

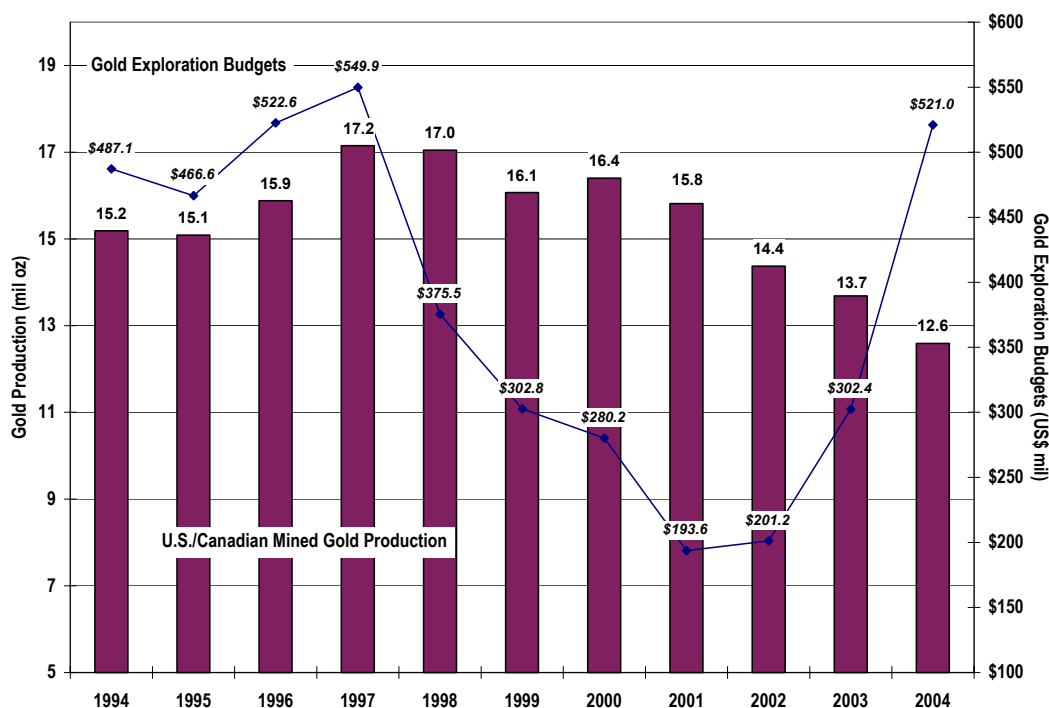
U.S. AND CANADIAN GOLD SUPPLY PIPELINE

Gold production in the region continues to decline, but gold exploration spending levels are up

During 2003, six primary gold mines in the United States and Canada with a combined annual production capacity of 476,000 oz/y closed, according to Metals Economics Group's *MineSearch* database. In 2004, a further four mines with capacity totaling 400,000 oz/y have closed or are expected to close. Exacerbating the production picture are lower grades at several mines and reduced byproduct gold production, especially at Kennecott's *Bingham Canyon* copper-gold mine in Utah. Within the two countries, only one gold mine started production in 2003—the 300,000-oz/y *Turquoise Ridge* mine in Nevada—while three are ramping up in 2004, and one other is expected onstream by the end of the year. Overall, Gold Fields Mineral Services is forecasting a 1.1-million-oz decline in U.S. and Canadian gold production to 12.6 million oz in 2004.

As illustrated in the graph below, the forecast production decline will be the fourth in a row and will reduce U.S. and Canadian gold production to its lowest level in recent history. In response to this decline,

Figure 1: Gold Mine Production And Exploration Budgets, 1994-2004



Data sources: Gold Fields Mineral Services; MEG's Corporate Exploration Strategies.

and encouraged by the improved gold price and gold equity markets, gold companies have increased their U.S. and Canadian gold exploration budgets by more than 70% to \$521 million this year. This follows a 50% increase in 2003 and a modest increase in 2002 from a historic low of about \$194 million in 2001. This article will briefly survey the results of previous expenditures and outline the potential for new U.S./Canadian mined gold supply.

New gold mines and production expansions expected to add 3 million oz/y by 2006

Table 1 on the next page shows new U.S. and Canadian gold capacity expected onstream in the near term from new or reopened mines and expansions, with Newmont involved in five of them. During 2003, only one significant new gold mine started production in the United States and Canada—the 300,000-oz/y *Turquoise Ridge* mine in Nevada (Placer Dome 75%, Newmont 25%)—which yielded 92,965 oz of gold at a total cost of \$220/oz during the year. In January 2004, Kinross began developing the Emanuel Creek orebody and restarted the *Kettle River* mill in Washington state, where gold production of about 100,000 oz was anticipated in 2004. However, in the first half of 2004, Kettle River's production was lower than expected due to shortfalls in grades and mill tonnage, the latter due to ground support issues. In February 2004, an expansion of the underground mine and mill at Agnico Eagle's *Donald J LaRonde* mine in Quebec was completed. Ore production reached nearly 6,700 mt/d and was expected to increase capacity to 300,000 oz/y from 260,000 oz/y; however, structural problems in the stopes have caused some setbacks.

At Newmont's Gold Quarry mine in Nevada, the *Gold Quarry South Layback* started production in early 2004, and in the first half of the year, Newmont's higher cash costs of \$275/oz were primarily attributable to processing lower grades due to stripping laybacks at the Gold Quarry and Twin Creeks Section 30 pits. The *Twin Creeks Section 30 Layback* is expected to produce 1.6 million oz of gold over a six-year mine life at total cash costs of between \$210 and \$220/oz. Production is expected to begin in 2005, with capital costs estimated at \$20 million. Development is ongoing at Campbell Resources's 76%-owned *Copper Rand 5000* mine in Quebec (Soquem 8%, James Bay 8%, Travaille 8%), with production expected to start in December 2004 and reach capacity of 40,000 oz/y in 2005.

Goldcorp's high-grade *Red Lake* in Quebec started an expansion project in February 2003 that includes sinking a new shaft to a depth of 2,180 m, with a hoisting capacity of 3,630 mt/d. Upon completion of the new shaft in 2006, the High Grade zone is expected to contribute 725 mt/d of ore, and the lower-grade sulfide mineralization would contribute about 180 mt/d, with gold production

Table 1: Near-term Gold Supply From New Mines And Expansions
(listed by start-up date)

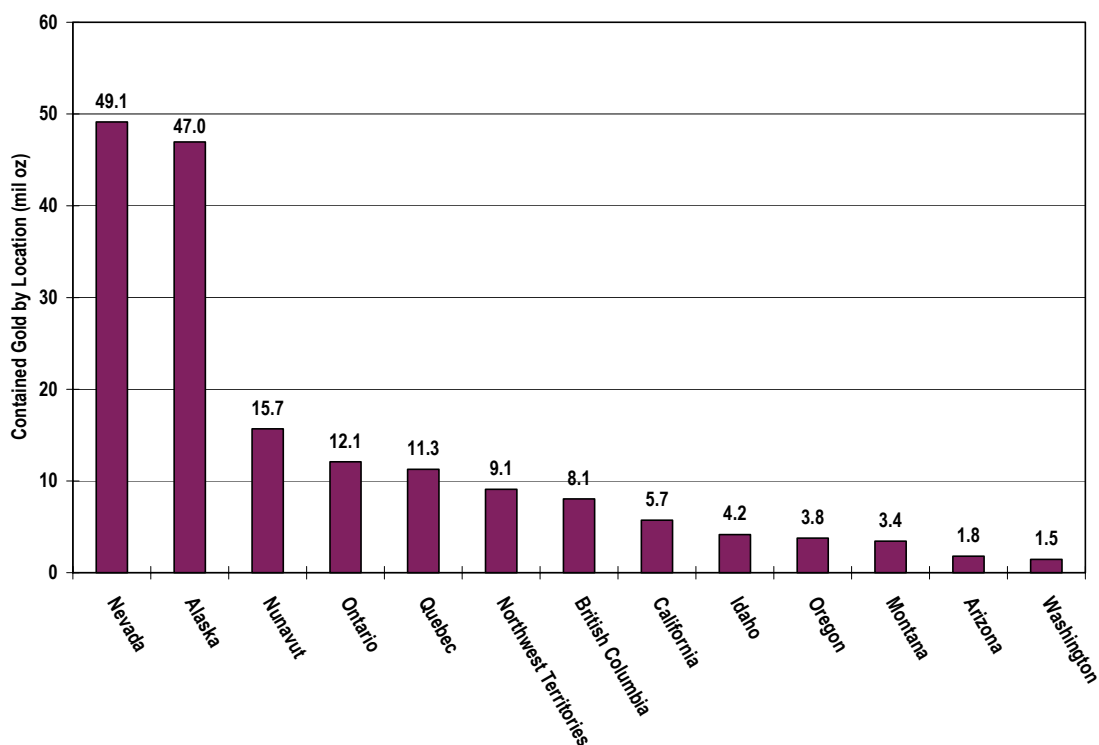
Project	Owner(s)	Location	Current Status	Contained Gold (oz)	Capital Costs	Start-up Date	New Gold Capacity (oz/y)
Turquoise Ridge	Placer Dome 75% Newmont 25%	Nevada	Production	12,109,000	\$87.4	2Q 2003	300,000
Kettle River	Kinross Gold	Washington	Production	250,000	\$55.0	1Q 2004	100,000
Donald J LaRonde	Agnico-Eagle Mines	Quebec	Production	8,371,000	\$43.0	1Q 2004	40,000
Gold Quarry	Newmont Mining	Nevada	Production	2,652,000	\$36.0	1Q 2004	430,000
Copper Rand 5000	Campbell 76% Local Partners 24%	Quebec	Preproduction	194,000	\$35.8	4Q 2004	40,000
Marigold	Glamis Gold 33.3% Barrick 66.7%	Nevada	Expanding	4,166,000	\$45.0	2005	117,000
Twin Creeks	Newmont Mining	Nevada	Preproduction	7,081,000	\$20.0	2005	250,000
Leeville	Newmont 98% High Desert 2%	Nevada	Preproduction	4,501,000	\$187.5	4Q 2005	575,000
Phoenix	Newmont Mining	Nevada	Preproduction	8,770,000	\$200.0	2006	425,000
Pogo	Teck Cominco 40% Sumitomo 60%	Alaska	Preproduction	4,517,000	\$280.0	1Q 2006	460,000
Red Lake	Goldcorp	Ontario	Expanding	7,396,000	\$85.0	3Q 2006	240,000
Totals				60,007,000	\$1,074.7		2,977,000

expected to increase from 500,000 oz/y to 740,000 oz/y. To accommodate the increased mining rate, the mill is being upgraded to 900 mt/d at a cost of \$3 million. In Nevada, Glamis received mining approval for the Millennium expansion at its *Marigold* mine in February 2004, after a phase-one expansion was completed during 2003. The Marigold expansion programs are designed to lower total cash costs and raise production to more than 200,000 oz/y by 2005 from 83,000 oz in 2002.

Nevada remains the leader in gold resources; Nunavut leads Canada

Rising gold prices and improved investor interest in gold equities last year helped juniors raise the capital required to reactivate some of their stalled exploration programs. In addition, several majors have reported their intention to return to organic growth, rather than simply pursue acquisitions. The increased spending by both majors and juniors is resulting in the reactivation of some marginal projects and the accelerated development of the most promising new prospects. Currently, 52 primary gold projects, each with at least 1 million oz of gold defined in reserves or resources, are active in the United States and Canada. Contained gold in the 31 U.S. deposits totals 116.5 million oz, while the 21 Canadian deposits contain a total of 56.2 million oz.

Figure 2: U.S. And Canadian Gold Deposits Of Over One Million Oz By Location



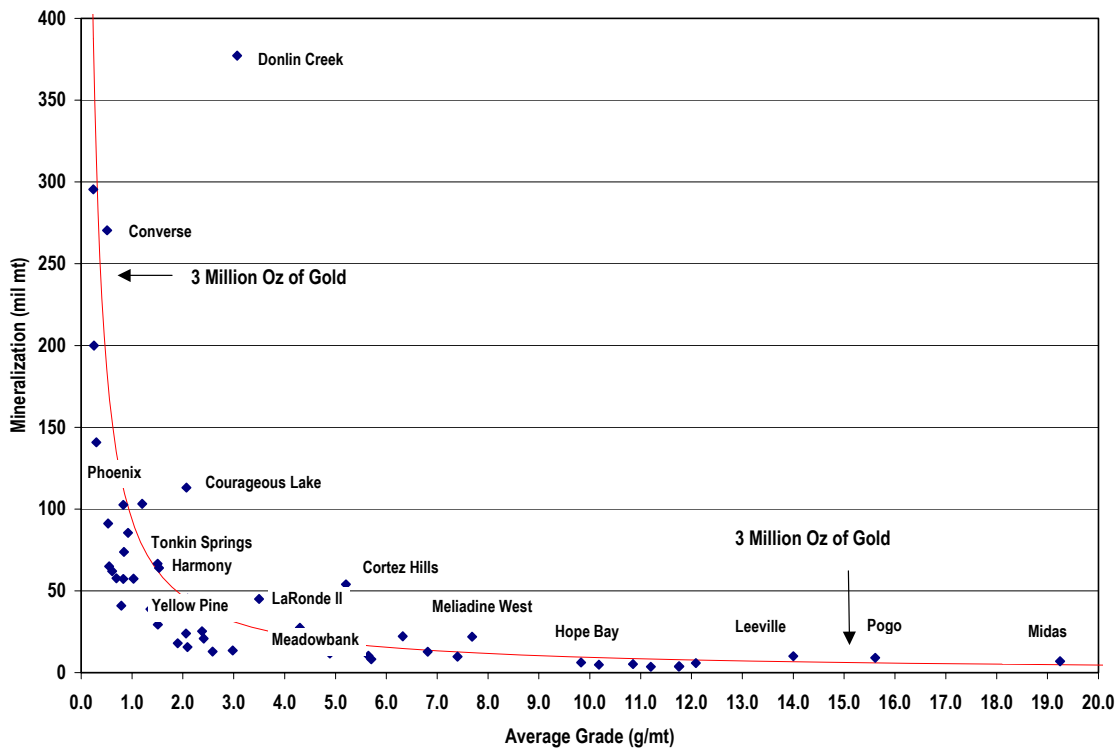
Data source: MEG's MineSearch database.

Table 2: Significant Gold Deposits By Location

State/Province	# of RD	# of Fea	# of Pre	Total Deposits	Total Mineralization (mil mt)	Average Gold Grade (g/mt)	Total Gold in Reserves & Resources (oz)
Nevada	10	2	2	14	1,480,407,101	1.03	49,146,000
Alaska	2	2	1	5	704,919,314	2.07	46,959,000
Nunavut	3	1		4	77,708,800	6.28	15,683,000
Ontario	6			6	141,940,557	2.65	12,100,000
Quebec	2	2	1	5	98,351,403	3.57	11,285,000
Northwest Territories	1	1		2	117,872,970	2.40	9,100,000
British Columbia	4			4	341,358,572	0.73	8,051,000
California	2	2		4	214,258,530	0.83	5,719,000
Idaho	1	1		2	63,294,950	2.04	4,151,000
Oregon	2			2	118,203,840	1.00	3,784,000
Montana	2			2	39,100,000	2.74	3,439,000
Arizona	1			1	5,221,400	10.85	1,821,000
Washington	0	1		1	3,860,184	11.76	1,459,000
Totals	36	12	4	52	3,406,497,621	1.58	172,697,000

Figure 3 below shows the distribution of these projects by tonnage and grade, and where they fall along the 3-million-oz line. Fifteen of the projects (labeled on the graph) contain more than 3 million oz in combined reserves and resources for a total of 113.5 million oz. An additional seven each contains between 2 million and 3 million oz of gold totaling 30.1 million oz, and the other 30 projects each holds between 1 million and 2 million oz of gold for a total of 42.1 million oz.

Figure 3: Tonnage And Gold Grades Of North American Gold Projects



Data source: MEG's MineSearch database.

Nineteen deposits of more than 2 million oz each are being developed; five over 5 million oz

Table 3 on the next page lists the 19 largest active U.S. and Canadian gold projects in the feasibility and reserves development stages, each with at least 2 million oz of gold in reserves and resources. This 107.6 million oz of total resources is in addition to the four projects with 18 million oz of resources in the preproduction stage, listed in Table 2.

Five of the projects each reports resources containing 5 million oz or more, with Placer Dome as the operator of the two largest resources being developed. The largest is Placer's 70%-owned **Donlin Creek** (Novagold 30%) in Alaska, with measured and indicated resources of 11.33 million oz contained in 117.5 million mt grading 3 g/mt Au and an additional 25.9 million oz of inferred

resources at an average grade of 3.1 g/mt Au. A feasibility study on Donlin Creek is scheduled to start in late 2004, with permitting to begin in the December 2004 quarter, leading to a construction decision by 2007. **Cortez Hills**, the Cortez Joint Venture's 2002 discovery in Nevada (Placer Dome 60%, Kennecott 40%), is the second-largest project. In July 2004, Placer Dome increased the proven and probable reserves estimate for Cortez Hills by 42% to 7.4 million oz of gold. The deposit contains additional resources and is still open at depth and along strike to the south and west, and to the southwest toward the Pediment deposit, more than 2 km away.

Table 3: Largest Active Feasibility And Reserves Development Gold Projects

Project	Owner(s)	Location	Status	Resources Tonnage (mil mt)	Gold Grade (g/mt)	Contained Gold (mil oz)
Donlin Creek	Placer Dome 70% NovaGold 30%	AK	RD	377.20	3.07	37.23
Cortez Hills	Placer Dome 60% Kennecott 40%	NV	RD	53.90	5.20	9.01
Courageous Lake	Seabridge 100%	NT	RD	113.06	2.07	7.52
Hope Bay Gold	Miramar Mining 100%	NUN	FEA	21.93	7.69	5.42
LaRonde II	Agnico-Eagle 100%	PQ	RD	45.00	3.50	5.06
Meliadine West	Comaplex 78% Cumberland 22%	NUN	RD	22.15	6.32	4.50
Converse	Metallic Ventures 25% Cameco 25% Newmont 50%	NV	RD	270.35	0.51	4.43
Midas	Newmont Mining 100%	NV	RD	6.99	19.25	4.31
Meadowbank River	Cumberland 100%	NUN	RD	27.38	4.30	3.79
Tonkin Springs	Bactech 55% US Gold 45%	NV	FEA	66.65	1.50	3.21
Harmony	Taseko Mines 100%	BC	RD	64.00	1.53	3.15
Yellow Pine	Vista 100%	ID	RD	45.25	2.10	3.06
Casa Berardi Mines	Aurizon Mines 100%	PQ	FEA	12.73	6.81	2.79
Quartz Mountain	Quincy 50% Seabridge 50%	OR	RD	102.60	0.83	2.74
Hammond Reef	Kinross 100%	ON	RD	85.50	0.92	2.53
Hemlo West	Newmont Mining 100%	ON	RD	9.80	7.40	2.33
Nome Gold	NovaGold Resources 100%	AK	RD	295.50	0.24	2.28
Macassa	Kirkland Lake 100%	ON	RD	5.86	12.09	2.28
Taurus	International Taurus 100%	BC	RD	73.76	0.84	1.99

Drilling is continuing at Seabridge's wholly owned **Courageous Lake** deposit in Canada's Northwest Territories, where final assay results from the 12 targets that Seabridge identified in its 2003 exploration program confirmed that nine have the potential to host bulk-mineable deposits similar to the known resource. Last year's resource estimate for Courageous Lake was 7.5 million oz of gold contained in 113 million mt grading 2.07 g/mt Au.

Also in northern Canada, in western Nunavut, Miramar's \$13.6 million 2004 exploration budget is funding 38,000 m of core drilling, 5,000 m of RC drilling, and permitting for the proposed Doris North gold mine at the **Hope Bay** gold project. The latest results from an ongoing drill program at the Naartok deposit in the Madrid area at Hope Bay included best intercepts of 35.8 m grading 7.8 g/mt Au and 43.9 m grading 6.3 g/mt Au.

Beneath and adjoining the LaRonde mine in Quebec is Agnico-Eagle's **LaRonde II** polymetallic project, where deep drilling is continuing to indicate higher-grade ore. Seven drills were in operation at LaRonde during the second quarter of 2004, working on definition/delineation drilling on the Level 215 mining horizon, on the LaRonde II exploration program below the Level 215 exploration drift, and on the Level 152 mining horizon. LaRonde II resources are currently reported at 5.1 million oz contained in 45 million mt grading 3.5 g/mt Au, with silver, copper, and zinc byproducts. Agnico-Eagle is also exploring the nearby Lapa deposit, with additional underground reserves of 1.2 million oz of gold. ◆