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MATURITY STUDY USING VITRINITE REFLECTANCE, WELL 34/7-4 OFFSHORE NORWAY

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SUMMARY

The maturity of the well 34/7-4 has been evaluated using vitrinite reflectance. The conclusions are:

The increase in vitrinite reflectance with depth is steep and continuous reaching the top of the immature transitional zone (Ro = 0.35) at 1600 m and the early mature zone (Ro = 0.55) at 2800 m.

DISTRIBUTION

Saga Petroleum 10
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KEYWORDS

	NAME	DATE	SIGNATURE
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1. MATURITY

This account describes the results from a maturity study, using vitrinite reflectance, undertaken on well 34/7-4 offshore Norway. The study is carried out on sidewall cores and conventional cores exclusively. This sampling procedures has been relatively successful yielding material of acceptable quality for vitrinite reflectance analysis.

1.1 Maturity profile

Vitrinite reflectance versus depth profiles are presented in Appendix together with further sample details and some characteristic maturity features.

Koch (1974) mentioned that to draw a fully reliable vitrinite reflectance versus depth gradient, which should be the goal of every maturity study using vitrinite reflectance, it is preferential to have at least two reliable data points every 100 m. The data coverage presented in this report does not fulfill this demand. This is due to unfavourable lithologies in certain intervals barren of reliable vitrinite particles. This should be kept in mind when the reliability of the maturity gradient is considered. The average curve drawn through the profile is weighed against the good quality data and from general experience from the area. Extrapolation of the average curve to the sea bed indicates a hypothetical minimum value of Ro = 0.20 which is suggested by Dow (1977) to be the absolute minimum value close to the surface.

The vitrinite reflectance increases continuously and steeply with depth reaching the top of the immature transitional zone (Ro = 0.35) with possibilities for some early wet gas generation (Heroux et al. 1979, Leythaeuser et al. 1979, Connan and Cassou, 1980) at approximately 1600 m and the early mature zone (Ro = 0.55) around 2800 m.

2. METHODICAL ASPECTS

2.1 General

The vitrinite reflectance method has proven to be an indispensable tool in organic geochemical studies, and particularly in source rock studies for the assessment of the hydrocarbon maturation potential. The method has also proven to be a useful tool in solving certain geological problems related to geothermal effects. It is when properly interpreted probably the best maturity indicator available today: It is discriminatory, measurements are carried out by photometry providing objective, accurate and highly reproducible data, it is useful over a very wide range of maturation and is particularly useful in the maturation range of interest in exploration for hydrocarbons, it is applicable to most sedimentary rock types, it has largely been standardized for the last 20 years, correlated with physical and chemical parameмters of coals and hydrocarbon generation in source rocks, and thoroughly tested on an international scale to provide a high degree of accuracy and reproducibility. The method and various aspects have been described by McCartney and Ergun (1958, 1967), Kötter (1960), Murchison (1964), De Vries and Bokhoven (1968) and Teichmüller (1971). Various aspects of the application of vitrinite reflectance to vitrinitic material finely disseminated in clastic sedimenets have been thoroughly treated by Bostick (1971, 1979), Bostick and Foster (1975), Dow (1977), Robert (1980) and Teichmüller (1971). A paper by Bostick and Alpern (1977) explains the principles of sampling, preparation and constituent selection for vitrinite reflectance measurements.

The vitrinite reflectance method was originally designed for rank determinations on coals which offer the ultimate sample quality for such studies: coals, unless weathered, thermally affected or of very low rank, provide nearly always excellent and very reliable vitrinite reflectance data. When the method was extended from coals to finely

disseminated organic material in clastic sediments, a huge advance was made in the practical applicability of the method especially concerning source rock studies. This important extension, however, introduced certain limitations which it is important to be aware of when vitrinite reflectance data obtained from clastic sediments are to be interpreted. Vitrinite reflectance data of this type which are reliable and readily interpreted, are relatively rare, poor and even barren samples are very frequent. This is due to a number of factors including type of lithology selected for study, small particle size, poor particle quality, bitumen staining, low reflecting vitrinite, weathering, lack of vitrinite, difficult identification of vitrinite, high pyrite contents and cavings.

2.2 Techniques used in this study

Normal palynological preparation techniques were used to concentrate the organic matter from the sediments. Crushed samples were dissolved in hydrofluoric acid after any carbonantes had been removed with hydrochloric acid and washing. The samples were not subjected to any oxidative or heating treatment. The remaining organic residues were then embedded in a cold setting epoxy resin to make briquettes, which were subsequently ground flat and polished.

Equipment used was a Zeiss MPM 03 photometermicroscope. Viewing and measurements were made through a Zeiss Epiplan-Neofluoar 40/0.90 oil objective using oil immersion with refractive index n = 1.518. Measurements were made through a green filter with peak transmission at 546 nm, and the photometer sensitive field was about 2.5 um in diameter. For photometer calibration a Schott safir glass-standard with reflectance of Ro = 0.588 was used. The readings were carried out using a stationary stage. This has become more or less standard in vitrinite reflectance determinations on clastic samples. It is far less time consuming, permits smaller particles to be measured and the results obtained do not deviate significantly from those obtained using a rotating stage as long as the vitrinite reflectance values

stay below Ro = 1.4 (De Vries and Bokhoven, 1968). None of the samples analysed in this study exceeded this value. On each sample as many particles as possible up to 50 were measured. The readings were presented in histograms, a representative population was selected for each sample from observations made during measuring, and an arithmethically mean was calculated from this population and interpreted as the representative vitrinite reflectance value.

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4. ABBREVIATIONS IN APPENDIX TABLES

swe	-	sidewall core
core	-	conventional core
clst	-	claystone
-	-	sample without any vitrinite
HF	-	sample preparations of HF-residue

WELL 34/7-4

VITRINITE REFLECTANCE

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro	Preparation
SA 113	1966.0	swc	clst	0.42 (7)	HF
SA 112	2018.0	swc	clst	0.35 (7)	HF
SA 111	2070.0	swc	clst	0.35 (2)	HF
SA 110	2125.0	swc	clst	0.58 (1)-	HF
SA 109	2170.0	swc	clst	0.41 (7)	HF
SA 108	2426.0	swc	clst	0.39 (1)	HF
SA 107	2482.0	swc	clst	0.35 (1)	HF
SA 106	2490.0	swc	clst	0.47 (6)	HF
SA 105	2518.0	swc	clst	-	HF
SA 104	2518.0	swc	clst	0.53 (4)	HF
SA 90	2538.5	core	clst	-	HF
SA 88	2540.0	core	clst	-	HF
SA 84	2541.0	core	clst	-	HF
SA 103	2542.0	swc	clst	0.99 (50)-	HF
SA 92	2545.0	core	clst	0.50 (24)	HF
SA 93	2545.0	core	clst	0.55 (7)	HF
SA 89	2548.5	core	clst	0.30 (50)-	HF
SA 91	2551.5	core	clst	0.53 (4)	HF
SA 86	2552.5	core	clst	0.48 (8)	HF
SA 85	2555.5	core	clst	-	HF
SA 87	2557.0	core	clst	-	HF
SA 102	2652.0	swc	clst	0.60 (8)-	HF
SA 101	2567.0	swc	clst	-	HF
SA 100	2573.0	swc	clst	-	HF
SA 99	2621.0	swc	clst	-	HF
SA 98	2651.0	swc	clst	-	HF
SA 97	2660.0	swc	clst	-	HF
SA 96	2673.0	swc	clst	-	HF
SA 95	2689.0	swc	clst	-	HF
SA 94	2708.0	swc	clst	-	HF

WELL 34/7-4

SOME MATURITY CHARACTERISTICS

Depth at:

Ro = 0.35	: 1600 m
Ro = 0.55	: 2800 m
Ro = 0.70	: -

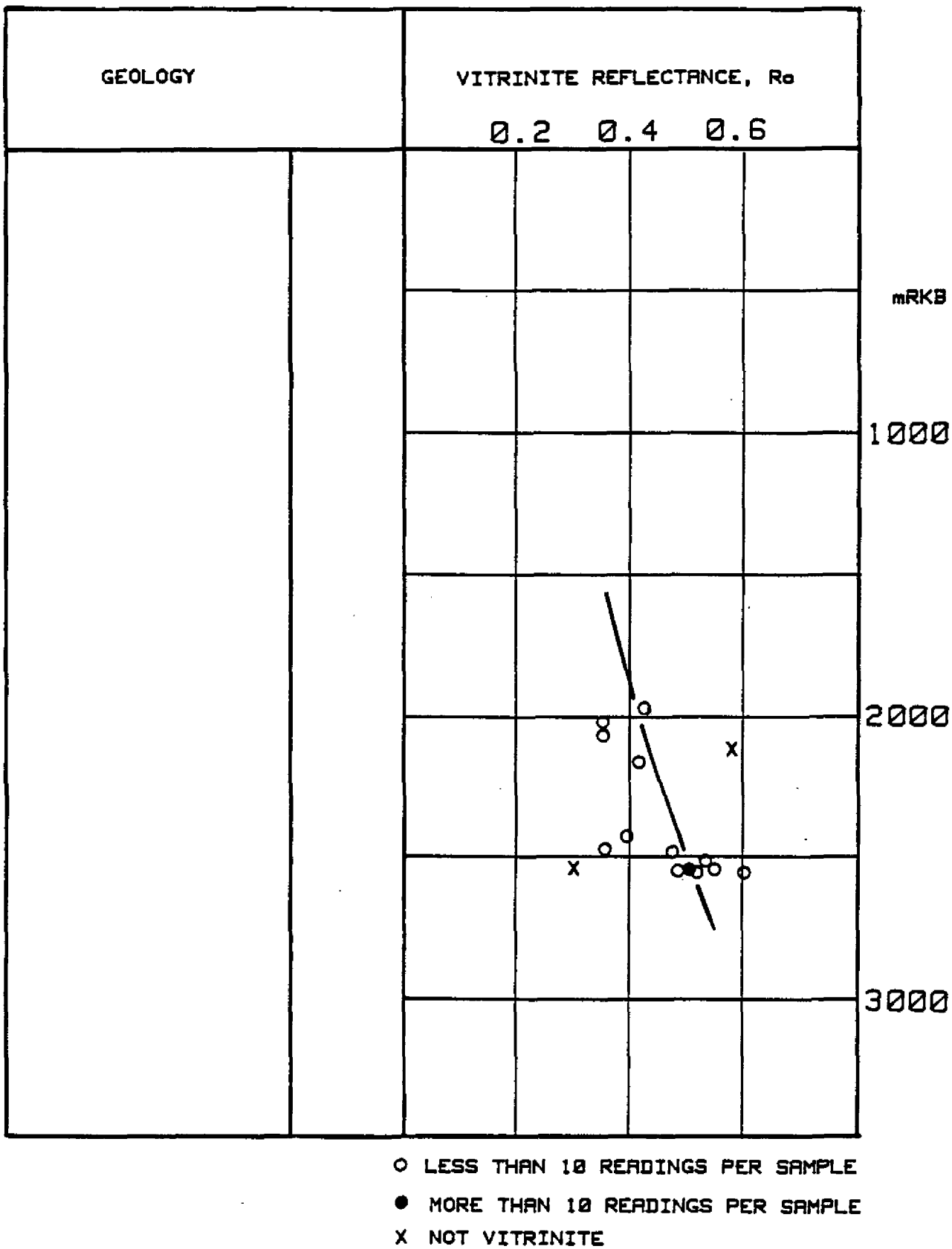
Vitrinite reflectance (Ro) at depth:

1000 m	: 0.29
2000 m	: 0.41
3000 m	: 0.59

Vitrinite reflectance gradient (Ro/100 m)

0.30 - 0.50	: 0.014
0.30 - 0.80	: -

34/7-4


GEOLOGY
VITRINITE REFLECTANCE, Ro
0.2
0.4
0.6
mRKB
1000
2000
3000
LESS THAN 10 READINGS PER SAMPLE
MORE THAN 10 READINGS PER SAMPLE
NOT VITRINITE

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 113	1966.0	swc	clst	0.42 (7)	HF

Comments:
Claystone, relatively rich in organic particles, contains some vitrinite of acceptable quality.

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R5 34/7-4,1966.0m,SWC	ooooo	51	.735	.290	.3951

Class	Counts	Perc.	'ooooo'=1%
Below	0	0.00	
.15	1	1.96	oooooooooo
.20	0	0.00	
.25	0	0.00	
.30	1	1.96	oooooooooo
.35	3	5.88	ooooooooooooooooooooooooooo
.40	3	5.88	ooooooooooooooooooooooooooo
.45	3	5.88	ooooooooooooooooooooooooooo
.50	4	7.84	oooooooooooooooooooooooooooooooooooo
.55	4	7.84	oooooooooooooooooooooooooooooooooooo
.60	3	5.88	ooooooooooooooooooooooooooo
.65	2	3.92	oooooooooooooooooo
.70	6	11.76	oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
.75	4	7.84	oooooooooooooooooooooooooooooooooooo
.80	1	1.96	oooooooooo
.85	4	7.84	oooooooooooooooooooooooooooooooooooo
.90	3	5.88	ooooooooooooooooooooooooooo
.95	0	0.00	
1.00	3	5.88	ooooooooooooooooooooooooooo
1.05	2	3.92	oooooooooooooooooo
1.10	0	0.00	
1.15	0	0.00	
1.20	1	1.96	oooooooooo
1.25	0	0.00	
1.30	2	3.92	oooooooooooooooooo
1.35	0	0.00	
1.40	0	0.00	
1.45	0	0.00	
1.50	0	0.00	
1.55	0	0.00	
1.60	0	0.00	
1.65	0	0.00	
1.70	1	1.96	oooooooooo
Above	0	0.00	

L I S T 17.4.1985

Channel: R5 34/7-4,1966.0m,SWC
No. of Measurements: 51
Mean: .735
Standard Deviation: .290
Coeff. of Variation: .3951

# Meas.	Value	
1	.177	
2	.544	
3	.348	
4	1.002	
5	.457	●
6	1.318	
7	.591	
8	1.089	
9	.893	
10	1.017	
11	.719	
12	1.205	
13	.737	
14	.900	
15	1.743	
16	.791	
17	.508	
18	.926	
19	.744	
20	.766	
21	.562	
22	.806	
23	.541	
24	.748	
25	1.075	
26	.730	
27	1.038	
28	.944	
29	.886	
30	.791	
31	.606	
32	.868	
33	1.311	
34	.526	
35	.497	
36	.635	
37	.439	●
38	.399	●
39	.799	
40	.868	
41	.472	
42	.388	●
43	.377	●
44	.435	●
45	.424	●
46	.715	
47	.682	
48	.628	
49	.690	
50	.588	
51	.551	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 112	2018.0	swc	clst	0.35 (7)	HF

Comments:
Claystone, contains some vitrinite of acceptable quality, dominated by inertinitic material.

H I S T O G R A M 24.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R4 34/7-4,2018.0m,SWC	xxxxx	48	.842	.301	.3577

Class	Counts	Perc.	'xxxxx'=1%
Below	0	0.00	
.25	2	4.17	xxxxxxxxxxxxxxxxxxxx
.30	1	2.08	xxxxxxxxxx
.35	3	6.25	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.40	1	2.08	xxxxxxxxxx
.45	1	2.08	xxxxxxxxxx
.50	1	2.08	xxxxxxxxxx
.55	2	4.17	xxxxxxxxxxxxxxxxxxxx
.60	2	4.17	xxxxxxxxxxxxxxxxxxxx
.65	1	2.08	xxxxxxxxxx
.70	2	4.17	xxxxxxxxxxxxxxxxxxxx
.75	2	4.17	xxxxxxxxxxxxxxxxxxxx
.80	6	12.50	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.85	2	4.17	xxxxxxxxxxxxxxxxxxxx
.90	4	8.33	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.95	6	12.50	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.00	1	2.08	xxxxxxxxxx
1.05	2	4.17	xxxxxxxxxxxxxxxxxxxx
1.10	0	0.00	
1.15	3	6.25	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.20	1	2.08	xxxxxxxxxx
1.25	1	2.08	xxxxxxxxxx
1.30	1	2.08	xxxxxxxxxx
1.35	2	4.17	xxxxxxxxxxxxxxxxxxxx
1.40	1	2.08	xxxxxxxxxx
Above	0	0.00	

L I S T 24.4.1985

Channel: R4 34/7-4,2018.0m,SWC
No. of Measurements: 48
Mean: .842
Standard Deviation: .301
Coeff. of Variation: .3577

# Meas.	Value	
1	1.372	
2	.522	
3	.926	
4	.822	
5	.747	
6	.987	
7	.383	●
8	1.169	
9	.990	
10	.433	●
11	.980	
12	.565	
13	.762	
14	.283	●
15	1.058	
16	.276	●
17	1.251	
18	.697	
19	.587	
20	.705	
21	.751	
22	.994	
23	1.301	
24	.833	
25	.976	
26	.812	
27	1.094	
28	.955	
29	.919	
30	.894	
31	.815	
32	1.012	
33	.315	●
34	.630	
35	.397	●
36	.855	
37	.830	
38	1.233	
39	1.176	
40	1.358	
41	.644	
42	.919	
43	.490	
44	.915	
45	1.412	
46	.819	
47	.355	●
48	1.183	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 111	2070.0	swc	clst	0.35 (2)	HF

Comments:
Claystone, poor in organic particles and totally dominated by inertinite. Two low reflecting particles could be vitrinite.

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R2 34/7-4,2070.0m,SWC	+++++	13	.763	.265	.3472

Class	Counts	Perc.	'+'=1%
Below	0	0.00	
.30	1	7.69	++++++++
.35	1	7.69	++++++++
.40	0	0.00	
.45	0	0.00	
.50	0	0.00	
.55	0	0.00	
.60	1	7.69	++++++++
.65	1	7.69	++++++++
.70	2	15.38	+++++++++++++++
.75	4	30.77	++++++++++++++++++++++++++++++++
.80	0	0.00	
.85	0	0.00	
.90	0	0.00	
.95	0	0.00	
1.00	1	7.69	++++++++
1.05	1	7.69	++++++++
1.10	0	0.00	
1.15	0	0.00	
1.20	0	0.00	
1.25	1	7.69	++++++++
Above	0	0.00	

L I S T 17.4.1985

Channel: R2 34/7-4,2070.0m,SWC
No. of Measurements: 13
Mean: .763
Standard Deviation: .265
Coeff. of Variation: .3472

# Meas.	Value	
1	.788	
2	.722	
3	1.071	
4	.617	
5	.719	
6	1.046	
7	.384	●
8	.755	
9	.682	
10	.759	
11	.312	●
12	.766	
13	1.300	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 110	2125.0	swc	clst	0.58 (1)-	HF

Comments:
Claystone, poor in organic particles and totally dominated by inertinite. No vitrinite.

H I S T O G R A M 22.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R3 34/7-4,2125.0m,SWC	#####	7	.754	.182	.2412

Class	Counts	Perc.	'#'=1%
Below	0	0.00	
.55	1	14.29	##############
.60	0	0.00	
.65	3	42.86	##
.70	0	0.00	
.75	2	28.57	############################
.80	0	0.00	
.85	0	0.00	
.90	0	0.00	
.95	0	0.00	
1.00	0	0.00	
1.05	0	0.00	
1.10	1	14.29	##############
Above	0	0.00	

L I S T 22.4.1985

Channel: R3 34/7-4,2125.0m,SWC
No. of Measurements: 7
Mean: .754
Standard Deviation: .182
Coeff. of Variation: .2412

# Meas.	Value
1	.689
2	.769
3	.682
4	.664
5	.577
6	1.140
7	.754

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 109	2170.0	swc	clst	0.41 (7)	HF

Comments:
Claystone, relatively rich in organic particles of good quality, but identification is difficult. Ro=0.41 is a good interpratation.

H I S T O G R A M 22.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R2 34/7-4,2170.0m,SWC	+++++	50	.599	.170	.2832

Class	Counts	Perc.	'+++++'=1%
Below	0	0.00	
.25	1	2.00	++++++++++
.30	0	0.00	
.35	3	6.00	++++++++++++++++++++++++++++++
.40	4	8.00	++
.45	6	12.00	++
.50	9	18.00	++
.55	5	10.00	++
.60	7	14.00	++
.65	3	6.00	++++++++++++++++++++++++++++++
.70	5	10.00	++
.75	2	4.00	++++++++++++++++++++
.80	0	0.00	
.85	2	4.00	++++++++++++++++++++
.90	0	0.00	
.95	1	2.00	++++++++++
1.00	1	2.00	++++++++++
1.05	1	2.00	++++++++++
Above	0	0.00	

L I S T 22.4.1985

Channel: R2 34/7-4,2170.0m,SWC
No. of Measurements: 50
Mean: .599
Standard Deviation: .170
Coeff. of Variation: .2832

# Meas.	Value	
1	.682	
2	.581	
3	.613	
4	.967	
5	.859	
6	.595	
7	.725	
8	1.083	
9	.650	
10	.289	
11	.866	
12	.682	
13	.437	●
14	.408	●
15	.415	●
16	.610	
17	.487	
18	.538	
19	.722	
20	.505	
21	.567	
22	.433	●
23	.361	●
24	.646	
25	.502	
26	.509	
27	.794	
28	.520	
29	.779	
30	.502	
31	.545	
32	.397	●
33	.512	
34	.577	
35	.491	
36	.393	●
37	.556	
38	.451	
39	.747	
40	.520	
41	.646	
42	.469	
43	.650	
44	.722	
45	.603	
46	.686	
47	1.032	
48	.715	
49	.455	
50	.458	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 108	2426.0	swc	clst	0.39 (1)	HF

Comments:
Claystone, totally dominated by inertinitic material. One particle with Ro=0.39 could be true but seems a little low.

H I S T O G R A M 24.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R2 34/7-4,2426.0m,SWC	+++++	30	.922	.251	.2721

Class	Counts	Perc.	'+++++'=1%
Below	0	0.00	
.35	1	3.33	++++++++++++++++++
.40	0	0.00	
.45	0	0.00	
.50	0	0.00	
.55	3	10.00	++
.60	0	0.00	
.65	1	3.33	++++++++++++++++++
.70	2	6.67	++++++++++++++++++++++++++++++++++
.75	3	10.00	++
.80	2	6.67	++++++++++++++++++++++++++++++++++
.85	1	3.33	++++++++++++++++++
.90	2	6.67	++++++++++++++++++++++++++++++++++
.95	4	13.33	++
1.00	4	13.33	++
1.05	1	3.33	++++++++++++++++++
1.10	2	6.67	++++++++++++++++++++++++++++++++++
1.15	0	0.00	
1.20	1	3.33	++++++++++++++++++
1.25	1	3.33	++++++++++++++++++
1.30	0	0.00	
1.35	0	0.00	
1.40	1	3.33	++++++++++++++++++
1.45	0	0.00	
1.50	1	3.33	++++++++++++++++++
Above	0	0.00	

L I S T 24.4.1985

Channel: R2 34/7-4,2426.0m,SWC
No. of Measurements: 30
Mean: .922
Standard Deviation: .251
Coeff. of Variation: .2721

# Meas.	Value
1	.780
2	.951
3	1.147
4	.572
5	1.065
6	.572
7	.840
8	1.012
9	.390
10	.872
11	1.430
12	.840
13	.776
14	.783
15	.919
16	.722
17	.912
18	1.037
19	.726
20	.676
21	.583
22	1.022
23	1.101
24	1.222
25	.962
26	.962
27	1.272
28	1.033
29	1.508
30	.980

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 107	2482.0	swc	clst	0.35 (1)	HF

Comments:
Claystone, totally dominated by inertinitic material. One particle with Ro=0.35 could be true but seems a little too low.

H I S T O G R A M 22.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R4 34/7-4,2482.0m,SWC	xxxxx	29	1.041	.269	.2588

Class	Counts	Perc.	'xxxxx'=1%
Below	0	0.00	
.30	1	3.45	xxxxxxxxxxxxxxxx
.35	0	0.00	
.40	0	0.00	
.45	0	0.00	
.50	0	0.00	
.55	0	0.00	
.60	1	3.45	xxxxxxxxxxxxxxxx
.65	1	3.45	xxxxxxxxxxxxxxxx
.70	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.75	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.80	1	3.45	xxxxxxxxxxxxxxxx
.85	0	0.00	
.90	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.95	1	3.45	xxxxxxxxxxxxxxxx
1.00	0	0.00	
1.05	4	13.79	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.10	3	10.34	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.15	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.20	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.25	3	10.34	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.30	2	6.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.35	1	3.45	xxxxxxxxxxxxxxxx
1.40	0	0.00	
1.45	0	0.00	
1.50	0	0.00	
1.55	1	3.45	xxxxxxxxxxxxxxxx
Above	0	0.00	

L I S T 22.4.1985

Channel: R4 34/7-4,2482.0m,SWC
No. of Measurements: 29
Mean: 1.041
Standard Deviation: .269
Coeff. of Variation: .2588

# Meas.	Value
1	.850
2	1.082
3	.915
4	1.260
5	1.359
6	1.319
7	.777
8	.730
9	1.239
10	1.577
11	.628
12	1.086
13	.650
14	1.115
15	1.137
16	1.221
17	1.086
18	1.173
19	1.271
20	.995
21	1.104
22	.741
23	1.061
24	.345
25	.763
26	1.191
27	1.322
28	.941
29	1.257

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 106	2490.0	swc	clst	0.47 (6)	HF

Comments:
Claystone, relatively rich in organic particles, but identification is difficult. Ro=0.47 is a good interpretation

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R3 34/7-4,2490.0m,SWC	#####	49	.728	.233	.3204

Class	Counts	Perc.	'#####'=1%
Below	0	0.00	
.20	1	2.04	##########
.25	0	0.00	
.30	2	4.08	####################
.35	0	0.00	
.40	2	4.08	####################
.45	2	4.08	####################
.50	2	4.08	####################
.55	5	10.20	##
.60	3	6.12	##############################
.65	4	8.16	##
.70	3	6.12	##############################
.75	6	12.24	##
.80	7	14.29	##
.85	4	8.16	##
.90	3	6.12	##############################
.95	1	2.04	##########
1.00	2	4.08	####################
1.05	0	0.00	
1.10	0	0.00	
1.15	1	2.04	##########
1.20	0	0.00	
1.25	0	0.00	
1.30	0	0.00	
1.35	0	0.00	
1.40	0	0.00	
1.45	0	0.00	
1.50	0	0.00	
1.55	1	2.04	##########
Above	0	0.00	

L I S T 17.4.1985

Channel: R3 34/7-4,2490.0m,SWC
No. of Measurements: 49
Mean: .728
Standard Deviation: .233
Coeff. of Variation: .3204

# Meas.	Value	
1	.563	
2	.655	
3	.224	
4	.913	
5	.692	
6	.836	
7	.342	
8	.449	●
9	.504	●
10	.457	●
11	.840	
12	.851	
13	.666	
14	.847	
15	1.598	
16	.851	
17	.751	
18	.622	
19	.600	
20	.593	
21	.843	
22	.792	
23	.773	
24	.589	
25	.302	
26	.814	
27	.906	
28	.917	
29	.560	
30	.608	
31	1.042	
32	.596	
33	1.171	
34	.847	
35	1.009	
36	.508	●
37	.420	●
38	.759	
39	.666	
40	.486	●
41	.718	
42	.854	
43	.869	
44	.847	
45	.983	
46	.759	
47	.751	
48	.740	
49	.707	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 104	2518.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 105	2518.0	swc	clst	0.53 (4)	HF

Comments:
Claystone, totally dominated by inertinitic material of good particle quality. Contains a few particles of good vitrinite Ro=0.53.

H I S T O G R A M 24.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R5 34/7-4,2518.0m,SWC	ooooo	50	.894	.319	.3569

Class	Counts	Perc.	'ooooo'=1%
Below	0	0.00	
.20	1	2.00	oooooooooo
.25	1	2.00	oooooooooo
.30	2	4.00	oooooooooooooooooooo
.35	1	2.00	oooooooooo
.40	2	4.00	oooooooooooooooooooo
.45	1	2.00	oooooooooo
.50	2	4.00	oooooooooooooooooooo
.55	1	2.00	oooooooooo
.60	1	2.00	oooooooooo
.65	0	0.00	
.70	2	4.00	oooooooooooooooooooo
.75	0	0.00	
.80	5	10.00	oooooooooooooooooooooooooooooooooooooooooooooooooooo
.85	4	8.00	oooooooooooooooooooooooooooooooooooooooo
.90	2	4.00	oooooooooooooooooooo
.95	6	12.00	oooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
1.00	0	0.00	
1.05	5	10.00	oooooooooooooooooooooooooooooooooooooooooooooooooo
1.10	3	6.00	ooooooooooooooooooooooooooooo
1.15	1	2.00	oooooooooo
1.20	3	6.00	ooooooooooooooooooooooooooooo
1.25	4	8.00	oooooooooooooooooooooooooooooooooooooooo
1.30	0	0.00	
1.35	2	4.00	oooooooooooooooooo
1.40	0	0.00	
1.45	1	2.00	oooooooooo
Above	0	0.00	

L I S T 24.4.1985

Channel: R5 34/7-4,2518.0m,SWC
No. of Measurements: 50
Mean: .894
Standard Deviation: .319
Coeff. of Variation: .3569

# Meas.	Value	
1	.626	
2	1.080	
3	.569	●
4	.869	
5	1.076	
6	.440	
7	1.222	
8	1.108	
9	1.269	
10	1.119	
11	1.194	
12	.855	
13	1.201	
14	.983	
15	.330	
16	.801	
17	.855	
18	1.294	
19	1.240	
20	1.080	
21	.962	
22	1.144	
23	.287	
24	.905	
25	.990	
26	1.076	
27	.958	
28	.987	
29	1.251	
30	.722	
31	.308	
32	.244	
33	.801	
34	.905	
35	.962	
36	.497	●
37	.840	
38	1.358	
39	1.080	
40	1.369	
41	.855	
42	.812	
43	1.494	
44	.426	
45	.372	
46	.819	
47	1.269	
48	.537	●
49	.533	●
50	.722	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 90	2538.5	core	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 88	2540.0	core	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 84	2541.0	core	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 103	2542.0	swc	clst	0.99 (50)-	HF

Comments:
Claystone, contains only inertinitic material.

H I S T O G R A M 24.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R3 34/7-4,2542.0m,SWC	#####	50	.994	.153	.1544

Class	Counts	Perc.	'#'=1%
Below	0	0.00	
.65	1	2.00	##
.70	1	2.00	##
.75	2	4.00	####
.80	4	8.00	########
.85	3	6.00	######
.90	5	10.00	##########
.95	12	24.00	########################
1.00	9	18.00	##################
1.05	7	14.00	##############
1.10	1	2.00	##
1.15	1	2.00	##
1.20	2	4.00	####
1.25	0	0.00	
1.30	0	0.00	
1.35	0	0.00	
1.40	1	2.00	##
1.45	0	0.00	
1.50	0	0.00	
1.55	1	2.00	##
Above	0	0.00	

L I S T 24.4.1985

Channel: R3 34/7-4,2542.0m,SWC
No. of Measurements: 50
Mean: .994
Standard Deviation: .153
Coeff. of Variation: .1544

# Meas.	Value
1	.913
2	1.567
3	.967
4	1.080
5	1.098
6	.945
7	.996
8	.982
9	.778
10	.822
11	.956
12	1.153
13	.840
14	.855
15	.993
16	.956
17	1.062
18	.985
19	1.004
20	1.243
21	.862
22	1.018
23	1.033
24	1.211
25	.927
26	.964
27	.749
28	.815
29	.847
30	1.029
31	1.084
32	1.040
33	1.109
34	.949
35	.771
36	1.011
37	.669
38	.982
39	.924
40	.996
41	.989
42	.956
43	1.073
44	.855
45	1.080
46	1.015
47	1.047
48	1.073
49	1.007
50	1.403

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 92	2545.0	core	clst	0.55 (7)	HF

Comments:
Claystone, relatively poor in organic matter but contains some vitrinite of acceptable quality.

H I S T O G R A M 22.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R5 34/7-4,2545.0m,CORE	ooooo	20	1.025	.403	.3934

Class	Counts	Perc.	'ooooo'=1%
Below	0	0.00	
.45	2	10.00	oooooooooooooooooooooooooooooooooooooooooooooooooo
.50	1	5.00	ooooooooooooooooooooooooo
.55	3	15.00	ooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
.60	1	5.00	ooooooooooooooooooooooooo
.65	0	0.00	
.70	0	0.00	
.75	0	0.00	
.80	0	0.00	
.85	0	0.00	
.90	0	0.00	
.95	1	5.00	ooooooooooooooooooooooooo
1.00	0	0.00	
1.05	1	5.00	ooooooooooooooooooooooooo
1.10	3	15.00	ooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
1.15	1	5.00	ooooooooooooooooooooooooo
1.20	0	0.00	
1.25	1	5.00	ooooooooooooooooooooooooo
1.30	2	10.00	oooooooooooooooooooooooooooooooooooooooooooooooooo
1.35	0	0.00	
1.40	3	15.00	ooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooooo
1.45	0	0.00	
1.50	0	0.00	
1.55	0	0.00	
1.60	0	0.00	
1.65	0	0.00	
1.70	0	0.00	
1.75	0	0.00	
1.80	0	0.00	
1.85	1	5.00	ooooooooooooooooooooooooo
Above	0	0.00	

L I S T 22.4.1985

Channel: R5 34/7-4,2545.0m,CORE
No. of Measurements: 20
Mean: 1.025
Standard Deviation: .403
Coeff. of Variation: .3934

# Meas.	Value	
1	1.870	
2	1.108	
3	1.314	
4	1.050	
5	1.173	
6	.480	●
7	1.140	
8	.577	●
9	.595	●
10	.639	●
11	.599	●
12	1.447	
13	1.404	
14	.505	●
15	1.278	
16	1.440	
17	.971	
18	.465	●
19	1.310	
20	1.144	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 93	2545.0	core	clst	0.50 (24)	HF

Comments:
Claystone, relatively poor in organic matter but contains some vitrinite of acceptable quality.

H I S T O G R A M 22.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R4 34/7-4,2545.0m,CORE	xxxxx	42	.765	.397	.5188

Class	Counts	Perc.	'xxxxx'=1%
Below	0	0.00	
.25	1	2.38	xxxxxxxxxxx
.30	1	2.38	xxxxxxxxxxx
.35	2	4.76	xxxxxxxxxxxxxxxxxxxxxxx
.40	4	9.52	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.45	5	11.90	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.50	6	14.29	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.55	3	7.14	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.60	3	7.14	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.65	0	0.00	
.70	1	2.38	xxxxxxxxxxx
.75	2	4.76	xxxxxxxxxxxxxxxxxxxxxxx
.80	0	0.00	
.85	2	4.76	xxxxxxxxxxxxxxxxxxxxxxx
.90	0	0.00	
.95	1	2.38	xxxxxxxxxxx
1.00	1	2.38	xxxxxxxxxxx
1.05	0	0.00	
1.10	0	0.00	
1.15	1	2.38	xxxxxxxxxxx
1.20	1	2.38	xxxxxxxxxxx
1.25	4	9.52	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.30	0	0.00	
1.35	1	2.38	xxxxxxxxxxx
1.40	0	0.00	
1.45	0	0.00	
1.50	0	0.00	
1.55	1	2.38	xxxxxxxxxxx
1.60	0	0.00	
1.65	0	0.00	
1.70	2	4.76	xxxxxxxxxxxxxxxxxxxxxxx
Above	0	0.00	

L I S T 22.4.1985

Channel: R4 34/7-4,2545.0m,CORE
No. of Measurements: 42
Mean: .765
Standard Deviation: .397
Coeff. of Variation: .5188

# Meas.	Value	
1	1.043	
2	1.270	
3	.361	●
4	.433	●
5	1.704	
6	.527	●
7	.509	●
8	1.588	
9	.736	
10	.758	
11	.350	●
12	.790	
13	.888	
14	.548	●
15	.545	●
16	.462	●
17	1.375	
18	.451	●
19	.419	●
20	1.711	
21	.494	●
22	1.267	
23	.873	
24	.296	
25	.476	●
26	.530	●
27	.426	●
28	1.299	
29	.960	
30	.642	●
31	.574	●
32	.426	●
33	.610	●
34	.588	●
35	.606	●
36	1.151	
37	.382	●
38	1.252	
39	.538	●
40	.567	●
41	.476	●
42	1.242	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 89	2548.5	core	clst	0.30 (50)	HF

Comments:
Claystone, contains low reflecting coaly material. Impossible to distinguish from lignite mud additive

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R2 34/7-4,2548.5m,CORE	+++++	50	.298	.173	.5818

Class	Counts	Perc.	'+'=1%
Below	0	0.00	
.15	3	6.00	++++++
.20	15	30.00	++++++++++++++++++++++++++++++
.25	23	46.00	+++
.30	6	12.00	++++++++++++
.35	0	0.00	
.40	0	0.00	
.45	0	0.00	
.50	0	0.00	
.55	0	0.00	
.60	0	0.00	
.65	0	0.00	
.70	0	0.00	
.75	1	2.00	++
.80	0	0.00	
.85	1	2.00	++
.90	0	0.00	
.95	0	0.00	
1.00	0	0.00	
1.05	0	0.00	
1.10	0	0.00	
1.15	1	2.00	++
Above	0	0.00	

L I S T 17.4.1985

Channel: R2 34/7-4,2548.5m,CORE
No. of Measurements: 50
Mean: .298
Standard Deviation: .173
Coeff. of Variation: .5818

# Meas.	Value
1	.151
2	.180
3	1.175
4	.269
5	.243
6	.261
7	.221
8	.224
9	.236
10	.298
11	.331
12	.339
13	.294
14	.236
15	.254
16	.247
17	.335
18	.221
19	.206
20	.335
21	.224
22	.210
23	.280
24	.884
25	.265
26	.265
27	.298
28	.276
29	.261
30	.261
31	.258
32	.261
33	.294
34	.265
35	.261
36	.258
37	.283
38	.239
39	.302
40	.324
41	.755
42	.177
43	.232
44	.254
45	.250
46	.265
47	.228
48	.239
49	.250
50	.232

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 91	2551.5	core	clst	0.53 (4)	HF

Comments:
Claystone, nearly barren, contains some vitrinitic material of acceptable quality.

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R2 34/7-4,2551.5m,CORE	+++++	7	.613	.209	.3402

Class	Counts	Perc.	'+'=1%
Below	0	0.00	
.35	1	14.29	++++++++++++++
.40	0	0.00	
.45	0	0.00	
.50	4	57.14	++
.55	0	0.00	
.60	0	0.00	
.65	0	0.00	
.70	0	0.00	
.75	0	0.00	
.80	0	0.00	
.85	1	14.29	++++++++++++++
.90	1	14.29	++++++++++++++
Above	0	0.00	

L I S T 17.4.1985

Channel: R2 34/7-4,2551.5m,CORE
No. of Measurements: 7
Mean: .613
Standard Deviation: .209
Coeff. of Variation: .3402

# Meas.	Value	
1	.379	
2	.545	●
3	.530	●
4	.887	
5	.515	●
6	.508	●
7	.928	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 86	2552.5	core	clst	0.43 (8)	HF

Comments:
Claystone, nearly barren, contains some vitrinitic material of acceptable quality.

H I S T O G R A M 17.4.1985

Channel	Symbol	# Meas.	Mean	St.Ddev.	Coeff. of Var.
R4 34/7-4,2552.5m,CORE	xxxxx	50	1.039	.332	.3198

Class	Counts	Perc.	'xxxxx'=1%
Below	0	0.00	
.35	1	2.00	xxxxxxxxxx
.40	6	12.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.45	1	2.00	xxxxxxxxxx
.50	0	0.00	
.55	0	0.00	
.60	0	0.00	
.65	1	2.00	xxxxxxxxxx
.70	0	0.00	
.75	0	0.00	
.80	0	0.00	
.85	2	4.00	xxxxxxxxxxxxxxxxxxxx
.90	7	14.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.95	3	6.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.00	1	2.00	xxxxxxxxxx
1.05	3	6.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.10	4	8.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.15	2	4.00	xxxxxxxxxxxxxxxxxxxx
1.20	5	10.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.25	3	6.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.30	4	8.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.35	1	2.00	xxxxxxxxxx
1.40	3	6.00	xxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.45	0	0.00	
1.50	2	4.00	xxxxxxxxxxxxxxxxxxxx
1.55	0	0.00	
1.60	1	2.00	xxxxxxxxxx
Above	0	0.00	

L I S T 17.4.1985

Channel: R4 34/7-4,2552.5m,CORE
No. of Measurements: 50
Mean: 1.039
Standard Deviation: .332
Coeff. of Variation: .3198

# Meas.	Value	
1	1.057	
2	1.042	
3	1.337	
4	.460	●
5	.423	●
6	.361	●
7	.416	●
8	.445	●
9	.917	
10	1.094	
11	.442	●
12	.445	●
13	.409	●
14	1.444	
15	.917	
16	1.160	
17	1.123	
18	1.079	
19	1.248	
20	1.602	
21	1.296	
22	1.256	
23	.957	
24	1.219	
25	1.366	
26	1.517	
27	.854	
28	1.318	
29	.902	
30	1.407	
31	.898	
32	1.525	
33	1.407	
34	.943	
35	1.145	
36	1.340	
37	1.245	
38	.939	
39	1.326	
40	1.145	
41	1.149	
42	.943	
43	.674	
44	1.245	
45	1.200	
46	1.175	
47	.902	
48	.965	
49	.994	
50	1.252	

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 85	2555.5	core	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 87	2557.0	core	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 102	2562.0	swc	clst	0.60 (8)	HF

Comments:
Claystone, totally dominated by inertinitic material of poor quality, difficult identification. The value indicated can be poor quality inertinite

H I S T O G R A M   24.4.1985

Channel	Symbol # Meas.		Mean	St.Ddev.	Coeff. of Var.
R4 34/7-4,2562.0m,SWC	xxxxx	28	.810	.289	.3567

Class	Counts	Perc.	'xxxxx'=1%
Below	0	0.00	
.30	1	3.57	xxxxxxxxxxxxxxxxxx
.35	1	3.57	xxxxxxxxxxxxxxxxxx
.40	1	3.57	xxxxxxxxxxxxxxxxxx
.45	0	0.00	
.50	1	3.57	xxxxxxxxxxxxxxxxxx
.55	2	7.14	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.60	5	17.86	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.65	1	3.57	xxxxxxxxxxxxxxxxxx
.70	3	10.71	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.75	0	0.00	
.80	1	3.57	xxxxxxxxxxxxxxxxxx
.85	0	0.00	
.90	2	7.14	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
.95	2	7.14	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.00	3	10.71	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.05	0	0.00	
1.10	3	10.71	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
1.15	1	3.57	xxxxxxxxxxxxxxxxxx
1.20	0	0.00	
1.25	0	0.00	
1.30	0	0.00	
1.35	0	0.00	
1.40	0	0.00	
1.45	0	0.00	
1.50	0	0.00	
1.55	1	3.57	xxxxxxxxxxxxxxxxxx
Above	0	0.00	

L I S T 24.4.1985

Channel: R4 34/7-4,2562.0m,SWC
No. of Measurements: 28
Mean: .810
Standard Deviation: .289
Coeff. of Variation: .3567

# Meas.	Value	
1	1.138	
2	.324	
3	.604	●
4	.604	●
5	1.025	
6	.938	
7	.956	
8	.738	
9	.444	
10	1.131	
11	1.040	
12	.608	●
13	.604	●
14	.807	
15	.644	●
16	.938	
17	1.193	
18	1.134	
19	.717	
20	.673	
21	.978	
22	1.025	
23	.728	
24	.386	
25	1.592	
26	.579	●
27	.597	●
28	.546	●

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 101	2567.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 100	2573.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 99	2621.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 98	2651.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 97	2660.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 96	2673.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 95	2689.0	swc	clst	-	HF

Comments:
Claystone, barren

WELL 34/7-4

VITRINITE REFLECTANCE RAW DATA

Sample code	Sample depth mRKB	Sample type	Lithology	Vitrinite reflectance Ro (N)	Preparation
SA 94	2708.0	swc	clst	-	HF

Comments:
Claystone, barren