MAR 19680016: NORTHEASTERN ALBERTA

Received date: Dec 31, 1968

Public release date: Jan 01, 1970

OUTLINE OF RECONNAISSANCE SURVEY
OF QUARTZ MINERAL EXPLORATION PERMIT # 44
TWP 117 - 118 Rg 2 & 3 W4M

The area that will be dealt with in this report is located in the northeast corner of Alberta. It is located in a portion of the Precambrian Shield area, north of Lake Athabasca.

ACCESS

Access to the area was gained through the use of a Cessna 185 float equipped aircraft chartered from Fort Chipewyan, Alberta. Although there are many scattered lakes in the area, the use of a canoe requires a great deal of portaging; therefore a great deal of leg work plus the canoe and aircraft were needed to cover the area of the permit described herein.

PHYSIOGRAPHY

Taken from P3 Research Council of Alberta Report 62-1 - "the peneplained surface of the area is typical of the Precambrian Shield where Pleistocene glacial scouring has left numerous rock-basin lakes, low rounded hills, and a locally rugged surface with a maximum relief of about 250 feet. Striae and giant glacial grooves are the most obvious ice-erosional features. The general elevation is approximately 800 - 1000 feet above sea level.

The distribution and shapes of lakes are controlled by factors of structure and lithology with modifaction by ice erosion. Narrow elongated bays are associated with the erosion of fault zones and straight shorelines suggest faultline features. Fractured zones or structurally weak rocks have been plucked out by ice erosion, particularly on the west and southwest lake-shores, giving rise to irregular shorelines."

The terrain on the whole was very rough. The main fault zones were filled with very deep floating muskeg, while the rest was covered with broken rocky ground with stands of spruce, pine and poplar. In areas which had been burnt over there was considerable deadfall 1' - 4' high. In some areas the ground rose 100' - 400' high with sheer cliffs on one side. These can be clearly seen on the aerial photographs using the steroscope.

The lakes on the whole are very clear and cold. The rocky shores and bottoms are interlaced with fine to coarse granite sand which in turn leads to small shallow beaches.

OUTLINE OF WORK PERFORMED & EQUIPMENT USED

During August, 1968 a two man crew landed by aircraft and set up camp on the north shore of an unnamed lake (Scott Lake) Sec.'s 25 & 26 TWP 117 Rg 3 W4M, located on Permit # 44. Then again at the end of September, 1968 a landing was made on an unnamed lake in Sec. 15-16 TWP 117 Rg 3 W4M.

The camping equipment included the following which had to be kept at a reasonable bulk and weight for air transportation:-
A 9' x 12' duck tent with sewn-in floor and mosquito netting

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in door and two small vent windows and complete compact self supporting aluminum frame.

Eiderdown sleeping bags although warm at the start proved worthwhile later on in the season.

Coleman lamp, stove, catalytic tent heater, the usual light weight cooking and eating utensils, axe, swede saw, 2 coild 50' nylon rope, miscellaneous nails, friction tape, miscellaneous small tools, 14' fibreglass canoe, and rifle.

The prospecting equipment included one Geiger counter (Model PR5A El-tronics Geiger counter) and two scintillometer models (W56 Fisher Scintilliadyne and 111B Precision Scintillometer); plus geological hammers, wedges, marking pencils, compasses, bags for samples, trench shovels, maps, aerial photographs, pocket stereoscope, notebook and Nelson pack boards.

The weather throughout August was very unsettled. Average temperatures in the daytime were between 40° - 60°, and at night 30° - 40°. However during the end of September the temperature ranged between 45° - 30° during the day and down to 20° - 15° at night. There were often light snow showers.

The actual survey consisted of compass traverse using aerial photographs to locate oneself as close as possible. While traversing at the start, the compass man and his helper both carried a scintillometer each. However, it was found that the compass was greatly affected by the nearness of the scintillometer and from then on only when the crew was split up on short traverses were both used with such nearness.

It was also found that both scintillometers were very much affected by thunderstorms and also the Aurora (Northern lights). It would take 2 - 4 hours before they would settle down.

All efforts to keep the instruments completely dry were to no avail when one was caught in the field during a shower or heavy rain. They could only be put back into service after being dried slowly over the catalytic tent heater.

The scintillometers were switched on while traversing and readings observed whenever they appeared. It was noted that the samples taken always gave a lesser reading than the outcrop. There were spots where powder could have opened up more rock but since we didn't have it this naturally was not done. The strike and dip was taken along with samples at any of the more favorable outcrops.

On a few areas anomalous compass readings were noted and these could be checked with an aeromagnetic map of the Geological Survey of Canada (1958) that covers that district.

The samples that were collected were marked with black marking pencils and corresponding numbers will be found on the enclosed map.

The map that is enclosed in this report (scale 2" - 1 mile) shows the main traverses, the scintillometer reading in MR/hr - e.g. .001 and sample number. A few of the traverses have been omitted since a

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negative reading was recorded on the scintillometer, but all traverses are clearly marked on the aerial photographs of the area. In some instances samples were taken by aircraft in a time saving step. There will not be any traverses shown from camp to these outcrops.

Schistosity as well as falcation are well developed in most of the area.

There are several minor faults running through this Permit #44. The strike of these are roughly east-west. These faults or strong fractures are clearly visible on the aerial photographs as are some of the glacial markings. Large granite rocks are prevalent throughout. Dykes and lenses are common and veins of quartz 1" - 2" wide were found.

After approximately eleven days a total of about 42 miles were covered and 30 samples were collected.

The use of the aircraft saved at least 2 days on the prospect and also many services that were supplied personally by the pilot George Hart of Fort Chipewyan helped greatly. To him many thanks.

It must be said for the time spent a very good coverage was obtained when all conditions are realized.

CONCLUSION

There is evidence that U308 is present, however only a small portion of the prospect was covered and further work is needed to cover the whole area.

[redacted]

A.L.S.
SEC.

RG 3 RG 2

TP 118 TP 118

WINNIFRED LAKE

TP 117 TP 117

.07 .20 .20 .10 .10

TP. PLAN					
31	32	33	34	35	36
30	29	28	27	26	25
19	20	21	22	23	24
18	17	16	15	14	13
7	8	9	10	11	12
8	5	4	3	2	1

(BASE MAP-ALBERTA SHEET 74 M/1)

READINGS TAKEN SHOWN IN MR/HR e.g. .001

RG 3 RG 2

PLAN SHOWING
EXPLORATION SURVEY ON

QUARTZ MINERAL EXPLORATION PERMIT No. 44

SCALE 2" = 1 MI

AUG. 1968.

19680016 Map #1

QUARTZ MINERAL EXPLORATION PERMIT No. 44