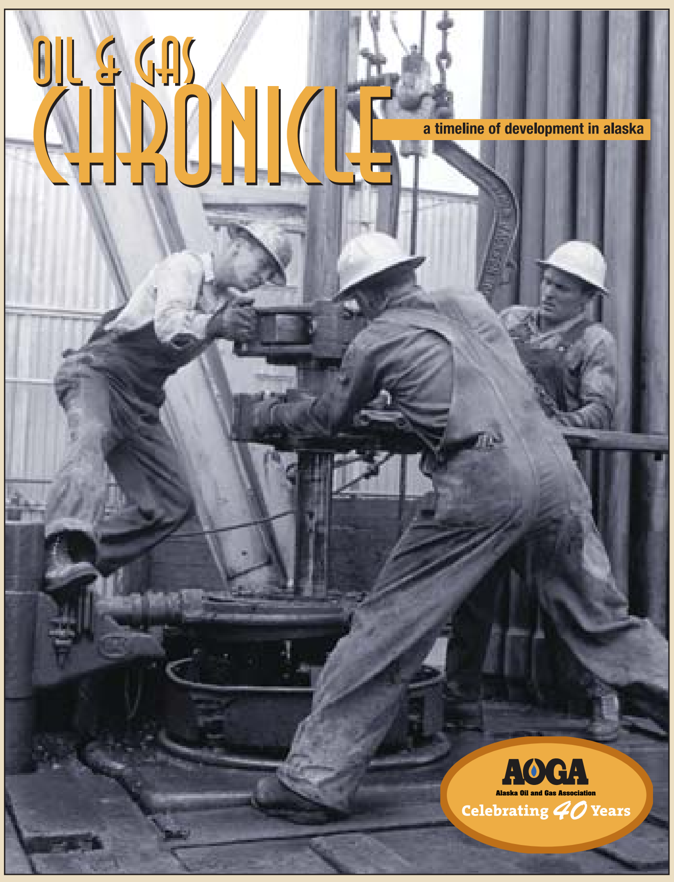
Petroleum news

Vol. 11, No. 20 • www.PetroleumNews.com — A weekly oil & gas newspaper based in Anchorage, Alaska — Week of May 14, 2006 • $1.50

page 3 Devon finds positives in $60M Beaufort Sea exploration well

Step forward if you have a story



This summer Petroleum News is publishing a history of Alaska's oil and gas industry for the Alaska Oil and Gas Association's 40th anniversary. The magazine, titled "Oil and Gas Chronicle: A Time of Development in Alaska" starts with the first commercial production from the Cook Inlet Basin in 1957 and ends with the presentation of a gas pipeline contract to the Alaska Legislature. If you have stories or photos to share from these years, please contact Steve Sutherlin at 907 345-2565 or email steves@ak.net. Your experience does not have to be directly tied to the industry; we're also interested in peripheral impacts to your personal life and/or career. For example, where were you when Prudhoe Bay was discovered? When the trans-Alaska oil pipeline was built? There will not be any ads in the magazine, but if you want to purchase commercial space, contact Amy Spittler (at 907 770-3506 or email aspittler@PetroleumNews.com) for information about a full page company profile (space is limited).

Talisman reports on FEX's NPR-A drilling, plans for next winter

JIM BUCKEE

Talisman Energy CEO Jim Buckee made one discovery as his company's subsidiary FEX drilled its first wildcat well in the National Petroleum Reserve-Alaska over the winter.

"It's damn cold up there," he ruefully told a conference call May 10 when an analyst asked what lessons Talisman has learned from the Aklaq 2 well.

It's also surprisingly warm at times, commented Executive Vice President of Exploration John 't Hart.

A combination of those two extremes forced FEX to suspend drilling on its NPR-A exploration well in February in

see **TALISMAN** *page 16*

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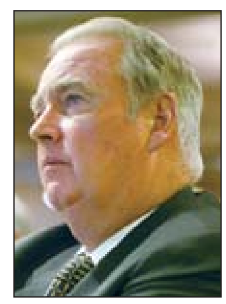
ALASKA

Gas contract on deck

900-page summer reading list released: contract, fiscal finding, documents

By KRISTEN NELSON
Petroleum News



JUDY PATRICK

Gov. Frank Murkowski

When Gov. Frank Murkowski greeted Alaska legislators on the first day of the special session, May 10, he jokingly told them he was going to read the 900-plus pages of gas fiscal contract documents, starting at page 1, which were released that day, along with a fiscal best interest finding by the commissioner of the Department of Revenue and back-up documenta-

see **CONTRACT** *page 18*

New oil tax does not make deadline

A bill to rewrite Alaska's production tax system ended at midnight May 9, victim of a perfect storm: the imminent release of the gas line fiscal contract; politics; the complexity of issues involved; and the mandatory end of the regular session of the Alaska Legislature.

Committees in both House and Senate spent countless hours taking testimony from the administration, their own and the administration's consultants, the state's oil and gas pro-

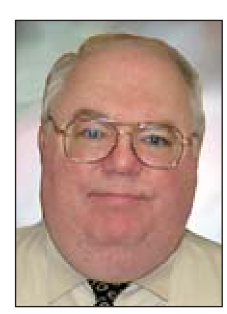
see **OIL TAX** *page 19*

GULF OF MEXICO

MMS predicts robust sales

Strong interest in expiring GOM deepwater leases; sales likely top $588M

By RAY TYSON
For Petroleum News



CHRIS OYNES

The U.S. Minerals Management Service believes Gulf of Mexico oil and gas lease sales over the next few years likely will top the $588 million it collected in last March's highly successful Central Gulf Lease Sale 198.

The MMS projection is based on more than 2,200 deepwater leases set to expire in 2006 and 2007 alone and then re-offered to industry in 2007 and 2008 as so-called "newly available leases." These leases carry 10-year term limits and were issued during the deepwater boom of the middle-to-late 1990s.

MMS gulf director Chris Oynes is convinced that at least 90 percent of the leases scheduled to expire will be returned to the federal government without ever seeing a drillbit. In fact, agency records show that of the roughly 3,330 deepwater leases issued from 1996 through 2000, less than 8 percent have been drilled and even fewer produced.

No discovery, no extension

"Leases issued … are now starting to come due," Oynes said May 3 during a media briefing at the Offshore Technology Conference in Houston, Texas. "If they (leaseholders) have not brought them into production nor had a commer-

see **SALES** *page 16*

CANADA

Kyoto has Canada in knots

New regime pulls back from Kyoto spending; confusion on made-in-Canada policy

By GARY PARK
For Petroleum News

Prime Minister Stephen Harper

Less than four months into its mandate, the new Canadian government appears to be on an environmental collision course of its own making.

Openly dubious about the Kyoto Protocol, to which it is legally bound, the administration of Prime Minister Stephen Harper is sending out a series of mixed messages.

In his first budget on May 2, Finance Minister Jim Flaherty studiously avoided a single reference to "Kyoto," while abandoning the previous Liberal regime's C$4 billion plan to meet Kyoto targets.

Instead, it talked about a C$2 billion "made-in-Canada" solution to climate change, tossing C$370 million into subsidized transit passes over two years.

Meanwhile, Environment Minister Rona Ambrose has floated the idea that Canada may join the United States, India, China, Australia, South Korea and Japan in the Asia-Pacific Partnership on Clean Development and Climate — a group that accounts for half of the world's greenhouse gas emissions.

The group, known as the AP6, has been scorned by environmentalists because it proposes no penalties and only small financial commitments.

Ambrose has also met with President George W. Bush's senior advisor on environmental issues,

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● CANADA

Beaufort beckons; majors bid C$52 million

EnCana partnership acquires offshore exploration license adjacent to Richard's Island wells; Shell Canada dips into offshore

By GARY PARK
For Petroleum News

Regardless of uncertainties surrounding the Mackenzie Gas Project, which holds the key to getting any gas out of the Mackenzie Delta-Beaufort Sea, Canada's northern exploration prospects are attracting strong interest.

In the latest rights sale, a partnership of EnCana, Anadarko Canada and ConocoPhillips Canada made a successful bid of C$40.27 million for 140,000 acres on the Mackenzie Delta and Shell Canada took its first step into the Canadian Arctic offshore, bidding C$11.55 million for 247,000 acres in the Beaufort Sea, 120 miles northwest of Inuvik, Northwest Territories.

The auction was the first in two years by the federal Department of Indian and Northern Affairs.

In also going offshore, the trio of EnCana 37.5 percent, Anadarko 37.5 percent and ConocoPhillips 25 percent has signaled even greater optimism in its adjacent Richard's Island lease where two successful wells were drilled in 2004 and 2005.

The Umiak N-16 exploration well and N-5 delineation well are now before the National Energy Board for significant discovery licenses that allow the owners to extend the license term based on flow testing that indicates a hydrocarbon accumulation and the potential for sustained production.

In applying for the licenses, EnCana said the wells produced "encouraging results."

For now, however, EnCana is trying to decide if and when it might drill on the new property.

Shell: acquisition part of strategy

Shell said its acquisition is part of a strategy to bulk up Arctic land holdings and is separate from its wholly owned Niglintgak discovery, one of three anchor fields underpinning the Mackenzie project. Niglintgak holds an estimated 1 trillion cubic feet of the 5.8 tcf of proven gas reserves of those three finds.

Shell said its acquisition is part of a strategy to bulk up Arctic land holdings and is separate from its wholly owned Niglintgak discovery, one of three anchor fields underpinning the Mackenzie project.

The company was not responsible for posting the Beaufort parcel and has said its work commitment will probably involve only seismic studies initially to evaluate the potential, rather than drilling.

But Shell's entry to the offshore and the EnCana partnership's decision to stretch its horizon are a positive note at a time when Mackenzie lead partner Imperial Oil has warned that rising construction and labor costs are pushing the C$7.5 billion venture closer to a breaking point.

Companies pressing NEB

Adding to concerns, EnCana and Anadarko are two of the six companies in the Mackenzie Explorer Group that is pressing the National Energy Board to bring both the Mackenzie gathering system and mainline under its regulatory control, a move opposed by Imperial.

Failure to establish a single jurisdiction could slow the development of gas prospects outside the Delta anchor fields.

Another test of the northern mood follows the closure this month of a call for bids covering six parcels in the central Mackenzie Valley.

In the meantime, International Frontier Resources has bulked up its working interest in the same region, moving to 16.11 percent from 10.867 percent on six freehold acreage parcels — four covering 47,570 acres in the Summit Creek area where it is involved in an exploration program with Husky Energy and two of 21,100 acres in the southern Colville Hills.

International Frontier has working interests ranging from 3.1 percent to 10.875 percent in the early 2004 B-44 oil discovery by Northrock Resources. ●

Devon finds positives in Beaufort well

The first exploration well in the Canadian Beaufort Sea in 17 years fell short of the multiple trillions of cubic feet Devon Canada was hoping for, but the company does not view the C$60 million well as a big disappointment, Vice President Michel Scott said.

"We did encounter hydrocarbons and that is what we were after," he told Petroleum News.

The disappointment was in failing to uncork a grand prize.

The exploration portfolio of the parent company, Devon Energy, spans from lower to higher risk prospects, of which Paktoa was "in the high-risk category as far as reaching resource levels that would give us commercial momentum," Scott said.


JOHN RICHELS

Although results of the well are still being evaluated, the company has already decided to file an application with the National Energy Board for a Significant Discovery License, which conveys the company's belief, based on flow testing and geological and engineering factors, that there is a hydrocarbon accumulation and the potential for sustained production.

Devon Energy President John Richels told a conference call that a Significant Discovery License would allow the company to retain the mineral rights "in perpetuity."

Scott said Paktoa C-60 was a successful operation, being drilled on time and on budget.

He also said the steel drilling caisson, which was used in 2003 by EnCana to drill the McCovey prospect north of Prudhoe Bay, "performed to our expectations."

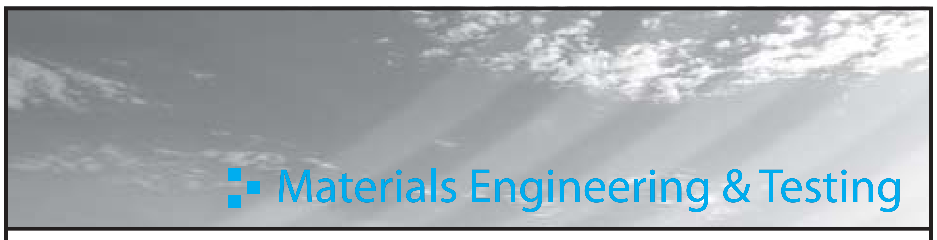
But this point, Devon does not have the SDC under contract from its Norwegian owner for any future drilling operation.

Under the terms of its C$225 million exploration commitment for exploration licenses covering 846,000 acres in the Beaufort, Devon is required to drill four wells by August 2009 to extend the terms of the permits.

For now, Scott said the company is "evaluating our alternatives and we have not made final decisions."

A number of factors weigh in that decision, including a decision to proceed with the Mackenzie gas pipeline, along with the forecast economics of the gas industry.

—GARY PARK



● ALASKA

FERC chief: Alaska Legislature could delay natural gas pipeline

Mark Myers says FERC needs briefing because contract negotiated by governor gives North Slope producers 45-year exclusive to build gas line, but does not require them to build it

PETROLEUM NEWS

The Alaska natural gas pipeline would be delayed by many years if the Alaska Legislature rejects the proposed project, according to the nation's top energy regulator.

Federal Energy Regulatory Commission Chairman Joseph Kelliher told a natural gas industry conference in Denver May 4 that the stakes were high for the proposed pipeline. "I hope they approve this important policy to go forward," Kelliher said, referring at the time to the proposed revision of Alaska's production tax regime, which the big three North Slope producers and Alaska's Gov. Frank Murkowski wanted passed before their gas line contract was released. (See update on this situation on page 1 of this issue.)

If Alaska's lawmakers reject the pipeline agreement currently being considered, negotiations will have to start all over again and that will take years, FERC spokesman Bryan Lee said May 9 after the governor announced he would release the gas line contract May 10 even though the legislature had not yet passed the production profits tax proposed by his administration and the producers.

"Notice, I said 'reject,' not modify," Lee said. "To the extent that this agreement was put together from scratch, it will have to be done all over again and that will take years."

FORREST CRANE

Mark Myers, former director, State of Alaska's Division of Oil and Gas

But former Alaska Division of Oil and Gas Director Mark Myers said once FERC "has had time to review the (gas line) contract they will become very concerned about it."

Myers was one of six top officials in the Alaska Department of Natural Resources who resigned last October in protest of Murkowski's termination of DNR Commissioner Tom Irwin. All seven officials said the governor was giving up too many financial concessions to the North Slope oil producers and gas owners (BP, ConocoPhillps and ExxonMobil) in negotiating a natural gas pipeline contract.

Myers told Petroleum News May 11 that he hopes Kelliher and his staff will "receive a complete briefing from the LBA (Legislative Budget and Audit Committee) consultants on the contract as soon as possible."

The chairman's comments "are perfectly understandable given that like Alaskans the federal government wants to see Alaska's gas get to market quickly and he hasn't yet seen the contract. However, after a complete review of the contract, it will become apparent that the contract provides the producers the exclusive 45-year right to build the project but doesn't require them to do the project or even spend significant money toward advancing the project," Myers said.

> *Federal Energy Regulatory Commission Chairman Joseph Kelliher told a natural gas industry conference in Denver May 4 that the stakes were high for the proposed pipeline.*

"The contract also fails to support or enhance the FERC's ability to compel expansion of the pipeline to take explorer's gas or to require a high debt to equity financing structure which will lead to lower tariffs," he said.

Focus on new gas supply prompted FERC chairman's remarks

Lee said Kelliher is focused on finding new avenues of gas supply for the country.

"Given where natural gas prices are today, it's important that we explore all avenues of supply," he said. "The more gas supplies we have, the less upward pressure will be on gas prices."

FERC is reviewing proposals to build liquefied natural gas terminals around the country to create more sources of gas supplies and the 4.5 billion cubic feet per day of natural gas that the Alaska pipeline project is expected to deliver to the country is a key piece of the nation's future gas supply puzzle, Lee added.

The commission has approved eight LNG projects plus expansions of some existing terminals. And if the further 19 LNG projects pending were built, the U.S. could increase its gas supply by 26 billion cubic feet per day, according to Kelliher. ●

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JUNEAU

AOGCC, NPR-A grant bills both pass

A bill Petroleum News described in the May 7 issue as stuck in committee early in May was actually moving.

House Bill 300, introduced by Rep. Vic Kohring, R-Wasilla, in 2005 specifying qualifications for the public member of the Alaska Oil and Gas Conservation Commission, moved out of Senate State Affairs, had a reference to Senate Resources waived, and passed the Senate May 9.

The bill originally had specific requirements for a legal or business management background for the public seat. It was amended to require "training or experience that gives the person a fundamental understanding of the oil and gas industry in the state."

The Senate bill on use of federal grants for National Petroleum Reserve-Alaska impacts, Senate Bill 171, as amended in the House, also passed the Senate May 9. This bill, introduced last year by Sen. Gary Wilken, R-Fairbanks, was significantly amended in the House (see story in May 7 issue of Petroleum News), removing a legislative committee to determine grants. The bill requires that 25 percent of the gross of the grants goes to the Permanent Fund.

Sen. Donny Olson, D-Nome, said on the Senate floor that a compromise had been reached, and recommended passage of the House substitute.

—KRISTEN NELSON

● HOUSTON, TEXAS

Alaska a surprise, says Joey Hall

Pioneer's Oooguruk project manager learns 'new lesson' in Alaska, brings valuable deepwater experience to offshore Arctic

By RAY TYSON

For Petroleum News

Joey Hall assumed managing Pioneer Natural Resources' $500 million Oooguruk project offshore Alaska's North Slope would be a walk in the park compared to the challenges he faced working on Pioneer's deepwater program in the Gulf of Mexico.

"I thought I'd go up to Alaska and catch a few fish, kick my feet back and have a nice easy project," Hall recalled. "Well, I've learned a new lesson. The offshore Arctic is equally and even more challenging in many ways than deepwater."

However, Hall discovered that "many of the things we learned in deepwater we're now applying in the offshore Arctic. I think in the years to come you're going to be hearing a lot more about the things … going on in the offshore Arctic."

As Hall and Intec Engineering representatives John Stearns and Glenn Lanan pointed out during a panel discussion May 2 at the Offshore Technology Conference in Houston, Texas, one huge lesson learned from the deepwater is the tricky business of constructing and installing sub-sea pipelines in a safe and reliable manner.

Pioneer's Oooguruk oil pipeline is being designed by Intec and will be the second export pipeline ever installed offshore Arctic. The first was installed as part of BP's Northstar oil project east of Oooguruk and north of Prudhoe Bay. Like the Northstar line, Oooguruk's will be buried in a trench to protect against sea ice.

"Important to the pipeline design is the affect on sub-sea soil," said John Stearns, vice-president of Intec's Marine Pipeline Systems division.

Oooguruk's "three-phase pipe bundle system," stretching 5.7 miles from shore to a six-acre man-made gravel island supporting a drilling rig, 40 to 60 production and injection wells and related facilities, "is really the most challenging part of this project," Pioneer's Hall said. "This is the thing that keeps me up at night."

The Oooguruk line is actually two pipelines in one, with the main oil line wrapped in a protective outer shell that would contain any leaks from the primary line. The entire line will then be wrapped in insulation to keep heat from the oil from melting the surrounding permafrost.

In deepwater, this pipeline system is traditionally used for its insulating value, but for the shallow water Oooguruk pipeline the mission is actually two-fold.

"First and most important is leak detection," Hall said. "The Arctic is a very pristine environment and we have to at all costs protect the environment. The other thing it does is that if we did have a leak in the inner pipe, it provides containment. Cleaning up a spill in the Arctic is extremely challenging."

The pipeline bundle also includes separate lines for water and gas injection, plus a diesel line to support drilling operations on the island, which rests in just 4.5 feet of water. The entire package will be buried in a six-foot trench.

Pioneer's Oooguruk oil pipeline is being designed by Intec and will be the second export pipeline ever installed offshore Arctic. The first was installed as part of BP's Northstar oil project east of Oooguruk and north of Prudhoe Bay. Like the Northstar line, Oooguruk's will be buried in a trench to protect against sea ice.

"Because it is shallow water and every winter the ice freezes to the bottom, if the pipeline puts out too much heat it can actually melt some of the ice on the top," Intec's Stearns said. "While this may not in itself hurt the pipeline, it is disruptive to the environment and can cause weak spots in the ice."

Island completed in April

The six-acre island was completed in late April, requiring three months and 22,000 dump truck loads of gravel to finish the job. Winter ice roads were used to haul the gravel to the site.

"Building the island was quite a feat in itself," Hall said, noting that the island rises 23 feet from the ocean floor and was designed to withstand impacts from shifting ice.

Hall said the gravel island is expected to "subside" or settle about four feet, a process he said would normally take about two and a half years. To speed up the process, 3,000 holes were drilled on the island to a depth of around 50 feet, allowing the underlying sand to be manipulated by forcing water downhole, rather than off to the sides if allowed to settle naturally. "We hope to accelerate the subsiding to about nine months," he said.

Oooguruk is expected to come on-stream in late 2007 or early 2008, pumping at peak rates of 15,000 to 20,000 barrels of oil per day. From a shore base, the oil will be transported via an over land pipeline 2.4 miles for processing at the ConocoPhillips-operated Kuparuk production facility.

Nabors' 19-E will be modified

Nabors' 19-E drilling rig, located on the North Slope, will undergo "significant modifications" this summer and then be moved to the island next winter, Hall

see **SURPRISE** *page 6*

CANADA

1st Nations toss legal wrench at Gateway

Aboriginal opposition is mounting against a proposed Enbridge oil sands pipeline from Edmonton and a deepwater port at Kitimat on the northern British Columbia coast, but the company is confident the challenge will not derail efforts to open up new markets in Asia and California.

The Carrier Sekani Tribal Council, representing seven First Nations whose land covers about one-third of the planned 720-mile route, alleges it has not been properly consulted and is threatening legal action before the Federal Court of Canada.

The tribal council has been pressing for greater involvement in a joint review process being conducted by Canada's National Energy Board.

The NEB has argued that there will be "ample opportunity" for any affected party to register its concerns before the joint review panel.

The Council of the Haida Nation, representing the Queen Charlotte Islands off the B.C. coast, has also told the NEB that the pipeline should not be approved before the impact of oil tanker traffic in its region is fully examined.

Enbridge Chief Executive Officer Pat Daniel said the dispute is a matter for the Canadian government not Enbridge to handle.

"We don't expect any delays associated with it," he said. "Our discussions (with the Carrier Sekani) have been very favorable."

Although fully anticipating challenges, Daniel said he is confident they will be solved "in a timely way." The clock is running on Enbridge's hopes of filing a regulatory application by mid-2006. The initial plans call for a C$4 billion pipeline to carry 400,000 barrels per day (with PetroChina viewed as a potential candidate for 200,000 bpd, 100,000 bpd going to other Asian markets and 100,000 bpd to California).

An open season that ended in December surpassed the 400,000 bpd threshold, prompting Enbridge to increase the planned diameter to 36 inches from 30 inches and contemplate additional pumping stations that could eventually raise Gateway's capacity to 800,000-1 million bpd.

The company also plans a parallel pipeline to import condensate to dilute oil sands bitumen. A non-binding open season has pointed to a possible demand for a 200,000 bpd system.

—GARY PARK

NORTH SLOPE

BP shutting down two North Slope pipelines; might need to be replaced

Two oil pipelines on Alaska's North Slope are being shut down because of internal corrosion _ a worrisome problem that was the cause of a huge spill earlier this year in the aging Prudhoe Bay oil field.

One of the lines is a 24-inch diameter, 5-mile pipe at the Lisburne oil field. The other is a 14-inch diameter, nearly 4-mile line at Milne Point, BP PLC said Tuesday.

Together, the pipelines account for 22,000 barrels of the approximately 825,000 barrels that flows each day down the trans-Alaska pipeline to Valdez, where the crude is loaded onto tankers and taken to West Coast refineries. At Tuesday's prices of $69.09 a barrel for Alaska crude, the shutdown means the loss of about $1.5 million a day.

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The corrosion of the pipes comes as no surprise to BP, which runs the Lisburne line on behalf of itself and two other owners. BP is sole owner of the Milne line.

Both pipes had a history of corrosion and were being treated with corrosion inhibitor, said Maureen Johnson, a BP senior vice president. BP tried increasing the amount of corrosion inhibitor in the Lisburne line from 24 parts per million in 2002 to 200 parts per million in 2005.

It became increasingly apparent corrosion inhibitor was not doing the trick.

The line was not producing a continuous flow. An X-ray of the pipe showed internal corrosion in an arrow shape, indicating the damage was being aided by the velocity of fluid moving through the pipe, Johnson said.

``We started to conclude last year that corrosion inhibitor alone might not stop this problem,'' she said.

The problem with the Milne oil field line is similar, she said. The corrosion is being caused by carbon dioxide in the lines, a problem BP and other North Slope operators have been aware of since Prudhoe Bay began production in June 1977.

BP is leaning toward replacing both pipelines, Johnson said. The earliest that work could be done would be in 2007.

—THE ASSOCIATED PRESS

● WASHINGTON, D.C.

Stevens backs Kennedy on wind farm amendment

By ALLEN BAKER

For Petroleum News

Sen. Ted Stevens, R-Alaska, has proposed an amendment to the Coast Guard and Maritime Transportation Act to give Massachusetts an effective veto over a controversial offshore wind farm in federal waters off the northeastern state.

JUDY PATRICK

SEN. TED STEVENS

In a speech on the Senate floor May 9, Stevens said that his decision to wade into the issue far from Alaska's shores was "based upon my long-held belief that states should have the final say on projects which will directly impact their land, resources, and their constituents." Allowing federal developments without state input would set a powerful precedent for federal waters off his own state, he said.

For example, Stevens said, federal waters in Cook Inlet south of Kenai encompass about 2.5 million acres that could be used for similar projects, or other federal purposes, without Alaska's concurrence. Like the Massachusetts site, the federal waters in Cook Inlet are almost entirely enclosed by state waters.

"The debate over this project is similar to the fights that those of us in Alaska have been engaged in for decades. Our state lands are surrounded by federal lands, our waters are surrounded by federal waters, and we often do not have any say in decisions regarding the development of our resources or the projects which will be located in our state," Stevens said.

The proposed wind farm site is in Nantucket Sound. As currently planned, it would involve 130 huge wind turbines spread over an area of 24 square miles, or about 15,000 acres. The turbines would be 417 feet tall, compared with the 296-foot height of the ConocoPhillips building in Anchorage, Alaska's tallest building.

While the wind farm would be just a few miles from Massachusetts, Stevens noted that other states have blocked developments much further from their shores.

"Just think, California blocked oil platforms; Oregon and Washington blocked them even before they were built. We now have a dispute before the Congress over a potential development of gas resources 170 miles off the State of Florida."

Stevens said he supported the idea of wind farms, but preferred to have such farms located further offshore, where they wouldn't interfere with navigation and fishing. ●

continued from page 5

SURPRISE

said, adding that 19-E will remain on the island during Oooguruk's entire "three-year drilling cycle."

Hall said the project is on schedule but cautioned that "like everywhere else, we're dealing with manpower issues up on the North Slope. The workforce is aging and there aren't any younger people taking their place."

Although 25 percent of the world's undiscovered reserves are thought to be in the Arctic, capturing them offshore will be expensive, requiring various technologies to fit the vast array of Arctic conditions around the globe, noted Lanan, Intec's pipeline engineering discipline manager.

Lanan said hydrocarbon targets above the Arctic Circle, such as the Barents Sea offshore Norway and Russia, are free of ice year round. In contrast, the high Arctic region near the pole is constantly locked in ice and offers "no opportunity to move floating equipment to do your construction work."

"The Caspian Sea is well south of the Arctic Circle, but it has a lot of ice in the winter time that would affect developments in Russia and Kazakhstan," Lanan said.

More interest at $70

Because of the expense, there is obviously more industry interest in the Arctic when oil is $70 per barrel versus $10 per barrel, Lanan said. "Having been in offshore Arctic pipelines for over 25 years, you can see the interest goes up and down with the price of oil. We're in a high period now."

He said offshore Arctic "has several interesting features," most notably the difficulty in transporting workers, equipment and supplies to remote construction sites, as well as extracting the oil and moving it to market. "Pipelines are actually a very key part of that," he added.

"In terms of the environment, the climate is quite cold with total darkness in the winter time," he said. "The key issue is sea ice. The soils on the bottom have permafrost, which has implications when you try to chain things to it. It can cause ice heaves. The ice moves and imposes large forces on structures that are on the surface and actually can have significant impacts on the sea bed."

Sub-sea installations also are subject to strudel-scour in shallow water and ice-gouging in deeper water.

In the summer, when there may be no ice, "you've got the waves to contend with," Lanan said. "And you can get very significant wave activity in these areas."

Despite the huge expense and technical challenges, offshore Arctic provides "quite an opportunity" to develop new technologies, Lanan said.

Deepwater technology similar

He added: "One of the things we can draw on is very similar to the development of technology for deepwater: how that advanced over the past decade, the progression of how deepwater is defined and the technology applied for development of structures — pipelines, transportation systems and choice of equipment."

Lanan said the future of Arctic development hinges on how industry applies existing and new technologies to such things as extended reach drilling, sub-sea developments and "where you can avoid having structures coming to the surface."

He said that from man-made gravel islands such as Oooguruk and Northstar, offshore development in the Arctic could evolve into steel and concrete-based structures, and ultimately to floating structures and sub-sea field development, as the hunt for oil and gas moves into deeper waters.

Another potential stumbling block as industry moves into deepwater Arctic is the Jones Act, which prohibits the use of non-U.S.-flag vessels from operating between U.S ports, Lanan said, noting that currently there are no U.S.-flag vessels capable of operating in ice-clogged environments.

"There are limited vessels available in the world that can do this," he said. "And if you have to have a U.S.-flag vessel that has a major impact on both the cost and schedule of a lot of the project planning." ●

● CANADA

Shell builds castles in the sands

Mega-major makes bid for junior BlackRock Ventures to expand interests in Alberta's Peace River region

By GARY PARK

For Petroleum News

The North American progeny of Royal Dutch/Shell are thrusting their way to the forefront of Alberta's oil sands.

Already rumored to be planning a C$17 billion investment over the next decade to boost output from their Athabasca project from 155,000 barrels per day (currently 77,400 bpd net to Shell) to as much as 600,000 bpd, the company has broadened its horizons even more this year.

Through SURE Northern Energy, a subsidiary of Shell Exploration & Production in the Americas, the global giant spent C$465 million locking up 220,000 acres of a possible new oil sands play outside the traditional Athabasca stronghold.

Shell Canada … CEO Clive Mather refused to say whether the (BlackRock) deal would make sense even if oil fell to US$40 per barrel — the approximate calculation of how much the offer is worth. He said BlackRock is "not about current production, it's about what we can see in the future;" a spokeswoman conceded that "we did pay a premium."

Now Shell Canada has bid C$2.4 billion for junior producer BlackRock Ventures, giving a bold lift to its Peace River operations in northwestern Alberta, setting a new standard for oil sands assets.

It is rated as easily the highest per-barrel acquisition in the past year that has seen Petro-Canada, France's Total, China's CNOOC and Sinpoec, and Chevron Canada join Shell in a frantic scramble to seize assets at a time when the industry is being spooked by moves from countries such as Venezuela and Bolivia to nationalize their petroleum industries.

Per-barrel not disclosed

Shell Canada did not disclose what it is prepared to pay BlackRock on a per-barrel basis, and Chief Executive Officer Clive Mather refused to say whether the deal would make sense even if oil fell to US$40 per barrel — the approximate calculation of how much the offer is worth.

He said BlackRock is "not about current production, it's about what we can see in the future"; a spokeswoman conceded that "we did pay a premium."

Even Jim Buckee, chief executive officer of Talisman Energy, came close May 9 to breaking the industry's unwritten rule about not criticizing your competitors.

He expressed surprise to reporters about what Shell Canada paid for the properties, hesitantly adding: "They must know something we don't."

Want to know more?

If you'd like to read more about Shell in the oil sands, go to Petroleum News' Web site archives at www.PetroleumNews.com.

2006
- **May 7** Beating the budget blues in Canada
- **April 30** Alberta aboriginals and Shell team up
- **April 2** Shell pushes oil sands horizons
- **March 26** Shell breaking ground in sands
- **March 12** Chevron goes big time in oil sands
- **March 5** Western Canada: And look what we have here….
- **Feb. 26** Grasping Alberta oil sands nettles

Earlier this year, Buckee said Talisman was looking at ways to monetize its oil sands holdings, but he said May 9 that the high cost of developing the resource and reservations about the technology available now may encourage his company to either sell the assets or look for a partner with mining and refining expertise.

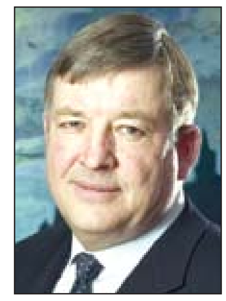
Martin Pelletier, an analyst with Canaccord Adams, said it appears Shell Canada is digging deep to ward off any other contenders.

BlackRock holds 268,000 acres in the Peace River region and Cold Lake in the heart of oil sands/heavy oil activity, along with estimated recoverable proved reserves of 142 million barrels and 67 million barrels of probable reserves.

From quiet beginnings 10 years ago it is now producing 15,000 bpd, is targeting 30,000 bpd by the end of 2007 and 40,000 bpd by the end of the decade.

The acquisition, if it clears all shareholder and regulatory approvals, will initially give Shell Canada 14,500 bpd of heavy oil volumes from the Seal project in the Pace River, where

The Seal leases are adjacent to similar Shell Canada holdings that are currently flowing 12,000 bpd and are targeted for staged expansion to 30,000 bpd by 2009 on the way to a 100,000 bpd operation that could have an operating life of 30 years, drawing on a potential 7 billion barrels.



Jim Buckee, chief executive officer of Talisman Energy, came close May 9 to breaking the industry's unwritten rule about not criticizing your competitors. He expressed surprise to reporters about what Shell Canada paid for the properties, hesitantly adding: "They must know something we don't."

BlackRock recognized potential

Ian Kilgour, a company senior vice president, said last year that spending on the Shell leases alone could run to several million dollars, but was hesitant about being more specific given the inflationary pressures and cost uncertainties.

BlackRock President John Festival said his firm "recognized that the tremendous potential identified on our properties outstripped our financial and operational ability to develop them in a timely manner," referring to a company that has only 22 employees, 55 contract personnel and limited cash flow, which yielded first quarter earnings of C$3.2 million. However, he said in a release that his company is on budget at C$225 million in total planned capital costs for the first phase of production at its Orion project for 10,000 bpd starting in late 2007.

The Seal area of the Peace River consists of heavy oil of 10-11 degrees API, which means it can be pumped.

Others with stakes in Seal include Koch Exploration Canada, Murphy Oil, Penn West Energy Trust and Baytex Energy Trust, with Penn West Chief Executive Officer Bill Andrew saying the Peace River could redefine his company by adding "multiple millions of barrels of reserves and very strong production."

It has also attracted privately held PRO Upgrading, which has raised more than half of the C$800 million it has budgeted for a 25,000 bpd upgrader, growing to 100,000 bpd by 2020, turning raw bitumen into 28 degree API crude. ●

ALBERTA

Technology keeps hope alive in Western Canada Sedimentary Basin

Finding enough natural gas to sustain flows from the Western Canada Sedimentary Basin is a tough job, but the hope that drives explorers is still alive, bolstered by new seismic and drilling technologies.

It is becoming "harder than ever" to uncork "good gas wells," said FirstEnergy Capital analyst Steven Paget in a new research note.

"High-production gas wells are getting fewer and further between" and the quality of the top wells has declined since 2002, he said.

FirstEnergy estimates the average initial production of the 25 best wells in the basin in 2005 was 10 million cubic feet per day, off 10 percent from 2004 and 25 percent from 2002.

Tay River discovery fuels optimism

What fuels optimism, however, is the 2004 Tay River discovery in Alberta by Shell Canada.

Ranking among the top three finds of the last 20 years, but still outside the top 25 wells logged in the basin's history, it started producing last May at 23 million cubic feet per day from reserves of about 800 billion cubic feet.

Shell has since added new well tubing and added to a processing facility to boost output to 95 million cubic feet per day (57 million cubic feet per day after removing sulfur), generating daily revenues of about C$340 million.

The company has also started a second exploration well in the Tay area along with a separate well to evaluate the size of the first discovery.

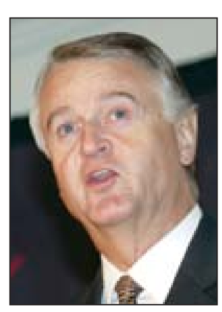
What fuels hope is the proprietary seismic Shell used to identify the formation in the Foothills region of the Canadian Rockies, viewed as one of the best bets for keeping the basin productive.

—GARY PARK

Enbridge expanding crude oil terminals

Enbridge has earmarked spending of C$1.5 billion as it embarks on a vigorous program of building crude oil terminals.

The extension of the company's core pipeline business will start with a C$250 million facility at Hardisty, Alberta, including 16 tanks ranging in size from 250,000 to 530,000 barrels. Initial capacity of 5 million barrels is scheduled to start service in September 2008.



JUDY PATRICK

PAT DANIEL

The new facility is close to Enbridge's 50 percent-owned Hardisty Caverns partnership and, like that facility, will be offered on a long-term contract fee-for-service basis.

Chief Executive Officer Pat Daniel said the new terminal is a "key piece of our broader terminal development initiative. This is a significant new growth opportunity."

He said the demand for terminals is "very strong" because of rising oil sands production, seasonality of markets and greater price volatility.

Enbridge currently has 15 million barrels of tankage under long-term contract, with another 30 million barrels under development at eight locations spread through the chain from upstream to downstream.

Enbridge also announced that it is expanding the diameter of its Southern Access pipeline to 42 inches from 36 inches, offering another 400,000 barrels per day by 2009 from Superior, Wis., to Chicago.

—GARY PARK

● CANADA

Oil sands and water — a bad mixture

Pressure builds to curb usage in a thirsty region; fees considered; industry opposes ban on projects; hopes for tech solutions

By GARY PARK
For Petroleum News

The Alberta government has sent a nervous tremor through the petroleum industry by warning that it may start charging for water, a lifeline to oil and gas producers, especially oil sands operators.

Environment Minister Guy Boutilier said the province will decide by March 2007 whether fees will be imposed to curb usage in an increasingly parched region.

In the meantime, he said no one should assume there will be a do-nothing strategy.

Quoting Mark Twain, he said: "Whisky is for drinking, but water is for fighting over."

By 2007, Alberta will have a new premier, succeeding Ralph Klein who has resisted any attempts to impose stringent water-consumption limits on the industry.

But the pressure to act has been building, with recent studies forecasting that Alberta is heading for drought conditions in the next 10 years, after a prolonged period of above-average rainfall and because of a population explosion in the province, generated mostly by the oil and gas sector.

Report calls for moratorium

In a new report entitled "Troubled Waters, Troubling Trends," the Pembina Institute for Appropriate Development renewed a call for a moratorium on new oil sands projects until the government decides how much fresh water companies should be able to take.

Failure by the government and industry to act could see Alberta run out of fresh drinking water long before it runs out of bitumen deposits, said Pembina senior policy analyst Mary Griffiths.

"A freeze on fresh water would provide companies with an incentive to maximize efficiency and to seek opportunities to eliminate or reduce water use," she said.

The warning signals have not been confined to environmentalists.

Former Alberta premier Peter Lougheed has predicted the province is heading into an era when water is more valuable than oil.

Report conclusions

The Pembina report reached the following conclusions on water usage by the industry:

- Producing one barrel of oil from the oil sands requires two to four and a half barrels of water.
- In 2005, water withdrawn from the Athabasca River, the major waterway through the oil sands region, for oil sands mining and production was double the water use in the City of Calgary, with a population of about 1 million.
- In situ oil sands projects, which inject steam to melt deeply buried bitumen deposits, used 27 million cubic meters of water in 2004 — two to three times greater than the Alberta government predicted in 2001.
- Projections made in 2001 showed the overall industry reaching the 2004 level of water use in 2015, with the 2020 level not much higher.

Producers association troubled

The growing clamor for restrictions troubles the Canadian Association of Petroleum Producers, whose President Pierre Alvarez told reporters his industry already pays indirectly for water through royalties, giving the province a "tremendous economic return."

Although flatly opposed to water fees or a freeze on oil sands development, he emphasized the industry is making considerable efforts on its own and in cooperation with the government to use more recycled and non-drinkable water.

"Do we recognize that we have to improve our water use? Yes. Are we going to keep working on it? Sure we are," he was reported as saying by the Canadian Press.

"Do we feel that a moratorium is in order? Certainly not."

Alvarez pointed out that growing communities and the agriculture industry use more water than the oil and gas sector, asking whether the Pembina Institute was singling out the industry.

The industry is currently licensed to divert 359 million cubic meters, double Calgary's annual consumption, but received only 7 percent of Alberta's total water allocation in 2004.

The argument that new technologies are under development is not accepted by the Pembina Institute, which said "no major breakthroughs" relating to water use in oil sands mining are expected before 2030.

"It is unlikely that (any) reduction in water use per unit of production will offset the rapid growth in oil production and hence gross demand for water," the Pembina study said.

The study also said Alberta does not have a good grasp of its groundwater resources.

"Monitoring is required to determine whether the long-term, cumulative withdrawals are sustainable," it said. ●

● ALASKA

State forecasts two more years of growth

Department of Labor: jobs added in Alaska for 18 consecutive years; moderate growth should continue this year and next

PETROLEUM NEWS

The Alaska Department of Labor and Workforce Development expects Alaska's 18 consecutive years of economic growth to extend through 20 years, adding 2006 and 2007 onto the growth period at moderate rates, 1.7 percent this year and 1.5 percent in 2007.

Department economist Dan Robinson, writing in the May issue of "Alaska Economic Trends," said "high oil prices, a generally favorable national and international economy and significant federal spending in Alaska practically assure continued job growth over the forecast period."

In the natural resources area Robinson noted that oil companies have been slow to add jobs "because of past price volatility and the state's relatively high costs," but have added 500 jobs in 2005, for a total of 8,700 oil and gas jobs in the state last year. That total was 200 fewer than in 2002 and 800 fewer than in 2001, he said.

The University of Alaska's Institute of Social and Economic Research is forecasting construction project spending by the oil and gas industry to grow in 2006 and 2007, Robinson said, with the 2006 growth forecast at 19 percent. Drilling is also expected to increase, with total wells growing from 243 in 2005 to 257 in 2006 and total well footage from 1.58 million feet in 2005 to 1.67 million feet in 2006.

BP Exploration (Alaska) has said it plans to hire up to 200 new workers in 2006, Shell Oil has returned to Alaska and has said it plans to begin drilling in 2007 and there is strong interest from a number of smaller producers, he said.

Although production continues to decline, employment in the oil and gas industry is expected to grow by 300 in 2006 and by an additional 200 in 2007.

Anchorage: upswing to continue

Department economist Neal Fried said the Anchorage growth cycle has now stretched 17 years and while the city's economy is not likely to grow forever, another year of growth "almost appears as certain as the theory of thermodynamics."

Growth rates are expected to be 1.8 percent in 2006 and 1.7 percent in 2007, he said, close to the 10-year 2 percent annual average employment growth rate.

Fried said high oil prices, the healthy national economy, low interest rates, a positive outlook for the visitor industry, a healthy flow of federal dollars, international air cargo expansion, state revenue surpluses, the emerging mining industry, the possibility of a gas pipeline on the horizon and an overall sense of optimism are among the factors favoring continued growth in Anchorage's economy.

Alaska Construction Spending
2006 Forecast

	Level	Change
PRIVATE	**$ 3,925,000,000**	**11%**
Oil and Gas	2,040,000,000	19%
Mining	200,000,000	5%
Other Basic Industry	50,000,000	–
Residential	715,000,000	2%
Commercial	300,000,000	20%
Hospitals	220,000,000	–37%
Utilities	400,000,000	45%
PUBLIC	**$ 2,600,000,000**	**17%**
National Defense	730,000,000	8%
Highways	450,000,000	13%
Airports and Ports	330,000,000	–
Alaska Railroad	80,000,000	7%
Denali Commission	100,000,000	–
Education	310,000,000	107%
Other Federal	400,000,000	23%
Other State & Local	200,000,000	14%
TOTAL	**$ 6,525,000,000**	**13%**

Source: Institute of Social and Economic Research

The city is economically vulnerable in the event of a collapse in oil prices, a dramatic drop in federal dollars "or something beyond our current imagination," he said.

Fried said with high oil prices the forecast for employment in the oil and gas industry is "for modest growth in Anchorage and more rapid growth on the North Slope." He called the increase in oil industry jobs in Anchorage modest, up 100 from 2005 to 2006 for a 1.6 percent increase to 2,100, but he said the direction is "significant."

"Most of the players are planning some upswing in development work during the forecast period (2006-07)," Fried said, including satellite and West Sak development work by ConocoPhillips, with an increase in spending of 8 percent in 2006.

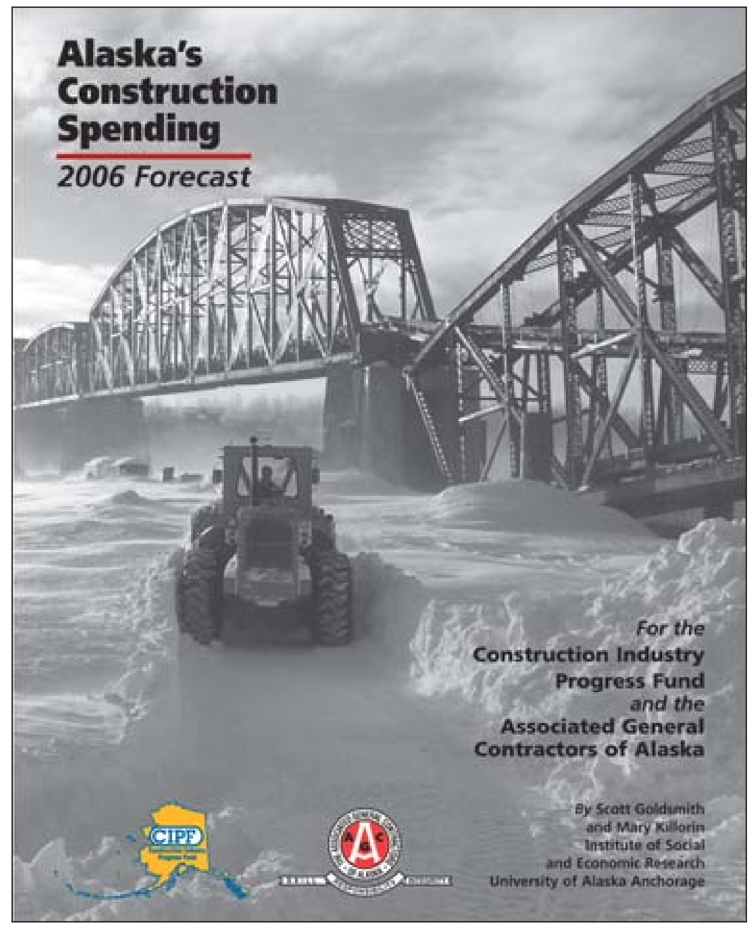
BP is planning to hire new workers, some of whom will be based in Anchorage, some for existing North Slope projects, some for field development work and some to replace retirees.

Fairbanks: resource employment could decline

Fairbanks is also expected to see two more years of employment growth, said department economist Brigitta Windisch-Cole, with up to 500 new jobs expected both this year and next, for an annual growth rate of 1.3 percent in those years.

Natural resource jobs, however, are expected to decline since the automation of much of the trans-Alaska pipeline as part of the Alyeska Pipeline Service Co. reconfiguration will mean fewer operating jobs at the pump stations, hence fewer workers needed.

Job losses are expected in Fairbanks in 2007 after the reconfiguration project is completed among contract workers specializing in oil field services. ●



ISER's 2006 construction spending forecast for Alaska was done for the Construction Industry Progress Fund (CIPF) and the Associated General Contractors of Alaska (AGC). It is the third such annual report. CIPF and AGC published the 2006 forecast earlier this year.

Editor's note: ISER's 2006 construction spending forecast for Alaska was done for the Construction Industry Progress Fund (CIPF) and the Associated General Contractors of Alaska (AGC). It is the third such annual report. CIPF and AGC published the 2006 forecast earlier this year.

● NORTH SLOPE

BP: Learning from oil spill lessons

Johnson, Beaudo explain what they think happened in Prudhoe Bay's largest spill and what the company is learning from the incident

By ALAN BAILEY

Petroleum News

On March 2 a BP well pad operator discovered a leak in the transit line that delivers oil to the trans-Alaska pipeline from Gathering Center 2 in the western operating area of the giant Prudhoe Bay oil field on Alaska's North Slope.

The leak occurred in the transit line segment between GC-2 and the point where the production from Gathering Center 1 enters the line.

BP launched an immediate response to what, with an estimated volume of around 200,000 gallons, proved to be the largest spill in the history of Prudhoe Bay.

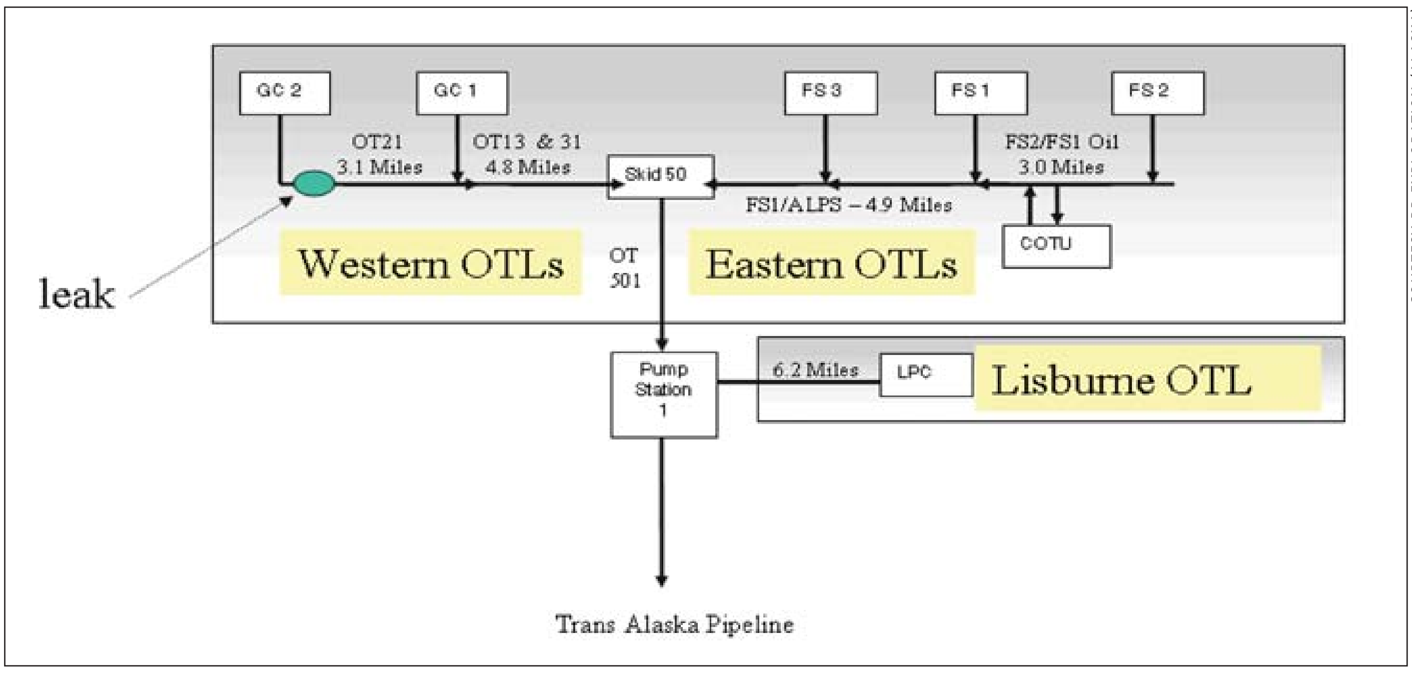
The cause of the leak became obvious within a few days of its discovery: internal corrosion had caused a one-quarter-inch hole in the bottom of the transit pipeline.

The hole had formed in a section of line buried under what is termed a caribou crossing, a culvert designed to allow animals to cross over a pipeline as opposed to going under an elevated pipeline.

The winter snow covered the leaking oil, so the spill remained undetected, probably for several days. It was odor — the smell of oil — that ultimately exposed the leak to a worker.

Cleanup of the spill site has now been completed, according to the Alaska Department of Environmental Conservation. To date BP has spent $8 million responding to the incident, Daren Beaudo, spokesman for BP in Alaska, said in a recent interview with Petroleum News.

Beaudo and Maureen Johnson, BP senior vice president for Greater Prudhoe Bay, talked to Petroleum News about how the leak developed and BP's actions to prevent a similar problem in the future.



COURTESY BP EXPLORATION (ALASKA)

Diagram showing the pipelines connecting the various BP oil facilities to the trans-Alaska pipeline. Note that the spill occurred in the GC-2 transit line, upstream of GC-1 — flow rates through the pipeline increase downstream of GC-1. Also, there are no separators for removing solids between the transit lines and Pump Station 1.

Microbiological corrosion

All indications are that the corrosion that caused the hole in the transit line was biological in origin, caused by sulfate reducing bacteria inside the pipeline, Johnson said.

"The evidence has mounted that that is true," she said. "We've scanned what the (corrosion) pits look like in the bottom of the pipe."

Also the way in which the corrosion in the pipeline accelerated over time is characteristic of the way in which microbiological corrosion develops, as the bacteria grow and multiply.

The bacteria form in water, so that problems associated with microbiological corrosion tend to be associated with water carrying pipelines, such as the lines that are used for waterflood operations.

In fact, BP treats its water injection lines at Prudhoe Bay with anticorrosion chemicals and runs maintenance pigs down the lines at frequencies ranging from weekly to monthly (a maintenance pig is a device that passes through the inside of a pipeline, scraping and cleaning the inside walls of the pipeline). The company pigged its Prudhoe Bay pipelines more than 350 times in 2005, Johnson said.

Transit lines less corrosion prone

BP has viewed oil carrying transit lines, such as the line from GC-2 that developed a leak, as much less susceptible to corrosion than a water bearing line. But the company has regularly monitored the Prudhoe Bay oil transit lines for internal corrosion using two techniques: ultrasonic testing and the use of corrosion coupons.

Ultrasonic testing involves the use of an ultrasonic device to measure the thickness of the pipeline wall — a thinning of the wall indicates the presence of corrosion. A corrosion coupon is a small metal plate placed inside the pipeline and inspected for corrosion every 90 days.

"We had 29 years of history that said these systems were not a great concern," Johnson said. "All of those things told us 'not a big worry here'."

In addition to the program of frequent inspections, BP runs what is known as a smart pig down each transit line every few years — a smart pig contains instruments that can measure and test the condition of the pipeline, including the detection of corrosion damage.

The company ran a smart pig through the GC-2 transit line in 1990 and again in 1998. According BP's incident investigation report for the transit line oil spill, the 1990 pig run "noted nothing of significance" and the 1998 pig run "showed moderate internal and external corrosion". The evidence for corrosion in 1998 was confirmed by ultrasonic testing — BP subsequently used the ultrasonic testing to monitor any continuing development of corrosion in the line.

However the BP report says that the corrosion detected in 1998 was "well within the BPXA 'fit for service' criterion" and that the subsequent ultrasonic testing up to 2004 indicated that "corrosion was not highly active during this period." It was only in an inspection in September and October of 2005, that evidence of increasing corrosion activity started to appear.

The increasing amount of corrosion found in the fall of 2005 caused BP to step up the inspection program on the pipeline — the company increased the number of inspection points, increased the frequency of inspections at some points and scheduled a smart pig inspection for the summer of 2006, according to the BP report.

However, an inspection of the line after the March 2006 leak showed evidence of high rates of corrosion, even in place that had been free of corrosion in the fall 2005 inspection. Clearly, there had been an exponential growth of corrosion, culminating in the hole that caused the oil spill.

"Whether it (the exponential corrosion growth) was over six months or 12 months or 18 months, that becomes a little bit more of a judgment call, but it was pretty recent," Johnson said.

And because the rate of corrosion accelerated so rapidly, more frequent smart pigging would probably not have detected the problem unless, perhaps, the pigging had been done in the summer of 2005, Johnson said.

Two factors

So why did the corrosion accelerate so rapidly?

No one knows for sure. But the BP investigation report theorizes two main factors that came together at the same time.

The first factor relates to corrosion inhibitors. BP adds about 3 million gallons per year of these inhibitors to Prudhoe Bay production fluids; the fluids carry the inhibitors into production facilities such as GC-2.

"We have been injecting something like 3 million gallons of corrosion inhibitor a year … And it's going up every year as the amount of water we handle goes up," Johnson said.

But the corrosion inhibitors appear to have been present in relatively low concentrations in the GC-2 production facilities, when compared with the other Prudhoe Bay facilities. It is, therefore, likely that the fluids passing down the GC-2 transit line from GC-2 contained only small amounts of the inhibitors, thus providing opportunities for corrosion-causing bacteria to grow.

The corrosion inhibitor shortfall may have occurred because GC-2 is the only facility at Prudhoe Bay that processes viscous oil. The viscous oil production introduces more solids into the processing facilities than traditional production and BP thinks that these additional solids may have adsorbed some of the inhibitor.

The second possible factor was the relatively low flow rate in the GC-2 transit line, upstream of GC-1. With Prudhoe Bay pro-

see LESSONS page 11

continued from page 10

LESSONS

duction in decline, the transit line was carrying much smaller volumes of oil than the line was designed to handle — the resulting sluggish flow may have enabled an increased build up of water in the line and provided an environment conducive to the incubation of bacteria. There was much less corrosion downstream from GC-1, where the addition of the fluids from GC-1 would have increased flow rates in the line.

"Downstream from GC-1 we don't see real high corrosion," Johnson said.

There was also a build up of solids in the GC-2 transit line over a period of several years, as sediment carried by the fluids from the GC-2 processing facilities settled in the pipeline. Although it is not possible to discount the possibility that these solids contributed to the corrosion, it is unlikely that the solids were a significant factor, Johnson said. Johnson pointed out that there are about two inches of solids in the bottom of the east transit line, but that line does not appear to be corroding.

Also the BP incident investigation report says "under-deposit corrosion is usually a longer term corrosion issue and by itself would not be expected to suddenly increase and produce the (corrosion) rates observed."

Leak detection system

In the wake of the transit line leak there has been much discussion about the line's leak detection system. The leak detection system measures the volumes of fluid entering each pipeline segment and the volumes of fluid leaving each segment. The system triggers an alarm if the volume measurements don't match up.

So why did the system not detect a leak of the magnitude of the transit line oil spill?

In fact the leak detection alarm did sound four times during the week before the spill was discovered, although the alarm did not go off during the two days prior to the discovery.

Both before and after the discovery of the leak BP interpreted the leak detection alarms as false alarms, Johnson said.

"It was a false alarm," Johnson said. "What we thought then and what we think now … is that that was a process upset."

Beaudo explained that a process upset consists of a sudden change in fluid flow, rather like the situation when you turn on a garden hose. The sudden pressure change in the system causes false readings in the metering at the ends of a pipeline segment. However, although a process upset can cause an apparent loss of fluid in one segment of the pipeline, the fluctuation in flow causes an equal and opposite volume discrepancy in the next pipeline segment. The resulting volume loss in one segment balanced by a mirror image volume gain in the next segment is exactly what was observed when the false alarms sounded in the GC-2 transit line.

Johnson said that the GC-2 facility also confirmed that process upsets had occurred.

UNIFIED COMMAND

Cleaning up the oil spill in the caribou crossing in the Gathering Center 2 transit line at Prudhoe Bay

In fact none of the investigators of the oil spill incident were able to find any evidence of the pipeline leak when they examined the data from the leak detection system, Johnson said.

"We've looked at our leak detection data and even in hindsight we cannot tell when the leak started," she said.

It now seems clear that the leak occurred slowly over an extended period of time. As a result, the leak rate was below the regulated and practical threshold of the leak detection system, Beaudo said. Beaudo also said that BP is now investigating the potential for developing a more sensitive leak detection system.

Next actions

As part of its reaction to the Prudhoe Bay oil spill and in response to corrective actions required by the U.S. Department of Transportation, BP has started taking a series of steps to ensure that another pipeline leak does not occur. The company has done 2,000 inspections of oil transit lines at Prudhoe Bay since the leak, Johnson said.

"We've looked at all of the oil transit lines … none other has the same combina-

see **LESSONS** *page 12*

● ALASKA

Commission questions Enstar increase

RCA will investigate start date for hook-up increase; order specified April 21; participation of Attorney General requested

By KRISTEN NELSON

Petroleum News

Enstar Natural Gas Co., which got its connection rate increased by the Regulatory Commission of Alaska in April, has run afoul of the commission on implementation of the increase.

RCA said in a May 5 order that it is initiating an investigation and inviting participation by the Alaska Attorney General into the reasonableness of Enstar's implementation of the increase in connection fee.

Enstar had been charging $20 for a connection, and the commission said in its April 21 letter order that the old tariff would apply to customers who have filed a complete application and paid the fee prior to the April 21 effective date of the new rate. The commission also required that Enstar allow customers who had paid for temporary service lines to receive permanent service lines without paying the increased fees.

The new fee approved by the commission is $600 for a service line plus $178 for a meter. The commission noted in its April 21 order that over the last three years Enstar's average cost for installing a service line was $1,178 and its average meter installation cost was $304 for a residential customer, a total of $1,482 which represents only 1.3 percent of the average total cost of a new single-meter service installation, leaving the remaining 98.7 percent to be recovered from all customers through rates in the form of depreciation and return.

"This is not in accordance with the ratemaking doctrine of cost causer/cost payer," the commission said. "From a public policy standpoint, a lesser degree of subsidization may be desirable."

The increased connection fee will reduce the level of subsidy paid by current customers from 98.7 percent to 47.3 percent.

In opening an investigation docket May 5 the commission said Enstar had notified customers of the increase in connection charge and was required to notify the same customers of the commission's action.

RCA investigating Enstar's action

The commission said Enstar sent a letter dated April 24

see RCA page 13

continued from page 11

LESSONS

tion of factors … bacteria in the facility, low flow rate and low corrosion inhibitor carry over," Johnson said.

But BP has committed to ratchet up its corrosion prevention program by running maintenance pigs through its oil transit pipelines at regular intervals, by increasing the frequency of smart pigging and by injecting corrosion inhibitors into the lines — in effect the company will apply similar corrosion prevention measures to its oil transit lines as it already applies to its water systems.

"Going forward we'll pig out oil transit lines on a regular basis and we'll look at our pigging practices on all of our pipelines and say 'Does this make sense?'" Johnson said.

BP is also continuing with a $17 million upgrade to GC-2, to improve the handling of solids from viscous oil production, Beaudo said.

BP is also now using infrared heat detectors to improve leak detection on its pipelines.

"We have already initiated weekly overflights with infrared," Johnson said, adding that the company has ordered handheld infrared detectors for security people to use on the ground.

But the company has yet to determine what to do about the segment of the GC-2 transit line where the leak occurred — the pipeline segment remains shutdown, with GC-2 production partially restored through a bypass line.

"We aren't clear at this point whether we're gong to be able to patch it up well enough to be able to smart pig the whole thing … or whether it will be permanently out of service," Johnson said.

BP has committed not to put the line back into service until the company, the DOT and the Alaska Department of Environmental Conservation are all confident that oil can safely flow through it, she said.

Pigging issues

DOT has served BP with corrective actions requiring maintenance pigging on the transit lines. DOT also requires smart pigging within three months, Beaudo said. DOT has granted an extension of the period within which BP has to do the maintenance pigging because of some practical problems in carrying out the pigging.

BP plans to do the smart pigging within the DOT's specified time frame. However, the smart pig run will require clearing of the lines of solids using the maintenance pigs. So, depending on when it is possible to do the maintenance pigging, the company may also have to apply for a time extension for the smart pigging.

"There's been a lot of good, steady, regular dialogue between our people and DOT — we've had some very constructive conversations," Beaudo said, adding that BP remains in compliance with DOT orders and that DOT agrees with BP's plan of action.

The problems with the maintenance pigging result from the quantities of solids currently lying in the transit lines — BP will have to remove the solids in stages, using a series of increasingly aggressive pigs.

And there are no separator facilities between the transit lines and the trans-Alaska pipeline. Consequently, the sudden removal of a large quantity of solid material from the lines would result in an abnormally large quantity of solids suddenly flushing into the trans-Alaska pipeline. BP is working with Alyeska Pipeline Service Co., the trans-Alaska pipeline operator, to assess the risks involved in moving the solids and to plan a course of action. One solution might be to install separator tanks to remove the solids before they enter the Alyeska facilities.

All of this takes time.

"I'd rather take the criticism on taking longer, and do it right, and that's what we're doing," Johnson said.

Future strategies

Johnson went on to talk about BP's longer term strategy for the maintenance of its pipelines on the North Slope. With the potential for the export of natural gas from the North Slope, the company is talking about a 50-year future in Alaska, she said. Senior company management is encouraging people to think about the technologies, equipment and people that will be needed over that time frame.

And Johnson likened the Prudhoe Bay field to a Cadillac that is 29 years old and has 120,000 miles on the clock.

"We can drive it some more, safely," she said. "If we're going to go another 200,000 miles, another 50 years from where we are now, then we need to think about not only the car but the people driving it."

In the past year the company has embarked on a program of hiring and training people in appreciable numbers, she said.

"We've also been on this journey, looking at the kit, the facilities themselves," Johnson said.

And when it comes to pipelines the company's long-term strategy translates to doing things in a bigger broader way, although the company has yet to work out the specifics of what this means, Johnson said.

"You can count on us to not only do the reactive things we've done already — the inspections, the additional inhibitor, maintenance things, the smart pigging, the solids removal," Johnson said. "… (But) the response will be bigger and more connected than that."

And thoughts about the transit line spill, a month after the spill was discovered?

Johnson said that her feelings about the incident go much deeper than just regret, sadness or disappointment.

"We know that a spill of that size is completely unacceptable. If I could find the best way of apologizing to the people of Alaska, so they get how we feel, that's what I'd do," Johnson said. "A spill of that magnitude just doesn't fit BP's values as a company." ●

● HONOLULU

Hawaii governor ends wholesale gasoline cap

By TARA GODVIN

Associated Press Writer

Hawaii Gov. Linda Lingle signed a bill ending the state's cap on wholesale gasoline prices May 5 after saying she sees no situation in which she would ever use the power the new law gives her to reimpose price controls.

However, before signing the bill, the governor suggested that lawmakers should consider a system to limit oil company profits in the islands, saying she would submit a resolution to the Legislature next year seeking a study of possible state regulation of the industry.

"I can't see any condition that I would reinstate the gas cap," Lingle told reporters after speaking at a convention of the Hawaii Credit Union League in Waikiki. "It's a bad idea and it's not going to keep prices down for Hawaii."

The new law passed by the Legislature on its last day May 4 gives Lingle, a longtime critic of the gas cap, the power to bring back the controls if she thinks fuel prices are too high.

The original law brought Hawaii's wholesale gasoline prices under state control when it went into effect Sept. 1. However, local retail fuel costs continued to rise, making it difficult to know what impact the law has had for consumers.

"I am pleased that Hawaii consumers will no longer be subject to the failed experiment to artificially control gas prices," Governor Lingle stated," Lingle said in a statement following the signing.

The new law went into effect immediately with Lingle's signature. But Lingle said she couldn't predict how soon consumers would see any difference in their gas prices — either up or down — once fuel companies are again allowed to set their wholesale prices as high or low as they want.

"It's such an artificial mechanism that you really don't know what the true market is right now," she said.

Lawmakers' efforts in combating rising fuel prices are better spent on helping to develop other energy sources for Hawaii, such as the energy bills passed by legislators this session, Lingle said.

One measure increases the cap on the state income tax credit for installing solar panels on a single family home from $1,750 to $5,000 and for businesses from $250,000 to $500,000. Another authorizes a pilot project to begin installing the energy-gathering panels on the roofs of the state's schools.

Lingle said Hawaii could also consider regulating gasoline companies similar to the state's electric companies and interisland barge services. ●

continued from page 12

RCA

to notify customers of the new fees, telling customers that the new fee schedule would apply to any customers who had not yet had service installed, "regardless of application date." And if customers had applied for service prior to Feb. 1, Enstar said they must complete an additional application on its new form and "make any required payments."

The commission said it had two concerns about the Enstar letter, since RCA regulations require: "If more than one tariff rate or charge can reasonably be applied for billing purposes the one most advantageous to the customer shall be used." And its April 21 letter order said the new rates would take effect on that date and not apply to customers who had already completed an application and paid the fee.

RCA also said that it appears Enstar previously required fees when applications were filed and the April 24 letter "conflicts with what appears to be customary practice, if it refused to accept complete applications filed before April 21st or refused to accept tender of the $20 fee made with applications filed in that same time period."

Petitions to intervene are due May 19.

RCA said because there are no parties specifically representing the public interest, it has asked the Alaska Attorney General to participate as a party in the docket.

T.W. Patch has been appointed hearing examiner for the investigation into the reasonableness of Enstar's implementation. RCA said Enstar has until May 10 to mail a copy of the order to all customers to whom it sent its April 24 letter.

Persons who attempted to apply for service or pay the $20 fee before April 21 and were told by Enstar that it could or would not accept the application or fee may file an affidavit explaining the circumstances. ●

ALASKA

Group changes name to Cook Inletkeeper

Cook Inlet Keeper said May 8 that it has changed its name to "Cook Inletkeeper" to show support for more than 150 other grassroots waterkeeper programs nationwide.

Cook Inletkeeper said the programs are part of the Waterkeeper Alliance with a Web site at www.waterkeeper.org.

The organization said the uniform naming convention — riverkeepers, soundkeepers, inletkeepers and waterkeepers — helps the groups "distinguish their work from industry-backed groups who have tried to adopt similar-sounding names."

Cook Inletkeeper is a community-based nonprofit with offices in Homer and Anchorage. For more information, see www.inletkeeper.org

DGGS releases Alaska Highway data

Alaska's Division of Geological and Geophysical Surveys has announced the release of airborne electromagnetic data and total field aeromagnetic data for about 3,045 square miles of land along the Alaska Highway from Delta Junction to the Canadian border.

"This is an important corridor where we could hope to see development of a natural gas pipeline, a railroad extension or other infrastructure," DGGS Director Bob Swenson said. "Minerals section chief Laurel Burns has done a great job managing this project and acquiring a geophysical data set that will provide important information to those laying the foundation for potential development projects that could benefit the economy of the region and the state."

Stevens Exploration Management Corp. acquired the data under a DGGS contract — the configuration of the electromagnetic data acquisition maximized information about near-surface materials, such as sand and gravel; conductive overburden; and the location of potential geologic hazards, such as permafrost and near-surface faults. DGGS says that the data could be used in planning future development in the area and as a source of critical information for bedrock geologic mapping.

All of the data are available to the public for the cost of reproduction from DGGS (phone 907 451-5020). Order forms and location maps are available on the DGGS web site (http://wwwdggs.dnr.state.ak.us).

And after May 30 the materials will be also available for inspection at the Alaska Resources Library and Information Services, 3211 Providence Drive, Anchorage, AK, 99508 (Phone 907 272-7547); and at the Alaska State Library in the State Office Building in Juneau, weekdays from 1 p.m. to 5 p.m.

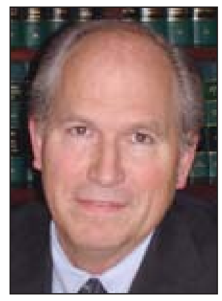
—ALAN BAILEY

WEST COAST

Authority to participate in open season

The Alaska Gasline Port Authority said May 9 that it intends to participate in the open season for expansion of Sempra LNG's Energia Costa Azul liquefied natural gas receiving terminal. The authority's project manager and general counsel, Bill Walker, attended an open season shippers' meeting in Ensenada, Mexico, as part of the bidding procedures.

The Port Authority said the expansion volumes at the facility are sufficient to provide start-up volumes for its project. Energia Costa Azul LNG terminal, currently under construction, is 14 miles north of Ensenada on the western coast of Baja California.



BILL WALKER

MOU with shipper

The Port Authority also said it has received a draft memorandum of understanding from a world-scale shipper of LNG which owns eight U.S. built LNG tankers that would be Jones Act compliant for shipping LNG from Alaska to the Lower 48. The Port Authority said this is in addition to the proposal it received from TOTE several months ago. The TOTE proposal would assist the authority with the building of LNG tankers by a foreign shipbuilder in a U.S. shipyard at rates competitive with foreign built LNG tankers.

The Port Authority also said it has received a draft memorandum of understanding from a world-scale shipper of LNG which owns eight U.S. built LNG tankers that would be Jones Act compliant for shipping LNG from Alaska to the Lower 48.

"This is an opportunity for Alaska's gas in LNG form to get into the West Coast market in 2012," Jim Whitaker, chairman of the Port Authority, said in a statement. The project includes a 48-inch natural gas line which would run parallel to the trans-Alaska oil pipeline to Valdez for liquefaction and shipment to the Lower 48. The project also provides for a future gas line through Canada at such time as the legal and regulatory hurdles in Canada are resolved.

The Port Authority has an exclusive option to purchase Yukon Pacific Co., which spent more than $100 million over a 15-year period to develop an LNG project along the same route, and acquired significant state and federal permits for this project.

—PETROLEUM NEWS

● ANCHORAGE

200 turn out for Anchorage rally

Speakers want oil tax changes to wait until gas deal revealed; rally draws former governor, several gubernatorial candidates

By KYLE HOPKINS
Anchorage Daily News

Politicians and activists got rock star treatment May 5 outside the state headquarters building downtown, as they delivered a populist, "us before the oil companies" message.

"Please, ladies and gentlemen, make some noise for Gov. Walter Hickel!" said master of ceremonies Bob Lester, the Bob half of the "Bob and Mark" radio team, who announces Alaska Aces games in his spare time.

"WALLY! WALLY! WALLY!"

Looking fit and maybe a little tan, the former governor talked about Alaska as an "owner state." In other words, its oil and gas belongs to Alaskans, he said, and the state's leaders ought to make deals that are better for residents than for industry.

JUDY PATRICK

Former Gov. Walter Hickel talked about Alaska as an "owner state." In other words, its oil and gas belongs to Alaskans, he said, and the state's leaders ought to make deals that are better for residents than for industry.

It's not a new idea, but one that rally organizers hoped to turn into a movement as legislators in Juneau prepare to change the way Alaska taxes oil companies.

The stakes are high.

Gov. Frank Murkowski spent the past two years negotiating a multibillion-dollar pipeline deal with those companies and has told lawmakers that if they raise oil taxes too much the deal could fall apart.

Gov. Frank Murkowski spent the past two years negotiating a multibillion-dollar pipeline deal with those companies and has told lawmakers that if they raise oil taxes too much the deal could fall apart.

Murkowski has said he'll unveil the pipeline deal May 10. A version of the revamped oil taxes has already passed the state Senate.

Speakers at the May 5 rally urged legislators to hold off on reworking oil taxes until they know what exactly is in the pipeline contract. (Four days later they got their wish. See story on page 1 of this issue.)

Irwin calls process 'secret'

Tom Irwin was Murkowski's natural resources commissioner until he wrote a memo critical of the gas line negotiations and was forced out of his job. He dialed into the conference call as he traveled to visit his mother-in-law in Idaho.

"It's truly looking like a secret process. Maybe even an orchestrated and manipulated process," Irwin said, his voice sometimes drowned out by a metallic buzz.

A similar rally was held May 6 in downtown Fairbanks, said All Alaska Alliance director Lori Backes, who organized the Anchorage event.

"It's truly looking like a secret process. Maybe even an orchestrated and manipulated process."
—former Commissioner of Natural Resources Tom Irwin

Backes' group favors a gas pipeline route that stays in Alaska rather than going through Canada. So did many of the speakers May 5.

That's different from the route Murkowski and the oil companies have focused on.

The governor's spokeswoman, Becky Hultberg, said May 4 that the rally would be more about political theater than good policy.

Earlier in the week, Alaska Support Industry Alliance general manager Paul Laird sent an e-mail to his group's members, calling the rally a publicity stunt and urging members to send lawmakers a different pipeline message: No delays.

"Tell them we've waited long enough," Laird wrote.

The group's communications manager, Hillary McIntosh, said the Alliance disagrees with some of the rally organizers who want to freeze the pipeline effort until Murkowski is replaced.

"Alaskans should have the opportunity to decide for themselves whether the upcoming (gas line) fiscal contract is good or bad," she said.

People at rally wanted to see contract

That's what many people at the rally wanted too — a look at the pipeline contract the governor negotiated in private. (Again, attendees got their wish. See story on page 1 of this issue.)

"The door should be open when they do state business," said Donna Grant, who stood near the front of the crowd. She heard about the rally from a friend.

People squinted into the sun as they listened with arms folded or stood leaning on signs that said things like "Pass the petroleum: We're getting screwed" and "The deal's too Murky." A woman in pigtails held a pole with a placard that read: "What would J. Hammond do?"

The rally alternately resembled a revival, a civics lecture and a giant conference call.

Rep. Ethan Berkowitz, an Anchorage Democrat and candidate for governor, dialed in from Juneau to address the crowd. Berkowitz's fellow Democrat and opponent in the governor's race primary, Rep. Eric Croft, spoke in person.

Berkowitz said he stayed at the Capitol to work, calling it his first responsibility as House minority leader. Croft said putting public pressure on the Legislature to pass better oil reform was more important than waiting in Juneau.

As for some of the other candidates, Sarah Palin, a Mat-Su Republican attended and spoke. Fairbanks Republican John Binkley had held a press conference on the gas line the day before, and Anchorage Republican Andrew Halcro, who is running as an independent, did not attend. ●

● WASHINGTON, D.C.

EIA expects $68 oil this year, next

Agency says less chance for significant improvement in world petroleum supply and demand due to steady demand growth

By KRISTEN NELSON

Petroleum News

The U.S. Department of Energy's Energy Information Administration said May 9 that "prospects for significant improvement in the world petroleum supply and demand balance appear to be fading."

The agency said while U.S. production will grow in 2006 with recovery from 2005 hurricane damage from Rita and Katrina, it expects only moderate increases in production from Organization of Petroleum Exporting Countries and other non-OPEC countries.

Demand growth will be steady and continued, with only modest increases in oil production capacity, and little room for production increases in response to political instability.

As a result the agency expects that crude oil prices will remain high through the end of next year, with West Texas Intermediate prices expected to average $68 per barrel in both years, "up substantially from our prior forecast."

In last month's short-term forecast, released April 11, the agency projected a WTI average of $65 in 2006 and $61 in 2007. Henry Hub spot prices for natural gas are expected to average $8.11 per thousand cubic feet in 2006, down about 90 cents per mcf from the 2005 average. EIA said the 2007 Henry Hub average is expected to be more than $9 per mcf, "assuming sustained high oil prices, normal weather and continued economic expansion in the United States."

Consumption growth has slowed

World petroleum consumption has slowed because of higher prices but consumption growth remains strong at 1.6 million barrels per day for this year and a projected 2 million bpd in 2007, with most of the consumption growth being met from non-OPEC production. A downward revision in U.S. consumption growth in 2006 is compensated by increased Middle East consumption growth "driven by the large revenue flows into major petroleum exporters, continuing if not expanding consumer subsidies and increasing industrial and petrochemical demand," the agency said.

EIA expects non-OPEC production to grow by 800,000 bpd in 2006. Large new projects in Angola and the Caspian Sea are expected to produce increases in 2006 and 2007, while OPEC production in 2006 is expected to be similar to 2005.

"World surplus crude oil production capacity, which is primarily located in Saudi Arabia, is down slightly in 2006 compared to 2005" and the agency expects capacity to decline again in 2007 as OPEC crude oil production accelerates. Because only limited surplus capacity exists concern about political unrest and possible hurricane damage "will keep upward pressure on oil prices."

U.S. natural gas consumption down

EIA said 2006 U.S. natural gas consumption is expected to be about 1.1 percent below 2006 levels because of a warm January "and much weaker expected cooling load this summer compared to 2005."

U.S. dry natural gas production declined 2.8 percent in 2005, largely because of hurricane-related infrastructure damage, is expected to increase by 0.8 percent this year and by 1.6 percent in 2007.

U.S. liquefied natural gas imports, which totaled 630 billion cubic feet in 2005, are expected to increase to 740 bcf in 2006 and 970 bcf in 2007.

At the end of April working gas in storage was an estimated 1.904 trillion cubic feet, 455 bcf above year-ago levels and 699 bcf above the five-year average. EIA said warm January weather accounts for much of the high storage level. ●

● WASHINGTON, D.C.

Pombo: Tax Big Oil by drilling in ANWR

House Resources chairman urges congressional colleagues to get companies to reinvest profits in U.S. energy resources

By ROSE RAGSDALE

For Petroleum News

Rep. Richard Pombo, R-Calif., sent a letter to his colleagues in the U.S. House of Representatives May 9 titled, "Do you want to tax Big Oil? Open ANWR."

Pombo went on to summarize findings in an assessment by the Congressional Research Service that shows oil production from the coastal area of the Arctic National Wildlife Refuge could generate anywhere from $112 billion to $173 billion in corporate income taxes and royalties for federal coffers.

The letter was directed primarily at Democrats who have criticized the Bush administration for not taking action to curb high oil prices from which oil companies are gleaning record profits. Democrats also have accused the Republican-led Congress of providing $10 billion in tax cuts to oil companies at a time when Americans face rising gasoline prices.

First time tax revenue considered

"With everyone screaming about taxing the oil companies, we decided to take a look at the tax revenue we could expect from oil production in ANWR," Pombo aide Dan Kish said May 10. "To my knowledge, this is the first time anyone has considered this. Up until now, we've been arguing over whether revenue from the bonus bids during leasing would generate $2.4 billion or $10 billion for the federal government.

U.S. Rep. Richard Pombo, R-Calif.

"I'd say $112 billion is a bit of money, even in this town," Kish added.

The CRS report concluded that federal revenues in 2006 dollars over the life of fields covering just 2,000 acres in ANWR could generate $76 billion in corporate income taxes and $35.5 billion in royalties from mean production of 10.3 billion barrels of oil sold for an average of $75 a barrel. Geologists estimate that ANWR has a 50 percent chance of containing 10.3 billion barrels of technically recoverable crude.

If production from ANWR fields climbs to their upper-end estimate of 16 billion barrels, federal revenue would jump to $173.3 billion, $118 billion in corporate income taxes and $55 billion in royalties.

The CRS assessment also estimated federal revenue from taxes and royalties if oil prices dropped to $60, $30, and even $10 a barrel. Projections with mean output from ANWR fields of 10.3 billion barrels totaled $89.3 billion, $44.7 billion and $14.9 billion in federal corporate income taxes and royalties, respectively. At the upper-end production estimate of 16 billion barrels, federal revenue estimates totaled $138.7 billion, $69.4 billion and $23.1 billion, respectively.

Alaska North Slope crude sold May 10 for $70.53 a barrel, up $1.44 from the day before. Oil produced in Alaska is sold entirely on the West Coast, with sales to foreign markets prohibited since 2000.

Kish said Pombo, who chairs the House Resources Committee, is convinced that the best way for Congress to address the oil companies' profits is to encourage them to reinvest in U.S. energy resources.

"Many Democrats have called for new taxes on 'Big Oil' as record-high prices have led to massive profit margins," Pombo said in a statement May 2. "And for once I agree with them — Congress should open ANWR, put 'Big Oil' to work increasing American supplies to lower prices, and generate massive new tax revenues at the same time. How could tax-hungry Democrats say no to that?"

Enough is enough

Pombo accused environmental fundraising groups and obstructionists in Congress of using the ANWR energy issue as a cash cow for two decades. "Enough is enough. It

see ANWR page 16

OIL COMPANY EARNINGS

Earnings from Top 30 North American E&P Capex Spenders

Earnings first quarter 2006 • Change from first quarter 2005
Liquids production first quarter 2006 • Change from first quarter 2005
Natural gas production first quarter 2006 • Change from first quarter 2005

Company	symbol	earnings	%	liquids	%	gas	%
BP	BP	$5,623	-15	2,533,000	-2	8,713	-0-
RD/Shell	RDS-A	$6,893	+3	1,966,000	–8	10,324	+5
EnCana	ECA	$1,474	-0-	212,941	-7	3,343	+6
ExxonMobil	XOM	$8,400	+7	2,696,000	+6	11,199	+11
Can. Natural	CNQ.TO	C$57	—	323,662	+13	1,436	-1
ConocoPhillips	COP	$3,291	+13	1,016,000*	-3	3,565*	+8
El Paso	EP	$356	+236	19,000	-21	578	-7
Chevron	CVX	$3,996	+49	1,681,000	+2	4,947	+32
Anadarko	APC	$661	+35	191,000	-10	1,366	-6
Devon	DVN	$700	+24	213,700	-19	2,125	-10
Dominion	D	$534	+25	67,800	+61	822	-4
Occidental	OXY	$1,230	+45	492,000	+15	708	+7
Husky	HSE.TO	C$524	+37	239,400	+16	685	+1
Newfield	NFX	$149	+148	17,778	-30	493	-13
Petro-Canada	PCZ	C$206	+74	245,600	-13	787	-11
Kerr-McGee	KMG	$255	-28	106,000	-12	934	-7
EOG	EOG	$425	+111	29,200	-0-	1,304	+12
Nexen	NXY.TO	(C$79)	—	122,900	-15	214	-14
Imperial	IMO	C$591	+50	263,000	+1	580	-1
Talisman	TLM	C$197	-24	299,977	+27	1,338	+1
Pioneer	PXD	$543	+539	61,703	-10	591	-18
Apache	APA	$660	+18	230,191	-9	1,359	+8
Marathon	MRO	$784	+142	210,700	+29	996	-3
Suncor	SU.TO	C$713	+964	269,600	+89	196	+3
Williams	WMB	$132	-34			714**	+16
Chesapeake	CHK	$624	+399	23,511	+21	1,378	+32
Pogo	PPP	$67	+14	39,561	+29	282	+9
XTO	XTO	$467	+181	55,689	+21	1,126	+22
Forest	FST	$4	-91	22,700	-19	238	-23
Murphy	MUR	$114	-0-	98,074	-10	84	-26

** Does not include share of Lukoil production*
***Millions of cubic feet equivalent*
Liquids production in barrels per day. Natural gas production in millions of cubic feet per day.

NOTE: Top 30 is based on Petroleum News research

continued from page 15

ANWR

is time to make this resource a cash cow for each and every American taxpayer," he said. "This production would create jobs, lower prices, grow the economy and make our country more secure. At today's prices, the mean estimate of ANWR's recoverable oil alone represents a $780 billion economic decision."

"If we applied that same calculus to the (outer continental shelf) in areas where drilling is now off limits, it would give use eight times the revenue projected from ANWR, or over a trillion dollars," Kish said.

The CRS assessment assumed the federal government and the state of Alaska would split revenue from ANWR oil production 50-50. The estimate, however, does not include secondary economic benefits from ANWR output nor federal taxes and royalties on potential natural gas production.

"Assuming the State of Alaska has similar corporate income tax rates, the state would collect a similar amount of revenue," Kish said. "I don't have to tell you what that would mean for Alaska." ●

continued from page 1

SALES

cial discovery, they will be turned back to the government's inventory."

Because they have been off the market for years and in many cases not fully evaluated, newly available blocks are typically attractive to explorers, making up about 25 percent of total blocks receiving bids in any given sale. Coupled with today's high oil and gas price environment, the next few sales should be barnburners.

MMS anticipates that 2,270 leases could expire in 2006-2007, 1,680 leases in 2008-2009, 874 leases in 2010-2011, 693 leases in 2012-2013 and 647 leases during the period 2014-2015.

"Presumably, the level of activity would be very, very robust, just like the last lease sale," Oynes said of future sales, noting that a block in Green Canyon offered in last March's sale received a $42 million bid, the highest for a single block in some 20 years.

Lease hording, lack of rigs

Oynes said many expiring leases are not being evaluated partly due to a lack of deepwater drilling rigs and partly due to company hording. "I think it is fair to say they acquired a lease inventory (knowing) there was no way they were going to have time to evaluate all of this," he added.

Leases expiring this year and next should contain at least some worthy prospects, although Oynes agreed during an interview with Petroleum News that the really good or "A" targets likely were drilled following the first leasing round. However, many "B" and "C" prospects likely will be turned back to the government for re-offering.

"Do I expect a record sale? No, in terms of the number of tracts bid on — the dollars we'll have to wait and see," he said. "Do I expect a very robust sale? Yes, probably larger than this last Central Gulf sale."

Meanwhile, explorers lucky enough to have a deepwater rig under contract appear eager to drill as many prospects as they can before their leases begin to expire. Forty-six drillships and semi-submersible rigs were actively drilling in early May, just one rig away from the record of 47.

Going all out in the 11th hour

"They are going all out … trying to get at some of these 'A' prospects before they expire," Oynes said, but still holding to his expectation that despite this 11th maneuver at least 90 percent of the leases will be turned back to the government.

However, he said the actual pace of discoveries in the deepwater Gulf of Mexico has picked up, noting that from 1975 through 1999 there were 143 discoveries, compared to 44 from 2000 through 2003 and 32 discoveries in 2004 and 2005. "The progression is farther and farther offshore and deeper and deeper waters," Oynes added. ●

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TALISMAN

anticipation of future testing.

Buckee and 't Hart said the challenges ran the gamut from a deep freeze as FEX was barging equipment to the Aklaq site, followed by a warm spell that affected the tundra, then another cold snap.

Buckee and 't Hart said the challenges ran the gamut from a deep freeze as FEX was barging equipment to the Aklaq site, followed by a warm spell that affected the tundra, then another cold snap.

"Alaska is an exercise in logistics," said 't Hart.

The weather aside, the company has learned enough to decide it will do some things differently as it gears up for the next round of drilling in the winter of 2006/07.

A number of drilling locations will be identified this summer and if "everything works," FEX will be ready to go on two to five locations this coming winter, 't Hart said.

The big Nabors Rig 14E that FEX used this past winter is stacked at the staging area in Smith Bay. Talisman said FEX will attempt to bring in smaller, more mobile rigs over the summer, which gives legs to the rumor the Arctic Wolf being built by Akita Drilling in partnership with Doyon Drilling might also be used for FEX's NPR-A drilling program.

In the past Talisman officials have talked about FEX using as many as three drilling rigs in NPR-A next winter.

Smith Bay leases complement

Bolstering its longer term prospects, in March FEX acquired 25 Smith Bay leases covering 120,000 acres in the State of Alaska's Beaufort Sea areawide lease sale. In addition to complementing the company's land position south of Cape Simpson, FEX's new leases in Smith Bay could line up with a possible exploration fairway across the northern part of NPR-A to the company's existing leases on the west side of Harrison Bay, Paul Decker from Alaska's Division of Oil and Gas told Petroleum News following the lease sale.

Decker sees some particularly interesting exploration possibilities in Smith Bay.

"It's a nice crestal position on the Barrow Arch, with shallow water and logistically connected to their onshore exploration program in NPR-A," Decker said.

People have long known about four oil seeps on the coast at Cape Simpson, just west of Smith Bay. It's a natural oil trap where Brookian topset sands come up against shale in an ancient incised canyon, Decker said. The oil from the Cape Simpson seeps likely originates from an "oil kitchen" to the north, in a lower Cretaceous source rock system known as the HRZ, he said.

"That would put this (Smith Bay) area squarely in between the kitchen and the seeps," Decker said. "So you probably have a pretty good plumbing story to be able to charge this with nice light oil."

In addition to a possible Brookian play, there are potential Ellesmerian plays below the lower Cretaceous unconformity (ancient erosion has probably scoured out the Beaufortian middle and upper Jurassic sands that are found in nearby onshore wells). The East Simpson No. 1 and No. 2 wells on the coast near Smith Bay found some interesting Sadlerochit and Endicott sands below the lower Cretaceous unconformity, Decker said.

The 25 leases are 140 miles west of Prudhoe Bay.

—GARY PARK & KAY CASHMAN

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Business Spotlight

By PAULA EASLEY

FORREST CRANE

Clint Zaverl, Construction Manager

Peak Oilfield Services

Clint Zaverl is contracted to ASRC Energy Services E&P as a construction manager for FEX LLC, an Alaska subsidiary of Calgary-based Talisman Energy. Talisman has numerous lease holdings in the Northwest National Petroleum Reserve-Alaska. Its first drilling season was just completed and next season's drilling operations are being planned. The vast distance between the project area and established fields at Prudhoe and Kuparuk has posed challenges requiring extensive planning with numerous contractors.

This is Clint Zaverl's fifth year working for Peak. He has also worked in civil construction of roads, highways and runways as well as mining on the Yuba Bucket Dredges in Nome, Alaska. He enjoys drawing, reading, snow machining, and spending time at the family's Horseshoe Lake cabin.

COURTESY PHOTO

Alan Renshaw, Chief Engineer

Usibelli Coal Mine Inc.

Usibelli Coal Mine is a world-class Alaska mine using state-of-the-art engineering and equipment. Its safety program is one of the best in the country. So is its environmental record and reclamation program that restores all the ground disturbed in the mining process to as good as, or better than, it was originally.

Alan Renshaw has worked for Usibelli in Healy 16 years and is professionally certified in engineering and land surveying. He graduated from the University of Alaska Fairbanks. He and wife Amber have three boys, ages 16, 2 and 1, with another surprise son on the way. Alan's life goal is to be all he can be for the family — and to have no more kids, now that he has discovered what causes them.

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KNOTS

James Connaughton, and U.S. undersecretary of state for global affairs, Paula Dobriansky to explore ways for the two countries to co-operate in cleaning up North America's air and water.

Ambrose: AP6 'very interesting'

Ambrose said that although the U.S. officials did not ask Canada to join the AP6, she views the partnership as a "very interesting group. … They're doing things that we're very interested in participating in further down the road."

Among other things, the AP6 presents a unique opportunity for Canada to look at investments in cleaner technology," she said.

Otherwise, Ambrose said the Harper government will remain in Kyoto, although the targets to reduce emissions are unrealistic.

Later, under fire from opposition parties in Parliament, she declined to talk about joining the AP6, saying the focus is on a "made-in-Canada" plan.

She said the Kyoto plan could have seen Canada spend an average C$600 per family on international emissions credits, where she wants a plan that invests in Canadian solutions, technology and communities.

"The only model I'm interested in is one that puts Canadians first," Ambrose said.

She is now developing a strategy for the second phase of Kyoto, beyond the initial 2008-2012 period, when Canada is pledged to cut emissions by 6 percent below 1990 levels.

The latest government figures show emissions are actually 24.4 percent above 1990 and are expected to continue to rise as fast as oil sands development gathers momentum.

According to observers, opting out of Kyoto would take two years or more, during which time Canada could face trade sanctions from Kyoto signatories or pay billions of dollars to buy greenhouse gas credits.

Environmentalists skeptical

While the government wrestles with its options, environmentalists are skeptical about the administration's commitment to tackling climate change.

Sierra Club spokesman John Bennett said the AP6 "relies entirely on voluntary action" when Canada should be working on a program that has "real targets."

Scientists are worried that even if promising research avenues were available, federal funds will dry up.

The Harper government's commitment to pursuing its "made-in-Canada" path was reinforced when Flaherty withdrew a pledge by the previous government to spend C$538 million defraying the costs of Ontario actions to fight climate change.

The funding was intended to help Ontario phase out its high-polluting, coal-fired power stations and lower greenhouse gas emissions by 30 million metric tons in 2009, the equivalent of taking 7 million cars off the road.

Ontario Environment Minister Laurel Broten said her province will not waver in its determination to close coal-fired generating stations — a course that most observers believe will require more nuclear power plants.

Currently, 50 percent of Ontario's electricity comes from its nuclear operations, which have involved massive cost overruns (one plant that was supposed to cost C$2.5 billion ended up at C$14.3 billion) and expensive refurbishments.

In another blow to Kyoto, Ottawa axed a C$500 million, five-year program to help low-income households cope with high energy costs and cut greenhouse gas emissions.●

Shell Canada leader touts emissions trading

While the Canadian government is pulling back from the Kyoto Protocol to ponder its next move, one petroleum industry leader is growing tired of the uncertainty.

Shell Canada Chief Executive Officer Clive Mather is pressing for industry and government to join forces and accept the climate change treaty.

In two speeches within a week, Mather has called for action on several fronts.

"If we waited for everyone to sign up (to Kyoto), frankly, it would be too late," he told a group of business leaders in Toronto on May 5.

A week earlier, at Shell Canada's annual meeting, Mather proposed a domestic greenhouse gas emissions trading market along with construction of "public infrastructure" to collect carbon dioxide from sources such as refineries and use it in enhanced oil recovery projects.

"Especially here in Canada, we must encourage bold initiatives which lever new technologies," he said, arguing technology will play a critical role in bridging the gap between traditional hydrocarbon supplies and new fuels that "we can expect to become mainstream over the next half century."

Conceding he has a "personal passion" for the issue of climate change, Mather has been quietly campaigning for domestic emissions trading that would allow companies to sell credits for eliminating greenhouse gases.

There would be rewards for those who exceeded their reduction targets, or developed technologies to produce cleaner energy.

Mather, admitting Kyoto has its limitations, said he would also welcome any new initiatives that would enable the United States and China to play leading roles in the search for solutions.

He also said Shell Canada is prepared to lead by example, noting the company's own operations are close to meeting the Kyoto target to lower their 1990 emissions by 6 percent.

Penn West Energy Trust Chief Executive Officer Bill Andrew has also urged the Alberta and Canadian governments to support carbon dioxide sequestration for enhanced oil recovery.

However, Mather said storing carbon dioxide does not "deliver commercial returns" and needs government financial help as part of a collective effort to make Canada a "technology showcase to the world."

—GARY PARK

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CONTRACT

tion.

He had a more serious threat.

The Department of Energy has begun a study looking at a federal corporation to build a gas pipeline from the North Slope, Murkowski said, reminding his audience that when Congress passed enabling legislation for the Alaska North Slope gas pipeline it directed the Secretary of Energy to conduct a study of an alternative if an application for pipeline construction hadn't been filed with the Federal Energy Regulatory Commission within 18 months of enactment of the legislation. That was in 2004, he said, and that clock is running. The study is under way, Murkowski said, in the pre-scoping phase to establish a staffing and funding framework.

The enabling legislation passed Congress Oct. 11, 2004. It included a provision directing the Secretary of Energy to "conduct a study of alternative approaches to the construction and operation of such an Alaska natural gas transportation project," if no application was received within 18 months. Congress said the study was to consider establishing a federal government corporation to construct an Alaska natural gas transportation pipeline. (See story in Oct. 17, 2004, issue of Petroleum News.)

Administration consultant Pedro van Meurs told legislators the "almost unimaginable" size of the Alaska gas pipeline project "may create large profits and government revenues but also has potential for risks."

Murkowski said he doesn't think anyone wants to see federal ownership of the pipeline, but if the contract is not consummated, if the state and producers don't come to agreement and construct a line, "these issues could be taken away from us and we could lose control of the destiny of the State of Alaska."

The carrot is the benefits a gas line could bring to the state, he said.

Murkowski described the Alaska gas pipeline as "a real bridge to the future of Alaska," and told legislators "that's what's so exciting about this Legislature."

The administration has been negotiating the contract for two years, the governor said, calling it "a long road to get to the milepost where we are today." But there are more miles to go, he said, telling legislators "we must do what's right for Alaska," adding that the gas pipeline "is not a partisan issue."

Alaskans expect this administration and this Legislature to get this job done, Murkowski said. After 30 years of waiting the economics support this project now and they didn't before, he said, telling legislators their decisions would have a "profound and lasting impact" and assuring them they "should have all the time you need to get the job done."

A 10-day review

The administration began a 10-day review of the project for legislators that afternoon at Centennial Hall in Juneau.

Administration consultant Pedro van Meurs told legislators the "almost unimaginable" size of the Alaska gas pipeline project "may create large profits and government revenues but also has potential for risks."

Van Meurs talked about barrels of oil equivalent for the project, which allows comparison with both oil and gas projects worldwide, and said there is only one project in the world that is larger, the Kashagan oil field in the Caspian Sea. But Kashagan is estimated to cost \$16-\$17 billion, while the Alaska gas pipeline is estimated at some \$19 billion or \$27 billion if the project has to be built to Chicago.

Because other projects, like Kashagan, involve a larger government royalty share, the Alaska project provides the companies with the largest bookable reserve in the world on a single project, he said, and provides the largest total net cash flow in the world.

But the risks are huge: under a low gas price of \$3.50 per million Btu and a 50 percent cost overrun "this project has dismal economics," he said, and would destroy corporate value of all three participants. If the project does not succeed, ConocoPhillips' stock value could drop and it could become a takeover target.

The availability of takeaway gas line capacity in Alberta is a particular risk, he said. The estimate of available gas capacity has changed almost every year, he said, and depends on oil sands development — if that slows down gas used in those projects would have to go down existing lines — and exploration success. Success in finding gas in western Canada would also add to volumes that have to go down existing pipelines, he said.

Cost overrun is the biggest risk facing the project, he said, noting Shell had a 100 percent cost overrun at Sakhalin II. Cost overruns are common on long lead-time cumbersome projects, van Meurs said.

At low prices the net present value would be \$2.5 billion for the project; "if there is a 50 percent cost overrun, net present value approaches minus \$3 billion," he said. ●

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OIL TAX

ducers and explorers and the public. Resources and Finance committees in both the House and Senate wrote, and amended, committee substitutes for the administration bill, and both House and Senate passed the bill, but not the same version.

The House voted shortly after 3:30 a.m. May 9, the last day of the session, passing a committee substitute for the bill the Senate passed April 25. But there were too many changes for the Senate — and no time for a conference committee to work out the differences.

So the PPT, needed to complete the draft gas line fiscal contract that was released for public comment May 10, is expected to become another special session order of business for the Legislature — which started what is expected to be only its first special session May 10.

Political landmines

When Gov. Frank Murkowski addressed the Legislature on the first day of the special session he said political dynamics are the reason legislative bodies rarely have the chance to change tax law. The transfer of wealth is fraught with political landmines, the governor said, noting that the last change, a relatively modest adjustment of the economic limit factor, occurred in 1989 in the aftermath of the Exxon Valdez oil spill.

Murkowski said his aggregation of North Slope satellites last year, a $200 million tax increase, was "not very popular."

The reason this administration and this Legislature have the opportunity to make major changes in the oil tax is because of the gas line, he said: with development of a gas line a tax change can take place.

"We all know after last night we have to revisit the PPT," the governor said, telling legislators that the state is losing money every day under the existing production tax system.

Work began in February

The Alaska Legislature began working on the administration's proposed rewrite of the state's oil and gas production tax, the production profits tax or PPT on Feb. 22. The bill had referrals to Resources and Finance committees in both houses.

The Senate was the first to pass the measure, and House Finance reworked that bill, returning to the governor's proposed 20 percent tax rate and 20 percent credit, but including the progressivity factor which has been in all the committee substitutes.

The House Finance progressivity surcharge was based, like a Senate Finances draft, but not the final version the Senate passed, on the net, automatically including increases in the cost of production in the calculation.

Debate on the House floor began Sunday, May 7, and continued Monday evening May 8, running overnight into May 9, the last day of the session, before tying up shortly after 3:30 a.m. with a 29-10 vote to move the bill.

The tax rate was raised to 21.5 on the House floor, but attempts failed to raise the trigger point for the progressivity surcharge, which House Finance set at a North Slope netback of $35.

Senate floor debate began on the bill around 7 p.m. May 9, just five hours before the midnight end of session, with debate 4 to 1 against the bill. The vote was 10-10, defeating adoption. Senate leadership tried again shortly before 11 p.m., but could only get nine votes to rescind the previous vote. The PPT was not brought up again when the Senate returned just before midnight to vote on the capital budget.

House debate lengthy

The House floor debate May 7-9 was wide-ranging, and started with an amendment by Rep. Harry Crawford, D-Anchorage, to dump the profits-based tax in favor of a revision of the existing severance tax on the gross, an amendment which was defeated 28-12.

Anchorage Democratic Reps. Ethan Berkowitz, the House minority leader, and Eric Croft, both candidates for governor, led the charge against the PPT, concluding with a proposal early in the morning May 9 that a vote on PPT be delayed until the gas fiscal contract was public.

Current high oil prices have frequently been the basis of discussion in committees, with legislators pushing progressivity options to increase government share at high oil prices, but on the House floor there was a lot of concern expressed by members of both parties about what would happen under PPT if oil prices returned to a range of prices in the $20s, normal before the recent price run-up.

There was a proposal, which was defeated, to insert a floor in the PPT to protect the state at low oil prices. Administration and legislative consultants have said all along that when you replace a regressive system with a progressive system the proportion of the government's take increases at high prices but may drop to zero at low oil prices: if the companies have no profit, there is no profit to tax, although the administration testified that one good year would make up for several bad years.

Senate: 25 percent?

Two Republican senators who voted against the House bill, Gary Wilken of Fairbanks and Tom Wagoner of Kenai, both said they wanted to see a 25 percent tax. The version the Senate voted out on April 25 included a 22.5 percent tax.

Wilken said he was aligning himself with the consultants who said a 25 percent tax rate wouldn't deter investment in Alaska.

He said the Department of Revenue identified 15 changes the House made in the Senate's bill, and complained that the version the House voted on was cobbled together in the middle of the night, questioning whether the Senate even knew what was in the bill.

Sen. Hollis French, D-Anchorage, had earlier criticized the way the House handled amendments on the floor and said he wouldn't make an oil tax decision until he'd seen the gas contract. French earlier sued the administration to get release of the gas contract.

Wagoner, like Wilken, objected to the advertising campaign around the PPT, and said he wished there was time to take the bill to a conference committee and work out differences between the House and Senate. He said he thought the tax change was needed, but couldn't vote for the bill until there was more work done on it.

Sen. Bert Stedman, R-Sitka, who worked on the bill in both Senate Resources and Senate Finance, was the only senator to speak in favor of the bill, noting that while the House tax rate was lower at 21.5 percent, with the House version of progressivity the state would do better at oil prices above $40 than under the Senate version, and as prices advance the state is "substantially better off" under the House version.

Stedman also spoke in favor of a progressivity surcharge on the net, which takes into account the cost of extraction. The cost of extraction will go up over time, he said, and it's important that the tax structure take that into account if it is going to stand up over time.

—KRISTEN NELSON