



page Gas proposals: Revenue's Porter17 looks at what Alaska gets

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Week of May 22, 2005 • \$1.50

May's Mining News inside



This month's North of 60 Mining News contains 23 news items, as well as Curt Freeman's mining news update. Among the features: Usibelli coal mine equips for long haul; explorers tread carefully near precious Pebble; Diamonds can be territory's best friend — Nunavut project heralds good times ahead for industry in remote Canadian Arctic; Kensington gold project heads for start-up; best showing in decades in British Columbia.

Alaska pulls in \$1.9M at Foothills, Cook Inlet areawide lease sales

The state of Alaska opened bids for two areawide lease sales in Anchorage May 18, garnering almost \$404,000 for 12 Foothills area leases, 11 of them bids from Anadarko Petroleum, and \$1.5 million for 55 tracts in Cook Inlet, with Rutter and Wilbanks the largest bidder there at more than \$314,000. Bids ranged from \$5.04 an acre to \$7.18 an acre in the Foothills, and from \$5 an acre to \$11.26 an acre in Cook Inlet; both sales had a \$5 an acre bid minimum. (See Cook Inlet map on page A23 of this issue.) Alaska Division of Oil and Gas Director Mark Myers said the state received bids on 68,480 acres in the Foothills sale and on 245,120 acres in the Cook Inlet sale.

LOUISIANA

LNG under siege

Blanco to use veto power for LNG terminals due to fish-killing regasification

By ALLEN BAKER

Petroleum News Contributing Writer

t may not be the shot heard 'round the world, but a letter from Louisiana's governor could cause some major reverberations in the booming LNG industry.

Gov. Kathleen Blanco says she's concerned that using seawater to warm and regasify LNG could cause widespread harm to fish and other sea creatures, since the millions of gallons of water used to warm the gas gets supercooled by the process, killing essentially all its marine life. Blanco sent a letter on May 17 to federal officials in charge of offshore LNG terminals, saying she'll oppose terminals that use an open-loop system to regasify the minus-260-degree LNG that arrives in huge tankers.

Veto power

Blanco has some muscle besides a bully pulpit. Under federal law, governors can veto facilities in federal waters off the coast of their states.

Meanwhile, in a separate development on a project not far away, the U.S. Coast

see LNG page 22



Louisiana Gov. Kathleen Blanco has some muscle besides a bully pulpit. Under federal law, governors can veto facilities in federal waters off the coast of their states.

GULF OF MEXICO

Thunder Hawk has 3 plays

Spinnaker and partners name prospects near discovery, raise exploration sights in Mississippi Canyon near Thunder Horse, Gulf's largest ever oil find

By RAY TYSON

Petroleum News Houston Correspondent

S pinnaker Exploration and its deepwater partners have raised their exploration sights in Mississippi

Canyon, naming three prospects near their promising Thunder Hawk discovery and the BP-operated Thunder Horse field, the largest oil find ever in the Gulf of Mexico.

"We feel like we've leveraged our Explorat knowledge in that basin to the tune of another eight blocks," said Roger Jarvis, Spinnaker's chief executive officer.

The three new prospects are Thunder Ridge,



Roger Jarvis, Spinnaker Exploration CEO

DCEO Spinnaker and partners Murphy E&P, Dominion E&P and Pioneer Natural Resources raised a few eyebrows in April when they

entire \$354 million sale.

Jarvis noted.

Thunder Edge and Thunder Hawk West.

Leases making up the prospects were all

acquired in last March's Central Gulf of

Mexico Lease Sale 194. The Thunder

Hawk West lease alone went for \$20.1

million, the second highest bid in the

ascertain they're in and around the

Thunder Horse-Thunder Hawk basin,"

"From those names you can probably

The state has been leasing Cook Inlet acreage since 1959,

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Getting back to business

Martin ducks June election; promises early decisions on Alaska, Mac gas lines

By GARY PARK Petroleum News Canadian Correspondent

A last-minute defection by a Member of Parliament and a historic tie-breaking vote by the House of Commons Speaker saved the Canadian government of Prime Minister Paul Martin and kept alive hopes of early decisions to allow progress on the Alaska and Mackenzie Valley gas pipelines.

With the government facing a defeat on budget legislation that would have forced a June 27 election, Belinda Stronach, a high-profile member of the opposition Conservative party, was enticed into Liberal ranks with the offer of a cabinet post.

see BUSINESS page 20



For the Mackenzie Gas Project, the closer the government moves to resolution with some of the aboriginal communities and the government in the Northwest Territories, the more new problems arise.

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Gulf of Mexico Activity Report

Current Deepwater Activity

Operator	Area/ Block	OCS Lease	Rig Name	Prospect Name	Water Depth (ft)
BHP Billiton Petroleum (GOM)	WR 206	G16965	GSF C.R. LUIGS	Casade	8,160
Anadarko Petroleum	DC 621	G23529	ENSCO 7500	Spiderman	8,087
Chevron U.S.A.	WR 758	G17015	T.O. DISCOVERER DEEP SEAS	Jack	6,959
BP E&P	GC 826	G09982	DIAMOND OCEAN CONFIDENCE	Mad Dog	6,736
BP E&P	MC 822	G14658	T.O. DISCOVERER ENTERPRISE	Thunder Horse South	6,262
Murphy E&P	MC 734	G21778	T.O. MARIANAS	Thunderhawk	5,710
Dominion E&P	MC 773	G16647	NABORS POOL 140	Devil's Tower	5,610
ConocoPhillips	GB 783	G11574	NABORS MODS 201	Magnolia	4,674
BP E&P	GC 782	G15610	PRIDE MAD DOG SPAR RIG	Mad Dog	4,430
BP E&P	GC 645	G11081	Holstein Spar Rig	Holstein	4,344
BHP Billiton Petroleum (GOM)	GC 654	G20085	T.O. DEEPWATER HORIZON	Shenzi	4,342
Anadarko Petroleum	GC 652	G21810	T.O. DEEPWATER MILLENNIUM	Genghis Khan	4,320
Anadarko Petroleum	GC 518	G21801	Noble Paul Romano	K2 North	4,047
Eni Petroleum	GC 562	G11075	GSF CELTIC SEA	K2	3,934
Shell Offshore	MC 934	G07969	NOBLE JIM THOMPSON	Europa	3,875
Pioneer Natural Resources USA	EB 668	G23243	DIAMOND OCEAN AMERICA	Raptor (Pioneer)	3,710
Kerr-McGee Oil & Gas	EB 602	G14205	NABORS MODS RIG 150	Nansen	3,678
Union Oil Company of CA	GC 512	G26315	T.O. DISCOVERER SPIRIT	Knotty Head	3,570
Shell Offshore	GB 516	G11528	DIAMOND OCEAN VICTORY	Serrano	3,392
Shell Offshore	AT 267	G18537	T.O. DEEPWATER NAUTILUS	Vrede	3,341
Murphy E&P	GC 338	G22950	NABORS MODS 200	Front Runner	3,328
Shell Offshore	VK 956	G06896	H&P 205	Ram-Powell	3,214
Kerr-McGee Oil & Gas	GB 667	G17407	DIAMOND OCEAN STAR	Gunnison/Durango	3,103
Shell Offshore	GC 158	G07995	H&P 202	Brutus	2,985
ATP Oil & Gas	MC 711	G14016	DIAMOND OCEAN VOYAGER	Gomez	2,972
Shell Offshore	MC 807	G07962	H&P 201	Mars	2,945
Shell Offshore	GB 426	G08241	AUGER	Auger	2,862
LLOG Exploration Offshore	GC 157	G24154	DIAMOND OCEAN SARATOGA	Citrine	2,614
Kerr-McGee Oil & Gas	GC 320	G25139	NOBLE AMOS RUNNER	Chilkoot	2,450
BHP Billiton Petroleum (GOM)	GC 282	G26302	Noble Max Smith	Boris North(GC)	2,346
Murphy E&P	MC 582	G16623	NABORS S.D. XVI	Medusa	2,223
Noble Energy	GC 199	G24160	DIAMOND OCEAN QUEST	Lorien	2,200
Chevron U.S.A.	GC 236	G15562	THERALD MARTIN	Typhoon	1,987
Chevron U.S.A.	VK 786	G12119	ENSCO 25	Petronius	1,754
Eni Petroleum	EW 965	G12145	T.O. AMIRANTE	Morpeth	1,694
BP E&P	MC 27	G07923	NABORS POOL 143	Pompano	1,290
Apache	MC 400	G21754	NOBLE LORRIS BOUZIGARD	Ben	1,139

Total Deep Water Prospects with Drilling/WO Activity: 37

New Deepwater Activity

Operator	Area/ Block	OCS Lease	Rig Name	Prospect Name	Water Depth (ft)
Anadarko Petroleum	DC 621	G23529		Spiderman	8,087
BHP Billiton Petroleum (GOM)	GC 282	G26302		Boris North(GC)	2,346
Apache	MC 400	G21754		Ben	1,139

Baker Hughes North America rotary rig counts*

The Gulf of Mexico Activity Report as of May 16, 2005. Active drilling companies only listed.

$$\label{eq:total_total_total} \begin{split} TD &= rigs \; equipped \; with \; top \; drive \; units \; \; WO \; = \; workover \; operations \\ CT \; = \; coiled \; tubing \; operation \; \; SCR \; = \; electric \; rig \end{split}$$

This platform report was prepared by Tom Kearney



BP's Holstein Spar rig



Transocean's	Deepwater	willenniun

	May 13	May 6	Year Ago
US	1,308	1,324	1,162
Canada	255	194	167
Gulf	85	86	93

Highest/Lo	owest
------------	-------

US/Highest	4530	December 1981
US/Lowest	488	April 1999
Canada/Highest	558	January 2000
Canada/Lowest	29	April 1992
		*Issued by Baker Hughes since 1944

COMMENTARY

By DOUG REYNOLDS

Guest Columnist

Petroleum News commentary (April

laska Rep. Vic Kohring in a

17 edition, page 5) says that Economic Limit Factor (ELF) tax

Bay. Rep. Kohring shows that the state's

GUEST EDITORIAL

be \$150 million to \$190 million a year

set by a reduction in new investment in

to lose \$450 million of revenue from

potential future production.

from existing wells, but that because of a

lack of fiscal certainty this gain will be off-

Orion. With less investment, Alaska stands

While Rep. Kohring's analysis could be

considered one good reason to reinstate the

ELF severance tax breaks on Orion and

issue that may be more important is the

state Department of Natural Resources

tundra to winter oil exploration and

regulation for the opening of North Slope

drilling. Let us first examine the effects of

leave ELF alone in the future, another

expected gain from changing the ELF will

changes implemented by Alaska Gov. Frank Murkowski probably caused BP and ConocoPhillips to reduce investment into the Orion satellite oil field near Prudhoe

Regulations not taxes hurt Alaska oil

Table 1. Comparison of Expected Pre-Income Tax Value of North Slope Oil

Year	Current and Future Expected Price	Minus Tariffs	Minus 12.5 percent royalty	Minus Expected Severance with ELF	Pre income tax value
Plan Approval Stage					
February 2004	\$30	\$25	\$22	\$22	\$22
May 2005	\$50	\$45	\$39	\$33	\$33

a change in ELF and then address DNR regulations.

Before we can decide if a reduction in tax breaks was the sole cause for BP and ConocoPhillips to limit their investment in the Orion satellite, we have to determine if the profitability of producing oil has changed. In early 2004, BP and ConocoPhillips started to implement their development plan, (see PN, Feb. 8, 2004), with the understanding that the ELF would be used to reduce severance taxes.

The price of oil at that time was \$30 per barrel, minus tariffs, and it was expected to remain at that level. (See PN, Dec. 14, 2003.) Likely the producers during this plan approval stage assumed a \$25 per barrel price at the wellhead and a zero severance taxation regime. With state royalties of 12.5 percent, Orion would have been forecasted to fetch a pre-income tax value of \$22 per barrel. See Table 1.

Now in May 2005 with ELF eliminat-

ed, producers will expect to pay a severance tax of 15 percent plus the 12.5 percent royalty for a total of 27.5 percent of the wellhead value of the oil. Currently the spot price of oil is at \$50 per barrel and the Energy Information Agency,

http://www.eia.doe.gov/emeu/steo/pub/4ta b.html, projects a price of \$50 for the next couple of years, although Goldman Sachs projects that prices will top \$100 per barrel. If we assume the more conservative \$50 price and take away the \$5 tariffs and royalty the price is \$39. Assuming that all possible severance taxes are paid, then the current expected value for producers is 15 percent less than \$39 per barrel, or about \$33 per barrel.

Comparing the difference, it is odd that a February 2004 expected value of \$22 was high enough for the producers to go forward with the Orion satellite, but today now that the expected value of Orion oil is \$33, the producers have suddenly stopped investment into the Orion satellite. It doesn't make sense.

It seems tax breaks are not really the issue for limiting the investment at Orion. A likely reason though is DNR's restrictive regulations on opening the North Slope to ice roads every winter. DNR has been pushing back winter opening dates. (See Wall's 2005 University of Alaska Fairbanks Masters' project entitled, The Economic Implications of the Shortened Oil Exploration Season on Alaska's North Slope, for a complete analysis.) After 1996 the start date for road construction and, therefore, drilling moved well into January; prior to 1996 it was in early December with an average difference in opening of about thirty days. In addition to the 1996 shift the DNR is shortening the opening period on average by one less day a year. This in turn has caused a reduction in new investment and new drilling.

Active layer freeze-up data from Dr. Vladimir Romanovsky, a UAF professor of permafrost geophysics of the Alaska Arctic, indicates that the tundra is ready for overland oil operations when the active top soil layer is frozen to 12 inches at -1° C. Since 1985, Romanovsky has meticulously measured temperatures through some vertical profiles of the arctic top soil. His techniques generate robust data that show that the tundra can be opened earlier than DNR has allowed. DNR, however, has resisted using scientific methods such as Romanovsky's and has instead used a variety of ad hoc physical measurement techniques - none of which correlate to actual load bearing strength. In fact, Romanovsky's scientific data provides evidence that DNR has waited up to 40 or 50 days too long to open up the North Slope

each year since 1996.

Recently the DNR has conducted new studies and has opened the tundra earlier. (See PN Sept. 26, 2004.) But DNR is still not using a scientific approach such as temperature reading or the Bureau of Land Management's cone penetrometer method developed by ConocoPhillips and utilized for federal lands in the National Petroleum Reserve-Alaska. Both methods can protect the tundra with more accuracy, while allowing for an earlier opening.

Oil companies rightly complain that the 100 day tundra opening season the DNR has created greatly complicates their mobilization process for oil drilling and that even twenty more days would improve the logistics for exploring the land they've leased. Forty or 50 days may sound insignificant, but when the winter season is already as short as 100 days, the extra time could make a huge difference by enabling the drilling of one or two extra wells. Ice roads cost oil companies millions of dollars to construct, but if only one well is drilled, rather than four, then that can increase fixed costs per well by four times.

Getting back to Rep. Kohring's argument about the ELF tax break, there is no indication that the pre-income tax value of the oil has declined. Indeed Ron Brenneman of Petro-Canada said in April that there is a "lack of opportunities to find new oil, and that any opportunities that do become available are aggressively pursued since most oil companies are struggling (emphasis added) to replace their oil and gas resources."

That means Orion, which is proven to exist, has to be considered extremely valuable, and under today's price and tax structure would be rapidly pursued by any other oil company in the world no matter what other prospects existed.

One possible reason for Orion's lack of economic viability could be regulations not taxation. And the regulation that may be causing the greatest burden of costs could be DNR's opening date. The state legislature or the governor needs to accelerate the analysis done on DNR's techniques of determining tundra opening, and it needs to be done soon. Nevertheless Gov. Murkowski's decision to take away ELF tax brakes on Orion is more than justified, and with DNR's partial change, there is no reason to wait to develop the field. Dr. Doug Reynolds is an associate professor of oil and energy economics at the University of Alaska Fairbanks, and author of Scarcity and Growth Considering Oil and Energy, and Alaska and North Slope Natural Gas. He can be contacted at ffdbr@uaf.edu.



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TEXAS CITY, TEXAS

BP accepts responsibility for explosion

Company acts to assure safe operation of Texas refinery, begins effort to compensate victims, their families

PETROLEUM NEWS

series of failures by BP personnel before and during the startup of the Isomerization process unit in the Texas City refinery led to an explosion and fire which claimed the lives of 15 workers and injured more than 170 people, according to BP Products North America's interim fatal accident investigation report made public May 17.

The ISOM unit is used to convert raffinate, a low octane blending feed, into higher octane components for unleaded regular gasoline. The unit has four sections, including a Splitter tower, which takes raffinate and fractionates it into light and heavy components. The Splitter consists of a surge drum, fired heater reboiler and a fractionating column 164 feet tall.

The investigation team determined the explosion occurred because BP ISOM unit managers and operators greatly overfilled and then overheated the raffinate Splitter. The fluid level in the tower at the time of the explosion was nearly 20 times higher than it should have been, the company said in a press release.

The presence of water or nitrogen in the tower at startup may have also contributed to a sudden increase in pressure that forced a large volume of hydrocarbon liquid and vapor into the adjacent blow down stack, quickly exceeding its capacity. The resulting vapor cloud was ignited by an unknown source, BP said.

If ISOM unit managers had properly supervised the startup or if ISOM unit operators had followed procedures or taken corrective action earlier, the explosion would not have occurred, the investigation team said.

The number of deaths and injuries was greatly increased by the presence of workers in temporary trailers near the blow down stack and the failure to evacuate personnel when it became apparent pressure was building in the ISOM unit and that vapors were being vented to the atmosphere, BP said.

The decision to place the trailers near the blow down stack was preceded by hazard reviews that did not recognize the possibility that multiple failures by ISOM unit personnel could result in such a massive flow of fluids and vapors to the blow down stack.

Flare system would have reduced severity

The investigation team also concluded the use of a flare system, instead of a blow down stack, would have reduced the severity of the incident.

"The mistakes made during the startup of this unit were surprising and deeply disturbing. The result was an extraordinary tragedy we didn't foresee," said Ross Pillari, president of BP Products North America Inc., a subsidiary of London-based BP, one of the largest oil companies in the world.

"We regret that our mistakes have caused so much suffering. We apologize to those who were harmed and to the Texas City community. We cannot change the past or repair all the damage this incident has done. We can assure that those who were injured and the families of those who died receive financial support and compensation. Our goal is to provide fair compensation without the need for lawsuits or lengthy court proceedings."

BP Products has started contacting the families of the deceased, through their attorneys, in order to begin the process of evaluating and settling claims. To expedite and simplify that process, BP Products has agreed with the three contractors whose workers were killed to assume responsibility for compensating their injured employees and the families of the deceased.

Third party study in works

BP's incident investigation was conducted by a team of BP executives, BP refining and safety experts and salaried and union employees of the Texas City refinery. The team was directed to determine the cause of the March 23 explosion and make recommendations for preventing similar incidents in the future. It decided to publish an interim report because the fluid sample analysis and computer modeling that remains to be done is not expected to change the root causes or the recommendations made public today.

"We have accepted the report and its findings and we will implement the team's recommendations," Pillari said. "Some will take time to complete. However, refinery management did not wait for this report to take action.

"They have clarified and reinforced roles, responsibilities and expectations around startup, operating and evacuation procedures. They have prohibited the occupancy of trailers within 500 feet of blow down stacks and flares and non-essential personnel are being moved out of process areas."

As recommended in the report, the company will commission a third-party-led facility study to make recommendations for the safe placement of temporary structures.

"Our goal is to eliminate or greatly reduce the need for temporary buildings at the refinery by limiting the workforce in process areas to operators and people involved in hands-on maintenance," Pillari said. "We are assessing space needs for workers whose jobs require them to be located at the refinery. We are also looking at options for securing leased space in the community for workers whose duties can be performed away from the refinery."

BP will modify or replace all blow down systems which handle heavier-than-air hydrocarbon vapor or light hydrocarbon liquids (gasoline and lighter). In the meantime the company has instituted additional operating requirements to ensure those systems are safely operated until they can be modified or replaced.

"We will move expeditiously to modify these units," Pillari said "Before work can begin we must complete engineering design and obtain permits and materials. Work will be completed as soon as possible."

Colin Maclean new manager at Texas City

To drive implementation of the recommendations in the investigation report, the company has appointed Colin Maclean manager of the Texas City site. He has previously managed BP refineries in Whiting, Indiana; Grangemouth, Scotland; and Bulwer Island in

see EXPLOSION page 6

CANADA

First Calgary close to decision on its future

The highly anticipated future of First Calgary Petroleums — the little Canadian company with no production, but big gas assets in Algeria — could be known by the end of May.

After seven months of evaluating strategic options, including outright sale or a partnership to develop its reserves, First Calgary said talks are "progressing well" and involve a "number of parties."

That list is believed to include Spain's Repsol, Norway's Statoil, France's Total and Gaz de France and, most recently, India's Oil and Natural Gas Corp.

The Financial Express in Bombay said ONGC or its wholly owned unit, ONGC Videsh, put in a bid for First Calgary, which has a market value of \$2.5 billion.

Like China's state-owned companies, ONGC is scouring the globe for new assets to meet the demands of its booming economy.

It has interests in a dozen countries, including Sudan and Russia, and increased output from overseas by 31 percent last year to 5.06 million metric tons of oil and gas, the bulk of the 70 percent that India imports.

ONGC is focused mostly on First Calgary's 49 percent stakes in two Algerian blocks worth about \$1 billion — one with reserves estimated at 12.5 trillion cubic feet and the other with 350 billion-400 billion cubic feet of gas and 100 million barrels of oil and liquids.

Meanwhile, First Calgary's losses edged up to \$2.7 million in the first quarter, compared with \$2.3 million a year earlier, while capital spending dropped to \$12.5 million from \$14.2 million.

-GARY PARK



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BRITISH COLUMBIA

British Columbia voters slash Campbell's majority

By GARY PARK

Petroleum News Canadian Correspondent

ordon Campbell joined a select group as the first British Columbia premier since 1986 and only the fifth in the province's 127-year history to win back-toback elections.

But voters gave the Liberal party leader a mixed endorsement on May 17.

From winning 77 of 79 seats on election night in 2001 he saw his massive majority dramatically reduced to 46 seats against 33 for the left-wing New Democratic Party.

Having inherited a financial mess four years ago,

Campbell made deep cuts to health and education spending, generating negative voter reaction.

For the oil and gas industry, however, the return of the Liberals is popular. Government incentives and regulatory streamlining generated an unprecedented surge in oil and gas investment during Campbell's first term to C\$4.5 billion from C\$2.6 billion, turning northeastern British Columbia into Canada's gas hot spot.

Energy and Mines Minister Richard Neufeld, who was re-elected, told Petroleum News that the province aims to build on its success by exploiting opportunities to develop yet-to-be-discovered resources of 150 trillion cubic feet of gas, 90 tcf of coalbed methane and 18 billion barrels of oil.

Achieving those goals requires action on several fronts, not least agreements with aboriginal communities on treaties and land claims to promote exploration and development of coalbed methane and largely unexplored regions of northern British Columbia.

The hottest issue remains the future of the British Columbia offshore, which Campbell and Neufeld have vigorously promoted as vital to the province's economy.

But they have been unable to persuade the Canadian government to lift a 33-year exploration moratorium and have failed to get the necessary backing from aboriginals and environmentalists to endorse exploration and development.

continued from page 5 EXPLOSION

Australia.

"Colin is one of our most experienced operations managers. He will focus his full and undivided attention on the safe operation of the complex," Pillari said.

To provide assurance about processes and procedures at the refinery, BP is conducting a process and operational review of the facility. The review will address all

aspects of Texas City operations from procedures and training to process safety and maintenance.

Review led by former OSHA boss

The review, which began May 9, is being led by former deputy assistant secretary for Safety Occupational and Health Administration, James W. Stanley. BP expects a preliminary view within a month. In response to the report, BP Products

will take disciplinary action against both

supervisory and hourly employees directly responsible for operation of the Isomerization Unit March 22 and 23. These actions will range from warnings to termination of employment. As the investigation continues, and as new information is discovered, others also may be disciplined.

"The failure of ISOM unit managers to provide appropriate leadership and the failure of hourly workers to follow written procedures are among the root causes of this incident. We cannot ignore these failures,"

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Pillari said. ISOM unit supervisors did not verify correct procedures were being used by unit operators and were absent from the unit during critical periods. Unit operators failed to sound evacuation alarms, contributing to the severity of the incident.

The incident investigation report has been shared with government agencies investigating the incident and the findings and recommendations are being communicated across BP's global operations. The report is available to the public and has been posted on the web at www.bp.com

"We hope that by sharing what we have learned from this tragedy that we can prevent similar incidents," Pillari said.

BP on federal watch list

The Texas City refinery is BP's largest and most complex refinery with a rated capacity of 460,000 barrels per day and an ability to produce 11 million gallons of gasoline a day. The complex has had previous safety problems. In March 2004, it was evacuated after an explosion that resulted in \$63,000 in fines. In September, two workers died and another was seriously injured when they were scalded by superheated water that escaped from a high-pressure pipe.

BP leads the U.S. refining industry in deaths over the past decade, with 22 fatalities since 1995, the most recent a contractor killed at the company's Cherry Point refinery north of Seattle.

According to the Houston Chronicle, in the weeks before the accidents at Cherry Point and Texas City, BP's safety record landed it on an internal federal watch list of companies "indifferent" to their legal obligations to protect employee safety because of the fatal September 2004 incident.

OSHA accused BP of a "willful" violation of its rules, leading to the accident, the Chronicle reported.

OSHA's Enhanced Enforcement program "zeroes in on employers with the gravest violations who have failed to take their safety and health responsibilities seriously," Jonathan Snare, acting assistant secretary of labor for OSHA, said in a recent speech.

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BP is the only major oil company on that list, John Miles, OSHA's regional director, told the Chronicle.

The newspaper reported that the list is not made public; rather, it is an "exclusive club that includes construction contractors with bad records and industrial employers such as McWane Industries, the Alabama company with one of the nation's highest total of workplace fatalities.

"Under the program, OSHA inspectors were to conduct follow-up inspections at BP's Texas City refinery and also look for and target potential systemic problems at BP plants in other states."

But before that happened, the March 23 Texas City refinery explosion occurred.

"We had not been back out there because we had just finished issuing the (previous citation) three weeks before," Miles told the Chronicle. "But they would have been under much more scrutiny."

CANADA

Warning signals for energy trusts

Investment banker: Breathtaking results of '04 can't be sustained, as capital spending, cash flows head in opposite directions

By GARY PARK

Petroleum News Canadian Correspondent

or all their volatility, predictions of a value correction and widely anticipated round of consolidations, energy income trusts show little sign of veering from a relentless growth path in Canada.

But investment banking firm Credit Suisse First Boston has warned that trusts are "unstable investments" faced with a course correction as capital spending and cash flow head in opposite directions.

The group of 29 operating trusts posted breathtaking numbers in 2004 and built on that performance in the first quarter.

The active producers logged production of almost 711,000 barrels of oil equivalent per day, 100,000 boe per day ahead of 2003 and 340,000 boe per day above 2001 when the sector had 19 trusts.

Net earnings climbed to C\$2.4 billion from C\$1.98 billion in 2003: cash distributions to unit holders increased to C\$3.55 billion from C\$2.7 billion, although per unit payouts dropped to C\$2.7 from C\$2.01; cash flow made a 31 percent gain to C\$5.3 billion.

The production breakdown showed oil and liquids at about 380,000 bpd and natural gas at 1.97 billion cubic feet per day - a combined total that represented about 15 percent of Canada's total output.

Trusts acquired and drilled

It was a year when trusts demonstrated that they have no intention of resting on their laurels.

They resorted to both acquisitions and the drill bit and took the first steps towards buying assets outside Canada to build reserves and sustain production.

The sector added 571 million boe of reserves through acquisitions in 2004, added another 57 million boe from exploration, of which 80 million boe were proved.

Almost two-thirds of last year's output of 247 million boe was replaced through drilling, although less than one-third of that consisted of proved reserves.

Entering 2005, the 29 trusts claimed proved plus probable reserves of just over 4 billion boe, a gain of better than 478 million boe from a year earlier. The latest count puts the trust ranks at 35, with investment dealer Peters & Co. reporting 13 transactions in the first three months of 2005, carrying a combined value of C\$2.1 billion for 143 million boe of proven reserves and 50,000 boe per day of production.

Jack Mintz, president of the C.D. Howe Institute, a conservative think-tank, has called for changes to tax rules relating to trusts. Currently, the rules require trusts to distribute most of their profits to unit holders, or face heavy tax

penalties. Mintz said he is concerned that the tax system denies the trusts access to the capital they need to "grow their businesses.'

lio strategy" has given his firm three distinct business units - midstream services, and both U.S. and Canadian oil and gas production, currently about 31,000 boe per day.

In doing so, he said Provident has strengthened the stability of cash flow and positioned the trust for "growth outside the Western Canada Sedimentary basin."

Acclaim Energy Trust is also starting to look beyond Canada, certain that "trusts are morphing into active E&P companies with a strong emphasis on paying out big dividends," said President and Chief Executive Officer Paul Charron.

So far, Acclaim is delivering results, with production at a minimum 41,000 boe per day for three quarters and distributions kept at a flat level for 31 successive months.

Having acquired Western Canadian assets from ChevronTexaco for C\$434 million a year ago, Acclaim is on the lookout for more deals.

Charron said he has "never seen so much property on the market as right now," but because competition is so hot and prices are so high, his management team is searching for overseas opportunities in the United States, Europe and Australia.

The United States is an attractive hunting ground because trusts there are prevented from acquiring new assets, he said.

First Boston: sector

ANCHORAGE

Long-term natural gas marketing agreements an issue for IOGCC

Alaska Gov. Frank Murkowski, this year's chairman of the Interstate Oil and Gas Compact Commission, said at the organization's midyear meeting in Anchorage May 16 that he will be appointing a task force to study enhancing the ability of utility companies to enter into long-term gas marketing agreements.

Long-term marketing agreements are key to an Alaska gas pipeline project, the governor said, because predictability and financial stability are need-

ed not only at the resource end in Alaska — he'd just described the state's negotiations for a project fiscal contract under the Stranded Gas Development Act — but at the consumer end of the project as well.

The governor said that as chairman of the IOGCC he was joining with the National Association of Regulatory Utility Commissioners to appoint a special IOGCC-led task force, which will report back to him by Aug. 15.

Its mission, he said, will be to study ways to enhance the ability of the utility companies to enter long-term gas marketing Alaska Gov. Frank agreements.

Ken Konrad, BP Exploration (Alaska) senior vice president, raised the same issue later in the day. Konrad described the pipeline to Chicago that BP, ConocoPhillips and ExxonMobil have proposed, and said the

A National Petroleum **Council study noted** that state utility regulators need to provide utilities and local distribution companies the opportunity to "participate in longerterm relationships with suppliers of gas from projects like this," Konrad said

states are not spectators in this project, because a project of this magnitude "needs some degree of support from customers." He said the producers expect utilities and local distribution companies to be part of the customer ior vice president fix for Alaska gas.

Murkowski



A National Petroleum Council study noted that state utility regulators need to provide utilities and local distribution companies the opportunity to "participate in longer-term relationships with suppliers of gas from projects like this," Konrad said. Such participation could take the form of transportation commitments or "gas purchase contracts that are more than one month long." The project itself, he noted, will run for as long as 50 years.

Konrad said that earlier in May "we had a number of regulators up here from the upper Midwest - Minnesota, Michigan, etc. - talking about the project so that they could get familiar with it and start thinking" about how the project fit with local regulatory regimes. What BP is seeking to do, he said, is get conversations and education going with regulators and customers.

-KRISTEN NELSON

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Trusts looking beyond Canada

On the horizon is at least another 105,000 boe per day when Penn West Petroleum converts to a trust.

Typical of the new breed, it had a lively 2004, taking over Olympic Energy and Viracocha Energy and buying out BreitBurn Energy of Los Angeles to become the first Canadian trust with significant holdings in the United States.

Provident Chief Executive Officer Tom Buchanan said the "balanced portfo-

headed for shake up

Not everyone views the sector with unrestrained optimism.

In rating trusts as "unstable investments," First Boston warned the sector is

see TRUSTS page 8

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UNITED STATES

Noble poised for huge production gain

As new U.S. Gulf of Mexico deepwater fields come on line independent anticipates dramatic turnaround in domestic production

By RAY TYSON

Petroleum News Houston Correspondent

xploration and production independent Noble Energy, helped by Gulf of Mexico deepwater production and a growing U.S. onshore presence, is anticipating a dramatic turnaround in its overall domestic production by year-end 2005.

Noble's domestic oil production in the 2005 first quarter dropped 6.5 percent to 17,927 barrels per day from the year-ago period, while the company's domestic natural gas output plummeted nearly 15 percent to 214.5 million cubic feet per day.

A strong 24 percent increase in Noble's international production from a year earlier helped offset declines in the United States during the first quarter of 2005. Still, the company's combined oil and gas production worldwide vs. the year-ago period slipped nearly 2 percent to 105,051 barrels of oil equivalent per day.

Chuck Davidson, Noble's chief executive officer, attributed the production hit on Noble's domestic oil and gas sales primarily to natural field declines in the relatively shallow waters of the Gulf of Mexico's continental shelf, plus shut-in production on the shelf due to last year's Hurricane Ivan.

"But we clearly expect domestic production at the end of the year to be well above what we started the year at," he told industry analysts during a May 4 Noble is expecting further erosion of its domestic production before things start to improve later this year, Davidson said, noting the phase in of three major deepwater developments in the U.S. Gulf — Swordfish, Ticonderoga and Lorien.

conference call on the company's 2005 first-quarter earnings.

Gets worse before it gets better

Noble is expecting further erosion of its domestic production before things start to improve later this year, Davidson said, noting the phase in of three major deepwater developments in the U.S. Gulf — Swordfish, Ticonderoga and Lorien.

Swordfish, 60 percent owned and operated by Noble, is running about a month behind schedule due primarily to construction work on the offshore platform, Davidson said. He said first production from the field is now expected in July with initial daily output net to Noble of 10,000 barrels of oil equivalent. Production is expected to ramp up to 25,000 barrels per day net to Noble in 2006.

Lorien, also 60 percent owned by Noble, is scheduled to come on line in the second quarter of 2006 with initial daily production net to Noble of about 12,000 barrels of oil equivalent. Loren is



a two-well sub-sea development.

First production from Ticonderoga, 50 percent owned by Noble and operated by partner and fellow independent Kerr-McGee with a 50 percent interest, is expected in mid-2006 with initial daily output of 10,000-12,000 barrels of oil equivalent net to Noble, Davidson said. Ticonderoga is a two-well sub-sea development with both wells tied back to Kerr-McGee's Constitution spar platform.

Little Burn first on exploration list

Davison also unveiled a deepwater exploration program for the U.S. Gulf that if successful would help keep Noble's domestic pipe full down the road. For the remainder of 2005, he said, the company intends to participate in three wells.

First on the list is the Little Burn prospect on Green Canyon Block 238, an offset to Noble's producing Boris field. Noble holds a 40 percent stake in the BHP-operated well that is expected to be spud by the end of the current quarter.

"One of the encouraging things about the prospect is although it is one of the smaller deepwater prospects it's basically sitting right on top of the infrastructure we put in place to produce at Boris," Davidson said. "And as a result, if it is successful, it can start production very quickly."

Conquest drilling also on calendar

Also scheduled for exploration drilling in the 2005 second quarter is the Conquest prospect on Green Canyon Block 767, Davidson said, adding that Conquest is adjacent to the company's Ticonderoga discovery and holds potential reserves of around 40 million barrels of oil equivalent. Noble has a 50 percent interest in the prospect, which is located in about 4,600 feet of water.

"We drilled another well on that block last year and that initial well really helped us better understand (and) set up the current Conquest prospect," Davidson said.

continued from page 7 TRUSTS

headed for a shake up as the need for

There are several candidates for a third deepwater exploration well in the U.S. Gulf later this year, including Slam Deep, Sable and Gemini, Davidson said. In the case of Slam Deep, which already has been approved for drilling, "we're working on some partners that we expect to bring into that prospect," he added.

Cadillac part of plans

Noble also has an active exploration program on the Gulf's continental shelf that includes Cadillac, a closely watched "ultra-deep" well currently at around 20,000 feet headed to a target depth of 25,000 feet on Viosca Knoll block 251. There have been few exploration wells drilled to or below 25,000 feet on the shelf.

"This resource could easily reach into the several hundred billion cubic feet of gas equivalent," Davidson said, adding that the company plans to drill several deep exploration wells below 15,000 feet in the Viosca Knoll area this year, including Voodoo and Strike Eagle. "There are a couple of more ... prospects that are potential drilling candidates for later this year."

Increasing onshore activity in Rockies, Mid-continent

In addition to new production and its exploration program in the Gulf of Mexico, increasing onshore activity, particularly on the Gulf Coast and in the Rocky Mountains and Mid-continent, is expected to help prop up Noble's U.S. domestic production. Noble's recently approved merger with Patina Oil & Gas also will strengthen the company's domestic portfolio.

Despite Noble's overall production increase in the 2005 first quarter, continuing strong oil and natural gas prices helped lift company profits during the quarter. Noble reported net income of \$110 million or \$1.86 per share, a hefty 29 percent increase compared to the \$85.5 million or \$1.48 per share earned during last year's first quarter. Cash flow reached a record high of \$223.5 million, a 9 percent increase over \$204.9 million collected in the year-ago period. ●

at the high end of the cost curve and have corresponding low returns and high leverage (to the commodity)," the report said, noting that while production has grown

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higher spending collides with tightening cash flow.

It said Canadian trusts have doled out cash distributions that have exceeded their cash flow, after accounting for capital spending, and are now relying on equity issues or debt to satisfy investors.

Because of the new units issued, the trusts will need greater cash flow just to hold the line on their distributions and free cash flow is expected to shrink because of higher cost properties and the risk of lower commodity prices, First Boston said.

In a 50-page report covering 20 trusts (with a market capitalization of about C\$36 billion), the firm said it expects the "sector to evolve through three distinct phases: collapse, consolidation and finally restructuring (possibly as conventional E&P companies)."

"Trusts have declining production, are

four-fold the value of shares outstanding has risen eight-fold.

It predicts that capital spending by trusts will grow as a percentage of cash flow over the next few years, while distributions decline as a percentage of cash flow.

Peters & Co. said five "outstanding" years for trusts will likely see more conversions by producers, but the outlook for the sector depends on the "timing and severity" of any commodity price decline.

Adding another element to the trust debate, Jack Mintz, president of the C.D. Howe Institute, a conservative think-tank, has called for changes to tax rules relating to trusts.

Currently, the rules require trusts to distribute most of their profits to unit holders, or face heavy tax penalties.

Mintz said he is concerned that the tax system denies the trusts access to the capital they need to "grow their businesses." •

NORTH SLOPE

Secrets to North Slope permitting

Communication, operations in charge, simplicity, plagiarism played part in success Armstrong and its partners have had in permitting Alaska exploration and development projects

By KAY CASHMAN

Petroleum News Publisher & Managing Editor

hen asked why Armstrong and its partners have been so successful in getting a standalone production facility and four exploration

projects with 11 wells permitted in a timely fashion on Alaska's North Slope over the last three years, Stu Gustafson credited a number of things, but at the

top of his list is the time he and contractor Bob Britch spent working with state, federal and local



Gustafson points

engineer: "He

what it takes to

because the opera-

agencies before they formally applied for permits.

Britch owns Anchorage-based Northern Consulting and works with Gustafson, an Armstrong Alaska vice president. The two men have overseen most North Slope permitting for Armstrong partners Kerr-McGee and Pioneer Natural Resources, including the Oooguruk, Nikaitchuq, Tuvaaq and Ataruq exploration wells and the Ataruq and Nikaitchuq standalone production projects. The Nikaitchuq development

process involves a rezone which is still in the works; the Ataruq development was permitted in approximately 100 days, although that did not include converting the exploration spill plan to a spill out the fact that production plan. (An Alaska permitting contracof tor Bob Britch is an Department Environmental knows how to drill Conservation regu- wells, build lator said a spill plan pipelines; he knows takes build a project. ... If conversion approximately two operations people months and could are explaining the have been handled project to regulators it generates a sense in the 100-day peri- of confidence with od it took to get the the regulators rest of the Ataruq tions people know permits, which sug- what they're talking gests the well and about, and it's obvisidetrack drilled at

Ataruq late this winter may not have tested commercial.)

ous."

Ataruq, expected to produce in the neighborhood of 15,000 barrels of oil per day, was small compared to Nikaitchuq which Kerr-McGee officials have said is expected to yield 60,000 barrels per day, but Ataruq was significant in that its was the first standalone development project permitted by an independent oil company on the North Slope — and it was permitted in a reasonable amount of time with a minimum amount of paperwork.

will work and what won't. And go early. Say 'here is what I want to do and how I think I'd like to go about it. Am I doing it right?' And they will tell you."

Pre-permitting meetings are required by many agencies, but even when they are not required, Gustafson thinks they are important.

"Even before the pre-permitting meetings you should be talking to the lead agencies," he gists and environsaid.

Operations should be in charge

A mistake Gustafson sees companies making is putting non-operational types in charge of permitting.

"Companies would do a whole lot better if they left their landmen and biologists and environmental scientists at home and had their drilling or project operations people handle the public process," he said.

The operations people should be engaged early-on in putting together the plan for permitting. "They should participate through the public process because if someone asks a question, they can answer it right then and there. Otherwise a biologist or landman has to say, 'I'll get back to you.' You can lose a month right there," Gustafson said in an earlier 2005 interview.

"Bob Britch is an engineer. He knows how to drill wells, build pipelines; he knows what it takes to build a project. ... If operations people are explaining the project to regulators it generates a sense of confidence with the regulators because the operations people know what they're talking about, and it's obvious."

Gustafson's comments jive with a common problem state, federal and North Slope Borough regulators identified for Petroleum News in first quarter interviews for "Dispelling the Alaska Fear Factor: A guide to Alaska's oil and gas basins and business environment."

The problem was the challenge of getting questions answered about a proposed project from applicants, a process that can stop the permitting clock. Regulators from all three governmental groups said that simple questions are often answered with multiple pages that obviously take a lot of staff time to construct and sometimes miss the

mental scientists at home and had their drilling or project operations people handle the public process." —Armstrong Alaska Vice President Stu

Gustafson

don't understand a question, get on the phone and call the regulator. Don't throw a lot of staff time at it until you do."

point of the questions.

"Communication is the

key to timely permitting. And

maybe a little humility,"

Gustafson said in the late

April interview when asked

about the above problem

voiced by regulators. "If you

Stay away from the "consulting model"

This brought up one of Gustafson's chief gripes. "I suspect it's job security for some of these people. Or maybe they just don't realize there is an easier way to do it. But keep the paperwork simple. Most of the companies permitting projects in Alaska get carried away with their paperwork.

"Our operations plan for Ataruq, a complete standalone production facility, is 15 pages. ... If you've got someone creating a lot of paperwork they're making a job for themselves, not a project for you. Why write a novel when a short story will do?"

"I call it the consulting model. There is whole lot of money to be made working on the problem, if you're not part of the solution," Gustafson said.

For newcomers to Alaska, "it's more important to know who not to talk to than to know who to talk to," he said. "A lot of consultants set themselves up as experts. Talk to more than one. And talk

see SECRETS page 10



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Pre-pre-permitting meetings essential

"When I first started doing permitting up here for Exxon in the '70s, I would have said that half the problems, the hold-ups, were the fault of the agencies and half the part of the companies. Today, I'd say 95 percent were the fault of the companies," Gustafson said in an interview in late April 2005.

"I believe if the applicants listen to the lead regulators — i.e. the experts — and listen closely, most of the problems would go away," he said. "My advice: Go to the regulators. They know what



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DENVER

BLM nets \$1.3 million from oil, gas leases

Colorado oil and gas lease sale includes land near Dinosaur National Monument; 51 of 55 leases offered sold May 12

THE ASSOCIATED PRESS

bout 200 acres of land near the Dinosaur National Monument was included in an auction May 12 of federal oil and gas leases that totaled \$1.35 million.

The Bureau of Land Management sold leases on 51 of the 55 parcels offered for a total 27,012 acres.

Not included in the auction were 17,502 acres in southwestern Colorado, which the agency postponed auctioning after landowners facing drilling on their property complained they didn't have enough notice. Rep. John Salazar, D-Colo., and county commissioners in western Colorado asked that the auction be postponed.

Federal officials also yanked a 653-acre tract 6 miles south of the boundary of the monument in northwestern Colorado. BLM spokesman Vaughn Whatley said the agency wants to review new information about the parcel.

Environmental groups said that more than 14,000 acres pulled from the bidding are habitat for the Gunnison sage grouse, which federal officials are studying to determine if it should be added to the endangered species list.

Erin Robertson, a biologist with the Denver-based Center for Native Ecosystems, said the groups appreciated the BLM removing the parcels from the auction, but would like to see more land protected to ensure the bird' recovery

Acreage nominated for sale

The law requires the BLM to hold quarterly auctions of leases nominated by companies and others for sale. The auctions have become more contentious as rising natural gas prices have dramatically increased drilling in Colorado. The land yanked from the auction includes parcels where people own the surface but not the minerals under the land.

Those who own or lease the minerals, which are often owned by the federal government, have the right to the reasonable use of the surface land to extract the minerals.

Congressman Salazar asked that the auction be canceled altogether because landowners had little notice due to problems with a BLM Web site. Salazar said it's long a way for most people to drive to BLM field offices, where the information was posted 45 days before the sale.

Whatley said the BLM the agency doesn't have the ability to contact individual property owners, many of whom don't live in Colorado.

BLM state director Ron Wenker said the agency is exploring other ways of notifying the public about future sales.

"We are reviewing the best way to keep private property owners notified about mineral lease sales while still fulfilling the BLM's role of making the public mineral estate available for responsible development," Wenker said.

Any action on the leases withdrawn from the auction is on hold while the BLM decides what to do with them. The next auction is in August.

continued from page 9

SECRETS

to the lead agencies. ... Look at their files and see who generates the least paperwork, the ones that make it look easy," Gustafson said.

"For the good ones permitting should be simple because if they've been doing this for 20 years and their job isn't simple, you've got the wrong people."

Plagiarism appropriate

Another key to Armstrong and its partners permitting success is plagiarism.

"Why should the regulatory process be reinvented every time? The operations for our offshore wells were pretty much the same, well to well," he said. "The same is true for other areas onshore. ... The only things that generally change are, say, the length of an ice road or subsistence activity might be different and you have to address those things. But in most cases you can essentially re-use an application package that has been permitted before, change the things that are different, including the names and locations, and use it. There is no reason to reinvent the process each time; and why rewrite the whole short story?"

Gustafson's comments are similar to those made by former state Oil and Gas Division Director Ken Boyd, who says permitting in Alaska can be fixed in much the same way the state fixed access to state lands eight years ago with its switch to areawide lease sales for those parts of Alaska of most interest to the oil and gas industry — the North Slope, Foothills, Beaufort Sea, Cook Inlet and, most recently, the Alaska Peninsula (Bristol Bay).

Areawide permitting?

Under the previous nomination-style of lease sale, "the state essentially assumed it knew nothing before each lease sale. Each sale was created from scratch and this led to a slow and uncertain lease sale program," Boyd said in a 2002 interview with Petroleum News, which sounds very much like Gustafson's description of how most companies approach permitting.

But the state had been holding lease sales in these oil and gas prone areas for years, and had core knowledge about the areas. In the areawide program, the "core knowledge then went into the best interest finding, the state's version of an environmental impact statement. Instead of a fractured and uncertain program the state

for hundreds of different projects on the slope and in Cook Inlet."

But for most projects, "permits start from scratch each and every time, no matter that an identical project has been permitted a dozen times before," Boyd said.

There is a simple solution, he said, mirroring Gustafson's plagiarism suggestion. Hundreds of exploration wells have been drilled on the North Slope, Boyd

said. "It would be a fairly simple process to review those wells that were previously permitted successfully and drilled. Let's make a list of those characteristics of those projects and create a standard well. This could be the standard for mer state Oil and future projects."

When new wells are proposed that fit who says permitting the same parame- in Alaska can be ters, "then issue the same way the state damn permit," Boyd fixed access to state said. When new lands eight years projects differ sub- ago with its switch stantially, the differ- sales. ences could be dealt

winter Gustafson's comments are similar to those made by for-Gas Division Director Ken Boyd,

pictured above,

with through additional mitigation.

"But the core permit for this standard well should be approved and only the substantial differences should warrant



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was able to have sales of all its lands in all the sale areas every year," Boyd said.

And every year, prior to each sale, the state puts out a "call" asking for substantial new information about the sale area. If there is substantial new information, it is incorporated into the lease sale process as a supplement, he said. And every 10 years, the core best interest finding is updated to include the supplements.

Boyd quoted Benjamin Franklin to the effect that insanity is doing things the same way over and over and expecting a different result.

"That's the way it was with leasing and it's the way it is with permitting.' Boyd said some of the same principles used to fix the leasing program in the 1990s could be used to fix permitting now. As with leasing prior to the areawide program, permitting starts from scratch for every project, even though "thousands of permits have been issued additional discussion or delay,' Boyd said.

Production plan ready

Gustafson had one last piece of advice to impart: "Exploration is not sport fishing; you're not doing it for fun, so when you apply for exploration permits you should have your production concept plan in hand.

"For us it was coming up with the 'pipe in a pipe' and 'production in a tank' concepts because in offshore subsistence use areas the (North Slope) borough wanted us to prove to them we were not going to spill a drop of oil. They knew if we hit oil we were going to want to develop, so I proposed those concepts. But if I had been a landman, it wouldn't have happened," he said.

Editor's note: Part 1 of this story ran on page 1 of the May 8 issue of Petroleum News.

CANADA **Cost of northern support for Mac line**

NWT/aboriginals want C\$100M a year to cover socio-economic costs of Mackenzie gas project and break stalemate

By GARY PARK

Petroleum News Canadian Correspondent

nding the impasse on the Mackenzie Gas Project will cost the Canadian government C\$100 million a year to cover social and economic spending along the pipeline route, the Northwest Territories government and aboriginal leaders have decided.

Northwest Territories Premier Joe Handley conceded that the government "may find the number high," but he said the gas project could return up to C\$30 billion to Ottawa over its lifetime.

A spokesman for

Deputy Prime Minister Anne McLellan said the government would accept the figure as a starting point, but needed a detailed breakdown of how the money would be spent.

However, any chances of a settlement will be sidetracked if the Liberal government of Prime Minister Paul Martin Northwest is defeated in the House of Commons, forcing an election not have the means campaign that will to cover housing, stretch into late June.

that socio-economic impacts from economic development in the Northwest Territories are a "territorial government responsibility," **Territories Premier** Joe Handley said the territory does education, health and infrastructure

While conceding

The C\$100 million costs because it figure was agreed to doesn't get a full on May 13 when share of resource revenues. Handley and leaders

of the Inuvialuit, Gwich'in and Sahtu communities met in Calgary. (See Mackenzie updates on page A1 of this issue of Petroleum News.)

Deh Cho in separate talks

The Deh Cho, who have refused to become a full partner in the Mackenzie project, did not attend the meeting.

Instead, their leaders were holding separate discussions with federal officials in Yellowknife in a bid to advance land claims and self-government talks.

The C\$100 million represents a 10 percent increase in the annual Northwest Territories budget, of which C\$800 million comes directly from the federal government.

Handley said 75 percent would go directly to his government and 25 percent would be distributed among the four First Nations

But he said the Mackenzie consortium and First Nations must still negotiate access agreements and Imperial, as the lead Mackenzie partner, must agree to make onetime payments to cover the costs of municipal services in communities along the pipeline route.

On that front, there have been hints from Imperial that it is preparing a financial offer that would be divided equally among the four aboriginal groups.

Liseanne Forand, an assistant deputy minister at the federal Department of Indian Affairs and Northern Development, told reporters earlier in May that the success of any Imperial offer will hinge on whether it takes full account of native concerns and how Imperial hopes to proceed.

"There's no question that money is a big topic between all those talking about this," she said.

Forand and deputy minister Michael Horgan have been actively meeting with Imperial, TransCanada and Northwest Territories government officials to seek a road ahead.

LNG could grab capital

But the continuing shaky outlook for the Mackenzie Gas Project has attracted warnings in a new report that industry spending could be diverted from the Arctic venture to liquefied natural gas. (Editor's Note: See full story on Tristone report in May 15 issue of Petroleum News.)

Tristone Capital, a Calgary-based investment dealer with an office in Houston, warned in its 50-page study that unless there is a resolution of economic and timing uncertainties within a year, Mackenzie Delta

Even though Flint Hills Resources

purchased the North Pole Refinery

a year ago, we're still somewhat of

an unknown here in Alaska. We

thought we'd introduce ourselves

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gas could be stranded for a decade or more. "Given U.S.

national energy secuneeds, rity the Mackenzie Delta project is the most vulnerable to seeking capital allocated away to LNG proj- Any chances of a

settlement will be ects," Tristone said. sidetracked if the The decision on Liberal government April 28 by the of Prime Minister Mackenzie propo- Paul Martin is nents to halt field House of Commons, defeated in the

work because of cost- forcing an election ly demands by abo- campaign that will riginal communities June. stretch into late and slow progress on

the regulatory front sets the timetable back by a year and possibly two, the report said.

"There is no ownership by the federal government to put in the mechanisms to make the Mackenzie Delta happen," said Christopher Theal, Tristone's managing director of institutional research.

He told reporters that the announcement by McLellan to help fund northern social programs and remove a roadblock was merely a "baby step" when the government needed to be taking "big leaps."

He said federal leaders should be urgently seeking a deal with all of the stakeholders, with special emphasis on reaching land access and benefits agreements with First Nations.

Tristone noted that the backers of the two northern gas projects - Imperial Oil, Shell Canada, ConocoPhillips Canada and ExxonMobil Canada in the Mackenzie and ExxonMobil, BP and ConocoPhillips on the North Slope — are involved in plans to build and operate LNG receiving terminals that could bring 13 billion cubic feet per day over the next five years.

Another 10 terminals have received approval to add an additional 7 billion cubic feet per day by 2020.

Those plans pose the greatest threat to completion of the Mackenzie project, Tristone suggested.

Tristone now estimates the Alaska Highway pipeline carries a price tag of US\$18 billion, compared with an earlier

see SUPPORT page 12

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groups.

While conceding that socio-economic impacts from economic development in the Northwest Territories are a "territorial government responsibility," he said the territory does not have the means to cover housing, education, health and infrastructure costs because it doesn't get a full share of resource revenues.

Nellie Cournoyea, a former Northwest Territories premier and chief executive officer of the Inuvialuit Regional Corp., said indications from the federal government that it is willing to return some of the money it collects from northern resources would go a long way towards addressing concerns that have been raised over 20 years.

Still issue of municipal services

Richard Nerysoo, head negotiator for the Gwich'in, said money from Ottawa would be "very helpful in dealing with the socialeconomic consequences of the project."

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Dr. Eric Jolly, Director, Science Museum of Minnesota, St. Paul, Minnesota

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🕨 FAIRBANKS, ALASKA

Plugging bullet holes quicker

Alyeska unveils lighter-weight hydraulic clamp for trans-Alaska pipeline that contains spill from bullet hole, diverting oil into bladders

THE ASSOCIATED PRESS

A lighter-weight hydraulic clamp that could more quickly plug a bullet hole in the trans-Alaska oil pipeline has been officially placed in the Alyeska Pipeline Service Co. repair toolbox.

The clamp is the invention of Alyeska and Fairbanks engineering firms, which worked on the device after a man shot the pipeline with a high-powered rifle in 2001, causing a \$20 million cleanup bill.

Alyeska employees practiced with the clamp for the first time in early May in company training exercises.

"I'm very pleased with what they have done," said Becky Lewis, the Department of Environmental Conservation pipeline section manager with the Joint Pipeline Office. The JPO is an Alaska pipeline oversight group consisting of officials from DEC, the Bureau of Land Management and the Environmental Protection Agency.

The exercise was conducted with a portable pipeline set up on the oil pipeline right of way near Fairbanks.

The clamp contains the spill and diverts the lost crude oil into bladders.

The clamp was manufactured in Fairbanks, Alyeska spokesman Curtis Thomas said.

"The clamp is newly designed, smaller than our previous one," he said. "More portable, easier to maneuver and better designed for a bullet hole."

Daniel Lewis of Livengood shot the pipeline in 2001 with a .338 rifle, puncturing the steel insulating jacket and the



The clamp is the invention of Alyeska and Fairbanks engineering firms, which worked on the device after a man shot the pipeline with a high-powered rifle in 2001, causing a \$20 million cleanup bill.

Alyeska has more to be proud of: For the third year in a row, the company has won the American Petroleum Institute's Large Operator Environmental Performance Award.

pipe and causing 286,000 gallons of crude oil to spill. About 176,000 gallons were recovered and re-injected back into the pipeline.

Lewis was convicted of oil pollution and criminal mischief, plus assault, driving while intoxicated and weapons misconduct for handling a hunting rifle while drunk. He was sentenced to 16 years in state prison.

It took spill responders 36 hours to stop the leak and plug the bullet hole.

Last summer the company demonstrated the new clamp to regulators and employees. Spill responders will train with the clamp once a year during one of the company's 72 training exercises, Thomas said.

Alyeska wins API environmental award

Alyeska has more to be proud of: For the third year in a row, the company has won the American Petroleum Institute's Large Operator Environmental Performance Award. The 2004 award honors a company that has demonstrated



the best spill prevention and containment performance records.

The award was based on API spill data and considers both the numbers of spills per mile of pipeline and the volume of the spills. Alyeska's total spill volume for 2004 was approximately 210 gallons, which consisted of diesel fuel, lube oil and hydraulic fluid primarily from fleet equipment and support operations. Of that, the cumulative volume of Alaska North Slope crude oil was less than one gallon. For perspective, the company moved 14,374,487,442 gallons in 2004 (342, 249, 701 barrels). In the case of all spills, the source was quickly identified and the site was cleaned up immediately, Alyeska said.

continued from page 11 SUPPORT

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3015 Madison Way Anchorage, AK 99508-4416 estimate of US\$19.4 billion in 2001 dollars that has been modified because of revised input costs and scope of the project.

If the Alaska government can strike a fiscal deal with the North Slope producers this year, the Canadian regulatory dispute will be the only obstacle standing in the way of Alaska gas reaching the Lower 48.

"Think of the issue we would have if (the Alaska pipeline is a matter) of U.S. national security interest and Canada is the bottleneck," Tristone said.

But Theal is far from certain that issues with Yukon First Nations have been settled, despite confident claims by TransCanada.

Because they have yet to negotiate land claims the Kaska and White River First Nations, like the Deh Cho First nations in the Northwest Territories, may feel their greatest opportunity to reach a deal comes before a pipeline is under construction. \bullet

• OFFSHORE NOVA SCOTIA

Setbacks for two Nova Scotia wildcat wells

Marauder Resources decides against taking 35% interest in one of two wells planned offshore Nova Scotia in 2005

By GARY PARK

Petroleum News Canadian Correspondent

ptimism is growing scarce in Nova Scotia's offshore, with the only two exploration wells scheduled for 2005 both in doubt.

Calgary-based startup Marauder Resources East Coast has scrapped its efforts to take a 35 percent interest in an EnCana well and Canadian Superior Energy has stalled its planned well from this spring to at least late fall while it hunts for jointventure partners.

But neither operator is ready to abandon their 2005 plans.

Marauder gave up on a two-month effort to raise C\$26 million for the EnCana wildcat that was expected to start drilling by the end of September.

"Given current market conditions, the company and its agents, Dundee Securities, have concluded that the company is unable to complete the financing at this time," Marauder said in a statement.

"We have advised the operator (EnCana) that we will not be proceeding with the Grand Pre farm in" — a shallow water well that was expected to cost up to US\$25 million in an effort to find new gas reserves and bolster the economics of EnCana's stalled Deep Panuke project.

Marauder President Bob Shields says EnCana wanted his company's money upfront, but potential investors insisted they wanted EnCana to first secure a drilling rig.

EnCana, disappointed that its immediate plans to test Deep Panuke's geology have been lost, is unsure what its next moves will be for the 1998 discovery, estimated at 935 billion cubic feet.

EnCana will continue to look for partner

However, EnCana spokesman Alan Boras told Petroleum News that it remains the big independent's intention to continue looking for a Grand Pre partner while it considers expressions of interest from rig contractors.

He said there is still time to get the pieces together for a 2005 well.

Deep Panuke was put on hold more than two years ago, while EnCana explored several options, including taking on a junior partner and discussing ways to share infraponed to late fall at the earliest while it tries to arrange partners and a rig.

It said that "due to 2005 cost considerations and capital budgeting requirements" its operations in Trinidad and Tobago will get priority over Nova Scotia.

However, the Calgary-based junior said it is continuing to work on future drilling prospects for its Mariner, Marquis and Mayflower projects.

It has identified five deepwater prospects on the Mayflower block, about 285 miles east of Boston, and hopes to advance a seismic program to better define drilling targets.

Canadian Superior said it has also identified several prospects on its Marauder and Marconi exploration lands covering 371,000 acres.●

INTERNATIONAL

Rig economics index jumps 5.5% in April

GlobalSantaFe's worldwide SCORE, or Summary of Current Offshore Rig Economics, for April was up 5.5 percent from March.

The SCORE compares the profitability of current offshore rig day rates to the prof-

itability of day rates at the 1980-81 peak of the offshore drilling cycle. In 1980-81, when the SCORE averaged 100 percent or points, new contract day rates equaled the sum of daily cash operating costs plus about \$700 per day per million dollars invested.

The SCORE for the U.S. Gulf of Mexico in April was 66.3 points, up 0.8 percent from the previous month and up 77.3 percent from the same period last year. The SCORE for the U.S. Gulf of Mexico in April was 66.3 points, up 0.8 percent from the previous month and up 77.3 percent from the same period last year.

The North Sea scored 72.4 points in April, an increase of 9 percent compared to March and an increase of 79.7 percent vs. the year-ago period.

West Africa's SCORE came in at 66 points for April, a 10 percent increase from the previous month and a 35.9 percent increase from a year earlier.

Southeast Asia scored 60.1 points in April, up 4.4 percent from March and up 11.7 percent compared to the year-ago period.

Among the various drilling rig classes, jack-ups turned in a SCORE of 63.2 points in April, an increase of 0.8 percent from the prior month and an increase of 21.6 percent from the same period last year. Semi-submersibles registered 73.1 points in April, a hefty 11.9 percent increase from March and a 126.4 percent increase vs. the year-ago period.

-RAY TYSON



structure with owners of Nova Scotia's Sable field.

Before Marauder surfaced just before Christmas 2004, EnCana Chief Executive Officer Gwyn Morgan mused last November that Deep Panuke could be offered for sale unless ways could be found to develop the assets "economically and profitably."

For now, EnCana has not set a "drop dead date" for Deep Panuke and continues to look for assurances about the life of the field's reserves and what it can economically be expected to produce.

Amid a large-scale pullback from Nova Scotia by major operators, who allowed 22 exploration licenses to lapse last year, activity in the region has almost ground to a halt.

Canadian Superior had also planned well

Canadian Superior said May 16 that the well it had originally planned to spud on its Mariner Block this spring has been post-



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INTERNATIONAL

High oil prices fail to spur investments

Restrictions deter energy industry from investing in new oil and gas production; barriers must fall to prevent reserves shortage

By ROSE RAGSDALE

Petroleum News Contributing Writer

nergy companies may be underinvesting in new oil and gas production worldwide, but don't blame the

companies. Blame the governments and countries around the globe that are raising new barriers to investment, oil industry executives said May 11.

The comments followed the International Energy Agency's announcement May 5 that energy companies are under-investing in new oil and gas production capacity worldwide by up to 20 percent.

IEA, the world's energy monitor, said not enough capital is being invested in

new oil supplies to meet a projected 53 percent leap in demand to 121 million barrels per day by 2030. Some \$16 trillion in investment will be needed in the energy sector by 2030, the agency said.

The world's oil resources will be adequate through 2030 and beyond, provided new reserves are proved up, but less certain is whether sufficient investment will flow to the right places at the right time, according to IEA.

Oil economist Daniel Yergin also sees the need for new investment. "When markets are this tight, all the OPEC countries can do is try to run and keep up," he said in a recent interview. "Almost all are producing at capacity. And higher prices reduce the urgency to encourage invest-

CANADA

Five CAPP companies recognized for stewardship excellence

ConocoPhillips Canada, Devon Canada, NAL Resources, Nexen and Suncor Energy were honored May 16 during the Canadian Association of Petroleum Producers' fourth annual Steward of Excellence Awards.

Alberta Energy Minister Greg Melchin addressed 500 representatives of the upstream oil and gas industry and stakeholders from government, community groups and environmental organizations at a ceremony to recognize the efforts of CAPP member companies.

"Stewardship is our industry's commitment to responsible and balanced development of Canada's oil and gas resources," said Ross Douglas, CAPP Chair and president of Mancal Energy.

The five winning companies were selected from 32 entries submitted to a panel which included representatives from a variety of industry stakeholders. According to CAPP the companies demonstrated a continued commitment to stewardship in environment, health, safety or social performance.

The were honored in the following categories:

• Environmental Performance: ConocoPhillips and Suncor for a joint land restoration project to support caribou habitat

 Health and Safety Performance: NAL Resources for improved safety management systems

• Social Performance: Nexen for establishment of a stakeholder group in Fort Assinniboine

• President's Award: Devon for integrated approach to water management

CAPP's 150 member companies produce more than 98 percent of Canada's gas and oil. CAPP also has 125 associate members.

—PETROLEUM NEWS

ment. We really need investment in new production capacity."

Early days yet in Alaska

In Alaska, most oil companies, so far, appear to have bucked the trend of underinvesting, though the pace of wildcat exploration has slowed in recent years.

ConocoPhillips Alaska, for example, actually boosted its capital investment in Alaska oil and gas production each year during the past three years, up to \$700 million in 2005. Likewise, BP Exploration (Alaska) Inc. shelled out progressively larger sums of cash for new projects during the same period, up to \$694 million in 2005, although BP is seeking new oil from oil fields versus doing wildcat exploration.

Spokesmen for both companies point out that these dollars come on top of \$1.1 billion and \$900 million that ConocoPhillips and BP, respectively, will spend on ongoing oil output in the state.

But a recent move by Gov. Frank Murkowski to change the taxing formula via ELF (Economic Limit Factor) on certain North Slope oil fields could discourage future investment in Alaska, some industry observers say. North Slope producers are challenging the rule change, which they contend will cost them another \$150 million annually.

Access still key to more output

To boost the level of investment in new production, IEA said governments must remove "impediments to energy investments in their countries."

"Access to much of the world's oil reserves is restricted," IEA Director Noe von Hulst told an audience in Dubai May 3. "Discoveries have fallen in recent years mainly because exploration has shifted to less prospective regions."

"It's not a question of encouraging oil companies to invest in new oil and gas production," said John Felmy, director of statistics at the American Petroleum Institute. "Countries need to allow us to do it."

He said energy sector investments

climbed to \$66 billion in new U.S. oil and gas production in 2004 and to \$130 billion worldwide. (2005 figures are not yet available.)

"We are continuing to invest where we can, but the problem is we can't in a lot of places, such as ANWR and offshore California," Felmy said in an interview May 11.

He also cited recent turmoil in Russia's petroleum industry caused by President Putin's efforts to change legal policy and in Venezuela due to President Chavez pressuring oil companies to pay supposed back taxes as examples of countries raising barriers to investment by changing the rules of the game in midstream.

"Frankly, it gives you the 'willies' just thinking about investing in these countries right now," he said.

Companies wary of uneconomic prospects

In some areas of the country, the industry may appear to be under-investing because many wells that were shut in after oil prices dropped to \$8 a barrel in 1998 and 1999 have not been returned to production. These wells would have to be redrilled, a move that might not be economic if they produce small quantities of oil, Felmy said.

Even at \$50 a barrel, the industry is not likely to move quickly to invest in formerly uneconomic fields, especially when prices were \$11 a barrel only a few years ago, he said. "These are 100-year-old companies, and they have a lot of experience with this. Investing is a continual process as they evaluate what's best," Felmy said. "As we have learned from the '70s and '80s, prices can come down."

Still, "at \$50 a barrel, anybody who can produce a drop of oil today is doing so," he argued.

But for energy companies to substantially boost their levels of investment, Felmy said they require a combination of good tax policy, legal policy and security. "We need certainty that if we're going to invest \$1 billion, we're going to get a good return for our shareholders," he added. ●

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Shell Canada is stepping up spending in the Foothills region of Alberta, encouraged by its late 2004 natural gas discovery in the Tay River area that ranked among the top five onshore finds in Canada over the past 35 years.

Exploration and development spending in the west-central Alberta play will jump to C\$335 million this year, up C\$100 million from 2004. With an estimated 500 billion-800 billion cubic feet of original raw gas in place, Tay River was credited to advances in seismic processing technology that help identify a previously undrilled reef formation and opened the door to a "whole string" of possible finds, said Shell Canada President Clive Mather.

But he issued a cautionary note that the possibility of further discoveries is speculative at this time.

-GARY PARK

JUNEAU, ALASKA

Federal agencies moving pipeline issues

FERC, departments of Energy, Interior, tell Alaska legislators North Slope gas line issues moving forward in Washington

By KRISTEN NELSON

Petroleum News Editor-in-Chief

he amount of money Congress would have to appropriate for a federal loan guarantee would be in the 2-10 percent range and a joint pipeline office would be set up to oversee operation of an Alaska gas pipeline after construction, Alaska legislators were told by federal officials.

That was some of what the Alaska Legislature's Budget and Audit Committee heard May 11 from representatives of three federal agencies working Alaska gas project issues — the departments of Energy and Interior and the Federal Energy Regulatory Commission.

Mark Maddox, the principal deputy assistant secretary for Fossil Energy at DOE,

currently the designated coordinator of federal activities for Alaska the gas pipeline project, said DOE began federal agency preparations on pipeline matters soon after the president signed the federal enabling legislation in October.

ready to respond to a project proposal as agency on the right soon as the basic of way, "depending arrangements completed here in comes in under," Alaska," he said. An but no matter interagency working Bureau of Land group has been meet- Management will ing for six months have oversight a and there is a draft year after construcmemorandum understanding coordination clarify- pipeline.

legislators Interior ... may be the lead upon which of the are laws the application

ing federal agency responsibilities now under legal review.

An Alaska Natural Gas Projects office has been created at DOE within the office of fossil energy and funded with \$900,000, Maddox said, with additional funding being sought for an increase in activities in fiscal year 2006. A permanent coordinator would be a presidential nominee, he said, subject to Senate confirmation.

"If no project is proposed in the next 11 months, it will be the duty of the temporary federal coordinator to initiate a study of alternatives, including federal ownership and operation of a pipeline," Maddox said. "And no one involved wants federal ownership, including the current temporary coordinator, myself." Rep. Ralph Samuels, R-Anchorage, vicechair of the committee, asked how a federal loan guarantee would work. Maddox said an additional appropriation would be needed for the federal loan guarantee, but not \$18 billion because "the loan originator will not be the United States government," but commercial or private sector financing. The amount of appropriation needed would depend on a number of factors, "probably the biggest being the creditworthiness of whoever is the borrowing party - that defines risk." As much as 10 percent of the loan might be required for a reserve fund in the event of default, but "if you have a strong borrower you could potentially see that risk reduced" and 2 percent might be appropriate for a reserve.

FERC lead under 2004 act

Robert Cupina, deputy director of FERC's office of energy projects, said FERC is the lead agency for an environmental impact statement under the 2004 Alaska Natural Gas Pipeline Act. Under the Alaska Natural Gas Transportation Act of 1976 the secretary of Energy would determine the lead agency, and "the secretary's decision may be influenced by whether Interior has an environmental document under way in connection with an extension of the federal right of way permit."

FERC is in the rehearing stage of its open season rulemaking and Cupina said rehearing of significant FERC orders "is not unusual, in fact it's a prerequisite before any party can take a commission order to court." The rule's effective date is May 19, and Cupina said the commission indicated in April that it intended to take action soon on the merits of the rehearing petitions.

"At FERC we're also meeting frequently with prospective project sponsors," he said. The commission's environmental staff has been to Alaska, flown the route and met with stakeholders, he said.

And the commission continues to "encourage project sponsors to make a single filing (for a gas pipeline project) to avoid the time-consuming duplicative processing and inefficient use of resources."

Interior working right of way issues

Drue Pearce, senior advisor to the secretary of Interior for Alaska affairs, told legislators Interior plays two roles in an Alaska gas project: it may be the lead agency on the right of way, "depending upon which of the laws the application comes in under," but no matter which, she said, the Bureau of Land Management will have oversight a year after construction is complete, just as it does with the trans-Alaska oil pipeline.

"We would envision a joint pipeline office sort of management and structure" similar to the JPO for the oil pipeline, she said, "and BLM would be the lead agency."

Interior also has a role as landowner with a responsibility to maximize the value of resources. While the initial 35 trillion cubic feet of natural gas for the pipeline will come from leases on state lands, another 15 tcf is needed to meet the 50 tcf requirement for the 30 years of the project, and that gas is expected to "come, for the most part - if not all - from federal leases and from federal discoveries" either offshore in the outer

TULSA, OKLA.

Unit signs pact for \$24.1M purchase

Unit Corp. announced May 12 that a subsidiary signed an agreement to acquire oil and natural gas properties from a privately held company for \$24.1 million. "The acquisition will fit well with Unit's core area of operations and will help

us to further develop and exploit fields and supply a basis for future drilling." The Tulsa-based energy company gained about 14.5 billion cubic feet of gas

equivalent reserves. The properties are located in Oklahoma and currently produce 2.5 million cubic feet of gas equivalent per day, the company said.

Closing on the transaction is expected to be completed by mid-June. -THE ASSOCIATED PRESS

NORTH AMERICA

Canada's rig count up 61, U.S. down by 16 in weekly Baker Hughes survey

The number of rotary drilling rigs operating in the United States and Canada during the week ending May 13 stood at a combined 1,563 rigs, up 45 rigs from the previous week and up 234 rigs from the same period last year, according to rig monitor Baker Hughes.

The Canadian rig count alone rose to 255, an increase of 61 rigs compared to the previous week and an increase of 88 rigs vs. the year-ago period.

The number of rigs operating in the United States during the recent week totaled 1,308, down 16 rigs from the prior week but up by 146 rigs compared to the same period last year. Compared to the previous week alone, land rigs fell by 11 to 1,196, while offshore rigs slipped by one to 88 and inland waters rigs fell by four to 24.

Of the number of rigs operating in the United States in the recent week, 831 were drilling vertical wells, 307 directional wells and 170 horizontal wells. Of the total, 1,158 wells were drilling for natural gas and 150 for oil.

Among the leading U.S. producing states, Oklahoma suffered the biggest rig loss during the recent week, dropping by nine rigs to 146. Texas' rig count fell by six to 598, while Wyoming's decreased by three rigs to 68, New Mexico's decreased by two rigs to 88 and Louisiana's dropped by two to 173. Colorado picked up one rig for a total of 65 rigs. Alaska's rig count was unchanged from the previous week with eight rigs, as was California with 26 rigs.

-RAY TYSON

MOSCOW

Russian Cabinet OKs OCS development

The Russian Cabinet approved plans to develop natural gas and oil fields on Russia's continental shelf May 12, and Natural Resources Minister Yury Trutnev said that companies would be given financial incentives to encourage investment.

These would include freeing companies that conduct geological research from taxes as well as reducing import duties when importing equipment, the ITAR-Tass news agency reported.

The Cabinet meeting confirmed a report in the Kommersant business daily, which said the Natural Resources Ministry would propose resurrecting so-called production-sharing agreements to accelerate the development of offshore reserves. Such arrangements ensure stable tax rates over the lifetime of capital-intensive mineral extraction projects but they are sometimes perceived as inimical to Russia's interests

The country's Audit Chamber earlier this year reported that Sakhalin-2, a project in Russia's Pacific offshore being developed under a production-sharing agreement, would have paid Russia billions of dollars more if it were subject to normal taxation.

Also at the May 12 meeting, Trutnev proposed the creation of a state oil company that would oversee all research and development on the shelf.

When Trutnev was challenged by colleagues on anti-monopoly issues, liberal economist Economic Development and Trade Minister German Gref, who favors a reduced role for the state in the economy, said he would suggest other mechanisms



Drue Pearce, senior

advisor to the secretary of Interior for "We intend to be Alaska affairs, told

> which, she said, the tion is complete, of just as it does with and the trans-Alaska oil

see ISSUES page 16

for the state to oversee development of the shelf.

Under the Natural Resources Ministry's plan, oil extraction from Russia's shelf will increase from a planned 10 million tons per year to 95 million in 2020, while gas production for the same period would rise from 30 billion cubic meters to 320 billion cubic meters.

-THE ASSOCIATED PRESS





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MONTANA

Crows sign oil, gas exploration pact

The Crow Tribe and an energy firm from Gillette, Wyo., signed an agreement May 16 to explore for oil and natural gas on the southeastern Montana reservation.

The lease agreement, signed in Crow Agency, involves Golden Arrow Energy. It came after the tribe did its own seismic testing and hired experts to interpret the data, said Joanie Rowland, the tribe's mineral director.

The agreement includes a royalty rate significantly higher than the standard federal rate, "and we're pretty proud of that," Rowland said. "We chose Golden Arrow because they're willing to work with us and meet federal standards or better."

Greg Carlson of Golden Arrow said, "They offered us an opportunity for a lease and we took it."

The agreement still must be approved by Tribal Chairman Carl Venne and the U.S. Bureau of Indian Affairs.

In addition to a higher royalty rate, the lease agreement calls for Golden Arrow to follow an aggressive drilling schedule, Rowland said. Once BIA approves the agreement, Golden Arrow has 120 days to apply for a drilling permit from the Bureau of Land Management, and 60 days to begin drilling once a permit is approved.

The lease agreement is for 7,680 acres south of Crow Agency in an area called Squaw Creek.

Golden Arrow plans to drill five wildcat wells beginning sometime this summer. The exploratory wells will be to a depth of about 5,000 feet. While oil is the principal prospect, the exploration also may find gas, Carlson said.

"We'll just have to see what we find. Each well is a new adventure," he said.

The Crow Tribe marketed the area's potential for oil by taking its seismic information to oil and gas producers at trade shows in Houston and Denver, Rowland said.

Golden Arrow has some development in Nebraska, Carlson said. Once the Nebraska project is finished, the company is coming to the Crow Indian Reservation. -THE ASSOCIATED PRESS



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continental shelf areas managed by the Minerals Management Service, "in the National Petroleum Reserve, which is BLM's, or perhaps in ANWR," Pearce said.

BLM has taken the lead in development of a business plan outlining responsibilities of individual agencies, and the Alaska Department of Natural Resources "has indicated an interest in participating with Interior in development of a joint business plan," the beginnings of joint activity with the state.

Questions on port authority

Senate President Ben Stevens, R-Anchorage, asked Cupina if FERC jurisdiction over the old Yukon Pacific liquefied natural gas project, permits now optioned by the Alaska Gasline Port Authority, would change since the gas was no longer destined for export. Would the new project be under FERC jurisdiction now because the gas is going to domestic markets?

Cupina said the pipeline was exempted from FERC jurisdiction in the Yukon Pacific decision, but the terminal was under FERC jurisdiction as an export facility. Cupina said "if the gas is destined for the Lower 48, even via tanker ... whether it's in interstate commerce vs. foreign commerce would have to be revisited" and "could very well include the pipeline becoming an interstate pipeline if in fact that's interstate commerce."

Stevens asked about the planned route for the gas: to Mexico as LNG and then back into the United States as gas.

"I don't know any precedent for that," Cupina said. "If it goes to a foreign country then arguably it's an export facility, but the rest of that journey of the gas going back into the U.S. is not something that we've seen before."

Stevens asked DOE's Maddox if a project sending LNG to Mexico with gas coming back into the United States would qualify under the federal loan guarantee.

"I think that if FERC would say this was an export facility then we would have troubles recognizing it as a domestic facility. My first impression is you couldn't make one argument on one end of the street and then run down to the other end of the street and make a separate argument," Maddox said.

Federal duty to produce different between agencies

Rep. Mike Hawker, R-Anchorage, asked Pearce if federal leases included a duty to produce.

Pearce said the terms of BLM and MMS leases are different.

In the National Petroleum Reserve-

Alaska the federal leases have a 10-year term and leases require production to be extended. "We have not investigated the limits yet of our authority in a situation where oil is being produced but not gas and we actually have attorneys looking at that question now," she said.

MMS leases for the federal OCS are similar to the state's leases. MMS regulations "don't separate gas from other resources - oil or condensate. So development is evaluated based on recoverable hydrocarbons." MMS requires development plans that show how each hydrocarbon will be developed, Pearce said.

How many applications?

Sen. Gene Therriault, R-North Pole, the committee chairman, said the Legislature isn't "sure whether under the stranded gas act, we'll get one proposal from the governor or competing proposals." He asked Cupina how FERC would handle competing proposals.

Cupina said that while FERC is "encouraging parties to converge at some point and submit one application" it sometimes gets competing applications. It happened with pipelines going to California in the late '80s

and '90s, he said, and is happening with LNG proposals now. The commission has processed all of the applications, he said, and let the market decide which will be built.

Therriault asked if that would apply to an Alaska project, and Pole, the committee Cupina said that chairman, said the while it's been the commission's "most under the stranded recent policy to let the gas act, we'll get market decide," there one proposal inc are unique aspects to competing proposan Alaska project and als." He asked he didn't want his Cupina now reaction would handle comcomments to be taken peting proposals. as applying to an

Sen. Gene Therriault, R-North

Legislature isn't "sure whether one proposal from

Alaska project. He said he was just talking about what the commission has done in the past.

Therriault asked Pearce if Interior would pick between proposals for a right of way. She said the department has an obligation to process all right of way applications it receives, although it also hopes for "convergence" because of the huge resources needed to grant a right of way. Although Interior uses reimbursable agreements, it's still "costly for both us and applicants and other agencies."

But Interior would not prioritize applications and will deal with all those that come through the door.

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COOK INLET, ALASKA

Agrium gets gas proposals for Kenai plant

Agrium Inc. has received proposals from Cook Inlet natural gas producers for additional gas to feed its Kenai nitrogen fertilizer plant, according to Agrium spokeswoman Lisa Parker.

"We did receive some proposals," Parker told Petroleum News on May 16. "We're in the process of evaluating them right now."

Producers had until May 13 to respond to Agrium's request for proposals to supply gas. Agrium extended the deadline from the initial deadline of April 15, because some of the producers asked for additional time to respond.

In the March request, the company offered \$3 per thousand cubic feet of gas to Cook Inlet producers, a significant jump over the historic \$2 per mcf average gas price paid for delivered supply to the Kenai plant. The higher offer was made possible by higher nitrogen prices.

Mike Wilson, Agrium president and CEO told Petroleum News in early May the future of the Kenai plant hangs on the results of the company's RFP. If no economic supply of gas is offered, the plant will shut down on Nov. 1, when its current supply contract with Unocal expires.

-STEVE SUTHERLIN

• CENTRAL MACKENZIE

Central Mackenzie draws lively bidding

Despite uncertainty over the Mackenzie gas line, seven exploration licenses awarded carrying work commitments of C\$58.1 million

By GARY PARK

Petroleum News Canadian Correspondent

xploration companies have given a resounding vote

• of confidence to the Central Mackenzie Valley, with one of the most successful land sales in recent

years, despite uncertainty over the proposed Mackenzie Valley gas pipeline.

The Northern Oil and Gas Directorate has awarded seven exploration licenses carrying work commitments of C\$58.1 million, of which successful bidders have covered 25 percent with deposits.

The response reflects building interest in the Northwest Territories' play, where drilling for oil and gas has been gathering momentum in the last two years.

The region got a fresh boost in March when operator Northrock Resources (a subsidiary of Unocal), Husky Energy, EOG Resources Canada, Pacific Rodera Energy and International Frontier Resources posted the Central Mackenzie's first oil find in 75 years.

Winter testing of the partnership's Summit Creek B-44 well yielded combined flow rates from two intervals of 20 million cubic feet of gas per day and 6,000 barrels per day of condensate.

Further work will be needed to assess the play's commercial viability, but the discovery was the breakthrough the industry has been hoping for in an area that has tantalized explorers since Imperial Oil found the 660 million barrel Norman Wells field in 1920.

EnCana completed an oil exploration well last year, but is not required to disclose the results until early 2006 and Petro-Canada has committed C\$22 million to explore 68,000 acres between Colville Lake and Norman Wells. Stirring further interest, the 2004 Central Mackenzie auction saw a joint partnership of Chevron Canada Resources and BP Canada Energy bid almost C\$62 million for a parcel covering 138,000 acres.

Topping this year's list was a successful bid of C\$32.1 million by Petro-Canada for a parcel covering 217,000 acres.

Next was a C\$12.5 million bid by BG Canada Exploration, 75 percent, and International Frontier, 25 percent, for 205,000 acres.

Other winning bids were made by: BG Canada, 75 percent, and International Frontier, 25 percent, who paid C\$4 million for 158,000 acres; Paramount Resources and Apache Canada, each holding 50 percent, bidding C\$3.5 million for 127,000 acres and C\$3.2 million for a parcel covering 200,000 acres; and Petro-Canada's C\$2.8 million bid for 194,000 acres. ●

Gas proposals: what does the state get?

Revenue's Steve Porter gives IOGCC an overview of issues in stranded gas negotiations; warns, 'it's not a popularity contest'

By KRISTEN NELSON

Petroleum News Editor-in-Chief

he Interstate Oil and Gas Compact Commission held its midyear meeting in Anchorage in mid-May, with a focus on new sources of natural gas. Deputy

Commissioner Steve Porter of the Alaska Department of Revenue gave attendees an update on the administration's goals in negotiations under the Alaska Stranded Gas Development Act,

reviewed the governor's goals for the state in the negotiating process and highlighted strengths and weaknesses of the applicants.

The governor's goals are a fair share of revenues for Alaska; provisions for in-state gas use; access to the pipeline for others to explore for gas; a pipeline that may be expanded; state equity ownership in the pipeline; and jobs for Alaskans and job training.

A fair share, he said, applies to

the pipeline, the owners of the gas and the state. "Each party has to receive a fair share of revenues based on the risk they take to bring Alaska's gas to market." That, he said, is the standard the state is looking for across all applicants.

Proposals are compared to the status quo: what would the state receive without a fiscal contract under the stranded gas act. The state is also considering what the municipalities would receive, because it basically repre-



As for the debate swirling around the negotiations, Porter said it's useful when the public focuses on what its needs are and what it wants the state to accomplish. The debate is not useful when it centers on which project the state should choose. The state is not "persuaded by the debate in the press. It's not a popularity contest" and "we're not persuaded by the personalities that step up to endorse one project over the other."

The state is persuaded by one thing, Porter said: "a commercially viable project that brings more value to the state than any other project."

What the producers bring

The producers — ExxonMobil, BP and ConocoPhillips — own the gas: "they have the responsibility to build the pipeline, ship the gas or sell the gas."

Canada will be a hurdle, Porter said: if TransCanada is right, that it has the exclusive right to build the Canadian segment, then the producers will need to deal with TransCanada. If TransCanada is wrong and doesn't have exclusive right, the producers still have the option of negotiating with TransCanada or they could permit their own Canadian project. "Permitting your own project in Canada isn't a simple task," he said, something the producers can learn from the experience their affiliates are having with the Mackenzie pipeline.

If the producers take 4.5 billion cubic feet a day to Chicago, that volume of gas will cause "at least a shortterm depression on price in the Chicago market" and that price depression could last months or years. The producers could mitigate that by taking the gas to Alberta and moving it from there through existing infrastructure perhaps with some incremental expansion, mitigating the Chicago problem by dispersing the gas more widely.

The producers also have a cost hurdle: going all the way to Chicago is very expensive, Porter said. That could be mitigated in the same way as the Chicago price problem, by taking gas only to Alberta and using existing infrastructure.

TransCanada brings pipeline experience

TransCanada brings "the ability to build a low-cost pipeline with the lowest possible tariff," Porter said. "And this is where they need to place their focus."

Their challenge is "to bring a commercially viable proposal to the owners of the gas," including the state of Alaska, "that will convince them to ship their gas in their pipeline."

If TransCanada does have exclusive rights to build the Canadian segment of the line, then they bring that value to the project, and if their permits are still effective they could use them to bring Alaska gas to market "sooner than some of the other options."

Port authority

The Alaska Gasline Port Authority plans to sell some 2 bcf per day on the West Coast. "Our research indicates that the impact of that amount will have a more depressing effect on the West Coast price than the producers selling 4.5 billion cubic feet a day into the Chicago mar-



Commissioner of Revenue Steve Porter



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• МЕХІСО СІТУ

Mexican official slams pipeline maintenance

Head of Mexico's environmental protection agency says Pemex plan to fix pipelines 'totally insufficient,' threatens closures

By MARK STEVENSON

Associated Press Writer

plan by Mexico's state-owned oil company to fix problem pipelines is "totally insufficient," and authorities may consider closing high-risk lines threatening spills or explosions, the head of

Mexico's environmental protection agency said May 12. Such closures could knock refineries out of service and cause gas shortages, and would probably be considered a national security issue requiring a presidential order, Attorney General for Environmental Protection

Jose Luis Luege said. "We are willing to order the closure of pipelines that are classified as very high risk," Luege said at a news conference where he criticized an offer by the Pemex oil company to provide urgent maintenance on seven of the

35 pipelines identified as in need of urgent repair. Luege said the company must fix them all, but Pemex argued that Congress hasn't approved enough money for that.

The problem has become more urgent in the past six months, with reports of more than a dozen spills and explosions involving aging pipelines and other facilities.

"This investment, while important, is totally insufficient," Luege said. "We demand, in the strictest terms, that Pemex perform maintenance on all 35 ducts."

Closure would knock out supplies to refineries

Luege said that closing even one of the main pipelines due to safety concerns would be a last-ditch decision that could cost him his job, because it could knock as many as three Mexican refineries out of production, causing gasoline shortages.

"This would have to be a national security decision ... by the president himself," Luege. "It's quite likely I wouldn't be around (after issuing such an order), because of all that a closure implies."

In the past, the closest authorities have come to a major shutdown was an order to close one small pipeline for about a month for repairs.

Luege also said his agency has ordered Pemex to remove thousands of cubic yards of soil contaminated in a Dec. 22 spill that released about 5,000 barrels of oil into the Coatzacoalcos River at Nanchital, 325 miles southeast of Mexico City.

About 40 percent of the country's 35,000 miles of pipelines are damaged or corroded. Authorities say Congress has approved only about one-third of the annual funds needed to maintain and upgrade the most antiquated lines.

Many of those pipelines were built during the last oil boom, in the 1960s and 1970s.

Assistant Attorney General for Environmental Protection Jose Ramon Ardavin said some pipelines, pumping stations and valve systems are so antiquated that "workers at one point have to call operators further down the line by radio, to tell them to close valves."

"It's the whole system, not just the pipelines," Ardavin said. \bullet

WASHINGTON, D.C.

Study: Oil spill funds will be empty by 2009

By LOLITA C. BALDOR Associated Press Writer

he federal fund used to clean up oil spills nationwide will be drained by 2009, in part because cleanups cost more than authorities collect from those responsible, according to a Coast Guard study released May 16.

The report found that over the next five years, the fund will run an annual deficit of up to \$200 million a year, depleting the

current \$710 million balance by October 2009. In the fiscal year ending last Sept. 30, cleanup costs were \$143 million, while the amount of money recovered in penalties, interest and other revenues was just \$30 million.

Federal authorities collected just 27 percent of the removal and cleanup costs from responsible parties for spills between 1995 and 2004, the report said, while interest revenues have declined and a tax on oil that used to fuel the fund has expired.



"A stable source of funding for oil spill cleanup costs and damages is vital in protecting the environment and compensating those who have been damaged by spills," said Jan Lane, director of the National Pollution Funds Center, which administers the fund.

She said the Coast Guard is working with Congress to find a solution to the funding problem.

Large spills over last 10 years

Since January 1994, there have been 14 devastating spills from tank barges and ships, including:

• A 260,000 gallon spill last November in the Delaware River.

• Two spills of more than 150,000 gallons in Galveston, Texas.

• A nearly 166,000 gallon spill when a tank ship struck a bridge near Portland, Maine.

• A 538,000 gallon spill in the Mississippi River near Buras, La.

Major spills in Massachusetts included the 2003 grounding of a barge in Buzzards Bay, which spilled about 40,000 gallons, according to the Coast Guard study. Other estimates had been as high as 98,000 gal-

continued from page 17 **PROPOSALS**

ket, and we also think that that effect may

Federal authorities collected just 27 percent of the removal and cleanup costs from responsible parties for spills between 1995 and 2004, the report said, while interest revenues have declined and a tax on oil that used to fuel the fund has expired.

lons, but the Coast Guard later said it ranged between 35,000 and 55,000 gallons.

In 2000 a tank ship leaving Boston was struck by a tugboat, spilling nearly 60,000 gallons of oil into the waterway, the report said.

Money did not start flowing into or out of the Oil Spill Liability Trust Fund until after the 1989 Exxon Valdez oil spill, and a large source of income was a 5 cent per barrel tax on oil produced or imported to the United States. That tax expired in 1994.

Penalties are difficult to recover, the Coast Guard report said, because authorities often can't identify the source of the spill or the vessel or company responsible. And when they can, the responsible party may be bankrupt or unable to pay.

posals even if they didn't have a more depressing effect on the market or the challenge of the transportation."

Porter said the port authority is also relying on an Internal Revenue ruling that the project is tax exempt, but he said they would need to assure the state that their present project, which is a little bit different than the one the IRS ruled on, would also be tax exempt. The port authority also faces the regulatory difficulty of permitting regasification plants on the West Coast. "This may be actually their greatest trouble as they break into the gas market," because new industrial facilities on the West Coast "suffer from substantial opposition from the local communities." The last hurdle will be convincing the owners of the gas that the project is commercially viable so the owners will either ship on the pipeline or sell to the port authority. "Basically they have to be competitive," Porter said. "Any project that's competitive participates; any project that's not competitive by its very nature does not participate."

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Sales: 8825 Shepard Rd. SE, Calgary, Alberta T2C4N9 Phone: (403) 279-5000 Fax: (403) 279-2068 www.hanover-canada.com last longer" than the impact of the producers' project going directly into Chicago, Porter said. That can be mitigated if the port authority finds other markets and by reducing the amount of gas they send into the West Coast "or by figuring out another way to move that gas out of the West Coast."

The port authority also has to build a liquefaction plant, multiple regasification plants and several Jones Act tankers. "This added transportation cost places them in a position of paying more to get Alaska gas to market and receiving less for it when it gets there." The port authority would need a Jones Act waiver "or some other form of economic incentive that will reduce the overall cost of the pipeline."

And because the port authority is proposing to market less than half the gas of the other projects, "they'll bring in substantially less revenue than the other proCOOK INLET

Enstar gives imported LNG another look

Utility sees liquefied natural gas as increasingly likely fill-in until North Slope or Nenana natural gas line reaches Cook Inlet

By STEVE SUTHERLIN

Petroleum News Associate Editor

 iquefied natural gas might flow into Alaska to tame a shortage, before any North Slope gas reaches tidewater, if Enstar's recent analysis holds true. The company says imported LNG is increasingly likely to fill the gap for Cook Inlet area users as Cook Inlet production falls, and the market waits for a gas line from the North Slope or Nenana.

The LNG import idea is not new, but it is getting more attention after Enstar President Tony Izzo told a meeting of the Alaska Natural Gas Development Authority board imports are a likely option in the future.

Enstar spokesman Curtis Thayer told Petroleum News the idea of importing LNG has been discussed before, but what's new is that the company is actually penciling LNG into supply gaps it sees in its scenarios for the future.

"It's the first time we've put it on a calendar," Thayer said.

"We have gas contract into 2009; beyond that, we're running into gaps in our supply," Thayer said. "All options are on the table."

Thayer said the utility will explore the LNG idea because it can't be sure when and if a North Slope natural gas pipeline will provide enough gas to meet customer demand.

"North Slope gas is a moving target," Thayer said.

Negative impact

A June 2004 U.S. Department of Energy study listed LNG as a possible solution for Cook Inlet gas shortages, but with caveats for the state.

"Importing natural gas into Alaska would have negative impact on the region and state through lost revenue from royalty gas and taxes and the economic drain of capital from the region to pay for imports," the report said. It would also make Alaska part of the worldwide LNG market and subject to worldwide LNG prices for gas to serve local markets.

Prices could turn out to be higher or lower than gas can be found and developed in the Cook Inlet basin or delivered from the North Slope, the report said, adding that existing LNG export facilities at Nikiski would require equipment to re-gasify the LNG and increase pressure to levels necessary to input gas into Enstar's system. According to DOE, about 39 percent of Cook Inlet production is currently exported through the LNG plant which has an export license due to expire in 2009.

Thayer said Enstar has spoken to ConocoPhillips about using the Nikiski LNG plant for imports.

"There have been some passing conversations with ConocoPhillips; they asked if we were interested and we said yes," he said. "The plant's 2 bcf storage capacity would be clearly beneficial to the utilities."

The gas storage at the LNG terminal would help ease stress on the system during periods of peak demand.

"We have excess capacity to move gas, so the problem is getting the gas out of the wells fast enough on cold days," Thayer said.

Future sources

Thayer said it is hard to predict whether North Slope gas or Nenana gas would be the first to reach Cook Inlet

"Either would be a long-term solution that will be out generations," Thayer said. "Andex and Doyon are cautiously optimistic on Nenana, but it is a five, 10, 15, 20 schedule."

Thayer said LNG is probably not the least expensive source of gas in the long run; the great unknown of the LNG idea is conversion cost.

"At first blush, Nenana looks cheapest, because of the lower tariff," Thayer said.

If the gas finally comes to the region from the North Slope, Thayer expects that to be a bargain compared to other places in the United States, as much as 20 percent cheaper than the price of North Slope gas delivered in Chicago.

No matter what happens, natural gas will cost the Cook Inlet consumer more in the future — but it stacks up well against alternatives, Thayer said, adding that in Anchorage, gas is \$5.11 per mcf delivered to the burner tip, compared to prices of \$7 per



The LNG import idea is not new, but it is getting more attention after Enstar president Tony Izzo told a meeting of the Alaska Natural Gas Development Authority board imports are a likely option in the future.

mcf to \$8 per mcf in the rest of the country.

"Next to gas, the cheapest alternative available is fuel oil, at about \$13 for comparable Btu values," he said. "Propane is five time the cost of gas, electricity is even higher." Thayer said Enstar is in the business of transporting gas, but it doesn't set the prices; market forces do — just as market forces are changing the Cook Inlet market from an excess supply market, to a supply and demand market. \bullet



QUITO, EQUADOR

Ecuador energy minister says nation to review all current deals

Ecuador will review all of its current oil contracts with foreign companies, the country's self-described "nationalist" energy minister said in an interview published May 16.

In an interview with the daily Expreso, Energy Minister Fausto Cordovez said if the contracts "are well formulated and within legal and ethical norms ... they will be respected."

He added that he was not trying to cause panic, but that "if the multinationals believe that a nationalist minister is going to do them harm, they will have to make a decision. I'm not going to be frightened by the threat of someone leaving."

Ecuador's government has sounded a more populist tone since Congress ousted ex-President Lucio Gutierrez, a fiscal conservative, and replaced him in April with his elected vice president, Alfredo Palacio, who advocates greater spending on social programs.

Oil exports, which account for 43 percent of Ecuador's national revenue, brought in \$2.13 billion in 2004. Many economists fear Ecuador is overly reliant on oil revenue, which has flooded the country with hard currency, but could just as easily recede if international oil prices drop.

In Bolivia, where President Carlos Mesa has refused to sign a law increasing taxes on foreign oil companies, tens of thousands of protesters marched in the capital May 16 to demand the nationalization of the oil industry.

—THE ASSOCIATED PRESS



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continued from page 1 BUSINESS

From almost certain defeat, the Liberals won a 153-152 vote on May 19 to survive through the summer recess and possibly to early 2006 when Martin has promised to call an election once a commission has delivered its findings on allegations that federal advertising money was steered to the Liberal party in Quebec.

The tipping point that averted an election came May 17 when Stronach, 39, who has been a Member of Parliament for less than a year, stunned Canadians by skipping from the Conservatives to the Liberals.

She was a former chief executive officer at Magna International, a global auto parts giant that was created by her father and employs about 82,000 people world-

wide.

But it required House of Commons Speaker Peter Milliken to give Liberals the single vote that kept them in power a first in Canada's 137-year history.

Government can settle pipeline issues

Survival of the Liberals means in the near-term is that the government can settle outstanding issues that stand in the way of the two pipelines that have been bogged down in indecision over several months.

The alternative was further delays through a five-week campaign, with the possibility of a Conservative victory resulting in a period of transition and the appointment of a new cabinet that would need time to get up to speed on the unresolved matters.

Whether the Liberals can actually reach agreement with all of the stakehold-

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A last-minute defection by a Member of Parliament and a historic tie-breaking vote by the House of Commons Speaker saved the Canadian government of Prime Minister Paul Martin and kept alive hopes of early decisions to allow progress on the Alaska and Mackenzie Valley gas pipelines.

ers on the two pipeline projects is another matter.

On the Alaska front, the key issue is whether the government will uphold the 1978 Northern Pipeline Act, effectively giving TransCanada the exclusive right to build the Canadian segment of the 2,500 mile system, or side with the case by Enbridge and North Slope gas owners that it is time to allow a "fair and competitive process" — effectively reopening the bidding.

In a new letter to Deputy Prime Minister Anne McLellan, Enbridge Chief

Executive Officer Patrick Daniel and Murray Birch, chief executive officer of uphold the 1978 Northern Pipeline the Alliance Pipeline (owned 50 percent by Enbridge) said competition would generate economic, social and environmental benefits.

They said a new regulatory process before the National Energy Board and the Canadian Environmental

Assessment Agency would give First Nations in the Yukon, British Columbia and Alberta the opportunity for "real consultation with real input"; environmental issues would get an up-to-date review; and the Canadian government would be able to articulate its required socio-economic and other benefits.

The CEOs also said they are prepared to work with TransCanada and any other parties who might form a consortium.

Spokesmen for Natural Resources Minister John Efford have said that the cabinet is close to making up its mind, but Efford's own future is in doubt as he undergoes treatment for severe diabetes.

Alaska Gov. Frank Murkowski, while careful to avoid any hint of interfering in Canadian politics, has impressed on Martin the importance of a decision this summer if Alaska gas is to reach Lower 48 markets by 2012.

More Mackenzie problems

For the Mackenzie Gas Project, the closer the government moves to resolution with some of the aboriginal communities and the government in the Northwest Territories, the more new problems arise.

The latest surfaced on May 17 when a second aboriginal group filed a lawsuit in a bid to halt regulatory hearings on the C\$7 billion project.

The Dene Tha' First Nation, representing 2,500 residents in the lower

Northwest Territories, northeastern British Columbia and northwestern Alberta, want a judicial review of the regulatory process.

Although 60 miles of Mackenzie pipeline will be routed across Dene Tha' traditional lands, attorneys say the community has never been advised of the process and is only now trying to join the negotiations.

The lawsuit said the Canadian government has failed to ensure that aboriginal

On the Alaska front, the key issue

is whether the government will

Act, effectively giving

TransCanada the exclusive right

to build the Canadian segment of

the 2,500 mile system, or side

with the case by Enbridge and

North Slope gas owners that it is

time to allow a "fair and

competitive process" — effectively

reopening the bidding.

concerns are taken into account over industrial development that would have a negative impact on wildlife and natural habitat.

Federal ministers of the environment, fisheries and oceans, Indian and northern affairs and transport are all named in the suit, along with the National Energy Board, the joint

environmental review panel and Imperial Oil.

The Deh Cho are already pursuing court action, demanding more power in the regulatory process, while trying to negotiate an out-of-court settlement with the federal government. A further meeting is scheduled for late May to consider a new federal offer.

Had the Conservatives won an election they were ready to give urgency to resolving land-access and benefits disputes, said Jim Prentice, the party's Indian and northern affairs spokesman.

He said the Mackenzie project would have received priority from a Conservative government because of the potential for northern Canada to become "one of the driving engines of the Canadian economy." •

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Business Spotlight

By PAULA EASLEY



Jim Peterson, PMP, Manager Projects and Engineering Department

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North Slope Telecom Inc. provides private telecommunications services in the most demanding environments. The company prides itself on performing rapid response, cost effective, reliable and maintainable integrated solutions to clients in oil, mining and government. In the last decade the company has grown from 12 to 40 employees.

Jim Peterson has 26 years in telecommunications, including 10 in the Coast Guard. He's now managing a project to produce two transportable communications sites that will provide trunked radio service and digital circuit connectivity via satellite, microwave and/or fiber optics. He and his wife are avid amateur chefs who also enjoy gardening, fishing, canoeing (Jim paddles, she fishes), and travel. His favorite quote? "TANSTAAFL" by Robert Heinlein. (So Google it already.)



Nelson Perrin, Operation Manager for Alaska

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Canspec Group provides materials engineering, non-destructive testing and related services to leading industrial concerns around the world. The company is known for its unique combination of diagnostic, inspection and failure-analysis capabilities. Canspec is part of Rockwood Services Corp., the largest and fastest growing materials engineering and inspection company in the world. Nelson Perrin's career in nondestructive testing began in 1983 with Ocean Engineering International, where

he worked underwater in the Gulf of Mexico and North, Central and South America. After 20 years down south he joined Canspec Group in Alaska. Nelson is a single parent of Nick and Bre-Anna; he enjoys skiing, camping and fishing outings with the kids. An active supporter of UAA, the Alliance and RDC, Nelson plans to retire in Alaska.

continued from page 1

LNG

Guard has suspended its processing of permits for a ConocoPhillips-backed terminal off Alabama.

The Coast Guard responded after an April letter from the Environmental Protection Agency over the same fishkilling issue. Compass Port would be built 11 mines south of Dauphin Island and would use 50 billion gallons of seawater each year to warm the LNG.

Federal fisheries experts say virtually all life in the seawater would be eliminated as it passed through the system, including fish eggs and the microscopic sea life that's food for Gulf fish.

The EPA has also indicated the facility could cause a plume five miles long that would carry 25 times more sediment than the average for the Mississippi River.

Energy-friendly state

In her letter to John Jamian, acting head of the Maritime Administration in the U.S. Department of Transportation, Gov. Blanco noted that Louisiana has been receptive to the energy industry and LNG terminals in particular: "As a state supportive of LNG development, we have tried to work within the current licensing system to allow offshore LNG development, but also protect our fishery resources," she wrote. "Despite our best efforts to work with your agency and LNG developers, based on the inadequacy of current data, we are unable to reach an acceptable comfort level with the potential risks presented by the cumulative impacts of multiple offshore LNG facilities that use the open rack vaporizer system.

"Considering these ongoing concerns, I will oppose the licensing of offshore LNG terminals that will use the open rack vaporizer system. Until studies demonstrate that the operation of the open rack vaporizer will not have an unacceptable impact on the surrounding ecosystem, I will only support offshore LNG terminals using a closed loop system having negligible impacts to marine life."

The problem is, industry officials have said that closed-loop systems would cost too much for the projects to make

economic sense.

At least three offshore terminals have been approved in waters near Louisiana, and the Excelerate project, which uses on-ship regasification, has already taken its first cargo. Also in the works in a major ExxonMobil project called Pearl Crossing, about 40 miles offshore Cameron Parish at the western end of the state.

ConocoPhillips, Mitsubishi Long Beach deal

Meanwhile, on the Pacific Coast, ConocoPhillips has finalized a deal with Mitsubishi Corp. subsidiary Sound Energy Solutions, cementing their partnership on a proposed LNG terminal at the port of Long Beach.

The two companies had signed a memorandum of agreement on the terminal partnership in July of last year, said Linsi Crain of ConocoPhillips, so this was essentially a formality. "We have been working side-by-side with them dealing with local, national and state regulators," she said.

The terminal would sit on 25 acres of industrial land at the Long Beach port. It could handle about 5 million tons of LNG each year, turning it into 700 million cubic feet of gas daily.

It would be a place for ConocoPhillips to bring in Asia-Pacific gas, Crain said, noting that the company has gas interests in the East Timor-Australia area, as well as large deposits in Indonesia and Vietnam.

ConocoPhillips, which has operated its LNG liquefaction plant in Nikiski, Alaska, since 1967, has other active projects at various stages of development in Nigeria, Qatar, Russia and Venezuela, as well as Australia, the company said.

Under the joint development agreement for the San Diego terminal announced May 17, ConocoPhillips and Sound Energy Solutions will establish an equally owned joint venture company, SES Terminal LLC.

The partners expect to make a final decision on the project in the first half of next year, assuming all permits are obtained. The terminal, expected to cost around \$450 million, would start taking shipments in 2009. \bullet

—The Associated Press contributed to this story



continued from page 1 PLAYS

announced more than 500 feet of net pay had been uncovered on the western portion of their Thunder Hawk prospect, rivaling some of the largest discoveries made in deepwater Gulf based on pay thickness alone.

Position assembled before announcement

Before the announced discovery at Thunder Hawk, the partners — either together or in separate groups — assembled a formidable position near Thunder Hawk, as well as the 1 billion barrel Thunder Horse field, owned 75 percent by BP and 25 percent by ExxonMobil. Thunder Hawk, which is rapidly expanding into a large discovery with standalone potential, is situated on the northeastern flank of the huge Thunder Horse field.

Thus far, Spinnaker and its partners have provided no drilling schedule for the three new prospects, although a spokesman for the company told Petroleum News March 17 that the partners would like to drill at least one of the prospects next year. Before commencing drilling, however, the company would have to submit an exploration plan to the U.S. Minerals Management Service, which also would have to approve the plan.

Nevertheless, given Thunder Hawks' proximity to the new prospects and Thunder Horse, "Thunder Hawk figures pretty prominently in our deepwater program for the future and probably for some time," Jarvis said, noting that the new prospects are located in the so-called Thunder Horse-Thunder Hawk basin.

Three Mississippi Canyon blocks

Thunder Eagle consists of three Mississippi Canyon blocks (736, 780 and 781) located just a few miles east of Thunder Hawk and Thunder Horse. Spinnaker holds a 25 percent interest in the blocks, while Murphy is the operator with 37.5 percent stake. Dominion also holds a 25 percent interest in the Thunder Eagle prospect and Pioneer has a 12.5 percent interest. The partners anted up \$6.58 million for the three blocks against little or no competition.

The same foursome shelled out the \$20.1 million winning bid for Mississippi Canyon Block 819, which houses the Thunder Hawk West prospect located on the southwestern fringe of the Thunder Horse complex. The group easily topped Mariner Energy's \$8.5 million bid and Anadarko Petroleum's \$478,656 bid.

On the eastern side of Thunder Horse and Thunder Hawk, just below the Thunder Eagle prospect, Spinnaker and Murphy separately teamed up to win Mississippi Canyon Block 825, home of the Thunder Ridge prospect, with a high bid of \$1.85 million. That also easily topped Dominion's bid of \$324,726, Kerr-McGee's bid of \$377.600 and a \$519,970 joint bid submitted by Hunt Oil and Tana Exploration. Spinnaker and Murphy also scooped up three Mississippi Canvon blocks (905, 950 and 995) adjacent to the Thunder Horse-Thunder Hawk basin in the far southern Mississippi Canyon area near the border of Mississippi Canyon and Atwater Valley. Those bids were uncontested.

961, Spinnaker's Jarvis said, adding that the company plans to use the deepwater rig Cajun Express to drill the well in 7,900 feet of water. He said Spinnaker will operate the well with a 50 percent interest and plans to spud within 60 days. The well will cost about \$22 million, he said.

"We're calling a mean (reserve) case of about 100 billion cubic feet of gas equivalent," Jarvis said. "It could be a little bigger; it could be a little smaller, if successful."

Also in Mississippi Canyon, Spinnaker plans to spud its Egmont prospect on Block 413 sometime late in the second quarter or possibly in the third quarter, Jarvis said. He said the prospect could hold around 140 billion cubic feet of natural gas equivalent, or about 20,000 barrels of oil, and that drilling costs will run around \$20 million. Spinnaker currently owns the block 100 percent but is looking for a drilling partner, the company said.

"We think the probability is an oil accumulation, if successful, although there is some chance it could be gas," Jarvis said. "And while it has some risk, it's certainly a prospect that needs and deserves to be drilled."

Perhaps the most expensive exploration well to be drilled by Spinnaker and partner Murphy this year is on their Krakatoa prospect on Mississippi Canyon Block 540, which "looks more like a Thunder Hawk, Thunder Horse basin prospect," Jarvis said, adding that because of the anticipated well depth costs would run in excess of \$35 million to as much as \$40 million.

"It's an excellent prospect — 50 to 100 million barrels mean case — and we're anxious to see that drilled," Jarvis said. "Krakatoa is a larger prospect that could justify its own infrastructure."

Jarvis said that Spinnaker partner Anadarko plans to drill a third well this year at the Spiderman natural gas discovery in DeSoto Canyon in the eastern Gulf of Mexico, an effort he said could produce 30 billion to 35 billion cubic feet of incremental reserves. The well is expected to cost between \$20 million and \$22 million, he added.

Spinnaker and its partners hope to drill a deep test well at their Front Runner field in the deepwater Gulf of Mexico, which is currently producing around 30,000 barrels of oil equivalent per day with additional producing wells planned. The test well, which is expected to cost about \$35 million, could be spud in late 2005, but there is a 50 percent chance it could slip into 2006, Jarvis said.

Second well on Nigerian concession

In Nigeria, Spinnaker partner Devon Energy this year plans to drill a second exploration well on its OPL Block 256 concession. Located about 124 miles off the coast of Nigeria in water depths ranging from 4,921 to 9,186 feet, the block encompasses 631,000 gross acres and represents an area about three-quarters the size of Spinnaker's entire deepwater holdings in the Gulf of Mexico. OPL Block 256 represents Spinnaker's first venture into the international area. The Houston-based company holds a 12.5 percent interest in the concession. The second well will cost about \$30 million, Jarvis said. On the earnings front, Spinnaker reported a 2005 first-quarter profit, excluding charges, of \$16.3 million or 47 cents per share on record revenues of \$78.3 million, compared to first quarter 2004 earnings of \$13.7 million or 40 cents per share on revenues of \$59.8 million. Total first quarter 2005 production of 11.8 billion cubic feet of gas equivalent exceeded the company's guidance by 8 percent and included about 6.7 billion cubic feet of gas, a record 693,000 barrels of oil and 6.7 million gallons of natural gas liquids.

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Spinnaker drilling plans

Meanwhile, Spinnaker unveiled plans to drill or participate in six deepwater exploration wells during the balance of 2005. Five of them are in the Gulf of Mexico and one is offshore Nigeria.

Among the first wells to be drilled is the Q prospect on Mississippi Canyon Block



continued from page 1

SALES

when it took in \$4 million for 77,191 acres in state lease sale No. 1. Areawide leasing began in Cook Inlet in 1999, when the state took in \$1.4 million for 114,514 acres. The 2004 Cook Inlet areawide sale brought in \$2.6 million for 363,520 acres.

The state began Foothills areawide leasing in 2001, and took in \$9.8 million that year for 858,811 acres.

Anadarko was the largest bidder in the two sales; the only other bidder in the Foothills sale was Arctic Falcon, for a tract near Umiat. Three of Anadarko's bids are for leases between existing lease blocks the company holds. It also bid on a block of eight leases southeast of those existing blocks.

Cook Inlet bidders

In the Cook Inlet sale, where Rutter

and Wilbanks was the largest bidder, a bidding group of Allen, Kay and Donkel bid almost \$305,000; Alaska Energy Alliance bid almost \$230,000; Storm Cat Energy some \$283,500; and a bidding group of Kay and Donkel more than \$225,000. Other bidders picked up one or two tracts in the Cook Inlet sale, including Cook Inlet producers Aurora Gas and Forest Oil, and Escopeta Oil which holds some 99,000 acres of state oil and gas leases in Cook Inlet.

Rutter and Wilbanks, a Midland, Texas-based independent oil and gas company, came into Alaska last year in partnership with Forest Oil in the Copper River basin, where it is the operator at an exploration well near Glennallen. Rutter and Wilbanks took a block of onshore leases on the eastern side of the southern Kenai Peninsula, adjacent to the Kenai National Wildlife Refuge. In Cook Inlet the company took tracts to the east and

west of Forest acreage south of Redoubt Shoals, and also picked up leases east of ConocoPhillips Alaska's North Cook Inlet gas field.

Vancouver-based Storm Cat came to Alaska in November, taking two leases near Big Lake in the Matanuska-Susitna Borough at a Mental Health Trust Land Office sale. The company has no production, but late last year signed a deal to drill coalbed methane wells in Mongolia. The eight leases the company took in the state sale are at the northern edge of the Cook Inlet areawide sale area, south and west of Wasilla, and like the company's Mental Health Trust leases are in the Mat-Su Borough. Storm Cat said last year that it considered the Mental Health Trust leases "prospective for both coalbed natural gas as well as conventional natural gas."

Scott Zimmerman is president of Storm Cat. Until recently, Zimmerman was vice president of operations and engineering for Denver-based Evergreen Resources, a Rockies-based coalbed methane producer that had been working a coalbed methane prospect in the Matanuska-Susitna Borough north of Anchorage before it was bought out by Pioneer Natural Resources. Pioneer recently dropped the Mat-Su acreage, saying it preferred to focus its attention on its large portfolio of North Slope investments.

Alaska Energy Alliance is a Newport Beach, Calif. corporation. The officers in state paperwork are Stanton and Alexis Snyder.

More than 55 percent of the Cook Inlet bids appear to be from investors, including long-time Cook Inlet investors Dan Donkel and Monte Allen. Donkel assembled and sold to Forest Oil predecessor Forcenergy the acreage now producing at Redoubt Shoal.

-KRISTEN NELSON

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NORTH OF 60 INDUCE

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Nunavut project heralds good times ahead for industry in remote Canadian Arctic region

A special supplement to Petroleum News

WEEK OF May 22, 2005



COAL SEAMS NEAR HEALY, ALASKA, PART OF THE USIBELLI COAL MINE

PHOTO BY SARAH HURST

NUNAVUT

Diamonds can be a territory's best friend

Nunavut mine project heralds good times ahead for mining industry in remote Canadian Arctic region

By ROSE RAGSDALE

Mining News Contributing Writer

mention of the world's richest diamond mines conjures images of hot, steamy African jungles. Yet it is the frozen tundra of the Canadian Arctic that is yielding the latest treasure trove of diamonds and sparking a staking stampede that is bringing hundreds of prospectors to the far north.

Between 1998 and 2002, 13.8 million carats have been mined in Canada, and the diamonds — precious stones of pure carbon — are worth \$2.8 billion. That is roughly a 1.5-kilogram bag of rocks each day for five years, with each bag worth \$1.5 million, according to the Canadian government.

Since its first diamond discovery in 1991, Canada has offered some of the hottest prospects for diamond mining on the planet. Three of the biggest diamond mines, all located in the Northwest Territories, are expected to generate \$26 billion in gross domestic product over their lifetimes and provide around 125,000 person years of employment, officials say. Diamond mining also has spawned a support industry of cutting and polishing factories in Yellowknife, further stimulating the country's far north economy.

Two mines, Ekati and Diavik, are currently in production in the Northwest Territories. Another mine, Snap Lake-4, also in the Northwest Territories should begin production in 2006.

Today, Canada is the world's thirdlargest diamond-producing nation by value, behind Russia and Botswana.

A new diamond frontier

Lured by the glitter of high-quality, high-value gems, the mining industry recently laid claim to more than 70 million acres in the Northwest Territories and Nunavut. The most dramatic increase in diamond action is in Nunavut, where the number of prospecting permits jumped to 1,518 in 2004 from 190 in 2003, and 120 million acres have been permitted for diamonds and other precious minerals in the past three years.

This spring construction of Canada's third diamond mine, Jericho-3, got under way in Nunavut, just across the Northwest Territories border about 260 miles from Yellowknife. Developed by Tahera Diamond Corp., the Jericho Diamond Project is expected to begin open-pit mining in early 2006. Tahera has actively explored Nunavut for seven vears.

One-tenth the size of its huge cousins to the south, the C\$95 million Jericho project is expected to yield 3.1 million carats over an initial eight-year production span at a rate of about 500,000 carats annually.

But with diamonds, size isn't everything.

Jericho is also a standout when it comes to the quality of its diamonds. The project sufficiently impressed Tiffany & Co., one of the world's leading jewelers, to partner with Tahera to assist with project financing and marketing of the diamonds. As part of the agreement, Tiffany also provided a \$35 million credit facility to Tahera to assist with project construction costs.

Project heralds better times ahead

Jericho will provide jobs for 125 to 175 workers. It will be Nunavut's first diamond mine and the far northern territory's only operating mine. Three longtime gold and lead/zinc mining operations have shut down in recent years, including Kinross's Lupin gold mine in 2004. For the sparsely populated region, Jericho is especially important because it will provide spill-over opportunities for inhabitants of western Nunavut, an area similar to remote Alaska where communities are small and job impact multiplies by a factor of five, says Michael Hine, vice president for Nunavut at the Northwest Territories and Nunavut Chamber of Mines. "Psychologically, to be back in the mining game is a good thing for the territory," Hine said. "Jericho also will be the first mine to operate under the new regulations since Nunavut became a territory, which shows it can be done." Jericho is also in the vanguard of a host of mining projects poised for development in Nunavut, operations ready to Above, rough diamonds like these will be mined at the Jericho Diamond Project in Nunavut. At left, heavy equipment trucked in via ice road will help construct mine facilities and a 200-person camp at the Jericho Diamond Project.

extract not only diamonds but also gold, nickle, lead and zinc, uranium, iron ore and even sapphires. "It's tremendously exciting," Hine added.

Ice road logistics kicks off final push

To save money, Tahera spent eight weeks trucking in 550 semi-trailer loads of goods to the remote mine site via a 372-mile ice road in preparation for the summer construction season. Half of the trailers contained 5.5 million liters of diesel fuel for operating the mine, the mill and a camp for 200 people. The rest of the trucks hauled in steel, cement, machinery and prefabricated buildings.

Tahera also raised its capital cost estimate for the project by more than C\$12 million, reflecting higher fuel and steel costs and \$8.5 million in project timing differences related to a reclassification of operating items as capital costs.

Exploration only just begun

Tahera said future exploration will continue to focus on kimberlite targets that have been identified in close proximity to the Jericho kimberlite. The compa-





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TESCO CORPORATION ny's 2005 exploration budget is about \$6 million.

"Kimberlites" are rock formations where diamonds can be found. Diamonds form at least 90 miles deep within the earth and are carried to the surface by strong volcanic activity. A mixture of magma, transported rock and diamonds forms carrot- and bowl-shaped "pipes" that are called kimberlites as it reaches the surface.

Tahera said it has identified seven "kimberlites" on its Jericho claims thus far, including the Jericho kimberlite.

The name "kimberlite" comes from the town of Kimberly, South Africa, considered the world's center for diamond mining in the 19th century. Kimberly was the site of the first diamonds found in a rock.

The factor that governs where kimberlites are found is the thickness of old see NUNAVUT page 4

NORTH OF 60 MINING

NORTHWEST TERRITORIES

Canadian Zinc pleased with court road ruling

Mine in NWT was nearly completed in 1982 before silver market collapsed, and contains silver, zinc, lead and copper

By ALLEN BAKER

Mining News Contributing Writer

he Supreme Court of the Northwest Territories has ruled that Canadian Zinc Corp. can reopen a winter road to

its Prairie Creek mine without a new environmental review process, saying the road was already in operation well before new environmental rules were instituted in 1984.

The territory's high court made its ruling May 6, overturning a decision by the Mackenzie Valley Land and Water Board. The board had said at least a preliminary screening was needed, and perhaps an environmental assessment and environmental impact review by the Mackenzie Valley Environmental Impact Review Board. All that would have led to long delays, the company contended.

The court said its own 2003 ruling in a case involving North American Tungsten Corp. Ltd. guided this case as well: "The Court (of Appeal) referred to the legislative intention that projects which predate June 22, 1984, are to be subjected to a full scale environmental assessment only if they depart significantly from their approved mode of operation and engage in decommissioning, abandonment or significant alteration of the project. The project, in this case, the operation of the winter access road, predates June 22, 1984. As found by the (Water) Board, the permit sought by CZC is not based on any intentions to significantly

alter that project or to abandon or decommission it."

Canadian Zinc said in a statement that the ruling "does not mean that the road will not be subject to applicable regulatory standards and operated to the highest environmental standards and operational safety and in consultation with affected local communities."

The mine road is controversial in Canada because it runs through the Nahanni River watershed in southwestern Northwest Territories. Former Prime Minister Pierre Trudeau helped establish the Nahanni National Park in 1976 to protect it from damming for a hydroelectric project, after paddling the river in 1970. His son, Justin Trudeau, has been campaigning to stop the mine.

Canadian Zinc, which is 100 percent owner of the underground mine, applied for the road permit in May 2003, but the development was stalled by the legal complications. The mine dates back decades, with major development work starting in the 1960s. Mine development was more than 90 percent finished by 1982, when the silver market collapsed and the then-owner went into bankruptcy. The site has an estimated 70 million ounces of silver, 3 billion pounds of zinc and 2.2 billions pounds of lead, according to the company. It contains about 12 million tonnes of ore with average grading of 12.5 percent zinc, 10.1 percent lead, 0.4 percent copper and 161 grams of silver per tonne.

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VANCOUVER, B.C.

Abacus to acquire Afton mill, facilities, tailings in share deal with Teck Cominco

Vancouver-based Abacus Mining and Exploration Corp. said May 17 that it has signed a letter of intent with Teck Cominco Ltd. for the purchase of Afton Operating Corp.'s milling and processing facilities, tailings storage areas, associated permits, and other infrastructure at the shut-in Afton Mine near Kamloops, B.C. The company also agreed to purchase Teck Cominco's back-in rights on the Abacus' Afton properties.

Abacus also said Giroux Consultants has completed the preliminary resource calculations on the DM/Audra and Rainbow zones. Abacus President Doug Fulcher says the numbers, which are based on 35,000 meters of diamond drilling completed by Abacus and drilling completed by previous operators, give Abacus "a significant competitive advantage in the Afton camp."

"Acquiring the infrastructure will significantly advance the timeline of our development process and considerably reduce future capital costs. The tonnage and grade numbers are consistent with similar copper-gold porphyry deposits in British Columbia. At a 0.20 percent copper cut-off grade, we now have over 75 million tonnes of indicated resources in the DM/Audra and Rainbow zones. Coupled with an aggressive drill program this summer, we expect to advance the project to a pre-feasibility stage by the end of 2005," Fulcher said.

Under the terms of the deal Abacus will acquire the mine facilities, associated permits, surface rights and related equipment, as well as the back-in rights, by issuing 18.5 million shares and \$10 million cash to Teck Cominco over the next two years.

Abacus said "completion of the transaction is subject to definitive documentation, receipt of necessary regulatory approvals and customary conditions of closing.'

Upon closing, Teck Cominco will become a "significant" Abacus shareholder. -MINING NEWS





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NORTH OF 60 MINING



Tahera Diamond Corp. moved 550 truck-trailer loads of goods, including this fuel tank, to the Canadian Arctic for the Jericho Diamond Project.

Nunavut diamond project costs climb

Tahera Diamond will have to swallow an additional C\$13 million to develop its Jericho diamond project in Nunavut.

The Toronto-based company set a revised capital budget at C\$94.4 million to handle higher costs related to a water license and land leases.

Tahera hopes to complete construction of the mine itself at a cost of C\$50 million by the end of 2005 and start eight years of production in early 2006.

Exploration and development costs were C\$2.1 million in the first quarter compared with C\$841,000 a year earlier.

-GARY PARK

continued from page 2 **NUNAVUT**

rocks located at the core of continents. These old cores are called Archean cratons, rocks older than 2.5 billion years.

In Canada, the continental landmass covers one of the greatest extents of Archean craton in the world, from Nunavut and the Northwest Territories (Somerset Island and Mackenzie Mountains) to Alberta (British Columbia-Alberta Rocky Mountains area), Saskatchewan, Manitoba, Ontario and Quebec. All these areas offer a highly prospective geological environment for diamonds.

Geologists say between 5,000 and 10,000 carats of diamonds are needed to fully evaluate a deposit. A diamond concentration that would allow an economic development of a mine would be around 0.5 carat per tonne; a very good one would be in the range of 2 to 4 carats per

tonne.

The Jericho project has a defined reserve of 2.6 million tonnes, averaging 1.2 carats per tonne. Potential mineable kimberlite, including reserves and resources, totals 5.5 million tonnes averaging 0.85 carats per tonne.

Exploration this spring and summer will focus on further evaluation the Muskox kimberlite located on joint venture property with De Beers (Polar Project), about 9 miles southwest of the Jericho kimberlite: the Anuri kimberlite. located about 56 miles northwest of the Jericho mine site; several prospective kimberlite targets associated with unresolved kimberlite indicator mineral trains on Tahera's landholdings; three targets on Tahera's Hood River property/Tenacity South property (Tahera/Strongbow joint venture); and the Jericho claims. Tahera can earn a 50 percent ownership interest in the Polar Project by spending C\$11 million by 2008 (about C\$1.5 million has been spent to date).

TORONTO

Barrick Gold buys stake in Northwest Territories diamond explorer

Barrick Gold Corp. has acquired an 11 percent stake in Northwest Territories diamond explorer Diamondex Resources Ltd., Canada's biggest gold producer said May. 18.

Barrick said it acquired 7.55 million units of Diamondex for 90 cents cash each in a private placement, a deal worth an estimated \$6.8 million.

Each unit was made up of a common share and a purchase warrant that gives the company the right to buy another Diamondex share for \$1.25 for the next two years.

Barrick said it has the right to nominate one director to the Diamondex board and to maintain its proportionate interest in Diamondex if more common shares or convertible securities are issued, so long as Barrick remains a minority shareholder in the company.

Barrick also agreed to buy another 3.5 million units on the same terms and conditions, subject to approval from Diamondex shareholders, the gold miner said.

Barrick said it acquired the units for investment only, but added that it may change its ownership in the future.

On the Toronto Stock Exchange, Barrick shares (TSX:ABX) rose 14 cents to close at \$27.69 on May 18. Diamondex shares fell three cents to 94 cents on the TSX Venture Exchange.

—THE ASSOCIATED PRESS

SIBERIA

Methane blast rips through Siberia mine

One miner dead, 10 injured; mining accidents common in Russian coal industry since breakup of Soviet Union

MINING NEWS

n May 18 a methane gas explosion ripped through a Siberian coal mine where 132 miners were working, leaving one dead and 10 with burns and other injuries, the mine's director, Yuri Kurtabashev, told Itar-Tass. All 10 injured were hospitalized.

"Ten out of 11 miners who stayed near the epicenter of the explosion were brought to surface. They have injuries and burns. One miner was killed," a spokesman for the Emergency Situations Ministry said. Previous reports said that the last miner was alive.

The explosion hit section 5 of mine No. 12 at 13:30 Moscow time.

Seven rescue teams were at the site of the blast at the coal mine in Kisilyovsk in the coal-rich Kemerovo region, about 1,850 miles east of Moscow, the Emergency Situations Ministry said.

Initial report incorrect

"It took rescue workers 2.5 hours to bring 131 men to the surface, including six suffering burns of various degrees. The last missing miner was found eventually alive and rescue workers are about to take him to safety," the Emergency Situations Ministry was quoted saying a few hours before announcing the last miner was dead and 10, Accidents are common in the Russian coal industry, which since the breakup of the Soviet Union has lacked public or private funds to invest in safety equipment and technical upgrades.

not six, miners had been injured.

Immediately after the blast the local authorities formed a crisis management center under first deputy governor Valentin Mazikin. Itar-Tass reported that all operations at the mine had been suspended and an investigation of what caused the accident was under way.

"12 is the oldest and the most explosion hazardous in the town," RIA Novosti press service reported May 19. "Two main versions are being considered: an explosion and methane outburst."

Criminal case opened

The condition of one of the miners in the hospital is very serious, according to

Ilgiz Galeyev, the head of the Kemerovo center of the Medicine of Catastrophes public service, RIA Novosti reported

Kiselevsk's Prosecutor's Office has opened a criminal case, its press office said.

"The criminal case was opened under part 2 of article 216 of Russia's Criminal Code, i.e. On the Violations of Security Rules for Mining," reported RIA Novosti.

Accidents are common in the Russian coal industry, which since the breakup of the Soviet Union has lacked public or private funds to invest in safety equipment and technical upgrades.

More than 20 miners were killed in a February explosion in the region. The deadliest disaster in Russia last year was a methane blast that killed 47 miners in the Kemerovo region in April. Sixty-seven miners were killed in a mine explosion in the same region in 1997. \bullet

—The Associated Press contributed to this report.



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COLUMN

Mining news update from Curt Freeman: Alaska one of best places to find raw metals

The good news from Teryl, Kinross, Geoinformatics, Midas, Geocom and others is tempered by the loss of Alaska's gentleman scientist Ernie Wolff, who passed away on May 3; Liberty Star Gold appoints Phil St. George as VP of exploration

s I write this summary of recent activities in Alaska's mining industry I am attending a once-every-

five-year symposium in Reno put on by the Geological Society of Nevada. Some 1,500 attendees, mostly exploration geologists, are eagerly lapping up hours of new and previously unheard ideas on how, when and where the next big discovery will be made.

This event, one of the best of its kind world-wide, never fails to fire the blood and inflame the imagination of those of us who think breaking rocks and drilling holes is true paradise!

Alaskans are well represented here as is the realization that Alaska remains one of the last best places on earth to find the raw metals that are being demanded by a growing worldwide consumer base. In listening to those who work in the Great Basin, I hear concerns that are common to those of us who work in Alaska: Byzantine regulations, lack of manpower, Native American rights issues, the need for new blood in the industry and the desire to apply new tools to one of the world's oldest professions. Comforting and disturbing at the same time, I am sure I will come away from this meeting with a few new ideas about mining prospects in the Great Land.

Western Alaska

TECK-COMINCO'S Red Dog mine saw continued strong operating profits in the first quarter of 2005 as a result of increased zinc and lead prices which averaged 60 cents and 44 cents per pound, respectively. Operating profit rose to \$43 million vs. an operating profit of \$38 million in the same period in 2004. For the quarter, the mine generated 136,400 tonnes of zinc and 20,700 tonnes of lead in concentrate vs. 130,400 and 26,500 tonnes of zinc and lead, respectively, in the first quarter of 2004. The mine sold 109,000 tonnes of zinc and 1,800 tonnes of lead during the first quarter. Average zinc and lead grade mined was 22.2 percent and 4.8 percent vs. 22.8 percent and 6.2 percent, respectively, in the first quarter of 2004. Mill throughput of 711,000 tonnes in the first quarter was significantly up from the 670,000 tonnes milled in the first quarter 2004. **GEOCOM RESOURCES** released results from its 2004 drilling on the Iliamna project in southwestern Alaska. The 2004 drill program targeted geophysical anomalies that were delineated by an early 2004 three-dimensional induced polarization geophysical survey and expanded upon copper-gold mineralization discovered during 2003. The best result from the seven-hole program was hole 1 which intercepted 208.8 meters grading 231 parts per million copper, 0.019 grams gold per tonne and 9 parts per million molybdenum. The company also completed two age dates on the intrusives hosting mineralization and estimate the age of intrusives is about 60 million years. This date corroborates evidence that intrusive rocks become younger to the west of the Northern

The author

The author Curt Freeman, CPG #6901, is a well-known geologist who lives in Fairbanks. He pre-

pared this column CURT FREEMAN May 15. Freeman can be reached by mail at P.O. Box 80268, Fairbanks, AK 99708. His work phone number at Avalon Development is (907) 457-5159 and his fax is (907) 455-8069. His email is avalon@alaska.net and his web site is www.avalonalaska.com.

Dynasty's Pebble deposit. The company also reported that as a result of the 2004 drill program, it had spent the requisite amounts and completed the specified work to earn its interest in the H block claims on the project. Accordingly, property owner BHP-Billiton Minerals Exploration was notified of Geocom's completion of earn-in requirements effective March 5, 2005. BHP-Billiton has a six month period to elect to exercise its back-in right to recover a 70 percent interest and take over operation of the project.

LIBERTY STAR GOLD CORP. has appointed Phil St. George, its vice president of exploration, to the company's board of directors. Phil managed the 2004 exploration programs on the company's Big Chunk project near Iliamna. Extensive geochemical, geologic and geophysical programs culminated in diamond drilling during the initial exploration year on the project. Congratulations Phil!

Eastern Interior

KINROSS GOLD CORP. still has not released its year-end 2004 and fourth quarter 2004 results due to accounting changes being made to its reporting procedures. It did indicate that the Fort Knox mine had produced 73,953 ounces of gold in the first quarter of 2005 vs. 75,980 ounces produced during the first quarter of 2004. The company indicated that improved productivity at its operation tions helped offset increased fuel, energy and other consumables costs. **TERYL RESOURCES CORP.** and joint venture partner Kinross Gold Corp. have approved a \$793,800 2005 exploration budget to move the Gil project in the Fairbanks district from the exploration to the development stage. Baseline permitting work will include data gathering on fugitive emissions, geochemistry, surface and groundwater hydrology, aquatic biota, wetlands delineation, cultural resources survey, socioeconomic analysis, and noise and visual impact studies. The cultural resources survey and wetland delineation were completed in 2004. Surface and ground water hydrology was initiated in 2000 and are on-going. Engineering projects include deposit model, pit design, mine plan, access road design, geotechnical review for pit slope angles and dewatering

reviews. A high resolution airborne magnetic and resistivity survey will be flown along 100 meter spaced lines and at a 30 meters ground clearance. Approximately 300 line kilometers survey will be flown over the project. The purpose of the survey is to provide resolution of subtle magnetic textures like those associated with the adjacent Fort Knox deposit and to add resistivity as a complimentary data set.

FREEGOLD VENTURES LTD. has commissioned a revised resource calculation of its Dolphin deposit on the Golden Summit project near Fairbanks. In addition the company is reviewing plans to conduct additional large diameter deep drilling and ground geophysics on the Golden Summit project in order to determine the potential of the project for high grade mineralization beyond depths previously explored. Details relating to work plans and budgets were not released.

Teck-Cominco said Pogo mine construction is on schedule for a first quarter 2006 start-up. The only other news from Pogo was a battle with a common but highly contagious norovirus that sent dozens of mine construction personnel to the infirmary with gastrointestinal troubles. Quick action by the company and

help from the Department of Environmental Conservation put down the virus in a few days and things returned to normal. Lesson for the rest of us that work in remote camps: clean up your act or suffer the slings and arrows of outrageous gastrointestinal disorders!

GEOINFORMATICS EXPLORATION INC. has entered into an agreement with Alaska newcomer Midas Resources Ltd. whereby Midas can earn up to a 75 percent interest in Geoinformatics' Uncle Sam gold project in the Richardson district. Midas has agreed to spend \$3 million over three years on the property to earn a maximum 75 percent interest, with a minimum commitment in the first year of \$250,000 and 1,000 meters of diamond drilling. Geoinformatics will have the right to restrict Midas to 51 percent interest by contributing to expenditures to maintain its interest at 49 percent after Midas has expended \$1 million. Midas plans to implement an exploration program in June 2005 based on shallow geochemical drilling and induced polarization geophysical surveys followed by diamond drilling of key structures and geochemical targets. Welcome to Alaska Midas Resources!

see FREEMAN page 6





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DELTA JUNCTION Flu-like virus wallops Pogo crew

Construction work at the \$320 million Pogo Gold Project near Delta Junction slowed in late April when a gastrointestinal virus plowed through workers at the remote site. The 24-hour bug, which caused nausea, diarrhea, abdominal cramps and vomiting, is similar to noroviruses that have attacked cruise passengers in Alaska waters in recent years, according to state health officials. About 60 percent of Pogo's work force took sick just days after the first victim was reported April 27, said Karl Hanneman, vice president of Alaska affairs for Teck-Pogo Inc.

Workers at the mine are suspected of spreading the illness through poor hygiene while using a self-serve food buffet line at the project's camp site.

Hanneman said May 5 catering facilities would be reorganized to prevent future outbreaks. He also credited education efforts by the Alaska Department of Environmental Conservation and the Alaska Department of Health with quickly curbing the outbreak.

Pogo, 85 miles southeast of Fairbanks, is expected to produce 400,000 to 500,000 ounces of gold a year, beginning in 2006. Teck-Pogo plans to develop an underground mine and operate a 2,500-ton-per-day mill. Teck-Pogo is a subsidiary of Teck Cominco Ltd., which owns a 41 percent interest in the Pogo deposit. Co-owners are Sumitomo Metal Mining Co. Ltd., which owns a 51 percent stake, and Sumitomo Corp., with 9 percent interest.

-ROSE RAGSDALE

continued from page 5 FREEMAN

Alaska Range

NEVADA STAR RESOURCES said ground geophysics and diamond drilling had begun on its MAN copper-nickelplatinum group element project being operated by joint venture partner Anglo American Exploration USA. The winter 2005 geophysical program began in March and utilized a Crone SQUID Bfield geophysical sensor to survey selected target areas identified from previous geological, geochemical and geophysical surveys. A total of nine separate loop locations are planned to cover the anomalies. A helicopter-supported diamond drill program designed to test coincident geological, geophysical and geochemical anomalies started in mid-May and is designed to include up to 19 drill holes. In addition, a number of targets generated from detailed structural interpretation of airborne magnetics in 2004 will be ground-checked in 2005.

Southeastern Alaska

COEUR D'ALENE MINES has received all of the remaining state of Alaska mine permits that it requires to build and operate its Kensington gold mine project near Juneau. Receipt of these permits from the Alaska Department of Natural Resources clears the way for the U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency to issue the final permits required by the project. Current timetables indicate the federal permits should be received during the second quarter of 2005 which will allow mine construction to begin with start-up slated for late 2006.

KENNECOTT (70.3 percent) and HECLA (29.7 percent) announced first quarter 2005 production from the Greens Creek mine on Admiralty Island. The total cash cost per ounce of silver produced at Greens Creek for the quarter was \$1.05, up slightly from the 98 cents per ounce costs for the year previous period. The average grade of ore mined during the quarter was 21.42 ounces of silver per ton, up significantly from the average grade of 16.69 ounces per ton that was mined in the first quarter of 2004. During the first quarter the mine produced 3,016,720 ounces of silver, 20,854 ounces of gold, 6,212 tons of lead and 17,228 tons of zinc. Total production costs for the quarter were \$3.35 per ounce of silver produced vs. \$3.39 per ounce for the first quarter of 2004.

The company also reported on exploration efforts being conducted west of the Gallagher fault where no mineralization was known to exist prior to 2003. To date, 51 exploration drill holes have been completed through the Gallagher fault, with 27 of those holes intercepting various amounts of white barite, white

SOUTHEAST ALASKA

\$1.1M slated for Alaska platinum work

Owners of the Union Bay platinum project near Ketchikan, Alaska, have approved a budget of \$1.1 million for exploration this year, the companies said May 16.

Freegold Ventures Ltd., Pacific North West Capital Corp. and Lonmin PLC are backing the Union Bay enterprise. An extensive 2004 field program financed by Lonmin confirmed platinum concentrations of 1 to 14 grams per tonne.

The 2004 work included nearly 6,000 feet of diamond core drilling in 10 holes, along with airborne magnetic and multi-frequency electromagnetic surveying. It indicated conditions favorable for mineralization along a strike length of about 6 kilometers (3.6 miles).

The plans for this year call for further delineation and drilling of targets identified by airborne magnetic surveys and ground exploration, and will again be financed by Lonmin. That enterprise financed work in 2003 also, and can earn up to a 70 percent interest by bringing the project to the feasibility stage.

Union Bay deposit involves 711 unpatented federal lode mining claims covering nearly 16,000 acres, plus several Alaska claims for an additional 240 acres. The area is about 35 miles north of Ketchikan at tidewater. Pacific North West Capital is the current operator.

—ALLEN BAKER

carbonate and massive sulfide-bearing lithologies similar to ore currently mined at Greens Creek. Drill results indicate the presence of at least two mineralized zones dipping shallowly to the southwest. However, true thicknesses of the mineralization are still unknown and the zones are open to the west and south.

The most significant mineralized intercepts to date include 90 feet of continuous massive sulfide mineralization with composite grades of 0.15 ounce per ton of gold, 4.8 ounces per ton of silver, 6.8 percent lead, and 20.5 percent zinc. Additional significant drilling results include 108.8 feet of continuous massive sulfide, white carbonate and white baritic mineralization with composite grades of 0.26 ounce per ton of gold, 3.2 ounces per ton of silver, 4.6 percent lead and 11.5 percent zinc, 52 feet of massive sulfide and white carbonate mineralization with composite grades of 0.2 ounce per ton of gold, 10.3 ounces per ton of silver, 5 percent lead and 11.3 percent zinc and 12.7 feet of massive sulfide and mineralized argillite mineralization with composite grades of 0.05 ounce per ton of gold, 41.7 ounces per ton of silver, 3.9 percent lead and 7.6 percent zinc.

What makes these results all the more amazing is that these intercepts and the new mineralization were discovered a full 30 years after the Greens Creek deposit was originally discovered! Hat's doffed to the management and staff at Greens Creek who thought this discovery into being.

Alaska loses a giant: Ernie Wolff

Alaska's mining industry has lost another giant: ERNIE WOLFF passed away on May 3 at the age of 86. For the thousands of miners, prospectors, students and business folks that knew and loved this man, it was indeed a sad day. In 1938 Ernie left his birth state of Minnesota to continue his education at the Alaska Agricultural College and School of Mines (the present day University of Alaska-Fairbanks). Over the next 60 years Ernie became the Dean of Alaska Placer Mining, a practical, nononsense instructor and champion of the small miner. He taught and practiced his profession all over Alaska and was equally well known for his big heart and unfailing belief that there was good in every person on the planet. Ernie is coauthor of a book recently published on the history of the University of Alaska's School of Mines but the book for which he will be most remembered is his 1964 epic: "Handbook for Alaskan

Prospectors." This book stands as one of the most valuable contributions to Alaskan mining literature ever written. The book is an historical gold mine of practical, common sense prospecting techniques. At the same time the book remains a snapshot of a way of life quickly receding into mining lore. Where else can you learn how to read a topographic map, hard face a pick point in your own forge and construct shelter without hammer and nails?

But Ernie's ability to give freely of himself and his assets is the quality that I think will be most missed by all of us he has left behind. I know of no better example of this than an experience which has left an indelible mark on my memory but which I have discovered Ernie did not even recall only a few days after it happened. Early one cool fall morning in the late 1980s, Ernie and I were heading out to the Cleary Summit area near Fairbanks to evaluate the underground workings of the old Nordale adit. We needed a couple of hard hats which Ernie indicated he could supply. On the way to the mine I stopped by Ernie's house and followed him to a well-used work shed where he kept the hard hats. We opened the shed door and stepped inside. There, on a threadbare old couch, was a rumpled young man, fast asleep. Ernie stopped, looked at the man and said "Hmm, there's somebody on my couch." He quietly retrieved the hard hats and we left the man still asleep.

As we drove the 25 miles up to the Nordale adit I waited for Ernie to bring up the odd incident of the stranger on his couch. But he said nothing. Finally, too curious to keep silent, I asked Ernie "Who was that man on your couch?" Ernie simply said "I don't know." Nothing more was ever mentioned and to this day the identity of the sleeping man and the circumstances surrounding his presence on Ernie's couch remain a mystery. It wasn't that Ernie did not care that someone was using his couch as a bed. What was obvious to Ernie was that the man needed a place to sleep. If the man had asked for a place to stay, Ernie would surely have given it to him. To Ernie there seemed to be no distinction between needing help and asking for help. Ernie's rare quality of human compassion combined with his technical training and no-nonsense common sense experience make Ernie Wolff one of the few men I know who qualify as "gentleman scientists" in the 21st century. Good bye Ernie and good hunting.



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NORTH OF 60 MINING

BRITISH COLUMBIA

British Columbia mining sector has best showing in decades

Global demand, commodity prices, government programs lift B.C. mining sector to highest level since survey started in 1968

By GARY PARK

Mining News Canadian Correspondent

ritish Columbia is reveling in a mining boom without parallel in more than three decades, according to a report by PricewaterhouseCoopers.

Powered by higher metals and coal prices, reflecting the strong demand for commodities, and an increase in the num-

ber of producing mines, the province posted an increase of C\$790 million or 29 percent in net revenues to C\$3.5 billion in 2004, generating total net earnings of C\$871 million the highest annual

mining, the British Columbia government has adopted a strategy since 2001 of offering incentives to promote new investment and slashing red-tape.

earnings since the accounting firm started its annual survey in 1968.

Net income for 2004 was, in fact, greater than the previous eight years combined.

Capital expenditures up 85 percent

Other highlights from the survey of 18 mines that are either operating or about to start operations are, one smelter, eight mines in the active permitting stage, eight mines in reclamation and six exploration properties showed:

· Direct employment in British Columbia mining totaled 6,442 in 2004.

· After-tax return on shareholders' investment rose from 10.9 percent in 2003 to 29.4 percent in 2004.

• Cash flow from operations soared by 91 percent from C\$598 million in 2003 to C\$1.14 billion last year.

· Based on the Pricewaterhouse-Coopers' survey, exploration and development spending jumped from C\$15 million to C\$73 million, although the British Columbia government has estimated the increase for the total industry was 136 percent to C\$130 million.

• Total capital expenditures were up 85

percent to C\$270 million.

• New capital raised posted a 558 percent gain to C\$283 million.

Net mining revenues up 6 percent

The breakdown by commodities showed: Shipments of metallurgical coal increase by 10 percent to 22.8 million metric tons, while net mining revenues were up 6 percent to C\$990 million; net revenues

from copper concentrate climbed 55 per-Further bolstering the revival of cent to C\$718 million; molybdenum (used mostly in the manufacture of high quality steel) recorded a 209 percent hike in net mining revenues to C\$398

> million; net revenues from zinc and zinc concentrate were up 115 percent to C\$530 million, despite a drop of 28,000 metric tons in shipments; net gold mining revenues were off 4 percent at C\$309 million, but silver grew by 28 percent to C\$270 million

> John Bowles, PricewaterhouseCoopers' mining practice leader in British Columbia, described 2004 as a "great year," reflecting strong metal and coal prices driven by demand in China and elsewhere.

> Coal, which accounted for 30 percent of total revenues, enjoyed strong worldwide demand and prices and the outlook for 2005 is "staggering" with average prices for metallurgical coal rocketing from US\$50 per metric ton in 2004 to US\$125 by April 1, he said.

> Michael Cinnamond, co-author of the study, said the increases in base metal and coal prices were "so significant in 2004 they have more than offset any negative impact of the strengthening Canadian dollar."

> Further bolstering the revival of mining, the British Columbia government has adopted a strategy since 2001 of offering incentives to promote new investment and slashing red-tape.

ANCHORAGE

Department of Natural Resources hires Alaska geologist Tom Crafford

A geologist with 30 years' experience in Alaska has been appointed mining section chief at the Department of Natural Resources. Tom Crafford, 54, will report to Bob Loeffler, director of the Division of Mining, Land and Water, beginning June 1. Crafford has recently been working as a consultant out of Anchorage in partnership with his wife Liz, who is also a geologist. He will have to give up his private clients now that he is employed by the state.

Explaining in an interview with Mining News why he applied for the state job at a time when industry is booming, Crafford mentioned his two-year-old daughter, a reason for him not to be out in the field all the time. "There are betterpaying jobs out there, but this was a job where I could have some real influence, play a real role in the mining industry in Alaska," he added. "It's important to have good and qualified people in these positions."



Before starting his consultancy in 1998, Crafford's jobs included exploration geologist with Anaconda, head of surface exploration at Greens Creek mine, and subsequently vice president of North Pacific Mining, a subsidiary of state, and the state Alaska Native corporation Cook Inlet Region Inc. He is a to be holding the member of the BLM Alaska Resource Advisory Council. industry to reasonable attendents. Among Crafford's recent clients were the Mental Health Trust — he put together prospectuses for some of their prop- newly named minerties — and the Matanuska-Susitna Borough, for whom he did sand and gravel evaluations.

"I want the mining industry to get a fair shake from the able standards." —Tom Crafford, ing section chief, Alaska Division of Mining, Land and Water

Crafford: state should do more educating

"I want the mining industry to get a fair shake from the state, and the state to be holding the industry to reasonable standards," Crafford said. "I think what is good for the mining industry is most often good for Alaska, but not always. I truly believe that my heart is in the right place. I think the mining industry is an hon-

Before starting his consultancy in 1998, Crafford's jobs included exploration geologist with Anaconda, head of surface exploration at Greens Creek mine, and subsequently vice president of North Pacific Mining, a subsidiary of Alaska Native corporation Cook Inlet **Region Inc.**

orable profession that provides commodities that are very important to our society today."

The state should make more of an effort to educate people in rural Alaska about the realities of mining, Crafford believes. "Not a sell job for mining, both the good side and the bad side," he said. "We should enable those residents to make informed decisions and understand about the development that's going on in their communities." Browsing environmentalist Web sites, Crafford has been "quite appalled at the selective use of

information, the errors of fact and errors of omission. There are a lot of half-truths and out-and-out errors."

To redress the balance, DNR could include more information on its Web site about mining opportunities in Alaska, with facts, figures and pictures, Crafford said. For example, instead of pictures of people shaking hands with U.S. Secretary of the Interior Gale Norton and receiving their plaques for reclamation awards, there should be pictures of actual reclamation taking place, he suggested.

There is already a plan to put together courses about mining for rural Alaskans, involving DNR, the Department of Commerce, Community and Economic Development, and the University of Alaska, Crafford said. "The opponents of mining try to convince people that you have no voice in this process, you're going to get steamrolled. The people don't understand that they have quite a voice in the NEPA (National Environmental Policy Act) process."





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SION **Pow**

Usibelli coal mine equips for long haul

Traditional fuel source has tons of potential as Alaska's needs grow and international markets open up as China reduces exports

By SARAH HURST Mining News Editor

here aren't many places in the United States where you drive on the left side of the road, but Usibelli coal mine is one of them. When you arrive at the gates to the mine in Healy, Alaska, you have to switch to the left because that makes it easier for the drivers of the 150-ton Caterpillar 785 haul trucks to get a clear view of the road. And

when you are passing by a 150-ton truck loaded with coal, at the wheel of a small car, avoiding a head-on collision is a priority. In such a case it certainly isn't the truck that would take the brunt of the damage.



As coal is lighter than the dirt these ness development trucks were

Usibelli's vice president for busi-

designed for, Usibelli maintenance crews added tailgates so they can handle a larger volume of material. The company has five of these trucks in its fleet, plus two 95-ton capacity Dresser HaulPak trucks. Recently Usibelli ordered another truck at a price of \$1.8 million, but it will take about 13 months to be delivered because demand for mining equipment is so high at the moment.

Usibelli has come a long way since it began operations 60 years ago with an International TD-40 dozer and a converted GMC logging truck. The dozer, which isn't much bigger than some of today's lawnmowers, has been restored by Usibelli employees, painted bright red, and put on display outside the office and shop building. Italian immigrant Emil Usibelli's surface mining efforts were viewed skeptically at first by underground miners, but he proved his critics wrong, founding a family business that is one of the most well-known fixtures in Interior Alaska.

Today several members of the Usibelli family are involved with the running of the company and its subsidiary, Usibelli



Usibelli equipment in action

Energy, which is exploring for natural gas. Joe Usibelli Jr., Emil Usibelli's grandson, is now company president. Many of the mine's 90 employees who are not officially part of the Usibelli family have perhaps begun to feel as if they are. Almost one-third of them have been with the company for more than 20 years. Like Bob Engleman, for example, who performs transmission maintenance in the shop. He started out as an oiler, servicing equipment in the field, 36 years ago. "This type of work is challenging, it's technical, it's the kind of thing I like to do," he told Mining News.

Healy just north of Denali Park

Steve Denton, Usibelli's vice president for business development, also typifies the kind of loyalty the company inspires. A lifelong Alaskan who grew up partly in Anchorage and partly in Fairbanks, he has now settled in between the two. Visitors from the Lower 48 and even some Anchorage residents might wonder what attracts people to Healy, population 1,000, a quiet town just north of Denali Park. Denton enjoys rural life and seems a little surprised to be asked about it. "We've been part of a small community for a long, long time," he said. "It wasn't all that long ago that the business and the community were the same thing. We want to do things in a way that meshes with the community as a whole."

Usibelli has never had difficulty finding people who want to work at the mine: "What's hard is finding people with experience," Denton said. "The pipeline gave us a large trained workforce - now that's running out. ... I wish the unions could be





The bucket on the dragline is big enough to park a truck

a little more active in working through the vocational hurdles, facilitating the quality of employees." About half of Usibelli's employees belong to the Teamsters Union. There hasn't been a strike at the mine for over three decades, according to Denton.

Two Bull Ridge now being mined

There is much more Usibelli history yet to write. In the past few years the mine gradually transferred its operations from its 25-year producing Poker Flats location to a new site two-and-a-half miles away, Two Bull Ridge. This location is believed to contain enough coal to support Usibelli's current operation for another 25 to 30 years.

Two Bull Ridge was named by John Wood, a Usibelli engineer back in the 1970s, and now a project manager with the Alaska Industrial Development and Export Authority. In 1972, when Wood was 25 years old, he went on a moosehunting trip with Usibelli shop foreman Leo Mollier. They climbed the ridge and spotted three huge bulls. "Leo and I each chose our moose and commenced firing, the flash from the rifle shots several feet long in the twilight," Wood wrote recently in the journal of the Alaska Miners Association. "After the shooting stopped we discovered that we had bagged two of the largest-bodied 60-plus inch moose either of us had ever seen!"

Two years later Wood explored the same area for coal, and drill holes revealed multiple thick seams with favorable overburden characteristics. It didn't take Wood long to come up with the name for the home of the "massive moose and massive coal reserves'' — although he was rather amused that "Two Bull Ridge" was adopted officially.

Ace-in-the-Hole now at Two Bull Ridge

Usibelli's towering dragline, the Acein-the-Hole, has kept its name (chosen by local children) since "walking" from card game-inspired Poker Flats to Two Bull Ridge. At a rate of one step per minute, covering seven feet with each step, it took five days for the dragline with its 225foot mast and 325-foot boom to get to the new site in 2002. "The boom goes from end zone to end zone on a football field," Usibelli's chief engineer, Alan Renshaw, told Mining News.

The dragline has to be plugged into the power system by means of a cable. Its buckets are big enough to park a truck in,

see USIBELLI page 9

NORTH OF 60 MINING



Above, this coal seam is evidence that Usibelli has many years' work ahead. Below, along with Mt. McKinley, the Ace-in-the-Hole dragline is another towering sight in the Healy area.



Congress to give Healy Clean Coal Project new lease on life in energy bill

The 1,000-page energy bill that has been approved by the U.S. House of Representatives contains a provision to spend \$125 million in the form of government loans to reactivate the Healy Clean Coal Project. The Washington Post publicized this provision in an article recently, noting that the bill refers to the loan for "Department of Energy cooperative agreement number DE-FC-22-91PC90544", omitting the plant's location and name.

The Alaska Industrial Development and Export Authority, a state agency, owns the experimental power plant. "Everyone in Juneau believes there needs to be a little more money put in, how much money is arguable," AIDEA spokeswoman Becky Gay told Mining News. "The number could be as low as \$25 million. The language in the bill came from a different era: I suspect that will change in the Senate." The loan provision was first inserted by Alaska lawmakers into a 2003 version of the energy bill that failed because of a filibuster in the Senate.



The Healy plant was constructed in 1997 after winning a U.S. Department of Energy grant for clean coal technology projects. It was designed to produce up to 50 MW of power

The Healy plant was constructed in 1997 after winning a U.S. Department of Energy grant for clean coal technology projects. It was designed to produce up to 50 MW of power. The plant exceeded the performance of conventional coal-fueled plants on emissions during testing, but a dispute between AIDEA and Golden Valley Electric Association caused Golden Valley to pull out of a power purchase agreement. The plant has been mothballed since January 2000, and Golden Valley terminated its involvement in the project last year.

State and federal agencies have already spent \$300 million on the plant. "Most of the technology problems are considered fixable," Gay said. Some operational problems related to the coal delivery system will need to be solved, and the plant will have to be refurbished because it has been shut in for so long, according to AIDEA. Ultimately the state hopes to transfer its energy assets - the Healy plant, the Alaska Intertie and the Bradley Lake hydroelectric facility — to the utility companies, if they can function as a unified operator. "AIDEA under this administration is trying to get out of the energy business," Gay said.

-SARAH HURST



Association, and to cogeneration plants in tract to supply coal to Korea and its test Association about building a power plant shipments to Chile, but "the best way to move coal is on a wire," Brophy said. With the power needs of Alaska's Railbelt increasing daily, Usibelli is promoting its Emma Creek Energy Project — a plan to build another mine-mouth power plant and also talking with Matanuska Electric

in the Matanuska-Susitna Borough, north of Anchorage. Then there is the possibility that the mothballed Healy Clean Coal Project could receive an injection of funds to go into operation (see sidebar). One way or another, Usibelli has a long way to go before it runs out of steam.

USIBELLI

continued from page 8

and can move 33 to 37 cubic yards of dirt at a time. Their teeth are constantly being replaced, because of the amount of work they do, even though they are made from special reinforced metal.

The dragline has put in about 85,000 hours of work, shifting overburden, since 1978 and this piece of equipment can be expected to last for 215,000 hours, on average. Replacing it would cost \$26 million. When Usibelli equipment has to be repaired, new parts are manufactured in the shop. It would take too long to order replacements from the manufacturer, so the company keeps shelves and drawers full of the most commonly-needed parts, and replicates the others.

Power plant at mouth of mine

The coal goes to a mine-mouth power plant operated by Golden Valley Electric

the Fairbanks area, as well as being taken by rail to the port at Seward for export. "In 2003 China stopped exporting coal and the international markets became open," Bill Brophy, Usibelli's vice president for customer relations, told Mining News. Usibelli is happy with its ongoing con-

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SOUTHWEST ALASKA

Explorers tread carefully near precious Pebble

Following in footsteps of Northern Dynasty, several exploration companies plan an active field season this year near Alaska deposit

By SARAH HURST Mining News Editor

xplorers from Canada, Washington, Arizona — and Alaska too — have staked claims in the vicinity of the massive Pebble gold-copper deposit. These juniors hope to emulate the success of Vancouver-based Northern Dynasty and take a project to the development stage. As some of their representatives told a mining and sustainable resources conference in Newhalen, Southwest Alaska, in April, the explorers are seeking harmonious relations with the local community as well as valuable minerals.

Full Metal Minerals, another Vancouver company, acquired the 140square-mile Pebble South claim block in January 2004. Last summer the company

collected 1,471 samples (944 soil, 316 stream and 211 rock) and completed 50 line-kilometers of 2D-IP (induced polarization) and about 32 line-kilometers of ground magnetics on the property. Full Metal Rob McLeod, Full has spent about



Metal Minerals

\$700,000 in the local area, according to Rob McLeod, the company's vice president for exploration.

"Last year with our IP geophysics as well as our soil sampling, we identified 11 interesting anomalies," McLeod told the conference. "But until we start drilling some diamond drill holes, we have no idea what could be there or not." Full Metal hired 11 Native shareholders to work on the project. "We had a great team last year," McLeod said. "All the guys worked really hard, we hope to bring a lot of them back this year, if they're available. It just goes to show, with mineral exploration, that young people have an opportunity to start learning some new skills."

This year Full Metal plans to start with more IP geophysics, refining targets before doing about 5,000 feet of diamond



drilling, as well as more mapping and prospecting. "It all depends on what the results of the geophysics are, if we get some really sweet anomalies, we could certainly have a larger program," McLeod said. In response to a question from a local resident about the possibility of mining companies' helicopters scaring away bears, McLeod said that Full Metal had just signed an agreement with four village corporations, and as part of the agreement the company had to be out of the area before the start of bear hunting in the fall.

Briscoe and St. George stake Big Chunk

Jim Briscoe from Arizona teamed up

Pebble deposit, Phil St. George, to stake a 237-square-mile Big Chunk property in utmost secrecy the week before Christmas 2003. Briscoe was follow- Jim Briscoe from ing a hunch that Arizona, above, Northern Dynasty's teamed up with the claims were just geologist who dis-covered the Pebble one-quarter of a deposit, Phil St. caldera — the result George, to stake the of a massive vol- 23/-square-mile Chunk property. canic eruption about

with the geologist

who discovered the

90 million years ago — and he wanted

237-square-mile Big



Only five people knew about Briscoe's plans prior to the mobilization of the staking crew, he said. Curt Freeman of Fairbanks-based Avalon Development pulled strings to get a helicopter carrying Briscoe and the crew out to the site when most people were preparing for the holiday season, and the claim posts were brought out separately in a cargo plane. "I was so paranoid because I thought if Northern Dynasty got a whiff of it, it would all be gone in a puff of smoke," Briscoe said.

The adventure turned out to be the largest single-phase staking project the state of Alaska had ever dealt with. It taxed the computer system, so they had to do much of it by hand, according to Briscoe. Having staked the claims and convinced investors to put in just over \$1 million, Briscoe formed Liberty Star Gold on February 1, 2004. Briscoe is president of the company and St. George is vice president for exploration.





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Liberty Star did aeromagnetic survey in '04

Liberty Star began conducting an aeromagnetic survey of the Big Chunk area last year. The company's employees also used hand-held computers with GPS to record information on the site, and completed 40.2 kilometers of IP in one month. This summer Liberty Star will do four months of IP and hopes to cover the entire projection of the caldera, starting as soon as the ground has thawed. "We're very enthusiastic about this and have high hopes for mineral discovery," Briscoe told the conference.

see EXPLORERS page 11

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The company's budget for 2005 is \$4.7 million, and it hopes to accomplish 26,000 feet of drilling this season, comprising 50-70 drill holes. Liberty Star will also initiate environmental studies. "I have to emphasize that we haven't discovered anything yet," Briscoe said. "But this is, to me, the most exciting area and project that I've seen in 40 years of exploration."

Liberty Star will hire and train locally wherever possible, Briscoe said. The company hopes to facilitate long-term educational opportunities and encourage entrepreneurship in the area. Briscoe would like to establish cooperative programs between the community, the University of Alaska and the University of Arizona.

Anyone who applies for a job with Liberty Star will take the Predictive Index personality test, which Briscoe's wife Mardee administers for a living. The test consists of two long identical lists of adjectives such as "polite", "tolerant", "obedient", "attractive", "hard-working" and "sensitive". One page asks applicants to select the traits that apply to them, and the other page asks them to select the traits that they think people expect of them. The result is a detailed analysis of a person's likely work style: whether they prefer routine tasks or constant challenges, how they deal with customers and colleagues, and whether they like to follow instructions or take the initiative.

"There's nothing intrinsically bad or good about the way people do things, it's just that people operate differently," Briscoe said. "By using this tool, we are able to match the person to the job that needs to be done in a very scientific and quantitative way. ... It boils down to making for happy employees and productive employees."

Alaska Earth Sciences assisting clients

Alaska Earth Sciences is an Anchoragebased consultancy, established in 1985, that

has been assisting several clients in the Pebble area, includ-Metal Full ing "We've Minerals. been champions of this region of Alaska for a long time and we're delighted to see these kinds of activities here," Rob Rob Retherford,

of AES, told the con-



Retherford, president president of Alaska Earth Sciences

ference. Throughout its existence, AES has partnered with Native corporations, Retherford said. "We've worked with almost all the regions at one time or another in helping them determine where their resources may be and helping them market those resources."

In the 2005 field season AES will be doing four weeks of geophysics, two weeks of rock and sediment sampling, and two weeks of geologic mapping and drilling in the Pebble area. One of AES's clients is real estate developer Greg Ellis from Mill Creek, Wash., who has staked 166 square miles of claims near the Pebble deposit. "Greg is definitely outside of the box," Retherford said. "He saw the excitement and fervor generated by Northern Dynasty and it spurred him on to say, perhaps there's a way that I could participate, and besides that I'd really like to do this with the community."

Ellis runs three non-profit organizations: Humanity First Worldwide, Native Ecotours and Energy for Humanity. "The goal is to build sustainable communities around the world," he told Mining News in a telephone interview. This is Ellis's first foray into the mining industry. He comes to Alaska every summer for fishing, and became interested in the Pebble deposit when he met two Native women from the village of Iliamna on the plane to Anchorage, who asked him to help their community.

"I want to help them add a water system and a sewage treatment system," Ellis said. "I want to build a sustainable community, a green community, more the way it was in the past but with new technologies. ... My plan is to give the bulk of my share of the revenue to do humanitarian projects."

Ellis's other projects include a salmon enhancement program in Seattle, a documentary film about how people in the developed world can make a difference, and a plan to build sustainable communities in India. "I'm obviously an idealist," he said. "The reason money is important to me is so I can help people. I've made a lot of money.

... I had this vision not quite two years ago and I've just taken off. I want to empower people to bring their visions and goals about." If Ellis finds valuable minerals on his property, he will set aside areas for Native subsistence and develop the land conscientiously, he said. "I'm not there to make a quick buck and run and let people come up and rip this place apart. Alaska Earth Sciences are wonderful people. I had a good feeling about them when I met them. They're also concerned about the environment and people." Even if he finds nothing, Ellis will still remain committed to the people of Iliamna. "They're part of my family now," he said. "I'm all about doing whatever I can to help." •

MANITOBA

Northern Manitoba newest diamond hot spot

The hunt for diamonds is undergoing a reawakening in Manitoba, four years after the first wave of explorers failed to locate kimberlite.

The province's far north has attracted interest from De Beers Canada, which has collected exploration licenses for almost 5 million acres, giving the gem giant the largest rights holding in the province.

But the world's most famous diamond company doesn't have things to itself.

Stornoway Diamond has picked up two sites in northeastern Manitoba, while a partnership of BHP Billiton and Nustar Resources is drilling kimberlite prospects west of Churchill

Nustar has a list of more than 20 targets on its properties.

It also identified an additional 10 on surrounding property, but was beaten to the exploration licenses by De Beers, which now occupies 75 percent of the land adjacent to Nustar's claims.

In the past six months more diamond permits have been issued than in the previous five years. Officials with the Manitoba government say the geology gives hope that a kimberlite will be found, given that diamonds have been found in Ontario, Saskatchewan and Nunavut, which adjoin Manitoba.

-GARY PARK

YUKON

Yukon exploration spending to double

Exploration spending on Yukon mines is forecast to double this year from 2004 to about C\$40 million, according to an exploration and development survey by the British Columbia and Yukon Chamber of Mines.

The greatest push is coming from healthy commodity prices, which have given a lift to investment in mining companies, said chamber President Scott Casselman.

In addition, he credited the Yukon government with "working very hard" to encourage a mining revival, especially by eliminating regulatory obstacles.

He placed Yukon Zinc, Sherwood Mining and Tagish Lake Gold among the expected big players of the 80 firms surveyed.

More than half of those contacted said they intend to be active in the Yukon this summer, spending more money than they have in eight years.

On the downside, Casselman noted that the spending will be restricted to minerals exploration and development properties, with none going to a hardrock operating mine.

To be assured that a revival is under way, he would like to see one or two operating mines, but he expressed hope that "we're well on track to get there in very short order." -GARY PARK



Canada revamps experimental mill

Natural Resources Canada has completed C\$7 million in renovations to its experimental mill in Ottawa, adding flexibility, back-up systems and energy efficiency to the facility, according to the department.

The facility has been redesigned for use as a pilot-scale wet lab for industrialscale research on mineral processing and environmental issues such as effluent treatment, mine reclamation, waste management, and ecological toxicology.

Among the ongoing projects are studies of effluent toxicity and passive effluent treatment to understand natural processes that facilitate treatment of mine contaminants, thus maximizing treatment performance and reducing land requirements.

The department is also looking at novel ways to reclaim mine waste, such as using lignin and its derivatives to promote growth of vegetation and metal uptake.

Research is also continuing on how mineral impurities interfere with gold dissolution, leading to increased gold extraction by adjustments in leaching methods.

Other projects are investigating ways to improve lime-neutralizations processes for treating mine water. The work could result in cost savings and reduce longterm environmental liabilities associated with disposal of mine-water treatment sludge.

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MSHA's message: Prevention preferable to cure

Alaska's mines among the safest in country thanks to wide range of measures, say presenters at Spring Thaw seminar in Anchorage

By SARAH HURST Mining News Editor

he air miners breathe, the noise they hear, the equipment they use and the substances they consume all pose safety risks. The industry has learned

this the hard way, with tens of thousands of mining fatalities in the 20th century, but today safety regulations are stringent and there is a plethora of measures that can be taken to prevent injuries and illhealth. To discuss what's being done at mines around Alaska, the U.S. Department of Labor's Mine Safety and Health Administration held its Spring Thaw informational seminar in Anchorage April 26.

This was MSHA's second annual

Spring Thaw event. The first, not so aptly named, took place last year in Fairbanks — when the temperature was 30 below zero. This year the weather in Anchorage was unseasonably hot.

Dennis Steffy, the director of the

MSHA hopes to continue moving the University of Alaska event around and to Anchorage's Mining and Petroleum expand it from the Training Service roughly 25 partici-

pants who currently attend. It is an opportunity for mining companies to present their safety innovations and to question representatives of the federal agency that makes the rules.

Speaking about dust and noise, Dennis Steffy, the director of the University of



Gravel pits have their own specific safety issues, as they appeal to kids and hunters on ATVs. Companies use fences, gates, surveillance and prominent "Dangerous Area, No Trespassing" signs to keep people away from properties.

Alaska Anchorage's Mining and Petroleum Training Service, used himself as an example of the long-term health hazards. "The part of dust we get worked up about is silica. A hundred thousand of our miners a year are at risk of contracting silicosis, with 250 deaths a year," Steffy said. "When I started out, my first job was running a track drill, drilling sixinch blast holes, 12 hours a day, six days a week, no dust control, no noise control whatsoever. And it generally took you from Friday night until Sunday morning to get enough of that coughed up so you could go to church."

Decades later Steffy still experiences residual effects of the dust he inhaled, and the noise has caused him permanent hearing loss that makes it difficult for him to understand his eight grandchildren — this despite the fact that for most of his career he has been an instructor, not a miner. "I never thought I was going to get rocked up when I was 17 years old," Steffy said. "And then suddenly you're 60-some years old and you're rocked up, and the doctor says, what in the world happened to you? And you go back and think about all that stuff."

Dust particles accumulate

Dust particles half a micron in size or less can get into the lungs and never come back up, accumulating and creating scar tissue. Asbestos, beryllium and crystalline silica (quartz) are the most danger-



Subscribe to Petroleum News and get.... North of 60 **Mining News**

This monthly special supplement from Petroleum News is dedicated to covering the latest, most

ous types of dust. There is no effective treatment for the chronic illnesses caused by dust, such as pneumonoconiosis and fibrosis. So the illnesses have to be prevented, and there are three methods of prevention: administrative processes, engineering processes, and - if those are insufficient - the use of personal protective equipment.

"Folks in the mechanical shops quite often turn up with asbestos, because there still are some brake linings, some frictions, some gaskets that contain amounts of asbestos," Steffy said. "Somebody should know, when you're working with that stuff, that they should either wear respiratory protection, keep it wet, or whatever."

Scott Horn, MSHA's Anchorage field office supervisor, previously worked for the state of California as an inspector at the country's last asbestos mine. "I had more over-exposure to asbestos due to brake linings than I ever had at that asbestos mine," Horn said. "That was their product, it was pure white in the hills, they mined it, they hauled it down the hills ... If you know what you're doing and you know what you're getting into, you can take care of it." The biggest danger is when people are unaware of the risks they are taking, he added.

Planning ahead crucial

"You ought to be thinking about dust from the start, dust and noise," Steffy said. "Because retrofitting a system that's already built, to control dust or control noise is tough, whereas if you hit it from the top, right in the design process, it's a lot cheaper, there's lots of neat things you can do." The amount of dust miners are exposed to can be measured by asking them to wear a personal sampling pump that weighs about 12 ounces. Miners using a sampling device must be trained to do so properly, following the manufacturer's instructions, and the value of doing the sampling should be explained to them so that they don't just leave the device on a shelf all day.

Hearing loss due to noise must be prevented at mines because it is irreversible, according to Steffy. "Thirteen percent of the mining population will develop a hearing impairment during their working lifetime, which includes most jackleg drillers," he said. "Nerves do not regenerate themselves. Once vou kill a nerve, that's it." Excessive noise also causes fatigue, irritability, anxiety, muscular tension, increased blood pressure and

AngloGold keen on Alaska Major plans drilling, more land acquisitio

Pebble activity heats up

Claim staking continues around gold-copper deposit, fourth player announces land holdings

Israeli firm bids again

DGI Group gets light-hearted response from BHP Billiton regarding Ekati diamond mine

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north of 60 mining news a monthly publication of petroleum news decreased work productivity.

MSHA's noise rule requires mine operators to enroll miners in a hearing protection program if they are exposed to an average sound level of 85 decibels or more over an eight-hour period. The exposure limit is 90 decibels for eight hours. Every three decibels approximately doubles the sound level, as the scale is logarithmic. A miner may legally be exposed to 115 decibels the noise of an air track drill - for a maximum of 15 minutes. "The rule in industrial hygiene is what matters is the dose; it's not the intensity; it's not the length of time you're exposed to it, but rather it is the product of intensity and exposure," Steffy said.

The noise from sandblasting is about 125 decibels, the noise of a crusher is about 95 decibels and the noise of a haul truck is about 85 decibels. High-quality mufflers and silencers should be installed,

see SAFETY page 13

continued from page 12 SAFETY

Steffy said. Earplugs should be correctly fitted, filling at least two-thirds of the ear canal. Badly maintained equipment makes more noise than well-maintained equipment with the proper lubrication. Operators should keep track of the noise at their mines using meters so they can work out whether an employee's hearing loss was caused at work, or at home due to firing guns, for example. Employees' hearing should be tested when they are first hired and every year after that.

Diesel emission reduction at Greens Creek

Greg Majeran, safety supervisor at Greens Creek, gave a presentation about the Juneau polymetallic mine's efforts to reduce diesel emissions. Greens Creek is one of the leading mines in the country for control of diesel particulate and in January 2003 it participated in an MSHA study of the issue. The study concluded that the use of ceramic after-filters on vehicles reduced average engine

emissions by 96 percent. Diesel soot is a carcinogen.

The current limit for diesel emissions in a mine is 400 micrograms per cubic meter. Greens Creek's ventilation systems and filters enable it to achieve an average of 280 micrograms per cubic meter. As of Jan. 1, 2006, the limit is expected to be lowered to 160 micrograms. "We need to significantly increase the airflows in the Greens Creek mine mine to more than double, and



Greg Majeran, safety supervisor at

that's going to present other problems," Majeran said. "When we achieve that, people will basically be working in a wind storm, it'll create a lot more dust in the environment, and so on. We're kind of struggling right now with seeing how we can achieve those levels of ventilation."

The proposed limit of 160 micrograms is very low, and negotiations are still going on over the final number, Majeran said. Greens Creek is already very well ventilated. It is always trying to improve its filters, which are fitted onto the exhausts of all underground equipment, and has installed Mercedes engines in the entire fleet, because they are considered the cleanest. In addition, Greens Creek plans to incorporate ultra low-sulfur fuel in its operating plan as it becomes readily available, and to use environmental cabs on vehicles.

Greens Creek has found that many filters do not live up to manufacturers' promises in terms of durability, although they are very expensive, often costing around \$10,000. Some fail because the ceramic material inside them starts to decompose, allowing the soot to bypass the filter. "You basically need to take those things apart from time to time and have a look at them and make sure that that's not happening," Majeran said. Diesel particulate is more of a concern for metal mines than for coal mines, because coal mines use considerably less horsepower.

Risk assessment program at Greens Creek

Majeran also talked about Greens Creek's Take Five risk assessment program, which strives to prevent accidents from happening at the mine. Greens Creek won MSHA's national Sentinels of Safety award in 2003 for completing 468,351 employee work-hours without a lost-time injury. Take Five is an informal risk assessment that should be performed by employees before every job. The five steps are: think through the task, spot the hazards, assess the risk, make the changes and do the job safely.

"Everybody is accountable to perform their work as safely as possible, and that's a condition of employment," Majeran said. The mine is not perfect, he added, and a work-related incident is reported on average every 2.2 days. In 2004-05 there have been 27 first aid cases, three medical treatment cases and two lost time injuries at Greens Creek. The Take Five program has resulted in an incremental reduction in reportable injuries every year since it was first implemented in 2002.

Every Greens Creek employee receives a pocketsized card with the Take Five steps printed on it and a matrix that helps them to determine the level of risk, based on the probability of something going wrong and the seriousness of the consequences. If the risk level appears to be critical or high, a written risk assessment is required before the employee may proceed with the task. "Three or four years ago at Greens Creek if you went up to an employee and said the words 'risk' and 'assessment' together, they wouldn't have really understood what you were talking about," Majeran said.

Gravel pit safety issues

Gravel pits have their own specific safety issues, as they appeal to kids and hunters on ATVs, Sarah Lefebvre said in her presentation. "They think of a gravel pit as a recreational site, not being aware of the drop-offs and the edges." Lefebvre is an administrative manager with Exclusive Paving in Fairbanks, which owns, leases and operates several gravel pits. The company uses fences,

gates, surveillance and prominent "Dangerous Area, No Trespassing" signs to keep people away from its property, but that still isn't enough to deter some foolhardy types. Trespassing is hard to prosecute because state troopers are too busy to investigate, Lefebvre said, and they won't bring a case unless they catch the same person twice.

Ensuring that legitimate cus- Sarah Lefebvre, an tomers and contractors follow the administrative manager with Exclusive rules is another challenge. Signs Paving in Fairbanks indicate that everyone must report

to the office unless they have a pit pass. These are issued annually and the color changes each year so old pit passes can't be used. "The hardest part of all of this has been the enforcement. It's gotten easier over the years," Lefebvre said. Truck drivers have tried exchanging pit passes with each other, and to combat this, the company introduced a rule banning anyone from the site caught with a borrowed pass. Once one truck driver was banned, the rest stopped taking the risk.

Testing policy crucial

Thermal

Norton

Devising a comprehensive drugs and alcohol policy is crucial to the safety of a mine, Anchorage drug-testing company WorkSafe's general manager, Steve Mihalik, told the Spring Thaw group. "If safety is important, don't let the dollar be important," he said. "The average drug

NORTH OF 60 MINING

U.S. mining fatalities in steep decline since 1900

In 1900 there were 448,581 coal miners in the United States and 1,489 fatalities, according to MSHA. Records for metal/nonmetal mine fatalities began in 1911, when there were 883 fatalities, out of an unspecified number of miners. In 1911 fatalities at coal mines rose to 2,656, out of 728,348 miners. The total number of metal/nonmetal miners was first recorded in 1931, as 159,007, and there were 225 fatalities that year. In 1931 there were 589,705 coal miners and 1,463 fatalities.

After World War II fatalities at coal mines dropped below 1,000 per year for the first time, with a corresponding reduction in the number of miners. In 1946 there were 463,079 coal miners and 968 fatalities. That year there were 162,408 metal/nonmetal miners and 181 fatalities. In 1973 office workers at mine sites were also included in the statistics for the first time. That year there were 151,892 coal miners and 132 fatalities, as well as 246,665 metal/nonmetal miners and 175 fatalities.

Fatalities at metal/nonmetal mines dropped below 100 for the first time, to 84, in 1981. That year there were 296,848 employees at those mines. Coal mine fatalities dropped to 70 in 1983, when there were 200,199 people employed at coal mines. In 2003 there were just 103,022 coal mine employees and 30 fatalities. That year there were 210,509 employees at metal/nonmetal mines and only 26 fatalities.

Between 1993 and 2005 there have been three metal/nonmetal mining fatalities in Alaska, out of a total of 540 fatalities in the United States during that period. The largest number of fatalities occurred in Nevada, where there were 51. There were no coal mining fatalities in Alaska during that period, when there were a total of 441 in the United States. The largest number of fatalities occurred in Kentucky and West Virginia, where there were 125 each.

Fatalities in 2003 included a 40-year-old maintenance worker in Nevada with five months of mining experience falling from a roof, and a 52year-old master welder in North Carolina with 30 years of experience having an accident involving an overhead hoist. The MSHA figures do not include deaths from chronic illness that may have been caused by mining.

-SARAH HURST

user costs the employer \$7,000 a year." More people test positive for drugs or alcohol in construction and mining than any other industry. Nationwide, 14 percent of construction workers test positive; in Alaska the figure is 20-25 percent.

The way to refer an employee for a drug test without accusing them of being under the influence, and without lying about it being a random test, is to refer them to the company policy, Mihalik said. If the policy clearly states that anyone behaving suspiciously must be tested, then a



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NORTHWEST ALASKA

Alaska's Red Dog mine tops Toxics Release Inventory

State and Teck Cominco argue that true quality of environment is not reflected in bald statistics; risks to humans 'well within acceptable limits' according to new assessment by Alaska Department of Environmental Conservation

By SARAH HURST Mining News Editor

ed Dog's unenviable position at the top of the Environmental Protection Agency's national Toxics Γ Release Inventory doesn't mean that the world's largest zinc mine is a dangerous polluter, according to the state of Alaska. The Teck Cominco-operated mine in the Arctic, near Kotzebue, released 487.4 million pounds of toxic chemicals in 2003, the newly published TRI reported. The TRI does not indicate whether, or to what degree, the public has been exposed to toxic chemicals, the EPA points out.

Greens Creek polymetallic mine near Juneau, operated by a subsidiary of Rio Tinto, comes in at number five in the TRI, with 43.9 million pounds released. "Alaskans need to understand what this really means in terms of what's actually been discharged into the air, land and water," Alaska's Environmental Conservation Commissioner Kurt Fredriksson said. "The total pounds of 'releases' do not at all reflect an accurate picture of Alaska's environmental quality. The waste rock from Alaska mines is well engineered, contained and regulated by state and federal agencies. Alaska's TRI releases are permitted discharges, regulated under state and federal laws. Alaska's environment continues to be clean, healthy and productive."

The releases from Red Dog consist mainly of waste rock containing small quantities of lead and zinc. "What they do is a simple add-up of materials moved, essentially," Teck Cominco spokesman Greg Waller told Mining News, in response to the TRI. "When we strip waste and move that rock to another location on the mine site, all of that uneconomic rock has some content of lead and zinc in it. In our view that's a meaningless number."

DEC: Risks 'well within acceptable limits'

Much more detail about Red Dog's impacts on the envi-

continued from page 13 SAFETY

supervisor can depersonalize the issue. A poorly worded policy allows employees to claim that they are being treated unfairly, or singled out. Every new employee should read the policy, and supervisors must be trained to apply and administer it.

Marijuana cannot be prescribed by a doctor in Alaska, only recommended, so companies should include a rule about medical marijuana in their policy, Mihalik said. A recent study showed that marijuana can restrict blood flow in the brain for up to 30 days, he added. Employees may also be impaired if they are hung over, even if they are not drunk, so the policy should state how many hours must pass after the consumption of alcohol before they return to work — "bottle to throttle" — and whether someone on call can drink alcohol.

The policy should say something about prescription medicine, Mihalik said. Companies should ask employees to let them know what prescription drugs they are taking and what the potential effects might be, if necessary bringing in the bottle, and providing a doctor's note to confirm that they need the drug. WorkSafe general Supervisors should not ask why the manager Steve employee is taking the drug, but if there is a risk of drowsiness or other

side-effects, the employee may not be allowed to operate heavy machinery, for example, and should be assigned elsewhere.

The availability of prescription drugs on the Internet makes them easier to obtain than most illegal drugs, and



Mihalik

the painkiller vicodin is now the second-most abused drug after marijuana. Standard tests do not include vicodin: "We got blindsided by it," Mihalik said. Oxycontin is another popular drug to abuse. A separate test for these synthetic opiates can be conducted by companies like WorkSafe on request for an additional \$2 or \$3 on top of the average \$30 or \$40 cost of a drug test.

of a concentrate storage building. "No adverse effects are

predicted for the vast majority of caribou that only pass

through the site during migration," the risk assessment went

on to say. "There is a low likelihood that individual caribou

over-wintering in the mine area may experience adverse

assessment will be finalized and Teck Cominco will devel-

op a proposed risk management plan, in consultation with

DEC and other stakeholders. The risk management plan

will identify actions needed and will define a long-term pro-

gram to monitor changes in conditions. It will be developed

in parallel with the completion of the risk assessment,

see RED DOG page 16

After a public comment and response period, the risk

effects (reduced growth) from exposure to aluminum."

Any time an injury or damage occurs there should be a drug test, even if it is something seemingly innocuous like a pulled muscle, Mihalik said, as employees using drugs make more mistakes. If someone fails a drug test and goes through an approved course of treatment, they may be eligible for rehire at the employer's discretion. If employees are concerned about supervisors using drugs, they should talk to more senior managers about it, and if a company takes safety seriously, the concerns will be listened to.



Red Dog, the world's largest zinc mine, is located in a sensitive Arctic environment.

ronment and humans can be found in the Alaska Department of Environmental Conservation's draft fugitive dust risk assessment for the mine, which was published in April. The assessment is the culmination of more than two years' work examining the elevated metals concentrations in the area. DEC concludes that risks to humans are "well within acceptable limits," with, for example, a less than 0.0005 percent chance for children using the land for subsistence exceeding the acceptable blood lead level.

Wildlife and plants in the vicinity of Red Dog have suffered some adverse effects, according to DEC. In port facility areas, the presence of stressed and dead vegetation appears to be primarily related to fugitive dust deposition, but it may also be due to disturbance from the construction

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CANADA

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De Beers gives green light to mine

The road has been cleared for Canada's latest diamond mine, with South African gem giant De Beers giving its final go-ahead for the C\$636 million Snap Lake project.

In the planning and development stages for several years, the mine is scheduled to start production in 2007, targeting about 1.5 million carats a year once it achieves peak output.

It will be De Beers' first diamond mine outside of Africa and the third in the Northwest Territories, joining Diavik and Ekati.

But Tahera Diamond will actually be the third to come on line, assuming its Jericho mine in Nunavut Territory meets a 2006 start-up date.

The board of De Beers also gave preliminary approval for the proposed Victor diamond mine, a C\$982 million project in northern Ontario.

Victor still needs Canadian government approval of an environmental assessment. De Beers annual review, made public in April, said the company is aiming to produce diamonds worth US\$1 billion from its Canadian mines in 2015.

Snap Lake involved complex impact and benefit agreements with four aboriginal groups in the area plus environmental, socio-economic and secondary diamond industry agreements with the Northwest Territories government.

Northwest Territories Resources Minister Brendan Bell praised De Beers last year for "making a significant and meaningful contribution" to the territories "through training and development, business opportunities and on-going social investment."

He said the deals reaffirmed the Northwest Territories government's position that sustainable development of northern resources "is essential to the long term economic, cultural well being of all NWT residents."

-GARY PARK

Union drive gathers pace at Red Dog

Some of Red Dog's 350 employees are voting on whether to join the International Brotherhood of Electrical Workers, and two groups have already decided overwhelmingly in favor of the union. The votes follow a ruling in March by the National Labor Relations Board that allowed employees to hold an elec-

tion, despite Teck Cominco's objections that small units should not organize by themselves.

The electricians at Red Dog voted 13-2 to join IBEW Local 1547, according to the union. The powerhouse operators voted 8-0 to join the union, and around 55 millwrights are due to vote in June. "We've argued that they are distinct craft units, because there are specific apprenticeship programs within the company," Jake Metcalfe, general counsel for Local 1547, told Mining News. "Teck Cominco has appealed; they're adamant about keeping us out of there. We are looking forward to negotiating Red Dog general

manager Rob Scott an agreement with them; it's in our best interests and theirs."

"We respect the democratic rights of the employees to choose representation or not," Red Dog's general manager, Rob Scott, told Mining News. The only other unionized mine in Alaska is Usibelli coal mine.

-SARAH HURST

continued from page 14 **RED DOG**

through the remainder of 2005. "Action levels were not calculated at this time because risks are not significantly elevated," the risk assessment said.

Teck Cominco estimates that it has spent approximately \$11 million on facilities upgrades to improve fugitive dust control at Red Dog, and another \$4 million on fugitive dust studies and the risk assessment, between 2001 and spring 2004. In February 2005 the company agreed to pay \$33,000 in civil penalties to settle a complaint by the Environmental Protection Agency alleging ore was discharged into Alaska's northwest coast in 2002. A mine worker had reported that ore was pushed by winds off a conveyor belt into the Chukchi Sea. Teck Cominco spent \$2.6 million on a conveyor belt containment system in 2003, and another \$1.3 million to upgrade containment equipment on two barges.

SOUTHEAST ALASKA

Kensington gold project heads for start-up

Alaska issues permits after EIS concludes environmental impacts will be minimal; plan modified after comments

By SARAH HURST Mining News Editor

daho-based Coeur d'Alene Mines received its 12 state of Alaska permits for the proposed Kensington underground gold mine in May, and the company expects federal permits to be issued by the end of the second quarter of this year. The targeted construction startup date at the Juneau site is July 1, with production to begin in late 2006. Kensington is designed to produce 100,000 ounces of gold annually, with a mine life of approximately 10 years.

"We are confident this project will demonstrate Coeur's leading approach to sound environmental stewardship and resource development, one we will all be proud of for many years to come," said Harry Cougher, the company's senior vice president for North America operations. Coeur is the world's largest primary silver producer and a significant low-cost producer of gold, with mining interests in Alaska, Idaho, Nevada, Argentina, Chile, Bolivia and Australia.

The permits, authorizations and certifications for Kensington include leases for the mine worker ferry dock facilities, authorization for road construction and management, water rights permits for work in fish-bearing waters and state certifications for the U.S. Army Corps of Engineers wetlands fill permits. The state's action follows the U.S. Forest Service's release last December of the final environmental impact statement, which concluded that the project can be developed with minimal environmental impacts.

"Alaskans can have jobs and opportunity and a healthy environment," said Alaska Gov. Frank Murkowski. "I believe in that balanced approach. The results of the EIS and the fine work of our state permitters demonstrate that we can move forward, protecting our environment while providing jobs for our residents. This project means good-paying jobs for Alaskans and a stronger economy for Southeast Alaska."

The targeted construction startup date at the Juneau site is July 1, with production to begin in late 2006. Kensington is designed to produce 100,000 ounces of gold annually, with a mine life of approximately 10 years.

restrictions during critical times. The state's leases for the dock facilities place timing and use restrictions on the docks during critical times.

DNR responded to public comments on a wide range of issues related to the Kensington permitting. For example, someone asked if there were less toxic alternatives to galvanized steel for the dock construction, expressing concern about the possible effects on eggs and larval fish. DNR replied: "Galvanized steel is one of the least toxic alternatives for pilings. Other options include concrete, plastic and treated and untreated wood. All have advantages and disadvantages. Because of relatively low toxicity and structural and construction considerations, galvanized steel is an appropriate choice."

Intertidal fill minimized

The marine terminal facilities have been redesigned to minimize the amount of fill placement in the intertidal and beach areas. The proposed lease area now covers only 3.8 acres or 165,500 square feet. The marine terminal construction will create a barge mooring facility and a small laydown yard for handling of cargo. The construction of the marine terminal facilities below the mean high tide will involve approximately 2,500 cubic yards of fill.

Coeur will have to control public access to the five-mile Jualin Mine Road, which also has to be upgraded by the company. According to the land use permit, the upgrade will involve resurfacing, re-grading, bridge deck installation and the creation of 17 turnouts. In some locations along the route development will involve grade reduction, cut and fill development of drainage ditches and removal of trees to increase vision for safe passage. Another significant issue the state had to deal with was Coeur's proposal for the storage of mine tailings in Lower Slate Lake. The EIS concluded that the tailings are not toxic, and that there is a high likelihood that the lake can be reclaimed to be at least as productive as it was before the mining, and probably even more productive. The state's fish habitat permit for the use of Lower Slate Lake provides for the lake's reclamation after mining. The certification of the U.S. Army Corps of Engineers wetlands permit for the lake requires additional testing of the tailings to make sure they are non-toxic through-



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Mine originally permitted in '97

Coeur Alaska had originally received permits to operate the Kensington mine in 1997, but subsequently changed its mine plans and reapplied in 2001. Coeur's current mine plan moves the mine's facilities closer to Berners Bay, allowing the daily transport of workers from Juneau by ferry across the bay. The mine would employ about 250 people during operations and 300-400 people for the 22 months of construction.

The EIS concluded that the three-tofive round trips by the ferries each day would not significantly impact recreational use of Berners Bay. It also concluded that impacts on marine mammals, herring and eulachon would not be significant, given appropriate mitigation measures such as fueling and operational

see KENSINGTON page 17

continued from page 16 KENSINGTON

out the mine's life and after closure.

Dam will double Lower Slate Lake

Coeur will construct a dam that will raise the water level in Lower Slate Lake by about 85 feet, increasing the size of the lake from about 20 to 56 acres, and flooding the majority of Mid-Lake Creek, the main inflow to Lower Slate Lake. Mid-Lake Creek will be diverted around the tailings storage facility during operations. Downstream fish passage will be provided by either manual relocation of fish or through the diversion.

The Kensington project will cause "permanent loss of wetlands, estuarine and stream habitats and short-term loss of lake habitat," according to the state's Office of Habitat Management and Permitting. However, the agency determined that the project should go ahead because there is a significant public need for it. All fish habitat will be lost in Lower Slate Lake during the operation of the mine, as will 33 acres of upland habitat for Vancouver Canada geese. River otters will be impacted by construction and operations disturbances.

Historically, development and ore production occurred at the Kensington mine site from 1897 to 1938. The adjacent Jualin project was discovered in 1895 and operated from 1896 to 1928. All told, both mines produced 40,513 ounces of gold from 75,208 tons of ore. Coeur now controls both the Kensington and Jualin properties. Mineral reserves are located on the Kensington property and production infrastructure will be on the Jualin property.

MOSCOW

Russian diamond monopoly criminal case opened

Prosecutors have opened a criminal case into alleged misappropriation of property at the Russian state diamond monopoly Alrosa, officials said May 14.

The case, opened May 13, concerns the misappropriation of property worth more than 153 million rubles (US\$5.8 million), said Sergei Marchenko, a spokesman for the Moscow prosecutor's office.

He said the investigation would include a full probe into the finances and business activities of Alrosa. The Interfax news agency quoted a source close to the inquiry as saying that a number of company officials would be questioned. Alrosa, whose mining activities are based in the remote Siberian region of Yakutia, is the world's second-largest rough diamond producer after De Beers, an Anglo-South African concern. It is on a Kremlin list of 1,063 enterprises that the state considers strategically vital. The company insisted it maintained the highest financial standards, saving its activities were under the "constant supervision of licensed bodies," including international auditors. In a statement May 14, Alrosa noted that prosecutors had not contacted it directly yet but promised to offer its full cooperation to enable "an objective investigation."

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• YUKON

Freegold plans summer work at Grew Creek gold project

MINING NEWS

reegold Ventures is planning a 2005 summer program on its Grew Creek epithermal gold deposit 22 miles west of the town of Ross River. The Yukon project is just over half a mile from the Robert Campbell Highway and the Whitehorse

power grid.

Freegold acquired the Grew Creek project last summer and has since completed 12 diamond drill holes predicated on a new geological theory that proposed mineralization trended north-south, as opposed to previous interpretations which assumed the mineralization trended east-west.

"This new interpretation suggests the original deposit area may be open for potentially significant expansion. Results from last year's drilling program indicate that the mineralization does trend north and that the quartz-adularia vein and vein stock work system in the Golden Spike Zone is faulted into at least four separate segments," the Vancouver-based junior said in a May 10 press release.

Freegold said segments 1, 2, and 4 are open to the north, south and to depth. Segment 3 is open to north and to depth.

A new 43-101 compliant resource calculation is under way and will be completed by the end of May, its "main purpose is to aid in the planning of additional drilling both internal to and on the margins of Golden Spike Zone."

Step out holes drilled in March 2005 on the Rat Creek Zone 1.5 kilometers to the east "intersected intense phyllic alteration associated with anomalous values in gold, silver, mercury and arsenic. The drilling intersected local fine quartz-adularia stringer zones up to 40 meters in length that yielded anomalous values up to 0.174 grams of gold per tonne and 2.3 grams of silver per ton. These results are similar to assays obtained 50 meters along trend from gold-silver mineralized quartz-adularia stockwork at the Golden Spike Zone and may indicate the presence of another Golden Spike type zone in the Rat Creek area," Freegold said.

The company said the step out drilling "has apparently tested

"This new interpretation suggests the original deposit area may be open for potentially significant expansion. Results from last year's drilling program indicate that the mineralization does trend north and that the quartz-adularia vein and vein stock work system in the Golden Spike Zone is faulted into at least four separate segments," the Vancouver-based junior said in a May 10 press release.

the western limit of a potential northerly trending mineralized structure."

Analysis of the recent and previous drilling also "appears to have located the structure limits to the east. Gold and mercury anomalies and alteration in the existing drill holes indicate that a mineralized structure may extend north and south of the drill section," Freegold said.

The company is looking at an east-oriented drill hole this summer to test the northern and southern extensions of the anomalous target. Freegold said it will first conduct ground geophysics to help delineate targets.

Looking at internal funding

Freegold's development strategy for its projects has been based primarily on joint venture partnerships. However, with the "high quality of projects that Freegold possesses" the company said May 10 that it is "turning its attention to internal funding" for its projects.

The company said updated 43-101 reports have been recently completed on its most significant projects — Grew Creek, Golden Summit in Alaska, and Almaden in Idaho — and have been filed on SEDAR. Freegold said the Almaden gold project is of "particular interest" because of the "potential for this project to host a higher grade resource at depth." ●



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