

Southern Superior Province (Abitibi and Pontiac Subprovinces)

*Pierre Doucet
James Moorhead
Suzanne Côté*

Introduction

The Abitibi and Pontiac subprovinces form the southern part of the Superior Province in Québec. The Abitibi Subprovince is the largest, one of the most studied, and among the richest Archean greenstone belts in the world. It comprises numerous granitoid intrusions and volcanic and sedimentary belts oriented roughly E-W (Figure 1C-1), dated between 2.75 and 2.67 Ga. The Abitibi belt is transected by several major reverse or normal faults oriented E-W to NW-SE, as well as by sinistral NE-trending and dextral SE-trending faults that dissect volcano-sedimentary domains into lozenge-shaped segments cored by intrusive rocks.

The Pontiac Subprovince is separated from the Abitibi Subprovince by the Cadillac-Larder Lake Break, a structure that extends east to west over a distance of more than 100 km in Québec and Ontario. The Pontiac Subprovince comprises granitoid intrusions and orthogneisses in its central part, along with detrital sedimentary rocks and paragneisses with a few volcanic sequences. The latter form ultramafic, mafic, and locally felsic assemblages in the southwestern part of the Pontiac. A few thin bands of mafic to ultramafic volcanic rocks are also present in the northern part of the subprovince.

The Abitibi Subprovince is world-renowned for the great number and high grade of its precious metal (Au-Ag) and polymetallic (Cu-Zn-Au-Ag and Cu-Au) ore deposits. A few metallic deposits, architectural stone quarries, and industrial mineral deposits (lime, quartz, kyanite, mica, and garnet) were also mined in the Pontiac Subprovince. Exploration and mining have made this territory one of the main mining regions in Québec for close to a century.

In 2004, we compiled 198 mineral exploration projects in the Abitibi and Pontiac subprovinces, compared to 178 in 2003. This represents an increase of 11%. The total number of metres drilled in 2004 in the Abitibi and Pontiac subprovinces reached 576,165 metres.

In 2004, several companies were involved in the search for gold deposits in the Abitibi and Pontiac subprovinces. The number of projects targeting this commodity stood at 131 (Table 1C-1), which represents an increase of 10% relative to 2003. Over the course of 2004, the number of exploration projects

targeting polymetallic deposits or diamonds stood at 67 (Table 1C-2). Compared to the 59 projects reported in 2003, this represents an increase of 14%. These higher figures probably reflect the gradual rise in metal prices observed in recent years.

Figures 1C-1 to 1C-4 show the location of exploration projects in the Abitibi and Pontiac subprovinces.

Precious Metal Deposits

CASA BERARDI – MATAGAMI AREA (FIGURE 1C-1)

In this area, located along the northwesternmost part of the Abitibi Subprovince, we compiled 8 projects in 2004.

The Casa-Berardi project (project 44) by **Aurizon Mines Ltd** is located 130 km WSW of Matagami, in sedimentary rocks of the Taïbi Group. The former Casa Berardi East and West mines are located near the Casa Berardi fault. Gold mineralization is generally associated with fine-grained pyrite and arsenopyrite in quartz veins, quartz-carbonate stockworks, and sulphide-rich schists. In 2004, **Aurizon Mines Ltd** conducted definition drilling, deepened the development ramp to the 570-m level in zone 113 and completed preparation work to sink a shaft. A feasibility study completed in 2000 indicates that reserves at the West mine stand at 6,943,000 tonnes at a grade of 6.7 g/t Au based on measured and indicated resources, whereas an additional 1.7 million tonnes of inferred resources at a grade of 6.1 g/t Au were estimated for the new zones 118 and 120. **International Taurus Resources Inc.** and **Fairstar Explorations Inc.** have joined forces on the Fenelon project (project 68), located 70 km WNW of Matagami. This project consists of a gold deposit composed of quartz-sulphide veins hosted in strongly altered mafic rocks surrounded by argillaceous sediments. Inferred and indicated resources totalling 88,390 tonnes at 10.91 g/t Au were delineated. In 2004, a 185-m ramp was excavated to access ore zones on the 5213 level, 37 m below surface. A bulk sample of 8,300 tonnes was extracted and processed at the Camflo mill near Malartic. Control samples indicate an average grade of 10.3 g/t Au for this sample.

LEBEL-SUR-QUÉVILLON – DESMARAISVILLE AREA (FIGURE 1C-1)

We compiled 25 gold exploration projects in this area, located in the east-central part of the Abitibi Subprovince. The Sleeping Giant mine (Au-Ag) was the only active gold producer in the area in 2004.

Held by **Cambior Inc.** and **Aurizon Mines Ltd**, the Sleeping Giant mine (project 47) is located 70 km west of Lebel-sur-Quévillon. The lode gold deposit is characterized by high gold grades of up to 11 g/t Au. In December 2003, the shaft was deepened by 200 m to reach a total depth of 1,006 m, providing access to new gold zones 6, 7, 8, and 18. In 2004, a reserve

1C

development program was completed in zones 3, 8, 16, and 30, as well as exploration drillholes in zones 30, West, 7, and 8. Dewatering is underway at the former Bachelor gold mine near Desmaraisville (project 85), where **Metanor Resources Inc.** and **Wolfden Resources Inc.** are planning to drill the upper extension of the B Zone, which contains indicated resources of 71,589 tonnes at 11.6 g/t Au and inferred resources of 65,309 tonnes at 12.1 g/t Au.

Strateco Resources Inc. conducted drill programs on its Discovery (project 32) and Cameron (project 33) projects, located 45 km north of Lebel-sur-Quévillon. On the Discovery project, drillholes testing the central part of the East lens yielded gold intercepts such as 6.28 g/t Au over 6.3 m in drillhole BD-04-77A. **GéoNova Explorations Inc.**, a subsidiary of Campbell Resources Inc., had estimated resources of 2.12 Mt at a grade of 5.11 g/t Au for the Discovery Zone. On the Desjardins property (project 126), located 35 km north of Lebel-sur-Quévillon, **Normabec Mining Resources Ltd** and **SOQUEM INC.** completed 2 drillholes, which intersected Zone III. The latter consists of 3 subparallel gold-bearing structures; best results include 9.82 g/t Au over 1 m in the Central structure.

At about 120 km east of Lebel-sur-Quévillon, in the central part of the Urban-Barry belt, **Noront Resources Ltd** intersected in drillhole on the Windfall Lake property (project 120) pyrite-rich zones with significant gold grades such as 8.55 g/t Au over 13.4 m (drillhole NOT 04-27) and 11.19 g/t Au over 8.2 m (drillhole NOT 04-32). On an adjoining property to the north (project 127), **Murgor Resources Inc.** and **Freewest Resources Canada Inc.** also discovered gold showings. A channel sample on showing IPE yielded 40.62 g/t Au over 5.9 m. Three drillholes intersected gold-bearing zones, including a 3.5-m intercept at 8.34 g/t Au (drillhole WIN-04-02). In Urban Township just 7.5 km to the southeast of the discovery made by Noront Resources Ltd, **Beaufield Consolidated Resources Inc.** intersected in drillhole on its Lac Rouleau property (project 119) a silicified breccia zone in felsic volcanic rocks. Mineralized intervals include 3.73 m grading 11.63 g/t Au (drillhole BFRL 401). In Barry Township, some 12 km southwest of the Noront discovery, **Osisko Exploration Ltd**, in partnership with **Murgor Resources Inc.** and **Freewest Resources Canada Inc.**, intersected on the Barry property (project 5) 19.62 m grading 5.31 g/t Au (drillhole BA04-136). Furthermore, two new gold-bearing zones, zone 45 and zone 48, were detected to the SSW of the Main Zone. This property hosts the Barry gold deposit, in which the near-surface Main Zone consists of a gold-bearing quartz-pyrite stockwork. Also in Barry Township, some 19 km southwest of the Noront property, **Gold Hawk Resources Inc.** intersected 6.5 m at 11.81 g/t Au (drillhole LB-04-10) on its Barry-Souart property (project 128). The mineralization consists of quartz-carbonate veins associated with silicified zones with pyrrhotite-pyrite-chalcopyrite, injected in granodiorite-tonalite-diorite intrusions.

CHIBOUGAMAU AREA (FIGURE 1C-1)

In 2004, we compiled 8 gold exploration projects in the Chibougamau area, which forms the northeastern tip of the Abitibi Subprovince. With its numerous gold projects, **SOQUEM INC.** is an important player in the area. One gold producer, the Joe Mann mine (Au-Au), was in operation in the Chibougamau area.

In 2004, **Campbell Resources Inc.** performed definition drilling and development work on its mining infrastructure at the Copper Rand mine in Chibougamau (project 129) in order to commence ore extraction in November. Commercial production is slated to begin in early 2005. The Copper Rand 5000 project contains measured and indicated resources of 1.9 Mt at 1.55% Cu and 3.33 g/t Au.

At the Joe Mann mine held by **Campbell Resources Inc.** (project 82), underground drillholes from the 2925 level delineated the easternmost extent of the high-grade West Zone. Drillhole EW-78 intersected 2.6 m (true thickness) grading 10.3 g/t Au. On the Meston property (project 81), contiguous to the Joe Mann mine, **Campbell Resources Inc.** and **SOQUEM INC.** conducted a drill program to extend zones 2800 and 3100 another 500 m to the west. Several mineralized intercepts were encountered, among which 6.34 m at 52.16 g/t Au in zone 2800 (drillhole H-04-579). On the Lac Shortt property (project 87), located 90 km west of Chapais, **Northern Mining Explorations Ltd** and **SOQUEM INC.** intersected in drillhole an altered syenite with microfractures filled with disseminated pyrite. Several gold-bearing intercepts were reported, among which a 9.0-m interval grading 1.18 g/t Au in drillhole BV 04-66.

Typhoon Exploration Inc. carried out channel sampling and drilling on its Monexco property (project 96), located about 30 km northeast of Chibougamau. At strip zone no.1, grades ranged from 1.38 g/t Au over 0.5 m to 137.5 g/t Au over 1.0 m in quartz-tourmaline-pyrite veins injected in deformed andesitic volcanic rocks along the Rivière France deformation zone. On the La Dauversière property (project 80), located 30 km south of Chibougamau, **Ressources d'Arianne Inc.** reported grades ranging from 2.26 to 176 g/t Au from grab samples collected along an ENE-trending deformation zone intruded by a quartz porphyry and injected with gold-bearing quartz veins.

NORMÉTAL – LA SARRE – AMOS AREA (FIGURE 1C-1)

Eight gold projects were carried out in this area, located in the west-central part of the Abitibi Subprovince. **Golden Valley Mines Ltd** performed ground geophysical surveys on three properties located 32 km south of La Sarre (projects 103, 104, and 113). On the Swanson property (project 4), located near Barraute some 65 km north of Val-d'Or, **Phoenix Matachewan Mines Inc.** performed an induced polarization survey. The gold mineralization is associated with syenite dykes and carbonate-

fuchsite-rich altered wall rocks. Gold occurs with pyrite in quartz veins. Measured resources were established at 421,564 tonnes at a grade of 3.26 g/t Au, with indicated resources of 687,078 tonnes at a grade of 3.11 g/t Au.

ROUYN-NORANDA – CADILLAC AREA (FIGURES 1C-1 AND 1C-3)

A total of 37 gold exploration projects were compiled in this area, in the southwestern Abitibi Subprovince. Three mines produced gold in 2004 in the area, namely the Mouska and Doyon gold mines (Au-Ag) and the LaRonde polymetallic mine (Au-Ag-Zn-Cu). Exploration carried out at the LaRonde mine will be described in the section on polymetallic deposits.

In the Cadillac area, mining operations resumed in October at the Mouska mine held by **Cambior Inc.** (project 29) after the internal shaft was deepened by 210 m to provide access to new ore zones and add three years to the mine life. On the contiguous Westwood property (project 27), located east of the Doyon mine, **Cambior Inc.** continued a deep drilling program to test the North Corridor and the Westwood horizon. In drillhole 1158H-04, significant results include 2.1 g/t Au over 7.2 m in the North Corridor, and 2.3 g/t Au over 19.6 m in the Westwood horizon. **Cambior Inc.** began driving a 2.6-km exploration drift from level 14 at the Doyon mine to reach the Westwood property; it should be completed at the end of 2006. On October 21, 2004, 650 m of drift had been excavated, and a first exploration station was established.

Agnico-Eagle Mines Ltd launched an extensive work program on the Lapa property (project 38), located 16 km west of Malartic, which includes sinking a 830 m deep shaft, underground development, drilling, and metallurgical testing. Shaft-sinking work commenced in October. Known as the Contact Zone, gold mineralization lies along the interface between sheared and altered mafic and ultramafic lavas of the Piché Group and sediments of the Cadillac Group, in the Cadillac Tectonic Zone. It consists of disseminated sulphides and quartz-sulphide veinlets in volcanic rocks altered to biotite and sericite. Combined reserves and resources are estimated at 4.9 Mt at a grade of 8.23 g/t Au.

Following the discovery of the Contact Zone, **Queenston Mining Inc.** intersected on the contiguous Pandora property (project 34), located west of Lapa, a gold zone (0.5 g/t Au over 10.9 m in drillhole PD-04-16) interpreted as the westward extension of the Contact Zone. **Radisson Mining Resources Inc.** drill-tested its O'Brien and Kewagama properties (project 41), located 1 km north of Cadillac, to explore the depth extensions of known ore lenses hosted in the Piché Group, within the Cadillac Tectonic Zone. In drillhole OB04-01, a 0.30-m intercept yielded 13.68 g/t Au at a vertical depth of 1,280 m.

On the Noralex property (project 123), located 10 km northwest of the Doyon and Mouska mines in a relatively little-explored area, **Alexis Minerals Corp.** and **Noranda Inc.** inter-

sected in drillhole quartz-pyrite veins and disseminated pyrite in a sericitized and ankeritized tonalite. Grades reported for drillhole NA-04-01 include 3.19 g/t Au over 15.0 m.

Yorbeau Resources Inc. extracted a bulk sample in order to assess the viability of an open pit operation on the Astoria property, located 3 km south of Rouyn-Noranda. This property, which straddles the Cadillac Tectonic Zone, comprises the Astoria I project (project 114) to the east and the Augmitto-Astoria II project (project 10) to the west, both characterized by the presence of a carbonate alteration zone. Gold mineralization is associated with a stockwork of quartz-sulphide veins. At Astoria I, the estimated grade for a 1,858-tonne sample collected from trench no.1 stands at 2.00 g/t Au, and 2.2 g/t Au for a 695-tonne sample collected in trench no.2. In trench no.6, located at Astoria II, a 500-kg sub-sample taken from the 750-tonne bulk sample yielded a grade of 2.7 g/t Au.

On the Bazooka project (project 11), located 7 km southwest of Rouyn-Noranda, **Lake Shore Gold Corp.** obtained a 2.3-m intercept at 10.8 g/t Au (drillhole BA03-02A) on this property which straddles the Cadillac Tectonic Zone. The mineralization consists of disseminated pyrite and quartz veins in a carbonate-albite-silica alteration zone in chlorite schists and deformed greywackes.

On the Fayolle property (project 1), located 35 km northeast of Rouyn-Noranda, **Typhoon Exploration Inc.** intersected hematized and pyritized granodiorite dykes in drillhole. The best intercepts in drillhole FA-04-02 include a 6.25-m interval grading 14.56 g/t Au. Indicated resources are estimated at 221,206 tonnes at a grade of 6.86 g/t Au and inferred resources at 578,000 tonnes at a grade of 5.93 g/t Au. **Queenston Mining Inc.** and **Globex Mining Enterprises Inc.** completed 5 drillholes on the Duquesne West property (project 61), located 32 km north of Rouyn-Noranda. Three holes were drilled to test the Liz Zone, a gold-bearing shear zone in sericitized and ankeritized intermediate to mafic volcanic rocks with 5-20% pyrite. Drillhole DQ-04-22 yielded an assays of 2.4 g/t Au over 7.9 m.

MALARTIC – SENNETERRE – VAL-D'OR AREA (FIGURES 1C-1 AND 1C-4)

The number of gold projects reported in 2004 in the Malartic – Senneterre – Val-d'Or area, in the southeastern part of the Abitibi Subprovince, stands at 41. The Beaufor mine (Au-Ag) was the only active gold producer in the area in 2004.

About 3 km east of Malartic, **Richmont Mines Inc.** drove an exploration ramp on its East Amphi property (project 92). As of October 27, 2004, the ramp was 770 m long and at a vertical depth of 130 m out of a total objective of 200 m. An underground exploration campaign involving 9,000 m of drilling is planned. Once a new resource estimate is calculated, a decision concerning the start-up of commercial production will be taken in the second half of 2005. On the Midway project (project 56), located 16 km west of Val-d'Or along the Cadillac Tectonic Zone,

Northern Star Mining Corp. intersected in drillhole four new gold-bearing zones in mafic and gabbroic lenses within an ultramafic unit in the Cadillac Tectonic Zone. The Midway project contains part of the former Malartic Goldfields mine, which produced more than 2 million ounces of gold to a depth of 823 m.

At the Kiena mine complex (project 55), **Wesdome Gold Mines Inc.** launched a drilling and drift development program. Drillholes intersected gold grades, including 3.03 g/t Au over 9.0 m in drillhole U-3719, along the extension of zone S-50 at the Kiena ore deposit. Total resources for the orebody are estimated at 3.01 Mt at a grade of 4.25 g/t Au, assuming a minimum mining width of 3.0 m and a cut-off grade of 2.4 g/t Au. Two exploration drifts are being excavated. The first, on the 33 level (330 m below surface) at the Kiena mine, is to provide access to the Shawkey and 388 zones. The second, on the 52 level (520 m below surface), has already reached the VC zone and will eventually provide access to the lower North zone and the Wesdome property to the north. The VC zone consists of three lenses of silicified and albitized breccia hosted in basalt flows. Drill intercepts include 8 m (true thickness) at 7.18 g/t Au for the VC2 lens (drillhole U-3735).

Agnico-Eagle Mines Ltd began work to rehabilitate mining infrastructure on the Goldex property (project 59), located in the western part of the city of Val-d'Or. This exploration and development program, at a cost of about \$10M, will serve to increase the level of confidence in the reserve estimate, which currently stands at 21.77 Mt at a grade of 2.4 g/t Au. A 20,000-tonne bulk sample, extracted in 2004-2005, will be milled in January 2005. Mineralization in the Goldex Extension orebody consists of a stockwork of quartz-tourmaline-pyrite veins with albite-pyrite altered wall rocks, hosted in a quartz diorite sill locally altered to sericite and chlorite. **Metanor Resources Inc.** intersected in drillhole Zone #5, a subparallel zone to the south of the latter, and the Stabell vein on its Dubuisson property (project 58) located in the western part of the city of Val-d'Or. The best intercepts include 2.1 m grading 14.6 g/t Au (drillhole ME-04-58) for the Stabell vein, and 4.2 m grading 3.61 g/t Au (drillhole RS-208) for the subparallel zone south of Zone #5.

Century Mining Corp. completed in September the acquisition of the Sigma-Lamaque mining complex (project 16), formerly held by **McWatters Mining Inc.** Operations at the mine were suspended in October 2003. A drill program was undertaken in October 2004 to upgrade gold resources in the open pit and eventually resume mining operations in 2005. On the Lamaque property (project 17), located in the eastern part of the city of Val-d'Or, **Kalahari Resources Inc.** drill-tested the Sixteen Zone, which consists of quartz-tourmaline-pyrite veins hosted in a strongly leached granodiorite porphyry. Drillhole SX 06-04-1 intersected 0.49 m grading 17.5 g/t Au in the Sixteen Zone.

Located 8 km southeast of Val-d'Or, a drillhole by **Alexis Minerals Corp.** testing the Hogg showing on the Cadillac Group

project (project 125) intersected a skarn-type mineralized zone (epidote-magnetite-sulphides) grading 21.2 g/t Au and 0.56% Cu over 3.8 m. This project contains several other showings with skarn-type alteration. On the Aurbel property (project 124), located 10 km east of Val-d'Or, **Alexis Minerals Corp.** released a mineral resource estimate for the Lac Herbin zone and Zone II of 1,072,681 tonnes at 7.26 g/t Au. Seven mineralized zones, consisting of gold-bearing quartz-pyrite veins, are hosted in shear zones cross-cutting the Bourlamaque Batholith. At the Beaufor mine (project 107), located 19 km east of Val-d'Or, **Richmont Mines Inc.** launched an underground exploration campaign totalling \$1M, to test the lateral and depth extensions of zones B, C, 8, and 32.

On the Croinor property (project 109), located 70 km east of Val-d'Or, **South-Malartic Exploration Inc.** reported the recovery of 1,981 ounces of gold from a 20,000-tonne bulk sample extracted from the open pit at the Croinor deposit, between November 2003 and January 2004. The average head grade at the Camflo mill near Malartic was 3.10 g/t Au. Measured and indicated resources at the Croinor deposit are estimated at 501,402 tonnes at a grade of 3.46 g/t Au. The mineralization is hosted in a diorite sill; gold occurs in quartz veins and altered pyritized wall rocks. On the Lac Bug showing, located 700 m northeast of the Croinor deposit, drillholes intersected mineralized intervals; best results include 11.34 g/t Au over 4 m (drillhole CR-04-289).

On the Courville property (project 51), located 15 km west of Senneterre, **Pershimco Resources Inc.** carried out surface stripping and drilling on the Thibodeau intrusive, composed of sericitized leucotonalite with disseminated pyrite cut by a stockwork of subhorizontal anastomosing quartz-sulphide veins. Best results include 145 g/t Au and 455 g/t Ag over 0.54 m for channel samples, and 166 g/t Au and 230 g/t Ag over 0.37 m for drillholes. A bulk sample of 12,700 tonnes was collected from a surface stripping on the Thibodeau intrusive and shipped to the Camflo mill near Malartic. A total of 775 ounces of gold and 621 ounces of silver were recovered. The ore grade is estimated at 2 g/t Au.

TÉMISCAMINGUE REGION (FIGURE 1C-1)

In the Témiscamingue region, underlain by rocks of the Pontiac Subprovince south of the Abitibi Subprovince, 4 gold exploration projects were reported in 2004.

Vantex Resources Ltd carried out extensive stripping, sampling, and drilling on its Guillet project (project 76), located 5 km east of Belleterre. One drillhole intersected a grade of 40.75 g/t Au over 13.3 m (drillhole LE04-70), collared near the D zone. Joint venture partners **Fieldex Exploration Inc.** and **Aurora Platinum Corp.** announced the discovery of gold showings (project 2), where grab samples yielded grades ranging from 16.05 to 59.8 g/t Au.

Polymetallic Deposits and Diamonds

CASA-BÉRARDI – MATAGAMI AREA (FIGURE 1C-2)

In 2004, a total of 19 exploration projects were reported in the northwestern part of the Abitibi Subprovince. Operations were suspended in January 2004 by **Billiton Metals Canada Inc.** at the Selbaie mine, located 95 km west of Matagami, whereas the Bell-Allard mine, property of **Noranda Inc.** in Matagami, ceased operations in October.

Noranda Inc. discovered a new showing, dubbed “Renaissance”, on the McLeod property (project P24), located just 7 km southeast of the company’s mining infrastructure in Matagami. The mineralized zone, intersected in drillhole MC-04-07 at a vertical depth of 465 m, consists of about 6.9 m (true thickness) of massive and semi-massive sulphides. A section of exhalite and stringer sulphides nearly 14 m wide underlies the massive and semi-massive sulphide zone. On the Du Dome-Matagami property (project P11), **SOQUEM INC.** and **Metco Resources Inc.** intersected in drillhole 1288-04-09 a mineralized exhalite, which yielded 2.65% Zn, 0.13% Cu, and 6.05 g/t Ag over 3.3 m.

LEBEL-SUR-QUÉVILLON – DESMARAISVILLE AREA (FIGURE 1C-2)

In the Lebel-sur-Quévillon – Desmaraisville area, 9 exploration projects for polymetallic deposits were compiled in 2004.

East of Lebel-sur-Quévillon, **Breakwater Resources Ltd** carried out re-development work at the Langlois mine (project P46), closed since November 2000. According to the company, production is expected to resume in early 2006, and the projected mine life is eight years.

CHIBOUGAMAU AREA (FIGURE 1C-2)

In the Chibougamau mining camp, 8 exploration projects were carried out in 2004.

MSV Resources Inc. performed delineation drilling at the Corner Bay deposit (project P32) located in the southern part of the Lac Doré Complex. Elsewhere in the area, **Woodruff Capital Management Inc.**, in partnership with **Inmet Mining Corp.**, completed several drillholes and geophysical surveys on the Lemoine property (project P31).

NORMÉTAL – LA SARRE – AMOS AREA (FIGURE 1C-2)

The number of exploration projects targeting polymetallic deposits in the west-central part of the Abitibi Subprovince stood at 8 in 2004.

Globex Mining Enterprises released the results of a drillhole collared on the Lyndhurst property (project P16), which yielded 1.41% Cu and 26.5 g/t Ag over 7.38 m (in a 17.17-m interval grading 0.825% Cu and 16.42 g/t Ag) at a vertical depth of 35 m. Additional work is planned to assess the tonnage and grade of

this silica and sulphide-rich deposit amenable to open pit mining; the ore may be used as flux by base metal processing plants.

ROUYN-NORANDA – CADILLAC AREA (FIGURES 1C-2 AND 1C-3)

In 2004, 11 exploration projects were compiled in the Rouyn-Noranda – Cadillac area. One producer, the Bouchard-Hébert mine, was in operation in the area in 2004.

On the MegaTEM-VMS project (project P44), **Noranda Inc.** and **Alexis Minerals Corp.** reported an impressive intercept of 5.16 m at 5.61% Cu, 1.70% Zn, 0.34 g/t Au, and 17.6 g/t Ag (drillhole MON-04-09) at a vertical depth of 110 m, in the Lac Montbray area 25 km west of Rouyn-Noranda. A drillhole collared 50 m east of the discovery hole was underway at the end of the year. On the Fabie Bay – Magusi River property (project P27), **Globex Mining Enterprises** intersected 3.7 m grading 3.44% Cu and 8.1 g/t Ag in drillhole H04-01, drilled to define the easternmost extent of the known mineralized zone.

On the LaRonde II project (project P9), **Agnico-Eagle Mines Ltd** continued its exploration drilling program at depth and to the west in Zone 20 North at the LaRonde mine. According to the company, the results suggest the presence of a higher-grade gold core at depth. They also suggest that Zone 20 North may expand at depth and toward the south and west.

MALARTIC – SENNETERRE – VAL-D’OR AREA (FIGURES 1C-2 AND 1C-4)

In 2004, the number of exploration projects targeting polymetallic deposits in this area stood at 8. One producer, the Louvicourt mine, was in operation in the Val-d’Or area in 2004.

On the Simkar property (project P38), located 20 km east of Val-d’Or, **Megastar Development Corp.** completed three drillholes testing an IP anomaly and the extension of the A-B and East zones. According to the company, anomalous Au-Cu values and the presence of alteration zones suggest the setting is favourable for volcanogenic mineralization. A drill program completed in the western part of the Abcourt-Barvue orebody (project P1) by **Abcourt Mines Inc.** yielded good results, such as 12.68 m at 141.58 g/t Ag and 2.77% Zn in drillhole AB04-22. The company plans to extract an 80,000-tonne bulk sample in this area in 2005.

TÉMISCAMINGUE REGION (FIGURE 1C-2)

In the Pontiac Subprovince, 4 exploration projects for polymetallic deposits were compiled.

Near Notre-Dame-du-Nord (project P59), **Tres-Or Resources Ltd** discovered in early 2004 a kimberlite pipe as well as a series of four kimberlite dykes respectively located 6 km northeast and 2 km southwest of the Guigues pipe. No diamonds were recovered from the newfound pipe.

Opportunities for Exploration

BASE METALS

Significant base metal (Cu-Zn) discoveries were made in the fall 2004 by **Noranda Inc.** in the Matagami area and by partners **Noranda Inc.** and **Alexis Minerals Corp.** west of Rouyn-Noranda. These suggest the mineral potential in established mining camps remains quite high, despite several decades of intense exploration. The discovery of massive and semi-massive sulphides, exhalites, and stringer sulphides at a depth of about 465 m at the “Renaissance” showing, located just 7 km from Noranda’s mining infrastructure in Matagami, is yet another example of the tremendous potential of the volcanic sequence along the South Flank of the Galinée anticline, which hosts a series of volcanogenic massive sulphide deposits that were mined in the past.

The intersection of massive sulphides, followed by mineralized breccias and a stringer zone, at a shallow depth of 110 m in the Lac Montbray area, some 25 km west of Rouyn-Noranda, emphasizes the potential of the western Blake River Group. This vast area, which extends from the Ontario border eastward to the Flavrian synvolcanic pluton, is not as well known as the Noranda central camp, where the vast majority of known massive sulphide deposits are located. **Géologie Québec** is currently conducting a regional geological survey in the western Blake River Group (Lafrance *et al.*, 2004a, 2004b), in order to better define stratigraphic horizons likely to host VMS deposits and structures associated with epigenetic gold mineralization.

East of Rouyn-Noranda, in Joannès Township, mapping by **Géologie Québec** in 2004 identified a stratigraphic horizon with VMS potential in the Lac Dupuis Formation (Lafrance *et al.*, 2004a, 2004b). In the vicinity of the Joannès-Chouinard property, located 3 km southeast of Lac Marillac, a single drillhole inter-

sected this horizon that contains a large pyrrhotite-pyrite stringer zone with weakly anomalous Cu-Zn values. This horizon has seen little or no exploration, particularly along its regional extensions. The work of **Géologie Québec** shows this horizon may be traced over a lateral distance of nearly 12 km, namely from the Rivière Kinojévis in the west, eastward to an area southeast of the Joannès-Orion Au-Cu-Zn deposit. The results obtained in these three areas highlight the mineral potential of these regions, and as such, generate high expectations for exploration in the western part of the Abitibi Subprovince.

PRECIOUS METALS


In 2004, exploration campaigns yielded positive results in many parts of the Abitibi and Pontiac subprovinces.

In the central part of the Urban-Barry belt, located 120 km east of Lebel-sur-Quévillon, **Noront Resources Ltd** completed a drill program on the Windfall property in Urban Township (NTS 34 G/04), targeting the lateral extensions of known gold-bearing zones in felsic volcanic rocks. Several drillholes intersected semi-massive pyrite zones with high gold grades. On the adjoining property to the north, **Murgor Resources Inc.** and **Freewest Resources Canada Inc.** also discovered new surface gold showings. These mineralized zones are hosted in the Windfall Member of the Macho Formation, recently outlined in the entire Urban-Barry belt by **MRNFP** mapping (Bandyayera *et al.*, 2001, 2002, 2003). Eastward, in map sheet 32 G/03, several other felsic units were recognized in the Fecteau and Chanceux formations, as well as in the Freeman Member of the Urban Formation (Bandyayera *et al.*, 2003). These units host gold and zinc-copper showings as well as sericite and chlorite alteration zones. Given the fact that logging roads were only very recently developed in the area, these km-scale felsic units have not been intensely explored. The Urban-Barry belt, and particularly the eastern part of the belt, represents a relatively underexplored area with significant economic potential.

Geological legend

PALEOZOIC AND PROTEROZOIC


Sedimentary rocks

 Fossiliferous dolomite, sandstones, conglomerates, arenite, stromatolite


ARCHEAN (2.6 to 2.8 billion years)


Metamorphic rocks

 Gneisses (derived from plutonic rocks)

 Schists and paragneisses (derived from sedimentary rocks)

Plutonic rocks

 Syn- to post-tectonic tonalite, granite and gabbro

 Synvolcanic tonalite, granite and gabbro


 Anorthositic gabbro

Sedimentary rocks

 Sandstones, conglomerates and mudrocks

Volcanic rocks

 Predominance of rhyolites and pyroclastic rocks

 Predominance of basalts and andesites, rare komatiites

 Komatiites to basalts

--- LIMITS OF SUBDIVISIONS AS DEFINED IN THE TEXT

C-B - M: Casa-Berardi - Matagami

LsQ - D: Lebel-sur-Quévillon - Desmaraisville

R-N - C: Rouyn-Noranda - Cadillac

N - L S - A: Normétal - La Sarre - Amos

M - S - V-d'Or: Malartic - Senneterre - Val-d'Or

C: Chibougamau

T: Témiscamingue

 Mines

 Gold projects

 Polymetallic projects

 Regional faults

Figure 1C-1. Geological legend of maps of the Abitibi and Pontiac Subprovinces (Figures 1C-1 and 1C-2).

1C

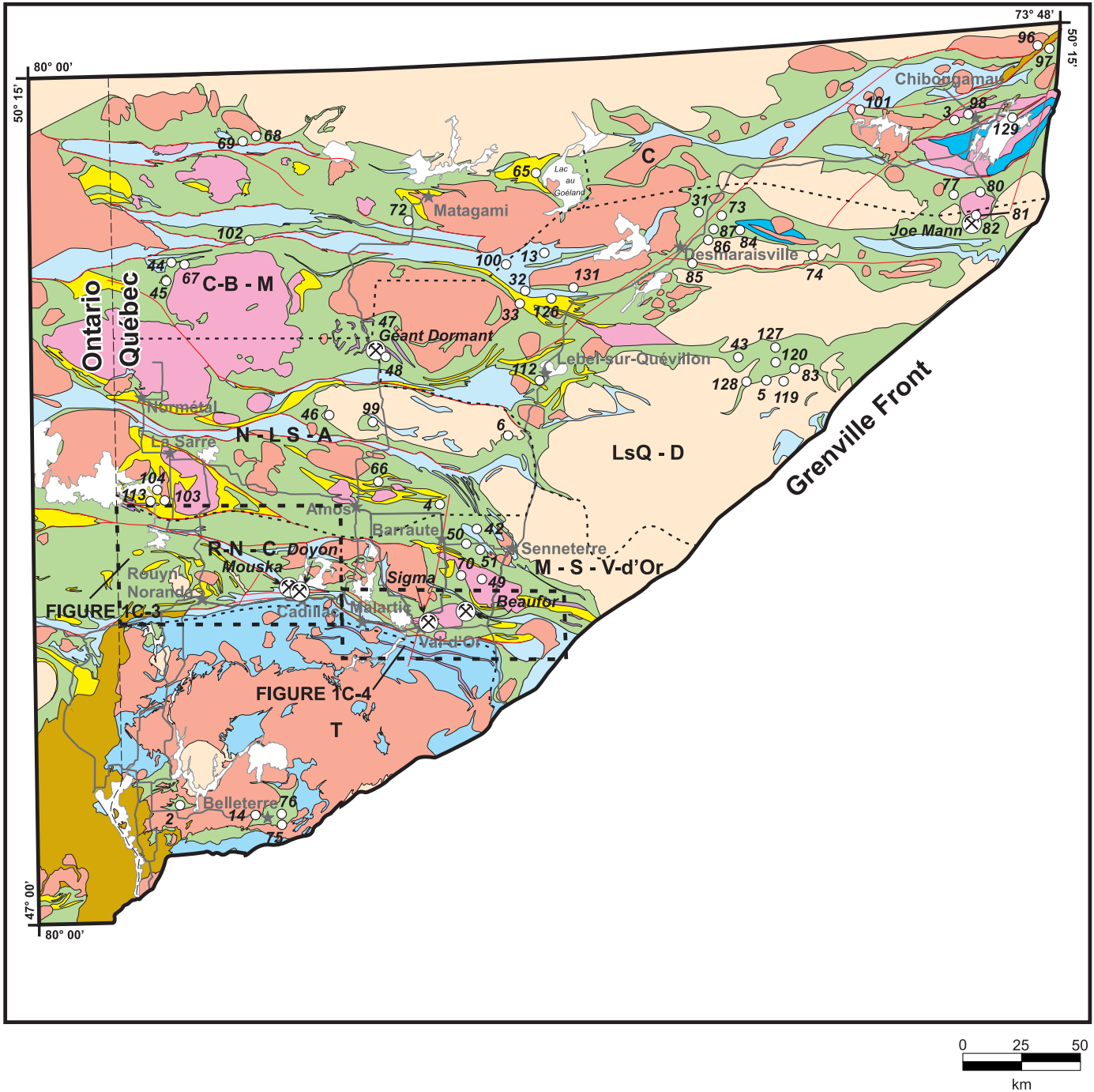


Figure 1C-1. Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004. Modified from Hocq and Verpaelst (1994).

1C

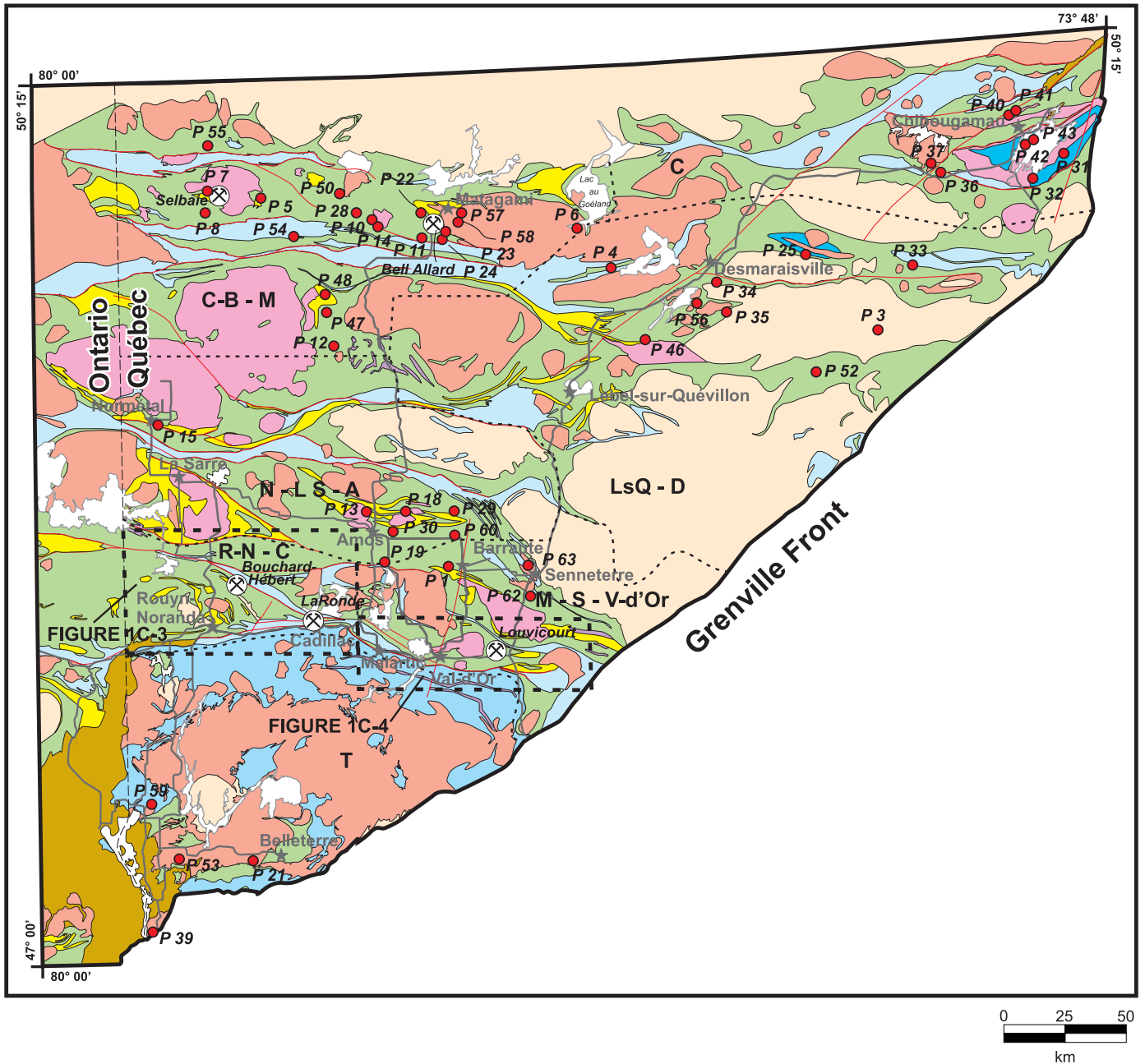


Figure 1C-2. Exploration projects for base metals in the Abitibi and Pontiac subprovinces for 2004. Modified from Hocq and Verpaelst (1994).

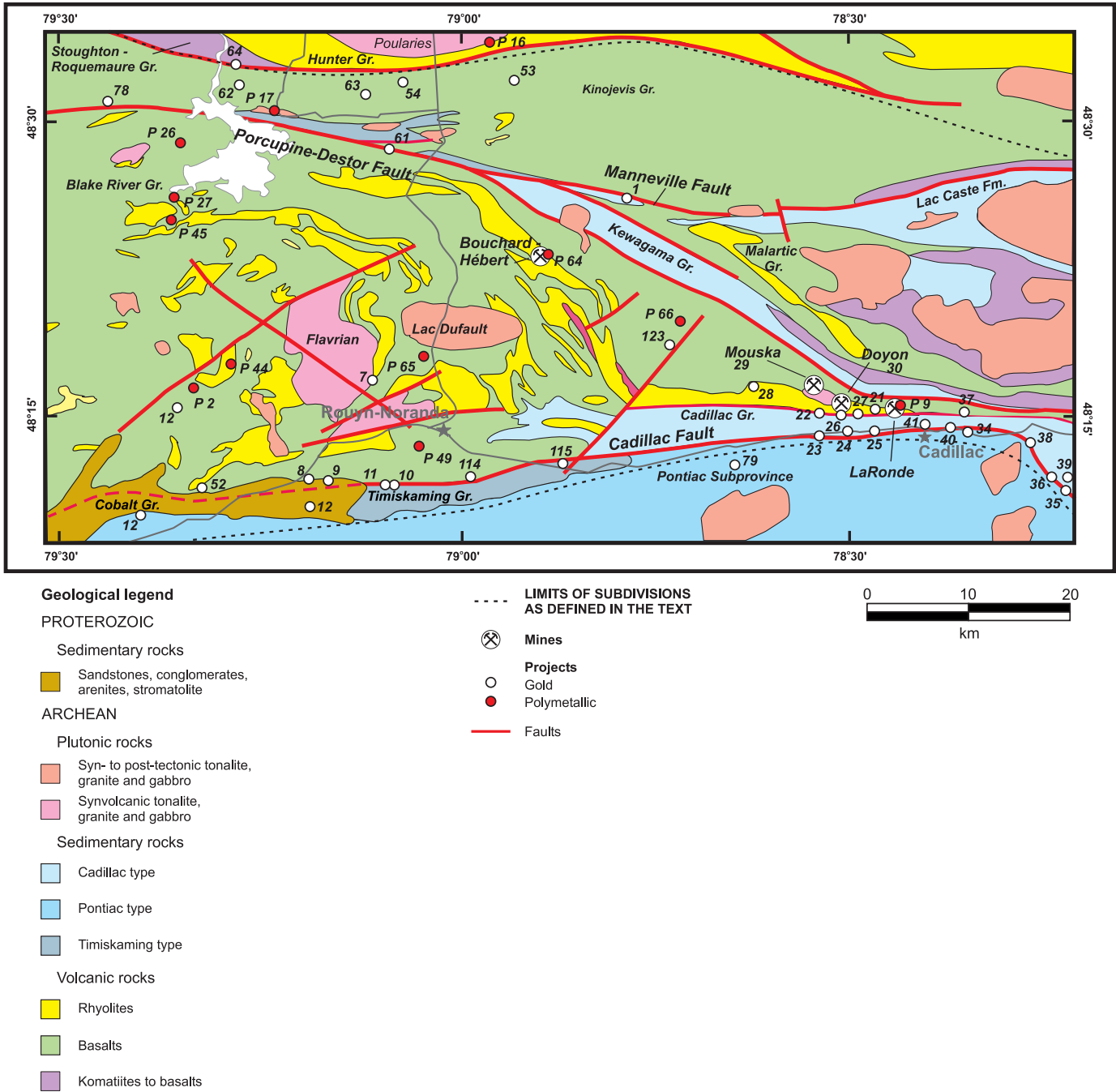


Figure 1C-3. Exploration projects and mines in the Rouyn-Noranda – Cadillac area for 2004. Modified from Avramtchev and Lebel-Drolet (1981) and Couture (1991).

1C

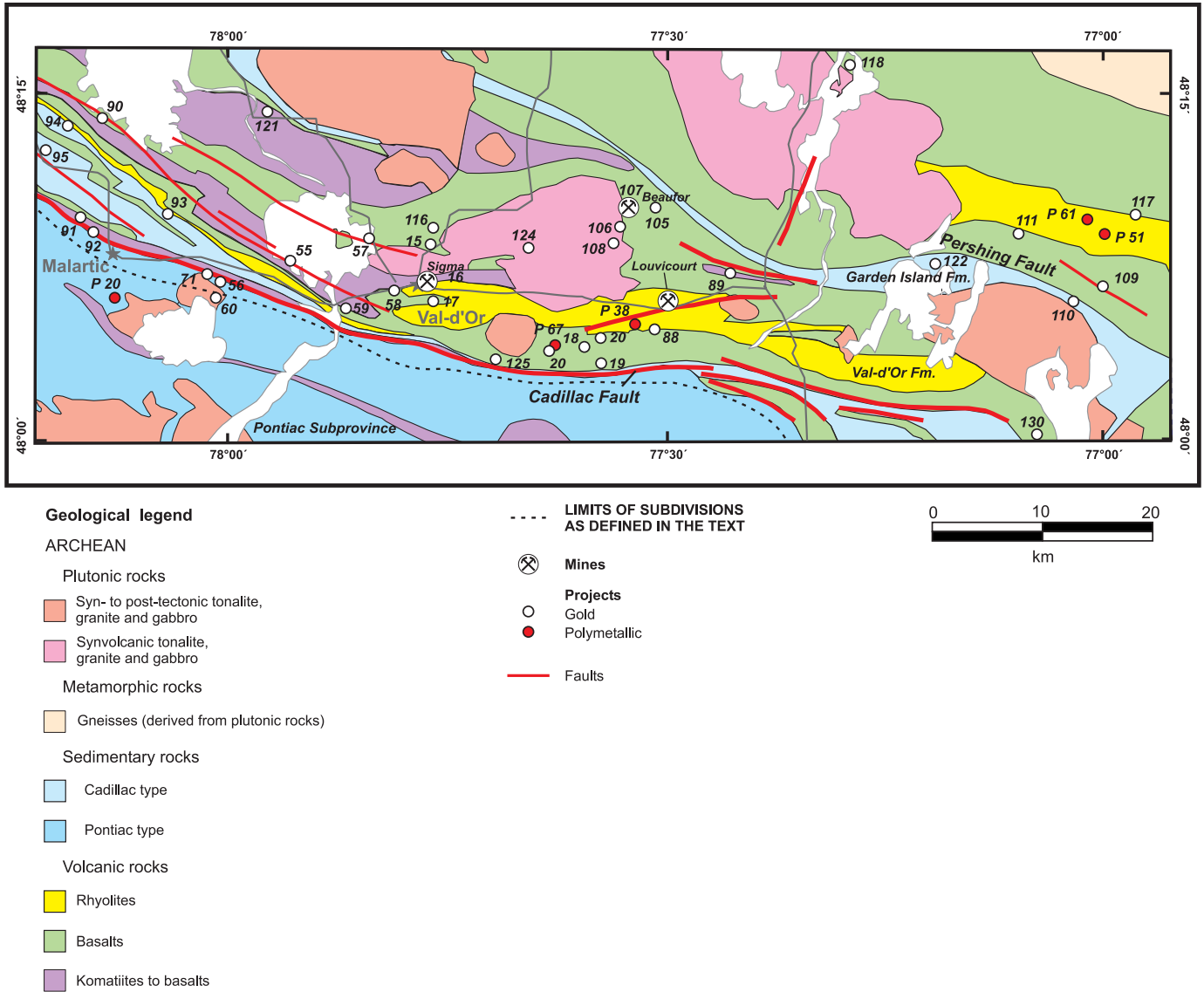


Figure 1C-4. Exploration projects and mines in the Malartic – Val d'Or area for 2004. Modified from Avramtchev and Lebel-Drolet (1981) and Couture (1991).

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
1	Aiguebelle	1C-3	32 D/07	Typhoon Exploration Inc.	Fayolle	Au	D(14:3271), Gs(r), TE
2	Baby	1C-1	31 M/06	Fieldex Exploration Inc. / Aurora Platinum Corp.	Témiscamingue	Au, Cu, Zn, Pt	Mag-EM(A), Pg, S, T
3	Barlow	1C-1	32 C/16	Alexandria Minerals Corporation	Gwillin	Au, Cu	C, Mag
4	Barraute, Carpentier	1C-1	32 C/12	Phoenix Matachewan Mines Inc.	Swanson	Au, Cu	C, IP
5	Barry	1C-1	32 B/13	Osisko Exploration Ltd / Murgor Resources Inc. / Freewest Resources Canada Inc.	Barry	Au	D(?;1846)
6	Bartouille	1C-1	32 C/14	Cambior Inc.	Bartouille	Au, Zn, Cu, Ag	D(5:844)
7	Beauchastel	1C-3	32 D/03	Abcourt Mines Inc.	Mine Elder	Au	TE
8	Beauchastel	1C-3	32 D/03	Richmont Mines Inc.	Wasamac	Au	D(5:3839)
9	Beauchastel	1C-3	32 D/03	Globex Mining Entreprises Inc.	Arntfield Goldfields	Au	D(3:?)
10	Beauchastel	1C-3	32 D/03	Yorbeau Resources Inc.	Augmito - Astoria II	Au	S, T
11	Beauchastel	1C-3	32 D/03	Lake Shore Gold Corp.	Bazooka	Au	D(7:2047)
12	Beauchastel, Dasserat, Rouyn	1C-3	32 D/03	Cadillac West Explorations Inc.	Several	Au	Gs(r), Mag-EM(A), Pr, Rsi
13	Berthiaume	1C-1	32 F/07, 10	Géonava Exploration Ltd / SOQUEM INC. / Freewest Resources Canada Inc.	Berthiaume	Au	S, T
14	Blondeau	1C-1	31 M/07	Searchgold Resources Inc.	Lac Crevier	Au	Pr, S, T
15	Bourlamaque	1C-4	32 C/04	Société Minière Rivière Harricana Inc. / Aur Resources Inc.	Aubel	Au	Mag
16	Bourlamaque	1C-4	32 C/04	Century Mining Corp.	Sigma-Lamaque	Au	D(375:18 677), Env
17	Bourlamaque	1C-4	32 C/04	Kalahari Resources Inc.	Lamaque	Au	D(56:11 122), Gs(h)
18	Bourlamaque, Louvicourt	1C-4	32 C/03, 04	South-Malartic Exploration Inc. / Cambior Inc.	Tex-Sol	Au	D(2:496), IP, Mag, Pr
19	Bourlamaque, Louvicourt	1C-4	32 C/03, 04	Cambior Inc.	Akasaba - Bloc Sud	Au	D(4:2148), DPEM
20	Bourlamaque, Louvicourt	1C-4	32 C/03, 04	Cambior Inc. / Aur Resources Inc.	Valdora-Annamaque	Au	D(14:4310), IP, Mag
21	Bousquet	1C-3	32 D/02, 07	Agnico-Eagle Mines Ltd	Ellison (PN-121)	Au, Ag, Zn, Cu	D(2:1340)
22	Bousquet	1C-3	32 D/02, 07	Agnico-Eagle Mines Ltd	Norbar (PN-127)	Au, Ag, Zn, Cu	D(1:1238)
23	Bousquet	1C-3	32 D/02	Agnico-Eagle Mines Ltd	Norgold (PN-120)	Au, Ag, Zn, Cu	D(4:2144)

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
24	Bousquet	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Normand Lake (PN-114)	Au, Ag, Zn, Cu	D(5:948)
25	Bousquet	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Terrex (PN-125)	Au	D(6:1924)
26	Bousquet	1C-3	32 D/02	Cambior Inc.	Doyon	Au	D(1:1161), DPEM, Cs(r), TE
27	Bousquet	1C-3	32 D/02	Cambior Inc.	Westwood-Warrenmac	Au	D(4:4233), DPEM, Cs(r)
28	Bousquet	1C-3	32 D/02	Cambior Inc. / Breakwater Resources Ltd	Bousquet-Ferris	Au, Cu	D(3:811)
29	Bousquet	1C-3	32 D/02	Cambior Inc.	Mine Mouska	Au	D(?:6809)
30	Bousquet	1C-3	33 D/02	Cambior Inc.	Mine Doyon	Au	D(188:38 350)
31	Boyvinet	1C-1	32 F/09, 32 G/12	NioGold Mining Corp.	Lake Shortt	Au	S, T
32	Bruneau, Desjardins	1C-1	32 F/06	Strateco Resources Inc. / Géonava Exploration Ltd	Discovery	Au	D(11:4500), Mag, TE
33	Bruneau, Desjardins	1C-1	33 F/06	Strateco Resources Inc. / Géonava Exploration Ltd	Cameron	Au	D(7:2411), Pr
34	Cadillac	1C-3	32 D/02	Queenston Mining Inc.	Pandora	Au	D(5:4358)
35	Cadillac	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Chibex South (PN-124)	Au	D(13:5330)
36	Cadillac	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Chibex North (PN-123)	Au	D(12:4334)
37	Cadillac	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Bruce (PN-108)	Au, Ag, Zn, Cu	D(3:2477)
38	Cadillac	1C-3	32 D/01	Agnico-Eagle Mines Ltd	Lapa (PN-118)	Au	D(47:28 847)
39	Cadillac	1C-3	32 D/01	Golden Valley Mines Ltd	Cadillac High	Au	D(3:260), EM, IP, Mag
40	Cadillac	1C-3	32 D/01	Globex Mining Entreprises Inc. / Queenston Mining Inc.	Wood	Au	D(1:1050)
41	Cadillac	1C-3	32 D/01	Radisson Mining Resources Inc.	O'Brian-Kéwagama	Au	D(6:6000)
42	Carpentier	1C-1	32 C/05	Abitex Resources Inc. / Placements J.E. Jolin	Jolin	Au	Mag-Em(A), Rsi, T
43	Carpique	1C-1	32 G/04	Les Ressources Tectonic Inc.	Panache	Au	Pr
44	Casa-Berardi, Dieppe, Estreés, Puisieux	1C-1	32 E/10, 11	Aurizon Mines Ltd	Casa Berardi	Au	D(?:21 400), Grav
45	Casa-Bérardi, Laberge	1C-1	32 E/06, 11	Cambior Inc. / Cancor Mines Inc.	Gémini-Turgeon	Au, Cu, Zn	D(17:7192), IP, Mag
46	Céleron	1C-1	32 E/01	Denis Cyr	Céleron	Au	Pr
47	Chaste	1C-1	32 F/04	Cambior Inc. / Aurizon Mines Ltd	Mine Géant Dormant	Au, Ag	D(276:51 276)
48	Chaste, Glandelet	1C-1	32 E/01, 32 F/04	Cambior Inc. / Aurizon Mines Ltd	Dormex	Au	D(6:2325), IP, Mag

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
49	Courville	1C-1	32 C/06	South-Malartic Exploration Inc.	Courville	Au	Mag
50	Courville	1C-1	32 C/06	South-Malartic Exploration Inc.	Belcourt	Au	IP, Mag
51	Courville	1C-1	32 C/06	Pershimco Resources Inc.	Courville	Au, Ag	B(13 000:?) D(?:500), Cs, T
52	Dasserat	1C-3	32 D/03	Searchgold Resources Inc	Lac Fortune Ouest	Au	Pr, S, T
53	Destor	1C-3	32 D/10	Golden Valley Mines Ltd	Sea Serpent	Au	IP, EM, Mag
54	Destor	1C-3	32 D/11	Golden Valley Mines Ltd	Double Trouble	Au	IP, EM, Mag
55	Dubuisson	1C-4	32 C/04	Wesdome Gold Mines Inc.	Kiena	Au	D(20:5000)
56	Dubuisson	1C-4	32 C/04	Northern Star Mining Corp.	Midway	Au	D(39:11 539), G, Gs(r), Mag
57	Dubuisson	1C-4	32 C/04	Alexandria Minerals Corporation	Siscoe East	Au	G, Mag
58	Dubuisson	1C-4	32 C/04	Metanor Resources Inc.	Dubuisson	Au	D(?:6000), Gp
59	Dubuisson	1C-4	32 C/04	Agnico-Eagle Mines Ltd	Goldex	Au	D(?:?),B(20 000:?)
60	Dubuisson	1C-4	32 D/01, 32 C/04	Golden Valley Mines Ltd	Dubuisson	Au	D(4:544), EM, IP, Mag
61	Duparquet	1C-3	32 D/06	Queenston Mining Inc. / Globex Mining Entreprises Inc.	Duquesne West	Au	D(9:5943)
62	Duparquet	1C-3	32 D/11	Golden Valley Mines Ltd	Ruisseau Dégouisé	Au	EM, IP, Mag
63	Duparquet	1C-3	32 D/11	Golden Valley Mines Ltd	Golden Jet	Au	EM, IP, Mag
64	Duparquet, Palmarolle	1C-3	32 D/11	Cambior Inc. / SOQUEM INC.	Hunter-Duparquet	Au	D(2:305), IP
65	Dussieux	1C-1	32 F/14, 15	Siros Resources Inc.	Dussieux	Au	D(4:588)
66	Duvernay	1C-1	32 C/12	Globex Mining Entreprises Inc.	Duvay	Au	IP
67	Estrées	1C-1	32 F/10	Cambior Inc. / Canley Development Inc.	Estrées-Caribou	Au, Cu, Zn	D(6:2269), IP, Mag
68	Fénelon	1C-1	32 E/15	International Taurus Resources Inc. / Fairstar Explorations Inc.	Fénelon Gold	Au	Met
69	Fénelon, Gaudet	1C-1	32 E/15	J. Figon, G. Robert, L. Martel / Pro-veinor Resources Inc.	Fénelon-Gaudet	Au, Base metals	D(6:1400), S
70	Fiedmont, Courville	1C-1	32 C/05	Wesdome Gold Mines Inc.	McKenzie Break	Au	D(37:4550)
71	Fournière	1C-4	32 D/01	Cambior Inc.	Ptché	Au	IP, Mag, Pr
72	Galinée	1C-1	32 F/12	Cambior Inc.	Galinée-Newmont	Au, Base metals	ET, Gs, IP, Mag

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
73	Gand	1C-1	32 G/12	SOQUEM INC. / Itamineraque Resources Inc.	Gandex (1232)	Au	D(2:1015)
74	Gradis, Drouet, Druillettes	1C-1	32 G/06, 11	Lake Shore Gold Corp.	Drouet	Au	Gs(r), Gs(sl), Gs(t)
75	Guillet	1C-1	31 M/07	J. Viger	Platior	Au, Pt	EM, Gs(s), Pr, S
76	Guillet	1C-1	31 M/07	Vantex Resources Ltd	Guillet	Au	D(26:?) , G, Pr, S, T
77	Haüy	1C-1	32 G/09, 10	Les Ressources Tectonic Inc.	Hygrade	Au	G
78	Hébécourt	1C-3	32 D/11	Cambior Inc.	Porcupine	Au	D(5:2706)
79	Joannes	1C-3	32 D/02	Alexandria Minerals Corporation	Joannes	Au	G, Mag, Pr
80	La Dauversière	1C-1	32 G/09	Ressources D'Arianne Inc.	La Dauversière	Au	S, T
81	La Dauversière	1C-1	32 G/08, 09	Campbell Resources Inc. / SOQUEM INC.	Joe Mann	Au (Ag-Cu)	D(31:8465), EM, Gs, IP, Pr
82	La Dauversière	1C-1	32 G/08, 09	Campbell Resources Inc. / SOQUEM INC.	Mine Joe Mann	Au (Ag-Cu)	D(?:?)
83	Lacroix	1C-1	32 G/03	Jean Descarreaux et Ass. Ltée	Lacroix	Au	G, Gs(r), S, T
84	Lespérance	1C-1	32 G/12	Matamec Explorations Inc.	Lespérance	Au	ET, Gs(t), IP
85	Lesueur	1C-1	32 F/08	Wolfden Resources Inc. / Metanor Resources Inc.	Bachelor Lake Gold Mine	Au	ET
86	Lesueur, Lespérance	1C-1	32 G/12	SOQUEM INC. / Northern Mining Explorations Ltd	Lespérance (1194)	Au	Mag-Em(A)
87	Lesueur, Lespérance, Gand, Boyvinet	1C-1	32 G/12	SOQUEM INC. / Northern Mining Explorations Ltd	Lac Shortt (1123)	Au	D(7:2873), Mag-EM(A), S
88	Louvicourt	1C-4	32 C/03	Megastar Development Corp.	Simkar	Au, Cu	D(3:900)
89	Louvicourt	1C-4	32 C/03	Louvem Mines Inc. / SOQUEM INC.	Monique	Au	D(7:3865)
90	Malartic	1C-4	32 D/01	South-Malartic Exploration Inc. / Prospectors	Héva-Malartic	Au	D(5:800), IP, Mag
91	Malartic	1C-4	32 D/01	Ressources D'Arianne Inc.	Rivière Héva	Au	IP, G
92	Malartic	1C-4	32 D/01	Richmont Mines Inc.	East Amphi	Au	D(66:14 022)
93	Malartic	1C-4	32 D/01	Richmont Mines Inc. / SOQUEM INC.	Camflo NO	Au	D(1:453)
94	Malartic	1C-4	32 D/01	Golden Valley Mines Ltd	Héva-Minor	Au	D(4:400), EM, IP, Mag
95	Malartic	1C-4	32 D/01	Golden Valley Mines Ltd	Rivière Héva	Au	D(2:166), EM, IP, Mag
96	McCorkill	1C-1	32 G/16, 32 J/01	Typhoon Exploration Inc.	Monexco	Au	D(7:320), G, Gs(r), S
97	McCorkill	1C-1	32 H/13, 32 I/04	Typhoon Exploration Inc.	McCorkill	Au	G, Gs(r), S
98	McKenzie	1C-1	32 G/16	SOQUEM INC. / Itamineraque Resources Inc.	Brosman (1230)	Au	D(12:2358), G, IP, Mag, Pr

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
99	Miniac	1C-1	32 D/16	Globex Mining Entreprises Inc.	Miniac	Au, Zn	C, Pr
100	Noyelles	1C-1	32 F/06, 11	Géonova Exploration Inc. / SOQUEM INC. / Freewest Resources Canada Inc.	Noyelles	Au	EM, IP, S, T
101	Opémisca	1C-1	32 G/14, 15	SOQUEM INC. / Nimsken Corporation Inc.	Michwacho (1340)	Au, Cu, PGE	EM, IP, Mag, Mag-EM(A)
102	Orvilliers, Montgolfier	1C-1	32 E/10	J-Pacific Gold Inc.	Montgolfier	Au	ET, Pr
103	Palmarolle	1C-1	32 D/11	Golden Valley Mines Ltd	Palmarolle	Au	EM, IP, Mag
104	Palmarolle	1C-1	32 D/11	Golden Valley Mines Ltd	Witch Hunt	Au	EM, IP, Mag
105	Pascalis	1C-4	32 C/04	South-Malartic Exploration Inc.	Pascalis	Au	D(4:850), Mag
106	Pascalis	1C-4	32 C/04	Richmont Mines Inc.	Beaufor	Au	D(1:300)
107	Pascalis	1C-4	32 C/04	Richmont Mines Inc.	Mine Beaufor	Au	D(?:13 396)
108	Pascalis, Louvicourt	1C-4	32 C/04	Richmont Mines Inc. / Louvem Mines Inc.	Colombière	Au	D(2:801)
109	Pershing	1C-4	32 C/03	Exploration Malartic-Sud Inc.	Croinor	Au	D(56:9729), IP, Mag, T
110	Pershing	1C-4	32 C/03	South-Malartic Exploration Inc.	Pershing	Au	D(4:800), Mag
111	Pershing, Tiblemeont	1C-4	32 C/03	South-Malartic Exploration Inc.	Bel-Rive	Au	D(7:1300), IP, Mag
112	Quévillon	1C-1	32 F/03	Alexandria Minerals Corporation	Quévillon	Au	C, Mag, Pr
113	Roquemaure	1C-1	32 D/11	Golden Valley Mines Ltd	Playa Dolce	Au	EM, IP, Mag
114	Rouyn	1C-3	32 D/03	Yorbeau Resources Inc.	Astoria I	Au	S, T
115	Rouyn, Joannes	1C-3	32 D/02	Cambior Inc.	Rouyn-Merger	Au	ET, IP
116	Senneville, Vassan	1C-4	32 C/04	JCML Resources Inc.	Val d'Or	Au, Cu	D(1:250)
117	Tavernier	1C-4	32 C/03	South-Malartic Exploration Inc.	Lac Tavernier	Au	IP, Mag
118	Tiblemont	1C-4	32 C/06	South-Malartic Exploration Inc.	Robinson	Au	EM, IP
119	Urban	1C-1	32 B/13, 32 G/04	Beaufield Consolidated Resources Inc.	Lac Rouleau	Au	D(11:860), Gs(s), Mag
120	Urban	1C-1	32 G/04	Noront Resources Ltd	Windfall Lake	Au	D(15:5645), DPEM, S, T
121	Vassan	1C-4	32 C/04	Golden Valley Mines Ltd	Vassan	Au	D(2:200), EM, IP, Mag
122	Vauquelin	1C-4	32 C/03	South-Malartic Exploration Inc. / C2C INC.	Breull	Au	G
123	Clérycy	1C-3	32 D/07	Alexis Minerals Corporation	Noralex - Au	Au	D(16:4044), Gs(r), IP, Mag, TE

TABLE 1C-1 - Exploration projects for gold in the Abitibi and Pontiac subprovinces for 2004.

NO	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
124	Bourlamaque	1C-4	32 C/03, 04	Alexis Minerals Corporation	Aurbel	Au	D(51:17 601), Gs(r), Mag, TE
125	Bourlamaque, Louvicourt	1C-4	32 C/03, 04	Alexis Minerals Corporation	Cadillac Option	Au, Ag, Cu, Zn	D(71:15 000), DPEM, Gs(r), IP, Mag, TE
126	Desjardins	1C-1	32 F/07	Normabec Mining Ressources Ltd / SOQUEM INC.	Desjardins	Au	D(2:?)
127	Urban	1C-1	32 G/04	Murgor Resources Inc. / Freewest Resources Canada Inc.	Windfall	Au	D(11:2038), IP, Pg, S, T
128	Barry, Souart	1C-1	32 B/13	Gold Hawk Resources Inc.	Barry-Souart	Au	D(12:2000), IP, Mag
129	Roy	1C-1	32 G/16	Campbell Resources Inc.	Copper Rand	Au, Cu	D(59:28 340)
130	Denain	1C-4	31 N/14	Mirabel Resources Inc.	Denain	Au	B, D(?:?), S
131	Currie	1C-1	32 F/07	Mirabel Resources Inc.	Lac Rose	Au	D(?:?), S

1 = See abbreviation list in appendix II.

TABLE 1C-2 - Exploration projects for base metals in the Abitibi and Pontiac subprovinces for 2004.

No	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
P1	Barraute	1C-2	32 C/12	Abcourt Mines Inc.	Abcourt-Barvue	Zn-Ag	D(?:1700), TE
P2	Beauchastel	1C-3	32 D/03, 06	SOQUEM INC.	Lac Arnoux (1162)	Zn-Cu	EM
P3	Belmont	1C-2	32 G/03	Abitex Resources Inc. / Clearview Minerals	St-Cyr	Ni-Cu-Co-PGE	Pr, T, Mag, G
P4	Bergère	1C-2	32 F/07, 10	Explorateurs Innovateurs de Québec Inc. / Freewest Resources Canada Inc.	Suite Syndicat Ex-66	Cu-Zn-Au	T, Cs(r)
P5	Beschefer	1C-2	32 E/15	SOQUEM INC.	Beschefer (11722)	Zn-Cu	Pr
P6	Bourbeaux	1C-2	32 F/10	Explorateurs Innovateurs de Québec Inc.	Goéland Ex-63	Ni-Cu-Co-PGE	T, Cs(r)
P7	Brouillan	1C-2	32 E/14	SOQUEM INC.	Wagosc (1338)	Zn-Cu	Mag, EM
P8	Brouillan, Carheil	1C-2	32 E/14	Woodruff Capital Management Inc. / Inmet Mining Corp	Selbaie West	Cu-Zn-Au-Ag	EM
P9	Cadillac	1C-3	32 D/08	Agnico-Eagle Mines Ltd	Mine LaRonde	Cu-Zn-Au-Ag	D(275:48610)
P10	Cavelier	1C-2	32 F/12	Noranda Inc. / Phelps Dodge Corporation	PD-2	Zn-Cu-Ag-Au	D(4:1292), DPEM
P11	Cavelier, Gallinée	1C-2	32 F/12	SOQUEM INC. / Metco Resources Inc.	Du Dôme-Matagami (1288)	Zn-Cu	D(5:1628), EM, Mag, Gs(r)
P12	Dalet	1C-2	32 E/01	M. Morin	Dalet	Cu-Zn-Au	Pr
P13	Dalquier	1C-2	32 D/09	D. Cyr	Dalquier	Cu-Zn-Au-Ag	Pr, T
P14	Desmazures	1C-2	32 E/09	SOQUEM INC.	B6-20 Mc Ivor (1214)	Zn-Cu	D(2:583), EM, DPEM, Gs(r)
P15	Des Méloizes, Perron, Clermont, Rousseau	1C-2	32 D/14	SOQUEM INC.	Lac Des Méloizes (1356)	Zn-Cu	Pr
P16	Destor, Poulares	1C-3	32 D/10	Globex Mining Enterprises Inc.	Lyndhurst	Cu-Zn	D(1:?)
P17	Duparquet, Hébécoeur, Destor	1C-3	32 D/11	SOQUEM INC.	Ruisseau Deguisier (1357)	Zn-Cu	EM
P18	Duverny	1C-2	32 C/12	Globex Mining Enterprises Inc.	DW	Cu-Ni	Pr, E
P19	Figury	1C-2	32 D/08	SOQUEM INC.	Wathish (1353)	Ni-Cu-PGE	EM, Mag
P20	Fournière	1C-4	32 D/01	170364 Canada Inc. / C2C Inc.	Fournière	Cu	D(4:710), Mag, IP
P21	Gaboury	1C-2	31 M/06	Hinterland Metals Inc.	Lorraine	Ni-Cu-PGE-Au	D(4:1604), DPEM
P22	Galinée	1C-2	32 F/13	Beaufield Consolidated Resources Inc.	Matagami	Cu-Zn-Au-Ag	D(4:380), Mag
P23	Galinée	1C-2	32 F/12	Noranda Inc.	Bracemac	Zn-Cu-Ag-Au	D(4:2176), DPEM

TABLE 1C-2 - Exploration projects for base metals in the Abitibi and Pontiac subprovinces for 2004.

No	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
P24	Galinée	1C-2	32 F/12	Noranda Inc.	McLeod (Renaissance)	Zn-Cu-Ag-Au	D(14:8715), DPEM, Cs(h)
P25	Guercheville, La Ronde, Du Guesclin	1C-2	32 G/05, 06	SOQUEM INC.	Wachigabau (1324)	PGE	Pr
P26	Hébécourt	1C-3	32 D/06	Alexandria Minerals Corporation	Hébécourt	Cu-Zn-Au-Ag	Mag
P27	Hébécourt	1C-3	32 D/06	Globex Mining Enterprises Inc.	Baie Fabie - Rivière Magusi	Cu-Zn-Ag	D(1:?)
P28	La Gauchoetière, Desmazures	1C-2	32 E/09, 16	SOQUEM INC. / Metco Resources Inc.	Caber (1309)	Zn-Cu	EM
P29	La Morandière	1C-2	32 C/12	Explor Resources Inc.	La Morandière	Cu-Zn-Ag	D(5:1500), Mag, DPEM
P30	Landrienne	1C-2	32 C/05	Woodruff Capital Management Inc. / Inmet Mining Corp	Landrienne	Cu-Zn-Au-Ag	D(3:744), EM
P31	Lemoine	1C-2	32 G/16	Woodruff Capital Management Inc. / Inmet Mining Corp	Lemoine	Cu-Zn-Au-Ag	D(11:8871), DPEM
P32	Lemoine	1C-2	32 G/09	Ressources MSV Inc.	Corner Bay	Cu	D(85:14420)
P33	L'Espinay	1C-2	32 G/03	Antoro Resources Inc.	St-Urbain	Cu-Zn-Au	Pr
P34	Lesueur, Le Tac	1C-2	32 F/08	SOQUEM INC. / Explorations minières du Nord	Le Tac (40412)	Cu-Zn-Au-Ag	Mag, EM
P35	Le Tac	1C-2	32 F/08	Antoro Resources Inc.	McLennan	Diamant-Au	Gs(t)
P36	Lévy	1C-2	32 G/15	2736-1179 Québec Inc.	Mine Cooke	Cu-Au-Zn-Pb-Ag	D(7:2620)
P37	Lévy	1C-2	32 C/15	Explorateurs Innovateurs de Québec Inc.	Opemisca Ex-07C	Cu-Au	Mag, T, Gs(r)
P38	Louvicourt	1C-4	32 C/03	Megastar Development Corporation	Simkar	Cu-Zn-Au-Ag	D(3:?)
P39	Mazenod, Fabre	1C-2	31 M/03	Kinbaouri Gold Corporation	Laniel	PGE-Diamant	Mag, Gs(t), Pr
P40	McKenzie	1C-2	32 G/16	SOQUEM INC. / Itamiraque Resources Inc.	Mop II (1206)	Cu-Au	D(17:4897), Pr
P41	McKenzie	1C-2	32 G/16	SOQUEM INC. / Itamiraque Resources Inc.	Radar (1287)	Cu-Au	D(7:1514)
P42	McKenzie	1C-2	32 G/16	Ressources Meston Inc. / SOQUEM INC.	CM 437	Cu-Au	DPEM
P43	McKenzie, Roy	1C-2	32 G/16	MSV Resources Inc.	Baie du Commencement	Cu-Au	D(6:1660), Mag, EM, IP
P44	-	1C-3	-	Alexis Mineral Corporation / Noranda Inc. / Falconbridge Ltd	MégaTEM-VMS	Cu-Zn	D(18:6607), Mag, DPEM, Gs(r)
P45	Montbray	1C-3	32 D/06	SOQUEM INC.	New Insc0 (1361)	Zn-Cu	Mag, EM

TABLE 1C-2 - Exploration projects for base metals in the Abitibi and Pontiac subprovinces for 2004.

No	TOWNSHIPS	Fig.	NTS	COMPANIES / PROSPECTORS	PROJECTS	SUBSTANCES	WORKS ⁽¹⁾
P46	Mountain, Grevet	1C-2	32 F/02	Breakwater Resources Ltd	Mine Langlois	Zn-Cu-Ag-Au	TE
P47	Poirier	1C-2	32 E/08	Globex Mining Enterprises Inc. / Noranda Inc.	Poirier Sud	Cu-Zn	Pr, S
P48	Poirier, Joutel	1C-2	32 E/08	SOQUEM INC. / Orient Resources Inc.	Joutel West (1290)	Zn-Cu	EM
P49	Rouyn, Beauchastel	1C-3	32 D/03	SOQUEM INC. / Thundermin Resources Inc. / Itamineraque Resources Inc.	Lac Pelletier (1298)	Ni-Cu-PGE	D(6:1749), Gs(r)
P50	Ste-Hélène, La Gauchetière, Bapst	1C-2	32 E/16	SOQUEM INC.	Samson (1091)	Zn-Cu	Mag, EM
P51	Tavernier, Pershing	1C-4	32 C/02, 03	SOQUEM INC.	Matchi-Manitou (1352)	Zn-Cu	Mag, EM
P52	Urban	1C-2	32 G/04	Urbana Corporation	Urban Township	Cu-Au	Mag, EM
P53	-	1C-2	31 M/06, 07	Aurora Platinum Corporation / Fieldex Exploration Inc.	Temiscamingue	Cu-Ni-Pt-Pd-Au	D(2:450), Mag, EM, Pr, T
P54	-	1C-2	-	SOQUEM INC.	RÉA-MB-Abitibi (2161)	Zn-Cu	Gs(r)
P55	-	1C-2	32 E/15, 32 L/02	Majescor Resources Inc.	Nothaway	Diamant-Au	Rcd(7:305)
P56	-	1C-2	32 F/08	Ressources Broadback Inc. / Sirios Resources Inc.	Val-d'Or nickel	Cu-Ni-PGE	D(3:830)
P57	-	1C-2	-	Noranda Inc.	Matagami 3D	Zn-Cu-Ag-Au	TE
P58	-	1C-2	-	Noranda Inc.	Matagami AEM	Zn-Cu-Ag-Au	D(4:1019), DPEM, EM, Mag
P59	Nédelec, Guérin, Guignes, Baby	1C-2	31 M/11	Tres-Or Resources Ltd	Temiscamingue	Diamant	D(?:?), Gp, Gs(t)
P60	Barraute	1C-2	32 C/05	Gestion Aline Leclerc Inc.	Barraute-Centre	Cu-Zn-Au-Ag	Pr, Gs(r)
P61	Tavernier	1C-4	32 C/06	Gestion Aline Leclerc Inc.	Tavernier A	Cu-Zn-Au-Ag	Pr, Gs(r)
P62	Senneterre	1C-2	32 C/06	Gestion Aline Leclerc Inc.	Senneterre A	Cu-Zn-Au-Ag	Pr
P63	Carpentier	1C-2	32 C/06	Gestion Aline Leclerc Inc.	Carpentier A	Cu-Zn-Au-Ag	Pr, Gs(r)
P64	Dufresnoy	1C-3	32 D/07	Breakwater Resources Ltd	Mine Bouchard-Hébert	Cu-Zn-Ag-Au	D(39:20040), DPEM
P65	Rouyn, Beauchastel, Duprat, Dufresnoy	1C-3	32 D/02, 03, 06, 07	Alexis Minerals Corporation / Noranda Inc. / Falconbridge Ltd	GOCAD-Camp central	Cu-Zn	D(12:10875), DPEM, Gs(r)
P66	Clérycy	1C-3	32 D/07	Alexis Minerals Corporation / Noranda Inc. / Falconbridge Ltd	Noralex-VMS	Cu-Zn	D(2:830), Mag, DPEM, Gs(r)
P67	Bourlamaque, Louvicourt	1C-4	32 C/03, 04	Alexis Minerals Corporation / Aur Resources Inc.	VMS Option	Cu-Zn	D(9:5731), DPEM, Gs(r)

1 = See abbreviation list in appendix II.

