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CANEX AERIAL EXPLORATION LTD.

DIVISION OF CANADIAN EXPLORATION LIMITED

700 BARRARD BUILDING

VANCOUVER 5, B. C. CANADA

Silver Titan Project,
Mayo, Yukon.

17 October, 1963.

Dr. D. Richard Claws,
Barringer Research Ltd.,
145 Belfield Road,
Rexdale. Ont.

Dear Dr. Claws,

Thank you very much for your letter of the 7th instant which apparently made all the right connections and reached Mayo very promptly..

1. Reconnaissance Stream Sediment Sampling

I am pleased that you also feel that analyses for Cu, Pb and Zn should be run on these samples to determine the optimum analytical technique(s). I now await an official greenlight from the Management Committee. If you could give me some information on the extra small type of paper sample bag (for sieved fractions) I would be most grateful - I could use them to send you a portion of each sample from our storage shelves.

2. Detailed and Semi-detailed Grid Sampling

I noted with considerable interest your comments on this aspect of our geochemical prospecting programme. The portable field instrument employing spectro techniques which your organization may develop would undoubtedly be a great improvement on the Lemire instrument in this type of country.

Thank you also for your comments on our results from Area "A". I can see that the directions of your thinking and of mine are rather divergent. I feel that the permafrost which underlies the terrain of the muskeg country below camp plays an important role in controlling the appearance (or non-appearance) of certain types of anomalies. Allow me to explain my stand. I know I am sticking my neck a long way out (and it is up to someone like yourself to chop it off), but I think that because of the permafrost the only type of anomaly which we can expect to find in the near-surface silts and which does reflect nearby sub-outcropping

mineralization is one caused by the gaseous phase of mercury in the silver-lead-zinc ore. We are dealing with at least a 20 foot thickness of frozen glacial debris and organic muck. Our samples were taken anywhere from six inches to six feet below surface, the depth being determined by the appearance of the first layer of inorganic silt. If a hydromorphic anomaly is detected in these near-surface silts, some of which lay above the permafrost, I have tended to assume that the anomaly is not necessarily related to buried mineralization in the immediate vicinity because the permafrost would prevent the necessary circulation of ground waters up towards the surface. I would tend to trace the source of a hydromorphic anomaly to the hillside area above the flats, assuming this time that the permafrost has acted as an impermeable layer above which predominantly meteoric waters have been circulating. The only strongly anomalous sample (ex heavy metals) appeared where a spring had brought quantities of silt to surface at the northern end of line E2. Admittedly, we do not know the climatic history of the area and, conceivably, a warm period of time might have allowed freer circulation of ground waters and the formation of hydromorphic anomalies in the vicinity of their sources, but I am not relying upon that possibility. While the permafrost would prevent normal ground water circulation, I doubt that the ice crystals would completely prevent a gaseous emanation from reaching the near-surface silts.

With these thoughts and assumptions firmly in mind, off we went to set up soil sample grids over other areas thought to be potentially promising on the basis of geological and geophysical evidence. These we have completed and I have enclosed the results, map and report from one of these areas, B-2, for your scrutiny and comments. You will either be amused or outraged at our unscientific methods of removing the organic contamination or "smoke effects", but as you can see from the uncorrected profiles, we had to do something! We are in effect combining a very crude colourimetric method with the very sensitive Lemaire method. (By the way, if you are wondering if "Little Audrey" is working here, I assure you she is not!!) I feel that it must be more than blind luck that the few mercury peaks that have survived our organic corrections are backed up in every instance by geological and/or geophysical evidence. I can honestly say that we are not "cooking" our results to fit a pre-determined pattern.

I now rest my case. I expect you will have a good deal to say about the preceding two paragraphs and I look forward eagerly to your comments, shattering though they may be.

With kindest regards,

Yours sincerely,

DAVID L. SEYMOUR.

DLS:jhw

Typed Vancouver Office

cc: D.L. Seymour, E.A. Scholz, J.D. Little, L. Adie, File.

Noranda, Homestake, Kerr Addison, Silver Titan, Canex Aerial.