

**Vitrinite reflectance data of cuttings from the following two wells:**

**Colorado Oil and Gas Core Hole No. 1, 890' - 3570'; and  
Colorado Oil and Gas Core Hole No. 2, 4520' - 4730'.**

**Received 27 September 1990**

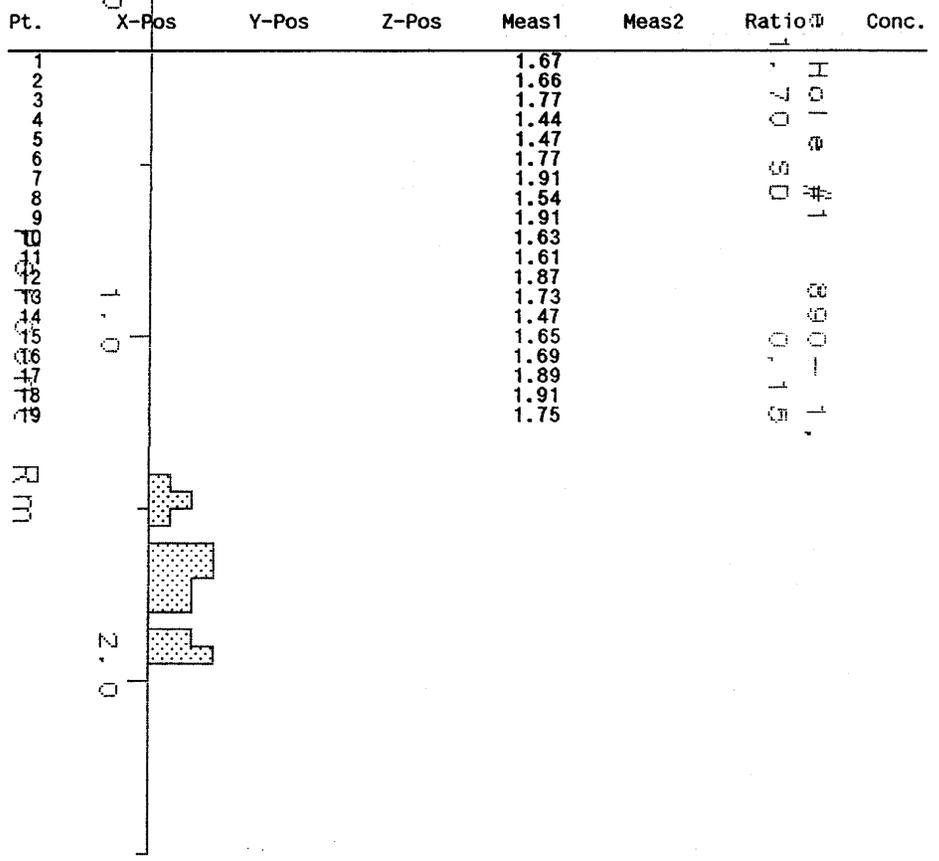
**Total of 6 pages in report**

**Alaska Geologic Materials Center Data Report No. 173**

File Name: 90016032  
 Channel Name: Point 9  
 Description: 90016032 Core Hole #1 890- 1,040 Alaska ker mjp VI190  
 Comment 1: Fair sample, vitrinite common, consistent quality  
 Comment 2: Material has some weathering effects evident.  
 Comment 3:  
 Comment 4:  
 Comment 5:  
 Comment 6:

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.67			
2				1.66			
3				1.77			
4				1.44			
5				1.47			
6				1.77			
7				1.91			
8				1.54			
9				1.91			
10				1.63			
11				1.61			
12				1.87			
13				1.73			
14				1.47			
15				1.65			
16				1.69			
17				1.89			
18				1.91			
19				1.75			

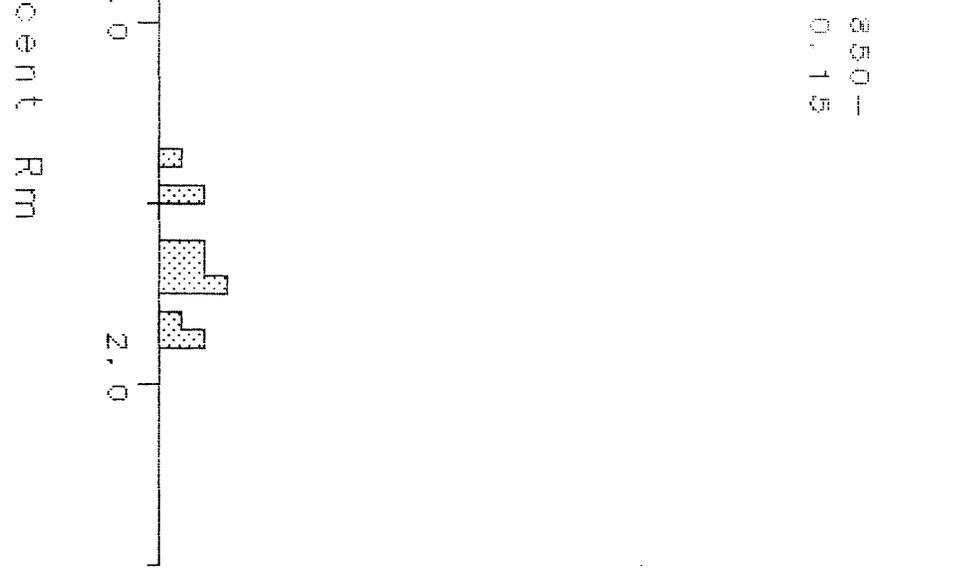
Min: 1.44  
 Max: 1.91  
 Mean: 1.70  
 StDev: 0.15



File Name: 90016033  
 Channel Name: Point 9  
 Description: 90016033 Core Hole #1 1,850- 2,090 Alaska ker mjp VII90  
 Comment 1: Fair sample, vitrinite uncommon, but somewhat consistent  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Comment 5:  
 Comment 6:

	Meas1	Meas2	Ratio	Conc.
Min:	1.39	2.0		
Max:	1.87	2.0		
Mean:	1.67			
St.Dev:	0.15			

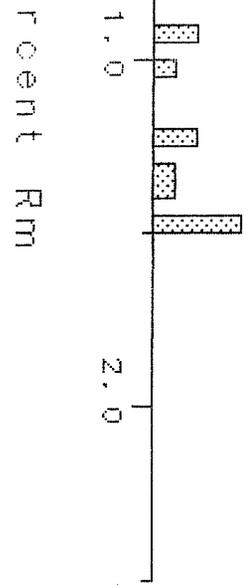
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				1.82			
2				1.71			
3				1.67			
4				1.66			
5				1.48			
6				1.71			
7				1.63			
8				1.45			
9				1.86			
10				1.74			
11				1.39			
12				1.87			
13				1.63			



File Name: 90016034  
 Channel Name: Point 9  
 Description: 90016034 Core Hole #1 3,390- 570 Alaska ker mjp VII90  
 Comment 1: Fair sample, inertinite and material with oxidation  
 Comment 2: are common. Vitrinite is good, consistent, but uncommon.  
 Comment 3:  
 Comment 4:  
 Comment 5:  
 Comment 6:

	Meas1	Meas2	Ratio	Conc.
Min:	0.92	2.0		
Max:	1.49			
Mean:	1.27			
StDev:	0.22			

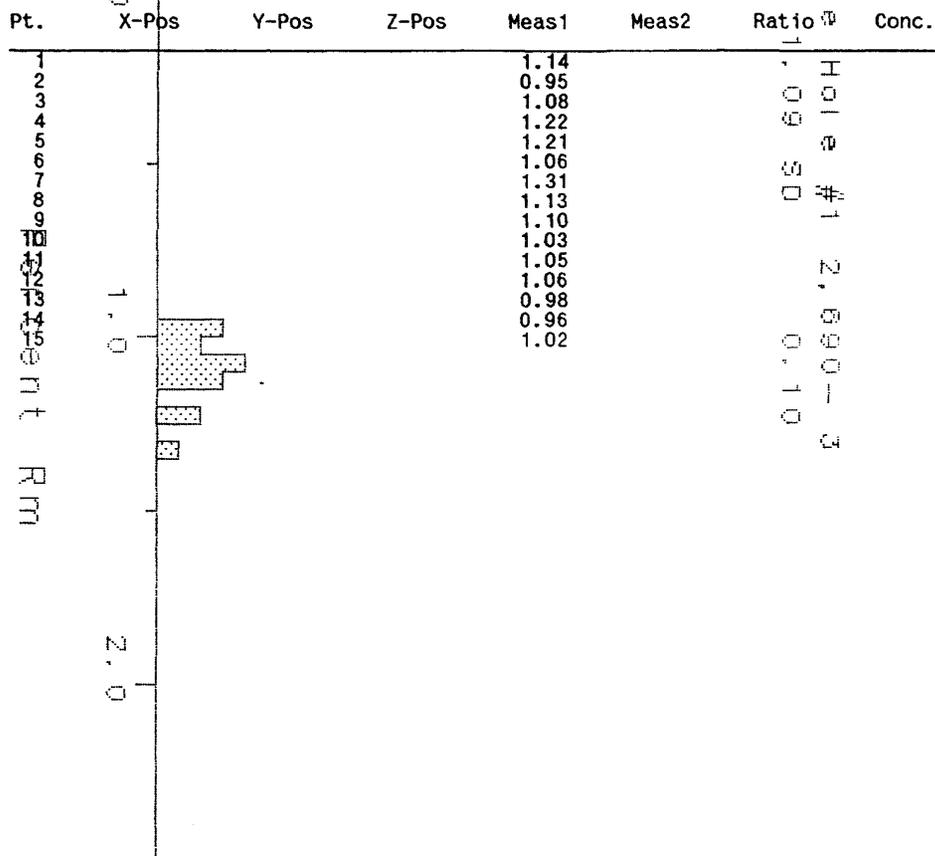
Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.93			
2				1.04			
3				0.92			
4				1.23			
5				1.24			
6				1.37			
7				1.31			
8				1.48			
9				1.49			
10				1.48			
11				1.49			



90016034  
 Core Hole #1  
 3,390-  
 570  
 Alaska ker mjp VII90  
 0.22

File Name: 90016035  
 Channel Name: Point 9  
 Description: 90016035 Core Hole #1 2,690- 3,170 Alaska ker mjp VDI90  
 Comment 1: Fair sample, inertinite and material with oxidation rims  
 Comment 2: are common. Vitrinite is good, consistent, but not  
 Comment 3: common.  
 Comment 4:  
 Comment 5:  
 Comment 6:

	Meas1	Meas2	Ratio	Conc.
Min:	-0.95	N		
Max:	1.31			
Mean:	1.09			
StDev:	0.10			



File Name: 90016036  
 Channel Name: Point 9  
 Description: 90016036 Core Hole 2 4,520- 730 Alaska kerogen mjp  
 Comment 1:  
 Comment 2:  
 Comment 3:  
 Comment 4:  
 Comment 5:  
 Comment 6:

Frequency

0016036  
 H-9-9  
 MT

	Meas1	Meas2	Ratio	Conc.
Min:	0.41	2.0		
Max:	0.63	2.0		
Mean:	0.52			
StDev:	0.06			

Pt.	X-Pos	Y-Pos	Z-Pos	Meas1	Meas2	Ratio	Conc.
1				0.44			
2				0.49			
3				0.52			
4				0.55			
5				0.54			
6				0.41			
7				0.57			
8				0.41			
9				0.60			
10				0.54			
11				0.51			
12				0.47			
13	1.0			0.54			
14				0.53			
15	1.0			0.46			
16				0.60			
17				0.63			
18				0.57			
19				0.58			
20				0.58			
21				0.47			

0.52 SD  
 Hole 2 4,520- 730  
 0.06



# United States Department of the Interior

GEOLOGICAL SURVEY  
BOX 25046 M.S. 940  
DENVER FEDERAL CENTER  
DENVER, COLORADO 80225



IN REPLY REFER TO:

17 September, 1990

John Reeder  
P.O. Box 772116  
Eagle River, AK  
99577-2116

John:

I am returning the prepared samples I borrowed from the state back in January. Enclosed, also, you will find data and histogram sheets for almost all the samples.

Some samples did have organic material I deemed good enough to measure. For the most part, the samples were good and the results are evident, at least individually. Taken on a well-by-well basis several were difficult to make good sense out of from an organic petrology point of view. The shape of the histograms is a good general indicator of consistency of the organics contained within and in the confidence I had while examining the samples. My technique was to measure at least 50 organic grains, while trying to stay within a narrow range. This becomes difficult with increased vitrinite reflectance, and the histogram spread increases. With adequate material and consistent rank (contamination from uphole cavings can introduce diverse groups of organics) the histogram will have some kind of a bell curve shape. Gaps in the histogram, relating to multiple populations of organics, are a problem and dilute the strength of the mean value as a good measure of the thermal maturity. These gaps are more common at the higher ranks, (> 1.5% reflectance), but occur at lower ranks when insufficient material exists or there is contamination in the sample. I admit to certain biases against samples prepared by people other than myself, and these samples were made by several different companies. I feel I lose too much control over the processing of the cuttings and do not have the confidence in other people's dedication to the work.

I hope these data can be of some use to you. If I can help by providing additional information, please let me know.

Thank you for providing the samples, and for your assistance while I was visiting.

*Mark Pawlewicz*

Mark Pawlewicz