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REPORT ON DIAMOND DRILLING

DOBBIN CLAIM GROUPS

(Dobbin Groups, Dobbin II and Dobbin III)

N.T.S. 82-E-13 and 82-L-4

By

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ATLAS EXPLORATIONS LIMITED

June 10, 1970

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List of Claims on which Work was done:

Claim	Claim No.	Grant No.
Alfy	1-2	10698-10699
Alfy	4-6	10701-10703
Alfy	10	10707
Alfy	17	10714
Bear	12	12248D
Pop	5	11462

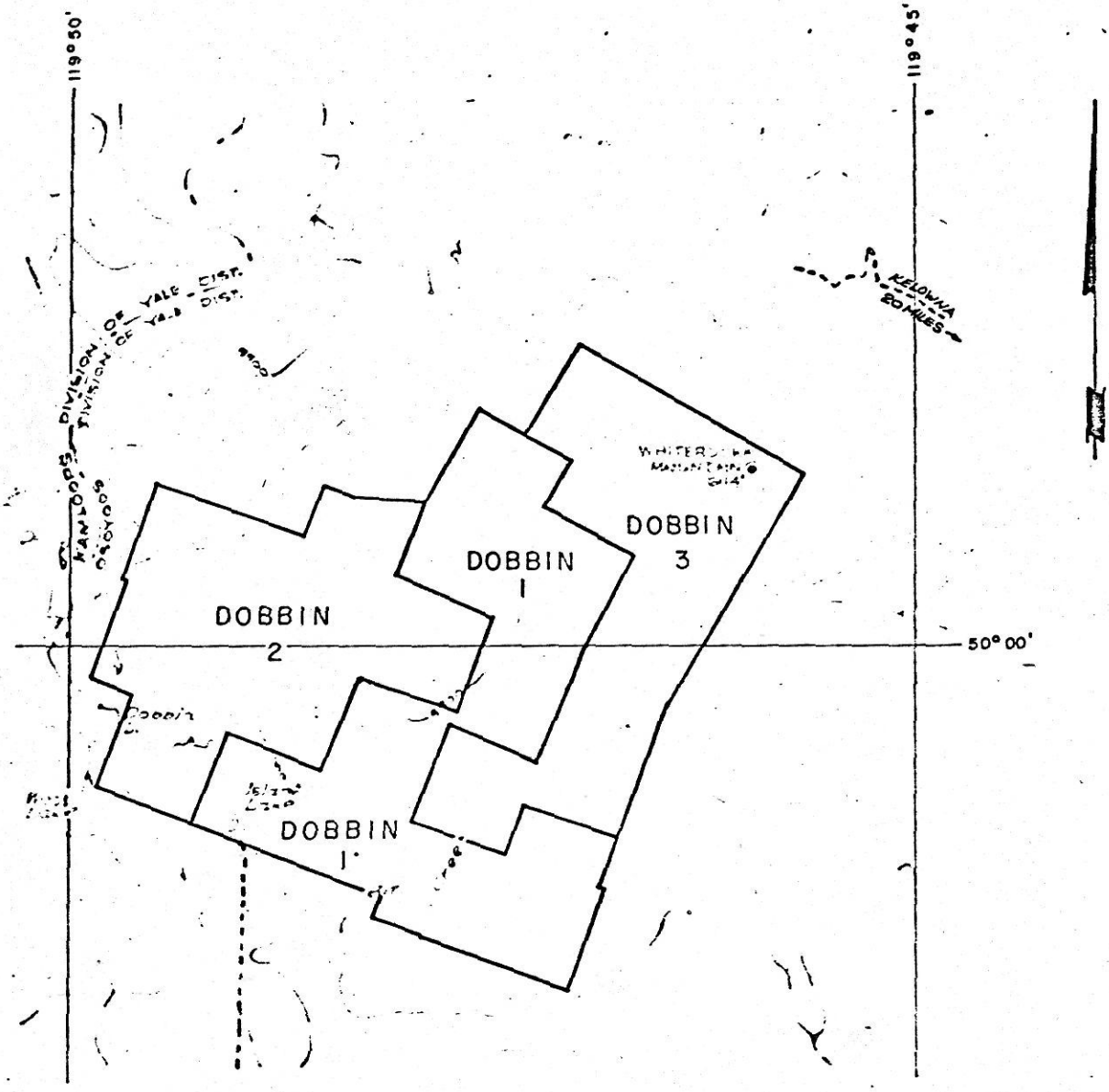

Fig. 1 : Map showing location of DOBBIN, DOBBIN 2 & DOBBIN3 Claim Groupings with respect to Whiterocks Mountain.

FIGURE 1

TELEPHONE 685-4331

ATLAS EXPLORATIONS LIMITED

330 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B.C.

REPORT ON DIAMOND DRILLING
DOBBIN CLAIM GROUP

SCOPE

In the period April 30 to June 8, 1970, the writer personally supervised snow plowing, building of access roads, clearing of drill-sites and the subsequent diamond drilling. All of the resulting 1200 ft. of drill core was examined and marked for check sampling (See Appendix 1). Samples from each of the holes were split and assayed for copper content.

OWNERSHIP

The property is jointly owned by I. Greg of 803-1450 Burnaby Street, Vancouver, and G. Schell of 2601-2020 Haro Street, Vancouver, and is currently under option to Atlas Explorations Limited, 330-355 Burrard Street, Vancouver 1, B.C.

LOCATION AND ACCESS

The property lies about 15 miles northeast of Brenda Mines and about 16 miles northwest of Kelowna. It is accessible with 4-wheel drive vehicles via a logging road which follows Lambly Creek from a point on Okanagan Lake, north of Westbank.

HISTORY

The first known mention of copper mineralization in the Whiterocks Mountain area appears in the Annaul Report of the Minister of Mines, B.C. 1929, p.249:

> "The other area is a tract of country of uncertain dimensions, including Whiterocks Mountain on the divide between the headwaters of Lambly (Bear) Creek, and Nicola River. The underlying rocks are chiefly granitic types, principally distinguished by the occurrence of abundant, conspicuous, peculiar shaped crystals of orthoclase fledspar varying from a fraction of an inch to several inches in length, but unusually narrow in proportion to their length. Otherwise these rocks vary from white to dark grey or greenish in colour and from true granites to, on the whole, intrusives having more nearly the composition of quartz syenite and syenite in which dark green amphibole (hornblende?) may be abundant and quartz relatively scarce. Other essential minerals include microcline, microperthite, and sodic plagioclase feldspars. Accessory and secondary minerals are sphene, epidote, chlorite, magnetite and sulphides.
>
> This body of alkaline, granitic intrusives occupies at least several square miles. It is of economic interest by reason of the many places where it was observed to carry conspicuous disseminations of pyrite, chalcopyrite and, more locally, magnetite. As a consequence of the copper sulphide, rock outcrops are, in places, stained with copper carbonates. The sulphides are original constituents of the intrusive mass, are relatively abundant and point to this area as a particularly favourable one to prospect for more concentrated mineral occurrences, preferably in the vicinity of the granitic contacts with bodies of older formations."

Some work was done in the area shortly after the publication of the above account. Work was limited however, and appeared to have been confined to the area east of the present claims.

In 1955, a grid was cut over the northern end of the claim group area and much of the ground to the north. The nature of the work carried out is not known.

Phelps Dodge Corporation located a molybdenum anomaly in the soils near Tadpole Lake in 1967. They later dropped the ground and it was taken up by Texas Gulf Sulphur who hold it at present. The area is said to be underlain by unaltered quartz-monzonite and appears not to have direct geological relationship to the mineralization on the Dobbin Group.

During the 1969 season, Texas Gulf Sulphur located a copper-in-soil geochemical anomaly in the ground ajoining the northern boundary of the Dobbin Group. This anomaly is reported to coincide with areas underlain by basic to ultrabasic rocks which are restricted to four claims: Night Owl 35 and 36, and Bard 65 and 66. Approximately 1000 ft. of percussion drilling was done in September to test this area. Two of the holes were drilled approximately 500 ft. apart and about 400ft. north of the Dobbin boundary. One of the holes is collared near a bulldozer trench (1955 vintage) containing small amounts of disseminated bornite and malachite stain.

Previous work on the property by Greg and Schell was done on the Alfy 1, 2, 5 and 6 claims. Three short holes were in September and October of 1968, and the core was logged by Dr. A. C. Skerl. Dr. Skerl subsequently wrote a report (January 12, 1969) recommending linecutting, sampling and further drilling. (Assays of samples taken from the three holes are given in the section of this report entitled 'Economic Geology'.).

Dr. Aaro Aho visited the property on September 8, 1969, and found the property attractive enough to warrant further exploration work. A general outline of this proposed work is included in his memo of September 9, 1969.

In early October the present work was begun by Gerry Rayner who made a reconnaissance geological map of the property and set down preliminary guidelines for operations.

During the latter part of October and November a grid was cut on the property and soil geochemical, magnetic and Induced Polarization Surveys carried out. A detailed geological map was prepared at a scale of 1"= 400 ft. Anomalies detected in the above surveys were assessed and diamond drilling was proposed to test the extent of mineralization (Coates, 1970).

GENERAL GEOLOGY

The bedrock in the vicinity of Whiterocks Mountain is of sedimentary origin, being comprised in the main of argillites and siltstones of the Cache Creek Group of Permian (?) age (Rice, 1960). In general, these sediments are not limey although narrow layers of limestone or garnetiferous calc-silicate marble (lb) have been mapped on the property. The argillites are moderately contorted and show a schistosity which may or may not reflect bedding. Attitudes strike northwesterly with variable, steep dips.

The host rock which contains the mineralization of economic interest is a basic to ultrabasic unit which in places contains up to 10% magnetite./ Pyrite concentrations vary from approx.1% to over 5%. The ultrabasic portion of the unit is mainly composed of pyroxene (diopsidic augite) with minor olivine and some interstitial hornblende and biotite. In the more felsic parts of the body, olivine is virtually absent and hornblende is the dominant mafic mineral. Lamprophyric texture is common with phenocrysts of amphibole up to several cms. in length. Magnetite is omnipresent as is apatite, an abundant accessory. The age of this intrusive phase is not definitely known but is seems certain that it predates the Cretaceous, as derivative dikes from the adjoining Cretaceous granitic batholith are found in the mafic unit.

Granitic rocks in the vicinity of the property are equigranular and medium-grained. They vary in composition from microcline rich granite to quartz-monzonite. The mafic constituent is biotite and it does not usually exceed 5% of the total. Pyrite is present in trace amounts and sometimes occurs as small clots or in druses which leave rusty spots on the weathered surface. Some pegmatite veins are present and several different types of aplitic or feldspar porphyry dikes are thought to be affiliated.

Table of Formations

CENOZOIC

Cretaceous

Felsic Intrusive Rocks:
granite, quartz-monzonite,
hybrid dioritic rocks,
aplite, pegmatite and feld-
spar porphyry dykes.

---------- intrusive contact ----------

Coryell Plutonic Rocks:
ultrabasic rocks, alkalic
gabbro, alkalic pegmatite.

---------- intrusive contact ----------

PALEOZOIC

Permian

Cache Creek Group:
argillite, silstone, limestone,
calc-silicate marble and
quartzite.

ECONOMIC GEOLOGY

Mineralization of interest is restricted to basic rocks in the area covered, although copper reported from near Islaht Lake may have a different mode of occurrence. In the basic rocks, copper as chalcopyrite forms irregular clots and dissemination often in association with higher than average concentrations of magnetite. Pyrite is frequently seen but overall is much less common than chalcopyrite. Available sulphur seems to decrease to the north until about 400 ft. north of the Atlas boundary in an old trench on the T.G.S. ground; the mineralization is bornite-magnetite (Rayner, 1969).

For a log of chips from Brewer diamond drill hole #2 logged by the present writer see Appendix II.

DIAMOND DRILLING

Commencing May 19, 1970, BQ Wireline diamond drilling was carried out on the property by Herb Allen Diamond Drilling of Merritt, B.C. This work as recommended in a report by the present writer dated January 22, 1970, was designed to test the extent of known mineralization on the property.

The absence of any encouraging mineralization in any of the holes led to abandoning the drill program before all of the proposed footage was drilled.

The following is a tabulation of check assays made on samples of split core from each of the drill holes.

Table 1

Drill Hole No.	Footage	Atlas Assay No.	Sample Length Ft.	% Cu	% Mo
5	3-33	1112	30	.03	
5	33-35	1113	22	.05	
5	55-73	1114	18	.06	
5	73-100	1115	27	.06	
5	100-127.5	1116	27.5	.06	
5	127.5-154	1117	26.5	.05	
5	154-172	1118	18	.08	
5	172-197	1119	25	.05	
15	120-147	1120	27	.03	
15	147-173	1121	26	.03	
15	173-200	1122	27	.03	
9	125-152	1123	27	.02	
9	152-178	1124	26	.03	
9	178-200	1125	22	.03	
8	123-147	1126	24	.03	
8	147-178	1127	31	.02	
8	178-200	1128	22	.03	
2	20-30	1129	10	.01	
2	50-60	1130	10	.01	
2	200-210	1131	10	.01	
2	240-250	1132	10	.01	
2	280-290	1133	10	.005	
2	340-350	1134	10	.01	
2	390-400	1135	10	.03	

The most encouraging drill target was enclosed in the drill pattern of holes numbered 5, 8, 9 and 15. Priority 2 target (DDH #2) also gave negative results. The access road to proposed DDH #1 was not passable; much of the terrain traversed

by the road is swampy. As well a bulldozer trench across the zone failed to produce any signs of copper mineralization.

After completion of DDH #2 on June 4, drilling activities were terminated. The core was left on the property, stacked at the respective drill sites. Clearly marked wooden plugs were inserted in each of the holes.

CONCLUSIONS AND COMMENTS

The past drill programs have failed to yield indications of any economic mineralization. It is my present belief that any further expenditure on the Whiterocks property is unwarranted and that our interest in the property should be dropped.

Respectfully submitted,

M. E. (Tim) Coates,
P. Eng.

July 7, 1970

SELECTED REFERENCES

Aho, A.E. (1969) : Comments on examination of Whiterocks Mountain (Bear Mountain) Property of van Greg and Associates near Kelowna, B.C.; unpublished internal report Atlas Explorations Limited, September 9, 1969.

Skerl, A.C. (1969) : Brewer Property, Whiterocks Mountain, B.C.; unpublished report January 12, 1969

Little, H.W. (1961) : Geology, Kettle River (W/2) B.C.; G.S.C. Map 15-1961 Scale 1" = 4 miles N.T.S. 82-E - West half.

Rice, H.M.A. & Jones, J.G. (1960) : Geology, Vernon, B.C.; G.S.C. Memoir 296, Map Scale 1" = 4 miles

Rayner, G. (1969) : Whiterocks Mountain Property (Greg & Schell); Internal Memo, Atlas Explorations Limited, October 15, 1969, 4p.

Coates, M.E. (1970) Geology, Geochemistry & Geophysics of the Dobbin Groups I, II, III. January 22, 1970

LOG BREWER DIAMOND DRILL HOLE #2

Footage	Description	Visual Estimate % Cu.
0'-2'	No overburden Fine grained alkalic, gabbro, partially epidotized, traces of chalcopyrite. Magnetic at 1 ft. below surface.	0'-10' ...0.7%
2'-38'	Lamprophyric rock; fine grained alkalic gabbro groundmass with phenocrysts of amphibole up to 2 cm. long: disseminated chalcopyrite throughout. Two zones with abundant medium grained phenocrysts of hornblende (1 ft. wide) at 22' and at 28'. Narrow alteration zone with epidote along fractures	10'-20'...1% 20'-30'...0.5% 30'-39'....0.4%
39'-41'	Mafic band, largely pyroxene, strongly magnetic fine to medium grained, epidotized along fractures.	
41'-43'	Mafic as above - not strongly magnetic traces of chalcopyrite, porphyritic.	
43'-44'	Ultramafic (pyrozenite?); strongly magnetic	
44'-48'	Fine to medium grained felsic band; biotite is major mafic felsic component approx. 60% "folidated mica-diorite" 1% pyrite.	
48'-49'	Ultramafic layer, strongly magnetic porphyritic.	
49'-50'	Fine to medium grained alkalic gabbro. Much pyrite introduced along fractures.	
50'-60'	Ultramafic layer with up to 5% disseminated pyrite - fine to medium grained - strongly magnetic.	
60'-64'	Alkalic gabbro - epidotic along fractures - narrow quartz-carbonate veinlets with minor pyrite.	

Footage	Description	Visual Estimate % Cu
64'-82'	Ultramafic layer with minor pyrite, slightly porphyritic with phenocrysts of hornblende; traces of chalcopyrite at 68', 75' and 77'; strongly magnetic.	
82'-83'	Traces of chalcopyrite in porphyritic alkalic gabbro.	
83'-89'	Porphyritic alkalic gabbro.	
89'-90'	Epidotized alkalic gabbro; small inclusions of quartzite (?) - micaceous fine to medium grained.	
90'-100'	Alkalic gabbro with pyrite; trace chalcopyrite 94'-96'.	
100'-101'	Alkalic gabbro with magnetic rich layers.	
101'-107'	Alkalic gabbro with quartz carbonate veinlets, minor pyrite and traces of chalcopyrite.	
108'-110'	Ultramafic layer, strongly magnetic minor pyrite.	

No core is available for diamond drill holes #1 and #1a. The locations are shown in Figure 2 however, and the drilling results of all three holes have been summarized by Dr. Skerl, 1969 (Table 2).

TABLE 2

D.D.H. No.	Rock Type	Total Footage	% Cu	Remarks
Brewer No.1	Fine grained horn-blende-diorite	41'	0.38	
Brewer No.1a	"	26'	0.18	Poor recover
Brewer No.2	"	110'	0.32 over 110	