

• ALASKA

# Minerals critical to restoring luster

*Interest in strategic and critical minerals provides an opportunity for evangelists to expound the advantages of domestic mining*

By SHANE LASLEY

Mining News

**M**ining, by definition, is an environmentally invasive practice of digging holes in the earth to extract the minerals found therein. This reality, coupled with a historical legacy of leaving unsightly scars that ooze metal-laden acidic waters, has given the modern mining industry a figurative black eye.

Champions of today's extraction sector, however, see the strategic resources that are critical to national security, a strong economy and the development of a green energy future in the United States as an opportunity to restore luster to the tarnished image of those who dig up minerals for a living.

Why? These minerals are elemental to the standard of living humankind has become accustomed to in the 21st Century.

This message was a re-occurring theme at the 2012 Alaska Strategic and Critical Minerals Summit, a state government-organized gathering held in Fairbanks on Nov. 30.

"We are doing a good job of this in Alaska with events like this summit, but we really need to carry that message to other venues and to other industries beyond just mining. In particular, we need stronger coalitions with the manufacturers that rely on minerals for their products. We need to involve the processors, the marketers, the distributors and recyclers," U.S. Sen. Lisa Murkowski, R-Alaska, told an audience at the gathering.

Dan McGroarty and Michael Silver, two other keynote speakers at the summit, agree that the mining industry must go beyond "preaching to the choir" and see the recent heightened interest in strategic and critical minerals as an opportunity to garner a larger awareness of the advantages of domestically mining materials important to national security, clean energy and high-tech innovation.

"We have some evangelists here," McGroarty observed.

## Seeking unobtainium

Silver told participants in the summit that blockbuster movies such as "Avatar" further tarnish the public image of the mining industry and illustrate the disconnect between Hollywood's perception of the mining industry and the reality of

SHANE LASLEY



American Elements Chairman and CEO Michael Silver addresses delegates at the 2012 Alaska Strategic and Critical Metals Summit. Silver said the mining community needs to tell Hollywood, "You guys don't get it."

modern mining practices in the United States.

"We need to send people to Hollywood and say 'you guys don't get it,'" the chairman and CEO of California-based American Elements told the crowd.

In "Avatar," an Earth-based mining firm, the Resources Development Administration, travels to the distant planet Pandora in 2154 to mine "unobtanium," a mineral worth US\$20 million per kilogram, due to its fantastic magnetic and superconductive properties. To acquire this fictional 22nd Century contemporary of today's rare earth elements, the RDA is willing to displace Pandora Aborigines, the Na'vi, and wreak havoc on the environment, including areas

sacred to the Pandorans.

While "Avatar" is set on a far-away planet 150 years in the future, the plot of this film, written and directed by James Cameron, reflects the blemished façade of today's earth-bound miners.

"It is a cultural problem and one that needs to be addressed," Silver told the audience.

As opposed to Parker Selfridge, the RDA administrator willing to destroy the Na'vi civilization to mine the unobtanium and bolster the company bottom line in the movie, Silver would like to see real miners cast in roles more akin to Indiana Jones.

"What is more fun than going up into the mountains and discovering something and getting wealthy doing it," the American Elements president reflected.

While only time will tell whether the two planned sequels to Avatar or other future Hollywood blockbusters will shine a more positive light on mining, the industry may be making some headway in the realm of video games.

In "Black Ops 2," the latest installment of the popular "Call of Duty" series of video games, China has banned exports of rare earth elements, sparking a Cold War between the Middle Kingdom and the United States.

Said Mark Lamia, head of Treyarch, the studio that developed "Call of Duty: Black Ops 2": "It was very interesting to find out that the tension in the world, the wars that will be fought, will not be created by the tension over something like oil. Instead, it is more likely to be created by something that many people don't know much about – something called rare

earth elements."

While the storyline is violent, a mainstay of the first-person shooter genre of video games, the more than 100 million people expected to play Black Ops 2 will be introduced to the once-obscure group of lanthanide elements.

Meanwhile, Silver, who would like to see miners cast as heroes on the silver screen, said his company is taking a more elementary approach to getting the word out.

American Elements – which sells more than 3,000 elemental metal, metallic-compound, ceramic and crystalline materials – is doing its part to enlighten young people about the basic building blocks of the universe by providing schools with magnetic periodic tables he said.

"They are really intended for kids to get excited about the periodic table; to recognize the alchemy of it; to recognize that the periodic table, Harry Potter and the alchemy of the Middle Ages are all one in the same," Silver explained. "Magical things are happening every day in this world, and if they can make that connection, you are going to see more of the next generation moving into the industry that we are in."

## Critical mineral pioneers

McGroarty, president of Washington, D.C.-based American Resource Policy Network, said Alaska is fortunate to have lawmakers on both the state and federal levels that understand the importance of a domestic supply of strategic and critical minerals.

"This state has committed to taking a strategic view of critical metals and that is really quite different than any other single state," McGroarty said.

He urged the mineral savvy lawmakers and Alaska's larger mining community to help his organization in its mission "to educate the public and policymakers on the need for natural resource development to reduce resource dependency that weakens U.S. economic competitiveness and national security."

As part of this mission, ARP is informing Washington D.C. policymakers that the United States:

- Has serious resource dependencies;
- Known resources that could alleviate or reverse those dependencies;
- A private sector ready to put capital at risk; and,
- A public policy regime that impedes action and dampens our competitiveness.

McGroarty delivered this message to the U.S. House of Representatives Subcommittee on Energy and Mineral Resources during a May oversight hearing on strategic and critical minerals policy.

He stressed in his testimony the importance of reducing America's dependency on foreign countries to supply the minerals critical to green energy and the nation's avant-garde defense systems.

He pointed to China's monopoly on the global supply of rare earths and that country's increasing restrictions on exports of these technology minerals as a prime example of the dangers posed by this dependency.

"So, whether China withdraws its rare earths supply for geo-strategic purposes,



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• NORTHWEST CANADA

# Juniors struggle to stay afloat in 2012

PwC report forecasts more rough water ahead for mining sector in 2013 as beleaguered companies seek financing for survival, growth

By ROSE RAGSDALE  
For Mining News

**W**ith money drying up, 2012 continued to be one of the most painful years ever experienced by junior exploration companies worldwide, according to a recent report by PwC.

In "Junior Mine 2012 – Must survive before you can thrive," PwC ranked the industry's top 100 juniors based on market capitalization.

Only two juniors with significant projects in northern and western Canada placed in the top 10 companies in PwC's Top 100 for 2012 – Copper Fox Metals (No. 3 – Schaft Creek copper-gold-molybdenum-silver project in northwest British Columbia) and Atac Resources Ltd. (No. 9 – Rackla gold project in central Yukon Territory).

Other Top 100 companies with Yukon properties include Kaminak Gold Corp. (No. 24 – Coffee gold project), Victoria Gold Corp. (No. 36 – Eagle gold project), Strategic Metals Corp. (No. 46 – Midas Touch gold project) and Prophecy Platinum Corp. (No. 50 – Wellgreen PGE-nickel-copper project). Canada Zinc Metals Corp. (Akie zinc-lead-silver project in northern British Columbia,) came in at No. 79, while North American Tungsten Corp. Ltd. (Cantung mine and Mactung tungsten project in the Northwest Territories) made the ranking at No. 81 and Kivalliq Energy Corp. (Angilak uranium project in Nunavut) placed No. 84.

Only 39 companies in 2012's Top 100 held or increased their market cap from 2011 levels, while 61 companies lost



ground.

In addition, equity financing raised by 2012's Top 100 mining companies listed on the TSX Venture Exchange at June 30, decreased by a troubling 41 percent to C\$1.6 billion, compared with C\$2.7 billion raised by the Top 100 juniors in 2011.

PwC, which shortened its name from PriceWaterhouseCoopers in 2010, said junior mining companies' struggle to raise equity during the past year corresponds with their overall decline in market capitalization. Market cap for PwC's Top 100 fell to C\$11.7 billion 2012 from C\$20.6 billion a year earlier, representing a 43 percent decline.

Bought deals, which were by far the most popular form of financing for juniors in 2011 totaling 43 percent of all equity raised, accounted for only 29 percent of equity raised in the first half of 2012.

PwC said these troubling results reflect a volatile market, populated with

skittish investors who want greater returns.

"They aren't looking to add more risk to their portfolios; instead they are risk-averse and shying away from investments with a high risk-rewards ratio. Unfortunately for juniors, this is their 'sweet spot,'" said John Gravelle, PwC's Mining Leader for the Americas in an introduction to the 32-page report.

## Challenging outlook

So what does 2013 have in-store for juniors?

Due to low valuations, PwC predicted that many juniors may get gobbled up by mid-tiers or seniors hoping to acquire junior miners at discounted prices. While there may be willing buyers in the market, willing sellers will prove tough to come by. With memories of their company's 52-week high still fresh in mind, many CEOs won't stomach the valuations offered up by interested buyers.

The multinational professional services firm also anticipates increasing numbers of juniors giving up on conventional forms of financing in 2013 and beginning to aggressively chase alternatives. Foreign investment will likely be an important component of new growth strategies adopted by many juniors, according to PwC.

"Look for an increase in 'toehold' investments – investments in slightly less than 10 percent of issued and outstanding shares, foreign investors are able to avoid being labeled an 'insider' under applicable Canadian securities laws. As a result, investors don't need to disclose their investments," Gravelle said.

He also predicted an increase in investments by foreign non-mining companies.

To get juniors to bite, mid-tier and senior mining companies will have to increase their premiums – partially defeating the upside of depressed valuations – or engage in a robust game of chicken. Who will blink first, buyers hungry for a good deal or sellers watching their cash deplete?

PwC said it sees the best opportunities for juniors mining gold. The firm has observed a recent bout of deals completed with juniors in the gold sector – drawing above-average deal premiums. This doesn't necessarily mean the market can expect this spell to continue; instead, with elevated expectations for high deal premiums, matched with marching orders to conserve cash, mid-tier and senior miners may not be able to meet the optimistic expectations of gold juniors, PwC added.

Access the full report at: [www.pwc.com/ca/juniormine](http://www.pwc.com/ca/juniormine). ●

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## STRATEGIC MINERALS

or consumes an ever-increasing amount of the metals it used to export to the so-called 'Rest of the World', the result will be the same – a shortage of a group of metals critical to our technological and economic development, as well as our national security," McGroarty said.

While countries such as Australia, Japan and South Korea are moving rapidly towards securing reliable sources of rare earths and other critical minerals, McGroarty quipped that the United States is moving in "geological time."

In contrast to the tectonic pace on the federal level, he praised Alaska's progressive approach to critical minerals.

"Here you are in this state, and I know of no other, that puts together these strategic conferences; where you look at coordinating state agencies with all different stakeholders," he said.

Despite the headway being made on the state level, Alaska must still contend with a cumbersome federal bureaucracy.

"How do you act or interact in Alaska as you put together strategic policy; and how do you do that where Washington, D.C. has some play?" McGroarty queried.

The answer may lie in Alaska's pioneering spirit.

"Alaska is creating solutions to a problem that the policymakers on the federal level don't even see," McGroarty told Mining News during a Dec. 21 interview. "I think that is part of the challenge for Alaska, but if one takes this more evangelical view, maybe it is an opportunity."

As a pioneering state in this realm, McGroarty believes Alaska has an opening to shape strategic and critical minerals policies.

"If states are the laboratory for reform then Alaska should move forward and not just create its own policy but (a policy that) would then stand for the other mining

states as a possible direction for them to go," he said. "It should not let the gridlock in Washington (D.C.) dissuade it from taking action."

At the same time, the APRN president said Alaska policymakers should continue to be evangelists on the state and federal levels. In addition to spreading the word to their immediate peers, McGroarty suggested that the Alaska congressional delegation and state administration reach out to federal agencies such as the U.S. Department of Energy, Department of Defense and United States Geological Survey and even the White House.

"The White House has a critical metals working group; the Alaska delegation could seek to attach themselves as a state to that working group," the APRN president suggested.

By being actively involved on these various levels, Alaska can raise the awareness of the need for a domestic supply of strategic and critical minerals and the state's potential to meet that need.

"Alaska will help itself if it helps the rest of the policymaking community understand the critical and strategic nature of domestic resource development," McGroarty added.

### Mining a green future

Though McGroarty focused primarily on swaying perceptions in Washington, D.C., and Silver spoke on the need to gain influence in the nation's opinion-shaping capital, both speakers see the current focus on the minerals critical to developing a green energy future as an opportunity for the mining and environmental communities to engage.

"Because technology is so critical to advancing the green energy alternatives, it is a moment for us to stop and think about the way that metals are necessary to make that transition – a moment to have a strange new respect for mining," McGroarty observed.

He expects this respect to rise with the realization that the solar panels, wind turbines, electric cars and fuel

cells envisioned to build a green energy future will require a large quantity and wide range of minerals.

"The only way we are going to build that future is by going into the ground and taking out the rare earths, taking out the lithium and taking out the materials we need to build that future," said Silver.

This creates a Catch-22 for the environmental community, he said.

"They have to reconcile the supply chain," Silver said. "The environmental movement can't have it both ways."

McGroarty and Silver both said that if the massive amounts of minerals needed to build the green energy infrastructure and products are not mined in the United States or some other developed country with stringent environmental policies, they will be sourced from places with fewer regulations, such as the Congo or China.

While environmentalists may find it impossible to see the world from a miner's perspective, and vice versa, Silver said the oftentimes opposed groups may find common ground in responsibly sourcing the materials needed to build a green energy future.

Beyond the environmental implications, a domestic source of the elements needed to build this green energy future in the United States could bolster the economy along the entire supply-chain.

"Somebody, somewhere is going to mine those things, and they are going to build the solar panels, and we will just buy them. McGroarty told Mining News. "Let's mine these materials and build them out of the stuff they are made of."

"I think that governments need to sit down with all of the stakeholders and make people realize that the green technology future that we all want requires mining; that is where the supply-chain begins," Silver said.

Mining has at least one evangelist on Capitol Hill that agrees.

"We need every step in the supply-chain to understand the benefits of producing these minerals in a place like Alaska," Murkowski told the summit. ●