

Mascot Gold Bringing Hedley Camp Back To Life

by Ray Norman

It has been thirty years since the old Nickel Plate mineworkings closed down, plant and equipment sold and the townsite abandoned. Now in 1985, the Nickel Plate is once again the centre of attention.

Since 1984, Mascot Gold has raised over \$10 million through private placement and public flow-through share offerings for the extensive exploration and development work conducted at Nickel Plate Mountain, Bralorne and other properties. The results have more than justified the expenditures. At last count, a reserve of 4.1 million tons of surface mineable ore had been identified at Nickel Plate with an average mining grade of 0.150 ounces per ton using an 0.05 ounce cut-off. Confident that an economically attractive open pit mine is feasible, Mascot has proceeded with planning of the minesite and plant. Preliminary tests show excellent gold recoveries can be achieved with standard milling techniques.

The planned new development between 5,100 and 6,000 feet overlays the old underground workings on the east face of a north trending ridge between Nickel Plate and Lookout Mountains some four kilometres northeast of Hedley, B.C..

Gold was first discovered in the Hedley Village area, 150 air miles east of Vancouver, by adventurers travelling north looking for greener pastures after the California Gold Rush. By the 1890's gold had been found on Nickel Plate Mountain and the first claims were staked in 1896 with pea-size nuggets being reported. In 1902, Butte, Montana copper tycoon Marcus Daly bonded the claims and organized production started in 1904. In 1909, the adjacent Sunnyside Mines were brought in and amalgamated to form the Hedley Gold Mining Company. The 40 stamp mill, located near the Village of Hedley in the Similkameen Valley was initially operated by the Daly Reduction Company. Production continued until stopped in 1955 by the fixed price of gold and escalating production costs.

Early in the life of the mine, a local resident, Duncan Woods, acquired a mineral claim, the "Mascot Fraction", which overlies part of the Nickel Plate system of ore beds. Unable to reach an agreement with the Nickel Plate mine owners, Hedley Mascot Gold Mines Ltd. was formed for the primary purpose of



Outline of area that will be open pitted on Nickel Plate Mountain.



Surveying the central pit area with electronic distance measuring equipment.

mining this one claim. Hedley Mascot Gold Mines operated from 1936 to 1949 and produced 254,050 ounces of gold from 686,625 tons of ore. The present company name derives directly from this former entity.

By 1955, combined production from the two mines amounted to 3,967,350 short dry tons milled containing 1,556,749 ounces of gold, better than 4 million pounds of copper and 188,749 ounces of silver. Gold values averaged 0.392 ounces per ton.

Mascot acquired the Nickel Plate property in 1971 and owns a 100% interest in the property, subject only to right of

Burden Investors Service from whom the property was acquired to receive a royalty up to a total of \$250,000. The amount of this royalty will be determined on a sliding scale relating to the grade of ore treated and based on net smelter returns, not to exceed 10% from any one shipment.

From 1971 to 1984 the company carried on surface drilling, geophysical, geochemical surveys, reconnaissance and underground drilling which indicated target areas. Drilling in 1981 outlined 404,498 tons of 0.29 ounce per ton gold underground. Reviews of all the data in 1984 resulted in a major surface drill program that confirmed extensive near surface

The Strange Creation Of Undersea Mineral Deposits

by Dale Huber

Eighteen hundred metres below the surface of the Pacific is a cold and uncomfortable place, but it's where you have to be if you want to observe first hand mineral deposits in the making. Dr. R.L. Chase of the University of British Columbia's departments of Geological Science and Oceanography has spent many hours at this depth, approximately 200 kilometres due west of Vancouver Island, B.C.

Peering out from a viewing port in the submersible Pisces IV, as it cautiously finds its way through the blackness of deep water, Dr Chase and his associates have been researching and discovering in the new area of underwater sulphide deposits.

At a recent lecture given by Dr. Chase as part of the University of British Columbia's and Placer Developments Frontiers In Science series he presented the latest developments on this fascinating subject.

The discovery and research of underwater deposits off the B.C. coastline can be traced back to the initial discovery made by U.S. scientists near the Galapagos Islands in 1977. Examining a volcanic ridge crest similar to one running north to south off our west coast, it was discovered that cold sea water was sinking down cracks in the crest and returning to the sea floor at high temperatures. This water, heated and expanded, pushed to the surface carrying native mineralization, resulting in an undersea hot spring, rich in minerals and sealife.

These hot springs, or hydrothermal vent fields, seem to be world-wide, appearing around the volcanic ridges that form when tectonic plates moved away from each other allowing molten lava to rise and fill the gap. There are some 60,000 kilometres of this type of ridge throughout the oceans of the world, including the one running off Vancouver Island down to Northern California where a number of vent fields have been discovered.

In a joint U.S. and Canadian project, scientists from Universities and government laboratories took part in studies of the area in 1983 and 1984. Most of the ridge lies 2.5 kilometres below the surface, but the scientists were restricted to locations 2 kilometres deep, Pisces maximum descent limit.

The areas chosen were the Axial Seamount and the Southern Explorer Ridge. To conserve electrical power, the pilot and



Pisces submersible.

the two observers will spend over one hour descending in total darkness before the destination is reached.

The dives at Axial Seamount revealed fresh, in geological terms, volcanic basalt, some of which had a number of "cracks" forming a vent field. One of these cracks was about 20 metres wide, sufficient to let the Pisces descend into it for some distance. Probing the "Ochre" or reddish skin of oxidation that covers this type of deposit, Pisces' mechanical arm retrieved samples that graded to 10 ounces of silver a ton with minor gold values.

The Southern Explorer Ridge told another story, revealing its secrets under Pisces' powerful lights. Active venting, first discovered one month earlier by Dr. Tunnicliffe of the University of Victoria, was re-examined and approximately sixty deposits were discovered, displaying the red colour typical of weathered polymetallic sulphides. The deposits ranged in size from that of a kitchen table up to 150 metres across.

Hydrothermal vent fields have a surrounding sealife ecosystem all of their own. While nothing survives at the very edge of the vents or chimneys, within inches all round, life has made an extraordinary adaption to an environment deadly for others.

Hydrogen Sulphide is the main culprit. Where levels of this toxic compound would kill most organisms, tube worms thrive, using the water's bacteria to break down the sulphides ingested when breathing and feeding. Clams, limpets and other creatures were found, all adapted to this environment.

The sulphide vent field deposits are formed with great speed, the result of vent chimneys, created by mineral build-up, collapsing when they can no longer support themselves. Some chimneys have been reported up to 15 metres in height and are recorded as growing approximately three



A "Black Smoker".

centimetres a day. Some vents, called "black smokers" discharge inky mineralized water at great volume and high temperature. A conventional vent's temperature is about 200 degrees at opening, a black smoker runs to 340 degrees. And yet, until within inches of the vent's exhaust, the water temperature is a frigid 2 degrees centigrade. The "black smoke" is created by the transformation of the mineral elements through the effect of the vents's high heat interacting with the extreme cold of the surrounding water.

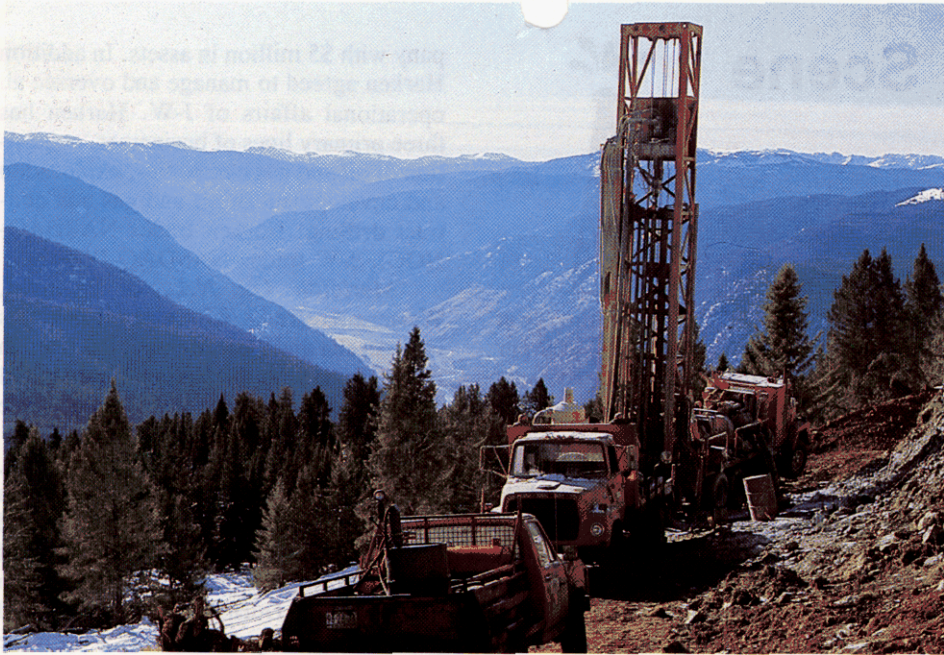
About 90% of the released mineralization returns to the ocean, the balance creates a high grade deposit with sample values of Silica Dioxide 20-21%, Zinc 10-20%, Barium 14-15%, Iron 3-6%, Lead 0.6-6%, copper 0.12-0.13%, silver grams per ton and minor gold values.

The prospect of utilizing such deposits in the traditional way does not look feasible at this time, but Dr. Chase and his colleagues see great opportunities for expanding our knowledge of sulphide deposits and applying it to land exploration.

Even so, the "mining" of these deposits has been the subject of research by several countries. Japan, France and the United States all have submersibles that can dive to 4,000 metres. German mining company Preussag worked on a system that might be used to retrieve deposits in the Red Sea Brine Pools, one of the few well known deposits of polymetallic sulphides.

Pisces IV was built by Hyco Ltd. of North Vancouver and has as its support ship the "Pandora", originally laid down as a drill supply ship by Dome Petroleum and later re-designed.

Even though Canadian exploration funding is in short supply, world-wide research continues and with much of the potential ground outside of territorial waters, perhaps one day we shall see another resource from the sea being "harvested".



Drill rig in operation, Similkameen Valley in background.



Underground mineralization.

gold values which indicated the viability of an open pit mine. The open pit area covers the upper portions of the ore bed systems. These extend for approximately 4,500 feet from the Nickel Plate workings to the south. Where the open pit breaks into the old mine workings, the larger of them may be temporarily filled with lower grade material which will be later recovered along with the pillars within the stopes. The proposed mill would process 1,500 tons of ore per day, 365 days a year.

Metallurgical work indicates that optimum gold extraction can be obtained using a cyanide process, with a projected recovery of 89%. Test work has shown

that free cyanide and arsenic levels in the effluent will be reduced to acceptable levels.

Because the Hedley area has a relatively dry climate, good water management is essential. Mine process water will have to be obtained from wells, recycling of the tailings pond and mine drainage.

Though Mascot has been concentrating on the Nickel Plate it also has other significant interests in Canada and the United States.

Its other principal Canadian target is the Bralorne Property in the Bridge River Gold Camp. Mascot is acting as operator and has an earned interest with a right to

increase ownership by funding further exploration or taking the property to production. The majority of lode gold produced in the Bridge River Camp came from mines that have now been assembled into the Bralorne Property. Total production from these former producers from 1863 to 1971 was 8 million tons, yielding 4.1 million ounces of gold. Further exploration work is planned on this property during 1986.

Mascot's main properties in the U.S. are the Sterling Mine in Nevada and the El Plomo property in Colorado.

The Sterling Mine, some 90 miles northwest of Las Vegas, started production in 1980 as a heap leach property, mining 200 tons per day of an average grade of 0.19 ounces of gold per ton. Mascot has a 10.4% interest in the Sterling which also has considerable lode potential with better than 200,000 tons of 0.28 ounces of gold per ton outlined with only 5% of the property drill tested.

Mascot has a 28.25% interest in the 813 acre El Plomo property 175 miles south of Denver. First discovered in 1880 it was worked until 1900. Percussion drilling has so far confirmed 1.35 million tons of open pit reserves grading 0.053 ounces of gold per ton amenable to heap leaching, sufficient for five to seven years of production at 800-1,000 tons per day. The property is on hold due to gold prices.

Exploration targets in Canada are the Cariboo-Bell, a copper-gold property, 36 miles northeast of Williams Lake, B.C. These 381 claim units cover some 20,270 acres. Mascot, which acts as operator has a better than 38.41% interest.

The Misty property, 20 miles northwest of Terrace B.C. has been subjected to soil geochemical survey and numerous gold anomalies have been indicated. Ongoing exploration is planned.

The Giant Nickel Mine, a former producer and 100% owned by Mascot, is located 75 miles east of Vancouver. During its last period of production, from 1958-1974, 4.75 million tons of 0.78% nickel and 0.34% copper were mined.

Exploration on the Mica Property, 57 miles north of Revelstoke, B.C. has outlined a large lead-zinc geochemical anomaly worthy of further work.

In conjunction with work at Nickel Plate and some of the 30 other properties within its portfolio, Mascot manages projects across Canada and the western United States on behalf of International Corona-Royex.

For further information on Mascot's exploration and development programs please contact Hank Ewanchuk at Suite 1440-800 West Pender Street, Vancouver, B.C. V6C 2V6, phone (604)689-5453.

International Oil Scene

by Adrien



Kentucky-based *Ashland Petroleum* has had its best year since 1980. Operating income of \$213 million was substantially higher than 1984. Refineries operated at near capacity levels and reduced operating costs contributed to the much improved income. In the fourth quarter ending September 30, Ashland had net income of \$46 million, equal to \$1.34 a share. Looking ahead to 1986, Ashland believes their competitive position has been greatly improved by the implementation of long term strategy to strengthen core businesses, improve the balance sheet and build earnings from non-refining businesses.

Chapman Energy of Dallas, has entered into an agreement whereby Chapman would purchase all of the oil and gas properties and certain other assets of Dallas-based *Trans-Western Exploration Inc* for \$7,126,500 cash. Included in the purchase are approximately 130,000 proven barrels of oil and 5,823,000 Mcf of gas. Chapman will also acquire substantial leasehold and mineral interests owned by Trans-Western, located mainly in Texas and Oklahoma. Chapman trades NASDAQ-CHPN.

New York-based *Damson Oil Corporation* had two nationally recognised brokerage firms Smith Barney, Harris Upham and Thomson McKinnon, prepare research reports concerning Damson Energy Company, recommending the ownership of Damson Energy Units. More recently Donaldson Lufkin & Jenrette and E.F. Hutton prepared analyses of a number of publicly traded Master Limited Partnerships, including Damson Energy. These reports valued the Units, or the net assets

underlying the Units of Damson Energy at prices ranging from \$9.00 to \$24.00 per Unit, amounts substantially in excess of current market prices. Damson trades AMEX-DAM.

Eurocan Ventures and Suez Pete are members of a consortium involved in substantial oil explorations in Colombia and Western Europe. Suez has a 10% interest and Eurocan 30%. Eurocan has been awarded an Association Contract with *Ecopetrol* the Colombian state-owned oil company, covering the 125,000 acre Timana Contract in the southern portion of the oil producing Upper Magdalena Valley Basin. This sedimentary basin currently produces 40,000 bopd from seven fields with combined reserves of some 110 million barrels of 28 degree API oil at a depth of 2-3000 feet. In Europe, Eurocan and Suez have an interest in a group which has applied for three concessions in the Paris Basin for a total of one million acres and two concessions on-shore United Kingdom containing a total of 350,000 acres. The group has also secured an interest in two exploration licenses offshore Sardinia totalling 500,000 acres. Applications for additional concessions in France and Denmark are underway.

Harken Oil & Gas and Jefferson-Williams Energy both of Dallas jointly announced the closing of an option agreement allowing Harken to purchase up to approximately 70% of Jefferson-Williams, a publicly held oil and gas exploration com-

pany with \$5 million in assets. In addition Harken agreed to manage and oversee all operational affairs of J-W. Harken has three primary lines of businesses, acquisition of oil and gas companies, exploration and development of oil and gas and contract drilling. Harken trades NASDAQ-HOGI, J-W trades NASDAQ-JWEC.

Meridian Oil N.L. of Belmont, Western Australia, with vast oil interests in Australia and New Mexico, has been in negotiations with the National Iranian Oil Company for clearance to drill an offshore concession in the Persian-Arabian Gulf.

Plains Resources of Oklahoma City, have recently acquired prospects in Oklahoma and Kansas that will be drilled before year end. In the first six months of 1985 the company earned \$91,526 or two cents a share. During this period oil and gas sales were up 1% on a 37% increase in production volume, due to lower product prices. Total revenue exceeded \$5.1 million and cash flow remains reasonable constant. Plains preferred stock trades NASDAQ-PLNSP, carries a 13% dividend and is convertible into the company's common stock at \$2.25 a share.

Houston-based *Trinity Resources* announced the successful completion of a discovery well on Trinity's Seely Dome prospect in Rio Blanco, Colorado. The well, drilled by Texaco, tested on pump at 232 barrels of oil per day. Texaco is drilling an offset off Trinity land, but will further confirm the discovery and set up additional locations on Trinity acreage. Trinity's Board has approved the acquisition of privately owned *Caland Petroleum Corp.* of Denver. Caland Pete is 63% owned by Dutch company IHC Caland N.V. which is heavily involved in the international offshore oil industry. Approval of this acquisition will mean IHC Caland will own approximately 40% of Trinity.

Consolidated Silver Standard Mines VSE-CDS

CDS President Robert Quatermain reports that five drill holes have been completed on the paydirt property in northwestern British Columbia. All of the holes encountered gold-bearing sulphide zone which was intersected by earlier drilling and trenching. Consolidated Silver can earn a 100% interest in the property by spending \$600,000 before December 1987. Teck Corporation retains a 10% net profits interest with first rights of refusal on senior financing.

Amhawk Resource Corp. VSE-AHK
Cominco has completed an option agree-

ment to explore Amhawk's gold property in the Contwoyto Lake area in the Northwest Territories. This option will allow Cominco to earn a 59% interest in the property by spending \$500,000 on exploration. Cominco has started an exploration program of airborne EM and Magnetic surveys, ground VLF and Mag surveys, geological mapping and soil sampling.

Player Resources Inc. VSE-PYR
Yucana Resources Inc. VSE-YUC
Road building and trenching has started on the joint venturers May and Jennie property 5 miles north of Nelson, B.C. The program will follow up a strong 3,000 foot anomaly defined in 1984 by geophysical and geochemical survey. Road work over

650 feet of the strike cut the zone in six places and samples ranged from a low of 0.120 to 1.070 ounces of gold per ton. A diamond drill program will begin after the trenching is completed.

International March Resources VSE-ILM

International March has agreed to acquire a 30 claim gold prospect near Hycroft Resources' Crofoot gold project 60 miles north of Lovelock, Nevada. A preliminary surface program is planned to cover the on strike projected trend of the mineralized structures being drill tested by Granges Resources which is operator of the Hycroft project.

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