

Total organic carbon, rock-eval pyrolysis, and vitrinite reflectance  
data of ditch cuttings from the Exxon Corp. OCS Y-0527-1 well

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Geologic Materials Center Data Report No. 99

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TABLE 1 TOC AND ROCK-EVAL PYROGENESIS

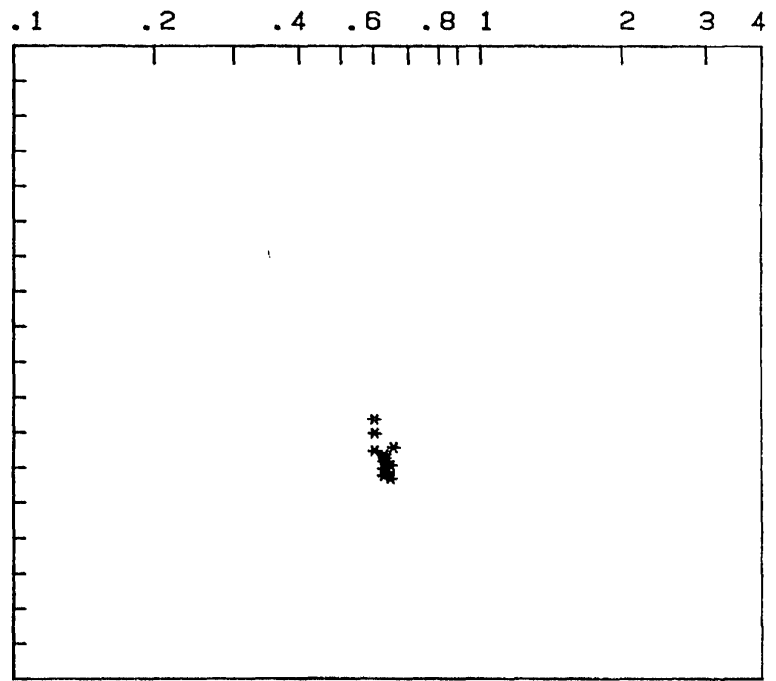
PROJECT: EXXON, OCS-Y-0527 #1, BERING SEA, ALASKA  
CHARGE NUMBER: WCO70569

DEPTH OR OUTCROP NO.	S1 mg/g	S2 mg/g	S3 mg/g	THAX C	TOC wt. %	H1	O1
10000-10100	0.03	0.04	0.19	-	0.09	44	211
10100-10200	0.04	0.06	0.11	350	0.04	150	275
10200-10300	0.01	0.01	0.19	-	0.01	100	+
10300-10400	0.03	0.07	0.06	314	0.04	175	150
10400-10500	0.04	0.09	0.10	335	0.09	100	111
10400-10500 D	0.02	0.06	0.10	348	0.08	75	125
10500-10600	0.12	1.46	0.08	445	1.44	101	5
10600-10700	0.07	0.85	0.03	443	0.23	102	3
10700-10795	0.10	1.18	0.04	443	1.09	108	3
10795-10900	0.22	0.47	1.95	430	0.43	109	455
10900-11000	0.05	0.12	0.59	433	0.18	66	327
11000-11100	0.03	0.10	0.23	436	0.12	83	191
11100-11200	0.02	0.05	0.02	433	0.08	62	25
11200-11300	0.02	0.05	0.05	432	0.08	62	62
11300-11400	0.01	0.04	0.10	-	0.11	36	90
11400-11500	0.03	0.09	0.03	433	0.11	81	27
11400-11500 D	0.04	0.12	0.06	443	0.11	109	54
11500-11600	0.04	0.09	0.30	387	0.10	90	300
11600-11700	0.02	0.09	0.11	385	0.12	75	91
11700-11800	0.02	0.16	0.10	434	0.20	80	50
11800-11900	0.00	0.04	0.02	-	0.06	66	33
11900-12000	0.00	0.02	0.05	-	0.06	33	83
12000-12100	0.03	0.23	0.25	431	0.29	79	86
12100-12200	0.02	0.06	0.02	381	0.07	85	28
12200-12300	0.03	0.15	0.10	428	0.19	78	52
12300-12400	0.02	0.35	0.26	434	0.53	66	49
12400-12450	0.06	0.14	0.17	432	0.18	77	94

D DUPLICATE FILE NAME  
- UNABLE TO CALCULATE VALUE  
\* BIMODAL S2 PEAK  
+ VALUE EXCEEDS 999

# EXXON OCS Y0527#1

DEPTH	% REFL.	
10640	.61	0'
11040	.61	2,000'
11440	.67	4,000'
11540	.61	6,000'
11640	.64	8,000'
11740	.64	10,000'
11840	.64	12,000'
11940	.66	14,000'
12040	.64	16,000'
12140	.65	18,000'
12240	.64	
12330	.66	

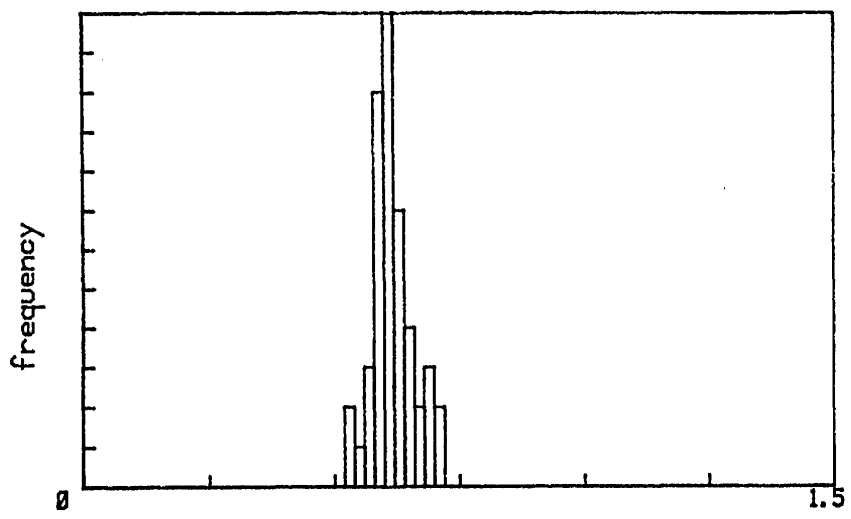


DEPTH vs REFLECTANCE

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
10640-10740 FT

DITCH SAMPLE



### R<sub>o</sub> VALUES

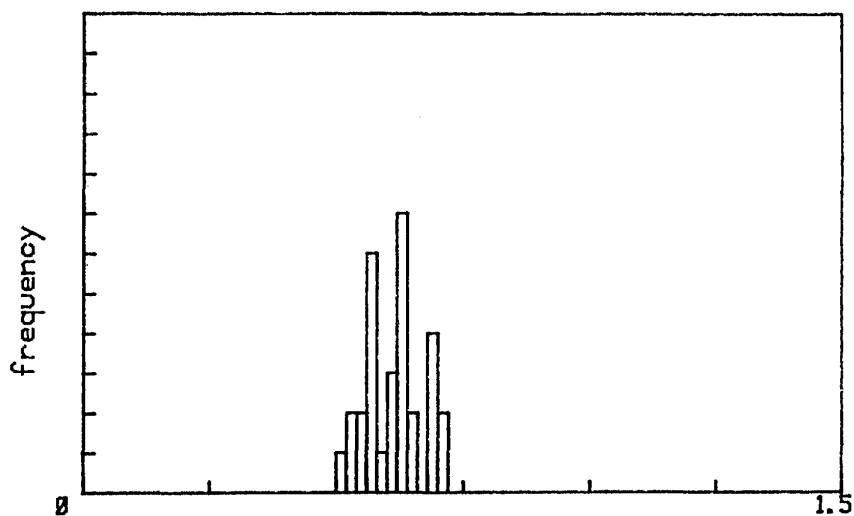
.53	.53	.54	.56	.57	.57
.58	.58	.58	.58	.58	.58
.59	.59	.59	.59	.6	.6
.6	.6	.6	.6	.6	.61
.61	.61	.61	.61	.61	.61
.61	.61	.62	.62	.63	.63
.63	.63	.63	.65	.65	.65
.65	.67	.67	.68	.69	.69
.7	.7				

NO OF MEAS. = 50  
AVE. REFL. .61  
STD. DEV = .04

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
11040-11140 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.51	.52	.52	.54	.55	.56
.56	.56	.56	.57	.57	.59
.61	.61	.61	.62	.62	.62
.62	.62	.63	.63	.64	.65
.68	.68	.68	.69	.7	.71

NO OF MEAS. = 30

AVE. REFL. .61

STD. DEV = .06

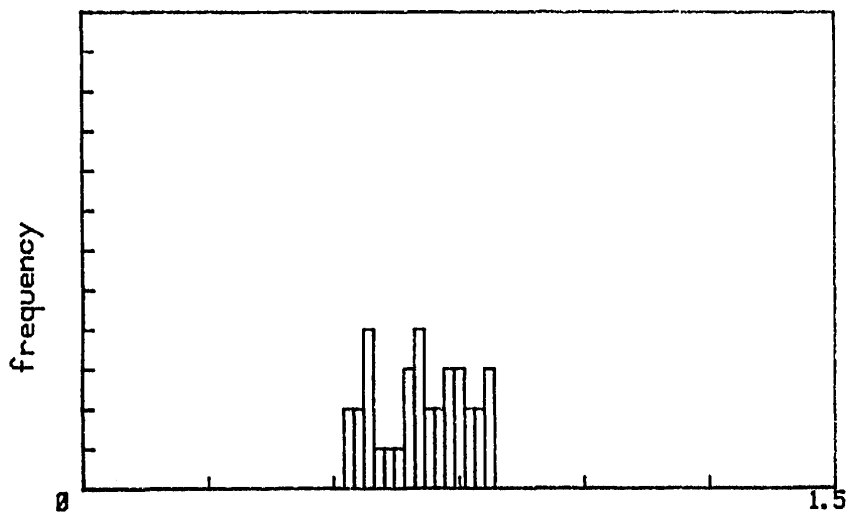
0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30

0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
 11440-11540 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.52	.53	.54	.55	.56	.56
.56	.57	.58	.6	.62	.64
.64	.65	.66	.66	.66	.66
.68	.69	.7	.7	.72	.72
.73	.74	.74	.75	.76	.77
.78	.79	.8	.81	.81	

NO OF MEAS. = 35

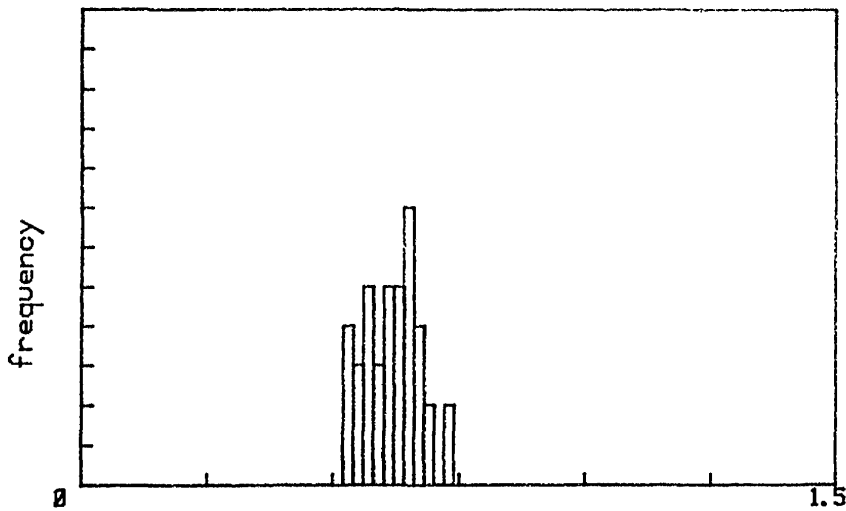
AVE. REFL. .67

STD. DEV = .09

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
11540-11640 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.52	.53	.53	.53	.54	.55
.55	.56	.56	.56	.57	.57
.58	.58	.58	.6	.6	.61
.61	.61	.62	.62	.63	.63
.63	.64	.64	.64	.64	.64
.65	.65	.66	.66	.66	.66
.68	.69	.72	.73		

NO OF MEAS. = 40

AVE. REFL. .61

STD. DEV = .05

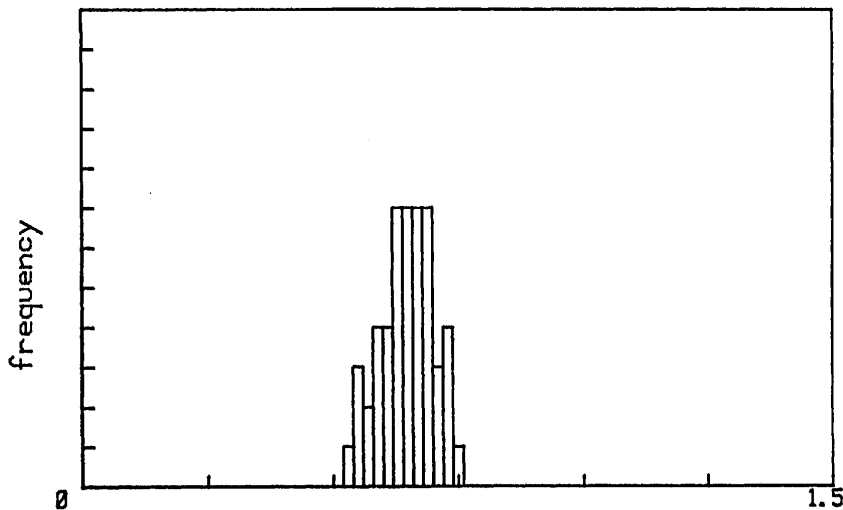
# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
11640-11740 FT

DITCH SAMPLE

## R<sub>o</sub> VALUES

.52	.54	.54	.55	.57	.57
.58	.58	.59	.59	.61	.61
.61	.61	.62	.62	.62	.62
.62	.62	.63	.64	.64	.65
.65	.65	.65	.65	.66	.66
.66	.66	.67	.67	.67	.68
.68	.69	.69	.69	.69	.69
.71	.71	.71	.72	.73	.73
.73	.74				



NO OF MEAS. = 50

AVE. REFL. .64

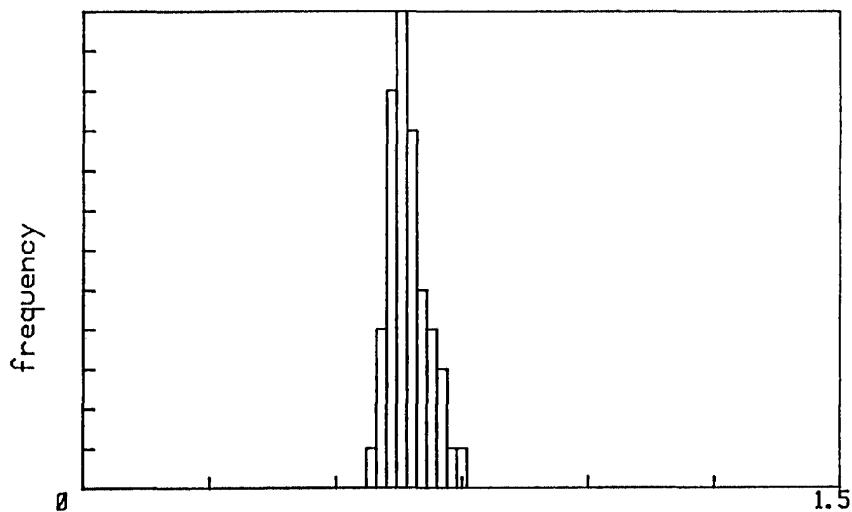
STD. DEV = .05



# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
11740-11840 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.57	.58	.59	.59	.59	.6
.6	.6	.6	.6	.61	.61
.61	.61	.61	.62	.62	.62
.62	.62	.62	.63	.63	.63
.63	.63	.63	.64	.64	.64
.64	.64	.64	.64	.65	.65
.66	.66	.66	.67	.67	.68
.68	.68	.69	.71	.71	.71
.73	.75				

NO OF MEAS. = 50

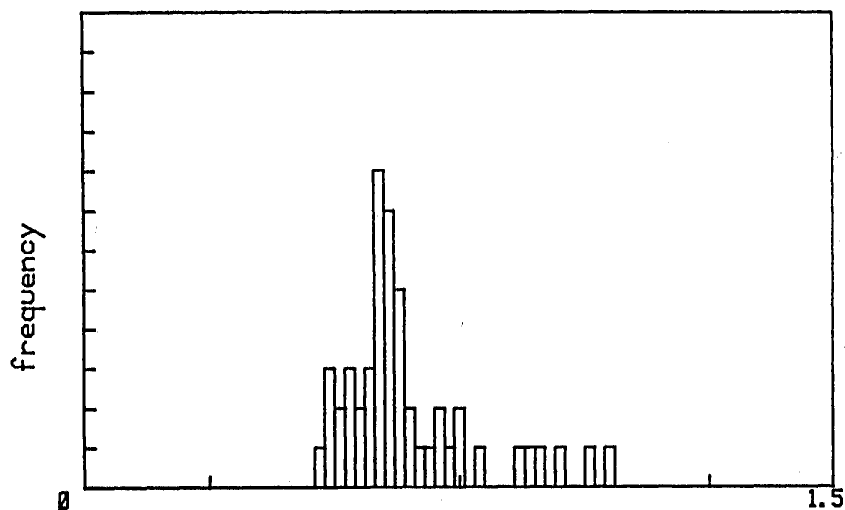
AVE. REFL. .64

STD. DEV = .04

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
11840 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.47	.48	.48	.49	.51	.51
.52	.53	.53	.54	.54	.56
.57	.57	.58	.58	.59	.59
.59	.59	.59	.59	.6	.6
.6	.61	.61	.61	.61	.62
.62	.62	.62	.63	.65	.65
.67	.68	.7	.71	.73	.74
.74	.78	.87	.88	.9	.95
1	1.04				

NO OF MEAS. = 50

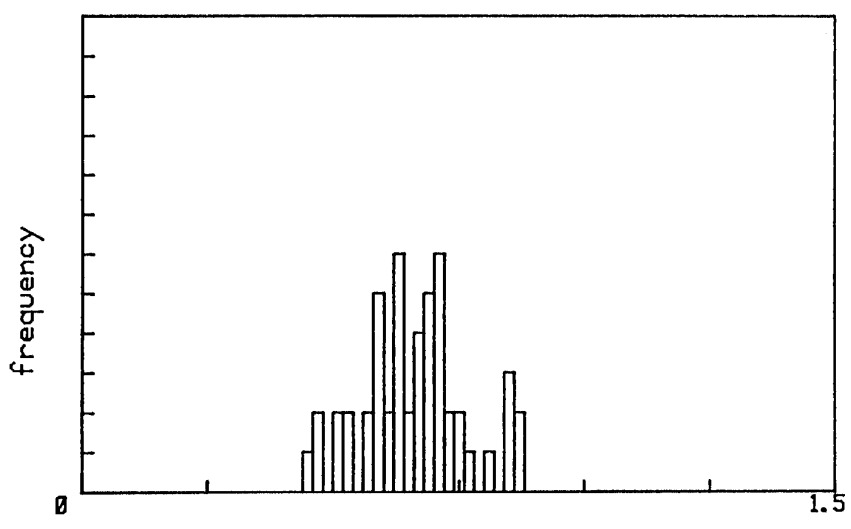
AVE. REFL. .64

STD. DEV = .13

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
 11940-12040 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

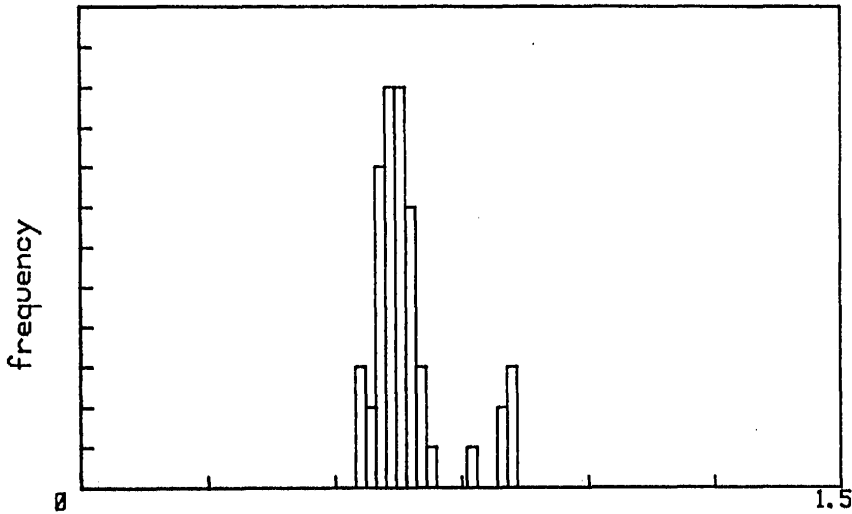
.44	.46	.47	.51	.51	.52
.52	.57	.57	.58	.58	.58
.59	.59	.6	.61	.62	.62
.63	.63	.63	.63	.65	.65
.66	.67	.67	.67	.68	.69
.69	.69	.69	.7	.71	.71
.71	.71	.71	.72	.72	.74
.74	.76	.8	.84	.85	.85
.86	.86				

NO OF MEAS. = 50  
 AVE. REFL. .66  
 STD. DEV = .1

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
12040-12140 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.54	.55	.55	.56	.57	.58
.58	.58	.59	.59	.59	.59
.59	.6	.6	.6	.6	.6
.6	.61	.61	.61	.61	.62
.62	.62	.62	.62	.62	.63
.63	.63	.63	.64	.64	.64
.64	.65	.65	.65	.66	.67
.67	.68	.76	.82	.83	.84
.84	.85				

NO OF MEAS. = 50

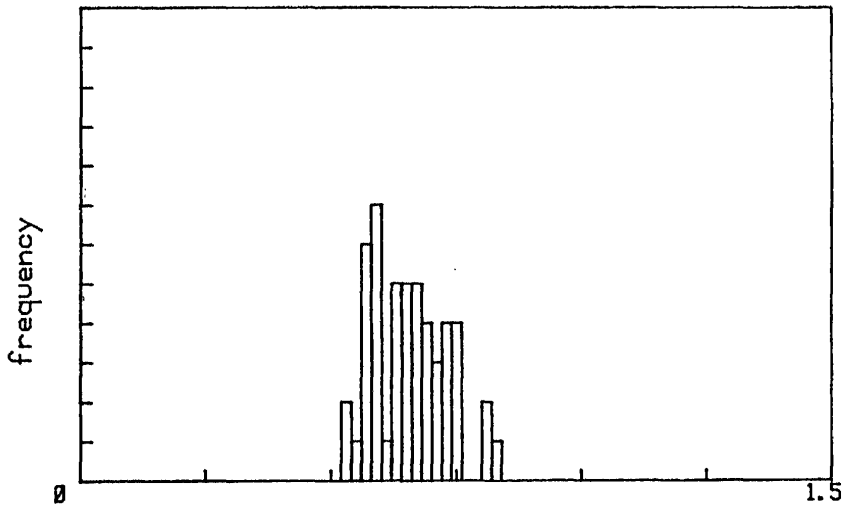
AVE. REFL. .64

STD. DEV = .08

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
 12140-12240 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

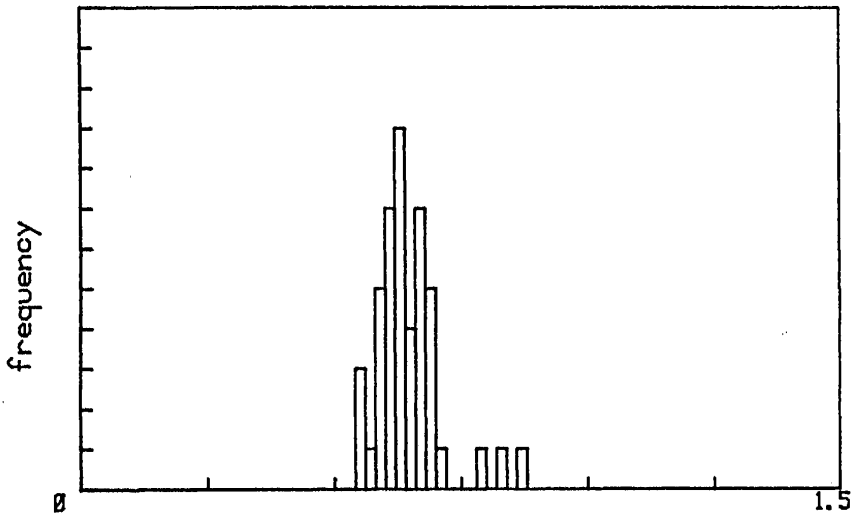
.52	.53	.54	.56	.56	.56
.56	.57	.57	.58	.58	.58
.58	.59	.59	.59	.6	.62
.62	.62	.62	.63	.64	.64
.64	.65	.65	.66	.67	.67
.67	.67	.68	.69	.69	.69
.71	.71	.71	.72	.73	.73
.73	.74	.74	.75	.75	.8
.8	.83				

NO OF MEAS. = 50  
 AVE. REFL. .65  
 STD. DEV = .08

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
12240-12330 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.54	.55	.55	.56	.58	.58
.58	.59	.59	.6	.6	.6
.61	.61	.61	.61	.62	.62
.62	.62	.63	.63	.63	.63
.63	.64	.64	.65	.65	.66
.66	.66	.66	.67	.67	.67
.68	.68	.68	.68	.68	.7
.78	.83	.86			

NO OF MEAS. = 45

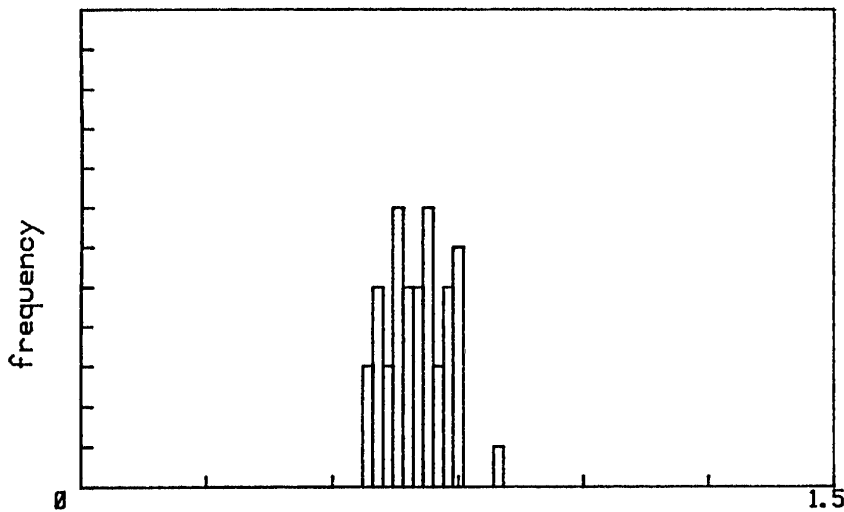
AVE. REFL. .64

STD. DEV = .06

# VITRINITE REFLECTANCE @ 546 nm

EXXON OCS Y0527#1  
12330 FT

DITCH SAMPLE



## R<sub>o</sub> VALUES

.56	.56	.57	.58	.58	.58
.58	.59	.6	.61	.61	.62
.62	.62	.62	.63	.63	.63
.64	.65	.65	.65	.65	.66
.66	.66	.66	.66	.68	.68
.69	.69	.69	.69	.69	.7
.7	.71	.72	.72	.72	.73
.73	.74	.74	.75	.75	.75
.75	.83				

NO OF MEAS. = 50

AVE. REFL. .66

STD. DEV = .06