.46	*0.50	*0.52	*0.54	*0.59
*0.46	*0.50	*0.52	*0.54	*0.59
*0.47	*0.50	*0.53	*0.56	*0.59
*0.47	*0.51	*0.53	*0.56	*0.60

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	15 %
Vitrinite	70 %
Inertinite	5 %
Back Fluor	High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 310
ID : CORE 14

DEPTH : 12262.4 Ft
: 3737.6 M

* = Ro MATURITY

VALUES : 29

MEAN : 0.57
STD DEV : 0.04
MEDIAN : 0.57
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

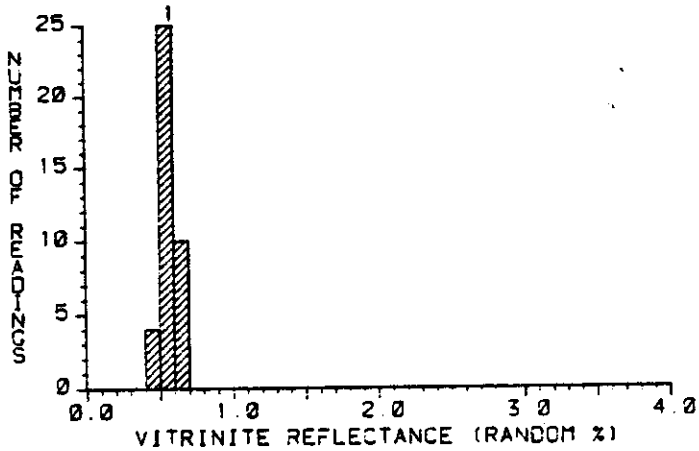
ORDERED REFLECTANCE VALUES:

*0.43	*0.55	*0.60
*0.51	*0.55	*0.60
*0.52	*0.55	*0.60
*0.52	*0.57	*0.60
*0.53	*0.57	*0.61
*0.53	*0.57	*0.62
*0.53	*0.58	*0.62
*0.54	*0.58	*0.63
*0.54	*0.59	*0.65
*0.55	*0.59	0.73

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	Low
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 314
ID : CORE 14

DEPTH : 12269.3 Ft
: 3739.7 M

* = Ro MATURITY

VALUES : 40

MEAN : 0.55
STD DEV : 0.05
MEDIAN : 0.55
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

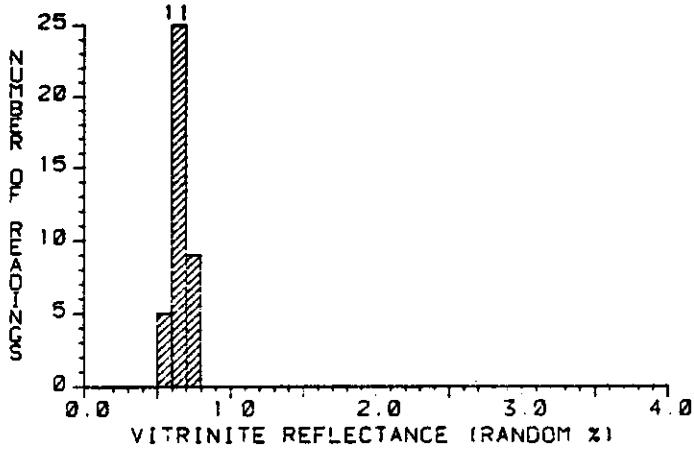
ORDERED REFLECTANCE VALUES.

*0.43	*0.52	*0.55	*0.60
*0.43	*0.52	*0.55	*0.60
*0.46	*0.52	*0.56	*0.60
*0.47	*0.53	*0.56	*0.61
*0.50	*0.53	*0.57	*0.61
*0.50	*0.54	*0.58	*0.62
*0.50	*0.54	*0.58	*0.62
*0.51	*0.54	*0.58	*0.62
*0.51	*0.54	*0.58	*0.65
*0.51	*0.55	*0.59	*0.66

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 338
ID : CORE 15

DEPTH : 12634.4 Ft
: 3851.0 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.64
STD DEV : 0.05
MEDIAN : 0.63
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

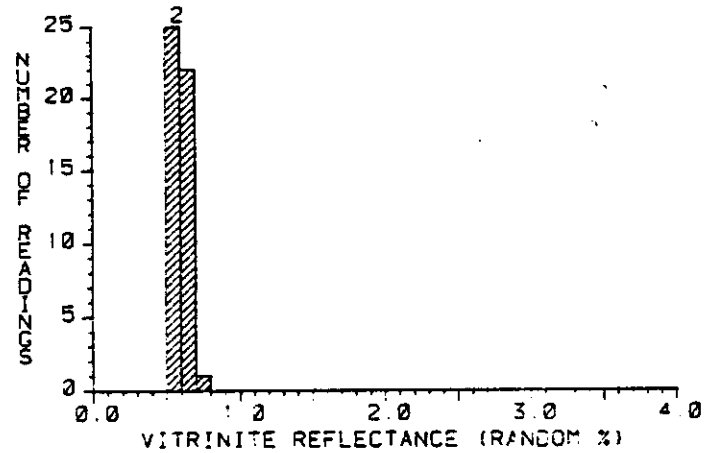
ORDERED REFLECTANCE VALUES:

*0.52	*0.61	*0.63	*0.65	*0.69
*0.55	*0.61	*0.63	*0.65	*0.70
*0.56	*0.61	*0.63	*0.65	*0.70
*0.58	*0.62	*0.63	*0.65	*0.70
*0.59	*0.62	*0.63	*0.65	*0.70
*0.60	*0.62	*0.63	*0.66	*0.71
*0.60	*0.62	*0.63	*0.66	*0.71
*0.60	*0.62	*0.64	*0.66	*0.72
*0.60	*0.62	*0.64	*0.67	*0.74
*0.61	*0.62	*0.65	*0.68	*0.79

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %
Back Fluor	:	Low
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 462
ID : CORE 15

DEPTH : 12634.8 Ft
: 3851.1 M

* = Ro MATURITY

VALUES : 50

MEAN : 0.60
STD DEV : 0.04
MEDIAN : 0.59
MODE : 0.55

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

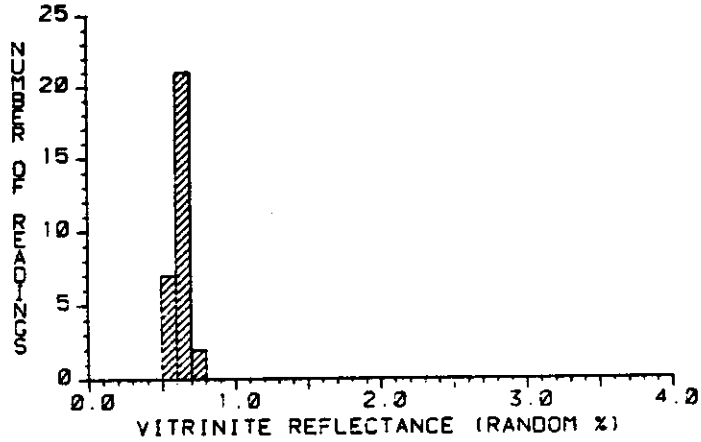
ORDERED REFLECTANCE VALUES:

*0.51	*0.56	*0.59	*0.60	*0.63
*0.52	*0.56	*0.59	*0.61	*0.64
*0.53	*0.57	*0.59	*0.61	*0.65
*0.53	*0.57	*0.59	*0.61	*0.65
*0.54	*0.57	*0.59	*0.61	*0.65
*0.54	*0.57	*0.59	*0.62	*0.66
*0.55	*0.57	*0.59	*0.62	*0.66
*0.55	*0.57	*0.60	*0.62	*0.66
*0.56	*0.58	*0.60	*0.62	*0.68
*0.56	*0.59	*0.60	*0.63	*0.70

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	10 %
Back Fluor	:	High
Bitumen	:	Small
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 437
ID : CORE 16

DEPTH : 14179.1 Ft
: 4321.8 M

* = Ro MATURITY

VALUES : 30

MEAN : 0.64
STD DEV : 0.04
MEDIAN : 0.64
MODE : 0.65

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

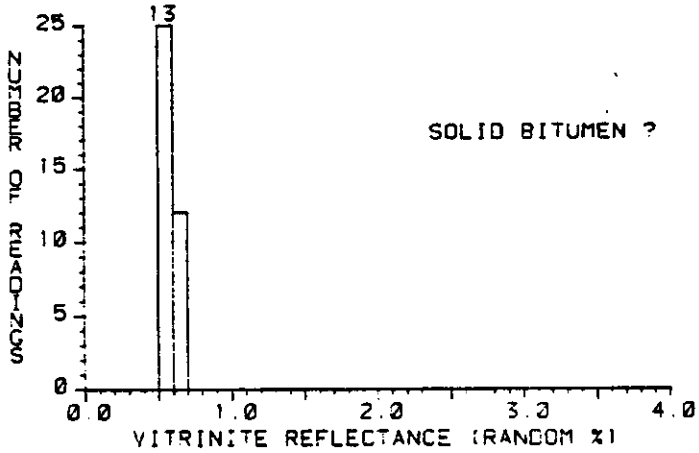
ORDERED REFLECTANCE VALUES:

*0.57	*0.62	*0.66
*0.58	*0.62	*0.66
*0.59	*0.62	*0.66
*0.59	*0.63	*0.67
*0.59	*0.64	*0.67
*0.59	*0.64	*0.67
*0.59	*0.64	*0.68
*0.60	*0.65	*0.69
*0.61	*0.65	*0.70
*0.61	*0.65	*0.73

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	5 %
Back Fluor	:	High
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 464
ID : CORE 16

DEPTH : 14179.4 Ft
: 4321.9 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

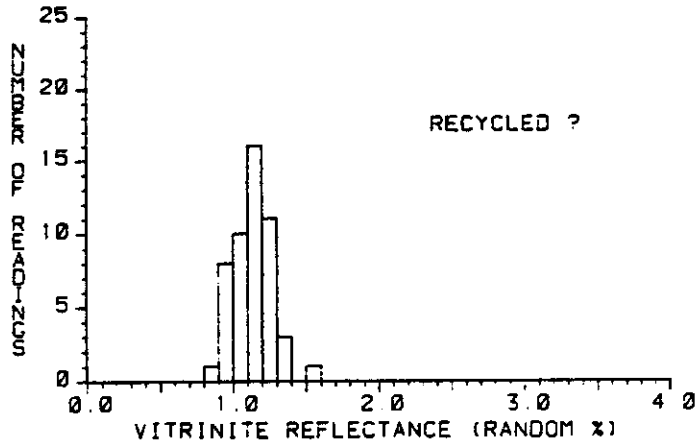
ORDERED REFLECTANCE VALUES:

0.50	0.54	0.55	0.58	0.61
0.52	0.54	0.56	0.58	0.61
0.52	0.55	0.56	0.58	0.61
0.52	0.55	0.56	0.58	0.62
0.53	0.55	0.56	0.59	0.62
0.53	0.55	0.57	0.59	0.62
0.53	0.55	0.57	0.59	0.63
0.53	0.55	0.57	0.59	0.64
0.54	0.55	0.57	0.60	0.66
0.54	0.55	0.57	0.60	0.68

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %
Back Fluor	:	V High
Bitumen	:	High
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 480
ID : CORE 17

DEPTH : 15354.6 Ft
: 4680.1 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

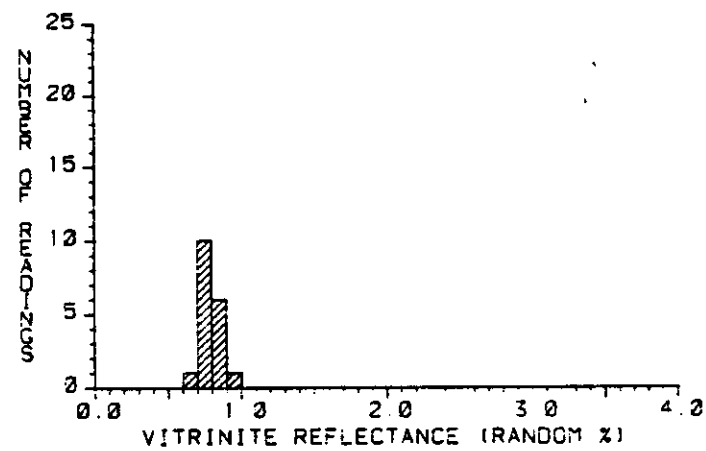
ORDERED REFLECTANCE VALUES:

0.87	1.01	1.11	1.17	1.23
0.90	1.02	1.12	1.17	1.23
0.93	1.03	1.12	1.18	1.24
0.93	1.07	1.13	1.19	1.24
0.95	1.08	1.13	1.19	1.24
0.96	1.08	1.13	1.20	1.28
0.98	1.08	1.15	1.21	1.30
0.99	1.08	1.16	1.21	1.30
0.99	1.09	1.16	1.22	1.31
1.00	1.11	1.17	1.22	1.52

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	tr %
Vitrinite	:	85 %
Inertinite	:	5 %
Back Fluor	:	Med
Bitumen	:	High
Coke	:	tr

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 485
ID : CORE 17

DEPTH : 15368.5 Ft
: 4684.3 M

* = Ro MATURITY *

VALUES : 18

MEAN : 0.77
STD DEV : 0.06
MEDIAN : 0.77
MODE : 0.75

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

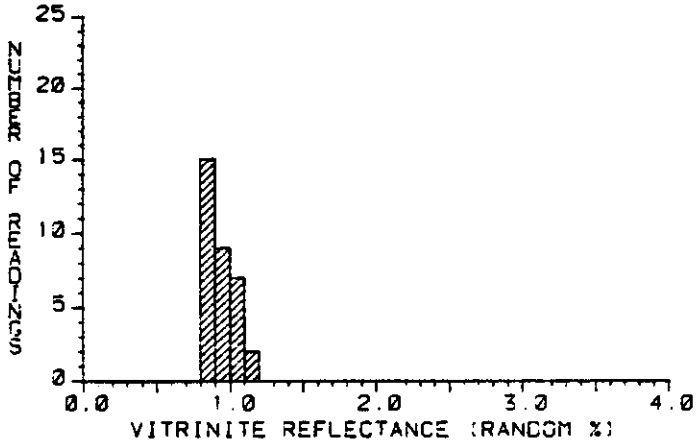
ORDERED REFLECTANCE VALUES:

*0.69	*0.78
*0.70	*0.80
*0.71	*0.80
*0.72	*0.82
*0.72	*0.83
*0.73	*0.83
*0.75	*0.84
*0.76	*0.90
*0.77	
*0.77	

KEROGEN DESCRIPTION

Amorphous	:	50 %
Exinite	:	5 %
Vitrinite	:	35 %
Inertinite	:	10 %
Back Fluor	:	V High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 487
ID : CORE 18

DEPTH : 16009.3 Ft
: 4879.6 M

* = Ro MATURITY

VALUES : 33

MEAN : 0.94
STD DEV : 0.09
MEDIAN : 0.95
MODE : 0.85

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

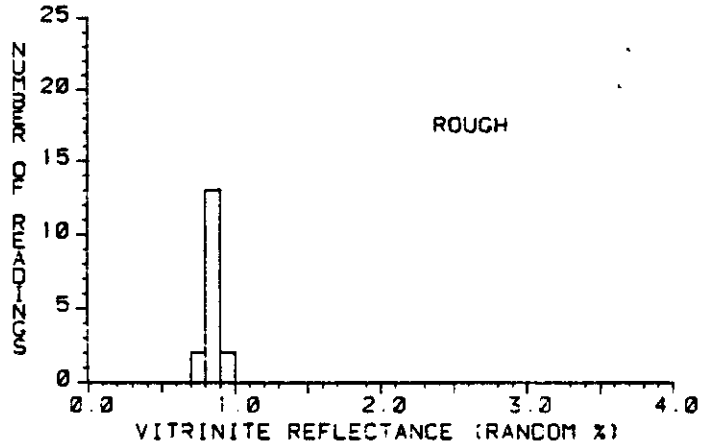
ORDERED REFLECTANCE VALUES:

*0.81	*0.86	*0.98	*1.09
*0.81	*0.87	*0.98	*1.10
*0.83	*0.88	*0.98	*1.18
*0.83	*0.88	*0.99	
*0.83	*0.89	*1.00	
*0.84	*0.93	*1.01	
*0.85	*0.95	*1.01	
*0.86	*0.95	*1.02	
*0.86	*0.96	*1.05	
*0.86	*0.97	*1.08	

KEROGEN DESCRIPTION

Amorphous	:	35 %
Exinite	:	5 %
Vitrinite	:	50 %
Inertinite	:	10 %
Back Fluor	:	V High
Bitumen	:	?Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 494
ID : CORE 18

DEPTH : 16029.0 Ft
: 4885.6 M

MEAN : N.D.

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

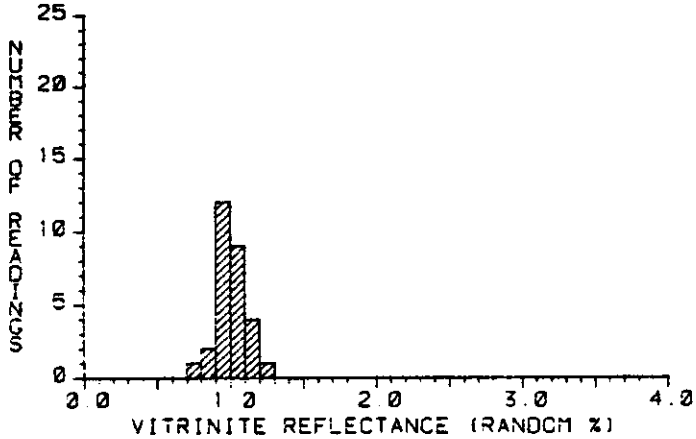
ORDERED REFLECTANCE VALUES:

0.79	0.86
0.79	0.87
0.80	0.87
0.83	0.87
0.84	0.87
0.84	0.92
0.85	0.92
0.86	
0.86	
0.86	

KEROGEN DESCRIPTION

Amorphous	:	40 %
Exinite	:	10 %
Vitrinite	:	35 %
Inertinite	:	15 %
Back Fluor	:	V High
Bitumen	:	Med
Coke	:	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 507
ID : CORE 19

DEPTH : 16703.7 Ft
: 5091.3 M

* = Ro MATURITY

VALUES : 29

MEAN : 0.99
STD DEV : 0.10
MEDIAN : 0.99
MODE : 0.95

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

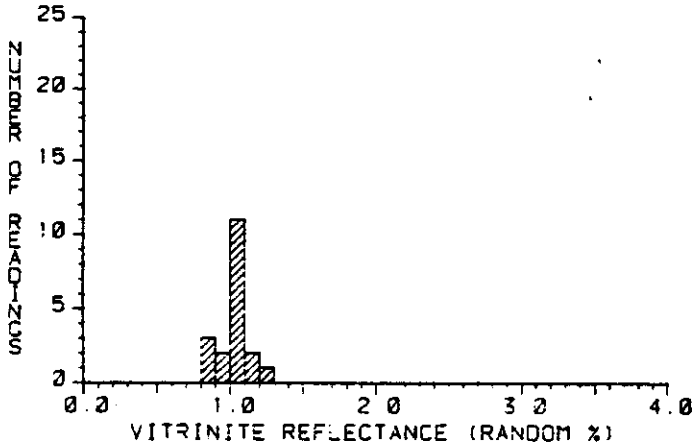
ORDERED REFLECTANCE VALUES:

*0.74	*0.98	*1.04
*0.85	*0.98	*1.04
*0.89	*0.98	*1.04
*0.90	*0.99	*1.08
*0.91	*0.99	*1.10
*0.91	*1.00	*1.12
*0.91	*1.00	*1.14
*0.92	*1.00	*1.15
*0.93	*1.02	*1.21
*0.95	*1.03	

KEROGEN DESCRIPTION

Amorphous	35 %
Exinite	? 15 %
Vitrinite	30 %
Inertinite	20 %
Back Fluor	V High
Bitumen	Med
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 510
ID : CORE 19

DEPTH : 16714.6 Ft
: 5094.6 M

* = Ro MATURITY

VALUES : 19

MEAN : 1.01
STD DEV : 0.10
MEDIAN : 1.01
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

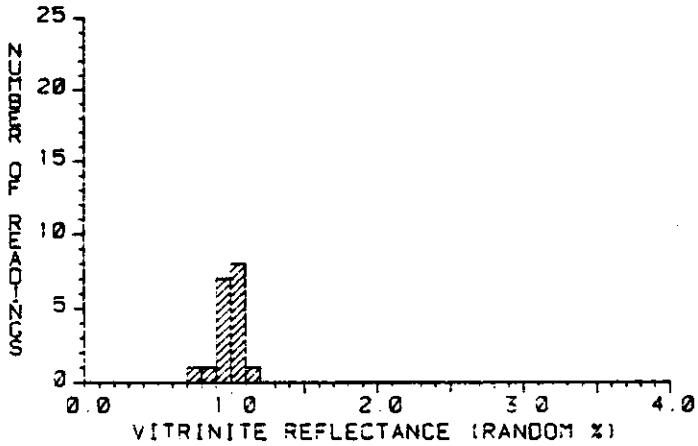
ORDERED REFLECTANCE VALUES:

*0.81	*1.02
*0.83	*1.03
*0.84	*1.04
*0.94	*1.08
*0.97	*1.09
*1.00	*1.09
*1.00	*1.12
*1.01	*1.12
*1.01	*1.25
*1.01	

KEROGEN DESCRIPTION

Amorphous	40 %
Exinite	? 10 %
Vitrinite	20 %
Inertinite	30 %
Back Fluor	V High
Bitumen	High
Coke	None

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 513
ID : CORE 19

DEPTH : 16719.6 Ft
: 5096.1 M

* = Ro MATURITY

VALUES : 18

MEAN : 0.98
STD DEV : 0.08
MEDIAN : 1.00
MODE : 1.05

HISTOGRAM:
Range: 0- 4%
Increment: 0.10%

ORDERED REFLECTANCE VALUES:

*0.79	*1.01
*0.84	*1.01
*0.90	*1.03
*0.91	*1.04
*0.93	*1.04
*0.94	*1.05
*0.97	*1.08
*0.97	*1.11
*0.99	
*1.00	

KEROGEN DESCRIPTION

Amorphous	:	40 %
Exinite	: ?	5 %
Vitrinite	:	35 %
Inertinite	:	20 %
Back Fluor	:	V High
Bitumen	:	High
Coke	:	None

APPENDIX VI

TRANSMITTED LIGHT MICROSCOPY DATA

Transmitted light slides are prepared with standard palynological techniques and SCI values on all spores and pollen present are recorded on a 1-10 scale. SCI values are recorded only on spores and pollen and not on other organic components such as cuticles or vitrinite. A histogram is prepared and used to interpret SCI maturities in a manner similar to that used for vitrinite reflectance.

The basis for the SCI color scale is hue, not intensity. A brief description of the colors for each of the ten SCI units is as follows:

SCI COLOR SCALE

1	straw to pale yellow	6	reddish brown/chocolate
2	yellow	7	neutral brown
3	yellow/orange	8	blackish brown
4	golden	9	black
5	amber	10	glossy black/graphitized

VISUAL KEROGEN ANALYSIS - TRANSMITTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			COLOR INDEX	KEROGEN CHARACTERISTICS				TOC
RRUS	ID /	DEPTH (Feet)	SCI	Am%	Ex%	Vit%	Inert%	%
4	CTGS.	1590	0.84	10	10	60	20	0.25
10	CTGS.	1950	1.29	10	5	40	45?	0.28
13	CTGS.	2130	1.10	15	5	55	25?	0.61
19	CTGS.	2490	0.94	35	5	45	15	0.71
24	CTGS.	2790	1.08	5	10	75	10	2.11
29	CTGS.	3090	1.19	15	10	65	10	7.46
34	CTGS.	3390	1.18	10	10	70	10	7.57
39	CTGS.	3690	1.15	15	20	60	5	4.21
44	CTGS.	3990	1.22	15	10	70	5	1.61
48	CTGS.	4230	1.06	15	20	50	15?	0.88
55	CTGS.	4650	1.34	15	5	65	15	0.50
99	CTGS.	4890	----	5	15	65	15?	0.87
104	CTGS.	5190	1.53	5	10	75	10	1.76
108	CTGS.	5430	----	10	5	75	10	0.59
113	CTGS.	5670	1.79	5	10	70	15	0.41
118	CTGS.	5970	1.63	10	5	75	10	0.13
123	CTGS.	6270	1.86	5	5	75	15	0.20
127	CTGS.	6510	1.76	5	10	65	20?	0.34
132	CTGS.	6810	2.03	5	10	70	15	0.36
137	CTGS.	7110	1.94	10	5	65	20?	0.50
142	CTGS.	7410	1.94	5	5	70	20?	0.51
166	CTGS.	7650	1.97	5	5	75	15?	4.72
170	CTGS.	7920	1.97	10	10	70	10	1.69
176	CTGS.	8280	2.38	10	5	80	5	13.55
182	CTGS.	8640	2.23	15	10	70	5	3.99
187	CTGS.	8940	----	10	5	85	0	26.45
191	CTGS.	9180	2.69	15	5	75	5	4.60
196	CTGS.	9480	2.78	15	15	65	5	2.38
200	CTGS.	9720	3.21	10	10	70	10	1.05
205	CTGS.	10020	3.14	20?	15	60	5	0.85
210	CTGS.	10320	3.36	20	5	65	10	1.62
214	CTGS.	10560	3.06	25	5	65	5	2.14
218	CTGS.	10800	3.11	15	20	65	0	2.70
279	CTGS.	11100	3.36	15	10	70	5	5.64
284	CTGS.	11400	3.29	15	5	75?	5	1.13
289	CTGS.	11700	3.40	15	5	75	5	2.02
294	CTGS.	12000	3.55	20	10	65	5	4.29
319	CTGS.	12300	3.60	25?	5	65	5	1.73
324	CTGS.	12600	3.63	15	5	75	5	7.20
329	CTGS.	12900	3.52	25	15	50	10	4.93
334	CTGS.	13200	3.38	25?	5	65	5	6.00
429	CTGS.	13560	3.73	10	5	75	10	11.38
433	CTGS.	13800	3.59	10	5	75	10	18.88
442	CTGS.	14040	3.46	10	5	75	10	5.85
447	CTGS.	14340	3.81	15	5	75	5	4.22
452	CTGS.	14640	3.60	15	5	70	10	11.17
457	CTGS.	14940	3.54	10	5	80	5	6.05
461	CTGS.	15180	3.71	10	5	80	5	5.67
468	CTGS.	15420	3.82	10	10	75	5	4.07
472	CTGS.	15660	3.84	15	10	65	10	4.16

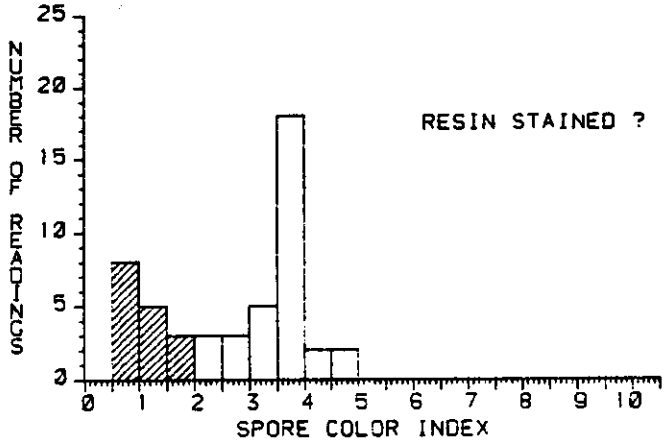
VISUAL KEROGEN ANALYSIS - TRANSMITTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			COLOR INDEX	KEROGEN CHARACTERISTICS				TOC
RRUS	ID /	DEPTH (Feet)	SCI	Am%	Ex%	Vit%	Inert%	%
476	CTGS.	15900	4.27	15	10	65	10	1.10
499	CTGS.	16200	5.07	30?	10	55	5	1.49
504	CTGS.	16500	5.81	25?	10	60	5	1.33
516	CTGS.	16740	5.72	35	10	45	10	1.40
519	CTGS.	16920	----	25	5	65	5	5.63
523	CTGS.	17143	----	20	tr	70	10	5.94

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 4
ID : CTGS.

DEPTH : 1590.0 Ft
: 484.8 M

* = SCI MATURITY

VALUES : 16

MEAN : 0.84
STD DEV : 0.38
MEDIAN : 1.00
MODE : 0.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

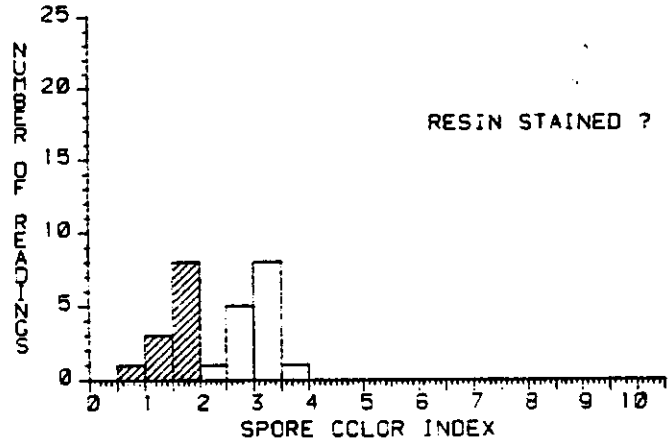
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	2.5	3.5	3.5
*0.5	*1.0	2.5	3.5	3.5
*0.5	*1.0	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	4.0
*0.5	2.0	3.0	3.5	4.0
*0.5	2.0	3.5	3.5	4.5
*1.0	2.0	3.5	3.5	4.5
*1.0	2.5	3.5	3.5	

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 10 %
Vitrinite : 60 %
Inertinite : 20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 10
ID : CTGS.

DEPTH : 1950.0 Ft
: 594.5 M

* = SCI MATURITY

VALUES : 12

MEAN : 1.29
STD DEV : 0.32
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

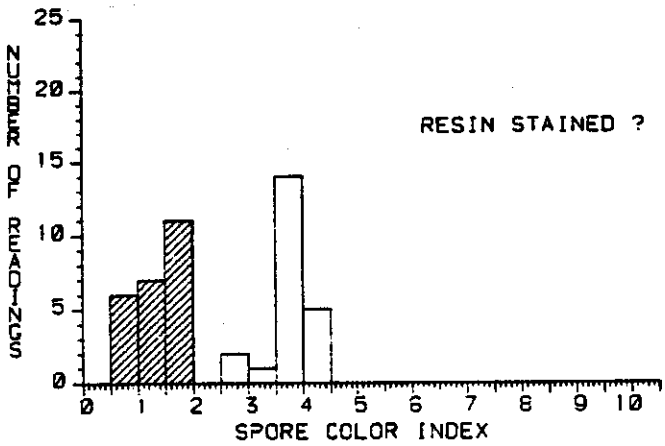
ORDERED SPORE COLOR VALUES:

*0.5	*1.5	3.0
*1.0	*1.5	3.0
*1.0	2.0	3.0
*1.0	2.5	3.0
*1.5	2.5	3.0
*1.5	2.5	3.0
*1.5	2.5	3.5
*1.5	2.5	
*1.5	3.0	
*1.5	3.0	

KEROGEN DESCRIPTION

Amorphous : 10 %
Exinite : 5 %
Vitrinite : 40 %
Inertinite : ? 45 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 13
ID : CTGS.

DEPTH : 2130.0 Ft
: 649.4 M

* = SCI MATURITY

VALUES : 24

MEAN : 1.10
STD DEV : 0.41
MEDIAN : 1.00
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

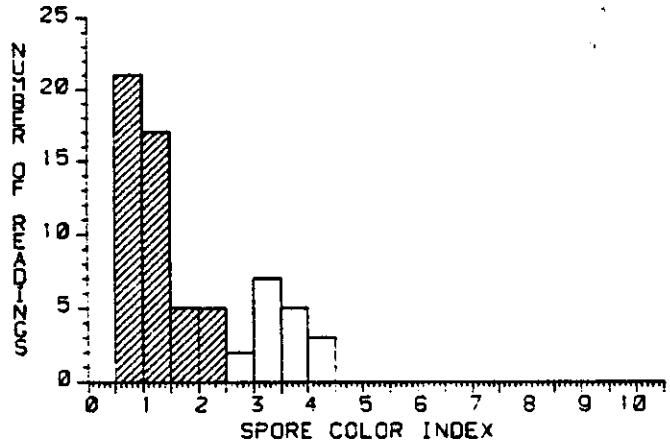
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.5	3.5	3.5
*0.5	*1.0	*1.5	3.5	4.0
*0.5	*1.0	*1.5	3.5	4.0
*0.5	*1.5	*1.5	3.5	4.0
*0.5	*1.5	2.5	3.5	4.0
*0.5	*1.5	2.5	3.5	4.0
*1.0	*1.5	3.0	3.5	
*1.0	*1.5	3.5	3.5	
*1.0	*1.5	3.5	3.5	
*1.0	*1.5	3.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	55 %
Inertinite	:	? 25 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 19
ID : CTGS.

DEPTH : 2490.0 Ft
: 759.1 M

* = SCI MATURITY

VALUES : 48

MEAN : 0.94
STD DEV : 0.49
MEDIAN : 1.00
MODE : 0.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

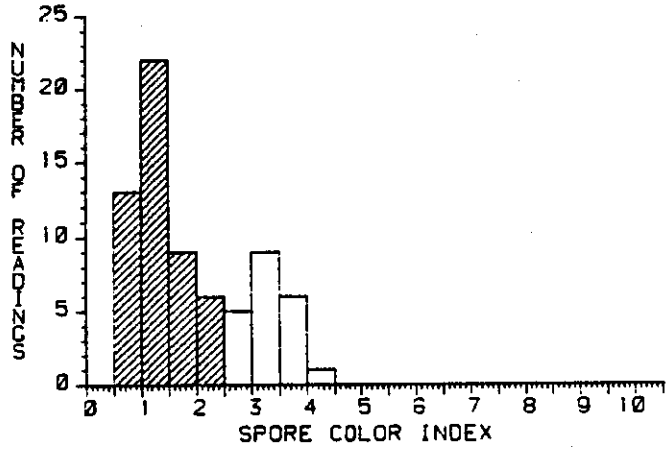
ORDERED SPORE COLOR VALUES:

*0.5	*0.5	*0.5	*1.0	*1.5	3.0	3.5
*0.5	*0.5	*1.0	*1.0	*1.5	3.0	3.5
*0.5	*0.5	*1.0	*1.0	*1.5	3.0	4.0
*0.5	*0.5	*1.0	*1.0	*2.0	3.0	4.0
*0.5	*0.5	*1.0	*1.0	*2.0	3.0	4.0
*0.5	*0.5	*1.0	*1.0	*2.0	3.0	
*0.5	*0.5	*1.0	*1.0	*2.0	3.0	
*0.5	*0.5	*1.0	*1.0	*2.0	3.5	
*0.5	*0.5	*1.0	*1.5	2.5	3.5	
*0.5	*0.5	*1.0	*1.5	2.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	35 %
Exinite	:	5 %
Vitrinite	:	45 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 24
ID : CTGS.

DEPTH : 2790.0 Ft
: 850.6 M

* = SCI MATURITY

VALUES : 50

MEAN : 1.08
STD DEV : 0.47
MEDIAN : 1.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

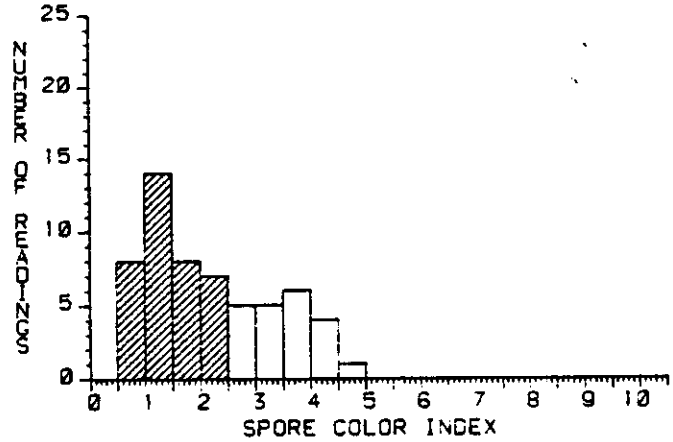
ORDERED SPORE COLOR VALUES:

*0.5	*0.5	*1.0	*1.0	*1.5	2.5	3.0	4.0
*0.5	*0.5	*1.0	*1.0	*1.5	2.5	3.0	
*0.5	*0.5	*1.0	*1.0	*1.5	2.5	3.0	
*0.5	*1.0	*1.0	*1.0	*1.5	2.5	3.0	
*0.5	*1.0	*1.0	*1.0	*2.0	2.5	3.5	
*0.5	*1.0	*1.0	*1.5	*2.0	3.0	3.5	
*0.5	*1.0	*1.0	*1.5	*2.0	3.0	3.5	
*0.5	*1.0	*1.0	*1.5	*2.0	3.0	3.5	
*0.5	*1.0	*1.0	*1.5	*2.0	3.0	3.5	
*0.5	*1.0	*1.0	*1.5	*2.0	3.0	3.5	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 29
ID : CTGS.

DEPTH : 3090.0 Ft
: 942.1 M

* = SCI MATURITY

VALUES : 37

MEAN : 1.19
STD DEV : 0.51
MEDIAN : 1.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

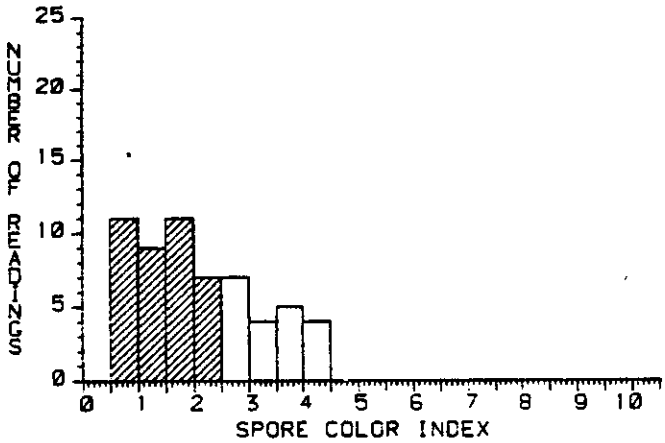
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.0	*2.0	2.5	3.5
*0.5	*1.0	*1.0	*2.0	2.5	3.5
*0.5	*1.0	*1.5	*2.0	3.0	3.5
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	2.5	3.5	4.5
*1.0	*1.0	*1.5	2.5	3.5	
*1.0	*1.0	*1.5	2.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 34
ID : CTGS.

DEPTH : 3390.0 Ft
: 1033.5 M

* = SCI MATURITY

VALUES : 38

MEAN : 1.18
STD DEV : 0.54
MEDIAN : 1.00
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

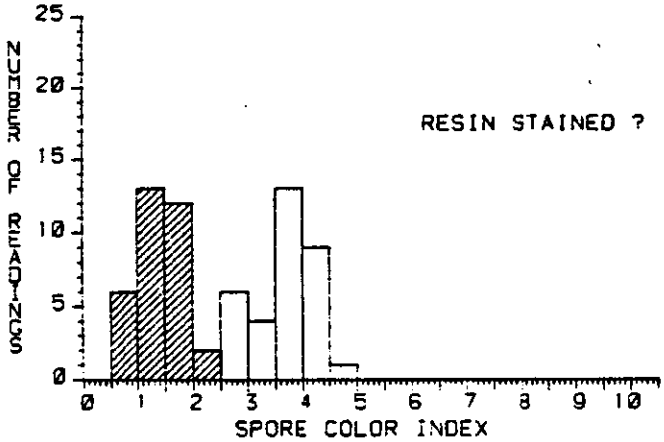
ORDERED SPORE COLOR VALUES:

*0.5	*0.5	*1.5	*1.5	2.5	3.5
*0.5	*1.0	*1.5	*2.0	2.5	3.5
*0.5	*1.0	*1.5	*2.0	2.5	3.5
*0.5	*1.0	*1.5	*2.0	2.5	3.5
*0.5	*1.0	*1.5	*2.0	2.5	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	*2.0	3.0	4.0
*0.5	*1.0	*1.5	2.5	3.0	
*0.5	*1.0	*1.5	2.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 39
ID : CTGS.

DEPTH : 3690.0 Ft
: 1125.0 M

* = SCI MATURITY

VALUES : 33

MEAN : 1.15
STD DEV : 0.42
MEDIAN : 1.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

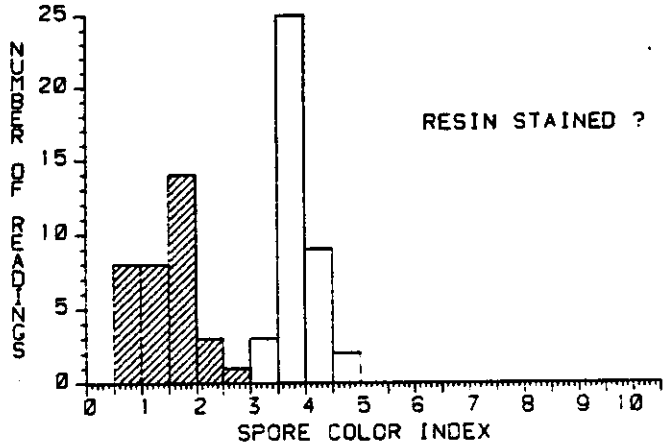
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.5	*1.5	3.0	3.5	4.0
*0.5	*1.0	*1.5	*2.0	3.0	3.5	4.0
*0.5	*1.0	*1.5	*2.0	3.0	3.5	4.0
*0.5	*1.0	*1.5	2.5	3.5	3.5	4.0
*0.5	*1.0	*1.5	2.5	3.5	3.5	4.0
*0.5	*1.0	*1.5	2.5	3.5	3.5	4.5
*1.0	*1.0	*1.5	2.5	3.5	4.0	
*1.0	*1.0	*1.5	2.5	3.5	4.0	
*1.0	*1.0	*1.5	2.5	3.5	4.0	
*1.0	*1.5	*1.5	3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	20 %
Vitrinite	:	60 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 44
ID : CTGS.

DEPTH : 3990.0 Ft
: 1216.5 M

* = SCI MATURITY

VALUES : 34

MEAN : 1.22
STD DEV : 0.52
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

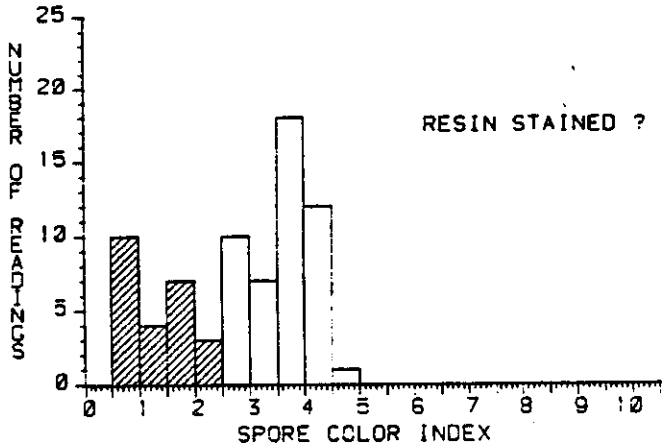
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.5	*2.0	3.5	3.5	3.5	4.0
*0.5	*1.0	*1.5	*2.0	3.5	3.5	3.5	4.5
*0.5	*1.0	*1.5	*2.0	3.5	3.5	4.0	4.5
*0.5	*1.0	*1.5	*2.5	3.5	3.5	4.0	
*0.5	*1.0	*1.5	3.0	3.5	3.5	4.0	
*0.5	*1.0	*1.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	*1.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	*1.5	3.5	3.5	3.5	4.0	
*1.0	*1.5	*1.5	3.5	3.5	3.5	4.0	
*1.0	*1.5	*1.5	3.5	3.5	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 48
ID : CTGS.

DEPTH : 4230.0 Ft
: 1289.6 M

* = SCI MATURITY

VALUES : 24

MEAN : 1.06
STD DEV : 0.55
MEDIAN : 1.00
MODE : 0.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

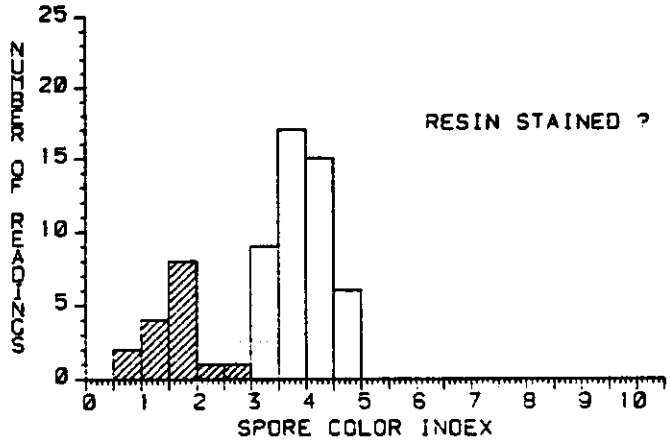
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.5	2.5	3.0	3.5	4.0	4.0
*0.5	*1.0	*2.0	2.5	3.5	3.5	4.0	4.5
*0.5	*1.0	*2.0	2.5	3.5	3.5	4.0	
*0.5	*1.0	*2.0	2.5	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	3.5	4.0	
*0.5	*1.5	2.5	3.0	3.5	4.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	20 %
Vitrinite	:	50 %
Inertinite	:	? 15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 55
ID : CTGS.

DEPTH : 4650.0 Ft
: 1417.7 M

* = SCI MATURITY

VALUES : 16

MEAN : 1.34
STD DEV : 0.49
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

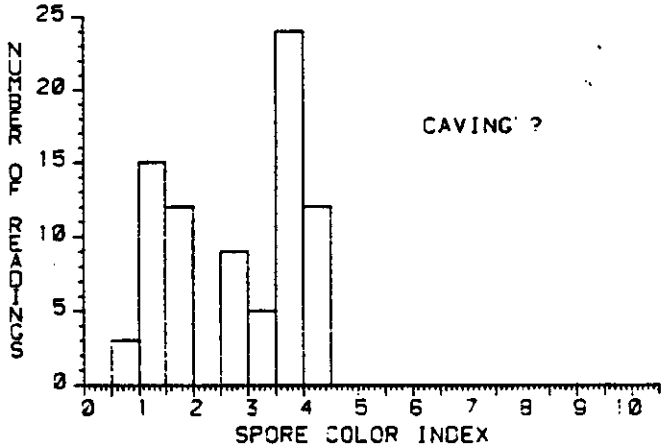
ORDERED SPORE COLOR VALUES:

*0.5	*1.5	3.0	3.5	3.5	4.0	4.5
*0.5	*1.5	3.0	3.5	3.5	4.0	4.5
*1.0	*1.5	3.0	3.5	4.0	4.0	4.5
*1.0	*1.5	3.0	3.5	4.0	4.0	
*1.0	*2.0	3.0	3.5	4.0	4.0	
*1.0	*2.5	3.5	3.5	4.0	4.0	
*1.5	3.0	3.5	3.5	4.0	4.0	
*1.5	3.0	3.5	3.5	4.0	4.5	
*1.5	3.0	3.5	3.5	4.0	4.5	
*1.5	3.0	3.5	3.5	4.0	4.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 99
ID : CTGS.

DEPTH : 4890.0 Ft
: 1490.9 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

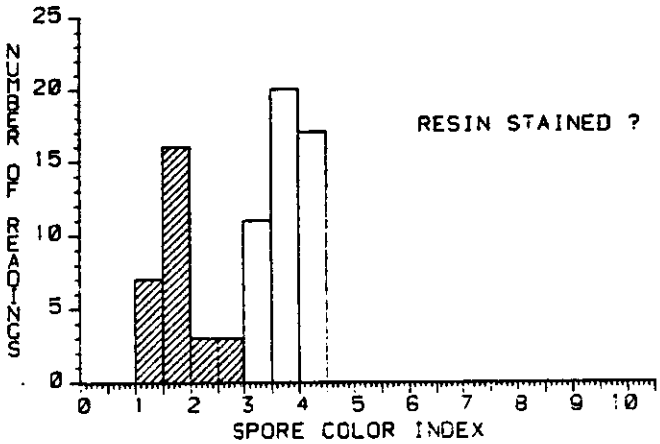
ORDERED SPORE COLOR VALUES:

0.5	1.0	1.5	2.5	3.0	3.5	3.5	4.0
0.5	1.0	1.5	2.5	3.0	3.5	3.5	4.0
0.5	1.0	1.5	2.5	3.0	3.5	3.5	4.0
1.0	1.0	1.5	2.5	3.0	3.5	3.5	4.0
1.0	1.0	1.5	2.5	3.5	3.5	3.5	4.0
1.0	1.0	1.5	2.5	3.5	3.5	3.5	4.0
1.0	1.0	1.5	2.5	3.5	3.5	3.5	4.0
1.0	1.0	1.5	2.5	3.5	3.5	3.5	4.0
1.0	1.5	1.5	2.5	3.5	3.5	4.0	4.0
1.0	1.5	1.5	3.0	3.5	3.5	4.0	4.0

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	15 %
Vitrinite	:	65 %
Inertinite	:	? 15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 104
ID : CTGS.

DEPTH : 5190.0 Ft
: 1582.3 M

* = SCI MATURITY

VALUES : 29

MEAN : 1.53
STD DEV : 0.43
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

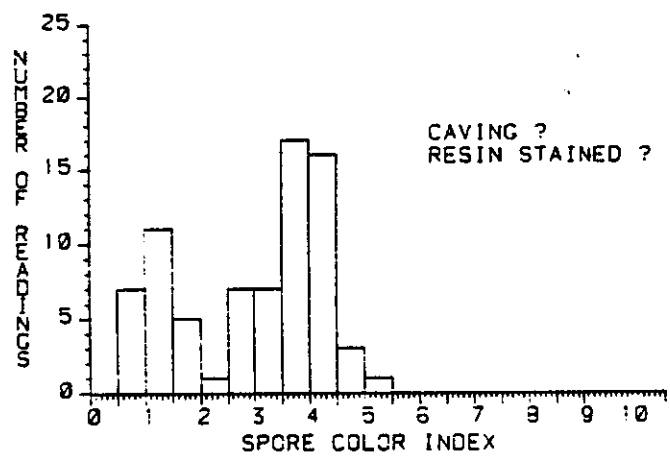
ORDERED SPORE COLOR VALUES:

*1.0	*1.5	*1.5	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*1.5	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*1.5	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*2.0	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*2.0	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*2.0	3.0	3.5	3.5	4.0	4.0
*1.0	*1.5	*2.5	3.0	3.5	3.5	4.0	4.0
*1.5	*1.5	*2.5	3.0	3.5	3.5	4.0	
*1.5	*1.5	*2.5	3.0	3.5	3.5	4.0	
*1.5	*1.5	3.0	3.0	3.5	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 108
ID : CTGS.

DEPTH : 5430.0 Ft
: 1655.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

0.5	1.0	1.5	2.5	3.5	3.5	4.0	4.0
0.5	1.0	1.5	3.0	3.5	3.5	4.0	4.5
0.5	1.0	1.5	3.0	3.5	3.5	4.0	4.5
0.5	1.0	2.0	3.0	3.5	3.5	4.0	4.5
0.5	1.0	2.5	3.0	3.5	3.5	4.0	5.0
0.5	1.0	2.5	3.0	3.5	4.0	4.0	
0.5	1.0	2.5	3.0	3.5	4.0	4.0	
1.0	1.0	2.5	3.0	3.5	4.0	4.0	
1.0	1.5	2.5	3.5	3.5	4.0	4.0	
1.0	1.5	2.5	3.5	3.5	4.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL

RRUS No. : 113
ID : CTGS.

DEPTH : 5670.0 Ft
: 1728.7 M

* = SCI MATURITY

VALUES : 36

MEAN : 1.79
STD DEV : 0.57
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

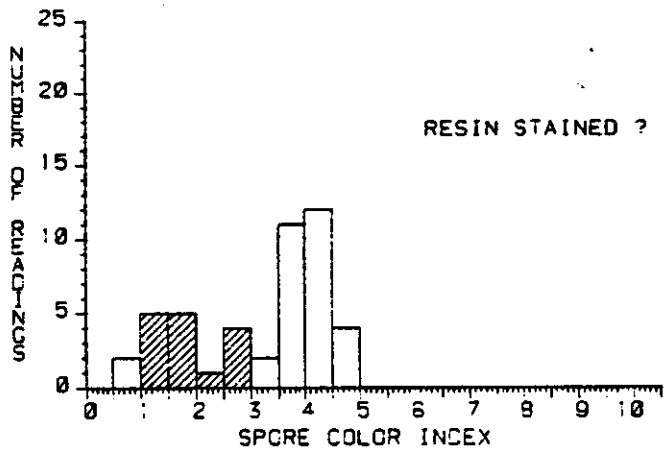
ORDERED SPORE COLOR VALUES:

0.5	*1.0	*1.5	*2.0	*2.5	3.0	4.0
0.5	*1.0	*1.5	*2.5	*2.5	3.5	4.0
0.5	*1.0	*1.5	*2.5	*2.5	3.5	4.0
0.5	*1.0	*1.5	*2.5	3.0	3.5	4.0
0.5	*1.5	*1.5	*2.5	3.0	3.5	4.5
0.5	*1.5	*1.5	*2.5	3.0	3.5	
0.5	*1.5	*1.5	*2.5	3.0	3.5	
*1.0	*1.5	*2.0	*2.5	3.0	4.0	
*1.0	*1.5	*2.0	*2.5	3.0	4.0	
*1.0	*1.5	*2.0	*2.5	3.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 118
ID : CTGS.

DEPTH : 5970.0 Ft
: 1820.1 M

* = SCI MATURITY

VALUES : 15

MEAN : 1.63
STD DEV : 0.59
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

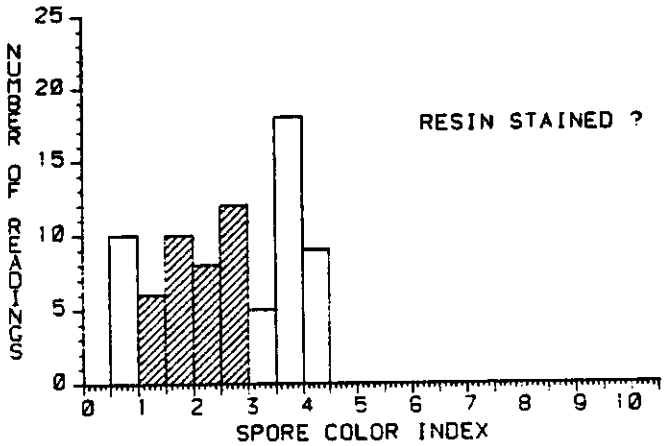
ORDERED SPORE COLOR VALUES:

0.5	*1.5	3.5	4.0	4.0
0.5	*1.5	3.5	4.0	4.0
*1.0	*2.0	3.5	4.0	4.5
*1.0	*2.5	3.5	4.0	4.5
*1.0	*2.5	3.5	4.0	4.5
*1.0	*2.5	3.5	4.0	4.5
*1.0	*2.5	3.5	4.0	
*1.5	3.0	3.5	4.0	
*1.5	3.0	3.5	4.0	
*1.5	3.5	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 123
ID : CTGS.

DEPTH : 6270.0 Ft
: 1911.6 M

* = SCI MATURITY

VALUES : 36

MEAN : 1.86
STD DEV : 0.55
MEDIAN : 2.00
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

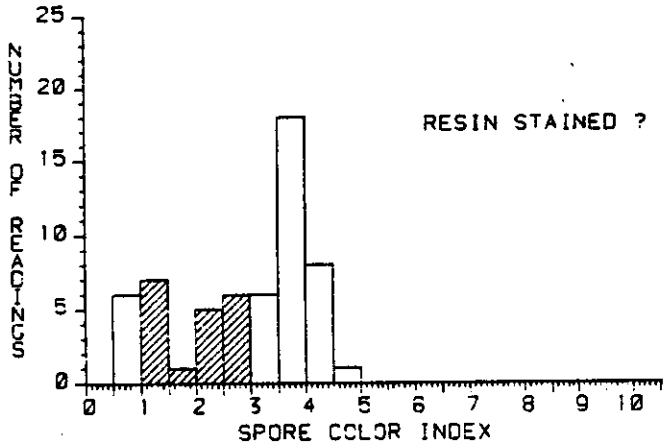
ORDERED SPORE COLOR VALUES:

0.5	*1.0	*1.5	*2.0	*2.5	3.0	3.5	4.0
0.5	*1.0	*1.5	*2.0	*2.5	3.5	3.5	4.0
0.5	*1.0	*1.5	*2.0	*2.5	3.5	3.5	4.0
0.5	*1.0	*1.5	*2.0	*2.5	3.5	3.5	4.0
0.5	*1.0	*1.5	*2.5	*2.5	3.5	3.5	4.0
0.5	*1.0	*1.5	*2.5	*2.5	3.5	3.5	4.0
0.5	*1.5	*2.0	*2.5	3.0	3.5	3.5	4.0
0.5	*1.5	*2.0	*2.5	3.0	3.5	3.5	4.0
0.5	*1.5	*2.0	*2.5	3.0	3.5	3.5	
0.5	*1.5	*2.0	*2.5	3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 127
ID : CTGS.

DEPTH : 6510.0 Ft
: 1984.8 M

* = SCI MATURITY

VALUES : 19

MEAN : 1.76
STD DEV : 0.64
MEDIAN : 2.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

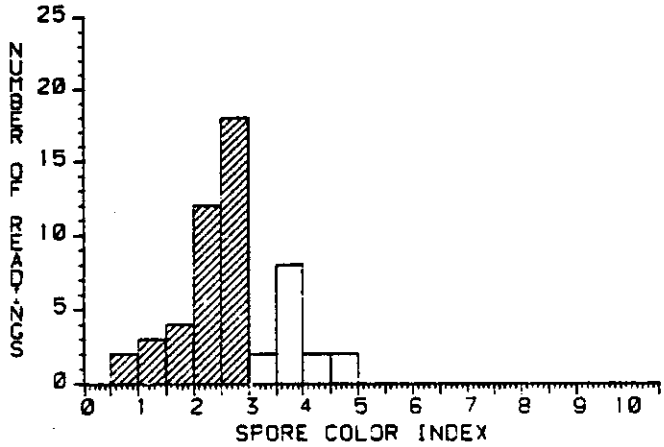
ORDERED SPORE COLOR VALUES:

0.5	*1.0	*2.5	3.0	3.5	4.0
0.5	*1.0	*2.5	3.5	3.5	4.0
0.5	*1.0	*2.5	3.5	3.5	4.0
0.5	*1.5	*2.5	3.5	3.5	4.0
0.5	*2.0	*2.5	3.5	3.5	4.0
0.5	*2.0	3.0	3.5	3.5	4.0
*1.0	*2.0	3.0	3.5	3.5	4.0
*1.0	*2.0	3.0	3.5	3.5	4.5
*1.0	*2.0	3.0	3.5	3.5	
*1.0	*2.5	3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	? 20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 132
ID : CTGS.

DEPTH : 6810.0 Ft
: 2076.2 M

* = SCI MATURITY

VALUES : 39

MEAN : 2.03
STD DEV : 0.58
MEDIAN : 2.00
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

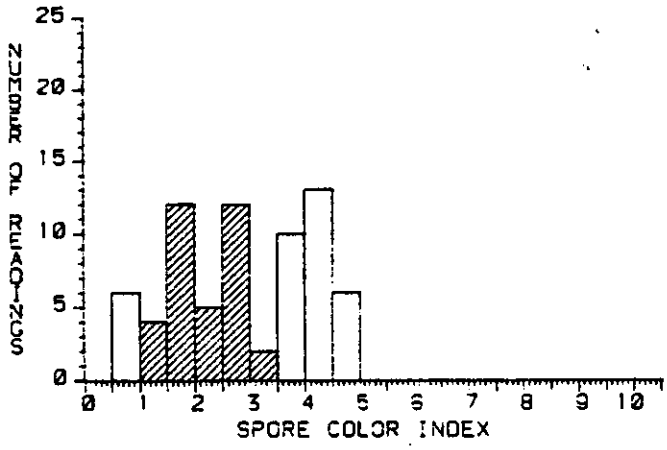
ORDERED SPORE COLOR VALUES:

*0.5	*2.0	*2.0	*2.5	3.0	4.0
*0.5	*2.0	*2.5	*2.5	3.5	4.5
*1.0	*2.0	*2.5	*2.5	3.5	4.5
*1.0	*2.0	*2.5	*2.5	3.5	
*1.0	*2.0	*2.5	*2.5	3.5	
*1.5	*2.0	*2.5	*2.5	3.5	
*1.5	*2.0	*2.5	*2.5	3.5	
*1.5	*2.0	*2.5	*2.5	3.5	
*1.5	*2.0	*2.5	*2.5	3.5	
*2.0	*2.0	*2.5	3.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 137
ID : CTGS.

DEPTH : 7110.0 Ft
: 2167.7 M

* = SCI MATURITY

VALUES : 35

MEAN : 1.94
STD DEV : 0.58
MEDIAN : 2.00
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

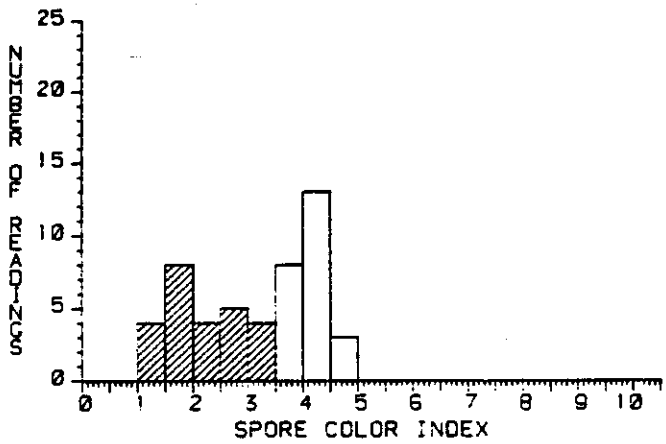
ORDERED SPORE COLOR VALUES:

0.5	*1.5	*1.5	*2.5	*3.0	3.5	4.0
0.5	*1.5	*1.5	*2.5	3.5	4.0	4.0
0.5	*1.5	*2.0	*2.5	3.5	4.0	4.0
0.5	*1.5	*2.0	*2.5	3.5	4.0	4.0
0.5	*1.5	*2.0	*2.5	3.5	4.0	4.5
0.5	*1.5	*2.0	*2.5	3.5	4.0	4.5
*1.0	*1.5	*2.0	*2.5	3.5	4.0	4.5
*1.0	*1.5	*2.5	*2.5	3.5	4.0	4.5
*1.0	*1.5	*2.5	*2.5	3.5	4.0	4.5
*1.0	*1.5	*2.5	*3.0	3.5	4.0	4.5

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	? 20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 142
ID : CTGS.

DEPTH : 7410.0 Ft
: 2259.1 M

* = SCI MATURITY

VALUES : 25

MEAN : 1.94
STD DEV : 0.67
MEDIAN : 2.00
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

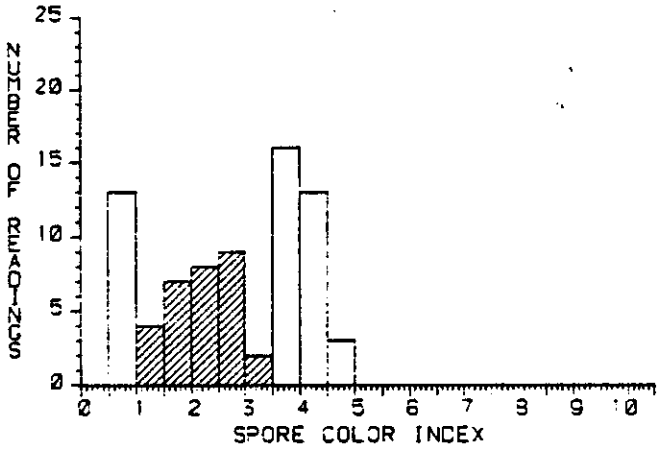
ORDERED SPORE COLOR VALUES:

*1.0	*1.5	*2.5	3.5	4.0
*1.0	*1.5	*3.0	3.5	4.0
*1.0	*2.0	*3.0	3.5	4.0
*1.0	*2.0	*3.0	4.0	4.0
*1.5	*2.0	*3.0	4.0	4.0
*1.5	*2.0	3.5	4.0	4.0
*1.5	*2.5	3.5	4.0	4.5
*1.5	*2.5	3.5	4.0	4.5
*1.5	*2.5	3.5	4.0	4.5
*1.5	*2.5	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous :	5 %
Exinite :	5 %
Vitrinite :	70 %
Inertinite :	? 20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 166
ID : CTGS.

DEPTH : 7650.0 Ft
: 2332.3 M

* = SCI MATURITY

VALUES : 50

MEAN : 1.97
STD DEV : 0.58
MEDIAN : 2.00
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

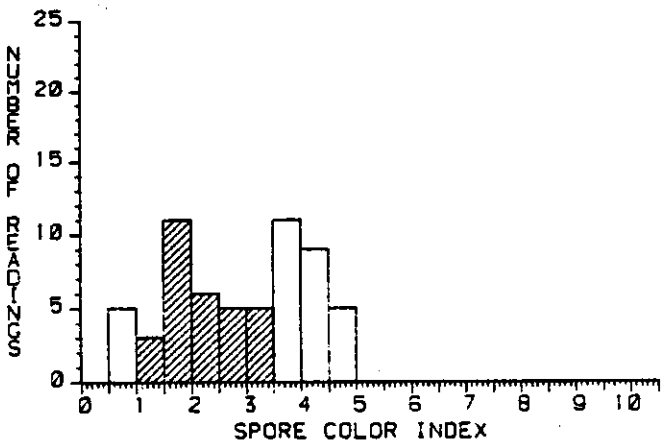
ORDERED SPORE COLOR VALUES:

0.5	0.5	*1.5	*2.0	*2.5	3.5	4.0	4.0
0.5	0.5	*1.5	*2.0	*3.0	3.5	4.0	4.0
0.5	0.5	*1.5	*2.5	*3.0	3.5	4.0	4.5
0.5	*1.0	*1.5	*2.5	3.5	3.5	4.0	4.5
0.5	*1.0	*2.0	*2.5	3.5	3.5	4.0	4.5
0.5	*1.0	*2.0	*2.5	3.5	3.5	4.0	
0.5	*1.0	*2.0	*2.5	3.5	3.5	4.0	
0.5	*1.5	*2.0	*2.5	3.5	3.5	4.0	
0.5	*1.5	*2.0	*2.5	3.5	3.5	4.0	
0.5	*1.5	*2.0	*2.5	3.5	4.0	4.0	

KEROGEN DESCRIPTION

Amorphous :	5 %
Exinite :	5 %
Vitrinite :	75 %
Inertinite :	? 15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 170
ID : CTGS.

DEPTH : 7920.0 Ft
: 2414.6 M

* = SCI MATURITY

VALUES : 30

MEAN : 1.97
STD DEV : 0.63
MEDIAN : 2.00
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

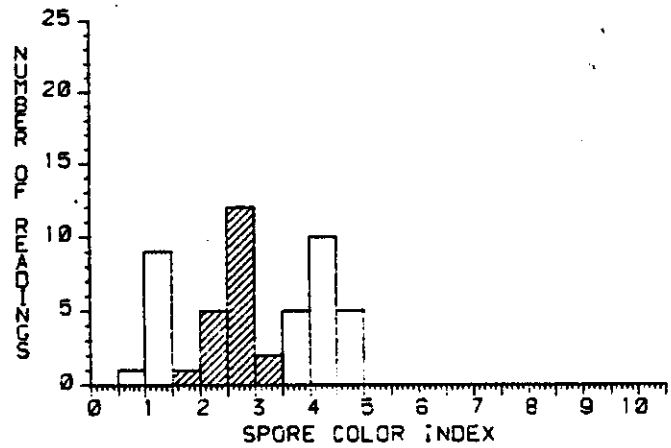
ORDERED SPORE COLOR VALUES:

0.5	*1.5	*2.0	*3.0	3.5	4.0
0.5	*1.5	*2.0	*3.0	3.5	4.0
0.5	*1.5	*2.0	*3.0	3.5	4.0
0.5	*1.5	*2.0	*3.0	3.5	4.0
0.5	*1.5	*2.0	*3.0	3.5	4.0
*1.0	*1.5	*2.5	3.5	3.5	4.5
*1.0	*1.5	*2.5	3.5	4.0	4.5
*1.0	*1.5	*2.5	3.5	4.0	4.5
*1.5	*1.5	*2.5	3.5	4.0	4.5
*1.5	*2.0	*2.5	3.5	4.0	4.5

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 176
ID : CTGS.

DEPTH : 8280.0 Ft
: 2524.4 M

* = SCI MATURITY

VALUES : 20

MEAN : 2.38
STD DEV : 0.35
MEDIAN : 2.50
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

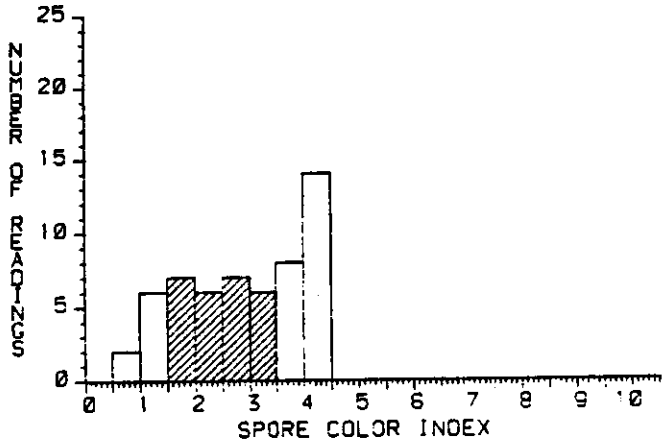
ORDERED SPORE COLOR VALUES:

0.5	*1.5	*2.5	3.5	4.0
1.0	*2.0	*2.5	3.5	4.0
1.0	*2.0	*2.5	3.5	4.0
1.0	*2.0	*2.5	3.5	4.0
1.0	*2.0	*2.5	3.5	4.0
1.0	*2.0	*2.5	4.0	4.5
1.0	*2.5	*2.5	4.0	4.5
1.0	*2.5	*2.5	4.0	4.5
1.0	*2.5	*3.0	4.0	4.5
1.0	*2.5	*3.0	4.0	4.5

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	80 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 182
ID : CTGS.

DEPTH : 8640.0 Ft
: 2634.1 M

* = SCI MATURITY

VALUES : 26

MEAN : 2.23
STD DEV : 0.56
MEDIAN : 2.50
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

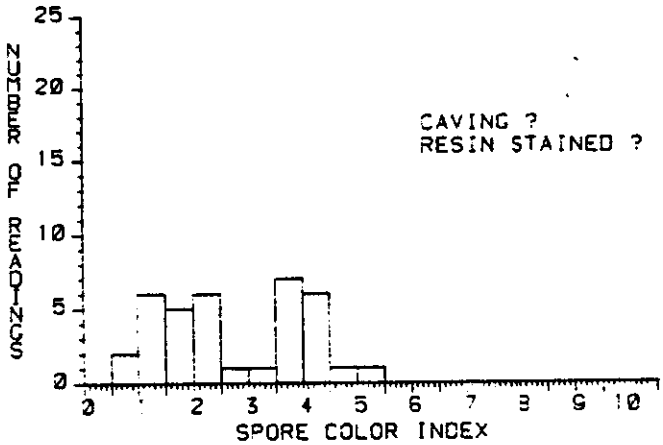
ORDERED SPORE COLOR VALUES:

0.5	*1.5	*2.0	*3.0	3.5	4.0
0.5	*1.5	*2.5	*3.0	3.5	4.0
1.0	*1.5	*2.5	*3.0	4.0	4.0
1.0	*1.5	*2.5	*3.0	4.0	4.0
1.0	*1.5	*2.5	3.5	4.0	4.0
1.0	*2.0	*2.5	3.5	4.0	4.0
1.0	*2.0	*2.5	3.5	4.0	
1.0	*2.0	*2.5	3.5	4.0	
*1.5	*2.0	*3.0	3.5	4.0	
*1.5	*2.0	*3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 187
ID : CTGS.

DEPTH : 8940.0 Ft
: 2725.6 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

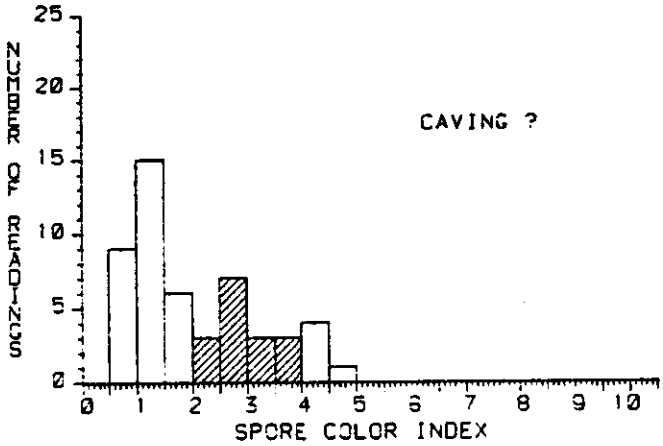
ORDERED SPORE COLOR VALUES:

0.5	1.5	3.0	4.0
0.5	1.5	3.5	4.0
1.0	1.5	3.5	4.0
1.0	2.0	3.5	4.0
1.0	2.0	3.5	4.5
1.0	2.0	3.5	5.0
1.0	2.0	3.5	
1.0	2.0	3.5	
1.5	2.0	4.0	
1.5	2.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 191
ID : CTGS.

DEPTH : 9180.0 Ft
: 2798.8 M

* = SCI MATURITY

VALUES : 16

MEAN : 2.69
STD DEV : 0.50
MEDIAN : 2.50
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

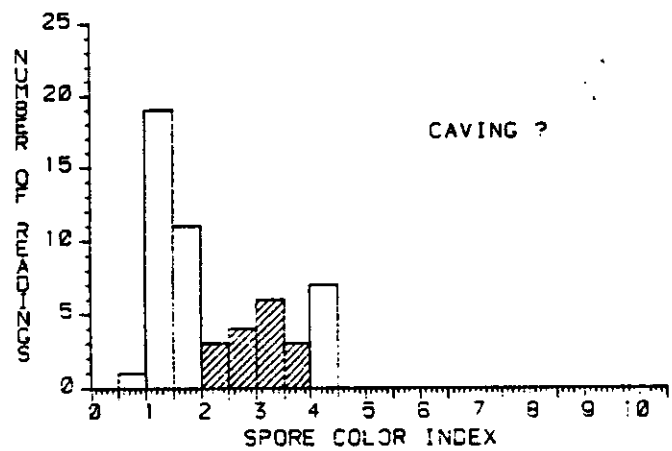
ORDERED SPORE COLOR VALUES:

0.5	1.0	1.0	*2.0	*3.0	4.5
0.5	1.0	1.0	*2.0	*3.0	
0.5	1.0	1.0	*2.0	*3.0	
0.5	1.0	1.0	*2.5	*3.5	
0.5	1.0	1.5	*2.5	*3.5	
0.5	1.0	1.5	*2.5	*3.5	
0.5	1.0	1.5	*2.5	4.0	
0.5	1.0	1.5	*2.5	4.0	
0.5	1.0	1.5	*2.5	4.0	
1.0	1.0	1.5	*2.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 196
ID : CTGS.

DEPTH : 9480.0 Ft
: 2890.2 M

* = SCI MATURITY

VALUES : 16

MEAN : 2.78
STD DEV : 0.50
MEDIAN : 3.00
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

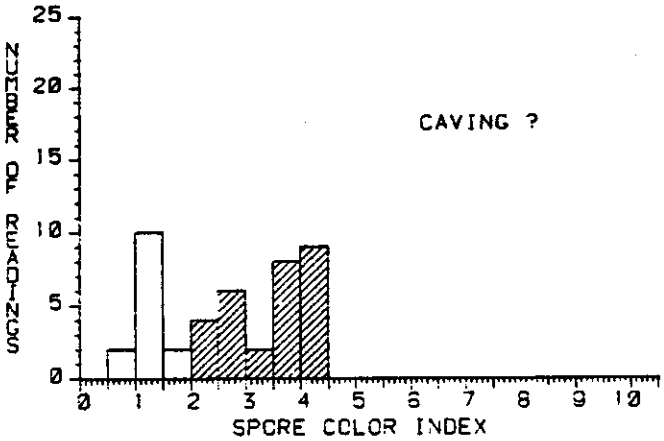
ORDERED SPORE COLOR VALUES:

0.5	1.0	1.5	*1.5	*3.0	4.0
1.0	1.0	1.5	*2.0	*3.0	4.0
1.0	1.0	1.5	*2.0	*3.0	4.0
1.0	1.0	1.5	*2.0	*3.0	4.0
1.0	1.0	1.5	*2.5	*3.5	
1.0	1.0	1.5	*2.5	*3.5	
1.0	1.0	1.5	*2.5	*3.5	
1.0	1.0	1.5	*2.5	4.0	
1.0	1.0	1.5	*3.0	4.0	
1.0	1.0	1.5	*3.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	65 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 200
ID : CTGS.

DEPTH : 9720.0 Ft
: 2963.4 M

* = SCI MATURITY

VALUES : 29

MEAN : 3.21
STD DEV : 0.73
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

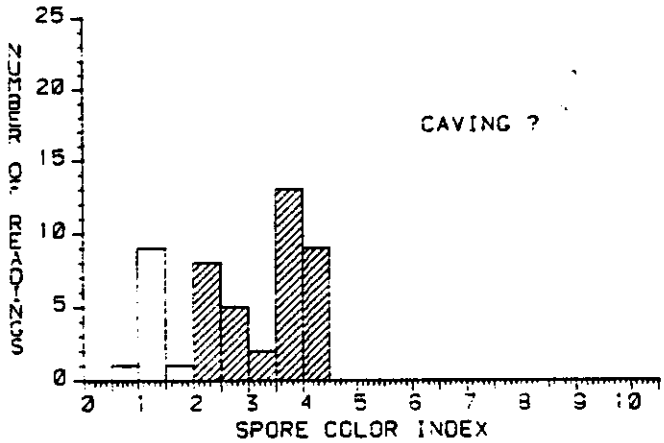
ORDERED SPORE COLOR VALUES:

0.5	1.0	*2.5	*3.5	*4.0
0.5	1.0	*2.5	*3.5	*4.0
1.0	1.5	*2.5	*3.5	*4.0
1.0	1.5	*2.5	*3.5	
1.0	*2.0	*3.0	*4.0	
1.0	*2.0	*3.0	*4.0	
1.0	*2.0	*3.5	*4.0	
1.0	*2.0	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 205
ID : CTGS.

DEPTH : 10020.0 Ft
: 3054.9 M

* = SCI MATURITY

VALUES : 37

MEAN : 3.14
STD DEV : 0.75
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

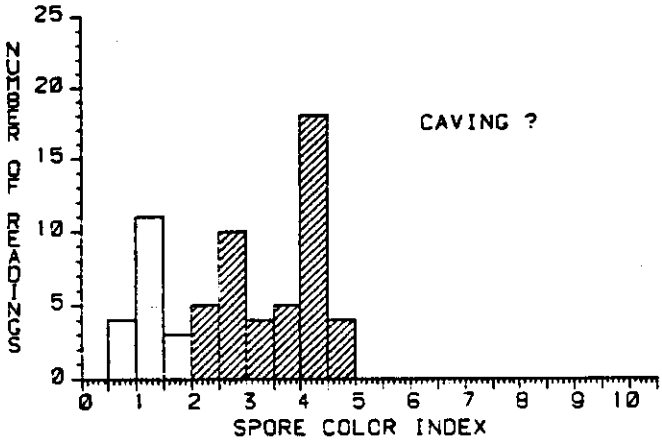
ORDERED SPORE COLOR VALUES:

0.5	1.5	*2.5	*3.5	*4.0
1.0	*2.0	*2.5	*3.5	*4.0
1.0	*2.0	*2.5	*3.5	*4.0
1.0	*2.0	*2.5	*3.5	*4.0
1.0	*2.0	*3.0	*3.5	*4.0
1.0	*2.0	*3.0	*3.5	*4.0
1.0	*2.0	*3.5	*3.5	*4.0
1.0	*2.0	*3.5	*3.5	*4.0
1.0	*2.0	*3.5	*3.5	
1.0	*2.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	? 20 %
Exinite	:	15 %
Vitrinite	:	60 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 210
ID : CTGS.

DEPTH : 10320.0 Ft
: 3146.3 M

* = SCI MATURITY

VALUES : 46

MEAN : 3.36
STD DEV : 0.81
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

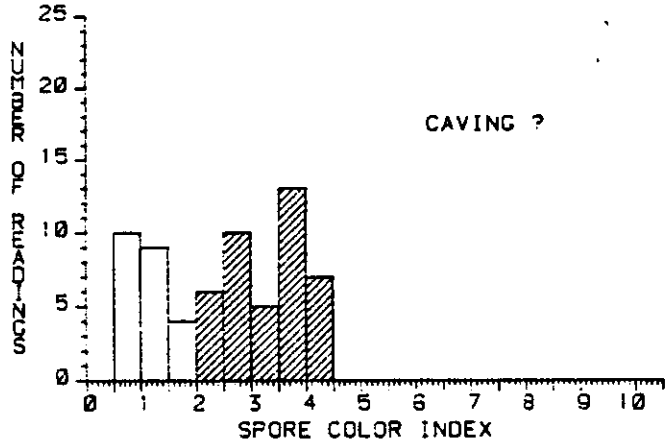
ORDERED SPORE COLOR VALUES:

0.5	1.0	*2.0	*2.5	*3.5	*4.0	*4.5
0.5	1.0	*2.0	*2.5	*3.5	*4.0	*4.5
0.5	1.0	*2.0	*2.5	*4.0	*4.0	*4.5
0.5	1.0	*2.5	*3.0	*4.0	*4.0	*4.5
1.0	1.0	*2.5	*3.0	*4.0	*4.0	
1.0	1.5	*2.5	*3.0	*4.0	*4.0	
1.0	1.5	*2.5	*3.0	*4.0	*4.0	
1.0	1.5	*2.5	*3.5	*4.0	*4.0	
1.0	*2.0	*2.5	*3.5	*4.0	*4.0	
1.0	*2.0	*2.5	*3.5	*4.0	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 214
ID : CTGS.

DEPTH : 10560.0 Ft
: 3219.5 M

* = SCI MATURITY

VALUES : 41

MEAN : 3.06
STD DEV : 0.67
MEDIAN : 3.00
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

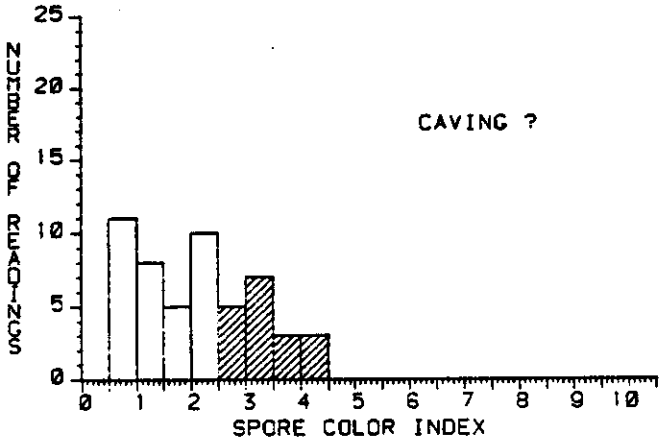
ORDERED SPORE COLOR VALUES:

0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
0.5	1.0	*2.0	*2.5	*3.0	*3.5	*4.0
0.5	1.0	*2.0	*2.5	*3.5	*3.5	
0.5	1.0	*2.0	*2.5	*3.5	*3.5	
0.5	1.0	*2.0	*2.5	*3.5	*3.5	
0.5	1.0	*2.0	*2.5	*3.5	*4.0	
0.5	1.0	*2.0	*2.5	*3.5	*4.0	
0.5	1.5	*2.5	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 218
ID : CTGS.

DEPTH : 10800.0 Ft
: 3292.7 M

* = SCI MATURITY

VALUES : 18

MEAN : 3.11
STD DEV : 0.52
MEDIAN : 3.00
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

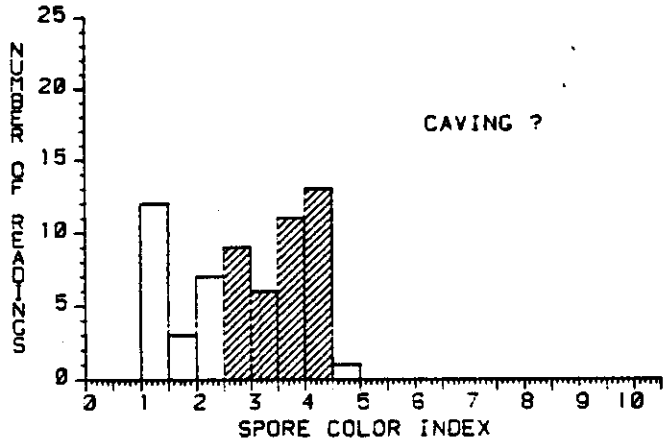
ORDERED SPORE COLOR VALUES:

0.5	0.5	1.5	2.0	*3.0	*4.0
0.5	1.0	1.5	2.0	*3.0	*4.0
0.5	1.0	1.5	2.0	*3.0	
0.5	1.0	1.5	2.0	*3.0	
0.5	1.0	2.0	*2.5	*3.0	
0.5	1.0	2.0	*2.5	*3.0	
0.5	1.0	2.0	*2.5	*3.5	
0.5	1.0	2.0	*2.5	*3.5	
0.5	1.0	2.0	*2.5	*3.5	
0.5	1.5	2.0	*3.0	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	20 %
Vitrinite	:	65 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 279
ID : CTGS.

DEPTH : 11100.0 Ft
: 3384.1 M

* = SCI MATURITY

VALUES : 39

MEAN : 3.36
STD DEV : 0.58
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

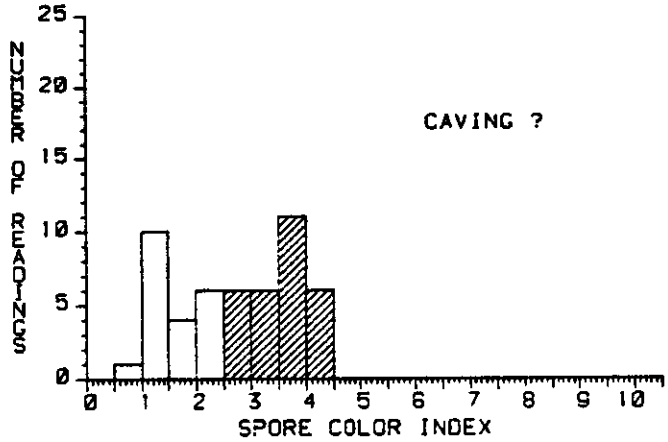
ORDERED SPORE COLOR VALUES:

1.0	1.0	2.0	*2.5	*3.5	*4.0	*4.0
1.0	1.0	2.0	*3.0	*3.5	*4.0	4.5
1.0	1.5	*2.5	*3.0	*3.5	*4.0	
1.0	1.5	*2.5	*3.0	*3.5	*4.0	
1.0	1.5	*2.5	*3.0	*3.5	*4.0	
1.0	2.0	*2.5	*3.0	*3.5	*4 0	
1.0	2.0	*2.5	*3.0	*3.5	*4.0	
1.0	2.0	*2.5	*3.5	*3.5	*4.0	
1.0	2.0	*2.5	*3.5	*4.0	*4.0	
1.0	2.0	*2.5	*3.5	*4.0	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 284
ID : CTGS.

DEPTH : 11400.0 Ft
: 3475.6 M

* = SCI MATURITY

VALUES : 29

MEAN : 3.29
STD DEV : 0.52
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

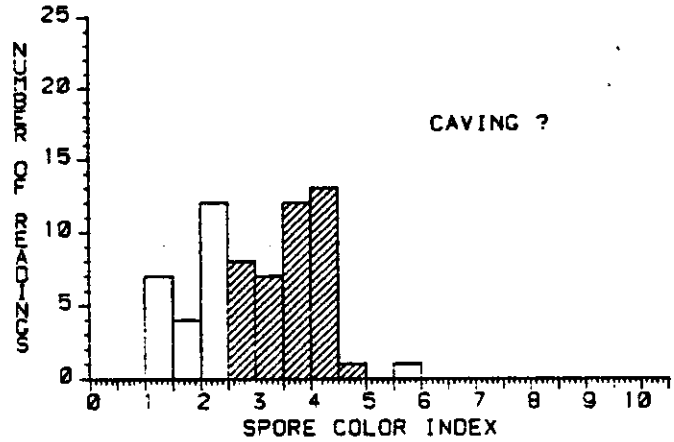
ORDERED SPORE COLOR VALUES:

0.5	1.0	2.0	*3.0	*3.5
1.0	1.5	*2.5	*3.0	*3.5
1.0	1.5	*2.5	*3.0	*3.5
1.0	1.5	*2.5	*3.5	*3.5
1.0	1.5	*2.5	*3.5	*4.0
1.0	2.0	*2.5	*3.5	*4.0
1.0	2.0	*2.5	*3.5	*4.0
1.0	2.0	*3.0	*3.5	*4.0
1.0	2.0	*3.0	*3.5	*4.0
1.0	2.0	*3.0	*3.5	*4.0

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	5 %
Vitrinite :	? 75 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 289
ID : CTGS.

DEPTH : 11700.0 Ft
: 3567.1 M

* = SCI MATURITY

VALUES : 41

MEAN : 3.40
STD DEV : 0.58
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

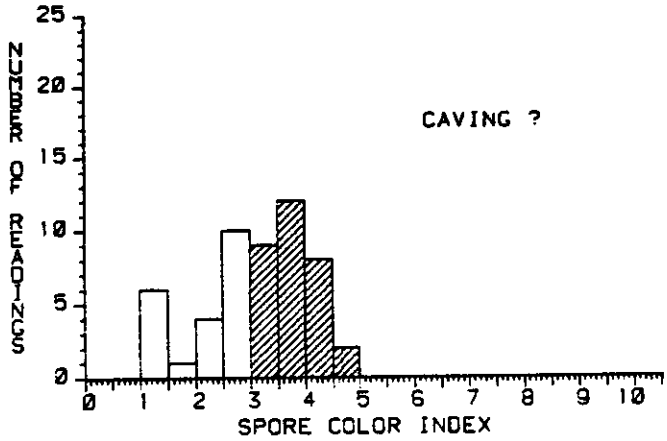
ORDERED SPORE COLOR VALUES:

1.0	1.5	2.0	*2.5	*3.5	*4.0	*4.0
1.0	2.0	2.0	*3.0	*3.5	*4.0	*4.0
1.0	2.0	2.0	*3.0	*3.5	*4.0	*4.0
1.0	2.0	*2.5	*3.0	*3.5	*4.0	*4.5
1.0	2.0	*2.5	*3.0	*3.5	*4.0	5.5
1.0	2.0	*2.5	*3.0	*3.5	*4.0	
1.0	2.0	*2.5	*3.0	*3.5	*4.0	
1.5	2.0	*2.5	*3.0	*3.5	*4.0	
1.5	2.0	*2.5	*3.5	*3.5	*4.0	
1.5	2.0	*2.5	*3.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	5 %
Vitrinite :	75 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 294
ID : CTGS.

DEPTH : 12000.0 Ft
: 3658.5 M

* = SCI MATURITY

VALUES : 31

MEAN : 3.55
STD DEV : 0.45
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

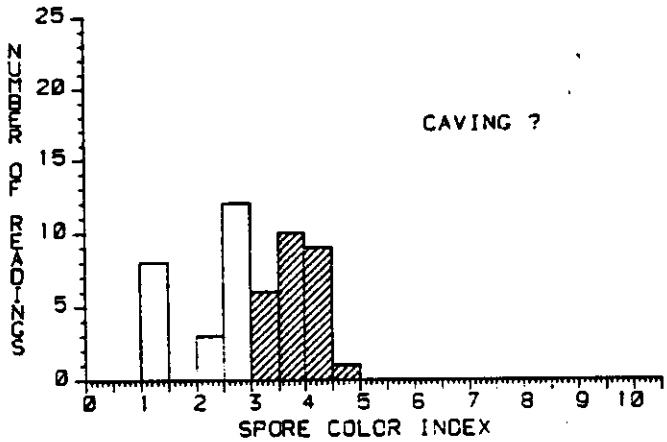
ORDERED SPORE COLOR VALUES:

1.0	2.0	2.5	*3.5	*3.5	*4.5
1.0	2.5	*3.0	*3.5	*3.5	*4.5
1.0	2.5	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.0	*3.5	*4.0	
2.0	2.5	*3.0	*3.5	*4.0	
2.0	2.5	*3.0	*3.5	*4.0	
2.0	2.5	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 319
ID : CTGS.

DEPTH : 12300.0 Ft
: 3750.0 M

* = SCI MATURITY

VALUES : 26

MEAN : 3.60
STD DEV : 0.42
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

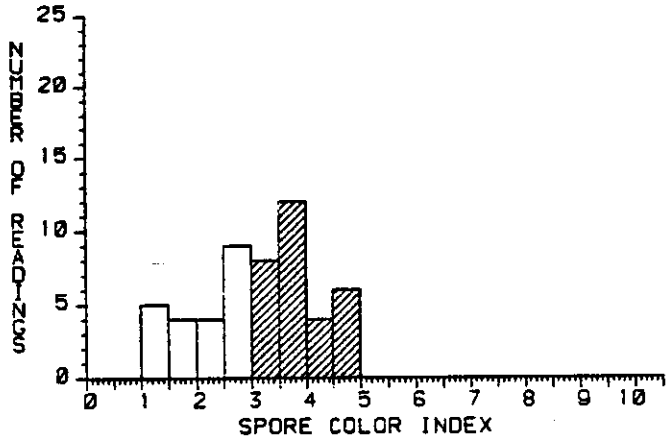
ORDERED SPORE COLOR VALUES:

1.0	2.0	2.5	*3.5	*4.0
1.0	2.5	2.5	*3.5	*4.0
1.0	2.5	2.5	*3.5	*4.0
1.0	2.5	*3.0	*3.5	*4.0
1.0	2.5	*3.0	*3.5	*4.0
1.0	2.5	*3.0	*3.5	*4.0
1.0	2.5	*3.0	*3.5	*4.0
1.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.5
2.0	2.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	? 25 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 324
ID : CTGS.

DEPTH : 12600.0 Ft
: 3841.5 M

* = SCI MATURITY

VALUES : 30

MEAN : 3.63
STD DEV : 0.53
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

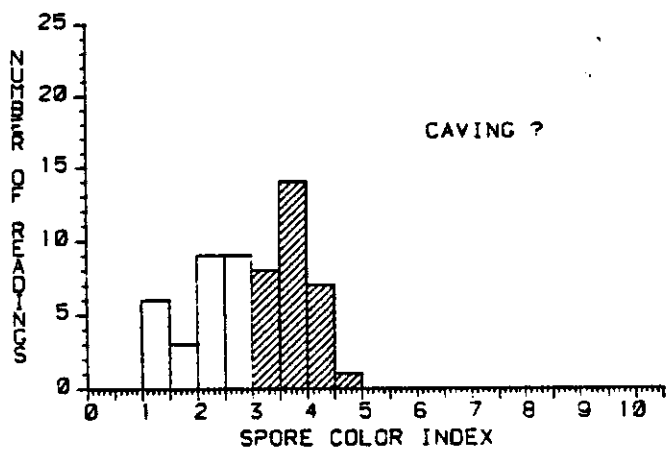
ORDERED SPORE COLOR VALUES:

1.0	2.0	2.5	*3.5	*3.5	*4.5
1.0	2.0	2.5	*3.5	*3.5	*4.5
1.0	2.0	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.0	*3.5	*4.5	
1.5	2.5	*3.0	*3.5	*4.5	
1.5	2.5	*3.0	*3.5	*4.5	
2.0	2.5	*3.0	*3.5	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 329
ID : CTGS.

DEPTH : 12900.0 Ft
: 3932.9 M

* = SCI MATURITY

VALUES : 30

MEAN : 3.52
STD DEV : 0.40
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

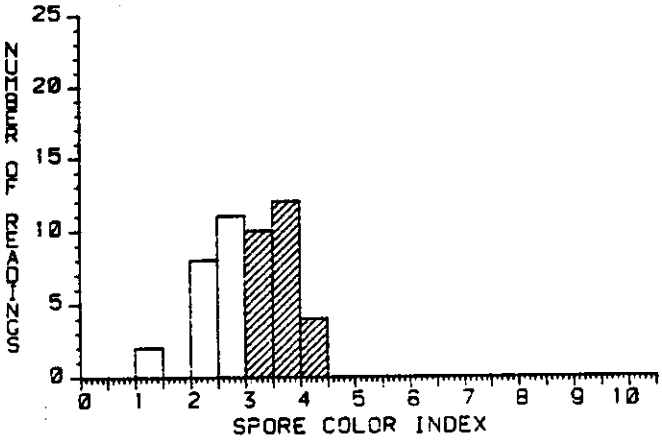
ORDERED SPORE COLOR VALUES:

1.0	2.0	2.5	*3.0	*3.5	*4.0
1.0	2.0	2.5	*3.0	*3.5	*4.0
1.0	2.0	2.5	*3.0	*3.5	*4.0
1.0	2.0	2.5	*3.0	*3.5	*4.0
1.0	2.0	2.5	*3.0	*3.5	*4.0
1.0	2.0	2.5	*3.5	*3.5	*4.0
1.5	2.0	2.5	*3.5	*3.5	*4.5
1.5	2.0	*3.0	*3.5	*3.5	
1.5	2.5	*3.0	*3.5	*3.5	
2.0	2.5	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 334
ID : CTGS.

DEPTH :13200.0 Ft
: 4024.4 M

* = SCI MATURITY

VALUES : 26

MEAN : 3.38
STD DEV : 0.35
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

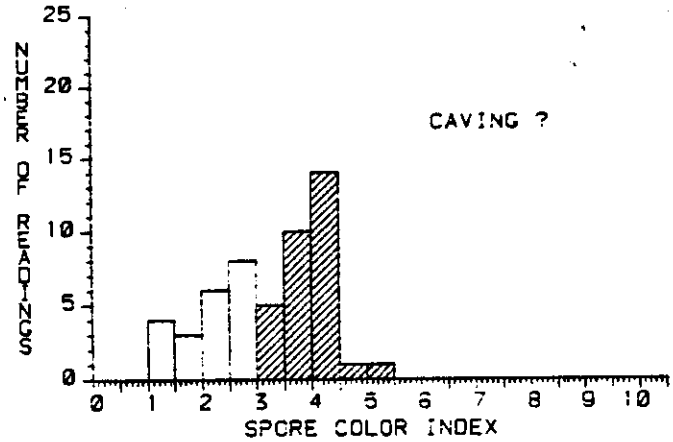
ORDERED SPORE COLOR VALUES:

1.0	2.5	2.5	*3.0	*3.5
1.0	2.5	*3.0	*3.5	*3.5
2.0	2.5	*3.0	*3.5	*3.5
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	
2.0	2.5	*3.0	*3.5	
2.0	2.5	*3.0	*3.5	

KEROGEN DESCRIPTION

Amorphous	? 25 %
Exinite	5 %
Vitrinite	65 %
Inertinite	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 429
ID : CTGS.

DEPTH :13560.0 Ft
: 4134.1 M

* = SCI MATURITY

VALUES : 31

MEAN : 3.73
STD DEV : 0.46
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

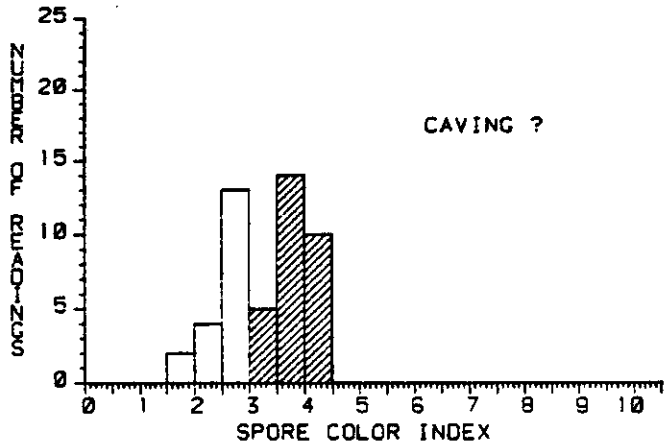
ORDERED SPORE COLOR VALUES:

1.0	2.0	2.5	*3.5	*4.0	*4.5
1.0	2.0	*3.0	*3.5	*4.0	*5.0
1.0	2.0	*3.0	*3.5	*4.0	
1.0	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.0	*3.5	*4.0	
1.5	2.5	*3.5	*4.0	*4.0	
2.0	2.5	*3.5	*4.0	*4.0	
2.0	2.5	*3.5	*4.0	*4.0	
2.0	2.5	*3.5	*4.0	*4.0	

KEROGEN DESCRIPTION

Amorphous	10 %
Exinite	5 %
Vitrinite	75 %
Inertinite	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 433
ID : CTGS.

DEPTH : 13800.0 Ft
: 4207.3 M

* = SCI MATURITY

VALUES : 29

MEAN : 3.59
STD DEV : 0.35
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

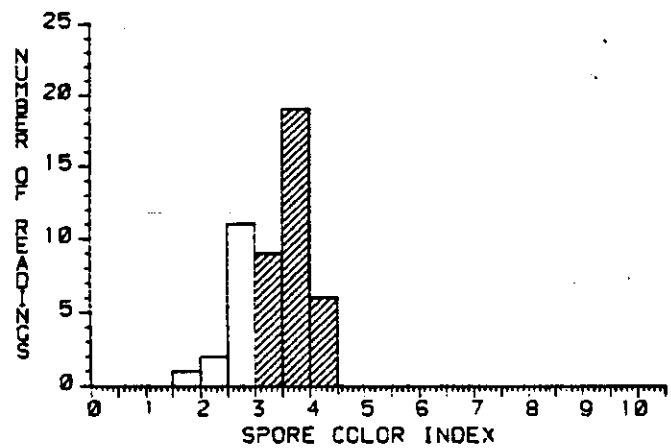
ORDERED SPORE COLOR VALUES:

1.5	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0
2.0	2.5	*3.5	*3.5	*4.0
2.0	2.5	*3.5	*3.5	*4.0
2.5	2.5	*3.5	*3.5	*4.0
2.5	2.5	*3.5	*3.5	*4.0
2.5	2.5	*3.5	*4.0	
2.5	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 442
ID : CTGS.

DEPTH : 14040.0 Ft
: 4280.5 M

* = SCI MATURITY

VALUES : 34

MEAN : 3.46
STD DEV : 0.33
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

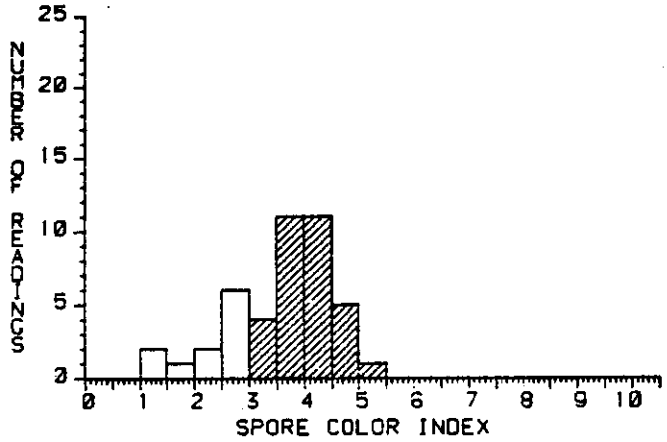
ORDERED SPORE COLOR VALUES:

1.5	2.5	*3.0	*3.5	*3.5
2.0	2.5	*3.0	*3.5	*3.5
2.0	2.5	*3.0	*3.5	*4.0
2.5	2.5	*3.5	*3.5	*4.0
2.5	*3.0	*3.5	*3.5	*4.0
2.5	*3.0	*3.5	*3.5	*4.0
2.5	*3.0	*3.5	*3.5	*4.0
2.5	*3.0	*3.5	*3.5	*4.0
2.5	*3.0	*3.5	*3.5	
2.5	*3.0	*3.5	*3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 447
ID : CTGS.

DEPTH : 14340.0 Ft
: 4372.0 M

* = SCI MATURITY

VALUES : 32

MEAN : 3.81
STD DEV : 0.50
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

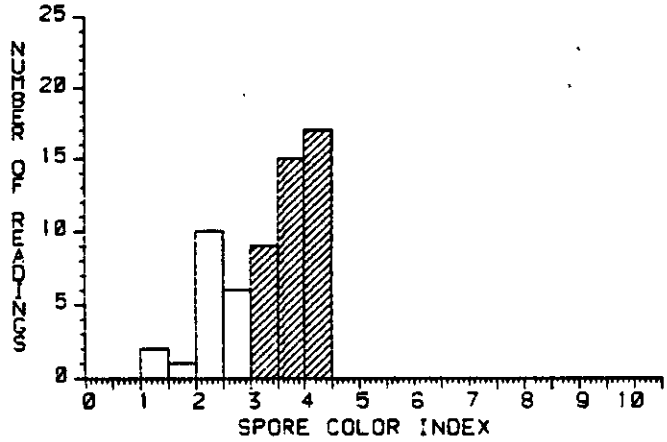
ORDERED SPORE COLOR VALUES:

1.0	2.5	*3.5	*4.0	*4.5
1.0	*3.0	*3.5	*4.0	*4.5
1.5	*3.0	*3.5	*4.0	*5.0
2.0	*3.0	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	
2.5	*3.5	*3.5	*4.0	
2.5	*3.5	*4.0	*4.0	
2.5	*3.5	*4.0	*4.5	
2.5	*3.5	*4.0	*4.5	
2.5	*3.5	*4.0	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 452
ID : CTGS.

DEPTH : 14640.0 Ft
: 4463.4 M

* = SCI MATURITY

VALUES : 41

MEAN : 3.60
STD DEV : 0.39
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

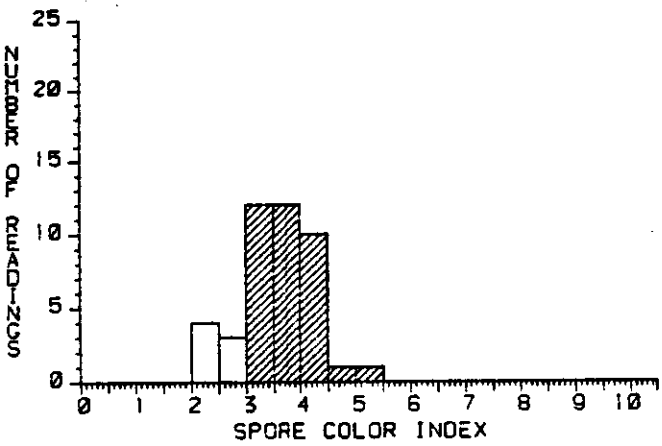
ORDERED SPORE COLOR VALUES:

1.0	2.0	*3.0	*3.5	*3.5	*4.0
1.0	2.0	*3.0	*3.5	*3.5	*4.0
1.5	2.0	*3.0	*3.5	*3.5	*4.0
2.0	2.5	*3.0	*3.5	*4.0	*4.0
2.0	2.5	*3.0	*3.5	*4.0	*4.0
2.0	2.5	*3.0	*3.5	*4.0	*4.0
2.0	2.5	*3.0	*3.5	*4.0	*4.0
2.0	2.5	*3.0	*3.5	*4.0	*4.0
2.0	2.5	*3.5	*3.5	*4.0	*4.0
2.0	*3.0	*3.5	*3.5	*4.0	*4.0

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 457
ID : CTGS.

DEPTH : 14940.0 Ft
: 4554.9 M

* = SCI MATURITY

VALUES : 36

MEAN : 3.54
STD DEV : 0.49
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

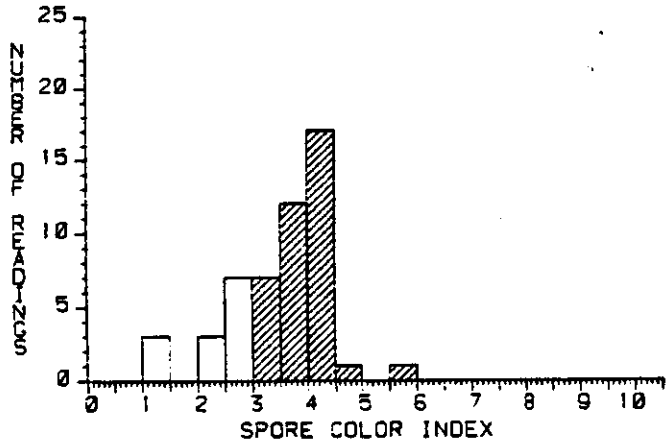
ORDERED SPORE COLOR VALUES:

2.0	*3.0	*3.5	*3.5	*4.0
2.0	*3.0	*3.5	*4.0	*4.5
2.0	*3.0	*3.5	*4.0	*5.0
2.0	*3.0	*3.5	*4.0	
2.5	*3.0	*3.5	*4.0	
2.5	*3.0	*3.5	*4.0	
2.5	*3.0	*3.5	*4.0	
*3.0	*3.0	*3.5	*4.0	
*3.0	*3.0	*3.5	*4.0	
*3.0	*3.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	80 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 461
ID : CTGS.

DEPTH : 15180.0 Ft
: 4628.0 M

* = SCI MATURITY

VALUES : 38

MEAN : 3.71
STD DEV : 0.50
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

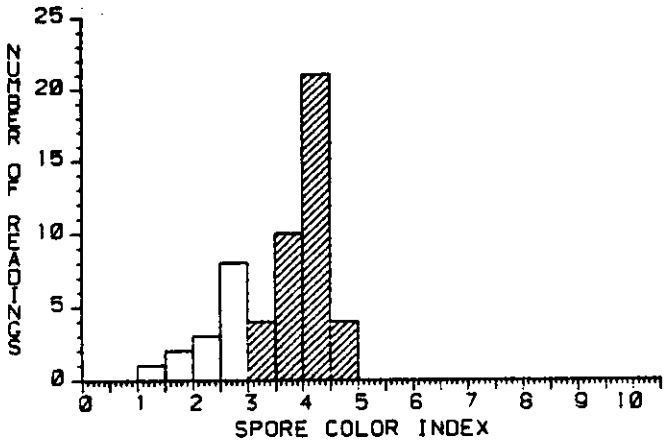
ORDERED SPORE COLOR VALUES:

1.0	2.5	*3.5	*3.5	*4.0	*5.5
1.0	2.5	*3.5	*3.5	*4.0	
1.0	2.5	*3.5	*4.0	*4.0	
2.0	*3.0	*3.5	*4.0	*4.0	
2.0	*3.0	*3.5	*4.0	*4.0	
2.0	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	80 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 468
ID : CTGS.

DEPTH : 15420.0 Ft
: 4701.2 M

* = SCI MATURITY

VALUES : 39

MEAN : 3.82
STD DEV : 0.40
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

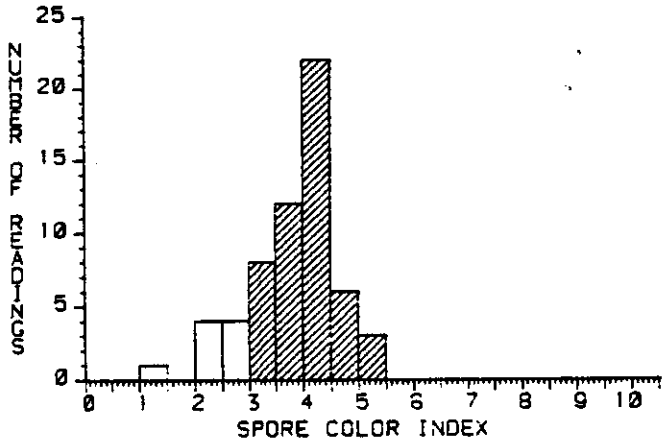
ORDERED SPORE COLOR VALUES:

1.0	2.5	*3.5	*4.0	*4.0	*4.5
1.5	2.5	*3.5	*4.0	*4.0	*4.5
1.5	2.5	*3.5	*4.0	*4.0	*4.5
2.0	2.5	*3.5	*4.0	*4.0	
2.0	*3.0	*3.5	*4.0	*4.0	
2.0	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.0	
2.5	*3.0	*3.5	*4.0	*4.0	
2.5	*3.5	*4.0	*4.0	*4.0	
2.5	*3.5	*4.0	*4.0	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 472
ID : CTGS.

DEPTH : 15660.0 Ft
: 4774.4 M

* = SCI MATURITY

VALUES : 51

MEAN : 3.84
STD DEV : 0.53
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

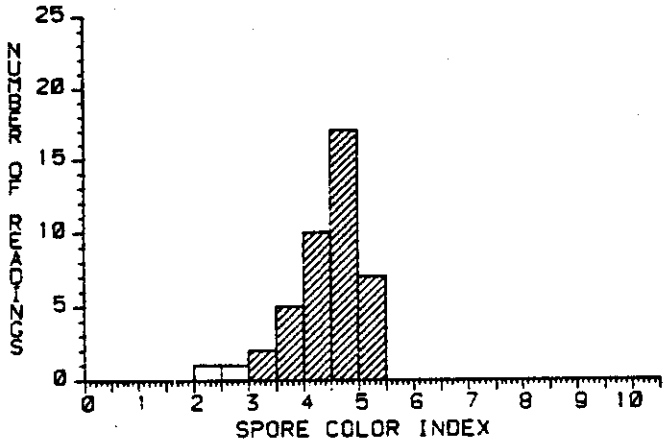
ORDERED SPORE COLOR VALUES:

1.0	*3.0	*3.5	*4.0	*4.0	*4.0
2.0	*3.0	*3.5	*4.0	*4.0	*4.5
2.0	*3.0	*3.5	*4.0	*4.0	*4.5
2.0	*3.0	*3.5	*4.0	*4.0	*4.5
2.0	*3.0	*3.5	*4.0	*4.0	*4.5
2.5	*3.0	*3.5	*4.0	*4.0	*4.5
2.5	*3.0	*3.5	*4.0	*4.0	*4.5
2.5	*3.5	*3.5	*4.0	*4.0	*5.0
2.5	*3.5	*3.5	*4.0	*4.0	*5.0
*3.0	*3.5	*4.0	*4.0	*4.0	*5.0

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 476
ID : CTGS.

DEPTH : 15900.0 Ft
: 4847.6 M

* = SCI MATURITY

VALUES : 41

MEAN : 4.27
STD DEV : 0.53
MEDIAN : 4.50
MODE : 4.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

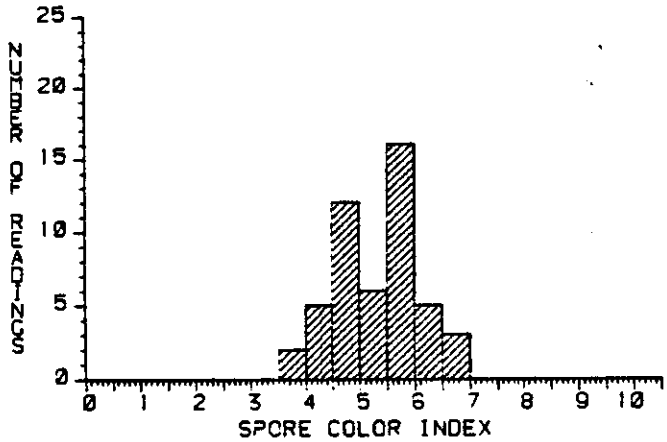
ORDERED SPORE COLOR VALUES:

2.0	*4.0	*4.5	*4.5	*5.0
2.5	*4.0	*4.5	*4.5	*5.0
*3.0	*4.0	*4.5	*4.5	*5.0
*3.0	*4.0	*4.5	*4.5	
*3.5	*4.0	*4.5	*4.5	
*3.5	*4.0	*4.5	*4.5	
*3.5	*4.0	*4.5	*5.0	
*3.5	*4.0	*4.5	*5.0	
*3.5	*4.0	*4.5	*5.0	
*4.0	*4.5	*4.5	*5.0	

KEROGEN DESCRIPTION

Amorphous : 15 %
Exinite : 10 %
Vitrinite : 65 %
Inertinite : 10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 499
ID : CTGS.

DEPTH : 16200.0 Ft
: 4939.0 M

* = SCI MATURITY

VALUES : 49

MEAN : 5.07
STD DEV : 0.76
MEDIAN : 5.00
MODE : 5.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

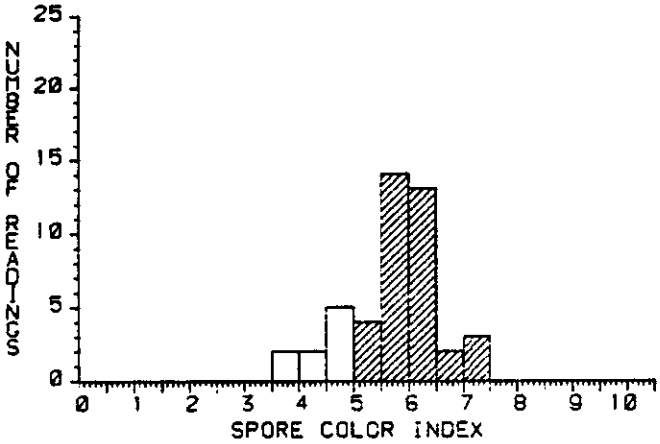
ORDERED SPORE COLOR VALUES:

*3.5	*4.5	*5.0	*5.5	*5.5
*3.5	*4.5	*5.0	*5.5	*6.0
*4.0	*4.5	*5.0	*5.5	*6.0
*4.0	*4.5	*5.0	*5.5	*6.0
*4.0	*4.5	*5.0	*5.5	*6.0
*4.0	*4.5	*5.5	*5.5	*6.0
*4.0	*4.5	*5.5	*5.5	*6.5
*4.5	*4.5	*5.5	*5.5	*6.5
*4.5	*4.5	*5.5	*5.5	*6.5
*4.5	*5.0	*5.5	*5.5	

KEROGEN DESCRIPTION

Amorphous : ? 30 %
Exinite : 10 %
Vitrinite : 55 %
Inertinite : 5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 504
ID : CTGS.

DEPTH : 16500.0 Ft
: 5030.5 M

* = SCI MATURITY

VALUES : 36

MEAN : 5.81
STD DEV : 0.52
MEDIAN : 6.00
MODE : 5.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

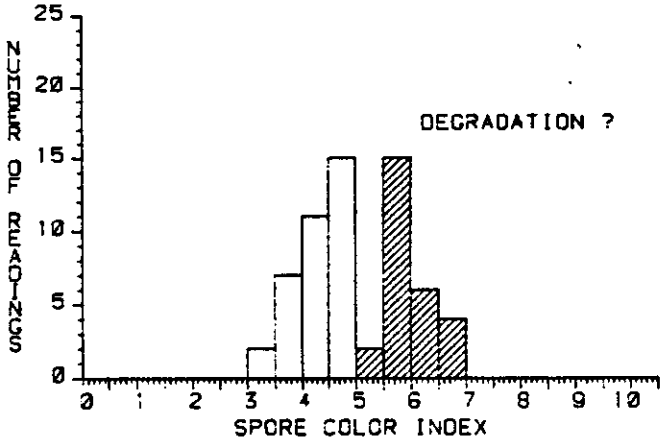
ORDERED SPORE COLOR VALUES:

3.5	*5.0	*5.5	*6.0	*6.5
3.5	*5.0	*5.5	*6.0	*6.5
4.0	*5.0	*5.5	*6.0	*7.0
4.0	*5.5	*5.5	*6.0	*7.0
4.5	*5.5	*5.5	*6.0	*7.0
4.5	*5.5	*5.5	*6.0	
4.5	*5.5	*5.5	*6.0	
4.5	*5.5	*6.0	*6.0	
4.5	*5.5	*6.0	*6.0	
*5.0	*5.5	*6.0	*6.0	

KEROGEN DESCRIPTION

Amorphous	:	? 25 %
Exinite	:	10 %
Vitrinite	:	60 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 516
ID : CTGS.

DEPTH : 16740.0 Ft
: 5103.7 M

* = SCI MATURITY ?

VALUES : 27

MEAN : 5.72
STD DEV : 0.42
MEDIAN : 5.50
MODE : 5.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

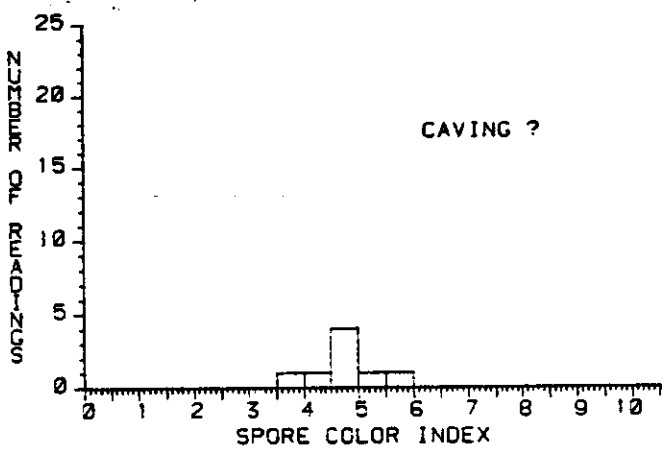
ORDERED SPORE COLOR VALUES:

3.0	4.0	4.5	4.5	*5.5	*5.5	*6.5
3.0	4.0	4.5	4.5	*5.5	*5.5	*6.5
3.5	4.0	4.5	4.5	*5.5	*6.0	
3.5	4.0	4.5	4.5	*5.5	*6.0	
3.5	4.0	4.5	4.5	*5.5	*6.0	
3.5	4.0	4.5	*5.0	*5.5	*6.0	
3.5	4.0	4.5	*5.0	*5.5	*6.0	
3.5	4.0	4.5	*5.5	*5.5	*6.0	
3.5	4.0	4.5	*5.5	*5.5	*6.5	
4.0	4.0	4.5	*5.5	*5.5	*6.5	

KEROGEN DESCRIPTION

Amorphous	:	35 %
Exinite	:	10 %
Vitrinite	:	45 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 519
ID : CTGS.

DEPTH : 16920.0 Ft
: 5158.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

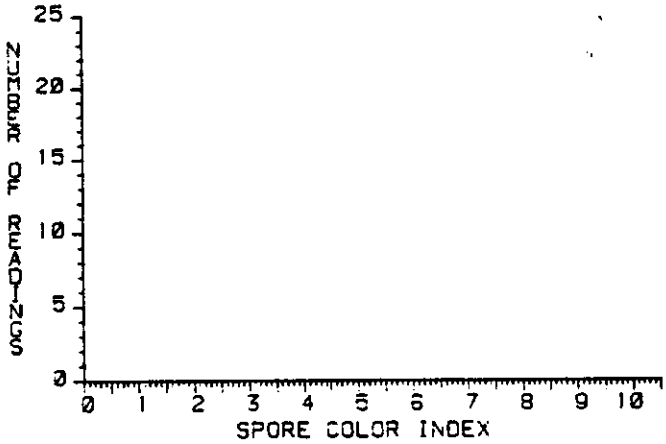
ORDERED SPORE COLOR VALUES:

3.5
4.0
4.5
4.5
4.5
4.5
5.0
5.5

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 523
ID : CTGS.

DEPTH : 17143.0 Ft
: 5226.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	tr %
Vitrinite	:	70 %
Inertinite	:	10 %

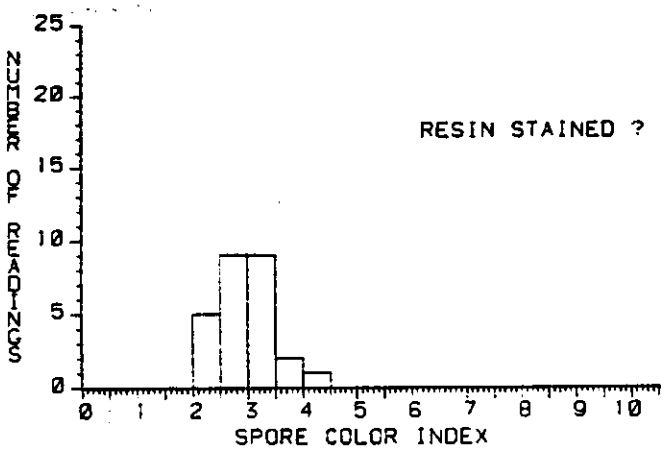
VISUAL KEROGEN ANALYSIS - TRANSMITTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			COLOR INDEX	KEROGEN CHARACTERISTICS				TOC
RRUS	ID /	DEPTH (Feet)	SCI	Am%	Ex%	Vit%	Inert%	%
62	SWC	1488	----	45	5	30	20	0.41
66	SWC	1880	----	25	5	50	20	0.38
69	SWC	2120	1.31	15	15	45	25	0.46
74	SWC	2592	1.44	20	15	50	15	0.81
78	SWC	2935	1.42	25	25	40	10	1.35
82	SWC	3294	----	20	15	60	5	1.03
86	SWC	3709	----	15	10	65	10	1.79
89	SWC	4016	1.42	15	15	55	15	0.69
92	SWC	4373	----	25	10	40	25	0.44
96	SWC	4824	----	20	20	45	15	0.68
341	SWC	4975	1.58	5	10	70	15	1.61
344	SWC	5331	2.06	15	10	50	25	0.57
347	SWC	5691	----	5	5	50	40?	0.41
349	SWC	6500	----	20	5	65	10	1.35
354	SWC	7155	2.39	25?	5	60	10	0.84
357	SWC	7532	2.56	15	5	70	10	0.92
359	SWC	7772	----	10	10	70	10	0.72
364	SWC	8124	2.21	15	5	70	10	0.69
366	SWC	8314	2.39	0	5	95	0	49.47
369	SWC	8558	3.00	20	5	65	10	0.90
371	SWC	8923	3.18	10	5	85	0	1.16
375	SWC	9448	3.41	20	10	65	5	0.72
378	SWC	9663	3.50	5	25	55	15	0.26
383	SWC	10069	3.50	15	10	60	15	0.40
387	SWC	10557	3.32	35	5	55	5	0.79
390	SWC	10832	3.29	15?	5	75	5	2.80
394	SWC	11224	----	0	0	95	5	19.13
398	SWC	11494	3.47	10	5	85	0	0.78
404	SWC	12021	----	tr	0	99	0	30.89
408	SWC	12449	3.61	10?	5	75	5	0.99
411	SWC	12585	3.56	15	10	75	0	4.14
415	SWC	12868	----	0	tr	99	0	0.41
419	SWC	13026	3.66	0	10	80	10	1.05
424	SWC	13275	----	0	0	90	10	0.78

NORTH ALEUTIAN SHELF #1 COST WELL



RESIN STAINED ?

RRUS No. : 62
ID : SWC

DEPTH : 1488.0 Ft
: 453.7 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

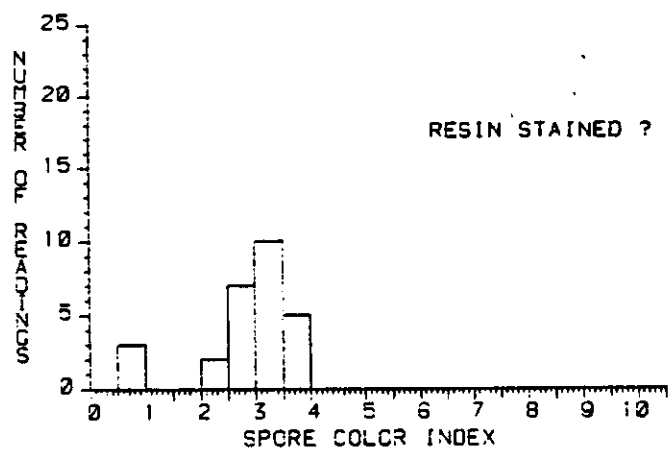
ORDERED SPORE COLOR VALUES:

2.0	2.5	3.0
2.0	2.5	3.0
2.0	2.5	3.0
2.0	2.5	3.5
2.0	3.0	3.5
2.5	3.0	4.0
2.5	3.0	
2.5	3.0	
2.5	3.0	
2.5	3.0	

KEROGEN DESCRIPTION

Amorphous	:	45 %
Exinite	:	5 %
Vitrinite	:	30 %
Inertinite	:	20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RESIN STAINED ?

RRUS No. : 66
ID : SWC

DEPTH : 1880.0 Ft
: 573.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

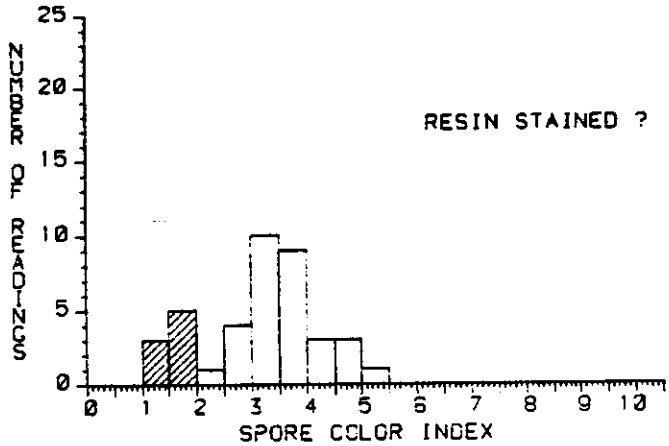
ORDERED SPORE COLOR VALUES:

0.5	2.5	3.0
0.5	2.5	3.0
0.5	3.0	3.5
2.0	3.0	3.5
2.0	3.0	3.5
2.5	3.0	3.5
2.5	3.0	3.5
2.5	3.0	
2.5	3.0	
2.5	3.0	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	5 %
Vitrinite	:	50 %
Inertinite	:	20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 69
ID : SWC

DEPTH : 2120.0 Ft
: 646.3 M

* = SCI MATURITY

VALUES : 8

MEAN : 1.31
STD DEV : 0.24
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

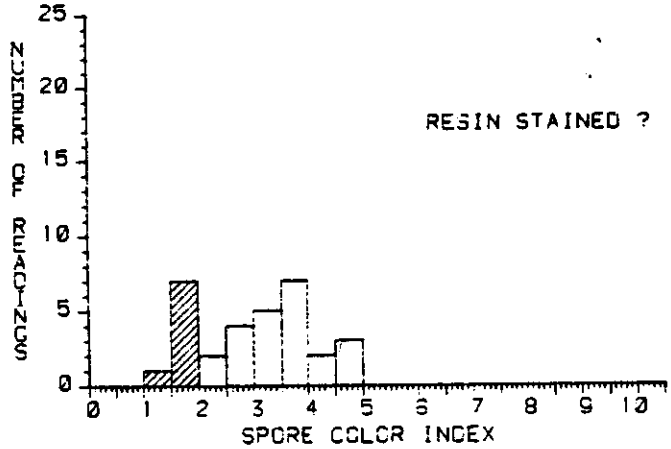
ORDERED SPORE COLOR VALUES:

*1.0	2.5	3.0	3.5
*1.0	2.5	3.0	3.5
*1.0	2.5	3.0	4.0
*1.5	3.0	3.5	4.0
*1.5	3.0	3.5	4.0
*1.5	3.0	3.5	4.5
*1.5	3.0	3.5	4.5
*1.5	3.0	3.5	4.5
2.0	3.0	3.5	5.0
2.5	3.0	3.5	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	15 %
Vitrinite :	45 %
Inertinite :	25 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 74
ID : SWC

DEPTH : 2592.0 Ft
: 790.2 M

* = SCI MATURITY

VALUES : 8

MEAN : 1.44
STD DEV : 0.17
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

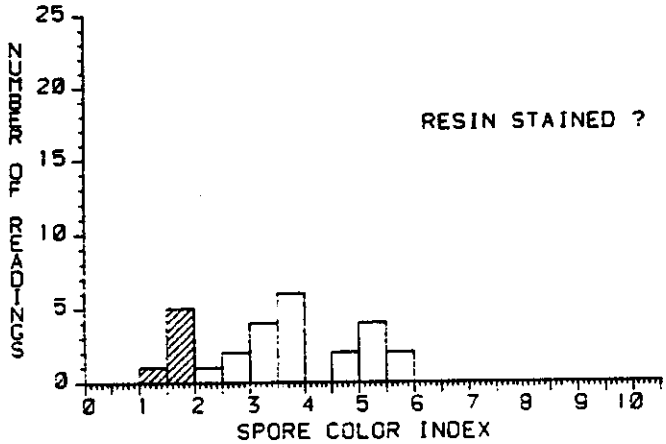
ORDERED SPORE COLOR VALUES:

*1.0	2.5	3.5	4.5
*1.5	2.5	3.5	
*1.5	2.5	3.5	
*1.5	2.5	3.5	
*1.5	3.0	3.5	
*1.5	3.0	3.5	
*1.5	3.0	4.0	
*1.5	3.0	4.0	
2.0	3.0	4.5	
2.0	3.5	4.5	

KEROGEN DESCRIPTION

Amorphous :	20 %
Exinite :	15 %
Vitrinite :	50 %
Inertinite :	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 78
ID : SWC

DEPTH : 2935.0 Ft
: 894.8 M

* = SCI MATURITY

VALUES : 6

MEAN : 1.42
STD DEV : 0.19
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

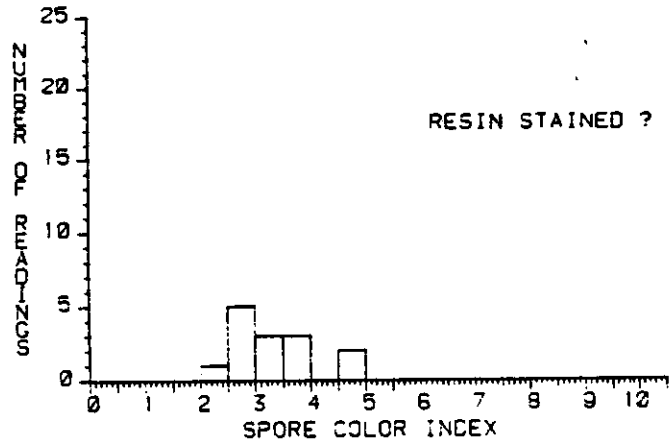
ORDERED SPORE COLOR VALUES:

*1.0	3.0	4.5
*1.5	3.0	5.0
*1.5	3.0	5.0
*1.5	3.5	5.0
*1.5	3.5	5.0
*1.5	3.5	5.5
2.0	3.5	5.5
2.5	3.5	
2.5	3.5	
3.0	4.5	

KEROGEN DESCRIPTION

Amorphous :	25 %
Exinite :	25 %
Vitrinite :	40 %
Inertinite :	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 82
ID : SWC

DEPTH : 3294.0 Ft
: 1004.3 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

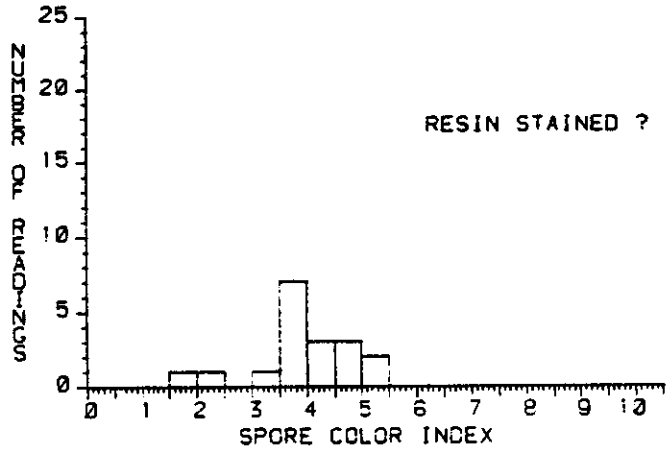
ORDERED SPORE COLOR VALUES:

2.0	3.5
2.5	3.5
2.5	4.5
2.5	4.5
2.5	
2.5	
3.0	
3.0	
3.0	
3.5	

KEROGEN DESCRIPTION

Amorphous :	20 %
Exinite :	15 %
Vitrinite :	60 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 86
ID : SWC

DEPTH : 3709.0 Ft
: 1130.8 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

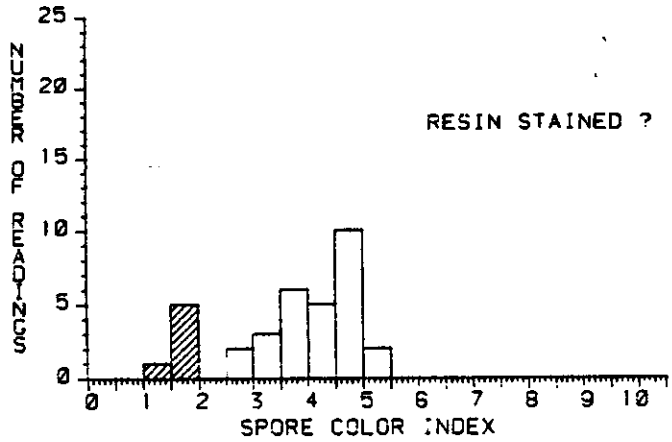
ORDERED SPORE COLOR VALUES:

1.5	4.0
2.0	4.0
3.0	4.0
3.5	4.5
3.5	4.5
3.5	4.5
3.5	5.0
3.5	5.0
3.5	
3.5	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	10 %
Vitrinite :	65 %
Inertinite :	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 89
ID : SWC

DEPTH : 4016.0 Ft
: 1224.4 M

* = SCI MATURITY

VALUES : 6

MEAN : 1.42
STD DEV : 0.19
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

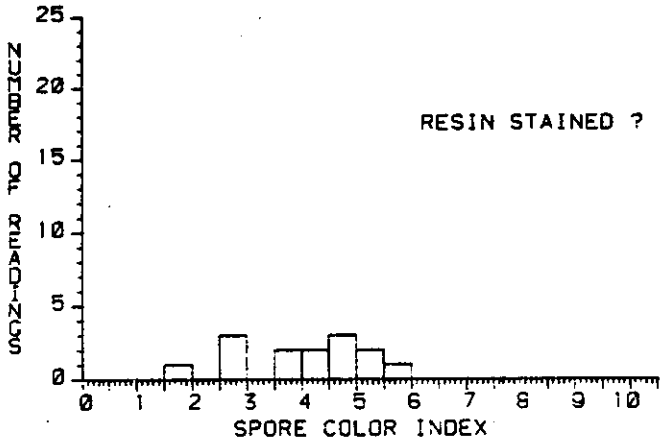
ORDERED SPORE COLOR VALUES:

*1.0	3.0	4.0	4.5
*1.5	3.5	4.0	4.5
*1.5	3.5	4.5	5.0
*1.5	3.5	4.5	5.0
*1.5	3.5	4.5	
*1.5	3.5	4.5	
2.5	3.5	4.5	
2.5	4.0	4.5	
3.0	4.0	4.5	
3.0	4.0	4.5	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	15 %
Vitrinite :	55 %
Inertinite :	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 92
ID : SWC

DEPTH : 4373.0 Ft
: 1333.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

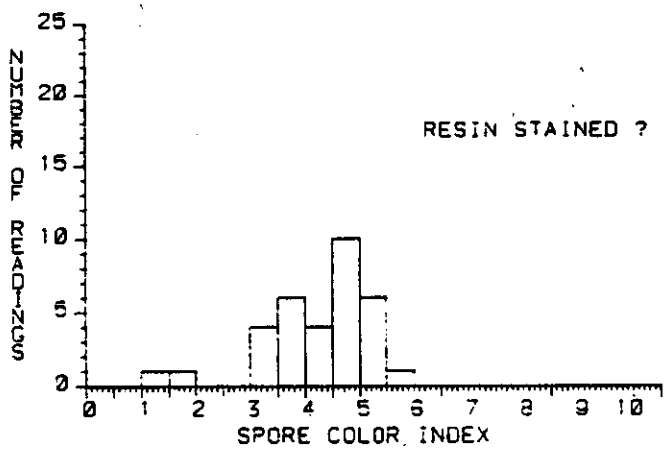
ORDERED SPORE COLOR VALUES:

1.5	4.5
2.5	5.0
2.5	5.0
2.5	5.5
3.5	
3.5	
4.0	
4.0	
4.5	
4.5	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	10 %
Vitrinite	:	40 %
Inertinite	:	25 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 96
ID : SWC

DEPTH : 4824.0 Ft
: 1470.7 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

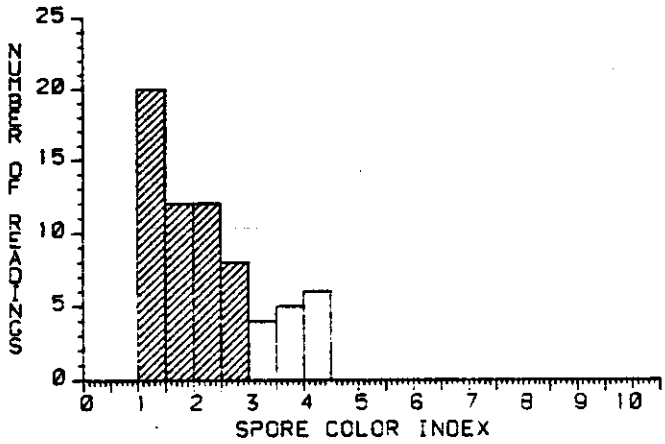
ORDERED SPORE COLOR VALUES:

1.0	3.5	4.5	5.0
1.5	3.5	4.5	5.0
3.0	4.0	4.5	5.5
3.0	4.0	4.5	
3.0	4.0	4.5	
3.0	4.0	4.5	
3.5	4.5	5.0	
3.5	4.5	5.0	
3.5	4.5	5.0	
3.5	4.5	5.0	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	20 %
Vitrinite	:	45 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 341
ID : SWC

DEPTH : 4975.0 Ft
: 1516.8 M

* = SCI MATURITY

VALUES : 52

MEAN : 1.58
STD DEV : 0.55
MEDIAN : 1.50
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

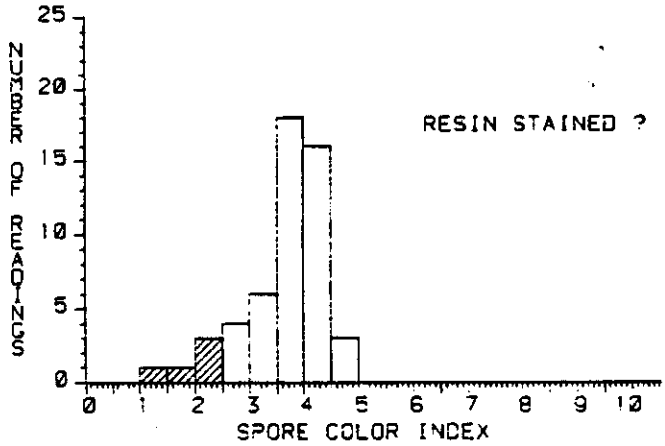
ORDERED SPORE COLOR VALUES:

*1.0	*1.0	*1.5	*1.5	*2.0	*2.5	3.5
*1.0	*1.0	*1.5	*1.5	*2.0	*2.5	4.0
*1.0	*1.0	*1.5	*2.0	*2.0	3.0	4.0
*1.0	*1.0	*1.5	*2.0	*2.0	3.0	4.0
*1.0	*1.0	*1.5	*2.0	*2.5	3.0	4.0
*1.0	*1.0	*1.5	*2.0	*2.5	3.0	4.0
*1.0	*1.0	*1.5	*2.0	*2.5	3.5	4.0
*1.0	*1.0	*1.5	*2.0	*2.5	3.5	
*1.0	*1.0	*1.5	*2.0	*2.5	3.5	
*1.0	*1.0	*1.5	*2.0	*2.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 344
ID : SWC

DEPTH : 5331.0 Ft
: 1625.3 M

* = SCI MATURITY

VALUES : 5

MEAN : 1.70
STD DEV : 0.40
MEDIAN : 2.00
MODE : 2.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

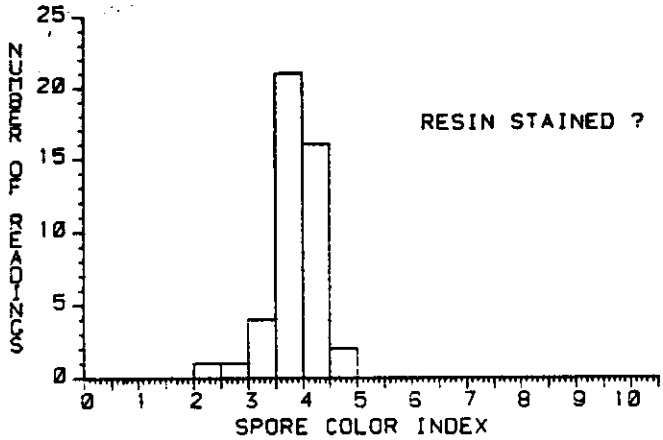
ORDERED SPORE COLOR VALUES:

*1.0	3.0	3.5	3.5	4.0	4.5
*1.5	3.0	3.5	3.5	4.0	4.5
*2.0	3.0	3.5	3.5	4.0	
*2.0	3.0	3.5	4.0	4.0	
*2.0	3.0	3.5	4.0	4.0	
2.5	3.5	3.5	4.0	4.0	
2.5	3.5	3.5	4.0	4.0	
2.5	3.5	3.5	4.0	4.0	
2.5	3.5	3.5	4.0	4.0	
3.0	3.5	3.5	4.0	4.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	50 %
Inertinite	:	25 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 347
ID : SWC

DEPTH : 5691.0 Ft
: 1735.1 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

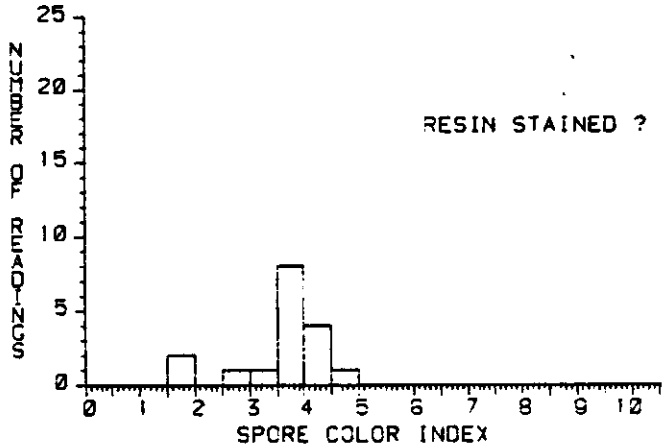
ORDERED SPORE COLOR VALUES:

2.0	3.5	3.5	4.0	4.0
2.5	3.5	3.5	4.0	4.0
3.0	3.5	3.5	4.0	4.0
3.0	3.5	3.5	4.0	4.5
3.0	3.5	3.5	4.0	4.5
3.0	3.5	3.5	4.0	
3.5	3.5	3.5	4.0	
3.5	3.5	4.0	4.0	
3.5	3.5	4.0	4.0	
3.5	3.5	4.0	4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	50 %
Inertinite	:	? 40 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 349
ID : SWC

DEPTH : 6500.0 Ft
: 1981.7 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

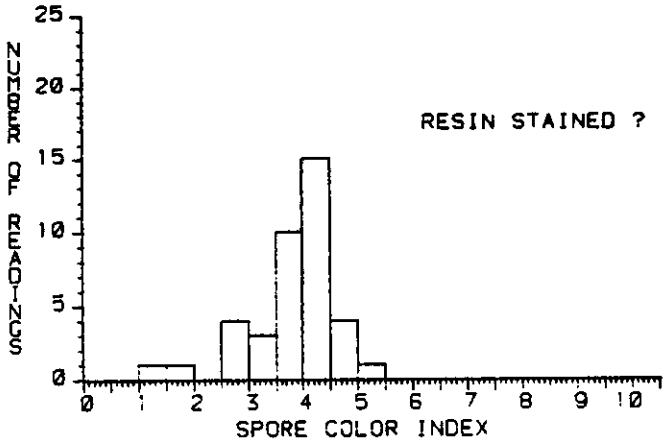
ORDERED SPORE COLOR VALUES:

1.5	3.5
1.5	3.5
2.5	4.0
3.0	4.0
3.5	4.0
3.5	4.0
3.5	4.5
3.5	
3.5	
3.5	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 354
ID : SWC

DEPTH : 7155.0 Ft
: 2181.4 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

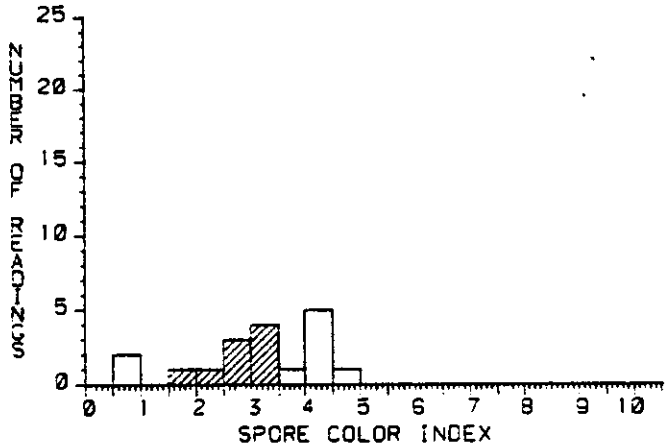
ORDERED SPORE COLOR VALUES:

1.0	3.5	4.0	4.0
1.5	3.5	4.0	4.0
2.5	3.5	4.0	4.0
2.5	3.5	4.0	4.0
2.5	3.5	4.0	4.5
2.5	3.5	4.0	4.5
3.0	3.5	4.0	4.5
3.0	3.5	4.0	4.5
3.0	3.5	4.0	5.0
3.5	4.0	4.0	

KEROGEN DESCRIPTION

Amorphous	: ? 25 %
Exinite	: 5 %
Vitrinite	: 60 %
Inertinite	: 10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 357
ID : SWC

DEPTH : 7532.0 Ft
: 2296.3 M

* = SCI MATURITY

VALUES : 9

MEAN : 2.56
STD DEV : 0.50
MEDIAN : 2.50
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

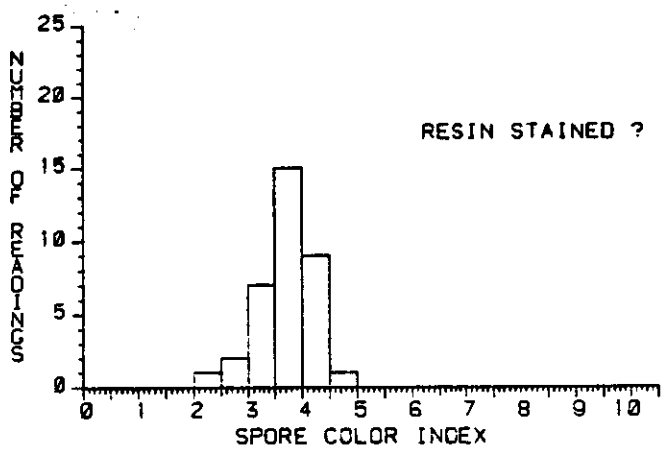
ORDERED SPORE COLOR VALUES:

0.5	*3.0
0.5	3.5
*1.5	4.0
*2.0	4.0
*2.5	4.0
*2.5	4.0
*2.5	4.0
*3.0	4.5
*3.0	
*3.0	

KEROGEN DESCRIPTION

Amorphous	: 15 %
Exinite	: 5 %
Vitrinite	: 70 %
Inertinite	: 10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 359
ID : SWC

DEPTH : 7772.0 Ft
: 2369.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

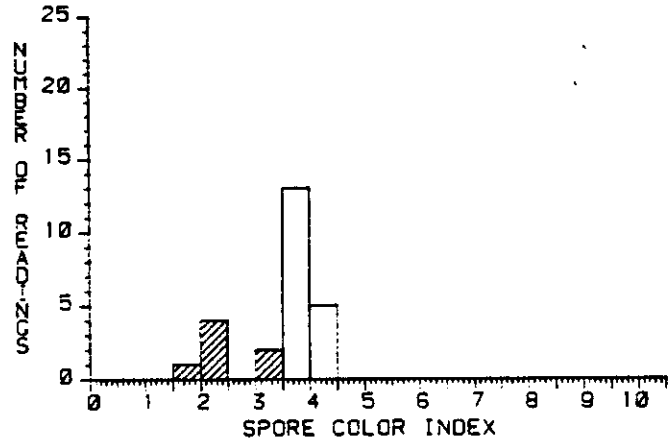
ORDERED SPORE COLOR VALUES:

2.0	3.5	3.5	4.0
2.5	3.5	3.5	4.0
2.5	3.5	3.5	4.0
3.0	3.5	3.5	4.0
3.0	3.5	3.5	4.5
3.0	3.5	4.0	
3.0	3.5	4.0	
3.0	3.5	4.0	
3.0	3.5	4.0	
3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 364
ID : SWC

DEPTH : 8124.0 Ft
: 2476.8 M

* = SCI MATURITY

VALUES : 7

MEAN : 2.21
STD DEV : 0.52
MEDIAN : 2.00
MODE : 2.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

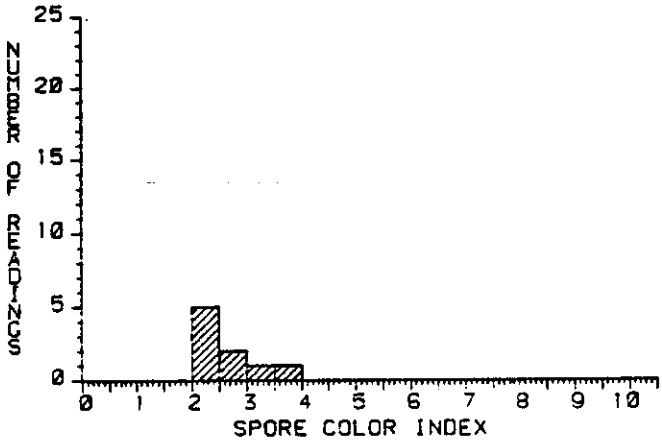
ORDERED SPORE COLOR VALUES:

*1.5	3.5	4.0
*2.0	3.5	4.0
*2.0	3.5	4.0
*2.0	3.5	4.0
*2.0	3.5	4.0
*3.0	3.5	
*3.0	3.5	
3.5	3.5	
3.5	3.5	
3.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 366
ID : SWC

DEPTH : 8314.0 Ft
: 2534.8 M

* = SCI MATURITY

VALUES : 9

MEAN : 2.39
STD DEV : 0.52
MEDIAN : 2.00
MODE : 2.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

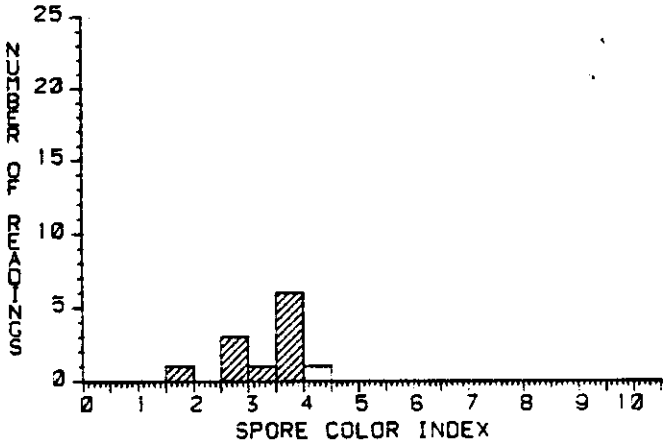
ORDERED SPORE COLOR VALUES:

*2.0
*2.0
*2.0
*2.0
*2.0
*2.5
*2.5
*3.0
*3.5

KEROGEN DESCRIPTION

Amorphous : 0 %
Exinite : 5 %
Vitrinite : 95 %
Inertinite : 0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 369
ID : SWC

DEPTH : 8558.0 Ft
: 2609.1 M

* = SCI MATURITY

VALUES : 11

MEAN : 3.00
STD DEV : 0.64
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

*1.5 *3.5
*2.5 4.0
*2.5
*2.5
*3.0
*3.5
*3.5
*3.5
*3.5
*3.5

KEROGEN DESCRIPTION

Amorphous : 20 %
Exinite : 5 %
Vitrinite : 65 %
Inertinite : 10 %

NORTH ALEUTIAN SHELF #1 COST WELL

RRUS No. : 371
ID : SWC

DEPTH : 8923.0 Ft
: 2720.4 M

* = SCI MATURITY

VALUES : 17

MEAN : 3.18
STD DEV : 0.51
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

0.5	*3.5	4.0
*1.5	*3.5	4.0
*2.5	*3.5	4.0
*3.0	*3.5	
*3.0	*3.5	
*3.0	*3.5	
*3.0	*3.5	
*3.0	*3.5	
*3.5	4.0	
*3.5	4.0	

KEROGEN DESCRIPTION

Amorphous :	10 %
Exinite :	5 %
Vitrinite :	85 %
Inertinite :	0 %

NORTH ALEUTIAN SHELF #1 COST WELL

RRUS No. : 375
ID : SWC

DEPTH : 9448.0 Ft
: 2880.5 M

* = SCI MATURITY

VALUES : 17

MEAN : 3.41
STD DEV : 0.60
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

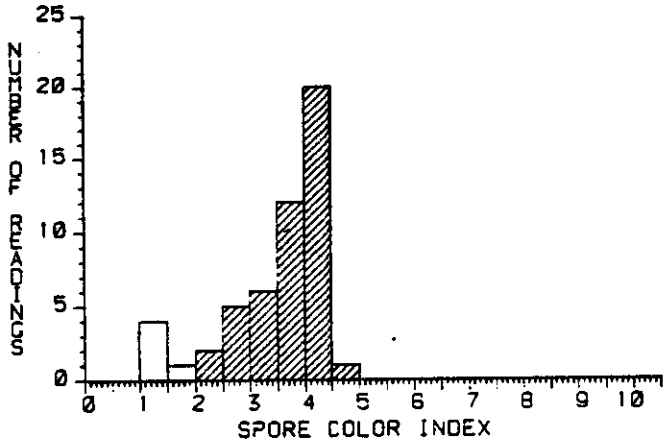
ORDERED SPORE COLOR VALUES:

*2.0	*4.0
*2.5	*4.0
*3.0	*4.0
*3.0	*4.0
*3.0	*4.0
*3.0	*4.0
*3.0	*4.0
*3.5	
*3.5	
*3.5	

KEROGEN DESCRIPTION

Amorphous :	20 %
Exinite :	10 %
Vitrinite :	65 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 378
ID : SWC

DEPTH : 9663.0 Ft
: 2946.0 M

* = SCI MATURITY

VALUES : 46

MEAN : 3.50
STD DEV : 0.61
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

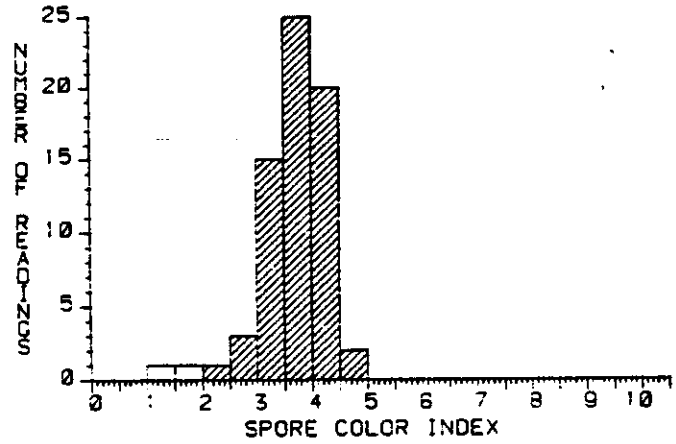
ORDERED SPORE COLOR VALUES:

1.0	*2.5	*3.5	*4.0	*4.0	*4.5
1.0	*2.5	*3.5	*4.0	*4.0	
1.0	*3.0	*3.5	*4.0	*4.0	
1.0	*3.0	*3.5	*4.0	*4.0	
1.5	*3.0	*3.5	*4.0	*4.0	
*2.0	*3.0	*3.5	*4.0	*4.0	
*2.0	*3.0	*3.5	*4.0	*4.0	
*2.5	*3.0	*3.5	*4.0	*4.0	
*2.5	*3.5	*3.5	*4.0	*4.0	
*2.5	*3.5	*3.5	*4.0	*4.0	

KEROGEN DESCRIPTION

Amorphous : 5 %
Exinite : 25 %
Vitrinite : 55 %
Inertinite : 15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 383
ID : SWC

DEPTH : 10069.0 Ft
: 3069.8 M

* = SCI MATURITY

VALUES : 66

MEAN : 3.50
STD DEV : 0.49
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

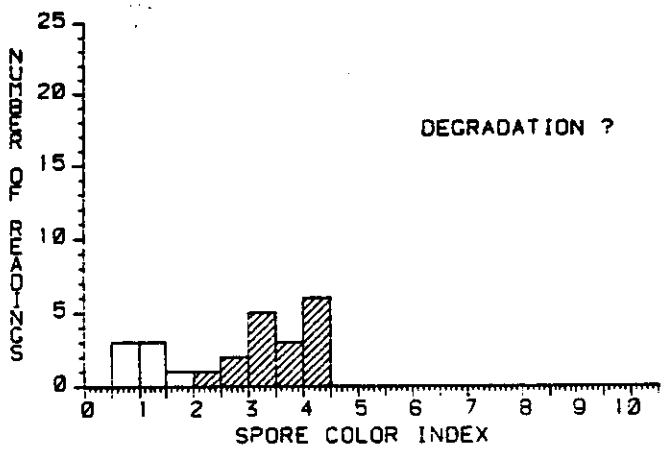
ORDERED SPORE COLOR VALUES:

1.0	*3.0	*3.0	*3.5	*3.5	*4.0	*4.0
1.5	*3.0	*3.5	*3.5	*3.5	*4.0	*4.0
*2.0	*3.0	*3.5	*3.5	*3.5	*4.0	*4.0
*2.5	*3.0	*3.5	*3.5	*3.5	*4.0	*4.0
*2.5	*3.0	*3.5	*3.5	*3.5	*4.0	*4.0
*2.5	*3.0	*3.5	*3.5	*3.5	*4.0	*4.0
*3.0	*3.0	*3.5	*3.5	*4.0	*4.0	*4.5
*3.0	*3.0	*3.5	*3.5	*4.0	*4.0	*4.5
*3.0	*3.0	*3.5	*3.5	*4.0	*4.0	
*3.0	*3.0	*3.5	*3.5	*4.0	*4.0	

KEROGEN DESCRIPTION

Amorphous : 15 %
Exinite : 10 %
Vitrinite : 60 %
Inertinite : 15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 387
ID : SWC

DEPTH : 10557.0 Ft
: 3218.6 M

* = SCI MATURITY

VALUES : 17

MEAN : 3.32
STD DEV : 0.62
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

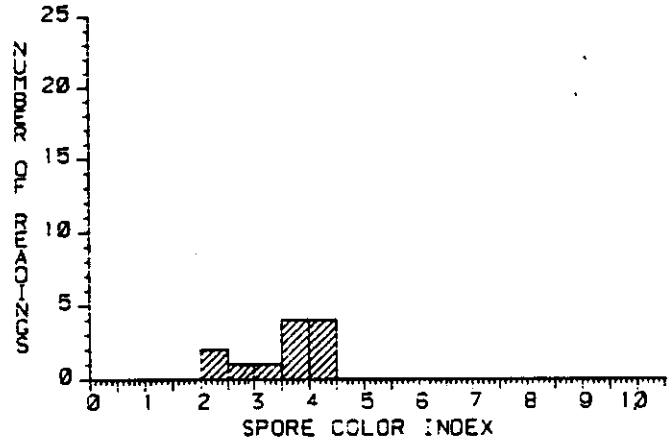
ORDERED SPORE COLOR VALUES:

0.5	*3.0	*4.0
0.5	*3.0	*4.0
0.5	*3.0	*4.0
1.0	*3.0	*4.0
1.0	*3.0	
1.0	*3.5	
1.5	*3.5	
*2.0	*3.5	
*2.5	*4.0	
*2.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	35 %
Exinite	:	5 %
Vitrinite	:	55 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 390
ID : SWC

DEPTH : 10832.0 Ft
: 3302.4 M

* = SCI MATURITY

VALUES : 12

MEAN : 3.29
STD DEV : 0.72
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

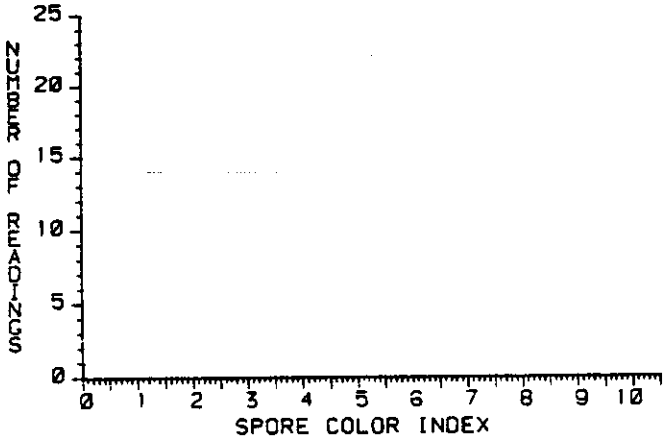
ORDERED SPORE COLOR VALUES:

*2.0	*4.0
*2.0	*4.0
*2.5	
*3.0	
*3.5	
*3.5	
*3.5	
*3.5	
*4.0	
*4.0	

KEROGEN DESCRIPTION

Amorphous	:	? 15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 394
ID : SWC

DEPTH : 11224.0 Ft
: 3421.1 M

MEAN : N.D.

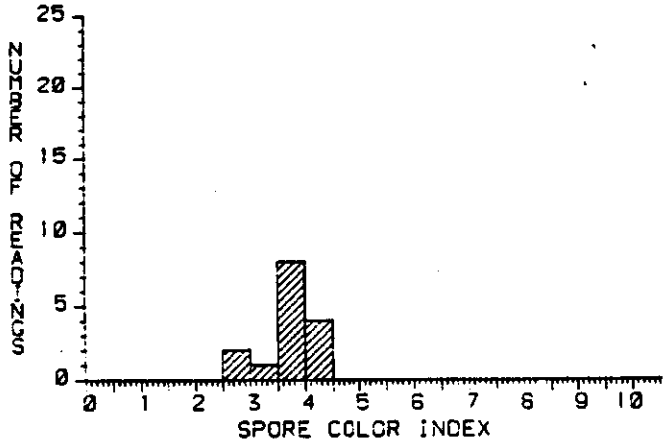
HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	0 %
Vitrinite	:	95 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 398
ID : SWC

DEPTH : 11494.0 Ft
: 3504.3 M

* = SCI MATURITY

VALUES : 15

MEAN : 3.47
STD DEV : 0.46
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

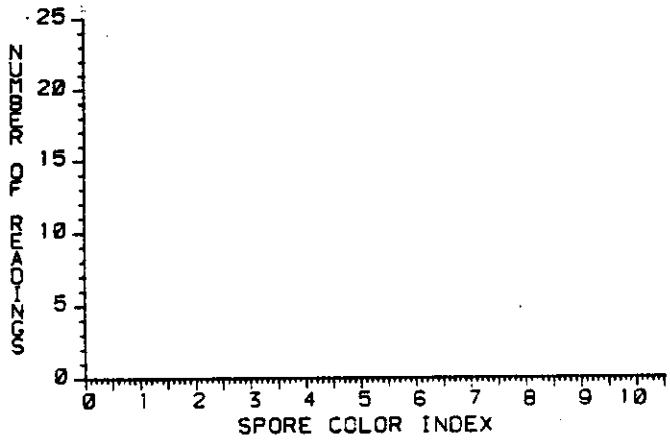
ORDERED SPORE COLOR VALUES:

*2.5 *3.5
*2.5 *4.0
*3.0 *4.0
*3.5 *4.0
*3.5 *4.0
*3.5
*3.5
*3.5
*3.5
*3.5

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 404
ID : SWC

DEPTH : 12021.0 Ft
: 3664.9 M

MEAN : N.D.

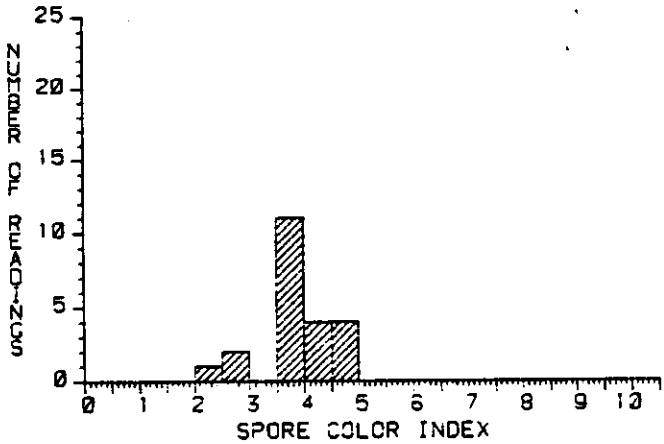
HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

KEROGEN DESCRIPTION

Amorphous	:	tr %
Exinite	:	0 %
Vitrinite	:	99 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 408
ID : SWC

DEPTH : 12449.0 Ft
: 3795.4 M

* = SCI MATURITY

VALUES : 22

MEAN : 3.61
STD DEV : 0.64
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

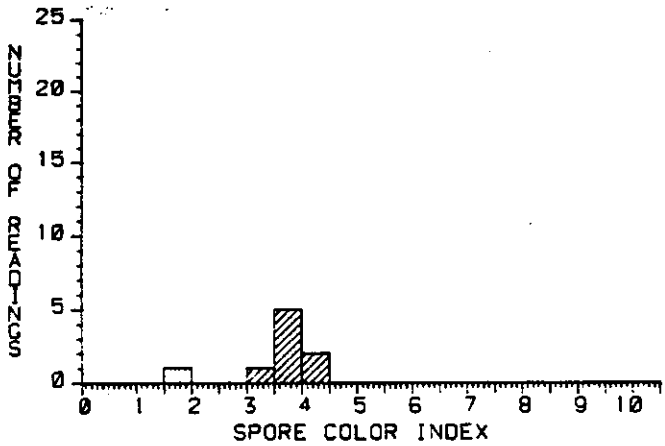
ORDERED SPORE COLOR VALUES:

*2.0	*3.5	*4.5
*2.5	*3.5	*4.5
*2.5	*3.5	
*3.5	*3.5	
*3.5	*4.0	
*3.5	*4.0	
*3.5	*4.0	
*3.5	*4.0	
*3.5	*4.5	
*3.5	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	? 10 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 411
ID : SWC

DEPTH : 12585.0 Ft
: 3836.9 M

* = SCI MATURITY

VALUES : 8

MEAN : 3.56
STD DEV : 0.30
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

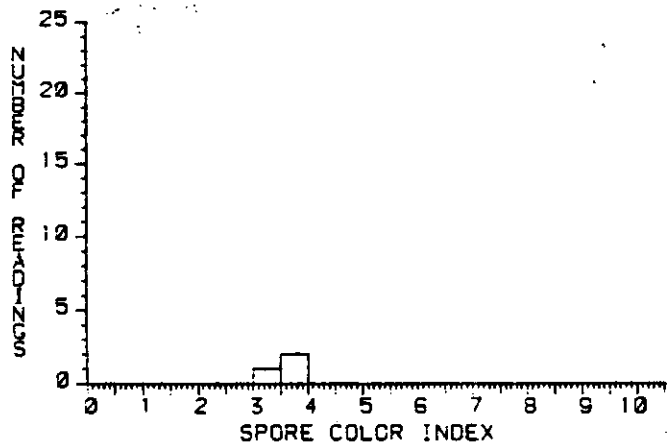
ORDERED SPORE COLOR VALUES:

1.5
*3.0
*3.5
*3.5
*3.5
*3.5
*3.5
*4.0
*4.0

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 415
ID : SWC

DEPTH : 12868.0 Ft
: 3923.2 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

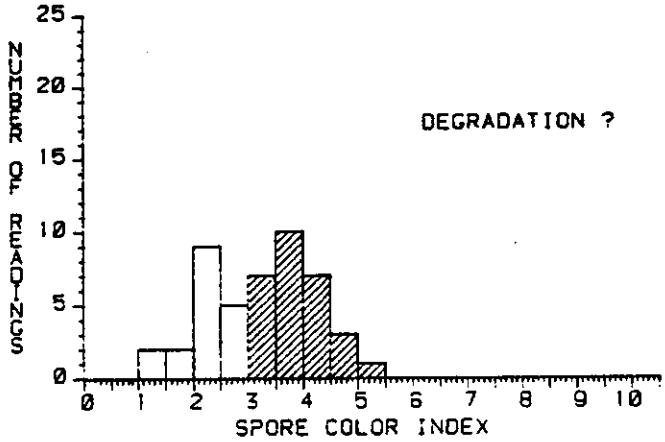
ORDERED SPORE COLOR VALUES:

3.0
3.5
3.5

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	tr %
Vitrinite	:	99 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 419
ID : SWC

DEPTH : 13026.0 Ft
: 3971.3 M

* = SCI MATURITY

VALUES : 28

MEAN : 3.66
STD DEV : 0.54
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

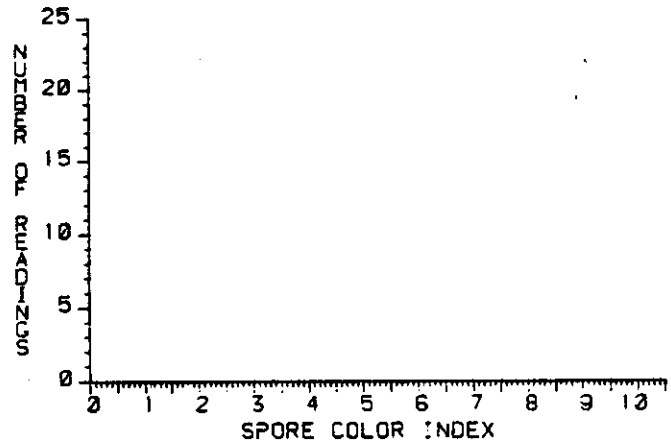
ORDERED SPORE COLOR VALUES:

1.0	2.0	*3.0	*3.5	*4.0
1.0	2.0	*3.0	*3.5	*4.0
1.5	2.0	*3.0	*3.5	*4.5
1.5	2.5	*3.0	*3.5	*4.5
2.0	2.5	*3.0	*3.5	*4.5
2.0	2.5	*3.5	*4.0	*5.0
2.0	2.5	*3.5	*4.0	
2.0	2.5	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	10 %
Vitrinite	:	80 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 424
ID : SWC

DEPTH : 13275.0 Ft
: 4047.3 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	0 %
Vitrinite	:	90 %
Inertinite	:	10 %

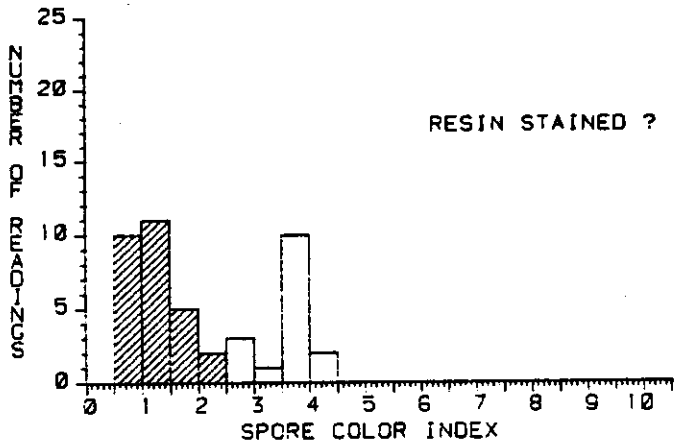
VISUAL KEROGEN ANALYSIS - TRANSMITTED LIGHT

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

Project No. : RRUS/823/T/135/02

SAMPLE IDENTIFICATION			COLOR INDEX	KEROGEN CHARACTERISTICS				TOC
RRUS	ID /	DEPTH (Feet)	SCI	Am%	Ex%	Vit%	Inert%	%
61	CORE 1	3392.0	0.98	25?	15	50	10	1.47
59	CORE 2	4197.8	1.08	20	15	50	15	0.52
146	CORE 3	5231.9	1.42	25	5	60	10	0.20
148	CORE 3	5235.6	1.50	30	5	55	10	0.17
155	CORE 4	5974.5	1.29	10	10	70	10	0.39
161	CORE 4	5991.3	1.45	10	10	65	15	0.43
163	CORE 5	6669.8	1.58	10	5	70	15	0.17
219	CORE 6	8050.7	----	20	tr	80	tr	2.68
227	CORE 7	8077.3	2.39	25	10	65	tr	2.66
234	CORE 7	8092.7	2.50	15	5	75	5	3.77
237-A	CORE 8	8636.3	----	5	5	85	5	6.34
237-B	CORE 8	8636.3	----	10	tr	90	tr	6.34
241	CORE 8	8653.5	2.63	10	10	75	5	2.28
244	CORE 9	9257.5	3.09	5	10	75	10	2.16
246	CORE 9	9263.5	3.32	10	15	70	5	1.93
259	CORE 10	9972.4	3.50	15	10	65	10	0.78
263	CORE 10	9983.8	3.52	30	10	55	5	0.53
265	CORE 11	10326.4	3.06	tr	10	70	20	0.29
274	CORE 12	10738.4	3.31	10	5	80	5	4.92
302	CORE 13	11102.5	3.25	20	5	75	0	1.24
306	CORE 14	12251.2	3.50	10	15	65	10	5.23
310	CORE 14	12262.4	----	0	5	95	0	35.89
314	CORE 14	12269.3	3.40	15	5	75	5	28.77
338	CORE 15	12634.4	3.61	5	10	80	5	1.74
462	CORE 15	12634.8	3.37	10	5	65	20	5.87
437	CORE 16	14179.1	3.61	10	5	80	5	18.69
464	CORE 16	14179.4	3.64	5	5	90	0	17.18
480	CORE 17	15354.6	4.23	0	5	85	10	2.59
485	CORE 17	15368.5	4.10	15	15	70	tr	0.82
487	CORE 18	16009.3	4.29	15?	10	65	10	1.76
494	CORE 18	16029.0	4.56	25	10	60	5	1.58
507	CORE 19	16703.7	6.00	30	5	60	5	2.22
510	CORE 19	16714.6	6.07	15	5	75	5	1.17
513	CORE 19	16719.6	5.62	35?	5	55	5	2.34

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 61
ID : CORE 1

DEPTH : 3392.0 Ft
: 1034.1 M

* = SCI MATURITY

VALUES : 28

MEAN : 0.98
STD DEV : 0.45
MEDIAN : 1.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

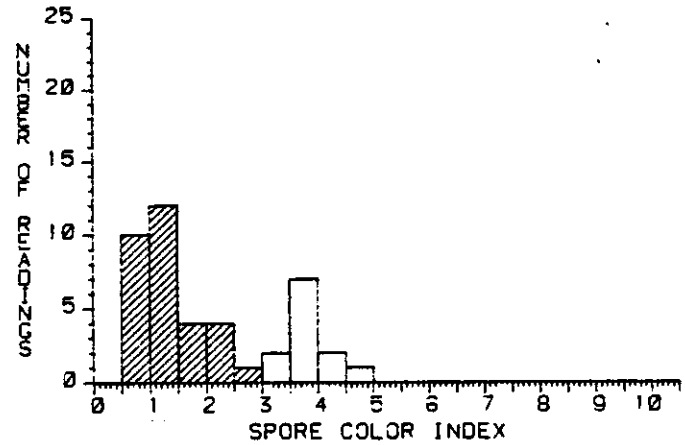
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.0	2.5	3.5
*0.5	*1.0	*1.5	3.0	3.5
*0.5	*1.0	*1.5	3.5	4.0
*0.5	*1.0	*1.5	3.5	4.0
*0.5	*1.0	*1.5	3.5	
*0.5	*1.0	*1.5	3.5	
*0.5	*1.0	*2.0	3.5	
*0.5	*1.0	*2.0	3.5	
*0.5	*1.0	2.5	3.5	
*0.5	*1.0	2.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	? 25 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 59
ID : CORE 2

DEPTH : 4197.8 Ft
: 1279.8 M

* = SCI MATURITY

VALUES : 31

MEAN : 1.08
STD DEV : 0.55
MEDIAN : 1.00
MODE : 1.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

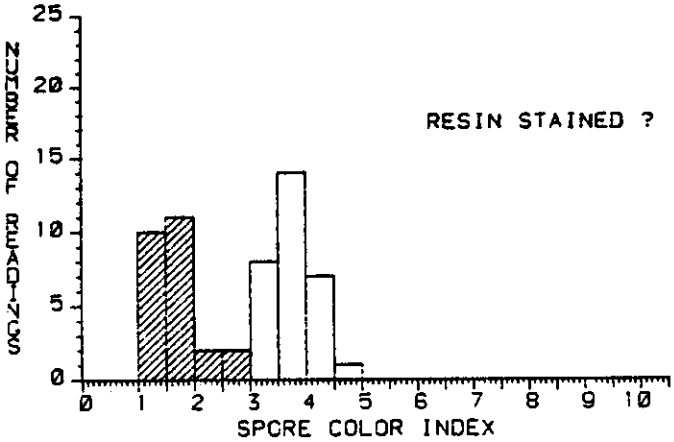
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.0	*2.5	4.0
*0.5	*1.0	*1.0	3.0	4.0
*0.5	*1.0	*1.5	3.0	4.5
*0.5	*1.0	*1.5	3.5	
*0.5	*1.0	*1.5	3.5	
*0.5	*1.0	*1.5	3.5	
*0.5	*1.0	*2.0	3.5	
*0.5	*1.0	*2.0	3.5	
*0.5	*1.0	*2.0	3.5	
*0.5	*1.0	*2.0	3.5	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	15 %
Vitrinite	:	50 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 146
ID : CORE 3

DEPTH : 5231.9 Ft
: 1595.1 M

* = SCI MATURITY

VALUES : 25

MEAN : 1.42
STD DEV : 0.44
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

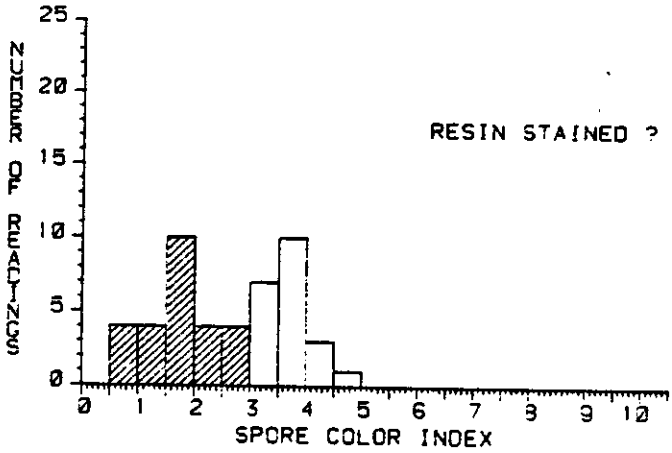
ORDERED SPORE COLOR VALUES:

*1.0	*1.5	*1.5	3.0	3.5	4.0
*1.0	*1.5	*2.0	3.0	3.5	4.0
*1.0	*1.5	*2.0	3.0	3.5	4.0
*1.0	*1.5	*2.5	3.5	3.5	4.0
*1.0	*1.5	*2.5	3.5	3.5	4.5
*1.0	*1.5	3.0	3.5	3.5	
*1.0	*1.5	3.0	3.5	3.5	
*1.0	*1.5	3.0	3.5	4.0	
*1.0	*1.5	3.0	3.5	4.0	
*1.0	*1.5	3.0	3.5	4.0	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	5 %
Vitrinite	:	60 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 148
ID : CORE 3

DEPTH : 5235.6 Ft
: 1596.2 M

* = SCI MATURITY

VALUES : 26

MEAN : 1.50
STD DEV : 0.62
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

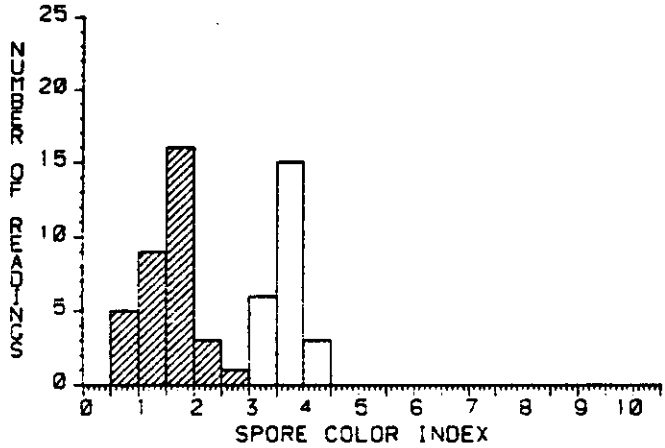
ORDERED SPORE COLOR VALUES:

*0.5	*1.5	*2.0	3.0	3.5
*0.5	*1.5	*2.0	3.0	3.5
*0.5	*1.5	*2.5	3.0	3.5
*0.5	*1.5	*2.5	3.5	4.0
*1.0	*1.5	*2.5	3.5	4.0
*1.0	*1.5	*2.5	3.5	4.0
*1.0	*1.5	3.0	3.5	4.5
*1.0	*1.5	3.0	3.5	
*1.5	*2.0	3.0	3.5	
*1.5	*2.0	3.0	3.5	

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	5 %
Vitrinite	:	55 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 155
ID : CORE 4

DEPTH : 5974.5 Ft
: 1821.5 M

* = SCI MATURITY

VALUES : 34

MEAN : 1.29
STD DEV : 0.47
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

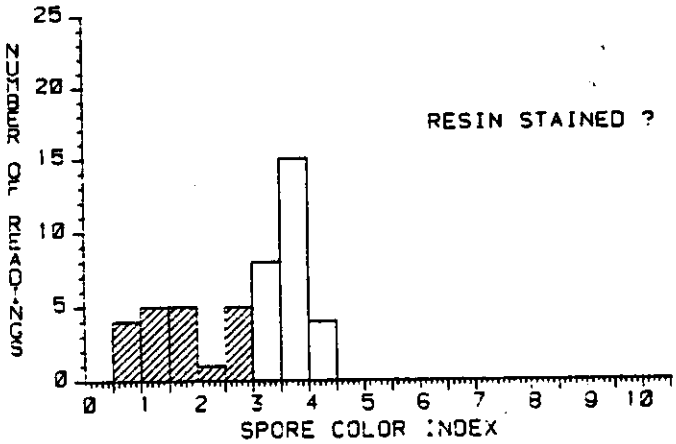
ORDERED SPORE COLOR VALUES:

*0.5	*1.0	*1.5	*2.0	3.5	3.5
*0.5	*1.0	*1.5	*2.0	3.5	3.5
*0.5	*1.0	*1.5	*2.0	3.5	3.5
*0.5	*1.0	*1.5	*2.5	3.5	3.5
*0.5	*1.5	*1.5	3.0	3.5	3.5
*1.0	*1.5	*1.5	3.0	3.5	4.0
*1.0	*1.5	*1.5	3.0	3.5	4.0
*1.0	*1.5	*1.5	3.0	3.5	4.0
*1.0	*1.5	*1.5	3.0	3.5	
*1.0	*1.5	*1.5	3.0	3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 161
ID : CORE 4

DEPTH : 5991.3 Ft
: 1826.6 M

* = SCI MATURITY

VALUES : 20

MEAN : 1.45
STD DEV : 0.72
MEDIAN : 1.50
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

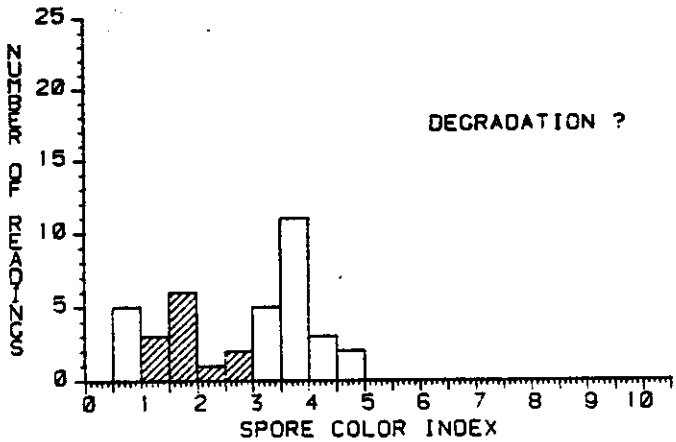
ORDERED SPORE COLOR VALUES:

*0.5	*1.5	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	3.5
*0.5	*1.5	3.0	3.5	4.0
*1.0	*2.0	3.0	3.5	4.0
*1.0	*2.5	3.0	3.5	4.0
*1.0	*2.5	3.0	3.5	4.0
*1.0	*2.5	3.0	3.5	
*1.0	*2.5	3.5	3.5	
*1.5	*2.5	3.5	3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 163
ID : CORE 5

DEPTH : 6669.8 Ft
: 2033.5 M

* = SCI MATURITY

VALUES : 12

MEAN : 1.58
STD DEV : 0.49
MEDIAN : 1.50
MODE : 1.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

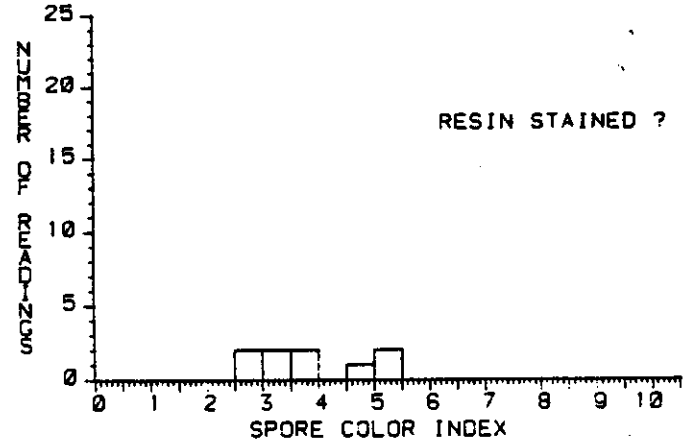
ORDERED SPORE COLOR VALUES:

0.5	*1.5	3.0	3.5
0.5	*1.5	3.0	3.5
0.5	*1.5	3.5	3.5
0.5	*1.5	3.5	4.0
0.5	*2.0	3.5	4.0
*1.0	*2.5	3.5	4.0
*1.0	*2.5	3.5	4.5
*1.0	3.0	3.5	4.5
*1.5	3.0	3.5	
*1.5	3.0	3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	70 %
Inertinite	:	15 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 219
ID : CORE 6

DEPTH : 8050.7 Ft
: 2454.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

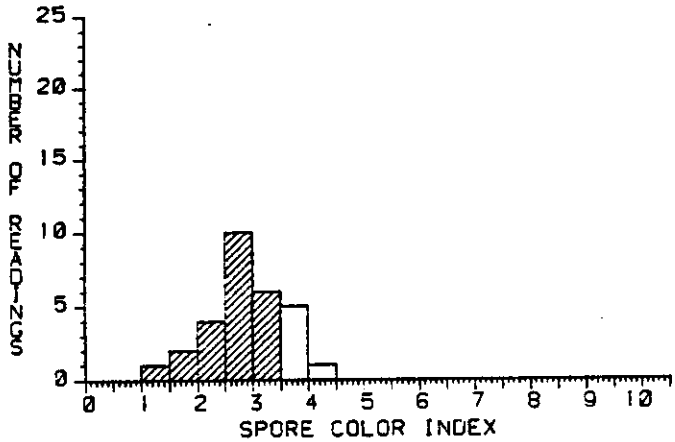
ORDERED SPORE COLOR VALUES:

2.5
2.5
3.0
3.0
3.5
3.5
4.5
5.0
5.0

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	tr %
Vitrinite	:	80 %
Inertinite	:	tr %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 227
ID : CORE 7

DEPTH : 8077.3 Ft
: 2462.6 M

* = SCI MATURITY

VALUES : 23

MEAN : 2.39
STD DEV : 0.53
MEDIAN : 2.50
MODE : 2.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

*1.0	*2.5	*3.0
*1.5	*2.5	*3.0
*1.5	*2.5	*3.0
*2.0	*2.5	3.5
*2.0	*2.5	3.5
*2.0	*2.5	3.5
*2.0	*2.5	3.5
*2.5	*3.0	3.5
*2.5	*3.0	4.0
*2.5	*3.0	

KEROGEN DESCRIPTION

Amorphous	:	25 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	tr %

NORTH ALEUTIAN SHELF #1 COST WELL

RRUS No. : 234
ID : CORE 7

DEPTH : 8092.7 Ft
: 2467.3 M

* = SCI MATURITY

VALUES : 7

MEAN : 2.50
STD DEV : 0.53
MEDIAN : 2.50
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

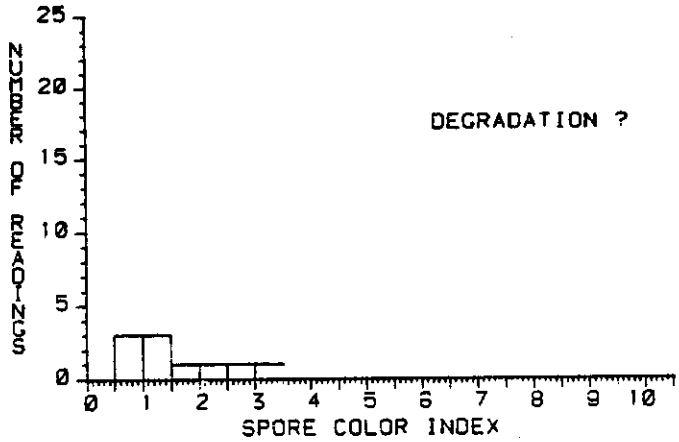
ORDERED SPORE COLOR VALUES:

*1.5	3.5
*2.0	
*2.5	
*2.5	
*3.0	
*3.0	
*3.0	
3.5	
3.5	
3.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 237-A
ID : CORE 8

DEPTH : 8636.3 Ft
: 2633.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

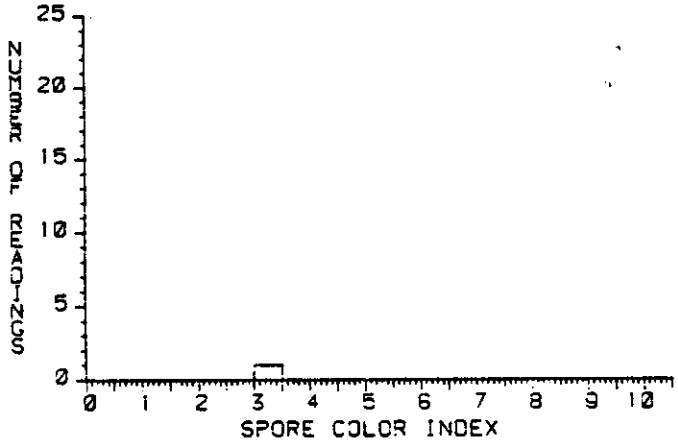
ORDERED SPORE COLOR VALUES:

0.5
0.5
0.5
1.0
1.0
1.0
1.5
2.0
2.5
3.0

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	5 %
Vitrinite	:	85 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 237-B
ID : CORE 8

DEPTH : 8636.3 Ft
: 2633.0 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

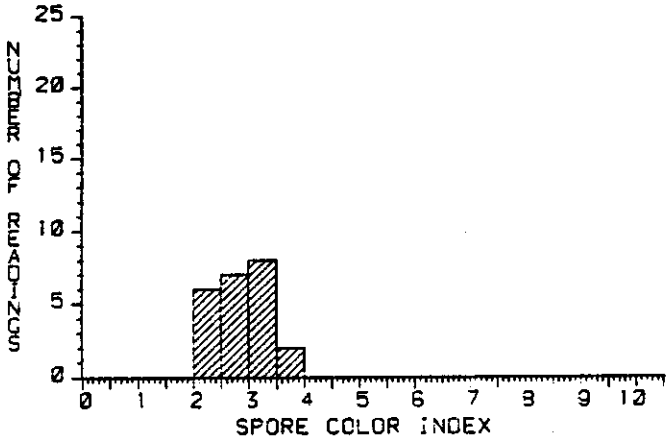
ORDERED SPORE COLOR VALUES:

3.0

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	tr %
Vitrinite	:	90 %
Inertinite	:	tr %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 241
ID : CORE 8

DEPTH : 8653.5 Ft
: 2638.3 M

* = SCI MATURITY

VALUES : 23

MEAN : 2.63
STD DEV : 0.47
MEDIAN : 2.50
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

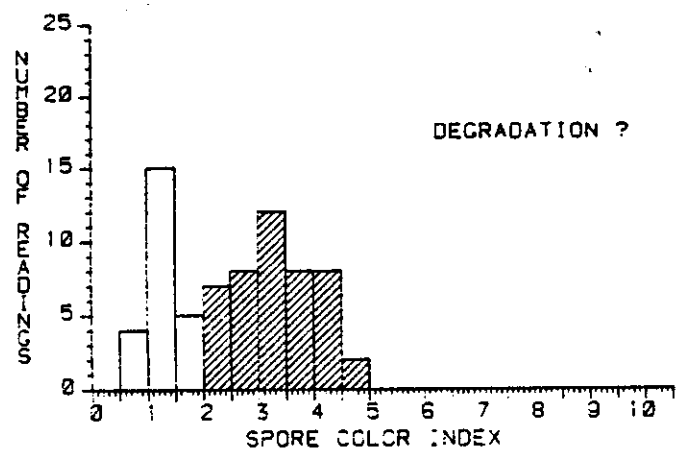
ORDERED SPORE COLOR VALUES:

*2.0	*2.5	*3.0
*2.0	*2.5	*3.5
*2.0	*2.5	*3.5
*2.0	*3.0	
*2.0	*3.0	
*2.0	*3.0	
*2.5	*3.0	
*2.5	*3.0	
*2.5	*3.0	
*2.5	*3.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 244
ID : CORE 9

DEPTH : 9257.5 Ft
: 2822.4 M

* = SCI MATURITY

VALUES : 45

MEAN : 3.09
STD DEV : 0.72
MEDIAN : 3.00
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

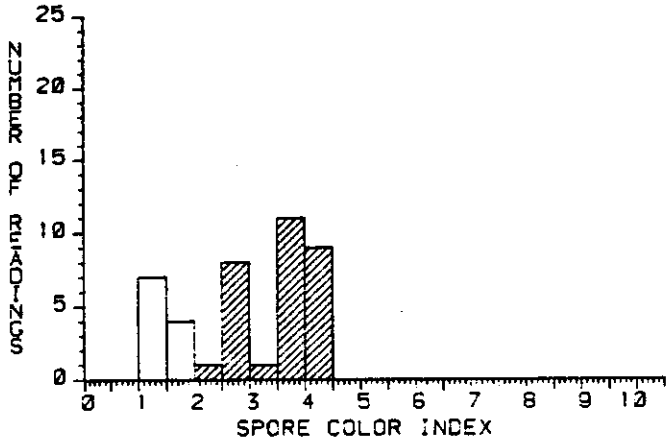
ORDERED SPORE COLOR VALUES:

0.5	1.0	1.5	*2.0	*3.0	*3.0	*4.0
0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
0.5	1.0	1.5	*2.5	*3.0	*3.5	*4.0
1.0	1.0	*2.0	*2.5	*3.0	*3.5	*4.0
1.0	1.0	*2.0	*2.5	*3.0	*3.5	*4.0
1.0	1.0	*2.0	*2.5	*3.0	*3.5	*4.0
1.0	1.0	*2.0	*2.5	*3.0	*3.5	*4.5
1.0	1.0	*2.0	*2.5	*3.0	*3.5	*4.5
1.0	1.5	*2.0	*3.0	*3.0	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	5 %
Exinite	:	10 %
Vitrinite	:	75 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 246
ID : CORE 9

DEPTH : 9263.5 Ft
: 2824.2 M

* = SCI MATURITY

VALUES : 30

MEAN : 3.32
STD DEV : 0.63
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

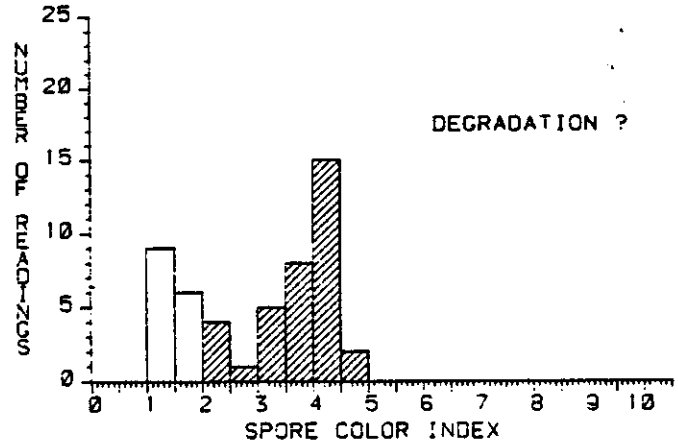
ORDERED SPORE COLOR VALUES:

1.0	1.5	*3.0	*3.5	*4.0
1.0	*2.0	*3.5	*3.5	
1.0	*2.5	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	
1.0	*2.5	*3.5	*4.0	
1.5	*2.5	*3.5	*4.0	
1.5	*2.5	*3.5	*4.0	
1.5	*2.5	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	15 %
Vitrinite	:	70 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 259
ID : CORE 10

DEPTH : 9972.4 Ft
: 3040.4 M

* = SCI MATURITY

VALUES : 35

MEAN : 3.50
STD DEV : 0.70
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

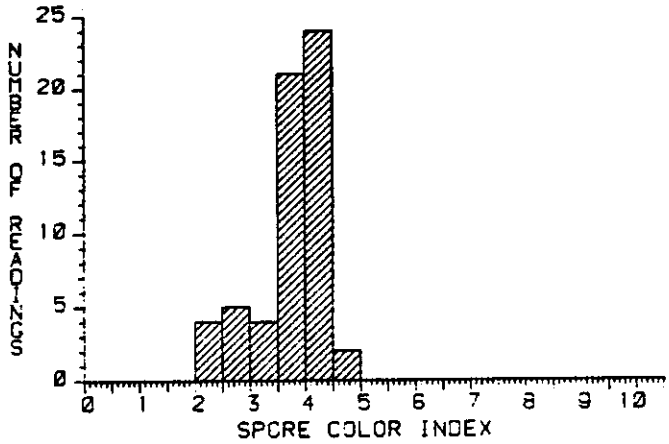
ORDERED SPORE COLOR VALUES:

1.0	1.5	*3.0	*3.5	*4.0
1.0	1.5	*3.0	*3.5	*4.0
1.0	1.5	*3.0	*3.5	*4.0
1.0	1.5	*3.0	*4.0	*4.0
1.0	1.5	*3.0	*4.0	*4.0
1.0	*2.0	*3.5	*4.0	*4.0
1.0	*2.0	*3.5	*4.0	*4.0
1.0	*2.0	*3.5	*4.0	*4.0
1.0	*2.0	*3.5	*4.0	*4.5
1.5	*2.5	*3.5	*4.0	*4.5

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 263
ID : CORE 10

DEPTH : 9983.8 Ft
: 3043.8 M

* = SCI MATURITY

VALUES : 60

MEAN : 3.52
STD DEV : 0.62
MEDIAN : 3.50
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0 50

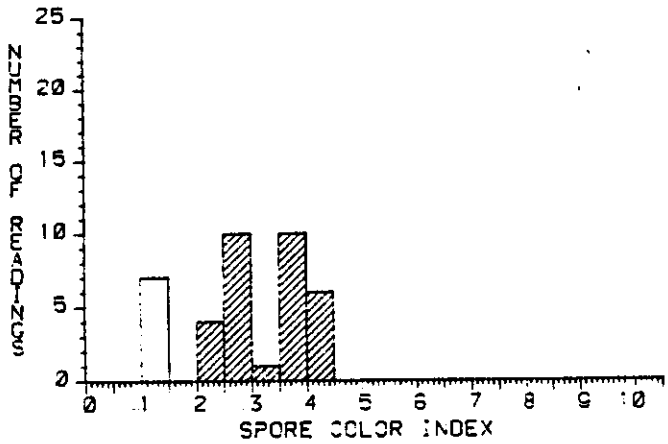
ORDERED SPORE COLOR VALUES:

*2.0	*3.0	*3.5	*3.5	*4.0	*4.0
*2.0	*3.0	*3.5	*3.5	*4.0	*4.0
*2.0	*3.0	*3.5	*3.5	*4.0	*4.0
*2.0	*3.5	*3.5	*3.5	*4.0	*4.0
*2.5	*3.5	*3.5	*4.0	*4.0	*4.0
*2.5	*3.5	*3.5	*4.0	*4.0	*4.0
*2.5	*3.5	*3.5	*4.0	*4.0	*4.0
*2.5	*3.5	*3.5	*4.0	*4.0	*4.0
*2.5	*3.5	*3.5	*4.0	*4.0	*4.5
*3.0	*3.5	*3.5	*4.0	*4.0	*4.5

KEROGEN DESCRIPTION

Amorphous	:	30 %
Exinite	:	10 %
Vitrinite	:	55 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 265
ID : CORE 11

DEPTH : 10326.4 Ft
: 3148.3 M

* = SCI MATURITY

VALUES : 31

MEAN 3.06
STD DEV : 0.69
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM
Range: 0-10.5
Increment: 0.50

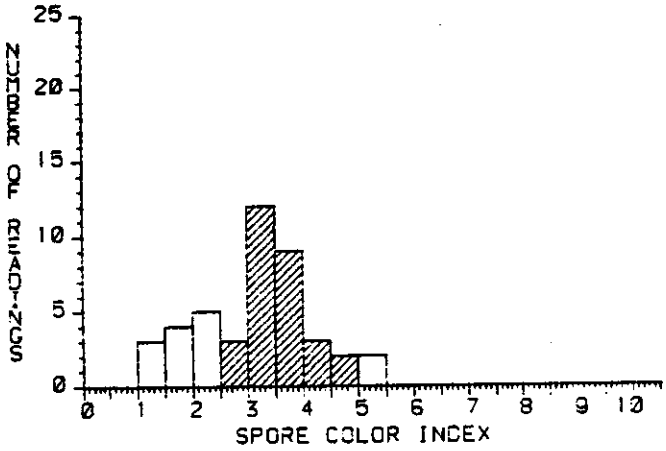
ORDERED SPORE COLOR VALUES:

1.0	*2.0	*2.5	*3.5
1.0	*2.5	*3.0	*3.5
1.0	*2.5	*3.5	*4.0
1.0	*2.5	*3.5	*4.0
1.0	*2.5	*3.5	*4.0
1.0	*2.5	*3.5	*4.0
1.0	*2.5	*3.5	*4.0
*2.0	*2.5	*3.5	*4.0
*2.0	*2.5	*3.5	
*2.0	*2.5	*3.5	

KEROGEN DESCRIPTION

Amorphous	:	1r %
Exinite	:	10 %
Vitrinite	:	70 %
Inertinite	:	20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 274
ID : CORE 12

DEPTH : 10738.4 Ft
: 3273.9 M

* = SCI MATURITY

VALUES : 29

MEAN : 3.31
STD DEV : 0.52
MEDIAN : 3.00
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

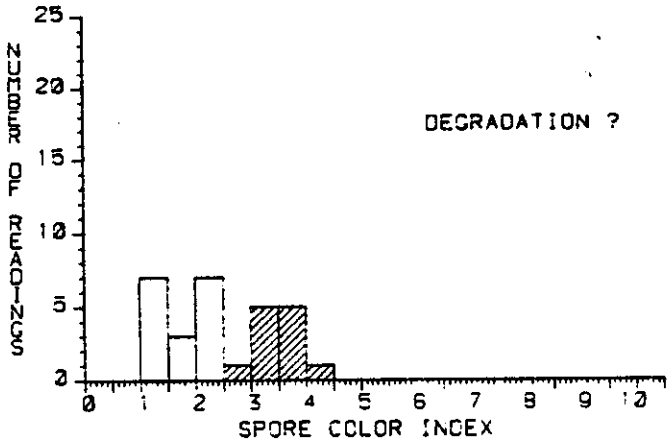
ORDERED SPORE COLOR VALUES:

1.0	2.0	*3.0	*3.5	*4.5
1.0	2.0	*3.0	*3.5	5.0
1.0	*2.5	*3.0	*3.5	5.0
1.5	*2.5	*3.0	*3.5	
1.5	*2.5	*3.0	*3.5	
1.5	*3.0	*3.0	*3.5	
1.5	*3.0	*3.0	*4.0	
2.0	*3.0	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	
2.0	*3.0	*3.5	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	80 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 302
ID : CORE 13

DEPTH : 11102.5 Ft
: 3384.9 M

* = SCI MATURITY

VALUES : 12

MEAN : 3.25
STD DEV : 0.38
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

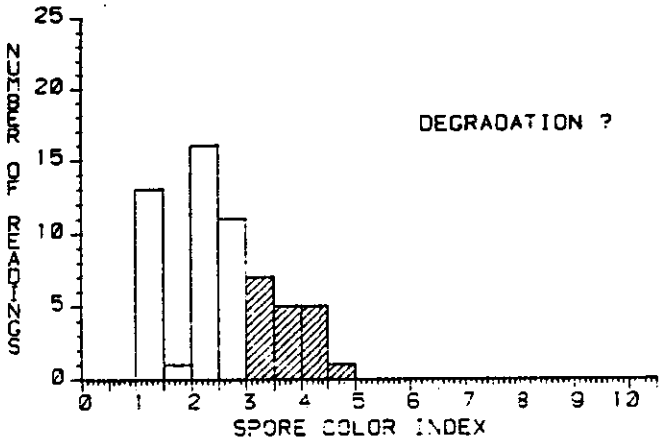
ORDERED SPORE COLOR VALUES:

1.0	2.0	*3.0
1.0	2.0	*3.0
1.0	2.0	*3.0
1.0	2.0	*3.5
1.0	2.0	*3.5
1.0	2.0	*3.5
1.0	2.0	*3.5
1.5	*2.5	*3.5
1.5	*3.0	*4.0
1.5	*3.0	

KEROGEN DESCRIPTION

Amorphous	:	20 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 306
ID : CORE 14

DEPTH : 12251.2 Ft
: 3735.1 M

* = SCI MATURITY

VALUES : 18

MEAN : 3.50
STD DEV : 0 47
MEDIAN : 3.50
MODE : 3.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

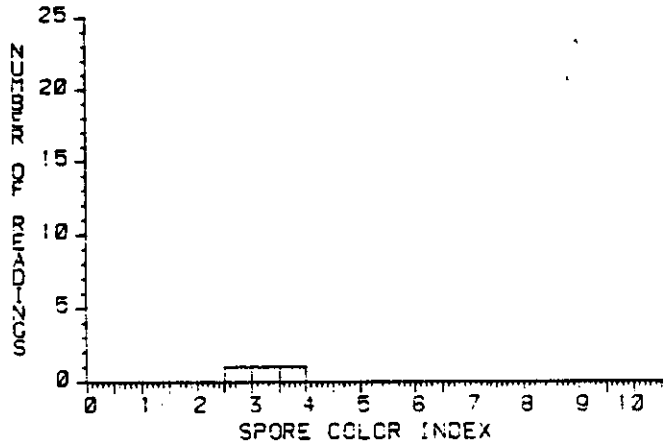
ORDERED SPORE COLOR VALLES:

1.0	1.0	2.0	2.5	2.5	*3.5
1.0	1.0	2.0	2.5	*3.0	*3.5
1.0	1.0	2.0	2.5	*3.0	*3.5
1.0	1.5	2 0	2.5	*3.0	*4.0
1.0	2.0	2.0	2.5	*3.0	*4.0
1.0	2.0	2 0	2.5	*3.0	*4.0
1.0	2.0	2.0	2.5	*3.0	*4.0
1.0	2.0	2.0	2.5	*3.0	*4.0
1.0	2.0	2.0	2.5	*3.5	*4.5
1.0	2.0	2.0	2.5	*3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	15 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 310
ID : CORE 14

DEPTH : 12262.4 Ft
: 3738.5 M

MEAN : N.D.

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

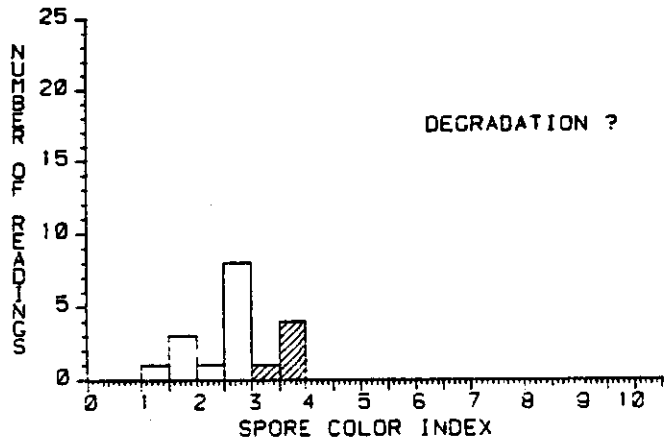
ORDERED SPORE COLOR VALUES:

2.5
3.0
3.5

KEROGEN DESCRIPTION

Amorphous	:	0 %
Exinite	:	5 %
Vitrinite	:	95 %
Inertinite	:	0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 314
ID : CORE 14

DEPTH : 12269.3 Ft
: 3740.6 M

* = SCI MATURITY

VALUES : 5

MEAN : 3.40
STD DEV : 0.20
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

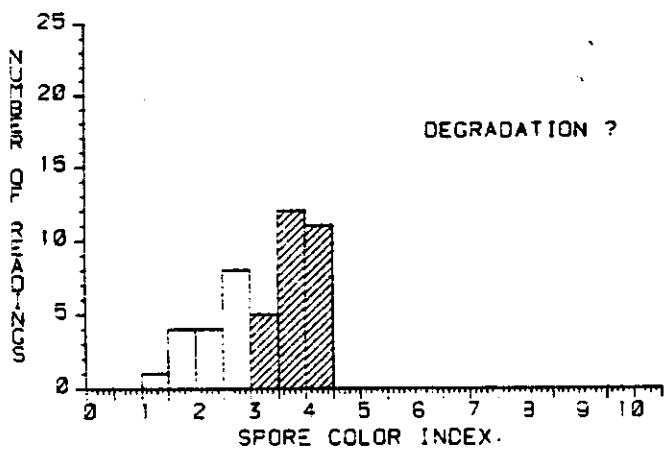
ORDERED SPORE COLOR VALUES:

1.0	2.5
1.5	2.5
1.5	2.5
1.5	*3.0
2.0	*3.5
2.5	*3.5
2.5	*3.5
2.5	*3.5
2.5	
2.5	

KEROGEN DESCRIPTION

Amorphous :	15 %
Exinite :	5 %
Vitrinite :	75 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 338
ID : CORE 15

DEPTH : 12634.4 Ft
: 3852.0 M

* = SCI MATURITY

VALUES : 28

MEAN : 3.61
STD DEV : 0.36
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

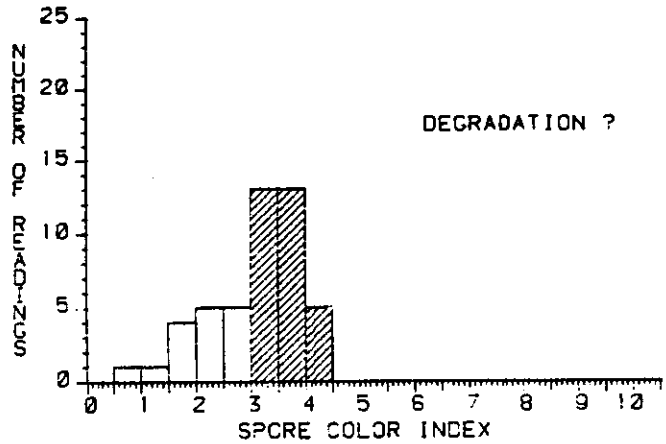
ORDERED SPORE COLOR VALUES:

1.0	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.5	*3.5	*4.0
1.5	2.5	*3.5	*3.5	*4.0
1.5	2.5	*3.5	*4.0	*4.0
2.0	2.5	*3.5	*4.0	
2.0	2.5	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	
2.0	*3.0	*3.5	*4.0	
2.5	*3.0	*3.5	*4.0	

KEROGEN DESCRIPTION

Amorphous :	5 %
Exinite :	10 %
Vitrinite :	80 %
Inertinite :	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 462
ID : CORE 15

DEPTH : 12634.8 Ft
: 3852.1 M

* = SCI MATURITY

VALUES : 31

MEAN : 3.37
STD DEV : 0.36
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

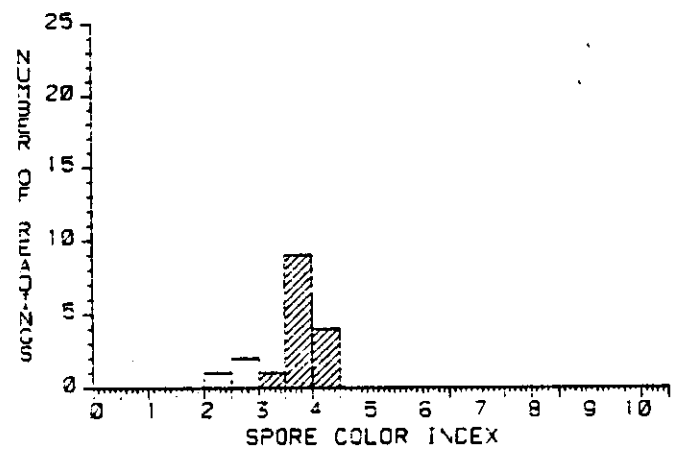
ORDERED SPORE COLOR VALUES:

0.5	2.0	*3.0	*3.5	*3.5
1.0	2.5	*3.0	*3.5	*3.5
1.5	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.0	*3.5	*4.0
1.5	2.5	*3.0	*3.5	*4.0
2.0	*3.0	*3.0	*3.5	*4.0
2.0	*3.0	*3.0	*3.5	
2.0	*3.0	*3.0	*3.5	
2.0	*3.0	*3.5	*3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	65 %
Inertinite	:	20 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 437
ID : CORE 16

DEPTH : 14179.1 Ft
: 4322.9 M

* = SCI MATURITY

VALUES : 14

MEAN : 3.61
STD DEV : 0.28
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

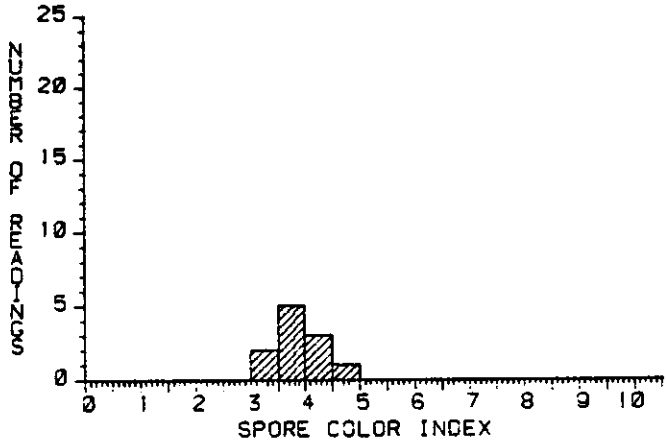
ORDERED SPORE COLOR VALUES:

2.0	*3.5
2.5	*3.5
2.5	*3.5
*3.0	*4.0
*3.5	*4.0
*3.5	*4.0
*3.5	*4.0
*3.5	
*3.5	
*3.5	

KEROGEN DESCRIPTION

Amorphous	:	10 %
Exinite	:	5 %
Vitrinite	:	80 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 464
ID : CORE 16

DEPTH : 14179.4 Ft
: 4323.0 M

* = SCI MATURITY

VALUES : 11

MEAN : 3.64
STD DEV : 0.43
MEDIAN : 3.50
MODE : 3.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

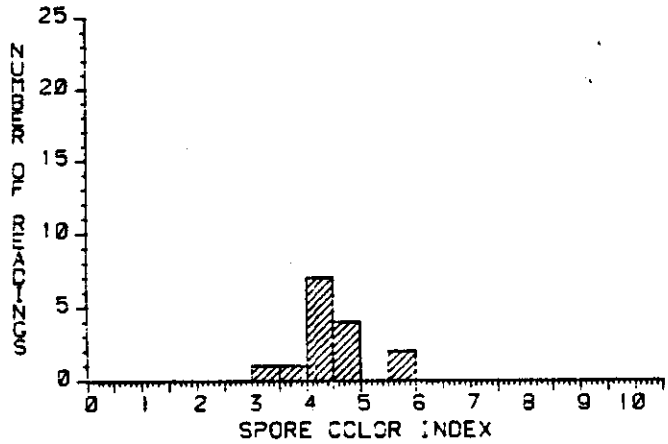
ORDERED SPORE COLOR VALUES:

*3.0 *4.5
*3.0
*3.5
*3.5
*3.5
*3.5
*3.5
*4.0
*4.0
*4.0

KEROGEN DESCRIPTION

Amorphous : 5 %
Exinite : 5 %
Vitrinite : 90 %
Inertinite : 0 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 480
ID : CORE 17

DEPTH : 15354.6 Ft
: 4681.3 M

* = SCI MATURITY

VALUES : 15

MEAN : 4.23
STD DEV : 0.63
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

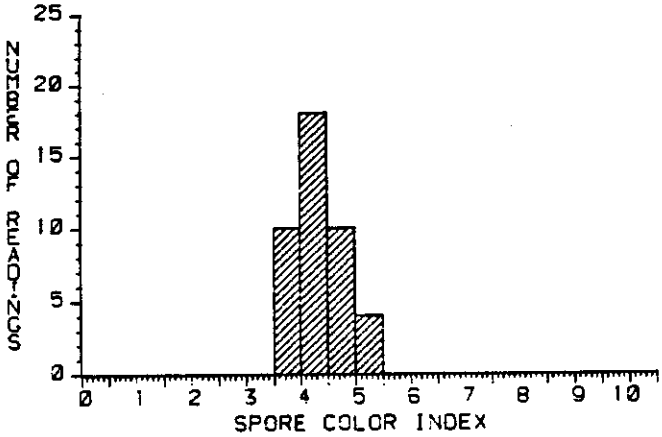
ORDERED SPORE COLOR VALUES:

*3.0 *4.5
*3.5 *4.5
*4.0 *4.5
*4.0 *5.5
*4.0 *5.5
*4.0
*4.0
*4.0
*4.0
*4.5

KEROGEN DESCRIPTION

Amorphous : 0 %
Exinite : 5 %
Vitrinite : 85 %
Inertinite : 10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 485
ID : CORE 17

DEPTH : 15368.5 Ft
: 4685.5 M

* = SCI MATURITY

VALUES : 42

MEAN : 4.10
STD DEV : 0.45
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

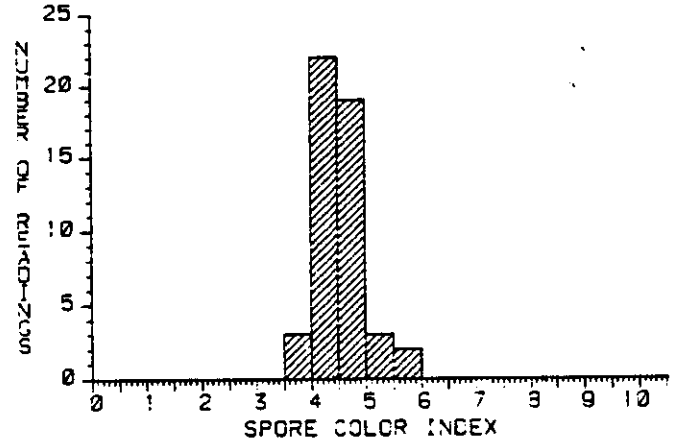
ORDERED SPORE COLOR VALUES:

*3.5	*4.0	*4.0	*4.5	*5.0
*3.5	*4.0	*4.0	*4.5	*5.0
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.0	*4.5	
*3.5	*4.0	*4.5	*5.0	
*3.5	*4.0	*4.5	*5.0	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	15 %
Vitrinite	:	70 %
Inertinite	:	tr %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 487
ID : CORE 18

DEPTH : 16009.3 Ft
: 4880.9 M

* = SCI MATURITY

VALUES : 49

MEAN : 4.29
STD DEV : 0.43
MEDIAN : 4.00
MODE : 4.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

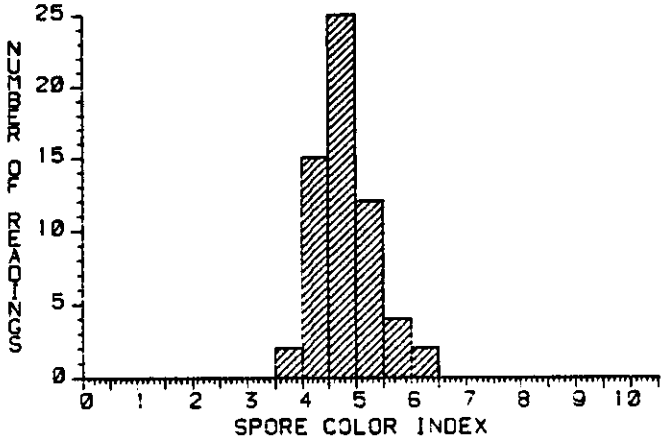
ORDERED SPORE COLOR VALUES:

*3.5	*4.0	*4.0	*4.5	*4.5
*3.5	*4.0	*4.0	*4.5	*4.5
*3.5	*4.0	*4.0	*4.5	*4.5
*4.0	*4.0	*4.0	*4.5	*4.5
*4.0	*4.0	*4.0	*4.5	*5.0
*4.0	*4.0	*4.5	*4.5	*5.0
*4.0	*4.0	*4.5	*4.5	*5.0
*4.0	*4.0	*4.5	*4.5	*5.5
*4.0	*4.0	*4.5	*4.5	*5.5
*4.0	*4.0	*4.5	*4.5	

KEROGEN DESCRIPTION

Amorphous	:	? 15 %
Exinite	:	10 %
Vitrinite	:	65 %
Inertinite	:	10 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 494
ID : CORE 18

DEPTH : 16029.0 Ft
: 4886.9 M

* = SCI MATURITY

VALUES : 60

MEAN : 4.56
STD DEV : 0.53
MEDIAN : 4.50
MODE : 4.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

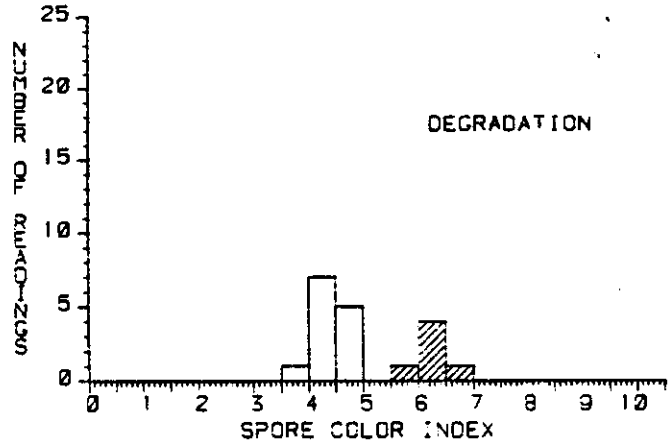
ORDERED SPORE COLOR VALUES:

*3.5	*4.0	*4.5	*4.5	*4.5	*5.0
*3.5	*4.0	*4.5	*4.5	*4.5	*5.0
*4.0	*4.0	*4.5	*4.5	*5.0	*5.0
*4.0	*4.0	*4.5	*4.5	*5.0	*5.0
*4.0	*4.0	*4.5	*4.5	*5.0	*5.5
*4.0	*4.0	*4.5	*4.5	*5.0	*5.5
*4.0	*4.0	*4.5	*4.5	*5.0	*5.5
*4.0	*4.5	*4.5	*4.5	*5.0	*5.5
*4.0	*4.5	*4.5	*4.5	*5.0	*6.0
*4.0	*4.5	*4.5	*4.5	*5.0	*6.0

KEROGEN DESCRIPTION

Amorphous : 25 %
Exinite : 10 %
Vitrinite : 60 %
Inertinite : 5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 507
ID : CORE 19

DEPTH : 16703.7 Ft
: 5092.6 M

* = SCI MATURITY

VALUES : 6

MEAN : 6.00
STD DEV : 0.29
MEDIAN : 6.00
MODE : 6.25

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

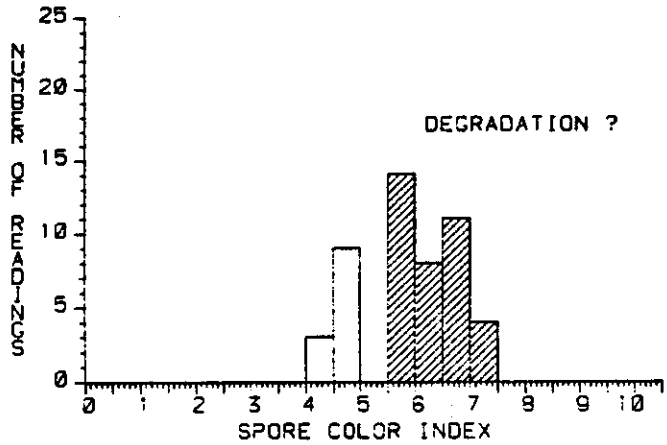
ORDERED SPORE COLOR VALUES:

3.5	4.5
4.0	4.5
4.0	4.5
4.0	*5.5
4.0	*6.0
4.0	*6.0
4.0	*6.0
4.0	*6.0
4.5	*6.5
4.5	

KEROGEN DESCRIPTION

Amorphous : 30 %
Exinite : 5 %
Vitrinite : 60 %
Inertinite : 5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 510
ID : CORE 19

DEPTH : 16714.6 Ft
: 5095.9 M

* = SCI MATURITY

VALUES : 37

MEAN : 6.07
STD DEV : 0.52
MEDIAN : 6.00
MODE : 5.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

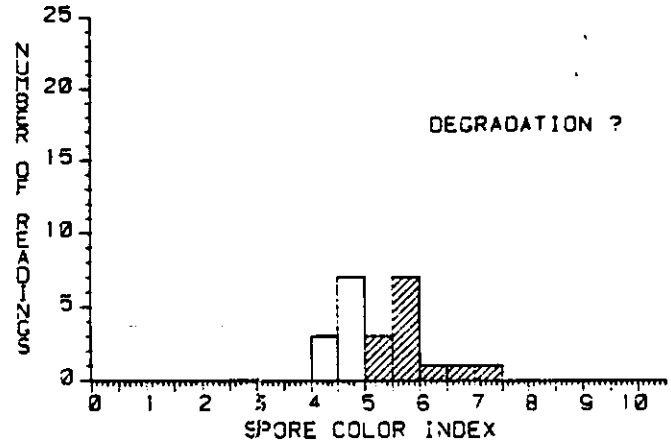
ORDERED SPORE COLOR VALUES:

4.0	4.5	*5.5	*6.0	*6.5
4.0	4.5	*5.5	*6.0	*6.5
4.0	*5.5	*5.5	*6.0	*6.5
4.5	*5.5	*5.5	*6.0	*6.5
4.5	*5.5	*5.5	*6.5	*6.5
4.5	*5.5	*5.5	*6.5	*7.0
4.5	*5.5	*6.0	*6.5	*7.0
4.5	*5.5	*6.0	*6.5	*7.0
4.5	*5.5	*6.0	*6.5	*7.0
4.5	*5.5	*6.0	*6.5	

KEROGEN DESCRIPTION

Amorphous	:	15 %
Exinite	:	5 %
Vitrinite	:	75 %
Inertinite	:	5 %

NORTH ALEUTIAN SHELF #1 COST WELL



RRUS No. : 513
ID : CORE 19

DEPTH : 16719.6 Ft
: 5097.4 M

* = SCI MATURITY

VALUES : 13

MEAN : 5.62
STD DEV : 0.56
MEDIAN : 5.50
MODE : 5.75

HISTOGRAM:
Range: 0-10.5
Increment: 0.50

ORDERED SPORE COLOR VALUES:

4.0	*5.0	*6.0
4.0	*5.0	*6.5
4.0	*5.0	*7.0
4.5	*5.5	
4.5	*5.5	
4.5	*5.5	
4.5	*5.5	
4.5	*5.5	
4.5	*5.5	
4.5	*5.5	

KEROGEN DESCRIPTION

Amorphous	:	? 35 %
Exinite	:	5 %
Vitrinite	:	55 %
Inertinite	:	5 %

APPENDIX VII

ELEMENTAL ANALYSIS DATA

Kerogen concentrate is ultrasonic-extracted with dichloromethane to remove soluble organic material and further concentrated with heavy liquids to remove as much of the acid-insoluble minerals as possible. The kerogen is then analysed with a Perkin-Elmer, model 240 elemental analyser.

The ash is given as a percentage of the total sample weight. The carbon (C), hydrogen (H), and nitrogen (N) values are calculated on an ash-free (e.g. total sample weight minus ash weight) basis. Oxygen + sulfur is determined by the difference between the ash-free sample weight and the sum of the weights of carbon, hydrogen, and nitrogen. The ratios H/C, N/C and (O+S)/C are calculated on a molar (atomic) basis.

ELEMENTAL ANALYSIS DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

DEPTH(FEET)	%C	%H	%N	ASH%	%O+S	H/C	O+S/C	100xN/C
1590	65.05	4.44	1.728	21.41	28.78	0.82	0.332	2.276
1950	46.56	4.17	1.229	48.47	48.04	1.07	0.774	2.263
2130	59.07	4.57	1.979	7.13	34.38	0.93	0.436	2.872
2490	59.72	4.46	1.415	14.94	34.40	0.90	0.432	2.030
2790	57.97	4.25	1.039	6.36	36.74	0.88	0.475	1.536
3090	56.29	4.21	0.757	1.52	38.74	0.90	0.516	1.153
3390	58.48	4.50	0.948	1.36	36.07	0.92	0.463	1.389
3690	58.37	4.42	1.081	1.19	36.14	0.91	0.464	1.588
3990	59.46	4.19	1.406	5.02	34.94	0.85	0.441	2.027
4230	60.11	4.48	1.237	14.11	34.17	0.89	0.426	1.763
4650	59.83	4.16	1.273	8.38	34.74	0.83	0.435	1.823
4890	59.54	4.22	1.244	7.53	35.00	0.85	0.441	1.790
5190	58.51	4.06	1.147	10.69	36.28	0.83	0.465	1.681
5430	60.78	4.25	1.269	6.22	33.70	0.84	0.416	1.790
5670	66.93	3.92	1.504	9.02	27.65	0.70	0.310	1.926
5970	59.74	4.01	1.453	10.93	34.80	0.80	0.437	2.084
6270	63.67	4.11	1.170	7.66	31.06	0.77	0.366	1.575
6510	60.54	4.15	0.759	10.75	34.55	0.82	0.428	1.074
6810	63.20	3.97	1.400	6.75	31.43	0.75	0.373	1.899
7110	63.34	4.12	1.149	20.24	31.39	0.78	0.372	1.555
7410	63.54	4.34	1.248	10.62	30.87	0.82	0.364	1.683
7650	67.99	4.93	0.971	1.59	26.11	0.87	0.288	1.225
7920	64.55	4.72	1.256	3.34	29.47	0.88	0.342	1.668
8280	62.90	4.85	1.655	10.11	30.59	0.93	0.365	2.256
8640	65.37	4.68	1.589	1.97	28.37	0.86	0.325	2.083
8940	68.11	4.91	1.465	0.46	25.51	0.86	0.281	1.844
9180	64.82	4.95	1.692	19.80	28.54	0.92	0.330	2.238
9480	63.27	4.93	1.588	27.32	30.21	0.94	0.358	2.151
9720	67.69	5.20	1.294	11.96	25.81	0.92	0.286	1.638
10020	60.25	5.08	1.064	27.94	33.60	1.01	0.418	1.514
10320	59.83	4.69	1.175	2.83	34.31	0.94	0.430	1.684
10560	73.08	5.93	1.405	2.50	19.58	0.97	0.201	1.648
10800	50.18	4.37	1.339	18.95	44.11	1.05	0.659	2.287
11100	70.00	5.00	1.539	0.28	23.46	0.86	0.251	1.885
11400	75.04	5.58	1.637	2.41	17.75	0.89	0.177	1.870
11700	72.53	5.13	1.589	0.95	20.75	0.85	0.215	1.877
12000	73.47	5.57	1.751	0.19	19.21	0.91	0.196	2.043
12300	74.82	5.66	1.838	2.36	17.68	0.91	0.177	2.105
12600	74.72	5.71	2.006	7.92	17.56	0.92	0.176	2.301
12900	70.05	5.58	1.865	16.70	22.51	0.96	0.241	2.282
13200	74.09	5.61	1.891	9.53	18.40	0.91	0.186	2.187
13560	80.50	5.80	2.108	0.41	11.59	0.87	0.108	2.245
13800	81.03	5.66	1.967	0.59	11.35	0.84	0.105	2.080
14040	81.29	5.81	2.076	1.37	10.83	0.86	0.100	2.189
14340	76.17	5.24	1.675	0.51	16.92	0.82	0.167	1.885
14640	81.95	5.82	2.069	0.37	10.16	0.85	0.093	2.164
14940	83.15	5.85	2.002	0.64	9.00	0.84	0.081	2.064
15180	77.73	5.45	1.819	0.88	15.00	0.84	0.145	2.006
15420	73.30	4.81	1.545	0.58	20.35	0.79	0.208	1.806
15660	80.08	5.53	1.896	1.39	12.49	0.83	0.117	2.029
15900	77.61	4.97	2.377	5.23	15.04	0.77	0.145	2.625
16200	81.74	5.19	2.565	8.78	10.50	0.76	0.096	2.689
16500	74.79	5.09	2.562	17.83	17.56	0.82	0.176	2.936
16740	69.00	5.19	2.805	32.47	23.01	0.90	0.250	3.485
16920	78.50	5.07	2.471	16.92	13.96	0.77	0.133	2.698
17143	75.72	4.91	2.163	20.65	17.20	0.78	0.170	2.449

ELEMENTAL ANALYSIS DATA

NORTH ALEUTIAN SHELF #1 COST WELL (SWC)

DEPTH(FEET)	%C	%H	%N	ASH%	%O+S	H/C	O+S/C	100xN/C
1488	59.33	4.38	1.389	32.71	34.91	0.89	0.441	2.007
1880	57.95	4.12	2.641	38.03	35.29	0.85	0.457	3.906
2120	62.99	3.66	1.518	18.26	31.83	0.70	0.379	2.066
2592	60.94	4.19	0.909	5.56	33.96	0.83	0.418	1.278
2935	55.01	3.89	1.208	8.16	39.89	0.85	0.544	1.882
3294	57.98	4.04	1.178	7.43	36.80	0.84	0.476	1.741
3709	58.52	4.00	1.237	3.03	36.24	0.82	0.465	1.812
4016	57.79	4.16	1.615	6.04	36.44	0.86	0.473	2.395
4373	59.24	4.36	1.410	36.24	34.99	0.88	0.443	2.040
4824	57.57	4.00	1.669	7.62	36.77	0.83	0.479	2.486
4975	62.28	4.65	1.483	5.70	31.59	0.90	0.380	2.041
5331	62.79	4.24	1.558	18.90	31.41	0.81	0.375	2.127
6500	63.45	4.40	1.450	3.87	30.70	0.83	0.363	1.959
7155	66.53	4.47	1.447	5.60	27.55	0.81	0.311	1.864
7532	65.64	4.58	0.465	7.90	29.31	0.84	0.335	0.608
7772	66.77	4.46	1.532	4.96	27.24	0.80	0.306	1.967
8124	65.59	4.74	1.437	3.60	28.23	0.87	0.323	1.877
8314	66.72	5.43	1.483	6.60	26.36	0.98	0.296	1.906
8558	66.77	5.05	1.547	4.19	26.63	0.91	0.299	1.986
8923	66.98	4.44	1.319	3.62	27.26	0.80	0.305	1.688
9448	74.05	5.68	1.799	6.89	18.47	0.92	0.187	2.083
9663	48.61	4.10	1.434	79.17	45.86	1.01	0.708	2.529
10069	66.51	4.92	2.025	16.29	26.55	0.89	0.299	2.609
10557	71.17	5.46	1.560	6.47	21.82	0.92	0.230	1.879
10832	73.45	5.04	1.745	1.10	19.76	0.82	0.202	2.036
11225	76.80	4.88	1.359	0.09	16.96	0.76	0.166	1.517
11494	74.17	4.94	1.385	1.48	19.50	0.80	0.197	1.600
12021	76.33	5.12	1.666	27.66	16.88	0.81	0.166	1.870
12449	76.36	5.33	1.895	2.50	16.41	0.84	0.161	2.127
12585	78.67	5.35	1.985	1.28	13.99	0.82	0.133	2.162
12868	78.99	5.52	1.672	13.26	13.82	0.84	0.131	1.814
13026	78.08	5.52	1.998	5.81	14.40	0.85	0.138	2.193

ELEMENTAL ANALYSIS DATA

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH(FEET)	%C	%H	%N	ASH%	%O+S	H/C	O+S/C	100xN/C
3392.0	61.63	4.50	0.993	5.18	32.88	0.88	0.400	1.381
4197.8	60.81	4.28	1.198	35.11	33.71	0.84	0.416	1.689
5231.9	45.81	3.70	1.095	35.15	49.39	0.97	0.809	2.049
5235.6	41.50	4.03	0.991	48.43	53.48	1.16	0.966	2.046
5974.5	62.85	4.14	1.542	18.76	31.47	0.79	0.376	2.103
5991.3	64.44	4.19	1.670	33.60	29.70	0.78	0.346	2.222
6669.8	35.53	3.54	0.680	51.96	60.24	1.20	1.272	1.641
8050.7	67.17	4.70	1.238	7.86	26.90	0.84	0.300	1.580
8077.3	67.44	5.24	1.440	6.49	25.89	0.93	0.288	1.830
8092.7	67.38	4.77	1.607	12.22	26.24	0.85	0.292	2.044
8636.3	69.57	5.02	1.227	3.25	24.19	0.87	0.261	1.511
8653.5	68.63	4.93	1.037	3.18	25.41	0.86	0.278	1.296
9257.5	67.38	4.78	0.990	17.32	26.86	0.85	0.299	1.260
9263.5	67.40	4.96	1.603	8.90	26.04	0.88	0.290	2.039
9972.4	57.97	4.25	1.360	19.78	36.42	0.88	0.471	2.011
9983.8	70.33	5.18	2.072	23.56	22.42	0.88	0.239	2.526
10326.4	62.01	5.08	1.444	44.59	31.47	0.98	0.381	1.996
10738.4	68.53	5.44	1.494	7.36	24.53	0.95	0.268	1.869
11102.5	73.47	5.69	1.512	3.54	19.33	0.93	0.197	1.764
12251.2	76.42	5.74	1.940	0.15	15.90	0.90	0.156	2.176
12262.4	80.50	5.97	1.728	4.52	11.79	0.89	0.110	1.840
12269.3	76.53	5.72	1.711	2.07	16.04	0.90	0.157	1.916
12634.4	79.57	5.50	2.275	0.71	12.66	0.83	0.119	2.451
12634.8	78.40	5.55	2.218	1.45	13.83	0.85	0.132	2.425
14179.1	80.16	5.95	2.122	6.87	11.77	0.89	0.110	2.269
14179.4	80.69	6.12	2.112	2.18	11.08	0.91	0.103	2.244
15354.6	82.28	4.75	2.680	3.67	10.29	0.69	0.094	2.791
15368.5	62.48	4.41	1.677	25.10	31.43	0.85	0.377	2.300
16009.3	82.19	5.10	2.889	3.53	9.82	0.74	0.090	3.013
16029.0	59.58	5.26	2.733	40.31	32.43	1.06	0.408	3.933
16703.7	53.80	5.00	2.714	42.77	38.48	1.12	0.536	4.325
16714.6	54.89	4.99	3.130	45.37	36.99	1.09	0.505	4.888
16719.6	51.39	4.79	2.810	41.89	41.01	1.12	0.598	4.686

APPENDIX VIII

HEADSPACE GAS ANALYSIS

This includes the C_1-C_6+ gas chromatography data and parameters calculated from headspace gas analysis of canned cuttings samples. The amounts of gas in microliters are computed by multiplying the integrated peak areas for each gas by instrument response factors determined from a standard gas. These values are then divided by the headspace volume to obtain the amounts of gas in the microliters shown in the tables.

Key for data presented in "calculated ratios and parameters" table:

KCARB - weight of kerogen carbon (gms) in can.

GAS - amount of gas generated from kerogen carbon (u liters)

WET GAS % - $\frac{(C_2-C_4) \times 100}{C_1 - C_4}$

---- - ratios not obtained due to insufficient data

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

microliters

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
1415	2049	5	Tr	Tr	Tr	0	Tr	1	371	573	0.3
1470	6849	2	Tr	0	Tr	0	Tr	0	83	1262	1.5
1530	8502	2	Tr	0	0	0	0	0	46	1214	0.7
1590	5710	2	Tr	0	0	0	0	0	27	998	1.8
1650	10337	2	Tr	0	Tr	0	Tr	0	19	3004	0.9
1710	10913	3	Tr	0	Tr	0	Tr	0	18	2449	1.7
1770	6642	2	Tr	0	Tr	0	0	0	14	1731	1.6
1830	9771	4	Tr	0	Tr	0	0	0	0	1877	2.1
1890	9719	3	Tr	0	Tr	0	Tr	0	0	2586	2.2
1950	8395	3	Tr	0	0	0	0	0	0	2099	2.9
2010	11342	4	Tr	Tr	0	0	Tr	0	0	2678	2.6
2070	7149	5	1	Tr	Tr	Tr	Tr	0	8	2321	1.3
2130	9176	6	1	0	0	0	0	0	0	2479	1.9
2190	8670	7	Tr	0	0	0	1	0	0	1996	1.0
2250	6170	4	Tr	0	0	0	0	0	0	1803	0.7
2310	4012	3	Tr	0	0	0	0	0	0	1598	0.9
2370	5683	3	Tr	0	0	0	0	0	0	1421	1.6
2430	3285	2	Tr	0	0	0	0	0	0	1295	1.3
2490	3620	3	Tr	0	0	0	0	0	0	869	2.0
2550	1914	1	Tr	0	0	0	0	0	0	689	2.3
2610	1817	1	0	0	0	0	0	0	0	563	3.5
2670	566	0	Tr	Tr	0	0	0	0	0	196	14.3
2730	2341	3	Tr	Tr	0	0	0	0	0	844	10.4
2790	4864	4	0	0	0	0	0	0	0	1558	7.5
2850	10071	5	0	0	0	0	0	0	0	2378	14.1
2910	302	0	0	0	0	0	0	0	0	83	14.7
2970	3798	6	0	0	0	0	0	0	0	745	14.3
3030	631	4	0	0	0	0	0	0	0	152	30.8
3090	5218	8	0	0	0	0	0	0	0	1254	35.9
3150	895	Tr	0	0	0	0	0	0	0	223	46.7
3210	691	Tr	0	0	0	0	Tr	0	0	177	24.1
3270	81011	32	0	0	0	0	1	0	0	16209	33.3
3330	40081	17	1	0	0	0	0	0	0	8902	59.3
3390	3550	4	Tr	0	0	0	Tr	0	14	1042	35.7
3450	20463	7	Tr	0	0	0	Tr	0	23	5656	8.2
3510	10165	5	Tr	0	0	0	Tr	0	27	2733	10.4
3570	7642	5	Tr	0	0	0	0	0	0	1835	17.3
3630	13183	5	Tr	0	0	0	Tr	0	0	3165	27.2
3690	11484	8	Tr	0	0	0	0	0	0	2781	18.1
3750	9469	8	Tr	0	0	0	0	0	0	1763	9.2
3810	16571	8	1	0	0	0	0	0	0	3548	28.6
3870	24451	10	0	0	0	0	Tr	0	0	4696	24.6
3930	13538	6	2	Tr	7	0	0	47	29	3067	15.5
3990	7678	4	Tr	0	Tr	0	0	0	8	1276	10.0
4050	4832	3	Tr	0	0	0	0	0	15	1009	15.1
4110	4086	3	Tr	0	0	0	0	0	20	945	10.7
4170	4812	3	Tr	0	0	0	0	0	26	993	7.3
4230	2494	1	Tr	0	0	0	0	0	19	845	3.4
4290	3603	2	1	Tr	1	0	1	1	21	995	1.3
4350	3867	3	Tr	0	0	0	0	0	8	876	2.0

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
4410	1735	1	Tr	0	0	0	0	0	0	561	3.3
4470	1619	1	Tr	0	0	0	0	0	0	583	0.4
4530	1542	2	1	1	1	1	1	Tr	9	374	2.7
4590	2383	2	Tr	0	0	0	Tr	0	0	453	1.7
4650	2266	2	Tr	0	0	0	0	0	10	433	3.7
4710	2025	2	Tr	0	0	0	0	0	0	324	5.6
4770	981	1	Tr	0	0	0	0	0	0	245	3.9
4830	3189	6	1	Tr	Tr	Tr	1	0	15	752	6.5
4890	3812	9	Tr	0	0	0	0	0	0	496	7.3
4950	809	2	Tr	0	0	0	0	0	0	259	2.7
5010	1979	3	Tr	0	0	0	0	0	0	317	6.6
5070	1982	4	0	0	0	0	0	0	0	556	7.7
5130	1989	3	Tr	0	0	0	0	0	12	385	8.5
5190	35	0	0	0	0	0	0	0	0	9	4.0
5250	7	0	0	0	0	0	1	0	0	2	8.5
5310	8	0	0	0	0	0	Tr	0	0	2	2.2
5370	437	1	Tr	0	0	0	Tr	0	0	118	1.2
5430	390	2	Tr	0	0	0	0	0	0	127	3.9
5490	762	1	Tr	0	0	0	Tr	0	0	174	2.2
5550	514	1	Tr	0	0	0	0	0	0	118	1.0
5610	5807	4	Tr	0	0	0	0	0	0	1452	3.6
5670	506	1	Tr	0	0	0	0	0	4	107	2.2
5730	176	Tr	Tr	0	0	0	0	5	0	57	0.5
5790	123	Tr	Tr	0	0	0	0	0	0	31	0.6
5850	39	1	0	0	0	0	0	0	0	8	0.4
5910	60	Tr	Tr	0	0	0	0	0	0	23	0.9
5970	31	Tr	Tr	0	0	0	0	0	0	12	1.2
6030	18	0	0	0	0	0	0	0	0	5	0.9
6090	10	0	0	0	0	0	0	0	0	1	1.6
6150	15	0	Tr	0	0	0	0	0	0	4	1.4
6210	24	Tr	Tr	0	0	0	0	0	0	4	1.1
6270	29	Tr	Tr	Tr	0	0	0	0	0	5	1.8
6330	15	1	Tr	0	0	0	0	0	0	5	0.7
6390	21	1	Tr	0	0	0	0	0	7	8	0.8
6450	15	Tr	Tr	0	0	0	0	0	0	3	1.5
6510	25	Tr	0	0	0	0	0	0	0	8	2.5
6570	46	1	Tr	0	0	0	0	0	0	9	0.7
6630	262	2	Tr	0	0	0	Tr	0	21	55	1.4
6690	102	5	Tr	0	Tr	0	0	2	7	16	0.9
6750	186	8	1	Tr	0	0	Tr	0	12	25	1.0
6810	505	6	1	Tr	1	0	0	0	11	84	3.4
6870	277	2	1	Tr	Tr	0	0	0	0	50	0.6
6930	633	9	1	Tr	Tr	0	Tr	1	19	60	0.9
6990	300	3	Tr	Tr	Tr	0	Tr	0	18	58	1.1
7050	335	3	Tr	Tr	Tr	0	0	0	13	88	2.8
7110	312	2	Tr	Tr	0	0	0	0	0	79	6.4
7170	300	2	Tr	Tr	0	0	0	0	0	97	6.5
7230	367	2	Tr	Tr	0	0	0	0	0	114	5.4
7290	599	2	Tr	Tr	0	0	0	0	0	186	5.5
7350	597	3	1	Tr	1	0	0	0	8	134	2.0

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
7410	617	2	1	Tr	0	0	0	0	5	169	6.2
7470	198	2	Tr	Tr	0	0	0	0	18	96	3.5
7530	3322	13	2	Tr	Tr	0	Tr	1	8	837	58.1
7590	646	5	Tr	Tr	Tr	0	Tr	0	8	330	14.7
7650	788	4	1	2	0	0	0	0	0	262	41.3
7710	985	3	1	Tr	0	0	0	0	0	307	6.0
7800	753	3	1	Tr	0	0	0	0	2	224	15.7
7860	1477	8	2	Tr	Tr	0	1	0	0	67	16.2
7920	47	Tr	Tr	Tr	Tr	0	Tr	0	14	7	7.8
7980	3522	42	11	2	2	0	1	1	13	503	31.1
8040	534	8	2	Tr	Tr	0	Tr	0	12	67	6.7
8100	584	6	1	Tr	Tr	0	0	0	7	150	16.0
8160	2363	18	4	1	Tr	0	Tr	0	8	719	19.6
8220	10393	109	24	4	1	0	2	1	15	2849	36.2
8280	1349	11	2	Tr	Tr	0	1	0	11	289	96.3
8340	33863	242	51	9	4	0	4	2	21	9918	107.0
8400	4684	54	13	3	1	0	2	Tr	6	1192	25.4
8460	5286	95	36	11	5	0	7	5	40	439	16.2
8520	1961	30	16	6	3	0	5	3	31	370	6.1
8580	1146	19	10	6	4	0	3	2	16	157	7.1
8640	6057	54	18	5	3	0	4	2	24	1048	21.9
8700	6282	54	12	3	2	0	3	1	15	1785	18.1
8760	7575	73	19	7	4	0	4	2	22	2698	20.0
8820	2673	51	16	5	6	0	4	3	22	1002	8.8
8880	220	2	Tr	Tr	Tr	0	Tr	0	4	62	41.9
8940	67146	473	82	14	9	0	5	2	30	19652	122.0
9000	22911	219	45	9	0	0	6	0	20	4642	147.0
9060	8607	92	22	5	0	0	5	0	49	1756	21.7
9120	3820	70	20	5	0	0	7	0	27	553	56.1
9180	1570	24	7	0	0	0	0	0	30	261	38.9
9240	6668	119	39	11	7	0	7	3	28	1377	15.2
9300	13292	208	58	14	10	0	10	9	37	2864	25.3
9360	4681	62	19	5	4	0	4	0	23	1296	7.4
9420	2722	44	14	4	4	0	4	1	20	845	6.4
9480	3235	37	12	4	5	0	5	2	23	831	14.7
9540	1048	20	7	2	3	0	4	2	14	298	3.9
9600	166	3	2	1	1	Tr	2	0	25	58	2.0
9660	3304	28	9	3	3	0	3	3	26	365	7.6
9720	837	10	4	2	2	Tr	4	7	39	179	5.7
9780	472	10	5	1	1	0	4	5	13	168	3.4
9840	326	8	4	2	1	0	3	0	8	106	2.4
9900	304	7	3	1	2	0	3	0	21	70	1.2
9960	1028	14	6	2	2	0	3	0	17	171	5.9
10020	207	5	2	1	1	Tr	3	0	21	47	6.8
10080	99	8	7	7	8	7	9	8	27	44	416.7
10140	233	6	3	2	2	1	2	2	12	82	2.5
10200	148	5	3	2	1	0	1	Tr	9	59	4.8
10260	43	Tr	Tr	Tr	Tr	0	Tr	0	0	14	4.3
10320	767	13	4	1	Tr	0	1	0	6	190	10.2
10380	629	21	7	3	1	0	3	1	8	216	6.4

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
10440	63	1	Tr	Tr	0	0	Tr	0	4	25	28.4
10500	7722	162	33	10	4	0	5	2	18	2149	13.0
10560	14380	330	61	19	7	0	8	2	14	3557	14.1
10620	17337	387	61	20	7	0	8	2	19	4639	23.9
10680	5717	141	28	10	3	0	5	2	15	1421	4.3
10740	9896	141	22	8	3	0	4	Tr	13	2421	25.6
10800	16977	379	43	17	6	Tr	9	2	17	4188	18.2
10860	4793	171	22	9	3	Tr	9	3	29	1150	5.7
10920	30019	727	73	26	12	Tr	14	4	25	5810	18.6
10980	17552	465	46	16	7	Tr	8	3	25	4531	5.9
11040	6359	161	17	6	2	Tr	4	1	28	1290	6.3
11160	26410	778	76	26	10	Tr	12	5	34	1586	18.4
11220	75783	1523	140	52	17	1	21	6	48	3414	30.7
11280	32207	727	75	32	13	1	12	5	31	7945	38.5
11340	11559	444	56	24	7	Tr	14	5	35	2501	13.7
11400	15716	631	80	34	11	1	17	7	64	629	6.3
11460	3099	108	14	6	4	2	5	3	31	275	17.4
11520	2016	104	16	7	2	0	4	4	77	308	7.7
11580	2097	90	13	7	5	0	4	2	23	417	6.7
11640	1848	77	14	5	1	0	3	Tr	22	347	9.3
11700	9508	344	89	41	13	0	15	6	42	1489	13.5
11760	6886	385	105	47	15	0	16	6	73	1959	6.3
11820	1252	50	10	4	1	0	1	0	17	249	3.3
11880	74341	1915	504	263	58	0	68	20	114	386	29.3
11940	3370	83	20	10	2	0	3	0	44	17	129.0
12000	59577	2532	790	529	88	1	81	26	117	318	41.1
12060	982	40	11	7	1	0	1	0	5	310	17.3
12120	35802	1960	752	573	104	0	108	32	125	3156	22.0
12180	5528	285	100	72	14	1	19	7	79	892	22.6
12240	64160	3013	854	578	90	Tr	95	27	115	2757	30.3
12300	33015	1963	725	570	85	0	92	24	159	1978	10.3
12360	12763	791	305	183	36	0	33	11	76	4373	10.9
12420	67834	3324	1288	631	153	0	110	30	127	5439	29.5
12480	50795	2784	1252	647	161	0	122	36	124	1789	26.0
12540	96952	5927	2628	1215	354	5	247	0	251	2366	44.7
12600	49336	2252	946	313	104	0	67	0	96	8923	22.0
12660	62301	2509	970	383	102	Tr	0	0	97	4512	9.0
12720	27971	1626	642	207	70	Tr	37	13	87	7541	16.2
12780	41201	1778	679	181	77	0	36	13	70	9336	13.2
12840	99558	5208	1981	705	0	0	0	0	117	1075	15.9
12960	80181	4135	1415	507	159	0	0	0	98	8822	24.6
12960	42006	1832	655	253	79	0	40	14	62	5123	30.9
13020	8797	487	180	62	26	0	13	6	35	2690	4.2
13080	29499	1354	372	113	39	0	19	8	43	9687	13.0
13140	58254	2657	824	265	87	0	0	0	74	11811	48.1
13200	65703	3542	1290	426	136	1	0	0	100	5126	23.9
13260	19098	1268	556	162	69	0	33	0	74	5315	32.9
13320	37075	2792	1537	404	185	0	79	9	86	5903	26.6
13380	73979	4941	2519	605	273	0	103	0	171	23952	58.1
13440	18387	1396	907	267	135	0	68	0	167	7465	25.2

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
13500	12977	1179	853	289	124	0	58	0	107	4832	47.2
13560	69965	5251	2954	816	310	0	99	0	208	11144	72.5
13620	59407	4227	2407	634	255	0	88	0	155	12763	49.4
13680	29698	2289	1357	396	149	0	63	0	178	6485	43.4
13740	4207	341	201	47	23	0	8	0	37	1606	19.2
13800	70681	5689	3231	763	356	0	112	1	170	21872	104.1
13860	14504	994	550	134	64	0	21	0	38	3750	23.2
13920	72754	8751	5854	1838	651	0	233	71	174	14452	38.1
13980	54334	5626	3885	1127	431	0	138	44	69	9192	23.2
14040	97141	16900	9634	2389	938	0	270	93	201	19135	58.1
14100	22153	2171	1412	379	155	0	0	0	44	6052	15.6
14160	41714	3350	1885	488	216	0	0	0	103	11940	26.1
14220	305	22	12	3	1	0	Tr	0	3	69	21.1
14280	72154	8463	4904	1369	540	6	180	69	231	10550	46.3
14340	27509	2067	1187	357	136	0	51	18	45	4706	27.9
14400	41845	3338	2005	551	236	0	84	32	102	10121	25.1
14460	63634	5804	3609	892	416	0	130	53	145	22406	31.1
14520	54546	4935	3117	708	368	0	115	47	129	14073	49.8
14580	66931	5719	3904	1011	560	0	190	90	230	13368	39.6
14640	86606	10092	6320	1276	825	0	212	106	231	26417	54.7
14700	69617	6387	4595	886	716	0	182	114	253	22343	67.3
14760	70981	7216	5511	1337	895	0	253	144	282	12127	32.0
14820	35497	3053	2375	652	428	0	140	89	235	8919	43.3
14880	57007	5172	3059	615	404	0	117	64	182	19986	33.6
14940	76967	6830	4007	886	549	0	155	81	207	18833	24.1
15000	27856	2345	1535	357	230	0	71	40	123	9442	14.9
15060	34614	3207	2337	520	393	0	118	75	218	16180	16.5
15120	73513	6891	4433	1013	652	0	183	103	224	13922	39.4
15180	51610	3941	2502	612	383	0	122	73	188	5943	30.6
15240	28972	3006	1880	398	250	0	70	35	96	8330	6.7
15300	45471	4214	2560	550	325	0	88	42	103	11738	21.2
15360	16854	1926	1441	383	232	1	71	40	105	3158	14.7
15420	19210	2392	1849	450	293	0	80	42	101	5128	21.8
15480	21994	2443	1734	351	247	0	61	31	64	7809	19.6
15540	31055	3105	2016	395	267	0	67	33	85	10737	3.6
15600	53641	5153	3077	586	391	0	96	46	124	13885	23.6
15660	59213	4618	2531	481	336	0	91	57	137	6746	24.0
15720	103	1130	725	127	123	0	37	26	64	3669	10.2
15780	2855	713	693	172	205	0	75	61	148	1261	3.2
15840	3769	1133	959	226	211	0	68	48	85	1105	5.5
15900	6353	1874	1004	174	149	0	41	26	82	2135	6.9
15960	1219	759	600	101	91	Tr	24	18	48	962	3.7
16020	142	90	123	36	42	0	19	15	61	235	5.0
16080	2662	2757	3508	846	1117	0	381	296	571	2817	9.1
16140	2724	2793	4265	1022	1439	0	469	350	644	3263	10.2
16200	12412	15796	23453	4875	7320	0	2159	1664	2642	10408	12.5
16260	13750	20326	27581	5331	8123	0	2336	1857	2965	13657	14.2
16320	10913	11056	14226	2867	5901	0	1827	1994	2964	12937	10.1
16380	4765	6284	10840	2408	5233	0	1725	2062	3355	10709	6.1
16440	3921	5668	12026	2927	6500	0	2204	2773	4840	6211	6.4

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
16500	23859	26210	32279	5506	11894	0	3496	3977	6139	17231	9.1
16560	6998	8320	10483	1820	4421	0	1406	1709	3105	11020	5.5
16620	28101	21702	25034	4334	8115	0	2088	2345	4128	17253	8.8
16680	739	1202	1970	578	1176	0	642	779	3042	2533	11.7
16740	1794	1331	1234	245	374	0	133	103	392	953	10.0
16800	85147	20989	6616	1150	1178	7	453	265	969	12845	63.3
16860	54713	9823	2830	475	486	3	196	114	513	11065	43.1
16920	49534	12243	4037	682	699	4	280	156	720	14355	34.2
16980	54030	13665	5139	1084	1130	7	548	306	1299	12354	65.4
17040	54583	14465	6948	1859	2038	12	1051	626	2268	11739	22.7
17100	97873	26598	6165	922	977	11	348	192	912	24120	68.5
17143	1660	893	329	50	71	0	27	18	154	1250	8.0

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS
OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
1415	1469.9	0.3	1.9	1.1	15.3	0.2	84.3
1470	836.0	0.0	---	---	1.2	0.0	98.7
1530	1577.0	0.0	---	---	0.5	0.0	99.4
1590	537.0	0.0	---	---	0.4	0.0	99.4
1650	3066.1	0.0	---	---	0.2	0.0	99.7
1710	1432.6	0.0	---	---	0.1	0.0	99.7
1770	1082.3	0.0	---	---	0.2	0.0	99.7
1830	869.0	0.0	---	---	0.0	0.0	99.9
1890	1144.5	0.0	---	---	0.0	0.0	99.9
1950	711.8	0.0	---	---	0.0	0.0	99.9
2010	1014.5	0.0	---	---	0.0	0.0	99.9
2070	1785.9	0.1	0.9	---	0.1	0.1	99.7
2130	1278.1	0.0	---	---	0.0	0.0	99.9
2190	1996.3	0.1	---	---	0.0	0.1	99.9
2250	2436.9	0.0	---	---	0.0	0.0	99.9
2310	1648.1	0.1	---	---	0.0	0.1	99.9
2370	856.5	0.0	---	---	0.0	0.0	99.9
2430	952.7	0.1	---	---	0.0	0.1	99.9
2490	424.3	0.1	---	---	0.0	0.1	99.9
2550	297.2	0.0	---	---	0.0	0.0	99.9
2610	161.0	0.0	---	---	0.0	0.0	99.9
2670	13.6	0.1	---	---	0.0	0.1	99.8
2730	81.0	0.2	---	---	0.0	0.2	99.8
2790	207.7	0.1	---	---	0.0	0.1	99.9
2850	167.8	0.0	---	---	0.0	0.0	99.9
2910	5.6	0.0	---	---	0.0	0.0	100.0
2970	51.8	0.1	---	---	0.0	0.1	99.8
3030	4.9	0.6	---	---	0.0	0.6	99.3
3090	34.9	0.1	---	---	0.0	0.1	99.8
3150	4.7	0.0	---	---	0.0	0.0	99.9
3210	7.3	0.0	---	---	0.1	0.0	99.8
3270	486.0	0.0	---	---	0.0	0.0	99.9
3330	150.1	0.0	---	---	0.0	0.0	99.9
3390	29.2	0.1	---	---	0.4	0.1	99.4
3450	684.8	0.0	---	---	0.1	0.0	99.8
3510	261.8	0.0	---	---	0.2	0.0	99.6
3570	105.8	0.0	---	---	0.0	0.0	99.9
3630	116.2	0.0	---	---	0.0	0.0	99.9
3690	153.0	0.0	---	---	0.0	0.0	99.9
3750	191.0	0.1	---	---	0.0	0.1	99.9
3810	123.6	0.0	---	---	0.0	0.0	99.9
3870	190.3	0.0	---	---	0.0	0.0	99.9
3930	197.3	0.1	44.0	---	0.5	0.1	99.3
3990	127.3	0.0	---	---	0.1	0.0	99.8
4050	66.4	0.1	---	---	0.3	0.1	99.6
4110	87.7	0.1	---	---	0.5	0.1	99.4
4170	135.2	0.1	---	---	0.5	0.1	99.3
4230	242.2	0.0	---	---	0.7	0.0	99.1
4290	716.2	0.1	4.2	0.7	0.6	0.1	99.1
4350	429.7	0.0	---	---	0.2	0.0	99.7

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS
OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
4410	166.0	0.1	---	---	0.0	0.1	99.8
4470	1357.2	0.1	---	---	0.0	0.1	99.8
4530	138.8	0.4	1.3	0.5	0.8	0.4	98.7
4590	254.8	0.1	---	---	0.0	0.1	99.8
4650	115.8	0.1	---	---	0.4	0.1	99.4
4710	57.5	0.1	---	---	0.0	0.1	99.8
4770	62.9	0.1	---	---	0.0	0.1	99.8
4830	115.5	0.2	2.0	---	0.5	0.2	99.2
4890	67.7	0.2	---	---	0.0	0.2	99.7
4950	93.1	0.3	---	---	0.0	0.3	99.6
5010	47.9	0.2	---	---	0.0	0.2	99.7
5070	71.5	0.2	---	---	0.0	0.2	99.8
5130	45.1	0.2	---	---	0.6	0.2	99.2
5190	2.3	0.0	---	---	0.0	0.0	100.0
5250	0.2	0.0	---	---	14.2	0.0	85.8
5310	0.9	0.0	---	---	9.6	0.0	90.3
5370	96.5	0.4	---	---	0.1	0.4	99.3
5430	32.3	0.6	---	---	0.0	0.6	99.3
5490	78.1	0.2	---	---	0.0	0.2	99.6
5550	115.2	0.4	---	---	0.0	0.4	99.6
5610	402.2	0.0	---	---	0.0	0.0	99.9
5670	48.8	0.4	---	---	0.9	0.4	98.6
5730	109.6	0.5	---	---	3.1	0.4	96.4
5790	48.6	0.8	---	---	0.0	0.8	99.1
5850	16.7	4.2	---	---	0.0	4.2	95.7
5910	24.8	1.6	---	---	0.0	1.6	98.3
5970	10.2	2.3	---	---	0.0	2.3	97.6
6030	6.4	0.0	---	---	0.0	0.0	100.0
6090	1.0	0.0	---	---	0.0	0.0	100.0
6150	2.7	0.7	---	---	0.0	0.7	99.3
6210	4.3	5.5	---	---	0.0	5.5	94.4
6270	2.7	5.8	---	---	0.0	5.8	94.1
6330	6.7	12.5	---	---	0.0	12.5	87.4
6390	9.4	7.0	---	---	24.6	5.3	70.0
6450	2.5	2.1	---	---	0.0	2.1	97.8
6510	3.1	1.4	---	---	0.0	1.4	98.5
6570	13.2	4.4	---	---	0.0	4.4	95.6
6630	39.3	1.0	---	---	7.6	1.0	91.3
6690	17.8	6.0	---	---	7.9	5.5	86.5
6750	25.0	4.7	---	---	6.1	4.4	89.3
6810	24.4	1.9	3.4	---	2.1	1.9	95.9
6870	76.9	1.6	1.8	---	0.0	1.6	98.3
6930	66.0	1.8	1.4	3.6	3.3	1.8	94.8
6990	52.8	1.5	1.7	---	5.7	1.4	92.8
7050	30.8	1.3	1.1	---	3.8	1.3	94.8
7110	12.2	1.1	---	---	0.0	1.1	98.8
7170	14.7	1.0	---	---	0.0	1.0	98.9
7230	21.2	0.9	---	---	0.0	0.9	99.0
7290	33.6	0.6	---	---	0.0	0.6	99.3
7350	65.6	0.9	6.5	---	1.3	0.9	97.7

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

OTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
7410	27.2	0.5	---	---	0.8	0.5	98.7
7470	27.4	1.1	---	---	8.2	1.0	90.7
7530	14.4	0.5	0.4	2.0	0.3	0.5	99.2
7590	22.5	1.0	1.6	---	1.3	1.0	97.6
7650	6.3	0.9	---	---	0.0	0.9	99.1
7710	50.6	0.5	---	---	0.0	0.5	99.4
7800	14.2	0.6	---	---	0.3	0.6	98.9
7860	4.1	0.8	1.0	---	0.0	0.7	99.1
7920	1.0	1.5	0.3	---	23.4	1.2	75.3
7980	16.1	1.6	0.8	0.8	0.4	1.6	97.9
8040	10.0	2.1	0.4	---	2.3	2.1	95.5
8100	9.3	1.4	0.2	---	1.2	1.4	97.2
8160	36.6	1.0	0.4	---	0.3	1.0	98.6
8220	78.7	1.3	0.4	0.7	0.1	1.3	98.4
8280	3.0	1.0	0.5	---	0.9	1.0	98.0
8340	92.7	0.9	0.5	0.4	0.0	0.9	99.0
8400	46.7	1.5	0.4	0.4	0.2	1.5	98.2
8460	27.0	2.7	0.4	0.7	0.9	2.7	96.3
8520	60.0	2.8	0.5	0.5	1.9	2.7	95.2
8580	22.0	3.4	0.7	0.5	1.8	3.4	94.7
8640	47.7	1.3	0.6	0.5	0.5	1.3	98.1
8700	98.2	1.1	0.7	0.3	0.3	1.1	98.5
8760	134.7	1.3	0.6	0.5	0.3	1.3	98.2
8820	113.7	2.9	1.1	0.6	1.1	2.8	96.0
8880	1.4	1.7	0.5	---	2.3	1.7	95.9
8940	161.0	0.8	0.6	0.4	0.0	0.8	99.1
9000	31.5	1.1	---	---	0.1	1.1	98.7
9060	80.9	1.3	---	---	0.6	1.3	98.0
9120	9.8	2.4	---	---	0.8	2.4	96.6
9180	6.7	2.0	---	---	1.8	2.0	96.1
9240	90.3	2.6	0.6	0.4	0.5	2.5	96.8
9300	112.8	2.1	0.7	0.9	0.4	2.1	97.4
9360	173.2	1.9	0.8	---	0.5	1.9	97.5
9420	130.4	2.4	0.9	0.2	0.9	2.4	96.6
9480	56.2	1.8	1.2	0.3	0.9	1.7	97.2
9540	76.4	3.1	1.5	0.5	1.9	3.1	94.9
9600	28.1	5.2	1.0	---	14.1	4.5	81.3
9660	47.5	1.3	1.0	0.9	0.9	1.3	97.7
9720	31.2	2.3	1.1	1.6	5.6	2.2	92.1
9780	49.6	3.8	0.9	1.1	4.4	3.6	91.8
9840	43.7	5.0	0.8	---	3.3	4.8	91.8
9900	57.5	4.6	1.0	---	7.1	4.3	88.5
9960	28.9	2.3	0.9	---	1.9	2.3	95.7
10020	6.9	4.7	0.9	---	10.1	4.2	85.6
10080	0.1	24.3	1.0	0.9	28.8	17.3	53.8
10140	32.4	5.8	0.8	0.8	7.0	5.4	87.5
10200	12.2	8.4	0.5	0.5	6.9	7.8	85.2
10260	3.2	5.3	0.8	---	0.6	5.3	94.0
10320	18.6	2.5	0.5	---	0.9	2.4	96.5
10380	33.6	5.1	0.4	0.4	2.0	5.0	92.9

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
10440	0.8	2.4	---	---	7.2	2.2	90.5
10500	165.0	2.6	0.4	0.3	0.3	2.6	97.0
10560	251.9	2.8	0.3	0.3	0.1	2.8	97.0
10620	193.8	2.6	0.3	0.2	0.1	2.6	97.1
10680	324.6	3.1	0.3	0.3	0.3	3.1	96.5
10740	94.6	1.7	0.4	0.1	0.2	1.7	98.0
10800	229.9	2.5	0.3	0.2	0.1	2.5	97.2
10860	201.4	4.1	0.4	0.3	0.8	4.1	95.0
10920	310.8	2.7	0.4	0.3	0.1	2.7	97.1
10980	759.0	2.9	0.4	0.3	0.2	2.9	96.8
11040	204.1	2.8	0.4	0.3	0.5	2.8	96.6
11160	86.0	3.2	0.3	0.4	0.2	3.2	96.5
11220	111.0	2.2	0.3	0.3	0.1	2.2	97.6
11280	205.9	2.5	0.4	0.4	0.1	2.5	97.2
11340	181.4	4.4	0.3	0.3	0.4	4.4	95.1
11400	98.6	4.6	0.3	0.4	0.5	4.5	94.8
11460	15.7	4.1	0.6	0.6	1.2	4.0	94.6
11520	39.8	6.1	0.4	0.9	3.9	5.8	90.2
11580	61.5	5.2	0.7	0.5	1.3	5.2	93.4
11640	37.0	5.0	0.3	0.2	1.3	5.0	93.6
11700	110.0	4.8	0.3	0.4	0.6	4.8	94.5
11760	308.1	7.4	0.3	0.4	1.2	7.3	91.3
11820	74.2	5.1	0.3	---	1.4	5.0	93.4
11880	13.1	3.5	0.2	0.3	0.2	3.5	96.1
11940	0.1	3.3	0.2	---	1.3	3.2	95.3
12000	7.7	6.2	0.1	0.3	0.3	6.1	93.4
12060	17.9	5.8	0.1	---	0.6	5.8	93.5
12120	143.4	8.6	0.1	0.3	0.6	8.5	90.7
12180	39.3	7.8	0.2	0.4	1.7	7.7	90.5
12240	90.8	6.6	0.1	0.2	0.3	6.5	93.0
12300	190.3	9.2	0.1	0.2	0.7	9.1	90.1
12360	397.9	9.3	0.2	0.3	0.8	9.2	89.8
12420	184.3	7.3	0.2	0.2	0.3	7.3	92.3
12480	68.7	8.7	0.2	0.3	0.5	8.6	90.8
12540	52.9	9.4	0.3	---	0.4	9.4	90.1
12600	405.6	6.8	0.3	---	0.3	6.8	92.8
12660	501.3	5.9	0.2	---	0.1	5.9	93.8
12720	464.6	8.3	0.3	0.3	0.4	8.3	91.2
12780	704.0	6.1	0.4	0.3	0.2	6.1	93.5
12840	67.5	7.3	---	---	0.1	7.3	92.5
12900	357.3	7.2	0.3	---	0.1	7.1	92.7
12960	165.4	6.2	0.3	0.3	0.2	6.2	93.4
13020	632.9	7.9	0.4	0.5	0.5	7.8	91.5
13080	743.4	5.9	0.3	0.4	0.2	5.9	93.8
13140	245.1	6.1	0.3	---	0.1	6.1	93.7
13200	214.4	7.5	0.3	---	0.1	7.5	92.2
13260	161.4	9.7	0.4	---	0.5	9.6	89.8
13320	221.9	11.7	0.4	0.1	0.4	11.6	87.9
13380	412.2	10.1	0.4	---	0.3	10.1	89.5
13440	296.2	12.8	0.5	---	1.1	12.6	86.2

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
13500	102.3	15.8	0.4	---	1.0	15.7	83.2
13560	153.7	11.7	0.3	---	0.3	11.7	87.8
13620	258.3	11.2	0.4	---	0.3	11.2	88.4
13680	149.3	12.3	0.3	---	0.7	12.2	87.0
13740	83.4	12.7	0.5	---	0.9	12.6	86.4
13800	209.9	12.4	0.4	0.0	0.3	12.4	87.2
13860	161.2	10.7	0.4	---	0.3	10.7	88.9
13920	379.1	19.0	0.3	0.3	0.5	18.9	80.5
13980	396.0	16.9	0.3	0.3	0.3	16.8	82.7
14040	329.1	23.5	0.4	0.3	0.4	23.4	76.1
14100	385.7	15.6	0.4	---	0.1	15.6	84.1
14160	456.7	12.4	0.4	---	0.2	12.4	87.3
14220	3.3	11.4	0.3	---	1.3	11.3	87.4
14280	227.8	17.4	0.4	0.3	0.5	17.3	82.0
14340	168.3	12.0	0.3	0.3	0.3	11.9	87.6
14400	402.7	12.7	0.4	0.3	0.4	12.7	86.8
14460	718.8	14.4	0.4	0.4	0.4	14.3	85.2
14520	282.6	14.3	0.5	0.4	0.4	14.2	85.2
14580	337.5	14.3	0.5	0.4	0.6	14.2	85.1
14640	482.7	17.6	0.6	0.5	0.5	17.5	81.9
14700	331.6	15.3	0.8	0.6	0.6	15.2	84.1
14760	377.9	17.4	0.6	0.5	0.7	17.2	81.9
14820	205.8	15.5	0.6	0.6	1.1	15.3	83.5
14880	594.8	13.9	0.6	0.5	0.5	13.8	85.5
14940	779.5	13.7	0.6	0.5	0.5	13.6	85.8
15000	633.7	13.8	0.6	0.5	0.7	13.7	85.5
15060	977.0	15.7	0.7	0.6	1.0	15.5	83.4
15120	353.0	15.0	0.6	0.5	0.5	14.9	84.4
15180	194.0	12.6	0.6	0.6	0.6	12.5	86.8
15240	1237.8	16.0	0.6	0.5	0.5	15.9	83.4
15300	552.4	14.4	0.6	0.4	0.4	14.3	85.2
15360	214.1	19.1	0.6	0.5	1.0	18.9	80.0
15420	234.5	20.6	0.6	0.5	0.9	20.4	78.6
15480	397.2	17.8	0.7	0.5	0.5	17.7	81.6
15540	2917.8	15.7	0.6	0.5	0.5	15.6	83.8
15600	588.1	14.6	0.6	0.4	0.4	14.6	84.9
15660	281.1	11.8	0.7	0.6	0.4	11.8	87.7
15720	358.6	95.3	0.9	0.7	6.3	89.3	4.4
15780	393.0	38.4	1.2	0.8	5.8	36.2	57.9
15840	201.0	40.1	0.9	0.7	3.1	38.9	57.9
15900	309.0	33.5	0.8	0.6	1.5	33.0	65.4
15960	254.6	56.0	0.9	0.7	3.2	54.2	42.5
16020	47.0	67.2	1.1	0.7	18.1	55.0	26.7
16080	306.8	75.5	1.3	0.7	10.3	67.7	21.9
16140	318.6	77.7	1.4	0.7	10.6	69.4	19.8
16200	826.7	80.5	1.5	0.7	9.2	73.1	17.6
16260	956.3	81.7	1.5	0.8	8.7	74.5	16.7
16320	1280.9	75.7	2.0	1.1	13.1	65.8	21.0
16380	1732.9	83.8	2.1	1.2	19.4	67.5	13.0
16440	965.9	87.3	2.2	1.2	24.0	66.3	9.6

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS
OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (CTGS)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
16500	1885.2	76.0	2.1	1.1	12.0	66.9	21.0
16560	1982.0	78.1	2.4	1.2	16.2	65.4	18.2
16620	1960.6	67.8	1.8	1.1	8.9	61.7	29.3
16680	216.5	86.9	2.0	1.2	44.0	48.6	7.3
16740	94.5	63.9	1.5	0.7	11.2	56.8	31.9
16800	202.8	26.0	1.0	0.5	1.4	25.6	72.9
16860	256.4	19.9	1.0	0.5	1.2	19.6	79.1
16920	418.6	26.2	1.0	0.5	1.7	25.8	72.4
16980	188.9	28.0	1.0	0.5	2.8	27.2	69.9
17040	515.5	31.6	1.1	0.6	4.7	30.1	65.1
17100	351.9	26.1	1.0	0.5	1.1	25.8	73.0
17143	155.6	44.7	1.4	0.6	6.2	41.9	51.8

APPENDIX IX

ORGANIC EXTRACT DATA

Fifty grams of each sample is pulverized and soxhlet extracted for 18 hours with dichloromethane to obtain the total amount of extractable material. The extract is first deasphaltened by precipitation with hexane. The soluble fraction is then separated into saturates, aromatics, and NSO compounds on a silica-alumina chromatographic column by successive elutions with hexane, benzene, and benzene-methanol solvents respectively. The total extract is expressed in parts per million of total sample extracted and the functional groups are expressed as weight percent of total extract.

Gas chromatograms of the C_{15}+ saturate fraction were produced with a Perkin-Elmer, Sigma 3 gas chromatograph fitted with a 12 foot, $NaNO_3/LiNO_3/KNO_3$ eutectic column. The chromatograph was programmed from 40°C to 360°C at 12°C/min. using helium carrier gas at the rate of 25 ml/min.

Straight chain paraffins (n-alkanes) are normalized between C_{15} and C_{40} to a sum of 100% and the percent of individual components plotted on bargraphs. Several ratios involving pristane (Pr) and phytane (Ph) are also calculated and plotted. Carbon preference index (CPI) values are calculated with the original Bray and Evans formula.

COMPOSITION OF SOURCE ROCK EXTRACT

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

DEPTH(FEET)	EXTRACT PPM	% SAT	% AROM	% NSO	% ASPH
3392.0	267	9.70	12.20	61.80	16.30
4197.8	37	11.10	55.60	22.20	11.10
5231.9	35	5.00	15.00	75.00	5.00
5974.5	33	7.70	15.40	69.20	7.70
6669.8	34	10.00	15.00	65.00	10.00
8050.7	369	5.50	28.00	44.00	22.50
8077.3	261	3.80	18.20	48.50	29.50
8092.7	1145	12.50	48.00	27.40	12.10
8636.3	440	6.40	15.10	44.50	34.00
8653.5	300	2.20	39.80	30.40	27.60
9257.5	1016	6.40	41.20	29.00	23.40
9263.5	798	9.30	9.30	44.30	37.10
9972.4	451	2.60	30.50	37.10	29.80
9982.0	503	5.30	26.30	38.00	30.40
10326.4	420	4.30	28.60	36.40	30.70
10738.4	1087	3.00	31.30	39.10	26.60
11102.5	1015	17.80	29.20	23.40	29.60
12251.2	2092	5.90	77.30	8.70	8.10
12269.3	3969	17.20	43.00	17.10	22.70
12634.4	2290	3.50	67.40	12.40	16.70
12634.8	1564	9.70	43.60	25.20	21.50
14179.1	3621	15.90	43.70	13.50	26.90
14179.4	1667	7.00	33.70	19.70	39.60
15354.6	325	2.60	43.90	27.60	25.90
15368.5	234	9.90	37.30	26.40	26.40
16009.3	254	19.10	33.70	29.20	18.00
16029.0	578	31.30	32.00	18.00	18.70
16703.7	1366	21.40	57.40	10.10	11.10
16714.6	294	14.80	25.00	28.40	31.80
16719.6	684	37.40	21.60	19.40	21.60

SUMMARY TABLE SHOWING GROUP COMPOSITION
AND SELECTED PARAMETERS OF ROCK EXTRACT

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

NOTATION	EXT/TOC	RELATIVE COMPOSITION			PR/PH	CPI
DEPTH(FEET)		%SAT	%ARO	%NSO+ ASPH		
3392.0	0.018	9.7	12.2	78.1	1.50	3.96
4197.8	0.007	11.1	55.6	33.3	1.48	0.81
5231.9	0.018	5.0	15.0	80.0	0.87	1.16
5974.5	0.008	7.7	15.4	76.9	0.97	1.35
6669.8	0.020	10.0	15.0	75.0	0.82	1.16
8050.7	0.014	5.5	28.0	66.5	4.90	----
8077.3	0.010	3.8	18.2	78.0	4.54	----
8092.7	0.030	12.5	48.0	39.5	5.55	2.10
8636.3	0.007	6.4	15.1	78.5	4.51	----
8653.5	0.013	2.2	39.8	58.0	3.38	0.93
9257.5	0.047	6.4	41.2	52.4	4.25	----
9263.5	0.160	9.3	9.3	81.4	5.52	3.14
9972.4	0.058	2.6	30.5	66.9	3.28	----
9982.0	0.112	5.3	26.3	68.4	3.99	----
10326.4	0.145	4.3	28.6	67.1	3.18	----
10738.4	0.022	3.0	31.3	65.7	6.93	----
11102.5	0.082	17.8	29.2	53.0	5.58	2.74
12251.2	0.040	5.9	77.3	16.8	6.53	2.07
12269.3	0.014	17.2	43.0	39.8	7.61	2.40
12634.4	0.132	3.5	67.4	29.1	9.14	----
12634.8	0.027	9.7	43.6	46.7	7.96	----
14179.1	0.019	15.9	43.7	40.4	7.72	1.35
14179.4	0.010	7.0	33.7	59.3	7.46	----
15354.6	0.013	2.6	43.9	53.5	9.30	----
15368.5	0.029	9.9	37.3	52.8	6.54	----
16009.3	0.014	19.1	33.7	47.2	5.00	----
16029.0	0.037	31.3	32.0	36.7	3.85	----
16703.7	0.062	21.4	57.4	21.2	2.78	----
16714.6	0.025	14.8	25.0	60.2	2.14	----
16719.6	0.029	37.4	21.6	41.0	2.27	----

COMPOSITION OF SOURCE ROCK EXTRACT

NORTH ALEUTIAN SHELF #1 COST WELL (CORE-mean)

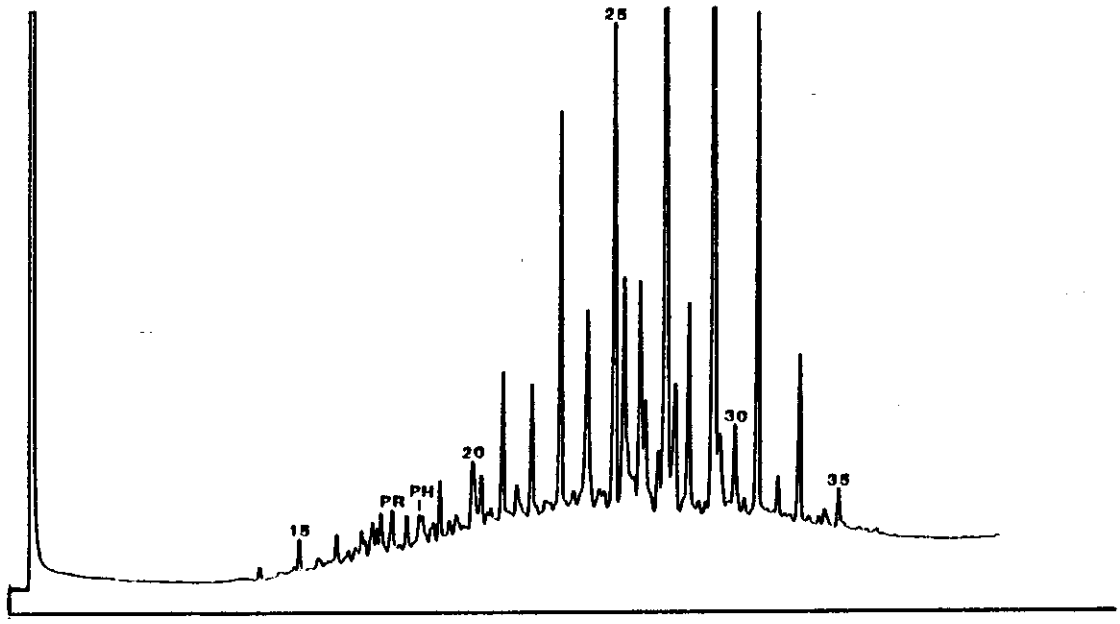
DEPTH(FEET)	EXTRACT PPM	% SAT	% AROM	% NSO	% ASPH
3392.0	267	9.70	12.20	61.80	16.30
4197.8	37	11.10	55.60	22.20	11.10
5231.9	35	5.00	15.00	75.00	5.00
5974.5	33	7.70	15.40	69.20	7.70
6669.8	34	10.00	15.00	65.00	10.00
8073.6	592	7.27	31.40	39.97	21.37
8644.9	370	4.30	27.45	37.45	30.80
9260.5	907	7.85	25.25	36.65	30.25
9977.2	477	3.95	28.40	37.55	30.10
10326.4	420	4.30	28.60	36.40	30.70
10738.4	1087	3.00	31.30	39.10	26.60
11102.5	1015	17.80	29.20	23.40	29.60
12260.3	3031	11.55	60.15	12.90	15.40
12634.6	1927	6.60	55.50	18.80	19.10
14179.3	2644	11.45	38.70	16.60	33.25
15361.6	280	6.25	40.60	27.00	26.15
16019.2	416	25.20	32.85	23.60	18.35
16712.6	781	24.53	34.67	19.30	21.50

SUMMARY TABLE SHOWING GROUP COMPOSITION AND SELECTED PARAMETERS OF ROCK EXTRACT

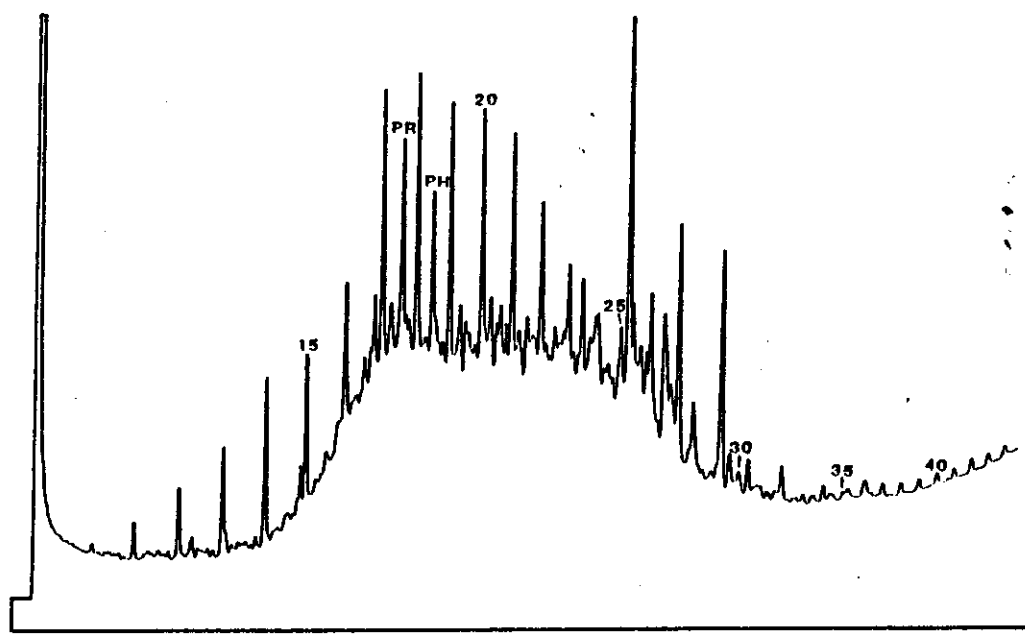
NORTH ALEUTIAN SHELF #1 COST WELL (CORE-mean)

NOTATION	EXT/TOC	RELATIVE COMPOSITION			PR/PH	CPI
DEPTH(FEET)		%SAT	%ARO	%NSO+ ASPH		
3392.0	0.018	9.7	12.2	78.1	1.50	3.96
4197.8	0.007	11.1	55.6	33.3	1.44	0.49
5231.9	0.018	5.0	15.0	80.0	0.90	1.20
5974.5	0.008	7.7	15.4	76.9	0.90	1.30
6669.8	0.020	10.0	15.0	75.0	0.80	1.20
8073.6	0.019	7.3	31.4	61.3	5.00	2.10
8644.9	0.009	4.3	27.5	68.3	3.95	0.93
9260.5	0.068	7.9	25.3	66.9	4.89	3.14
9977.2	0.078	4.0	28.4	67.7	3.64	----
10326.4	0.145	4.3	28.6	67.1	3.18	----
10738.4	0.022	3.0	31.3	65.7	6.93	----
11102.5	0.082	17.8	29.2	53.0	5.58	2.74
12260.3	0.018	11.6	60.2	28.3	7.07	2.24
12634.6	0.051	6.6	55.5	37.9	8.55	----
14179.3	0.015	11.5	38.7	49.9	7.59	1.35
15361.6	0.016	6.3	40.6	53.2	7.92	----
16019.2	0.025	25.2	32.9	42.0	4.43	----
16712.6	0.041	24.5	34.7	40.8	2.40	----

(Mean core data as used in figures)

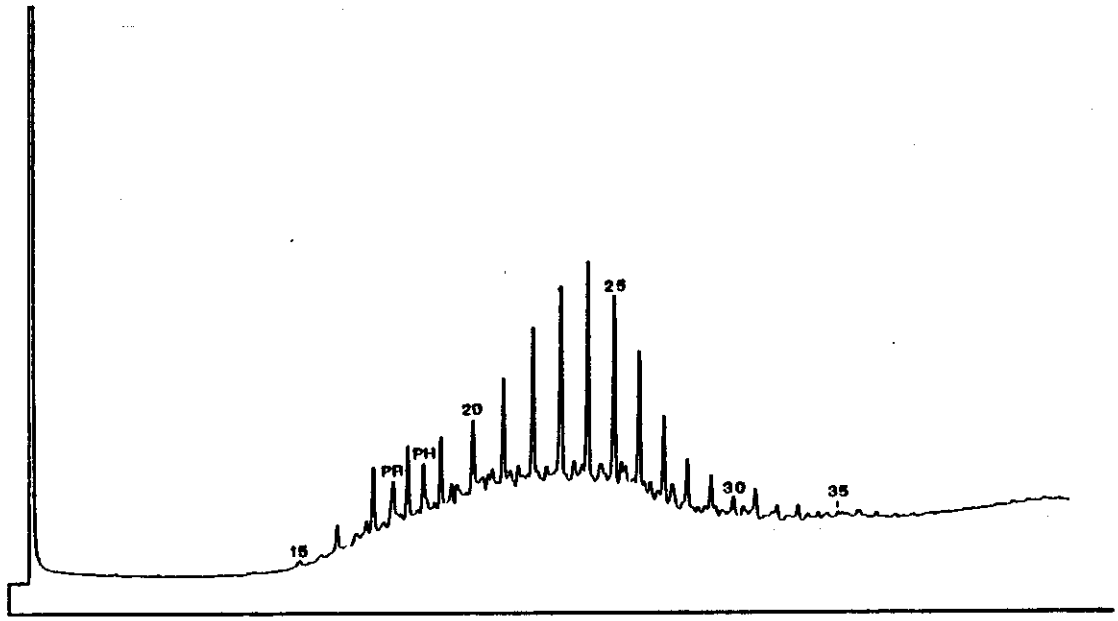


SAMPLE: RRUS 61; 3392 feet; core 1.

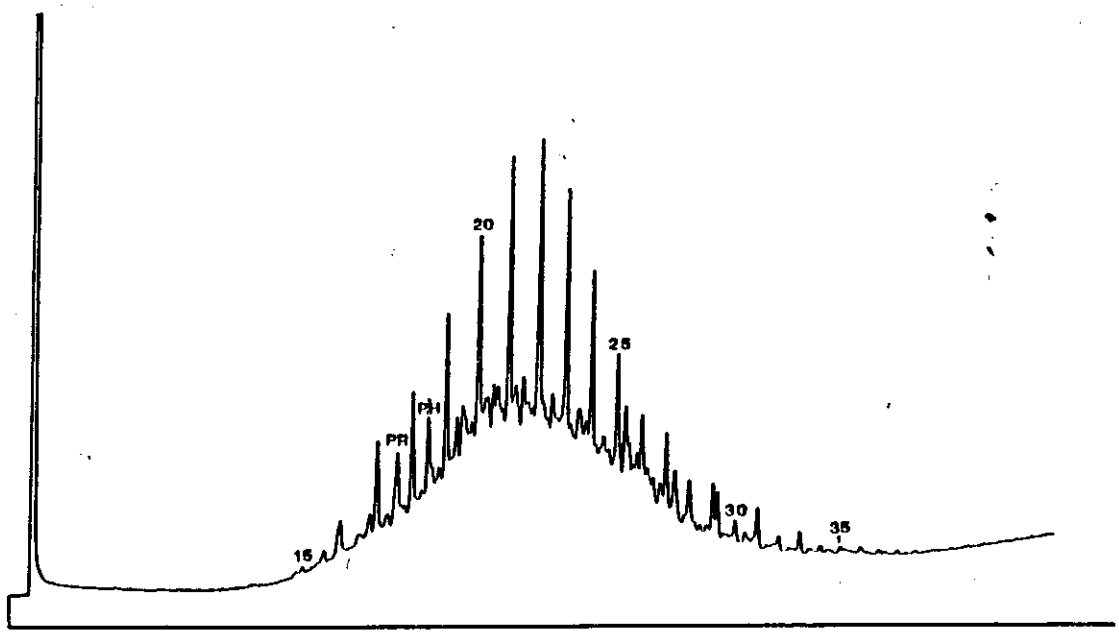


SAMPLE: RRUS 59; 4197.8 feet; core 2.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

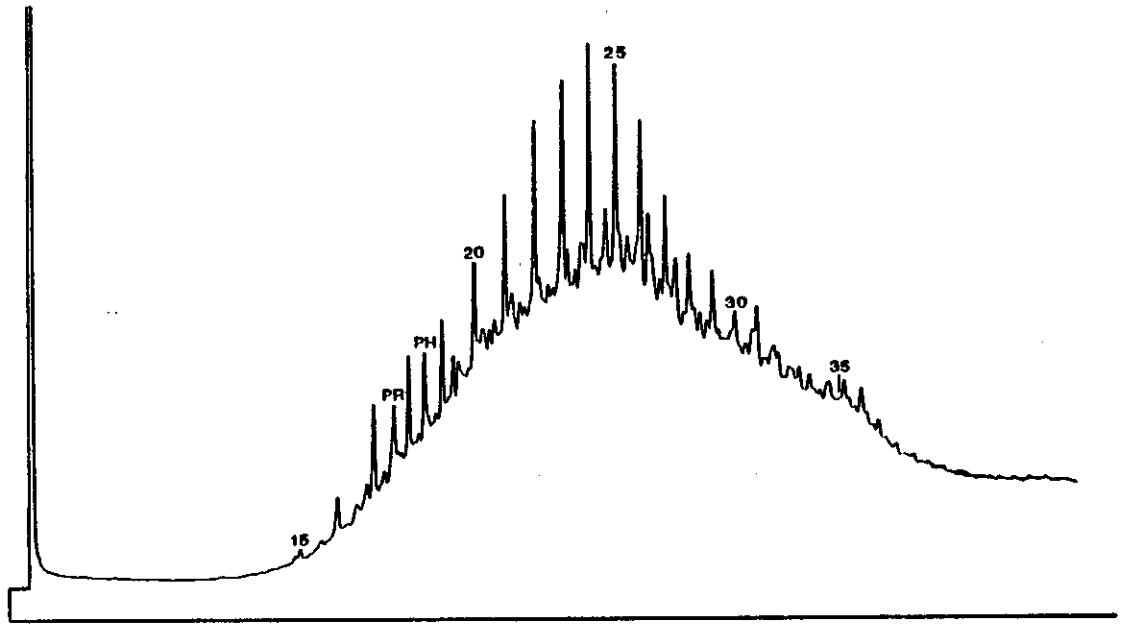


SAMPLE: RRUS 146; 5231.9 feet; core 3.

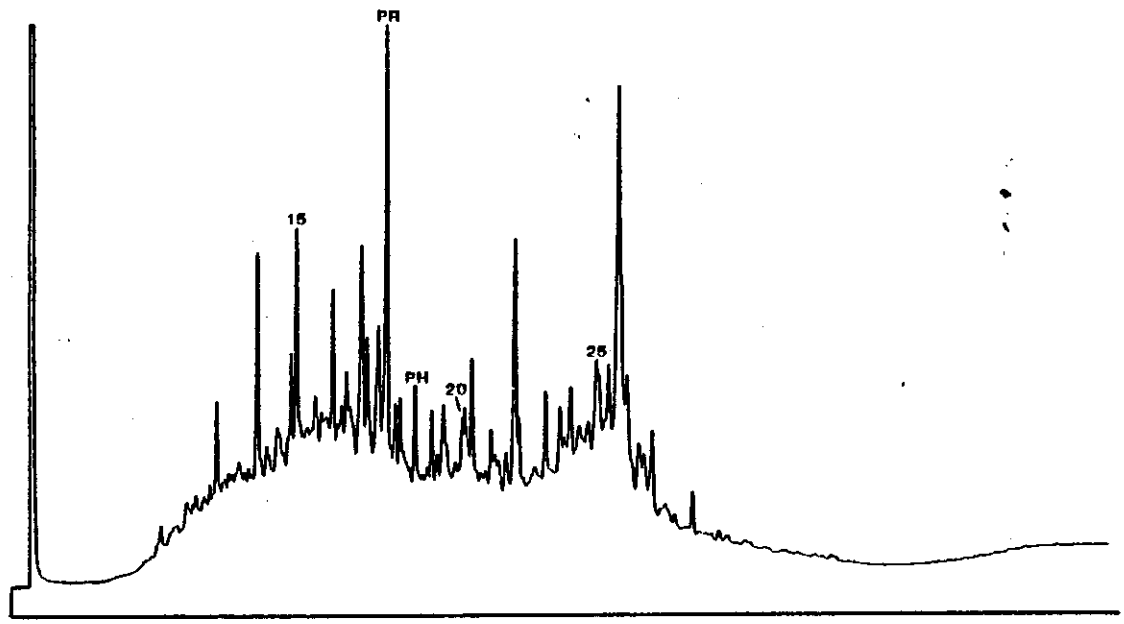


SAMPLE: RRUS 155; 5974.5 feet; core 4.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

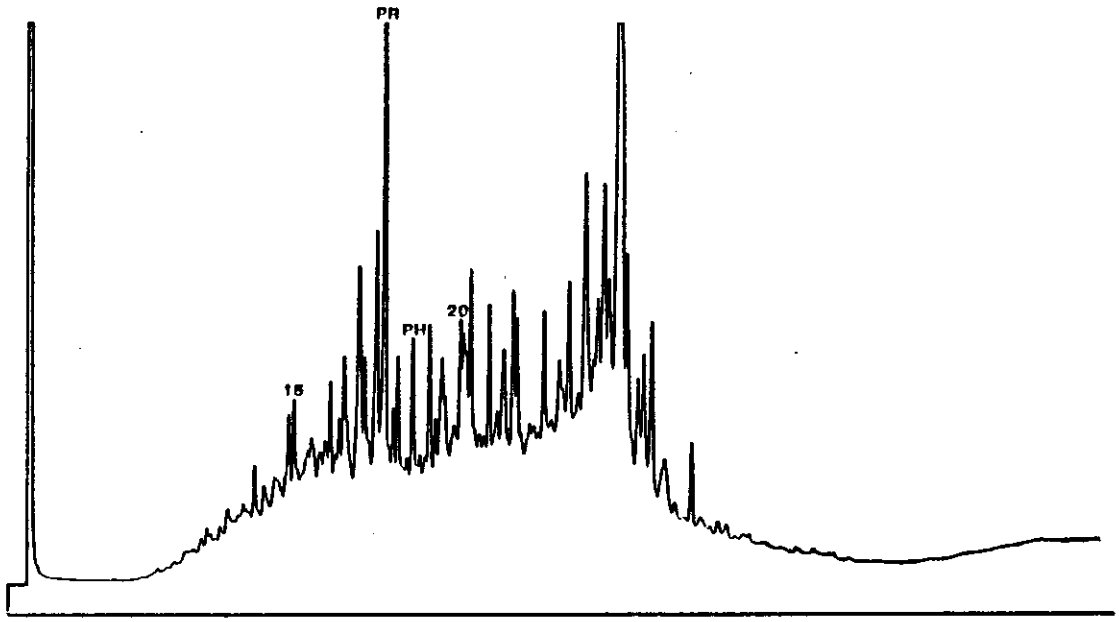


SAMPLE: RRUS 163; 6669.8 feet; core 5.

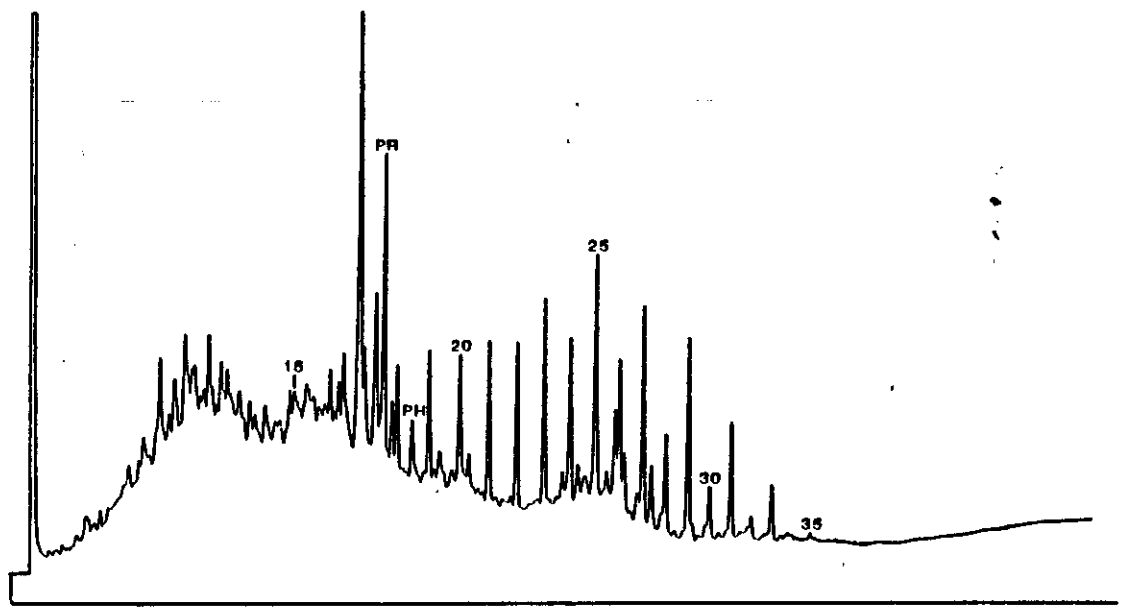


SAMPLE: RRUS 219; 8050.7 feet; core 6.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

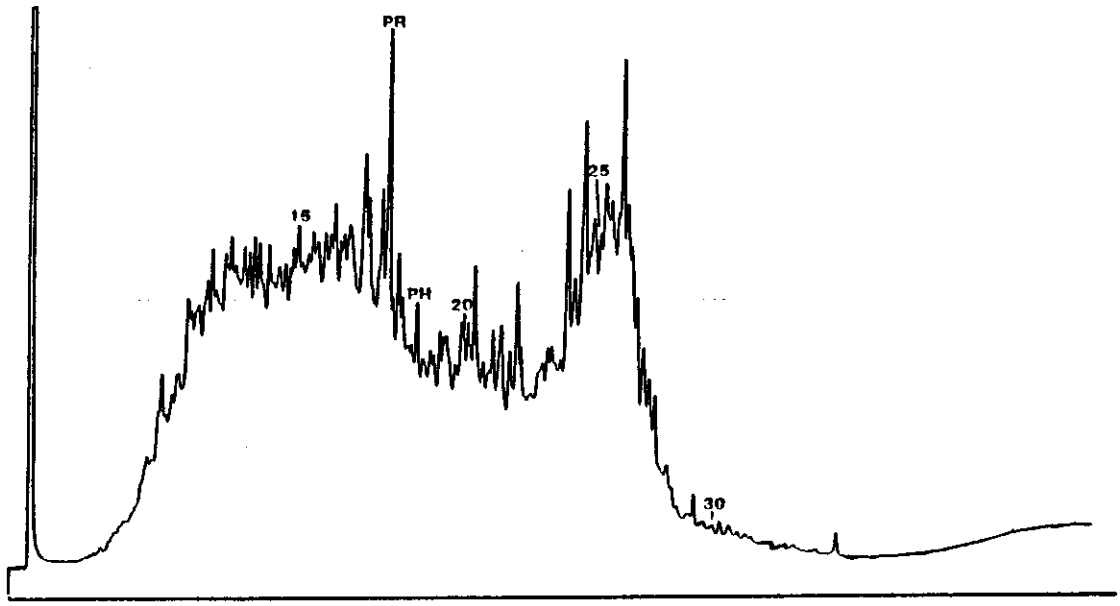


SAMPLE: RRUS 227; 8077.3 feet; core 7.

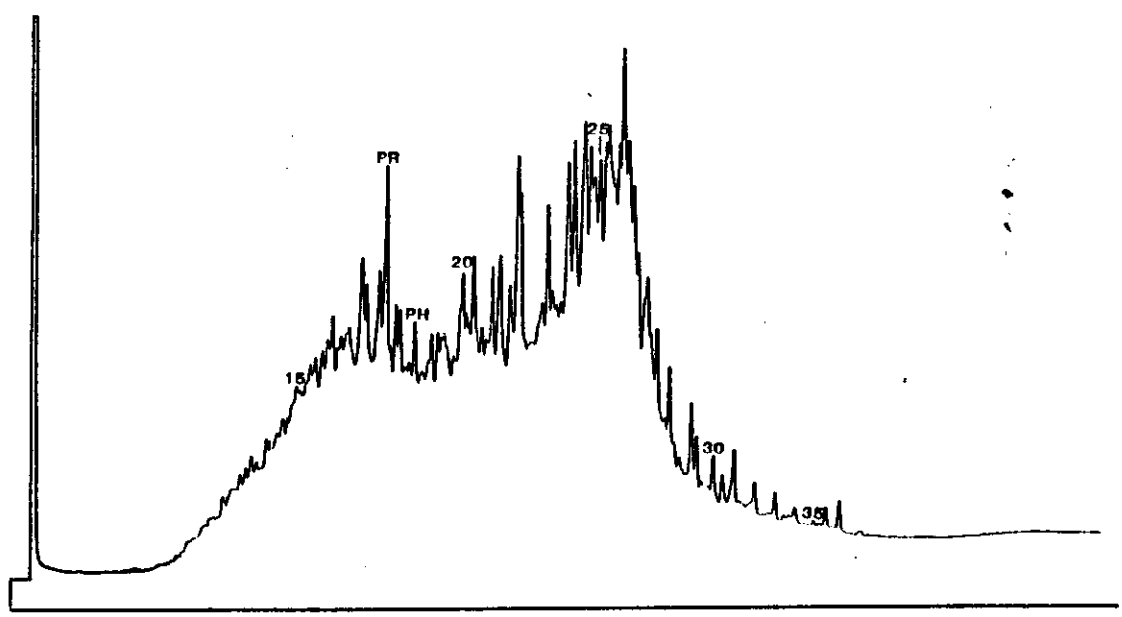


SAMPLE: RUS 234; 8092.7 feet; core 7

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

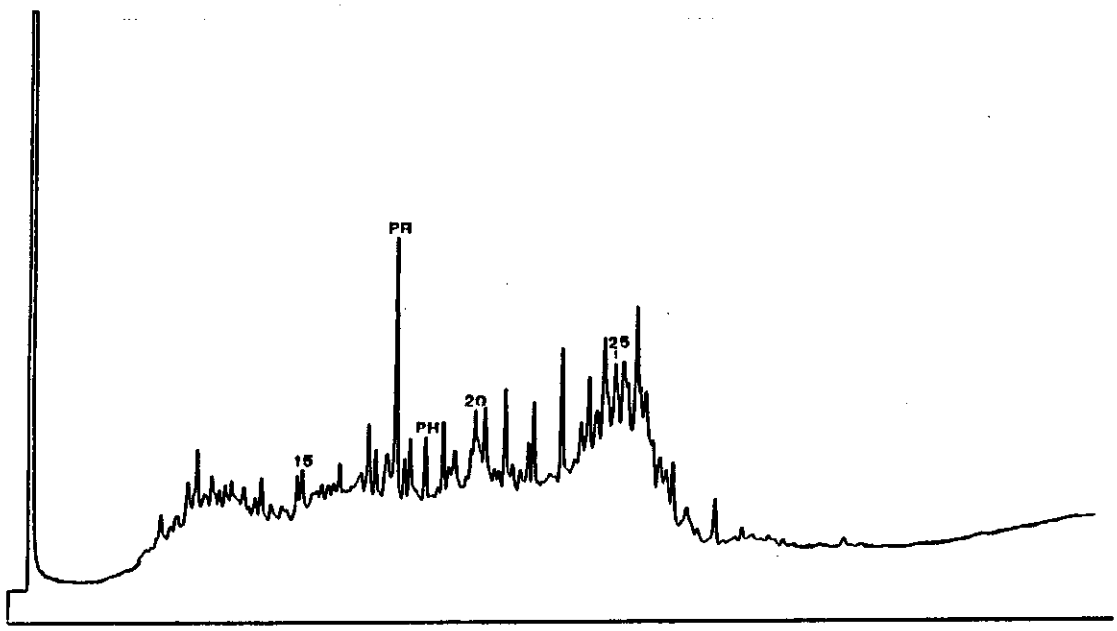


SAMPLE: RRUS 237; 8636.3 feet; core 8.

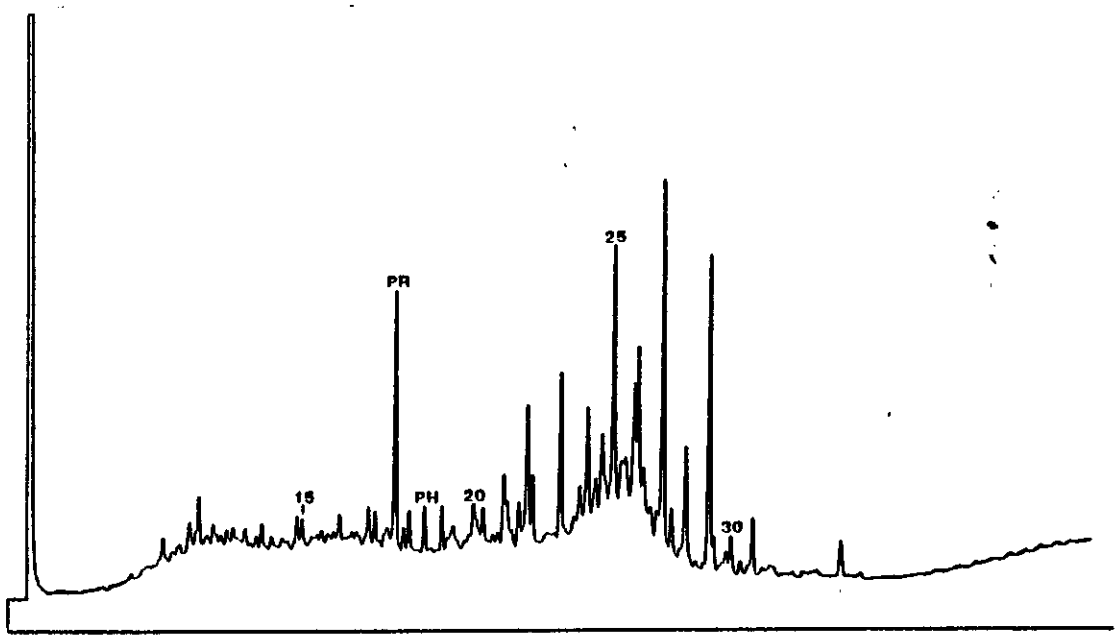


SAMPLE: RRUS 241; 8653.5 feet; core 8.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

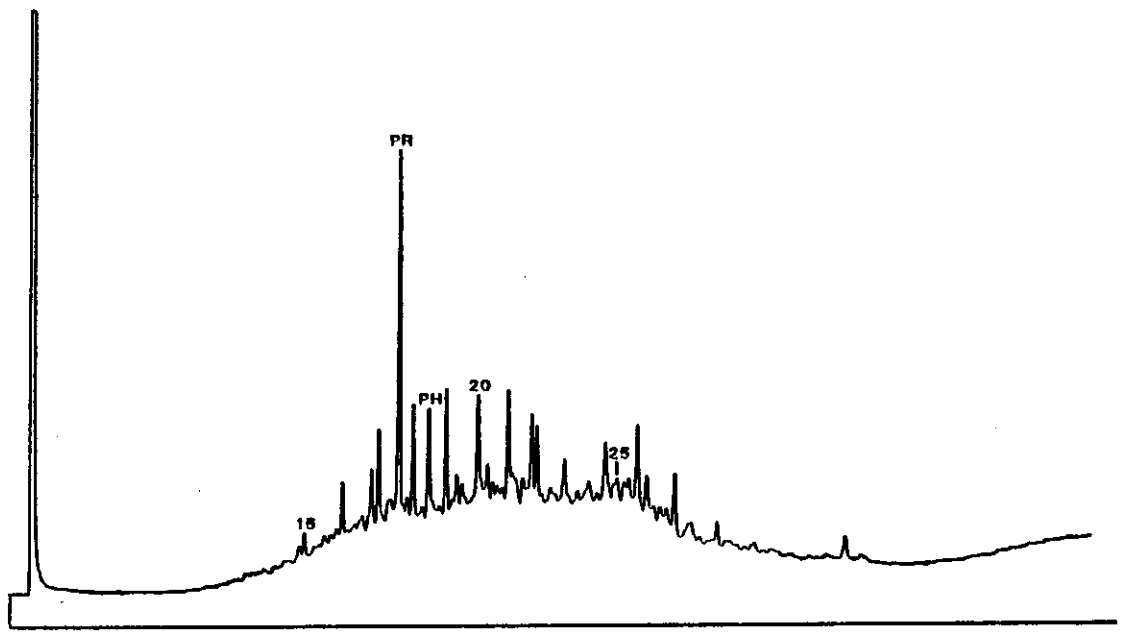


SAMPLE: RRUS 244; 9257.5 feet; core 9.

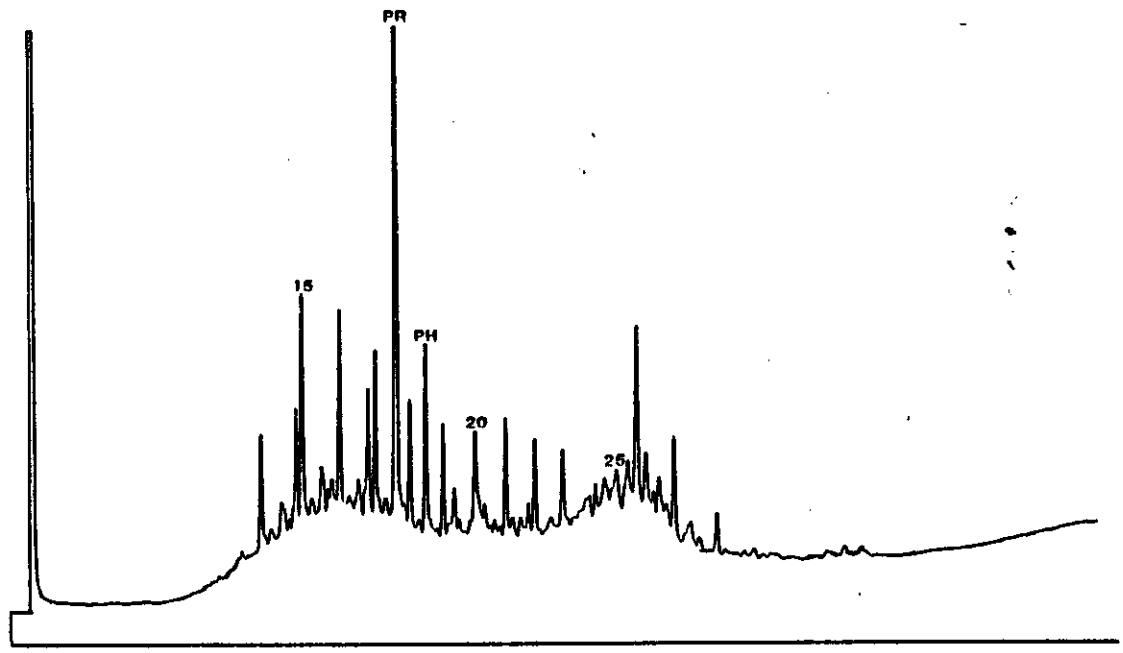


SAMPLE: RRUS 246; 9263.5 feet; core 9.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

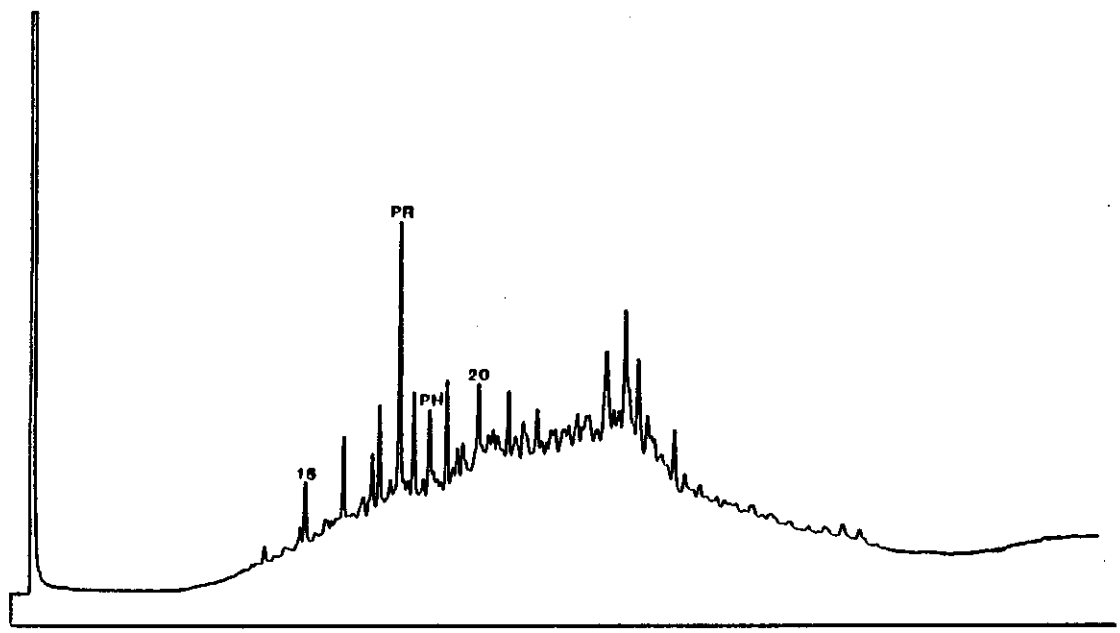


SAMPLE: RRUS 259; 9972.4 feet; core 10.

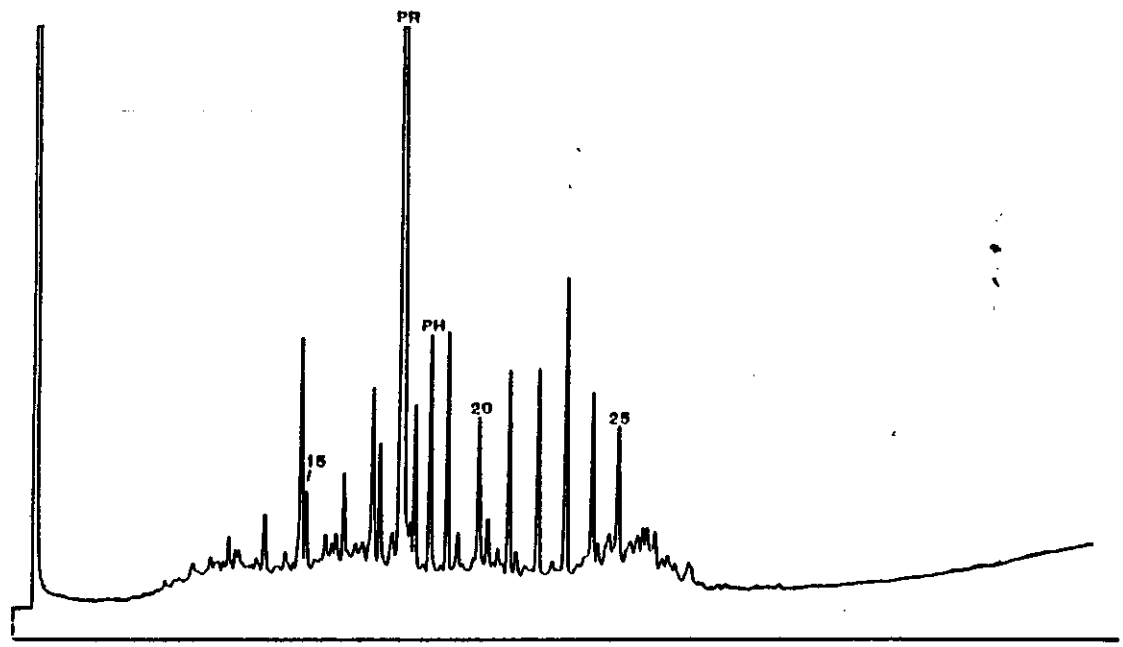


SAMPLE: RRUS 263; 9982.0 feet; core 10.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

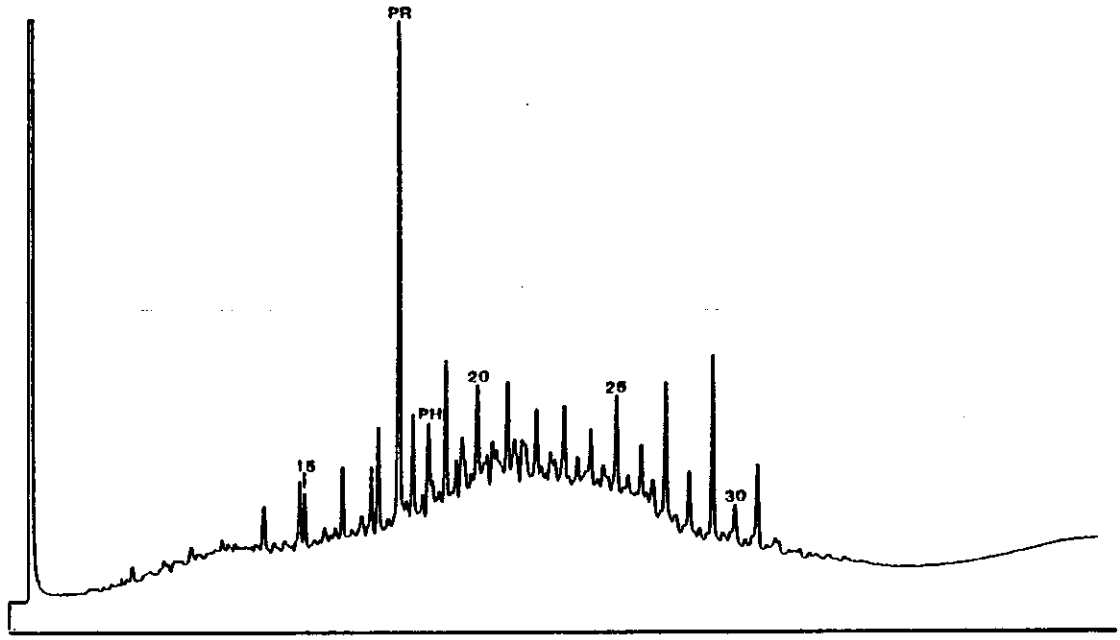


SAMPLE: RRUS 265; 10326.4 feet; core 11.

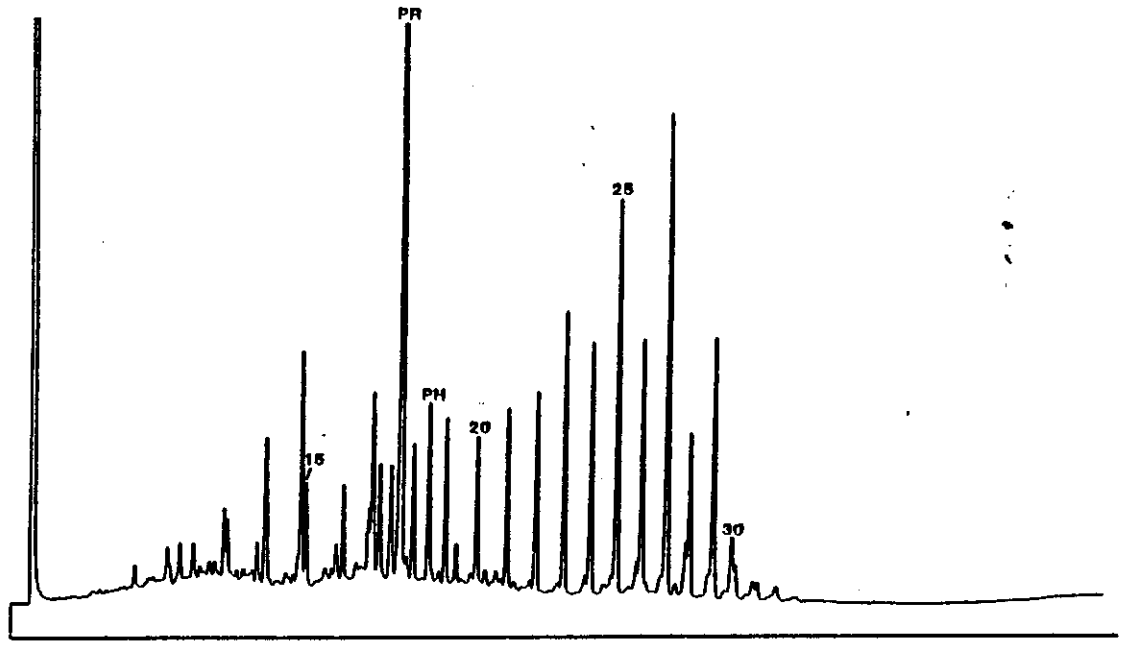


SAMPLE: RRUS 274; 10738.4 feet; core 12.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

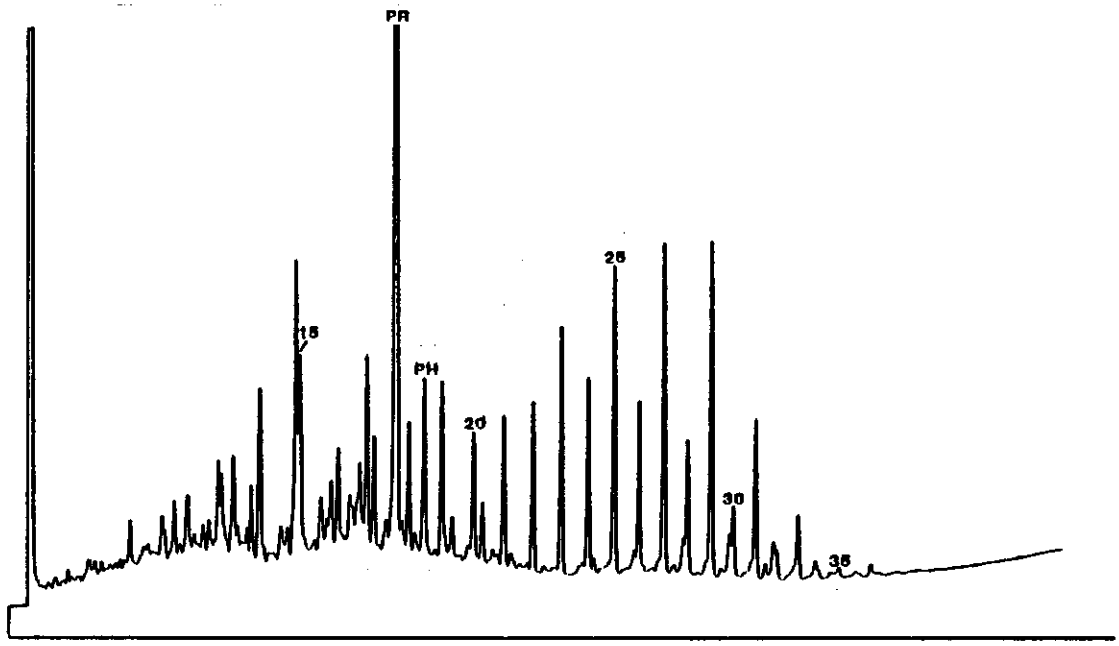


SAMPLE: RRUS 302; 11102.5 feet; core 13.

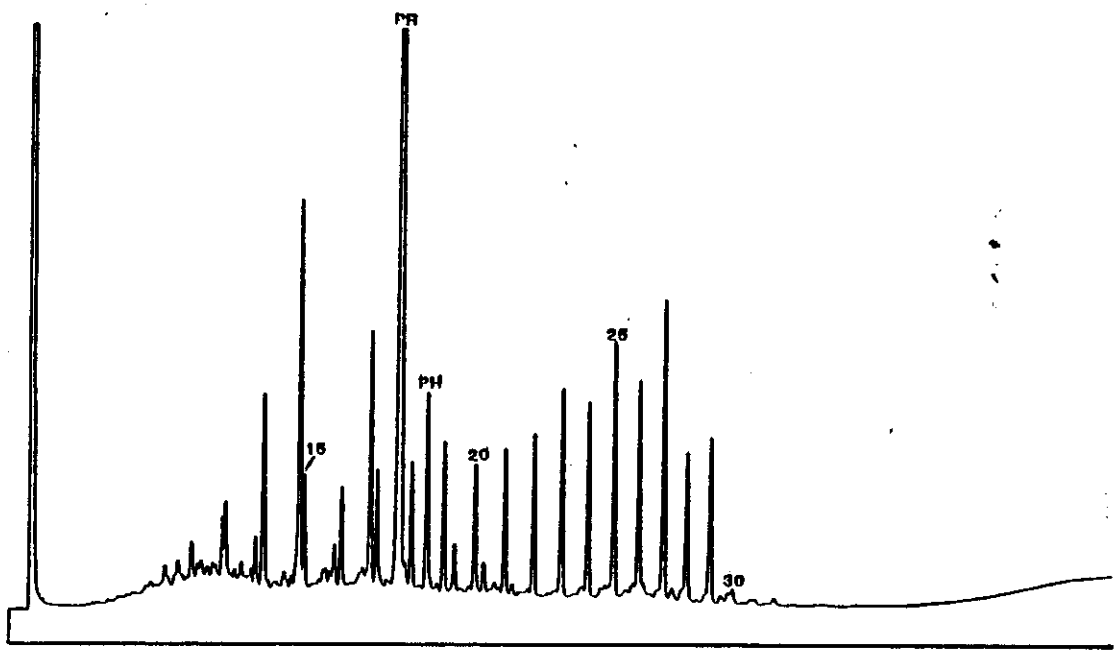


SAMPLE: RRUS 306; 12251.2 feet; core 14.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

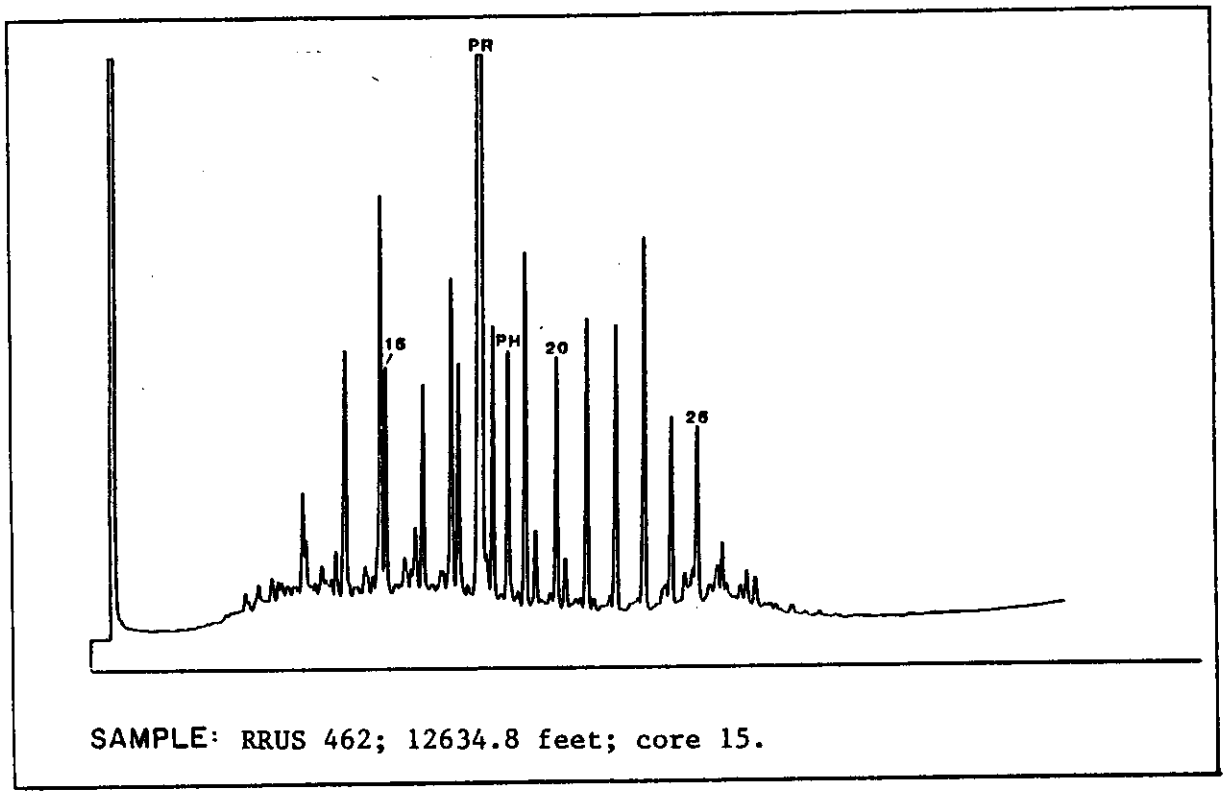


SAMPLE: RRUS 314; 12269.3 feet; core 14

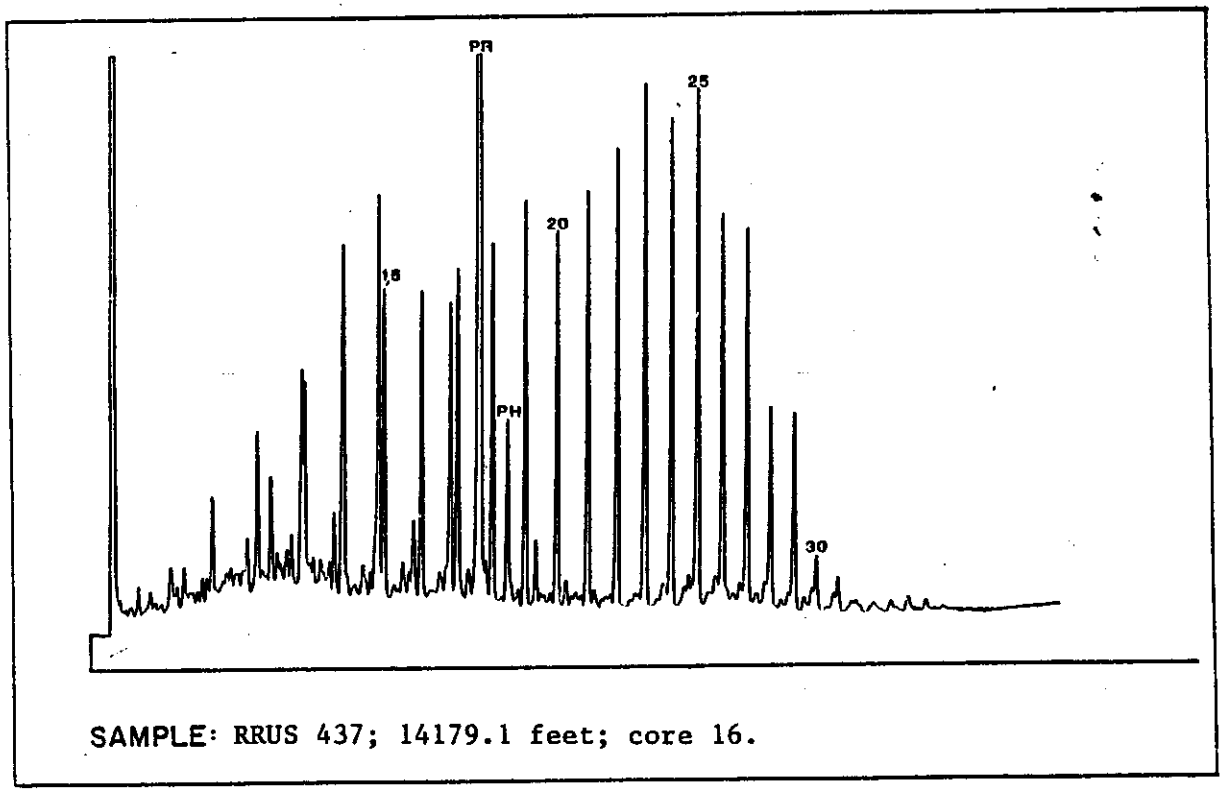


SAMPLE: RRUS 338; 12634.4; core. 15

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

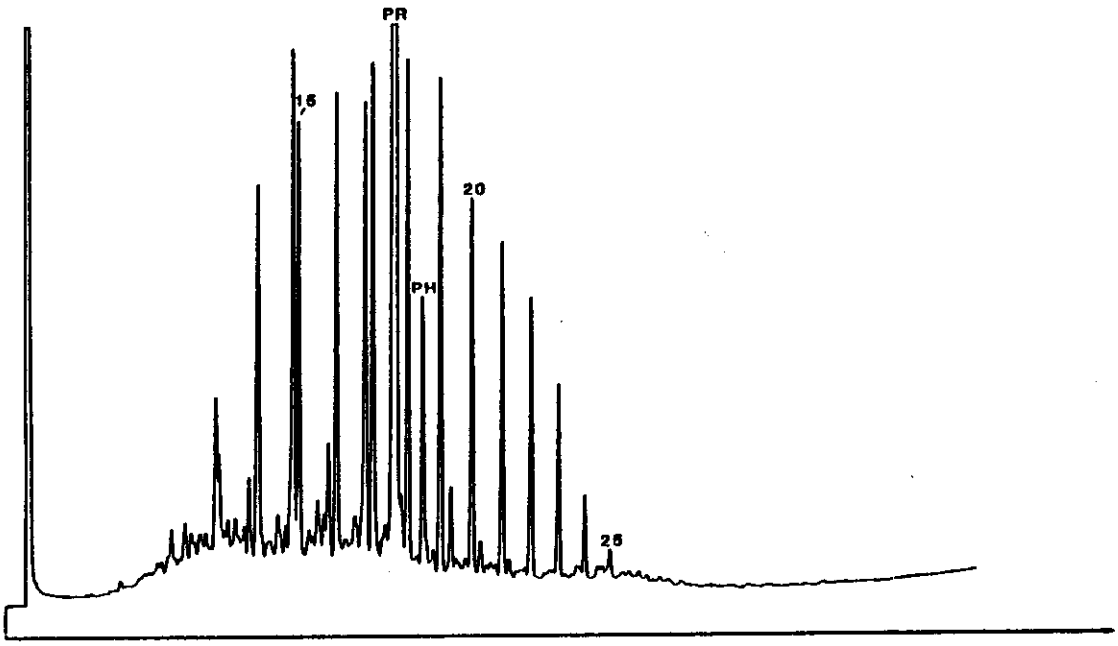


SAMPLE: RRUS 462; 12634.8 feet; core 15.

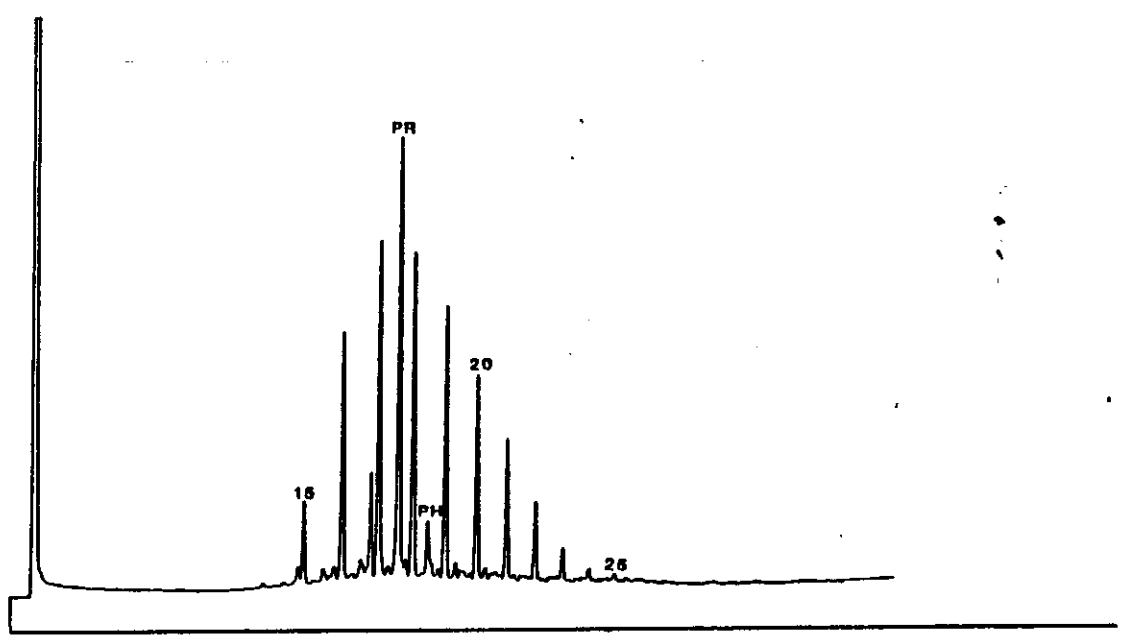


SAMPLE: RRUS 437; 14179.1 feet; core 16.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

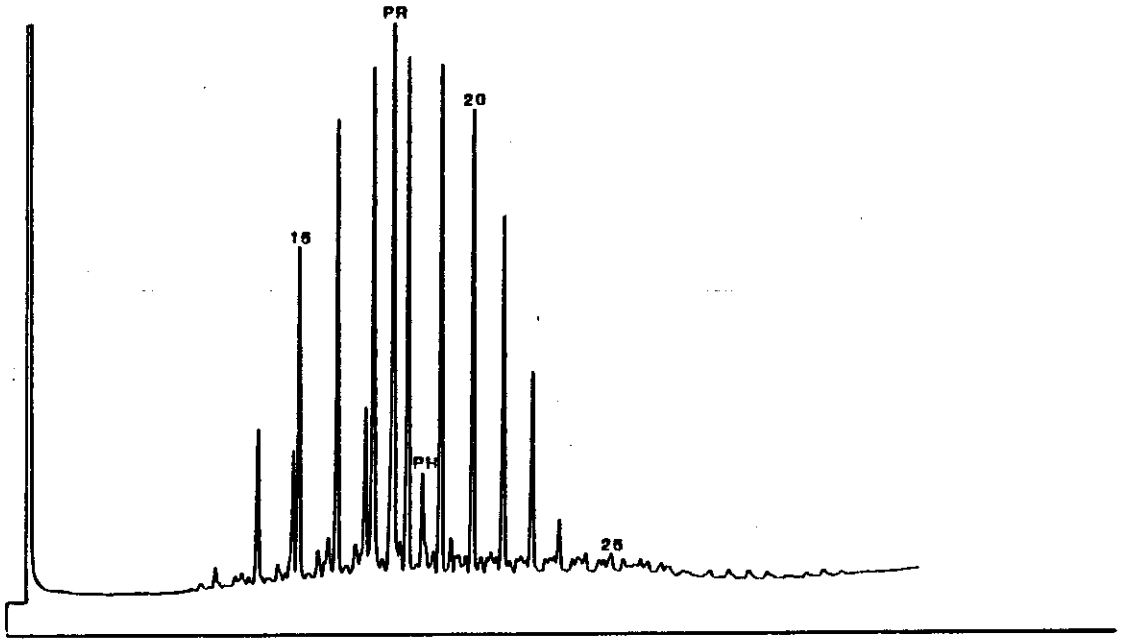


SAMPLE: RRUS 464; 14179.4 feet; core 16.

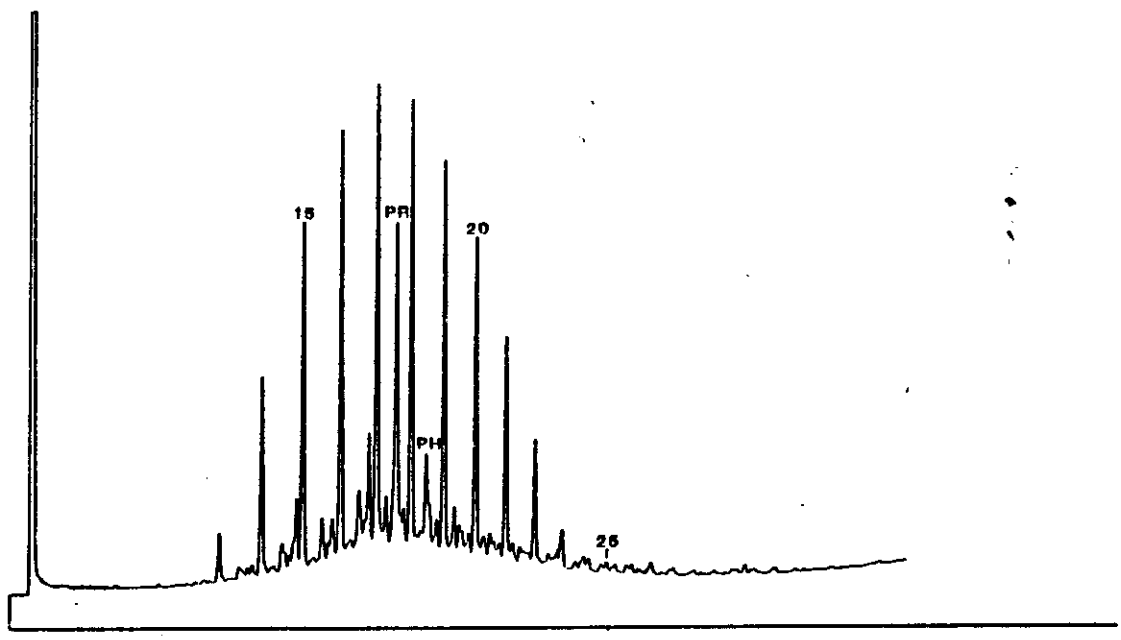


SAMPLE: RRUS 480; 15354.6 feet; core 17.

GAS CHROMATOGRAMS OF CI5+ SATURATE HYDROCARBONS

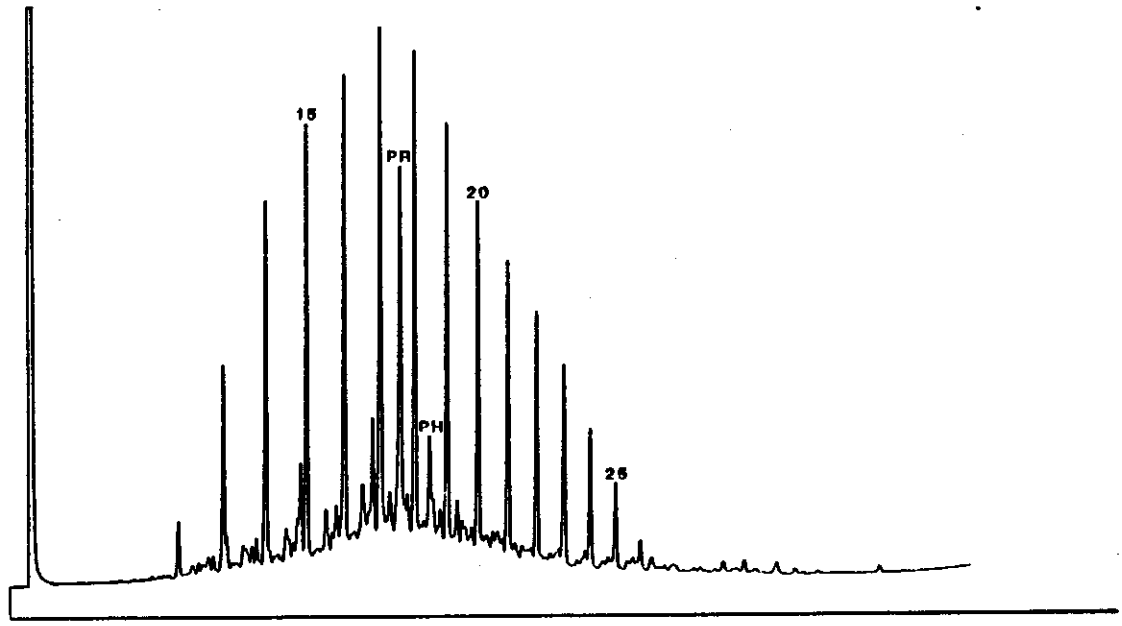


SAMPLE: RRUS 485; 15368.5 feet; core 17.

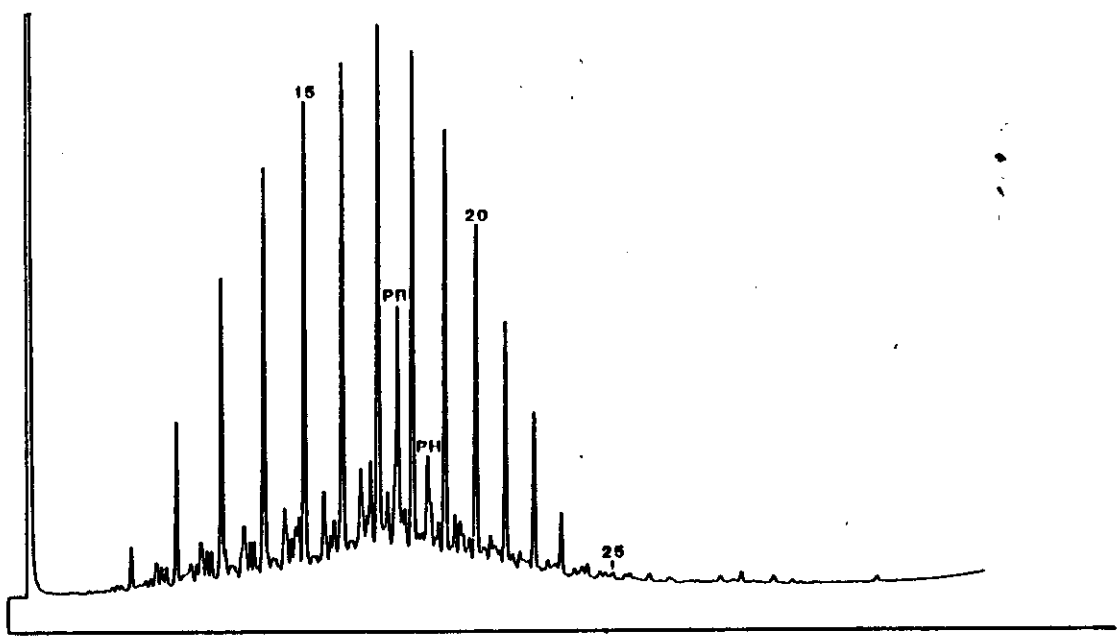


SAMPLE: RRUS 487; 16009.3 feet; core 18.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS

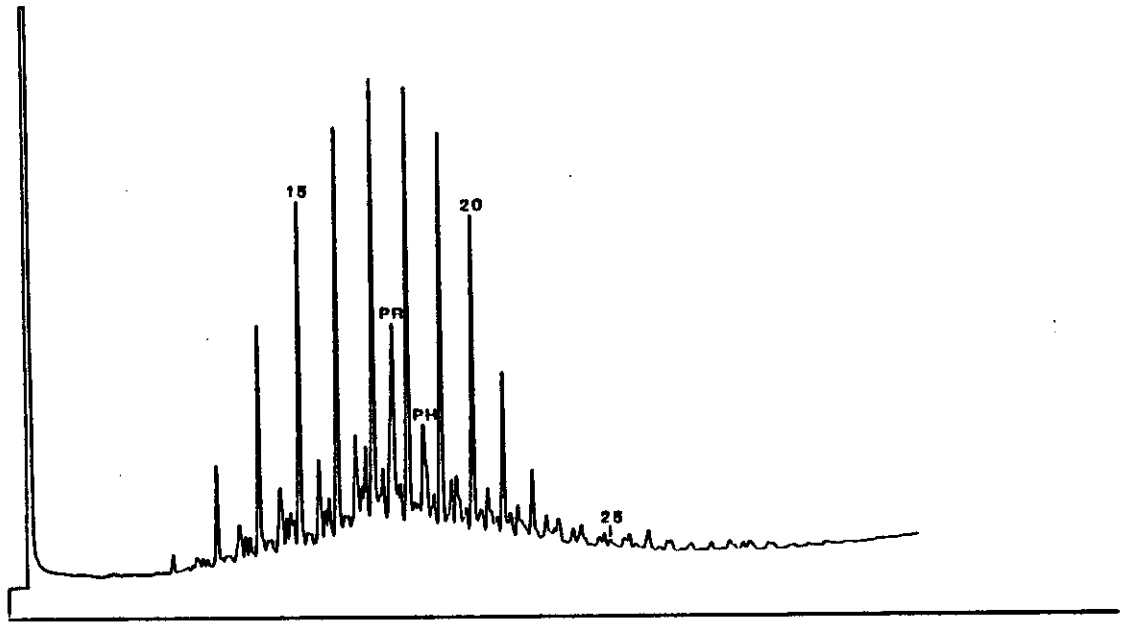


SAMPLE: RRUS 494; 16029.0 feet; core 18.

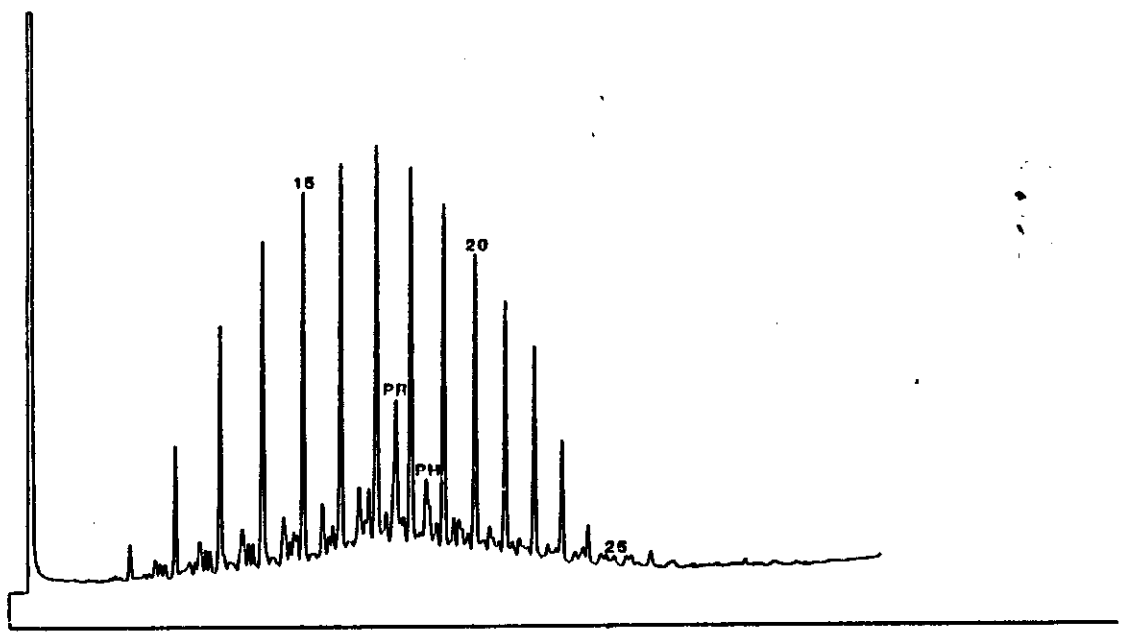


SAMPLE: RRUS 507; 16703.7 feet; core 19.

GAS CHROMATOGRAMS OF C15+ SATURATE HYDROCARBONS



SAMPLE: RRUS 510; 16714.6 feet; core 19.



SAMPLE: RRUS 513; 16719.6 feet; core 19.

GAS CHROMATOGRAMS OF CI5+ SATURATE HYDROCARBONS

HEAVY HYDROCARBONS NORMALIZED TO 100%

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

ID	C-10	C-11	C-12	C-13	C-14	C-15	C-16	C-17	C-18	C-19	C-20
3392.0	0.00	0.00	0.00	0.00	0.00	0.70	0.60	0.70	0.70	1.30	1.50
4197.8	1.00	0.00	0.00	0.00	0.00	6.07	6.29	11.28	11.61	10.85	10.63
5231.9	0.00	0.00	0.00	0.00	0.00	0.30	1.50	4.10	4.40	4.20	4.60
5974.5	0.00	0.00	0.00	0.00	0.00	0.30	1.50	4.31	5.42	7.62	9.63
6669.8	0.00	0.00	0.00	0.00	0.00	0.50	1.70	4.40	4.40	4.40	5.00
8050.7	0.00	0.00	0.00	0.00	0.00	18.85	11.94	10.07	6.32	5.62	2.46
8077.3	0.00	0.00	0.00	0.00	0.00	4.74	5.44	6.69	6.56	7.81	4.32
8092.7	0.00	0.00	0.00	0.00	0.00	2.20	3.10	3.90	4.10	5.41	5.51
8636.3	0.00	0.00	0.00	0.00	0.00	3.88	5.31	7.14	3.27	1.94	3.57
8653.5	0.00	0.00	0.00	0.00	0.00	3.05	5.30	5.19	4.18	3.05	6.01
9257.5	0.00	0.00	0.00	0.00	0.00	5.43	4.75	5.09	6.79	7.92	6.79
9263.5	0.00	0.00	0.00	0.00	0.00	1.50	1.40	1.90	2.00	2.30	1.30
9972.4	0.00	0.00	0.00	0.00	0.00	2.95	6.50	11.99	13.62	15.45	12.20
9982.0	0.00	0.00	0.00	0.00	0.00	17.97	14.87	12.89	9.67	8.55	7.93
10326.4	0.00	0.00	0.00	0.00	0.00	9.60	12.84	15.82	16.47	16.86	10.89
10738.4	0.00	0.00	0.00	0.00	0.00	4.04	4.85	6.27	8.39	12.23	7.68

ID	C-21	C-22	C-23	C-24	C-25	C-26	C-27	C-28	C-29	C-30
3392.0	3.11	2.91	8.72	4.51	10.52	5.21	17.43	4.71	18.34	2.20
4197.8	10.09	7.48	5.21	3.25	2.93	2.06	2.71	2.71	0.54	0.87
5231.9	6.41	9.81	12.31	14.01	12.01	8.91	5.01	3.00	2.40	1.20
5974.5	12.54	14.04	12.44	9.23	6.02	3.71	3.21	2.11	2.41	0.90
6669.8	6.50	9.10	10.50	12.20	11.10	8.40	4.70	3.60	3.40	2.00
8050.7	4.68	5.62	6.67	6.09	6.91	11.01	3.75	0.00	0.00	0.00
8077.3	8.23	8.09	8.93	11.02	7.11	9.62	8.37	3.07	0.00	0.00
8092.7	6.41	6.61	8.51	7.01	10.51	6.31	8.21	3.90	8.11	2.00
8636.3	4.29	3.88	4.08	9.90	14.08	26.00	8.88	2.55	0.10	0.61
8653.5	5.80	13.03	3.67	12.22	11.20	13.03	3.97	0.71	0.31	2.55
9257.5	11.09	9.39	14.71	8.71	7.24	8.14	3.96	2.51	0.00	1.09
9263.5	3.70	3.60	8.69	5.79	13.69	8.49	18.58	5.79	16.78	1.80
9972.4	13.82	9.45	5.08	2.44	2.85	0.00	1.52	2.13	0.00	0.00
9982.0	9.05	7.31	5.82	2.11	3.84	0.00	1.05	1.75	2.92	0.00
10326.4	10.51	7.00	3.20	0.00	4.14	0.00	1.42	0.00	0.00	0.00
10738.4	10.41	10.52	15.17	9.20	7.38	2.12	0.71	1.01	0.00	0.00

HEAVY HYDROCARBONS NORMALIZED TO 100%

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

ID	C-10	C-11	C-12	C-13	C-14	C-15	C-16	C-17	C-18	C-19	C-20
11102.5	0.00	0.00	0.00	0.00	0.00	3.70	4.70	6.90	6.70	9.30	6.10
12251.2	0.00	0.00	0.00	0.00	0.00	3.19	2.89	3.39	4.19	5.09	4.39
12269.3	0.00	0.00	0.00	0.00	0.00	6.32	3.31	3.51	4.01	5.42	4.01
12634.4	0.00	0.00	0.00	0.00	0.00	4.60	3.90	4.60	5.00	5.99	5.00
12634.8	0.00	0.00	0.00	0.00	0.00	7.53	6.93	7.43	9.04	11.75	8.33
14179.1	0.00	0.00	0.00	0.00	0.00	5.42	5.42	5.82	6.22	7.13	6.53
14179.4	0.00	0.00	0.00	0.00	0.00	11.86	12.56	13.27	13.57	13.37	10.15
15354.6	0.00	0.00	0.00	0.00	0.00	4.80	14.21	19.22	18.62	15.62	11.71
15368.5	0.00	0.00	0.00	0.00	0.00	9.75	13.27	14.57	14.77	14.77	13.47
16009.3	0.00	0.00	0.00	0.00	0.00	12.50	15.32	16.33	15.93	14.01	11.49
16029.0	0.00	0.00	0.00	0.00	0.00	11.94	12.84	13.74	13.14	11.43	9.43
16703.7	0.00	0.00	0.00	0.00	0.00	14.59	15.38	15.98	15.48	13.29	10.39
16714.6	0.00	0.00	0.00	0.00	0.00	12.80	15.03	15.81	16.00	14.55	11.64
16719.6	0.00	0.00	0.00	0.00	0.00	13.24	13.84	14.04	13.44	12.34	10.53

ID	C-21	C-22	C-23	C-24	C-25	C-26	C-27	C-28	C-29	C-30
11102.5	6.20	4.60	5.20	3.30	6.50	3.80	8.80	3.80	12.10	2.20
12251.2	5.49	6.09	8.58	7.58	11.98	7.68	14.67	4.99	7.98	1.00
12269.3	4.61	5.22	7.62	6.02	9.43	5.32	10.13	4.11	10.33	2.11
12634.4	5.79	6.39	8.19	7.59	9.99	8.49	11.69	5.59	6.39	0.60
12634.8	9.74	9.54	12.35	6.53	6.22	2.41	1.41	0.40	0.40	0.00
14179.1	7.23	8.03	9.04	8.33	9.04	6.83	6.53	3.51	3.41	0.90
14179.4	9.15	7.64	5.33	2.31	0.80	0.20	0.20	0.00	0.00	0.00
15354.6	8.01	4.50	1.90	0.80	0.50	0.10	0.10	0.00	0.00	0.00
15368.5	10.35	5.93	1.51	0.60	0.50	0.20	0.30	0.00	0.00	0.00
16009.3	7.96	4.44	1.31	0.40	0.30	0.00	0.00	0.00	0.00	0.00
16029.0	8.12	6.82	5.52	3.81	2.41	0.80	0.00	0.00	0.00	0.00
16703.7	7.49	4.90	1.80	0.40	0.20	0.00	0.00	0.00	0.00	0.00
16714.6	6.01	6.50	0.87	0.29	0.19	0.19	0.10	0.00	0.00	0.00
16719.6	9.03	7.52	4.31	1.40	0.30	0.00	0.00	0.00	0.00	0.00

HEAVY HYDROCARBONS NORMALIZED TO 100%

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

ID	C-31	C-32	C-33	C-34	C-35	C-36	C-37	C-38	C-39	C-40
3392.0	10.82	1.10	3.71	0.30	0.90	0.00	0.00	0.00	0.00	0.00
4197.8	0.43	1.19	0.33	0.65	0.33	0.65	0.54	0.43	0.43	0.43
5231.9	1.80	0.90	0.90	0.40	0.40	0.50	0.30	0.20	0.20	0.20
5974.5	1.71	0.70	0.90	0.30	0.30	0.20	0.20	0.20	0.10	0.00
6669.8	2.80	1.10	0.90	0.40	0.40	1.20	0.70	0.30	0.30	0.00
8050.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8077.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8092.7	4.60	0.90	2.20	0.20	0.30	0.00	0.00	0.00	0.00	0.00
8636.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8653.5	3.46	0.61	1.63	1.02	0.00	0.00	0.00	0.00	0.00	0.00
9257.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9263.5	2.70	0.20	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
9972.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9982.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10326.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10738.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ID	PR/T X100	PH/T X100	PR/17	PH/18	PR/PH	CPI	C-MAX
3392.0	0.90	0.60	1.29	0.86	1.50	3.96	C-29
4197.8	9.00	6.07	0.80	0.52	1.48	0.81	C-18
5231.9	2.60	3.00	0.63	0.68	0.87	1.16	C-24
5974.5	3.21	3.31	0.74	0.61	0.97	1.35	C-22
6669.8	3.20	3.90	0.73	0.89	0.82	1.16	C-24
8050.7	42.45	8.65	4.22	1.37	4.90	----	C-15
8077.3	43.29	9.54	6.47	1.45	4.54	----	C-24
8092.7	12.21	2.20	3.13	0.54	5.55	2.10	C-25
8636.3	21.72	4.82	3.04	1.47	4.51	----	C-26
8653.5	12.73	3.77	2.45	0.90	3.38	0.93	C-26
9257.5	29.30	6.90	5.76	1.02	4.25	----	C-23
9263.5	13.79	2.50	7.26	1.25	5.52	3.14	C-27
9972.4	44.61	13.62	3.72	1.00	3.28	----	C-19
9982.0	56.38	14.13	4.38	1.46	3.99	----	C-15
10326.4	42.93	13.49	2.71	0.82	3.18	----	C-19
10738.4	84.13	12.13	13.42	1.45	6.93	----	C-23

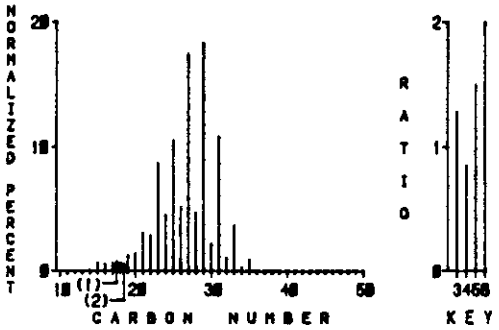
HEAVY HYDROCARBONS NORMALIZED TO 100%

NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

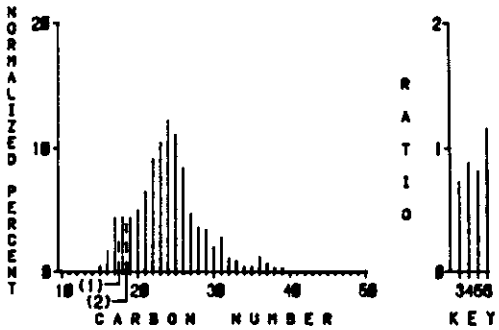
ID	C-31	C-32	C-33	C-34	C-35	C-36	C-37	C-38	C-39	C-40
11102.5	5.10	0.70	0.30	0.10	0.00	0.00	0.00	0.00	0.00	0.00
12251.2	0.50	0.30	0.10	0.10	0.00	0.00	0.00	0.00	0.00	0.00
12269.3	4.81	0.90	1.91	0.60	0.30	0.00	0.00	0.00	0.00	0.00
12634.4	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12634.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14179.1	0.60	0.20	0.20	0.20	0.00	0.00	0.00	0.00	0.00	0.00
14179.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15354.6	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15368.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16009.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16029.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16703.7	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
16714.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16719.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

ID	PR/T X100	PH/T X100	PR/17	PH/18	PR/PH	CPI	C-MAX
11102.5	33.50	6.00	4.86	0.90	5.58	2.74	C-29
12251.2	35.83	5.49	10.56	1.31	6.53	2.07	C-27
12269.3	41.22	5.42	11.74	1.35	7.61	2.40	C-29
12634.4	71.23	7.79	15.50	1.56	9.14	----	C-27
12634.8	66.37	8.33	8.93	0.92	7.96	----	C-23
14179.1	24.80	3.21	4.26	0.52	7.72	1.35	C-25
14179.4	53.97	7.24	4.07	0.53	7.46	----	C-18
15354.6	25.13	2.70	1.31	0.15	9.30	----	C-17
15368.5	18.39	2.81	1.26	0.19	6.54	----	C-19
16009.3	11.59	2.32	0.71	0.15	5.00	----	C-17
16029.0	10.03	2.61	0.73	0.20	3.85	----	C-17
16703.7	7.49	2.70	0.47	0.17	2.78	----	C-17
16714.6	7.59	3.54	0.48	0.22	2.14	----	C-18
16719.6	5.02	2.21	0.36	0.16	2.27	----	C-17

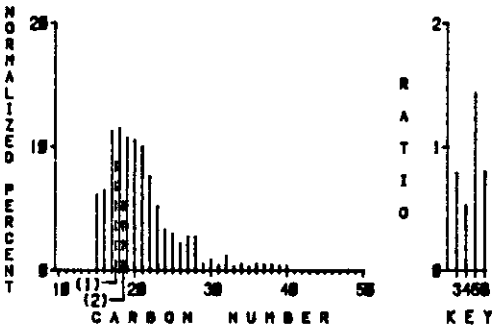
SAMPLE DEPTH : 3392 feet



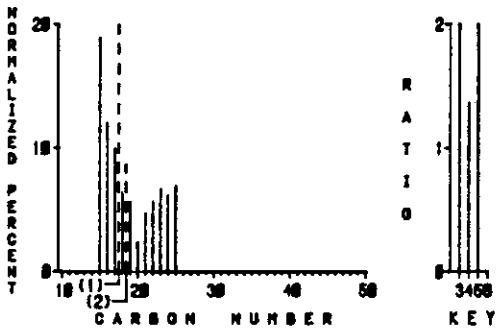
SAMPLE DEPTH : 6669.8 feet



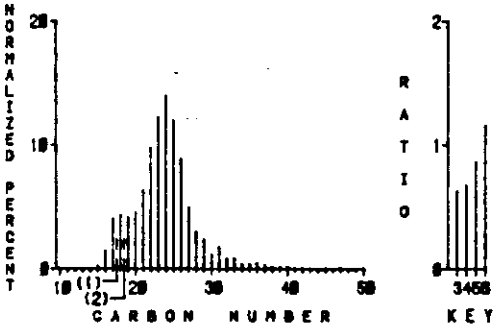
SAMPLE DEPTH : 4197.8 feet



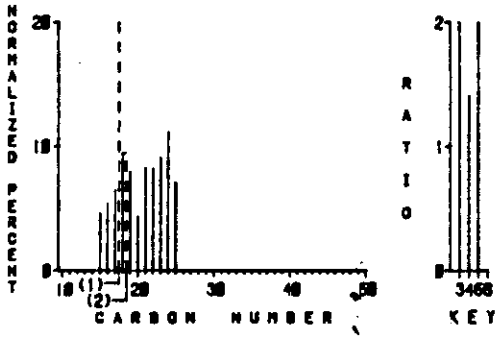
SAMPLE DEPTH : 8050.7 feet



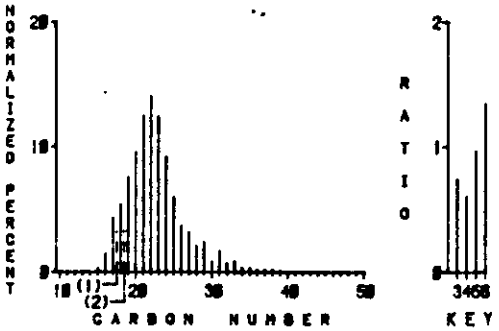
SAMPLE DEPTH : 5231.9 feet



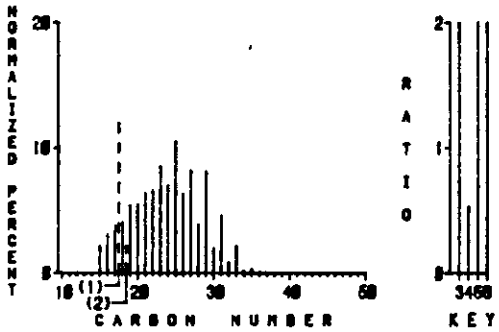
SAMPLE DEPTH : 8077.3 feet



SAMPLE DEPTH : 5974.5 feet



SAMPLE DEPTH : 8092.7 feet

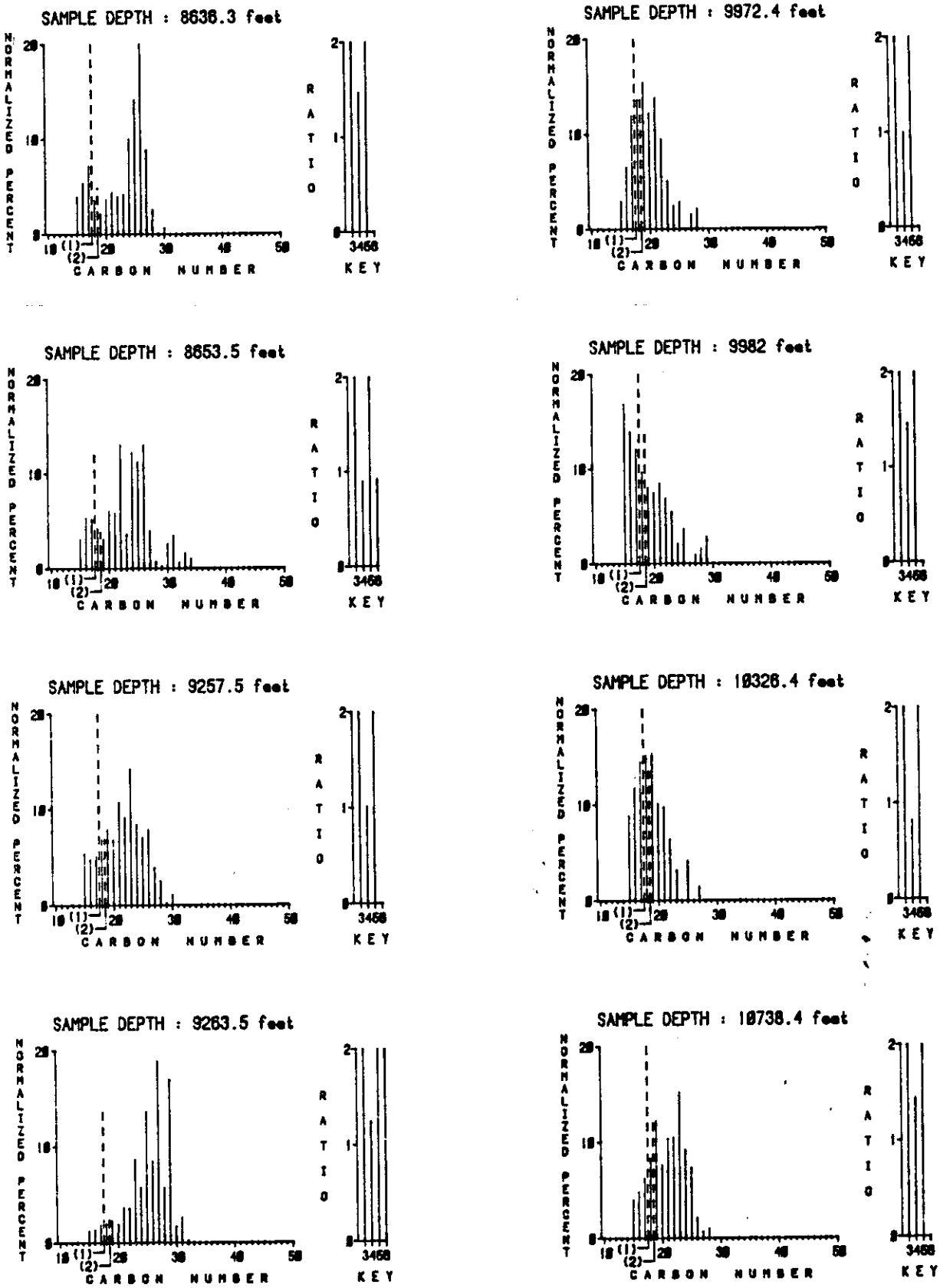


NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

1=100xPristane/Total 3=Pristane/n-C-17 5=Pristane/Phytane

2=100xPhytane/Total 4=Phytane/n-C-18 6=Carbon Pref.Index

NORMALIZED DISTRIBUTION OF n-ALKANES



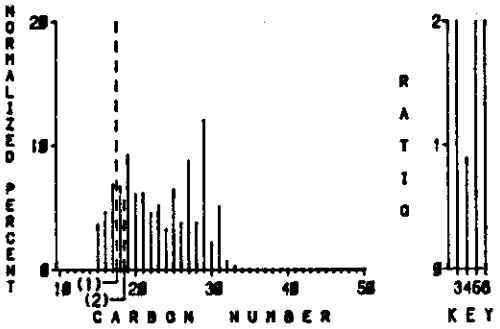
NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

1=100xPristane/Total 3=Pristane/n-C-17 5=Pristane/Phytane

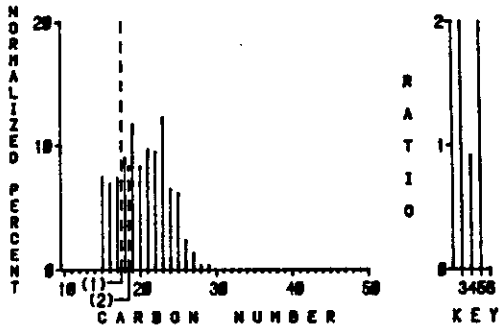
2=100xPhytane/Total 4=Phytane/n-C-18 6=Carbon Pref.Index

NORMALIZED DISTRIBUTION OF n-ALKANES

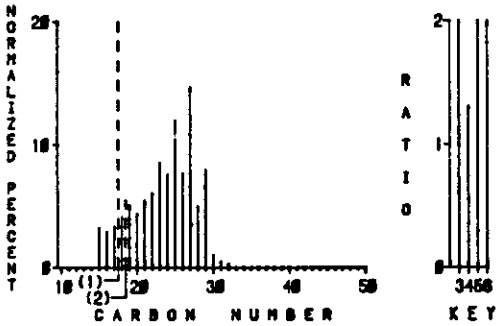
SAMPLE DEPTH : 11102.5 feet



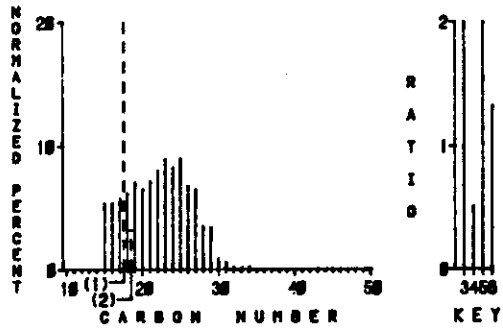
SAMPLE DEPTH : 12634.8 feet



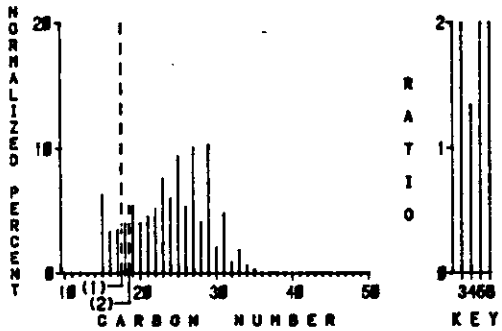
SAMPLE DEPTH : 12251.2 feet



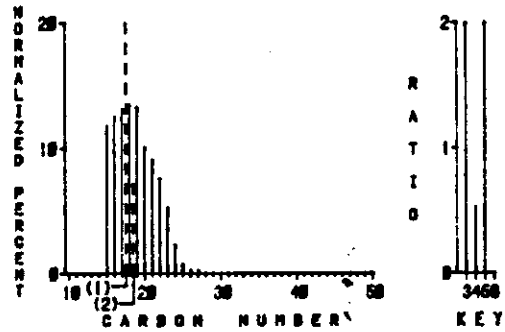
SAMPLE DEPTH : 14179.1 feet



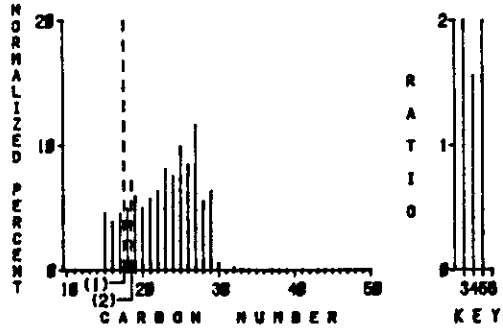
SAMPLE DEPTH : 12269.3 feet



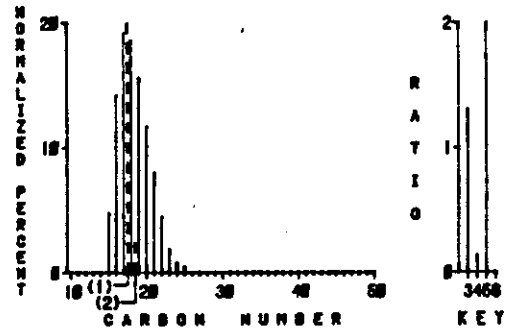
SAMPLE DEPTH : 14179.4 feet



SAMPLE DEPTH : 12634.4 feet



SAMPLE DEPTH : 15354.6 feet



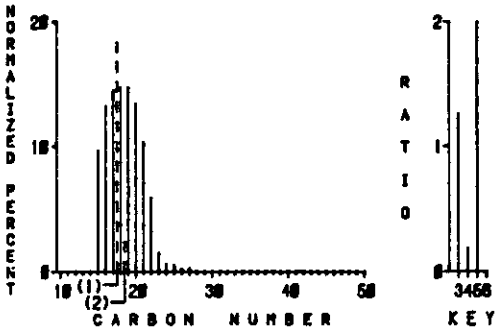
NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

1=100xPristane/Total 3=Pristane/n-C-17 5=Pristane/Phytane

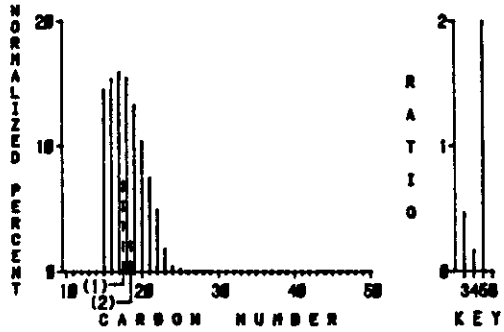
2=100xPhytane/Total 4=Phytane/n-C-18 6=Carbon Pref.Index

NORMALIZED DISTRIBUTION OF n-ALKANES

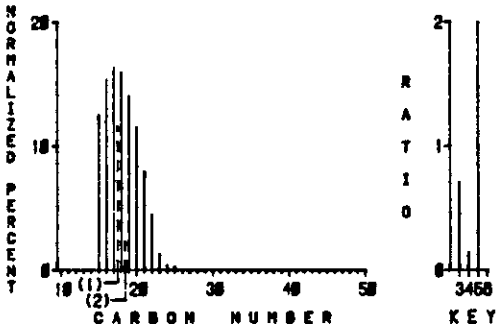
SAMPLE DEPTH : 15368.5 feet



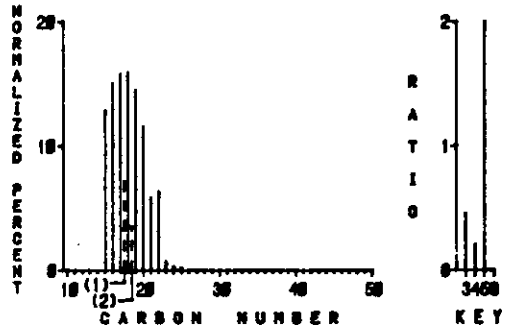
SAMPLE DEPTH : 16703.7 feet



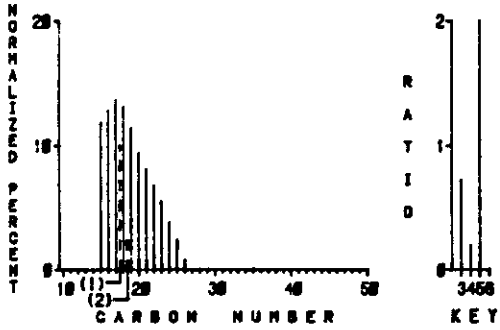
SAMPLE DEPTH : 16009.3 feet



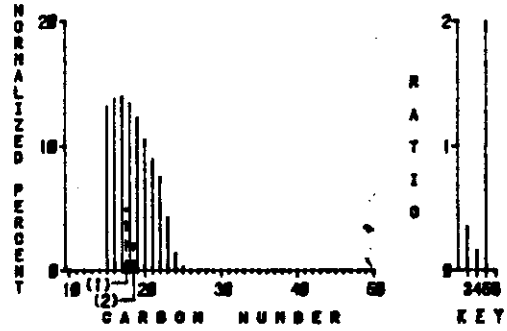
SAMPLE DEPTH : 16714.6 feet



SAMPLE DEPTH : 16029 feet



SAMPLE DEPTH : 16719.6 feet



NORTH ALEUTIAN SHELF #1 COST WELL (CORE)

1=100xPristane/Total 3=Pristane/n-C-17 5=Pristane/Phytane
2=100xPhytane/Total 4=Phytane/n-C-18 6=Carbon Pref.Index

NORMALIZED DISTRIBUTION OF n-ALKANES

APPENDIX X

MUD GAS DATA

Analytical data on four canned mud samples collected during the time maximum gas levels were being circulated out of the well. Analytical procedures are the same as those described in Appendix VIII.

SUMMARY OF INDIVIDUAL COMPONENT CONCENTRATIONS IN HEADSPACE GAS
(ppm by volume in n-C:1 to n-C:6+ range)

NORTH ALEUTIAN SHELF #1 COST WELL (MUD)

NOTATION (Feet)	n-C:1 ppm	n-C:2 ppm	n-C:3 ppm	i-C:4 ppm	n-C:4 ppm	neC:5 ppm	i-C:5 ppm	n-C:5 ppm	C:6+ ppm	GAS uL	KCARB gms
UD - 3	5815	1824	2299	586	985	0	360	297	715	0	0.0
..UD - 4	4374	1391	1784	454	782	0	290	242	696	0	0.0
MUD - 6	33890	10319	12292	2874	4685	0	1505	1199	2164	0	0.0
MUD - 7	47512	15540	19953	4766	8291	0	2681	2225	3319	0	0.0

SUMMARY OF IMPORTANT RATIOS AND PARAMETERS OBTAINED FROM HEADSPACE GAS ANALYSIS

NORTH ALEUTIAN SHELF #1 COST WELL (MUD)

NOTATION (Feet)	GAS/KCARB uL/gm	WET GAS %	n/iso-C:4 ratio	n/iso-C:5 ratio	HEADSPACE GAS COMPOSITION %C:5-6+	%C:2-4	%C:1
MUD - 3	----	49.4	1.6	0.8	10.6	44.2	45.1
MUD - 4	----	50.2	1.7	0.8	12.2	44.0	43.6
UD - 6	----	47.1	1.6	0.8	7.0	43.7	49.1
UD - 7	----	50.5	1.7	0.8	7.8	46.5	45.5