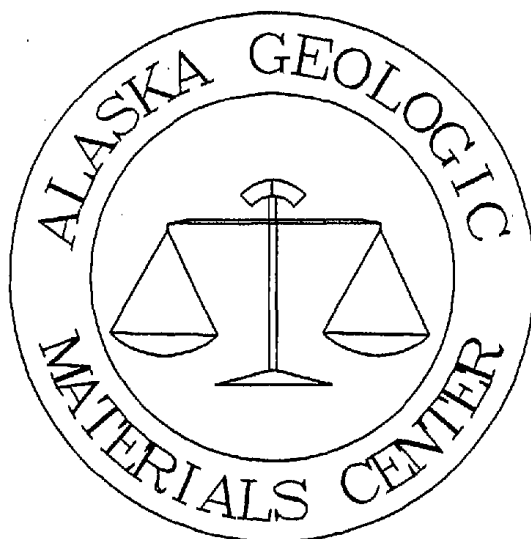


Spot reanalysis of vitrinite equivalent reflectance of cuttings (2,770' and 6,520') and of core (8,242') from the Gulf Oil Corporation Colville Delta State No. 1 well, and of cuttings (6,000' - 6,200', and 7,000' - 7,200') from the Atlantic Richfield Company Itkillik River Unit No. 1 well.



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**Alaska Geologic Materials Center Data Report No. 199**



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June 1, 1992

Dr. John Reeder  
Department of Natural Resources  
Geological Materials Center  
P.O. Box 772116  
Eagle River, AK 99577

Dear Dr. Reeder,

The following is the data for spot analysis of vitrinite for the Gulf Colville Delta St. 1 and Arco Itillik River Unit 1 wells. Vitrinite reflectance was hampered by dual populations or poorly defined populations such that quantitative fluorescence was used. The Rf numbers reported are vitrinite equivalent, and the methodology is further discussed in Thompson and Woods (1987) and Thompson et al. (1988).

Thank you for sending the sample promptly.

Eric Michael

rab  
cc/enc:  
Carolyn Thompson-Rizer

## REFERENCES

Thompson-Rizer, C. L., and Woods, R. A., 1987, Microspectrofluorescence measurements of coals and petroleum source rocks, *Int. J. Coal Geology*, v. 7, pp. 85-104.

Thompson-Rizer, C. L., Woods, R. A., and Ottenjann, K., 1988, Quantitative fluorescence results from sample exchange studies, *Org. Geochem.*, v. 12, pp. 323-332.

DATE 26-MAY-92

WELL IDENTIFICATION COLVILLE DELTA ST 1

SAMPLE NUMBER 20311

SAMPLE DEPTH 2770

MEAN= .81 STD.DEV.= .15

PTS. CELL

1 .50 I\*

4 .55 I\*\*\*\*

1 .60 I\*

2 .65 I\*\*

1 .70 I\*

5 .75 I\*\*\*\*\*

3 .80 I\*\*\*

8 .85 I\*\*\*\*\*

8 .90 I\*\*\*\*\*

3 .95 I\*\*\*

2 1.00 I\*\*

1 1.05 I\*

0 1.10 I

1 1.15 I\*

+-----+-----+-----+  
0 5 10 15  
FREQUENCY

SAMPLE NUMBER 20323

SAMPLE DEPTH 6520

MEAN= .73 STD.DEV.= .23

PTS. CELL

2 .45 I\*\*

5 .50 I\*\*\*\*\*

11 .55 I\*\*\*\*\*

2 .60 I\*\*

1 .65 I\*

2 .70 I\*\*

2 .75 I\*\*

1 .80 I\*

3 .85 I\*\*\*

0 .90 I

4 .95 I\*\*\*\*

2 1.00 I\*\*

3 1.05 I\*\*\*

1 1.10 I\*

+-----+-----+-----+  
0 5 10 15  
FREQUENCY

SAMPLE NUMBER 20354

SAMPLE DEPTH 8964

SAMPLE WAS PROCESSED; INSUFFICIENT POLISH FOR VITRINITE ANALYSIS.

FILE: COLD1.SCN  
 COLVILLE DELTA ST 1 POL SLIDE 2770/  
 CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	D	PEAK	X	Y	490NM	HV
1	SML LOOP	1.626	610	.4042	.3917	.5482	683
2	SML LOOP	1.869	630	.4245	.4102	.452	683
3	SML LOOP	1.138	600	.3846	.395	.7015	683
4	FAT LOOP	1.024	610	.3745	.3945	.7392	683
5	MED LOOP	1.632	610	.4141	.4061	.4951	683
6	SML FAT LOOP	1.157	600	.3917	.4153	.6621	659
7	MED LOOP	1.714	610	.4203	.4099	.4837	612
8	MED LOOP	1.94	610	.428	.4102	.4457	683
9	MED LOOP	1.033	600	.3699	.3847	.7964	683
10	MED LOOP	1.571	610	.4165	.416	.4978	683
	AVERAGE	1.4704	609	.4028	.4033	.5821	
	STD. DEV.	.349	8.75	.021	.01	.13	
	RF	.64	.63	.63		.72	

RF AVERAGE = .65

FILE: COLD2.SCN  
 COLVILLE DELTA ST 1 6520'  
 CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	Q	PEAK	X	Y	490NM	HV
1	SML LOOP	1.504	600	.4133	.4164	.5389	622
2	SML LOOP	1.359	610	.4037	.412	.5964	683
3	SML LOOP	1.727	610	.414	.4036	.5511	683
4	SML LOOP	1.542	610	.4095	.4028	.5129	683
5	LRG LOOP	1.388	610	.4006	.4018	.5702	683
6	LRG DULL LOOP	1.86	600	.4316	.4247	.4402	683
7	SML LOOP	1.432	600	.4055	.4073	.5567	683
	AVERAGE	1.5445	605	.4111	.4098	.538	
	STD. DEV.	.185	5.34	.01	8E-03	.05	
	RF	.67	.61	.69		.76	

RF AVERAGE = .68

FILE: COLD3.SCN  
 COLVILLE DELTA ST 1 8242'  
 CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	Q	PEAK	X	Y	490NM	HV
1	THN LOOP	1.472	610	.4104	.4215	.5729	683
2	FAT LOOP	1.314	610	.4096	.4304	.6053	683
3	FAT L000P	1.112	600	.3916	.4135	.688	683
4	THN LOOP	.969	590	.3753	.4036	.7395	683
5	RND S-P	1.411	600	.4033	.4084	.5414	683
AVERAGE		1.2556	602	.398	.4154	.6294	
STD. DEV.		.21	8.36	.014	.01	.082	
RF		.57	.58	.6		.67	

RF AVERAGE = .6

FILE: ITKIL1.SCN  
 ITKILLIK RIVER UNIT 1 6000-6200'  
 CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	Q	PEAK	X	Y	490NM	HV
1	FAT LOOP	1.507	600	.4099	.4126	.5522	683
2	SML LOOP	1.891	630	.4302	.4209	.4385	683
3	SML LOOP	1.995	630	.4392	.4202	.3965	683
4	MED LOOP	1.591	610	.4191	.4218	.5102	683
5	MED LOOP	1.202	600	.3988	.4173	.6248	659
6	SML LOOP	1.592	600	.4073	.4012	.5326	659
7	SML LOOP	1.428	600	.4056	.416	.5741	683
8	SML LOOP	1.518	610	.4119	.4112	.5223	683
9	FAT LOOP	1.444	630	.3977	.4028	.6332	678
10	FAT LOOP	1.559	610	.4088	.4072	.5409	683
	AVERAGE	1.5727	612	.4128	.4131	.5325	
	STD. DEV.	.226	13.16	.013	7E-03	.073	
	RF	.67	.65	.7		.76	

RF AVERAGE = .69



FILE: ITKIL2.SCN  
ITKILLIK RIVER UNIT 1 7000-7200'  
CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	Q	PEAK	X	Y	490NM	HV
1	PTD LOOP	1.693	610	.4132	.4064	.5085	683
2	BULB END LOOP	1.424	590	.4085	.4176	.5489	683
3	SML LOOP	1.555	630	.4183	.4149	.5004	683
4	SML LOOP	1.33	600	.4008	.4035	.5817	683
5	SML LOOP	2.072	630	.4334	.4054	.4158	683
6	FAT LOOP	1.503	610	.4109	.4167	.5648	641
	AVERAGE	1.5961	611	.4141	.4107	.52	
	STD. DEV.	.263	16.02	.01	5E-03	.06	
	RF	.68	.65	.71		.78	

RF AVERAGE = .7

FILE: ITKIL3.SCN  
 ITKILLIK RIVER UNIT 1 8000-8200'  
 CORR ID: HOFF MONO 186 2829K 1-87

REC	SPECTRA ID	Q	PEAK	X	Y	490NM	HV
1	FAT LOOP	1.593	620	.4161	.4141	.5398	683
2	FAT LOOP	1.762	630	.4211	.4169	.496	683
3	SML LOOP	1.853	630	.424	.4178	.4848	683
4	RND FRAG	1.773	620	.4169	.4115	.5198	683
5	MED LOOP	1.86	610	.4253	.4156	.4614	697
	AVERAGE	1.7682	622	.4206	.4151	.5003	
	STD. DEV.	.107	8.36	3E-03	0	.03	
	RF	.74	.72	.75		.8	

RF AVERAGE = .75