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MEMORANDUM TO: P. I. Conley October 4, 1976  
FROM: Erik Ostensoe  
SUBJECT: Progress Report 3rd Quarter 1976 - Granduc Mines Ltd.

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SUMMARY:

Field work at the Sulphurets Creek Project was directed to expansion of the rock geochemical sampling grid and to sampling several areas of mineralization. Three gold occurrences were found and prospected. Part of the Bornite Zone was trenched. Nineteen claim units were staked and 3 claim units were transferred from an employee to the company, bringing the GML holdings to 106 units. Assessment work having a value of \$35,300 was recorded.

Eleven visitors were guided around the Sulphurets Creek property. To date no positive responses have been received as a result of initiatives to find a joint venture partner for further work at Sulphurets Creek.

No work was done at the Max property.

Mineral exploration in Stewart area is increasing with attention directed to the more accessible properties that have values in gold-silver and base metals and to molybdenite prospects.

The White Staff House will become vacant in mid-October.

SULPHURETS CREEK PROJECT:

Work at Sulphurets Creek was done by Erik Ostensoe and Ed Kruchkowski, geologists, assisted by Chris Hrkac. The field camp was occupied on August 6 and was demobilized on September 3, 1976. Three campsites were occupied. As in the past, Stewart was the base of operations. Transportation was provided by a Jet Ranger (Bell Model 206B) helicopter owned by Vancouver Island Helicopters and piloted by Gary Thomson.

The 1976 work program had two objectives: to expand the rock geochemical survey coverage and to provide assistance in the field to personnel of various companies that had been invited to make field examinations of the Sulphurets Creek property.

Fifty-six rock geochemical samples were taken north of Mitchell Glacier in the Northeasternmost corner of the property. The Iron Cap I, II, III claims (5 units) were staked to improve our coverage in this, an area that the 1975 sampling had shown to be strongly anomalous in copper, molybdenum, lead and silver. While rock sampling was in progress several strong quartz veins were

recognized. cursory prospecting and a small amount of drilling and blasting revealed interesting quantities of copper, gold and silver minerals. Rather spectacular assays were obtained from several samples. In addition to pyrite, galena, sphalerite, chalcopyrite and tetrahedrite, the minerals stephanite ( $Ag_5SbS_4$ ) argentite ( $Ag_2S$ ) native gold and/or electrum were identified. Despite the fact that the veins and values were found over maximum widths of 30 feet and a horizontal length of almost one-half mile and a vertical length of 1000 feet, much of the veins appear to be barren of the gold and silver minerals. Leaching and glacial action have contributed to the difficulty of evaluating the situation though this is somewhat mitigated by almost continuous exposures. Further exploration is required.

Also north of Mitchell Glacier, several bedrock trenches were blasted to facilitate assay sampling of galena-sphalerite veins and occurrences of disseminated chalcopyrite with molybdenite. In general much more mineralization of interest was found than had been anticipated. Our return to the area, which had been prospected several years previously resulted entirely from the rock geochemical survey.

The 1975 work bypassed a small but significant area close to the south side of Mitchell Glacier near the Dawson-Ross 1 claim. This gap in coverage was closed in the course of the 1976 work by taking 14 rock geochemical samples. Molybdenite was found to be more abundant than expected.

A camp was located in the southeast corner of the Sulphurets Creek property to facilitate investigation of several areas that had shown anomalous levels of silver and gold. Emphasis was on prospecting and as a result of excellent work by Ed Kruchkowski two gold occurrences were found. Trenching of one gold showing failed to produce any indications of good potential but in the second structure stephanite was found over 125 feet of length. Both occurrences appear rather weak and are in tension fracture veins adjacent to a major regional fault. A soil survey of about 250 samples was done over the area and the Red River claim of 14 units was staked to provide fuller coverage in the southeastern portion of the property. High gold-silver values had earlier (1961, 1964) been found near the Hanging Glacier and in an arsenopyrite occurrence first located in 1974, both in this general area.

Twenty one rock geochemical samples were taken in the area immediately southwest of Brucejack Lake to check a prominent gossaned zone. The attendant closer observation concurrent with the sampling reduced its appeal and only nominal metal values are anticipated.

Even though the near by very large copper-molybdenum-bearing zone is our best resource, the gold-silver mineralization is significant and may be of more immediate value to the company.

The Bornite Zone which is located in a timbered area south of Sulphurets Glacier, was further explored by blasting in two trenches. The following assays were obtained: 15' with 1.86% Cu, 12' with 0.90% Cu, 20' with 0.68% Cu. A composite of the three samples assayed 0.080 oz/ton gold. The 1976 work partially substantiated our previous opinion that the Bornite Zone offers possibilities of a significant tonnage of rock with a higher copper content and in a location more desirable than the other zones of interest.

Early in the summer Asarco advised that they did not plan to do further investigations of the Sulphurets Creek property during 1976. Cominco advised that a small crew would spend about one week on the property, and in fact two men did spend two days on the Mitchell Glacier portion of the claims. Texasgulf Inc. sent three men in on August 21. In summary their parting comments suggested the attitude that their company has many projects on the go at present making it difficult to devote sufficient manpower to an early-stage project with dimensions such as Sulphurets. Real interest was shown and further discussions may ensue. Four geologists representing Cities Service Minerals camped at the Main Copper Zone for four days and on foot and by helicopter were taken to and were able to examine all the major zones of interest with the exception of the Bornite Zone. There was a thorough examination by experienced personnel and further discussions are anticipated. Two geologists from Utah Mines spent parts of two days carrying out an examination of the Sulphurets Creek property. Their response in the field was reasonably positive but we have had no further contact. Two men from Imperial Oil (Minerals Division) planned a property visit in conjunction with other work in the Stewart area but after having spent several days in and around Stewart they seemed to lose their enthusiasm and no examination was made.

Assessment work totalling \$35,300 in value was filed in Prince Rupert on August 3, in Stewart on August 16 and in Vancouver on September 27. If all that work is accepted and if the balance of the 1976 work is filed the entire Sulphurets Creek property will be in good standing until 1981 or later. The Ed 1 and Ed 2 claims were transferred by Bill of Sale from Ed Kruchkowski to Granduc Mines, Limited on July 29, 1976. The company now holds title to 106 claim units in the Sulphurets Creek area.

**MAX PROPERTY:**

No work was done at the Max property during the 1976 field season. The Max 114 claim was allowed to expire on June 3, 1976 and the C claim will expire on October 5, 1976. On May 5 we paid \$1000 cash in lieu and \$440 rentals in order to maintain the remainder of the property in good standing through to at least late May 1977. During