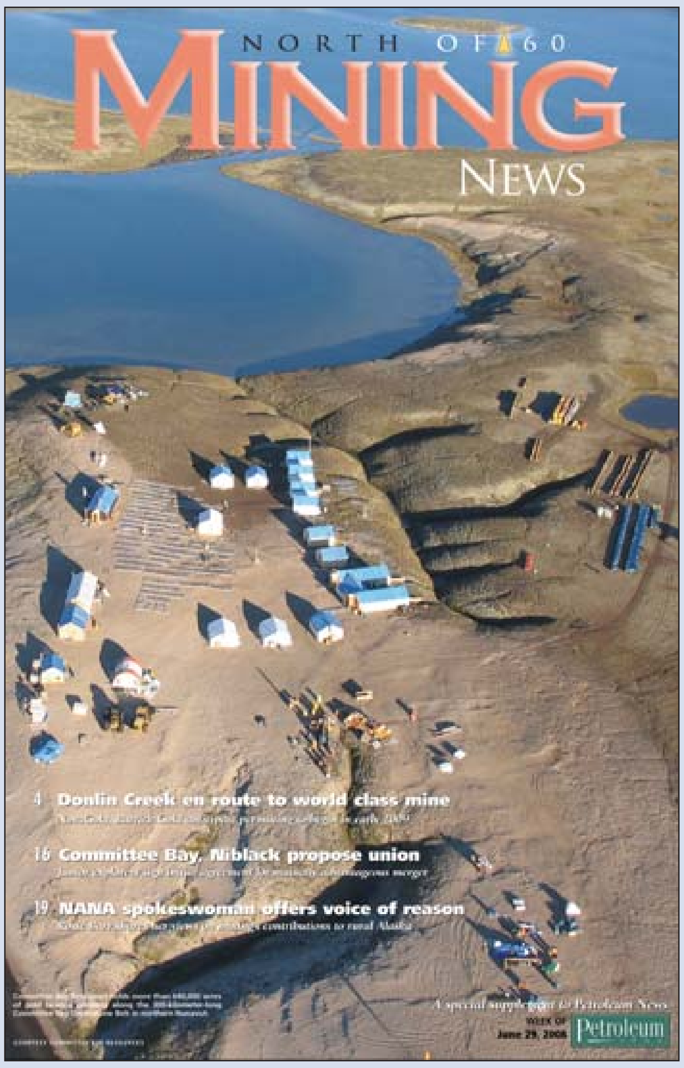
Petroleum news

Vol. 13, No. 26 • www.PetroleumNews.com | *A weekly oil & gas newspaper based in Anchorage, Alaska* | Week of June 29, 2008 • $1.50

page 5 $2B in Alaska road work, bridges needed in advance of gas pipelin

June issue of Mining News inside



The June edition of North of 60 Mining News is inside this issue of Petroleum News.

ANWR news round-up from Alaska, Lower 48 states

GOV. SARAH PALIN wrote to Senate Majority Leader Harry Reid on June 23 asking for Congress to allow oil and gas drilling in the 1002 area of the Arctic National Wildlife Refuge as a way to "help reduce price volatility" and "send a strong message to oil speculators and producing countries."

"What will it take for Congress to enact comprehensive energy policy that includes increased domestic production of oil and gas, renewable and alternative energy, and conservation? It seems to us outside of the Capitol Beltway that virtually every effort to accomplish this is met with criticism and failure," Palin wrote.

McCain flips on offshore

Republican presidential candidate John McCain called for

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EXPLORATION & PRODUCTION

Thomson revisited

Opposing view on how much oil recoverable; whether focus should be on gas

By KRISTEN NELSON
Petroleum News

There seems to be general agreement on the gas resource at Point Thomson, an undeveloped field on the eastern side of Alaska's North Slope: some 8 trillion to 10 trillion cubic feet, although there is disagreement on whether that gas is a requirement for a successful North-Slope-to-market gas pipeline.

Then there's the oil — both the liquids in the condensate at the high-pressure reservoir and the oil rim — with estimates of recoverable oil varying widely.

The companies that have been involved at Point Thomson say getting oil out of the reservoir is going to be difficult and costly; the Alaska Department of

see **THOMSON** *page 16*

DNR might allow Exxon to drill at Point Thomson this winter

On June 18 ExxonMobil held a meeting with officials from the Alaska Department of Natural Resources as a precursor to applying for permits for the company's proposed drilling program at Point Thomson on the eastern North Slope.

The Point Thomson unit is in litigation following termination by DNR. Exxon said the purpose of the meeting was to explain the

see **DRILLING** *page 16*

EXPLORATION & PRODUCTION

Shell nixes 2008 drilling

Shell out of time to prepare for Beaufort season while it waits for court ruling

By ALAN BAILEY
Petroleum News

With no sign of a ruling by the U.S. Court of Appeals for the 9th Circuit on a lawsuit over Shell's U.S. Beaufort Sea exploration plans, the company has decided to call it quits on its planned Beaufort Sea drilling program during the 2008 open water season. The company had hoped to do some top-hole drilling at its Sivulliq prospect on the west side of Camden Bay, as well as conducting some geotechnical boring in the seafloor.

Pete Slaiby, general manager for Shell in Alaska

"Shell believes this is the responsible decision given the continuing uncertainty and need for our workers and contractors to pursue other opportunities," Shell spokesman Curtis Smith said, announcing the decision on June 20.

The 9th Circuit lawsuit involves an appeal by the North Slope Borough, the Alaska Eskimo Whaling Commission and several environmental organizations against MMS approval of Shell's exploration plan. That appeal resulted in a court injunction on Shell's Beaufort Sea drilling activities until the case is settled. The court heard oral arguments in December but has yet to issue a ruling in the case.

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FINANCE & ECONOMY

BP: Oil reserves adequate

Cites supply constraints, increased demand, not lack of resources, for high prices

By ALAN BAILEY
Petroleum News

It may come as no surprise to learn that high and rising energy prices defined the worldwide energy scene in 2007. But a review of the inexorable increase in the price of crude oil and other fuels reveals the extent to which the world is entering uncharted territory in terms of the prices people are paying to meet their energy needs.

By 2007 oil prices had increased every year for six years and that trend is continuing into 2008, Mark Finley, BP general manager, global energy markets, told a packed audience in Anchorage's Captain Cook Hotel on June 19. That's the longest continuous price increase since at least 1861, the

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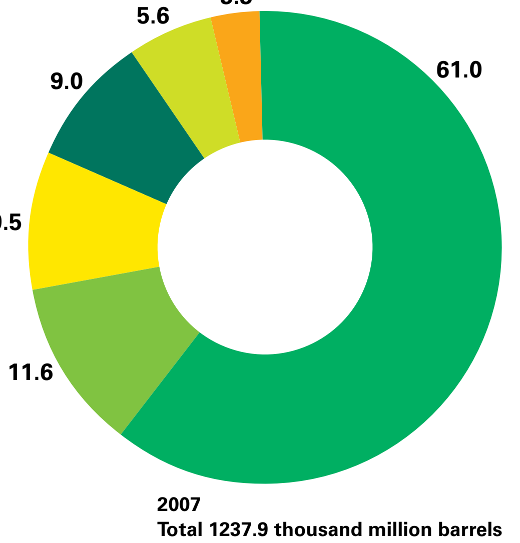

2007
Total 1237.9 thousand million barrels

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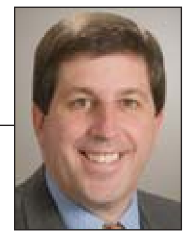

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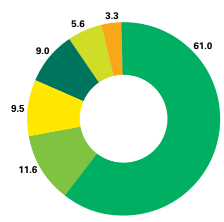

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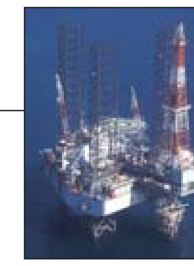

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● EXPLORATION & PRODUCTION

Two-10tcf 'potential' in foothills

Anadarko: Resource figure a broad estimate, but doesn't include data from exploration this past winter

By ERIC LIDJI
Petroleum News

Anadarko Petroleum believes its land holdings in the foothills of the Brooks Range have the "potential" to hold between 2 trillion and 10 trillion cubic feet of natural gas.

The resource estimate comes from a series of presentations the company has been delivering at energy conferences around the country since at least late March. Anadarko most recently included the figure in a presentation on June 24 at the 18th Annual Wachovia Nantucket Equity Conference.


FORREST CRANE
MARK HANLEY

The preliminary estimate covers the Gubik, Chandler and Umiat prospects, all clustered around the Colville River near the village of Umiat.

Anadarko spokesman Mark Hanley said the company has been using the notably broad resource estimate for a while. He said the numbers do not include information gleaned from a recent exploration venture Anadarko conducted this past winter.

Across Alaska, Anadarko owns 4.7 million gross acres of land, mostly through partnerships with other companies. Through the end of 2007, those leases contained an estimated 58 million barrels of oil equivalent, according to the company.

First northern gas exploration

Anadarko drilled exploration wells at Gubik and Chandler earlier this year, completing the Gubik No. 3 well and suspending the deeper Chandler No. 1 well midway to the target depth. As early as April, Anadarko had been testing the well results from Gubik No. 3, but has not publicly released any information about the well.

The foothills exploration program was the first in northern Alaska to explicitly target a large deposit of natural gas, rather than oil. Most gas discoveries north of the Brooks Range have been accidental or for local use only.

Because no transportation infrastructure currently exists for marketing natural gas in northern Alaska, many saw Anadarko's decision to explore as an endorsement of the Alaska Gasline Inducement Act, a state effort to spur construction of a natural gas pipeline built from the North Slope to markets in Canada and the Lower 48.

However, since Anadarko announced its drilling program in the foothills last fall, two developments have changed the prospects for natural gas infrastructure in Alaska.

First, BP and ConocoPhillips announced a competing proposal for a large-diameter natural gas pipeline to the Lower 48.

Second, the Enstar Natural Gas Co. announced it would begin exploring the feasibility of building a small-diameter pipeline from the Gubik gas fields to Anchorage as a way to offset looming supply shortages in the Cook Inlet. Enstar has said it would need Anadarko to find 3.5 tcf of reserves to make that pipeline viable.

Anadarko plans to return to the foothills this coming winter to continue delineating the Gubik and Chandler prospects.

Anadarko and Enstar plan to meet in mid-July to discuss early results from the exploration program this past winter, but Enstar won't make a decision about the bullet line until next year.

USGS: 600 bcf at Gubik

The most recent resource figures for Gubik come from a joint U.S. Navy and U.S. Geological Survey expedition in the early 1950s, which estimated that Gubik contained 600 billion cubic feet of natural gas.

Anadarko acquired its land holdings around the two prospects through a deal with the Arctic Slope Regional Corp., through a partnership with Petro-Canada and finally through lease sales in the area.

Although Anadarko does not own the land associated with the oil-prone Umiat prospect, it does have partial ownership of seven tracts of land to the northwest, within the National Petroleum Reserve-Alaska.

Anadarko is partnering at Gubik and Chandler with Petro-Canada and BG Group. ●

Contact Eric Lidji at 907-770-3505 or elidji@petroleumnews.com

ENVIRONMENT & SAFETY


COURTESY TESORO CORP.

Tesoro volunteers doing remediation work at Daniel's Creek on Alaska's Kenai Peninsula

Tesoro helps at Daniel's Creek

On June 24 a team of volunteers from Tesoro's Kenai refinery met to carry out remediation work at a failed culvert on Daniel's Creek in the northern Kenai Peninsula, Alaska. Under the direction of Robert Ruffner, executive director of Kenai Watershed Forum, and Mike Edwards, a biologist with U.S. Fish and Wildlife Service, the team helped restore the steam bed and bank at a former stream crossing that had failed, Tesoro Manager of External Affairs Kip Knudson told Petroleum News June 26. The work included planting willows and placing vegetation mats, Knudson said.

Tesoro also presented Kenai Watershed Forum with a check for $25,000 to help fund the Daniel's Creek project. The U.S. Fish and Wildlife Service had identified Daniel's Creek restoration as a high priority in removing barriers to fish migration, Tesoro said.

—ALAN BAILEY

GOVERNMENT

State hires Emerald/ABS for assessment

The state has hired Emerald/ABS to conduct a comprehensive risk assessment of oil and gas infrastructure across Alaska, the Department of Environmental Conservation announced on June 24.

Emerald/ABS is a joint venture between Doyon Emerald, an 8(a) company, and the international firm ABS Consulting.

Gov. Sarah Palin announced the $4.1 million risk assessment in May 2007 in response to high-profile oil spills on the North Slope caused by corroding pipelines.

The three-year risk assessment is the first of its kind in the state. Because of the lack of precedent Emerald/ABS will have to create its own design for the project.

The program will cover not only infrastructure on the North Slope, but facilities in Valdez and the Cook Inlet as well. Some of that infrastructure is more than 40 years old. The risk assessment will require significant cooperation both among state agencies and between the state and the oil industry.

The state has created an advisory team bringing together people from state and federal departments and agencies.

—ERIC LIDJI

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● NATURAL GAS

ANGDA renews open season statute debate

Provisions from 2000 law could complicate a future open season for in state use of natural gas, debates go back to summer 2004

By ERIC LIDJI
Petroleum News

Dusting off a debate left unresolved with the demise of natural gas pipeline negotiations in the Murkowski administration, the Alaska Natural Gas Development Authority is once again asking state lawmakers to repeal a statute governing the distribution of North Slope natural gas to communities in Alaska.

Speaking before the Legislature on June 20 and before state regulators on June 25, Harold Heinze, chief executive officer of ANGDA, presented a draft bill that would repeal two provisions of a statute detailing how the state should regulate access to North Slope natural gas bound for in state markets.


FORREST CRANE

HAROLD HEINZE


KATE GIARD

State lawmakers created the statute in 2000 as a way to deal with the expansion of any future natural gas pipeline in Alaska. The statute sets up a procedure governing the open season process for gas in the pipeline directed for in-state use.

The potential pitfalls in the legislation didn't become an issue until 2004, when former state Attorney General and Alaska Gasline Port Authority board member Charlie Cole spoke before the Legislative Budget and Audit Committee.

Cole said that the statute, by requiring potential in-state shippers of natural gas to sign three-year contracts, created a disincentive for buyers in communities like Fairbanks with limited natural gas distribution networks.

Currently, the 1,000 customers of Fairbanks Natural Gas are supplied with liquefied natural gas trucked up from a plant at Point MacKenzie. That network has grown considerably since 2004, but is still far from being the dominant fuel source in Fairbanks.

The worry was that local utilities would be forced to make to firm transportation commitments "without knowing what their future demands will be, without knowing what the future tariff rate will be or the methodology for gas valuation will be or from whom they will purchase gas or even if it will be available," as Fairbanks North Star Borough Mayor Jim Whitaker, a long-time Alaska Gasline Port Authority board member, put it in a letter to then-Sen. Scott Ogan.

The provisions cover shippers that are not public utilities and those public utilities that ship more than 20 million cubic feet of natural gas per day.

Dying pipeline ended debate

State lawmakers never addressed Cole's concerns at that time, and without a natural gas pipeline on the horizon the issue quickly became moot. As of today, the statute has still never been tested with a real-world application.

When debates began around the Stranded Gas Development Act in 2005, Heinze brought Cole's concerns before the Regulatory Commission of Alaska.

"They concluded that their statute was in need of change," Heinze said on June 20.

After examining the issue and holding a public hearing, then-RCA Chair Kate Giard sent a letter to then-Gov. Frank Murkowski asking him to include a revision to the statute in the package of Stranded Gas Development Act legislation before state lawmakers.

However, the failure of that bill to produce a pipeline and the failure of Murkowski to win re-election made in the issue moot again, until now.

Heinze wants lawmakers to repeal the provisions along with the larger decision of whether or not to give a state license to TransCanada under the Alaska Gasline Inducement Act.

"Absent this change, we don't believe an in-state open season can be held," Heinze told lawmakers during hearings in Anchorage over AGIA.

RCA also wants more funding

ANGDA plans to ask the Palin administration to make these changes, just as it asked the Murkowski administration several years ago, Heinze told the RCA on June 25.

Giard, now a regular commissioner, said she planned to use the opportunity to ask for additional funding and staff for the RCA to handle the additional workload associated with any natural gas pipeline, whether it be from TransCanada or from Denali, a competing plan backed by BP and ConocoPhillips.

"I think the reality is that the agency is going to be working on this pipeline long before we're collecting RCCs," Giard said, referring to the Regulatory Cost Charge the commission levies on utilities as a major source of income. ●

Contact Eric Lidji at 907-770-3505 or elidji@petroleumnews.com

● NATURAL GAS

Road work needed in advance of gas line

State pegs $2 billion in surface, bridge, facilities needs along pipeline route, routes for pipe, supplies for construction

By KRISTEN NELSON

Petroleum News

Having two competing gas pipeline projects going to the Federal Energy Regulatory Commission isn't a concern for the Alaska Department of Transportation and Public Facilities.

What concerns the department is potential completion on the ground between gas pipeline construction and work on the state transportation infrastructure — roads, bridges and other facilities — needed to support pipeline construction.

Given proposed pipeline schedules, the department believes it has about six years to complete its own work.

And that work is substantial.

While the price tag for infrastructure work doesn't compete with the estimated $20-$30 billion gas pipeline, it weighs in at a hefty $2 billion, DOT&PF Deputy Commissioner Frank Richards told legislators June 13 in Fairbanks. His presentation was part of the Legislature's hearings on the TransCanada Alaska license application under the Alaska Gasline Inducement Act.

Concern over cost

Legislators were more concerned about who was going to pay for this $2 billion in work and how it would affect ongoing statewide infrastructure work than about scheduling it around pipeline construction.

Much of the proposed work would qualify for federal highway funds, Richards said, but federal highway funds are declining and there are competing needs already in the statewide transportation improvement program listings, so the state will have to find alternative funding.

Richards said the state's existing federal highway program is about $350 million a year, an amount expected to drop off. The identified $2 billion in work to prepare for a gas pipeline, spread out over six years, is about on a par with that existing federal program, he said, so it's work that the contracting community should be able to handle.

It's the source of funds that is at issue, he said.

"Should the gas line fund the effort? Under previous FERC rulings, they said that the highway agency could not back charge the gas line for use or deterioration of the highway assets, unless you were able to charge all users," Richards said, referring to a FERC decision in the 1980s, which found pipeline traffic to be part of highway use and said pipelines cannot be penalized or treated differently.

Rep. Anna Fairclough, R-Eagle River, questioned charging highway use against the gas pipeline, a charge which would appear as part of the tariff. "I believe that that's counterproductive to the discussions we've been having about exploration and opening up the North Slope basin," she said.

There has been considerable discussion about a low tariff encouraging explorers to look for gas.

More earth moving

This work will be harder on roads than the trans-Alaska oil pipeline, Richards said.

Because the gas pipeline will be buried, there will be more earthmoving.

Richards also said the infrastructure work will be a great training opportunity for workforce development for the gas pipeline. "It will be similar type work, heavy civil work, with operators, mechanics, surveyors, engineers — all the trades necessary for a successful gas pipeline."

Because the pipe will be thicker, one and a quarter inches thick vs. the one-half-inch pipe used for the oil pipeline, the loads are going to be heavier. There will also be large modules for the compressor stations, he said.

Richards said the department also believes there will be more points of entry and possibly more air traffic.

"And we also know that the condition of our pavements along the existing highway systems are nearing the end of their useful life, so we will likely have deteriorating pavement conditions," he said.

While the department has detailed information on the condition of Alaska's roads and bridges, it doesn't yet have specifics on how the pipeline will be built.

Richards said the department talked to the producers during the Murkowski administration and was told they planned to pre-weld and move 80-foot sections of pipe, reducing the number of field welds. With a single 80-foot segment of pipe per truck and some 750 miles of pipeline in Alaska, "this would equate to almost 50,000 truckloads of pipe being transferred over our roads," and with the weight of the pipe those trips "... are going to significantly impact the condition of the highway system."

Avoid construction conflicts

"Why are we talking to you now about infrastructure development?" Richards asked legislators.

Because the department believes it will take six construction seasons, "starting today," to complete necessary infrastructure work before pipeline construction begins. "That's a very aggressive timeline," he said.

The department needs time to develop projects and get them through the design and permitting phases so it can get bids out.

"So in reality we're behind," he said.

With escalating prices there will be a cost advantage to doing the work sooner rather than later, he said, and offered one example: Asphalt has gone from $375 a ton at the beginning of the year to an average of $620 a ton in the state in early June.

While there won't be enough federal funds to do all the work, using state funds shortens the timetable, Richards said, because the federal process required when federal funds are used is lengthy — a sequential process taking some seven years as opposed to the state's parallel process which can cut two to three years off the time. And federal standards for bridges wouldn't allow the state to build or improve bridges to handle the heavy loads expected with gas pipeline construction because the extra capacity is above and beyond the federal standard, he said.

see ROADS page 6

Shakwak: U.S. funding for Yukon roadwork

Alaska Department of Transportation and Public Facilities Deputy Commissioner Frank Richards told legislators June 13 in Fairbanks that Shakwak funds are expected to be cut in the next Congressional highway appropriation.

This affects work on the Yukon portion of the Alaska Highway, because since the late 1970s the U.S. government has provided funding for highway upgrades, with Canada providing right of way and maintenance.

Shakwak funds came up in Richards' presentation on transportation-related gas pipeline issues, as the Alaska Highway is how gas pipeline materials would get to Alaska overland, including any that might come in at Haines and then go overland for either the Canadian or Alaska sections of a highway gas pipeline.

The Alaska Highway, connecting Alaska with the Lower 48, runs through the Yukon. It is also the road connection, via the Haines Road, between tidewater in Southeast Alaska and the rest of the state. Combined with the state ferry system, it provides the road link between Juneau and the rest of Alaska.

North of Haines Junction, 85 percent of the traffic volume on the Yukon section of the Alaska Highway is of U.S. origin, Yukon Highways and Public Works says on its Web site (www.hpw.gov.yk.ca/trans/engineering/shakwak.html).

WWII military-constructed road

The Alaska Highway was built during World War II for overland military access to Alaska and "has been under reconstruction since the day it was built," the Yukon department said, with civilian contractors following behind the U.S. military. Responsibility for the road passed to Canada after WWII, but the U.S. was still interested in the Haines Road and the north end of the Alaska Highway.

Canada did considerable work on the Alaska Highway starting in the south, but by the 1970s the Yukon section north of the Haines junction had received little attention. In 1977, following 22 years of discussions, the U.S. and Canada signed the Shakwak Agreement, named for a valley, the Shakwak Trench, which runs through much of the area.

The U.S. provided the money for upgrading the 325 northernmost miles of the Alaska Highway in Canada (50 miles in northwestern British Columbia, the rest in the Yukon) and Canada provided right of way and maintenance. Yukon is responsible for

see SHAKWAK page 6

EXPLORATION & PRODUCTION

Section of new pipe springs a leak

BP and state investigators are looking into a water leak from a new section of major piping in the Prudhoe Bay oil field.

The elevated pipe, installed the winter before last to replace a corroded oil line near the heart of the vast field, sprang a leak June 16, releasing an estimated 50,000 gallons of water directly into a tundra lake, BP spokesman Steve Rinehart said.

The new pipe has yet to carry any oil, he said.

The leak occurred as workers prepared to test the pipeline, 18 inches in diameter, by sending water through under high pressure, Rinehart said.

The water did contain a trace amount of a chemical used to safeguard steel pipes against corrosion, Rinehart said.

The company is still trying to determine why the pipe leaked, he said.

Line scheduled for service this year

It is scheduled to go into service as an oil trunk line by the end of the year, carrying oil from the field toward the trans-Alaska oil pipeline. The leak shouldn't change the schedule, Rinehart said.

"The test was successful in terms of finding a leak before there was a big problem," said Bob Mattson, spill prevention and emergency response manager with the state Department of Environmental Conservation. "That's the silver lining."

The leaking water isn't expected to damage the lake, and no significant cleanup is under way, Mattson said.

Rinehart said no fish live in the unnamed lake, which is perhaps a quarter-mile across.

London-based BP runs Prudhoe, the nation's largest oil field, and shares costs with other owners including ConocoPhillips, ExxonMobil and Chevron.

BP came under intense scrutiny from Congress and federal and state pipeline regulators beginning in 2006 when major oil trunk lines sprang leaks and spilled oil onto the tundra. Critics said BP had neglected the lines. The company is replacing 16 miles of problem pipe.

Last November, after BP's Alaska subsidiary pleaded guilty to a misdemeanor environmental crime, a federal judge sentenced the firm to three years probation and ordered it to pay $20 million in criminal penalties for a 201,000-gallon oil spill from a corroded pipeline.

—WESLEY LOY
ANCHORAGE DAILY NEWS

continued from page 5

SHAKWAK

managing the site work.

Work on the portion of the Haines Road that is in Canada and 134 miles of the Alaska Highway between Haines Junction and the Canada-U.S. border north of Beaver Creek has been completed; contracts are under way covering 36 miles.

Yukon funding 60% Shakwak

Alaska DOT&PF officials met with representatives of the Yukon Ministry of Transport in May and Yukon's ability to improve its highways in advance of pipeline construction was discussed, he said. Richards said the discussions are ongoing, and he will be back in the Yukon later in the summer.

The Alaska Highway was built during World War II for overland military access to Alaska and "has been under reconstruction since the day it was built," the Yukon department said.

He told legislators some 60 percent of Yukon's capital program for highway work comes from Shakwak funding. The next reauthorization of the federal highway bill is due out in 2009, he said, and "there is great anticipation that that Shakwak funding will not be there, so that would mean that that will significantly impact the Yukon government and their ability to address the highway needs."

—KRISTEN NELSON

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ROADS

Richards also said the infrastructure work will be a great training opportunity for workforce development for the gas pipeline. "It will be similar type work, heavy civil work, with operators, mechanics, surveyors, engineers — all the trades necessary for a successful gas pipeline."

$1 billion needed on Dalton

Half of the $2 billion in identified projects, $1 billion, is for 36 projects along 415 miles of the Dalton Highway, with work planned to start for approved projects in July. The $1 billion comes out at about $167 million a year for six years, with an initial funding request of $100 million in general funds.

Richards said much of this work was identified in the long-range transportation plan published in the spring, which included $12 billion in projects. "With our heavy reliance on federal highway funds, and declining highway funds now, it just meant that these projects were being pushed farther and farther and farther downstream."

The Dalton Highway was turned over to the state after construction of the trans-Alaska oil pipeline, and while the state has been spending some federal highway dollars on it, "there's been significantly little money spent on that road over the last 30 years and it is in need of improvements," Richards said.

There is also a need for new materials sites along the Dalton, as those used for oil pipeline construction and over the intervening years have been played out, he said.

Other areas needing work include the Elliott Highway (73-mile Fairbanks to Dalton Highway segment), $100 million; the Richardson Highway (95-mile segment from Fairbanks to Delta Junction), $300 million; and the Alaska Highway (200 miles from Delta Junction to the Canadian border), $600 million.

Dalton work first

The Dalton Highway work is first on the department's list because of big bridge crossings, some $75 million in total, Richards said. "That work can be out this winter, bid and under construction by this time next year and we'll be able to put folks to work," he said.

Rep. Mike Doogan, D-Anchorage, questioned why the department would want to work first on the Dalton Highway, rather than on the other highways that "Alaskans are going to be driving on."

"We don't know right now whether this work that's done in aid of the pipeline is actually going to have a pipeline at the end of it, so why is it that we've decided to only start work on the road work that we really only need if there's a pipeline and not on the parts of the highway that Alaskans are going to get some benefit out of, no matter what happens to the pipeline?"

Richards said from his perspective Alaskans benefitted because Alaskans working for the trucking industry "drive the freight and goods north to the North Slope," so work on that road benefits Alaskans now as well as being needed for pipeline construction.

Lots of handwringing

Rep. John Coghill Jr., R-North Pole, said the Fairbanks community is "intensely interested" in the Dalton Highway, because that industrial corridor "is responsible for north of 80 percent of our income," but acknowledged that other highways and bridges in the state are also big issues. He said he expects to see "a lot of decisions, a lot of handwringing in front of the finance committees on how to get the best bang to the best place first."

Rep. Les Gara, D-Anchorage, said he wondered "how much of the tax revenue that we're taking in, we're giving back in terms of road construction projects."

He asked if Dalton Highway funding normally came from the general fund or if industry contributes.

Richards said general fund expenditures for the Dalton Highway "have to date covered mostly maintenance and operations of the highway," with just some $9 million over the last three years for heavy maintenance. Improvements on the highway over the last eight to 10 years have been with federal highway dollars, which precludes the state "from then putting up a toll specifically on the Dalton."

Gara asked if the state was expected to pay for "significant road upgrades just to transport the pipe. Are those expected to be at state cost with no reimbursement?"

Richards said it would be up to the Legislature whether to use general funds or other sources.

Sen. Charlie Huggins, R-Wasilla, who was chairing the hearing, said legislators "would prefer not to be surprised by the requirements that go into infrastructure," and asked Richards to provide information "in as timely a fashion as you can."

Huggins said that included information on infrastructure needs on the other side of the border. He said he was concerned that without Shakwak funds from Congress going to the Yukon, Alaska might end up investing in infrastructure in Canada, as well as in Alaska, to move a gas pipeline project forward. ●

● ALTERNATIVE ENERGY

Fire Island wind farm in late 2009

CIRI says that the state has appropriated $25 million for a transmission line from the island to the Anchorage electric grid

By ALAN BAILEY
Petroleum News

A wind farm proposed for electrical power generation on Fire Island in Alaska's Cook Inlet, three miles offshore Anchorage, could go into operation in late 2009 or early 2010, Sophie Minich, chief operating officer for Cook Inlet Region Inc., told the audience at the Anchorage Chamber of Commerce June 23. The state Legislature has appropriated $25 million for the construction of a submarine cable from the island to connect to the electrical grid in Anchorage, Minich said.

"The cost of the power lines won't have to be paid by the utilities or customers that buy power from Fire Island," she said.

The next steps in the Fire Island project will be to negotiate power purchase agreements with the Railbelt utilities and to finalize the project engineering and permitting.

"Phase one of the Fire Island project involves 24 wind towers that could generate up to a total of 50 megawatts," Minich said. "This project could later be expanded to generate 100 megawatts … enough power to supply roughly 35,000 average sized Railbelt homes."

FAA approval

Minich said that the Federal Aviation Administration had determined that the wind farm would not pose a navigational hazard for aircraft using the nearby Ted Stevens Anchorage International Airport. FAA approval of the wind farm plan has proved to be a major issue for the project.

On the Web

See previous Petroleum News coverage:

"Harnessing wind for Alaska Railbelt," in the Jan. 20, 2008, edition at www.petroleumnews.com/pnads/7077804.shtml

"We expect Fire Island to be an anchor for additional wind energy projects up and down the Railbelt and across Alaska." **—Sophie Minich, chief operating officer, Cook Inlet Region Inc.**

CIRI, the majority landowner on Fire Island, has partnered with EnXco to form Wind Energy Alaska, the company that will fund and build the wind farm. In January Steve Gilbert, EnXco's Alaska projects manager, told Petroleum News that the partners were seeking separate funding for the supporting infrastructure, including a substation and the transmission line. The estimated cost of the infrastructure is $54 million, while the wind farm itself would cost somewhere in the range of $94 million to $95 million, Gilbert said.

In addition to the Fire Island wind farm, Wind Energy Alaska will be involved in other renewable energy projects in the coming years, Minich said.

"We expect Fire Island to be an anchor for additional wind energy projects up and down the Railbelt and across Alaska," she said.

And Fire Island could also support other renewable energy options such as tidal power, she said. ●

EXPLORATION & PRODUCTION

EPA issues air permit for Shell's Kulluk drilling platform for Beaufort Sea exploration program

On June 18, just two days before Shell announced the cancellation of its 2008 Beaufort Sea drilling program, the U.S. Environmental Protection Agency issued an air quality permit for Shell's Kulluk floating drilling platform. (See related story on page 1 of this issue.) The Kulluk is Shell's primary drilling vessel for the Beaufort Sea and would have been used for the 2008 drilling.

However, since the permit has no expiry date, the permit would cover Kulluk Beaufort Sea drilling activities in future years.

The new permit for the Kulluk, pictured above, goes into effect on July 21 unless it is appealed. EPA must also complete required consultations regarding polar bears, under the terms of the Endangered Species Act, for the permit to become effective.

Lengthy process

The issue of the permit comes after a lengthy process in which the North Slope Borough and several environmental organizations have challenged the validity of the permit. And many of the questions raised about the permit have centered on the question of why the Kulluk is being granted a minor permit, rather than having to go through the much more complex procedure of applying for a major permit.

A core point in this minor vs. major permitting issue is the question of what constitutes a single industrial facility for permitting purposes — EPA has determined that the Kulluk should be considered to be a separate "stationary source" of air emissions at each separate exploration well location. Aggregating the emissions from multiple well locations would trigger that major permitting requirement.

"We believe that our existing record fully supports our decision to issue Shell a minor air quality permit for exploratory drilling activities in the Beaufort Sea, as well as our determination that each planned well site constitutes a separate stationary source for the purposes of determining New Source Review applicability," EPA said in response to comments on the stationary source issue.

EAB appeal

Shell originally applied for air quality permits for both the Kulluk and the drillship Frontier Discoverer in December 2006 and EPA issued a permit for each of these vessels in June 2007. But organizations objecting to the permits appealed to EPA's Environmental Appeals Board. In Sept. 2007 the Environmental Appeals Board ordered EPA to provide a clear rationale for disaggregating emissions from different drill sites — EPA had classified drill sites more than 500 meters apart as separate emissions sources and the board asked for "on the record" evidence for that rule.

On Feb. 13 EPA issued a new proposed air quality permit for the Kulluk (Shell has not planned to use the Frontier Discoverer in 2008) — the new final permit consists of that proposed permit, with modifications resulting from public comments. EPA addressed the Environmental Appeals Board order by defining the moored hull of the Kulluk at each well site as a separate emissions source.

The new permit goes into effect on July 21 unless it is appealed. EPA must also complete required consultations regarding polar bears, under the terms of the Endangered Species Act, for the permit to become effective.

—ALAN BAILEY

ENVIRONMENT & SAFETY

Supreme Court drastically cuts punitive damages in Exxon Valdez oil spill case

Mike Lytle, a third-generation fisherman from the coastal village of Cordova, Alaska, said many residents were planning their retirements with the $2.5 billion in punitive damages that Exxon Mobil Corp. was expected to pay the nearly 33,000 victims of the 1989 Exxon Valdez oil spill that dumped 11 million barrels of crude into Prince William Sound.

But the Supreme Court dashed their hopes June 25, deciding in a 5-3 ruling to cut the punitive damages for the disaster to $507.5 million, which translates to an average of $15,000 per victim.

In 1994 a jury decided Exxon should pay $5 billion in punitive damages. In 2006, a federal appeals court cut that verdict in half.

The Supreme Court ruling said that punitive damages may not exceed what the company already paid to compensate victims for economic losses, or $507.5 million.

Exxon said punitive damages would be excessive punishment on top of the $3.4 billion in cleanup costs, compensatory payments and fines it already has paid.

"The Valdez oil spill was a tragic accident and one which the corporation deeply regrets," the company said in a June 25 statement. "We know this has been a very difficult time for everyone involved. We have worked hard over many years to address the impacts of the spill and to prevent such accidents from happening in our company again."

Robert J. Kopchak lost a quarter of his earnings when the Pacific herring fishery crashed in the early 1990s. Adding to his family's burden at the time, he still owed thousands of dollars on two herring permits that are worthless today.

Sylvia Lange, also of Cordova, used to fish commercially but for her the spill was more about the end of Alaska Native traditions and a subsistence lifestyle for several villages in the region. Because of the spill, many Natives were forced to stop harvesting seal, salmon and herring roe and move to urban areas, never to return, she said.

—THE ASSOCIATED PRESS

● GOVERNMENT

EPA sets Alaska NPDES meetings for July

PETROLEUM NEWS

The U.S. Environmental Protection Agency has scheduled meetings in Alaska on the state's application to administer the National Pollutant Discharge Elimination System program.

Alaska applied for approval of its own version of the NPDES program in mid-2006; the state's program would be administered by the Alaska Department of Environmental Conservation. The NPDES program regulates discharges into the waters of the United States, with point sources discharging pollution to U.S. waters requiring a permit. Point sources are specific, such as pipes; non-point sources are generally not regulated under NPDES.

NPDES permits are based on the same water quality standards, whether EPA or state issued. Examples include: municipal sewage treatment plants; seafood processing facilities; mining operations; oil and gas facilities; and urban and industrial storm water pollution.

Forty-five states have been authorized to run NPDES programs since 1973.

What needs to be demonstrated?

The requirements for a state to take over NPDES include: state legal authority sufficient for state permits to comply with federal rules; legal authority to inspect, monitor, enter and require reports from point sources; public notice of permits and opportunity for public hearing; notice to EPA of permits; and adequate resources to run the program.

EPA said that if approved, the administration of specific program components from EPA to the state would occur over a three year period from program approval. If the Alaska program is approved, the state would administer the program, subject to continuing EPA oversight and enforcement authority, in place of the NPDES program now administered by EPA in Alaska. EPA would retain NPDES permitting authority over the bio-solids program, facilities operating in Denali National Park and Preserve, facilities discharging in Indian Country, facilities operating outside state waters — more than three miles offshore — and facilities with specific Clean Water Act waivers.

Phased implementation would begin with domestic discharges, timber harvesting and seafood process; phase two would include federal facilities, storm water program and pre-treatment program; phase three is mining; and phase four is oil and gas, cooling water and all other remaining facilities.

Public hearing schedule

A 60-day public comment period ends Aug. 18.

Three public hearings will be held in Alaska, each beginning with an educational meeting from 4 to 6 p.m. that includes a technical overview of the federal and state programs followed by a public comment opportunity beginning at 7 p.m.

The scheduled meetings include:

July 21, Regency Fairbanks Hotel, 85 10th Avenue, Fairbanks;

July 22, Centennial Hall, 101 Egan Dr., Juneau; and

July 23, Howard Johnson Plaza Hotel, 239 W. 4th Ave., Anchorage.

The state's application may be viewed at www.epa.gov/r10earth/waterpermits.htm. ●

● ALTERNATIVE ENERGY

Feds call for comment on geothermal plan

Applications for small power plant at a hot springs on Bell Island in Southeast are included in the plan; could be online in 2009

By KRISTEN NELSON
Petroleum News

The U.S. Bureau of Land Management and the U.S. Forest Service have a draft programmatic environmental impact statement out for geothermal leasing in the western U.S., including Alaska.

Three Alaska applications, all related to a small geothermal resource in Southeast, are considered in the draft PEIS.

Alaska meetings on the proposed plan are July 8, 5:30 to 7:30 p.m. at the Alaska Energy Authority, 813 W. Northern Lights Blvd. in Anchorage, and July 9, 5:30 to 7:30, at the Fairbanks North Star Public Library Auditorium, 1215 Cowles St. in Fairbanks.

The record of decision on the final PEIS will identify whether geothermal leasing is appropriate on lands identified in lease applications pending as of Jan. 1, 2005, and will complete processing of those applications, BLM said June 13. The Energy Policy Act of 2005 required that the agencies establish a program to reduce by 90 percent the backlog of geothermal lease applications pending as of the beginning of 2005 by Aug. 8, 2010.

The June 13 publication of a notice in the Federal Register began a 90-day public comment period. The agencies' preferred alternative considers approximately 117 million acres of public lands and 75 million acres of National Forest lands for potential geothermal leasing. Alternative A is the no action alternative, with no BLM land use plans amended; alternative B is the proposed action; alternative C would have considered leasing lands for commercial power generation only if they are within 10 miles of the centerline of an existing 20-mile corridor from existing transmission lines and lines currently under development.

90% of existing geothermal energy production on federal lands

"Federal lands in the West and Alaska contain the largest potential geothermal resources in this country," BLM Director Jim Caswell said in a statement. He said there is "strong interest and support" from state and local governments for making geothermal resources available.

Some 530 million acres in the 12 western states have geothermal potential for electrical generation or direct heat application, the agencies said in the draft PEIS. Forty-two percent of that potential is federally controlled, some 142 million acres on BLM-administered lands and 106 million acres within the National Forest System. BLM administers geothermal leasing both on public lands it manages and on lands in the National Forest System where the Forest Service is the surface management agency.

BLM said geothermal energy, which uses heat located naturally beneath the surface of the earth to generate electricity, currently accounts for 8.5 percent of renewable energy produced in the U.S., with the U.S. a world leader in generating electricity using geothermal energy.

The agency said almost half the nation's geothermal energy production, and about 90 percent of U.S. geothermal resources, are on federal lands. There are 29 geothermal power plants operating under BLM authorization on federal lands in California, Nevada and Utah, with a total capacity of 1,250 megawatts, supplying the needs of 1.2 million homes. At the end of 2007 BLM administered some 480 geothermal leases covering more than 700,000 acres, with 57 of the leases producing geothermal energy, 54 for electrical generation and three for direct use.

Alaska applications on Bell Island north of Ketchikan

There are three pending lease applications in Alaska, each for 2,560 acres, and all within the Tongass National Forest.

The three lease applications are by private geothermal developers and encompass much of Bell Island along with a portion of the adjacent mainland. Bell Island is near the southeastern end of the Alaska Panhandle, some 43 miles north of Ketchikan.

Bell Island Hot Springs is included in the application and the agencies said the anticipated use is a 20 megawatt power plant to provide electricity to Bell Island Hot Springs, possibly to the Yes Bay Lodge via underwater cable and to the Swan Lake to Tyee Lake Electrical Intertie, contributing to the electricity supply for the City of Ketchikan. Yes Bay Lodge is in Yes Bay, approximately 8.5 miles west of the lease area.

The electrical intertie would cross Bell Island and is expected to be operational by autumn 2009. Both Bell Island Hot Springs and the Yes Bay Lodge operate on gas/diesel-powered electrical generators.

Exploration activities for the 20 megawatt plant are expected to involve some six temperature gradient holes, and to disturb a total of approximately one acre. If a commercially viable resource is found, the agencies said, drilling operations and development are expected to disturb a further three acres of land; utilization would result in disturbance of a further six acres of land.

Impacts on Bell Island Hot Springs are not a concern, the agencies said, because the springs are not open to the public and the lease applicant is the owner of the springs. ●

● NATURAL GAS

Denali opens Tok office for summer work

Producer-backed company throws a party on the Alaska Highway to celebrate 'boots on the ground' in its effort to build a pipeline

By ERIC LIDJI
Petroleum News

In a tight race, every inch counts.

As TransCanada inched through Alaska Gasline Inducement Act hearings in Anchorage on June 19, a producer-created company with a competing pipeline proposal also inched forward by opening a field office in Tok, a small, unincorporated community along the Alaska Highway.

Denali — The Alaska Gas Pipeline LLC, jointly owned by oil giants BP and ConocoPhillips, will use the office, renovated from an old hardware store, as a base for early data collection in support of the massive pipeline project, expected to carry 4 billion cubic feet of natural gas each day to markets in Canada and the Lower 48.

Denali paid for reporters to fly to Tok for the opening of the field office, as well as a short helicopter ride to showcase work being done around the Tanana River.

Under a large marquee tent decorated with blue and white Denali balloons, hundreds of residents from the area ate hamburgers and hotdogs from Fast Eddy's, a local restaurant, while a local musician strummed on a guitar. Those who showed up could take home Denali hats, handkerchiefs, bug spray and even cookies emblazoned with the Denali logo, or have their picture taken with "the first foot of pipe."

"We're off and running. We're moving. We're going to bring energy to Alaska and the Lower 48," Bud Fackrell, the new president of Denali, said to the crowd before cutting the ribbon to the field office.

In the world of pipeline design, though, being "off and running" is a relative term. The largest construction project in North America is a marathon, not a sprint.

While the Tok field office is the first "on the ground" effort of the most recent incarnation of a pipeline that has remained elusive for three decades, even Fackrell admits the summer work program might not seem particularly exciting.

"One thing I've learned in projects is you have to do the front end engineering design work first. And it's very painful sometimes. You think you're not going very fast, but sometimes you have to go slow to go fast later," Fackrell said.

$40 million to be spent this year, $600 million through 2010

The $40-million workload planned for the remainder of this year involves gathering "front end" information about a segment of the proposed pipeline route roughly following the Alaska Highway and the path of the old Haines pipeline.

This early collection effort will focus on learning the hydrology of rivers and streams, digging for cultural artifacts, monitoring air and soil quality, and mapping the region both on the ground and through aerial photography.

The goal is to get a more accurate cost estimate for the pipeline — current estimates fluctuate between $26 billion and $41 billion — in order to hold a successful open sea-

see DENALI page 11

**Clockwise from top: The "first foot" of the Denali pipeline.
A local musician played for the group.
Bud Fackrell, president of Denali, addresses the crowd before cutting the ribbon at the new field office**

Photos by Eric Lidji

The company spared no expense when it came to decorations, which included balloons and cookies emblazoned with the Denali logo.

continued from page 10

DENALI

son for the pipeline by 2010. Denali plans to spend $600 million toward that effort.

A "successful open season" would mean "We've done the work necessary to have a reasonable cost estimate that would convince the shippers of the gas to commit, and get financing and then file for a FERC permit," Fackrell said, referring to the certification of the Federal Energy Regulatory Commission required for any project.

Preparing for an open season is Fackrell's main priority, he said. When it comes to the larger questions surrounding the pipeline — like whether or not Denali would commit gas to a TransCanada pipeline, or whether Denali would consider a partnership with TransCanada — Fackrell deferred to his "owners," BP and ConocoPhillips.

Denali hopes to employ 150 by year's end

Flying over the murky Tanana River, Craig Dotson, a project manager for Denali, pointed out six men in orange jackets down below, four sitting in a motor boat and two working a leveling instrument on the riverbank.

The hydrology team is one of several gathering information about waterways along the pipeline route. Dotson said the Denali pipeline is expected to cross around 500 streams and rivers. The teams are examining the banks of each to decide where and how to cross.

Denali chose Tok for its first office because the community sits near the middle of a less-studied 200-mile stretch of Alaska between Delta Junction and the Canadian border.

Working with a security team from Doyon Ltd., the crews have set up repeater stations throughout the area to allow for radio contact along the pipeline route.

Denali currently has around 40 people, mostly contractors, working out of the Tok field office, and expects to staff as many as 60 as operations ramp up. The company also employs an equal number of people working temporary offices in Anchorage.

Denali hopes to have 150 people working on the project by the end of the year, as well as an executive team most likely culled from the ranks of BP and ConocoPhillips in Alaska.

The summer work program is set to run through September, when the early signs of winter will move most of the activities indoors. The Tok crews will study the data collected over the summer, conduct additional fieldwork related to wintertime conditions along the pipeline route and plan for the second summer work season.

Fackrell brushes aside timing questions

Gov. Sarah Palin, who created AGIA and is backing TransCanada in its effort to get a state license through the bill, expressed optimism for the Denali project, but accused BP and ConocoPhillips of not making commitments to build a pipeline.

AGIA would require TransCanada to commit to holding an open season and seeking certification with the Federal Energy Regulatory Commission.

Fackrell contends that Denali is making the same commitment as any other project.

"Today I can't commit to building a pipeline, but no one can until you have a FERC certificate. But we're committed to moving this project forward. And I think that's what you're going to see," he said.

Fackrell dismissed the questions of timing raised about recent Denali announcements. BP and ConocoPhillips announced the Denali project in early April, as the administration prepared its finding of the TransCanada proposal.

Some people, including Palin, have suggested that AGIA forced the companies to act.

Fackrell disagrees.

"BP and ConocoPhillips have been working on trying to have a pipeline for many, many years," Fackrell said. "We're here today, now. What caused it is a number of different things, but we are here today."

Fackrell also sloughed off another instance of similar timing: how word broke that Denali had pre-filed with FERC on the day FERC officials testified before state lawmakers.

"This is business as usual for us. It may have been spectacular in the press. For us, this is just business as usual," Fackrell said. ●

Contact Eric Lidji at 907-770-3505 or elidji@petroleumnews.com

The Alaska Highway and the corridor for the old Haines Pipeline, which will become the corridor for the new Denali pipeline.

● EXPLORATION & PRODUCTION

Transocean rig surpasses 40,000 feet

COURTESY TRANSOCEAN

Transocean's GSF Rig 127 jack-up set a drilling record offshore Qatar.

By RAY TYSON
For Petroleum News

Transocean's jack-up GSF Rig 127 set a world record for the longest extended-reach well ever drilled to a measured depth of 40,320 feet with a 35,770-foot horizontal section, Transocean said. The well was recently drilled offshore Qatar in 36 days and incident-free, the company added, noting that the new record of 7.6 miles also was the first well in the history of offshore drilling that exceeded 40,000 feet.

Beat old record by 2,000 feet

The well surpassed by roughly 2,000 feet the prior extended-reach record of 38,322 feet measured depth set by another drilling contractor with a land rig drilling at Sakhalin Island earlier this year.

The rig's crewmembers, working with the client, Maersk Oil Qatar AS, "overcame numerous constraints," including high drilling torque throughout certain parts of the horizontal section, Transocean said.

The well surpassed by roughly 2,000 feet the prior extended-reach record of 38,322 feet measured depth set by another drilling contractor with a land rig drilling at Sakhalin Island earlier this year.

The well (BD-04A) is in the Al-Shaheen field. In addition to staying focused on safe operations, crews used extensive deck-management planning and a supply boat to hold additional drill pipe so that the rig could stay within its variable deck load rating.

"Everyone involved deserves congratulations for coming together and through great planning and teamwork managing the challenges on this well in an incident-free manner," said Jim Granger, Transocean's performance rig manager.

Jack-up has just 2 mud pumps

Making the record even more impressive is the fact that the Friede & Goldman L-780 Mod II design jack-up, with a 250-foot water depth capability, operates with just two Emsco FB 1600 mud pumps. Other equipment includes the rig's 2,000-horsepower National 1320 UE Drawworks, and a Varco TDS-4S top drive.

In addition to its record-setting performance, GSF Rig 127 crews last April reached one year without a lost-time injury, the company noted.

Transocean, the world's largest offshore drilling company, owns or operates a contract drilling fleet of 39 high-specification floaters, 29 mid-water floaters, 10 high-specification jack-ups and 56 standard jack-ups. ●

● EXPLORATION & PRODUCTION

A sea change in North America

Shale revives dreams of energy self-sufficiency extending over hundreds of years, driven by technological gains, oil prices

By **GARY PARK**
For Petroleum News

Whimsical or not, more commentators are suggesting that North America is on the verge of pushing back the "peak oil" threshold by hundreds of years.

That was reminiscent of the loose talk in the 1960s that there was no apparent end to the continent's oil horizon.

But, in an industry where hope springs eternal, there is a quietly building school of thought that the United States and Canada could be self-sufficient in fossil fuel energy for a very long time — presumably if they can find a way to stifle greenhouse gas emissions and limit the environmental fallout of a rapidly developing new source of oil and gas.

It's all tied to the treasure trove in the billions of barrels and multiple trillions of cubic feet trapped in huge shale deposits.

Just three years ago, the U.S. think-tank Rand Corp. suggested shale oil could add 800 billion barrels to crude supply provided oil prices topped the then-unthinkable barrier of $75 a barrel.

The study's authors estimated that 500 billion to 1.1 trillion barrels were "technically recoverable" from deposits sprawling across Colorado, Utah and Wyoming, good for meeting U.S. needs through the year 2400.

The Rand researchers said at the time that rising oil prices and advances in extraction techniques could make oil shale deposits an economic alternative to conventional crude.

Environmental impact an issue

But they wisely said a number of issues would first have to be ironed out — notably balancing the environmental and economic impacts with development pressure to prevent a shale oil bust.

Rand senior policy researcher James Bartis said the risks were considerable until it became clear how new technologies would affect land, air and water.

"In the past 25 years, there have been significant technical advances in mining, minerals-processing and controlling environmental damage," he said.

"That may be good news for oil shale, but we don't yet know how these technical gains translate into lower costs or whether they significantly reduce adverse environmental impacts," Bartis said.

The study even suggested that adverse land and ecological impacts would go hand-in-hand with shale development no matter what development method was used, resulting in "severely limiting" airborne and greenhouse gas emissions.

If those challenges can be solved, the Rand study estimated a shale output of 3 million barrels per day could generate economic benefits of $20 billion a year — based on 2005 dollars and oil prices — half of that going to federal, state and local governments.

It forecast those same production volumes could trim 3-5 percent off oil prices, saving U.S. oil consumers $15 billion to $20 billion annually, while creating several hundred thousand jobs.

Shale technology promising

The fast-evolving shale technology holds ample promise.

Among those on the leading edge is independent Equitable Resources, which says a complex directional production method for drilling horizontal shale gas wells could become a standard for those plays.

Backed by years of production from conventional shallow wells in Appalachia, Equitable is now testing multi-lateral drilling to raise the recovery rate from well bores.

Company President Steve Schlotterbeck said several individual holes are punched out diagonally from a horizontal well, opening access to more of a gas reservoir.

He said the wells, despite the greater number of feet drilled, promise to be economic because it is not necessary to fracture-stimulate them. Instead, the wells intersect enough natural fractures to allow the gas to flow freely.

Schlotterbeck said Equitable's computer models indicate multilaterals and stacked multilaterals could improve the gas recovery rate to 50-60 percent from the current 8 percent.

But based on results from one well, he said more work is needed to determine is the multi-lateral concept really works.

Los Alamos has DOE assignment

Because the U.S. has always viewed shale oil as a strategic military reserve, the Department of Energy has assigned its Los Alamos National Laboratory — where the world's first nuclear bomb was hatched — to figure out ways to make shale rock flow so that no mining is necessary.

The DOE asserted in 2004 that commercial shale oil production could start in 2011 at 200,000 bpd, rising to 2 million bpd in 2020. It has not provided any updated forecasts.

However, the U.S. Geological Survey said in an April report that the Bakken shale formation in North Dakota and Montana, that spills across the border into Saskatchewan, could hold as much as 3.65 billion barrels of oil and 1.85 trillion cubic feet of gas, making it the largest continuous oil accumulation ever discovered in the US.

The area, covering 25,000 square miles, is also capable of yielding 148 million barrels of natural gas liquids, the USGS said.

In 1995, the USGS figured the Bakken play contained about 151 million barrels of oil — a number that it has been able to boost because of advances in technology and geological understanding.

Shale gas 4% production

Just as crucial is the development of shale gas, which currently accounts for about 4 percent of U.S. production, mostly from the Barnett shales of Texas, but surging into northern Louisiana, Arkansas and the Appalachian basin.

By far the most prolific new gas play in the U.S., the Barnett may soon have to share that place with the Haynesville play of Louisiana and the Marcellus shale of Appalachia.

Chesapeake Energy — forced into the spotlight by smaller independents Petrohawk Energy and Goodrich Petroleum — disclosed in March that its Haynesville discovery has resource potential of 7.5-10 tcf of equivalent gas at depths between 10,500 and 13,000 feet

see **CHANGE** *page 14*

Industry hails the shales of B.C.

It's turning into a stampede almost without parallel in Canada's oil and gas industry as companies do more than just chase an alternative to Alberta's maturing conventional basin.

In the space of less than two years, they have catapulted a resource that was scarcely known outside their world — and little valued within it — into the best chance of stretching Canada's gas reserves well beyond the 58 trillion cubic feet of remaining established reserves.

The National Energy Board underscores the importance of new supply sources from Arctic and East Coast frontier regions, coalbed methane, liquefied natural gas and shale gas.

The regulator says that in "coming years it is expected that North American demand for natural gas will continue to outpace the growth in domestic supplies" as supplies from the Western Canada Sedimentary basin and Nova Scotia's offshore Sable field continue their decline, while gas consumption in the Alberta oil sands and Ontario's gas-fired electrical generation keeps rising.

> *Sister companies Imperial Oil and ExxonMobil, not known for faddish behavior, have joined the ranks by acquiring combined license holdings of 115,000 acres in the Horn River play, indicating they don't want to be left out of a "new opportunity with considerable resource potential."*
>
> **—National Energy Board**

Almost as an after-thought the NEB, in its latest annual energy assessment, notes that in 2007 land sales in the shale region of British Columbia were of "particular interest."

Not just juniors involved

This is not just a scramble by adventurous junior companies to secure a toehold. EnCana, EOG Resources, Talisman Energy, Nexen, Devon Energy, Husky Energy and Apache — all experienced hands in unconventional plays — are tak-

see **B.C. SHALES** *page 14*

LAND & LEASING

Potential Alaska state and federal oil and gas lease sales

Agency	Sale and Area	Proposed Date
DNR	Cook Inlet Areawide	May 21, 2008
DNR	Beaufort Sea Areawide	October 2008
DNR	North Slope Areawide	October 2008
BLM	NE NPR-A	Late 2008
BLM	NW NPR-A	To be determined
DNR	Alaska Peninsula Areawide	February 2009
DNR	North Slope Foothills Areawide	February 2009
DNR	Cook Inlet Areawide	May 2009
DNR	Beaufort Sea Areawide	October 2009
DNR	North Slope Areawide	October 2009
MMS	Sale 209 Beaufort Sea	2009
MMS	Sale 211 Cook Inlet	2009
DNR	Alaska Peninsula Areawide	February 2010
DNR	North Slope Foothills Areawide	February 2010
DNR	Cook Inlet Areawide	May 2010
DNR	Beaufort Sea Areawide	October 2010
DNR	North Slope Areawide	October 2010
MMS	Sale 212 Chukchi Sea	2010
MMS	Sale 217 Beaufort Sea	2011
MMS	Sale 214 North Aleutian basin	2011
MMS	Sale 219 Cook Inlet	2011
MMS	Sale 221 Chukchi Sea	2012

Agency key: BLM, U.S. Department of the Interior's Bureau of Land Management, manages leasing in the National Petroleum Reserve-Alaska; DNR, Alaska Department of Natural Resources, Division of Oil and Gas, manages state oil and gas lease sales onshore and in state waters; MHT, Alaska Mental Health Trust Land Office, manages sales on trust lands; MMS, U.S. Department of the Interior's Minerals Management Service, Alaska region outer continental shelf office, manages sales in federal waters offshore Alaska.

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CHANGE

over 200,000 acres.

Chesapeake Chief Executive Officer Aubrey McClendon said Haynesville and other big shale plays could stall the need for liquefied natural gas imports, suggesting the U.S. should probably be thinking about building a liquefaction exports plant rather than a regasification import terminal.

Investment bank JP Morgan estimated the Haynesville wells could yield 5 billion cubic feet each at a cost of up to $6 million per well, meaning the economics would rival that of the Barnett play.

Jeffries analyst Subash Chandra said the Chesapeake well rates are 11 million to 17 million cubic feet per day.

Meanwhile, XTO Energy completed two shale acquisitions in April — a $520 million expansion of its holdings in the Fayetteville shale of Arkansas and a $600 million deal with Linn Energy to add the Appalachia's Marcellus shale of Pennsylvania and West Virginia to its portfolio.

Following a series of acquisitions, XTO has shale holdings of 500,000 acres in Fayetteville, 250,000 acres in Barnett, 260,000 acres in Woodford and 152,000 acres in Marcellus.

Others with interests in Fayetteville include Chesapeake, Range Resources, Cabot Oil & Gas, Petroleum Development Corporation, Atlas Energy Resources and Equitable Resources.

Expensive initial learning curve

But Richard Moorman, now joint venture manager with Calgary-based Triangle Petroleum, which is focused on shale gas projects in Nova Scotia and New Brunswick, once cautioned that shale gas success needs investors with "stamina and patience" because of an expensive initial learning curve.

He noted that Barnett wells lose 60 percent of their production in the first year, but added it could take another 60 years for the wells to become uneconomic.

An additional note of concern was delivered at a June conference by Jack Ward, a partner with small Appalachian player PetroEdge Resources, who said the costs of buying water for shale plays are rising and governments are concerned about the growing competition with industry for water.

He forecast water disposal will become a similarly big issue, suggesting that getting rid of frac water could be more difficult than obtaining it in the first place.

Ward said a $1 million well in West Virginia could require $200,000 to move water on and off the location.

Schlotterbeck said that ratio would apply to a vertical well, whereas for a horizontal well "the amount will be multiplied."

Southwest Energy Chief Executive Officer Harold Korell said water is less of a concern in the Fayetteville Shale in Arkansas, where the average annual rainfall is about 55 inches.

He said his company has obtained water from municipalities and quarries and has built ponds to capture rainwater. As well it mixes that water with frac water for recycling. ●

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B.C. SHALES

ing a bullish view of British Columbia's Upper Montney and Horn River prospects.

Sister companies Imperial Oil and ExxonMobil, not known for faddish behavior, have joined the ranks by acquiring combined license holdings of 115,000 acres in the Horn River play, indicating they don't want to be left out of a "new opportunity with considerable resource potential."

BP Canada, ConocoPhillips, Shell Canada and Duvernay Oil are rumored to be among other successful bidders at government land sales.

Robin Mann, chief executive officer of AJM Petroleum Consultants, said the advent of new technology will turn the Upper Montney into "one of the major plays of the future," with gas-in-place estimated at more than 50 tcf.

Even if that estimate is cut in half "we have a major resource we didn't even have two or three years ago," he said.

Wood Mac likes Horn River

Horn River has attracted a similar rave assessment from Wood Mackenzie, the United Kingdom-based consultant.

It puts the play on a "global scale," with recoverable resource estimated at 37 tcf, comparable in the firm's assessment to the main fields expected to back an Alaska gas pipeline.

Wood Mackenzie analyst Fraser McKay said three Horn River announcements by EOG, Apache and Nexen point to "rock properties and well scenarios which were highly consistent; each suggesting the play could be even more prospective than Texas' prolific Barnett Shale. The potential resources are world scale."

McKay said that once estimates move beyond the preliminary stage, the recoverable calculations could climb to 50 tcf.

A preliminary analysis by the firm suggested economic returns would be in line with other major global gas supply projects, requiring a Henry Hub price of about $6.50 per thousand cubic feet to achieve a 10 percent rate of return.

He said Apache has announced an average resource estimate of 12.5 tcf, indicating its joint venture partner EnCana could be exposed to a similar level of resource potential, while EOG and Nexen have reported resources of 7.8 tcf and 4.5 tcf respectively.

Wood Mackenzie assumes that once more exploration work is completed, Imperial, Devon and Quicksilver Resources may all hold multi-tcf positions.

Reinforcing those conclusions, the study said British Columbia offers a "political and fiscally stable environment," including royalty incentives that make the projected 10 percent rate of return realistic, even in a high-cost scenario.

Wood Mac also sees challenges

But John Dunn, Canadian upstream analyst for Wood Mackenzie, suggested the challenges facing development of the resource are many, including land access, limited regional infrastructure, regional price differentials and costs.

He said current resource estimates are "based on extrapolations from relatively few wells and will require to be firmed up through further drilling and analysis of long-term well performance."

"However, with conventional Western Canadian gas production in decline, the emergence of shale gas as a future source of supply could be vital in maintaining Canada's position as a major producer of natural gas."

The firm said that with few exploration surprises anticipated, "gas-in-place estimates are likely to creep upwards over time rather than be revised down."

Sister companies Imperial Oil and ExxonMobil, not known for faddish behavior, have joined the ranks by acquiring combined license holdings of 115,000 acres in the Horn River play, indicating they don't want to be left out of a "new opportunity with considerable resource potential."

AJM Petroleum Consultants said land prices for the Upper Montney have averaged C$2,284 per hectare (C$5,644 per acre), while the more remote Horn River near the Northwest Territories border is fetching C$1,703 per hectare, although Mann noted the Upper Montney is not a pure shale play because of its "turbidated dirty, sandy, shaley hodgepodge of everything."

Investment dealer Peters & Co. agrees with Wood Mackenzie that many of British Columbia's unconventional plays are economic at prices of C$6.50 per thousand cubic feet.

Shales could require C$8

RBC Dominion Securities analyst Gordon Gee has taken a tougher line, estimating B.C. shales need long-term gas prices of C$8 to be economic, although C$7 could be sufficient if there is a drop in drilling costs.

"In addition, further cost improvements due to increased operator and service company experience and a migration towards fewer yet longer wellbores with additional stimulation events per well will serve to increase already superior returns," Peters said.

Mann noted that Horn River wells are not cheap at up to C$10 million each, but operators are pointing to a decline to C$6 million-C$8 million, although access to well sites remains a "big problem."

ARC Energy Trust Chief Executive Officer John Dielwart, which has 76,800 gross acres (64,000 net) in the Montney play, has boosted its capital budget for the play twice this year, allocating C$125 million.

But he said ARC, which is producing about 46 million cubic feet per day from 75 wells, faces processing constraints which threaten to become a major issue as companies ramp up their production.

"We are reserving space all over the place," he said. "There's a bit of a race going on."

Juniors talk plans

While the majors are mostly keeping their eventual plans under wraps, although Apache Chief Executive Officer Steven Farris, has talked of spending C$5 billion or more over the next decade, the juniors are giving an added buzz to the resource and offering a chance to track developments. Consider just a few:

• Canbriam Energy has struck an equity financing deal of up to US$300 million with Warburg Pincus and ARC Financial to acquire, explore and develop oil and gas interests, with a primary focus on shales in B.C. and Alberta.

• Terra Energy has hired Tristone Capital to help market rights in the Montney formation, including 70,000 acres in the core Fort St. John operating area. It recently offloaded 3,200 acres to an industry partner for C$5 million.

• Bellamont Exploration, although starting out on the Alberta side of the Montney formation, is gaining a toehold in British Columbia. It is typical of the high-flying juniors in the Montney play. Launched in

see **B.C. SHALES** *page 15*

● GOVERNMENT

Palin proposes revised energy plan

The $769 million plan would give every Alaskan $1,200, suspend state gas tax for one year, give loans to commercial fishermen

By ERIC LIDJI
Petroleum News

Calling it a “starting point” for addressing rising energy costs, Gov. Sarah Palin submitted a bill to state lawmakers on June 20 that would give every Alaskan a $1,200 check, as well as suspend the state fuel tax for one year.

The one-time payment would distribute $729 million from an expected multi-billion-dollar surplus in oil revenue this fiscal year, which ends on June 30. The fuel tax holiday would save Alaskans $40 million, according to the state.


GOV. SARAH PALIN

“We can afford to share resource wealth with Alaskans and to temporarily suspend the state fuel tax. It is my hope these items would be implemented by September. We look forward to working with legislators in the coming weeks to find the best possible solution to provide short-term energy relief,” Palin said in a prepared statement.

The move comes as the price of crude oil approaches $135 a barrel, bringing the state several billion dollars in additional unanticipated revenue, but stretching many household budgets, especially in rural communities.

Palin said even with recent allocations to education, pension plans and municipal revenue sharing, the state could afford to give additional money directly to residents.

Palin said she expects criticism of her plan from the state legislature, but asked lawmakers opposed to the idea to be prepared to provide alternative ideas during a special session tentatively scheduled for later in the summer.

The one-time $1,200 payment will go to anyone who has lived in the state for at least six months, making it more inclusive than the yearlong residency requirement for receiving an Alaska Permanent Fund dividend check.

The bill includes provisions designed to keep the payments from interfering with social security payments, medical coverage or veterans’ benefits.

Plan scraps debit card ideas

The bill revises a proposal Palin made in May that would have given out $1,200 in “energy debit cards” to every resident of the state, as well as made $475 million in direct grants to electric utilities around the state with the goal of seeing a 60 percent reduction in costs for consumers.

Ultimately, the debit card idea proved to be too expensive to administer, and not particularly useful in those rural communities where debit cards are not accepted. However, the Palin administration plans to “continue reviewing” the utility grants and could give the Legislature another bill in July.

During the most recent regular legislative session, lawmakers considered, but ultimately rejected, a plan to give $500 to every resident of the state for a similar purpose. Lawmakers instead chose to offer weatherization and conservation grants.

Under her proposed plan, Palin also directed the Division of Investments to offer low-interest loans to commercial fishermen for fuel-efficient engines.

On the Web

See previous Petroleum News coverage:

“Palin unveils $1.2B energy plan, $1,200 debit cards for Alaskans,” in May 18, 2008, issue at www.petroleumnews.com/pnads/551818943.shtml

Alaska gas tax lowest in the nation

Suspending the state gas tax could make a dent in household energy costs as part of a larger program, but would have little impact on its own. Alaskans pay among the highest gasoline prices in the country, but state taxes contribute very little to those high prices.

At 8 cents a gallon for gasoline, Alaskans pay the lowest state gas tax in the country. The next lowest rate is the 14-cent per gallon tax charged in Wyoming. The national average for state gas taxes is just more than 21 cents per gallon.

In addition to suspending the gas tax, Palin’s proposal would suspend three other pieces of the state motor fuel tax, including a 5-cent per gallon marine gas tax, a 4.7-cent per gallon aviation gas tax and 3.2-cents per gallon on all other aviation fuel.

Over the past decade, the state motor fuel tax has brought in around $40 million to the general fund each year, ranging from $42 million in 2006 to $35.6 million in 1998. In 2007, the tax brought in $39.2 million.

Over the course of the yearlong suspension, which would run through July 31, 2009, a family buying 50 gallons of gasoline each week would save $208.

Nationally, Republican presidential candidate John McCain has supported a summer holiday of the federal gas tax, while Democratic presidential candidate Barack Obama has opposed that idea. Several other states, including Illinois and Indiana, have enacted similar tax holidays in the past. ●

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late 2006 with an initial public offering of C$11 million, its market capitalization has cracked C$100 million, with first-quarter production averaging 340 barrels of oil equivalent per day and gross land holdings at 52,000 acres.

• Canada Energy Partners has unveiled an exploration strategy for its 41,000 acres in the Montney-Doig shale play, while director John Proist scooped up 34,000 shares for C$0.64 each in early February.

• Birchcliff Energy, which plans four Montney-Doig horizontal wells before mid-year and tie in three to four wells as part of its winter program, announced a C$115 million bought-deal financing, with prominent investor Seymour Schulich acquiring 1.8 million shares at C$7.46 each to gain a controlling interest of 18.8 million shares. The company expects to drill four to six more wells in the second half. It also holds about 13,000 acres of undeveloped land in the Pouce Coupe area, which it believes could extend the Montney-Doig play.

• Crew Energy has 7,360 net acres in the Muskwa play, where EOG made its find. A third-party evaluation estimates its potential gas-in-place at 400 bcf-1.2 tcf. CEO Dale Shwed says “everybody is looking at bidding for land up there.” Last fall, Crew completed a bought-deal financing of C$54.5 million.

• Storm Exploration reports 100 percent success from five net wells, is producing 5 million cubic feet per day from two Montney wells and expects to drill 18 more wells this year.

• Grey Wolf Exploration has budgeted C$15 million to exploit its Pouce Coupe properties this year and is weighing horizontal wells in the Montney-Doig reservoirs.

• Seaview Energy has entered into three separate farm-ins, involving a four-well commitment to earn an interest in 4,480 gross acres in Pouce Coupe, exposing the company to 30 bcf of resource potential. The focus area is in a fairway where more than 130 wells are producing. It says competitors in the area report capital costs of C$4 million-$5 million per horizontal well and expect costs to ease as activity picks up.

• Result Energy plans to acquire seismic data from its Horn River land throughout 2008 and hopes to start drilling in the first quarter of 2009. It currently has 26,000 gross acres at a 100 percent working interest. The company says royalty increases in Alberta make it difficult to justify the same levels of capital spending it has delivered over the past three years, but Horn River provides an alternative.

• Galleon Energy, described by analyst Chad Friess of UBS Securities Canada, as a “forgotten Montney name,” drilled its first horizontal well — this one at Dawson, Alberta — in the opening quarter and achieved gas flows of 4 million cubic feet per day.

•Alberta Clipper, attracted by the B .C. royalty structure, is planning a “dramatic re-entry into northeast B.C.,” said company President Kel Johnston, and expects more than half of its activity during the second half of 2008 will be in the region, where it has 50,000 net acres of undeveloped land.

—GARY PARK

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DRILLING

drilling program and get feedback from the regulators on finalizing permit applications.

Nan Thompson, petroleum manager for DNR's Division of Oil and Gas, told Petroleum News June 19 that DNR would evaluate the permit applications and might issue some permits, depending on what activities were being permitted, what leases were involved and the status of ongoing litigation.

At the start of the meeting DNR read a statement setting out its position with regard to the meeting, Thompson said.

"The purpose of this pre-application meeting is to listen to the applicant's presentation, learn why the permits are needed and understand which leases would be impacted by issuance of permits," DNR told attendees. "The fact that DNR is holding this meeting should not be construed as meaning that DNR agrees with Exxon's legal position with respect to the validity of the leases."

Investment could be lost if state wins lawsuit

Thompson said DNR also made it clear that the state would not be responsible for any expenditure that Exxon and its partners incur as a result of any permitted drilling activities.

"If DNR issues any of the requested permits, the applicant should understand that the legal status of the leases continues to be litigated," the statement said. "Any expenditures made by the applicant or others with respect to obtaining permits and/or conducting permitted operations will not be recoverable from DNR, nor may the consideration and/or issuance of permits be considered a waiver of DNR's rights in any manner."

The program that Exxon wants to permit involves drilling a total of up to nine wells, with potentially six wells on the Point Thomson unit No. 3 pad, two wells from an ice pad on the west side of the field and one well from the North Staines River No. 1 pad on the east side of the field. A disposal well in the PTU No. 3 pad may also be required at some time in the future, Exxon said.

First well this coming winter

Exxon said that it plans to drill the first well in the Point Thomson unit No. 3 pad in the 2008/-9 winter exploration season. The subsequent drilling sequence and locations would depend on drilling results, permitting and logistical considerations.

DNR permitting requirements include a land use permit, lease operations permit and an Alaska Coastal Management Program review. Permits are also required from the Alaska Department of Environmental Conservation, the Alaska Oil and Gas Conservation Commission, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service and the North Slope Borough.

Exxon said that it expects to submit most permit applications on or before July 1. The company is likely to submit its oil discharge prevention and contingency plan and the application for an air quality limit for the Point Thomson camp in mid July.

—ALAN BAILEY

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THOMSON

Natural Resources Division of Oil and Gas and its consultant, PetroTel, say the oil that could be recovered is the equivalent of another Alpine field, the third-largest oil field on the North Slope; the Alaska Oil and Gas Conservation Commission, responsible for ensuring maximum recovery of hydrocarbon resources, thinks the answer is somewhere in between.

JUDY PATRICK PHOTOS

CATHY FOERSTER

JOHN ZAGER

The Alaska Legislature, contemplating a vote on the administration's recommendation of a license to TransCanada under the Alaska Gasline Inducement Act, wanted the different sides assembled in one place.

That occurred June 18 in Anchorage, when Chevron and ExxonMobil sat down with the division and AOGCC; the division's consultant, PetroTel, joined in by phone.

ExxonMobil is the operator at Point Thomson, a unit formed in 1977 and terminated by the Alaska Department of Natural Resources in late 2006 for lack of field development. There is ongoing litigation between the state and Point Thomson leaseholders over the termination. The state is also in the process of taking back the leases, although ExxonMobil has begun the permit process for proposed 2008-09 winter drilling.

The drilling is part of a 23rd plan of development proposed by the Point Thomson working interest owners in response to the unit termination; the proposed plan was rejected by the Alaska Department of Natural Resources in early June.

The Anchorage gathering was part of a series of hearings throughout the state on a license proposed by the administration under AGIA, passed 59-1 by the Legislature last year.

The administration solicited applications and received five: Only one, from TransCanada, was found to be complete.

After evaluation by DNR and the Department of Revenue, the departments' commissioners recommended that the state issue an AGIA license to TransCanada, providing $500 million in matching funds for specified work toward a natural gas pipeline from the North Slope to market, and a dedicated state coordinator for the permits needed by the project.

The Legislature must vote up or down on granting the AGIA license and is holding hearings on the issue.

The Point Thomson show

Point Thomson has become a major sideshow at the hearings: Until recently everyone agreed that gas from the field would be necessary for the pipeline — and that shipment of gas from Point Thomson would begin early in the line's life.

There have been different proposals for development at Point Thomson, but the major fact has been that there was no gas pipeline and — until recently — no plans to build one.

When plans ratcheted up in recent years for a gas pipeline, the state and the Point Thomson working interest owners began to bump heads on development. The owners said the focus should be on a gas blowdown, to feed gas sales, with limited recovery of liquids from the condensate. The Division of Oil and Gas wanted the oil developed first.

Because Point Thomson is classified as an oil field, based on the volume of liquid in the condensate, AOGCC has to set a gas offtake rate for the field, and in the course of that process will have to decide how the gas and liquids should be produced to maximize hydrocarbon recovery.

When DNR terminated the unit the administration looked at whether a gas pipeline could proceed without Point Thomson gas and concluded that while the volume through a gas pipeline would be lower, and the tariff higher, a gas pipeline without Point Thomson would work.

Major North Slope producers — BP, ConocoPhillips and ExxonMobil — disagree. The companies hold most of the gas at Prudhoe Bay; all three are involved at Point Thomson. Chevron, a major Point Thomson owner, is a very minor Prudhoe owner.

Recoverable oil volume

AOGCC Commissioner Cathy Foerster was asked whether AOGCC agreed with the oil rim recovery rate, more than 50 percent, proposed by the division's consultant, Anil Chopra, president of PetroTel, or with the 5 percent oil rim recovery rate discussed by Craig Haymes, Alaska production manager for ExxonMobil Production Co.

Foerster said the commission had done only "a cursory review of some of the assumptions and conclusions" in the PetroTel report and hadn't reviewed ExxonMobil's analysis in its entirety.

"We are in the process right now of performing our own independent analysis of Point Thomson using Gaffney Cline," she said.

While the commission has not finished its analysis, Forester said it's been her experience that the truth usually lies somewhere in the middle when separate technical teams do an analysis.

With an analysis such as that for Point Thomson, involving "the small amount of data that we have" and requiring assumptions and forecasts "the only thing you can guarantee is that neither one will be right," she said.

But based on "the data that we've looked at so far and the part of the analysis that we have done independently at the AOGCC," she expects the recovery rate to be "somewhere between the two and probably closer to Exxon."

Forester said AOGCC was at Exxon's mercy for its study; Haymes said ExxonMobil's goal was to get all of the data to the commission by the end of the year.

Forester said the commission expects to be able to finish its study within six months of having all the data.

PetroTel recovery focus

PetroTel's Chopra defended the consultancy's work, saying there was plenty of data to define a full field plan of development for both oil and gas resources. Based on the gas, and the volume of liquids in the condensate, "there's about 660 million barrels of oil in the gas cap," he said, and 75 percent of condensate liquids should be recoverable using gas cycling.

He said others that have done the work "did not look at recovery through gas cycling" but only through gas blowdown, which could result in 24-25 percent recovery.

The oil rim is the upside, Chopra said, with lab tests showing that if gas was added to the heavy oil rim oil, that oil becomes similar to Kuparuk or Prudhoe oil.

"And if that can be done then there's another 900 million barrels of oil rim sitting there; there's no reason why it can't be produced.

"So that's the difference between the

see **THOMSON** *page 17*

EXPLORATION & PRODUCTION

Mariner pegs Gulf discovery at 100 bcfe

Exploration and production independent Mariner Energy scored what appears to be a predominantly gas discovery on its Geauxpher prospect on Garden Banks block 462 in the deepwater Gulf of Mexico, the company said June 17.

The discovery well, which lies in water depths of around 2,700 feet, was drilled to a total depth of 23,156 feet. Mariner estimated the field's gross proved and probable reserves on the block to be about 100 billion cubic feet of natural gas equivalent. Development already is under way with initial production expected as soon as year-end, Mariner said. It would be produced from an old platform on Garden Banks block 72.

Mariner is the designated operator of the block and holds a 60 percent working interest in the discovery. Fellow E&P independent Apache Corp. holds the remaining 40 percent interest.

In November 2007, Mariner farmed into Geauxpher, providing the rig — Diamond Offshore's semi-submersible Ocean America — to test the prospect. The drilling rig remains on location and a second well is planned to delineate the extent of the discovery, Mariner said, noting that the company has identified additional potential on the block and expects to test the amplitudes over time.

"Our discovery at Geauxpher provides further evidence of the value potential in Mariner's deepwater prospect inventory," said Scott D. Josey, Mariner's chairman, president and chief executive officer.

British-Borneo Petroleum, Norcen Explorer and Spinnaker Exploration, all of which have since been acquired by other companies, initially won Garden Banks block 462 in an August 1997 federal lease sale for $3.3 million.

—RAY TYSON

PIPELINES & DOWNSTREAM

Gasoline price-fixing charged in Quebec

For the first time in history, Canada's Competition Bureau has charged 11 companies — three of which have pleaded guilty — and 13 people with fixing gasoline prices at the pump in Quebec.

Bureau Commissioner Sheridan Scott said in a statement June 12 she believes gasoline stations in three markets collaborated to fix prices from 2005 through 2007.

Valero Energy-owned Ultramar, one of the leading marketers and refiners of petroleum products in Canada, was among the companies that pleaded guilty and has received the largest fine to date of C$1.85 million ($1.8 million).

Ultramar said in a statement that the bureau's probe showed no members of its management were involved in the scheme or were even aware of what was happening. One of Ultramar's regional sales representatives, Jacques Ouellet, was fined C$50,000 by the bureau and fired by Ultramar.

A spokesman for Ultramar said the company has a "strict code of conduct … so to have one of our employees involved in something like that is a shock."

The companies that registered guilty pleas in Quebec Superior Court were Les Petroles Thierren and Distributions Petrolieres Therrien, operating under the banner Petro-T. Both were fined C$179,000.

Companies operating under the Esso, Shell, Petro-Canada, Irving, Olco and Sonverco names pleaded not guilty.

Scott told a news conference in Montreal that the fines were among the stiffest "issued for a domestic cartel."

She said the companies phoned each other in advance to determine a price and a time to change that price.

Competition Bureau agents intercepted 200,000 calls over a two-year period, using wiretaps of homes, service stations and offices, said John Pecman, the bureau's acting senior deputy commissioner in the criminal matters branch.

Scott said the price-fixing is thought to have involved 21 of 22 gas stations in Thetford Mines, 23 of 24 stations in Victoriaville and 56 of 65 stations in Sherbrooke.

—GARY PARK

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THOMSON

way we are looking at the field vs. other people are looking at it; we are trying to maximize the value for our clients, which in this case is the State of Alaska, we always do that," he said.

Exxon: gas doable

Haymes said there is enough data available on Point Thomson to do gas sales development "with relatively low risk. Because when you put straws in that high-pressure reservoir, regardless of the discontinuity, baffles or quality differences, it will drain the gas."

This is the gas blowdown option.

"If you're talking about ... development of a very thin, heavy oil column, discontinuous heavy oil column; if you're talking about cycling, then there is not enough information to bring forward a full field plan of development."

Haymes said ExxonMobil has not seen the full PetroTel report, just the DNR summary that appears in the AGIA decision documents. He said that summary indicates that economic analysis would be required for optimum engineering and that technical issues remain.

The major owners at Point Thomson, he said, have "tens of thousands" of fields worldwide and "operate or have an ownership in the majority of the high-pressure gas fields in the world."

Point Thomson is unique, he said, and has unique challenges.

Chopra disagreed. There is information on General Electric's Web site, he said, that states that high-pressure gas re-injection was done in 1975 at 10,000 psi, in 1995 at 9,150 psi. "High-pressure gas injection is not something that was born yesterday," he said. "It has been there." The Point Thomson reservoir is 10,200 psi.

Decision when?

Asked when AOGCC would make a decision on gas offtake, Forester said the commission might gain enough confidence from its studies to grant pool rules for Point Thomson with a gas offtake rate. "It is also possible that at the conclusion of the study we will say this is compelling but we still have questions about the producibility of the oil rim, the success of cycling, how long cycling will need to take."

On the Web

See previous Petroleum News coverage:

"PTU not another Alpine: BP, Chevron, Exxon dispute state's Point Thomson analysis, say gas main resource," in June 22, 2008, issue at www.petroleumnews.com/pnads/297685428.shtml

"Blowdown a loss: State: Producing Point Thomson gas first would mean 500M fewer barrels," in June 15, 2008, issue at www.petroleumnews.com/pnads/551121043.shtml

"Thomson decision confirmed: Irwin sticks with April termination of PTU unit; Exxon still plans to drill," in June 15, 2008, issue at www.petroleumnews.com/pnads/765413053.shtml

So it's possible, Forester said, that "only by drilling, producing, cycling, testing those two concepts — what's going on in the cycling area and what's going on in the oil rim — it's possible that until those are demonstrated by producing and cycling that we won't be able to make a ruling."

As for the risk to the companies, John Zager, Chevron's Alaska manager, said "we've heard a lot of discounting of the risk of developing Point Thomson, and maybe when we're putting our own money on the table we're more risk sensitive because we've been in cases where we have failed miserably even though we were very confident going in."

Point Thomson, Zager said, "is one of those places where you really want to go and test the waters before you commit."

Why different estimates?

Forester said part of the differences in the estimated recovery is the difference you always get from different groups doing estimates: The exploration geologist is the most optimistic, she said; the reservoir engineer doing the modeling looks at the data and comes up with a smaller estimate; but the development engineer, she said, is like the guy on the dock with the scale and the knife — he'll tell you what your fish weighs, and what it will weigh when it's been cleaned. What PetroTel did not do in its study, she said, "was put it on the scale and put a knife to it."

Chopra disagreed — there is a need for resources, he said, and "we are in the business of maximizing the recovery." ●

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OVERVIEW

time of the Pennsylvania oil boom, the earliest year for which BP has data, Finley said.

And, either on an inflation adjusted basis or after making adjustments for the efficiency of energy usage, oil has now reached its highest ever price level, he said.

Finley was presenting an overview of BP's Statistical Review of World Energy, the company's annual analysis of a massive array of data that describe worldwide energy production and consumption.

So what can that data tell us about the recent energy price hikes?

1970s price hike

In looking for the drivers behind recent energy trends it's worth comparing the steep climb in energy prices to a similar price spike during the 1970s — energy price graphs across the two periods look quite similar, Finley suggested.

"Can we look at the 1970s and see if there are similarities between that and now that we can learn from?" Finley asked.

Both the current period and the 1970s showed exceptionally high worldwide economic growth for driving energy demand, he said. But a careful examination of the data shows that the current situation is not just a rerun of what happened three decades ago.

In that earlier era energy consumption increased in lockstep with the economic growth; in the current situation, by contrast, consumption has slowed relative to an expanding world economy, Finley said.

"Globally last year energy consumption rose by 2.4 percent," Finley said. "That is slightly above average but not nearly as strong as you would expect."

And one of the most striking aspects of the recent situation has been the contrast between energy use in the developed economies of the Organization for Economic Cooperation and Development and in the non-OECD countries, Finley said.

The OECD countries have responded to escalating prices in a somewhat predictable manner by curtailing energy usage — these countries have shown no growth in energy consumption for about two years, he said.

Developing countries

But during that same period developing countries outside the OECD significantly increased their contribution to energy usage.

"In the last five years they've contributed 40 percent of the economic growth," Finley said. "… These same emerging economies have contributed 90 percent of all the growth in the world's energy consumption in last five years."

Finley said that this relatively fast non-OECD consumption growth probably resulted from factors such as a shift of heavy industry into the developing world, the use of cheap energy sources such as coal and government subsidies for energy use in many developing countries.

The picture for oil consumption is particularly striking. In the face of rising prices, oil consumption accelerated in the developing world while consumption fell in the OECD countries. The net effect was modest growth in overall oil consumption.

"Globally oil consumption last year grew by about 1 million barrels per day — that's below average, but only slightly below average," Finley said.

One factor in this phenomenon was an increase in oil consumption in oil exporting countries, where economies were especially booming. But developing countries that import oil also increased their oil use — energy subsidies appear to have been a significant factor in non-OECD consumption growth.

"All of the growth in global oil consumption last year occurred in countries that subsidize oil," Finley said. However, countries are starting to cut back on those subsidies, he added.

OPEC cuts

On the supply side of the supply and demand equation, OPEC cut oil production in 2007 in response to a sharp drop in oil prices in late 2006, early 2007, Finley said. The resulting sharp fall in inventories was followed by a dramatic increase in oil prices.

Available data suggest that the 2007 OPEC production cut amounted to about 350,000 barrels per day, with net worldwide production falling by about 130,000 bpd. But because of missing data from Iraq and Angola, and because natural gas liquids data are not included in the reported OPEC figures, the actual OPEC production drop probably came closer to 900,000 bpd, Finley said.

In countries like the United States and Canada oil production is rising, as increasing prices encourage new investment in oil development.

"Last year U.S. oil production … increased slightly and it was the first increase since 1991," Finley.

Production continued to grow in the countries of the former Soviet Union. However, there are signs that Russian production is faltering.

"Since 2000 the growth in Russian oil production has met all of the growth in the combined consumption of China and India," Finley said. "… In recent months we've seen the first year-on-year decline in Russian oil production this decade."

Finley attributed the Russian production decline to "a high tax regime and a regime that is increasingly difficult for investment."

Gasoline prices

Finley said that the primary driver behind rising gasoline prices has been the rising price of crude oil. He discounted the theory that high gasoline prices have resulted from a lack of oil refining capacity. In actual fact, worldwide refining capacity has grown, mainly in the Asia-Pacific region and the Middle East, and refining margins have tightened, he said.

"If the world was awash in oil and the bottleneck was at the refinery gate, that would tend to support refining margins," Finley said. "… For two years in a row the growth in refining capacity has actually outpaced the growth in oil consumption. … It's important to recognize that refining is very substantially a global market."

The one exception to that pattern in the refining business has been the especially robust demand for mid-distillate fuels such as diesel and jet fuel. These fuels have seen the fastest growth of any form of oil consumption for seven out of the past nine years, Finley said.

Finley also questioned the concept that market speculation is driving fuel prices higher. Worldwide there is a lack of data on the role that speculation plays in oil and natural gas trading. However, data from U.S. markets indicates a lack of correlation between, for example, fuel oil prices and the volume of trading activity that might be linked to speculation, Finley said. That lack of correlation points to pricing that is not driven by speculation, he said.

"We tend more toward the view that most of the increase in prices that we can see is driven by (market) fundamentals and by changing expectation for the future," Finley said.

And the oil market is constrained in several ways that would drive those fundamentals, Finley said. In addition to the OPEC production cuts in 2007, oil resource owners around the world are making access to new oil sources difficult. Production is declining in many mature oil basins. There have also been constraints in the oil industry's ability to ramp up investments quickly at a time of cost inflation and mounting project delays. And at the same time government subsidies have distorted the market dynamics.

So, how do other energy markets compare with oil?

Natural gas

One notable factor in 2007 was the fact that natural gas was relatively cheap compared with other fuels. As a consequence natural gas usage accelerated, with gas use for power generation growing by 10 percent.

"Gas consumption globally last year grew by 3.1 percent," Finley said.

Chinese demand has become a big factor in natural gas consumption, with both Chinese gas production and Chinese gas consumption seeing the second highest increase of any country in the world in 2007.

The largest contribution to the increase in global gas supply in 2007 came in the United States, with the relatively high prices of recent years encouraging expanded production.

But, curiously, factors such as a relatively mild winter in Europe led to a decline in Russian natural gas production in 2007.

Natural gas typically competes with other forms of fuel, but the nature of that competition varies from one part of the world to another, Finley said. In the United Kingdom, for example, gas competes with coal for power generation and there is scope for gas to increase its market share in the energy mix. In the United States, on the other hand, gas competes with oil and gas appears to have won out for power generation — there is no further scope for oil to replace natural gas as primary energy source.

Finley also commented on the importance of LNG in connecting worldwide natural gas markets — although LNG represents a minority of the total gas market, LNG can be readily shipped around the world.

"Liquefied natural gas plays a role in connecting what had previously been disconnected regional gas markets around the world," Finley said.

In fact, there is a disparity between the locations of LNG production regions and LNG consumption regions. The most diversified LNG suppliers are located in the Atlantic region while the biggest and most diversified consumers are in the Pacific region, Finley said.

Coal

Coal remains a major world source of energy but differs from oil and gas in that coal production tends to occur close to where the fuel is consumed.

"The two biggest consumers in the world of coal are the two biggest producers — China with a 40 percent market share, the United States with a 20 percent share," Finley said. The six biggest coal producers worldwide account for 80 percent of both the production and consumption, he said. The result is that only 15 percent of the world's coal is traded internationally.

And although coal prices in international trade have increased sharply, coal for local consumption has tended to remain relatively cheap — that cheap local coal accounts for a rapid rise in worldwide coal consumption. In fact, coal was the fastest growing fuel in 2007, with China accounting for 40 percent of that growth (China accounted for half of the worldwide growth in total energy consumption in 2007).

Over the past 10 years electrical power generation has tended to grow worldwide a little faster than economic growth.

"In 2007 we had a very strong year for power generation — it grew by 4.8 percent globally," Finley said. That's twice the rate of growth of overall energy consumption, he said. But power generation followed the general worldwide energy pattern, with a slowdown in the OECD countries and rapid acceleration elsewhere.

Hydropower and nuclear power, each at about 6 percent of total worldwide energy, have remained fairly static over recent years. Nuclear power output declined by 2 percent in 2007, largely as a result of a major earthquake in Japan and government action in Germany.

Coupled with the growth in overall power generation, the decline in combined nuclear and hydro outputs suggests that

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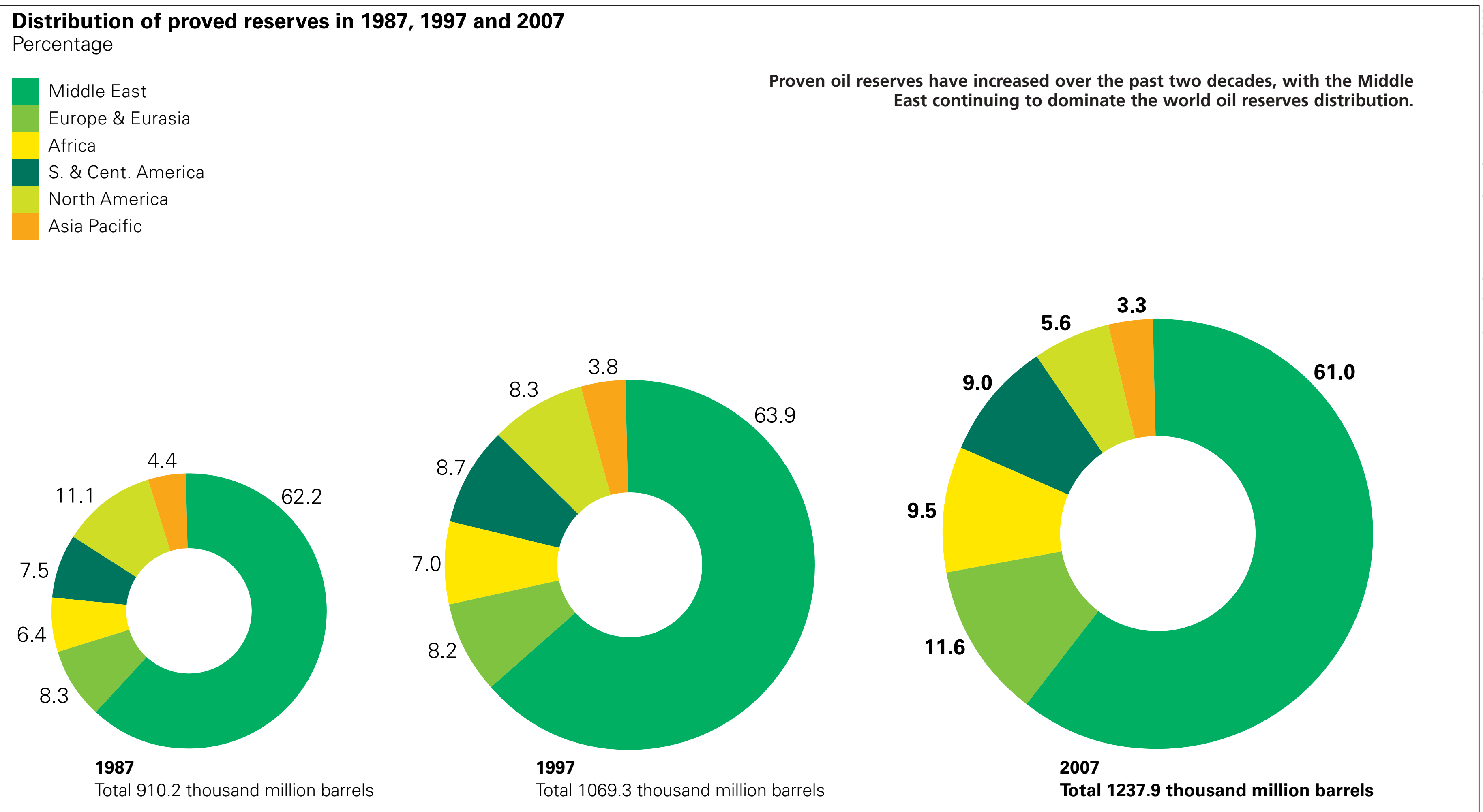

BP STATISTICAL REVIEW OF WORLD ENERGY JUNE 2008

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OVERVIEW

power generation formed the main driver for fossil fuel consumption growth in 2007, Finley said.

Renewables

Finley characterized the electricity generation from renewable sources such as wind power, solar energy and geothermal energy as expanding rapidly from a very small base. Renewables represent about 1 percent to 1.5 percent of total world electricity generation. But the distribution of renewable energy generation across the world is very uneven, with countries such as Germany making especially high use of renewable sources.

Globally, ethanol production reached 900,000 bpd in 2007, Finley said. On an energy equivalent basis that represents 0.7 percent of the world's oil consumption. In the United States, rapid growth in ethanol use pushed consumption of that fuel to a level representing about 5 percent of gasoline usage.

Overall, with fossil fuels, especially coal, dominating the world energy scene, carbon emissions grew faster than energy use in 2007. However, carbon emissions fell in Europe, probably because of the warm winter.

"(Worldwide) we don't really see the evidence in the data that we're making progress on constraining the growth of carbon emissions," Finley said.

So what does all of this mean in terms of the world use of crude oil?

Rising oil reserves

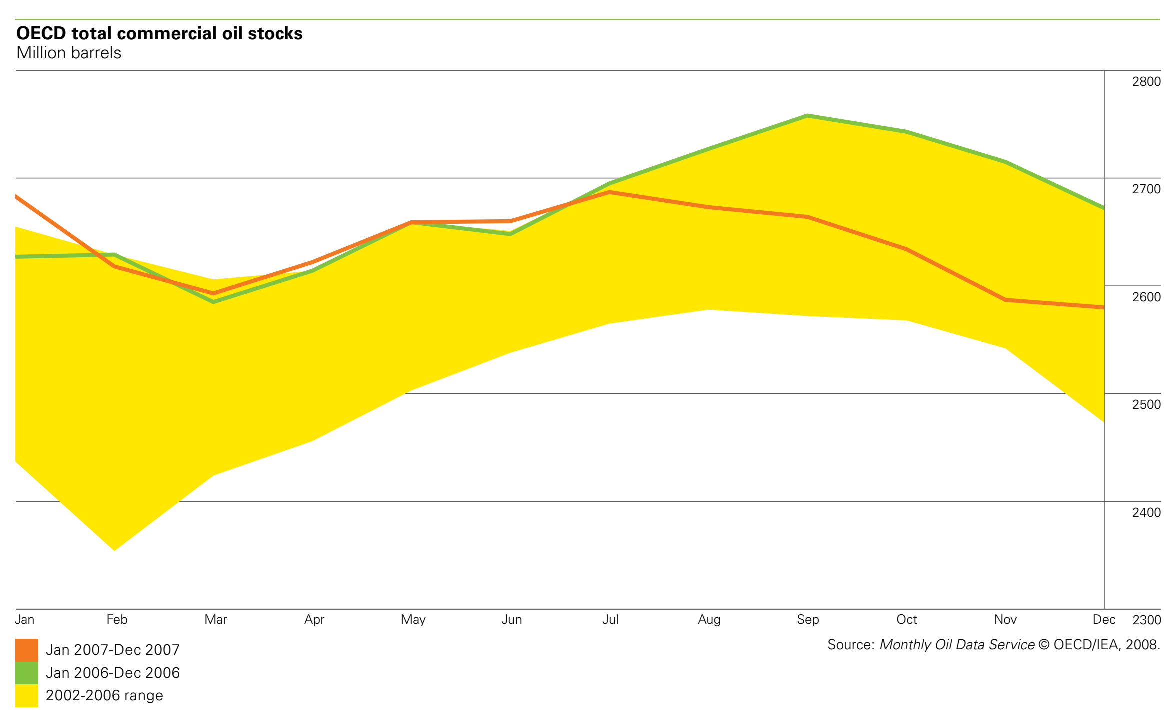
Worldwide, proven oil reserves continue to increase, with sufficient reserves to maintain current production levels for a little more than 41 years, Finley said. There are more than 60 years of reserves of natural gas and more than 130 years of reserves for coal. And oil reserves are being replaced — in 2007, for example, the Canadian government reclassified the portion of reserves in oil sands that are under active development.

"The world is not running out (of oil)," Finley said. "Reserves go up and not down over time."

So why is there an oil supply crunch that is driving prices up?

"The challenges that the world faces on global basis for expanding supply are not below the ground," Finley said. "… We believe that the world has the resource base to support much higher levels of production."

The keys to increasing supplies lie above the ground, in loosening market constraints that limit access to new resources, he said. ●



BP STATISTICAL REVIEW OF WORLD ENERGY JUNE 2008

A major decline in OECD oil stocks in the second half of 2007 (red line) fueled escalating oil prices.

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SHELL

Unable to hold out

Pete Slaiby, general manager for Shell in Alaska, told Petroleum News June 24 that, faced with uncertainty over the court decision, the company felt unable to continue holding out the prospect of drilling work for people during the 2008 season.

"What was first on our mind was that people's livelihoods are at stake," Slaiby said.

And time had run out for the detailed planning and preparation needed for a drilling program that Shell had hoped to put into action starting in early August. In addition to planning the actual drilling, all of the support activities need to be planned and organized.

"We've actually got to have a handle on this sooner rather than later," Slaiby said. "It's not just an on-off switch. We've got to ramp up and plan into it. … We can't ramp things up that quickly."

The cancellation of the drilling program will result in the loss of 200-plus jobs, mainly in drilling contract work, during the open water season, Slaiby said.

Other activities

However, the company will proceed with other offshore activities, including scientific baseline studies, marine mammal monitoring and surveying for possible pipeline routes from Sivulliq. And seismic acquisition in the Chukchi and Beaufort Seas will continue as planned.

"Our planned program is still significant in size and requires support from hundreds of contractors including marine mammal observers, subsistence advisors and call center operators, most of whom are Alaskans," Smith said in the June 20 announcement.

In fact the communications centers that Shell has established in North Slope communities are in operation, in support of subsistence whaling, Slaiby said. Already use of the centers has saved someone, he said.

Shell will continue with further planned upgrades to the Kulluk floating drilling platform that it plans to use for its Beaufort Sea drilling, Slaiby said. And the company will mobilize some of its offshore oil spill response personnel and equipment to conduct some training exercises, he said.

Long-term view

But continuing delays in Shell's drilling program translate to deferral of the point at which oil or gas production from the Beaufort Sea might start and will result in mounting costs for the company. What does all of that mean for Shell's views of Alaska as a place to do business?

"We are still committed to this as a heartland," Slaiby said. "We've started to talk a little bit about this in terms of it being a marathon rather than a sprint. We do want to have relationships that go beyond a number of years."

With a short annual exploration season in the Beaufort Sea, Shell would have liked to have jumpstarted its Sivulliq exploration with the top-hole drilling. But, although there are a significant number of people in Alaska who would view the delay as a lost opportunity, there are people in the villages who express legitimate concerns about Shell's plans, Slaiby said. And the North Slope Borough has questioned the rapid pace with which Shell has been trying to move forward with its offshore plans.

"We're sympathetic to that," Slaiby said.

Slaiby said that Shell views delays in its plans as an opportunity for further dialogue.

"We do want to create a space where we can talk to communities and get their input into what we're doing, rather than just going out there and telling them," Slaiby said. "… Taking time is a good thing."

More baseline data

The drilling hiatus will also provide an opportunity to collect more baseline environmental data, he said.

"We're also continuing to collect the data and building an even more extensive database on the marine mammals and other … wildlife in the area," Slaiby said.

And Shell is still negotiating with North Slope whalers for a conflict avoidance agreement for the summer seismic program.

"We're not there but … the quality of the dialogue is good," Slaiby said. "I'm encouraged."

But what about the lack of a decision from the 9th Circuit court?

Shell is disappointed that the decision has not appeared in an opportune manner — no decision is the worst possible situation, because people don't know where they stand, Slaiby said.

"We feel that MMS did a very thorough, fair and unbiased job in issuing us the permit," Slaiby said. "… We're expected to be on top of our game when we present these permits." ●

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INSIDER

ending the federal moratorium on offshore drilling on June 17, changing his long held position on the issue.

In the same speech, given to oil executives in Houston, McCain continued to oppose drilling in ANWR, saying he didn't believe it could be developed responsibly. However the next day, McCain said he would "go back and look at it again" if presented with compelling information.

On June 19, McCain clarified his position: "People have said to me, 'I'm going to bring you new information about ANWR, how environmentally we can make it safe. I'll be glad to accept new information but my position has not changed.'"

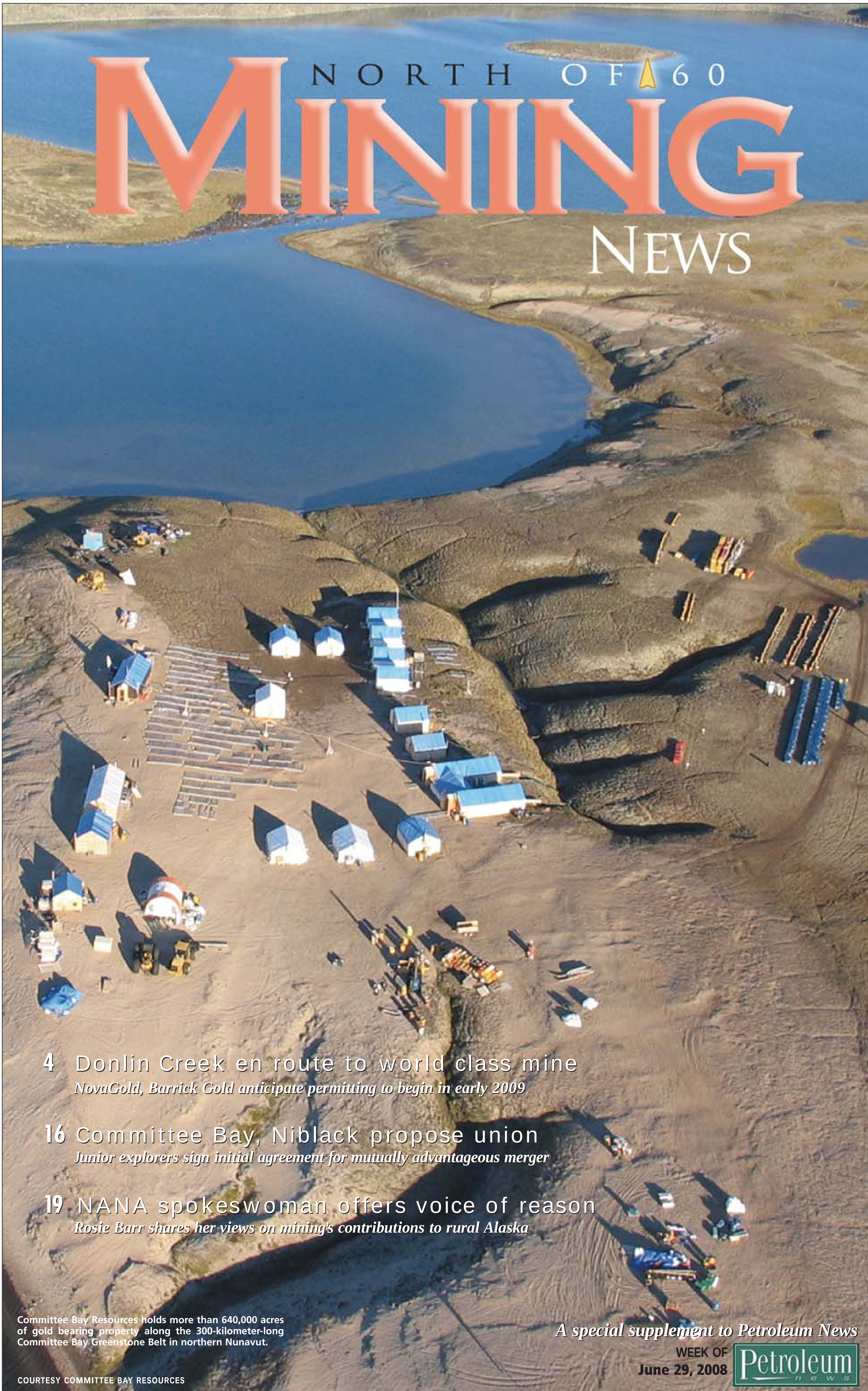
Democratic presidential candidate Barack Obama continues to oppose drilling in both the Outer Continental Shelf and ANWR.

From around the country

"Regardless of what happens in the near future, we should still pursue goals of renewable energy, drive vehicles with better gas mileage and conserve when possible. But clearly the mood of the country has shifted a bit — when gas hit $4 per gallon, many people started looking for answers to high fuel costs. Drilling in previously closed areas now looks like an acceptable alternative to many." —from the Hudson (Wis.) Star-Observer

"If you look at the best case scenario for ANWR, and I mean the best case scenario, you are looking at one million barrels a day while the U.S. is still consuming 20 million barrels a day and the world demand is 86 million barrels a day. Even if you open up offshore drilling, you won't see oil come online for five to 10 years. ANWR wouldn't lower world demand." —Dr. Robert Kaufmann, speaking for the Pasadena, Calif., based Foundation for American Communications on June 24, as reported in the North Platte (Neb.) Telegraph

—COMPILED BY ERIC LIDJI



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Committee Bay Resources holds more than 640,000 acres of gold bearing property along the 300-kilometer-long Committee Bay Greenstone Belt in northern Nunavut.

COURTESY COMMITTEE BAY RESOURCES

A special supplement to Petroleum News

WEEK OF
June 29, 2008

Petroleum news

● ALASKA

JV seeks good news in platinum prospects

Major producer teams up with junior to explore Southwest Alaska targets for lode source of 650,000-ounce historic placer output

By **SHANE LASLEY**
Mining News

Pacific North West Capital and Stillwater Mining Co. have begun the 2008 drilling program at the Goodnews Bay Platinum Project in Southwest Alaska. The $1 million program has two primary targets, Last Chance and Susie West prospects, defined with rock and soil sampling programs in 2006 and 2007.

In addition to about 3,000 meters of core drilling planned at Last Chance and Susie West, the companies will also continue an auger soil sampling program on Susie Mountain which will be used to locate drill targets at Susie West and the adjacent Rock Mite prospect.

The project covers about 82 square miles, or 212 square kilometers of lands owned by the Alaska Native regional corporation, Calista Corp. and hosts the Goodnews Bay Ultramafic Intrusion, which is believed to be the lode source of about 650,000 ounces of platinum recovered from Salmon River placer deposits.

Last Chance

The Last Chance prospect is located on Red Mountain at the head of Dowry Creek, a historic producer of placer platinum and is believed to be the primary source of the placers recovered in the Salmon River drainage. Rock samples taken from an outcrop at the prospect containing platinum-enriched chromium iron oxides have returned assay results up to 2.27 grams per metric ton platinum. Geologists have also discovered platinum and palladium enriched magnetite clinopyroxene veins cutting the dunite. The platinum anomaly identified at Last Chance measures 650 meters by 175 meters.

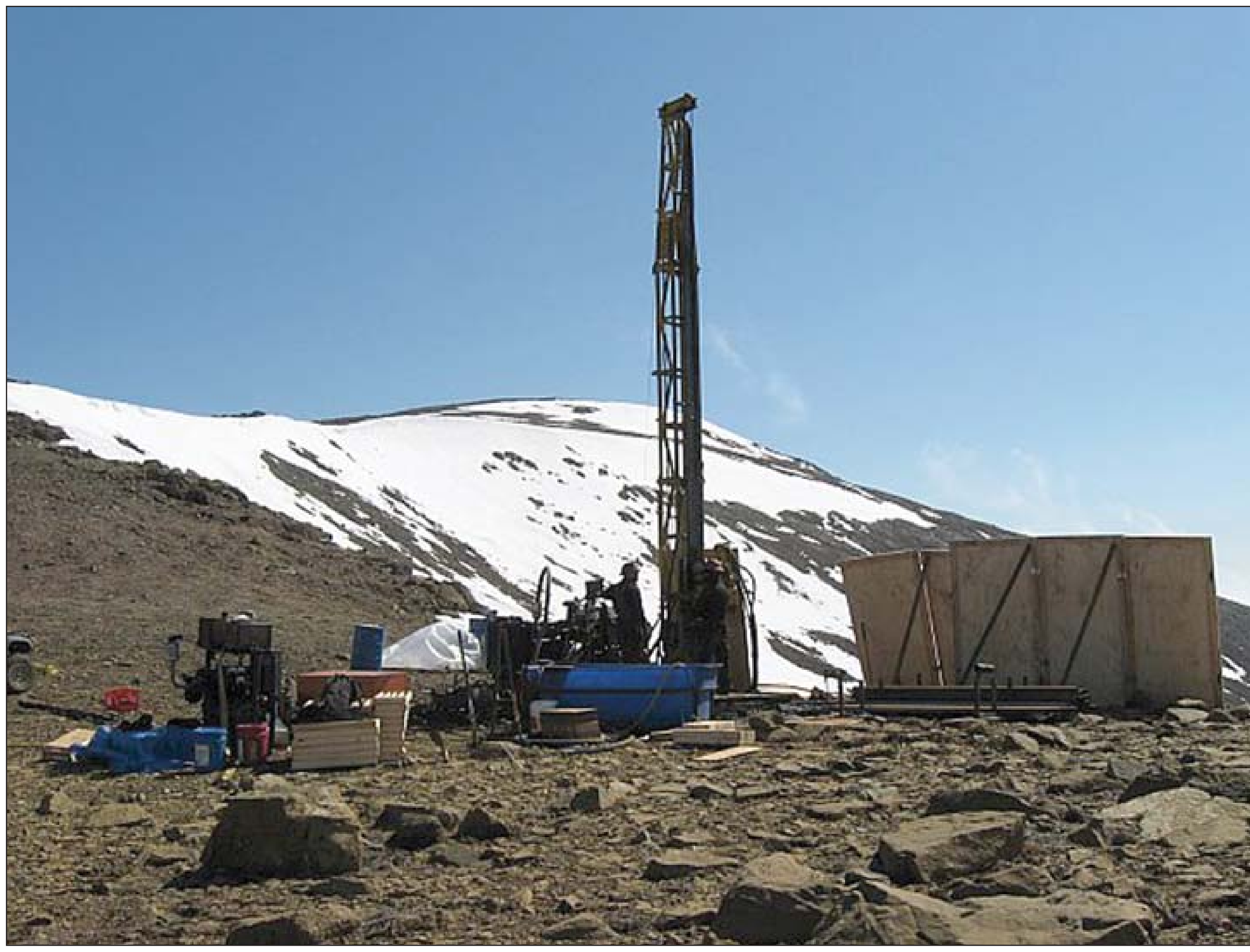

PHOTO COURTESY OF CHRIS VAN TREECK

A 650-meter-by-175-meter platinum anomaly at the Last Chance prospect is one of two primary drill targets for Pacific North West Capital Corp. and Stillwater Mining Co. in 2008.

Susie West

A platinum anomaly in basal mineral soils has been discovered at the Susie West prospect. The owners said the discovery excites geologists because it indicates that the platinum lode source found at Red Mountain on the west side of the Salmon River continues at Susie Mountain on the east side of the river. The two mountains are part of the same intrusion that has been divided by the Salmon River Fault. This means that the recently discovered platinum mineralization at the Susie West prospect is hosted in rock equivalent to what has been eroded from Red Mountain to form the Salmon River platinum placer.

An auger drilling program carried out in 2007 was designed to better define the Susie West soil anomaly. The auger program, which was carried out on a 50-meter-by-100-meter sampling grid to a depth of about 40 feet, outlined a teardrop-shaped area that measures 200 meters east-west by 35 meters north-south and the soil anomaly is open to the west. The assay results from the auger

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COURTESY CALISTA CORP.

A majority of the 650,000 ounces of platinum recovered from the Salmon River area was extracted with the dredge built by Goodnews Mining Co. in 1937.

PHOTO COURTESY OF CHRIS VAN TREECK

In June of 2008 crews began drilling the Last Chance prospect on Red Mountain in search of the lode source of 650,000 ounces of placer platinum recovered downstream.

COURTESY CALISTA CORP.

The village of Platinum was established shortly after platinum was discovered in the area in 1926 and developed as a "company town," with the store, water, and electricity supplied by the mine.

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GOODNEWS

program returned grades as much as 432 parts-per-billion platinum.

Rock Mite

Rock Mite, on the southwestern ridge of Susie Mountain, is another potential drill target at the Goodnews Bay project. Grab samples taken from the prospect in 2006 returned platinum values up to 334 ppb. Geologists collected another 20 samples from the prospect in 2007; seven of the samples returned platinum values of more than 100 ppb and one sample assayed at 603 ppb.

Rock Mite represents another platinum lode source on Susie Mountain and validates the belief that Susie Mountain hosts an extension of mineralization found on the west side of the Salmon River Fault. Auger soil sampling conducted this year will be used to help delineate targets for future core drilling.

Stillwater interested in Goodnews

Stillwater, the only producer of platinum and palladium in the United States, took an interest in Pacific North West Capital shortly after exploration began at Goodnews Bay in 2006. Stillwater subsequently took part in three separate private placements and currently owns about 10 percent of the company.

In addition to owning stock in the company, Stillwater entered into a joint venture agreement with PFN on the Goodnews Bay Project. The platinum producer can earn a 50 percent interest in the project by spending $4 million by the end of 2010. An additional 10 percent can be earned by spending another $8 million on exploration over the following two years or completing a feasibility study and another 5 percent can be earned by arranging for the financing of commercial production by 2015.

Stillwater and PFN also completed limited reconnaissance exploration to locate other potential platinum projects in Alaska. The partners initially planned to spend $500,000 to locate additional platinum exploration prospects but since decided to focus on exploration at the Goodnews Bay project.

Five decades of placer production

The Goodnews Bay region was the primary producer of platinum in the United States for more than five decades. From 1927 through 1978 about 650,000 ounces of placer platinum was extracted from the Salmon River and its tributaries.

Yup'ik residents of the area, Walter Smith and Henry Wuya, first discovered platinum in the streams draining Red Mountain in 1926. The discovery led to a claim-staking rush followed by several small-scale mining operations.

The first large-scale mining of platinum began in 1937 when Goodnews Bay Mining Co. constructed a bucket-line dredge on the property. By 1940 the company had consolidated all the claims in the region and was the sole operator in the area. It operated the dredge through 1978, extracting most of the platinum produced in the region.

R. A. Hanson of Spokane, Wash. bought the Goodnews Bay Mining assets in 1979. Hanson and his associates renovated the dredge and operated it intermittently in the early 1980s.

After Hanson relinquished a large portion of his federal lode mining claims, Calista Corp. acquired them and lands at Susie Mountain under provisions of the Alaska Native Claims Settlement Act.

Increased platinum prices have brought renewed interest to the region. Not only for the lode potential being pursued by Pacific North West Capital and Stillwater, but also for the remaining placers. Additional platinum and gold remain in gravels and tailings in the area, but most placer reserves are believed to be deeply buried in the lower Salmon River Valley. ●

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Petroleum news

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Several of the individuals listed above are independent contractors

● ALASKA

Donlin Creek destined to become behemoth

NovaGold, Barrick Gold to study, sanction by spring 2009 developing one of world's largest gold mines in Alaska's Kuskokwim region

By ROSE RAGSDALE

For Mining News

After six years of hard work, NovaGold Resources Inc. is moving closer to its goal of developing a world-class gold mine in the hills above the Yukon-Kuskokwim River Basin of southwestern Alaska.

The Vancouver, B.C.-based junior is set to produce its first gold at the Rock Creek project near Nome this year, but its ongoing development of the Donlin Creek deposit hundreds of miles southeast of Nome is more likely to propel the company onto the world stage as a mega-producer of the yellow precious metal.

NovaGold and its 50 percent partner, Barrick Gold Corp., June 10 reported a revised resource estimate for Donlin Creek of 31.7 million ounces of measured and indicated gold with an additional 4.2 million ounces of inferred gold.

The company said the partners have begun work on a feasibility study for the Donlin Creek project and have already identified a preferred design for supplying the huge amounts of power that will be needed to process about 50,000 metric tons per day of ore.

"We've been working toward this goal since we acquired the property in 2002," said Rick Van Nieuwenhuyse, president and CEO of NovaGold. "I am particularly pleased that after careful consideration and a review of all possible alternatives, the partners are aligned on the path forward. NovaGold and Barrick will work together to optimize the final project design, complete a feasibility study and initiate permitting. We're one step closer to building one of the world's largest gold mines."

Van Nieuwenhuyse said the higher resource estimate resulted when the company finally received assays from the remaining 20,000 meters of its 2007 drilling and incorporated those results into the calculations.

Measured resources total 6.2 million metric tons at an average grade of 2.87 grams per metric ton for 600,000 ounces. Indicated resources are estimated at 387.6 million metric tons at 2.49 g/t for 31.1 million ounces.

Measured and indicated gold resources increased 8 percent to nearly 394 million metric tons, grading 2.5 grams per metric ton gold, while inferred gold resources climbed 20 percent to 55.4 million metric tons, grading 2.33 g/t gold, from a previous resource estimate released in February 2008.

Estimate constraints outlined

NovaGold said the estimates for Donlin Creek's resources are constrained within a Lerchs-Grossman open-pit shell using the long-term metal price assumption of $750 per ounce of gold. Assumptions for the LG shell included pit slopes variable by sector and pit area: Mining cost is variable with depth, averaging $1.80/t mined; process cost is calculated as the percent sulfur grade multiplied by $2.65 + $12.44; general and administrative costs, gold selling cost and sustaining capital are reflected on a per-metric-ton basis. Based on metallurgical testing, average gold recovery is assumed to be 90 percent.

COURTESY NOVAGOLD RESOURCES INC.

Workers drill for samples at the Donlin Creek gold project during 2007 exploration. NovaGold has resumed exploration this year with about 200 workers, of whom 85-90 percent are Yukon-Kuskokwim Region residents.

NovaGold said the resource has been constrained within a conceptual pit based on $750 per ounce of gold and using recent estimates of mining, geotechnical and metallurgical parameters. A variable cutoff grade averaging 0.87 g/t gold is based on recent estimates of mining costs, processing costs (dependent upon sulfur content), selling costs and royalties.

The updated resource estimate was based on a three-dimensional geologic and mineralization model that integrated all exploration work on the project through 2007, including 173,031 assayed sample intervals in 1,678 holes. Metal grades were estimated with 6-meter-long drill-hole composites, using inverse distance cubed estimation methods into 6-meter-by-6-meter-by-6 meter blocks. Geologic controls to mineralization were applied using lithologic constraints and grade shell. High-grade outlier composite values were capped based on a review of cumulative frequency plots for each major rock type.

All drill samples were analyzed by fire assay and ICP at ALS Chemex Labs in Vancouver, B.C. The 2007 drill program and sampling protocol was managed by Barrick, as were assay quality control and quality assurance standards. However, a 2008 drill program and sampling protocol currently underway is being managed by Donlin Creek LLC, as are assay quality control and quality assurance standards.

Partners settle on power design

NovaGold and Barrick Gold considered a number of power alternatives before settling on using onsite diesel and wind cogeneration for power.

Van Nieuwenhuyse said Donlin Creek will need 30 megawatts of power, enough to light up a city of 75,000 people.

The company narrowed the choices to building a line to connect to the Alaska railbelt power grid or going with on-site power generation.

"Certainly, there are a lot of benefits to bringing in a power grid, especially for the local communities, but the business risks were so great with the power grid alternative that the partners opted for site generation," Van Nieuwenhuyse explained.

see **DONLIN CREEK** page 5

continued from page x

DONLIN CREEK

He said the risks included having to rely on numerous small electric utilities to obtain the needed power.

The preferred design calls for using wind power to generate 25-30 percent of the project's electricity needs, which requires construction of a 130-megawatt wind farm because of the intermittent nature of wind power.

"It's very cheap power, but the capital costs are not insufficient," Van Nieuwenhuyse said.

The remaining 70-75 percent of power would come from on-site diesel generators.

Van Nieuwenhuyse said Donlin Creek LLC will continue to study other energy sources for power generation, including natural gas and peat, in search of a more economical alternative. "But all of these options have issues," he added.

Mine would be among largest

Donlin Creek is currently envisioned as a 50,000- to 60,000-metric-ton-per-day gold mine, which would make it one of the world's largest with considerable capital costs associated with startup.

Using the preferred design, Donlin Creek would operate for 25 to 30 years and produce potentially 1 million to 1.5 million ounces of gold annually. Permitting would start in early 2009 with construction targeted for 2012, NovaGold said.

The operation ultimately would become one of the world's largest gold mines, rivaling Newmont Mining's Minera Yanacocha Mine in Peru and several others around the globe in size.

According to reports, Barrick Gold estimated Donlin Creek's capital cost in 2006 at about $2.1 billion and upped the figure to $4 billion in 2007. However, an official cost estimate for the project will not be determined until the feasibility study is completed, a NovaGold spokeswoman said.

Mindful of the detrimental effect of significant increases in capital costs on a project given the postponement of the Galore Creek Project in northern British Columbia when cost estimates nearly doubled last fall, NovaGold said it will continue to seek ways to improve the Alaska project's design during the feasibility study period.

NovaGold is a 50-50 partner with Teck Cominco Ltd. in the Galore Creek copper-gold project, which is currently being retooled in light of the sharp spike in its projected capital costs.

One option to offset a run-up in costs that NovaGold has indicated it would consider is to reduce the junior's 50 percent equity in both Donlin Creek and Galore Creek in the future – once feasibility studies are complete and the process begins for financing capital needed for the projects – as a way to increase shareholder value.

New drilling focuses on pay-back period

NovaGold also will focus on identifying additional high-grade ore that can enhance grade in the early years of production, reducing the capital payback period.

Van Nieuwenhuyse said 19,000 meters of new drilling so far this year extended the mineralized zone and produced intersections of up to 6.97 grams per metric ton over 42.1 meters. Widely spaced drilling at East Acma demonstrates that mineralization continues about 500 meters to the east of the current pit-constrained resource along the Donlin Creek anticline, an important ore-controlling structure. The 2008 holes are intercepting mineralization below and beyond the current pit limit and highlight the potential to increase the Donlin Creek resource base with additional infill drilling. The Phase 1 program is focused on the limits of mineralization and its impact on facilities placement in the East Acma area versus conversion of mineralization to resources.

COURTESY NOVAGOLD RESOURCES INC.

Workers saw drill core in an assembly line inside the core shack at the Donlin Creek gold project in 2007.

While Donlin Creek LLC will continue additional infill drilling in the East Acma area during the remainder of the budgeted Phase 1 program, the Phase 2 program in 2008 will largely be focused on finalizing the feasibility study and preparing for permitting.

"We expect to finalize and approve the feasibility study early in'09, probably in February," Van Nieuwenhuyse told Mining News June 17.

Van Nieuwenhuyse said exploration during the rest of the 2008 season will focus on identifying additional high-grade ore that can enhance grade in the early years of production, reducing the capital payback period.

NovaGold envisions employing 500-600 permanent workers at Donlin Creek in a fly-in, fly-out operation similar to that used at the Red Dog Mine in Northwest Alaska. Currently, some 200 people are working on the project, of which 85-90 percent reside in the Kuskokwim region, according to Van Nieuwenhuyse.

He said the partners aim to continue their program of recruiting, training and hiring from the local labor force as the mine is developed.

Lawmaker joins Donlin Creek staff

Separately, Donlin Creek LLC said it has hired state Rep. Mary Sattler Nelson as manager of community development and sustainability for the company, which was formed by NovaGold and Barrick Gold to develop the mine. Earlier this year, Nelson said she would not seek a sixth term, after serving 10 years representing the 56 villages of the Y-K region in the Alaska State Legislature.

After watching the Donlin Creek project for more than 10 years, Nelson said she is impressed with the project's record of keeping its environmental commitments and the positive effects its 90 percent local hire rate has had on local communities.

"I want to work with the company to ensure that these benefits are realized throughout the region so that they can be sustained not only through the construction, operation and closure of the mine — but also beyond," Nelson said.

Startup imminent at Rock Creek

Meanwhile, NovaGold was to meet with Alaska regulators in mid-June to smooth out remaining bumps in the road to startup at Rock Creek, a relatively modest deposit with an estimated 1million-ounce gold resource and project yearly production of about 100,000 ounces of gold. Because acquisition and development costs for the Rock Creek Mine, which encompasses several deposits over the 13,500-acre property, were relatively low, NovaGold expects to benefit from $25 million in annual cash flow from the project.

Van Nieuwenhuyse said construction at Rock Creek is substantially complete at the mine, but an uncommonly heavy snowfall, five or six times the norm, this year in Nome led to additional work to meet requirements of storm water regulations.

"We think we will have a smooth startup in the next two to three months and reach commercial production later this year," he said. ●

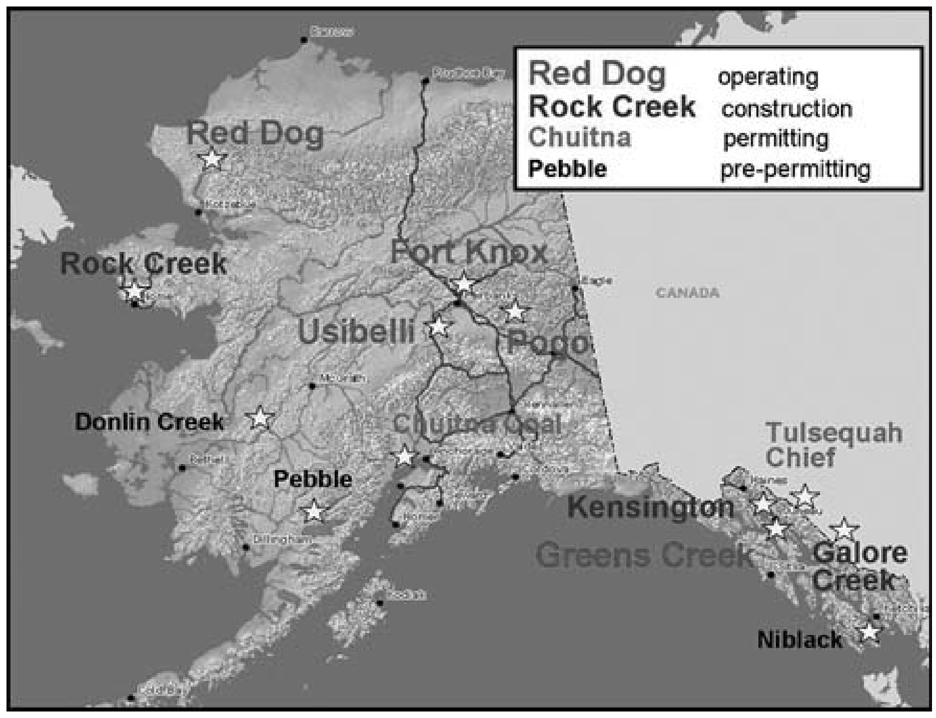
● GUEST COLUMN

No better place for gold discoveries

Miners are busy across Alaska with mineral projects, from prospecting to feasibility studies as state's resource count soars

By CURT J. FREEMAN
For Mining News

Everyone who is planning to work on Alaska mineral projects in 2008 is busy doing just that as the longest day of summer quickly approaches. Programs ranging from grass-roots prospecting to multimillion-dollar feasibility studies are spread over the entire state with the most active areas being Western and Interior Alaska. With the new resources for Donlin Creek now out, my unofficial records show Alaska's total gold resources at more than 169 million ounces, with gold discovery rates during the past 10 years averaging more than 11 million ounces per year at a cash discovery cost of about $4.25 per ounce. To steal one of the great marketing concepts of our age, if you can find a better place to discover gold, go there!



The author

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CURT FREEMAN

Western Alaska

NOVAGOLD RESOURCES and partner **BARRICK GOLD U.S. INC.** announced new resource updates, drilling results and a decision to complete a feasibility study at the Donlin Creek project by the first quarter of 2009. Total gold resources have increased to 35.83 million ounces of gold and incorporate an additional 20,000 meters of drilling from the 2007 drill program. The new measured and indicated resources stand at 393.8 million metric tons grading 2.50 grams of gold per metric ton for 31.67 million ounces of gold. Inferred resources added an additional 55.4 million metric tons grading 2.33 grams of gold per metric ton (4.16 million ounces). The company also released its first batch of drill results from the 2008 drilling campaign, including hole DC08-1686 which intersected 256.9 meters of 3.25 grams of gold per metric ton in 19 mineralized intervals, hole DC08-1689 which intersected 42.1 meters of 6.97 grams of gold per metric ton in 8 mineralized intervals and hole DC08-1695 which intersected 302.6 meters of 3.97 grams of gold per metric ton in 13 mineralized intervals. The company also announced that it had identified a preferred design for the project and plans to complete and approve a feasibility study by the first quarter of 2009. The project is expected to have a capacity of 50,000 metric tons per day using onsite diesel and wind cogeneration for it electrical power needs. The mine would operate for 25 to 30 years and produce 1 million to 1.5 million ounces of gold annually. Permitting would start in early 2009 with construction targeted for 2012.

ZAZU METALS CORP. announced that drilling had commenced at its LIK zinc-lead-silver deposit near the Red Dog mine. The company is employing two drill rigs to complete about 10,000 meters of drilling in 2008. The company also reported metallurgical work that yielded recoveries for zinc of 87 percent in a concentrate grading 52 percent and lead recoveries as high as 81 percent reporting to a concentrate grading 57 percent. Test results indicate that lower lead recoveries of about 70 percent would yield a concentrate grade of 70 percent, which would be more marketable to smelters.

ALIX RESOURCES and partner **MILLROCK RESOURCES** announced the start of their 2008 exploration program at the Divide gold project near Nome. The total project budget is $1.5 million and will consist of geological mapping, reverse circulation drilling of 3,600 meters in 25 to 30 holes and trenching and channel sampling. The initial target area will be the Stoneman prospect where visible gold is observed at surface in talus and weathered, broken bedrock. In addition, drilling will be completed at the Saddle Zone where previous drilling failed to hit the source of trench samples which returned 16.21 grams of gold per metric ton over 16.76 meters.

FREEGOLD VENTURES announced plans to conduct diamond core drilling at its Vinasale gold project south of McGrath. This year's program will include additional sampling, ground geophysics and drilling aimed at confirming and expanding the known gold mineralization within the property. Following the completion of ground-based geophysics, a 2,000-foot drill program will be undertaken.

PACIFIC NORTH WEST CAPITAL and joint venture partner **STILLWATER MINING** announced commencement of a $1 million exploration program at their Goodnews Bay project under lease from **CALISTA CORP.** The 2008 program will include drilling at the Last Chance and Susie West prospects and additional soil auger sampling in the Suzie Mountain complex. Drilling at the Last Chance prospect will be conducted within a bedrock platinum anomaly measuring 650 meters north-south by 175 meters east-west. The prospect returned values up to 2.27 grams of platinum from chromium iron oxides outcropping in dunite. The target at Suzie Mt. is an area with greater than 50 parts per billion platinum in soils with grades up to 432 ppb platinum. This basal soil platinum anomaly is open to the west.

FULL METAL MINERALS and joint venture partner **BHP BILLITON MINERAL SERVICE** announced that it has acquired several porphyry copper targets in eastern Interior Alaska from Alaska native corporation **DOYON LTD**. Under terms of the agreement, Full Metal will pay Doyon $125,000 over two years, increasing to $100,000 over the following seven years. Full Metal also will make scholarship donations of $10,000 per year and make exploration expenditures totaling $3.05 million. At any time following exploration expenditures totaling at least $700,000 on one prospect and having completed at least 10,000 feet of core drilling and completing a positive prefeasibility study, Full Metal may enter into one or more Mining Leases. A variable scale production royalty payable to Doyon also is included in the agreement. On the exploration front, the partners recently completed an extensive airborne geophysical survey that identified multiple new target areas with potential to host copper-gold porphyry deposits. Field crews have commenced a program of surface mapping, sampling and induced polarization geophysics over historic and newly identified prospects, with the purpose of identifying drill targets.

Eastern Interior

FREEGOLD VENTURES LTD. announced 2007 bulk sampling results from its Golden Summit gold project and has resumed seasonal bulk sampling on the project. Bulk samples tested during late 2007 had a weighted average grade of 2.7 grams of gold per metric ton with individual stockpiles ranging from 0.6 to 7.0 grams of gold per metric ton. A total of 23,500 tons of material is currently stockpiled and is awaiting testing, along with a further estimated 45,000 tons that will be collected and processed from the Beistline, Fence 1 and Tolovana areas. The company also announced that it has modified its test plant to allow for finer grinding of bulk sample material. Test work over the winter indicated that recoveries ranging from 80 to 95 percent were achieved on 17 bulk sample composites that were reduced to a particle size in the laboratory that is reflective of the new crushing and grinding capabilities of the plant. With composite head grades ranging from 1.9 grams of gold per metric ton to 44.6 grams of gold per metric ton, the high gravity recoveries seen across all sample grades reconfirms the coarse nature of the gold seen in the previous test work and in the initial gravity concentration work.

Alaska Range

FULL METAL MINERALS announced commencement of underground exploration and bulk sampling at its Lucky Shot gold project near Hatcher Pass. The pur-

see **FREEMAN** page 7

GUEST COLUMN

He who forgets his past must re-drill it

Columnist urges resource industries, public to support the preservation of valuable data collected from decades of Alaska exploration

By J. P. TANGEN
For Mining News

It is said that those who forget their history must relive it. It appears that geologists working together with the State of Alaska have found a unique way to make that adage come true.

Imagine spending hundreds of millions, if not billions, of dollars building an active database and then stashing it in an unsecured facility where access, at best, is difficult and retrieval of the data for review places those very data at risk. That, however, is exactly the way the State is dealing with about 12 million feet of drill core it has been collected over the past several decades from the mining and oil and gas industries.

The Alaska Geologic Materials Center maintains this collection of materials, which also includes other geochemical data from thousands of oil and gas wells, exploratory hard rock drill holes, and surface samples.

"Maintains" is a euphemism, however, for warehousing.

Cores are poorly housed

The current facility lacks, among other things, adequate environmental controls to protect the collection. The trove, instead, is arrayed among a central building, three converted houses and about 50 Connex containers.

Waste, of course, is a part of the American way of life. Huge volumes of data are collected all the time by all kinds of industries as well as government agencies for incorporation into useless reports such as environmental impact statements. These documents are barely read by anyone but their preparation entails expensive studies, comprehensive reviews and critical commentary before they are relegated to collecting dust on a bookshelf somewhere.

Mining & the law

J.P. TANGEN

The author, J.P. Tangen has been practicing mining law in Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers of Mining News and Petroleum News.

People in the resource recovery industries have become somewhat inured to that kind of waste at the hands and demands of the bureaucracy. But the drill core and petrographic data at the Materials Center is somehow different. Those data were collected not to support some environmentalist lawsuit somewhere, but to give us a tiny peek into the ground upon which we stand.

It has long been my view that most of the geologists cannot see an inch further into the ground than I can; however, when they pop a drill hole into the ground, all bets are off. Then they have a palpable basis for inferring what's there.

Undervalued asset

Promising geological terrain is scattered across Alaska. New companies and old ones are constantly coming into Alaska to look for places to explore, drill and start new projects. When they can review the core from previous exploration efforts, they can focus their attention and use their exploration bucks more efficiently.

Where the core is poorly catalogued or inadequately maintained or irretrievable due to difficulties in access, however, it is as if it did not exist at all. That means it will have to be replicated, and the hard earned money spent to retrieve the samples in the first place is money wasted. It also means that the operators of new projects are reluctant to incur the costs and aggravation of sending their core and data to the Center for future reference.

Rescue may be in sight

Those who recognize the value of this strategic collection have longed for some remedial action to be undertaken, and there is some light at the end of the tunnel. A new facility has been proposed for construction in Eagle River, which will provide "a permanent, publicly accessible repository for geologic samples and related data to encourage and support energy and mineral resource exploration, research, development, and education in Alaska."

Spearheaded by John Norman, immediate past chairman of the Alaska Oil and Gas Conservation Commission, this effort will constitute a giant step forward. At a point in our history when the state has the flexibility to undertake some deferred maintenance, this is one project that should not be overlooked.

The vision of those supporting this project is inspired. While it remains to be seen whether it will gain the traction needed to become a reality, there is reason to hope that Alaska may one day have a facility that reasonably protects and preserves this priceless collection. Notably, the proposed research facility is projected to include a museum. Hopefully, this will be one of its crowning jewels, because the educational component of resource development is critical to its successful future.

You are urged to take a look at the Mineral Center's Web site (http://www.dggs.dnr.state.ak.us) to get more information. The project deserves support from the public as well as the affected industries. ●

CORRECTION: In J.P. Tangen's column published in the May 2008 edition of North of 60 Mining News, a word was incorrectly changed by editors, an action that inadvertently distorted the meaning of a sentence. The sentence should have read: "You cannot go to Safeway and get half a pound of gold cons for the garden." Mining News regrets the error.

continued from page 6

FREEMAN

pose of the 2008 program is to complete underground drifting and drilling and to complete a bulk sample to confirm the continuity of high-grade gold mineralization within the Lucky Shot shear. Permits for mining have been received, and work has commenced on rehabilitation of a historic adit to facilitate approximately 120 meters of underground development to access the shear zone. Test stoping is planned to extract over 5,000 metric tons of mineralized material, upon receipt of the water extraction and tailings pond permits. Full Metal recently purchased a used 150-metric-ton-per-day mill, expandable to 200 metric tons per day. Gravity tests were performed on three previously collected composite samples grading 4.7, 4.7 and 7.8 grams of gold per metric ton. Total recoveries were 68.2, 68.5 and 78.3 percent, respectively, at a grind of 62-96 micrometers.

MAX RESOURCE CORP. announced commencement of drilling at its Gold Hill molybdenum project in the Alaska Range. The goal of this program is to expand on significant molybdenum mineralization encountered in the 2007 drilling program.

Northern Alaska

GOLDRICH MINING CO. announced publication of an independent technical report on its Little Squaw project. The report recommendations include continued exploration of several lode gold prospects on the project as well as expanded exploration of its recently discovered placer gold deposit. The technical report is available on the company's Web site.

Southeast Alaska

BRAVO VENTURE GROUP announced commencement of a 1,200-meter core drilling program at its Woewodski Island volcanogenic massive sulfide project near Petersburg. Up to 400 meters of drilling are planned at the Brushy Creek prospect where historical drill intercepts from 2002 returned 1.8 meters grading 0.58 grams of gold per metric ton, 71 g/t silver and 3.7 percent zinc with a second 3.3 meter interval grading 0.47 g/t gold, 58 g/t silver and 3.9 percent zinc. Mineralization was hosted in strongly altered sedimentary rock and the drill hole ended in mineralization grading 2.80 percent zinc over 0.3 meters. About 800 meters of core drilling is planned for the East Lake prospect to test several targets identified along the northern and southern margins of a broad sedimentary basin which occupies the central part of the island. Previous drilling here returned up to 3.3meters grading 4.2 g/t gold and 4.68 percent zinc.

NIBLACK MINING announced that it has signed an agreement that will see all of the shares of Niblack acquired by **COMMITTEE BAY RESOURCES LTD**. The agreement also provides for an additional $10 million in funding for underground exploration currently under way at the namesake Niblack volcanogenic massive sulfide project on southern Prince of Wales Island. Since 1995, over $30 million has been spent exploring the Niblack deposit. ●

● ALASKA

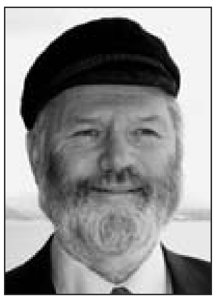
One unclear water initiative remains

Original anti-mining measure is removed from ballot; Alaskans may get to vote on ambiguous 07WTR3, pending Supreme Court ruling

By SHANE LASLEY
Mining News

Alaskans will not be voting on the original anti-mining initiative 07WATR during the August 26 primary election. On June 6, the Alaska Supreme Court dismissed an appeal of a lower court ruling that declared the proposal unconstitutional.

A similar initiative, 07WTR3, is still headed to the August ballot, pending a state Supreme Court ruling on its constitutionality, expected before July 10 so that ballots can be printed on time for the primary election.



Rep. Paul Seaton, R-Homer, asked the legislative legal department to explain what effects Ballot Measure 4 would have on existing Alaska statutes and regulations.

If 07WTR3 survives the court challenge, opponents of the initiative say Alaskans will be asked to decide the future of mining in Alaska when they cast their vote on Ballot Measure 4.

Earlier, sponsors of 07WATR sent a request to Lt. Gov. Sean Parnell, asking him to remove the initiative from the ballot. The lieutenant governor, however, does not have a mechanism for removing a ballot initiative once signatures have been collected and a measure has been certified for the ballot. In light of the sponsors' unwillingness to pursue the initiative, Alaska Supreme Court justices dismissed the case.

Supporters of 07WATR said they decided to drop the initiative so they could focus on the "less divisive" and "less stringent" 07WTR3.

07WTR3 lacks clarity

07WTR3, however, will not be less divisive and will require multiple court rulings to determine how stringent it will be, according to Alaska Legislative Legal Services attorney Alpheus Bullard.

In a June 3 report prepared for Rep. Paul Seaton, R-Homer, regarding the initiative's potential effect on existing statutory and regulatory standards affecting water bodies in Alaska, Bullard wrote, "The mining initiative is not a model of drafting clarity. The initiative's use of language creates questions as to the scope and applicability of the initiative's provisions."

Seaton's spokesman, Louie Flora, told Mining News that the Homer lawmaker "had heard several different projections of what the initiative would do and he wanted to make sure when constituents asked him, he would be able to give them accurate information."

The remaining initiative, 07WTR3, includes two regulatory standards directed at large-scale metallic mines. The first standard would regulate the water discharge, and the second one would regulate the storage of metallic mineral mining wastes and tailings.

Depending on how the initiative is interpreted, the standards could range from those set by current State of Alaska water quality regulations to a complete prohibition of water discharge from large-scale metallic mines.

"Given the ambiguity of the initiative's language, the degree to which these two additional regulatory standards will be interpreted so as to modify the standards that large scale mining operations must comply with under current law is not clear," Bullard wrote.

Courts likely would determine impact

The effects that 07WTR3 will have on existing large-scale mines also are uncertain. The initiative has a provision that excludes existing mining operations that have received all required permits. Since existing mining operations are required to regularly re-apply for and update existing permits as well as obtain new ones to expand infrastructure and facilities or expand operations to adjacent areas not covered under existing permits, a mining operation can never be classified as having all its permits.

"It is unclear to what extent existing mining operations would be impacted in their future operations," Bullard said. "Existing operations might not be able to expand or build new facilities without becoming subject to the initiative's provisions."

The only thing that seems certain is if this initiative is approved by Alaska's electorate, the courts will be left to interpret what the new law means and how it will be applied to Alaska's mining industry.

"Because of the ambiguity of the initiative's language, the complexity of federal and state water quality regulations, and the potential financial and social impact of the measure, litigation concerning its meaning is likely," Bullard wrote.

The constitutionality of the initiative is currently being challenged in the Alaska Supreme Court. A ruling is expected by July 10 so that ballots can be printed on time for the primary election. The neutral summary printed on the ballots may end up being the "definition" of the measure that future courts will use to resolve litigation.

"Interestingly, in representing what the initiative will do, the neutral summary may increase the chances of the initiative's legal effect being interpreted by a court in a manner consistent with the summary's interpretation, yielding a result that might be different from either what an interpretation of the initiative's text in isolation might have provided or what the measure's sponsors might desire," Bullard noted.

Seaton drew a similar conclusion. "Per the legal opinion, it appears that in a way, the "neutral" ballot summary will be what voters are voting on, and we will have to wait to see how the summary will be interpreting what the vote will mean."

Either way, if the measure is approved by the Supreme Court, Alaskans will be asked to decide the future of mining in Alaska when they cast their votes on Ballot Measure 4. ●

● YUKON TERRITORY/BRITISH COLUMBIA

Sherwood: More at Minto, less at Kutcho

Copper producer says Yukon mine just gets better and better, while newly acquired property will benefit from scaled-down approach

By ROSE RAGSDALE
For Mining News

Sometimes less can be more and then other times, more is just plain more.

That's the word from Sherwood Copper Corp.

The company posted a major jump in mineral resource estimates June 17 for its Minto Mine in central Yukon, based on results of 101 new holes drilled across four deposits – Area 118, Ridgetop, Main Minto and Area 2 deposits – in 2007.

Sherwood said the net result of all adjustments produced a 50 percent increase in contained copper and a 40 percent hike in precious metals in Minto's latest mineral resource estimate, which complies with requirements of Canada's regulation governing such calculations.

The Vancouver, B.C.-based producer said Minto's overall resource is 604.7 million pounds of contained copper, 320,000 ounces of gold and 3.3 million ounces of silver in the measured and indicated mineral categories, using a 0.5 percent copper cutoff, with an additional 294.4 million pounds of copper, 120,000 ounces of gold and 1.26 million ounces of silver in the inferred category at that same cutoff, reflecting 50 percent and 40 percent increases in total contained copper and gold, respectively, as well as a 38 percent boost in silver.

The higher resource estimates follow a 60 percent gain in contained copper in mineral resources based on drilling in 2006, for a total 140 percent gain in copper resources in two years.

2008 results still to come

But the news gets even better. The latest resource estimates do not include results from 2008 drilling, where more than 51 holes have already been completed and results for 16 have been made public; assays are pending for the balance.

"While most of the gain in 2007 was in the inferred category, we are already infill drilling the two 2007 discoveries (at Area 118 and Ridgetop) to upgrade the confidence level in these areas, as well as continuing to pursue opportunities for yet further increases in resources at the Minto Mine," said Sherwood President & CEO Stephen Quin in a June 17 statement. "With these results in hand, not only are we looking to continue to increase resources, but also to take advantage of the potential to increase the throughput capacity of the Minto mill by grinding coarser, which could provide opportunities to increase production levels well beyond those currently planned. In addition, we also plan to evaluate the resource potential at cutoffs below 0.5 percent copper, to determine the overall potential of this mineralized system."

Smaller project for Kutcho

Sherwood, meanwhile, is moving ahead with a less-is-more approach to developing the high-grade Kutcho polymetallic project it recently acquired in Northwest British Columbia. The scaled-down project it envisions is similar to the modest initial approach it used in developing the Minto Mine.

The company released results June 12 of an independent preliminary economic assessment of Kutcho, which outlined a significantly scaled-down development that would initially mine only one of three identified mineral deposits on the property.

Sherwood acquired the project through its takeover in May of Western Keltic Mines Inc. and announced its intention to develop Kutcho using its own successful Minto Mine in Yukon Territory as a model.

The new study evaluated developing 63 percent of the Main deposit at Kutcho as an open pit operation. Over a 7.3-year mine life, the pit would produce indicated resources of 10.5 million metric tons, averaging 1.73 percent copper, 2.35 percent zinc, 0.27 grams per metric ton gold, and 26.3 g/t silver, containing more than 400 million pounds of copper and 540 million pounds of zinc, 90,000 ounces of gold and 8.9 million ounces of silver, plus some minor amounts of inferred mineral resource.

> *"With these results in hand, not only are we looking to continue to increase resources, but also to take advantage of the potential to increase the throughput capacity of the Minto mill by grinding coarser, which could provide opportunities to increase production levels well beyond those currently planned."*
> **—Sherwood President & CEO Stephen Quin**

Lower-cost, open-pit mine

In addition to a 2 percent net smelter royalty, Sherwood estimates the project will require about C$50 million in operating costs, C$183.3 million in capital costs versus C$299 million estimated by Western Keltic in its pre-feasibility study. The project also will need C43.1 million to lease capital equipment for 7 years.

Sherwood also estimated average unit operating costs of $52.49 per metric ton, yielding cash costs of C$1.70 to C$1.72 per pound of copper before by-product credits and $0.82 to $0.93 per pound of copper after by-product credits.

Sherwood said deeper portions of the Main deposit and all of the Sumac and Esso deposits which, combined, total more than 50 percent of total indicated resources at Kutcho remain to be evaluated in future studies.

The preliminary economic assessment also laid out several opportunities for enhanced project economics, a number of which Sherwood is already evaluating as part of its ongoing work program, the company said.

Using the new study, Sherwood said it intends to advance the Kutcho copper project through the permitting process.●

● BRITISH COLUMBIA

Red Chris gets green light from court

Ruling validates owner's environmental assessment of proposed open-pit copper mine project in northwestern British Columbia

By ROSE RAGSDALE
For Mining News

Canada's Federal Court of Appeal has set aside a lower court ruling and confirmed a federal environmental assessment of the Red Chris copper-gold project 18 kilometers, or about 11 miles, southeast of the village of Iskut, east of the Alaska Panhandle in Northwest British Columbia, according to project owner Imperial Metals Corp.

In September 2007, the Federal Court Trial Division of Canada ruled in favor of an application by MiningWatch Canada for judicial review of a federal environmental assessment of the Red Chris project completed under the Canadian Environmental Assessment Act. The lower court also set aside a federal screening report for the mine project issued in May 2006.

MiningWatch Canada, representing environmental, aboriginal and labor interests, argued that the assessment did not allow for enough public involvement. The organization said the project is being built in one of the few remaining wilderness regions of North America, in an area known as the Sacred Headwaters, where the Stikine, Nass, and Skeena salmon-bearing rivers meet.

Regulatory discretion at issue

Imperial appealed the lower court ruling and was supported by federal government ministries.

At issue was the nature of the discretion of the responsible federal authorities to scope a project under Canadian law.

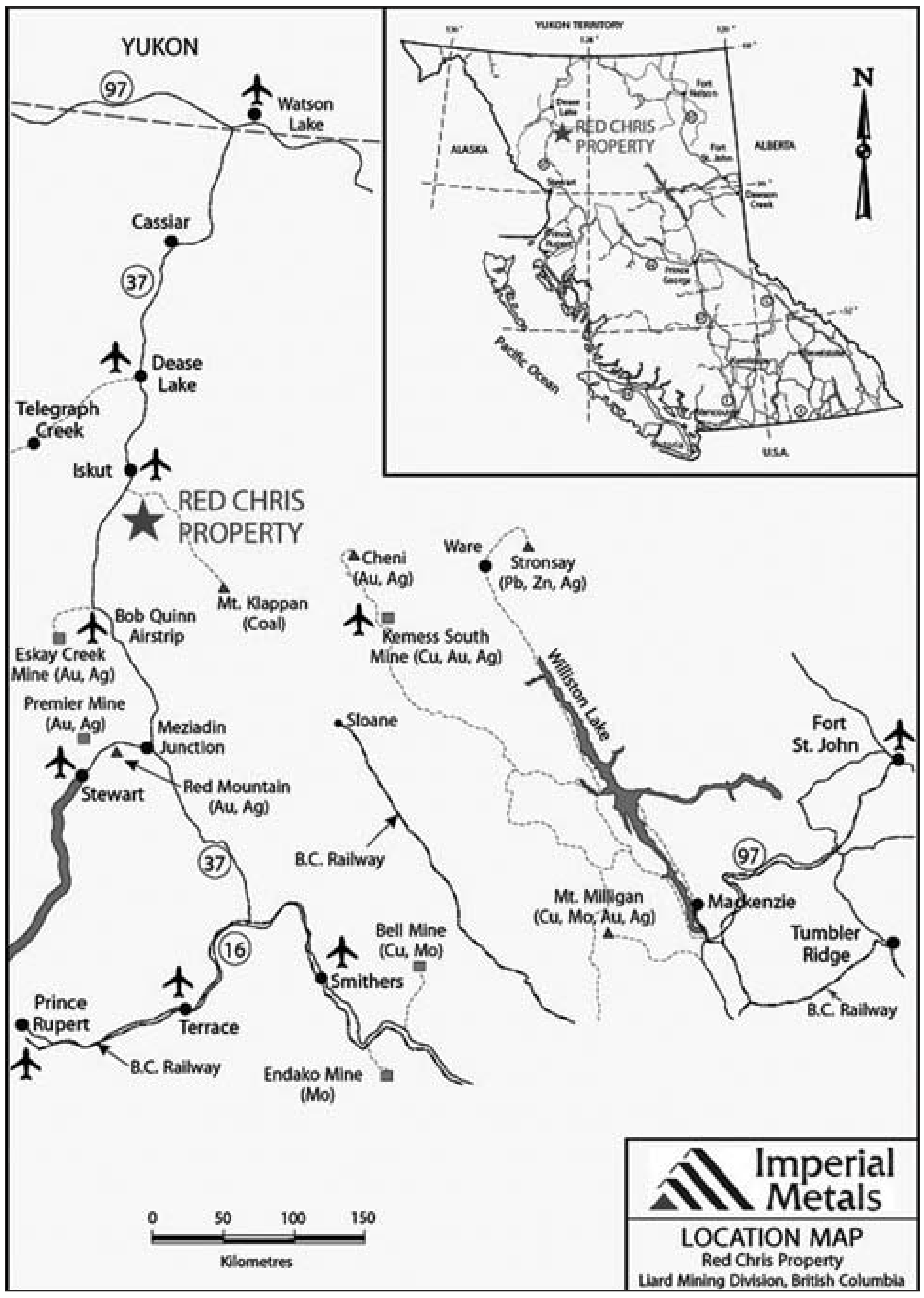
The Federal Court of Appeal concluded that Canada's federal officials have discretion to define and redefine the scope of a project for the purposes of tracking an environmental assessment.

Joan Kuyek of MiningWatch told reporters that the ruling is a huge disappointment and the approach the federal court took on the issue is appalling.

MiningWatch warns that the project would leave 183 million metric tons of tailings and 307 million metric tons of waste rock, and that acid drainage from the mine would likely require treatment for at least 200 years.

Imperial said the ruling by the appeals court validates the environmental assessment, completed in 2006 for bcMetals Corp., which found that open-pit development at Red Chris was unlikely to cause significant adverse environmental effects, Imperial said. The ruling also authorizes federal regulatory authorities to issue regulatory approvals for the Red Chris project to proceed.

The ruling clears the way for Imperial to proceed with development of the Red Chris Project, which it acquired in February 2007 when it purchased bcMetals for C$68.4 million after a protracted takeover battle with Taseko Mines Ltd.



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Project still needs source of power

Imperial began work during the first quarter of 2008 on an exploration trail to the Red Chris deposit, which included construction of a bridge spanning Coyote Creek. The 15-kilometer, or 9.3-mile, exploration trail will be completed this summer, allowing drilling equipment to be driven to the site for completion of additional geotechnical and exploration drilling. Road access will result in lower cost drill programs and safer working conditions, as helicopter support will not be necessary, the company said.

Imperial, however, still has a major hurdle to clear before it can move ahead with development of Red Chris. The remote project needs an economical power source. Red Chris is one of a half-dozen mine projects that would benefit from construction of a proposed power transmission line through the region. The B.C. government cancelled plans last fall to build the transmission line after Teck Cominco Ltd. and NovaGold Resources Inc. backed away from immediate development of the Galore Project because of a sharp jump in capital costs. Community and industry officials recently resumed lobbying the provincial government to resurrect the power line project.

Imperial also owns 50 percent of the Huckleberry open-pit copper-molybdenum mine near Houston, B.C. and the Mount Polley open-pit copper-gold mine in central British Columbia as well as a gold property in southwest Nevada. ●

● NORTHWEST TERRITORIES/NUNAVUT TERRITORY

Miners chase projects in Canada's Arctic

Diamond producers battle effects of strong Canadian dollar, while handful of others advance various properties toward development

By ROSE RAGSDALE
For Mining News

Mining exploration appears to be hotter than ever this season in the Northwest Territories and Nunavut, but the Canadian Arctic region's few producers are getting hammered by the strong Canadian dollar.

The discrepancy was particularly evident in the territories' mining production. The total value of metal and diamond shipments from the Northwest Territories and Nunavut Territory decreased to C$1.53 billion during the calendar year 2007 for the second consecutive year, down from C$1.63 billion in 2006 and C$1.79 billion in 2005, according to a Northwest Territories Chamber of Mines report on recently obtained statistics from corporate and government sources. The report was released in June.

The Northwest Territories had three diamond mines and one tungsten mine in production in 2007. The mines produced diamonds and tungsten concentrates in 2007 valued at C$1.412 billion and nearly C$17.9 million, respectively.

The largest diamond producer is the Diavik Diamond Mine, which is operated by Rio Tinto Plc. Diavik recovered nearly 12 million carats in 2007 from 2.4 million metric tons of ore grading 4.97 carats per ton.

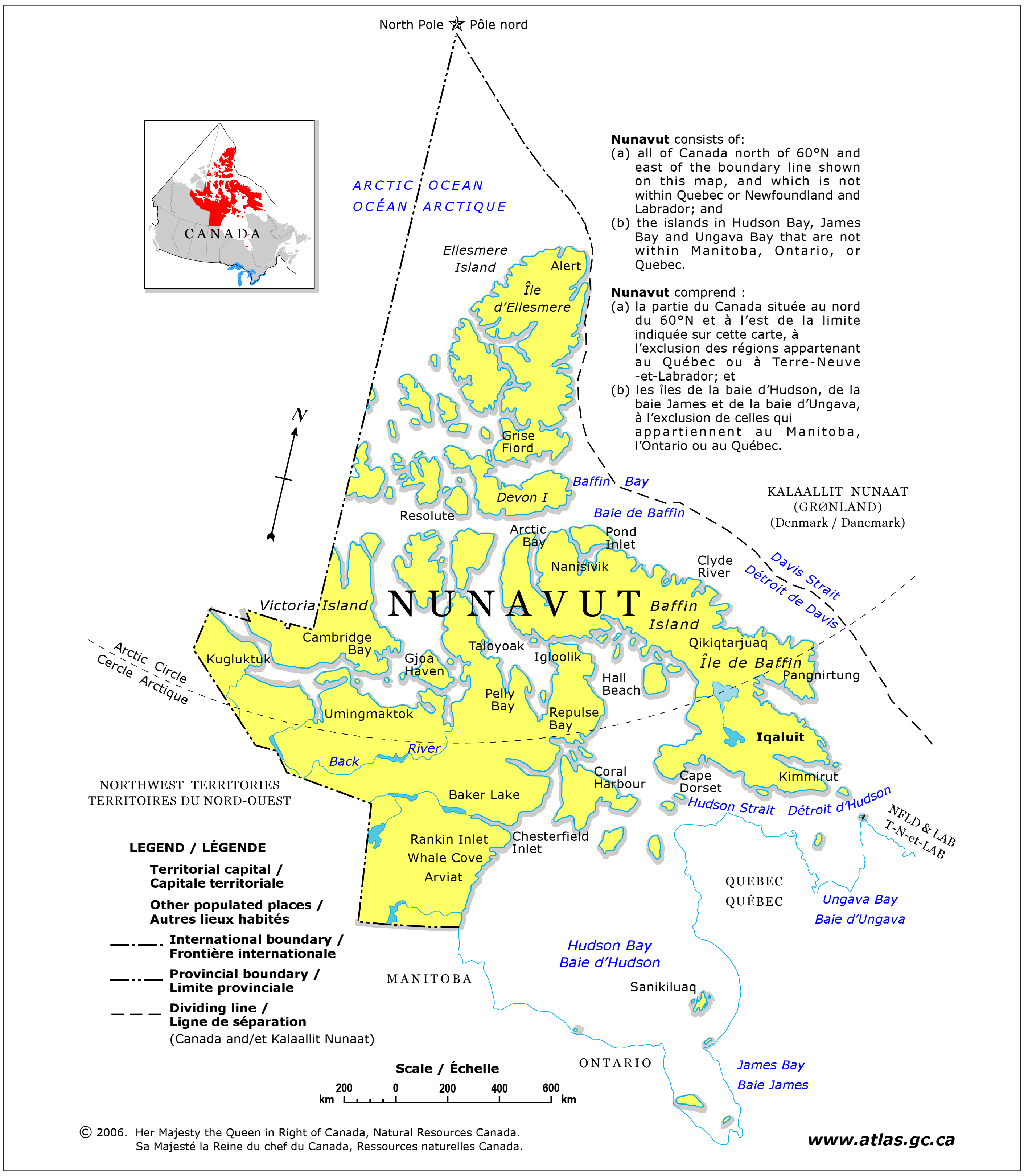
The Ekati Diamond Mine, operated by BHP Billiton Plc, recovered nearly 4.6 million carats in 2007 from roughly 4.3 million metric tons of ore, grading 0.945 carat per metric ton.

The Snap Lake Diamond Mine, owned by De Beers Canada Inc., began production in late 2007. Some 81,000 carats were recovered from 113,000 short tons of ore processed.

The only other producing mine in the Northwest Territories is the Cantung Mine, operated by North American Tungsten Corp. Ltd. It produced 290,744 metric ton units of tungsten concentrates from 370,514 short tons of ore processed with an average grade of 1.18 percent tungsten oxides and a 7.3 percent recovery rate.

Nunavut's single producing mine, the Jericho diamond mine, reported 2007 output valued at just over $32.4 million, but its owners, Tahera Diamond Corp., sought bankruptcy protection from creditors earlier this year and ceased operations in the spring.

Smaller mining operations also contributed to total output with production of sand, gravel and other basic commodities.



Exchange rate eats into diamond profits

While worrisome, the decline in the value of diamond production does not reflect negatively on the territories' mining prospects.

"The strong Canadian dollar has been a real detriment to the diamond producers," said Mike Vaydik, general manager of the Chamber of Mines. "That's because they are selling their product in American dollars and having to buy equipment and services in Canadian dollars."

The difference is eating into cash flow and profits, but a recent increase in diamond prices is helping.

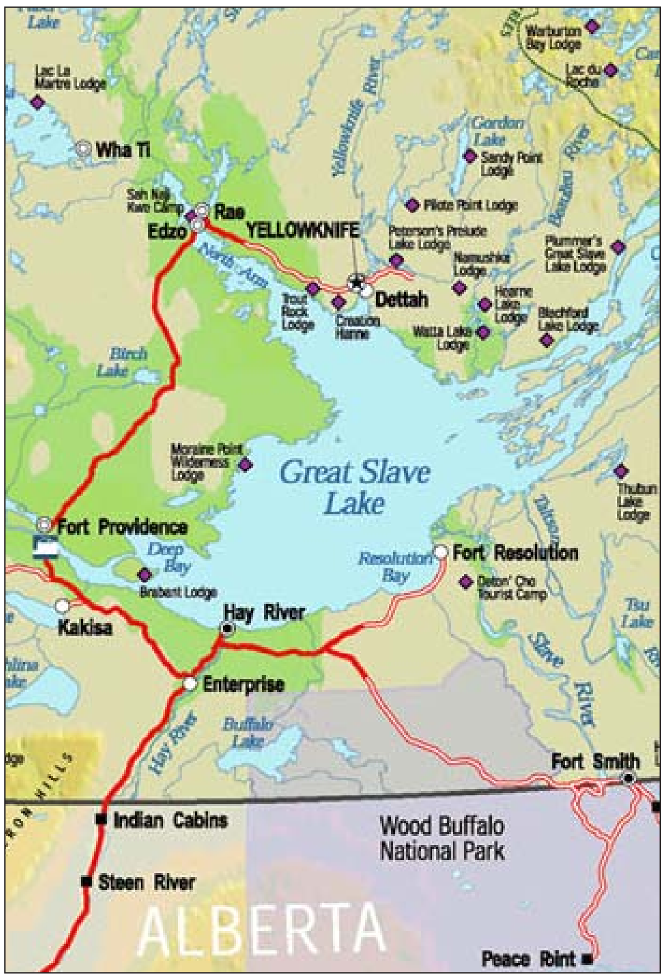
For example, Harry Winston Diamond Corp., 40 percent owner of the Diavik Diamond Mine, said its profits skyrocketed in the first quarter of 2008 to $21.3 million, or 35 cents a share, up from $3.3 million, or 6 cents per share, in the same period in 2007. The Toronto-based diamond producer said the results will help it meet its objective of increasing retail sales by more than 15 percent. Harry Winston also reported revenue of $156.1million, up 10.3 percent from $141.4 million for the three months ended April 30.

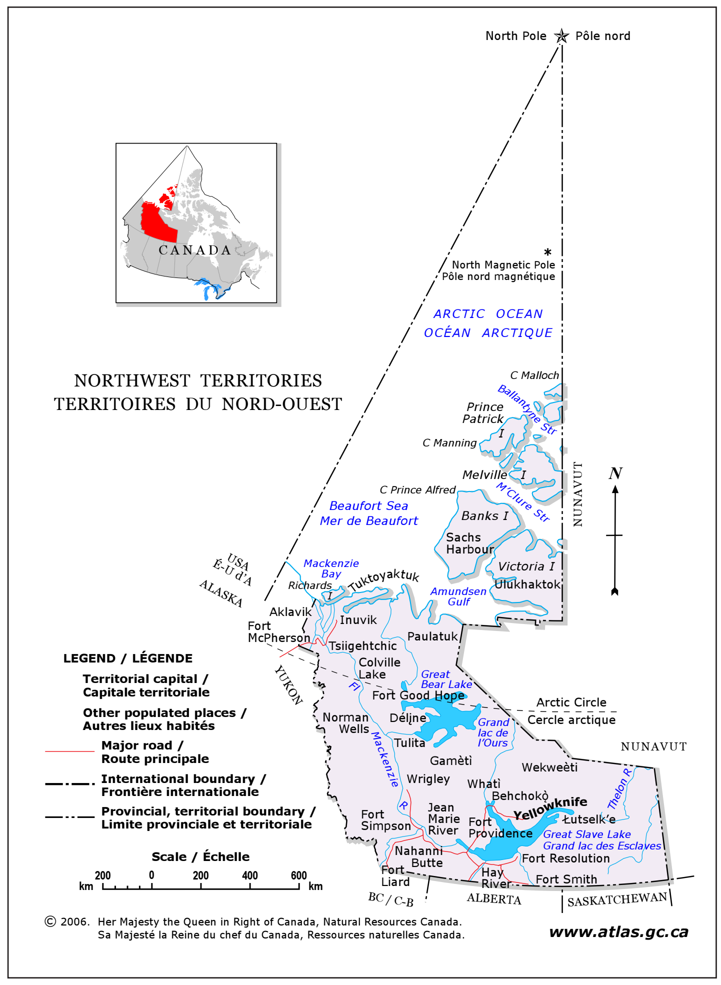
Even troubled Tahera benefited from the recent price surge. The Toronto-based company said June 6 that the last batch of diamonds produced from the shut-down Jericho mine in Nunavut contained stones with a total of 5,163 carats valued at just under $550,000, or an average of $105.84 per carat.

Regulations slow development

Exploration and development activities, meanwhile, appear to be continuing a resurgence that began in Northwest

see **PROJECTS** *page 12*





continued from page 11

PROJECTS

Territories and Nunavut several years ago.

Numerous companies are currently engaged in mining exploration projects that range across the mineral spectrum in the two territories, but only a handful of them may be nearing production.

Part of the problem is the regulatory environment in the territories, which Vaydik described as being stringent, slow and complex.

"We don't mind the stringent, but the slow and the complex are a problem," he said.

Still, companies such as Tamerlane Ventures, Fortune Minerals and Canadian Zinc are finding their way through the regulatory maze in Northwest Territories, while AREVA, Agnico-Eagle, Newmont Mining, Comaplex and Baffinland are making headway in Nunavut, Vaydik said.

These companies are on the brink of production, but a lot depends on how the permitting goes, he added

Tamerlane makes progress

Tamerlane Ventures Inc. June 12 said it has intersected extensive high-grade lead-zinc mineralization at the company's Pine Point property in the Northwest Territories in the course of testing its hypothesis that Pine Point can be mined using freeze perimeter technology. Based on an independent consultant's recommendations, a total of 4 holes were drilled at the R190 deposit. Tamerlane had originally intended to drill a single shaft condemnation hole at R190, but used the opportunity to drill an additional 3 confirmation holes (TV11, TV12 and TV13) to provide further confirmation of core recoveries. Tamerlane intersected 35.3 percent combined lead-zinc over 36 meters, or 110 feet with positive recovery results. Also, Tamerlane June 16 said it received from the Mackenzie Valley Land and Water Board a detailed work plan and schedule for obtaining land and water use permits for Pine Point. The Board indicated that the land use permit, which is required to begin construction and development at Pine Point, may be issued on July 31, and that it will make a final decision on the water license, necessary to begin mining operations, in November.

Fortune posts improved economics

Fortune Minerals reported improved economics for its NICO Project in May. The NICO cobalt-gold-bismuth deposit is located 160 kilometers, or 99 miles, northwest of the City of Yellowknife. NICO has been engineered primarily as an open pit mine, although higher-grade underground ores sourced from deeper parts of the deposit will supplement mine production during the first two years of the mine's life. A plant will be constructed at the site to produce cobalt cathode, gold Dore and bismuth cement or metal using hydrometallurgical process technologies that have been verified from metallurgical test work and two pilot plant tests at SGS Lakefield. Fortune has already purchased the Golden Giant Mine buildings, equipment and spare parts inventory that is being dismantled for relocation to NICO and submitted its land use and water license applications to permit the proposed mine.

Building on existing infrastructure

Canadian Zinc Corp.'s principal focus is its efforts to advance the Prairie Creek

see **PROJECTS** *page 13*

continued from page 12

PROJECTS

Mine, a promising polymetallic property, toward production. The Prairie Creek Mine is partially developed with an existing 1,000-metric-ton-per-day mill and related infrastructure. In 2006 and 2007, the company carried out major programs at Prairie Creek, including driving a new internal decline about 600 meters long, which enabled a significant underground exploration and infill drilling program to occur. A total of $18.7 million was invested in Prairie Creek in 2006 and 2007.

An independent technical report prepared in 2007 indicates that the Prairie Creek Property hosts total measured and indicated resources of 5.84 million metric tons grading 10.71 percent zinc, 9.90 percent lead, 161.12 grams silver per metric ton and 0.326 percent copper. In addition, the report confirms a large inferred resource of 5.55 million metric tons grading 13.53 percent zinc, 11.43 percent lead, 215 g/t silver and 0.514 percent copper and additional exploration potential.

Canadian Zinc's main focus for 2008 is to complete a pre-feasibility study and continue permitting activities in order to advance the project toward commercial production. A preliminary budget of C$7.5 million has been approved for 2008, which is in addition to regular, ongoing costs of maintaining the Prairie Creek site. Planned programs include further engineering and rehabilitation work on the road to the mine site and ongoing exploration.

Uranium mining in Nunavut

AREVA, one of the world's largest uranium producers, is working to advance the 148 million-pound Kiggavik uranium deposit in Nunavut.

AREVA Resources Canada Inc. is conducting a full feasibility study on the project.

Though AREVA Resources is exploring two other uranium properties in Nunavut, Sissons and St. Tropez, Kiggavik may be the one tagged for development first. The project is operated by AREVA Resources (99 percent) in joint venture with DAEWOO Corp. (1 percent).

Kiggavik is about 80 kilometers, or nearly 50 miles, west of Baker Lake. It consists of 17 mineral leases totaling 3,972 hectares, or 1,164 acres. The joint venture partners in the Kiggavik Project have decided to proceed with a two-year feasibility study and to commence the regulatory process to obtain the necessary approvals for a uranium mine and mill. The project is at an advanced exploration stage, with a resource estimate of about 57,000 metric tons of uranium (148 million pounds of U3O8) at an average grade of about 0.24 percent. AREVA has begun the regulatory process for the Kiggavik project, and an environmental assessment process is expected to take about four years, followed by several years of construction, before mining could begin as early as 2015.

Companies eager for Nunavut gold

Agnico-Eagle's Meadowbank project in Nunavut has probable gold reserves of 3.5 million ounces (29.3 million metric tons grading 3.7 grams per metric ton). With a large additional gold resource, the project remains open for expansion. Initial gold production is anticipated by January 2010. Annual gold production is currently estimated to average 360,000 ounces over the estimated nine-year life of the mine.

AREVA, one of the world's largest uranium producers, is working to advance the 148 million-pound Kiggavik uranium deposit in Nunavut.

An all-weather road from the deep-water port at Baker Lake to the Meadowbank project site was substantially completed in the first quarter of 2008. Construction of permanent camp facilities got under way earlier this year. Detailed engineering, sourcing and acquisition of the major capital equipment are ongoing. Surface diamond drilling has resumed with four rigs in operation. The immediate focus is to confirm the gold mineralization between the Goose Island and Portage Zones. Additionally, targets include resource conversion at Goose Island and Goose South. Exploration drilling in 2008 is expected to total about 25,000 meters. Surface prospecting also is planned for the large 49,000-hectare, or 14,370-acre, property to follow up on about 40 other known gold occurrences recorded by the previous owner of the property, as well as anomalous base metal showings discovered late last year.

Newmont Mining acquired the Doris North gold project in 2007 with its takeover of Miramar Mining Corp. At the time, Miramar was in the midst of obtaining permits to start up a mine at Doris North, which would be the first step in developing the Hope Bay project, considered one of the largest gold deposits in North America. The Hope Bay project extends over 1,000 square kilometers and encompasses one of the most prospective undeveloped greenstone belts in Canada.

Comaplex Minerals Corp., a Calgary, Alberta-based junior, is exploring the Meliadine property in Nunavut near the northwestern shore of Hudson Bay. The center of the property is about 24 kilometers, or 15 miles, north of Rankin Inlet.

Comaplex has been exploring the property since the late 1980s. This year, the focus is on Meliadine West and Meliadine East, two major areas of gold mineralization.

The Tiriganiaq gold deposit within Meliadine West is estimated to contain a resource of 1.8 million ounces gold in the indicated category and another 1.4 million ounces in the inferred category.

At Meliadine East, the Discovery gold deposit is estimated to contain 259,000 ounces gold in the indicated category and 148,000 ounces of inferred resources.

Exploration is ongoing and an external scoping study on the Tiriganiaq gold deposit was expected to be completed this summer.

Iron mining on horizon

Baffinland Iron Mines Corp. completed a feasibility study on its Mary River Project iron ore deposits located on Baffin Island, Nunavut earlier this year.

The study outlined a 20-year mine project based on proven and probable reserves of 160 million metric tons and 205 million metric tons, respectively, and annual shipment of 18 million metric tons of high-grade iron ore (64.7 percent iron) primarily to the European market. A moisture content of two percent and a 75:25 lump-to-fines ratio are assumed and reflect metallurgical test work.

Baffinland said the project would have a capital cost of C$4.1 billion with a contingency of C$438 million, the company said.

During the third quarter of 2008, the company plans to deliver a bulk sample of 250,000 metric tons of lump and fine iron ore to certain European steel mills to further remove technical risks from the project. ●

● ALASKA

Upgrades at Golden Summit to free gold

Freegold begins first full season of bulk sampling at Interior property; gravity-plant upgrades may produce higher recoveries

COURTESY FREEGOLD VENTURES LTD.

Tests indicate that new circuits added to the bulk sample plant at Golden Summit could allow the gravity-based gold recovery facility to produce a direct smelter concentrate.

By SHANE LASLEY
Mining News

Freegold Ventures Ltd. has started its first full season of bulk sampling at the Golden Summit property outside of Fairbanks with an upgraded version of the gravity-based gold recovery plant first used last fall.

The recovery plant was delivered to Golden Summit late summer 2007 and was put into operation in September, giving the company about four weeks to test-drive the plant before temperatures were too cold to continue operations.

Over the winter the Vancouver B.C.-based junior analyzed what it learned from the month of processing ore and conducted metallurgical tests in order to optimize recovery rates and improve the quality control of the bulk samples taken from the property.

Freegold learned through last fall's operations and metallurgical tests that significantly higher gold recoveries could be expected if the recovery plant was fed with smaller-sized material. In response to this information, the company purchased several components to increase the crushing capabilities of the plant.

A close-spaced shallow drill program also continued throughout the winter and a 15,000-foot core drilling program began in March to evaluate the potential for deeper gold mineralization in areas where high-grade vein mineralization has been identified with shallow, close-spaced drilling and surface bulk sampling.

Smaller size key to larger recoveries

Freegold learned through last fall's operations and metallurgical tests that significantly higher gold recoveries could be expected if the recovery plant was fed with smaller-sized material. In response to this information, the company purchased several components to increase the crushing capabilities of the plant.

A total of 17 samples with head grades ranging from 2.9 grams of gold per metric ton to 44.6 g/t gold were tested over the winter. The samples were crushed to various sizes using a laboratory scale ball mill crusher and were then run through a 4-inch concentrator, a laboratory scale version of the one being used for the bulk sampling. The tests concluded that an 85 percent to 90 percent recovery could be achieved with a relatively coarse grind – 65- to 80-mesh.

The tests also indicate that by regrinding the rougher concentrates and feeding them through a primary concentrator a direct smelter concentrate could be produced from the plant.

New crushers added

A portion of the additional equipment needed to optimize recoveries was found at a mill site about 15 miles away from Golden Summit. Freegold purchased several pieces of equipment from the 500-metric- ton-per- day mill – including a 4 by 4-foot and 4 by 8-foot ball mill, a 2 by 3-foot regrind mill, plus miscellaneous hydrocyclones, slurry pumps, motors, conveyors and tanks – which have already been dismantled and moved from the plant site and incorporated into the bulk-sample plant.

The company also purchased a new closed-circuit cone crushing plant to be used in a secondary crusher. The plant has a 6 by20-foot triple-deck screen and conveying system. The material passing through a 65-mesh screen will be fed directly into the recovery circuit and the oversized material will be fed into the 4 by 8-foot ball mill, which is expected to reduce more than 80 percent of the remaining material to a size smaller than 65-mesh. The material then will be fed into the recovery plant via a primary concentrator.

All of the components of the bulk sampling mill are modular and can be reconfigured in a matter of a few hours to optimize recovery rates to accommodate the various mineralized rock types. Ongoing tests are underway to determine the optimum configuration for each rock type that will be

see FREEGOLD page 15

● ALASKA

Junior grabs 100 percent of Terra, LMS

International Tower Hill hopes to rapidly advance Alaska projects in which it formerly shared ownership with AngloGold Ashanti

MINING NEWS

International Tower Hill Mines Ltd. June 10 said it has entered into an agreement to acquire all of the interest of AngloGold Ashanti (U.S.A.) Exploration Inc. in the Terra and LMS projects in Alaska, plus certain other AngloGold rights, in exchange for 450,000 shares of the Vancouver, B.C.-based junior's stock.

Based on current share prices, the deal was valued at about $6 per ounce of International Tower Hill's inferred gold resource and valued at about C$751,500, or C$1.67 a share. The purchase agreement covers all royalties and residual rights held by AngloGold in the Terra and LMS properties.

The acquisition, when completed, will add 134,000 ounces of inferred gold resources from the Terra and LMS projects to International Tower Hill's account. That amount was calculated as 40 percent of the 167,000 inferred gold ounces at LMS, using 0.30 grams per metric ton gold cut off inferred resource of 5.86 million metric tons at 0.89 g/t gold and 40 percent of the 168,000 inferred gold ounces at Terra, using a 5.0 gold g/t cut off inferred resource of 428,000 metric tons at 12.2 g/t gold.

Given the significant exploration upside for each of these projects, International Tower Hill said it intends to rapidly advance them either on a 100 percent basis or via strategic, production focused partnerships.

Pact covers rights to West Pogo, Gilles

Under terms of the purchase agreement dated June 6 between AngloGold and Talon Gold Alaska, Inc., an International Tower Hill subsidiary, Talon Gold will acquire all of the right, title and interest of AngloGold in the Terra and LMS projects, including AngloGold's right of first offer on any disposition by Talon.

Outcropping gold veins were first discovered at Terra in the late 1990s by Kennecott Exploration. The claims were transferred to Mr. B Porterfield in 2000 and AngloGold optioned those claims in 2004 and staked additional acreage in the vicinity. The company entered a joint venture on Terra with International Tower Hill in 2006.

AngloGold discovered the LMS project through regional stream silt and follow-up soil geochemistry in 2004 before entering a JV with International Tower Hill.

AngloGold also relinquished its right of first offer on International Tower Hill's 100-percent-owned projects, West Pogo and Gilles. West Pogo is situated on the western boundary of the Pogo Joint Venture land package held by Teck Cominco Ltd. and Sumitomo and Gilles is located along the Pogo mine road, 25 kilometers, or about 16 miles, southwest of the West Pogo property.

AngloGold currently holds just under 6 million shares of International Tower Hill stock, representing about 15.02 percent, of the outstanding common shares of ITH. When the deal closes, AngloGold's stake in the junior will jump to nearly 16 percent.

The deal still must be approved by the TSX Venture Exchange, Inc. ●

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FREEGOLD

included in the bulk sampling program.

Upgraded plant ready for 68,500-metric-ton program

Freegold plans to process 68,500 metric tons of material during the 2008 summer season. Currently, there is 23,500 metric tons of material in five stockpiles. The additional 45,000 metric tons will be collected and processed from two cuts in the Beistline area, additional sampling from Fence 1, and a new bulk sampling area that will be opened up to test extensive shearing and stockwork veining discovered in the Tolovana area during 2007 drilling.

About 6,100 metric tons of material collected from the Beistline area in 2006 will be among the first samples processed in 2008. 2,850 metric tons of the material was collected from the vein system, an additional 3,250 metric tons of mineralized material was collected from the hanging walls of the vein.

In 2007 about 5,500 metric tons of bulk sample material was stockpiled from the Beistline area and about 7,000 metric tons was collected from the Fence 1 area. These larger samples are more indicative of the bulk metric tonnage mineralization present. These areas were close-spaced drilled prior to excavation; therefore, the samples can be compared against the grades predicted by the drill results.

About 3,500 metric tons of coarse tailings from the one month of bulk sampling in 2007 will be used to test the upgraded bulk sampling plant. The operation last year crushed the material to about quarter-inch size; the crushing capabilities of the implemented upgrades will allow additional gold to be recovered. The oversize tailings will make ideal feedstock to test the new circuits added to the plant.

Freegold President and CEO Steve Manz told Mining News the final upgrade components to the gravity plant were set in place during his June 11 visit to the project and the first material was fed into the plant June 17.

The bulk-sampling program at Golden Summit will determine the continuity and average grades of gold mineralization within numerous gold-bearing shear zones discovered along about a mile of strike length over the past two years and the gold recovered will generate cash flow to help fund ongoing exploration. ●

COURTESY FREEGOLD VENTURES LTD.

Jeffrey Woods, vice president, project development (left), Jim Munsell, plant manager (center), Michael Gross, vice president, exploration (right) stand in front of the upgraded bulk sampling plant at the Golden Summit project north of Fairbanks, Alaska.

● ALASKA

Juniors seek merger to explore Niblack

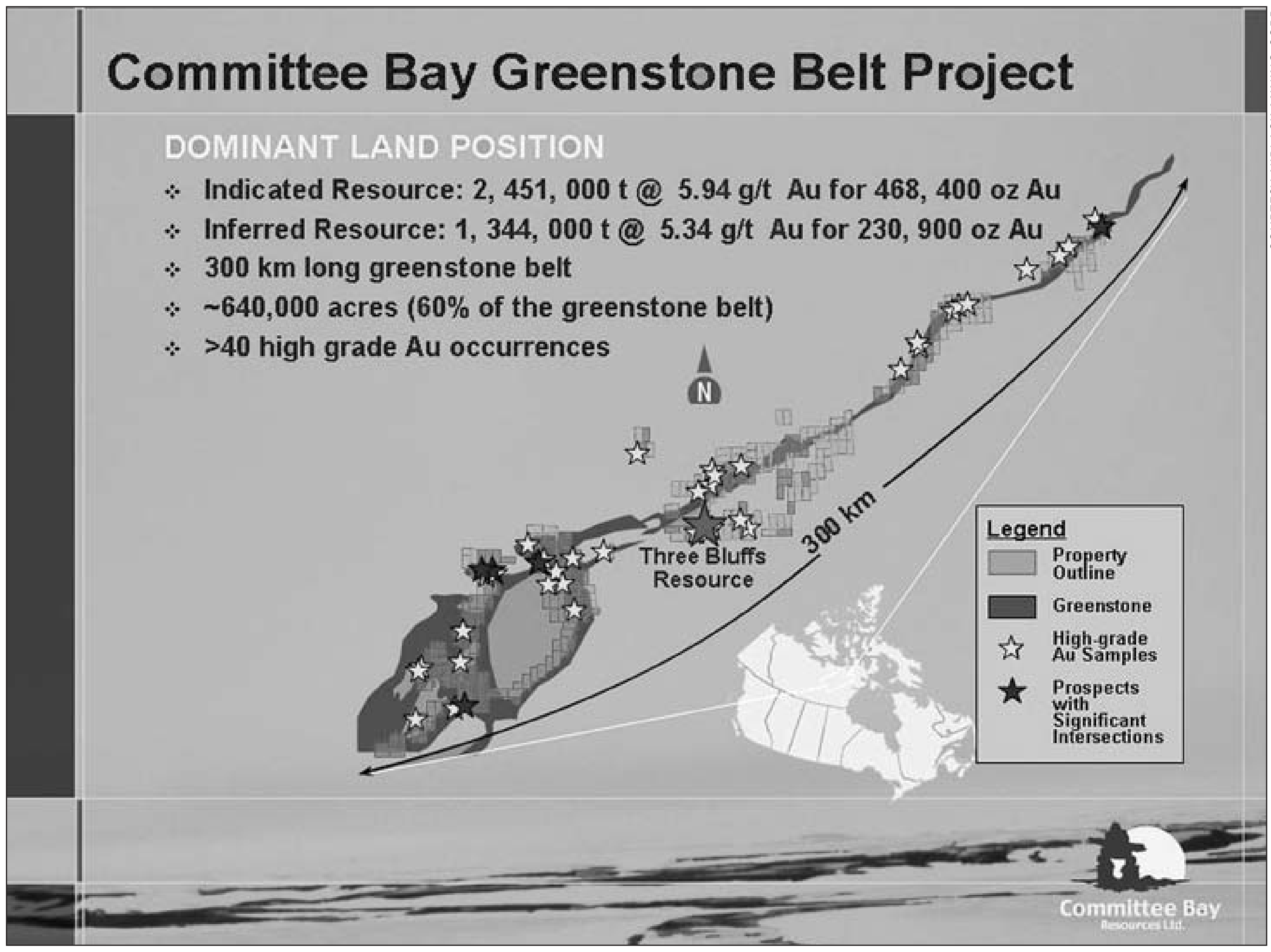
Niblack, Committee Bay say combination would benefit both companies; union would put Southeast Alaska VMS project on fast-track

By SHANE LASLEY

Mining News

Two Vancouver B.C.-based explorers, Committee Bay Resources Ltd. and Niblack Mining Corp., have agreed to join forces. The companies have penned an initial agreement in which Committee Bay would acquire all of Niblack's securities in a one-to-one swap.

Committee Bay is also investigating the possibility of advancing C$10 million to fund exploration and development of Niblack's gold-silver-copper-zinc volcanic massive sulfide property in Southeast Alaska. Though the proposal will need shareholder and regulatory approval, the two companies shared a booth at the World Resource Investment Conference in Vancouver B.C., indicating that both parties are confident that the union will be a success.



COURTESY NIBLACK MINING CORP

Committee Bay Resources

Committee Bay Resources was formed in 2002 and holds about 60 percent of the 300-kilometer-, or 185-mile-long Committee Bay Greenstone Belt in northern Nunavut. Drilling completed by the junior on the more than 640,000 acres along the belt has produced a gold resource estimate of nearly 700,000 ounces, and has encountered more than 40 high-grade gold occurrences on company-held properties.

The company has divided the Nunavut properties into five sections. The current resource estimate is for an area of the property known as Three Bluffs, located about midway down the greenstone belt. At yearend 2007, the junior had spent C$11.67 million on exploration at Three Bluffs. Plans call for drilling 5,000 meters in 2008.

Committee Bay Resources Chairman John Robins told Mining News that Committee Bay has an enormous tract of real estate to explore.

"Three Bluffs is where we have had the best success and where we have made our most significant discovery and where we have an existing gold deposit we are developing. We decided this year to focus within a radius of the Three Bluffs deposit to look for additional satellite deposits and to potentially expand the Three Bluffs deposit itself," said Robins, who is certified as a professional geologist.

The company said on June 20 that the 2008 exploration program was underway. The program will focus on a 10 kilometer, or six mile, radius of the Three Bluffs deposit and will consist of exploration drilling to evaluate high priority targets at the Three Bluffs, Antler, Hayes and Bluff Seven prospects. Additional drilling is planned to evaluate potential parallel gold-bearing structures identified by previous surface sampling, drill intercepts and geophysics in the immediate Three Bluffs area.

Committee Bay has completed another C$21.48 million of exploration activities on four other property subdivisions along the greenstone belt and nearly 30 high-grade gold prospects have been located in these areas. The junior says these properties are potential joint venture opportunities.

In April, Committee Bay sold its 50 percent stake in the Coolgardie Gold Project of Western Australia for AU$30 million. After acquiring a 50 percent interest in the project in 2005, the company advanced the project from the exploration stage to production.

In addition to the Nunavut property, Committee Bay Resources currently owns a drill-ready gold project in Western Australia and an early-phase gold discovery in Argentina.

Niblack Mining

Niblack Mining was created out of Abacus Minerals in 2005 with a mission of advancing the 2,000-acre gold-rich Niblack property on Prince of Wales Island toward delineation of an economic ore deposit.

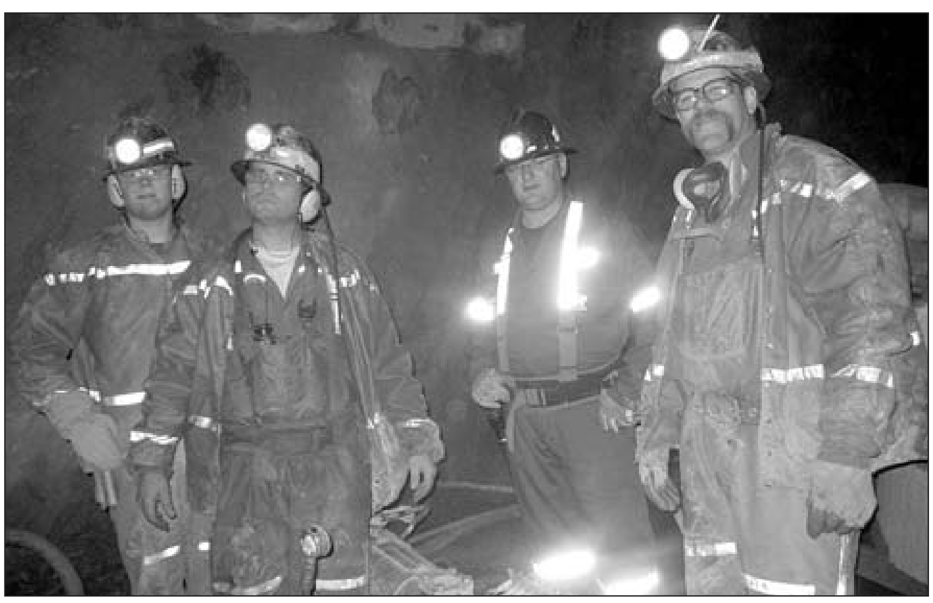
The junior currently anticipates a resource estimate that combines surface drilling it has completed through the end of 2007 in combination with results from about 160 historic holes drilled at Niblack since 1974.

Crews have tunneled more than 2,500 feet into Lookout Mountain since underground exploration began in September 2007. The junior explorer said that crews are nearing the point where the tunnel will intersect the Lookout zone at the deepest reaches intersected with surface drilling. Tunneling is continuing beyond Lookout and when completed, the main shaft will extend 3,000 feet from the por-

see NIBLACK page 17

COURTESY NIBLACK MINING CORP

Crews have tunneled more than 2,500 feet into Lookout Mountain since tunneling began at the Niblack project on Prince of Wales Island in Southeast Alaska.



COURTESY NIBLACK MINING CORP

After tunneling more than 2,500 feet into Lookout Mountain, crews at the Niblack project have started a 30,000-foot underground drill program to further expand the resource of the VMS property in Southeast Alaska.

COURTESY NIBLACK MINING CORP

Committee Bay Resources Ltd. holds about 60 percent of the 300-Kilometer-, or 185-mile-long Committee Bay Greenstone Belt in northern Nunavut.

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NIBLACK

tal and serve as a platform for a 30,000-foot underground drill program, according to Niblack Mining.

The first drill station for testing the Lookout zone has been completed and drilling has started. From this station, crews will drill upward into areas intersected with the surface program, forward into the Lookout stratigraphy, and downward expanding Lookout at depth.

"It is a program that is designed to test all facets of the mineralized zone at Lookout," Niblack President Paddy Nicol told Mining News.

According to Nicol, the underground program will produce drill results much quicker and be less expensive. "One of the nice things about this next round of drilling is it is going to happen fairly quickly. The drill holes are considerably shorter than what we've seen at surface over the past three years," Nicol explained.

Merger a win-win

The two companies believe that the merger will be a win-win situation. Niblack will benefit from Committee's experience in mine development and financial strength, while Niblack will provide Committee an advance exploration project that boasts strong geological potential, good logistics and the ability to be fast-tracked toward development.

Nicol said that Committee Bay has a track record of success in exploring, developing, and financing high-profile mineral projects "and who share our commitment to the Niblack project. With this agreement, we can accelerate the exploration and development of the property."

"Upon completion of this transaction, shareholders of the combined entity will have exposure to an experienced management and technical team, a diversified portfolio of projects, and a company with a strong balance sheet," Robins said.

Robins and Committee Bay President and CEO John Williamson, another certified professional geologist, visited the Niblack project in mid-June.

"We were very impressed with the way the project is coming along, the quality of work that has been done so far and of course the most important thing, the geological potential we see there," said Robins.

Besides the management and geological potential of the project, Robins says the ability to carry on year-round operations and the ability to fast-track a project toward development are two other factors that attract Committee Bay to the Niblack project.

"When you are working a project like Committee Bay North, it is very remote and because of the geographical constraints, you are dealing with short field seasons. As a geologist you are trying to advance a project towards being a mine; if you have to take off six months every year it doubles the amount of time to develop something," Robins explains.

Committee Bay is completing the final stages of due diligence associated with the potential merger and the company technical team has been at the project going through the data and scrutinizing the project in a lot of detail.

If the companies move forward with the merger, it is expected to take several months to receive regulatory and shareholder approval. ●

● YUKON TERRITORY

New gold producer eyes Yukon startup

Yukon-Nevada Gold aims to develop open pit, underground mine to extract zones of mineralization, while nurturing local business

By ROSE RAGSDALE
For Mining News

KETZA RIVER — Now that Yukon-Nevada Gold Corp. is a producer at its Jerritt Canyon Mine in Nevada, the Vancouver, B.C.-based miner is poised to develop a mine at its gold- and silver-rich claims here in the southern Yukon.

After three years of exploration drilling and even longer cleaning up an abandoned mining camp left behind by another mining company, Yukon-Nevada is targeting 2010 for initial gold production and ramping up to 60,000 ounces in annual output in 2011.

In 2007, the company upgraded measured and indicated resources at Ketza River to 646,000 ounces and estimated another 112,800 ounces of inferred resource. Geologists also increased the grade of the project's measured and indicated gold to 4.9 grams per metric ton from 2.8 grams.

Based on an independent NI43-101 technical report prepared in April, Ketza River is set to begin preparations for both open pit and underground mining with cutoff grades of 1 g/t for material within the optimized pits and 3 g/t for resources that would be mined underground.

The pits were optimized using a price of $1,000 per ounce gold, an 85 percent recovery rate and 45-degree pit slope, the company said.

Yukon-Nevada, which owns 100 percent of the Ketza property, envisions building a carbon-in-pulp mill, 46-worker camp, truck shop and warehouse to augment existing structures on site.

ROSE RAGSDALE

Chief Geologist Erika J. Shepard and Project Manager Terry Eisenman of Yukon-Nevada Gold Corp. are eager to advance toward production at the Ketza River Gold Project in southern Yukon Territory.

With its good road access, a strong relationship with the Kaska First Nation and the nearby Ross River Dena Council, Yukon-Nevada has set in motion a variety of plans that could propel the company to the front of the pack among those with Yukon mining projects nearing production.

Good drilling results

Management hired mining veteran Erika J. Shepard in April as the project's chief geologist to help transition the project from exploration to production.

Since then, Shepard has worked to get a better grasp on how mineralized zones on the property are oriented and how best to mine them.

"We divide the property into two geological domains with different styles of mineralization," she told Mining News June 23.

Shepard said dramatic geological events occurred millions of years ago that left behind manto and chimney structures in carbonate-hosted replacement deposits and quartz-sulfide fissure veins and quartz-breccia in siliciclastic rocks in various zones that stud the mountainsides and valley floors both on the surface and at depth on up to 100 square miles of claims.

These zones include Tarn, Peel, Nu-Break, Ridge Oxide, Shamrock, Lower Gully and Lower QB.

"Part of the focus this year is to take the known zones and try to expand them out," Shepard said. "We're pretty pleased so far."

The reason: Drillers at Ketza River are continuing to encounter high-grade intersections.

Yukon-Nevada June 13 reported more favorable drill results. Two diamond drill rigs completed more than 9,600 meters of drilling in 66 holes between April 10 and June 9, and were targeted to expand the margins of known mineralization.

Drilling highlights include 5.15 meters of 13.6 g/t gold in the Peel Target of the Manto Zone and 7.27 meters of 56.0 g/t gold from the QB Target of the Shamrock Zone.

These results could potentially increase current resource estimates for the project.

Further drilling for delineation of the proposed open pits will continue through the year, the company said.

Shepard said she would like to drill more intercepts at the top of the zones to be able to improve the strip ratio in the open pits.

As of May 31, drillers had completed more than 18,344 meters, or 60,183 feet, and have another 6,710 meters, or 22,014 feet, to drill in the current 2008 exploration program. However, new targets will be added in August when the company gets more lab assay results.

"We plan to follow up on the good intercepts in our current drilling and to explore the Shamrock zone," Shepard said.

New facilities for new production

Meanwhile, Project Manager Terry Eisenman, who also is CEO of Monarch Mining and a major shareholder of Yukon-Nevada, is tackling the logistics of preparing for production.

A new mill will be built under the supervision of Yukon-Nevada President and CEO Graham Dickson, who is an expert at building mills for mines, Eisenman said.

Plans also include building a new camp for permanent mine employees and vacating the old camp facility for use by the construction crew initially and other purposes after mine startup.

When Yukon-Nevada took over the property, the company had to repair 161 broken windows and patch a large hole in the side of one building, Eisenman said.

He also spearheaded the massive cleanup that brought recognition of the company's reclamation efforts when it won an environmental award in 2007 from the Yukon Government.

Eisenman said he doesn't understand why more miners don't do reclamation work as they explore and develop mines,

see **YUKON-NEVADA** page 23

● ALASKA

Barr offers voice of reason

NANA spokeswoman travels state warning Alaskans about the 'devastating effects' of 'deceptive anti-mining initiatives'

Compiled by SHANE LASLEY
North of 60 Mining News

Rosie Barr, spokeswoman for NANA's "Voices of Reason Campaign," told Mining News that anti-mining initiatives expected to come before Alaska voters on this fall's ballot would shut down existing mines like the huge Red Dog zinc-lead mine in Northwest Alaska and prevent the permitting of future mines, many of which would be developed on Alaska Native corporation lands. In undertaking this campaign, NANA is fighting to retain the land ownership and mineral rights granted to all Alaska Natives under the Alaska Native Claims Settlement Act.

MN: What is the mission of NANA's "Voices of Reason" campaign?

Barr: The mission of the campaign has been to educate the public on the benefits of mining, particularly in the NANA region. We also wanted to ensure that correct information is out there about Red Dog.

MN: You have been outspoken on the subject of the "Clean Water Initiatives." If voted into law, what effect will these initiatives have on mining in Alaska?

Barr: If the initiatives are voted into law, we, along with other Alaskans, will never be able to develop our mineral resources. We have other mineral prospects located on NANA land, including the bornite deposit that our shareholders are very excited about. In the Calista Corp. region, the Donlin (Creek) Mine would most certainly be affected. Additionally, existing mines such as Red Dog would be shut down. The effects across the entire state would be absolutely devastating.

MN: Over the last several months you have talked with various organizations and communities about the initiatives. What are the concerns of people who are facing the prospect of mines being developed in their region?

Barr: Actually, here at NANA we've had a great group of employees speaking out against the anti-mining initiatives. I've been very fortunate to work with these dedicated folks who are very passionate about the opportunities and benefits that our shareholders have received because of the development of the Red Dog Mine. NANA's early leaders were instrumental in the passage of the Alaska Native Claims Settlement Act, which granted to Alaska Natives land ownership and mineral rights. Today we are fighting to retain these rights that Congress guaranteed.

ROSIE BARR

The concerns that I have heard are primarily about protection of resources such as water and fish. These protections are written into the regulations that govern mining. Mining is one of the most regulated industries in the United States, and Alaska has stringent standards that the mining industry must meet in order to begin or continue operations. For example, Red Dog actively and regularly complies with 70 permits and more than 40 regulatory agreements and environmental plans that contain more than 6,000 individual stipulations that involve over 27,000 tasks it must and does meet on a daily, weekly, monthly and annual basis. There are over 31,000 sampling events that occur during the summer months. When the public hears this, they are amazed at the level of oversight that currently exists.

MN: Since you began engaging the public about mining in Alaska and the effects of the initiatives, have you noticed a change in people's attitudes on these subjects?

Barr: Yes. I've talked with a number of people with diverse backgrounds. And the change in attitude is striking once people are given an opportunity to learn more about mining and the rigorous permitting process and regulatory oversight that exists within the state of Alaska. They are amazed to hear of the benefits that our NANA shareholders have received as a result of the development of the Red Dog Mine. I've heard a number of positive comments back from residents from other areas of the state who are impressed with the long-term investment that we have made in our land and our people. The benefits that we are receiving from the Red Dog Mine will continue far into the future for many generations to come. I am very proud of that.

MN: The proponents of the initiatives say their efforts are directed at the proposed Pebble Mine Project in Southwest Alaska. However, they also say that if Red Dog were located in Bristol Bay it would be an environmental disaster. Is this a fair assessment of Red Dog's track record?

Barr: Absolutely not. These claims are misleading and unethical. The fish are thriving in the Wulik River. The Alaska Department of Fish and Game has conducted numerous studies at Red Dog which demonstrate that fish are healthy and that the fish populations are significantly greater than they were before the mine began operations. I recently heard an estimate from one of the (Fish and Game) biologists that nearly 30,000 more fish inhabit the Wulik River than prior to mining. In fact, baseline studies show that before the mine began operations, Red Dog Creek had very low ph levels and therefore was very acidic. There were very high concentrations of metals because of the naturally occurring mineralization in the area. There was no vegetation near the creek and no fish either. The mine rerouted the creek around the ore body and now there is a healthy population of Dolly Varden and Grayling. Fish and Game requested that Red Dog build a fish weir to keep the fish from migrating up the stream and into the mine area. The water from the tributaries above the Red Dog Mine also has high metals content and low ph, which is not supportive of aquatic life. The treated water that Red Dog discharges has very little metals content and in fact has less lead and copper in it than most municipal drinking water systems that provide drinking water to Alaskans. Red Dog's discharge water helps to dilute the negative impact that the water upstream from the mine has on Red Dog Creek. Eliminating the (mine's) discharge water would have an adverse affect on the fisheries in that area.

MN: A recent study by the University of Alaska Anchorage says that an ever-increasing number of rural Alaska residents are migrating from the villages to larger population centers in the state. Do you believe that mining can help keep residents in their communities?

> *"NANA's early leaders were instrumental in the passage of the Alaska Native Claims Settlement Act, which granted to Alaska Natives land ownership and mineral rights. Today we are fighting to retain these rights that Congress guaranteed."*

Barr: I believe so. One of the greatest challenges to living within a village is the lack of jobs. You cannot have sustainable communities without opportunities for employment. Mining provides a variety of job opportunities with excellent salaries. A great example of mining resulting in healthy communities is in the village of Noatak, which is the village closest to the Red Dog Mine. There are approximately 500 residents. Since the mine began operations in 1989, 123 Noatak residents have been employed at the mine. There are currently nineteen employees from the village, and only two have migrated to Anchorage. There are still numerous challenges to living in rural Alaska, such as the incredibly high cost of housing. Freight costs are a huge factor. A one-thousand-square-foot home can cost well over $100,000 just for materials alone. In Noatak, Red Dog employees have taken advantage of the reduced shipping costs that Teck Cominco receives and have had their construction materials shipped to the Red Dog port, and from there air freighted the materials to Noatak. This has resulted in significant savings. I'm truly impressed by these employees, who during their time off have built their beautiful homes themselves. These employees are also leaders within their community and are also subsistence hunters and gatherers who share their bounty with others in the community.

MN: Can the economic and infrastructure benefits that mining could

see BARR Q&A page 20

● ALASKA

Pebble applies for social license

Five months prior to leading Pebble John Shively addressed Alaska miners on the requirements of acquiring a social license to operate

By SHANE LASLEY
Mining News

During John Shively's 17 years working for the NANA Regional Corp., he was involved with the acquisition of land selection rights for the zinc property where the Red Dog Mine is currently located. He and other NANA leaders went on to permit and develop – in partnership with Teck Cominco – the world's largest zinc mine.

Drawing on Shively's experience, the Alaska Miners Association invited him to speak to attendees at the 2007 Alaska Miners Association annual mining conference in November on the subject of a social license to operate.

Shively talked about a social license as it relates to rural areas of Alaska.

The reason for this is "rural Alaska is where I have the most experience and is where most, if not all, new mines will be developed. Keeping these related issues in mind is very important to understanding what a social license is," he explained.

Five months after addressing conference attendees on social license requirements, Shively took the helm of the partnership seeking to development the giant Pebble copper-gold-molybdenum project in Southwest Alaska and with it, the challenge of licensing the most controversial proposed mine in the state.

Pebble social license application

The Pebble CEO told Mining News June 22 that protecting the Pebble region's subsistence hunting and fishing is an important issue to him, personally.

Protecting the fish is the primary concern of developing a mine at Pebble, and it will not happen unless it can be done in a way that will protect them. Beyond that, to prevent putting a strain on the subsistence resources, the Pebble Partnership has a policy that anyone coming in to work at the project from outside the region is not allowed to hunt or fish. This policy is in place for the exploration program and will continue throughout the project.

During John Shively's 17 years with NANA Regional Corp., he was involved with land selection, permitting, and development of the Red Dog zinc mine in Northwest Alaska.

If there is no way to develop a mine at Pebble while protecting the fish, then there will be no project, Shively said.

Local-hire policies are in place at Pebble, but Shively said he believes Pebble Partnership Ltd. can do more. In the short term, the company is reviewing manpower needs for the project as well as the manpower available in the region. The company plans to use this information to develop a program for this winter to train additional residents for positions needed at the project. For the long term, Shively said a mine at Pebble would employ around 1,000 people, and provide training and scholarship programs to help fill as many positions as possible with people from the surrounding communities.

According to Shively, the Pebble Partnership currently contracts with four local Native corporations and if the project is developed into a mine, it will contribute to the tax bases of at least three of the corporations. The Partnership is working with local governments on tax issues, but it will need to define the proposed project before the tax base's structure can be determined.

Bigger than any document

Shively told AMA conference attendees in November that a social license to operate is not a document you receive nor does it have its own public process, but could be the most important license a mining company receives, and it will influence the outcome of any public process needed to permit a mine.

What the license does involve is the gaining of local support for a project through personal and community values. Shively pointed out that in the 21st century, this is as important as any other phase of mine development.

Subsistence hunting and fishing are key issues that must be addressed in order to be granted a social license in rural Alaska. Recruitment and training of local residents and the use of local businesses and Native corporations as contractors also are important steps to being licensed. Working with local entities and creating a tax base are two additional license requirements. Shively also advises that when gathering baseline data, gather valuable traditional knowledge of the people who have lived off the land for generations.

According to Shively, a company may never know for sure if it has been socially licensed, but the less local commotion it encounters, the more likely it has acquired the license.

"The one thing I do know, if there is no social license, it is quite likely that any new development will not be able to go forward," he added. ●

continued from page 19

BARR Q&A

bring to rural communities coexist with the subsistence lifestyle and traditional values of rural Native Alaskans?

Barr: I believe that mining and subsistence lifestyles are non-conflicting.

MN: What effects has the Red Dog Mine had on NANA shareholders, especially those who still live in the region?

Barr: Our shareholders have had significant benefits from the Red Dog Mine. Red Dog has employed over 1,100 shareholders since the mine began operations in 1989. The opportunity for employment was one of the primary drivers behind NANA shareholders deciding to move forward with the development of the mine. NANA also has engaged in a number of contracting opportunities at Red Dog. In the third quarter of 2007, we reached a significant milestone, where the financial investment that Teck Cominco made in the mine was paid off, along with the repayment of advance net smelter royalties of 4.5 percent. We then moved into a 25 percent share of net proceeds. Because of the increased revenue from the mine, we have been able to invest those funds towards long-term economic stability for our people. Our shareholders overwhelmingly approved the formation of an Elders Settlement Trust at the annual meeting a few weeks ago. This trust will benefit all shareholders that are 65 years of age and older through the payment of an additional dividend from the earnings of that trust. The cost of living in our rural villages is very high, with diesel fuel currently at $8 a gallon in some villages. Those costs will increase once the summer barge shipments come in. The trust will help our elders at a time when they need it most.

Our board of directors has approved a scholarship endowment for our shareholders, which will be funded annually from the revenue received from the mine. The goal is that the endowment will be fully funded in the future and will allow any shareholder to receive full funding in their pursuit of a college or vocational education. That's incredible forward planning. NANA is also reinvesting the monies we've received into our businesses so that when the revenue from Red Dog ends, these companies' profits will supplant the royalty payments currently being received so that our future generations all benefit from the development of the mine.

But the benefits are often intangible. We have a lot of hope and opportunity that exists because of the development of the Red Dog mine. We have children in the villages that are looking forward to working at Red Dog when they grow up. It is so gratifying to see the smiles and excitement on their faces when they arrive at Red Dog for the Job Shadow or Career Awareness programs. That, to me, is priceless.

These children are also benefiting from the construction of new schools within their villages. The Northwest Arctic Borough, which was formed primarily because of the development of the mine, has used their payment in lieu of taxes that they receive from Red Dog for school bonds. Red Dog is the only taxpayer within the NANA region. The borough also has used its revenue to pursue other means of economic development within the region, another example of mining helping to create sustainable communities.

I also need to point out that NANA redistributes approximately 62 percent of our Red Dog royalties with the other ANCSA regional corporations in Alaska. These corporations, in turn, redistribute 50 percent of these monies to their village corporations. So the benefits from Red Dog are felt across the state of Alaska. Many of these corporations are able to provide benefits to their shareholders and, in some cases, remain financially solvent.

MN: What advice would you give to exploration/mining companies exploring for and developing mineral deposits in rural Alaska?

Barr: I would tell them to engage the local communities at the earliest possible opportunity. You can never have too much communication. Local residents can and should be the biggest stakeholders in the development and operation of a mine. They are a significant resource that the industry needs to develop. The exploration companies also need to invest in extensive baseline studies. This information will be invaluable to the company in the long run. They need to develop local capacity by training, educating and hiring locally for work during exploration, feasibility, development and operation of the mine. Ideally, the work force will be comprised primarily of local residents. This is critical also in the environmental oversight of the mine. Communication to local residents on mining issues should be provided by employees who have been hired locally. That is why it is so critical to develop the work force at the earliest opportunity. The exploration and mining companies have a critical role in the development of sustainable communities in rural Alaska. They need to utilize local contractors to the greatest extent possible and engage the local entities, such as the regional and village corporations at the onset of exploration to discuss opportunities and inform them of their plans prior to beginning their work.

MN: The sponsors of 07WATR are going to drop the litigation and not have it put on the ballot. This initiative is the most prohibitive of the two slated to go on the ballot in August, pending a ruling by the Alaska Supreme Court. What is your opinion of this move by the sponsors of 07WATR?

Barr: We do not know if the sponsors have the power to pull the initiative off the ballot. It appears that the Lt. Governors office is not sure if they can do this either. We will continue our campaign against these deceptive initiatives and evaluate as more information is available. I believe that the sponsors of 07 WATR are finally admitting that they have been misleading the residents of Alaska. Alaskans deserve better than this. The sponsors have basically stated that they understood at the onset that these initiatives were unconstitutional, yet subjected our state to a barrage of misleading ads and attempted to create controversy where it was unnecessary. They've stated in their ads that these initiatives won't affect existing mines. Yet Alaska law states that you cannot target a specific project through the initiative or legislative process. The initiatives had to be written broadly and because of this, they will affect both existing and new mines in Alaska. We cannot allow this to happen. I am very thankful that Alaskans are speaking out, loudly and clearly, against these deceptive initiatives.

MN: Will the "Voices of Reason" campaign continue to engage the public on mining issues after the public votes on the initiatives this year?

Barr: We'll need to evaluate the circumstances at that point. It is obvious that the public doesn't understand the benefits of mining or the rigorous permitting and regulatory environment that mines operate under. The Voices of Reason campaign was designed for multiple voices. We have focused on Red Dog at this point but the campaign can evolve for other projects around the state. ●

NORTH OF 60 MINING NEWS

Companies involved in Alaska and northwestern Canada's mining industry

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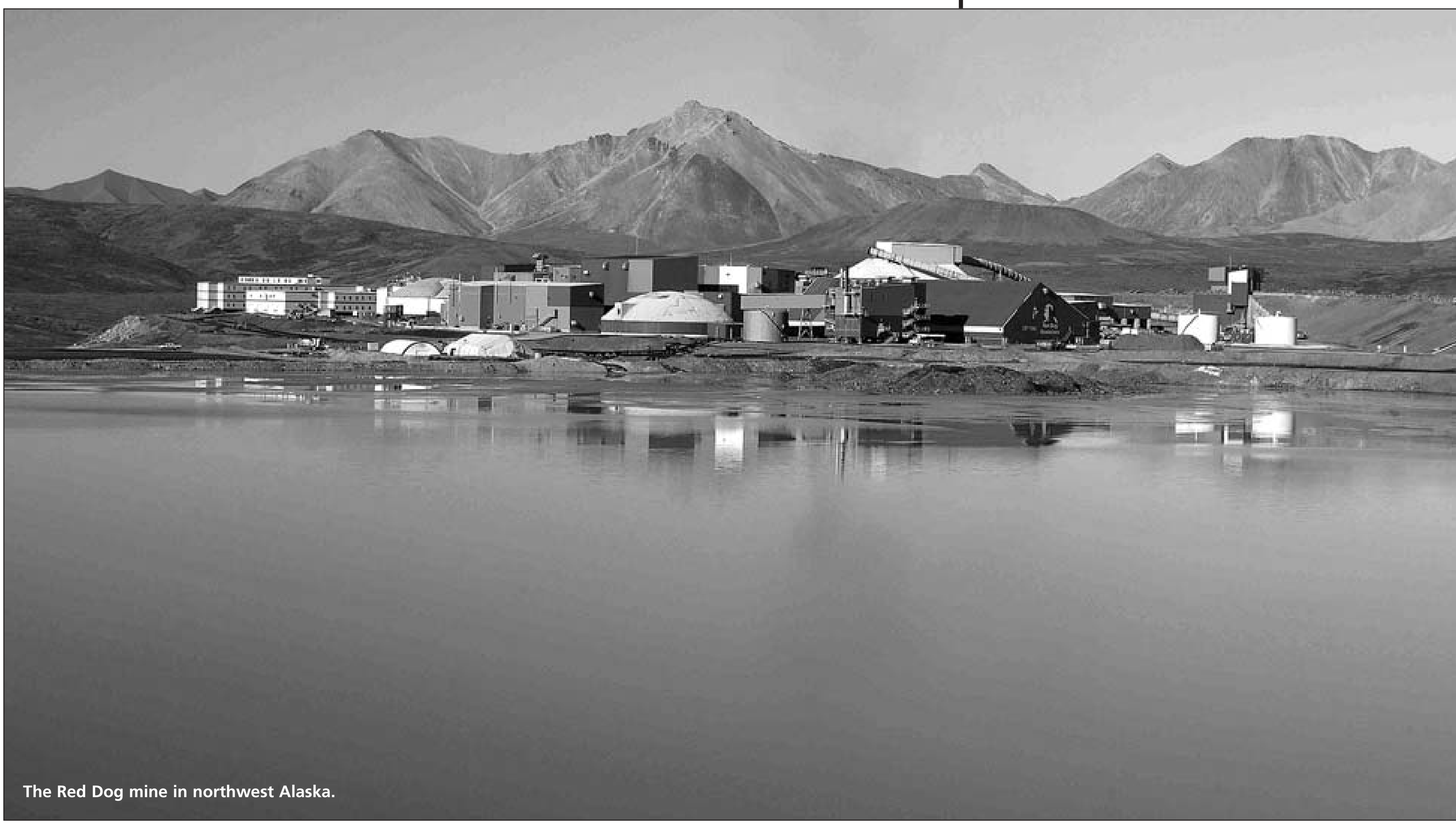

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YUKON-NEVADA

noting that the approach is more efficient and saves money on the reclamation bond all mining companies must post to pursue projects in Yukon.

"It's like doing the dishes after you have eggs," he said. "In the morning, it's easier and cheaper to clean up then rather than later".

Bryony McIntyre, manager of mineral management for the Yukon Government, said Eisenman's approach makes sense.

"As they progressively reclaim the areas where they have finished their work, they can get a portion of their money back," she said. "So it ends up being cheaper in the long run."

Community is key

A big part of Eisenman's push is to involve locals in the company's future at Ketza River.

A summer jobs program for teens, an effort to recruit and train lab analysis technicians and strategies to help Kaska Nation members start their own business es is meeting with some success, Eisenman said.

One of the frustrations that Yukon-Nevada has encountered at Ketza River is the long delay that is typical of getting back results of analysis of core samples from the lab, and in one case, the loss by the lab of all the surface samples from higher elevations that crews collected one summer. Having onsite lab technicians would help to alleviate some of this frustration.

"We're also sending out three people to train as millwrights," he said.

Eisenman is also studying ways to reduce costs and improve the method for preparing mine waste as dry tailings.

The project manager said he will soon begin quarrying limestone on the property situated above various gold-rich zones at Ketza River.

The limestone will be used to build roads on the property, and once those roads are built, a First Nations contractor will be encouraged to quarry and sell the limestone for other uses.

Eisenman said this will keep the material out of the waste pile and provide another source of revenue for a local business.

Looking ahead

Yukon-Nevada is preparing a pre-feasibility study this summer and will do ongoing environmental base line studies on areas of the property where it hasn't drilled yet.

"With open pits, we have water tests done above and below anything we're going to do, so that smoothes out the permitting," Eisenman said. "We're looking ahead to build background data so that anything we find, we won't have to wait a year to get going."

At some point in the future, Yukon-Nevada will turn its attention to nearby Silver Valley where ore rich in silver and other minerals would assay for $3,000 per metric ton if it were mined and sold at current prices, Eisenman added. ●

COURTESY YUKON-NEVADA GOLD CORP.

This outcropping of massive sulfide gossan is indicative of gold-rich mineralization found at the Ketza River Project in southern Yukon Territory, where claims cover up to 100 square miles.

ROSE RAGSDALE

The showing of the rare mineral hissingerite on the Ketza River claims in Yukon Territory might be a sign of significant gold mineralization. Gold graded in excess of 1 ounce per ton can be found in areas where hissingerite is present, according to Yukon-Nevada Gold Corp. officials.

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