Tom Schroeter

881028

A COMPARISON OF ACTUAL vs. DRILL-INDICATED GOLD RESERVES AT THE BLACKDOME MINE

A comparison has been made between the proven and probable ore reserves in the Blackdome No. 1 vein and the reserves indicated by drilling. Ore reserves in the proven and probable categories (from now on referred to as "present" reserves) are zones that have been explored in detail by underground drifting and trenching. The ore blocks used in this study were those published in a feasibility report by the consulting firm of Watts, Griffin, McOuat Ltd. (1985).

The apparent gold content of the present reserves expressed as the product of grade and thickness, was found to average about 12 times higher than that indicated by drilling. A table is provided which shows the grade and thickness of each block, the grade and length of any drillhole intersections within the block, the product of grade and thicknesses for each of the aforementioned categories and the percentage difference between the two. Please note that, in several cases, ore blocks do not have drillholes through them and comparisons could not be made. Also, the thickness used for the drillhole data were apparent thicknesses, while those used for the present reserves are horizontal thicknesses. Consequently, the actual difference in gold content of the two ore categories is probably greater than that determined by this investigation. Where two or more drillholes pierced a single ore block, a weighted average of the holes was used.

In all but three cases, the gold content of the present reserve was found to be greater than the drill-indicated reserve. The arithmetic mean of the percent change in gold content is 1185.9% and these values range from a low of -48.2% (Block G) to a high of 7079.2% (Block I). Differences in both grade and thickness occur, and they appear to contribute equally to the overall differences in gold content.

The reason for the disparity between the two reserve estimates is due to the difficulties inherent in sampling precious metal deposits with diamond drillholes. The distribution of gold in the Blackdome deposit, as in many deposits of its type, is not uniform. Ore shoots consist of relatively small lenses

of very high grade material and grades vary widely, even within these shoots. Consequently, diamond drilling is useful as a method for tracing the main ore-bearing structures and not for defining ore reserves. Very detailed sampling is required to determine the grade and dimensions of the ore shoots. This can only be afforded by driving development workings and by trenching.

Other conclusions that can be drawn is that the most recent estimates of drill-indicated (possible) ore reserves are probably conservative and that drill intersections as low as two or three grams/tonne gold are significant enough to warrant further investigation. The exploration potential of the property is greatly enhanced by extrapolating the results of this study to existing drill-indicated reserves. Twenty-five "interesting" diamond drillhole intersections that have not been adequately investigated by drifting exist in the No.1 vein alone. Six more exist in the No.2 vein in spite of the fact that only a small portion of this structure has been explored.

Respectfully submitted,

D.W. RENNIE, P.Eng.

March 12, 1985

THERE IS RARELY A DRIFT FOUND BELOW CUT-OFF IN ANY ORE SHOOT

RAISES NOT ALWAYS OF SUFFICIENT WIDTH TO FULLY SAMPLE ORE ZONE

TABLE 1: Proven and Probable Ore vs. Diamond Drill Intersections

No 1 vein 1965 LEVEL

ORE BLOCK	GRADE & THICKNESS IN DRILLHOLES (gm Au/t)	(m)	GRADE X THICKNESS (gm-m)	GRADE & THICKNESS IN DRIFT (gm Au/t)	(m)	GRADE X THICKNESS (gm-m)	% CHANGE
G	12.14	2.0	24.28	8.37	1.50	12.56	-48.3
J	-	-		8.37	1.50		-
E	-	-		45.28	2.77		-
F	4.1	2.67	10.95	7.21	2.39	17.23	57.24
H	-	-		45.28	2.77		
I	0.24	1.0	0.24	7.21	2.39	17.23	7079.2
K	43.59	1.5	65.39	37.50	2.59	97.13	47.1
A	49.39	1.5	74.09	66.98	2.20	147.36	98.9
B	68.75	2.0	137.50	40.95	2.13	87.22	-36.6
C	12.71	1.3	16.52	50.81	2.15	109.24	561.3
C^1	8.91	2.62	23.34	40.84	2.15	87.81	276.2
D	2.50	1.10	2.75	66.98	2.20	147.36	5258.4
R	3.70	0.65	2.41	15.48	2.75	42.57	1666.4
S	6.17	0.90	5.55	36.14	2.30	83.12	1397.7
S^1	6.90	1.00	6.90	34.22	2.30	78.71	1040.7
T	-	-		51.03	2.06		-
U	15.80	0.50	7.90	51.03	2.06	105.12	1230.7
V	29.65	1.00	29.65	18.50	2.00	37.00	24.8
P	-	-		13.80	2.17		-
Q	-	-		17.81	2.16		-
L	-	-		18.06	2.39		-
M	-	-		14.82	2.00		-
N	38.17	2.53	96.57	35.00	2.47	86.45	-10.5
O	15.43	1.30	20.06	35.00	2.47	86.45	331.0
						Average	1185.9%