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ABSTRACT

Lone Tree Mine

by
Bruce Braginton
Santa Fe Pacific

Santa Fe Pacific Gold Corporation's Lone Tree Mine is located in Section ll, Twp. 34 N., Rge.42 E., Humboldt County, Nevada. The Project area incorporates all or part of four other sections which are 100% owned by Lone Tree Mining, Inc., a subsidiary of Santa Fe Pacific Minerals. The "discovery" hole was drilled in July 1989. Intensive drilling of the ore body area began in January 1990. The development decision was made in May 1990, and construction began in December of that year. Full scale mining began in April of 1991. The first gold was poured at Lone Tree in August 1991, 15 months after the development decision and only 25 months after the discovery hole was drilled. Project capital cost was $52.9 million, excluding initial exploration.

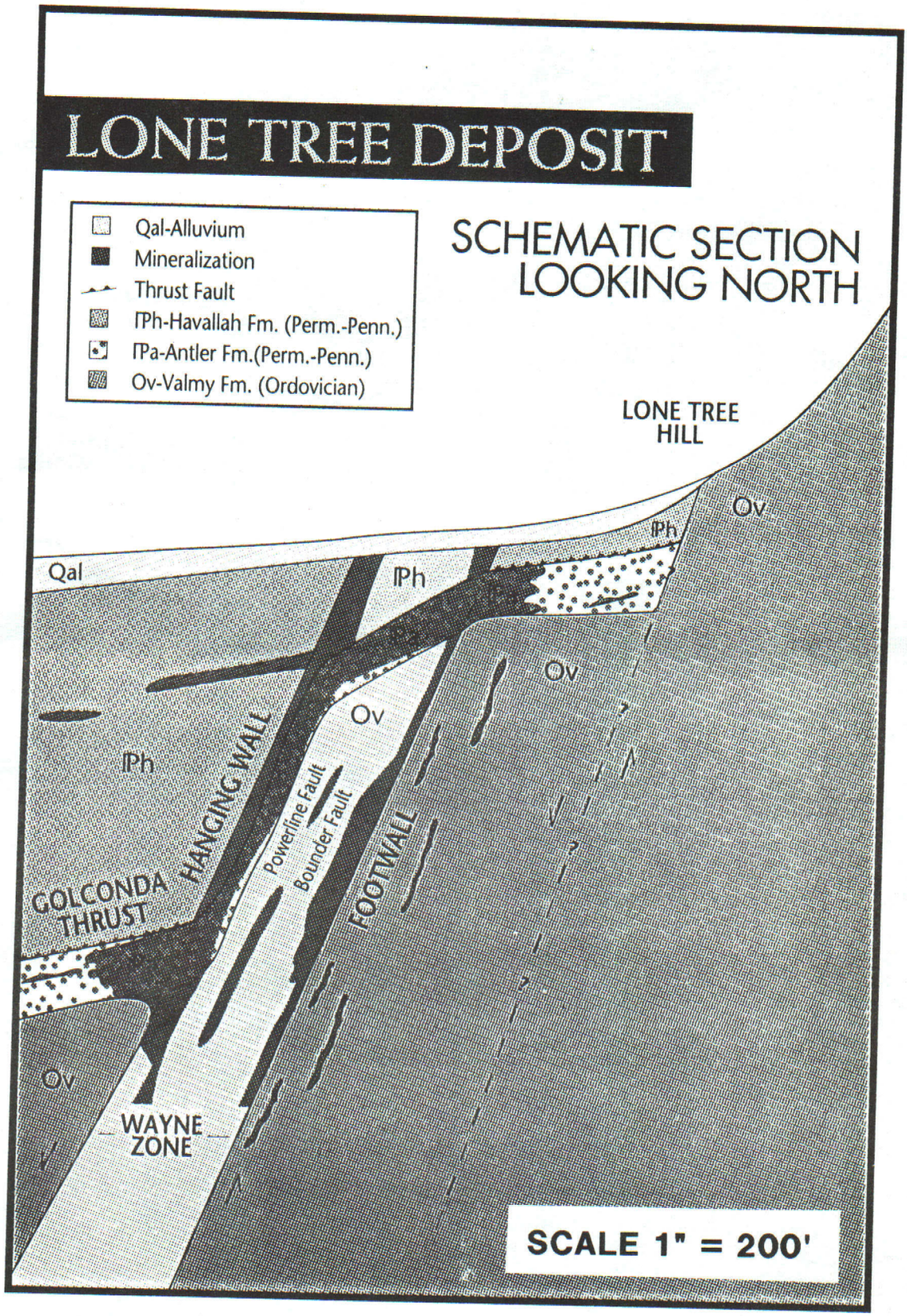
The basal stratagraphic unit drilled in the deposit area is the Ordovician Valmy Formation, which is uncomformably overlain by rocks locally correlated with Mississippian-Permian Antler Sequence rocks. Pennsylvanian-Permian rocks of the Havallah Sequence have been thrust over the Antler Sequence in this area. The Lone Tree deposit was entirely covered by unconsolidated alluvium, ranging in thickness from two feet to greater than 1,200 feet. Gold mineralization at Lone Tree occurs in all three units and is largely confined to a north-south trending zone of intense fracturing and faulting know as the Wayne Zone. The Wayne Zone dips steeply to the west and has been traced for nearly a mile along strike on the Lone Tree property. Major cross-structures offset and pinch the Wayne Zone at the northern and southern ends of Lone Tree Hill.

Gold in the sulfides is dominantly associated with arsenopyrite, and to a lesser extent pyrite. Trace elements linked to gold include arsenic, antimony, and mercury. Minor silver has been noted locally in the deposit. Principal forms of alteration noted at Lone Tree are silicification, argillization, and pyritization.

Mining utilizes standard open pit truck/shovel methods. Ore and waste are currently being mined on 20 foot benches. Ore zones are drilled on a staggered 14 x 14 foot pattern. A single 20 foot sample is collected from each blast hole by a through-deck sampler. Ore is segregated into oxide heap leach, sulfide mill, and run-of-mine heap leach. Conventional heap leaching methods are utilized to recover up to 90% of the gold in the oxide heap leach ore. Run-of-mine heap leach recovery is only expected to be 40%, but the low cost of this process allows treatment of the lower grade ore at a profit. Sulfide mill ore is currently being stockpiled.

Mineable ore reserves are 22,939,489 tons averaging 0.092 oz/ton Au for a total 2,117,543 contained ounces. Strip ratio of the current pit design is 8.82 ton waste/ton of ore.

Total production for 1991 was slightly more than 36,000 ounces, at a cash cost of $103.45 per ounce. Estimated production for 1992 is 103,000 ounces. A $67.0 million sulfide expansion is scheduled for 1992-1993, with a sulfide mill utilizing low-pressure autoclaves scheduled to be in production by 1994. Expected mine life at currently anticipated mining rates is 12 years.


LONE TREE DEPOSIT
Qal-Alluvium
Mineralization
Thrust Fault
IPh-Havallah Fm. (Perm.-Penn.)
IPa-Antler Fm.(Perm.-Penn.)
Ov-Valmy Fm. (Ordovician)
SCHEMATIC SECTION
LOOKING NORTH
LONE TREE
HILL
Ov
IPh
Qal
IPh
Ov
Ov
IPh
HANGING WALL
Powerline Fault
Bounder Fault
FOOTWALL
GOLCONDA
THRUST
Ov
WAYNE
ZONE
SCALE 1" = 200'