800044

GIANT SOO PROJECT

REPORT OF SURFACE DIAMOND DRILLING PROGRAM

JULY - OCTOBER 1970

GIANT MASCOT MINES LIMITED

February 2, 1971

President and Directors,
Giant Mascot Mines Ltd.,
1131 Melville Street,
Vancouver 5, B.C.

GIANT SOO PROJECT
Report of Surface Diamond Drilling Program
July - October 1970

Gentlemen:

The Proposed Surface Exploration Program - 1970, dated May 27, 1970, outlined plans for testing the continuity of the Estella shear zone in two directions, namely, below the Purcell diorite sill and southeasterly above the sill, well beyond previous exploration. Three holes were drilled, for a total of 3,623 ft., two checking the former target and one the latter.

The Estella shear zone was recognized in all three holes. Below the diorite sill the zone was found to be up to 225 ft. wide, characterized by shearing of the black argillites, introduction of quartz-carbonate veining, some brecciation and sulphide mineralization. Quartz-carbonate veining was narrow, widely separated and contained the only galena and sphalerite mineralization. By far the greatest percentage of sulphides was pyrite and no important assays were obtained. To the southeast the

ground was highly shattered, but the Estella zone was recognized over a width of 225 ft., with almost 80% of the zone injected with syenite or feldspar porphyry. Sulphide mineralization was again largely pyrite and no assays of interest were encountered.

The following is a slightly more detailed description of the diamond drilling:

D.D.H. #1

Collar -	Lat.	- 6420 N	Bearing	- N 61° E.
	Dep.	- 5438 E	Dip	- 66° 30'
	Elev.	- 6700	Depth	- 1577'.

The Purcell diorite sill was intersected at 242 ft. and the hole continued in this formation to 684 ft., for a true thickness of 275 ft. This is about half the anticipated thickness from underground and surface exposure to the northwest. Below the sill poorly bedded argillites were encountered to 1093 ft. From 950 ft. - 1093 ft. there is a marked increase in quartz-carbonate veining and alteration of the argillites giving the argillites a light grey to buff color. A similar rock type has been noted underground, outside the Estella shear zone. Strong faulting occurs both above and below the lower diorite contact, cutting the core at a low angle. This may be the strong southeasterly striking fault encountered at the north-end of the No. 4 and No. 5 Levels, and may account

for the decrease in the thickness of the diorite sill at this point.

The Estella shear zone occurs between 1093 ft. and 1349 ft. for a true width of 225 ft. There is quite strong shearing and minor galena and sphalerite mineralization marking the contacts of the zone, with subsidiary shear strands throughout the zone, all at 30 to 40° to the core. A 20-ft. section exhibited strong silicification with some brecciation, typical of ore zones above the diorite sill, but sulphide mineralization was largely pyrite. The strongest mineralization occurred at the footwall contact of the zone where a 1-ft. sample assayed 4.94% Pb. 0.90% Zn. and 1.55 oz. Ag./ton.

Beyond 1349 ft. the argillites were poorly sheared and practically unmineralized to the end of the hole of 1577 ft.

D.D.H. #2

Collar -	Lat.	6591 N	Bearing N 61° E.
	Dep.	5333 E	Dip - 50°
	Elev.	6611	Depth 1304.

The dip on this hole was flattened from the planned 65° to 50°, in view of the thinning of the Purcell diorite sill, so that the hole would intersect the Estella shear zone as closely as

possible to the bottom contact of the sill. It was theorized that the chances for economic mineralization were better at this location considering the apparent relationship of known ore shoots to the uppper sill contact.

That this decision was correct is in some doubt now that all information is available, as the hole was essentially in diorite from 190 ft. through to 1146 ft. and the main strand along the hanging wall of the Estella shear zone was intersected in the diorite, about 100 ft. above the bottom diorite contact, and, as might be expected, in such a location was unmineralized. The true width of the Estella zone is interpreted to be about 225 ft., but only the footwall 65 ft. was argillite along the section of the hole and there was no veining or mineralization of interest.

The thickness of diorite here is 450 ft. to 475 ft., much greater than encountered in D.D.H. #1, but very comparable to the thickness originally anticipated. The explanation would appear to be that No. 1 hole intersected the Estella shear in the footwall of the strong southeasterly trending fault, referred to above, and due to its steep inclination cut through the fault from hanging wall to footwall. Hole No. 2, at a flatter

inclination cut through the fault from footwall to hanging wall, thereby encountering the Estella shear in the greater thickness of diorite above the fault.

D. D. H. #3

Collar -	Lat.	5939 N	Bearing	N 45° E
	Dep.	6592 E	Dip -	50°
	Elev.	6659	Depth	742'.

This hole was located to test the Estella shear zone 200 ft. southeast of the last information in this area and in the footwall of the strong southeasterly striking fault, which could be of some structural importance. The Estella shear zone was recognized in the hole from 350 ft. to 625 ft. for a true width of 230 ft. There is no serious offset of the zone by the southeasterly trending fault, but about 80% of the zone has been intruded by syenite or feldspar porphyry, a condition suspected in latter development of the 4 and 5 Levels, and there were no intersections of interest. In fact most sulphide mineralization was pyrite.

As a result of this program it has been determined that the Estella shear zone is not interrupted by the flatly dipping Purcell diorite sill and that sulphides of lead and zinc do occur, although, at this point, not in economic concentrations. To the

southeast syenite porphyry occupies most of the Estella zone of weakness. There is no obvious reason why ore shoots should not be located below the diorite sill, unless the structural conditions related to the hanging wall of a diorite sill are of primary importance. In any event continued exploration, both below the sill and to the southeast, is impractical, if not impossible, from surface, due to topographical conditions. The expenditure necessary to prepare suitable underground diamond drill stations for this work likewise does not appear to be warranted.

Respectfully submitted

Walter E. Clarke

WEC/bb

W. E. Clarke