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REPORT OF WORK PERFORMED

1984

ON THE PROPERTY OF

DIEPDAUME MINES LIMITED

TISDALE AND DELORO TOWNSHIPS

PORCUPINE MINING DIVISION OF ONTARIO

JANUARY 1 - DECEMBER 31, 1984

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42A06NE0447 63.4505 DELORO

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SUMMARY

UNDERGROUND

During 1984 Diepdaume Mines continued its de-watering program.

Pumping is posing costly problems due to high influx of water from flooded neighboring mines and also from a lake which overlies the north-west corner of the mine workings. Overworked pumps result in higher than normal power costs and maintenance.

The mine purchased two .5 Gt Ingersoll Rand pumps with 125 Hp motors. A new dam was constructed on the 200 Ft level and one 5 Gt pump installed. The other 5 Gt pump is held on stand by for back up of the main pumping facility on the 500 Ft level. The 200' level facilities were installed as a third stage system to prevent over taxing of the 500 Ft level pump in anticipation of pumping to greater depths. Power is supplied to the 200' level dam by a 250 MCM cable run from the main switch room.

Underground rehabilitation and shaft maintenance was continued on an on going basis. The mine requires extensive rehabilitation, an inheritance of former re-treat mining prior to shutdown.

SURFACE EXPLORATION

Several programs of surface exploration were carried out over a large portion of the property in Deloro Township.

Three types of geophysical surveys, prospecting and sampling, line

grid preparation and a diamond drilling program comprised the field work done.

Laboratory Bench Tests were run on core from a promising look geological structures intersected in the drilling program.

PROPERTY

The property is comprised of one group of contiguous patented and unpatented mining claims situated in the south-east quadrant of Tisdale Township and in the north-east quadrant of Deloro Township in the Porcupine Mining Division of Ontario.

The property includes the former Preston East Dome Mines Limited which produced 6,248,405 tons of ore grading 0.24 ounces gold perton from 1938 to 1968 when it closed down.

The mine workings are in poor condition. Extensive rehabilitation is required in order to reach, develop and mine the in-site ore.

UNDERGROUND

Mine rehabilitation, maintainence and pumping is being carried out on a continuing basis with the goal of developing and mining five main areas of ore which remains in-site left from previous operations. The mine is in a highly unsafe condition the result of retreat-mining prior to shutdown in 1968. The excessive in flux of water introduced into the mine by normal runoff, a sizeable lake which overlies the workings in the west portion of the mine and the influx of water from flooded adjoining closed-down mines has proved very onerous on overworked pumps and high power costs.

A third stage pumping facility including a dam was installed on the 200' level. This facility will be brought into play to avoid overtaking of the main pump on 500' level when the decision is made to dewater below the present holding level.

SURFACE EXPLORATION

A varied program of exploration was carried out over a large portion of the Deloro section of the property. This section is relatively unexplored. The search was directed for discovery of near surface ore for quick exploitation to serve as mill feed until such time as the targeted underground ore is developed.

OBJECTIVES

UNDERGROUND

The mine rehabilitation is directed for eventual mining and developing ore left in place from previous operations as follows:

- (i) Some 50,000 tons of above mine grade ore left in place. This ore was discovered and partially developed and mined following the decisions to close the mine and retreat-mine towards surface while the mine was being allowed to flood and the pumps pulled in 1968.
- (ii) Considerable tonnage was left in the walls of shrinkage stopes which was not viable ore at that time. Cutoff grade in the mine to maintain profitable mill heads was 0.14 ounces gold per ton.
- (iii) Upwards of 350,000 tons of high sulphide content gold ore remains partially developed between the 18th and 10th level in the old Midcamp section of the property under Simpson Lake. This type ore was not amenable for treatment in the mill in use at that time. The new mill under construction is made to order for this ore.
- (iv) An estimated 100,000 cunces of gold is contained in the No. 2 shaft main pillar which lies between the 4th and 7th levels.
- (v) Ore mined and under development by Dome Mines
 Limited on their 20th level (our 19th level)
 strikes and dips up into Diepdaume property to
 the south. This represents a considerable tonnage
 of probable new ore in addition to that partially
 developed by Preston Mines Limited but not mined
 due to rising waters of the planned flooding
 leading to shutdown in 1968.

SURFACE

Find near surface ore for quick exploitation to provide mill feed until such time as the underground mine ore is developed.

SURFACE EXPLORATION

Exploration carried out over the Deloro section of the property consisted of three types of geophysical surveys, prospecting, sampling and diamond drilling as follows:

GEOPHYSICAL SURVEYS

(i) Geomagnetic Survey

The survey was carried out in two stages over a cut and chained picket line grid.

Instrument used was a Geometrics Proton Precession Magnetometer with digital readout and an accuracy of 1 gamma.

A long linear magnetic anomaly traced across the property reflects a band of highly siliceous Iron Formation which carries sporadic gold values. A second band of Iron Formation lies south of and parallel to the main band. An indicated fault appears to offset the formations west side south for 200 feet in the east end of the property. Drill testing of the Iron Formation is required.

(ii) Electromagnetic Survey

The survey was carried out in two stages over the same grid as the Geomagnetic Survey.

The western portion was surveyed with a Crone VLF-EM, Radem Electromagnetic Unit. The east portion of the grid was surveyed with a Geonics VLF-EM, Model EM-16.

No conductors of economic importance were detected in both surveys.

(iii) Radiometric Survey

The survey was carried out over the drier land portion of the grid and excluded flood and ponded areas. The survey failed to aid in any structural interpretation.

Instrument used was a Scintrex Scintillometer Model BS-ISL with a sensitivity of 1 c.p.s (count per second) on the lowest scale.

PROSPECTING AND SAMPLING

The sizeable area of future flooding being caused by the back up of water from the new Dome Mines Tailings Dam was intensely prospected and sampled. The ponding will cover parts of six claims in the east end of the property. Nothing of economic value was found.

DIAMOND DRILLING

Four holes totalling 567 feet were drilled to test geological and geophysical features Core Size is AX (1 3/16" Diameter). Holes results as follows:

HOLE NO.	LAT	DEP	AZIMUTH	DIP	DEPTH
84DE-1	4+55S	35+70E	168°	-45°	150'
84DE-2	4+45S	26+05E	140°	-45°	116'
84DE-3	2+95S	26+30E	140°	-45°	151'
84DE-4	15+80N	48+00E	140°	-45°	156'

Hole 84DE-1:

Was drilled to check an area of quartz outcroppings. Several sections of quartz were cut with negligible values.

Hole 84DE-2:

Was drilled to section a quartz-carbonate-fuschite shear zone. A wide section of the zone was cut through to the footwall contact. Assays were negligible. Further drilling is required to section the remainder of the zone width through the hanging wall contact and along strike.

Hole 84DE-3:

Was drilled to section an electromagnetic conductor detected in a preview survey cut graphitic tuff with bands of pyrite. The hole was lost due to casing and the rods seizing. The footwall contact was not cut and requires further drilling.

Hole 84DE-4:

Was drilled to section a weak electromagnetic response failed to reach its objective. Further drilling is required for proper testing.

LABORATORY BENCH TESTS

Flotation and Cyanidation bench tests were carried out over the whole core sections of the quartz-carbonate-fuschite zone cut in 84DE-2 and the graphitic tuff out in 84DE-3. These structures represent open pit potential. The tests were run for detection of possible very fine metallic gold which might conceivably be missed under normal sampling methods (See Appendix A)

COSTS INCURRED

A total of\$416,850 was expended on the property during the period.

A breakdown of the opportioned costs accompanies the Application for the Ontario Mineral Exploration Program Grant.

JUNE 23, 1985

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