MAR 19680034: NORTHERN ALBERTA

Received date: Dec 31, 1968

Public release date: Jan 01, 1970

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19680034 REPORT ON FIELD EXAMINATION ALASKA CANADIAN CORPORATION SULPHUR PERMITS NOS. 18, 94 & 95 NORTHERN ALBERTA

700437

NO.

INDEXING DOCUMENT

THIS REPORT HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF:

Alaska Canadian Corporation

COPY NO: 1

REPORT ON FIELD EXAMINATION

ALASKA CANADIAN CORPORATION

SULPHUR PERMITS NOS. 18, 94 & 95

NORTHERN ALBERTA

Prepared For

Alaska Canadian Corporation

November, 1968

J. C. SPROULE AND ASSOCIATES LTD.

1009 FOURTH AVENUE S.W. CALGARY - ALBERTA

REPORT ON FIELD EXAMINATION ALASKA CANADIAN CORPORATION SULPHUR PERMITS NOS. 18, 94 & 95 NORTHERN ALBERTA

The field work on these permits has been carried out at the request of Mr. C. Fredrickson acting for Alaska Canadian Corporation. The work was authorized under our letter agreement of July 12, 1968 and the request made was that J.C. Sproule and Associates Ltd. should collect representative near-surface samples as described in the pertinent paragraph of our July 12th letter. We quote:

> "In Phase II, the field party would, upon arrival in the field, immediately check points of indicated interest that had become evident from the photogeological study. More specifically, we think that the preliminary study will give us a good idea of all those areas that are likely to contain sulphur. All points where sulphur is likely to occur will be checked by the helicopter reconnaissance crew and hand specimens and/or auger samples taken to determine the presence or absence of sulphur. We might call this preliminary part of the field program Step 1 of Phase II. The cost of Step 1 for your three permits would be \$800 per permit unit (approximately 20,000 acres), amounting to a total of \$4,000."

The field work has been conducted by Mr. N. Soul. The field notes describing the samples taken are as follows. We quote:

"Permit No. 18

Area No. 7

<u>Hole No. 1</u> - S.E.	32-109-4 W.	5 M. Depth,	8 feet.
Sample No.	Depth Ft.	Sulphur %	<u>Sample</u>
18-7-1 18-7-1	4 8	(N.A.) 0.04	Alluvium.
Hole No. 2 - S.E.	36-109-5 W.	5 M. Depth,	8 feet.
Sample No.	Depth Ft.	Sulphur %	Sample
18-7-2 18-7-2	4 8	(N.A.) Trace	Alluvium.

Area No. 8

Hole No. 1 - N.W. 23-109-5 W. 5 M. Depth, 8 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
18-8-1	- 4	(N.A.)	Alluvium.
18-8-1	_ 8	Trace	

Area_No. 9

Hole No. 1 - N.W. 15-109-5 W. 5 M. Depth, 8 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
18-9-1	4	(N.A.)	Dry muskeg.
18-9-1	8	0.33	

Permit No. 94

Area No. 1

Hole No. 1 - S.E. 2-106-1 W. 5 M. Depth, 8 feet.

Sample No.	Depth Ft.	Sulphur %	<u>Sample</u>
94-1-1	8	2.71	Clay.

- 2 -

Permit No. 94 (Continued)

Area No. 1

Hole No. 2 - N.W. 4-106-1 W. 5 M. Depth, 8 feet.

	Sample No.	Depth Ft.	Sulphur %	Sample
- 14	94-1-2	4	(N.A.)	
	94-1-2	8	15.66	Black muck and clay.

- 3 -

Area No. 2 - NO HOLES

Area No. 3

Hole No. 1 - S.W. 28-106-1 W. 5 M. Depth, 8 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
94-3-1	4	(N.A.)	Brown clay.
94-3-1	8	4.97	

Area No. 4 - West side of Permit.

Hole No. 1 - N.E. 30-106-1 W. 5 M. Depth, 8 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
94-1-1	8	Trace	Wet muskeg.
		• • • •	

Area No. 5 - NO HOLES, area well-drained.

Area No. 6

Hole No. 1 - S.W. 23-107-1 W. 5 M. Depth, 8 feet.

	Sample No.	Depth Ft.	Sulphur %	Sample
•	94-6-1 94-6-1	4 8	(N.A.) Trace	Muskeg and lacustrine.

Permit No. 95

Area No. 1

Hole No. 1 - S.E. 14-111-9 W. 5 M. Depth, 8 feet.

	Sample No.	Depth Ft.	Sulphur %	Sample.
·	95-1-1 95-1-1	4 8	(N.A.) (N.A.)	Clay Clay.
	Hole No. 2 - Ctr.	15-111-9 W.	5 M. Depth,	6 feet.
	Sample No.	Depth Ft.	Sulphur %	<u>Sample</u>
	95-1-2 95-1-2	4 6	(N.A.) (N.A.)	Clay Clay.
1	Hole No. 3 - S.E.	20-111-9 W.	5 M. Depth,	5 feet.
-	Sample No.	Depth Ft.	Sulphur %	Sample.
	95-1-3 95-1-3	- - 5	(N.A.) (N.A.)	Clay Clay.
Area	No. 2	-		•
	Hole No. 1 - N.W.	35-110-9 W.	5 M. Depth,	4.5 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
95-2-1	4.5	0.61	Sticky clay.

Area No. 3

Hole No. 1 - S.W. 28-110-9 W. 5 M. Depth, 7.5 feet.

Sample No.	Depth Ft.	Sulphur %	Samp1e
95-3-1	4	(N.A.)	Clay.
95-3-1	7.5	- 0.06	

Permit No. 95 (Continued)

Area No. 4

Hole No. 1 - S.W. 4-111-9 W. 5 M. Depth, 7.5 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
95 -4- 1	4	(N.A.)	Sticky clay.
95-4-1	7.5	0.45	

5

Area No. 5

Hole No. 1 - N.W. 2-111-10 W. 5 M. Depth, 7 feet.

Samp	ole No.	Depth Ft.	Sulphur %	Sample	. ·
	- 5- 1 - 5- 1	4 7	(N.A.) 0.88	Hard,	sticky clay.

Area No. 6

Hole No. 1 - N.E. 12-111-10 W. 5 M. Depth, 7 feet.

Sample No.	Depth Ft.	Sulphur %	Sample
95-6-1	4	(N.A.)	Dry muskeg meadow.
95-6-1	7	Trace	

Area No. 7

No place to land due to snags. Poor lake deposit prospects.

Area No. 8

Hole No. 1 - S.E. 9-111-10 N. 5 M. Depth, 7 feet.

Sample No.	Depth Ft.	<u>Sulphur</u> %	Sample
95-8-1	4	(N.A.)	
95-8-1	7	0.33	Sticky clay.

Permit No. 95 (Continued)

Area No. 8

Hole No. 2 - S.W. 9-111-10 W. 5 M. Depth, 5 feet.

Depth Ft.	Sulphur %	Sample
4	(N.A.)	
5	0.20	Sticky clay.
	the second s	Ft. % 4 (N.A.)

Area No. 9

No place to land due to snags and willows. Poor lake deposit prospects."

The sample locations are given on the accompanying Figure 1 and the related analyses by Chemical and Geological Laboratories Ltd. constitute Appendix I attached hereto.

With reference to these results, it will be observed that analyses made of all samples taken from Sulphur Permits Nos. 18 and 95 show only traces or very small percentages of sulphur. The material penetrated was mostly clay, but included muskeg debris and alluvium. These are normally rather high in sulphur in lake or depressional areas where sulphur is known. That being the case, it is reasonably certain that Sulphur Permits Nos. 18 and 95 do not contain occurrences of native sulphur in sufficient quantities to justify further exploratory activity.

Samples taken from Sulphur Permit No. 94 consist of clay, muskeg debris and black muck. Analyses of these were rather low in sulphur content with the exception of one, which contained 15.66 percent sulphur. This sample, No. 94-1-2, was taken from a "long narrow muskeg trending 240 degrees south of the creek." Due to the small size of this muskeg feature, as viewed on the mosaic, it is not believed that additional evaluation is warranted here. Under the circumstances, we recommend that Sulphur Prospecting Permits Nos. 18, 94 and 95 be abandoned and that the Company request a return of their

deposits.

V.A. Farley.

1009 Fourth Avenue S.W., Calgary 2, Alberta. November 6, 1968. VAF:JCS:1d1

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J.C. Sproule, P. Geol.

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- J. C. Sproule and Associates Ltd.

C.G.L. 64

CHEMICAL & GEOLOG AL LABORATORIES LTD.

PRELIMINARY REPORT OFLY

OPERATOR: J. C. Sproule & Associates Ltd.

REPORT NUMBER:

C60-3993 and C60-3994 Date Reported: August 29th., 1960 Date Received: August 22nd., 1960 LADORATORIE

KIND OF SAMPLE: Soil

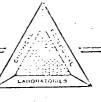
SAMELE NUCCEI	DEFTH IN FEET	MERENAMA SULFOR (% by utdry sample)
95-2-1	4%	0.61
95-8-1	7%	0.05
95-4-1	7%	0.45
95-5-1	7	0.83
95-6-1	7	TRACE
95-8-1	7	0.33
95-8-2	5	0.20

10-7-1	0	0.01
18-7-2	8	TMACE
10-9-1	8	0.33
10-3-1	8	TEACE

Poor Quality Original

TENTOVI & CINVICCIONI IMPO

14240-115 AVENUE, EDMONTON, ALBERTA



Date Reported: October 7, 1968 Laboratory Report Number: C68-4104

J. C. SPROULE & ASSOCIATES LTD.

Kind of Sample: Soil

Date Received: September 26, 1968

ELEMENTAL SULFUR (% by Weight _____ (% by Weight on Dry Sample) ____on Wet Sample) DEPTH IN SAMPLE FEET NUMBER ··· · _ - -2.71 1:51 8 94-1-1 9.23 15.66 94-1-2 8 2.90 4.97 94-3-1 8 Trace-8 Trace 94-4-1 25.2 Trace Trāce 8 94-6-1

SULPHUR PROSPECTING PERMIT No. 94

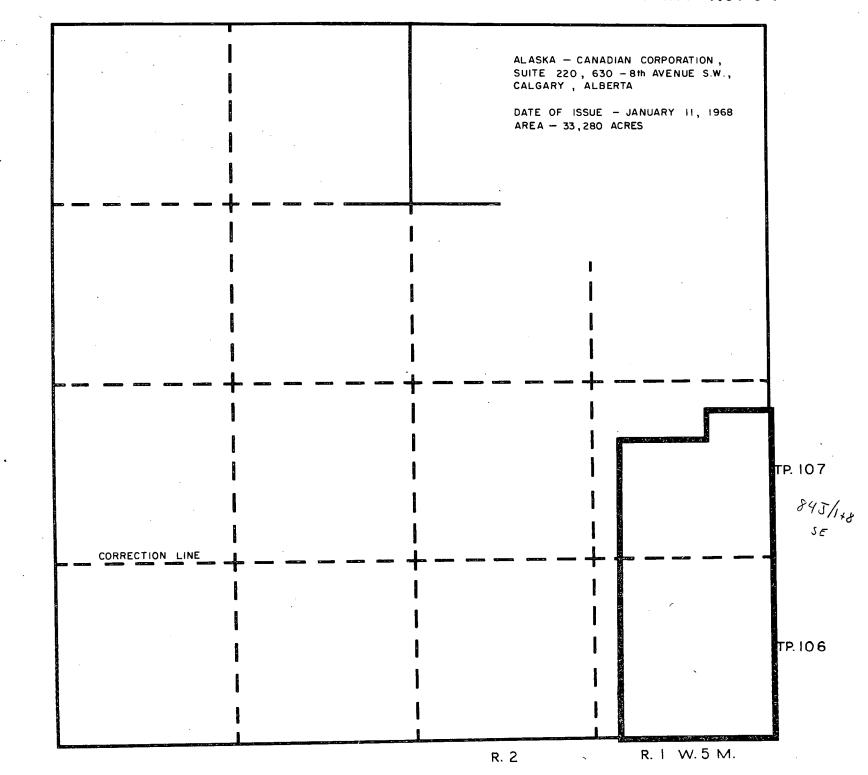


FIGURE I

19860034

PHOTOGEOLOGICAL MOSAIC SULPHUR PROSPECTING PERMIT

Nos. 18 and 94

FORT VERMILION AREA ALBERTA

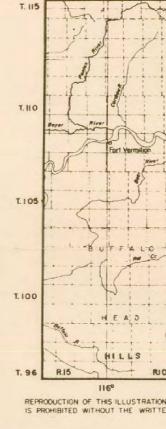
PREPARED FOR

ALASKA CANADIAN CORPORATION

APPROXIMATE SCALE IN MILES

THIS IS A SEMICONTROLLED MAP-MOSAIC AND SHOULD NOT BE MISTAKEN FOR AN ACCURATE GEOGRAPHIC BASE

J.C. SPROULE AND ASSOCIATES LTD. CALGARY, ALBERTA



LEGEND

Sample Location

SURFICIAL DEPOSITS

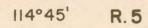
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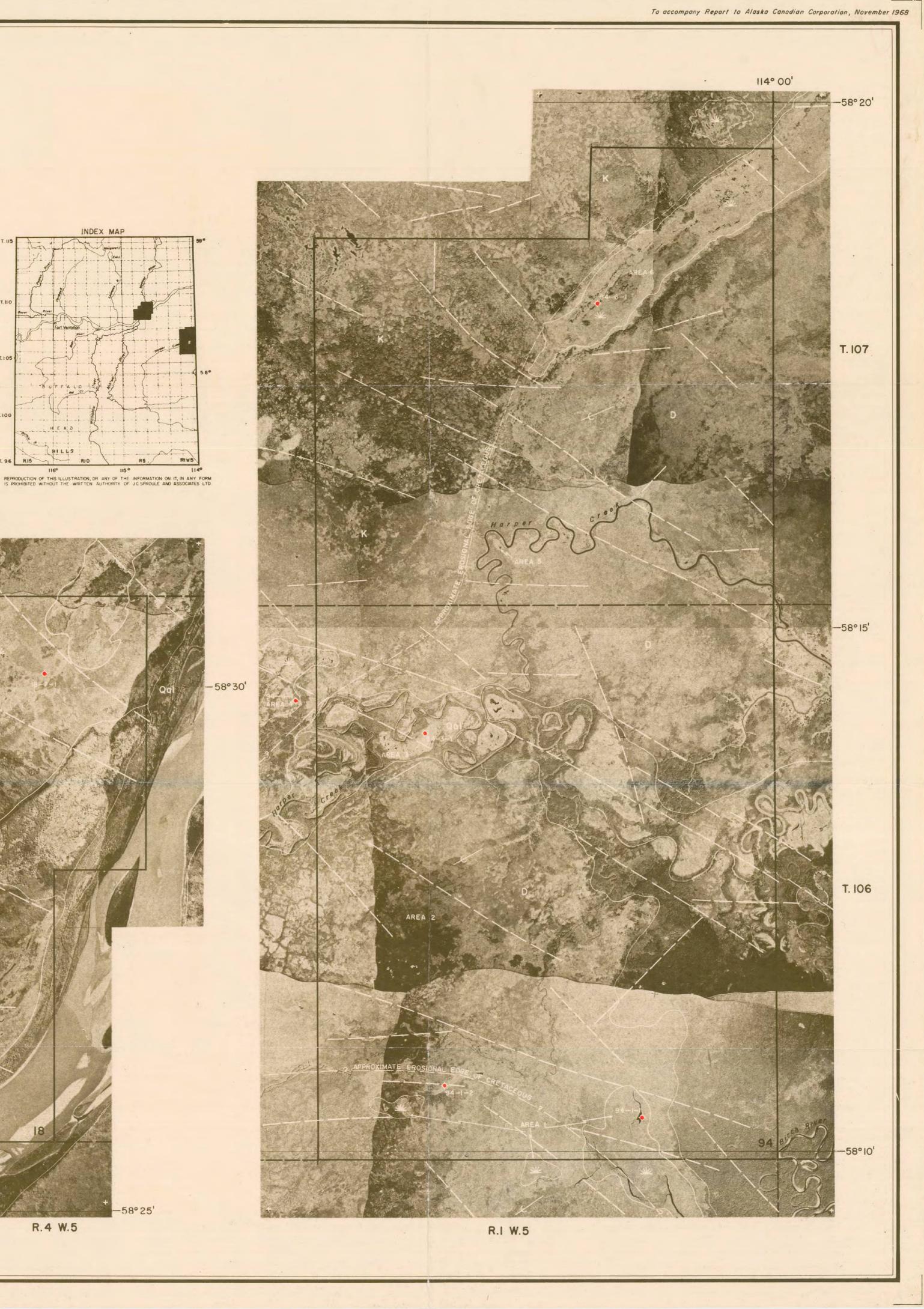
18,94

+

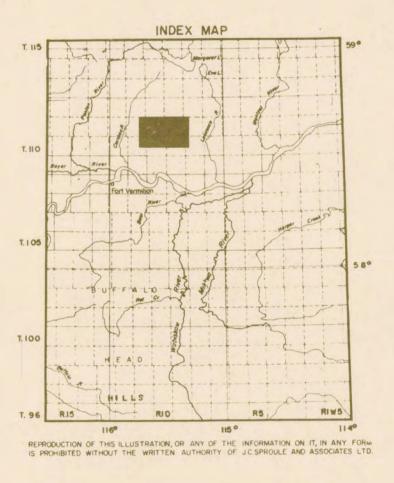
Alluvium Muskeg BEDROCK FORMATIONS Cretaceous (Undifferentiated) Devonian (Undifferentiated) PHOTOGEOLOGICAL SYMBOLS Approximate erosional edge of Cretaceous Alignment interpreted to indicate faulting or fracturing in bedrock Alignment of probable geological significance ---- Direction of glacial movement AREA 1,2 etc. Areas of interest discussed in report Sulphur prospecting permit outline

T. 109









LEGEND

SURFICIAL DEPOSITS Muskeg 95 +

PHOTOGEOLOGICAL SYMBOLS Alignment interpreted to indicate faulting or fracturing in bedrock AREA 1,2 etc. Areas of interest discussed in report Sulphur prospecting permit outline Sample Location

19860034

PHOTOGEOLOGICAL MOSAIC SULPHUR PROSPECTING PERMIT No.95

FORT VERMILION AREA ALBERTA

PREPARED FOR ALASKA CANADIAN CORPORATION

APPROXIMATE SCALE IN MILES

THIS IS A SEMICONTROLLED MAP-MOSAIC AND SHOULD NOT BE MISTAKEN FOR AN ACCURATE GEOGRAPHIC BASE

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