

Public-data File 90-12

**COLVILLE RIVER GEOLOGIC TRANSECT: VITRINITE REFLECTANCE,
PALYNOLOGY, TAI, AND FISSION TRACK DATA, CENTRAL NORTH SLOPE,
ALASKA**

by

M.S. Robinson and M.D. Myers

Alaska Division of
Geological and Geophysical Surveys

March 1990

THIS REPORT HAS NOT BEEN REVIEWED FOR
TECHNICAL CONTENT (EXCEPT AS NOTED IN
TEXT) OR FOR CONFORMITY TO THE
EDITORIAL STANDARDS OF DGGS.

794 University Avenue, Suite 200
Fairbanks, Alaska 99709-3645

During the 1988 field season a geologic transect along the Colville River between Umiat and Ocean Point was undertaken in an effort to obtain baseline geologic information on the various rock units that crop out along the Colville River.

This project was a cooperative effort between the State of Alaska Division of Geological and Geophysical Surveys and the U.S. Geological Survey as part of their Cogeomap program.

The tables that follow contain only summary information, including data on apatite fission track ages, palynological analytical results, and data on vitrinite reflectance. These data are only a summary of results and the reader is directed to the referenced reports for complete analytical results.

Apatite Fission Track analyses from the Colville River area

Sample no.	Formation	Age (Ma)
88POS35A	Seabee	86.7 \pm 5.5
88POS36A	Seabee	94.2 \pm 6.6
88POS37A	Schrader Bluff	94.4 \pm 6.2
88POS41A	Prince Creek	113.8 \pm 10.8
88POS44A	Prince Creek	140.0 \pm 16.8
88POS48A	Schrader Bluff	78.6 \pm 9.4
88POS55A	Prince Creek	91.0 \pm 6.9

For more complete data on the results of fission track analysis, see Ak. DGGs Public Data File 89-2f (O'Sullivan 1989).

Palynological analyses from the Colville River area

Sample no.	Formation	Age	TAI
88MR5B	Prince Creek	indeterminate.	2-
88MR6A	Prince Creek	early Maastrichtian	2
88MR7A	Prince Creek	possibly Albian	2- to 2
88MR8B	Schrader Bluff	early Maastrichtian	2-
88POS40L	Prince Creek	late Santonian	1+

For more complete palynological data, see Ak. DGGs Public Data File 89-26c (Bujak Davies Group, 1989).

Vitrinite Reflectance analyses from the Colville River area

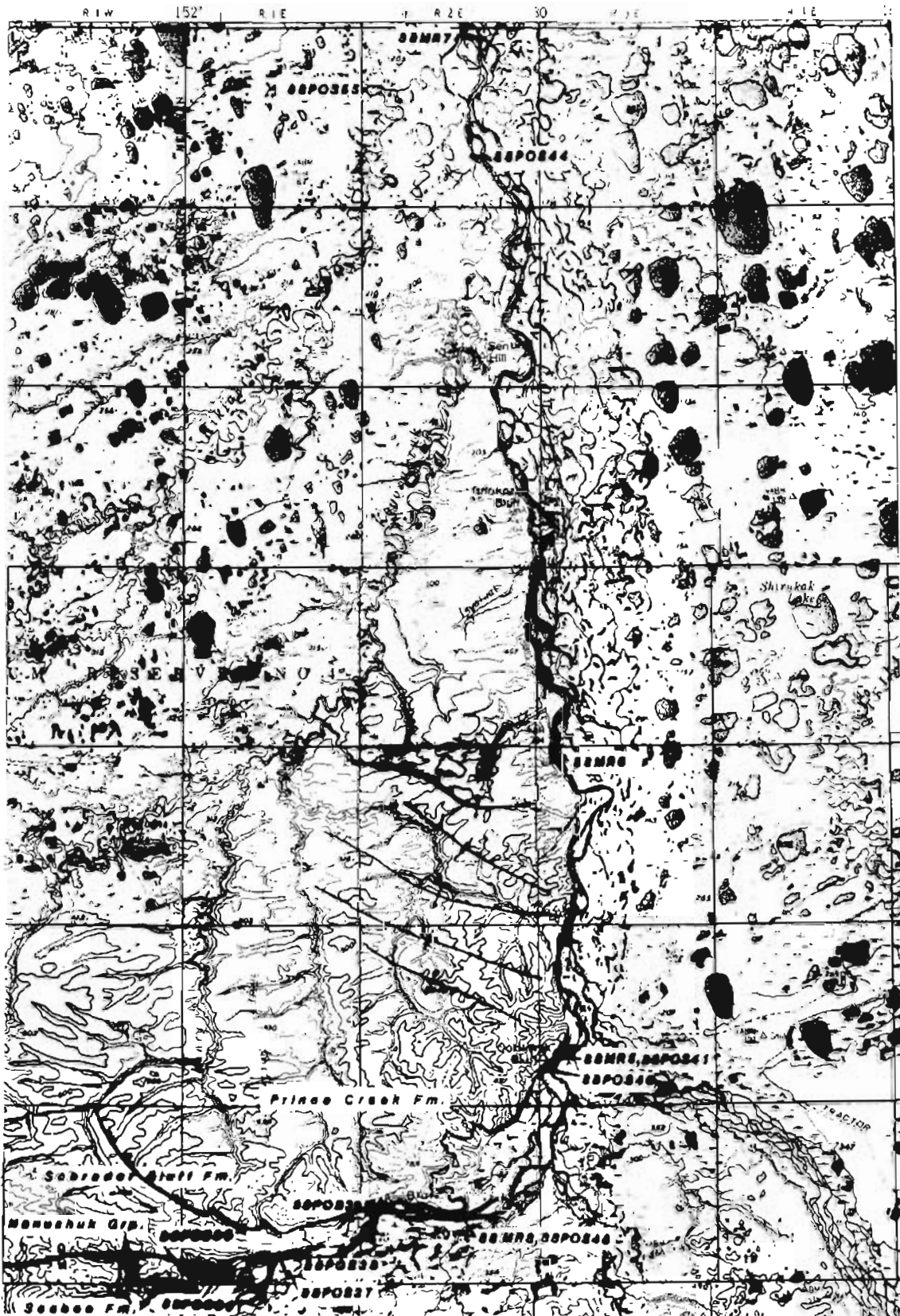
Sample no.	Formation	Interpreted Maturity	
		R _o	TAI
88MR5A	Prince Creek	0.39	1-
88MR6B	Prince Creek	0.37	--
88MR7B	Prince Creek	0.40	--
88MR8A	Schrader Bluff	0.37	--
88POS38A	Schrader Bluff	0.31?	--
88POS39B	Schrader Bluff	0.45	--
88POS40L	Prince Creek	0.37	2

For further kerogen microscopy information, see Ak. DGGs Public Data File 89-22 (Robinson, 1989).

REFERENCES

- Brosge, W.P., and Whittington, L.C., 1966, Geology of the Umiat-Maybe Creek region Alaska: U.S. Geological Survey Prof. Paper 303-H, plate 52.
- Bujak Davies Group, 1989, Palynological analysis of 48 outcrop samples from the Colville River and Ivishak River areas, northern Alaska: Alaska Division of Geological and Geophysical Surveys Public Data File 89-26c, 48 p.
- O'Sullivan, P.B., 1989, Thermal history of Mississippian to Tertiary sedimentary rocks on the North Slope, Alaska, using Apatite fission track analysis: Alaska Division of Geological and Geophysical Surveys Public Data File 89-2f, 130 p.
- Robinson, M.S., 1989, Kerogen microscopy of coal and shales from the North Slope of Alaska: Alaska Division of Geological and Geophysical Surveys Public Data File 89-22, 19 p.

UMIAT



Geology modified from Brasg6 and Whittington (1966)