

Nunavut

Mining and Exploration Overview

2000

March 2001

Nunavut Mineral Resources Section
Department of Indian Affairs and Northern Development
Box 100, Iqaluit, Nunavut, X0A 0H0

CONTENTS

Section	Commodities	Page
DIAND Activities		1
Summary of Mining and Exploration		2
Looking at the Numbers		3
Kivalliq Region	Gold, nickel-copper, zinc-silver	4
Kitikmeot Region	Gold, diamonds, nickel-copper	10
Baffin Region	zinc-lead-silver, diamonds	23

A Note About the Overview

This edition of the overview captures information on exploration and mining conducted in 2000, with a news cut-off date of March 1, 2001. There are some projects active in Nunavut for which no data has been made public, such as grass-roots exploration programs; these will not be discussed in this edition.

Rather than dividing the territory by geological area, as has traditionally been done, the overview has been divided according to the three administrative regions that comprise Nunavut. Some changes to the format will be also evident.

Prospectors and mining companies are welcome to submit information on their programs at any time, for inclusion in the next overview to be released. Feedback and comments are also appreciated.

DIAND Activities

The N.W.T. Regional Office remained responsible for the administration of most services and programs during 2000, including the administration of crown lands and the Canada Mining Regulations.

The Nunavut Regional Office is intended to be fully operational for April 2001. Based in Iqaluit, most staff are based in the Qimugjuk building. The Mineral Resources, Mining/Land Administration and District Office sections are located nearby in the old DIAND District Office.

Staffing for the Mineral Resources Section began in July. Jason Sharp, formerly a district geologist with the N.W.T. Regional Office, assumed the position of Manager. Jurate Gertzbein and Natalie Ham joined the section in February, while Robert Carpenter will join the section in April.

Staffing for the Land Administration Section is also underway. Carl McLean is the Manager, and has been joined by Caroline Curtis (Mining Recorder), Michael Immaroitok (Land Administration Specialist), and Tina Watts (Land Operations Clerk).

As a result of the ongoing transition, DIAND had a relatively quiet field program. Sharp visited several gold camps, including the Lupin mine and the Hope Bay project in the Kitikmeot. In the Kivalliq Region, Sharp visited the Meadowbank, Meliadine East, and Meliadine West properties. Sharp also visited a soapstone occurrence east of Baker Lake and the old North Rankin Nickel mine in Rankin Inlet.

One new product is the inaugural Mineral Potential Series publication *Nunavut Nickel and Platinum*. This full-color brochure was released in October and is accompanied by a CD-ROM containing nickel and platinum showings and ultramafic rock occurrences in Nunavut. The Mineral Potential Series will be an ongoing product, with at least one additional commodity to be featured in a publication in 2001.

DIAND continues to be a partner in the Canada-Nunavut Geoscience Office. Based in Iqaluit, the office is co-funded by DIAND, Natural Resources Canada, and the Government of Nunavut's Department of Sustainable Development. The office initiated three major projects during the year. Bedrock mapping project began on central Baffin Island, while a second bedrock/surficial program commenced on the Committee Bay greenstone belt northeast of Baker Lake. A study of lead-zinc mineralization in the Polaris area was also started.

Our staff and their contact information:

Jason Sharp	Manager/Minerals	Phone: 867 975 4290	E-mail: sharpj@inac.gc.ca
Jurate Gertzbein	District Geologist	Phone: 867 975 4291	E-mail: gertzbein@inac.gc.ca
Robert Carpenter	District Geologist	Phone: 867 975 4292	E-mail: carpenterr@inac.gc.ca
Natalie Ham	Archives Geologist	Phone: 867 975 4293	E-mail: hamh@inac.gc.ca
Fax: 867 979 6445			
Carl McLean	Manager/Land Admin	Phone: 867 975 4280	E-mail: mcleanc@inac.gc.ca
Caroline Curtis	Mining Recorder	Phone: 867 975 4281	E-mail: curtisc@inac.gc.ca
Michael Immaroitok	Land Admin Specialist	Phone: 867 975 4283	E-mail: immaroitokm@inac.gc.ca
Tina Watts	Land Ops Clerk	Phone: 867 975 4284	E-mail: wattst@inac.gc.ca

Our address is Box 100, Iqaluit, Nunavut, X0A 0H0, in Building 918, the old DIAND District Office.

Summary of Mining and Exploration

After a couple of decreasing exploration expenditures and fewer active properties, Nunavut appears to have experienced a modest rebound in 2000.

Despite continued low gold prices, there was renewed interest in gold properties. This was manifested primarily in the Kitikmeot region, where the George Lake and Pistol Lake deposits were revived by new operators. The same is true of Nunavut's largest project this year, the Hope Bay joint venture, where nineteen million dollars were spent. The Lupin gold mine resumed production in April, having revised their operating procedures to reduce their production costs.

Diamonds remain a primary target for the industry. Although rumors of quiet reconnaissance studies have come from virtually every corner of the territory, there are three primary camps. The most active continues to be the North Slave/Bear, where kimberlites have been discovered on several properties in the last few months. A less mature play is that on Victoria Island, where four junior companies are testing the potential of almost two million square acres northwest of Cambridge Bay. A third diamond play is developing around Nunavut's first kimberlite discoveries - those found decades ago on Somerset and Baffin Island. New finds have been reported from the Brodner Peninsula, some of which have yielded diamonds.

With nickel prices strong and platinum-group metals through the roof, it isn't surprising that these commodities are being targeted by the industry as well. The largest programs were again on the Muskox and Ferguson Lake properties, but other reconnaissance programs have taken place in the vicinity of both.

Base metal activity has declined somewhat. Production at the Nanisivik mine remains strong, while the Polaris mine is nearing the end of its life. Exploration programs active last year in the Kivalliq and Kitikmeot were either idle this year or produced disappointing results.

Exploration for other commodities has suffered somewhat. Uranium exploration is at a standstill, and there have been no reports of large programs targeting volcanogenic massive sulphide deposits.

Looking at the Numbers

Not all diamond drilling meterage and program expenditure statistics have been collected for 2000, particularly for the diamond exploration field, but it is evident that both figures are higher this year than in 1999. Much of this increase is due to the renewed gold activity in the Kitikmeot region:

Preliminary Diamond Drilling in Nunavut - meters

Region/Commodity	Gold	Nickel/PGE	Base Metal	Diamonds	Totals
Kivalliq:	16,006	17,500	807		34,313
Kitikmeot:	57,906	6,884		375	65,165
Baffin:			6,900		6,900
Totals:	73,912	24,384	7,707	375	106,002
Estimated 1999 Figures	29,921	3,500	5,100	1,774	40,295

A count of active projects is presented below. Note that the major drilling projects at the Doris and Boston deposits are being considered separate projects from the Hope Bay reconnaissance work. Active mines are included in the total.

Preliminary Active Projects in Nunavut

Region/Commodity	Gold	Nickel/PGE	Base Metal	Diamonds	Totals
Kivalliq:	7	2	1	0	10
Kitikmeot:	7	2	0	15	24
Baffin:	0	0	4	1	5
Totals:	14	4	5	16	39
Estimated 1999 Figures	9	2	8	14	31

Information on expenditures is also incomplete, but at least \$39 million has been reported to date, primarily from gold and nickel/PGE programs. The 2000 total will likely rise to \$45-50 million once diamond and base metal totals are factored in.

Kivalliq Region

The Kivalliq region includes the eastern mainland, Southampton Island, and several smaller islands. The largest communities - Rankin Inlet, Arviat, and Baker Lake - are the primary staging points for exploration projects in-land and offer expediting services.

The Kivalliq is underlain primarily by the Churchill geological province, which is Archean-Proterozoic in age. Sedimentary rocks of the Hudson Platform are found covering most of the islands.

Past-producing mines in the region have included the North Rankin Nickel mine, at Rankin Inlet, and the Cullaton Lake/Shear Lake operation north of Nueltin Lake. Exploration has primarily been for lode and iron formation gold, volcanogenic massive sulphide, unconformity-hosted gold, and mafic-ultramafic nickel-copper deposits. The presence of other deposits, such as epithermal gold and diamondiferous lamprophyres, has also been demonstrated.

Most activity this year was directed at gold exploration, with some nickel-copper-platinum and zinc exploration.

Ferguson West, Ferguson Hill, Area 51, Kzan, West Extension, Zan 1-2	
Operator, Owners	LMX Resources
Commodities	Nickel, copper, cobalt, palladium, platinum,
Coordinates	96° 51' W, 62° 52' N
NTS	65I/14,15
Location	230 km west of Rankin Inlet

Located near Starfield Resources' Ferguson Lake deposit, these fifteen claims cover 38,732 acres. LMX Resources can acquire a 100% interest in the claims, subject to a 2% net smelter royalty, by issuing 900,000 Starfield embarked on two phases of exploration in

shares, paying \$90,000 cash and an additional \$70,000 in advance royalty payments. A total of \$1.75 million is to be spent on the property by October, 2003.

The Ferguson West and West Extension areas are located to the west of Starfield's Ferguson Lake deposit. Area 51 is situated adjacent to the eastern edge of Starfield's claims. Both groups of claims are crossed by aeromagnetic highs that are spatially associated with mineralization within the Starfield claim block. The remaining claims cover areas of prospective geology and geophysics.

Ferguson Lake Project	
Operator, Owners	Starfield Resources
Commodities	Nickel, copper, cobalt, palladium, platinum
Coordinates	96° 51' W, 62° 52' N
NTS	65I/14,15
Location	230 km west of Rankin Inlet

Starfield holds 57,304 acres in the Ferguson Lake area. INCO first discovered nickel-copper mineralization here in 1950-55, completing 38,000 metres of diamond drilling to outline a resource of 6.354 Mt grading 0.75% nickel and 0.87% copper. Starfield acquired the ground in March 1999 and began diamond drilling and geophysical work.

Mineralization occurs as chalcopyrite-pyrite-pyrrhotite stringers and massive pyrrhotite in zones up to ten metres thick. These are hosted by an hornblendite sill or laccolith that can be traced for 9 km on surface and for 18 km using airborne geophysical data. The hornblendite is bounded on either side by amphibolite, which in turn is bounded by hornblende gneiss to the north and south. The entire sequence is folded in northeast trending folds and is repeated to north and south. A syenite intrusion is located just to the northeast of the deposit.

2000.

During the winter and spring, 5000 metres of diamond drilling, magnetic surveys, and about 71 line-kilometers of UTEM surveys were completed. Coincident magnetic highs and conductors were found to extend 2.3 kilometers west of the West Zone. Another UTEM anomaly, the M Zone, was observed approximately a kilometer southeast of the East Zone II. Significant intersections at the West Zone included 13.34 meters grading 0.87% copper, 0.49% nickel, 0.06% cobalt, and 1.22 g/t palladium and platinum. Drilling on the East Zone included an intersection of 5.78 meters at 0.65% copper, 0.35% nickel, 0.05% cobalt, and 0.72 g/t palladium and platinum.

A 12,500 meter drill program was begun in the late summer. The M Zone was tested with two holes, with massive sulphide intersections in both. The second hole, FL00-40, hit 23.32 meters of 0.51% copper, 0.39% nickel, 0.06% cobalt, and 1.18 g/t palladium and platinum. Mineralization found by step-out drilling on the West Zone included an interval of 71.3 meters grading 0.66% copper, 0.38% nickel, and 1.05 g/t palladium and platinum.

As of January 2001, Ferguson Lake's global resource was estimated at 32.4 Mt @ 0.86% copper, 0.59% nickel, and 1.26 g/t palladium and platinum. Approximately 1.31 million ounces of platinum group metals - primarily palladium - have been outlined.

Hub Lake (Nowyak Project)	
Operator, Owners	Phelps Dodge Corporation of Canada (50%) Gitennes Exploration (50%)
Commodities	Zinc, silver, gold
Coordinates	98° 37.5' W, 61° 48' N
NTS	65G/15,16
Location	330 km southwest of Rankin Inlet

The NOK claims span 17, 495 acres and are situated on a portion of the Yathkyed Lake greenstone belt. Gold mineralization is found in association with Gold was initially discovered in 1988 at what is now

disseminated base metal mineralization in a strong alteration zone in mafic volcanic rocks. These are exposed only as felsenmeer, over a 100 m wide, 500 meter long, northeast trending strike length.

In 1998, Phelps Dodge discovered gold-bearing boulders of quartz-sericite-chloritoid schist at the Hub Lake prospect. Assays of up to 20.31 g/t Au, 1400 g/t Ag, and 9.1% Zn were reported. Gitennes Exploration optioned the property in April 1999. A heliborne magnetic and electromagnetic survey completed in the summer of 1999 defined a high contrast anomaly associated with the Hub Lake alteration zone. This featured two IP anomalies, 800 and 1000 meters in length, which converged to the southwest in a probable fold structure. A strong HLEM response characterized the convergence zone, and was considered prospective for massive sulphide mineralization.

In April-May 2000, a seven hole, 807 meter diamond drilling program tested the Hub Lake zone and four other geophysical targets. Three holes at Hub Lake intersected weak silver and zinc mineralization, with intervals including 2.0 meters at 1.88% zinc and 640 g/t silver, and 8.5 meters of 1.57% zinc. No mineralization was found at the other targets.

Meadowbank Project	
Operator, Owners	Cumberland Resources
Commodities	Gold
Coordinates	96° 17' W, 65° 06' N
NTS	65H/1
Location	70 km north of Baker Lake

The Meadowbank gold deposits are located within rocks of the Archean Woodburn Lake greenstone belt. Mineralization is hosted by interbedded iron formation and felsic to intermediate tuff which are associated with lesser quantities of orthoquartzite and ultramafic schist. The supracrustal package is folded into a northwest trending, isoclinal, recumbent anticline and is sandwiched between two large granitoid intrusions.

the Third Portage deposit. Cumberland and Comaplex

Minerals acquired the project as a joint venture and outlined Third Portage as well as the Goose Island, North Portage, and Bay zones. Comaplex sold its 40% interest to Cumberland in 1997. Large drill programs continued in 1998 and 1999, with several trenches been blasted on the Third Portage deposit in the summer of 1999.

Work during 2000 was limited to examinations of the trenches, as most of Cumberland's efforts were directed at the Vault Zone to the northeast. New resource figures were released in March 2000, with the project having a measured, indicated, and inferred resource of 11.242 million tonnes (cut) grading 5.73 g/t gold, for 2.072 million ounces.

Meadowbank Extension (Vault Zone)	
Operator, Owners	Cumberland Resources
Commodities	Gold
Coordinates	96° 00' W, 65° 04' N
NTS	66H/1, 56E/4
Location	75 km north of Baker Lake

In 1999, Cumberland acquired exploration rights to a 74,000 acre area northeast of the Meadowbank project. Nunavut Tunngavik Inc, which administers mineral rights on Inuit-owned land such as this area, has retained a 12% net profits interest royalty.

The general geology of the extension consists of northeast-trending, Archean intermediate volcanic rocks, bounded to the northwest by mixed sedimentary and volcanic rocks, and to the southeast by younger granite intrusions. Several showings, including the Wally World, PDF, Longroot, and Lakeshore showings, have been found but Cumberland's initial work has focused on the Vault Zone.

Prospecting across the area resulted in the collection of 430 grab samples, 40 whole-rock samples, and 53 MMI soil samples. A 32.7 line-kilometer induced polarization survey was completed across the Vault and Longroot showings, while a 189.4 line-kilometer

magnetic and VLF survey covered Vault, Longroot, and PDF. All three zones were also mapped at scales ranging from 1:2500 to 1:500.

At the Vault Zone, mineralization occurs as a northeast-trending, shallow, slightly dipping zone of quartz-sericite-carbonate-pyrite altered volcanoclastics associated with an early isoclinal fold event. A 27 hole, 2853 meter drill program intersected significant mineralization, including 11.63 g/t over 5.0 meters and 5.20 g/t over 4.15 meters, in separate intervals within hold VLT-008, and 7.02 g/t over 8.75 meters in VLT-024. The zone remains open in three directions, measuring 800 meters long and extending 300 meters down-dip.

A preliminary resource of 3.365 Mt grading 3.9 g/t gold (0.422 million ounces) was reported on the basis of 27 diamond drill holes. When combined with the previously known resources at Meadowbank, the global resource rises to 2.494 million ounces

The PDF showing was tested with a 6 hole, 402 meter drill program that yielded weak to moderate mineralization in quartz veinlets at a volcanoclastic/iron formation boundary.

A 5 hole, 293 meter drill program at the Longroot showing hit thin quartz veinlets and weak mineralization and sericite/chlorite alteration in volcanoclastics.

Meliadine East	
Operator, Owners	Cumberland Resources (50%) Comaplex Minerals (50%)
Commodities	Gold
Coordinates	91° 40' W, 62° 55' N
NTS	55J/13,14
Location	30 km north of Rankin Inlet

The Meliadine East property covers approximately 83,600 acres of the Rankin Inlet Group, an Archean volcanic and sedimentary sequence. Gold has been found in pyrrhotite and arsenopyrite-bearing iron

formation at the Discovery deposit. Elsewhere, at the J2 Zone, gold occurs in parallel quartz veins in felsic to The current era of exploration on the property began in 1990 with drill testing of the Discovery Zone. A resource of 1.6 million tonnes, grading 9.94 g/t gold, was reported for the Discovery Zone in 1994. Prospecting, drilling, and ground geophysics continued over the property between 1995 and 1999, with significant values being returned from drilling on the J2 Zone in 1999.

Cumberland completed detailed prospecting, geological mapping, geophysics, and till sampling over several gold showings on the property. Fifteen drill holes (2281 meters) were also completed, including two that tested a new structure at the Discovery deposit. These intersected 13.5 g/t over 6.4 meters and 24.6 g/t over 1.4 meters.

Meliadine West	
Operator, Owners	WMC International (56%) Cumberland Resources (22%) Comaplex Minerals (22%)
Commodities	Gold
Coordinates	92° 11' W, 63° 01' N
NTS	55J/13, 55K/16, 55N/1
Location	30 km north of Rankin Inlet

The Meliadine West deposits are hosted within the Archean Rankin Inlet Group, in the hanging wall of the Pyke Break Deformation Zone. Stratigraphy in the area strikes east-southeast and is overturned with south-facing tops. The stratigraphy, from north to south (oldest to youngest) is the Sam Formation (metaturbidites), Upper Oxide Iron Formation and Tiriganiaq Formation wackes and siltstones. These structurally overlie, but stratigraphically underlie, Wolf-Wesmeg Formation mafic and ultramafic rocks with the interlayered Lean and Lower Lean Iron Formations, and the Falcon Formation variolitic flows. South of the Pyke Break, stratigraphy is dominated by Sandhill Formation siltstones and wackes, and Sic Sic Formation polymictic conglomerates.

mafic volcanoclastic rocks.

Mineralization is hosted primarily within the iron formation and associated metasediments and zones of high strain at volcanic/sedimentary contacts. Mineralization generally consists of quartz±iron carbonate±arsenopyrite±pyrrhotite veins and sericitic alteration. Four main deposits are known - Tiriganiaq (or Tiriruniak, in Upper Oxide IF and at the volcanic/sedimentary contact), Pump (Upper Oxide IF), F Zone (Lower Lean IF), and Wolf (Lower Lean IF).

Comaplex Minerals and Asamera Minerals staked the Nat claim in 1987. The Discovery Zone, on the Meliadine East property, was discovered in 1989 by prospectors working for Asamera Minerals and Comaplex Minerals, prompting additional staking. Rio Algom optioned the Meliadine West property in 1991 but terminated the option in 1992 despite intersecting high-grade gold intervals during a drill program. Cumberland acquired Asamera's interest in 1993. With Comaplex as operator, the F Zone was discovered in 1993 and the Pump Zone in 1995. WMC International began earning an interest in the property in 1995, with the Tiriruniak (or Tiriganiaq) and Wolf Zones being discovered. Total drilling by the partners, including 1999, is approximately 125,000 metres.

A closely spaced, 5600 metre diamond drill program was completed on the Tiriganiaq zone in 2000. An additional 4400 metres tested targets in the Aurora area, several kilometres to the west. This work follows up on a boulder prospecting discovery from 1999. Results from the drilling have not yet been released. Prefeasibility-level scoping studies are currently underway.

A new resource estimate was released in October. This new resource conforms to the Australasian Code for reporting of Identified Mineral Resources and Reserves ("JORC"). Compared to the previous year's resource, the new estimate is slightly lower in tonnage and lower in grade, but a greater amount of the resource is "indicated", as a result of greater confidence in the estimate. The indicated and inferred resource is 22.1 million tonnes grading 6.33 g/t gold, for 4.5 million ounces with a 3 g/t cut-off. This compares with the previous estimate of 23.7 million tonnes grading 8.5 g/t, for 6.5 million ounces.

Napajut Lake	
Operator, Owners	Phelps Dodge Corporation of Canada
Commodities	Gold
Coordinates	95° 40' W, 61° 12' N
NTS	55E/3,4
Location	100 km west of Arviat

The NAP claims cover 8780.5 acres of greenschist to amphibolite facies, felsic and mafic volcanic rocks. Mineralization occurs as a 3 to 4 km long shear zone parallel to the local structural fabric of the host mafic volcanics. The shear zone has a siliceous core surrounded by sericite schist and barren quartz, with 1 to 2 meter wide, quartz-carbonate veins within fifty meters. Pyrite is the dominant sulphide.

Phelps Dodge acquired the ground in 1998, collecting about 200 samples that year. This year, the claims were mapped at 1:5000, and 34 float and 1158 soil samples were collected. Forty-five line-kilometers of ground VLF and magnetic surveys were also completed.

MMI analyses of the soil samples returned response ratios in excess of 1000 in several areas associated with magnetic lows and high-grade grab samples (exceeding 20 g/t gold). The shear may be the source of auriferous float collected in previous programs, and mineralization appears to improve to the north where the shear is covered in overburden. Soil sample results indicate the zone strikes off the sampling grid.

Noomut River Project	
Operator, Owners	Comaplex Minerals WMC International
Commodities	Gold
Coordinates	97° 05' W, 61° 37' N
NTS	65H/9-11,15,16

Noomut River Project	
Location	175 km west of Arviat

The Noomut River property consists of claims NAP1, Noomut 1-47, and SJ 1-54, for a total area of 193,000 acres. The property's geology consists of Archean volcanic, intrusive, and sedimentary rocks unconformably overlain by Hurwitz Group sedimentary rocks of Proterozoic age. Northeast-trending Archean structures and east-northeast and northwest trending Proterozoic structures predominate. Mineralization occurs principally as quartz veins associated with lodes in mafic volcanics and iron formation. Carbonate, albite, sericite, and pyrite alteration are most common, with local occurrences of arsenopyrite.

Comaplex has been active in the Noomut area since 1995, with drill programs completed on the Napartok, Esker, River, and Ironsides zones between 1996 and 1997.

In 2000, a total of 367 grab and 693 soil samples were collected.

On the Noomut 7 claim, which hosts the Esker Zone, prospecting and a 60 line-kilometer magnetic and induced polarization survey was completed. Grab samples assaying more than 5 grams per tonne gold were collected over a 1 km strike length in two sub-parallel gabbro-hosted zones. The geophysical surveys indicated that IP chargeability anomalies are associated with these zones.

Reconnaissance prospecting and 1:100,000 scale mapping on the SJ claims revealed new gold occurrences, though these have not been examined in detail.

Mapping at 1:20,000 was undertaken on claims Noomut 20, 21 and 23.

WMC collected till samples and ran a gravity survey in parts of the Noomut property.

Nowyak Lake Project	
Operator, Owners	Navigator Exploration Corp
Commodities	Gold, silver
Coordinates	98° 25' W, 61° 55' N
NTS	65G/15,16
Location	320 km southwest of Rankin Inlet

Navigator's land position in the Nowyak Lake area spans 20 claims (48,293 acres). The property's geology consists primarily of mafic volcanic rocks and tonalite, granite, and pegmatite intrusions. Lesser amounts of greywackes and felsic volcanics are also present. Several northeast-trending shear zones cut the property, including the Tyrell shear, which passes through the southern part of the property. Gold and silver values have been returned from quartz-carbonate-pyrite altered zones within shear zones, particularly where these cut felsic tuffs.

The claims were staked in 1996, as a result of anomalous gold values reported by DIAND geologists mapping the area. Prospecting, geophysics, and some diamond drilling has located four gold showings - Bonanza, Bully, Century, and Gareth - over a four kilometer strike length. The Century showing, tested in 2000, was recognized on the basis of anomalous soil geochemistry, coincident IP and resistivity anomalies, and a mineralized outcrop from which a trench sample assayed 31 g/t over two meters.

A three hole, 177 m drill program in April 2000 included two holes into the Century showing. Hole NL-00-1 hit the target structure over a 15 meter interval, with a best intersection of 1.45 meters grading 6.59 g/t gold and 19.46 g/t silver. NL-00-2, collared 50 meters to the south-southwest, cut the structure over a 17 meter true width, with a best intersection of 1.65 meters grading 5.28 g/t gold and 35.63 g/t silver.

Kitikmeot Region

The Kitikmeot region spans the western and northern mainland, and parts of Victoria, Prince of Wales, King William, and Somerset islands. Kugluktuk and Cambridge Bay are the largest communities in the region and often provide services to camps in the area; Yellowknife, to the south, is also an important logistical center.

The Kitikmeot is geologically diverse. The Archean Slave Province occupies part of the western mainland and is bounded to the west and east by the Proterozoic Bear Province. Inliers of the Bear are also found on Victoria Island, surrounded by the younger Arctic Platform sedimentary rocks that cover most of the islands. The Archean Churchill Province underlies most of the northern mainland.

The small mines at Roberts Bay, Ida Bay, and Ida Point, south of Elu Inlet, are the only past producers in the region. The Lupin gold mine is active, having been in production since 1982. Mining has been proposed at the nearby Jericho diamond project; the project is in the initial stages of regulatory review.

Traditional exploration targets have included massive sulphide-hosted base metals and lode and iron formation gold in the Slave. Extensive nickel-copper exploration has taken place at the Muskox Intrusion in the Bear province, along with vein copper and sedimentary-hosted massive sulphides. Recent diamond exploration has covered virtually the entire western mainland and parts of Victoria and Somerset islands.

Diamonds and gold were the two primary commodities sought by companies in the Kitikmeot this year. Nickel-copper-platinum mineralization programs around the Muskox did produce some interesting results as well.

Aber South Lease	
Operator, Owners	Navigator Exploration
Commodities	Diamonds
Coordinates	110° 52' W, 65° 38' N
NTS	76E/10
Location	380 km north of Yellowknife

The Aber South Lease is underlain by turbidites and minor iron formation of the Contwoyto Formation. In total, the lease covers 18,267 acres.

The property was originally staked in 1988 and explored for iron-formation gold showings for the next two years. The property was optioned to Echo Bay Mines in 1994, with prospecting, geophysical surveys and twenty-six drill holes being completed by the end of 1995. After conducting a brief till sampling program in 1999, Aber sold the property to Navigator in order to focus on advanced diamond projects.

Navigator flew a heliborne electromagnetic survey over the lease at a spacing of seventy-five meters in September 2000.

Bel	
Operator, Owners	Ashton Mining of Canada (87.5%) Pure Gold Resources (12.5%)
Commodities	Diamonds
Coordinates	111° 00' W, 66° 05' N
NTS	76L/2,3
Location	160 km southwest of Bathurst Inlet

The Bel property spans 20,660 acres north of the Lupin mine. Much of the property is underlain by the Proterozoic Goulburn Supergroup, primarily clastic sedimentary rocks with minor dolomite. Intermediate to felsic volcanic rocks of the Yellowknife Supergroup are found in the northwest corner of the claim block, as are Proterozoic gabbro sills.

Ashton acquired the property in 1997, after some JD claims, held by predecessors of Tahera Corporation, expired. Ashton collected till samples in 1998 and 1999.

Ashton collected till samples on the Bel claims, in order to better define indicator mineral concentrations found in previous sampling programs.

Con	
Operator, Owners	Ashton Mining of Canada (87.5%) Pure Gold Resources (12.5%)
Commodities	Diamonds
Coordinates	110° 22' W, 65° 33' N
NTS	76E/8,9
Location	170 km southwest of Bathurst Inlet

The Con property covers 30,990 acres east of Contwoyto Lake. The claims are underlain by deformed Yellowknife Supergroup metasedimentary rocks in the south, and intrusive and gneissic rocks in the northwest and east.

Ashton staked the property in 1996, after claims held by Consolidated Texas Northern Minerals lapsed. Ashton has collected till samples over the property since then.

Ashton collected till samples in order to better define indicator mineral concentrations found in previous sampling programs.

Coronation	
Operator, Owners	Shear Minerals Ltd
Commodities	Diamonds
Coordinates	° ' W, ° ' N
NTS	76G
Location	75 km south of Bathurst Inlet

Most of the property is underlain by Archean granitoids and gneissic rocks. Felsic volcanic and sedimentary rocks of the Yellowknife Supergroup occur in the western parts of the 76G/12&13 claim block, and Proterozoic sedimentary rocks occur over the western parts of the 76G/15&16 claim group.

Contractor Apex Geoscience Ltd. collected 78 till samples on the property, targeting 15 geophysical anomalies. Kimberlitic indicator minerals were recovered from 21 samples, all of which were clustered around eight geophysical anomalies.

Epworth	
Operator, Owners	De Beers (earning 70%), Rhonda Corporation
Commodities	Diamonds
Coordinates	~113° 30' W, 67° 00' N
NTS	86I/13,14; 86P/3,4
Location	75 km south of Coronation Gulf

The Epworth property spans approximately 84,000 acres north of Napaktulik Lake; the exact location of the Knife claim has not been disclosed. The property's geology consists of Coronation Supergroup carbonate and clastic sedimentary rocks of Proterozoic age. Zinc-lead-silver mineralization has been found primarily within the Rocknest Formation, which consists of inner-shelf facies dolomite and argillite.

Rhonda and Noranda began a joint venture on the property in 1993, initially exploring for stratabound copper and zinc. Several zinc-lead-silver showings, including the Esker, Muskox, Zinc Lake, O'Seim, South, North, and Far Out zones, were discovered between 1995 and 1997. The Harley copper-silver showing was examined between 1996 and 1997. Till samples were collected from 1994 onward.

In January 2000, Noranda relinquished its interest in the joint venture. De Beers (then Monopros) acquired the right to explore for diamonds in May, and began drilling later that month. The first three holes intersected the Knife kimberlite pipe. The pipe has an estimated diameter of 225 meters, and occurs at the intersection of two diabase dykes, which conceals the pipe's geophysical signature. A 397 kg sample was found to contain 217 diamonds totaling 0.1275 carats.

George Lake	
Operator, Owners	Kinross Gold (earning 70%) Wheaton River Minerals
Commodities	Gold
Coordinates	107° 26' W, 63° 56' N
NTS	76G/13
Location	100 km south of Bathurst Inlet

Gold exploration in the George Lake area began in 1982 with the formation of the George Lake and Back River joint ventures consisting of Homestake Mining, Kerr-McGee Corporation, and the Mac Lab Group. Drilling at George Lake began in 1985, and continued to 1994, by which time a resource of 4.5 million tonnes, grading 13.6 g/t gold, had been outlined.

Arauco Resources purchased the property in 1996, conducting a major drilling program in 1997 that boosted the overall resource to 6.46 million tonnes grading 9.76 g/t. Later that same year, Arauco changed its name to Kit Resources.

The property remained idle until 1999, when Kit was Major General began exploration on Victoria Island in

merged into Wheaton River Minerals. Kinross acquired the option to earn a 70% interest by spending \$20 million before November 2004. The new joint venture began exploration with a limited field program in 1999.

In 2000, Kinross completed a 40 hole, 11,000 meter diamond drill program on the Goose Lake deposit. Holes testing the southern extension of the deposit assayed up to 17.0 m at 14.9 g/t. Six holes probing the northern extension encountered up to 6.4 meters grading 29.6 g/t, 2.0 meters of 17.1 g/t, and 2.0 meters of 14.8 g/t - all in hole 00GO-5. A possible new zone was found 250 meters west of the deposit's fold nose, in an area where mineralization was thought to have been cut off by a dyke. The discovery hole, 00O9, intersected 5.9 meters grading 11.2 g/t.

As a result of the drilling, Kinross reported a new resource estimate for Goose Lake: 3.897 Mt @ 12.51 g/t gold, or 1.567 million ounces. This is based on cut assays of 34.29 g/t, and with cut-offs at 5 g/t. As of January, total indicated and inferred resources at the deposit stood at 7.806 Mt grading 11.25 g/t, for 2.8 million ounces.

Homerun Project (Tahoe Lake)	
Operator, Owners	Dia Met Minerals (earning 51%) Major General Resources Ltd.
Commodities	Diamonds
Coordinates	108° 45' W, 70° 00' N
NTS	77E/4, 77F/1,3,6,7,10,11
Location	Expo and Pirate are 160 km northwest of Cambridge Bay

Tahoe Lake includes five properties - Dodger, Blue Jay, Ranger, Expo, and Pirate - that cover 988,800 acres. This is the northernmost of the four areas of diamond exploration on Victoria Island.

1994 and culminated with several kimberlite

discoveries on the Victoria Island property by the Monopros/Major General/Ascot Minerals joint venture in 1998-9. In early 1999 Major General acquired three prospecting permits and staked 117 claims. The Expo and Pirate properties lie to the east of the Victoria Island property, while the remainder lie to the northwest. Dia Met entered into a joint venture in August 1999, and can earn 51% by spending \$4.5 million over 5 years. Dia Met collected 445 till samples by October 1999.

Results from the 1999 till samples were reported in April 2000. A group of five closely spaced samples yielded kimberlitic indicator minerals, including one sample with 97 garnets of eclogitic, harzburgitic, and llherzolititic composition. Dia Met staked a further 289,000 acres (for a total of 988,800 acres) and completed a 5,900 line-kilometer heliborne magnetic survey by July 2000. Further geophysical surveys, till sampling, and prospecting during the summer were undertaken in order to locate the source of the indicator minerals found in the 1999 samples.

Homerun Project (Victoria Island Property)	
Operator, Owners	Major General Resources (50%) Ascot Resources (50%)
Commodities	Diamonds
Coordinates	109° 20' W, 70° 10' N
NTS	77F/2 (main claim group), 77D/12,13, 77C/9,10,15,16
Location	190 km northwest of Cambridge Bay

The Major General/Ascot joint venture began exploring for diamonds on Victoria Island in 1994. Airborne and heliborne magnetic surveys, combined with positive till sample results, led to the location of several high priority targets by 1995. Further work was delayed until a positive consultant report led to a joint venture between the existing partners and Monopros (now De Beers Canada) in 1998. Further till sampling and geophysical work took place in 1998. Monopros

drilled eight targets in 1998, five of which were found to be kimberlites. Two additional kimberlites were discovered in 1999, and geophysical surveys indicated the presence of several kimberlite dykes over a 15 km strike length. Despite high microdiamond counts in samples from some of the pipes, Monopros chose not to renew its option on the properties in 2000.

During the summer of 2000, Major General completed a 1400 line-kilometer heliborne magnetic survey. Ground-based magnetic surveys, prospecting, and till sampling were concentrated around previously identified targets.

Homerun Project (Yankee Property)	
Operator, Owners	Hawkeye Gold International Inc. (earning 50%) Major General Resources
Commodities	Diamonds
Coordinates	109° 52' W, 70° 06' N
NTS	77F/2
Location	220 km northwest of Cambridge Bay

Major General began exploration on Victoria Island in 1994 and culminated with several kimberlite discoveries on the Victoria Island property by the Monopros/Major General/Ascot Minerals joint venture in 1998-9. Major General secured the 90,000 acre Yankee property, located to the west of the Victoria Island kimberlites, via prospecting permits in 1998. Hawkeye Gold entered into an option agreement in June 1999

Hawkeye Gold completed a 750 line-kilometer airborne geophysical survey. Ground magnetic surveys and till sampling were completed over nine anomalies generated by previous geophysical surveys.

Hood River	
Operator, Owners	Kennecott Canada (50%) Tahera Corporation (50%)
Commodities	Diamonds
Coordinates	110° 15' W, 66° 50' N
NTS	76L/10,13,15
Location	130 km west of Bathurst Inlet

The Hood River property is underlain by Archean granitoids intrusions, with some Yellowknife Supergroup volcanic and sedimentary rocks present on some of the eastern claims. The Ulu gold deposit, owned by Echo Bay Mines, is located between the two main claim groups of the property

The Hood River property has been the focus of diamond exploration for several years. The property was originally held by Lytton Minerals and New Indigo Resources, and was operated by Canamera Geological. Canamera conducted extensive till sampling and geophysical surveying. Kennecott acquired the option to earn a 50% interest in the property in 1998 and carried out surficial geological mapping, till sampling, and airborne and ground geophysics. Lytton and New Indigo amalgamated in late 1998 to form Tahera Corporation.

Drilling in the spring of 2000 by Kennecott resulted in the first kimberlite on the Hood River property. The Tenacity pipe was found at the head of an indicator mineral train, and is approximately 80 meters by 100 meters. A 558 kilogram sample was processed and found to contain 218 diamonds larger than 0.15 mm, of which 24 exceed 0.5 mm in at least one dimension. The joint venture indicated that this suggested the pipe would not prove to be economic on its own, but the presence of other indicator mineral anomalies was considered encouraging.

Shear-hosted gold mineralization is present at the South Patch showing on Patch Lake, 10 km south of the Doris Central zone. Six holes were completed at the South Patch, with five holes intersecting a quartz-veined, altered shear zone over a 1.1 km strike length.

Hope Bay Project	
Operator, Owners	Miramar Mining (50%) Hope Bay Gold Corporation (50%)
Commodities	Gold
Coordinates	106° 30' W, 68° 00' N
NTS	76O/9,10,15,16, 77A/2,3,6,7,10
Location	160 km southwest of Cambridge Bay

The Hope Bay project was the largest exploration project in Nunavut during 2000, with \$19 million spent since January. The joint venture controls most of the Hope Bay greenstone belt (approximately 250,000 acres) and parts of the Elu greenstone belt (approximately 63,000 acres), which lies to the northeast. Large portions of the belts are Inuit-owned ground administered by Nunavut Tunngavik Inc.

Sporadic exploration in the Hope Bay area began in 1964 and resulted in several gold and silver showings (Discovery, Ida Point, Ida Bay, Rad, Roberts Lake, Lahti). Noranda began exploring for volcanogenic massive sulphide deposits in 1977 but left the belt in 1990. BHP Minerals Canada began staking that same year and commenced drilling in 1992 at the Boston property. After spending \$85 million over nine years, BHP sold the property to Cambiex Exploration in late 1999 for US\$18.5 million. Cambiex sold a 50% interest to Miramar a few days later for \$20.6 million. Cambiex changed its name to Hope Bay Gold Corporation in June of 2000.

The joint venture's operations in 2000 included reconnaissance drilling of several showings and deposits, prospecting, mapping. Major drilling projects were completed at the Boston and Doris deposits, and are described separately.

Hole PSD052 hit 29.1 g/t over 0.9 meters, while PSD047 returned an interval of 8.9 g/t over 6.0 meters.

Other showings in the Patch Lake area, including Dinger, Wolverine, Jeffe, and East Patch, were mapped

and sampled. The data will be used in planning a drill program slated for 2001.

Mapping and sampling also took place over the Kamik shear zone, a 4.4 km long shear from which very high grade grab samples (>600 g/t gold) have been collected.

Exploration in the Elu greenstone belt consisted primarily of belt-wide till sampling.

At the Madrid deposit, north of Patch Lake, a resource of 5.03 million tonnes at 4.26 g/t was known from BHP's work. Six drill holes targeted the area around a major shear known as the Deformation Zone, which separates basalt on the north and a porphyritic intrusive to the south. In four holes, mineralization was found in association with locally brecciated, quartz-carbonate altered, pervasively sulphidized basalt. Hole M92 produced the best intersection, with 51.8 meters grading 6.9 g/t.

A new resource for Madrid was released in November. The global resource is 1.072 million tonnes grading 8.7 g/t gold, for 0.299 million ounces. Approximately 74% of the ounces are in the "inferred" category.

Hope Bay Project (Boston Deposit)	
Operator, Owners	Miramar Mining (50%) Hope Bay Gold (50%)
Commodities	Gold
Coordinates	106° 24' W, 67° 39' N
NTS	760/9
Location	170 km south-southwest of Cambridge Bay

The Boston gold deposit is located on the Boston 1 claim within the Hope Bay project. The deposit is associated with a belt-scale flexure in the Boston fault zone, which may correspond with the Hope Bay fault that generally cuts north-south through the belt. West of the Boston fault is a ~2 km wide thrust sheet with Prospecting on the Boston 2 claim, or Domani area, south of the Boston deposit, targeted a 2.6 km long,

metagreywacke constituting the western half of it and basalt making up the eastern half. East of the basalt, across the Hope Bay fault, is another sequence of metagreywacke. The question of whether the basalt lies in the core of an anticline has not been resolved.

Mineralization occurs in three sub-vertical zones. The B4 zone is the easternmost, and near the contact between the basalt and the eastern greywackes. The center of the ~50 meter wide B3 Zone lies within the basalt. The B2 Zone is 25 to 50 meters wide and lies along the basalt's western contact.

Gold is associated with pyrite in quartz-carbonate vein systems and as haloes around the veins, in the basalts and greywackes. Dolomite, paragonite, and sericite alteration ranges from weak to intense and obscures lithology where the shearing is strongest.

Boston was prospected by BHP in 1991 and drilled in 1992. A camp was established in 1993 to support further drilling; this was replaced in 1996 by a trailer camp. Underground exploration began in 1996 with a decline being driven 200 meters down, between the B2 and B3 zones. A 26,761 tonne bulk sample was collected in two phases in 1997, and a further 105,400 tonnes of waste rock was excavated. Five cross-cuts were established, three into the B2 zone and the others into B3. By 1999, the deposit's resource was estimated at 5.7 Mt grading 13.1 g/t gold (2.3 million ounces), using a cross-section polygonal method.

A 144 hole, 15,995 meter drill program was completed in spring of 2000. Sixty-nine holes were drilled into the B2 zone on a 30 x 30 metre grid, and a further 65 holes were drilled on a 10 x 15 metre grid. Three high-grade shoots in the B2 zone, first identified by BHP, were confirmed, and numerous high-grade intersections were reported. Among these were 16.86 metres at 40.37 g/t (hole B270) and 4.0 metres at 184.3 g/t (hole B373) from the Boston Central high-grade shoot. Intersections of 3.4 metres grading 150.7 g/t (hole B296) and 1.0 metres at 318.8 g/t were reported from the Boston North and South shoots respectively. Ten other holes were drilled in to the B3 Zone, with the best assay being 8.0 metres at 18.0 g/t in hole B335.

altered shear zone interpreted as the same shear associated with Boston. Grab samples along the length

of the shear resulted in assays of up to 194.3 g/t, and soil samples assayed as much as 25.7 g/t. A follow-up drill program was initiated in September but the four holes intersected only narrow, low grade values.

An updated resource for Boston was issued in November. The deposit's global resource is now reported as 3.899 million tonnes grading 12.4 g/t, for 1.546 million ounces. About 58% of the ounces are Inferred, the remainder fall into the Measured and Indicated categories.

Hope Bay Project (Doris Deposit)	
Operator, Owners	Miramar Mining (50%) Hope Bay Gold Corp (50%)
Commodities	Gold
Coordinates	106° 35' W, 68° 08' N
NTS	77A/3
Location	130 km southwest of Cambridge Bay

The Doris deposit is situated in the Tok 2 Concession, 4 km from the Arctic coast and 55 km north of Boston. Auriferous quartz veins here were examined in 1988 by Roberts Mining and Abermin, but the initial work was not followed up. After a two year staking freeze resulting from the Nunavut land claim process, BHP acquired the concession in 1994. Trenching results prompted extensive drilling between 1995 and 1998. In 1999, the deposit had an estimated resource of 2.23 Mt grading 16.7 g/t gold, for 1.2 million ounces.

Like Boston, the Doris deposit is within a flexure, associated with the Doris Lake Fault. The deposit consists of steeply dipping, laminated quartz veins hosted by iron-rich tholeiite. The tholeiite is bounded to the west by basalt and to the east by the Doris Lake Fault, across which lies more basalt. This entire sequence is folded into a doubly-plunging anticline, with Doris lying on the west limb. An 80 meter thick diabase dyke that dips 30° to 40° to the east cuts through the ore body at depths of 250 to 350 meters. Four quartz veins have been identified - from east to

west these are the Island, Lakeshore, Central, and West Valley Wall veins. The veins consist of quartz with up to 2% pyrite and up to 5% tourmaline. Both the Lakeshore and Central veins averages about 4.2 meters wide and can be traced for three kilometers. A paragonite-iron carbonate-pyrite alteration halo extends up to 10 meters from each vein.

The joint venture completed 20,000 metres of diamond drilling in the first half of the year. Intersections such as 13.5 metres grading 65.27 g/t (hole D220) and 15.0 metres grading 37.8 g/t (hole D368) were among those reported. A high grade quartz body, the so-called "Hinge Zone", was intersected by drilling across a 300 meter strike length in the northern part of the deposit. The presence of the "Hinge Zone" has complicated the interpretation of the deposit, as it may indeed be a hinge linking the Central and Lakeshore veins. Alternately, the "Hinge Zone" could be the result of quartz flooding in a favorable horizon.

A seven hole, 1477 meter drill program was mounted in September in an effort to extend the vein system to the north. The holes were collared 500 to 2500 meters north of the northernmost holes completed at the time. The seven holes hit narrow veins and sporadic alteration but are interpreted to have missed any potential extension of the vein system.

The Joint Venture released a new resource estimate for the deposit in November: 2.406 million tonnes, grading 18.3 g/t gold, for 1.412 million ounces. About 52% of the ounces are "Inferred", versus Measured and Indicated.

Jericho	
Operator, Owners	Tahera Corporation
Commodities	Diamonds
Coordinates	111° 29' W, 66° 00' N
NTS	76E/14
Location	350 km southwest of Cambridge Bay

In 1992-93, Lytton Minerals and New Indigo Resources staked the Jericho, Contwoyto, and Burnside claim group (437,000 acres), around the northern end of Contwoyto Lake. Extensive airborne geophysical surveys were flown and thousands of till samples were collected by contractor Canamera Geological between 1993 and 1995. Drilling in February 1995 resulted in the discovery of the JD/OD-1 kimberlite. A month later, the JD/OD-2 kimberlite was found 350 meters north-northwest of the original discovery. The JD/OD-1, or Jericho, pipe was outlined by 28,000 meters of drilling in 1996, and a third pipe, JD/OD-3, also known as Nazareth, was discovered, but neither it nor the JD/OD-2 pipe were of sufficient grade to warrant advanced exploration. A decline was driven into the Jericho pipe in 1997 and 14,555 tonnes of kimberlite was mined for bulk sampling. About 9435 tonnes were processed at a diamond pilot plant on the Lupin mine-site, and 10,535 carats were recovered. The diamonds were assigned an average value of US\$69.65 per carat by HIM Laboratories in 1998, and were re-valued at an average of US\$74 per carat in 1999. The Contwoyto-1 kimberlite was found on the Contwoyto claim group in 1999 but produced a grade of only 0.27 carats per tonne.

This year's exploration over the project area commenced in August. Indicator mineral and geophysical anomalies were followed up to outline possible drill targets for the winter.

Apart from four definition holes completed in February 2000, work on the Jericho pipe itself was limited to feasibility studies. The pipe has an indicated resource of 3.667 million tonnes grading 1.14 carats per tonne. The pipe's inferred resource amounts to 3.401 million

tonnes at 0.52 carats per tonne. The study proposes an eight year mine life, with total production in excess of three million carats. Tahera has entered the regulatory process and is looking to start production in 2003.

Kikerk Lake	
Operator, Owners	Ashton Mining of Canada, Caledonia Mining Corporation, Northern Empire Minerals Ltd.
Commodities	Diamonds
Coordinates	112° 37' W, 67° 15' N
NTS	86P/2,7
Location	130 km southeast of Kugluktuk

The 15 claim, 37,000 acre Kikerk Lake property is underlain by rocks of the Proterozoic Epworth and Recluse Groups. The former consists of dolomite, shale, and quartzite, while the latter is primarily black shale.

The fifteen claims are among a larger property acquired in 1993 by Caledonia, who collected alluvial and beach gravel samples; till sampling began in 1994. Portree Inc. acquired the option to earn a 50% interest in 1997 and ran geophysical surveys over five targets. These were drilled without success. Condor International Resources acquired the option from Portree in 1998 and collected till samples. Eleven shallow drill holes did not locate any kimberlite.

Ashton acquired the option to earn a 52.5% in the property from Caledonia in the summer of 2000, though Northern Empire is reported to be asserting a right of first refusal on Caledonia's interest in the property. Despite the disagreement, a till sampling program began in September with the intention of locating the source of an indicator mineral train identified by earlier work.

Kim	
Operator, Owners	Ashton Mining of Canada (87.5%), Pure Gold Resources (12.5%)
Commodities	Diamonds
Coordinates	113° 02' W, 67° 15' N
NTS	86P/2,3,6,7
Location	120 km southeast of Kugluktuk

The 130,900 acre Kim project is located just west of the Kikerk Lake property. Like Kikerk, the property is underlain by the Proterozoic Epworth and Recluse Groups.

Ashton staked the property in 2000 and collected a first set of till samples on the property. No results have yet been reported.

Lupin	
Operator, Owners	Echo Bay Mines Ltd
Commodities	Gold
Coordinates	111° 14' W, 65° 46' N
NTS	76E/11,14
Location	402 km north of Yellowknife

The Lupin area is underlain by metaturbidites of the Contwoyto Formation, which contains a silicate and sulphide-facies iron formation. The rocks have been repeatedly deformed, such that the mine site stratigraphy consists of two steeply plunging, steeply dipping anticlines separated by a syncline. Where mineralized, the iron formation is well laminated and contains disseminated to massive pyrrhotite, arsenopyrite, loellingite and pyrite. Arsenopyrite is typically found in the iron formation adjacent to steeply dipping quartz veins. The three primary ore zones are the West (in the west limb of the western anticline), Central and East zones (on the west and east limbs of

the syncline). Two other ore bodies, McPherson 1 and 2, occur in different iron formation lenses several dozen meters west of the West Zone.

The Canadian Nickel Company (Canico) discovered gold here in 1961. By 1964, trenching, geophysics and diamond drilling had outlined a resource of 1.2 Mt grading 17.14 g/t gold. In 1979, Canico optioned the property to Echo Bay Mines, who bought it outright the following year. Underground exploration and mine construction shortly afterward and the mill was commissioned in April 1982. Production continued until low gold prices caused the mine to be placed on care and maintenance in January 1998. In this period, the mine milled 10.46 Mt with an average grade of 9.9 g/t, producing 2.84 million ounces.

Reserves as of December 1999, prior to the resumption of mining, stood at 1.75 million tonnes grading 9.20 g/t, for 518,280 ounces. An additional resource of 0.73 Mt grading 11.37 g/t, for 268,110 ounces, has also been outlined. The Center, West and McPherson zones remain open at depth.

After a re-engineering study determined ways to cut costs at the mine, Lupin was re-opened in April 2000. Between April and December, the mine produced 117,729 ounces at a cash cost of US\$214 an ounce (versus an estimated US\$294/ounce in 1997). By way of comparison, production statistics for 1997 were 696,718 tonnes grading 8.47 grams per tonne gold for 166,800 ounces. Production in 2001 is anticipated to be 150,000 ounces.

Muskox Project	
Operator, Owners	Muskox Minerals
Commodities	Nickel, copper, cobalt, platinum, palladium, gold
Coordinates	115° 15' W, 67° 00' N
NTS	86J/11,14, 86O/3
Location	90 km south of Kugluktuk

The Muskox Intrusion is a layered mafic/ultramafic complex intruding the Early Proterozoic Coronation Supergroup. The intrusion is flanked by metasedimentary rocks of the Fontano, Odjick, and Drill formations. The intrusion has a funnel-like shape that is up to 11 km wide and is exposed for 125 km in a north-south direction. Geophysical data suggests the intrusion continues stretches for another 250 km under cover rocks. Regional tilting of the Coppermine Homocline has resulted in the intrusion dipping to the north, exposing the entire sequence from base to roof.

The intrusion consists of four main units. The Feeder, or Keel, Dyke consists of bronzite gabbro, and picrite, in the southern part of the intrusion, south of the Coppermine River. The Marginal Zone has a similar composition and lies along the eastern and western flanks of the intrusion. The Layered Series, making up the main body of the intrusion, consists of rhythmically layered mafic and ultramafic cumulate rocks. This varies from dunite, olivine clinopyroxenite, and olivine gabbro in the south, to orthopyroxenite, websterite, peridotite, and dunite in the centre, and gabbro with feldspathic and picritic websterite in the north. Finally, the Roof (or Upper Border) Zone, lies to the north and is composed of granophyric gabbro with inclusions of Hornby Bay Formation. The Coppermine River basalts, further to the north, are known to have originated from the same magmatic event that generated the Muskox complex.

Mineralization occurs as semi-massive and massive sulphide pods, located within the Marginal Series and The company also re-assayed core from a stratigraphic hole drilled by the Geological Survey of Canada in 1963. A dunite horizon assayed 3.13 g/t palladium and 2.01 g/t platinum across 0.3 meters, with a re-assay

the adjacent country rocks.

The Muskox Intrusion was first discovered in 1956 by INCO, who spent three years exploring and drilling for nickel-copper mineralization. Numerous companies examined the intrusion between 1969 and 1988 but no significant deposits were outlined.

Muskox Minerals staked and negotiated Inuit Exploration Agreements in 1995-7, allowing them to acquire the entire intrusion. Initial work included geophysical and geochemical surveys and geological mapping of the Marginal Series near McGregor Lake. Property-wide geophysical work in 1996 included VLF, magnetics, gravity, UTEM, and HLEM. Further surveys, including Controlled Source Audiomagnetotelluric, were completed in 1997-1999. Numerous, highly anomalous grab samples were collected from the Pyrrhotite Lake, Southeast Speers Lake, Sulphide Breccia, Trench 87-1, Chalco Cliffs, and Chromite Reef areas.

Muskox Minerals completed two phases of exploration in 2000. Between March and June, an 80 line-kilometer Controlled Source Audio Magnetotelluric survey was flown over the southern keel of the intrusion. This survey confirmed the presence of a 1.5 by 0.2 by 0.2 km conductor identified by the previous year's CSAMT survey. The conductor is considered a possible massive sulphide target.

Two drill holes totaling 350 meters were completed on the Southeast Speers Lake showing. Hole MU001 cut several narrow mineralized intervals such as 0.1 meters grading 4.2 g/t combined platinum, palladium, and gold, 1.67% copper, and 0.67% nickel. Hole MU002 did not cut any mineralization.

At the Pyrrhotite Lake showing, three holes were drilled in May, and six more were completed in July. Hole MU003 hit 5.75 meters at 8.87% copper, 2.76% nickel, 9.5 g/t palladium, and 0.88 g/t platinum. MU004 intersected a wider interval of 13.35 meters grading 3.46% copper, 1.18% nickel, 2.29 g/t palladium, and 0.43 g/t platinum.

returning 5.19 g/t palladium and 2.39 g/t platinum over 0.29 meters. A prospecting, trenching and mapping program began in the summer with the goal of locating and sampling this horizon on surface.

The Keel-1 target was examined after geophysical surveys detected two conductors, one of which, Keel-1 East is 3.3 km long. Grab samples from outcrops of this conductive zone have previously assayed up to 10.5 g/t combined palladium and platinum. A 20 hole, 3000 meter drill program began in October. The first hole, MU012, is reported to have cut 34.3 meters of interstitial to net-textured sulphides and 13.0 meters of disseminated to semi-massive sulphides, but the best intersection was 12.5 meters of 0.44% copper, 0.14% nickel, and 0.42 g/t PGE and gold.

Muskox North Project	
Operator, Owners	Wet Coast
Commodities	Nickel, copper, cobalt, platinum, palladium, gold
Coordinates	115° 15' W, 67° 00' N
NTS	86J/11,14, 86O/3
Location	90 km south of Kugluktuk

Wet Coast picked up the project area through staking and acquisition of Inuit-owned lands. The company is exploring for a possible unexposed northern extension of the Muskox Intrusion, inferred on the basis of gravity readings collected by the Geological Survey of Canada in the sixties.

Work in the southeastern portion of the property include 94 line-kilometers of gravity surveys and about 250 line-kilometers of magnetic surveys. Bedrock mapping of the area was also initiated.

Oro Claims	
Operator, Owners	Navigator Exploration Corp
Commodities	Gold
Coordinates	106° 01' W, 68° 14' N
NTS	77A/3
Location	125 km southwest of Cambridge Bay

The Oro Claims cover 10,183 acres at the north end of the Hope Bay greenstone belt, just north of Miramar/Hope Bay Gold's Doris deposit.

Exploration of the area resulted in the discovery of the Ida Point and Wombat (Granite) gold showings and the Ida Bay and Roberts Lake silver deposits in 1966-67. Then-owner Roberts Mining Company carried out limited mining of the high-grade silver ore at Roberts Lake and carried out underground exploration of the Ida Point Showing. Ida Point is a carbonate-altered shear within mafic volcanic rocks, while the Wombat showing occurs as quartz veins in sheared granite along the eastern edge of the greenstone belt.

Navigator acquired an option on the property in 1998. Drilling and channel sampling that summer produced intersections of up to 5.96 meters grading 5.48 g/t gold at the Ida Point.

In 2000, efforts were concentrated on determining if mineralization related to the nearby Doris deposit might extend on to the property. Grab samples collected on the Oro 5 claim assayed up to 9.54 g/t gold, and evidence for a shear was found in a northeast-trending valley. A heliborne magnetic and electromagnetic survey was flown over the entire property in September, with additional lines over the suspected shear. Several magnetic lows were noted, possibly associated with alteration in the volcanic rocks.

Pistol Lake	
Operator, Owners	Qikiqtaaluk Corporation (earning 51%) Leeward Capital Corp
Commodities	Gold
Coordinates	108° 50' W, 67° 03' N
NTS	76N/2
Location	10 km west of Bathurst Inlet

The Pistol Lake property is covered by metaturbidites of the Hood River Belt. Gold is associated with pyrrhotite, pyrite, and arsenopyrite in sulphidized portions of silicate and oxide iron formation intercalated with the metaturbidites.

The Pistol Lake gold deposit was first discovered in 1963. Sporadic exploration took place over the next twenty-five years, and in 1989, the deposit had an estimated resource of 1.4 million tonnes grading 3.4 g/t gold. Leeward Capital acquired the property in 1997 and optioned the property to Beauchamps Exploration.

In February of 2000, Leeward granted QC the option to earn a 51% interest in the property, by spending \$2 million over the next two years and through payments of \$150,000. QC evaluated the property in the summer, carrying out mapping, prospecting, and a 1285 meter diamond drilling program. Several holes carried multiple narrow, high grade intervals. Hole P-00-70 included intersections of 1.76 m @ 14.75 g/t, 0.33 m @ 3.35 g/t, 0.97 m @ 33.37 g/t, and 0.72 m @ 29.18 g/t gold.

Ric	
Operator, Owners	Ashton Mining of Canada (87.5%) Pure Gold Resources (12.5%)
Commodities	Diamonds
Coordinates	113° 00' W, 66° 45' N
NTS	86I/10,11,14-16
Location	460 km north of Yellowknife

Covering 126,000 acres, the Ric property is primarily underlain by Archean granitoids and gneissic rocks. Proterozoic carbonates and clastic rocks cover the northwestern corner of the property.

The Ric property has been explored by the Ashton/Pure Gold joint venture since 1993. Till sampling and ground and airborne geophysical surveys were completed over several seasons, and prospecting of an indicator mineral train resulted in the discovery of the Hydra kimberlite in 1999. A 182 kg sample from Hydra did not yield any diamonds.

Till sampling in 2000 led to another discovery. Two samples totaling 125 kilograms produced 14 microdiamonds larger than 0.25 millimeters, while another sample 550 meters away contained a macrodiamond measuring 0.85 by 0.6 by 0.6 millimeters. Prospecting identified a 1.4 kilometer long train of kimberlite float leading to a lake coincident with a geophysical anomaly. This was drilled in September and the Perseus kimberlite, inferred to be a 10 meter wide sill, was discovered. Fifty-five microdiamonds were recovered from 211 kg of drill core.

ROC	
Operator, Owners	Ashton Mining of Canada (87.5%) Pure Gold Resources (12.5%)
Commodities	Diamonds
Coordinates	112° 55' W, 65° 55' N
NTS	86H/14,15
Location	400 km north of Yellowknife

The Roc property is primarily underlain by Archean intrusive and gneissic rocks. Volcanic and sedimentary rocks of the Itchen Lake greenstone belt strike north-northeast across part of the claim block.

Ashton and Pure Gold explored the JC claims in the early and mid 1990s, and more recently acquired the 36,054 acre ROC property in about 1998. Regional exploration using till samples and airborne geophysical surveys have resulted in the identification of unexplained indicator mineral anomalies.

Further till sampling took place in 2000, though no results have been reported.

Tahera Corporation, and its predecessors, Lytton Minerals and New Indigo Resources, have held the ground since the early nineties. Till sampling and geophysical surveys were conducted by contractor Canamera Geological until 1997, at which time the property was optioned to Kennecott, who became the operator. In 1999, Kennecott drilled the Altair pipe in the northwestern corner of the property, but caustic fusion results from drill core did not return encouraging diamond counts.

Kennecott's efforts in 2000 were centered on the northern part of the property, where coincident indicator mineral and geophysical anomalies were reported. The Nanurjuk kimberlite was discovered in May. Nanurjuk appears to be a series of stacked sills, up to three meters thick and three to four meters apart. With the exception of a 7.2 kilogram sample that returned no diamonds, no caustic fusion results were available at press time.

Rockinghorse	
Operator, Owners	Kennecott Canada Exploration (50%) Tahera Corporation (50%)
Commodities	Diamonds
Coordinates	° ' W, ° ' N
NTS	86I/2,3,6-12,14,15
Location	450 km north of Yellowknife

The Rocking horse property covers approximately 1.1 million acres north of Takiyuak Lake. The eastern half of the property is underlain by Archean intrusive rocks, with some mafic to intermediate volcanic and gabbroic rocks in the northeast. The Proterozoic Epworth Group underlies the western part of the claim group.

Baffin Region

The Baffin region includes Baffin Island and the northern Arctic archipelago. Most exploration crews work out of Resolute or Iqaluit, the territorial capital.

Most of Baffin Island, eastern Devon Island, and eastern Ellesmere islands are underlain by the Churchill province. The remaining islands are covered by Paleozoic sedimentary rocks of the Arctic Platform.

Most exploration in the Arctic islands has been for Mississippi Valley type deposits such as are found at the Polaris and Nanisivik mines. Nickel-copper deposits were a popular target on southern Baffin during the mid-1990s. Diamond activity is in an upswing, following initial phases of exploration in the sixties and eighties. Most kimberlites reported in the region are on Somerset or Baffin Island, though a diatreme of uncertain affinity has been reported on Bathurst Island.

Jackson Inlet	
Operator, Owners	Twin Mining Corporation
Commodities	Diamonds
Coordinates	88° 16' W, 73° 15' N
NTS	48C/5, 58D/8
Location	120 km west of Nanisivik

Twin Gold's Jackson Inlet property covers approximately 34,000 acres on the Brodner Peninsula of Baffin Island. Three kimberlites were known to outcrop on the claim block prior to Twin's acquisition of the claims. The area is underlain primarily by flat-lying Devonian limestone.

Diamond exploration on northern Baffin Island dates back to the early seventies, when Diapros and Cominco uncovered kimberlites on both the Brodner Peninsula and to the west on Somerset Island. A second phase of exploration began shortly after the diamond rush arose in the N.W.T., with Lumina Investment and Cyclone Capital conducting work in the region.

Twin acquired the property from privately-held Helix Resources in June of 2000. A prospecting program in May collected a 94.5 kilogram sample from a previously known (but unspecified) kimberlite and was found to contain 40 microdiamonds and two macrodiamonds. Further prospecting and magnetic surveying began in the summer. Over a dozen new kimberlite occurrences were reported, four of which were trenched.

Sample results included 0.196 carats from 887 kg of fresh and weathered kimberlite from Pipe 1. Pipe 2 yielded 1.049 carats from 560 kg of material, and 195 kg from Pipe 3 contained 0.156 carats.

Nanisivik	
Operator, Owners	Canzinc
Commodities	Zinc, silver
Coordinates	84° 25' W, 73° 03' N
NTS	48C/01
Location	On Baffin Island

The Nanisivik orebody is hosted by the dolomitic Society Cliffs Formation, near its upper contact with the overlying Victor Bay shale. The orebody lies upon a major west-northwest trending graben that underlies Strathcona Sound. The orebody originally consisted of the Main and Lower Lenses, with a vertical "keel" connecting the two, as well as several satellite orebodies. Mineralization consisted of layers of sphalerite, galena, pyrite and dolomite.

Mineralization in the Nanisivik area was first reported by the Bernier Expedition of 1910-11. Prospecting in 1937 led to some trenching, but no production. Texas Gulf Sulfur drilled the Nanisivik orebody between 1958 and 1969, and optioned the property to Mineral Resources International in 1972. Nanisivik Mines Ltd was formed in 1974 to run the proposed mine, and start-up was achieved in 1977.

Nanisivik Mines became a wholly owned subsidiary of MRI after the other partners - Kidd Creek Mines, Metallgesellschaft Canada, Billiton Canada, and the Government of Canada - were bought out by 1986. MRI in turn was acquired in 1987 by Conwest Exploration Company, a wholly owned subsidiary of Alberta Energy Company. Breakwater Resources acquired the mine in 1996, and currently operates it through wholly owned subsidiary Canzinc.

Nanisivik is an underground mine, with mechanized room and pillar techniques being the primary method of mining. Post pillar mining was introduced in 1997. A substantial increase in the mine's reserve was reported in 1999. As of December 31, 1999, proven and probable reserves totaled 3.222 million tonnes grading 7.4% zinc, 0.4% lead, and 31 grams per tonne silver. Additional resources are estimated at 4.980 million tonnes grading 6.6% zinc, 0.4% lead, and 27 grams per tonne silver.

In 2000, the mine milled 811,283 tonnes at a grade of 7.6% zinc and 30 grams per tonne silver. 102,762 tonnes of concentrates were produced containing 59,399 tonnes of zinc and 567,707 ounces of silver. Operating costs were \$38.88 per tonne, or US\$0.41 per pound of zinc, slightly higher than 1999 figures as a result of higher operating costs and treatment charges. This compares with mining of 802,806 tonnes grading 7.5% zinc and 27 grams per tonne silver in 1999.

Polaris	
Operator, Owners	Cominco Ltd (77.5%) Teck Corporation (22.5%)
Commodities	Zinc, lead
Coordinates	96° 56' W, 75° 23' N
NTS	68H/8
Location	100 km north-northwest of Resolute, on Little Cornwallis Island

The Polaris deposit occurs within dolomitized limestones of the Thumb Mountain Formation, which in turn is overlain calcareous shales of the Irene Bay Formation. The ore body consists of the Panhandle and Keel areas. The Panhandle is between five and forty meters thick, while the Keel is up to one hundred meters thick. Mineralization consists of colloform sphalerite, and moderate to coarse grained galena, marcasite, with sparry dolomite, calcite and ice as gangue.

Bankeno Mines Ltd discovered zinc-lead mineralization on Little Cornwallis island in 1960. After a decade of exploration, Arvik Mines Ltd was formed by Cominco (75%) and Bankeno (25%) to develop the deposit. Underground exploration took place in 1972-73, outlining a reserve of 23.0 Mt grading 14.1% zinc and 4.3% lead.

Arvik Mines was dissolved in 1979 and Cominco took fully ownership, with Bankeno retaining a royalty option. Production began in 1982 in the Panhandle area, and shifted to the Keel in 1985. Cominco sold a 45% interest to Pine Point Mines in 1988.

Polaris is an underground mine, with production via longhole open stoping. Pillar recovery accounts for a large part of production. Polaris is nearing the ends of its life and exploration programs have not defined additional mineable reserves.

In 2000, Polaris milled 1.052 million tonnes of ore grading 13.28% zinc and 3.60% lead. A total of 217,499 tonnes of zinc concentrates were produced, along with 43,725 tonnes of lead concentrates. Most of the mining took place in the Abutment Pillar, the North Keel, Ocean, South Panhandle, and West Panhandle divisions. Ore reserves as of November 30, 2000 were estimated at 1.419 million tonnes grading 12.1% zinc and 2.9% lead. This will sustain operations until the summer of 2002.

Storm Claims	
Operator, Owners	Noranda (50%) Cominco Ltd (50%)
Commodities	Copper, zinc
Coordinates	94° 00' W, 73° 40' N
NTS	58C/3,6,10,11
Location	

The Storm claims are located on northern Somerset Island. The Ordovician-Silurian Allen Bay Formation, a dolomitized limestone, covers much of the western property. This is overlain by the Silurian Cape Storm Formation limestones, which outcrop to the east. Copper mineralization occurs as chalcocite and bornite veins in limestone.

Cominco discovered base metal mineralization in the area in 1996. A geophysical survey was flown in 1997, and was followed by more detailed work including drilling between 1998 and 1999.

Noranda acquired an interest in the property and was the operator in 2000. Geophysical surveys, include hyperspectral surveys, were flown over the property. About 1900 meters of diamond drilling were completed on pre-existing targets.

A new showing, Typhoon, was discovered by prospecting. The showing consists of sphalerite-bearing gossans found over a 1.2 kilometer strike length.

Wellington	
Operator, Owners	Noranda
Commodities	Zinc, lead
Coordinates	93° 30' W, 75° 08' N (Cornwallis Island permits)
NTS	58G/2, 3; 59B/1, 2, 4
Location	50 km north of Resolute, on Cornwallis Island, and on Devon Island

The Wellington property is located along the eastern margin of the Boothia Uplift, and is underlain by folded and faulted Cambrian to Silurian platform carbonates, unconformably overlain by Early to Middle Devonian clastics and carbonates deposited during the Boothia Disturbance-Ellesmerian Orogeny.

The property was previously explored by BHP from 1994 to 1996. Noranda completed an earn-in agreement with BHP early in 1998 and have been active on the property over the last two field seasons. In 1999, the program focused on the JG, BK, and Orion grid areas, where mapping and geophysics were conducted. Eight NQ diamond drill holes were completed for a total of 2350 m on the JG grid. Five hundred forty-four core and grab samples and 40 soil samples were collected in total, but results remain confidential. Geophysical surveying included 55 line-kilometers of induced polarization, 12 line-km of electromagnetics, 100 line-km of gravity, and down-hole surveys in four drill holes; a hyperspectral survey was also flown over the Grinnell Peninsula. A minor portion of the program was devoted to reconnaissance prospecting and mapping of stream sediment anomalies.

In 2000, a further 5000 meters of diamond drilling were completed over established targets. Additional magnetic, electromagnetic, and hyperspectral surveys were flown. Some gravity work was also completed over the property.