



page 9 Myers named AGIA coordinator; former USGS, DO&G director returns

January Mining News inside



The January edition of North of 60 Mining News is enclosed.

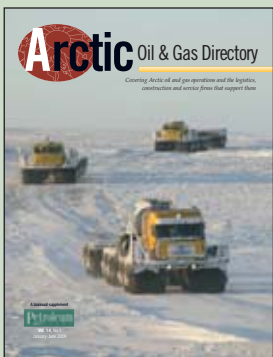
Petroleum News expands biannual directory's reach to worldwide Arctic

Petroleum News has changed the name of its biannual Petroleum Directory to Arctic Oil & Gas Directory, reflecting an expansion of the magazine's readership beyond Alaska and northern Canada to include energy companies doing business in the worldwide Arctic and subarctic.

The Anchorage, Alaska, based publishing company produces the 72-page, full color, glossy directory as a marketing tool for its long-term advertisers.

"To be prepared for a possible downturn in 2010 capex spending, we're increasing the marketing reach of our advertisers into all of the Arctic, not just Alaska and northern Canada,"

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FINANCE & ECONOMY

Conoco cuts 20%

Falling oil prices take spending with it; Pioneer postpones Cosmopolitan

By ERIC LIDJI
Petroleum News

In the most significant response yet to the recent drop in oil prices, ConocoPhillips is budgeting a 20 percent reduction in capital spending in Alaska for this coming year.

The reductions are not expected to impact major programs or exploration drilling, though, and ConocoPhillips has not yet determined whether a staffing cut will extend to Alaska.

On Jan. 16, the Houston-based oil company unveiled a \$12.5 billion capital-spending program for 2009, an 18 percent reduction from the \$15.3 billion budgeted for 2008.

Although ConocoPhillips did not give a dollar



JIM BOWLES

amount for the spending planned in Alaska, spokeswoman Natalie Lowman said the company expects it to be "about 20 percent less than our 2008 capital budget," which came to a little more than \$1 billion.

The reduction in spending will most likely curtail developmental drilling, as opposed to the exploration program planned for this winter, or continued work in the Chukchi Sea.

"Drilling will be reduced. That's going to be kind of the general decline," Lowman said.

The spending plan released by ConocoPhillips specifically mentions a focus on "continued development" of the Prudhoe Bay and Kuparuk units, and the Alpine field and satellites, but leaves out the West Sak

see CONOCO CUTS page 26

NATURAL GAS

Mackenzie gets boost

Canadian government makes formal fiscal offer; MGM makes gas find

By GARY PARK
For Petroleum News

The Mackenzie Gas Project is alive and kicking again, brought to life by word that the Canadian government has made a formal offer of financial support and is eager to work with the Obama administration on a joint strategy for developing Arctic gas in Alaska and Canada.

Just when hopes for the MGP seemed to be crumbling, Environment Minister Jim Prentice, the cabinet minister responsible for northern pipeline development, issued a statement Jan. 19 that a proposal has been delivered to the MGP proponents.

He said it includes a federal contribution to infrastructure and pre-construction costs and a "sharing of



JIM PRENTICE

risks and returns."

The government has previously rejected the idea of a public ownership stake in a Mackenzie Valley pipeline, or direct subsidies.

The MGP is a "key priority of the government's Northern Strategy and is central to realizing the full economic and social potential of Canada's North," Prentice said.

He told reporters Jan. 20 that the offer is a "responsible" one to break the regulatory logjam and proceed with a project that is "very important to our country and the North, for our energy future and energy security."

"It's important that it be brought onstream in a

see MAC BOOST page 28

GOVERNMENT

All about the climate

Challenging future for permitting as climate change initiatives gain traction

By ALAN BAILEY
Petroleum News

The question of whether climate change will impact the regulatory situation in Alaska is now past, attorney Eric Fjelstad from Perkins Coie LLP told the Seminar Group's Permitting Strategies in Alaska conference on Jan. 15. Climate change is working its way into the regulatory process, he said.

"Whether one believes climate change is happening or not is irrelevant. Whether one believes it's manmade is irrelevant. The regulatory programs are happening," Fjelstad said. "... Alaska is

see CLIMATE page 25



The listing of the polar bear as threatened under the Endangered Species Act marks a new era in applying the act to species perceived to be threatened by climate change.

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A weekly oil & gas newspaper based in Anchorage, Alaska

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OUR ARCTIC NEIGHBORS

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EXPLORATION & PRODUCTION

Certified wells good policy

Consultant finds no decertified wells, says certification encourages exploration, development

By KRISTEN NELSON
Petroleum News

When Director of the Division of Oil and Gas Mark Myers declared the Point Thomson unit in default in the fall of 2005 it was for lack of an acceptable plan of development.

He rejected the 22nd unit plan of development submitted by unit operator ExxonMobil, which focused on preparing for gas sales once a North-Slope-to-market gas pipeline was built, while the state wanted the owners to begin producing oil prior to gas sales from the eastern North Slope unit, which was formed in 1977.

When Commissioner of Natural Resources Mike Menge confirmed Myers' decision in the fall of 2006 he added a new issue. In addition to the lack of an acceptable plan of development, Menge said that Point Thomson exploration wells certified capable of producing in paying quantities were no longer capable of that production.

Menge said in his November 2006 decision that because discovery exploration wells had been plugged and abandoned, none were currently capable of producing. He also said that no production wells have ever been drilled at Point Thomson: The certified wells were discovery wells. As a result, he said, those previously certified wells could no longer be used to hold leases.

The state's original DL-1 oil and gas lease forms did not require a plan of development for a lease with a well capable of producing in paying quantities — the well by itself was enough to extend the lease beyond its primary term. New-form leases require that certified wells have an annual lease plan, unless the leases are in a unit.

While certified wells would not hold a unit, they hold the lease upon which they are drilled.

Crucial for exploration

"And to me it is really a key component of the state's oil and gas leasing policy," said Tom Walsh, a component that ensures that companies can hold onto expensive exploration discoveries until facilities or

technology allow their production.

Walsh, a geophysicist and managing partner at Petrotechnical Resources of Alaska, testified for BP Exploration (Alaska) at a mid-January hearing on Point Thomson lease terminations. ExxonMobil (52 percent) and BP (29 percent) held the largest interests in the former unit.

The unit was terminated by DNR Commissioner Tom Irwin last year; that decision is under appeal in Alaska Superior Court. Thirty-one leases in the former unit were terminated last August by Division of Oil and Gas Director Kevin Banks on grounds that the unit had been terminated for 90 days and the leases were beyond their primary term.



TOM WALSH

Nine of those leases had successful discovery wells on them — wells, the owners argued, capable of producing in paying quantities. Those leases were terminated based on Menge's decision that the wells were no longer capable of production.

That lease termination decision was appealed in the January hearing before Irwin and DNR Hearing Officer Nan Thompson.

For four days ExxonMobil witnesses described work at Point Thomson, telling Irwin and Thompson that the leases were held by an ongoing drilling program.

ExxonMobil has been preparing an old gravel pad at Point Thomson for drilling it proposes to begin this winter and in September set two conductors, 100-plus feet of pipe through which wells will be drilled.

Attorney Randy Oppenheimer of O'Melveny & Myers, summing up for ExxonMobil, told Irwin and Thompson "there clearly are drilling operations on the Point Thomson leases. ... We believe ... that that holds the leases." In addition, Oppenheimer said, testimony on the certification issue provides a different and additional reason that the leases are held.

An awkward position

Walsh, testifying Jan. 16 on the fifth day of the week-long hearing, said he didn't like to interject himself in conflicts between clients — his firm has done work for both the companies and the state — but

said "this seems to be a compelling question and something that I wanted to participate in."

Through 1998 the Division of Oil and Gas maintained a public list of wells certified as capable of producing in paying quantities, Walsh said, and when a new client comes to him, he starts with that list of 112 wells. When clients are looking for prospects to develop, that list provides wells that have discovered oil or gas in paying quantities.

That was his practical background, Walsh said. Then his firm spent two weeks researching certified wells for BP as part of the Point Thomson appeal using publicly available data from the Department of Natural Resources and the Alaska Oil and Gas Conservation Commission.

Walsh said he hasn't found a current public list of certified wells, but knows "the practice of certifying wells continues and there are recent wells that are certified," although the publicly available list hasn't been updated since 1998.

No published standard

Walsh said there is no published standard for minimum rates of oil or gas for certification, so the firm combined information available from the two agencies to determine rates for the certified wells.

For more detailed information they turned to AOGCC well history files, but were only able to complete work on 36 of the 112 wells, using the files to determine test production rates for the wells, the rates used for certification.

Asked by Brad Keithley of Perkins Coie, representing BP, whether there was another way to determine production rates, Walsh said there is no spreadsheet that includes the rates associated with wells. And those rates are not available for wells that are confidential, a status typically allowed by the state when there is unleased acreage in the area of the discovery well.

For oil production, Walsh said test rates on wells certified as capable of production ranged from 57 barrels per day of oil to

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DIRECTORY

Petroleum News Publisher Kay Cashman said in a Jan. 22 press release.

"We discovered that there was no commercial directory of oilfield service and supply companies for the worldwide Arctic, and we had already expanded Petroleum News' readership into Norway and Russia, so we decided to give companies working in North America's Far North an opportunity to market their expertise — especially from Alaska — to other parts of the world. Some service and supply companies are already working in the Arctic outside North American, but many others are not," Cashman said.

"In some cases, our local companies will only be able to offer consulting services, but those can be lucrative."

The first edition of the Arctic Oil & Gas Directory is available online at www.petroleumnews.com.

Printed copies of the magazine will be

mailed to Petroleum News print subscribers in early February.

"BP's Liberty project is featured in this edition," Cashman said. "In July, when the second 2009 directory is released features will include a Liberty update, as well as articles on Northstar, Nikaichuq and Ooguruk, and one or two Canadian exploration projects."

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GOVERNMENT

Palin: 50% renewable by 2025

Calls for half of electricity to come from renewable sources by 2025, sets up process for rural Alaska to mid-term seek cost relief

By ERIC LIDJI
Petroleum News

Gov. Sarah Palin wants half of the electricity in Alaska, and at least 30 percent of the electricity in the Railbelt, to “ideally” be generated from renewable sources by 2025.

Palin made the announcement at a Jan. 16 news conference, where her administration also presented a process intended to lower the high cost of energy in rural Alaska.

“Whether we’re talking about rural Alaska, or the Railbelt, or Southeast, one thing remains true: Renewable energy will be the key,” Palin said on Jan. 16.

Attaining “affordable energy” will require major infrastructure projects over the coming years, Palin said, adding, “Most of this is going to have to be financed by rate payers.”

In setting out her energy plan, Palin also reiterated her long-standing goal of increasing Alaska’s importance as a national energy supplier, “while taking



GOV. SARAH PALIN



REP. BETH KERTTULA

achieved, especially given slimming state revenues.

On the goal for 50 percent renewable energy, Speaker of the House Mike Chenault, R-Nikiski, said, “It’s a worthy goal. Now can we get there by 2025? I don’t know.”

On the renewable energy goal and others like consolidating urban electric utilities and issuing state loans for energy projects, House Minority Leader Beth Kerttula, D-Juneau, said, “Those things, I believe, are very laudable, if somewhat broadly stated goals.”

care of Alaskans first.”

She said “a large-diameter natural gas pipeline” is still the “foundation” of her long-term energy policy, but that natural gas for Alaska will be “a focus” of the legislative session.

“The message today is that we’re willing and able to responsibly build and produce and provide opportunity for our resources to be available for our citizens,” Palin said.

To address short-term concerns, Palin said the state would invest in energy efficiency and conservation measures, which she called “low hanging fruit that’s available to us now.”

“Ultimately, it’s going to take many years of work to reach all our goals,” Palin said.

On the first full day of the new session, the energy plan received a lukewarm reception from House leaders, who mostly applauded the ambitious goal for renewable energy, but wondered how it would be

A goal for the Railbelt

In some ways, Palin’s 50 percent renewable goal is the most ambitious in the country.

Of the roughly 30 states that have set goals for increasing the role of renewable energy in electricity generation, most are only trying to produce between 10 and 25 percent of their electricity from renewable sources by various deadlines running from next year to 2025.

The high bar is California, the most populous state in the country, which last year set a new goal to generate 33 percent of its electricity from renewable sources by 2020.

Alaska is always a unique case in energy discussions, though.

On the one hand, Alaska uses more ener-

see RENEWABLE page 23



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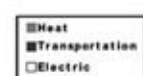
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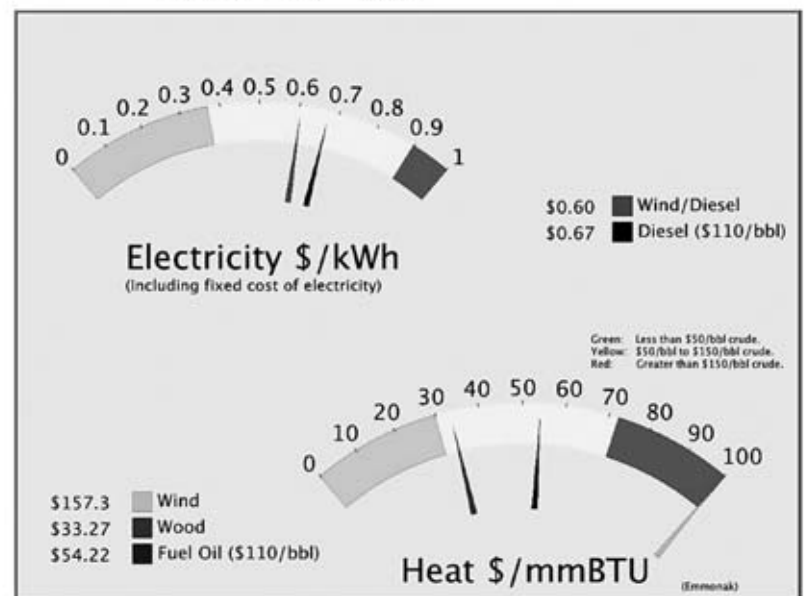
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Total: \$4,084

Heat	\$1,316	Per capita
Transportation	\$361	Per capita
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The state is using “energy meters” like these to help communities figure out which projects will lower energy costs. The lightest section represents oil prices between \$50 and \$150 a barrel.



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• NATURAL GAS

British Columbia enters CBM age

Joint venture by two juniors leads host of majors into commercial coalbed production, despite widespread condemnation of resource

By GARY PARK

For Petroleum News

There's never been any shortage of industry heavyweights poking and prodding around British Columbia's coalbed methane prospects and no shortage of big numbers to inflate hopes of a rich future.

Equally, there has been no shortage of opposition to coalbed methane development in the province, which partly explains why British Columbia has lagged so far behind Alberta.

In the end, it has taken a relatively obscure partnership — Vancouver-based junior explorer Canada Energy Partners and Houston-based driller GeoMet — to launch commercial production of the province's coalbed methane resource.

Over many years industry powerhouses — Shell Canada, EnCana, BP, Talisman Energy and Chevron among them — have drilled test wells and conducted experimental projects in British Columbia's widely scattered coal-bearing formations, generating talk of at least 90 trillion cubic feet of recoverable gas, more than all of Canada's currently estimated remaining conventional gas resources and the equivalent of 50 years' worth of conventional production in the province.

But those prospects have collided with stiff opposition from environmentalists, landowners, municipal governments, aboriginal communities and the Montana state government.

Resistance ratchets up

The resistance ratcheted up three months ago when the Union of British Columbia Municipalities unanimously passed a resolution demanding that Premier Gordon Campbell halt Shell Canada's coalbed methane drilling in the Klappan deposit of northwestern British Columbia, where First Nations staged a blockade of drilling equipment.

At the same time, environmental groups said they were preparing to petition the provincial government for a 10-year moratorium on all coalbed methane development.

"We've got rednecks, commercial fishermen, sport fishermen, First Nations, municipal leaders, you name it — a broad spectrum of people who don't find this (development) acceptable," said Doug Donaldson, mayor of Hazelton, B.C., and a supporter of the resolution. "I don't think the provincial

government can ignore this any longer."

A poll taken earlier in 2008 found that 70 percent of northwestern B.C. residents opposed Shell Canada's work in an area that flows into three major rivers — Skeena, Nass and Stikine, a major confluence of fish and wildlife.

The Alberta-based Pembina Institute, an environmental think-tank, also released a study in spring 2008 that said commercial coalbed methane development in the headwaters area would be an "irresponsible experiment" which could "lead to increased runoff, increased erosion and increased sediment loads in streams (which) would affect overall salmon health ... and could damage spawning grounds."

The study — done by GW Solutions, a Vancouver Island-based consulting firm — calculated that if 1,000 wells were drilled in Shell Canada's lease of more than 1 million acres then more than 4 square miles of land would be cleared for well pads, roads and pipelines.

It said there were "key information gaps" relating to geology, ecology and hydrology in the area and more research was needed to determine the full extent of the environmental risk.

The government responded in December by imposing a two-year freeze on Shell Canada's drilling program.

Companies press ahead

Despite that setback for the northwestern region, Canada Energy Partners and GeoMet (which is operator and holds a 50 percent working interest through its wholly owned subsidiary Hudson's Hope Gas) have pressed ahead in northeastern B.C., home to a well-established thriving gas industry.

They said gas sales have started from eight wells on their 51,000-acre property in the Peace River coalbed methane project of northeastern B.C.

Canada Energy Partners reported that four core holes and 12 production wells have been drilled so far, targeting an average coal thickness of 52 feet and an average gas content of 400 cubic feet per ton.

To date, C\$45 million has been invested by Canada Energy Partners and its partners in acquiring lands, exploration and development.

Neufeld sees benefits

B.C. Energy Minister Richard Neufeld, soon to leave the provincial government

for a seat in the Canadian Senate, said in a statement that "unconventional gas development plays an important role in British Columbia's future energy security. Investment in coalbed gas development and the realization of gas royalties and taxes will help fuel the province's economy," he said.

In further bolstering the outlook for the resource, while making a concession to the concerns raised, he said his department "looks forward to continuing to work with industry to allow the sector to succeed, while balancing economic and social priorities and protecting our environment and quality of life."

Neufeld told the Vancouver Sun he never thought it would take so long to bring his province's coalbed methane into the commercial stream.

"It will be a little bit slower than what I had hoped for and maybe, in retrospect, that's not a bad thing. I think you do have to let people get accustomed to it and now that we have one area that's producing coalbed gas into a sales line, that's good news we can talk about in the rest of the province."

Hudson's Hope Mayor Karen Anderson offered enthusiastic backing for the GeoMet subsidiary — which has been "really forthright with us" — and the working relationship that has been built up, in contrast to "some horror stories" from coalbed methane development in the United States.

Familiarity helps

Canada Energy Partners President and Chief Executive Officer Ben Jones agreed there has been "real resistance" to coalbed

methane throughout British Columbia.

"Our area is about the only one that has been sailing along ... with bumps, some stormy weather, but it has continued to sail," he told the Vancouver Sun.

He said residents in northeastern B.C. are more familiar with oil and gas operations than those elsewhere in B.C., which has helped keep their project on track.

A native of Baton Rouge, La., Jones acquired his first coalbed methane lease in B.C. in 2001, at the same time the government was enthusiastically touting the resource's potential, by paying less than C\$50 an acre in an area where recent bids have multiplied that payout by about 100-fold and companies such as Talisman are talking about investments of C\$7.5 billion over the next decade.

Talisman said it plans to develop 38,400 acres, with a piloting schedule that includes two rigs in the current quarter and three rigs in the third and fourth quarters to complete four horizontal and three vertical wells. The facility could be on-stream by November.

Canada Energy Partners said in a recent news release its Peace River project is immediately south of Talisman's project, where Talisman said C\$300 million was spent acquiring leases and where it drilled several vertical wells, one of which tested at 4 million cubic feet per day.

Jones drew a sharp distinction between the benefits of conventional gas and coalbed methane development, arguing that the best production from a conventional well occurs on the first day, after which "everything is downhill ... whereas in coalbed methane it's exactly the opposite."

see CBM AGE page 6



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• EXPLORATION & PRODUCTION

Companies racking up drilling permits

Anadarko gets another for Wolf Creek, Chevron gets one more at White Hills, ConocoPhillips applies for first permit at Mooses Tooth

By ERIC LIDJI
Petroleum News

State and federal officials recently issued additional drilling permits to Anadarko, Chevron and ConocoPhillips for North Slope exploration work planned for this winter.

ConocoPhillips is starting to get permits for a pair of exploration wells in the National Petroleum Reserve-Alaska. The wells require both state and federal drilling permits.

On Jan. 15, the Alaska Oil and Gas Conservation Commission approved a permit for the company to drill the Grandview No. 1 well. In the week prior, the company applied for a permit from the Bureau of

Land Management to drill Grandview No. 1 and the Pioneer No. 1 well.

Grandview No. 1 and Pioneer No. 1 are planned for the Greater Mooses Tooth unit, near the Colville River, west of the village of Nuiqsut. ConocoPhillips has said a recent slowdown in capital spending shouldn't impact the program. (See related story on page 1.)

Outlining exploration plans this past fall, ConocoPhillips said the two wells would target new oil and gas accumulations, as well as expand on previous discoveries in the area.

Grandview No. 1 is planned for federal lease AA-81785 in the southwest corner of the Greater Mooses Tooth unit, while Pioneer No. 1 is planned for federal lease

AA-081779 in the southeast corner of the unit. The company plans to drill both using Doyon rig 141.

Since the federal government began leasing land in NPR-A more than a decade ago, ConocoPhillips has been the most active explorer in the area, drilling 18 wells. BLM, an arm of the U.S. Department of the Interior, formed Greater Mooses Tooth last January.

ConocoPhillips operates the unit, but Anadarko holds a 22 percent working interest.

Last October, ConocoPhillips staked four well locations in and around Mooses Tooth.

Anadarko gets BLM permit

With two new permits, Anadarko is now ready to begin its winter drilling program.

On Jan. 15, BLM issued a permit for Anadarko to drill the Wolf Creek No. 4 exploration well in the northwest planning area of NPR-A, 30 miles west of Umiat.

Wolf Creek No. 4 is one of three wells Anadarko plans to drill this winter in its far-reaching, multiyear search for natural gas in the western foothills of the Brooks Range.

Anadarko plans to use the Doyon Arctic Fox rig to drill the well to a depth of some 4,000 feet to test the Nanushuk formation. The well location is in federal lease AA-86604.

The company has already received a drilling permit for Wolf Creek No. 4 from AOGCC, required for any well drilled in Alaska.

Anadarko also plans to drill in the Gubik and Chandler fields east of Umiat this winter.

On Jan. 14, Anadarko received an

AOGCC permit to drill the Gubik No. 4 well, a follow up to the Gubik No. 3 well the company drilled in the area east of Umiat last winter.

This winter, Anadarko also plans to complete the Chandler No. 1 well spud last year.

The company will use Nabors rig 105-E to drill both Chandler No. 1 and Gubik No. 4.

Anadarko now has all the drilling permits it needs for its three-well program this winter.

The company is partnering on the exploration effort with Petro-Canada and BG.

Chevron gets third permit

On Jan. 6, AOGCC approved a permit for Chevron, through its subsidiary Unocal, to drill the Stegodon 24-6-8 exploration well in the White Hills prospect, south of Kuparuk.

Stegodon 24-6-8 would sit on state lease ADL 390931, toward the northern end of the prospect, located in the central North Slope west of the trans-Alaska oil pipeline corridor.

Stegodon 24-6-8 is one of four new White Hills well locations Chevron permitted this year. Chevron permitted 15 proposed locations for the 2007-08 winter drilling season.

The permit is the third issued for the program this winter. Chevron drilled three wells at White Hills last year. The company plans to use Nabors rig 106E to drill the new wells.

Chevron has said it is looking for both oil and gas at White Hills. Chevron is partnering on the exploration program with the French oil company Total. ●

NATURAL GAS

TransCanada applies for slope permits

TransCanada Alaska has applied for land use permits for feasibility studies on the North Slope.

The Alaska Department of Natural Resources Division of Mining, Land and Water said Jan. 20 that the application is for a permit to conduct feasibility studies on state land for design and route selection for the TransCanada Alaska pipeline project.

TransCanada was approved last year as the state's licensee under the Alaska Gasline Inducement Act, or AGIA. TransCanada is eligible for reimbursement for certain costs up to \$500 million for a project design which meets state requirements. DNR said field studies would characterize properties of the major soil types and permafrost conditions within a corridor along the trans-Alaska oil pipeline from Prudhoe Bay to Atigun Pass, with soil samples to be conducted from drilled boreholes in 12 areas. Prepacked snow trails would be created to access borehole drill sites.

—PETROLEUM NEWS

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continued from page 5

CBM AGE

But he acknowledged it may take several years for Canada Energy Partners to recoup its "sunk costs," although the company could enjoy a positive cash flow based on its lease-operating costs this year."

Canada Energy Partners Chairman

John Proust said his company secured financing before the financial crisis and has C\$16 million on hand to carry it well into 2010.

GeoMet Chief Executive Officer Darby Sere said his company expects to build its gas sales from the Peace River project for many years.

Eight wells first phase

The current eight wells onstream represent the first phase of a project with 315 potential well locations (based on 160-acre spacing). Canada Energy Partners expects to release an updated independent reserve report in February.

A 2009 development program will be finalized by the partners in the current quarter and a multiwell production drilling program should start in July.

The role of coalbed methane in Canada's gas future was underscored by the National Energy Board in November when it said overall gas production in Western Canada could drop by 5.9 percent over a three-year period, while coalbed methane volumes could rise by 200 million cubic feet per day.

The British Columbia government is eager to become part of that equation, changing legislation last year to open up interior basins, where the terrain is rugged and infrastructure is almost nonexistent.

The amendments are designed to "encourage and accelerate" exploration for conventional and unconventional oil and gas in the untapped basins in the Nechako area, which has been hard hit economically by a mountain pine beetle infestation. ●

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• LAND & LEASING

Recent Thomson legal decisions a toss-up

One Superior Court judge agrees DNR has denied permits; another refuses to allow Exxon's request for a partial trial de novo

By KRISTEN NELSON
Petroleum News

Alaska Superior Court Judge Sharon Gleason has denied a request from Exxon Mobil Corp. for a partial trial de novo for discovery on specific topics in the appeal of the state's 2008 termination of the Point Thomson unit. The request was for a procedure in which the appeal court holds a trial as if a prior trial had never been held, often conducted in appeals from small claims court judgments.

In this case the prior event was a Department of Natural Resources administrative hearing.

Meanwhile, Judge Patrick McKay denied a state attempt to kill an ExxonMobil suit for a Point Thomson drilling permit (see sidebar).

Appellants in the trial de novo motion — ExxonMobil, BP Exploration (Alaska), Chevron U.S.A. and ConocoPhillips Alaska — had moved for a partial trial de novo based on an assertion that DNR failed to afford them due process during 2008 remand proceedings.

Gleason said that appellants maintain they should have discovery rights on certain topics and be able to augment the existing appeal record in six areas including a report prepared for the state by consultant PetroTel and communications between DNR Commissioner Tom Irwin, Hearing Officer Nan Thompson and third parties including the governor's office and members of the Legislature.

Gleason said appellants "maintain that this discovery together with the existing administrative record, 'will establish their right to a plenary trial de novo in this Court or, in the alternative, remand to an independent hearing officer.'"

She said appellants cite several federal cases and assert the record in this administrative appeal should be expanded to include all documents and evidence on which the agency might have relied in making its decision.

Reluctance from courts

But Gleason said a review of the cited cases "indicates that federal courts have demonstrated considerable reluctance to permit discovery or augmentation in administrative appeals."

In its response, DNR said a partial trial de novo in the form of discovery and augmentation was unwarranted. "DNR's

Exxon can fight state on permits

A judge has turned back a state effort to kill an Exxon Mobil Corp. lawsuit seeking a drilling permit for the disputed Point Thomson oil and gas field.

The ruling from Anchorage Superior Court Judge Patrick McKay doesn't mean Exxon gets the drilling permit. Rather, it means Exxon may continue to fight in court to overturn the state's denial of the permit.

The state and Exxon are battling for control of the rich North Slope field, which state officials are trying to reclaim on grounds that Exxon has failed to produce any oil and gas from state acreage the company and its partners leased decades ago.

In an effort to hang onto its leases, Exxon has proposed drilling at Point Thomson this winter. But state officials have rejected that plan as untrustworthy and have withheld drilling and related permits.

Ruling from Dec. 31 hearing

McKay's ruling stems from a Dec. 31 hearing on the state's request to have Exxon's lawsuit dismissed. An attorney for the state argued that Alaska Natural Resources Commissioner Tom Irwin hadn't yet made a final administrative decision to deny Exxon a drilling permit, thereby making a lawsuit premature.

The judge ruled that Irwin did make a final decision, and so Exxon is within its rights to appeal his decision in court.

However, McKay said he would stay the case — meaning further action will be delayed — until at least Feb. 20.

In the interim, the judge said, the state and Exxon can carry on with other proceedings on the pertinent question of whether Point Thomson leases are still valid. Without valid leases, Exxon can't drill.

A Department of Natural Resources hearing on the lease issue is expected to begin Jan. 12 in Anchorage and could last a week or more. The state says it has canceled the leases, but Exxon argues they're still good.

—WESLEY LOY, ANCHORAGE DAILY NEWS

determination must be supported by substantial evidence in the record as a whole, and DNR is obligated not to rely upon evidence that is not in the record," Gleason said, adding that there is "strong presumption" that an agency has "properly designated the entire administrative record, and a party appealing an administrative decision should be required to show clear evidence to the contrary to obtain discovery."

In an August letter in response to a public records request by Chevron for the the PetroTel evaluation of the Point Thomson sands reservoir, a 2007 study contracted for by DNR, Irwin stated that the study "was not relied on in any manner in the administrative process underlying this appeal" and was in fact commissioned by the executive branch as part of the policy and decision-making process under the Alaska Gasline Inducement Act. A 15-page summary of the report was released 2008.

While Exxon told the judge there were "direct parallels" between the PetroTel conclusions and the commissioner's Point

Thomson termination decision and argued it "should not blindly have to accept the bald statements of its litigation adversary" that the report had no impact on the deci-

sion, Gleason said the commissioner's "decisions on remand contain no reference to the PetroTel Report"; Irwin has "unequivocally indicated" that there was no reliance on the report; and courts have held in the past that "Administrative personnel are presumed to be honest."

The judge said in denying the request to include the PetroTel report in the record that while the report relates to Point Thomson, appellants failed to "make a substantial showing, on the basis of the agency's written decisions," that Irwin may have relied on the report.

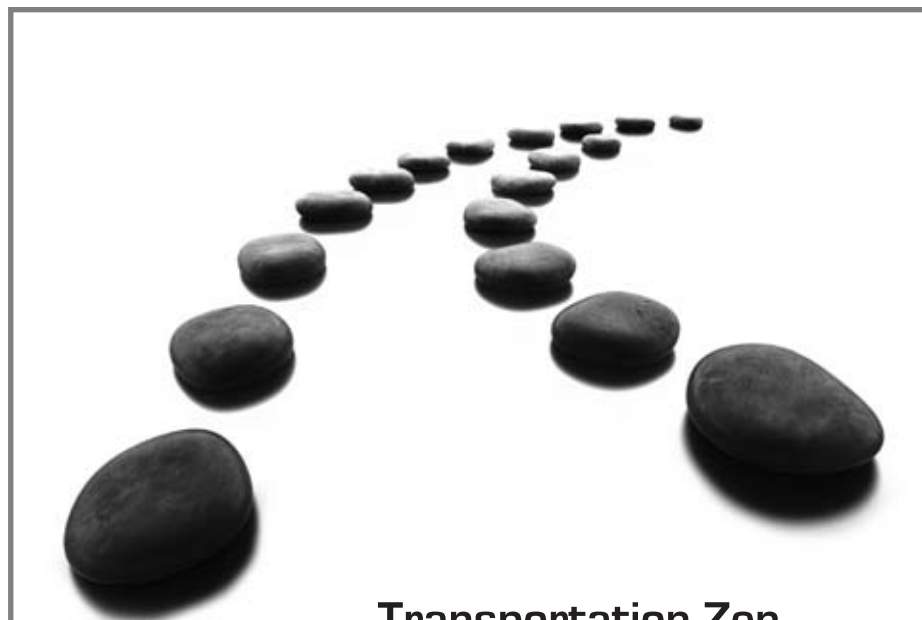
Issue of personnel

Gleason said appellants "maintain that due process requires that DNR separate 'personnel responsible for advocacy from decision-makers performing a judicial role,'" and seek discovery to prove the commissioner "may have had extensive contact with personnel responsible for advocacy."

The judge said DNR maintains that the remand hearing on the Point Thomson unit termination was an agency hearing before the commissioner and not an adversary proceeding, and thus communication by the commissioner with DNR staff, litigation counsel and third parties during the course of the remand hearing are not prohibited.

In opposing the motion, DNR said it does not dispute that the commissioner was advised by DNR staff and litigation

see DECISIONS page 11



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• EXPLORATION & PRODUCTION

Caught in numbers crunch

Playing in the oil sands is a 'big boy's game' as production costs exceed the oil price for smaller companies at US\$40 per barrel

By GARY PARK

For Petroleum News

The economics of operating in the oil sands these days can be described in one word: They stink.

Producers of heavy oil, which accounts for 38 percent or 1.05 million barrels per day of Canada's total oil output (nearly 570,000 bpd from the oil sands and the rest conventionally produced) and all of which trades at a discount to light crudes, have watched their returns nosedive as benchmark crude has declined by more than US\$100 per barrel since the summer peak.

Menno Hulshof, an analyst at Dundee Securities, said a prolonged period when the differentials between light and heavy oil remain wide will force companies to make tough decisions.

Oil sands startup Connacher Oil and Gas has already moved in that direction, cutting back production at its Great Divided project to 5,000 bpd from an anticipated 10,000 bpd entering 2009.

For Connacher, the total cost of production, including royalties, is estimated at north of US\$50 per barrel.

The message is clear. The cost of staying in business is exceeding the price of oil for smaller operators.

Martin Molyneux, an analyst at FirstEnergy Capital, said that although the industry is on a knife edge, when oil hits US\$40 per barrel and bitumen prices are struggling to hold their own at US\$20 "heavy oil becomes a big boy's game."

Merrill Lynch analysts have already warned that oil prices below US\$38 per barrel could force the shut-in of 800,000 bpd of Canadian production, followed by another 800,000 bpd if prices drop below US\$30.

What will emerge from rubble?

The debate taking place in oil sands circles these days is what will emerge from the rubble once oil prices regain some equilibrium and who will survive and what it will mean for Canada's energy self-sufficiency.

The answer could be unpleasant for the opposition parties in the Canadian Parliament — notably the leftist New Democratic Party, whose leader Jack Layton once called for a moratorium on new oil sands development.

A study by the Canadian Energy Research Institute on the economics of oil sands development was released in early November, before the major wave of corporate pullbacks.

Shifting sands

The oil sands of Alberta are living proof of the old adage: The bigger they are the harder they fall. Even faster than they grew from a marginal resource to a key element in North America's energy future, attracting capital spending estimates of C\$317 billion over the next 22 years, the oil sands have gone into a tailspin, induced by the collapse of oil prices that did more damage in a few months than years of cost overruns, shortages of construction labor and materials and the threat of harsh climate-change measures. Petroleum News' Canadian correspondent Gary Park examines the fallout from a drastically revised oil sands agenda and the chances of a recovery in a two-part series.

1 2
SERIES

It suggested that several years of rising costs coupled with the credit crunch would result in a more gradual and phased approach to oil sands development once costs stabilize.

The study projected investment of C\$317 billion over the next 22 years, boosting gross crude bitumen output to 5 million bpd (4.5 million bpd of marketable product), with about 3.6 million bpd of marketable bitumen upgraded to synthetic crude, which can then be refined into gasoline and jet fuel.

C\$101 sustained WTI needed

CERI said a sustained West Texas Intermediate price of C\$101 per barrel over the next 30 years would be needed to maintain a 10 percent return for a new integrated (mining, extraction and upgrading) project with a 2011 startup.

A new in-situ project, using either steam-assisted gravity drainage or cyclic steam stimulation, would need a sustained price of C\$80 per barrel.

Based on an average of announced projects, the report pegged the initial capital outlay for a 100,000 bpd integrated project at more than C\$140,000 per barrel of synthetic crude (some estimates put Petro-Canada's stalled Fort Hills project above C\$170,000). That assumes an initial startup cost of C\$90,000 per barrel for a stand-alone mine producing 100,000 bpd and a price tag of C\$58,000 per barrel of synthetic crude for a

standalone upgrader.

A 30,000 bpd in-situ steam-assisted gravity drainage project comes in at the bottom end of the price scale at just over C\$28,000 per barrel, while the same-sized cyclic steam stimulation project was estimated by the CERI study to cost C\$35,000 per barrel.

CERI said that while the current economic slowdown and commodity price slump might help some projects in the early stages of sourcing their construction materials, it believes its cost estimates represent a "reasonable average" of higher and lower cost projects.

Operating costs could drop

Those looking for other more positive signs might draw some hope from CERI's observation that a "continued global economic downturn could help push operating costs lower than they are today."

Otherwise, labor costs are not likely to experience an early fall, but equipment costs could ease as work opportunities fade for engineering, procurement and construction firms.

The CERI estimates factor in Alberta's new royalty rates, which are calculated at 6.6 percent before capital costs are paid off — a phase that CERI estimates takes about eight years — and 35.62 percent post-pay-out.

The model also includes greenhouse gas emissions costs of C\$15 per metric ton for projects producing more than 100,000 metric tons per year of carbon dioxide.

Analysts believe the credit crisis will pose a severe challenge for companies trying to raise investment capital to keep announced oil sands projects on track over the next decade, even if capital costs for mining projects in production and for proposed mining projects and upgraders are slashed.

What would restore cuts?

The central question is what would bring about the restoration of cuts already made.

Wilf Gobert, a highly respected independent analyst, wrote in the Calgary Herald that the answer varies widely across the spectrum.

"Existing mining projects have lower invested capital and efficiency gains from incremental expansion," he said.

"While breakeven cash costs may be US\$40 per barrel, required rate of return for expansions may be US\$75 per barrel and a grassroots mining project may require up to

US\$100 per barrel.

"On the other hand, in-situ production, which uses wells to pump bitumen to the surface, has much lower capital costs than mining projects, so many projects might proceed with less than US\$50 prices.

"The major problem for the future of all new oil sands projects is bitumen upgrading to light quality crude oil," with the cost of upgraders in Alberta having exploded over the years to a factor of two-to-four times the cost five years ago, while the cost of construction in the U.S. Gulf Coast region is about half the cost in Alberta, Gobert said.

To those who welcome the cooling off of oil sands expansion, he warned the recovery could also be slow, needing a sustained recovery of crude prices and a significant deflation in the cost of facilities and labor.

Advocate of early rebound

The chances of an early rebound in crude prices have at least one major advocate.

Fatih Birol, chief economist at the International Energy Agency, said Dec. 29 that a return to US\$100 is possible between 2010 and 2015 if the world economy gets back on track.

He bases that forecast on a "serious supply-demand problem" emerging in 2010 and the shift from an energy market dominated by multinational companies to a market ruled by state-owned companies, predicting that national companies could control 80 percent of the increase in oil and gas production by 2030.


Jim Carter, president of Syncrude Canada until he retired in mid-2007, sees two possible developments for the oil sands: A break from a frenetic rate of growth could be an opportunity to bring inflation under control, reduce overheated expectations and integrate technologies to improve environmental performance, and stalled development.

He said a National Oil Sands task Force in the mid-1990s resulted in improved fiscal terms and "set the table for success."

"We began to see the investment happening," Carter said. "It made believers even out of those who might not have been."

But "sometimes things are taken for granted after they have been so strong for so long," he told the Financial Post. "We need to remember that (oil sands production) is expensive oil."

How resilient the sector is will become apparent as it grapples with its sternest test yet. ●



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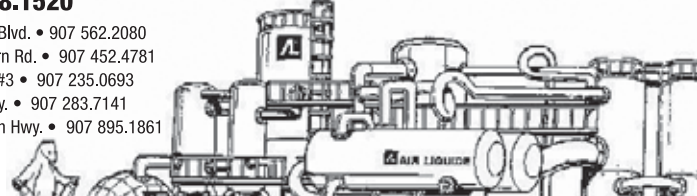
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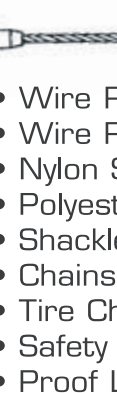
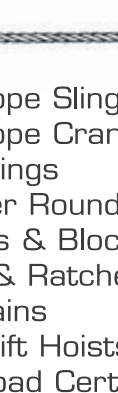
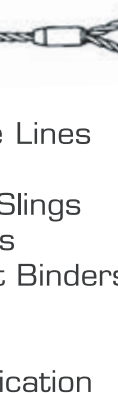




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• LAND & LEASING

MMS releases draft OCS lease sale plan

End-of-administration announcement also included final EIS for Cape Wind Energy project and start of PEIS for Atlantic exploration

By ALAN BAILEY
Petroleum News

In a swansong announcement for the Bush administration, the U.S. Minerals Management Service announced a series of energy-related actions on Jan. 16. The package of actions included the publication of a proposed outer continental shelf oil and gas leasing program covering the years 2010 to 2015.

"A new era has arrived. ... We will continue to be the nation's leader in the development of oil and gas resources off our coast," said MMS Director Randall Luthi. "... Our economy and our families are dependent on a reliable, secure and reasonably priced source of energy. ... We will continue to depend on oil and gas as a major energy source for at least the next generation."



RANDALL LUTHI

Secretary of the Interior Dirk Kempthorne had announced in July that MMS would be developing a new five-year oil and gas leasing program that would overlap with the current OCS leasing program's timeframe of 2007 to 2012. The announcement came hard on the heels of President Bush lifting an executive ban on oil and gas leasing in many areas of the continental shelf.

"Last summer the president revised the executive order concerning the outer continental shelf and this unlocked the door to development of much of the OCS. Later the Congress opened that door completely by allowing the decades old moratorium to expire," Luthi said.

150,000 comments

Luthi said that after a request for information went out on Aug. 4 MMS received

On the Web



See previous Petroleum News coverage:

"Palin supports planned MMS lease sales," in Sept. 28, 2008, issue at www.petroleumnews.com/pnads/758184679.shtml

"DOI starts on new OCS leasing program," in Aug. 3, 2008, issue at www.petroleumnews.com/pnads/589937028.shtml

more than 150,000 comments on its proposed new leasing program.

"We have now analyzed those comments and we are basing our recommendations for a new five-year program upon those comments," Luthi said.

The proposed program consists of 31 lease sales in 12 offshore areas. Those areas are located offshore Alaska and over much of the outer continental shelf off the U.S. East Coast, as well as some limited areas off the U.S. West Coast.

Offshore Alaska, the proposed program envisages lease sales in the Chukchi Sea in 2010 and 2014; the North Aleutian basin in 2011 and 2014; Cook Inlet in 2011 and 2015; and the Beaufort Sea in 2013 and 2015.

Some of the lease sale areas offshore the Lower 48 had previously been subject to the moratorium and MMS has not scheduled any sales in these areas before 2011. Much environmental work will need to be done before MMS can hold lease sales in these areas, Luthi said.

"In fact we've specifically asked for information about areas that may warrant exclusion due to sensitive resources or other conflicts," Luthi said.

And one proposed lease area in the eastern Gulf of Mexico is still subject to a moratorium that Congress enacted in 2006 — a lease sale there, proposed for 2013, would require Congressional action, Luthi said.

NATURAL GAS

Mark Myers returns to state government

Mark Myers, former director of the Alaska Division of Oil and Gas, is returning to Alaska.

Gov. Sarah Palin announced Jan. 21 that Myers has been named coordinator for the Alaska Gasline Inducement Act.

In order to move the gas line project forward and in exchange for meeting the state's requirements under AGIA, the successful license applicant, TransCanada, is entitled to inducements. While AGIA provides for up to \$500 million in state matching funds, the act also provides for a coordinator to expedite project review and permitting by state agencies.

"It is truly an honor to have attracted such an exceptional candidate to this position," Palin said. "Not only is Dr. Myers an excellent candidate and proven leader, he brings his exceptional knowledge of the oil and gas industries, his extensive management experience, his petroleum geology background and, most importantly, his passion for moving the AGIA project forward."

"It is a real pleasure to welcome Dr. Myers back to Alaska; he is exceptionally qualified for this undertaking," said Department of Natural Resources Commissioner Tom Irwin.

"It is a privilege to serve in the Palin Administration and I look forward to taking on the challenges associated with a project of such great importance for the state and the nation," said Myers.

Myers, an internationally recognized geologist and former director of the U.S. Geological Survey, was previously the director of the Division of Oil and Gas and the state geologist overseeing the Division of Geological and Geophysical Surveys. He earned a doctorate in geology from the University of Alaska Fairbanks in 1994.



MARK MYERS

—PETROLEUM NEWS

"By starting this new five-year program we give the new administration the option of actually starting two years earlier than they normally would."

—MMS Director Randall Luthi

Luthi emphasized that the draft plan is not a final document and said that the proposed lease sales will provide a basis for collecting more information about areas when people have not explored for several decades. The proposed lease sale program is subject to a 60-day public comment period, starting on Jan. 21.

And MMS has asked for information relating to potential coastal buffer zones and about measures that might limit the amount of infrastructure required, Luthi said.

The introduction to the plan also says that "the secretary is not recommending that any particular areas be in or out of the eventual final program. Rather this DPP (draft proposed program) is designed to gather information, allowing the process to move forward in a way that will allow the next administration to design a program that meets the objectives of the nation."

However, in anticipation of interest in exploration in new areas to be leased,

MMS also intends to initiate a programmatic environmental impact statement for geological and geophysical work along the Atlantic coast, Luthi said.

Alternative energies

In addition to oil and gas development, MMS is also promoting the development of alternative energy sources. And as part of its package of actions announced Jan. 16 the agency said that it had completed the final environmental impact statement for the Cape Wind Energy project, offshore Massachusetts.

However, Luthi expressed disappointment that the Office of Management and Budget had not yet approved the final rule that MMS had developed for the Outer Continental Shelf Alternative Energy Program. During fiscal year 2008 MMS provided \$3.8 million in funding for federal environmental studies regarding offshore alternative energy development, he said.

But will the new Obama administration pick up a new offshore oil and gas leasing program that includes areas previously subject to a moratorium?

"It is what it is," Luthi said. "By starting this new five-year program we give the new administration the option of actually starting two years earlier than they normally would." ●

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British Columbia offshore dusted off

By GARY PARK
For Petroleum News

Out of the spotlight for almost three years, the oil and natural gas future of British Columbia's offshore got a fresh airing this month when a geologist and exploration consultant suggested public pressure held the key to development.

Henry Lyatsky, president of Lyatsky Geoscience Research and Consulting in Calgary, said that until the British Columbia government is won over, the exploration bans — which have kept the issue out of the spotlight for three years — will remain in place.

He told a Calgary conference hosted by the Vancouver-based Fraser Institute that "When people want stuff to happen it happens fast," adding that the initial push should be directed at the general public, not the government, or special interest groups.

Departing British Columbia Energy Minister Richard Neufeld, once an outspoken advocate of opening up the region and the driving force behind the creating of a government team to promote the offshore potential, has recently conceded that the issue is essentially in neutral.

No headway lobbying

He said the province has not made any headway in lobbying the Canadian government and, until there is agreement between the provincial and federal governments, B.C. would "coast on it for a while."

Neufeld said he hopes that the senior

"When people want stuff to happen it happens fast."

—Henry Lyatsky, president, Lyatsky Geoscience Research and Consulting

government will eventually realize that offshore exploration and development is being conducted safely and yielding "huge economic value."

In a 2001 study of the B.C. offshore's potential, the Geological Survey of Canada rated the median in-place resource potential of four basins — Queen Charlotte, Tofino, Georgia and Winona — at 41.8 trillion cubic feet of gas and 9.8 billion barrels of oil.

The first three basins were lightly explored in the 1960s, with Shell Canada drilling eight wells in the Queen Charlotte basin and six in the Tofino, while marine surveys were conducted by Chevron Canada in 1971.

Lyatsky said other basins exist in the offshore, but he is less optimistic about them, given the shortage of known source rocks and seeps.

He was not discouraged by the prospect of earthquakes damaging oil and gas facilities because a "lot of that stuff is handled routinely in other parts of the world," including a decade of commercial operations in the stormy, ice-infested waters off Newfoundland.

Lyatsky said there is no reason to rule out British Columbia when offshore development occurs elsewhere in Canada and around the world. ●

Montney play the exception

The Montney tight gas play in northeastern British Columbia could be one of the exceptions in 2009 — a region that will see more, not less activity, said John Dielwart, president of ARC Energy Trust.

But he said the consequence is that costs are not likely to ease up in the area as the activity level climbs above 2008 when Royal Dutch Shell arrived on the scene.

Speaking to a BMO Capital markets unconventional gas conference in New York, Dielwart said ARC now has an identified resource of 8.1 trillion cubic feet — 3.5 tcf in its Dawson field (the trust's main producing property in the Montney) and 4.6 tcf in its West Montney acreage.

The trust entered the play six years ago when it acquired privately owned Star Oil & Gas for C\$710 million, operated the first wells drilled into the play and in 2005 completed the first horizontal well.

Dielwart said ARC believes there are other prospective horizons "where we fully expect to see significant additional gas discovered."

Key question recovery

The key question now is how much of the resources can be recovered. For ARC, 2 tcf of gas-in-place at Dawson has been assigned reserves at an average recovery rate of 25 percent, he said.

Dielwart believes ARC can achieve an ultimate recovery factor of "well in excess of 50 percent" and other Montney operators are talking about 60-65 percent.

With 25 percent currently booked, ARC is counting on at least another 500 billion cubic feet, or just short of 100 million barrels of oil equivalent of reserves in the drilled-up area of Dawson alone.

He said only a token amount of reserves have been assigned in West Montney, including the trust's Sunrise discovery which tested at more than 10 million cubic feet per day after it was drilled more than a year ago.

Even if ARC is limited to recovering 25 percent of the gas-in-place that will still double its reserves over the next several years, Dielwart said.

Since buying the Dawson property, the trust has seen its output grow from 20 million to 45-50 million cubic feet per day and aims to build its Montney volumes to 170 million cubic feet per day and has a "very conservative" recoverable resource target of 300-350 million cubic feet per day, he said.

Dielwart said ARC's 2009 budget of C\$170 million in the Montney includes completion of a 60 million cubic-foot-per-day gas plant this quarter.

He said Montney reserves are being added for about C\$1.50 per thousand cubic feet, while per-well costs were cut to about C\$5 million last year from C\$8 million in 2005; but as wells become deeper, the fracturing work increases, bumping costs up to C\$5 million-\$6 million.

However, Dielwart cautioned that although the Montney is "very low exploration risk in terms of finding gas," there's no guarantee that every well can be economic, despite what some companies claim.

He said gas prices can drop below C\$5 per thousand cubic feet and ARC can "still have very, very attractive prospects."

—GARY PARK

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• NATURAL GAS

Imports of LNG could rise as Asia cools

Wood Mackenzie predicts U.S. will import more LNG in the next few years because of declining Asian economies

By ALLEN BAKER
For Petroleum News

A new report from Wood Mackenzie predicts a near-term increase in U.S. imports of liquefied natural gas as demand sags in Asia.

“The medium-term outlook for LNG in North America is not as dire as other commentators are suggesting, despite the success in developing shale gas,” says Murray Douglas, North American LNG Analyst at Wood Mackenzie.

The Scotland-based energy consulting firm predicts U.S. imports of LNG will rise for the next six years, putting pressure on domestic prices — and new North American projects.

U.S. terminals will import 620 billion cubic feet of gas as LNG this year, Douglas expects, nearly double the 350 bcf imported in 2008. By 2014, the number would

rise to 1,530 bcf under his scenario.

The U.S. Energy Information Administration projects smaller numbers — about 416 bcf this year and 507 bcf in 2010.

New liquefaction projects coming on line in the next three years will provide nearly 4 trillion cubic feet worth of annual LNG capacity, Douglas estimates, and some of that is likely to find a home in the U.S., which has extensive storage capacity that other countries lack.

Woodside surrenders

Meanwhile, Australia’s Woodside Petroleum pulled the plug on its proposed LNG import terminal off Southern California. Sempra Energy’s Baja California terminal appears to have won the race on the West Coast, at least for now. Terminal capacity in the U.S. is ample, with most of it on the Gulf Coast.

Woodside’s billion-dollar plan called for a terminal

about 27 miles offshore, with regasification done on the ships themselves. The plan met opposition in California despite the fact that the ships would moor so far offshore that they would be out of sight. It was canceled Jan. 19 due to ample supplies from domestic shale projects, the company said.

A couple of California terminals and two more in Oregon are still in planning stages on the West Coast.

Terminal approved

As the Bush administration was winding down, the Federal Energy Regulatory Commission approved an LNG import terminal at a former shipyard near Baltimore. The AES Sparrows Point terminal could import 1.5 bcf daily. That’s just a bit less than the amount Wood Mackenzie expects to arrive in the United States this year. The Jan. 15 approval includes an associated 88-mile pipeline. ●

• FINANCE & ECONOMY

IEA sees 2nd year of oil demand slide

By GREG KELLER
Associated Press Business Writer

The International Energy Agency predicted Jan. 16 that the global economic downturn will cause world oil consumption to fall for a second straight year in 2009, the first two-year decline in 26 years.

In its closely watched monthly survey, the Paris-based agency blamed “the relentless worsening of global economic conditions” for its revision, and said a drop this year would mark the first two-year slide in oil demand since 1982-1983.

The IEA cut its forecast for oil demand this year by 1 million barrels to 85.3 million barrels a day — 0.6 percent lower than 2008. Oil demand last year is estimated to have slid 0.3 percent to 85.8 million barrels a day.

The agency, which represents the interests of 28 oil-importing countries, said it lowered its forecast after nearly halving its estimate for global economic growth to 1.2 percent this year.

The agency said it was “forced to anticipate upcoming institutional revisions on the likelihood that the International Monetary Fund and others will shortly cut their forecasts.”

IEA had predicted rebound

In its last monthly report, the IEA had predicted a rebound in oil demand this year on the assumption that developed economies would recover in the second half of 2009.

The report said oil demand in the countries belonging to the Organization for Economic Cooperation and Development is forecast to fall 2.5 per-

The IEA cut its forecast for oil demand this year by 1 million barrels to 85.3 million barrels a day — 0.6 percent lower than 2008. Oil demand last year is estimated to have slid 0.3 percent to 85.8 million barrels a day.

cent this year, after a 3.3 percent contraction in 2008. Consumption in the rest of the world will continue to grow this year but at a slower pace, the IEA said.

Non-OECD oil demand will grow 1.8 percent in 2009, down from the 3.7 percent pace in 2008, the IEA said.

Oil prices languished near \$35 a barrel in late Singapore trading Jan. 16 as investors eyed a weakening U.S. economy and falling global demand that has sent crude down a third since the previous week. ●

continued from page 7

DECISIONS

personnel during the remand proceedings, and has conferred with members of the Legislature and executive branch on Point Thomson.

Gleason said the issue is a legal one, “whether the communications that DNR has acknowledged took place are consistent with the requirements of due process” to which appellants are entitled. If the communications are prohibited their content is irrelevant and if they are permitted, appellants “are not entitled to explore their content. The legal issue can be resolved on the current record,” she said.

Appellants also seek a full record of DNR’s financial interest in the outcome of the remand proceeding, and maintain that DNR’s financial interest in the outcome is a factor the court must consider.

Gleason said the record contains a DNR memo which concluded that releasing the Point Thomson acreage could provide the state with some \$3 billion, a much greater value than allowing the current owners to retain the leases. The state’s pecuniary interest

But Gleason said a review of the cited cases “indicates that federal courts have demonstrated considerable reluctance to permit discovery or augmentation in administrative appeals.”

is substantial and Gleason said that for purposes of the administrative appeal there is no basis for further augmentation of the exact nature of the state’s financial interest in the outcome.

Independence of process

Gleason cited precedent for “strong presumption against discovery” in administrative proceedings because of the objective of “preserving the integrity and independence of the administrative process”; said discovery and augmentation of the record is not warranted at this time; and denied the motion for a partial trial de novo.

Her decision was dated Jan. 13 and she said that a supplement to the appellants’ motion, filed Jan. 12, would be treated as a distinct motion, and DNR would be accorded an opportunity to file in opposition to that motion. ●



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• FINANCE & ECONOMY

Bad economic news a drag on oil prices

By JAKE NEUBACHER
Associated Press Writer

Rising U.S. jobless claims and a slump in new home construction pushed oil prices lower Jan. 22 on fears that crude demand in the world's largest economy will soften further.

Some positive earnings reports from U.S. companies and hopes of a fiscal stimulus plan by President Barack Obama had seen oil prices higher, before the release of the U.S. economic data.

After trading above \$45 per barrel of crude oil the morning of Jan. 22, prices receded to levels near Jan. 21's close. Light, sweet crude for March delivery fell 27 cents to \$43.28 a barrel by mid-afternoon in Europe in electronic trading on the New York Mercantile Exchange after trading as high as \$45.10.

The contract rose \$2.71 overnight to settle at \$43.55.

Oil has fallen 70 percent since peaking at \$147.27 a barrel in July, but is up from a five-year low of \$33.20 in December.

Jobless claims up

Crude oil prices dropped substantially following the U.S. Labor Department's announcement that initial jobless benefit claims rose to 589,000 in the week ending Jan. 16, from an upwardly revised figure of 527,000 the previous week.

The number of people continuing to seek benefits rose by 97,000 to 4.6 million, above analysts' expectations of 4.55 million. That is up substantially from a year ago, when 2.7 million people were receiving unemployment checks.

A major drop in new home construction also contributed to the drop in the price of crude oil.

According to the U.S. Commerce

Department, the construction of new houses dropped 15.5 percent to an annual rate of 550,000 units, capping the worst year for builders on records dating back to 1959.

The number of housing units that builders broke ground on last year dropped a staggering 33.3 percent from the 1.355 million housing units started in 2007.

Positive company news

These dismal reports reversed the rising price of crude generated by positive company news.

PNC Financial Services Group Inc., which owns bank National City Corp., and Bank of New York Mellon Corp. both reported profits a day after financial stocks plunged on fears that massive writedowns could spread throughout the industry.

IBM said late Jan. 20 it expects its earnings this year to come in above what analysts had been expecting and that its

fourth-quarter profit jumped 12 percent, easily topping analysts' estimates. Apple, meanwhile, booked record profits.

The Dow Jones industrial average rose 3.5 percent to 8,228 Jan. 21.

"Oil is going to depend on how the economic news comes out, particularly in America," said Gerard Rigby, an energy analyst with Fuel First Consulting in Sydney.

Oil has fallen 70 percent since peaking at \$147.27 a barrel in July, but is up from a five-year low of \$33.20 in December.

Investors also drew confidence from U.S. President Barack Obama taking office Jan. 20, replacing George W. Bush.

"There's the Obama factor," Rigby said. "People are more optimistic that he can solve the economic problems than the previous president."

On Jan. 21 the Obama administration said that three quarters of the economic stimulus package — now at \$875 billion — should be spent within 18 months to have maximum impact on jobs and taxpayers.

In another indication of where markets are headed, investors will be looking to the weekly oil inventories report to be released Jan. 22 by the U.S. Energy Department's Energy Information Administration for insight into U.S. demand.

The report is expected to show that oil stocks rose 1.9 million barrels the week ending Jan. 16, according to the average of estimates in a survey of analysts by Platts, the energy information arm of McGraw-Hill Cos.

Looking beyond the moribund U.S. energy market, JBC Energy predicted an increase in global crude oil demand for non-industrialized countries, especially China and India.

Crude inventories up

Crude inventories have risen 7.9 million barrels during the last two weeks.

The Platts survey also projects that gasoline inventories rose 1.8 million barrels and distillates dropped 2.25 million barrels last week.

Investors may be storing crude to take advantage of expected higher prices later in the year. The December contract trades at about \$54 a barrel.

"It makes sense to build stocks because the market is paying for you to hold them," Rigby said. "It's likely that stocks will increase again this week."

Looking beyond the moribund U.S. energy market, JBC Energy predicted an increase in global crude oil demand for non-industrialized countries, especially China and India.

"Despite the doom and gloom driven by the crisis in the financial sector, we are cautiously optimistic about these countries," the Vienna based firm wrote in Jan. 22's newsletter.

In other Nymex trading, gasoline futures dropped 2 cents to \$1.15 a gallon, while heating oil dropped 1 cent to \$1.38. Natural gas for February delivery slipped 11 cents to \$4.67 per 1,000 cubic feet.

In London the March Brent contract decreased by 31 cents to \$44.71 on the ICE Futures exchange. ●

—Associated Press writer Alex Kennedy contributed to this report from Singapore.

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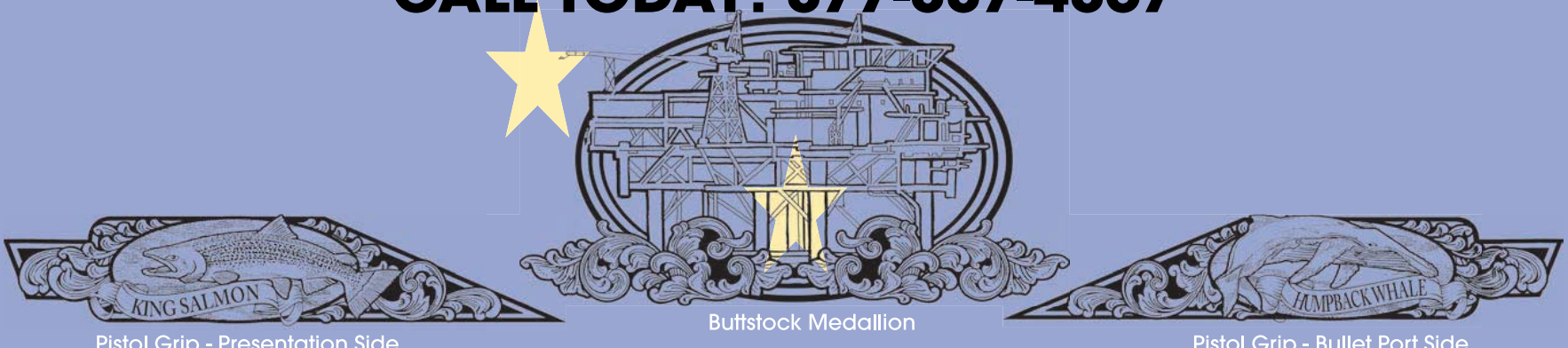
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OUR ARCTIC NEIGHBORS

Norwegian military can assist oil industry

The Norwegian military has a new role in the Arctic in the post-Cold War era, which includes providing security for oil and gas development and conducting rescue operations for civilians, one of the country's rear admirals said at the Arctic Frontiers conference in Tromsø Jan. 19. However, the military cannot be expected to provide these functions alone without cooperation from domestic and international agencies and organizations, Trond Grytting added.

"How can we establish a system that is able to save lives and prevent pollution?" Grytting asked at the conference. "I believe that one of the answers to that is to increase the use of the military capabilities. Not as platforms for weapons, but in their function as service providers for the rest of the society."



Norwegian Rear Admiral Trond Grytting spoke at the Arctic Frontiers conference

The peacetime challenges that currently exist are completely different from those the military faced in the Cold War, Grytting said. The importance of military assistance to the civilian sector increases the farther north you go, he noted, because of the lack of infrastructure, the greater distances to be covered and the low density of private or public capacity to act.

"The conditions for handling a drifting oil tanker (are) dramatically different in the Barents Sea compared to the North Sea," Grytting said.

The military can assist civilians by establishing situational awareness through information coming from radar, ships, aircraft and satellites, Grytting said. The military can also provide aircraft, vessels and manpower for a rescue. A 24-7 response center called Operation North coordinates this military assistance in northern Norway.

And climate change is enabling more economic activity to take place in the Arctic.

"If, or perhaps I should say when cargo routes are established across the North Pole, it will be a great challenge for all Arctic nations to have updated knowledge of the maritime picture," Grytting added.

—SARAH HURST

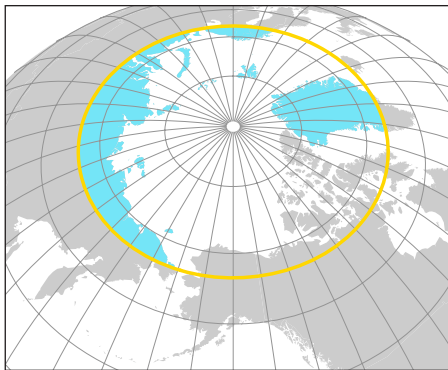
Norwegian hopes for Barents discovery dashed

The Norwegian Petroleum Directorate has described as "disappointing" the result of the drilling of an appraisal well in the Obesum discovery in the Barents Sea by StatoilHydro. A wildcat well made an oil and gas discovery of unknown size early in 2008, in rocks of Middle Triassic age, about 109 miles north-northwest of Hammerfest. The appraisal well's purpose was to delineate and determine the size of the discovery.

The well proved two smaller gas columns with medium reservoir quality in the shallower discovery and a poor quality reservoir in the deeper one, the directorate said in a release Jan. 12.

"No oil was found in the appraisal well, and thus the size of the oil component is considered minimal," the release said. "Neither the oil nor the gas discovery in the shallower level is considered commercially interesting."

—SARAH HURST



OUR ARCTIC NEIGHBORS

Russia plans safe development of Arctic

Bureaucratic obstacles have been removed by bringing regulatory agencies together into one ministry, official tells conference

By SARAH HURST
For Petroleum News

Protecting the environment will be an integral part of Russia's plan to develop Arctic oil and gas resources, a government official told the Arctic Frontiers conference in Tromsø, Norway, Jan. 19. Sergei Donskoy, deputy minister of natural resources and ecology, defended Russian practices in answers to questions from the audience about his country's commitment to environmental standards.

Russia's policies on all aspects of offshore Arctic development are set out in a federal program that should be finalized by the end of this year, Donskoy said. According to this program, between 2011 and 2020 Russia plans to enlarge the area under development to include the Barents, Kara, Laptev and Okhotsk seas.

"By the year 2020 we hope to get extensive information about the sea shelf area and we hope to discover huge resources of oil and gas," Donskoy said. "... Up to 24 huge fields could be discovered in the Barents Sea.

"We expect the same amount in the Kara Sea, another three big oil and gas fields in the Laptev Sea and a couple in the Okhotsk Sea, with a total amount of oil up to 3 billion tons (21.9 billion barrels) and from 3 (trillion) to 5 trillion cubic meters (106 trillion to 176 trillion cubic feet) of gas. In addition to already discovered deposits, this will account for 17 billion tons of fuel concentrated in the area."

When asked whether the Russian system of environmental impact assessments has been dismantled, Donskoy strongly denied that that had happened.

"What we are seeking is to make the environmental impact assessment more feasible, less bureaucratic, taking into account different threats and risks, in order to efficiently develop also the eco-

nomics activities, including the production of hydrocarbons, by virtue of such projects which would not negatively impact the environment and breach environmental standards," Donskoy said.

EIA-dedicated section

The federal program that Donskoy referred to in his talk includes a whole section dedicated to environmental impact assessments, he said.

"I would like to highlight once again, no dismantling has ever taken place," he continued. "Our entire activity in the field of environment and EIA was dictated, first of all, by the structural changes in our ministries and other governmental bodies, and secondly by the priorities set forth on the national level, specifically in respect to dismantling the administrative and bureaucratic barriers in the way of the economic activity of companies."

The fact that ecology and natural resources are part of the same ministry does not prevent the ministry from performing a watchdog function with regard to the environment, Donskoy told a one questioner. The ministry brings together eight governmental agencies, including the technical standards regulator, the meteorological agency, and agencies for forestry and water resources, Donskoy said.

"The idea of reorganizing was to bring together all these functions under one ministry," Donskoy told the conference. "We all speak about a comprehensive approach, about this synergy, and the resolution of environmental issues from the point of view of all aspects. ... We see very active work by my ministry, particularly about prospective development of the new environmental doctrine of the Russian Federation announced by my minister just lately. ... This provides us with an opportunity to produce good and nonconflicting decisions." ●



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EXPLORATION & PRODUCTION

Aurora obtains permit for Hanna well

Aurora Gas has obtained an Alaska Oil and Gas Conservation Commission permit to drill the Hanna No. 1 exploration well between Pretty Creek and Lewis River on the west side of Alaska's Cook Inlet. The proposed well site is at section 22, township 14 north, range 9, west of the Seward meridian.

But Aurora has no immediate plans to drill the well and is still seeking a partner to help with the funding of the drilling, Aurora Gas President Scott G. Pfoff told Petroleum News Jan. 19. The company has obtained the permit in preparation for drilling once the project can be financed.

"Our intent is to have a deal to drill that well," Pfoff said.

In November 2005 Aurora Gas signed an agreement with Trading Bay Oil and Gas to take a majority interest in the Hanna prospect. But Aurora postponed an initial plan to drill a Hanna well in 2006 and since then has been seeking an investor to pick up some of the drilling costs.

There is a relatively shallow gas prospect at Hanna, but there is also a deeper gas prospect and a deep oil prospect.

—ALAN BAILEY

FINANCE & ECONOMY

Move away from West Texas Intermediate?

The Financial Times has reported indications that oil traders are moving away from West Texas Intermediate as a benchmark price for some oil deals. The paper said that increasing oil inventories in Cushing, Okla., are depressing the West Texas Intermediate price relative to other oil benchmarks such as North Sea Brent crude.

Traders want to use a price index that reflects the fundamentals of the global oil market.

The International Energy Authority reported Jan. 16 that "weak global refinery demand and an increasing crude overhang have pressured Brent futures to currently around \$45 per barrel, while WTI was at \$35 per barrel, distorted by record-high Cushing stocks."

On Jan. 21 West Texas Intermediate had risen to \$42 per barrel, while Brent crude was priced again at \$45 per barrel.

—ALAN BAILEY

GOVERNMENT

Topping up the U.S. strategic reserves

The U.S. Department of Energy has awarded contracts to Shell Trading and Vitol to replenish the U.S. Strategic Petroleum Reserve in underground salt caverns located along the Gulf Coast of Louisiana and Texas. The contracts authorize the purchase of 10.6 million barrels of oil from the two companies between February and April 2009 at a cost of \$553 million. The funding is coming from revenues from the emergency sale of oil following Hurricane Katrina, DOE said.

This is the first direct purchase of oil for the Strategic Petroleum Reserve since 1994, DOE said.

DOE is obtaining an additional 6.1 million barrels of oil for the reserve from Shell Trading and Glencore under a royalty-in-kind transfer program with the Department of the Interior. That oil will be transferred to the reserve between May 2009 and January 2010.

"DOE was able to take advantage of the recent sharp decline in crude oil prices to acquire crude oil for the SPR on terms favorable to the nation while also increasing the nation's national energy security," DOE said. "Both acquisitions will have an insignificant effect on market prices."

According to DOE the Strategic Petroleum Reserve has storage capacity of 727 million barrels and a current inventory of 202 million barrels.

—ALAN BAILEY



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SAFETY & ENVIRONMENT

Bison kick up the dust for Nenana plans

Doyon worries that a state plan to introduce wood bison in the Minto Flats will jeopardize gas exploration in the Nenana basin

By ALAN BAILEY
Petroleum News

It's been nearly 200 years since wood bison roamed the wilds of Alaska, but a plan by the Alaska Department of Fish and Game to re-introduce this scarce animal into the state is raising the ire of Doyon Ltd., the Native regional corporation for Alaska's Interior.

The problem is that the wood bison is listed as an endangered species in Canada — ADF&G plans to introduce the bison into the Minto Flats near Nenana in Alaska's Interior, right in the path of Doyon's planned gas exploration in the Nenana basin.

Disruption and uncertainty?

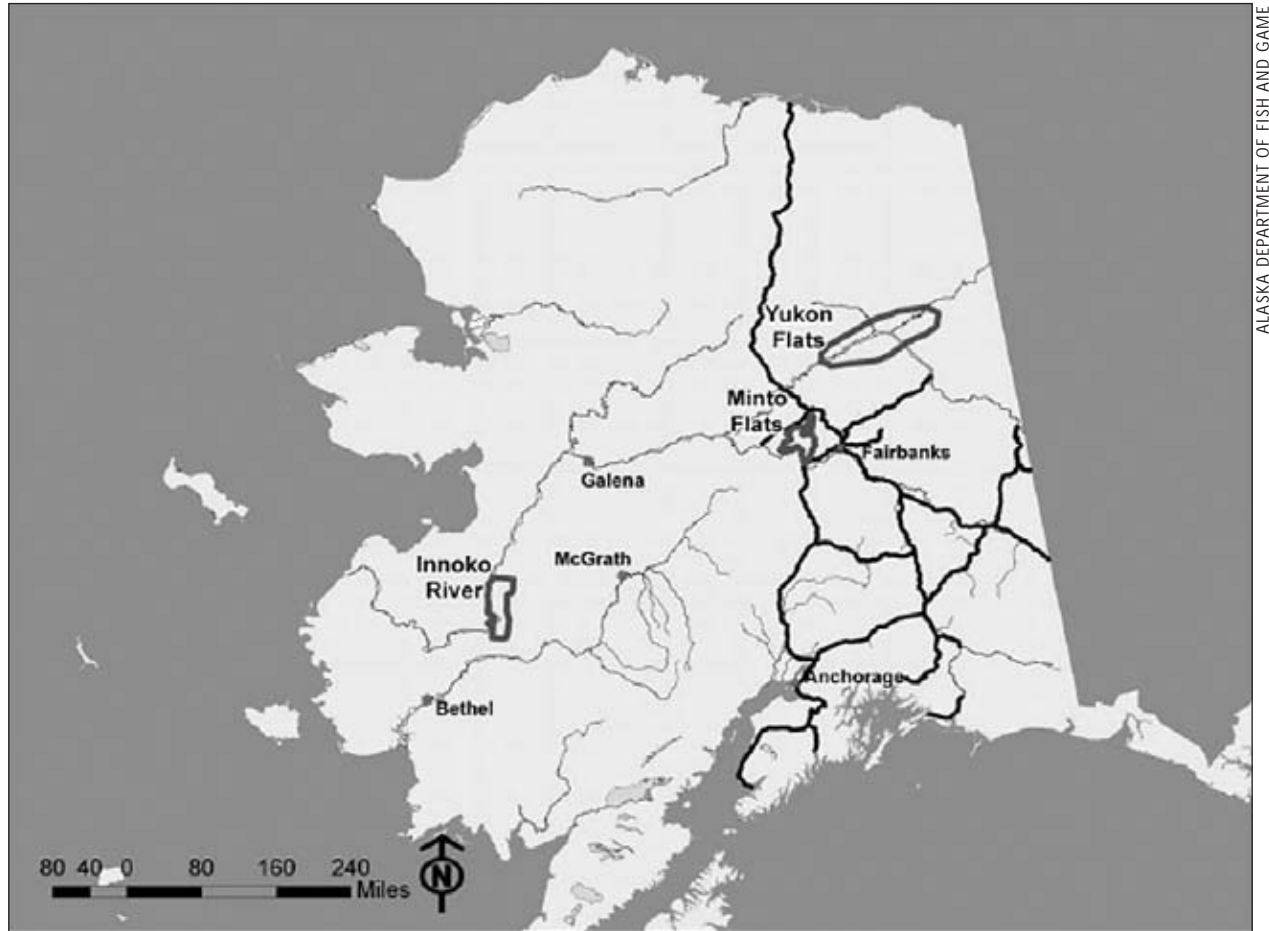
Doyon thinks that the endangered species issue will likely result in disruption to its exploration program and trigger unneeded risk and uncertainty around the program. The corporation wants the wood bison program stopped, or at least redirected into a less problematic location.

"People are just shooting themselves in the foot," James Mery, Doyon senior vice president, lands and natural resources, told Petroleum News Jan. 21. "... It will mean delays, litigation and more cost."

In November Doyon announced that Denver-based Babcock & Brown Energy was joining a partnership between Doyon, Arctic Slope Regional Corp. and Usibelli Energy to drill at least one gas exploration well in the Nenana basin in the summer of 2009.

Meantime Fish and Game has moved 53 wood bison from Canada to the Alaska Conservation Wildlife Center, to quarantine the animals in preparation for releasing them in the Minto Flats in 2010.

If the Nenana exploration well proves successful, the follow-up seismic survey will likely occur in the area of the Minto Flats at around the same time that the bison are



Potential sites for introducing wood bison in Alaska

released, Mery said.

"It puts all of this at risk," he said.

Started in 1990s

The idea of re-introducing wood bison to Alaska originated in the early 1990s and gained momentum in 2005

when Fish and Game formed a Wood Bison Restoration Advisory Group. Following some research and discussions with local communities in areas where the bison might be introduced, in April 2007 ADF&G published an environmental review report for a bison re-introduction

see WOOD BISON page 17



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continued from page 16

WOOD BISON

plan.

“Based on public input and thorough biological evaluation, ADF&G believes that wood bison restoration in Alaska represents an outstanding wildlife conservation opportunity and that wood bison restoration will ultimately provide benefits for local and nonlocal hunters and wildlife viewing enthusiasts,” said David James, regional supervisor in the ADF&G Division of Wildlife Conservation, in a letter announcing publication of the environmental review report. “It is clear that wood bison are compatible with other wildlife species in the state and can play an important role in restoring and maintaining natural resources.”

James also said that the introduction of wood bison in Alaska would help with the recovery of the species in North America.

The ADF&G plan envisaged three potential sites in the Alaska Interior where the habitat would be suitable for the introduction of the bison: the Yukon flats, northeast of Fairbanks; the Minto Flats, northwest of the town of Nenana; and the lower Innoko River Valley, to the east of the Yukon Delta.

And according to a review of public comment and notice of decision that ADF&G published in December 2007, there was overwhelming support among local communities for the bison restoration plan, with 94 comments supporting the plan and only two opposing it. But Doyon expressed concern that the wood bison might become listed under the Endangered Species Act and thus impact resource development projects in the Interior.

Endangered species

The endangered species concern emanates from the fact that by 1900 the

An experimental population status “is no guarantee that litigation would not commence which would result in forced application of the full weight of the ESA in the Nenana basin, or that lengthy delays would not be part of any experimental population designation process because of associated studies and federal rulemaking requirements, which could also be challenged in the court.” —James Mery, Doyon senior vice president, lands and natural resources

worldwide population of wood bison had dwindled to just a few hundred animals in Canada, although conservation efforts since then have increased that population to several thousand.

The Canadians subsequently listed the wood bison as an endangered species.

Given the Canadian listing, in October 2004 the U.S. Fish and Wildlife Service sent a letter to ADF&G to clarify the status of the wood bison under the U.S. Endangered Species Act, were the bison to be introduced in Alaska.

“We intend to treat any wood bison imported into Alaska as a foreign listed species and have no intention of revising the list so that they are listed domestically,” Fish and Wildlife said.

However, in a second letter to ADF&G, dated Nov. 28, 2008, Fish and Wildlife substantially changed its position, saying that “the wood bison is listed as endangered wherever found and, as such, would retain its endangered status if introduced to the United States.”

However, Fish and Wildlife proposed designating the bison introduced in Alaska as a “nonessential experimental population,” under section 10(j) of the ESA. That designation would enable the

Alaska wood bison population to be managed less rigorously than would be the case under an endangered listing and would enable special rules to be developed for the Alaska herd.

Meantime, ADF&G was proceeding with its plan for re-introducing the bison and had decided to place the first group of animals in Minto Flats, where there was an abundance of state land and where access from the neighboring road system would be relatively straightforward.

But that put the department on a collision course with Doyon, which was now concerned about the specter of animals with an endangered species designation being planted in the direct path of its seismic crews.

Out of proportion

However, Patrick Valkenburg, deputy commissioner of ADF&G, told Petroleum News Jan. 21 that the endangered species concerns had been “blown way out of proportion.”

The proposed designation under the ESA 10(j) rule is to alleviate exactly the concerns that Doyon has expressed, Valkenburg said. In addition to downlisting the bison to threatened rather than endangered, an ESA 4(d) rule that would be implemented at the same time would give the state rather than the federal government jurisdiction over issues such as the “take” of the animals.

“The key thing there for development

is that there is no requirement to designate critical habitat within the 10(j) area,” Valkenburg said. And at a meeting on Jan. 16 Fish and Wildlife was “quite confident” that the 10(j) rule should alleviate any questions that might come up about the influence of the “threatened” status on potential development, he said.

“Once the species is designated as a 10(j) population, I don’t know that it’s something that’s subject to challenge,” Valkenburg said. “... Wolves were introduced into the western states under the 10(j) rule. ... ADF&G has already made the agreement that there will be no introduction (of wood bison) if it is not under the 10(j) rule.”

And Valkenburg confirmed that there is strong local community support for the bison re-introduction project, in part because it might eventually be possible to hunt the animals.

But Doyon still worries that litigation could derail gas development in the Nenana basin.

An experimental population status “is no guarantee that litigation would not commence which would result in forced application of the full weight of the ESA in the Nenana basin, or that lengthy delays would not be part of any experimental population designation process because of associated studies and federal rulemaking requirements, which could also be challenged in the court,” Mery said. ●



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LAND & LEASING

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Agency	Sale and Area	Proposed Date
DNR	Alaska Peninsula Areawide	May 2009
DNR	Cook Inlet Areawide	May 2009
DNR	Beaufort Sea Areawide	October 2009
DNR	North Slope Areawide	October 2009
DNR	North Slope Foothills Areawide	October 2009
MMS	Sale 209 Beaufort Sea	2009
MMS	Sale 211 Cook Inlet	2009
DNR	Alaska Peninsula Areawide	May 2010
DNR	Cook Inlet Areawide	May 2010
DNR	Beaufort Sea Areawide	October 2010
DNR	North Slope Areawide	October 2010
DNR	North Slope Foothills 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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FINANCE & ECONOMY

TG World files counterclaim on AVCG

Claims it is not in violation of joint venture agreement by choosing not to fund share of North Slope winter exploration program

By ERIC LIDJI
Petroleum News

TG says there is confusion

A Calgary company claims it did not violate a joint venture agreement by deciding not to fund its share of an exploration program on the North Slope planned for this winter.

In Alaska Superior Court on Jan. 9, TG World Energy filed a response and counterclaim to a December 2008 lawsuit filed by Alaska Venture Capital Group, the Kansas parent company of Brooks Range Petroleum Corp., which is leading the exploration program.

TG World said a copy of the March 18, 2006, joint venture agreement between the companies presented as evidence was an "incomplete" version "lacking the schedules and exhibits incorporated by reference, and containing handwritten annotations, highlighting, underlining and commentary" that the company denies is part of the agreement.

At issue is whether TG World breached that contract, and therefore should be required to pay a "Forfeit Interest" required by any company in the joint venture that fails to pay its share of the work. The joint venture currently has four companies with differing shares.

TG World claims there is some confusion between the 2006 agreement and another agreement created in 2008. TG World also claims the 2006 agreement required AVCG to get approval from 75 percent of the companies in the joint venture for new work, and that it did not get that approval for the winter exploration effort, which involves several wells.

TG World is also challenging AVCG's decision to assume a share of the interest held by another partner in the joint venture, Calgary-based independent Bow Valley Alaska.

In November 2008, TG World postponed its involvement in drilling and development programs this winter because of global financial uncertainty and low oil prices.

Before the lawsuit, the four-company joint venture announced plans to drill up to three wells in Gwydyr Bay this winter to follow up on previous wells in the area, which sits north of Prudhoe Bay. The joint venture, which includes Nabors subsidiary Ramshorn Investments, also plans to shoot seismic at the Slugger prospect south of Point Thomson. ●

SAFETY & ENVIRONMENT

Large spill occurs at Milne Point

A large spill occurred the week of Jan. 12 on the North Slope.

The spill of 24,400 gallons, of which the state estimates 90 percent to be crude, happened at the Milne Point field operated by BP and was the sixth largest spill on the North Slope. Milne Point is a medium-sized North Slope field located northwest of the huge Prudhoe Bay field.

So far, there is no evidence that the oil from the Milne Point spill has contaminated the tundra. The spill resulted from a tank overflow at a gravel pad when an electronic component that monitors flow failed.

BP spokesman Steve Rinehart said an alarm sounded and workers were able to cut the flow of the oil within about 20 minutes. An investigation will be held to look into why the device failed.

"We take any incident like this seriously," Rinehart said.

In the meantime, clean up operations are under way.

About 15 people are working on the cleanup and a state Department of Environmental Conservation employee is monitoring it, said Ed Meggert, the department's on-scene spill response coordinator.

The cleanup crew is removing gravel from the pad and testing to see how deep the oil has penetrated the pad.

The spill is the biggest on the slope since BP's record 201,000-gallon oil spill at Prudhoe Bay in 2006, which resulted in congressional hearings and criminal prosecution of BP. That spill, caused by corroded pipes, did contaminate the tundra and required an expensive cleanup.

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• GOVERNMENT

All about chicken guts and tea leaves

By GARY PARK
For Petroleum News

It wasn't the kind of reinforcement needed for a government concerned about the misinformation it believes is being spread by opponents of oil sands development, or, for that matter, the industry's own pledge earlier in January to engage in more open communication.

At a time when the sector is in a fight for its survival, the Alberta government sent a top-level cabinet minister to deliver the keynote speech at a Canadian Oil Sands Summit in Calgary on Jan. 14.

What Alberta Treasury Board President Lloyd Snelgrove left behind was a baffled and bewildered audience.

His 20-minute address was described by some as bizarre and rambling, failing to touch on the vital issues affecting the oil sands and offering little that was conclusive.

Snelgrove made only an indirect reference to his government's royalty increases and injected some boosterish refer-



LLOYD SNELGROVE

For an industry still seething over the royalty changes, he served up a sop, telling companies that Alberta Premier Ed Stelmach will listen to their worries.

ences to the government's own role in tackling the immense challenges facing the industry.

And this from the man who is charged with directing the government's recently unveiled strategic energy plan, including a supposed 50-year vision for sustainable development of the oil sands, including a set of measurable goals, strategies, objectives and action plans to be acted on over the next 20 years.

He said the Oil Sands Sustainable Development Secretariat, created in mid-2007 to deal with the impact of then-explosive growth in the oil sands and the related industrial heartland region of Alberta, is doing just fine.

"While there are certain challenges and issues ahead of us (the secretariat), is working very well," Snelgrove declared.

Moving on from there, he offered what seemed to be a vague defense of Alberta's new royalty framework, arguing that, like industry, the government must be accountable to its

shareholders — the people of Alberta.

For an industry still seething over the royalty changes, he served up a sop, telling companies that Alberta Premier Ed Stelmach will listen to their worries.

"There are no issues that can't be brought to the table and dealt with," he said to an industry that overwhelmingly believes the government does not understand the damage it has done to Alberta's economic engine.

"Are we going to be happy all the time?" Snelgrove asked, adding: "I doubt it."

But he assured the delegates that — even if he was not their leading advocate in government circles — Energy Minister Mel Knight would keep the concerns of the industry on the table. "Mel is a very, very strong proponent for our industry," he said.

Snelgrove's final words of comfort were the ultimate head-scratcher as he laid out how the government is handling the worst economic crisis in 80 years and the precipitous fall in commodity prices.

"As you know, we have some of the most high-priced people in the world in the legislative assembly basement sorting out the chicken guts and drying out the tea leaves and we will be basing our projections based on those outcomes, the same as we did last year," he said. ●

• GOVERNMENT

Oil sands key agenda item for Obama visit

By GARY PARK
For Petroleum News

When Barack Obama makes his first foreign trip as president to Canada — likely in late February or early March — it will be a testing time for the oil sands.

With the new U.S. administration ready to spend \$32 billion on renewable energy sources and hinting it will place limits on imports of "dirty" fuel from sources such as the oil sands, Prime Minister Stephen Harper and the Canadian industry are braced for what could be pivotal negotiations on the future of the northern Alberta resource.

Harper said in Calgary on Jan. 15 that development of the oil sands is "pretty important, in our judgment, to North American energy security."

But he acknowledged Canada must also do a better environmental job on the oil sands.

"So I think there's a balance to be seen there," he said.

While agreeing there are valid concerns about the environmental footprint of extracting and processing bitumen, he pointed out that the United States has its own energy-related environmental challenges.

The U.S. is a "big country for coal-powered electrical generation. ... That's pretty dirty, too," he said.



STEPHEN HARPER

Importance of oil sands

Harper is being urged by the industry to ensure Obama's administration is fully aware of the importance of the oil sands in North America.

Speaking to Insight Information's Canadian Oil Sands Summit on Jan. 15, Don Thompson, president of the Oil Sands Developers Group, said Canada must be able to "position the impact of the oil sands relative to the impact of other sources of energy."

"All sources of energy have an environmental footprint of some form," he said.

"We have a footprint. There's no debate about it. But I'd be prepared to defend the environmental record of the oil sands relative to other potential sources of crude oil on which the U.S. and Canada would otherwise have to depend," Thompson said.

He said it is not accurate to portray the oil sands as standing between "real progress on climate change in Canada and one focused on profit rather than responsible development."

He said these perceptions exist because an incomplete story is being told and being heard about the oil sands, while agreeing there is a pressing need to develop new processes and technology to reduce the potential impact on the environment.

But Thompson argued that the oil sands currently



BARAK OBAMA

The U.S. is a "big country for coal-powered electrical generation. ... That's pretty dirty, too." —Canadian Prime Minister Stephen Harper

account for less than 5 percent of Canada's greenhouse gas emissions or about one-tenth of 1 percent of the worldwide total.

Although forecasts for growth in oil sands production are being rapidly scaled back, Thompson believes output will continue to increase in response to rising global energy demand.

U.S. expected to clarify

Robert Peterson, vice president of consulting firm CRA International, predicted the U.S. will clarify its position on climate change and carbon reduction this year, making it important for companies, no matter how small, to "think about what your technology strategy should be."

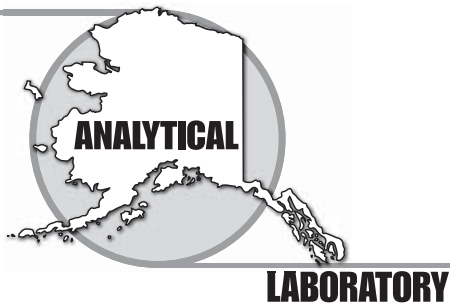
"Greenhouse gas regulation is very likely to become a reality in 2009 or early 2010 ... and the Obama administration is shifting strongly towards a much more proactive environmental stance," he said.

To that end, Peterson urged industry not to defer or delay spending on technology because of the economic downturn.

"Probably the worst response the oil sands industry can take in this environment is not to stick to its knitting around technology," he said. ●



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• FINANCE & ECONOMY

SEC rules hurt with dropping oil prices

By JOHN PORRETTO

Associated Press Energy Writer

The sharp drop in crude prices is forcing oil companies to exclude some untapped oil and natural gas reserves from their books because they're no longer economically viable, potentially affecting company borrowing power.

Under Securities and Exchange Commission rules, oil companies are required to report the size of their proven oil and gas reserves each year and determine whether they could be produced economically, based on year-end prices. With crude at \$40 a barrel, some deepwater offshore and other costlier production is no longer feasible.

The rules will change next year, allowing companies to use 12-month average prices instead of year-end values. Until then, some companies will have to omit reserves deemed too costly

In recent years, current SEC rules didn't cause significant problems because average prices and year-end prices were more comparable, said Mark Sadeghian, an analyst at Fitch Ratings. That wasn't the case in 2008, a year that saw prices peak near \$150 per barrel in July, then plummet to around \$45 amid a burgeoning recession.

to produce. That's a big blow for any oil company because new reservoirs are getting harder to locate, and reserves represent a key measure of a company's value and long-term financial prospects.

In recent years, current SEC rules didn't cause significant problems because average prices and year-end prices were more comparable, said Mark Sadeghian, an analyst at Fitch Ratings. That wasn't the case in 2008, a

year that saw prices peak near \$150 per barrel in July, then plummet to around \$45 amid a burgeoning recession.

"Everyone is going to test reserves at a really low number, so I'd expect to see negative price-based revisions, and it may well be widespread," Sadeghian said.

Conoco reserves down

Earlier in January, ConocoPhillips, the third-largest U.S. oil company, said it expected to reduce its proven reserves by an unspecified amount because of the year-end price rule — the last thing any major producer wants to do as new sources of oil and gas grow scarcer.

ConocoPhillips noted it likely would replace only about 25 percent to 30 percent of its 2008 production with new reserves. Excluding price-based revisions, Fitch said, the company's reserves replacement is expected to come in around 80 percent to 85 per-

cent. Analysts typically say a company's reserves replacement should average more than 100 percent over a three- to five-year period to indicate growth.

When crude climbed close to \$150 a barrel last summer, it appeared oil companies would be able to grow their reserves, as higher-priced fields suddenly made economic sense. All that changed as prices collapsed in the latter half of the year.

Natural gas spiked and fell, though not as badly, ending the year down about 25 percent.

"These price declines indicate that marginal reserves (especially oil-weighted ones) that were on the books in 2007 are at risk of being removed from the proved category," Raymond James & Associates equity research analysts said in a report the week ending Jan. 23.

Other producers, including giants Exxon Mobil Corp. and Chevron Corp., are expected to report 2008 reserves replacement levels in the coming weeks.

Smaller companies hurt

Fitch said companies mostly likely to get pinched by having to exclude reserves are smaller, independent producers whose ability to borrow money is based in part on oil and gas holdings. "Not only can this have implications for growth/drilling activity levels, but to the extent that reserve debookings are substantial, liquidity concerns can arise as borrowing capacity is reduced," the Fitch report said.

In response, many companies large and small are slashing capital spending as they prepare to ride out this period of low prices. One consequence, analysts say, is that lower production could eventually intersect with renewed demand once economies begins to rebound and cause yet another spike in energy prices.

Looking ahead, the new rules, which take effect at the end of 2009, largely bode well for the industry and could, in fact, help to boost reserve bookings.

The SEC's reporting rules for oil and natural gas reserves were adopted more than 25 years ago, and the revisions are intended to reflect technological changes in how oil companies identify proven reserves.

Among other things, the recently adopted revisions broaden the technologies used to determine proven reserves provided the technologies have been shown to lead to reliable assessments. They also allow companies to disclose probable and possible reserves to investors. For now, SEC rules limit disclosure only to proved reserves. ●



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• SAFETY & ENVIRONMENT

Oil patch violence on rise in Canada

By GARY PARK
For Petroleum News

As a crumbling economy spreads unease through the Canadian oil patch a more disturbing series of events is gripping the industry.

Unable to solve four cases of sabotage directed at its natural gas operations in northeastern British Columbia over the past three months, EnCana, Canada's largest oil and gas producer, has posted a C\$500,000 reward for information resulting in the arrest of the perpetrators.

But those attacks have suddenly been overshadowed by a firebombing that destroyed the upscale Edmonton home of Jim Carter, who retired in May 2007 as president and chief operating officer of Syncrude Canada, the world's largest source of synthetic crude.

For almost three decades Carter was immersed in the development of Alberta's oil sands, which have increasingly faced criticism and legal action by environmentalists and aboriginal communities.

The blaze gutted both floors of Carter's home, causing damage estimated at C\$850,000.

Andrew Nikiforuk, author of a book about Weibo Ludwig, a northern Alberta farmer who was jailed in the 1990s on charges related to oilfield bombings and vandalism, doubted the Carter incident was the work of eco-terrorists.

Neither Carter nor his wife were in the house at the time, but neighbors reported seeing a group of people running from the scene after a number of Molotov cocktails were hurled through the windows. Carter's Cadillac SUV had earlier been vandalized.

Area residents said the attack resulted in a "huge fireball," engulfing the house almost immediately. Carter, while upset over the loss of personal possessions, was thankful no one was hurt.

No one claims responsibility

Andrew Nikiforuk, author of a book about Weibo Ludwig, a northern Alberta farmer who was jailed in the 1990s on charges related to oilfield bombings and vandal-

ism, doubted the Carter incident was the work of eco-terrorists.

He said vandals rarely claimed responsibility for their actions, whereas terrorists "compulsively do. ... It could even be the work of individuals trying to discredit environmentalists."

John Thompson, director of the Toronto-based security think-tank Mackenzie Institute, said left-wing environmental and animal rights groups in the United States and Europe have been adding "more and more of a hard edge" to their attacks in recent years, describing them as "really nasty. ... They'll pick on particular individuals and target them."

Meanwhile, the Royal Canadian Mounted Police and other investigators have encountered a dead end in their EnCana investigations.

They say some residents are proving uncooperative and hope the reward will yield results.

"Whoever is responsible for these bombings have got to be stopped before someone gets hurt," said Mike Graham, president of an EnCana division that runs the British Columbia operations. ●

• FINANCE & ECONOMY

Coming face-to-face with bankruptcy

By GARY PARK
For Petroleum News

The Alberta oil sands are moving beyond delays and deferrals into the bankruptcy realm as insolvency experts warn there could be a parade of companies seeking creditor protection unless oil prices and the financial squeeze make a sudden recovery.

The first in line is BA Energy, the privately held developer of a heavy oil upgrader that was put on hold last September.

Unable to repay a C\$50 million loan, BA, a wholly owned subsidiary of Value Creation, filed for bankruptcy and was scheduled in Alberta Court of Queen's Bench on Jan. 16 when it suddenly halted the proceedings to make a fresh stab at negotiating a solution with its major lender, Credit Suisse.

Otherwise, BA would have pursued bankruptcy rather than face the recall of a US\$507 million loan to Value along with the prospect of being forced to sell some assets as well as some of the extensive oil sands holdings of Value "at a price far below market value."

Value holds 280,000 acres of oil sands leases and an estimated 12 billion barrels of recoverable bitumen.

The two companies, both created by entrepreneur Columba Yeung, have combined assets of C\$768 million and BA holds tax pools of about C\$588 million.

C\$546 million invested

Before halting construction on its Heartland upgrader near Edmonton last September, BA had invested C\$546 million on the project, designed to come onstream in three phases from 2009 to 2013 and eventually process 162,200 barrels per day of bitumen.

Value is seeking regulatory approval for its Terre de Grace oil sands project aiming to bring two 40,000 bpd phases into production in 2011 at a breakeven oil price of US\$40 per barrel, generating some cash flow for the Heartland venture.

In the court filing, BA said it was "suffering from a cash flow shortage and

as such will be unable to repay the (C\$50 million loan)."

Meanwhile, Enbridge has stopped work on facilities linked to the upgrader, including an investment of C\$100 million in six 150,000 barrel storage tanks, which were three-quarters completed. BA has reimbursed the pipeline company for the costs incurred and the return on investments.

Value Chief Financial Officer Ronnie Mo said the precipitous drop in oil prices and the global recession caught the entire oil sands sector off guard, forcing "virtually all" upgrader developers to shelve or defer projects.

Yeung said Value will now turn its attention to the Terre de Grace project to achieve some cash flow while looking for possible equity partners to revive the upgrader.

He said in a court document that TD Securities and Genuity Capital Markets have been hired to analyze the current market for oil and gas assets, Value's upgrader technology and the size of the company's oil sands holdings.

A spokesman for the Alberta Industrial Heartland Association, representing municipalities in the upgrader region, said the outlook for upgraders is gloomy now that the sector is turning its attention to extraction and away from the high-cost, high-risk upgrading business.

To date six of seven upgraders planned for Alberta have been stalled.

Neil Shell, executive director of the association, told the Edmonton Journal

Alberta will miss its chance to build an upgrading industry if it fails to create a "level playing field" to discourage plans by oil sands producers to ship their bitumen to U.S. refineries, which are much cheaper to build and expand than those in Alberta's inflation-driven economy.

The Alberta government recently set a goal of upgrading 75 percent of bitumen in the province, up from the current 60-65 percent, but the Canadian Association of Petroleum Producers forecast in a December report that those numbers could drop to 40 percent by 2015.

"Now we know we have to do something quickly," he said. "The government has to turn this boat around."

The Heartland group, working through a consultant, is studying a set of options from government incentives, taxes and royalties to investment in infrastructure and will work with an

upgrader proponent to determine what result such changes might yield, Shelly said.

What's next for other upgrader and oil sands related ventures is not clear, but a growing number of upstream companies — mostly juniors or those with international operations — are in various stages of filing for protection from creditors or asking lenders to extend debt maturity dates as they find the pathway to new equity or debt is closed.

Insolvency experts say a number of bankruptcy proceedings are in the works, but have yet to be made public.

They expect filings will soar because so many companies were able to raise capital during the period of robust oil and gas prices, building debt in the process.

If there is a rush to court it will likely be led by juniors and service sector companies, say restructuring advisors. ●



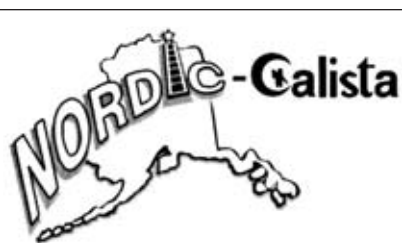
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continued from page 3

WELLS

4,672 bpd. Of five Point Thomson wells certified but not confidential the rates ranged from 170 bpd to 2,507 bpd.

Walsh's firm also looked at dates of certification of the wells as capable of production in relation to dates the wells were plugged and abandoned, since Menge's decision listed the plugged and abandoned status as significant. Of the 112 wells on the certified list, 76 were shown on an AOGCC spreadsheet as plugged and abandoned: on 21 that work was done prior to certification, on three at the same time and on 53 after certification.

But Walsh said the well histories, which contain reports done as wells are being drilled, showed that for many wells not shown as plugged and abandoned cement was actually pumped, which is the work done to plug a well.

Of the 36 well histories the firm had time to research, they found that cement had been pumped into 30 of the wells prior to certification, so they were plugged and abandoned prior to certification. One well was plugged and abandoned at the time of certification and five after certification.

Walsh said plugging and abandonment of exploration wells is a safety issue and the most cost-effective time to do the work is right after a well has been drilled and tested, when equipment is available at the site for the work.

Correspondence found

The well histories also contained some correspondence related to certification.

Of the 36 well histories Walsh's firm examined, they found some 25 letters related to certification, he said.

There weren't many examples of standards for certification, but one letter from

On the Web



See previous Petroleum News coverage:

"Thomson leases terminated," in Aug. 10, 2008, issue at www.petroleumnews.com/pnads/369957850.shtml

"The certified well issue," in Aug. 10, 2008, issue at www.petroleumnews.com/pnads/458871902.shtml

"Alaska officially terminates Thomson leases," in March 4, 2007, issue at www.petroleumnews.com/pnads/112690536.shtml

1967 described the selling price, terminal charge, transport charge, royalty and tax — all items, Walsh said, used to calculate wellhead price. That price, multiplied by the rate of production and minus operating costs is what the state looked at. It was a positive number, so the well was found capable of producing in paying quantities.

The more usual letter, Walsh said, sounded like someone had witnessed a production test and simply verified that the well produced in paying quantities based on the production rate, with no mention of a calculation.

Walsh said that what is consistent in the letters is they show that "this is a one-time determination using the rate and cost figures to determine certification of these wells" and that there is no indication that wells were subject to ongoing review. There was nothing in the files "indicating that these wells are subject to further review to maintain the certification," he said.

And correspondence indicated that plugging and abandonment of wells had no effect on certification status.

No decertification info

Walsh said that they found no information on decertification of certified wells.

"No wells in the record that we were able to locate have ever been decertified once certified capable of producing in paying quantities up until the Point Thomson action," Walsh said. He compared the process to earning a doctorate: You always have that Ph.D., whether or not you practice in the field in which the degree was earned.

Walsh said they did find two instances where the state had ordered leases that contained certified wells into production, one at Middle Ground Shoal and one at Redoubt Shoal.

They researched these two, he said, because of the 112 leases with certified wells these two were the only leases that were no longer active.

What they found was that the state ordered one of the leases into production in 1974; the lease was subsequently relinquished.

In the other case an extension was given to complete a test well or the lease would have been terminated; that lease was also relinquished.

In both cases it was the lease, not the certified well, that was ordered into production, he said.

Old wells not in unit

Outside of Point Thomson, there are five North Slope wells that were certified 20 years ago or longer, are not in production, not in a unit and still holding the lease, Walsh said. There were 10 in that category, he said, but five wells were added to the Oooguruk unit.

With five wells outside of units that are holding leases, Walsh said there are 71 certified wells within producing units on the North Slope.

What that means, he said, is that "some company went out and took great risk to drill a very expensive well and they were able to get that well certified as capable of producing and it allowed them to further appraise and develop those assets, those resources."

The five certified wells that are now part of Oooguruk had been in and out of a number of units, "they were just never able to be commercialized until Pioneer (Natural Resources) came along."

Walsh said that's the case for most of the certified wells on the North Slope: "They had significant impact on proving reserves and eventually ... they were incorporated in those producing units."

He said he doesn't see anything different about the certified wells at Point Thomson: "Investments have been made; there have been some resources proven in that area; and there's a company that may commercialize those."

Walsh called Point Thomson "very challenged economically and technically," and said he thought the state was setting a "very dangerous" precedent, especially with gas exploration. Anyone who drills an exploration well for gas on the North Slope "at this point" has to be "concerned that they cannot certify that well as capable of producing and extend the primary term of that lease," he said.

Other examples

In addition to the certified wells incorporated into the Oooguruk unit, Walsh said other certified wells that helped facilitate North Slope production include Seal Island (developed at Northstar) and the Niakuk 2A and 5 certified wells. The Niakuk 2A was drilled from an offshore island at the end of the primary lease term in 1977 and it wasn't until 1994 that Niakuk was produced. Walsh said it was "only after 3-D seismic was acquired after these wells had been drilled that the appropriate drill site location was determined to be onshore."

Walsh called Niakuk "a great example of an area where certified wells were key in allowing an operator the time to technically and feasibly develop these assets."

He said he expects Gwydyr Bay wells — among the five certified non-unit wells remaining on the North Slope — to eventually be incorporated into the Prudhoe Bay unit.

More research on tap

Walsh said the review his firm did found "there has never been a well decertified until the recent Point Thomson actions" and that plugged and abandoned status "does not have any bearing on certification." He said information available in the AOGCC well histories is "very consistent and no well's ever been decertified in the past."

Irwin asked Walsh if he had examined all of the letters in the department's lease files. Walsh said they did not use the lease files, but told Irwin he thought those files could be used to extend the research. He told Hearing Officer Thompson that it would be helpful to have access to certification records from 1998 forward and said that in addition to having access to certification letters it would be helpful if an updated version of the certification list was made public.

Walsh also told Thompson that while he hadn't seen anything indicating decertification, "if there is a policy change that is in effect here that is only recorded in those letters," then working through the lease files would be "very helpful."

Keithley said he would appreciate getting letters on certification from the department and said BP was willing to make Walsh's staff available to look through the lease files. ●

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RENEWABLE

gy per person than any state in the country. But that ranking comes largely from Alaska's small population, large industrial base and cold climate. In 2007, only Vermont and South Dakota generated less electricity than Alaska.

Statewide, Alaska already produces some 20 percent of its electricity from renewable sources, mostly from several large dams that power the Southeast region around Juneau, according to the U.S. Energy Information Administration.

But in the Railbelt region from Homer to Fairbanks, home to about 65 percent of the population, hydropower accounts for a much smaller percentage, less than 5 percent.

Reaching the 30 percent goal for the Railbelt "probably means at least one really big renewable project," said Joe Balash, Palin's special assistant for oil and gas issues.

Because a project of that nature would be "large, complex, time consuming to build and expensive," and therefore beyond the "financial strength and technical muscle" of any single utility, the state is proposing the formation of a "Railbelt Energy Corp."

The new corporation would help coordinate the generation needs of the major utilities and institute "a uniform price structure and postage stamp rates." Under postage stamp rates, the customers within a given system would all pay the same price for electricity.

Balash said "working together" could save ratepayers \$40 million each year.

Some aspects of pursuing this consolidation effort are already under way.

An idea for rural Alaska

Any energy plan in Alaska must split the road system from the rural parts of the state.

The majority of Alaskans get their electricity from six interconnected utilities powered mostly by natural gas. But scattered across the vast rural swaths of the state are dozens of very small, isolated, mostly diesel-fired utilities providing power for single communities.

Among the most anticipated elements of the new plan was how it would address the high cost of energy for those communities, many of which remain locked into high oil prices from summer and early fall, and all of which face some added cost to import their fuel.



STEVE HAAGENSON

State recommends initial project funding

While the state is looking to significantly increase the role of renewable energy in the future, it is getting started now with help from a fund created by lawmakers last year.

On Jan. 16, Steve Haagenson, state energy coordinator and head of the Alaska Energy Authority, released a list of 79 projects recommended for the Renewable Energy Fund.

The projects total \$100 million, the full amount lawmakers put toward the fund last year.

Lawmakers initially pledged to spend another \$50 million each year for the next four years, but that was before state revenues declined sharply last fall with the price of oil.

The 79 projects still need approval from the Legislative Budget and Audit committee before they can move forward, but Gov. Sarah Palin said "with swift action" projects can be "headed to construction" as early as this summer. Timing is important because the construction timetable in many smaller communities relies on barges to import goods.

The projects come from every major region of the state. The proposals are mostly small wind and hydroelectric projects, but the list includes solar, geothermal and biomass projects, as well as support for electric generation from the Anchorage Regional Landfill.

For a complete list, visit www.akenergyauthority.org.

—ERIC LIDJI

But the result is not so much "the plan" as it is "a plan for creating many plans."

Steve Haagenson, state energy coordinator and head of the Alaska Energy Authority, unveiled an inventory of the alternatives to diesel that are currently available in each community, along with "energy meters" that compare each option with the price of oil.

For instance, the western Alaska village of Emmonak, which has been in the news recently because of an economic disaster caused in part by high fuel costs, could save money by upgrading its power plant, by burning wood or through regional collaborations.

The actual decisions about which projects to pursue will be made by the communities, along with the Legislature, local governments, the university and the private sector.

The next step, Palin said, is creating the "legal and government structures" needed to facilitate projects, and finding the funding sources to help pay for prioritized projects.

While the oft-stated goal is to lower costs, the plan tempers that expectation slightly.

A 245-page document released with the new plan suggests it might only be appropriate for the state to bring energy costs down to a certain level, say the equivalent of \$50 per barrel oil, and that capital funding will likely come from "a balance of loans and grants."

"The challenge facing all of us is to collectively decide how many and which projects to build, and how to finance the needed investment," Palin said.

Administrative pressures

If successful, the energy plan could generate hundreds of proposals flooding the state.

The model for deciding which proposals to fund and to what extent is the Renewable Energy Fund, a \$100 million appropriation created by state lawmakers last year.

In the first round of funding, the Alaska Energy Authority received 234 applications for projects totaling \$755 million. Along with the new energy plan, Haagenson presented a list of 79 projects totaling \$100 million being recommended for funding. (See sidebar.)

Haagenson said every proposed project underwent a three-stage review to check

"The message today is that we're willing and able to responsibly build and produce and provide opportunity for our resources to be available for our citizens."

—Gov. Sarah Palin

first for completeness, then for technical and economic feasibility and was finally scored according to factors like current energy costs, available funding, readiness, sustainability and support.

"We got a little dose of that kind of review already," Haagenson said, but added that he is concerned about how his small crew will handle the increased load. Haagenson said staff at the Alaska Energy Authority has been working seven days a week since July to create the energy plan and manage the first round of applications for the renewable energy fund.

Palin appointed Haagenson in March to head up the Alaska Energy Authority and serve as the first "energy coordinator" of the state. The centerpiece of the new position would be addressing the rising cost of energy in Alaska, particularly in rural parts of the state.

The appointment came as oil prices topped \$100 a barrel for the first time.

From the start, Haagenson talked about creating an energy plan that would help people across the state understand and leverage the resources available in their communities.

"What I'd like to do is engage all Alaskans to help identify local resources and technologies that we can employ to help get the cost of energy down," he said in March. ●

Contact Eric Lidji at 907-522-9469 or elidji@petroleumnews.com

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Rain for Rent, Lake family honored

The Institute for Family Business, celebrating its 20th anniversary in January 2009, honored Rain for Rent and the Lake family with the California Business of the Year Award. Rain for Rent, provider of liquid-handling solutions, was

founded in 1934 by Charles P. Lake, in Bakersfield, Calif. Rain for Rent is one of the 15 largest rental companies in the United States.

NANA/Colt becomes NANA WorleyParsons

In January, NANA/Colt Engineering changed its name to NANA WorleyParsons, reflecting the new partnership between NANA/Colt and WorleyParsons. "The name change reflects the power of the NANA WorleyParsons partnership and highlights the evolution we are making into a full project delivery organization," said Allan Dolynny, president of NANA WorleyParsons. NANA WorleyParsons has more than 500 employees, with about 30 percent of that staff working on the North Slope. The company provides multi-discipli-



ALLAN DOLYNNY

nary engineering and design, project management, project controls, procurement and construction management to the oil and gas, power and mining industries. Like their predecessor NANA/Colt, NANA WorleyParsons will continue its commitment to providing a safe and healthy work environment for employees, clients and contractor personnel. For more information visit its Web site at www.nanaworleyparsons.com.

ERF Wireless signs broadband deal with Schlumberger

ERF Wireless and Schlumberger announced that they have entered into an exclusive agreement for delivery of wireless broadband services throughout North America. Schlumberger will extend the footprint of its market leading IPresence* and IPerformer* services using ERF Wireless comprehensive high-speed low-latency wireless and WiMax coverage.

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CH2M Hill showcases solutions at energy summit

In January, CH2M Hill, a global full-service engineering, procurement, construction and operations firm announced its platinum sponsorship and participation in the World Future Energy Summit held in Abu Dhabi. The one-day delegate luncheon was hosted by Lee McIntire, chief executive officer for CH2M Hill. Panel discussions featured two of the firm's leading sustainability experts, Dr. William Bellamy, fellow and senior vice president of water technologies, and Dr. John Mogge, environmental services director of business development and planning. Hosted by the city of Masdar, the summit addressed a wide array of energy solutions, sustainability, greenhouse gas, water technology and clean transport. For more information visit www.ch2mhill.com.

Northern Air Cargo names Johnson as new recruiter

In January, Northern Air Cargo announced that Cheryl F. Johnson had been selected as its new recruiter. Johnson will be responsible for managing NAC's hiring process and recruiting quality employees. A life-long Alaskan, Johnson recently earned a B.S. in Aviation Management with a minor in Business Administration from the University of Alaska Anchorage.



CHERYL F. JOHNSON

Editor's note: Expanded versions of these news items will appear in the next Arctic Oil & Gas Directory, which will be released in July.

continued from page 1

CLIMATE

unique insofar as we're going to have those regulatory programs but we're also viewed ... as effectively being ground zero for where it is actually happening."

In fact, the topic of climate change proved to be a recurring theme in several talks in the conference.

For example, Jeffrey Leppo of Steel Rives LLP talked about the impact of climate change issues on the application of the National Environmental Policy Act, the federal legislation that determines the need for environmental assessments and environmental impact statements.

Under NEPA, the key question is whether someone is being thoughtful in making a decision that can have environment impacts — nowadays, being thoughtful entails considering climate change, Leppo said. One consideration is the environmental consequences of climate change, such as melting permafrost, on a project. And another consideration is the greenhouse gas emissions that might result from the project.

But although climate change now generally appears as a topic within the NEPA process, there haven't been any cases so far where climate change has proved to be an impediment to a project, Leppo said.

Endangered Species Act

With the listing of the polar bear in May 2008 and the possible listing of other species that depend on Arctic Sea ice, climate change concerns have also entered the realm of the Endangered Species Act, Leppo said.

The Center for Biological Diversity proposed the polar bear listing in February 2005, at the same time as a many nations signed the Kyoto Protocol on climate change. At that time the polar bear population appeared to be stable and the listing petition was based on predictions of sea ice loss as a consequence of global warming, Leppo said.

The U.S. Fish and Wildlife Service eventually listed the polar bear as threatened because it determined that polar bears depend on sea ice; that there is a connection between sea-ice reduction and climate change; and that current reductions in sea ice are likely to continue for at least 45 years. Fish and Wildlife also said that there is an established linkage between reductions in sea ice and reductions in polar bear populations, and that the rate of and size of the change in sea ice cover make the adaptation of polar bears to the new conditions unrealistic, Leppo said.

There have been other species, such as certain types of coral that have been listed under ESA as a consequence of climate change, but these species were listed following major declines in their abundance.

The polar bear is the first species to be listed in a situation where there wasn't already a demonstrated decrease in abundance or distribution, Leppo said.

"The issue is about the threat and the consequences that could follow," Leppo said.

Dilemma for DOI

But that left the Department of the Interior with what it perceived as a dilemma, in that it wanted to list the polar bear as being at a foreseeable risk of extinction because of climate change, while on the other hand the agency concluded that ESA is not intended or well equipped to regulate greenhouse gas emissions.

And based on a scientific opinion by the U.S. Geological Survey, DOI affirmed a principle that it is not possible to estab-

lish a casual connection between specific actions entailing greenhouse gas emissions and the specific responses of polar bears. That conclusion resulted in a DOI legal opinion that the ESA does not require consultation for greenhouse gas emissions.

DOI subsequently changed the regulations for ESA consultations to reflect that opinion. And the U.S. Fish and Wildlife Service, the agency that oversees protection of polar bears, has changed other ESA regulations in a way that prevents greenhouse gas emissions being considered as a "take" of polar bears.

"Vast amounts of litigation have ensued," Leppo said. Cases cover a range of arguments against the listing, while one case argues for the severity of the listing being raised from threatened to endangered.

And the DOI position — that the agency is listing the polar bear as threatened under ESA without the act being able to address the cause of the threat — presents a legal problem, he said.

"I think the courts will be very reluctant to reach that conclusion," Leppo said.

Hugely challenging

The uncertainty and change associated with the polar bear and other listings, coupled with uncertainties relating to new personnel in a new U.S. administration, will be hugely challenging in 2009, Leppo said.

"There's a great deal of uncertainty and that's a killer for projects and for schedules," Leppo said. "... Get some good consultants — this is not something to play with."

Peter Van Tuyn, an environmental lawyer with Bessenyey & Van Tuyn LLC, also emphasized that the new administration in Washington, D.C., will present a more uniform and aggressive approach to addressing climate change and climate change impacts than has been seen in the recent past.

And in Alaska the climate change issue will cross several regulatory agencies, he said.

"We're going to see ... a fair amount of attention drawn to the Arctic because ... the Arctic is disproportionately affected by climate change," Van Tuyn said.

The Arctic provides the United States with an opportunity to apply approaches to dealing both with minimizing greenhouse gas emissions and with climate change impacts, he said.

Other big issues that will draw more and more attention include ocean acidification, and the impact of climate change on transportation and other infrastructure, especially in permafrost. And there are questions such as whether old-growth forests in Alaska should be viewed as car-

bon sinks.

Coal mining is also an issue in Alaska, Van Tuyn said.

"Clean coal technology is not much more than a label at this point," he said.

In addition, people can expect to see agencies being more precautionary in applying environmental protection laws than in the previous administration, Van Tuyn said.

Cap-and-trade

Tom Lindley of Perkins Coie LLC spoke about another aspect of climate change policy — the certainty that the Obama administration will push greenhouse gas cap-and-trade legislation. A cap-and-trade system would place limits on emissions of greenhouse gases such as carbon dioxide and methane. Organizations with emissions under the limits could sell emissions credits in an emissions market to entities with emissions over the cap.

A key question is the way in which emission allowances would be distributed under this type of scheme. One distribution method is for the government to allocate the allowances to specific industries — attempts by the European Union and six northeastern U.S. states to implement this method have failed because emissions were over-allocated, thus causing the sanctioned emissions to exceed the overall emissions cap, Lindley said.

Obama appears to favor an alternative distribution method in which all emission allowances would be auctioned, so that all organizations would have to pay for their emissions. Companies would only be allowed limited opportunities to offset low greenhouse gas emissions in one part of their operations against higher emissions elsewhere. Money raised in the auctions would be used to fund a variety of renewable energy and other sustainable-society projects, potentially including such things as plug-in hybrid vehicle research, low emissions coal plants and cellulosic ethanol development.

There are many unknowns regarding how this type of cap-and-trade program would work, including the questions of whether organizations would receive credits for reducing emissions before the program goes into operation and whether a federal scheme would pre-empt state and regional programs, Lindley said.

Cap-and-trade legislation will appear in Congress in 2009, Lindley said. But, although reporting arrangements could be in place by 2010, it would be unrealistic to put a complete cap-and-trade system in place before 2012, he said.

And Carol Browner, who will play a key role in the new administration in driving energy legislation through Congress,

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CONOCO CUTS

heavy oil deposit, included in recent budgets. "We have slowed work at West Sak," Lowman said, adding that the sharp decline in oil prices over the past few months forced the company to focus on "high-margin light oil."

ConocoPhillips still plans on drilling two exploration wells in the National Petroleum Reserve-Alaska this winter, and recently applied for drilling permits for the program. (See story, page 6.)

Along with reduced spending, ConocoPhillips plans to cut 1,300 jobs companywide.

Asked if those job cuts would reach Alaska, Lowman said, "We are looking at our overall cost structure to determine ways to reduce costs — including staffing reductions — but right now we do not have specifics on what projects or areas will have reductions. Details of staffing reductions are still being worked and will be communicated when available."

ConocoPhillips directly employed around 1,000 people in Alaska in 2007.

Previous signs of trouble

The news from ConocoPhillips is the

biggest indication yet that global financial turmoil and low oil prices have reverberated to Alaska, but it isn't the first sign of trouble.

In November, BP Exploration (Alaska) Inc. announced a \$1.2 billion spending plan for Alaska in 2009, a 33 percent increase from 2008 spending, but also said it would reduce development drilling by around 10 percent, and postpone several large capital projects.

BP has not announced any changes to that plan, according to spokesman Steve Rinehart.

In December, low oil prices and uncertain financial markets forced two partners in a four-company joint venture to pull back from a three-well exploration program this winter.

Those decisions led to lawsuits and quick business deals, but so far the operator of the program, Brooks Range Petroleum Corp., is moving forward with its planned workload.

Earlier in January, federal land managers announced that Dallas-based Petro-Hunt LLC had relinquished all of its high bids and a \$2.75 million deposit from a September 2008 federal lease sale in the NPR-A because "falling oil prices made it uneconomical for it to pursue oil production at this time within the National Petroleum Reserve-Alaska."

Pioneer Natural Resources is postponing

an appraisal well at the Cosmopolitan unit in the Cook Inlet because of low oil prices, company spokesman Tadd Owens said Jan. 19.

"Pioneer's 2009 capital budget has been reduced significantly due to the fall in commodity prices," Owens told Petroleum News in an e-mail. "However, the company is well positioned to ramp back up when prices recover."

After an initial well at Cosmopolitan in 2007 offered "encouraging" results, Pioneer made plans to drill another well this year. The company is now waiting until 2010.

In early November, Pioneer said it might postpone the well as part of a companywide reduction in spending, but wanted to monitor oil prices for several months before making a final decision. Since then, prices have dropped from \$63 a barrel to around \$35 a barrel.

Pioneer is planning to significantly reduce drilling activity across its global portfolio.

Over the coming year, though, Pioneer will continue to increase drilling and ramp up production at the Oooguruk unit in the Beaufort Sea. Pioneer brought the offshore unit into operation last April, making it the first independent producer on the North Slope.

Most work still on track

ConocoPhillips usually releases its spending plan in mid-December, but this year the company delayed its budget to get a better sense on the direction of the economy.

After a \$100 decline between July and December, oil prices over the past month have hovered around \$35 a barrel. Alaska North Slope crude hit a low of \$25.81 on Dec. 22.

While those prices have started to cut into record profits from earlier in the year, the deep pockets of the majors have protected them from the pain felt by many smaller companies.

Some companies in Alaska still seem to be relatively undeterred by low prices.

ExxonMobil continues to aggressively promote a major drilling program at the Point Thomson unit on the North Slope. The program is burdened by legal troubles, though.

Chevron has already received three drilling permits this winter from the Alaska Oil and Gas Conservation Commission to continue exploring for oil and gas in the White Hills.

Anadarko continues to press ahead on plans to complete three wells this winter in its far-reaching and expensive search for natural gas in the foothills of the Brooks Range.

Denver-based Savant Alaska plans to drill a well and a sidetrack at the Badami unit on the eastern North Slope, through a partnership with BP and Arctic Slope Regional Corp.

Even ConocoPhillips says the cuts won't cause a major change in strategy this year.

"Our planned 2009 capital program is structured to continue funding significant projects that will grow and develop the company, while deferring or slowing some projects and other programs," said Jim Mulva, ConocoPhillips chairman and chief executive officer.

Speaking in November before the Resource Development Council, an advocacy group of resource extraction industries in the state, ConocoPhillips Alaska President Jim Bowles said companies and the state needed to focus on near-term work on the North Slope.

"We cannot lose sight of where we are in oil prices today, and that will dictate and point directions to where we go and what our level of spending will be into the future," he said.

2008 spending still unknown

ConocoPhillips has generally increased spending in Alaska each year since 2003, but the percentage of total exploration spending directed toward Alaska keeps falling annually.

The company spent \$570 million in Alaska in 2003, which represented 12.6 percent of total exploration spending that year. But the \$666 million the company spent in Alaska in 2007 accounted for only 6.7 percent of total companywide exploration spending.

Since 2003, the company has spent almost \$3.5 billion on exploration and production in Alaska, or nearly 10 percent of total companywide exploration and production spending.

Although ConocoPhillips budgeted some \$1 billion for projects in Alaska last year, the company repeatedly said recent production tax changes could lead to reduced spending.

ConocoPhillips won't have exact figures on 2008 spending for a few months.

The final spending figure for Alaska will almost certainly top \$1 billion to account for the roughly \$500 million the company spent last February for leases in the Chukchi Sea. ●

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CLIMATE

has already advocated that the Environmental Protection Agency should regulate greenhouse gas emissions under the federal Clean Air Act unless Congress has passed effective greenhouse gas legislation by 2010, Lindley said.

But any attempt to regulate greenhouse gases through the Clean Air Act would lead to some major difficulties and complexities, mainly because the act is not designed to deal with the widespread, large-scale emissions associated with a gas like carbon dioxide, Lindley said.

International perspective

From an international perspective, the United States cannot by itself control the Earth's overall atmosphere, Lindley said. But the Kyoto Protocol, the three-year-old international climate change treaty, has run into issues such as the over allocation of emissions and the lack of control over emissions in countries with emerging economies.

And negotiations over the next Kyoto round have begun.

"There will be a next round of Kyoto," Lindley said. "It may take a year or two to get in place but there will be one."

In addition, the Harper administration in Canada has proposed the negotiation of a North American cap-and-trade system. Mexico is also interested in that concept, Lindley said. And within North America there are already several state and provincial groupings, such as the Western Climate Initiative, for addressing climate change on a regional basis.

Meantime, in a time-honored U.S. tradition, when a significant segment of the population does not see an administration moving aggressively enough in a direction that the segment wants, the public will turn to litigation to try to bring about change through the courts. That has happened in recent years in relation to climate change, with litigation relating to environmental laws such as the Clean Air Act and NEPA, and with common law litigation, Lindley said. Lindley outlined several cases that have been going through the courts, including a common law case in which the village of Kivalina on Alaska's North Slope has sued ExxonMobil for damage to the village as a consequence of climate change.

But when it comes to an issue such as climate change, there are issues regarding proof of who is responsible for what effect.

"What does it mean even to be liable when you've got 1.2 million (greenhouse gas) sources or 3.7 billion sources and so on?" Lindley said.

Business perspective

From a business perspective, future greenhouse gas legislation will lead to the need for emissions inventory reporting of a kind already implemented in many western states, Lindley said. There will also be greater permitting scrutiny and, depending on whether gases such as carbon dioxide are regulated under national air quality standards, there may be increased difficulty in obtaining clean air permits or doing certain types of development.

And there's a huge emerging issue regarding disclosure to shareholders of climate change risks, such as the potential impact of rising sea level on a coastal manufacturing facility, Lindley said. Businesses also need to consider likely changes in government regulations and the potential for new litigation as a consequence of climate change.

Companies are starting to look at their emissions footprints and beginning to plan actions to prepare for greenhouse gas legislation. It is necessary to be prepared and positioned for enhanced greenhouse gas disclosure, and to identify areas of potential financial impact from climate change, Lindley said.

"Prepare your action plan," Lindley said. "... Protect your existing business assets and begin thinking how you're going to position yourself in the market." ●

USGS issues Arctic climate change report

People who want to know more about the science of climate change, especially as it pertains to the Arctic regions, might want to take a look at a new report entitled "Past Climate Variability and Change in the Arctic and at High Latitudes," published by the U.S. Geological Survey. The report is available on the USGS Web site at www.climatescience.gov/Library/sap/sap1-2/final-report/default.htm.

The U.S. Climate Change Science Program commissioned this large and comprehensive document, which has contributions from 37 scientists from the United States, Germany, Canada, the United Kingdom and Denmark.

The report not only provides an overview of the results of climate change research but also places current climate change ideas into the context of the geological record. Geological evidence demonstrates that the Earth's climate has changed continuously throughout the Earth's history, while evidence from the more recent geologic past shows how previous temperature fluctuations compare with current climate change, especially in the Arctic.

"By integrating research on the past 65 million years of climate change in the entire circum-Arctic, we have a better understanding on how climate change affects the Arctic and how those effects may impact the whole globe," said USGS Director Mark Myers when introducing the report on Jan. 16. "This report provides the first comprehensive analysis of the real data we have on past climate conditions in the Arctic, with measurements from ice cores, sediments and other Earth materials that record temperature and other conditions." Among the findings expressed in the report is a conclusion that current rates and quantities of Arctic sea ice loss are highly unusual compared with what is known to have happened over previous millennia, especially since changes in the Earth's orbit ought to have lessened the probability of sea ice melting. Sustained warming could result in the eventual disappearance of the Greenland ice sheet and a consequent rise in sea level of several meters.

The report also concludes that there have been rates of Arctic warming in the geologic past comparable to what is being observed at present. However, some projections of future human-induced climate change indicate rates of change exceeding those earlier "natural" rates. The report also warns that human induced climate change could cross a threshold beyond which the change could accelerate to become very fast and very large.

—ALAN BAILEY

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way that is acceptable to the government of Canada as the owner of the resource. ... It does relate to our sovereignty in the North and to our economic plans for the North," he said.

Without getting into the details, he said the government wants to "see the fiscal framework issues resolved."

Arctic development on agenda

It is now expected the joint Arctic development concept will be on the agenda when President Barack Obama meets Prime Minister Stephen Harper in either late February or early March.

Prentice and other cabinet ministers before him have all endorsed the idea of a pipeline from Alaska's North Slope crossing Canada on its way to the Lower 48, but they have insisted the MGP must be completed first to avoid making impossible demands on construction labor and materials.

Pius Rolheiser, a spokesman for Imperial Oil, would not discuss the details of the offer, which he indicated is the result of discussions that have been "going on for some time."

He said the MGP proponents — Imperial, Shell Canada, ConocoPhillips Canada, ExxonMobil Canada and the Aboriginal Pipeline Group (which has rights to a one-third equity stake in any pipeline on behalf of Native communities along the 700-mile route) — now "look forward to continuing a constructive dialogue with the government on a commercial and fiscal structure that will enable the project to move forward."

Rolheiser said the partners have "been encouraged so far by the interest the government has shown in the potential economics of the project."

Bob Reid, president of the Aboriginal group, told the Calgary Herald the offer is a "positive step forward," given that the proponents have not had a response from the government for more than a year.

He said the proposal is "fairly involved, so we need time to study it," but declined to say whether it meets expectations.

Benoit Beauchamp, with the University of Calgary's Arctic Institute, said a lot of hope is attached to the MGP as a "first step towards achieving economic independence (for the Northwest Territories) through the building of a resource-based economy."

"Without that pipeline, people are afraid the natural gas will be stranded for years," he said.

MGM finds gas

The MGP received another nudge Jan. 20 when junior explorer MGM Energy announced it had encountered a number of gas bearing zones during the drilling of its Ellice J-27 well on the Taglu formation.

The first of MGM's planned three winter wells struck net gas-bearing sandstones of about 187 feet in four zones and testing will now be completed on two of those zones, the company said.

MGM President Henry Sykes said in a statement that "additional work remains to be done to confirm the size of this discovery, but we are very excited by the initial results of the first well in this year's program."

The company had previously estimated that each of its winter prospects might have unrisks potential of 80 billion to 100 billion cubic feet.

It expects the testing will be sufficient to obtain regulatory approval of a Significant Discovery License which would grant it unlimited tenure of the discovery.

MGM expects to spud its second well, using the Akita-Equitak 64 rig, no later than Feb. 1. ●

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An overview of exploration projects, developing and operating mines across Alaska

Cal Craig observes a wind tower at Donlin Creek. Barrick Gold Corp. and NovaGold Resources Inc., the partners in Donlin Creek LLC, plan to use onsite diesel and wind cogeneration to power the 50,000-metric-ton-per-day-mill proposed gold mine at Donlin Creek.

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A special supplement to *Petroleum News*

WEEK OF
January 25, 2009

Petroleum
news

• ALASKA

Is Estelle Alaska's next Donlin Creek?

Exploration team known for uncovering global-scale ore bodies says Millrock property has similarities to giant porphyry deposit

By SHANE LASLEY
Mining News

When Greg Beischer and Phil St. George teamed up to form Millrock Resources Inc. nearly two years ago, they set out to make big discoveries that would attract the interest of the world's mining giants. These two exploration geologists now think the Estelle high-grade gold property in Alaska's Rainy Pass district, about 160 kilometers, or 100 miles, northwest of Anchorage could be one such property.

The Millrock team has the background to know what global mining companies are looking for and how to find them. Beischer, the Vancouver B.C.-based junior's president and CEO, spent two decades working for Inco Ltd. St. George, Millrock's vice president of exploration, started his career with Teck Cominco, with whom he discovered the giant Pebble copper-gold-molybdenum deposit in Southwest Alaska.

As vice president of exploration at NovaGold Resources Inc. during that company's early days, he made key discoveries that increased the size and grade of the huge Donlin Creek gold deposit in the Yukon-Kuskokwim region of Southwest Alaska.

Beischer told Mining News that he and St. George worked for some of the world's biggest mining companies. "We know what big mining companies are looking for. Our goal is to find deposits that are of interest to Newmont, Barrick and Anglo," he said.

Two zones found at Estelle

The results from the 2008 exploration have the duo encouraged that they may have located this type of target at Estelle.

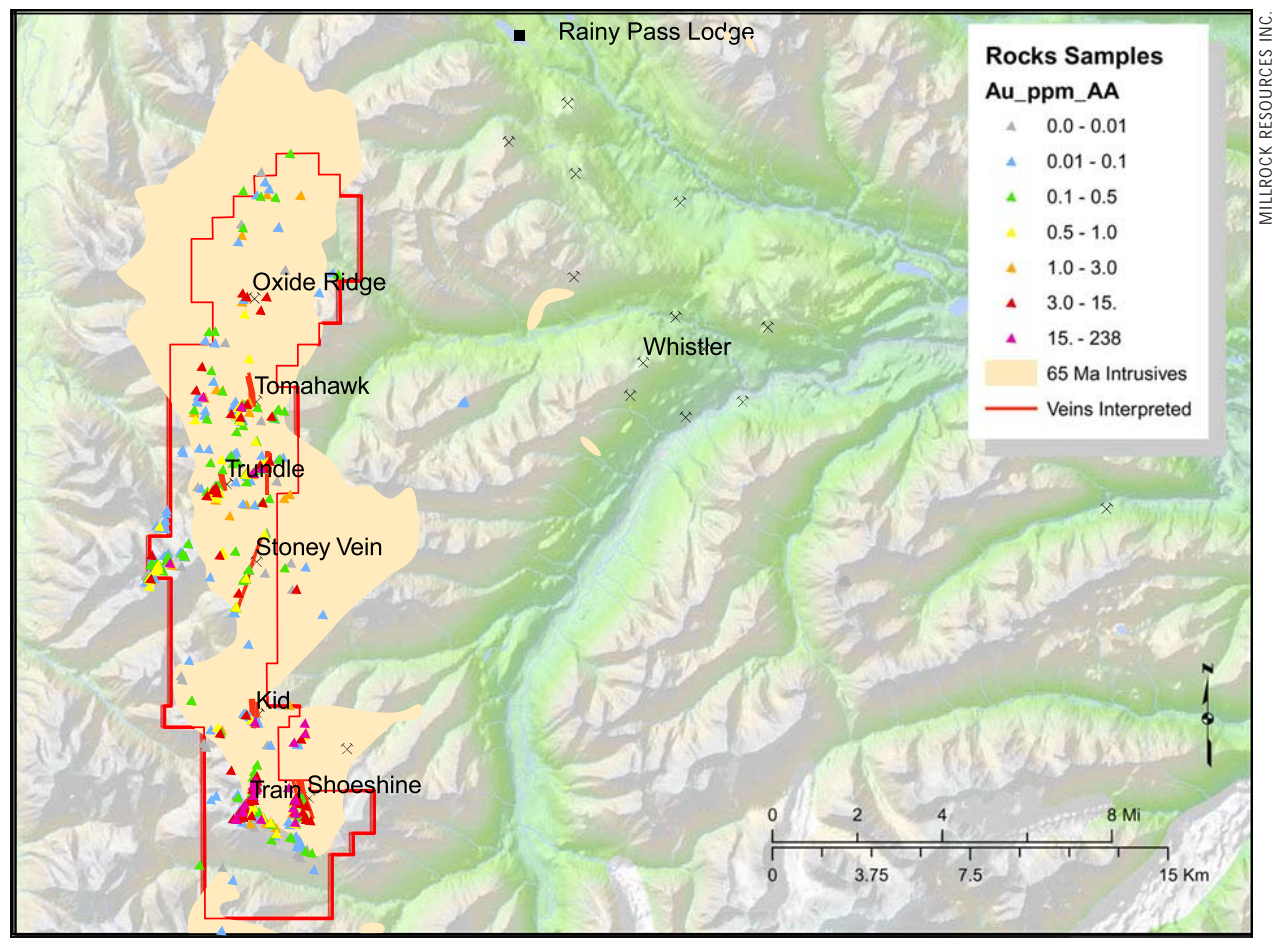
In November Millrock reported signs of a large-scale disseminated, porphyry-style gold deposit. The junior said surveys carried out in August uncovered widespread hydrothermal alteration and abundant high-grade vein-style gold occurrences along a 30-kilometer, or 19-mile, strike length. Shoeshine and Oxide Ridge are two intrusive-hosted gold occurrences that have piqued the junior's interest.

"Sampling of talus fines and rocks indicate two large gold mineralizing systems at the Shoeshine and Oxide Ridge occurrences. The potential for large gold deposits is clearly demonstrated and an aggressive drilling program is warranted to test these zones," St. George said.

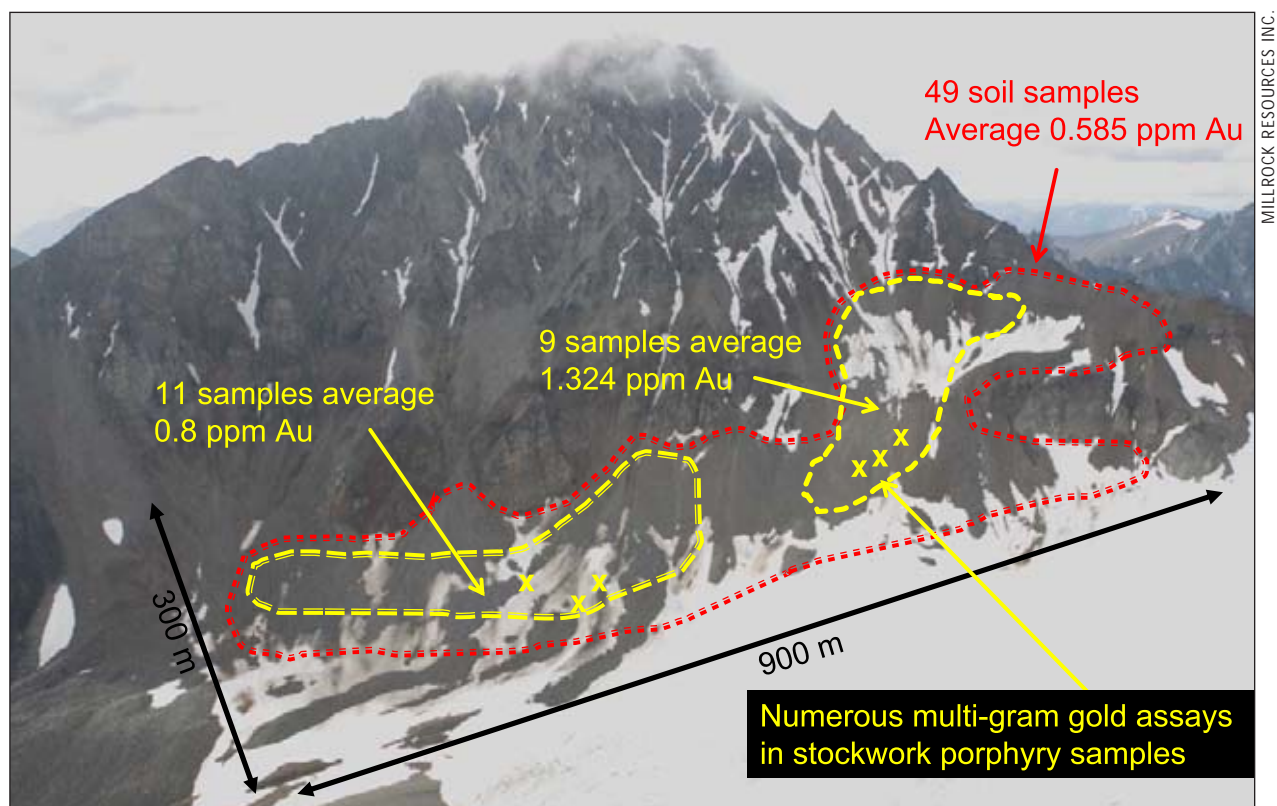
Sampling at Oxide Ridge has outlined a zone measuring 200 meters by 300 meters. The junior said the talus fines are representative of bedrock immediately uphill from the sample site. The average of 24 talus fines samples taken from Oxide Ridge is 2.32 grams per metric ton gold.

The work completed at Shoeshine in 2008 outlined a larger anomalous zone, measuring about 300 meters by a kilometer. The average grade of 49 samples taken from Shoeshine is 0.585 g/t gold. The company reports that one

see ESTELLE page 3



Above, surveys carried out by Millrock geologists in August discovered widespread hydrothermal alteration and abundant high-grade vein-style gold occurrences along a 30 kilometer strike length at Estelle. Below, talus fines samples taken from the Shoeshine prospect at Millrock's Estelle property outlines an anomalous zone that measures 300 meters by nearly 1 kilometer.



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ESTELLE

sample of porphyry rock cut by sheeted quartz veinlets assayed 13.13 g/t gold. Numerous talus samples assaying in the 3 g/t to 5 g/t range also were collected.

Looks like Donlin

“Estelle is where we see the potential for the gigantic multi million-ounce deposit. It has a lot of the earmarks of Donlin Creek. All the right checkmarks that go along with the things you look for in a giant deposit are present,” Beischer told Mining News.

Both St. George and Beischer see another parallel between Estelle and Donlin. While geologists were scouring the hillside looking for high-grade veins, they were missing the huge porphyry deposit beneath their feet.

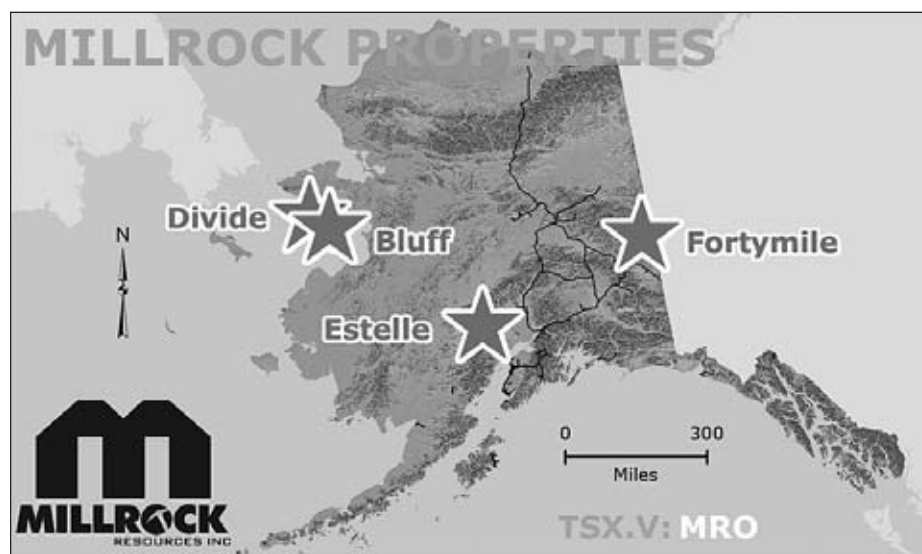
“I visited Donlin in 1984 and at that time everybody knew about these high-grade quartz veins – they were pretty innocuous, not very interesting-looking quartz veins up on the ridges at Donlin Creek – but the bulk of the tonnage is down in the valley where the big porphyry lies,” St. George told a Dec. 14 gathering of the Society of Mining Engineers and Alaska Miners Association.

Beischer said Estelle has never been drilled and will be the junior’s highest priority target for 2009.

Crucial time for Millrock

How the company will go about drilling Estelle this year will depend on its ability to raise money in a tight financial market.

Millrock, like most of the mining sector, has seen its stock price fall dramatically during the recent financial down-turn. The junior, with its stocks trading at around 8 cents per share, is reluctant to raise more money through private placement than it needs.



MILLROCK RESOURCES INC.

will come up somewhat before we go ahead and finance.”

As an alternative to private-placement financing, Millrock is considering joint venture partnerships. Beischer said the junior is in discussions with bigger companies interested in JV opportunities on one or more of Millrock’s properties. The CEO could not disclose any details about the ongoing discussions, but said that Estelle is the type of project that large mining companies look for.

The CEO said bringing in a JV partner at such an early stage in exploration is a slight shift in Millrock’s corporate strategy. In normal market conditions, the company would advance the exploration for a couple of years before bringing in other companies.

Junior completes initial drilling at Bluff

Millrock has three other gold properties in its Alaska portfolio: The Fortymile property in Interior Alaska, and the Divide and Bering Straits properties on the Seward Peninsula of Northwest Alaska.

In April Millrock inked an exploration agreement with the Bering Straits Native Corp. on three properties – Council, Bluff, and Ungalik – totaling 395 square kilometers, or 97,600 acres, on the south side of the Seward Peninsula.

The Bluff prospect, located about 42 miles, or about 68 kilometers, east of Nome is the only one of the three Bering Straits properties that has been explored for its lode potential and was the target of exploration by Millrock in 2008.

According to Beischer, the junior completed a limited drill program in 2008 at Bluff intended to confirm historic resources outlined by BHP Billiton in the late

1980s.

From 1986 through 1990 BHP drilled a total of 35 holes in three target areas – Daniel’s Creek, Saddle and Koyana. Though not NI43-101 compliant, BHP reported a resource potential of more than 500,000 ounces of gold contained in three different zones, with room for expansion.

The Daniel’s Creek zone was reported

by BHP to have a potential resource of 3 million metric tons averaging 3.43 g/t, or 300,000 ounces of gold. The mineralized zones are open, and in a 1991 summary report, BHP indicated there was potential for gold resources exceeding 2.5 million ounces.

The 2008 drilling at Bluff focused on Daniel’s Creek. Beischer said Millrock has the assay results in hand, and while not enough drilling occurred to substantiate the historic resource estimates, the results do confirm the presence of gold.

In addition to outlining a resource at Daniel’s Creek, the company also wants to drill the Saddle and Koyana zones as well as other hot geochemical anomalies on the property.

Awaiting assays from Divide

Millrock and JV partner Alix Resources Inc. completed about 3,000 meters of RC drilling, and an extensive trenching program at the high-grade Divide property about 28 miles, or 45 kilometers, north of Nome.

Beischer said the company employed specialized sample preparation protocols for Divide because of the coarse nature of the gold. He said Millrock has just received final assay results from this 2008 drilling on the high-grade gold property, and is currently running quality control checks.

The 2008 program at Divide follows up on three core holes drilled in 2007. Hole DIV-07-03 intersected 8.99 meters with an average grade of 1.5 g/t gold, hole DIV-07-04 intersected 3.05 meters grading 10.0 g/t gold and hole DIV-07-05 intersected 8.23 meters grading 5.8 g/t gold.

No commitment at Fortymile

Millrock has staked nearly 20,000 acres of Alaska state claims in the Fortymile district of Eastern Interior Alaska. The three claim groups staked at Fortymile target the lode source of more than 300,000 ounces of placer gold recovered from the historic mining district.

Fortymile lies within the “Golden Arch” of large gold deposits spanning from British Columbia to Southwest Alaska. The junior explorer said the intrusive-related gold mineralization at Fortymile is similar to that found elsewhere in Alaska and Yukon.

Millrock does not have a work commitment at its Fortymile or Divide properties and so they will not be priority targets during these tough financial times.

“Part of our adjusted strategy is we are only going to work where we have a commitment to work,” Beischer explained.

Cutting costs, financing and bringing in JV partners are the other parts of the junior’s strategy. The Millrock CEO also recognizes the prospects that financial downturns provide and said the company is actively on the hunt for “opportunities that will never be cheaper than they are right now.” ●



In 2008 Millrock began drilling the Bluff Property near Nome with the intention of confirming a 500,000-ounce resource reported by BHP Billiton, based on drilling performed in the 1980s.

“The reality is we are going to have to raise money to do more exploration. In the meantime our share price is down to 7 or 8 cents, so when we go to sell stock again it is very dilutive to the company,” Beischer said. “This is a crucial stage for our company, these coming few months. We’ve got some news to come out in the coming weeks, so we are hoping our share price

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• ALASKA

High Court: Fill or slurry?

Justices query lawyers about whether tailings from the Kensington Mine should be considered fill or effluent and why it matters

By SHANE LASLEY
Mining News

The U.S. Supreme Court heard oral arguments Jan. 12 in a case that challenges Coeur Alaska Inc.'s federal permit to dispose of tailings from the Kensington gold mining project into a nearby lake. Though the wet disposal plan had won approval from federal and state regulators, environmental groups sought to block it, arguing that it violated provisions of the federal Clean Water Act.

Coeur Alaska's parent, Coeur d'Alene Mines Corp., took the case to the nation's highest court after the Ninth Circuit Court of Appeals overturned a lower court ruling that upheld the U.S. Army Corps of Engineers permit. Southeast Alaska Conservation Council and other environmental groups that opposed the miner's plan for wet disposal of the tailings had sued the federal agency, claiming the permits were invalid.

The Kensington gold project is located 45 miles or nearly 73 kilometers northwest of Juneau. Coeur has spent more than \$230 million building the Southeast Alaska gold mine on the premise that it had all the permits in hand to go into production. Construction is finished on all of the project's facilities except for a tailings disposal system. For a few months last year, Coeur Alaska considered building a paste tailings disposal system that the environmental groups endorsed but gave up the idea when the U.S. Environmental Protection Agency requested additional information, a move that Coeur said would cause months more of delays.

The argument before the Supreme Court centered on whether the tailings to be deposited into Lower Slate Lake – a small, inland body of water with little aquatic life – should be classified as a fill material or a slurry because water is mixed into them. The classification would determine which federal agency would have oversight of the tailings disposal under federal law.

Individuals who attended the Jan. 12 hearing told Mining News that the Supreme Court justices peppered lawyers from both sides with tough questions for an hour.

Fill or effluent?

Much of the oral arguments centered on defining how to classify tailings from Kensington.

The State of Alaska, Coeur Alaska and federal regulators argued that the tailings are properly classified as fill and the current permits issued by the Corps are valid.

Opponents of the plan argued that the water added to the mine waste so it can be transported via a pipeline transforms the tailings into an effluent and should be required to meet guidelines of a 402 permit issued by the EPA.

Chief Justice John Roberts, Jr. asked Solicitor General Gregory Garre, "Can a pipe both emit sludge, fill, and effluent?"



Coeur Alaska has spent more than \$230 million building the proposed Kensington gold mine near Juneau, Alaska. The company is waiting on the U.S. Supreme Court to rule on its tailings disposal permit.

Garre, who represented the federal agencies, said the agencies defined the discharge as fill.

Justice Anthony Kennedy asked the environmental groups' lawyer, Thomas Waldo, whether or not a single pipe could contain both effluent and fill material.

"The position that EPA has taken in this case, unfortunately, is that, if the discharge meets that definition of fill material, no matter how bad the consequences are for water quality, its fill material, and it's therefore exempt from effluent limitations," Waldo replied.

Consider the source

Justice Antonin Scalia rhetorically asked Waldo if the justice were to pump sand off his property into a river, would that violate the Clean Water Act.

After the environmental lawyer confirmed that the discharge indeed would be a pollutant, Scalia said he could dump the sand into a lake and it would be considered fill.

Waldo backed slightly away from his assertion that Scalia would be allowed to fill the lake with sand, saying the source of the sand would need to be considered.

"Effluent limitations are adopted for industrial sources, so you would have to look at what the source of that discharge was," Waldo added.

Does adding water matter?

The chief justice grilled Waldo about why adding water to the discharge makes a difference in the permitting process.

"Is there a point at which it's proper to speak of it as a solid rather than a suspended solid?" Roberts asked.

After slipping in the point that in this case the discharge of wastewater is prohibited, Waldo conceded that "there might be some point at which the liquid content of a solid waste is so small that EPA wouldn't regard it as processed wastewater anymore."

On a roll, the chief justice then asked Waldo, "So, if they were just putting whatever it is that doesn't have any water, concrete, into this lake, then you agree that it would be just the Corps of Engineers through the fill provisions that would govern that?"

When the environmental lawyer agreed, Roberts asked, "And so, if they chop up the concrete and put a little water in so that it's easier to move, then all of a sudden it comes under 402 and the EPA's jurisdiction?" "It would depend on if EPA has adopted an effluent limit for it," Waldo replied.

"I guess I'm just curious how that makes any sense,

see COURT page 5

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continued from page 4

COURT

since we are talking about putting something into water,” said Roberts. “Does it really matter whether you add the water before it goes into the lake or just the lake adds the water when you put in the solid?”

Roberts did not wait for a response to his query.

When does EPA step in?

Theodore Olson, an attorney for Coeur Alaska and the State of Alaska said that in addition to the 404 permit for material going into the lake there is a 402 permit for the material coming out of the lake into the waters of the United States.

Justice Stephen G. Breyer, in an attempt to determine at what point the EPA steps in to enforce its standards, posed a hypothetical situation of using the worst pollutant known to man, which turned out to be cholesterol for the sake of demonstration, to fill the bottom of the lake.

“It just can’t be that simply because they poured a lot of it in and it fills up the bottom of the lake that suddenly the EPA can’t regulate it any more,” Breyer commented.

Replied Olson: “If its fill, the administrating, permitting agency is the Army Corps of Engineers. But in granting that permit, in evaluating that permit, they must follow the 404(b)(1) guidelines that were drafted and written by the EPA, and EPA has all sorts of provisions. It can’t have an adverse effect on the water.”

Breyer continued to question Olson about the difference between being regulated under the Corp (404) regulations or under the EPA (402) regulations.

Scalia boiled down the difference. “(Under 402) you can violate the effluent guidelines by pouring into the waters of the United States even nontoxic materials, and under 404, it’s only toxic.”

Olson told the justices that the discharge from the Kensington mine is sand and rock and will not change the chemistry of the lake.

The fish

By filling up the lake, it would kill all the fish, Waldo said.

“All the fish; there are a thousand fish in this lake, right?” the chief justice asked. “And those aren’t endangered fish; there are millions of them somewhere else, right?”

Justice David Souter asked Olson, “It is going to kill everything in the lake, right?”

“They are going to re-introduce the fish,” Olson replied. “It will be a bigger lake with a better aquatic system when it’s finished.”

Justice Ruth Ginsburg asked, “And how do we know that life will ever be restored?”

“Many different agencies are involved in this permitting process. The permits in this case followed 900 studies, the expenditure of \$26 million, an evaluation by the EPA, the Corps of Engineers, the department of conser-



US Supreme Court Justices – Top row (left to right): Stephen G. Breyer, Clarence Thomas, Ruth Bader Ginsburg, and Samuel A. Alito. Bottom row (left to right): Anthony M. Kennedy, John Paul Stevens, Chief Justice John G. Roberts, Antonin G. Scalia, and David H. Souter – on Jan. 12 heard oral arguments in a case that challenges Coeur Alaska Inc.’s federal permit to dispose of tailings from the Kensington gold mining project in a nearby lake.

“I guess I’m just curious how that makes any sense, since we are talking about putting something into water. Does it really matter whether you add the water before it goes into the lake or just the lake adds the water when you put in the solid?” —U.S. Supreme Court Chief Justice John G. Roberts, Jr.

vation of Alaska, and finally before the permit could be issued, it had to go to the EPA and the EPA had the power to veto the permit,” Olson explained.

EPA has the right to veto

Garre had pointed out that the EPA has the authority to veto a section 404 permit.

When Waldo was asked about the EPA’s veto authority, the environmental lawyer said the EPA would only use the authority if it found unacceptable adverse consequences.

Waldo’s response prompted Justice Stephen Breyer to ask, “And wouldn’t an unacceptable adverse consequence be that it puts all this effluent into the water?”

Though the EPA may not have found unacceptable consequences, the discharge had a high PH level, about 10, which makes it toxic, Waldo replied.

This prompted Justice Samuel Alito, Jr. to ask Waldo

how far from the discharge the water was diluted to normal levels. The lawyer conceded that it happens just outside the pipe.

Unclear how justices will decide

Individuals present during the hearing told Mining News that it remains unclear how the court will decide this precedent-setting case.

The State of Alaska played an instrumental role in convincing the Supreme Court to review the case. State attorneys argued that the importance of the case goes beyond Kensington. If the high court overturns the appeals court ruling, it would set a precedent with important implications for future mines in Alaska and elsewhere.

“We need the Supreme Court to decide once and for all what the federal rules are for dealing with mine tailings,” Gov. Sarah Palin said when the Supreme Court agreed to hear the case.

While the case may have implications for the mining industry in Alaska and across the nation, Coeur Alaska would like to be able to operate the Kensington Mine. With all the facilities complete, except for tailings, the company awaits the high court’s decision.

Though it is unclear when the Justices will make a ruling in the Kensington case, most anticipate it in the second quarter of the year. Coeur hopes to begin production by the end of 2009. ●

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GUEST COLUMN

Gold bucks trend by holding its own

Global financial turmoil fails to tank production, investment in precious metal around the world even as costs continue to rise

By CURT FREEMAN
For Mining News

Despite the strong price and increasing investment surge for gold, Gold Fields Mineral Services reported in its Gold Survey 2008 summary that global gold mine production dropped 4 percent in 2008 to reach its lowest level since 1995. Australia, Indonesia and South Africa experienced the most significant declines in production with Mexico and Russia seeing increases in production. South African production plummeted by an estimated 14 percent, the sharpest percentage fall since 1901. The country's output, pushed down by energy and labor issues, relegated it to third place in world production behind second place United States and first place China. China extended its lead as the largest gold producer, with an estimated 3 percent increase in production.

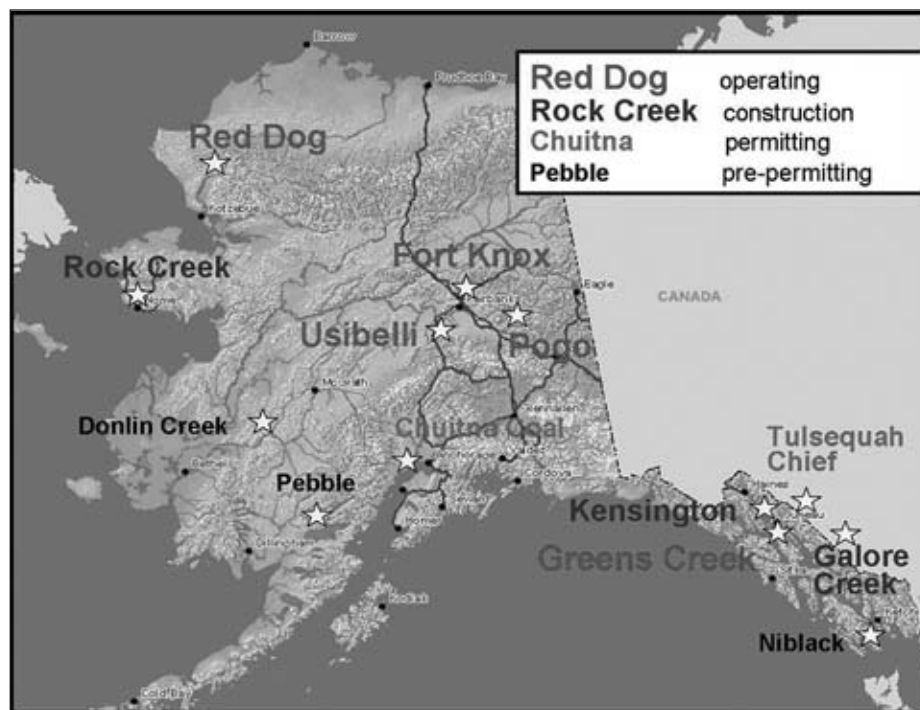
For the first half of 2009, Gold Fields predicted that production from new projects is likely to provide a temporary increase in supply. Another dismal but historic event occurred in 2008: During the third quarter of 2008 the global average gold production cost surpassed \$500 per ounce for the first time ever. Much of this rise in world average costs can be attributed to Australia's astonishing 50 percent year-on-year increase in costs.

Global total cash costs rose by 22 percent year-on-year in the first nine months of 2008, a rate of increase which was fractionally lower than the same period the previous year. Of the major producing countries, Canada was the only player to record a decrease in average costs in the first nine months of 2008.

On the bright side, if the global catastrophic financial meltdown can be considered as a generator of anything good, net investment in gold has skyrocketed and the gold price has bucked the steep price declines experienced by virtually all of the other resource commodities. Gold Fields pointed out that selling of hard gold assets to cover financial shortfalls in other paper investments around the globe kept a lid on gold prices which otherwise would likely have climbed above the \$1,000-per-ounce mark. Gold Fields suggested that this gold disinvesting will inevitably slow down and when it does, gold prices are likely to climb significantly. As expected, gold's price resilience is attributed to its historic attribute as the best hedge against inflation, particularly in the U.S. dollar.

Western Alaska

In late November NOVAGOLD RESOURCES INC. announced that it had arranged financing of \$75 million with ELECTRUM STRATEGIC RESOURCES LLC, giving the latter company a 30 percent share of NovaGold. A second financing of \$15 million was announced a few days later bringing the total cash infusion into NovaGold to \$75 million. The funds will be used to repay outstanding principal and interest owing under the US\$20 million bridge loan from AURAMET TRADING LLC, to finance continuing exploration and development activities at the company's Donlin Creek gold project in Alaska, and its Galore Creek copper-gold projects in British Columbia, to re-evaluate and, if warranted, re-activate the Rock Creek gold mine



near Nome and for general corporate purposes.

MANTRA MINING INC. announced that it has finalized its acquisition agreement with NovaGold Resources to acquire 100 percent interest in five exploration projects in Alaska, including the Colorado Creek, Kugruk, Baird, Omalik and Tintina projects. Mantra also announced that it had terminated its right to acquire its previously announced interest in NovaGold's Ambler base metal deposit in the Brooks Range but has indicated it is continuing to discuss acquisition options with NovaGold and affiliates of RIO TINTO PLC, the underlying property owner.

Eastern Interior

FREEGOLD VENTURES LIMITED announced that it has received terms from a private European lender for a secured line of credit of up to US \$10 million for a maximum maturity of 3 years. Upon the company receiving advances totaling a minimum of \$7.5 million, the lender will receive 750,000 warrants to purchase Freegold common shares for a period of two years from the date of grant at a price of 30 cents per share. Funds drawn under this facility will be used to repay in full the company's previously arranged \$4 million in bridge loan. The company indicated that following completion of the financing, work over the coming months would involve analysis and modeling of 2008 exploration programs undertaken on its Almaden, Idaho gold project as well as its Golden Summit, Rob and Vinasale gold projects in Alaska.

INTERNATIONAL TOWER HILL MINES LTD. announced drilling results from the final 18 holes drilled in 2008 at its Livengood gold project. Significant results from the southwest side of the deposit include hole MK-RC-0075 with 13.7 meters at 5.99 grams of gold per metric ton and 36.6 meters at 1.1 g/t gold and hole MK-RC-0089 with 4.6 meters of 19.89 g/t gold and 100.6 meters of 1.16 g/t gold. To the northeast, hole MK-RC-0085 returned 50.3 meters at 1.11 g/t gold and 10.7 meters at 1.4 g/t gold.

Many of the final 2008 holes ended in mineralization, indicating additional depth potential in the deposit. The new results continue to support the exploration model of an overall northeast-southwest trend to the mineralization

The author

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CURT FREEMAN

which extends well beyond the initial 2008 Core Zone target. The company also announced that gold recovery tests indicate that the gold in both the oxidized and unoxidized parts of the deposit is recoverable with a cyanide solution and that the recovery is significantly enhanced with even minor oxidation of the rock. The test work returned cyanide extraction results with an average overall gold recovery of 77 percent for the oxidized and/or partially oxidized material and 56 percent for the unoxidized material. The results also indicate that, in one third of the samples, 80 percent of the gold extraction is achieved in the first 16 hours and at 32 hours, 80 percent of the samples have achieved greater than 80 percent of the contained gold. Additional studies on the sulfide samples illustrate that somewhere between 40 and 80 percent of the contained gold reports to a heavy mineral concentrate with the balance split almost evenly between the float and slime fractions. In the heavy fraction, the gold occurs mostly as minute 2-10 micron native gold grains, making it favorable for cyanide extraction.

Alaska Range

ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY, GOLDEN VALLEY ELECTRIC ASSOCIATION and HOMER ELECTRIC ASSOCIATION have agreed to sell the long-suffering Healy Clean Coal plant to Golden Valley Electric for \$50 million. AIDEA will finance the sales at 5 percent interest and will provide an additional \$45 million at 6.5 per-

cent interest for restart costs on the plant. Golden Valley has indicated that it intends to restart the 50-megawatt plant with currently installed clean coal equipment. This equipment was originally thought to be unsafe and unreliable and was the primary cause of the high operating costs that help shut this plant down shortly after start-up in 1999. The next decade saw interest from the owners and intended owners wax and wane as various plans for restart and/or conversion of the plant were investigated. Golden Valley indicated that the plant could be up in running within 12-18 months.

Northern Alaska

SILVERADO GOLD MINES LTD. announced the results of a preliminary feasibility study on its Workman's Bench gold and antimony deposit at its Nolan Creek property in the Brooks Range. The conceptual work plan would involve the selective underground extraction of high quality vein mineralization, processing of ore with a nearby surface plant using gravity (and possibly flotation) technologies, recovering most of the gold on site and shipping of a metallurgical-grade stibnite concentrate to overseas buyers. The study assumed an antimony price of \$2.25 per pound, a gold price at \$700 per ounce and process recovery rates of 85 percent for antimony and 90 percent for gold. The seasonally operated 125-ton-per-day concentrating plant could ship stibnite concentrates during a five year period and generate operating profits of about \$27 million over the life of the operation. The mine would pay back capital costs in the third or fourth quarter of the third year of development. Antimony would account for 77 percent of the value of the product while gold would contribute 23 percent of total value. Maintaining antimony concentrate quality for overseas markets is critical to the success of the proposed development. Preliminary metallurgical testing of a bulk sample from Workman's Bench shows high recovery rates of gold and antimony. Other factors affecting production economics include wall rock stability, underground permitting issues and metal price trends of both antimony and gold. The mine plan contemplates using standard cut-and-fill mining methods that would take place for five months during the winter, followed by a three month period of ore processing during summer months. When in full production the mill will process up to 12,500 tons of ore per year which will yield up to 4,590 ounces of gold and 5,000 tons of stibnite concentrate.

Southeast Alaska

COEUR D'ALENE MINES had its day in front of the U.S. Supreme Court on Jan. 12 when it pleaded its case for permitting its tailings disposal site at its planned Kensington gold mine north of Juneau. The various Supreme Court justices fired tough questions at attorney's from both sides of the issue. If you want to read the transcripts from this hearing go to: http://www.supremecourtus.gov/oral_arguments/argument_transcripts/07-984.pdf. The court will now decide whether it will hear the case or defer it back to the lower courts. ●

• GUEST COLUMN

High court hears Kensington Mine appeal

Potentially precedent-setting decision could define extent of EPA jurisdiction over discharges under Clean Water Act amendments

By J. P. TANGEN
For Mining News

On Jan. 12, 2009, the Supreme Court of the United States heard oral arguments in *Coeur Alaska, Inc. v. Southeast Alaska Conservation Council*, generally referred to as the Kensington case. Like all complex issues, this case defies simple explanation, but there is a kernel issue which can be held up to the light for examination.

Since 1972, when the Clean Water Act was overhauled, there has been a split in the responsibilities for the management of our national waterways. Those amendments granted jurisdiction to the U.S. Environmental Protection Agency over the "discharge" of "pollutants" into the "waters of the United States." The quoted words are important, because they are defined extremely broadly.

There is virtually no water in the United States that does not qualify under some argument. Everything from intermittent floods to permafrost can be deemed to be such waters under some circumstances. A pollutant is just about any conceivable thing other than 100 percent pure water that is introduced into those waters. Discharges can be from pipes or from run-off sources. In brief, the jurisdiction of the EPA is pervasive.

The EPA's enforcement mandate is similarly draconian. It is the responsibility of the agency to preclude virtually all industrial water pollution through regulations and

Mining & the law

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J.P. TANGEN

citations. The act also gives hefty authority for so-called public interest groups to oversee the commitment of the agency to pursue its mandate with vigor. This statutory hammer has occasionally resulted in the EPA being forced against its better judgment by the courts to execute the law in ways that do not relate to environmental protection.

In a very large sense, there can be no doubt that the 1972 amendments have made the country a better place. It is within the common memory that prior to the amendments many of our public waterways were literally catch basins for toxic effluent. Even decades later, occasionally, the residue remains a problem.

On the other hand, the amendments also acknowledged the responsibility of the U.S. Army Corps of Engineers to keep America's waterways open for commerce.

The Corps has long engaged in dredging rivers and harbors in order to ensure that commercial vessels could serve our ports and riverine communities. As the Corps does its job, it necessarily must "discharge pollutants into the waters of the United States."

One cannot dredge without spilling, one cannot build breakwaters without putting rocks in water, and one cannot re-channel waterways without introducing fill material.

Accordingly, parallel permitting systems have been developed by the respective agencies, with the guidance of the U. S. Supreme Court and other benches in the federal system. The EPA and the Corps wrestled for many years before settling on a relatively bright and shiny line allocating their respective responsibilities. The easy way to distinguish between discharge of pollutants and dredging and filling was to look at the intent of the responsible party.

If the purpose of the discharge was to get rid of waste material by dumping it over the edge with the hope that it would disappear on the theory that the solution to pollution is dilution, then it was pollution for the EPA to regulate and ultimately prohibit. If the purpose, however, was to strategically place inert material in a location where it would be out of the way and does no particular harm to the environment, then it was fill for the Corps to regulate.

The proposed Kensington Mine is an instance where the line has become arguably blurred. The mine tailings to be

placed into Lower Slate Lake from the Kensington mine are inert. It clearly is not the intention or the expectation of the mine to introduce the discharge into the waters of the United States for the purpose of having them carried downstream and diluted to the point of inconsequence. Instead, the mine would place sand-fine ground rock into a deep and low-quality remote lake, raise the bottom, and at the conclusion of mining, restock the lake, having created a better habitat for the indigenous fish.

There can be no doubt that if one counts mine tailings as a pollutant, this would be a discharge into a national waterway. In reality, regulating this activity as if it were a toxic industrial waste, however, honors form over substance. Common sense dictates that calling a sandy fill a pollutant is errant.

In arguing this cause before the Supreme Court, two solicitors general, one incumbent and one retired, were on the side of the company and the agencies. They made it clear that the target lake would impound mined material behind a dam and that the outfall would be subject to familiar EPA prescriptions. Accordingly, no effluent will escape downstream.

While it may be several months before the court renders its judgment, given the nature of the questions by the various justices, it is obvious that the decision will split along familiar lines. Whatever the outcome, it will have significant ramifications on the future of mining in Alaska as well as other locations in the West. ●

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• C A N A D A

Leaders seek help for mining industry

Mining association outlines major ways that Ottawa can lend a hand in tough economic times without hampering free markets

By ROSE RAGSDALE
For Mining News

Provinces, territories and at least one mining leader are appealing to the Canadian federal government to offer up substantial assistance to the beleaguered industry in its new annual budget due out Jan. 27.

The proposals range from various provisions for tax relief to implementing major infrastructure projects aimed at spurring resource development as well as altering monetary policies to ease credit and free up capital for miners nationwide.

The reason: Canada, unlike most Western nations, relies heavily on its natural resources for economic prosperity and mining in all its facets is one of the nation's bread and butter industries. Companies throughout the country engage in every facet of the business, from mineral and oil and gas exploration and production to smelting, refining and semi-fabrication. Moreover, mining-related enterprises cover the Canadian landscape from the Atlantic to the Pacific oceans and reach far into the North.

In 2007, the industry contributed \$42 billion to Canada's 1.23 trillion gross domestic products, employed 363,000 workers and paid roughly \$10 billion in taxes and royalties, according to the Mining Association of Canada. While a relatively minor part of the overall Canadian economy, the mining industry is especially vital in remote and northern communities that often rely on just one nearby mine for their well being. Mining also contributes significantly to the economies of major cities in Canada. Toronto, for example, is a hub of expertise in mining finance, while Vancouver is home to the world's largest mining exploration sector. Other cities are dominated by key mining businesses such as Montreal, a hub for aluminum and iron ore companies; Edmonton, Alberta, a center for oil sands and Saskatoon, Saskatchewan, with its uranium and potash enterprises. More than 3,000 suppliers draw benefit from the industry, including engineering and environmental firms, railroads, ports, and equipment companies.

The Mining Association offered nine recommendations, including sticking with recent commitments such as the Geo-mapping for Energy and Minerals program, a five-year, \$100 million reinvestment in geological mapping announced early last year that also could trigger additional provincial spending and recent improvements on the tax front, particularly the October 2007 commitment to reduce the federal corporate income tax rate to 15 percent from 21 percent by 2012.

The dramatic downturn in the global economy has hit mining particularly hard in the past year. Demand for most metals has plummeted, causing prices to tumble across the board. Canadian operating mines have been closed, planned mine expansions have been deferred or cancelled, and investment in processing facilities has been postponed.

"Many important companies have seen stock price declines exceeding 50 percent and in some cases more than 90 percent - all firms are engaged in serious cost-control measures," the Mining Association said.

While industry and government leaders believe mining would benefit significantly from public assistance, they do not seek government involvement in controlling production output, trade or prices, or in sustaining uneconomic operations, a role they see as best left to the markets.

However, the leaders do see a role for Ottawa in keeping the reeling industry along with the rest of the Canadian economy on its feet until market conditions improve.

It was mining leaders who offered specific ideas on how the government could provide relief to the ailing industry.

The Mining Association of Canada, for example, issued a pre-budget brief Dec. 18 that outlined various ways the federal government can help.

"There are a number of measures that we believe should be given serious consideration in the lead-up to the government's Jan. 27 budget," noted Gordon R. Peeling, the industry group's president and CEO in the brief addressed to federal Finance Minister Jim Flaherty.

The Mining Association offered nine recommendations, including sticking with recent commitments such as the Geo-mapping for Energy and Minerals program, a

five-year, \$100 million reinvestment in geological mapping announced early last year that also could trigger additional provincial spending and recent improvements on the tax front, particularly the October 2007 commitment to reduce the federal corporate income tax rate to 15 percent from 21 percent by 2012.

The mining group also sought continued support for research and development in the industry, noting that the Scientific Research and Experimental Development program, which provides a tax credit for qualifying expenses and capital expenditures associated with basic research, applied research and experimental development conducted in Canada is an important tool for the industry.

In support of mining exploration, the Mining Association asked the government to continue its incentive programs and to extend Canadian Exploration Expense treatment to exploration spending at former mine sites that have been abandoned or inactive for five or more years and to encourage exploration-like expenditures in the vicinity of existing mines by eliminating the Canadian Development Expense treatment and treating such outlays as operating expenses.

"Such a change would encourage more exploration at-depth in the vicinity of existing mines, while reducing administrative burden and leveling the playing field between greenfields exploration and high-risk brownfields exploration," Peeling said.

Among the other recommendations: Encourage mineral development in Canada by lowering taxes on new or expanded mine investment.

Promote investment in environmental process improvement with greater incentives for these efforts, which would enhance the long-term competitiveness of the indus-

try's mineral processing facilities with competing investment regimes, especially Australia, China, Brazil and the United States.

Invest in infrastructure to promote northern resource development, notably three projects - the \$300 million NWT Winter Road project aimed at re-supplying and developing additional resources at diamond mining operations, primarily in the Northwest Territories; the \$300 million Bathurst Inlet Port and Road project, which would connect the Arctic coast at Bathurst Inlet to a resource-rich region near the Nunavut-Nwt. Border; and the \$100 million Route des Monts Otish project, which would provide access to a resource-rich region in north-central Quebec and facilitate development of the Renard diamond project.

MAC said the mining industry also would benefit from investments that improved product movement through the Port of Vancouver and across the Canada-US border, as well as from the provision of more efficient and cost-competitive service by Canada's freight railroads.

"Road access would help extend the life of existing operations, would provide access to areas with important known mineral deposits that are too remote to develop using air access alone, and would support exploration and the discovery of new resources in these areas," Peeling said. "Beyond the contribution of the diamond industry, it is important to note that there is felt to be considerable potential in gold, zinc, copper, uranium and other valuable northern resources."

The Mining Association also suggested that the government provide some cash-flow relief to miners by waiving interest and penalty charges on payments of tax due by a corporation in 2009 and to review pension funding regulations so as to allow for a more gradual amortization of new deficits and to make existing policies less onerous.

"In the current environment, if contributions are increased and there is subsequently a recovery of the equity markets, employers would see excess capital stranded in pension plans. These funds would best be invested in core business and expansion projects, thereby protecting and creating jobs," Peeling said.

Provincial and territorial finance ministers also discussed ideas for providing relief to miners and their overall economies with Flaherty in December.

Keith Peterson, Nunavut's new finance minister, told reporters that he urged the government to do everything possible to make access to credit and capital a top priority, through federal monetary policies and the federal government's relationships with the banks.

Peterson and finance ministers from across Canada also called for investments in infrastructure in order to keep jobs and businesses going during a time of economic slowdown.

Yukon Premier Dennis Fentie, who is also that territory's finance minister, urged Ottawa to accelerate infrastructure spending, recognizing regional priorities.

Prime Minister Stephen Harper met with Canada's first ministers Jan. 16 for more talks from which emerged the outline of a possible \$40 billion economic stimulus package that would include substantial infrastructure spending and a possible tax cut to help jumpstart the Canadian economy. ●



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• A L A S K A

Junior brings Down Under tech to Alaska

Australian explorer uses advanced modeling to pinpoint the high-grade lode source underlying surface mineralization at Tushtena

By SHANE LASLEY
Mining News

Australian Mineral Fields believes it is onto a world-class gold discovery in Interior Alaska. The Perth, Australia-based junior considers its innovative exploration techniques, used to uncover high-grade gold deposits in the Eastern Goldfields of Western Australia, uniquely suited for locating high-grade mineralization at the Tushtena gold project about 20 miles west of Tok.

The Western Australia-focused exploration company was not looking to expand its operations to the opposite side of the globe when the company's CEO, Marcus Willson, attended the 2008 AME/BC Minerals Exploration Roundup in Vancouver, B.C.

During a Jan. 7 interview, Willson told Mining News that while attending the 2008 Roundup, he was approached by David Rhys, an ex-associate who was familiar with Australia Mineral Fields' technologies and expertise. Rhys felt the Tushtena property would be a good fit for the Down Under explorer.

The mining exec said the company took a critical look at the project as well as Alaska's business climate before it signed an agreement in April to acquire the gold property.

"Logistically, from our point of view, we are an Australian-focused company. So (Tushtena) had to have true world-class potential in our opinion, before we were prepared to take the risk on the other side of the planet," Willson explained.

Technology to seek out deeper systems

Australian Mineral Fields uses advanced 3-D and 4-D (time) modeling, simulation and data analysis technologies to locate significant gold deposits that may not be found with conventional exploration techniques. The modeling incorporates data collected from litho-geochemistry and portable infrared mineral analyzers.



COURTESY OF AUSTRALIAN MINERAL FIELDS

The best rock chip samples taken from the Tushtena gold property in Eastern Alaska were taken from Discovery Ridge where there is strong sericite-carbonate-sulfide alteration with high-grade quartz veins.

The Australian-based junior explains that litho-geochemistry uses the entire spectrum of elements contained in specific rock samples to define both the actual parent rock composition (providing a better understanding of the geology of the area) and the alteration of the rock. The alteration of the rock (evidence of the hydrothermal processes associated with the development of mineral deposits) typically covers a much larger area than the deposit itself, and varies depending on the proximity to mineralization.

PIMA technology uses short-wave infrared radiation and, according to Australian Mineral Fields, provides a rapid and cost-effective analysis of alteration minerals, including

analysis of subtle variations in mineral crystallinity and composition.

The junior said its team developed this exploration technique to locate gold deposits in Western Australia, which has seen a geologically long period of deep weathering that has resulted in a greater than 90 percent cover across much of the most prospective rock layers.

This cover has paradoxically both allowed and prevented discovery. The cover, dominated by saprolitic regolith, allows for well-defined and understood lateral dispersion processes. Such dispersion, in turn, has made it relatively easy for drilling to identify very significant quantities of typically moderate to large tonnage resources that can be extracted with open-pit mining. The same cover, however, has effectively masked deeper mineralized systems.

Australian Mineral Fields believes a deeper, and potentially world-class, lode gold system lies under the altered bulk tonnage deposit found at the surface of the Tushtena property.

Down Under geologists scour Tushtena

To locate the deeper mineralized system the Australian Mineral Fields team completed a series of traverses across the entire Tushtena project, collecting litho-geochemical data and conducting PIMA hyperspectral analysis. The CEO reports that the hyperspectral analysis correlates well with the results they hoped to find in the original discovery zone.

"Previous work showed that Tushtena has abundant moderate- to high-level anomalism and numerous high-grade but narrow intersections in drilling. As such, the company, during last year's field season, concentrated on collecting samples across the property to better define the alteration system and provide a clear understanding and focus for the next round of exploration and drilling. This was amenable as the property has a reasonable degree of outcrop as well as some historic drilling from which to collect the

see AUSTRALIAN EXPLORER page 23

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• ALASKA

Miners see bumpy road to mineral riches

Execs cite lack of infrastructure and lengthy litigation as top concerns for doing business in rural state that needs industry

By SHANE LASLEY
Mining News

Alaska is rich with minerals and considered a safe place to do business. As a result, investment has flowed into the state. Today, a variety of mines and mining projects are scattered across the vast Alaska landscape, from the Greens Creek silver mine and Bokan Mountain uranium project in Southeast Alaska to the world-class Red Dog zinc-lead mine and Northwest Arctic Coal Project in Northwest Alaska; and from the giant Pebble copper-gold-molybdenum project and the Donlin Creek gold project in Southwest Alaska to the Fort Knox and Pogo gold mines in Interior Alaska.

But the state still has a ways to go when it comes to fostering the best environment for mining.

Executives and geologists who operate the mines, projects and exploration programs that have come to Alaska told Mining News that more and better infrastructure, affordable power and an end to frivolous lawsuits top their list of concerns about doing business in the state.

Addressing these concerns not only could help develop Alaska's rich mineral resources, but also could help revitalize the economies of some of the state's most challenged regions.

Lack of infrastructure

While Alaska may be mineral-rich, it is infrastructure-poor. Once an explorer travels west of the Railbelt and the Prudhoe Bay Haul Road, which dissect the state north to south, there are no roads to transport mineral resources to the rest of the world. This remote land-mass, larger than Texas, hosts Donlin Creek, Pebble, Red Dog and an immense amount



NovaGold President and CEO Rick Van Nieuwenhuysse



The Donlin Creek Partnership prepares drill core to be flown to an assay laboratory from the world-class gold project, located in Southwest Alaska about 250 miles west of the road system.

of discovered and yet to be found mineral prospects.

"Most of the resource that is being found in the state is off the road system, off the power grid. The state and local governments have generally not been involved in constructing that infrastructure," said Pebble Partnership CEO John Shively.

Alaska's government has yet to extend its road system and power grid into these remote regions, but it has recognized the need for infrastructure in order to make many remote mining projects profitable. To this end, the government launched the "Roads to Resources" program. The Alaska Department of Transportation and Public Facilities is currently studying possible routes to build a road that would connect Alaska's Railbelt road system to Nome 500 miles to the west.

Affordable power

The lack of access also exacerbates problems miners have obtaining affordable power to operate mines in the remote areas, an issue currently facing the Donlin

Creek and Pebble projects.

The question of power supply has raised concern and contention for partners Barrick Gold Corp. and NovaGold Resources Inc. at the colossal Donlin Creek gold project. NovaGold, worried about the cost and logistics of delivering diesel to the remote site, studied the possibility of building a 250-mile power line to the railbelt. After completing detailed scoping studies, the Donlin Creek partners concluded that the best solution would be onsite diesel and wind cogeneration for power.

The preferred solution for supplying an estimated 600-plus megawatts of electricity needed to operate a mine at Pebble is to run a power line from a natural-gas-fired plant 200 miles to the east. Pebble's owners also hope to work with state government to bring affordable power to the remote region's communities as far as 150 miles beyond Pebble.

"If we are going to take inexpensive power to the mine, I believe we have to take it to the rest of the region. Not just the villages that are near the mine, but to Dillingham, Naknek, King Salmon (and) places like that," said Shively, who is a former Alaska natural resources commissioner.

While building infrastructure that will provide access to mineral resources scattered across the most remote reaches of Alaska is not an easy or inexpensive prospect, the benefits go beyond making mining projects economic or putting

money in state coffers. More affordable road access and energy as well as good paying jobs that mining brings could be crucial to the survival of many of the state's rural communities.

Litigation a concern

Though not unique to Alaska, litigation is a primary concern for companies developing mining projects in the state. The Kensington gold project, which has a tailings permit that is currently facing a legal challenge in the U.S. Supreme Court, is a prime example of what makes the industry uneasy.

"Kensington is in a situation where they could go into reclamation before they produce an ounce of gold," Shively explained. "Virtually every project gets litigated. It adds time, it adds risk and it adds money."

NovaGold understands that all too well. Delays at its Rock Creek gold mine near Nome due to challenges to its wetlands permits cost the company millions of dollars and threw off the timing of the project.

"To go through that process and then have the permits challenged, there is a huge financial burden on the company when that happens. That is exactly what happened to us at Rock Creek," said NovaGold President and CEO Rick Van Nieuwenhuysse.

Anticipating litigation, the Pebble owners, Anglo American plc and Northern Dynasty Minerals Ltd., have factored in court time into the project's timeline. The partners plan to begin permitting by the end of 2009.

Ballot initiative

Pebble already has prevailed in a challenge at the ballot box. The project drew a challenge in the form of a citizens' initiative in 2008. The original draft of the initiative, written in 2007, specifically targeted Pebble. When that version was ruled unconstitutional, Pebble's opponents re-wrote the measure so that it threatened Alaska's entire mining industry. The final draft, Ballot Measure 4, was defeated by Alaska voters during the state's primary election Aug. 26.

Mining leaders across the board say the initiative's defeat was encouraging. They believe it signaled Alaska's support for mining and resource development.

Some leaders from the mining community are concerned about the initiative process itself. They feel it is a bad way to construct important and complicated environmental policy, and feel the state's legislative process is the appropriate venue for that.

"Complicated matters belong in Juneau. You have a process there where an issue in which there is a disagreement on its impact gets fully vetted by agencies, opponents and proponents; not by sound-bites on television, said Pebble spokesman Mike Heatwole. "Slogans are easy to throw out there, and the ramifications can be significant."

Another concern many miners in Alaska voice is the disproportionate power of the state's ballot measure process in which individuals can, in effect, create state law without being held to the same financial disclosure

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Pebble Partnership CEO John Shively

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ROAD

standards required of state legislators. More than half of the \$2.85 million raised to promote Ballot Measure 4 by the Alaskans for Clean Water campaign came from a Virginia-based soft money organization, and seven individuals from outside Alaska contributed \$2,500 to \$50,000 each to the "vote yes on 4" campaign, according to the Alaska Public Offices Commission. Also, these figures do not include the soft money organization's direct spending on advertising.

Alaska Rep. Kyle Johansen, R-Ketchikan, is working on legislation that would hold individuals and groups that

"Most of the resource that is being found in the state is off the road system, off the power grid. The state and local governments have generally not been involved in constructing that infrastructure." —Pebble Partnership CEO John Shively

support or oppose ballot measures to similar financial disclosure standards as those required of elected officials.

Proposed mining bills

Rep. Paul Seaton, R-Homer, a commercial fisherman, has proposed two pieces of legislation aimed at the mining industry. Seaton has submitted a mining tax bill (House Bill 40) and a mixing zone bill (HB 46) to be heard by the Alaska Legislature this session. Earlier versions of both bills have been floating around Juneau since 2006.

One of Seaton's bills proposes changing a current three-and-a-half year exemption from paying a mining license tax to a deferral that is payable over the next 10 years of production. Rates are increased by 2 percent per income bracket with a marginal tax bracket for net income over \$1 million to be added and taxed at 11 percent.

HB 40 also suggests changes to the calculation of state royalties for mineral mining on state land from the current 3 percent of net income to a 3 percent net smelter return tax.

The bill also updates the royalty for coal by setting the 5 percent of adjusted gross value currently in regulation as a minimum that can be negotiated with the governor's administration.

"Alaska's mining industry bears a light tax burden compared to Alaska's other high-value resource industries," Seaton said.


Win-win situation

By contrast, Alaska's neighbor, British Columbia, has set in motion plans to introduce legislation to provide relief to the mining industry, not increase its fiscal burden. B.C. leaders plan to extend, subject to the approval of the provincial Legislature, the Mining Flow-Through Share Tax Credit to the end of 2009, retroactive to Jan. 1, 2009. The province is also creating a new economic mining task force to help B.C.'s mining industry weather the worldwide economic downturn.

"Mining is an incredibly important industry for British Columbia families, workers and communities and this government is dedicated to making sure it remains a strong part of our economy," said British Columbia Premier Gordon Campbell. ●




West of the Railbelt and the Prudhoe Bay Haul Road, which dissect the state north to south, there are no roads to transport mineral resources to the rest of the world. This remote land-mass, larger than Texas, hosts Donlin Creek, Pebble, Red Dog and an immense amount of discovered and yet to be found mineral prospects.




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Alaska mining project roundup

Alaska saw robust mining activity in 2008 across the full spectrum of the industry, from small placer operations to major producers, and from exploration programs to advanced development projects. Here is a look at companies reporting significant progress during the year.

Placer mining

SILVERADO GOLD MINES LTD. has recovered 26,879 ounces of placer gold from channel and bench deposits in the Nolan Valley through 2007. The largest nugget recovered from the property, located about 280 miles north of Fairbanks, weighed 41.35 ounces and was valued at \$16,000 by weight. It sold for \$50,000. Due to the coarse nature of the placer gold recovered, Silverado is now seeking the lode source of the gold. The company completed 34 drill holes totaling 3,353 meters as part of its 2008 exploration at Workman's Bench, the Company's prime hardrock exploration target.

GOLDRICH MINING CO. has 16,850 acres in mining claims that cover most of the Chandalar Mining District, about 190 miles north of Fairbanks. A scoping study of the Little Squaw Creek placer gold deposit outlines a resource of 8.8 million yards of gravel, averaging .0246 ounces of gold per yard for a total of 216,602 ounces of placer gold. Goldrich has begun exploring the Chandalar property for its lode potential.

Producing mines

NOVAGOLD RESOURCES INC. began production at the Rock Creek gold mine Sept. 19, feeding the 6,500-metric-ton-per-day-mill at 25 percent capacity. Running at full production, the operation is expected to turn out 100,000 ounces of gold per year. The main pit at Rock Creek has a resource of 500,000 ounces. Due to financial and permitting issues, NovaGold suspended operations last fall, and the mine currently is in care and maintenance.

USIBELLI COAL MINES INC. is a fourth-generation family owned company founded in 1943 by Emil Usibelli. The company began supplying coal to the newly constructed Ladd Army Air Field (now Fort Wainwright) near Fairbanks. Today Usibelli transports coal to six power plants in Interior Alaska, and ships 500,000 metric tons annually overseas. The compa-



Greens Creek Mine, located about 16 miles south of Juneau, changed ownership this year. Hecla Mining Co., a longtime minority owner with a 29.7 percent interest in the mine, bought out majority owner Rio Tinto Ltd.'s 70.3 percent share last spring.



More than 32,000 meters has been drilled at the Donlin Creek project in Southwest Alaska during 2008. The preferred project design includes a 50,000-metric-ton-per-day plant that would produce more than 1 million ounces per year.

ny has 30 years of reserves at its current yearly production rate of 1.5 million tons of subbituminous coal and could easily double production in response to market demand.

TECK RESOURCES LTD. operates the Red Dog Mine in Northwest Alaska. Red Dog is the world's largest zinc mine and accounts for about 80 percent of the zinc and nearly 30 percent of the lead produced in the United States. Teck and partner NANA INC., an Alaska Native regional cor-

poration for Northwest Alaska, are currently acquiring permits needed to begin mining the Aqqaluk deposit, an extension of the main pit currently being mined at Red Dog. The Aqqaluk deposit contains 51.6 million tons of reserves with an average of 16.7 percent zinc and 4.4 percent lead, enough ore to extend the life of the mine by 20 years.

TECK RESOURCES LTD. also operates the Pogo Mine, located about 110 miles southeast of Fairbanks. The underground mine is Alaska's second-largest gold producer. It began production in early 2007, and suffered some early setbacks that it has largely overcome. Pogo reported its first profit in the second-quarter of 2008. Teck Resources is a 40 percent owner Pogo, with the remaining 60 percent held by companies within the Sumitomo Group. Teck said the mine was on track to reach its yearly gold production target of 340,000 ounces in

2008 and expected operating costs to remain steady during last year.


KINROSS GOLD CORP. owns the Fort Knox gold mine about 26 miles north of Fairbanks, and began production in 1996. It currently produces about 330,000 ounces of gold per year. The carbon-in-pulp mill at the open-pit mine processes between 33,000 and 45,000 metric tons of ore per day. In February Kinross' board of directors approved construction of a heap leach facility and expansion of the open pit mine. These upgrades are expected to extend the life of the project from 2012 to 2018 and double the expected life-of-mine production to 2.9 million ounces of gold.

Greens Creek Mine, located about 16 miles south of Juneau, changed ownership this year. **HECLA MINING CO.**, a longtime minority owner with a 29.7 percent interest in the mine, bought out majority owner **RIO TINTO LTD.**'s 70.3 percent share last spring. During the second quarter of 2008, Greens Creek produced about 2.4 million ounces of silver, 15,257 ounces of gold, 16,000 tons of zinc, and 9,000 tons of lead at an average cash cost of \$3.43 per ounce of silver, after by-product credits. Hecla said it anticipates producing a total of 9 million ounces of silver from the mine in 2008 at an average cost of about \$3.25 per ounce, given current metals prices.

Advanced stage exploration projects

COEUR D'ALENE MINES CORP. is pursuing the Kensington Gold Project, located about 45 miles northwest of Juneau. The company is expecting a Supreme Court ruling on its tailings permits in early 2009. If the court upholds the permits, Coeur's Alaska subsidiary aims to complete construction of a tailings facility and begin


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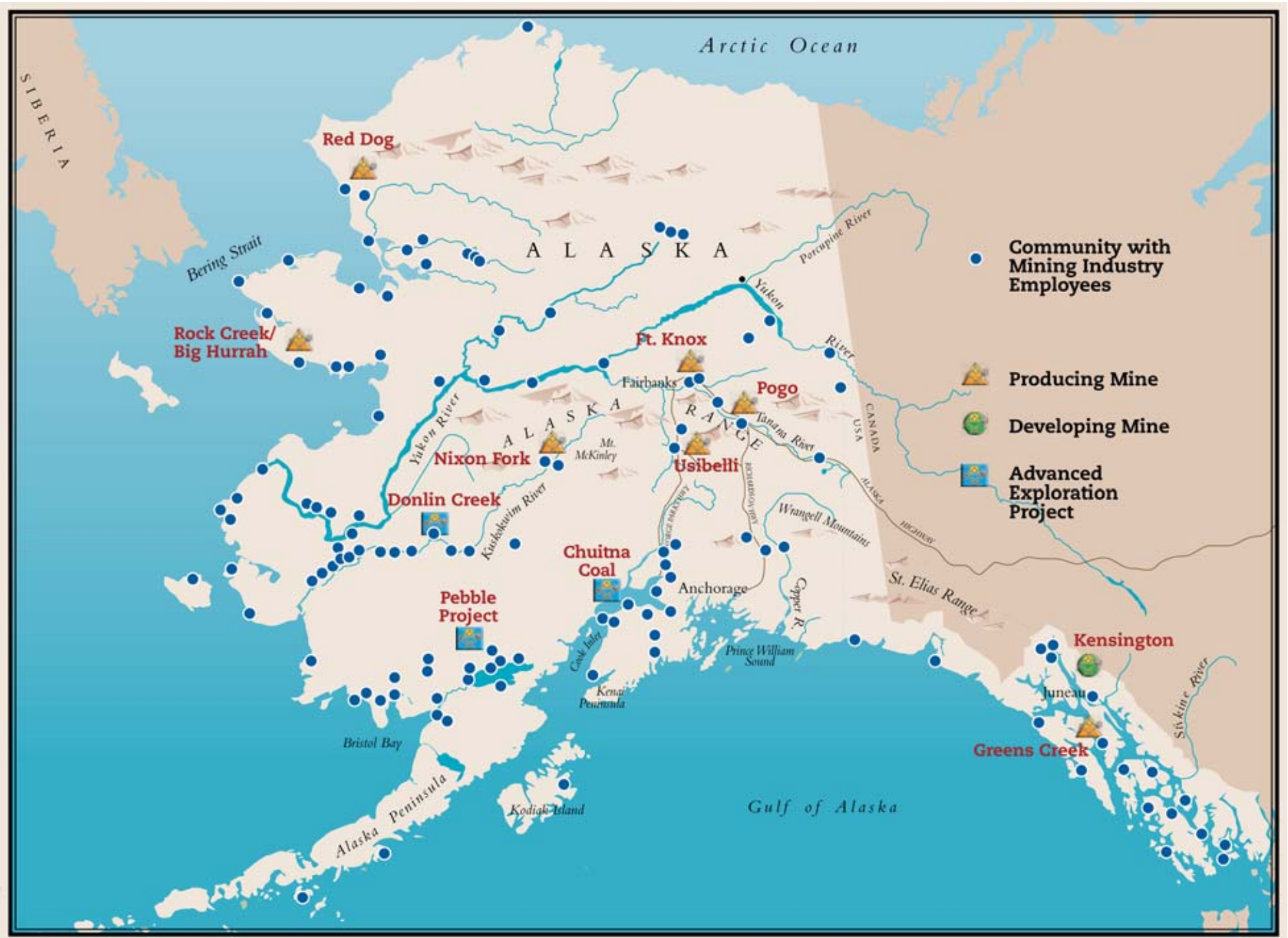
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MINING ROUNDUP

gold production by the end of the year. Once in production, the mine will employ about 200 people, and produce about 140,000 ounces of gold per year. Proven and probable reserves measure about 1.4 million ounces of gold, with an additional 623,000 ounces indicated and 243,000 ounces inferred gold resource.

DONLIN CREEK LLC, a 50-50 partnership between NovaGold Resources Inc. and **BARRICK GOLD CORP.**, manages the Donlin Creek project in Southwest Alaska. NovaGold reported a resource estimate of 31.7 million ounces of measured and indicated resources grading about 2.5 grams gold per metric ton. More than 32,000 meters has been drilled at Donlin in 2008. The preferred project design includes a 50,000-metric-ton-per-day plant that would produce more than 1 million ounces per year. A feasibility study is targeted for the first quarter of 2009, with permitting beginning later in the year.

PEBBLE LIMITED PARTNERSHIP, a 50-50 partnership between **NORTHERN DYNASTY MINERALS LTD.** and **ANGLO AMERICAN PLC**, is advancing the Pebble copper-gold-molybdenum project in Southwest Alaska toward permitting. The project consists of two deposits: The near-surface Pebble West and the deeper Pebble East. The combined measured and indicated resource for both deposits, using a 0.30 percent copper-equivalent cutoff, is 5.1 billion metric tons grading 0.77 percent copper-equivalent, containing 48 billion pounds of copper, 57 million ounces of gold and 2.9 billion pounds of molybdenum. In addition the deposits have a combined inferred resource of 4.0 billion tons grading 0.55 percent copper-equivalent containing 24 billion pounds of copper, 37 million ounces of gold and 1.9 billion pounds of molybdenum.

COMMITTEE BAY RESOURCES LTD., after a recent merger with **NIBLACK MINING CORP.**, is engaged in advanced-stage exploration of the copper-zinc-gold-silver Niblack volcanogenic massive sulfide property on Prince of Wales Island in Southeast Alaska. The property has a near-surface indicated resource of 1.424 million metric tons grading 2.86 grams per metric ton gold, 41.73 g/t silver, 1.04 percent copper and 2.14 percent zinc and a deeper inferred resource of 1.893 metric tons grading 2.07 g/t gold, 29.21 g/t silver, 1.65 percent copper, and 2.71 percent zinc. Underground drilling continues at Niblack from a main access tunnel complete this year.

PACRIM COAL LP's Chuitna Coal Project is a surface coal mining and export development proposal for an ultralow-sulfur, subbituminous coal resource located in the Beluga Coal Field, about 45 miles west of Anchorage. The project proposal consists of a surface coal mine and support facilities, transportation infrastructure, personnel housing, logistic center, and coal export terminal. The current project predicts a minimum 25-year mine life with a production rate of up to 12 million tons a year. A complete permit application for the project was expected to be submitted to Alaska Department of Natural Resources in 2008.

PACIFIC NORTH WEST CAPITAL

CORP. purchased the Nixon Fork high-grade gold mine in December 2008. The high-grade gold mine is located in Interior Alaska near McGrath and includes a 200-metric-ton-per-day flotation plant with a gravity gold separation circuit, a sulfide flotation circuit, and a newly constructed CIL gold-leaching circuit. Pacific North West Capital reports a current reserve of 220,000 ounces of gold at 25 grams per metric ton, and a resource of about 162,000 ounces of gold at 18.6 g/t, both containing about 1.2 percent copper. The mine is currently on care and maintenance and the new owner of Nixon Fork does not

see MINING ROUNDUP page 14

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SHANE LASLEY



Full Metal Minerals Ltd. has 11 exploration projects spanning Alaska. The company's two primary projects are the Lucky Shot high-grade gold property (pictured above) about 90 miles north of Anchorage, and the LWM zinc-lead-silver prospect at its 40 Mile property in eastern Alaska.



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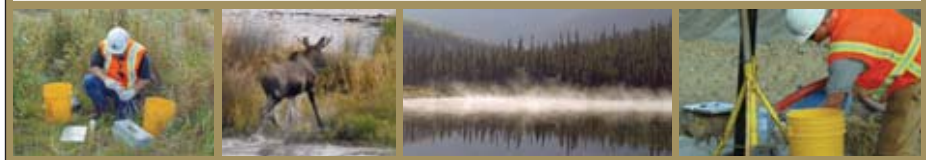
Nobody had to, because at Fort Knox Mine being a good neighbor is just part of the job.

Fort Knox Mine

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MINING ROUNDUP

plan to fire up the mill until 2011.

Early stage exploration projects

FULL METAL MINERALS LTD. has 11 exploration projects spanning Alaska. The company's two primary projects are the Lucky Shot high-grade gold property about 90 miles north of Anchorage, and the LWM zinc-lead-silver prospect at its 40 Mile property in eastern Alaska. In a joint venture with **BHP BILLITON**, the company is exploring multiple copper-gold porphyry targets on 88,675 acres of land owned by **DOYON LTD.**, an Alaska Native regional corporation in eastern Alaska. The junior has three exploration projects in Yukon: Nadaleen high-grade silver-lead-zinc project, Angie-Cat silver-lead-zinc project and OG carbonate replacement zinc-silver-lead prospects.

INTERNATIONAL TOWER HILLS MINES LTD. has nine projects in Alaska. The company's primary focus has been its Livengood gold property about 70 miles north of Fairbanks. ITH added a winter drill program at Livengood and intends to outline a 10 million-ounce resource by the end of 2009. Drilling is focused on expanding the overall resource, converting a large portion of the inferred resources to indicated and measured and gathering the data needed to complete a preliminary economic scoping study by the middle of 2009. The company's other primary properties in Alaska are the LMS high-grade gold project, Terra high-grade gold property and the BMP polymetallic property.

MILLROCK RESOURCES INC. has an exploration agreement with the **BERING STRAITS NATIVE CORP.** to explore 152 square miles of BSNC-owned land on the Seward Peninsula in western Alaska. Millrock's primary focus is the Estelle high-grade gold property about 100 miles northeast of Anchorage. Another priority target for Millrock is the Bluff gold property about 42 miles east of Nome. The company's other properties are the Fortymile gold property in eastern Alaska and the Divide gold property on the Seward Peninsula.

FREEGOLD VENTURES LTD.'s Golden Summit high-grade gold property is about 5 miles to the north of the Fort Knox Mine. Freegold is using a combination of closely spaced shallow drilling, deeper core drilling and an ongoing bulk sampling program using an on-site gravity-based concentration plant. Another exploration target for Freegold is its Rob high-grade gold property near the Pogo Mine. The company is also exploring the Vinasale gold property about 16 miles south of McGrath, where the company has entered into an exploration agreement with **DOYON LTD.**, an Alaska Native regional corporation in Interior Alaska, with an option to lease the property.

PURE NICKEL INC. is exploring the

Man high-grade nickel-copper-platinum group element property in Interior Alaska. In November the company said Itochu Corp., a multibillion-dollar Japanese conglomerate, agreed to invest as much as \$40 million to earn up to a 75 percent stake in the 750-square-kilometer Man property. Itochu has agreed to spend up to \$6.5 million at Man during 2008 and 2009; this includes reimbursing Pure Nickel for expenditures incurred this year at the project.

ELECTRUM LTD. entered into a joint venture with Gold Crest Mines Inc. last spring to explore the Kisa, Gossan Valley, Little Swift and Gold Creek properties, totaling 15,320 acres in the Kuskokwim Region of Southwest Alaska, about 120 miles south of the Donlin Creek gold deposit. Electrum also purchased a 30 percent stake in **NOVAGOLD** Jan. 2 for \$60 million. Electrum is a New York-based private company that holds a large and diversified portfolio of precious metals exploration projects.

MANTRA MINING INC. purchased five of **NOVAGOLD RESOURCES INC.**'s early-stage Alaska assets. The five properties – Colorado Creek, Kugruk prospect, Baird project, Omalik property and Tintina properties – total about 397,560 acres. Colorado Creek is expected to be one of the company's core properties. Mantra is considering splitting its precious metal and base metal assets into two separate entities. A drill plan and budget will be determined after reorganization.

NEWMONT MINING CORP. entered into three joint venture agreements with Gold Crest Mines Inc, covering gold exploration on the AKO and Luna properties, which together comprise about 15,200 acres in the Kuskokwim Region of Southwest Alaska about 120 miles south of Donlin Creek. Newmont also will joint venture with Gold Crest on the Chilly property, which is located in the Buckstock Mountains about 75 miles northeast of the AKO and Luna claims.

ZAZU METALS CORP. completed a 58-hole, 6,900-meter core drill program in 2008 at the Lik zinc-silver-lead deposit located about 13 miles from **TECK RESOURCES'** Red Dog Mine. Teck is a 50 percent joint venture partner in the Lik property. Zazu can increase its interest to 80 percent by meeting certain spending commitments by 2018. A historic estimate that pre-dates NI 43-101 requirements outlined a resource at the Lik deposit of 26.7 million metric tons grading 9.16 percent zinc, 3.15 percent lead and 49 grams of silver per ton. Zazu plans to incorporate the results from the drilling completed into an NI 43-101-compliant resource estimate early in 2009.

UCORE URANIUM INC. is exploring the Bokan Mountain uranium property located on the southern end of Prince of Wales Island about 37 miles southwest of Ketchikan. The company's 2008 drill program at Bokan focused on the I&L zone. In addition to uranium, the company discovered rare earth elements and related metals, including yttrium, zirconium, beryllium, and niobium. In 1989, the U. S. Geological Survey estimated that the property hosts more than 11 million pounds of uranium as well as tantalum, niobium, and rare earth elements.

AUSTRALIAN MINERAL FIELDS began exploration of the Tushtena gold property in 2008. The Perth-based explorer analyzed historic core and traversed the property collecting litho-geochemical data, completing hyperspectral analysis in preparation of drilling in 2009. The company reports a near-surface low-grade bulk tonnage deposit, but is targeting the underlying lode-source of the highly altered mineralization. ●



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• YUKON TERRITORY

Aggressive junior finds gold in Yukon

ATAC Resources tracks clues to precious metal deposit on Rau property in Keno Hill District at northern edge of Tintina Gold Belt

By ROSE RAGSDALE
For Mining News

Yet another junior exploration company prospecting for precious and base metals in the mountains of central Yukon has come home with a shiny new prize.

ATAC Resources Ltd. struck gold last summer in the mineral-rich hills of the Tombstone Mountains.

In August ATAC reported a significant discovery on the Rau property in the Keno Hill District at the northern edge of the prolific Tintina Gold Province, a banana-shaped belt of mostly intrusion-related gold deposits that stretches more than 1,000 miles across Yukon and Alaska. The geological formation is home to numerous large gold deposits, including Donlin Creek, Fort Knox, Dublin Gulch, and Keno Hill.

ATAC said it encountered encouraging surface results, and visual evaluation of drill core confirmed by assays from core samples averaged 1.237 grams per metric ton gold across a thickness of 68.69 meters.

The sample intervals in hole Rau-08-02, which combined to total 68.69 meters, individually ranged from 1.00 to 2.23 meters in length. The grade of the individual samples ranged from 0.135 to 7.62 g/t gold, with most samples between 0.300 and 1.5 g/t. ATAC said the average grade of 1.237 g/t gold, which is reported for samples collected from Rau-08-02, was calculated in a weighted manner reflecting variations in sample lengths. The Vancouver, B.C.-based junior quickly extended its drill program at Rau into the fall in hopes of completing more than 20 holes in the zone before the end of the exploration season.

By November, an interesting picture began to emerge of the mineralization. The main gold zone at Rau is one of a series of thick sulphide-rich horizons vertically stacked near the crest of a broad anticline, according to



A team of drillers work a rig perched on a hillside as it drills hole Rau-08-15 on the Rau Property in central Yukon. ATAC Resources Ltd. reported a major gold discovery on the claims in August.

COURTESY OF ATAC RESOURCES LTD.

ATAC.

In all, the junior drilled some 3,423 meters in 18 holes in 2008. Highlights from the work include 46.42 meters averaging 2.92 g/t gold from hole Rau-08-16 and 65 meters grading 1.52 g/t gold from hole Rau-08-07. "The results from the Rau gold property demonstrate that we are exploring a very large and complex system of mineralization," said ATAC CEO Graham Downs, who describes Rau as "a major gold discovery."

Downs told Mining News Jan. 17 that Rau is a brand new discovery with no historical exploration or paper trail dating back decades. "It's a brand new discovery with lots of size potential, and the amount of mineralization and the length of mineralization is phenomenal," he said.

Wrong gold anomaly

ATAC geologists, led by Downs, found the gold by following up on a 99th-percentile gold anomaly reported by the Yukon government in a reconnaissance-scale

stream sediment survey.

The zone itself was first identified by grid soil sampling, which outlined a 600-meter-long by 100- to 300-meter-wide area of largely coincident, very strongly anomalous gold and arsenic values.

Ironically, the geochemical anomaly that led ATAC to the Rau discovery was not the one with significant gold mineralization, Downs said. "It looks like it was in the wrong drainage," he said.

When ATAC conducted its own survey, the junior found the other gold anomalies in the area. "It was these that pointed the way to the discovery," Downs said.

In an Aug. 6 statement that announced the discovery, ATAC said the zone is not conductive but it did show up as a second-order magnetic high on the helicopter-borne VTEM survey. Prospecting located limonite-rich float with occasional residual sulphides in the vicinity of the soil geochemical anomalies, but it has not found the zone in outcrop. In light of drill results, the discovery was very fortuitous because the area of mineralization is much larger than was suggested by surface work," the junior added.

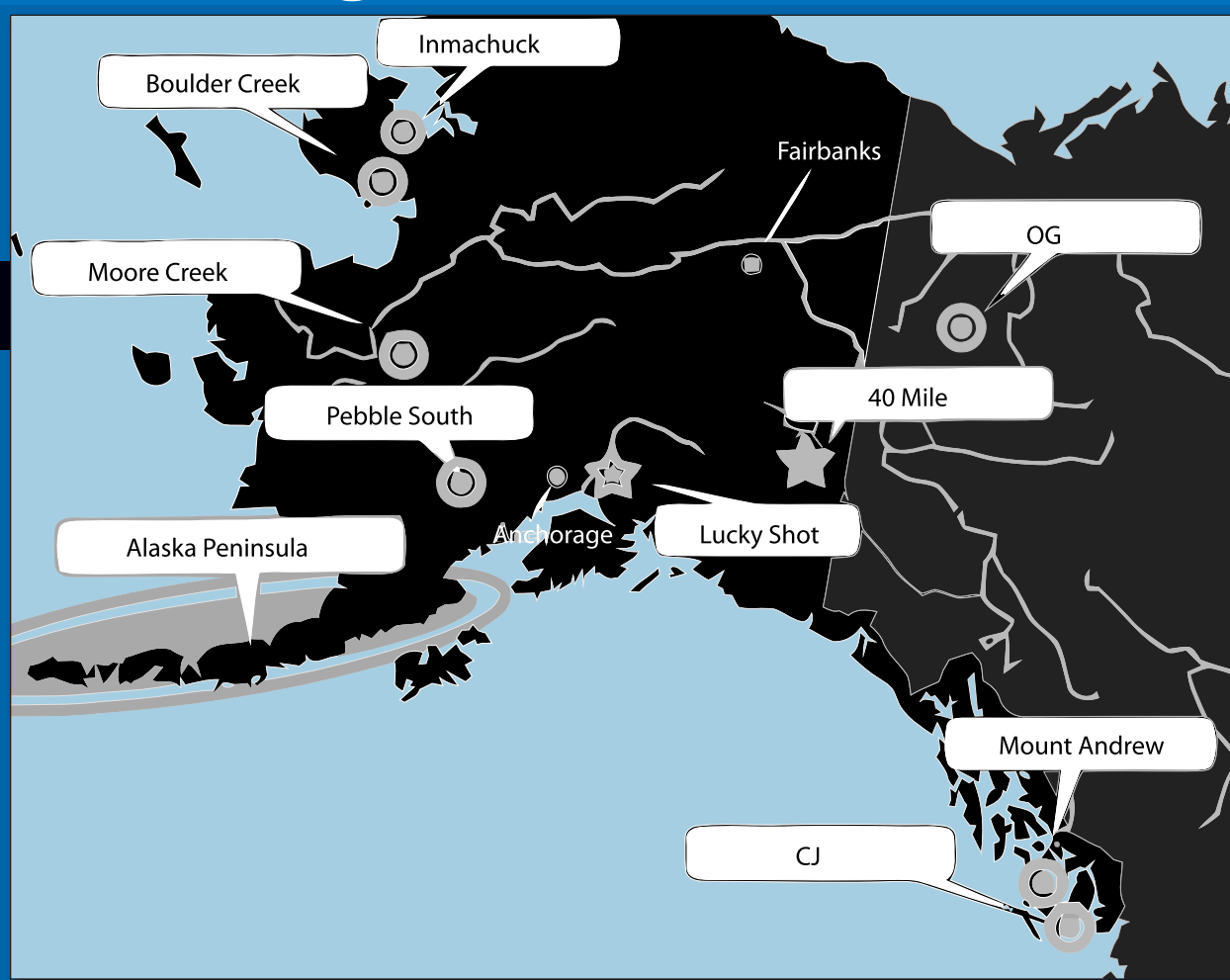
Three horizons of mineralization

The Rau gold discovery lies within a 6-kilometer-long anomalous trend that has been traced by soil geochemistry and helicopter-borne VTEM and magnetic surveys west-northwesterly from a high level, Late Cretaceous granitic stock.

ATAC geologists say the anomalous trend coincides generally with the axis of a large anticline. The mineralizing fluids appear to have migrated out from the pluton along the length of the gently east-southeasterly plunging fold. The gold occurs with sulphide minerals that wholly or partially replace dolomitized limestone near

see ATAC page 16

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ATAC

the crest of the anticline. The sulphide minerals are locally concentrated beneath a series of altered volcanoclastic beds, which may have acted as impermeable caps.

ATAC has identified three mineralized horizons, with the middle horizon producing the best assays. The main sulphide minerals are pyrite, arsenopyrite and pyrrhotite, while accessory minerals include bismuthinite, scheelite and sphalerite, the geologists said. The middle horizon, or discovery horizon, contains the majority of the significant gold intervals and has the highest concentrations of arsenopyrite, bismuthinite and scheelite. The thickest intersection on this horizon graded 1.71 g/t gold over 78.54 meters. Two holes (Rau-08-03 and -16) encountered strongly weathered wallrocks and mineralization which includes some limonite boxwork. Recovery in both of these holes was poor; therefore, the reported grades should not be relied upon. None of the five holes in the eastern part of the drill area reached the middle gold horizon.

ATAC said most of the significant assay intervals are clustered in a 300-meter-by-200-meter zone at the west end of the drill area. The highest-grade interval came from the most westerly hole (Rau-08-16). The mineralized horizon ranges from about 40 meters to 60 meters in thickness within this zone and is open along strike in both directions, the junior said.

Silver, zinc in deepest horizon

Ten of the first 11 holes drilled cut the mineralized strata. Rau-08-01 was drilled near a ridge crest at the southeast end of the soil anomaly. ATAC said it appears to have passed above the fold hinge, intersecting only weakly mineralized fractures in hanging wall stratigraphy.

The other 10 holes were drilled on two lines: one paralleling the fold axis along the presumed length of the zone and the other aligned perpendicular to the fold axis across the presumed width of the zone. The holes that are located along the length of the fold axis have successfully traced the mineralized zone for a distance of 350 meters.

The uppermost horizon typically comprises medium to



Geologist Adam Kjos makes notations as he identifies and sorts core samples at the Rau Property exploration camp last summer.

coarse grain, disseminated pyrite often with quartz, pyrrhotite and lesser arsenopyrite. Gold values were generally low in this horizon, but a number of short gold-bearing intervals were obtained, including 8.13 g/t gold over 3.05 meters from hole Rau-08-11. The deepest horizon consists of very coarse grain, massive pyrite with minor sphalerite. Only hole Rau-08-18 extended deep enough to reach this horizon and intersected 20.77 meters of massive pyrite, which averaged 0.13 g/t gold, 24.36 g/t silver and 1.12% zinc. This discovery was made in the last hole of the program and future drill holes will have to extend further to test it and other possible horizons that could lie deeper in the section, the junior said.

First discovery for Yukon veteran

Downs, who has been ATAC's chief executive officer since 2006, said he came to Yukon as a young geologist on a grand adventure in 1995. When his Subaru broke down in Whitehorse, he asked the tow truck driver where he could get a job. Directed to longtime exploration consulting firm, Archer Cathro Ltd., Downs applied for a job and told the consultant's hiring team that he was "the hardest-working person they would ever meet."

"They said, 'We'll see,' and told me to report to work at 6 a.m. the next morning. I sold my car to a kid on the street to buy work clothes, and I've been here ever since," Downs recalled.

The geologist said he has spent 10 seasons in the field in Yukon and Rau is his first major discovery. Two other geologists, Matthew Dumala of Archer Cathro and Douglas Easton, a geology consultant, joined Downs in leading ATAC's exploration team in 2008. The junior took 15 workers into the field and spent about \$1.2 million.

ATAC is described as a "project generator," a junior that confines itself to making grassroots mineral discoveries and identifying early-stage prospects. It then works to interest larger companies in undertaking development of the finds.

"We're not like most other juniors. We're good at finding things. We understand where we are in the food chain of exploration development," he said.

ATAC's goal, Downs explained, is to take the wealth of knowledge its principles, mostly Archer Cathro veterans, have accumulated and follow up on it.

Together, ATAC's principles – four professional geologists – have 150 years of combined exploration experience in Yukon Territory, Downs said.

"To raise funds for exploration, you have to be in a public company. You want to take advantage of all this work that all these professionals have done over the years. It's a natural progression," he said.

More staking in Yukon

After ATAC made the gold discovery on the Rau property, it quickly staked seven to 10 more properties in the Yukon and is looking to stake a few more, wherever its

see ATAC page 20



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• A L A S K A

Zazu Metals drills in Red Dog neighbor

Junior validates historic exploration at high-grade, zinc-lead property; obtains data for use in scoping and feasibility studies

By SHANE LASLEY
Mining News

Zazu Metals Corp. is exploring what it believes is one of the largest undeveloped zinc-lead deposits in the world. Lik, the zinc-lead-silver-rich property that the Vancouver B.C.-based junior is lauding, is located about 22 kilometers, or 14 miles, northeast of Red Dog, the world's largest zinc mine.

Zazu said the high-grade deposit at Lik is an ideal fit in the company's business model of identifying high-quality, low-risk properties in an advanced exploration, or near-development stage.

Previous explorers left behind a 1,300-meter airstrip and a historic camp at the 5,500-acre Northwest Alaska property. All of the cores from 26,000 meters of historic drilling on the property, with the exception of 10 holes stored in Anchorage, were stored at the camp.

A prospectus prepared for Zazu suggests shipping ore concentrates from Lik to market via the DeLong Mountain Regional Transportation System, now used by Teck Cominco Ltd. to transport the Red Dog Mine's concentrates. DeLong's 52-mile, all-weather haul road and port facility are owned by the Alaska Industrial Development and Export Authority.

"Lik is a known lead-zinc deposit with a large high-grade credible resource located adjacent to Red Dog, the world's largest and highest-grade lead-zinc mine. At 26 million metric tons and 12 percent combined metal, it would be a fantastic resource anywhere in the world. Being proximal to Red Dog provides enormous advantages, such as existing infrastructure and essentially a blueprint for the mine," said Matthew Ford, Zazu Metals' vice president of corporate development.

Confirming historic resource

In 2007, shortly after purchasing a 50 percent interest in Lik from Red Dog Teck Cominco Ltd., Zazu began to explore the giant zinc prospect, hoping to validate results of 26,200 meters of historic drilling completed on the property.

The historical mineral resource at the Lik deposit is 26.7 million metric tons grading 9.16 percent zinc, 3.15 percent lead and 49 grams of silver per metric ton, representing one of the largest undeveloped zinc-lead deposits in the world, according to Zazu.

The junior considers the historical estimates – based on estimates prepared by Noranda and GCO in the 1980s – that pre-date current Canadian mining regulations to be relevant because they approximate the size of the Lik deposit.

Eager to complete a NI 43-101 compliant estimate for the prospect, Zazu began drilling in 2007, and finished a 1,400-meter, 11-hole program that year.

Encouraged by the drill results, the junior purchased a second drill rig for the 2008 program. With two drills turning last summer, Zazu pulled nearly 7,000 meters of core out of 58 holes during the short Arctic summer.

Ford told Mining News that every drill hole in the program hit significant intersections of sulfide mineralization, and nearly half had intercepts of more than 25 meters.

Some of the highlights of the drilling completed at Lik in 2008 include: Starting at a depth of 13.41 meters, hole 161 intersected 26.82 meters grading 19.23 percent zinc, 7.84 percent lead and 291 grams per



Zazu Metals COO Mike Steeves (Right), and Joe Britton, the company's chief geologist (left) study maps of the Lik high-grade zinc-lead-silver deposit located 22 kilometers north of the Red Dog Mine in Northwest Alaska.

metric ton silver; at a depth of 25.9 meters, hole 171 intersected 25.3 meters grading 16.3 percent zinc, 5.54 percent lead and 102.2 g/t silver; and at a depth of 52.73 meters, hole 182 intersected 43.89 meters containing 9.12 percent zinc, 2.8 percent lead and 97.5 g/t silver.

North and South Lik

Testing performed by previous explorers indicates that the Lik deposit is divided into two areas, Lik North and Lik South, by an east-west running fault.

Lik South, according to historic records, is about 600 meters wide and about 1,100 meters long, shallow and considered suitable for open-pit mining. The deposit continues south beyond the Lik property about 800 meters onto the Su property held by Teck Cominco.

In 1984 GCO prepared a resource estimate for the Lik South deposit based on about 100 drill holes. GCO, using a 5 percent cutoff of combined zinc and lead, estimated that Lik South contained 22.04 million metric tons of ore, averaging 8.88 percent zinc, 3.08 percent lead and 49 g/t silver.

At the point where the Lik deposit continues onto the Su property, the mineralization is known as the Su deposit. Teck Cominco has never released a resource esti-

mate for the Su deposit, but a news report in 1998 indicated that the Su deposit contained 17 million metric tons of ore grading 10 percent, combined zinc and lead.

Historic testing revealed Lik North to be a relatively deep deposit that is about 700 meters long and 350 meters wide. Noranda drilled this deposit in 1984 and estimated the resource at Lik North, using a 7 percent cutoff, contained 4.73 million metric tons of ore, averaging 10.59 percent zinc, 3.5 percent lead and 53 g/t silver.

Preparing for scoping study


All of the drilling completed by Zazu has been in Lik South. Ford said, in addition to in-fill drilling designed to affirm the historic resource of Lik South, the company completed step-out holes that expanded the deposit to the north and the southwest.

The junior said the results will be incorporated into an NI 43-101-compliant resource estimate to be prepared by Scott Wilson Roscoe Postle Associates, Inc. The consultant will combine all work to date and prepare a comprehensive scoping study, and ultimately, a feasibility study.

While all of Zazu's drilling to date has been on the Lik South deposit, the junior carried out geophysical surveys of Lik North in 2008. Ford said the surveys correlate well with the historic data and Lik North will be the target of future drill campaigns.

In June Zazu released a report from its first metallurgical study of the Lik property that showed recoveries for zinc were 87 percent into a concentrate grading 52 per-

see ZAZU METALS page 23



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• GLOBAL TRENDS

FBI cites rising threat of copper theft

Spurred by strong global demand for metal, thieves imperil critical U.S. infrastructure; target Alaska's Pogo gold mine

By ROSE RAGSDALE
For Mining News

Growing numbers of thieves are seeking out vulnerable public and private structures for easy sources of lucrative copper used in wiring and other products for relatively quick and anonymous sales.

The theft problem is getting so bad that communities across the country are encountering not only economic but also public safety dangers.

A recent Federal Bureau of Investigation assessment highlighted the impact of copper theft on critical infrastructure nationwide. Through May 2008, the federal law enforcement agency reported copper thefts are occurring throughout the United States that are "perpetrated by individuals and organized groups motivated by quick profits and a variety of vulnerable targets."

Prepared by the Criminal Investigative Division of the FBI, the assessment found that strong demand for copper from developing nations such as China and India, along with several other factors, has spurred copper theft dramatically. Copper thieves are exploiting worldwide demand for the metal and the resulting price surge by stealing and selling copper for high profits to recyclers across the United States.

Recycled copper was selling for about \$1.50 a pound last year when the FBI drafted the assessment.

Thefts threaten public safety

The agency said the thieves are threatening critical U.S. infrastructure by targeting electrical substations, cellular towers, telephone land lines, railroads, water wells, construction sites, and vacant homes for lucrative profits. Copper thefts from these targets have increased since 2006; and they are currently disrupting the flow of electricity, telecommunications, transportation, water supply, heating, and security and emergency services, and present a risk to both public safety and national security.

The FBI said copper thieves are typically individuals or organized groups who operate independently or in loose association with each other and commit thefts in conjunction with fencing activities and the sale of contraband. Organized groups of drug addicts, gang members, and metal thieves are conducting large scale thefts from electric utilities, warehouses, foreclosed or vacant



Transformers, like these, used in telecommunications, utilities, transportation systems and other public institutions are increasingly tempting targets for copper theft.

often foreclosed homes, the FBI said. A report in March indicated that an organized copper theft ring used the Cuyahoga County Sheriff's foreclosure lists to pinpoint targets in Cleveland, Ohio. Perpetrators had 200 pounds of stolen copper, road maps, and tools in their van. Three additional perpetrators were found to be using the U.S. Department of Housing and Urban Development's list of mortgage and bank foreclosures to target residences in Cleveland, South Euclid, Cleveland Heights, and other cities in Ohio.

Among other anecdotal evidence, the FBI cited:

The agricultural industry reported in March 2007 that farmers in Pinal County, Ariz., experienced a copper theft epidemic as perpetrators stripped copper from their

Co. power facility. The FBI said a transformer contains about 50 pounds of copper with the potential to yield \$200 for copper thieves and if stolen, result in thousands of dollars in damages, replacement costs, and environmental cleanup. Monetary losses to the Tampa utility totaled about \$500,000.

A few weeks later in April, five tornado warning sirens in the Jackson, Miss., area reportedly failed to warn residents of an approaching tornado because copper thieves had stripped the devices of copper wiring, thus rendering them inoperable.

Copper thieves hit Pogo mine

Though most mining operations have been unlikely targets for copper thieves, the Associated Press Jan. 9 reported that a former truck driver pled guilty to stealing more than \$50,000 in copper wire from the Pogo gold mine near Delta. Forty-five-year-old Mark Garwood entered the guilty plea in early January as part of a deal. Prosecutors lowered the count from first- to second-degree theft in exchange for Garwood's plea.

Assistant District Attorney Ben Seekins told reporters that Garwood is assisting the State of Alaska in its investigation and has agreed to testify against co-defendant Simeon Staley.

Pogo Mine officials became suspicious of the men in March after copper wire and other items, including tires, began disappearing. Alaska State Troopers said Staley, a mine worker, is suspected of loading the copper and other items onto a semi operated by Garwood, who worked as a truck driver for a contractor.

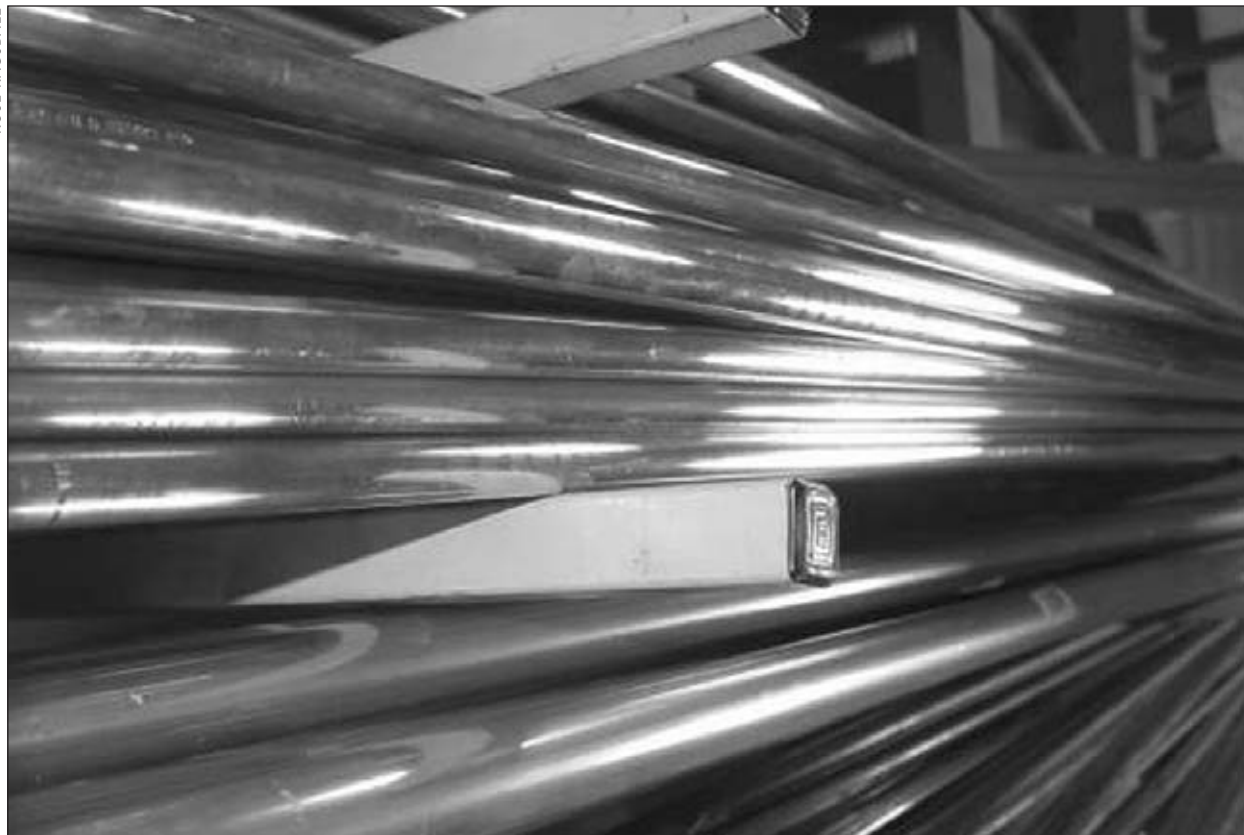
The first-degree theft case against the 25-year-old Staley is pending.

Global demand drives trend

Law enforcement officials say China, India, and other developing nations are driving the demand for raw materials such as copper. An October 2006 report indicated that the demand for copper from China increased substantially due to construction of facilities for the 2008 Olympics.

The FBI also cited higher prices, noting that the price of copper leaped more than 500 percent between January 2001 and March 2008, according to its sources.

Several isolated events in recent years also have contributed to global copper production shortfalls, including a landslide in October 2003 at the Freeport-McMoran Copper and Cold mine in Grasberg, Indonesia and a



Recycled copper, according to the FBI, flows from commercial scrap dealers to smelters, mills, foundries, ingot makers, powder plants, and other industries to be re-used in the United States or as exports. Here, copper pipes are displayed for sale by a retailer.

properties, and oil well sites for tens of thousands of dollars in illicit proceeds every month, the agency said.

For example, highly organized theft rings specializing in copper theft from houses and warehouses reportedly struck Minneapolis, Minn., in April. These rings or gangs hit several houses per day, yielding more than \$20,000 in profits per month. The targets were most

water irrigation wells and pumps, resulting in the loss of crops and high replacement costs. Pinal County's infrastructure loss due to copper theft totaled \$10 million, according to the report.

In March, nearly 4,000 residents in Polk County, Fla. reportedly were left without power after copper wire was stripped from an active transformer at a Tampa Electric



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COPPER THEFT

worker's strike at the El Abra copper mine in Clama, Chile in November 2004. The FBI said these events contributed to copper production shortfalls and led to an increase in recycling, which in turn has helped create a robust global market for copper.

The FBI said the unusually favorable market conditions have prompted unscrupulous and sometimes unwitting independent and commercial scrap metal dealers to pay record prices for copper, regardless of its origin, making the material a more attractive target for theft.

Copper thieves have cashed in on the trend by selling the stolen metal to recyclers who often fill orders for commercial scrap dealers. Recycled copper flows from these dealers to smelters, mills, foundries, ingot makers, powder plants, and other industries to be re-used in the United States or for supplying international raw materials demand, the FBI said.

"As the global supply of copper continues to tighten, the market for illicit



Copper wire is often the target of thieves who are threatening businesses, homes and critical infrastructure across the United States.

copper will likely increase," the agency concluded.

Agency offers troubled outlook

The global demand for copper, combined with the recent economic recession and home foreclosure crisis, is creating numerous opportunities for copper-theft perpetrators to further exploit copper-rich

targets. The FBI said organized copper theft rings may increasingly target vacant or foreclosed homes as they are a lucrative source of unattended copper inventory. More than 3 million homes across the country are now in foreclosure, according to a recent report from the National Association of Realtors.

"Current economic conditions, such as

the rising cost of gasoline, food, and consumer goods, the declining housing market, the ease through which copper is exchanged for cash, and the lack of a significant deterrent effect, make it likely that copper thefts will remain a lucrative financial resource for criminals," the FBI said.

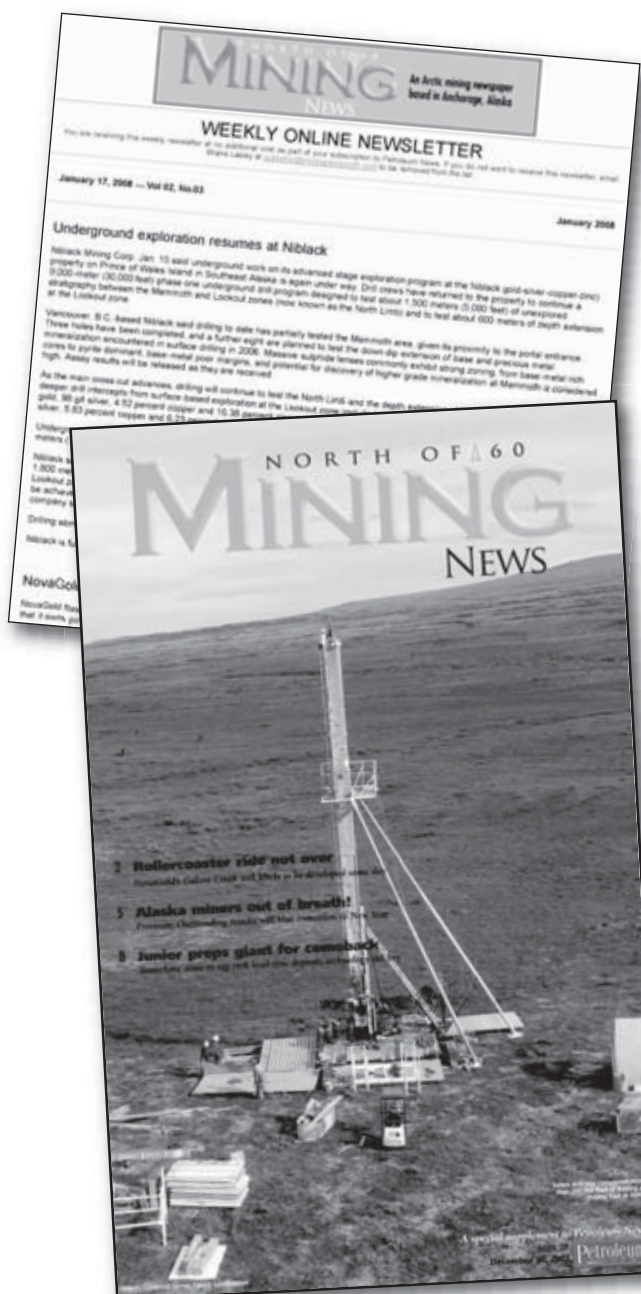
Industry officials also have taken some countermeasures to address the copper theft problem. These include the installation of physical and technological security measures, increased collaboration among the various industry sectors, and the development of law enforcement partnerships.

Many states are also taking countermeasures by enacting or enhancing legislation regulating the scrap industry – to include increased recordkeeping and penalties for copper theft and noncompliant scrap dealers. However, the FBI said there are limited resources available to enforce these laws, and a very small percentage of perpetrators are arrested and convicted.

As copper thefts are typically addressed as misdemeanors, the individuals that are convicted pay relatively low fines and serve short prison terms, the agency added. ●

ROSE RAGSDALE

NORTH OF 60 MINING NEWS



I would like to introduce you to North of 60 Mining News, a monthly supplement to Anchorage-based Petroleum News. North of 60 Mining News covers the mining industry in the Arctic, focusing on Alaska and northern Canada. It is inserted in Petroleum News the fourth week of every month.

Mining News carries the latest news in the industry, as well as features on the most important projects and issues, such as new technology, environmental policy, aboriginal rights and mining legislation. It is the only newspaper that covers this far northern region in such depth, and our reporters frequently travel to see mining projects for themselves and to attend major mining conferences.

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Shane Lasley

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ATAC

geologists see more gold anomalies, Downs said.

ATAC already had 17 Yukon properties before the latest staking spree.

"Yukon is our backyard. It's politically stable and we know the area is under-explored," he said.

The junior is also compiling and evaluating data from the 2008 programs at Rau and other ATAC projects, and is considering ways to best advance the projects.

"In this market you want to take things slow. The discovery has generated a lot of interest, and we are waiting for the right opportunity, since we're not under the gun to do anything," he said.

Downs said ATAC is currently in discussion with interested parties and could option the Rau property to a new company, take on a partner to develop it or spin it out of the company. Whatever is decided will be intended to maximize the discovery's value to the junior's shareholders.

"We're using this time to look at our other properties. We want to find another Rau," he said.

Optioned properties

ATAC has nine other properties currently optioned, including the eastern half of the Rau claims, known as the Wau property. The junior entered into an option agreement with Yankee Hat Minerals Ltd. in April that entitles that junior to aggressively explore the claims for tungsten in 2008, while ATAC explored the western acreage for gold. Yankee Hat had the right to earn 51 percent interest in the Wau property, and an initial 50 percent interest in exchange for issuing nearly 6.7 million shares of its common stock to ATAC and spending \$2 million on exploration over a three-year period. Following earn-in, Yankee Hat has the optional right to earn a further 1 percent interest in the property by making a \$1 million cash payment by Dec. 31, 2011.

In the current economic downturn, Downs said he would not be surprised if some of ATAC's optioned properties come back to the junior.

"We don't know exactly what's going to happen in 2009," he added. ●

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COURTESY OF NOVAGOLD RESOURCES INC. AND R WALKER

NovaGold's Ambler property (shown above), which was the centerpiece of the September Alaska property agreement between Mantra Mining and NovaGold Resources, was not included in the year end deal.

• ALASKA

New York investor grabs stake in NovaGold

Explorer will use investment capital to pay off bridge loan, move Donlin Creek to permitting and resolve Rock Creek water issues

By SHANE LASLEY
Mining News

NovaGold Resources Inc. is beginning 2009 with an infusion of cash. In two separate deals, the Vancouver B.C.-based miner sold enough of its equity to raise \$75 million, funds it will use to pay debt and to advance three projects.

During a Jan. 12 interview, NovaGold President and CEO Rick Van Nieuwenhuysse told Mining News that moving its huge gold project at Donlin Creek in southwestern Alaska into permitting will be the company's focus in 2009. NovaGold is a 50-50 partner with Barrick Gold Corp. at Donlin Creek, which has a 31 million-ounce estimated resource.



NovaGold President and CEO Rick Van Nieuwenhuysse

Hit hard by the recent financial crisis in the markets and by problems at its Rock Creek gold mine, the company also will work on water issues at the mine, which is located on the outskirts of Nome. Within a few short months last year, NovaGold both launched and shut down production at the small mine, a project expected to produce at least 1 million ounces of gold over its operating life.

NovaGold's partner in the Galore Creek copper-gold project in northern British Columbia, Teck Cominco, is also suffering cash-flow problems. The 50-50 partners have decided to leave that project on care and maintenance in 2009.

Meanwhile in an amended deal, NovaGold has spun out its non-core Alaska properties into Mantra Mining Inc., Van Nieuwenhuysse said

Investors stake \$81.3 million

Early in the New Year, NovaGold unveiled an agree-



COURTESY OF NOVAGOLD RESOURCES INC.

After the U.S. Ninth Circuit Court upheld NovaGold's Rock Creek wetlands permits in January 2008, crews began working on the tailings pond and other final-stage construction covered by the challenged permits.

ment with Electrum Strategic Resources LLC to sell the New York-based private company more than 46.15 million units for \$1.30 per unit, or \$60 million. Each unit consists of one common share of NovaGold stock and one common share purchase warrant of NovaGold. Each warrant entitles the holder to buy one common share of NovaGold stock for an exercise price of \$1.50 within four years of the transaction closing date.

Following the Electrum deal, NovaGold said it raised another \$15 million. Institutional investors agreed to purchase 11.5 million units in a deal with identical terms to the one that NovaGold inked with Electrum. The two deals will be completed concurrently.

By mid-January, NovaGold had reported conditional approval of the transactions by the Toronto Stock Exchange and the company said it was waiting on approval from the New York Stock Exchange Alternext. NovaGold said it anticipated closing the financings by Jan. 23.

The company said it will use part of the proceeds to

repay a \$20 million bridge loan from Auramet Trading, LLC.

NovaGold said Auramet converted \$6.3 million of the loan into 5 million shares of NovaGold stock, reducing the amount owed to about \$13.7 million. NovaGold also said it will pay off the remaining balance and interest unless Auramet decides to purchase additional shares with the outstanding loan balance.

Electrum becomes 30 percent owner

Electrum Strategic Resources is a member of the Electrum Group of Companies, which holds one of the largest and most diversified portfolios of precious metals exploration projects in the world, according to NovaGold.

"We are really pleased to have a strong strategic partner like Electrum invest in NovaGold. I think it sends a very strong signal to the market," said Van Nieuwenhuysse. "They invest in a few stories and get involved with them (with) a long-term perspective."

The transaction with Electrum will give the private company 30 percent interest in NovaGold, making it the Vancouver B.C.-based miner's largest shareholder. Electrum's ownership stake will jump to about 46 percent if Electrum exercised all of the warrants in the deal. This also would give the miner another \$69 million in cash.

"Our team is looking forward to working with NovaGold's management to develop the company's impressive mineral endowment, one of the largest in the world," said William Natbony, Electrum Strategic's CEO. "The company is exceptionally well-positioned to advance its operations along the value chain and maximize the returns for all shareholders."

While an Electrum representative will not sit on NovaGold's board of directors, the New York-based

see STAKE page 22

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STAKE

company has the right to have an observer at all board of directors meetings as long as Electrum holds at least 15 percent of NovaGold stock. Van Nieuwenhuysse said he will be dialoguing directly with the Electrum observer.

In April Electrum made its debut appearance in Alaska with the signing of joint venture agreements with Gold Crest Mines Inc. on five gold properties in the Kuskokwim region of Southwest Alaska. The claim groups included in the agreement—Kisa, Gold Lake, Gossan Valley, Little Swift and Gold Creek—are located about 100 miles southwest of Donlin Creek and about 40 miles west of NovaGold's Shotgun property.

Permitting at Donlin scheduled in '09

The 30-million-ounce-plus Donlin Creek gold project will be the center of NovaGold's attention in 2009. Operator Donlin Creek LLC, which is co-owned by Barrick and NovaGold, plans to unveil a feasibility study for the world-class gold deposit in the first quarter of the year and begin the permitting process shortly after that, according to Van Nieuwenhuysse.

Van Nieuwenhuysse said the partnership launched its pre-permitting public outreach program in November. The partnership has been traveling to the villages of the Kuskokwim Region, informing the communities of its plans for developing a mine at Donlin Creek.

The outreach is also designed provide a forum for the people of the region to provide their input before the project goes to permitting. According to Van Nieuwenhuysse the companies will review the public input and make the changes needed before submitting the permit applications to the state regulators.

In its community presentation, the partnership outlines a plan to process about 50,000 metric tons of gold-rich ore per day. At that rate and with the current resource outlined at Donlin, the mine could produce anywhere from 1 million to 1.5 million ounces of gold per year for the next 25 to 30 years.

Once in production, Donlin Creek will employ 500 to 600 people, many of them residents of the Kuskokwim Region. Van Nieuwenhuysse said the project will need a larger work force during the construction phase, which is targeted for 2012.

Due to high energy costs, power generation has been a critical, and sometimes contentious, issue for the development of the Donlin Creek Mine.

Running a power line from Alaska's railbelt was the plan originally preferred by NovaGold. The company said detailed scoping studies indicated that the increased construction time as well as permitting and business risks associated with the power line outweighed the economic incentives of this option. The partners concluded that the best solution was to use onsite diesel and wind cogeneration for power. While this solution will mean higher capital costs, it is believed a reduced carbon footprint and reduced operating costs will offset the investment.

We've been working toward this goal since we acquired the property in 2002," said the NovaGold CEO. "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."



Storm water resulting from the thaw of record snowfalls last winter caused considerable problems at NovaGold's Rock Creek gold project on the outskirts of Nome, Alaska.

Dam issues at Rock Creek

While Donlin Creek may be NovaGold's primary focus this year, dealing with water building up behind the tailings dam at Rock Creek is the company's most immediate concern.

In November, two months after the company fired up the gold mine, NovaGold announced it was suspending operations at Rock Creek. The company said the suspension was due to complications in meeting environmental requirements outlined by state and federal regulators.

The tailings dam was designed to retain waste from the mine, which will mostly consist of solids. The company plans to treat the water buildup and pump it down injection wells.

The first step is to commission the mine's water treatment plant. The facility is scheduled to begin operation by mid-February. Van Nieuwenhuysse said the water, once treated, will meet regulatory requirements.

In early January, the NovaGold executive met with regulators from the Alaska departments of Natural Resources and Environmental Conservation to address permitting issues related to the mine. Van Nieuwenhuysse and the regulators discussed dam-related issues and how to effectively deal with storm water resulting from the spring thaw.

Storm water resulting from the thaw of record snowfalls last winter caused considerable problems at Rock Creek, prompting Alaska regulators to issue NovaGold a Notice of Violation related to a lack of preventative measures for storm-water discharges from its construction site.

Litigation cost more than money

When the mine went into production in September it was already several million dollars over budget. The cost overruns were, in a large part, due to delays resulting from legal challenges to the company's permits.

"To go through the (permitting) process and then have the permits chal-

"We are really pleased to have a strong strategic partner like Electrum invest in NovaGold. I think it sends a very strong signal to the market. They invest in a few stories and get involved with them (with) a long-term perspective." —NovaGold President and CEO, Rick Van Nieuwenhuysse

lenged, there is a huge financial burden on the company when that happens. That is exactly what happened to us at Rock Creek," Van Nieuwenhuysse reflected. "In hindsight, we would have been much better off in that situation to just have let everybody go and said, 'Okay guys you can pick up the ball'"

When the challenged wetlands permits were finally upheld by the U.S. Ninth Circuit Court, NovaGold was put in the position of finishing the tailings pond and other work covered by the permits in the middle of what turned out to be the snowiest winter on record in Nome.

The NovaGold CEO said the legal delays threw off the timing of completing the construction at Rock Creek.

"All the judges said (the lawsuit) didn't have any merit. That cost us six months in delays. The work you planned on doing in the summertime you find yourself doing in the wintertime and visa-versa," Van Nieuwenhuysse explained. "You are planning the work in your engineering to minimize the impact on the environment, and then the legal process and delays are causing just the opposite."

The NovaGold CEO leader said the company is now evaluating the costs of restarting operations at the Rock Creek gold mine.

Early-stage assets go to Mantra

Van Nieuwenhuysse said NovaGold's early-stage projects are now assigned to Mantra Mining Inc.

NovaGold and Mantra finalized a deal in late December to spin out NovaGold's

non-core Alaska assets into Mantra. The five properties – Colorado Creek, Kugruk prospect, Baird project, Omalik property and Tintina properties – total about 397,560 acres.

In the amended deal, Mantra agreed to pay 3.125 million of its common shares for the NovaGold properties. Valued at C\$5 million or C\$1.60 per Mantra share, the transaction will give NovaGold about a 6.68 percent ownership interest in Mantra. The Ambler property, which was the centerpiece of the original agreement in September, was subtracted from the year end deal.

"One of the things we are looking at right now is how we are going to organize (Mantra) going forward," said Van Nieuwenhuysse, who is a Mantra director. "We may well split the precious metal assets and the base metal assets into two separate entities."

The drill plans and budget for Mantra in 2009 will be dependant on the reorganization and money-raising efforts of the NovaGold spin-out vehicle.

Van Nieuwenhuysse said Colorado Creek will be one of Mantra's core properties and likened the geology of the early-stage property to Donlin Creek.

NovaGold signed a lease in 2008 on the gold property, located about 70 kilometers, or 43 miles, northwest of McGrath.

After completing an initial review, NovaGold geologists say the property is very similar to the Donlin Creek deposit. The 2008 field work turned up new mineralization to the southwest of the leased claims, and, as a result, NovaGold staked additional claims to cover this new discovery.

Van Nieuwenhuysse said a NI 43-101 report has been submitted for the property based on the early-stage exploration.

Colorado Creek, according to Mantra, needs a total re-evaluation of existing data and interpretation in light of NovaGold's advanced understanding of ore controls at Donlin Creek. In 2009 the junior plans to conduct an exploratory trenching and drilling program on targets identified by company geologists. ●

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AUSTRALIAN EXPLORER

appropriate data both at surface and at depth," Willson explained.

The company expected that the core had been previously sampled in entirety but found instead that the historical explorer had selectively sampled the core for its high-grade intersects. The Australian geologists recognized that significant portions of the unsampled core were strongly altered. This prompted the company to focus on analyzing the previously un-sampled core.

Willson said the company's Alaska team, in late August, began gathering the core and

encouragement that the property can host an economically viable mineral system, which was not clear from the narrow, high-grade results previously intersected," Willson explained.

Australian targets underlying lode source

Willson told Mining News that Australian Mineral had planned to start a drill program in the fall of 2008, but due to the discovery of the unsampled core coupled with the lack of rig availability, the company has delayed the drill program until this spring.

The field work carried out at Tushtena in 2008 has produced a drill target for the upcoming season. According to Willson, the target, which lies to the southwest of the Discovery Zone and at depth, was identified very early on and much of the 2008 work was confirming whether the target or some variation thereof, would be valid.

He said near-surface targets of the historic drilling in the near-surface mineralization have the potential to develop into a low-grade bulk tonnage deposit, but his company is targeting the underlying lode source of the highly altered mineralization.

"Where the original drilling was focused on shallow high-grade narrow veins at surface, the data suggests that is likely not going to produce anything but potentially a bulk-tonnage low-grade system perhaps ala-Fort Knox. We are focusing on trying to intersect a lode-style system at depth, beneath (the low-grade system), basically where two structures intersect each other," Willson said.

Surgical strike in '09

He said the 3-D model being developed by the company, which is reasonably far advanced, indicates that the junior's main target is shallower than anticipated.

Australian Mineral plans to begin drilling on the property early in the 2009 season with a surgical test of the prospec-

tive targets located with last year's work. The junior also plans to continue to explore for additional targets on the property.

Willson told Mining News that the company will put together an exploration plan and budget once its 3-D model and interpretation of the data has been completed. ●

COURTESY OF AUSTRALIAN MINERAL FIELDS



This sample showing alteration, brecciation and sulfides was taken from the area of the Discovery zone at Australian Mineral Fields' Tushtena project in Interior Alaska.

transporting it to Fairbanks to be assayed. To date the company has received results from three of the holes. The results gave the company stronger confidence in the historically reported results, and revealed a new intersection, suggesting the mineralization may be less constrained than previously thought.

"The data clearly shows that the area around the 'Discovery Zone' is where the prospective alteration gradient occurs. While this appears to be a circular argument, it provides, in the company's opinion, strong



COURTESY OF ZAZU METALS

The photo shows core from hole 159 drilled in 2008 at the Lik property. The 26 meter intersection the core came from averaged 8.73 percent zinc and 2.75 percent lead.

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ZAZU METALS

cent, and lead recoveries reached as high as 81 percent into a concentrate grading 57 percent. However, test results showed lower lead recoveries of about 70 percent would yield a concentrate grade of 70 percent, which would be more marketable to smelters.

The junior said these results are similar to those at Red Dog, and the company will continue to work on improving the metallurgical results through optimiza-

tion of the processing methods.

Zazu said it is also continuing with significant environmental base line work in preparation for permitting.

"The primary highlight was to have completed the work required for the production of a scoping study. This really marks the transition of the property from being exploration stage to pre-development," Ford said. "Our ultimate objective is to develop Lik into an operating mine. We continue to examine every method of doing so whether alone, or via joint venture or strategic partner." ●

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Arctic Oil & Gas Directory

Covering Arctic oil and gas operations and the logistics, construction and service firms that support them



A biannual supplement



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Alaska is 'open for business'

And the proof, DNR Commissioner Irwin says, is our oil and gas industry's expansion into new areas

BY TOM IRWIN

Commissioner, Alaska Department
of Natural Resources

In recent weeks, Alaskans have heard rumblings about obstacles to resource development.

Although a very small minority of leaseholders in Cook Inlet have drawn attention to their inability to kick-start oil and gas projects, Alaskans should be encouraged to hear the good news about where progress has occurred. The story is simple—responsible stewardship is working!

Managing Alaska's precious natural resources is a responsibility Gov. Sarah Palin's administration takes seriously. Acting as a good partner, which means providing predictable and reliable guidance to our resource development industries, expecting them to live up to their part of the bargain as we live up to our commitments, and ensuring Alaskans receive a reasonable share of the revenues, is essential to Alaska's economic health.

The state of Alaska, through its Division of Oil and Gas, manages more than 1,700 oil and gas leases. Through a combination of royalty payments, lease bonus bids, and rental fees, the state received some \$3.3 billion in nontax oil and gas revenue in FY 2008.

Of this amount, \$834 million was deposited into the Permanent Fund.

But royalty revenue can only be generated if development occurs. Of those 1,700 leases, only 3 percent were relinquished or revoked because development commitments were not upheld. Most of those relinquished leases were subsequently made available to new developers, attracting the attention of multiple bidders.

As development occurs, leaseholders

provide the state with updates and additional commitments to drill and produce the land under contract.

These plans of exploration, plans of development and plans of operation are submitted by lessees. By and large the state approves them, sometimes with suggested amendments, but always with one thought in mind — is this plan appropriately aggressive so that Alaskans will see jobs and revenue from the management of this land?

In 2008, the Division of Oil and Gas processed and approved more than 200 such work plans. Last year, more than 100 wells were drilled in the approximately 50 producing units in Alaska, with the same level of activity planned for 2009. We are working hard to ensure the state's resources are actively developed!

Our commitment to development is further demonstrated through the royalty modification program and has resulted in major activity.

This past summer, Pioneer Natural Resources announced the start-up of the North Slope's first independently operated oil field, Ooguruk, noting the important role played by the state's willingness to reduce its royalty share and financially stimulate development. Through a cooperative cost-and-risk-sharing effort between the state and industry, this world-class field is being developed.

Likewise, Italian energy giant Eni has sanctioned some \$2 billion in project capital for the development of the Nikaitchuq field, neighboring Ooguruk.

Another first in a year of major milestones is Anadarko Petroleum's natural gas exploration project in the Gubik field, south of Prudhoe Bay. For decades, North Slope producers discovered gas as a consequence of oil exploration. For the first time ever, Anadarko's project will target

natural gas with an eye toward either selling it to a local utility, shipping it in the larger gas pipeline, or both.

Production increasing

Finally, because of the tremendous tax benefits enjoyed by investors resulting from Alaska's net profits production tax arrangement (ACES), a modest increase in production has been realized during the



The state of Alaska, through its Division of Oil and Gas, manages more than 1,700 oil and gas leases. ... Of those 1,700 leases, only 3 percent were relinquished or revoked because development commitments were not upheld.

—Tom Irwin



Another first in a year of major milestones is Anadarko Petroleum's natural gas exploration project in the Gubik field, south of Prudhoe Bay.

JUDY PATRICK

past 12 months.

While the price of a barrel of oil is beyond state control, Alaska is sharing in that "price risk" in important ways. Each and every Alaskan contributes, through investment tax credits, when energy investors spend money. Tax deductions for capital and operating expenses lower the initial investment obstacle, making more development possible. When prices are bullish, Alaskans benefit, and when prices fall Alaskans pitch in to spur investment by accepting less tax revenue.

Alaskans should be proud of the banner year we've experienced. Milestones like Pioneer's Ooguruk unit, Eni's Nikaitchuq project, dozens of new plans of development and billions of dollars in revenue tell the real story about Alaska's ability to attract investors and manage its resources.

Editor's note: This op-ed piece first appeared in the Anchorage Daily News on Dec. 23, 2008.



Kenworth hybrid electric/diesel truck unveiled

Carlile's new Kenworth hybrid electric/diesel truck unveiled at Port of Tacoma terminal

Whether equipment for rural hospitals or modules en route to Alaska's North Slope, Carlile's expertise and multimodal connections deliver peace of mind

Carlile Transportation Systems is a proven leader in transportation and logistics solutions. The company's ability to adapt and grow to meet the needs of customers is key to its continued success.

Q. When was the company founded? Who founded it, and what was its original name?

A. Carlile Enterprises was formed in 1980 by brothers Harry and John McDonald. The first contracts included hauling urea from the Kenai Peninsula to the Matanuska Valley



Linda Leary, president, provided information for this company profile.

and delivering milk from the valley to Anchorage. Later, after a few moves, the name changed to Carlile Transportation Systems, and Jeff Allen, Linda Leary and Karl Hoenack joined the team and became co-owners.

Q. Where is your company located?

A. We are based in Anchorage and have terminals in Anchorage, Fairbanks, Prudhoe Bay, Kenai, Kodiak and Seward, Alaska; Tacoma, Washington; Edmonton, Alberta, Canada; Houston, Texas; and Forest Lake, Minnesota.

Q. Who heads up your company, and who is on its senior management team?

A. Harry McDonald is CEO and Linda Leary is president. John McDonald is senior vice president, Jeff Allen is vice president of operations and Karl Hoenack is vice president of human resources. Linda

Leary became president in 2008 and will lead the company into our next chapter.

Q. What services does the company offer?

A. Carlile is one of Alaska's largest trucking companies with more than 200 company-owned trucks and 1,200 pieces of specialized trailing equipment to handle even the most unusual load. We offer truckload, LTL, heavy haul, haz mat, freeze and chill, warehousing, and logistics – re-



By Paula Easley

liable transportation via all modes.

Q. What is the company's primary business sector?

A. Our business comes from virtually all industry sectors. Major clients include oilfield, construction, mining, government, and wholesale and retail. We partner with other transportation companies including rail, water and air carriers to best serve our clientele.

Q. How many employees does Carlile have?

A. All together we have about 650 employees. We have 325 in Anchorage, 125 in Tacoma, 75 in Fairbanks, 60 in Kenai, 25 at Prudhoe, and the rest are in Kodiak, Seward, Houston, Lake Forest and Edmonton.

Q. Does Carlile have subsidiaries?

A. Carlile Logistics is a subsidiary company that offers logistics, warehousing and other value-added services in Anchorage and the Tacoma area.

Q. Describe your essential equipment in general terms.

A. We have 350-plus tractors and 1500 pieces of trailing equipment. We also have a brand new Kenworth hybrid electric/diesel truck at our Tacoma facility (see photo).

Q. Is your company expanding any of its operations and/or locations?

A. We have recently expanded our rail yard facilities and property at the Port of Tacoma.

Q. What is your company's main strength, i.e. its edge over the competition?

A. I'd say it is our personal relationships with our customers, along with our ability to customize all kinds of challenging logistical moves within Alaska.

Q. What new markets, clients and/or projects did you attract in the last year?

A. That would be retailers that have moved into the Pacific Northwest and Alaska and new oil and gas service com-



Harry McDonald and John McDonald

panies operating throughout the state.

Q. Has the company invested in any new technology in the last two years?

A. TruckMate is a major system acquisition that will be launched company-wide in 2009. It delivers technology that enables us to improve operational efficiencies, improve transactional velocity and use of resources, deliver superior customer service and ensure long-term profitability. It is faster, efficient just-in-time information that our customers will appreciate.

Q. What is the most challenging job the company has undertaken?

A. One that comes to mind was the bridge for the Ted Stevens Anchorage International Airport. It was constructed in Anchorage, and after completion the piece was too heavy for road restrictions and equipment. Special municipal permits were acquired, and the trailing equipment was enhanced to accommodate the extreme weight.

Q. What do you see as the biggest obstacles facing your company?

A. Of course the current economic situation is a major concern. There's also the matter of high fuel prices and mispercep-

tions of customers and potential customers in the Lower 48 unfamiliar with distances, costs and logistics challenges associated with transportation in Alaska.

Q. Does Carlile have an anniversary or other landmark event on the horizon?

A. We are excited that in 2010 we will celebrate our 30th year and look forward to solving our customers' transportation needs over the "long haul."

Q. What is the average length of time employees work for the company? Are you hiring for any positions?

A. 60 percent have less than five years with the company; 40 percent have been with us more than five years. We're always looking for good, experienced drivers.

Q. What is your company's safety record?

A. Our record is excellent. We earned the 2007 Fleet Safety Award of the Year for over 10 million miles without an accident.

Q. Do you have a website?

A. www.carlile.biz



COURTESY CRUZ CONSTRUCTION

Bed truck moving Nabors drill rig 106E

Cruz Construction allocates resources for highest productivity, keeping clients satisfied

No matter how challenging the logistics, dynamic prime contractor Cruz Construction plans its work and works its plan every time

Cruz Construction clearly understands that the most critical factors in any project are safely performing all work, while facilitating the client's satisfaction. We are a dynamic prime contractor, accustomed to working under a tight schedule and budget. This proven ability has made us a leader in the remote and logistically challenging projects found throughout Alaska. Our success is based on competence and positive working relationships that foster repeat and continued business. Thus, our success is



Jeff Miller, senior projects manager, answered questions for this profile.

measured by seeing that our clients meet or exceed all the goals they have for their projects.

Q. When was Cruz Construction founded? Who founded it, and what was its original name?

A. The company was founded in 1979 by Dave and Dana Cruz and maintains its original name.

Q. Where is your company located?

A. We have three locations. Our main office is in Palmer, Alaska, and we have

two field offices – one in Deadhorse and one in Fairbanks.

Q. Who heads up your company, and who is on its senior management team?

A. Dave Cruz is the president; Dana Cruz is vice president; Jeff D. Miller is the senior projects manager; Brian Ringer is chief financial officer; Brian Benston is our facilities manager;

Kevin Weiss is the operations manager of Cruz Marine Limited.

Q. What is the company's primary business sector? What services does the



By Paula Easley

company offer?

A. Our largest volume of work is oil field services, but we also perform heavy civil work, land clearing, directional drilling, fabrication, consulting, mine development and barging.

Q. Who are the company's main clients?

A. They are Chevron, Conoco Philips, Army Corp of Engineers, Alaska Department of Transportation and the Bureau of Land Management.

Q. How many employees does your company have? How many in each of its locations?

A. During the months of September to May we employ as many as 200 people, and the remainder of the year we employ about 60. The winter staff is mainly based out of our Deadhorse office, and the summer staff is based all around the state.

Q. Is your company expanding any of its operations or locations?

A. We recently have added a marine division to our operations, Cruz Marine Limited. This next summer it will be supporting our new runway construction



CAT 385 Stockpiling Gravel at Happy Valley

project in Grayling.

Q. What is your company's main strength, i.e., its edge over the competition?

A. Our people are our main strength. We have an amazing group of core employees who are committed to building our work safely and efficiently; most of all they have fun doing it.



Three camps, one shop, and a lot of equipment at Franklin Bluffs

Q. What new markets, clients or projects did your company attract in the last year?

A. We have expanded our facilities division to include another mobile 60-man camp. We now have nearly 200 beds spread between seven different camp configurations and two mobile shops. This infrastructure is catered to facilitate remote and mobile projects.

Q. Has the company invested in any new technology in the last two years?

A. We have purchased a new mobile nano-filtration water treatment plant.

Q. What is the most challenging job you've undertaken?

A. That would have to be the Galena Emergency Stream Bank Protection Project. We put in three-quarters of a mile of rip-rap along the Yukon River in Galena during the dead of winter. We faced minus-60-degree weather and a short construction season. The project involved drill and shooting, ice roads, barging, Herc loads, ATV travel, Arctic conditions, trucking, material processing, and many other challenging tasks. We had 955 contract days to finish the project, but we finished it in 256 and won the AGC Contractor of the Year Award.

Q. What are the biggest obstacles to completing work the company undertakes?

A. The weather is the biggest obstacle. You try to plan based on historical data, but in Alaska you can never be assured you know what tomorrow will bring.

Q. What do you see as your company's biggest challenge in the next five years?

A. Handling the effects of the rapidly changing economy.

Q. What do you see as future trends or opportunities for your company from, say, political events or long-term weather fluctuations?

A. Oil and gas exploration, mining exploration, and construction of a gas line will continue to provide plenty of opportunity for our company and the state. Of course none of this will happen without a stable state tax policy and reasonable regulatory environment.

Q. What is the average length of time employees work for the company?

A. Our core group of employees consists of a range between 4 and 16 years.

Q. What is your safety record?

A. Our current experience modifier is 0.74 percent and we have not had any lost time accidents on our projects for more than five years.

Q. Do you have a website?

A. Yes we do. Come visit us at www.cruzconstruct.com. It is currently receiving a major facelift.

60th anniversary in 2009 a significant milestone for Lounsbury & Associates

Lounsbury websites offer more than services: a free snowmachine training course and animated guide for negotiating traffic roundabouts

Lounsbury & Associates has provided surveying, planning, civil engineering and project management services on a statewide basis for 60 years and takes pride in its reputation for excellence and reliability.

Q. Where is Lounsbury & Associates located?

A. Our headquarters office is at 5300 A Street in Anchorage. We have had an office in Wasilla since 2001 at 3161 E. Palmer-Wasilla Hwy. We have also maintained an office on the North Slope at the Kuparuk Office Complex for over 25 years. We regularly establish field offices as required to support major projects.



Ken Ayers, PLS vice president, answered these questions

Q. When was the company founded? Who founded it, and what was its original name?

A. The company was founded as Hewitt V. Lounsbury & Associates in 1949.

Q. Who heads up your company and who is on its senior management team?

A. Jim Sawhill PE, is president and principal in charge of engineering. Ken Ayers PLS, is vice president and principal in charge of surveying. A.J. Rookus PLS, and Brian Mangold PLS, are the project managers at Kuparuk. Tom Adams PE, manages engineering and Tim Mullikin PLS, manages surveying at our Valley office.

Q. What services do you offer?

A. We provide surveying, planning, civil engineering and project management services. We typically focus on our core expertise but are experienced at building and



Lounsbury surveyor setting grades for ice pad construction

managing design teams with experts of many disciplines to best serve our clients or the project at hand.

Q. What is your company's primary business sector?

A. We maintain a diverse clientele. In the oil and gas sector we provide services to ConocoPhillips, Chevron, ENI Petroleum, Pioneer Resources, Chevron and others. We also provide surveying and engineering services to state and local governments for transportation, highway, traffic safety, drainage, utility and right-of-way projects.

We provide commercial site development surveying and engineering services for retailers such as Wal-Mart and Lowe's. And we work with many local developers, such as The Petersen Group, Hickel Investments and Carr-Gottstein properties, on commercial and residential development projects.

Q. How many employees do you have?

A. We have around 65 employees although the number increases during the summer.

Q. Describe your essential equipment in general terms and planned purchases.

A. One of our business strategies is to stay on the leading edge of technology, so we constantly evaluate new hardware and software platforms to increase efficiency and better serve our clients. We recently invested in a Leica ScanStation 2, a laser scanner that creates three-dimensional point clouds that we model in CAD software. This technology is well suited to piping and process facility work but has many other applications including earthworks, structures and civil design.

Q. Is Lounsbury expanding any of its operations?

A. Sustainable growth over the long term is our priority. We're always looking



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to expand into new markets and provide additional services to existing clients.

Q. What is your company's main strength?

A. We work as partners with our clients to create cost-effective designs. We face tough challenges every day in our work, and that's one reason our clients keep coming back; they know they can trust us to get the work done right. Our clients know a thorough engineering analysis and innovative design solutions built upon quality survey data can significantly reduce construction costs and sometimes cover the entire design budget.

Q. What new markets, clients and/or projects did you attract in the last year?

A. The laser scanner has started to build momentum in piping and process facility projects for, not only our direct clients, but through other engineering firms that use Lounsbury as a specialty sub-consultant to obtain existing conditions data for their use in design projects.

Q. Has the company invested in any new technology in the last two years?

A. One recent investment was switching to AutoCAD Civil 3D. This is a major departure from traditional 2D design that required a significant training effort and changing the way we approach projects. 3D scanning technology is also a substantial investment as each scanner costs \$100,000 and the software is another \$50,000 – plus the training and marketing costs.

Q. What is the most challenging job you've undertaken?

A. There have been many. Notably, I'd say developing the Swanson River oil field; reconstruction and repair work following the 1964 earthquake; and design and construction of the Alyeska Pipeline, Prudhoe Bay & Kuparuk.

Engineering the roundabouts for Dowling Road and reconstructing the Sterling Highway into Homer were also challenging projects. Certainly the many quality neighborhoods we designed over the decades—with Southport in Anchorage a leading ex-



Lounsbury surveyor sets GPS control for Colville River flood plain study (Alpine project 1996)

COURTESY LOUNSBURY

let anyone forget these memorable moments. We have had guys treed by moose and chased around by rabid foxes and other wildlife—luckily all without any serious incident. Facial hair frozen to equipment is always pretty funny—unless you're the one whose eyelashes are stuck to the instrument at minus 40F.

Q. Does Lounsbury have an anniversary or other landmark event coming up?

A. Our 60th anniversary is in 2009. We'll have an open house for our clients this spring and a company celebration this summer to commemorate the occasion. We're proud to be Alaska's oldest continuously operating surveying and engineering company.

Q. What is the average length of time employees work for the company? Are you hiring?

A. We're equally proud of our low employee turnover. Lounsbury is a great place to work. Many employees are in the 5-10 year range and quite a few are in the 15-25 range. Dave Marquiss a pastry chef at Kuparuk wins the longevity title with 30 years' service. We are always looking for qualified civil engineers and surveyors and are currently seeking a platting manager for our Anchorage office.

Q. What is your company's safety record?

A. In 2007 we were incident free and this year we had one very minor hand injury. We haven't had a lost-time incident for many years. Safety is a value we live with every day and is a core component of our work.

Q. Website information?

A. Lounsburyinc.com generates quite a bit of traffic from prospective employees, our clients and probably our competitors too. We have a Web-based snowmachine safety training program created for our employees that is available to the public. When we started designing roundabouts, we created alaskaroundabouts.com as a resource for designers, media and the general public. It gets a lot of worldwide attention.

ample—are part of Lounsbury's legacy.

Q. What are the biggest obstacles to completing work the company undertakes?

A. Without a doubt permitting and timely reviews by contracting and regulatory agencies.

Q. What do you see as your company's biggest challenge in the next five years?

A. Given the current economic uncertainty, that is a tough question. If a natural gas pipeline is built we expect to play a significant role in its design and construction, which will certainly be a challenge. Finding and training the next generation of surveyors and engineers is also an ongoing challenge.

Q. What do you see as future trends or opportunities for your company from, say, political events or long-term weather fluctuations?

A. The loss of Senator Ted Stevens and his ability to steer federal funds to Alaska projects will probably have the largest immediate impact on our economy. A lot of this money was for road and utility projects that improved living standards for many Alaskans. Global warming could also impact existing roads and utilities due to melting permafrost and, with this in mind, could change the way we design and build projects in the future.

Q. Is there a humorous story you can share from doing business in Alaska?

A. In general, engineers are kind of boring, but surveyors tend to get themselves into some pretty sticky situations. We never

MACTEC Engineering and Consulting broadens expertise for Alaska operations

Cutting-edge company uses innovative methodologies, technologies, and processes to complete high-quality projects for diverse Alaska clients

MACTEC Engineering and Consulting Inc. formerly Harding Lawson Associates, has provided engineering, environmental, and geoscience services to more than 150 locations throughout Alaska since 1969. With our significant presence in Anchorage, Fairbanks, Ketchikan and Wasilla, and a national team of experts to draw from, MACTEC provides specialized knowledge and experience to Alaska projects.

Q. Where is your company located?

A. Our Alaska Operation Headquarters is located at 601 East 57th Place, Anchorage, Alaska. MACTEC also has offices in Wasilla, Fairbanks, Ketchikan and Seattle, Washington. Nationwide, MACTEC has nearly 100 offices in over 35 states, with the corporate headquarters located near Atlanta, Georgia. All told, the company employs some 3,100 engineers, scientists and support staff.



Sean P. Thomas, RES, Managing Principal-Alaska answered these questions

Q. When was the company founded and what was its original name?

A. MACTEC was originally known as Harding Lawson Associates in Alaska. MACTEC (and its predecessors) have been doing business in Alaska continuously since 1969.

Q. Who heads up your company and who is on its senior management team?

A. Ann E. Massey, CEO, and J. Allen Kibler, president, lead MACTEC from corporate headquarters in Alpharetta, Georgia. Sean P. Thomas is the managing principal for Alaska.



COURTESY MACTEC

Completing projects in logistically difficult locations is routine for MACTEC scientist

Q. Describe any partnership arrangements and when they became effective.

A. MACTEC has numerous partnerships nationwide and is open to establishing mutually beneficial teaming arrangements.

Q. What services does MACTEC offer?

A. In Alaska, MACTEC provides civil, transportation, solid waste, geotechnical, structural, electrical and water-wastewater engineering. Other services include hazardous site characterization and remediation, geoscience, environmental sampling, permitting, specialty studies (wetlands, wildlife, cultural, etc.), regulatory and compliance consultation, and NEPA documentation.

Q. What is your company's primary business sector? Major clients?

A. We serve both government and private-sector clients. They include U.S. Army Corps of Engineers, U.S. Air Force, Bureau of Land Management, Alaska Department of Transportation and Public Facilities, Municipality of Anchorage, BP Exploration Alaska, Conoco Phillips, Alyeska Pipeline, Marathon, Aurora Gas, Chevron and Unocal.

Q. How many employees does MACTEC have?

A. Nationwide MACTEC has over 3,100 employees. Thirty professionals (and growing) serve the Alaska operation.

Q. Describe your essential equipment in general terms.



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A. We maintain a full-size onsite geotechnical soils laboratory, a fenced lay-down yard and multiple field equipment storage facilities, including CONEX trailers. We have all necessary field equipment in-house to quickly mobilize to remote locations and complete wide-reaching scopes of work.

Q. Is MACTEC expanding any of its operations and/or locations?

A. MACTEC is working to grow clientele and services in Alaska, Washington State and nationally. We're positioning ourselves to better serve clients by expanding resources in Fairbanks, and expanding the Mat-Su Valley office. Through multiple relationships with Southeast Alaska partners, MACTEC is expanding our capabilities in Ketchikan and pursuing a presence in Juneau and Haines.

Q. Is the company changing any of its services?

A. MACTEC is a cutting-edge company, using the latest innovative methodologies, technologies and processes to complete high-quality work products on time and within budget. MACTEC seeks to remain abreast of the latest industry and market standards so we can tailor our services to best meet client needs.

Q. What is your company's main strength?

A. MACTEC employs only the best engineering and science professionals and provides rigorous training-testing requirements to ensure we are fully capable of serving our clients' needs. We use top-notch real-time project management, cost control, scheduling and business applications to not only manage projects efficiently, but also to anticipate potential challenges before they become problems.

MACTEC provides each project client with a project manager responsible for the overall success of the project. Moreover, MACTEC also provides a project principal to every project client. The principal is responsible for the overall technical quality of the work product providing principal-level consultation, review and quality assurance. To attain either of these positions within MACTEC, these managers complete intensive required training, courses and mentoring, as well as meet minimum educational

and experience requirements.

As a result of MACTEC's ability to recruit and retain talented professionals, to provide intensive required training, and to solicit constant feedback from clients, over 95 percent of our approximately 5,000 worldwide clients have expressed complete satisfaction with our services.

Q. What new markets, clients or projects did your company attract in the last year?

A. Our clientele is diversified; however, some notable hires in the regulatory-compliance and water/wastewater arenas are enabling us to better serve oil, gas, and mining clients as well as rural communities and municipal utilities.

Q. Has the company invested in any new technology in the last two years?

A. MACTEC's investment in personnel training and everyday use of computer applications that aide in project management, cost control, schedule control and management of change has enabled our project managers to better serve our clients.

Q. What are the biggest obstacles to completing work the company undertakes?

A. MACTEC has operated in Alaska since 1969 and has encountered some unique challenges in conducting business here. However, MACTEC's personnel pride themselves on being innovative, adaptable, and creative when crafting solutions to client needs.

Q. What do you see as your company's biggest challenge in the next five years?

A. The current national economy is a formidable challenge. MACTEC will continue to diversify our services, clientele and capabilities to best position ourselves for continued client satisfaction, growth and business success.

Q. What do you see as future trends or opportunities for your company from, say, political events or long-term weather fluctuations?

A. Given the need to develop and/or expand sustainable infrastructure, pro-

duce energy from sources both non-renewable and renewable, as well as securing our nation, there is ample opportunity for MACTEC to offer over forty years of Alaskan expertise to solving future challenges. It is an exciting time to live and work in Alaska and MACTEC looks forward to its next forty years in the 49th State.

Q. Is there a humorous story you can share from your company's years in business in Alaska?

A. Although not entirely humorous, given that the MACTEC name has been in use since only 2002 in Alaska, many people are unfamiliar with the name. However, when they make the connection between Harding Lawson Associates and MACTEC, it is rewarding that our predecessor had such a strong professional reputation. We enjoy building on that reputation.

Q. Does your company have an anniversary or other landmark event coming up?

A. 2009 will mark the 40th anniversary of MACTEC's doing business in Alaska.

Q. What is the average length of time employees work for the company?

A. Our staff tenure ranges from newly hired engineers to 25-year veterans. MACTEC rewards dedication and hard work; many personnel have advanced to management and technical leadership positions in both our local and national operations.

Q. What is your company's safety record?

A. Every staff gathering opens with a safety minute to discuss safe working practices, and we complete regular health and safety audits. Alaska operations have had zero OSHA recordable incidents or lost-time accidents since before the company became MACTEC (2002). We have incurred zero motor vehicle safety violations during the same time period.

Q. Do you maintain a website?

A. Yes, it's www.mactec.com.

Peak Civil Technologies, with two years under its belt, exceeds growth projections

With high operating costs and tight timelines for meeting remote location infrastructure challenges, PCT proves failure is not an option

Peak Civil Technologies (PCT) is a division of Peak Oilfield Service Company specializing in designing and implementing solutions to unique infrastructure challenges of remote site development.

Q. Where is Peak Civil Technologies located?

A. The main office is at 2525 C Street, Suite 201, Anchorage, Alaska. The primary operation for Peak Oilfield Service Company is at Peak Base Camp in Deadhorse, Alaska.



FORREST CRANE

Dave Brangan, General Manager, answered questions for this company profile

Q. When was the company founded, who founded it and what was its original name?

A. The new division was founded in December of 2006 by Dave Brangan as Peak Civil Technologies, a division of Peak Oilfield Service Company.

Q. Who heads up your company, and who is on its senior management team?

A. The general manager is Dave Brangan, project lead is Eric Franklin, and the director of field operations is Trevor Hulet.

Q. Describe any partnership arrangements and when they became effective.

A. We currently have a teaming agreement with Core Energy Solutions, Inc. (a Nabors-owned company) in Calgary, Alberta, Canada. The main purpose of this arrangement is to serve the needs of petroleum producers and their contractors with unique soils stabilization applications.



COURTESY PEAK CIVIL TECHNOLOGIES

Using a track vehicle to apply fluid binder material to an 180,000 square foot pad on poorly graded beach sand at Cape Simpson

Q. What services does the company offer?

A. Our expertise is in soils stabilization in remote areas in marginal soils (sands and silts), concrete lifting and underpinning, installation and repair of secondary containment systems, industrial spray-on coatings, and concrete and foundation repair.

Q. What is your company's primary business sector and major clients?

A. The petroleum industry is our primary business sector. Major clients include ConocoPhillips, BP, Fluor Enterprises and the Alaska Department of Transportation.

Q. How many employees does your company have?

A. We currently have about 20 who are in Anchorage and Prudhoe Bay.

Q. Does your company have subsidiaries?

A. Peak Civil Technologies is a division of Peak Oilfield Service Company. Our parent company provides ice road construction, rig support and moves, heavy hauling, lifts and picks, road maintenance, tank and vessel cleaning, facility construction and maintenance, fabrication, pipeline and onshore development, and industrial electrical installation and maintenance.

Q. Describe your essential equipment in general terms. Purchases planned?

A. We use closed cell polyurethane for lifting settled concrete; we employ a machine called a plural component proportioner manufactured by either Gusmer Industries or Graco. We use specialty HTPE welding equipment, operated only by our certified technicians, for the secondary containment liner systems we install.

For soils stabilization we use a tail-

QA
AND

By Paula Easley

mounted spray system for dispersing the soils strengthening fluids. A straw thrower is used to disperse soil fibers and they are blended with either a loader-mounted Zipper or a Howard Rotovator which is pulled by a large four-wheel drive tractor with over 100 hp PTO drive.

We are contemplating purchasing a modified lime spreader for better dispersion of soil fibers in windy conditions.

Q. Is your company expanding any of its operations or locations?

A. We are considering projects in Cook Inlet, particularly involving secondary containment, and in Russia and possibly the Middle East with Fluor Enterprises. It's good to diversify since every area has periods of expansion and contraction. Besides, if you're not growing in this business (or trying to) you're shrinking.

Q. Is the company changing any of its services?

A. We are looking at ways to utilize biodegradable fiber compounds in our soil stabilization process so our clients will not have to concern themselves with reclamation. Environmentally sensitive areas such as Northern Alberta, Northern British Columbia and Alaska's National Petroleum Reserve have hydrocarbon reserves but marginal soils (sand mostly).

Integrating soil fibers increases compressive and shear strength of these soils, but conventional soil fibers (polypropylene) will not biodegrade. This makes reclamation mandatory for field developers after the oil and gas is extracted. An "earth friendly" biodegradable fiber which will maintain strength a reasonable length of time (5 to 10 years) but will biodegrade is of interest to our clients.

Q. What is your company's main strength, i.e., its edge over the competition?

A. As a division of Peak Oilfield Service Company, we have the material and human resources at our disposal to tackle the most challenging of projects. Further, the soils stabilization (The SF2® Soil System—patent pending) method and the concrete lifting

COURTESY PEAK CIVIL TECHNOLOGIES



Three days after completion, the client, FEX, had a functional pad for staging materials and equipment.

technology we work with are pretty cutting edge. With secondary containment, five of our crew members hold certifications in hot gas extrusion welding for geo-synthetic liners. We know of no company in Alaska whose crew has more than one. We also have professional applicators on staff for spray-on polyurea liners and coatings of all types.

Q. Has the company invested in any new technology in the last two years?

A. We have worked with the Alaska University Transportation Center (AUTC) in a study which furthered the development of our soils stabilization system. We continue to work with the AUTC, the Alaska Department of Transportation and the U.S. Army Corp of Engineers/ Engineering Research and Development Center, Pavement and Runways Division (Vicksburg, Mississippi) in furthering the technology. We also have invested in current certifications for five of our crew in welding geo-synthetic (HTPE) liners for secondary containment systems.

Q. What is the most challenging job the company has undertaken?

A. In late February of this year, we were asked to undertake emergency repairs to the secondary containment liner system in a very busy Greater Prudhoe Bay tank truck loading area. This involved removing several hundred yards of frozen soil and replacing the liner system. The project HAD to be completed and signed off as such by the EPA on or before April 15, 2008. Working round the clock, we completed it on the 14th of April.

Q. What are the biggest obstacles to

completing work the company undertakes?

A. With the secondary containment work, permitting delays and/or engineering changes can adversely affect the schedule. It has been a challenge getting acceptance in some circles for our soils stabilization technology since it is so new. People can be reluctant to embrace change.

Q. What do you see as your company's biggest challenge in the next five years?

A. Like everyone else, we hope government on all levels will allow responsible development of Alaska's resources. If development is allowed to continue, we see a bright future for PCT.

Q. Does your company have an anniversary or other landmark event coming up?

A. As a division of Peak Oilfield Service Company (which has been in business over 20 years), Peak Civil Technologies will be officially engaged two years come December 19, 2008. We have had strong and sustainable growth in 2008 which should carry us into 2009 and beyond.

Q. What is the average length of time employees work for the company?

A. While we've only been around for two years, we still have the same field crew (which has grown) we started with. We are not currently hiring but plan to after the first of the year (2009). We are always looking for motivated individuals, especially in project management.

Q. What is your company's safety record?

A. Peak Oilfield Service Company has one of the best safety records in the Alaska oil patch. Peak Civil Technologies has worked hard to maintain that record.

Q. Does Peak Civil Technologies maintain a website?

A. You can get hold of us on the Web at www.peakalaska.com, at our office, 2525 C Street, Suite 201, or by calling 907-263-7071.

PRA offers superior geoscience, engineering, project management

Seventy-member professional team to celebrate PRA's 11th anniversary advising Alaska's petroleum industry

PRA's professional staff includes more than 70 of the most competent, experienced oil and gas professionals in the Alaska E&P business. It is known for technical and ethical excellence and as a premier oil and gas consulting company. PRA provides integrated teams or individuals to help clients address the challenges of exploring and developing oil and gas in all of Alaska's basins.

Q. Where is your company located?

A. Our offices are at 3601 C Street, Suite 822, Anchorage, AK 99503.

Q. When was the company founded? Who founded it, and what was its original name?

A. PRA was founded in 1997 by Tom Walsh, Chet Paris, Chantal Walsh, Bob Ravn and Doug Dickey. It is an independent Alaska-owned corporation.

Q. Who heads up your company and who is on its senior management team?

A. The two managing partners are Tom Walsh and Chris Livesey.

Q. What is PRA's primary business sector? What services does the company offer?

A. Our primary business sector is oil and gas exploration and development. We offer geoscience, engineering, project management, and management consulting services. To learn more about



Tom Walsh, above, and Chris Livesey are co-owners of PRA and contributed to this company profile.



By Paula Easley

PRA's capabilities, we invite people to visit our website (www.petroak.com) or contact Tom Walsh or Chris Livesey, managing partners, at 907-272-1232.

Q. Who are the company's main clients?

A. PRA has master service agreements to provide technical staff for short or long-term projects with most of the oil and gas companies active in Alaska, as well as several state and federal govern-

ment agencies and Native corporations. Master service agreements (MSAs) are contracts between client companies and vendors to provide specified services to the client – in our case technical professional consultants or contractors. With an MSA in place, the client has the flexibility to acquire temporary technical professional assistance with a one-page work order.

Q. How many employees does your company have?

A. We have 70 employees in Alaska.

Q. Describe your essential equipment in general terms.

A. We have a computer network and applications to perform reservoir geoscience and commercial modeling and risk analysis. We also have an extensive well log database.

Q. Is your company expanding any of its operations?

A. We have been expanding steadily since 1997 in terms of number of employees and diversity of skills offered.

Q. What is your company's main strength, i.e., its edge over the competition?

A. Our strength is the knowledge and skill of our employees. Most of our technical professionals have 20-30 years' experience in the Alaska oil and gas business, and we have expertise ranging from new basin geologic evaluation to

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production and transportation issues.

Q. What new markets, clients and/or projects did your company attract in the last year?

A. PRA has been working with the North Slope Borough providing support for management of the Barrow Gas Fields. PRA has recently completed phase 1 of a study assessing the potential resource value of methane hydrates associated with the Barrow Gas Fields, and is embarking on a second phase of the study in which the Borough will drill one or two methane hydrate test wells. This is very exciting, cutting edge work, and the potential positive impact for the Borough and for global hydrate research effort is tremendous.

Q. Has the company invested in any new technology in the last two years?

A. We have invested significantly in our well log database, providing access to much-needed oil and gas well information across the state.

Q. What do you see as your company's biggest challenge in the next five years?

A. Attracting and retaining people in a volatile market. We have a very flexible and generous compensation package that has helped to attract and retain key people through the years.



Chantal Walsh is one of PRA's certified professional engineers.

Q. What do you see as future trends or opportunities for your company?

A. The eventual sanctioning of a gas pipeline to deliver North Slope natural gas to market will have profound effects on the oil and gas business, and we expect to see significant growth in the need for technical professionals in the upstream and downstream sectors. The need for experienced contractors is growing along with the activity level (spending), primarily because it provides flexibility to both the client and the contract professional.

Q. What is the most humorous story from your company's years in the business in Alaska?

A. A very heated argument once took place between two of the original partners at a downtown Anchorage restaurant during a busy lunch hour. The outcome had very positive results for the company, but not so for the restaurant, which went out of business shortly thereafter. Its demise, we were told, could have been unrelated.

Q. Does your company have an anniversary or other landmark event coming up? If so, describe.

A. We celebrated our 11th anniversary this past summer.

Q. What is the average length of time employees work for the company? Are you hiring for any positions?

A. It's about five years and growing. We are always in the market for qualified technical professionals who can bring value to our clients.

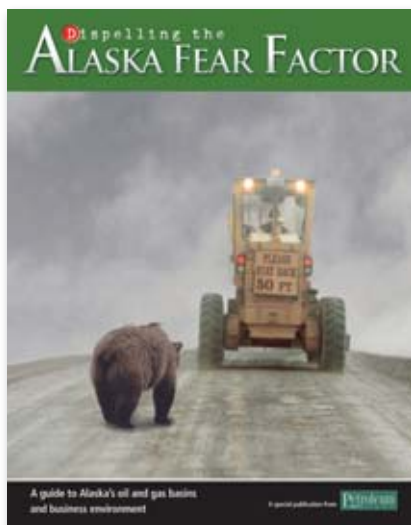
Q. What is your company's safety record?

A. Our safety record is perfect. We have had no workers' compensation claims and no lost-time accidents in eleven years.

Q. Does your company maintain a web site?

A. Yes we do. It is www.petroak.com

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Merger of H.C. Price, Gregory & Cook forms North America's largest pipeline construction company

With a heavy equipment stockpile of over 1000 units, Price Gregory International maintains a forward-looking commitment to support increased oil and gas projects

In 2008, H. C. Price Co. completed a merger with Gregory & Cook Construction of Houston, Texas. The new parent company is Price Gregory Services. The merger brings together two of the largest and most respected pipeline-related infrastructure service providers to form the largest pipeline construction company in North America.

Q. Where is Price Gregory located?

A. Price Gregory's home office is in Houston, Texas. The Alaska Division is located at 301 W. Northern Lights Boulevard, Suite 300, in Anchorage, Alaska.



Dave Matthews vice president, provided information for this company profile.

Q. When was the company founded? Who founded it, and what was its original name?

A. H. C. Price Co. was founded in 1929 by H. C. "Hal" Price, who also pioneered innovations in electric arc welding for pipelines. Price continued over eight decades to lead the industry in quality construction services. It has performed projects in the Lower 48, Canada, the Middle East, Africa and Mexico.

Q. Who heads up your company and who is on its senior management team?

A. The new company CEO is John Jackson; the CFO is Lee Beckelman. Tom White is the chief operating officer. For Alaska, David Matthews is vice-president and Alaska area manager.

Q. What services does the company



Coordinated lift over live pipelines for raise-up of new water injection pipeline replacement at Kuparuk.

offer?

A. PGI is a leading provider of infrastructure services with focus on pipeline construction and related services. We continue to provide construction of gas, oil and products pipelines; installation of metering and valve stations; cleaning, repair, DOT hydrostatic testing and maintenance; erection of power generation facilities, pump and compressor stations, and road boring horizontal directional drilling for pipelines.

Q. What is Price Gregory's primary business sector? Major clients?

A. PGI's primary business sector is in oil-and-gas related services. Our major Alaska clients include BP Exploration

(Alaska), Inc., Eni Petroleum Co., ConocoPhillips, and Alyeska Pipeline Service Co.

Q. How many employees does PGI have?

A. We have over 3,000 employees working in the Lower 48, Canada, and Alaska. The Alaska Division has approximately 500 employees.

Q. Does your company have subsidiaries?

A. PGI's Canadian Division includes OJ Pipelines. OJ Pipelines specializes in large-diameter cross-country pipeline projects. We also own RMS Welding, which provides automated welding services and equipment. RMS and OJ Pipelines are lo-



By Paula Easley

cated in Nisku, Alberta, Canada.

Q. Describe your essential equipment in general terms.

A. PGI's Alaska fleet of heavy equipment and rolling stock includes over 1000 pieces of equipment. Recent purchases include two Watson drilling rigs, an 80-ton hydraulic crane, four 587T sideboom tractors, and a significant addition of ancillary equipment rounding out our Arctic fleet. PGI maintains a forward-looking commitment to providing services for current and future oil and gas projects.

Q. Is your company expanding any of its operations and/or locations?

A. We continue to develop our industrial facility construction services. We provide considerable expertise in EPC-type projects in government and private sector markets.

Q. What new markets, clients and/or projects did your company attract in the last year?

A. PGI's Alaska Division has expanded its operations to include construction of gas compressors, oil pumping, and metering stations in the Lower 48.

Q. Is PGI changing any of its services?

A. The new merger helps us expand capabilities within our primary industry and then into other industries primarily via acquisitions and/or enhanced self-perform initiatives. PGI now has the capability to field over seven spreads of equipment and personnel for large-diameter cross-country pipelines. Said another way, we can construct approximately 1,000 miles of large-diameter cross-country pipe in a season if called upon.

Q. What is your company's main strength, i.e. its edge over the competition?

A. We believe it is our ability to manage projects that measure up to the project goals. We utilize the most current project management tools, have a dedicated core staff team, and bring to the table excellent relations with clients and our union workforce.

Q. Has the company invested in any



PGI-designed welding shelters that exhaust smoke and improve welders' breathing environment and productivity.

new technology in the last two years?

A. We have designed and fabricated state-of-the-art welding and coating shelters to support pipeline work during our Alaska winters and are proud of our innovations in Arctic drilling.

Q. What is the most challenging job the company has undertaken?

A. PGI has performed a number of challenging projects, including arctic underwater pipeline installations, multiple cross-country pipeline installations, and the largest electrical generation power plant in Alaska.

Q. What are the biggest obstacles to completing work the company undertakes?

A. PGI is challenged by its initiatives to maintain safety/environmental excellence as it comports with tight project schedule requirements, permitting restrictions and timelines, and outdoor work in arctic weather.

Q. What do you see as your company's biggest challenge in the next five years?

A. A big worry is having a qualified workforce to take on increasing project workloads.

Q. What do you see as future trends or opportunities for your company from, say, political events or long-term weather fluctuations?

A. We are very encouraged by both the Denali and TC Alaska gas line initiatives in which we can play a key role during planning and construction. We are equally encouraged by other large-diameter pipeline prospects in Alaska over the next decade that are outside Prudhoe Bay.

Q. Does PGI have an anniversary or other landmark event coming up?

A. Next year, PGI will celebrate its 35th year of continuous service to Alaska, which began with the trans-Alaska oil pipeline.

Q. What is the average length of time employees work for the company?

A. As a union contractor, PGI employs on a project basis. However, PGI's core staff and key foremen overall have worked for the company for several decades.

Q. What is your company's safety record?

A. PGI's safety record reflects its dedication to continuous improvement. In recent years, PGI has received the Governor's Safety Award as well as a client's Designated Contractor of the Year Award for the company's perfect safety record.

Q. Does your company or its partners or subsidiaries maintain websites?

A. Yes. Come visit us at www.pricegregory.com.

From urban port expansion to enhanced oil recovery projects, Udelhoven sets standards for excellence

Udelhoven's project managers, engineers, quality assurance inspectors, startup technicians and other specialists form proud, dependable team

Q. When was Udelhoven Oilfield Service Co. founded? Who founded it, and what was its original name?

A. It was founded in 1970 by James Udelhoven in Kenai, Alaska. Its original name was Udelhoven Oilfield System Services, Inc.

Q. Where is your company located?

A. Our operations are in Anchorage, Nikiski, Prudhoe Bay, and Houston, Texas.

Q. Who heads up your company and who is on its senior management team?

A. James Udelhoven is CEO, Jim Gilbert, president, Tim Jacques, senior vice president, Milton Allen, vice president, and Cathy Duxbury is controller/CFO.



Jim Gilbert, Udelhoven president, answered these questions.

Q. What is your primary business sector, and what services do you offer?

A. Sixty percent of our revenue is from the oil patch; the other forty percent is from construction work, i.e. mechanical, plumbing and electrical, usually as a subcontractor. We do work in the commercial, industrial and private sectors as well as on military bases and various airports around the state. We supply project management personnel to the producer companies, which includes project engineers, quality assurance inspection services, functional checkouts and facility startup technicians and engineers.

Q. Who are the company's main



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Overlooking ACX expansion at Alpine production facility

clients?

A. They are BP, ConocoPhillips, Marathon, Chevron, Tesoro, XTO and Pioneer on the energy side, and Alcan General, Neeser, Osborne, Watterson, UIC and the Unit Company on the construction side.

Q. How many employees does Udelhoven have? How many in each of its locations?

A. We have 100 in Anchorage, 140 in Nikiski, 180 at Prudhoe Bay/North Slope and 100 in Houston — so 520 total.

Q. Does your company have subsidiaries? If so, what services do they

provide?

A. We recently purchased True North Management LLC. They are a provider of project management personnel to the producer companies. TNM was established as a wholly-owned subsidiary under Udelhoven Oilfield System Services.

Q. Describe your essential equipment in general terms.

A. We have about 150 equipment items, from light duty trucks to heavy equipment, i.e. backhoes, loaders, telehandlers and a D6 or two.

Q. Is Udelhoven expanding any of its



By Paula Easley

operations and/or locations?

A. We have seen growth in our company at the rate of 10 to 15 percent per year, by continuing to do what we do best, which is offer a quality product and high-quality personnel. Whether it is building a school in Bush Alaska or managing a multi-million-dollar project to enhance oil recovery, we put our best assets (our people) to work on it until completion. We work in China, offshore, and Tbilisi, Georgia, a former Soviet state, doing project management and functional checkout activities.

Q. Is the company changing any of its services?

A. We continue to be a service-oriented company, and in that we strive to compete on a level playing field.

Q. What is your company's main strength, i.e. its edge over the competition?

A. Our owner's integrity which guides us in all of our business dealings.

Q. What new markets, clients and/or projects did your company attract in the last year?

A. We have seen an expansion of our work with the independents as they come into the state. We purchased a majority ownership in a company that specializes in software applications for industrial projects and we're currently using that on two major projects.

Q. Has the company invested in any new technology in the last two years?

A. We've performed some upgrades to our job costing/accounting system which is moving into a Windows environment. We've also invested in a software tool that helps us perform functional checkout on production facilities for our oil and gas clients.

Q. What is the most challenging job the company has undertaken?

A. All of our jobs are challenging; it would be hard to pick just one.

Q. What are the biggest obstacles to completing work the company undertakes?



Udelhoven's railcar rack expansion at Port of Anchorage

A. With the changing political scene there are many obstacles, some of them go by initials like DNR.

Q. What do you see as your company's biggest challenge in the next five years?

A. Finding qualified personnel to do the work.

Q. What do you see as future trends or opportunities for your company from, say, political events or long-term weather fluctuations?

A. We operate in the Arctic, so we are accustomed to weather and the adverse effects it can bring to a project. As mentioned, we are also very concerned about the current political situation and how it affects the gas pipeline project. Alaska needs the gas line; it is as simple as that. But we don't seem to be able to bridge the political chasm that exists between reality and the government. The U.S. must become more energy independent, and continuing to lock up ANWR and failing to build the gas pipeline are counterproductive to achieving that independence.

Q. Is there a humorous story you can share from your company's years in business in Alaska?

A. A guy calls me one day and asks whether he will need a passport to work in Alaska. I tell him it probably wouldn't hurt.

Q. Does your company have an anniversary or other landmark event coming up?

A. In 2010 we will have been in business 40 years.

Q. What is the average length of time employees work for the company? Are you hiring for any positions?

A. Overall the average is 4.3 years, but management has a 13-year average. Yes, we are always hiring.

Q. What is your company's safety record?

A. Excellent. We are coming up on six million man-hours without a lost-time accident.

Q. Does your company or its partners or subsidiaries maintain websites?

A. They are: www.udelhoven.com, www.ISSIGlobal.com, and www.udelhoveninc.com.



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Alaska based general contractors.

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Anchorage, AK 99501
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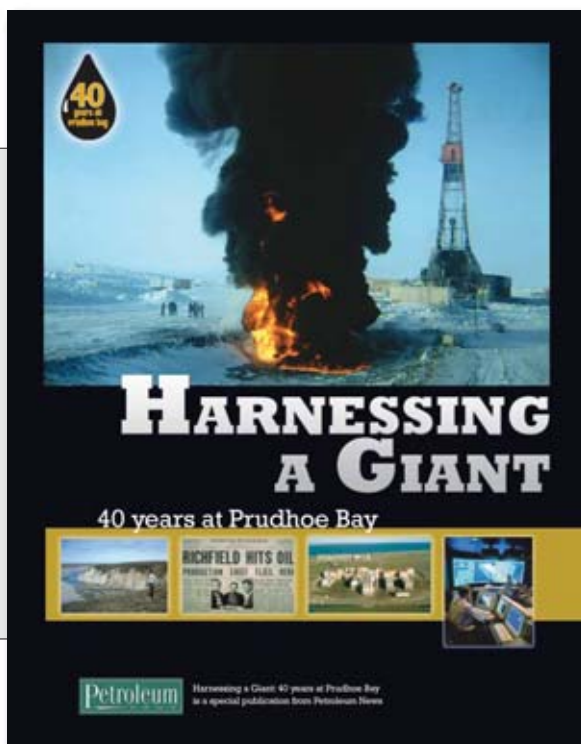
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To order printed and/or electronic copies of the 132-page Prudhoe Bay magazine contact Clint Lasley for pricing information in Anchorage at 907 522-9469 or email him at clasley@petroleumnews.com.



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Phone: (907)-564-5111
Fax: (907) 564-5900
Website: <http://www.bp.com>

ConocoPhillips Alaska
700 G St. • P.O. Box 100360
Anchorage, AK 99510-0360
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Other Office:
52260 Wik Road
Kenai, AK 99611
Contact: Scott Griffith, production superintendent

XTO Energy, established in 1986, is engaged in the acquisition and development of quality, long-lived producing oil and gas properties and exploration for oil and gas.

ON THE JOB *Colville Inc.*

Colville steps up to plate on ULSD

Colville's new ultra-low sulphur diesel tank farm, which was built in Deadhorse in the last half of 2008, has four 435,000 gallon tanks set in a concrete secondary containment, with "cone-up" bottom design for the tanks to sit on.

According to Colville executive Becky Gay, the state-of-the-art tank farm was designed by LCMF. The ground and concrete work were done by Peak, and the tanks were constructed by Rockford.

"It is very substantial, and includes a tertiary containment design, which is the best of the best environmentally," Gay said. "This is Colville stepping up to the plate on the ULSD issue. ... This is a big project for Colville, and the North Slope."

"When we paint next year, they will truly be beautiful!"

The C-plan was approved in November, and the tanks were filled with ULSD in December.



Mark Helmericks, Colville president and CEO, on the catwalk inspecting the tanks.



Foundation work under way.



In this photo you can see how high the concrete revetment walls are.



Installing roof sheets on one of the tanks.



Tank farm's control panel.

Photos courtesy of Colville Vice President **Becky Gay** and **Lyle Winter**, Colville operations manager.

ON THE JOB *Global Offshore Divers*

Photos courtesy of **Global Offshore Divers**



Global Offshore Divers is a commercial hard hat diving company and marine contractor through out Alaska. Global Offshore Divers' primary work involves regular NDT inspections, repairs and installation of sub-sea pipelines & production platforms. Global Offshore Divers also provides diving support for offshore exploration, production platforms and major marine salvage.

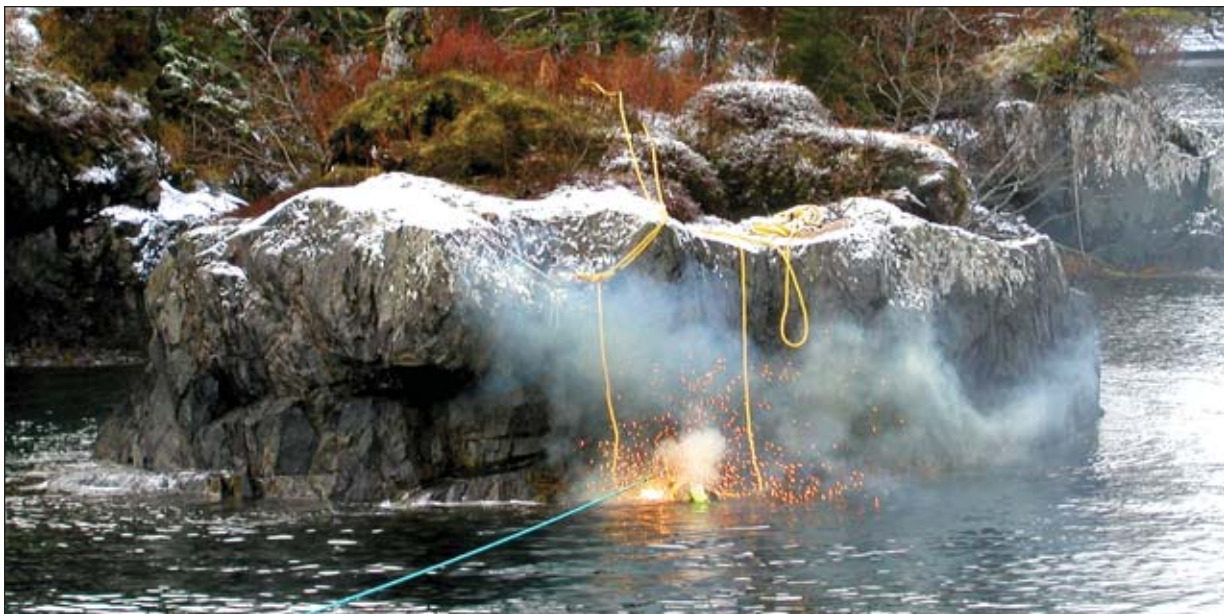


Global Offshore Divers providing dive support for a bridge at the Alpine oil field in ConocoPhillips' Colville River unit on Alaska's North Slope.



Global Offshore Divers technician performs underwater magnetic particle crack detection.

In January, Anchorage-based Offshore Divers and Seattle-based Global Diving and Salvage Inc. announced that they had merged to form a new company, Global Offshore Divers. These photos came from Offshore Divers' Alaska operations.



A diver from Global Offshore Divers is cutting off a ground anchor chain leg near the water surface in Alaska's Prince William Sound.



COURTESY BUILDERS CHOICE

Builders Choice staff and visitors in its Anchorage facility at the company's 1000 modules celebration.

Builders Choice tops 1,000 modules

By DIRECTORY STAFF

In December, Builders Choice hosted an open house to celebrate the production of its 1,000th module since opening its modular production facility in November 2005.

The company said this module is one of many that are shipped to Alaska's North Slope to house hundreds of employees currently working on some of Alaska's most significant oil and gas projects.

Over the course of the last two years Builders Choice has produced modules that have gone to all corners of the state of Alaska.

Builders Choice is located in a state-of-the-art production facility just off Old Seward Highway in Anchorage, Alaska. The massive indoor plant allows crews to work year round on modules that are produced in an assembly line process. The indoor facility not only maximizes productivity for Builders Choice, but it attracts local craftsmen who are eager to work in the comfortable, well-lit environment.

"We are very proud of our ability to in-

Builders Choice is located in a state-of-the-art production facility just off Old Seward Highway in Anchorage, Alaska. The massive indoor plant allows crews to work year round on modules that are produced in an assembly line process. The indoor facility not only maximizes productivity for Builders Choice, but it attracts local craftsmen who are eager to work in the comfortable, well-lit environment.

vest in Anchorage's growing economy by employing over 190 local staff and craftsmen," said Mark Larson, Builders Choice co-owner. "Using local labor to build these modules also gives us a unique advantage over our Lower 48 competitors. After all, no one knows how to build for Alaska's extreme weather conditions better than Alaskans."

In early 2007, BP needed a 200-bed camp and they needed it fast. Builders Choice was able to construct BP's Tarmac Camp in just over four months.

Currently, Builders Choice is building

modules for the new Aurora Hotel being built in Deadhorse.

'Doing the job right' says Bourdon

"This is a huge project for us and working with Mark Larson and Builders Choice daily is working great for ICE Services," said TJ Bourdon, owner of ICE Services. "They have a great management team and their workforce is dedicated to doing the job right. The best part is it's being built by an Alaskan company with Alaskan labor."

The production of the 1,000th module is a milestone for Builders Choice and its clients, the company said.

As Alaska oil fields continue to age, producers are making significant investments to upgrade their critical infrastructure. These multi-billion dollar projects require a substantial workforce to safely implement the upgrades and repairs. The need for more manpower has left the state's oil and gas producers with a substantial housing gap, Builders Choice said in its press release. The efficient production and delivery of the company's modules to the North Slope has helped to fill that gap, keeping these important projects on track. ■



COURTESY BP EXPLORATION (ALASKA) INC.

The Liberty wells will be drilled from this Endicott satellite drilling pad, expanded for the purpose. The pad is connected to the shore by a causeway.

Going for Liberty

BP board gives green light for Beaufort Sea development; world's biggest rig being built for project

By ALAN BAILEY

Petroleum News senior staff writer

After years of debate about how and whether to develop the Liberty oil field in the Beaufort Sea, in federal waters about 5 miles offshore Alaska's North Slope, the BP board finally gave the go ahead to bring the field into production in 2008.

In a July 14 announcement the company said that it is proceeding with full development of the field using ultra extended reach drilling from the Endicott field satellite drilling island.

Endicott, brought online in 1987, was the world's first offshore oil field.

"Liberty is an important project for the nation, for Alaska and for BP. It demonstrates that new sources of domestic energy can be developed and produced responsibly," said Robert Malone, chairman of BP America.

"We're moving forward with the Liberty project and that's really exciting for us," Doug Suttles, president of BP Explo-

ration (Alaska) told a July 14 Anchorage press conference. "... Our ultimate investment in Liberty will probably approach \$1.5 billion."

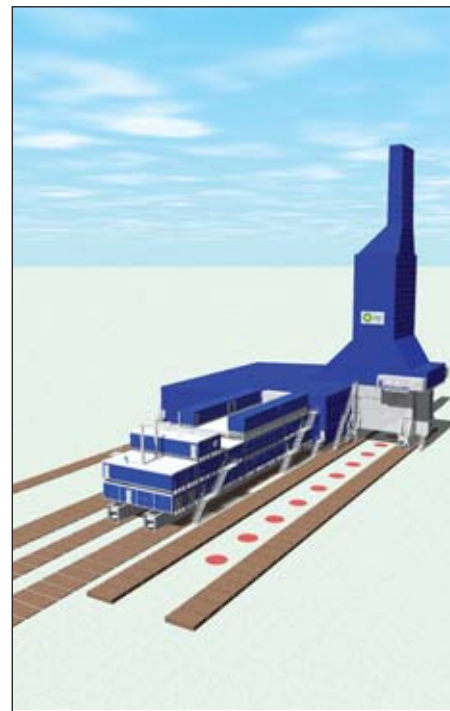
BP expects to recover some 100 million barrels of oil from Liberty, with a peak production rate approaching 40,000 barrels per day.

Suttles characterized the Liberty development as an example of "exploring through technology," in which investment is put at risk to use new technologies to develop known oil pools.

"We'll be doing a number of things that have never been done before in our industry," Suttles said. "We'll be drilling the longest wells ever drilled."

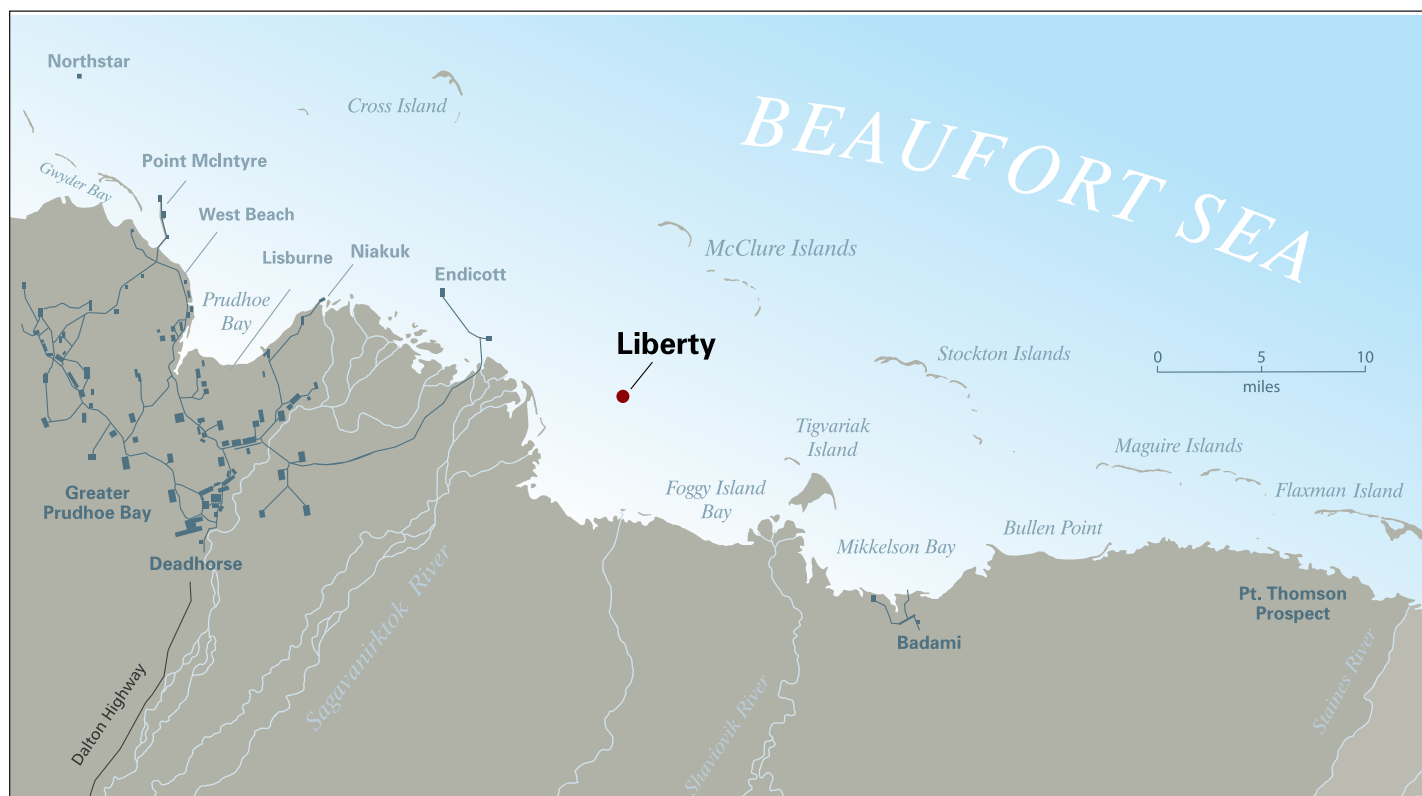
Work has started

Work on the Liberty project has already been cranking into action. A high-resolution 3-D survey of the drilling corridor and construction of the massive drilling rig required for the project are both under



COURTESY BP EXPLORATION (ALASKA) INC.

Rendition of Liberty drilling rig



The Liberty oil field is located in the Beaufort Sea off Foggy Island Bay, east of the Endicott field.

way.

"We started fabricating the rig just a few weeks ago," Suttles said. "... Now we're actually moving. There are people at work."

BP is gearing up to do the civil construction work involved in expanding the Endicott satellite drilling island during the winter of 2008-09, ready to mobilize the rig to the drill site in the summer of 2009, said Darryl Luoma, Liberty project general manager. The site will be expanded from about 11 acres to about 30 acres to accommodate operating space for the rig, an extended pipe rack and a new camp for on-site workers, he said.

Following assembly of the rig on the drill site, the rig will be commissioned and handed over to the drilling operations team for the commencement of drilling in 2010. Following a three-month period of training and rig shake down, the first well will be a simple injection well for disposing drilling cuttings. That well will mark the start of a four to five-year drilling pro-

gram, with first production slated for 2011, Luoma said.

Shallow water

The Beaufort Sea is about 20 feet deep in the area of Liberty and BP originally conceived a field development plan involving an offshore production island. The field would have become a look alike to the Northstar field, in the Beaufort Sea around 35 miles to the west, with a subsea pipeline carrying oil to the shore. But in 2002, following major cost and schedule overruns in the Northstar development, BP cancelled its plans for Liberty.

In 2005 the company came up with an alternative plan to develop the field using extended reach drilling from a shore location, perhaps at Point Brower, on the west side of Foggy Island Bay, or at another location further east. The company had already successfully used extended reach wells with horizontal departures of 25,000 feet and more to tap oil from an undersea reservoir in its Wytch Farm field in south-

ern England.

Early extended reach drilling concepts for Liberty involved piping the production from a remote drill site to either the Endicott or Badami facilities for processing, Luoma said.

But, rather than embarking on a significant North Slope infrastructure extension to a remote location, in addition to dealing with some major drilling challenges, BP eventually elected to drill extended reach wells from the Endicott satellite island. The island is already connected to the North Slope road system and the wells could easily hook into the Endicott production infrastructure, Luoma explained.

The Liberty drilling pad and associated facilities will require an extension to the existing Endicott satellite drilling island. But by simply bolting Liberty onto the existing Endicott infrastructure, the surface impact of the new field will be minimized.

"What in effect we're doing is using world-class wells, world-class drilling technology to significantly reduce ... the footprint of development," Luoma said.

And, by operating from an existing field infrastructure, BP will be able to use an amended version of the Endicott oil spill contingency plan, rather than have to develop a completely new plan for Liberty, he said.



When the Liberty oil field got the green light from BP for development in July 2008, Doug Suttles (left) was president of BP Exploration (Alaska) Inc. On Jan. 1, 2009, John Mingé (right) assumed that position.



JUDY PATRICK

Fishing for seismic

The small fleet of vessels that conducted a 3-D seismic survey along the drilling corridor for the Liberty field in the summer of 2008 included bowpicker fishing vessels from Cordova, Alaska, BP spokesman Steve Rinehart told Petroleum News July 15. The vessels were transported up the Haul Road to the North Slope, he said.

Rinehart said that the bowpickers were especially suitable for use at Liberty because they have shallow drafts. The normal bow wheels used for handling the fishing gear were replaced by devices called "squirters" for deploying and retrieving seismic cables, he said.

CGGVeritas conducted the survey as a joint venture operation with Kuukpik Corp., the village corporation for Nuiqsut.

The survey objective was to obtain geologic information needed to plan the trajectories of the Liberty wells.

The seismic acquisition ran from July 14 through Aug. 25, and all cables and boats were to be out of the area by Aug. 28, consistent with the conflict avoidance agreement BP had with the Alaska Eskimo Whaling Commission, Rinehart said.

There were about 120 people involved in conducting the seismic survey.

During the National Marine Fisheries Service's Arctic Open Water Peer Review Meeting in April 2008, Bill Streever, environmental studies leader for BP in Alaska explained that the Liberty survey would consist of what is termed a water-bottom cable survey, in which geophones attached to cables are strung along the seafloor to detect sound from air guns.

The survey would use two sound-source boats to individually tow air guns, while four bowpicker fishing boats would lay the cabling that carries the geophones.

Another boat would house the equipment that records the signals from the geophones, while two other boats would provide general support for the operations, Streever said.

The surveying involved laying three cables at a time, parallel to each other, across part of the survey area, Streever said. The sound-source boats would traverse backward and forward across the cables, shooting the air guns at intervals along paths at right angles to the cable runs.

By progressively moving the cables from one location to the next after each shooting sequence, the survey team would hopscotch its way across the survey area.

Marine mammal observers on the sound source vessels watched for animals and recorded animal sightings.

There is a standard protocol for powering down or suspending operations if an animal comes too close to an active airgun.

Up to six wells

The development plan that BP has now put into operation involves drilling up to six ultra extended reach wells to hit targets two miles underground, anywhere from six to eight miles from the surface well location at Endicott. The drilling plans involve drilling downwards from the Endicott drill pad and then deviating the wells to the east into near horizontal configurations. Then, as the drill bits grind their way close to the Liberty field location, the drillers will deviate the wells down into the reservoir, Luoma said.

The required horizontal departures of 34,000 to 44,000 feet from the surface wellheads would establish new world records.

"We see Liberty as really the next step, the next progression out, for extended reach drilling," Luoma said.

BP has already conducted extended reach drilling with horizontal departures up to about 20,000 feet in the Milne Point, Niakuk and Northstar fields on the North Slope and in the Beaufort Sea. But rotating the drill string in an exceptionally long well requires an especially powerful rig. The lack of suitably powerful drilling rigs on the North Slope has proved an obstacle to pushing the extended reach drilling envelope in northern Alaska, Luoma said.

Massive rig built for Liberty

For Liberty drilling, BP commissioned Parker Drilling Co. to design and build the world's most powerful land based drilling rig.

"We describe the rig as one of the enabling pieces of this project — we actually wouldn't do this project if we weren't bringing this special piece of equipment up here to Alaska," Luoma said. "... This piece of equipment delivers about two times the power requirement to turn the drill pipe as any other piece of equipment out there in the industry."

But with exceptional lengths of drill pipe subject to exceptional stresses, the weight and strength

of the pipe material become critical to drilling success. BP has been developing lightweight steel alloy pipe designs for the Liberty drilling and may even use aluminum piping at the downhole ends of the wells.

"That pipe, 30-foot lengths of pipe screwed together, over nine miles long has to hold together under some extreme stresses and pressures," Luoma said. "We have a drill-pipe development program that's under way now that is producing Liberty-spec drill pipe ... that's running through lab testing."

Field testing in Alaska of the Liberty-spec piping later in 2008 should enable BP to order the piping by the end of the year, he said.

The directional drilling will use state-of-the-art rotary steerable technology to steer a drill bit along a planned well path across several miles into a selected target in the oil reservoir.

Mud pulse technology, in which sound signals are transmitted through the drilling mud in the well, will enable the drillers to communicate with equipment at the downhole end of the well, to determine the precise location of the drilling bit and to manipulate the steering technology.

Well casing

The placement of steel casing along the length of each well bore will also prove critical to success.

"Our biggest risk in drilling a well all the way out to the Liberty reservoir is having a weak zone ... that caves in on us," Luoma said.

And the exceptional length of the Liberty wells will entail the use of four different casing diameters, two more diameter changes than in a conventional well. The casing diameter will become progressively smaller from the surface end of the well to the downhole end.

BP is also trying to minimize drilling problems by conducting the 3-D seismic survey that has just started in the waters east of Endicott. Rather than delineating the field reservoir, the survey is focusing on the drilling corridor between Liberty and Endicott. The

current seismic data from the area isn't adequate for detailed well planning, Carl Lundgren, Liberty subsurface manager, explained.

"We're going to be able to precisely place different casing strings all the way down through the rock section into the reservoir," Lundgren said.

The use of 3-D visualization software will also enable the identification of potential hazards that might cause expensive drilling delays.

"We're able to ... map certain features ... look for different weaknesses in the rock and be able to angle the wells around different zones that we see a concern for," Lundgren said.

For example, the well planners want to precisely delineate a worrisome 2-mile by 12-mile canyon structure in the subsurface of the drilling corridor.

"We've never drilled something like that," Lundgren said.

Although there's always a risk of failure, BP is confident that it's done its homework in assessing the technical feasibility of the Liberty drilling.

"We've been working for the last three years and even beyond that identifying how to drill these wells," Luoma said. "We believe with the technical work that we've done we can deliver the wells at Liberty."

"What we've done is moved it from something we wanted to do three years ago but weren't willing to invest in yet," Suttles said. "... You're never guaranteed but obviously we believe we're going to be successful."

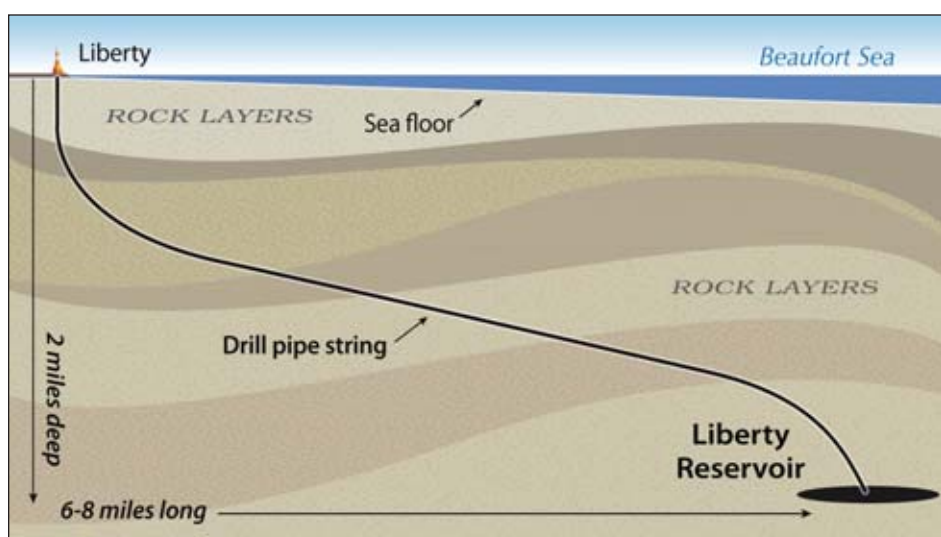
No state production tax

Because Liberty lies in federal outer continental shelf leases, the field comes under the jurisdiction of the U.S. Minerals Management Service rather than the State of Alaska. And BP will not pay state production tax on Liberty oil.

"This will be the first fully federal development in Alaska, the first field that lies completely in federal leases," Suttles said (the Beaufort Sea Northstar field straddles state and federal land).

But as well as generating revenues for the federal government, the field will generate revenues for the state and the North Slope Borough, Suttles said. Because the field is located less than 6 nautical miles offshore, the state will receive 27 percent of the federal royalties from field production. The new Liberty facilities will generate property taxes.

And the field will result in employment



The Liberty wells will be the world's longest, reaching the field reservoir at locations two miles deep and as much as eight miles away from the drilling rig.

Liberty contractors

Alaska Dreams
Alaska Frontier Constructors
Alaska Interstate Construction
Alaska Railroad
Alaska Steel
American Marine
Arctic Wire Rope & Supply
ASRC Energy Services
Baker Hughes
Baker Oil Tools
BP Alaska
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Delta Leasing
Doyon Ltd.
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PRA
Schlumberger
Tubular Solutions Alaska
Udelhoven Oilfield Svc. Co.
Unique Machine
URS Alaska

Note: The companies named here are Petroleum News advertisers only, so this list does not include all Liberty contract awards. Also, on Jan. 15, BP said some additional awards are still pending. And some of these contractors are subs who work for primary Liberty contractors.

for Alaskans. Right now 250 Alaskans are working on the project and, at its peak, employment will increase to 500, Suttles said.

Liberty oil will also help keep the trans-Alaska pipeline in operation and, by improving the economics of the Endicott facilities, will extend the life of that field, he said.

But Suttles sees the challenges and risks involved in developing Liberty as part of a worldwide trend towards seeking oil in increasingly difficult situations.

"This is the sweet spot where a company like ours participates," Suttles said. "If you look around the world we're in the

tough places doing the toughest stuff, because that's our niche. ... That's why we're still bullish about the future for Alaska." ■

Editor's note: The Endicott causeway was constructed in 1984-85. Endicott production – the first from an offshore field in the Arctic – began 1987. During the peak production years from November 1987 through October 1993, Endicott averaged about 104,250 barrels of oil per day. Production has declined over the years, dropping to about 17,600 barrels per day in 2004, and to an average of 15,689 barrels per day in November 2008.

Platforms for Arctic offshore?

MMS sees massive steel platforms as most likely technology for offshore Arctic

By ALAN BAILEY

Petroleum News senior staff writer

The most recent wave of oil exploration in Alaska's Beaufort and Chukchi seas has hardly left the starting block. But the question of how to develop an offshore oil or gas discovery must figure high in any offshore exploration decision. Finding a viable and environmentally sound means of extracting product from a field located under ice-infested water miles offshore could make or break a development project.

In early 2008 the U.S. Minerals Management Service published a 365-page report on Arctic offshore development options. Prepared by IMV Projects Atlantic, the report reviews the technical feasibility of all of the various types of platform, artificial island and subsea completion technologies that might work in the Arctic waters of the U.S. Outer Continental Shelf.

Previous work on this topic dates back to the 1980s and MMS commissioned the study to obtain an up-to-date view of potential offshore technologies, MMS petroleum engineer Kyle Monkeliën told Petroleum News July 23, 2008.

"We thought that it would be a good time to go back and see what's changed, what lessons have been learned from the activities and the construction that has gone on between then and now," Monkeliën said.

A current perspective of feasible technologies will help MMS evaluate potential development scenarios in the OCS, especially in areas where there is oil and gas leasing interest, he said.

However, Monkeliën emphasized that were a company to propose a specific offshore development MMS would initiate a rigorous review of whatever technology the company planned to use, including a review under the National Environmental Policy Act.

Past experience

In assessing the various development options, the study researchers reviewed the experience of the Northstar, Ooogruk and PanArctic Drake developments



Massive steel structures that taper upwards are a possibility for oil and gas fields in the Beaufort and Chukchi seas.

in the Alaska and Canadian Beaufort Sea. The researchers also considered offshore developments off the east coast of Canada, off Sakhalin Island, in the Caspian Sea and in the Barents Sea.

The researchers recognized that the principal factors affecting the design of

Arctic offshore facilities include ice loads; the requirement for a platform or island structure to store sufficient consumable supplies for operation in an isolated location; the availability of an adequate foundation or mooring capability; the capability to protect pipelines

and subsea equipment; and the practicality of transporting produced hydrocarbons from the offshore site.

And in the Beaufort and Chukchi seas ice loads are an especially important consideration in designing exploration and production structures, the report says. However, research into ice loads has indicated that these loads are likely to be significantly lower than was assessed a few decades ago.

“At the same time, advancements in structural steel research combined with these more realistic ice-load predictions led to improvements in the economic feasibility of Arctic offshore facilities,” the report says.

Gravity-based structures

But massive gravity-based structures sitting on the seafloor remain the most likely option for oil and gas production in the challenging ice conditions of the Beaufort and Chukchi seas. And the study says that in Arctic conditions steel is likely to prove to be a more suitable construction material than concrete.

A variety of structure designs is possible, ranging from massive vertical cylinders to more tapered profiles. The tapered structures would likely have bases hundreds of feet across stepping up into much smaller topsides.

The researchers found that in areas of multi-year ice, water depths of about 250 feet would likely become an upper limit for the technical feasibility of installing these structures, but that limit would go down to 200 feet where the seafloor foundation properties are weak.

“There are no known bottom-founded platform design solutions for water depths greater than 330 feet that could be deemed workable or proven for multi-year ice areas,” the report says.

In more southerly area where multi-year ice is absent, bottom-founded structures in water depths up to 500 feet might be possible.

Jacket platforms

The lighter-weight ice reinforced jacket platforms of the type deployed in the offshore fields of the upper Cook Inlet might be suitable for use in areas of the Bering Sea where there is light first-year ice and water depths are less than 200 feet, the report says.

“(And) developments in jack-up technology and the advancement of ice maintenance programs indicate that the

On the Web



The U.S. Minerals Management Service report, “Arctic Offshore Technology Assessment of Exploration and Production Options for Cold Regions of the U.S. Outer Continental Shelf,” is on the MMS Web site at www.mms.gov/tarprojects/584.htm

operating range and season of jack-up exploration could potentially be extended in the Bering Sea,” the report says.

Grounded ice islands have also been used successfully for exploration drilling in the nearshore waters of the Beaufort Sea, the report says. Research has found that ice islands might work for drilling in water depths up to 30 feet, or perhaps 40 feet. But unstable or unreliable landfast ice would render ice islands infeasible in the Chukchi Sea, the report says.

The use of gravel islands is another possibility in shallow water.

“Gravel islands have successfully been used in the Beaufort Sea for decades and continue to be viewed as a candidate structure for exploration and/or production in this area of the Alaska OCS,” report says.

However, because no one has ever used a gravel island in the Chukchi Sea, someone would need to investigate issues relating to dynamic sea ice conditions to determine gravel island feasibility in that region. And high waves and large wave loads would be a consideration for gravel island use in the Bering Sea, the report said.

Floating structures

Although various types of floating structure such as drillships and semi-submersible platforms can be used during the summer open water season in the Arctic outer continental shelf, the only region in which a floating structure might stay on location year round might be the Bering Sea in light ice conditions. A semi-rigid floater concept, with a floating platform moored in place under tension, might operate year-round in first-year ice conditions but would need to be able to disconnect to move away in the event of high ice loads, the report said.

“Floating production systems for the Beaufort Sea, Chukchi Sea and North

Bering Sea are not considered to be technically feasible, even with continuous ice management,” the report said. “No floating production structures could be economically designed to stay on station with multi-year ice loads in the Beaufort and Chukchi Seas, and possibly northern Bering Sea, depending on ice conditions. Floating systems may have some merit in southern OCS areas, however.”

Subsea completions

Subsea completions, in which wellheads lie at or below the seafloor and are connected to subsea pipelines, are another possibility.

“Improvements in the area of subsea facilities and processing have been made in recent years in the pursuit of resources in harsh and remote environments,” the report says. “As a result of these improvements, fields requiring longer, deeper subsea tiebacks are now becoming much more technically and economically feasible. Gas tiebacks have reached 105 miles and oil tiebacks have reached 40 miles.”

Depending on whether the water depth exceeds the maximum ice keel depths, the well heads may or may not need to be protected in “glory holes” in the seafloor. However, the possibility of an ice keel scouring or hitting the seafloor at the location of a well would pose limitations on what technology could be used.

And there are also some significant technical issues associated with the construction and operation of subsea pipelines in the Arctic. But pipeline designs could accommodate factors such as strudel scour, the settlement of thawing permafrost, upheaval buckling and ice gouging, the report says.

“However, pipeline burial for protection in water depths from approximately 65 to 130 feet will be a challenge given the more severe gouging in these water depths and the fact that the pipeline can likely not be installed from the ice in winter,” the report says.

The report also notes that advanced drilling technologies, such as extended reach drilling, present some other possible options for Arctic offshore oil and gas development. BP is in the process of developing the Liberty field in the Beaufort Sea outer continental shelf using extended reach drilling from the Endicott satellite island. (See article this issue.) ■



The drilling rig on the ice about 20 miles offshore at McMurdo Station, which is the largest U.S. base in Antarctica.

Adventurers on thick ice

Geophysicist David Handwerger is at home at the ends of the Earth—he spent six weeks there, in Antarctica to be specific, as one of two logging scientists for an international research project

By DENISE ALLEN ZWICKER
For Schlumberger

We're exploring a whole new universe right here on Earth. A world in white and black. A place with no defined civilization. No trees. No grass. No warmth. But, despite all that, a world that is full of life," says Dr. David Handwerger, senior geophysicist for TerraTek, a Schlumberger company.

In late 2007, Handwerger took six weeks of personal-development leave to work as one of two logging scientists for ANDRILL – i.e. ANtartic geological DRILLing – which is an international research project on the world's most mysterious continent.

Handwerger likes to say that, at TerraTek, he studies very low-porosity rocks



Senior Geophysicist Dr. David Handwerger lounging on the ice.

for their reservoir potential while, at ANDRILL, he studies very high-porosity "rocks" as proxies for geologic and climatic changes.

"ANDRILL is the latest incarnation of a

large, multidecade scientific effort to core and log in and around the Antarctic to understand the evolution of the continent's cryosphere," Handwerger says. "Each effort builds on the last."

Ice sheets and global warming

One of the motivations for the project, beyond understanding the climatic, tectonic and paleoceanographic factors that led to the development of the Antarctic ice sheets, is to predict how the ice sheets will respond to anticipated climate changes, such as global warming.

"Antarctica is an enormous storehouse of frozen water," says Handwerger. "If those ice sheets melted, sea levels would rise dramatically: about 70 meters, compared with about seven meters if Green-

land melted. Also, the presence and extent of the ice sheets are major drivers of ocean and atmospheric circulation, which in turn drive climate.”

ANDRILL’s recent exploration phase funded two drilling seasons in the frozen south: In late 2006, scientists collected about 1,250 meters of core underneath the ice shelf to look at a high-resolution sediment record for the past five million years. In late 2007, when Handwerger participated, the project cored and logged 1,134 meters of the seafloor sediments underneath the multiyear ice sheet (six meters of ice on top of 400 meters of water).

This produced a high-resolution record covering mostly the middle Miocene (about 13 million to 20 million years ago), a time when many distal records (based on cores collected farther away from the continent) suggest that the Antarctic ice sheets reached their present size and achieved stability. “We suggest otherwise,” Handwerger says.

Temperate climate in Antarctica’s past

The data indicate a temperate climate in Antarctica’s past, with forests and animals, including dinosaurs. “We think the massive ice sheet that is Antarctica today got its start 15 million to 20 million years ago, and we’re trying to answer questions about how stable it’s been since then.”

Handwerger developed an interest in all things Antarctic when he was a graduate student at the University of Utah in Salt Lake City. “When I was working on my PhD, I used core-log integration to look at



The expedition’s dining tent.

changes in ocean circulation and the effects on Antarctic ice-sheet development during the Neogene period, starting about 23 million years ago.

“I sailed on a couple of drilling expedi-



Inside the hut that Robert Falcon Scott built in 1901 at Cape Evans.

tions in the Southern Ocean through the Ocean Drilling Program, or ODP, which, by the way, Schlumberger operates. I had even been to Antarctica once before—on the ODP drillship JOIDES Resolution for two months while I was working on my PhD. But I was never on, or within sight of, land. This time, I got to go to McMurdo Station, which is the largest U.S. base in Antarctica, and the drilling rig was on the ice about 20 miles offshore.”

Handwerger applied for a position with ANDRILL in 2004. Once he was accepted, he had to wait about three years for the Antarctic field season to arrive. “McMurdo Station is in darkness four months of the year, so only a skeleton crew remains during that time. When the summer field season arrives, the population of McMurdo Station increases by a factor of six to support all the science that takes place.”

In addition to ANDRILL scientists and staff, McMurdo Station plays host to hundreds of other scientists and support staff, there to conduct seismic studies or study penguins, birds or sea ice. The station is similar to a military installation, but for four months of the year, it’s completely isolated from the rest of the world. It is resupplied by cargo ships and planes, but nobody can sail or fly in for a large part of the year because the sea is frozen.

“It certainly makes you think about what it must have been like for the early

explorers, who had nothing but the ship they sailed in on and a hut they built themselves,” says Handwerger. “I’ve stood in the hut that Robert Falcon Scott built in 1901 and watched a cargo plane landing a half mile away at McMurdo Station. Scott and his colleagues didn’t have the communication technology we have, didn’t have the infrastructure, and didn’t have much of



Three Adelle penguins near McMurdo Station.

anything. Yet they paved the way for what’s there now.”

After his time on the ice, Handwerger says he would go back for any reason at any time. He hopes to be selected to return for the next drilling program, currently scheduled for 2011, pending the receipt of new funding.

“I took advantage of Schlumberger’s development-leave policy to do this in 2007, and I hope, in three or four years, that the company will be generous enough to let me do it again. That’s what personal-development leave is for: The work I did for ANDRILL is related to the modeling we do at Schlumberger and helped me develop my skills. And, frankly, if you have the chance to go to Antarctica, you just don’t say no!” ■

Unique Machine builds new facility

By MARTI REEVE

Petroleum News special publications director

Unique Machine, a Sumitomo Corporation of America subsidiary, announced plans in December to relocate its operations.

The new location, 13.6 acres off King Street in Anchorage, was acquired by the company in March 2007. Three buildings are being built to accommodate Unique Machine, as well as office space that can be leased by other businesses. The entire development will be marketed as the "Alaska Technology Center," said Pat Hanley, general manager of Unique Machine.

The largest of the three structures, a 29,000-square-foot building, will also carry Unique Machine's name and logo. It will house the company offices, its general machine shop and various CNC lathes and mills.

The second building on the site, 18,000 square feet, will house Unique Machine's full length threading plant, which will include a brand new Okuma LOC650 22-inch CNC lathe. The 22-inch lathe, being built in Japan, is the largest of its kind on the West Coast and was specifically ordered to support BP's offshore Liberty oilfield development.

"BP came to us, knowing that we were building this new facility, and asked us what the incremental cost would be to upsize our threading line to support their project," said Hanley. "In the end they came back to us and said, 'If we support this can you guys make this work?' We said yeah, we think we can make this work."

The third building, a 14,000-square-foot warehouse, will be used for storage and material handling.

In addition to the new buildings, a rail spur to service the Alaska Technology Center will be completed in the spring. The spur will allow Unique Machine to offer customers additional services and provide them better support in managing their material supply to Alaska.



PAT HANLEY



COURTESY UNIQUE MACHINE

Inside of one of three buildings in Unique Machine's Alaska Technology Center, which is under construction. The new complex is across from Toys 'R Us on King Street in south Anchorage.

"The whole project demonstrates Sumitomo's commitment to Alaska and to our company," said Hanley. "They have a long term vision for Alaska that is based on customer service and strong business ideals."

Unique Machine expects to be completely moved into its new location by the end of July.

"We will begin phasing into the plant in March," Hanley said.

Largest machine shop

Founded in 1973, Unique Machine has emerged as the largest machine shop in the state of Alaska.

In 2007, the company became the first Alaskan manufacturer to be both API Spec Q1 and ISO 9001 — 2000 quality management certified for the manufacture of oilfield equipment and the proprietary threading of casing and tubing.

Even though the company primarily manufactures and threads parts for the oil and gas industry, Hanley mentioned that Unique Machine also provides services to the general public and gets involved with numerous "fix-it" science projects.

"Our employees take great pride in servicing every industry and love solving

customer problems," Hanley said.

Last year Unique Machine got involved in a project with Jordan Wiess, a ConocoPhillips employee, building ski racks for the U.S. National Championships down at Alyeska.

"It was such a big event, and Alyeska did not have enough ski racks for all of the skis, so a guy from Conoco got a grant to do it and we donated the rest," said Hanley. "A lot of people have this perception that we are a huge company because we do a lot in the community." (Unique Machine has 43 employees.)

More recently, Unique Machine and Orange County Choppers announced that they were having a special chopper built to celebrate the 50th Anniversary of Statehood for Alaska. The bike was put on display at the Dena'ina Center in January. (See news item and photo on page 69 of this directory.)

Unique Machine, which has operated in Anchorage for 35 years, is a stable figure in Alaska's oilfield, mining, fishing and construction industries.

Hanley has been with Unique Machine for 15 years, 13 of those as general manager. The company operates 24/7, he said, and takes customer service "very seriously." ■

COMPANY NEWS *in brief*

1,000-gallon-per-minute bag filter at Rain for Rent

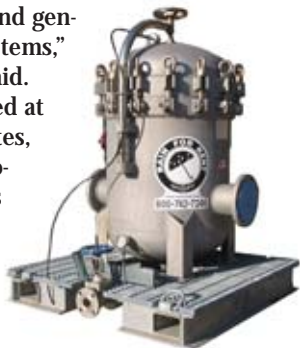
Rain for Rent is now carrying the BF-1000, the company said this past summer.

The 1,000-gallon-per-minute bag filter allows for "high efficiency high flow filtration of many fluids like oil, water, and general process systems," Rain for Rent said.

Typically used at construction sites, refineries, petrochemical plants and general manufacturing facilities, the stainless steel BF-1000 is configured as a standalone unit or can be "manifold to achieve higher flow rates."

The design of the unit allows for continued operation while changing filter media and independent operation as flow conditions change.

For more information visit www.rainforrent.com.



Dolynny named president of NANA WorleyParsons

On Dec. 5, Allan M. Dolynny assumed the responsibilities of president at NANA WorleyParsons, formerly NANA/Colt Engineering, replacing John Minier, who has retired after eight years on the job.

Dolynny was named general manager at NANA WorleyParsons in October 2008, a month after Minier announced his intent to retire from the Alaska company, which is a 50-50 partnership between Alaska-based NANA Development Corp. and Australia-based WorleyParsons Ltd.

"John did a fantastic job of steering this company successfully for nearly a decade," Dolynny said in a Dec. 15 press release. "It is my hope to lead this talented, diverse team of professionals as well as he did. We are in an exciting time in Alaska, and the



ALLAN DOLYNNY



Happy 50th birthday, Alaska!

Above, Dowland-Bach's staff poses in front of the torch they modified for Alaska's statehood party. Built in 2006 for the Arctic Winter Games in Alaska, the torch was heavily modified by Dowland-Bach for the state's 50th anniversary.

At left, a close-up of the torch featured at Alaska's 50 Years of Statehood Party kickoff on Jan. 3. Mostly stainless steel with aluminum side panels, the torch stands in front of the Dena'ina Civic and Convention Center in Anchorage.

Photos courtesy of **Judy Patrick**

possibility and creative solutions that NANA WorleyParsons consistently brings to the table will continue to have a positive impact for on-going and future projects in this state."

Joining NANA WorleyParsons from WorleyParsons Calgary, Dolynny brings more than 22 year's experience in engineering, procurement and construction project management to his new position.

As a former project manager with Fluor Canada, and senior manager for Colt WorleyParsons, Dolynny gained "extensive real-world experience in both domestic and international downstream oil and gas, heavy oil, pipeline, Arctic and petrochemical projects in locations around the

world," NANA/Colt said in its release.

"Allan brings a tremendous energy and a global perspective to NANA WorleyParsons," said Helvi Sandvik, NANA Development president. "Alaska companies that have partnered with NANA WorleyParsons will enjoy working with Allan and his team. He is an asset to the NANA family of companies."

Larry Benke, managing director, WorleyParsons, Canada, shared Sandvik's enthusiasm for their choice of president.

"Allan has a demonstrated history of creativity and productivity," said Benke. "He was a leader in his past roles at Colt WorleyParsons and I'm thrilled that he is taking the reins of this successful Alaska

company.”

For more information visit www.nana-colt.com.

Alliance members can supplement recruitment efforts

Recognizing that workforce development is one of the most important issues in the oil and gas industry today, The Alaska Support Industry Alliance is offering its members the opportunity to supplement their recruitment efforts by including job links and information on its Web site, www.alaskaalliance.com.

The service is free, and only available to Alliance members.

For more information contact Graham Smith by email at gsmith@alaskaalliance.com or call 907-563-2226.



The Alliance moves downtown

The Alaska Support Industry Alliance has moved its headquarters from midtown Anchorage to downtown.

The Alliance's new address is 646 W. 4th Ave., Suite 200, Anchorage, AK 99501; its telephone and fax numbers will not change.

The nonprofit trade association's mission is "to promote responsible exploration, development and production of oil, gas and mineral resources for the benefit of all Alaskans."

The Alliance is made up of more than 400 businesses, organizations and individuals that provide products and services to the oil and gas and mining industries, and represent approximately 40,000 Alaska workers.

For more information visit the association's website at <http://alaskaalliance.com>.

American Tire acquires land for Washington plant

In line with its objective of becoming the "largest and best manufacturer" for 63-inch and 57-inch tires, American Tire Corp. said in August that it has purchased a 22,605,000-square-foot (about 2,100,000 square meters) parcel of land for one of its new plants in Washington, and intends to purchase another piece of land of similar size to "support its long-

term development in the OTR tire industry."

For more information, go to American Tire's web site at <http://www.american-tire.us>.



Kenworth hybrid tractor

Update on 2008-09 from Carlile Transportation

In 2009 Carlile Transportation Systems will announce a companywide implementation of the TMW Operation Management System.

"TMW software is designed specifically for the transportation services industries and is used by many of the top-100 carriers in North America," Carlile said in a December 2008 press release. "The new system will help those we partner with improve productivity and gain a better return on information."

In 2008 the company added two new stainless steel fuel tankers in Alaska, started the expansion of its Tacoma facility — including the addition of a Kenworth hybrid tractor, and continues to make companywide updates to its fleet.

According to the press release, other notable Carlile energy efforts include, but are not limited to, the following: newer, more efficient vehicles in day operations in Tacoma (all are 2002 or newer and many are 2007 or newer); the use of alternative power units the last two seasons, with 32 total currently in operation, saving approximately 50 gallons of fuel per week for eight months per year in Alaska; the use of a fuel monitoring system that tracks vehicle and driver behaviors related to fuel consumption like speeding, idling, and over-revving, providing fleets with data to help reduce consumption and identify potential safety and maintenance issues; current tests on a Cummins 2010 engine, and working with Paccar to test a 2010 Paccar engine made by Paccar DAF Europe; and receiving membership

into the SmartWay Transport Partnership.

In 2008 Linda Leary assumed the role of company president that co-founder Harry McDonald had held since 1980. McDonald is still active in daily operations as chief executive officer.

Anchorage-based Carlile started with three trucks, but today operates more than 350 trucks and 1,500 pieces of trailing equipment. With more than 650 employees at its 12 terminals and logistics facilities throughout Alaska and North America, the company remains "customer committed for the long-haul."

Carlile promotes Russ Baker to terminal manager

Carlile Transportation Systems said Dec. 18 that Russ Baker had recently been promoted to the position of Anchorage Terminal manager at the corporate flagship headquarters.

Baker will "oversee the daily operations and processes" at the Anchorage terminal, the company said in a press release.

Baker joined Carlile after moving to Alaska from California and has 30 years of experience in the transportation industry.

He has been employed by Carlile since 2006.

Carlile was started in 1980 by brothers Harry McDonald, chief executive officer, and John McDonald, senior vice president.

Other owners include President Linda Leary, Vice President of Operations Jeff Allan, and Vice President of Human Resources Karl Hoenack.

The business started with three trucks, but today operates more than 350 trucks and 1,500 pieces of trailing equipment. And with more than 650 employees at 12 terminals and logistics facilities throughout Alaska and North America, Carlile remains customer committed for the long-haul.

Eckels named NAC VP of business development

Northern Air Cargo said Dec. 12 that John Eckels has been named vice president of business development and administration for the company.



RUSS BAKER

Eckels will assume primary responsibility for oversight of the company's growth initiatives including establishment of new business partnerships and strategic alliances. He will also continue to oversee all postal affairs, and key administrative functions of the company.

Eckels has been employed by Northern Air Cargo for five years and currently serves as senior director of finance.

"John is a lifelong Alaskan. He has a tremendous history in the state's aviation business and we are very lucky to have him as a key member of our team" said NAC President David Karp.

Eckels will assume his new duties effective Jan. 1.

Northern Air Cargo's mission is to offer the highest quality air cargo transportation and related services throughout Alaska and the world.



JOHN ECKELS

EFS hires Antrone Kingston

In July, Engineered Fire and Safety hired Antrone Kingston as a purchasing specialist.

Kingston is responsible for ordering all parts, supplies and material for projects, and for maintaining sufficient inventory for maintenance contracts.

He is also in charge of inventory control and keeping in compliance with Material Safety Data Sheets — experience he gained in his 10 years with the U.S. Air Force.



ANTRONE KINGSTON

ENSR to prepare EIS on Wyoming wind project

ENSR has been selected by the U.S. Bureau of Land Management to prepare the environmental impact statement for a major new wind energy project proposed by the Power Company of Wyoming. ENSR, a leading environmental services firm, is part of AECOM, a global provider of professional technical and management support services.

The Power Company of Wyoming filed right-of-way applications with the BLM

Rawlins Field Office to develop two wind farms on 98,000 acres in the Rawlins and Carbon County.

The proposed 1,000 turbine wind energy project on the two sites would provide 2,000 megawatts of power to the national electric power grid, establishing Wyoming as the third-largest wind energy generation state, behind Texas and California.

ENSR was selected to assist the BLM with preparing the EIS because of its environmental permitting and management experience with large, complex energy projects. Over the past 10 years they have completed over 30 environmental impact statements for industrial development projects under the direction of the BLM and other federal agencies. These projects have included oil and gas field developments, natural gas and natural gas liquids pipelines, electrical transmission lines, power plants and precious metal mines.

"We are looking forward to analyzing a wind energy project at such a large geographic scale," said Scott Ellis, ENSR's director of capital permitting. "Wind power will have a prominent role in the expansion of America's use of renewable energy resources.

ENSR, a worldwide environmental management firm, staffs 2,600 employees from 90 global offices. They provide comprehensive consulting, engineering, remediation, and environmental health and safety management solutions. For more about ENSR visit www.ensr.aecom.com.

Fey promoted at Carlile

Anchorage-based Carlile Transportation Systems said in November that Joe Fey was promoted to the position of Alaska sales manager. Fey will oversee the Alaska sales team and operations and work closely with the Carlile national sales members.

Darrin Semeniuk, who previously held the position, has moved to Texas to manage the sales and customer relations operations at Carlile's Houston terminal.

Fay, a 25-year Alaska resident, has been with Carlile for 11 years, and has sales experience in Kenai, Seward, Kodiak and Anchorage.



JOE FEY

GCI gives broadband gift

In 2008, GCI donated a \$30 million broadband to the University of Alaska system.

University of Alaska President Mark Hamilton said the gift is essential to the university's mission of education, research and public service.

The university, he said, had requested the money from the Alaska Legislature for several years to increase its broadband capacity, but didn't receive the support it needed.

The broadband gift from the communications company provides up to 10 gigabits-per-second from Anchorage to Seattle, benefitting not only the university but Alaska schools through a network that is part of the state's multi-partner Distance Education Consortium.



Koniag buys Dowland-Bach

Koniag Inc. said Jan. 5 that it has acquired Dowland-Bach, an Alaskan-owned company that designs and fabricates control systems and equipment for industrial and commercial applications.

The purchase was made by Koniag Development Corporation, or KDC, a wholly-owned subsidiary of Koniag Inc.

Koniag is the Alaska regional Native corporation owned by the Alutiiq people from the Kodiak area.

The purchase of Anchorage-based Dowland-Bach marks Koniag's first foray into the Alaska oil industry. Dowland-Bach was founded in Alaska in 1974 to develop fail-safe wellhead and flow-line control systems for the Prudhoe Bay oilfield. Several thousand of Dowland-Bach's wellhead control systems have been installed in extreme locations from the North Slope of Alaska to South America.

Lynn C. Johnson will remain president of Dowland-Bach. The acquisition is not expected to result in any changes to current management or the number of em-



LYNN JOHNSON



TOM PANAMAROFF

ployees. Dowland-Bach has 27 employees.

"Dowland-Bach is already a successful, highly-regarded company, with a demonstrated record of quality service and customer satisfaction," KDC President and CEO Tom Panamaroff said. "We're excited about the possibilities and opportunities ahead."

"The new ownership benefits Dowland-Bach, and its customers, as well, by assuring long-term continuity," Johnson said. "With Koniag behind us, Dowland-Bach is better positioned to take full advantage of growth opportunities in Alaska, the Lower 48, and overseas."

In addition to the petroleum industry, Dowland-Bach serves clients in wide-ranging industries such as utilities, construction, aviation, government, telecommunications, commercial fishing and marine.

KDC oversees a portfolio of diverse enterprises including telecommunications, fluid technology, environmental services, logistics, information technology, physical security and real estate investments.

While KDC's past and present assets have included operations and real estate in Alaska, its purchase of Dowland-Bach is KDC's first acquisition of an established, successful Alaska company.

Lottsfeldt Strategies diversifies firm with new chief executive

With the recent addition of lifetime Alaskan and political conservative Geneva Walters as its chief operating officer, Lottsfeldt Strategies said in October that it is "venturing in to new markets, and broadening its political capabilities."

The company said Walters strengthens Lottsfeldt's "service offerings by bringing with her a unique perspective on strategic communications and stakeholder management" and that her "12 years in Alaska's oil and gas industry has earned her a reputation as a skilled project manager with a commitment to efficient execution and the ability to influence key stakeholders through effective communication."

Agency principal Jim Lottsfeldt will remain chief executive officer and creative



GENEVA WALTERS

director.

Marketing Solutions adds two new team members

In November, Marketing Solutions, an Anchorage-based full-service advertising and public relations agency, announced the addition of two new staff members and the expansion of its government affairs capabilities.

Account manager Dee Buchanan and government affairs manager Casey Sullivan will be representing the agency's most prominent clients.

Sullivan brings more than seven years' experience in military and government relations, community relations, non-profit organizations and fund raising to the agency. He will assist in strategy and government affairs and represent many of its clients in the oil and gas industry, Native corporations and more.

Buchanan has a degree in marketing and management with an extensive background in marketing and public relations, formerly serving as the director of marketing for Hawaiian Vacations.

In her new role she will be working closely with Alaska Native corporations, and public service and non-profit organizations.

Founded in 1995 by Laurie Fagnani, Marketing Solutions has 22 employees, offering strategic planning to tourism, mining, healthcare, telecommunications, and oil and gas businesses.

Nabors names new leader

Nabors Industries, the world's largest land drilling contractor, has named Dennis Smith, 58, to oversee its Alaska operations.

The company's Alaska operations include Nabors Alaska Drilling, the largest drilling contractor in Alaska.

Smith will also oversee Nabors joint venture holdings with Cook Inlet Region Inc., CIRI, specifically Peak Oilfield Services Co., Precision Power and Alaska In-

terstate Construction.

Prior to joining Nabors in 1992, Smith lived in Anchorage for nearly 14 years where he served as chief executive of Pool Arctic Alaska, acquired by Nabors in 1999.

In addition to his new role, Smith will continue as director of corporate development with Nabors Industries Ltd. based in Houston, and report to Gene Isenberg, chairman and CEO of Nabors Industries.



DENNIS SMITH

Peak, Nabors to rally for CF

On August 23 Peak Oilfield Services and Nabors Alaska will be defending their title in the annual Lost Lake Breath of Life Run for Cystic Fibrosis.

Since its inception 15 years ago the race has raised over \$600,000 for the Cystic Fibrosis Foundation. The nonprofit, donor-supported organization seeks to cure and control CF, an inherited chronic disease that affects the lungs and digestive system of about 30,000 children and adults in the United States, and to improve the quality of life for those with the disease.

The race takes place every year in Seward, Alaska, covering approximately 15.75 miles cross-country at a peak elevation of 2,100 feet, using the U.S. Forest Service Trail through Lost Lake, Chugach National Park.

This is the second year Peak and Nabors have sponsored the event. The team was initially organized by Peggy Spittler, marketing director for Carlile Transportation, with the help of Mike O'Conner, president of Peak, and a close personal friend. Growing up Spittler's family was greatly affected by CF, so like many participants the event signifies more than a foot race.

Registration is still open for the event if you'd like to put together a team or participate as an individual. Sponsorship and donations are also very much appreciated. If you make a donation online contact pspittler@carlile.biz if you'd like the Peak/Nabors team to get credit. Visit www.lostlakerun.org for more details.

NAC has new Bethel manager

This past summer Northern Air Cargo named Heather Pike its new customer service manager in NAC's Bethel office.

Heather is a veteran of the Alaska Army National Guard where she served as a Blackhawk helicopter mechanic.

More recently she was a lead trainer and supervisor for a large air passenger and cargo operation in Bethel.

"Heather brings a wealth of knowledge and work experience to leading NAC's Bethel Station," the largest and busiest of all of NAC's rural hubs, the company said.



HEATHER PIKE

Northern Air Cargo creates Antheneum scholarship

Anchorage-based Northern Air Cargo has created the William Dix Fowler Memorial Scholarship for the Antheneum School, an independent co-educational college-preparatory school located in Anchorage.

Fowler was the president of NAC from 2001 until March 2008, and was actively involved in supporting the school.

Five annual scholarships of \$1,000 each from NAC will go to worthy recipients chosen by Atheneum.

The 2008 recipient was junior Nicholas DeMolina.

NAC is Alaska's largest all-cargo airline with stations in Anchorage, Bethel, Fairbanks, and Deadhorse.

NAC partners with new King Salmon contract agent

Northern Air Cargo said in December that it has partnered with Bristol Bay Contractors to be its contract agent in King Salmon. Bristol Bay Contractors will be responsible for loading and off-loading NAC aircraft, and accepting and dispersing freight in King Salmon.

For many years Peninsula Airways has represented NAC in King Salmon. The decision to change the relationship was amicable and mutually determined between both companies. "We have always valued PenAir as a partner and we wish them

great success as they turn their focus to passenger transportation," said Margot Wiegale, NAC's marketing and communications coordinator.

"NAC has a long history with Bristol Bay Contractors through seafood, and we look forward to working even more closely with them," stated Mark Liland, NAC's director of sales.

Northern Air Cargo is Alaska's all-cargo airline which provides service to 15 scheduled destinations including King Salmon three times per week.

NAMS expands to include more Boeing aircraft

In 2008 Anchorage-based Northern Air Cargo expanded its capabilities to include several new aircraft types.

NAMS is a Part 145 repair station which previously had been certified to perform line maintenance on Boeing 737-700 with specific Pratt & Whitney engines.

The Federal Aviation Administration recently authorized adding the new generation Boeing 737-700 to their capabilities listing.

With this addition NAMS can now perform maintenance on a broad range of 737 aircraft including the 200, 600, 700, 800, and 900 series as well as GE CFM 56-7B engines.

Northern Air Maintenance Service is a wholly-owned subsidiary of Northern Air Cargo Inc.



WILLIAM DIX FOWLER



NANA WorleyParsons helps Alaskans with MS

A total of 180 riders and 200 volunteers participated in "Bike MS NANA/Colt: From Hope to a Cure," a Sept. 6-7 biking event from Hope to Seward, Alaska and back again.

The event raised more than \$130,000 to assist Alaskans with Multiple Sclerosis. NANA/Colt Engineering (now called

NANA WorleyParsons) was the title sponsor for the event, which is annually the largest fundraiser for the Alaska Chapter of the National Multiple Sclerosis Society.

"NANA/Colt was our first title sponsor since the ride started four years ago," said Ben McCulloch, development coordinator for the Alaska Chapter. "Not only did they support us monetarily but their volunteers stepped up to the plate at rest stops and other stations throughout the two-day event. Their commitment to this important cause helped make it a success."

Funds raised during the event go to providing programs and services for people with MS and their families here in Alaska.

For information on next year's ride visit www.nationalmssociety.org/aka.

For more information on NANA WorleyParsons, a multidiscipline engineering and design firm, visit www.nana-colt.com.



COURTESY PGS

PGS conducts first 3-D GeoStreamer survey in Gulf

In November, Petroleum Geo-Services acquired a new MultiClient 3-D seismic survey in the area of DeSoto Canyon offshore Alabama and Florida in the Gulf of Mexico, using its new GeoStreamer technology.

Covering about 250 deepwater OCS blocks, the new program, named "Discovery," will focus on an underexplored area recently opened for leasing.

It will be the industry's first 3-D implementation of GeoStreamer yielding higher fidelity data, PGS said.

The first phase of data acquisition is set to begin in December and completed

COURTESY NANA/COLT

in about nine months.

BP America is a survey underwriter and will collaborate technically on the project.

Rain for Rent: Secondary containment and environmental protection

Rain for Rent's spillguards and Spillguard Hose-Bridges are "designed to fit your Best Management Practices to ensure environmentally safe projects," the company said in a September press release. Spillguards provide a safe and easy solution for secondary containment needs to help prevent costly incidents, Rain for Rent said. Available in sizes from 6 feet by 10 feet to 30 feet by 50 feet, the "portable, lightweight, polyurethane Spillguards are puncture resistant and come with heavy-duty belting. Specialty Acid Spillguards, Transport Spillguards, Hydroblast Spill Pads, and SprayGuards provide spill containment solutions for many industries including: marine, petrochemical, fuel transport, construction, and environmental," the company said. Spillguards are "complemented by the supporting hose and pipe above the Spillguard berm." For more information call 800-742-7246, or visit www.rainforrent.com.

Schlumberger acquires Calgary's Extreme Engineering

Schlumberger said in June that it has acquired "the business of" Extreme Engineering Ltd., a Calgary-based supplier of unmanned measurement-while-drilling, or MWD, systems from its founders and investors that include Shell Technology Ventures Fund 1 BV.

Schlumberger executive Jean-Francois Poupeau said the "combination of Extreme XPulse and XEM technologies with Schlumberger PowerDrive rotary-steerable drilling systems will provide operators in North America and Canada with advanced technologies that can bring heightened efficiency to land operations where improved well performance must be enabled by cost-effective services."

Extreme Engineering will continue to operate under its own brand and maintain its major operational bases in Alberta, Colorado and Texas.

He said that during 2009 the company's geographical focus "will widen to expand deployment of Extreme (Engi-



Rain for Rent: Pump moves more water for less

Rain for Rent says its HH225c 8-inch pump has superior hydraulic efficiency, and is able to move more water at a lower fuel cost. The pump is capable of producing flows up to 5400 GPM and discharging head up to 405 feet. It is mounted on galvanized skids to protect against rust and corrosion.

neering) technologies to regions outside North America."

For more information visit www.SLB.com.

Schlumberger introduces new well test separator

In November, Schlumberger released its new CleanPhase well test separator.

The three-phase separator system enables optimum retention of fluids, allowing for cleaner phases and better measurements.

"The CleanPhase separator is a rejuvenated approach to phase isolation during the separation process. Phase isolation limits the uncertainty inherent during reservoir characterization and significantly aids in the efficient disposal of the individual phases," said Schlumberger.

The separator has SmartWeir* technology that uses radar to nonobtrusively monitor liquid levels and adjust the weir to accommodate the most challenging well effluents. It also allows online separation for the entire job, from the beginning of cleanup until the end of the well test.

For more information, visit www.slb.com/CleanPhase.

Schlumberger opens heavy-oil technology center

On Dec. 3, Schlumberger inaugurated a new oilfield technology center in Calgary,

Alberta, that will focus on efficient heavy oil recovery in Alberta and Alaska.

The company said the state-of-the-art center will work directly with oilfield technical teams and regional research facilities in Alaska and Alberta to help customers increase heavy oil production, reduce technical risk and minimize environmental footprint.

The Heavy Oil Regional Technology Center, or RTC, will provide a working environment where clients can work hand-in-hand with Schlumberger geoscientists and petroleum engineers to solve "key technical challenges associated with heavy oil recovery. These research projects include, but are not limited to, innovative geological and geophysical services, advanced well placement strategies, new formation evaluation and characterization techniques, and novel integrated completions and monitoring programs," Schlumberger said.

"The Heavy Oil RTC will act as a focal point for scientific and technological advancement in Canada by communicating regional customer needs to the worldwide research and development organization of Schlumberger," said Ken Havlinek, Schlumberger's RTC manager. "Client-specific problems can be fast-tracked to the right global experts, and solutions developed within a framework of local, integrated knowledge of heavy oil exploration and production processes." The heavy-oil center features a 3-D visualization center, a high-performance computing cluster, a multi-use conference center, and an interactive collaboration space designed to accommodate locally based scientists and engineers as well as short- and long-term visiting experts and clients.

This is the seventh Schlumberger RTC to open and the second to focus on heavy oil. Schlumberger RTCs specialize in addressing key issues in the worldwide drilling and production industry such as unconventional gas, gas condensates, carbonates and sub-basalt imaging. For more information visit www.heavyoil-info.com.

Tikigaq-ESS charity golf tournament raises \$23,500

Tikigaq-ESS Support Services Joint Venture recently hosted a charity golf tournament for Tikigaq Foundation Native youth programs for the Tikigaq village of Hope, raising \$23,500.

Mel Porter, business development director of ESS Support Services in Alaska, said 16 teams competed at Settlers Bay Golf Course, for prizes provided by ESS suppliers and other Tikigaaq business partners.

Porter is already planning a 2009 tournament with bigger prizes and fundraising goals.

50th Anniversary chopper displayed during statehood celebration

In December Unique Machine, LLC in conjunction with Orange County Choppers announced that they were having a special chopper built to celebrate the 50th Anniversary of Statehood.

The bike is to be displayed at the Dena'ina Convention Center beginning in January.

Unique Machine, a Sumitomo Corporation of America subsidiary, has operated in Anchorage for 35 years. They are the largest machine shop in the state of Alaska and are a staple figure in Alaska's oilfield, mining, fishing and construction industries.

The bike was unveiled to Unique Ma-

chine's employees and press December 29th at their Old Seward Hwy location.

After being on display at the Statehood Celebration, Unique Machine will continue to display the bike at various locations throughout Anchorage for several weeks of the new year. There will then be a drawing held some time in March, with fifty percent of the proceeds from ticket sales going to the Children's Hospital at Providence.

The idea for the bike came from wanting to do something special for the employees of Unique Machine. This then evolved into a 50th anniversary bike with the former owner of the company, Ken Bystedt, being instrumental in the design. "It then became an opportunity to give back to Alaska's youth and their families," said Dana Dosark, administrative assistant at Unique Machine.

"It is our responsibility to the next genera-

tion that we provide them every opportunity so that they can carry us through the next 50 years."

The Children's Hospital at Providence has been providing healthcare and emergency services for families and children all over Alaska since the early 1990's.



AK 50th anniversary chopper

FORREST CRANE

For more information on ticket sales or a schedule of places where the bike can be viewed, contact Dana Dozark at 907-563-3012 or visit Unique Machine's website at www.umalaska.com



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ON THE JOB *American Marine*



At left, an American Marine diver setting up to access underwater rigging. Above, American Marine dive work at BP's Seal Island, the Northstar oil field, offshore Alaska's North Slope. American Marine Corp. has offices in Anchorage and Deadhorse, Alaska, as well as in Los Angeles, California, and Honolulu, Hawaii.

Photos courtesy of **American Marine**



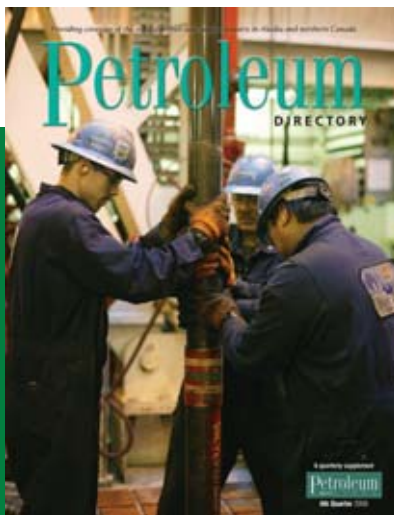
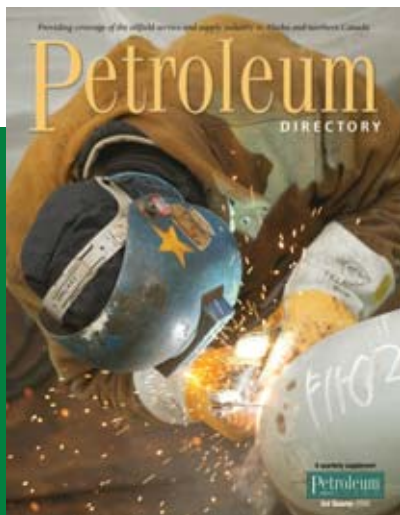
The American Endeavor, at speed in Cook Inlet sea trials, is one of American Marine's recent additions to its fleet. American Marine Corp. is primarily a specialty marine contractor assisting companies with their marine service work, which can include oil companies doing routine maintenance and repair on their oil rigs and exploration and production facilities; communications companies that need underwater cable installed; or cities and boroughs needing port upgrades or dredging services.



American Marine Corp. is expanding by providing more crew boat services on the North Slope. Pictured above is the American Resolution. Below is the American Discovery's sea trial in Cook Inlet.



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