Petroleum



page Stedman: 'I believe we have aproject'; TC buyout correct step

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This week's Mining News



Millrock Resources Inc. has added Northwest BC gold-copper projects to a rapidly expanding portfolio. See Mining News, page 9.

Caelus worries about economic situation, slows Nuna development

Because of the low oil price situation and worries about current fiscal uncertainty in Alaska, Caelus Energy is slowing its Nuna development in the North Slope Oooguruk field, Pat Foley, Caelus Energy senior vice president, Alaska operations, told a meeting of the Alaska Support Industry Alliance on Dec. 10. Foley said that his company had planned to be on the Slope this winter, installing flow lines and fabricating facilities but has postponed that work until next winter. However, the company still anticipates first oil from Nuna in late 2017, Foley said.

"All of our facilities are designed," Foley said. "Our plan right now is to come back next winter and install the flow

see CAELUS WORRIES page 20

New Umiat report drops reserves, lowers recoverable based on price

An independent third party has decreased its estimate of the reserves at the Umiat field.

In an update of a report from some two years ago, the consulting firm Ryder Scott Company LP is reducing its estimate of the probable oil reserves, 2P, at the field by 36 percent and the probable and possible oil reserves, 3P, at the field by 25.4 percent.

The reduction is the result of the persistent decline in global oil prices, information gleaned from exploration activities at the field and a decision to shrink a proposed development plan for the oil field in the foothills of the Brooks Range, according to operator Linc Energy Ltd, which released the report in early December.

 $see \ \textbf{UMIAT} \ \textbf{REPORT} \ page \ 15$

EXPLORATION & PRODUCTION

A stable decade

With two projects done, two underway, ConocoPhillips optimistic about Alaska

By ERIC LIDJ

For Petroleum News

From the way ConocoPhillips talks, you'd never know the company is heavily invested in an expensive region with an aging resource base at a time of persistently low oil prices.

"Over the past couple of years, we've been able to change the profile of our Alaska business," ConocoPhillips Chairman and Chief Executive Officer Ryan Lance said at a Dec. 10 event detailing a 2016 capital budget and operating plan. "We've transformed the declining production base into one that can deliver stable production for a decade."

As the company drastically scales back its glob-

The budget ConocoPhillips approved for its global operations next year is a 25 percent reduction from its budget for this year. But its Alaska budget fell only 5 percent.

al spending and trims its workforce — including in Alaska — and as some of its peers in Alaska seem to be reducing their immediate ambitions, ConocoPhillips is touting Alaska as a bright spot in its portfolio — a reliable resource with an acceptable taxation regime and opportunities for the future.

see CONOCO OPTIMISM page 18

EXPLORATION & PRODUCTION

A plan for Tolsona

Ahtna files operations plan for drilling gas exploration well west of Glennallen

By ALAN BAILEY

Petroleum News

A htna Inc., the Native regional corporation for the Copper River region, has filed a plan of operations for the proposed drilling of a gas exploration well in state land north of milepost 175 of the Parks Highway, about 11.5 miles west of the town of Glennallen.

The plan, filed with Alaska's Division of Oil and Gas, says that the proposed well, the Tolsona No. 1, will target thick Nelchina sandstone intervals at depths between about 4,000 and 5,000 feet. A diagram accompanying the plan indicates the possibility of testing gas in two distinct intervals,

The primary purpose of Ahtna's gas exploration program is to find a gas supply for local use in the Copper River region, to alleviate the high cost of energy in the region.

the upper Nelchina and the lower Nelchina.

The well location is section 23, township 4 north, range 4 west of the Copper River meridian.

Exploration license

Ahtna is conducting its exploration under the

see TOLSONA PLAN page 19

● PIPELINES & DOWNSTREAM

An open or shut case

Enbridge predicts Northern Gateway decision before deadline to start construction

By GARY PARK

For Petroleum News

Enbridge is within months of a crux decision on its decade-long battle to build the Northern Gateway pipeline and open a Pacific Rim market for oil sands crude from Alberta.

Chief Executive Officer Al Monaco told analysts earlier in December "it's probably going to be in the latter half of 2016, if I had to make a guess." Currently, Enbridge has only until 2016 to start construction.

Otherwise he provided no clear hints on whether Enbridge will: 1) Sanction the C\$7.9 billion venture, setting the stage for a heavyweight legal showdown; 2) Try relocating the tanker port

Trudeau has directed Transport Minister Marc Garneau to prepare legislation banning oil tankers in north coast waters, but one expert suggests such a ban would be difficult to implement.

from Kitimat on the northern British Columbia coast; 3) Abandon the project altogether; 4) Launch a new, creative alternative.

Although Northern Gateway was conditionally approved by the previous Canadian government under Stephen Harper, Prime Minister Justin Trudeau has called for a ban on tanker traffic off

see NORTHERN GATEWAY page 19

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North America's source for oil and gas news

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Both companies have upbeat outlooks, with Suncor increasing capital budget 15%; Cenovus' budget down, but production goals flat

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Retiring head of leading energy pipeline organization discusses safety record of 12-member CEPA, monies spent on safety, efficiency



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Alaska - Mackenzie Rig Report

Rig No. Rig Owner/Rig Type Rig Location/Activity **Operator or Status**

Alaska Rig Status

North Slope - Onshore

Doyon Drilling Prudhoe Bay L2-11 Prudhoe Bay, Standby Dreco 1250 UE 14 (SCR/TD) BP Dreco 1000 UE 16 (SCR/TD) ВP Dreco D2000 Uebd 19 (SCR/TD) Nanuq CD5-09 ConocoPhillips AC Mobile Kuparuk 1C-155 ConocoPhillips **OIME 2000** 141 (SCR/TD) Kuparuk 2S-13 ConocoPhillips 142 Rig Up ConocoPhillips TSM 7000 Arctic Fox #1 Stacked

Kuukpik Drilling Franklin Bluffs Icewine #1 Accumulate Engery

Nabors Alaska Drilling AC Coil Hybrid CDR-2 Kuparuk 2F-18 ConocoPhillips Dreco 1000 UE 2-ES (SCR-TD) . Deadhorse Available Mid-Continental U36A 3-S Prudhoe Bay Available Oilwell 700 E 4-ES (SCR) Prudhoe Bay Available 7-ES (SCR/TD) Dreco 1000 UE ConocoPhillips Kuparuk Dreco 1000 UE 9-ES (SCR/TD) ConocoPhillips Kuparuk Oilwell 2000 Hercules 14-E (SCR) Prudhoe Bay Available Mustang location Oilwell 2000 Hercules 16-E (SCR/TD) **Brooks Range Petroleum** 18-E (SCR) Emsco Electro-hoist-2 Prudhoe Bav Stacked 22-E (SCR/TD) Emsco Electro-hoist Varco Prudhoe Bay Stacked TDS3 Emsco Electro-hoist Canrig 27-E (SCR-TD) Point Thomson Exxon 1050E Emsco Electro-hoist 28-E (SCR) Prudhoe Bay Stacked

Oilwell 2000 Prudhoe Bay 33-E Available Academy AC Electric CANRIG 99AC (AC-TD) Deadhorse Available 245-E (SCR-ACTD) Oliktok Point OIME 2000 ENI Academy AC electric CANRIG 105AC (AC-TD) Deadhorse Available Academy AC electric Heli-Rig 106AC (AC-TD) Deadhorse Available

Nordic Calista Services Superior 700 UE

Prudhoe Bay Drill Site F-45 1 (SCR/CTD) BP Prudhoe Bay Well Drill Site 11-10 Superior 700 UE 2 (SCR/CTD) ВP Ideco 900 Milne Point MP-K Pad, Well 30 Hilcorp 3 (SCR/TD)

Parker Drilling Arctic Operating Inc.

NOV ADS-10SD Prudhoe Bay DS 18 ВP NOV ADS-10SD Prudhoe Bay DSW-59 BP

North Slope - Offshore

ВP Top Drive, supersized Liberty rig Inactive

Doyon Drilling Sky top Brewster NE-12 15 (SCR/TD) Stacked

Nabors Alaska Drilling

OIME 1000 19AC (AC-TD) Oooguruk ODSN-02 Caelus Alaska

Cook Inlet Basin - Onshore

Rig 37 Mesa 1000 Mobilized to North Fork to begin Miller Energy Resources drilling this winter All American Oilfield LLC

In All American Oilfield's yard in Kenai, Alaska

Available

Available

Hilcorp Alaska

Aurora Well Services

Franks 300 Srs. Explorer III AWS 1 Stacked out west side of Cook Inlet Available Nabors Alaska Drilling

IDECO 2100 E 429E (SCR) Kenai Stacked Saxon TSM-850 147 Ninilchik Unit, Bartolowits pad Hilcorp Alaska drilling Frances #1

Kenai

TSM-850 Cook Inlet Basin - Offshore

AAO 111

273E

XTO Energy National 110 C (TD) XTO

Spartan Drilling

Miller Energy Resources

Continental Emsco E3000

IDECO H-37

Baker Marine ILC-Skidoff, jack-up Spartan 151 Furie Upper Cook Inlet KLU#1

Cook Inlet Energy Osprey Platform RU-1, workover Cook Inlet Energy National 1320

Mackenzie Rig Status

Canadian Beaufort Sea

SDC Drilling Inc. SSDC CANMAR Island Rig #2 SDC Set down at Roland Bay Available

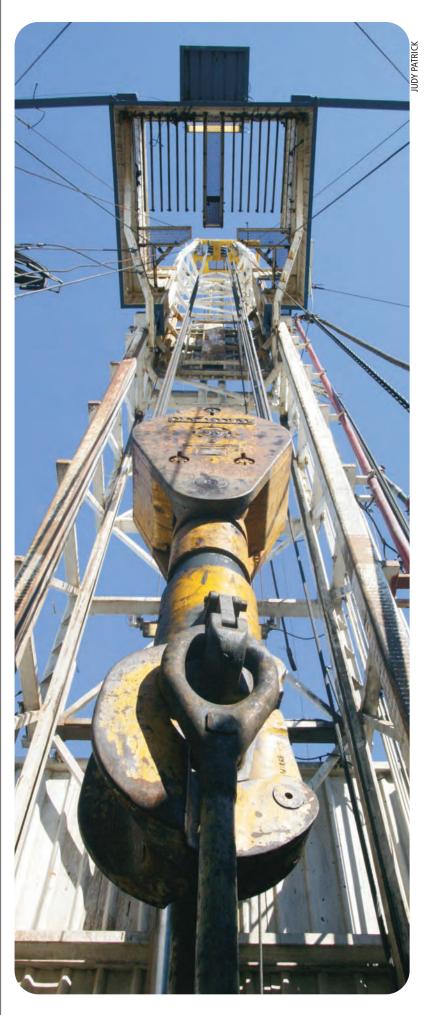
Central Mackenzie Valley

Akita Available TSM-7000 Racked in Norman Well, NT

The Alaska - Mackenzie Rig Report as of December 17, 2015. Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve



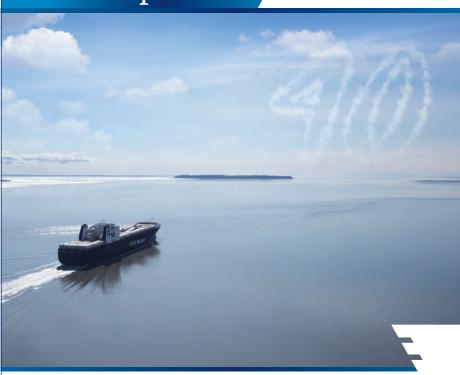
Baker Hughes North America rotary rig counts*

United States	Dec. 11 709	Dec. 4 737	Year Ago 1,893
Canada	174	177	431
Gulf of Mexico	23	25	58

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

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PIPELINES & DOWNSTREAM

Settlement talks for **Point Thomson tariff**

Conoco intervenes; companies, state negotiating; Regulatory Commission of Alaska gives parties 60 days, requires report

By KRISTEN NELSON

Petroleum News

he Regulatory Commission of Alaska has granted a request by PTE Pipeline LLC, ConocoPhillips and the state for 60 days to continue settlement negotiations over the tariff for the line which will carry condensate from Point Thomson to Badami.

PTE Pipeline LLC, owner of the Point Thomson Export Pipeline, is owned 68 percent by ExxonMobil Pipeline Co. and 32 percent by BP Transportation (Alaska) Inc. PTE Pipeline filed a tariff with RCA Sept. 15, proposing \$20.39 per barrel for transportation to Badami. The Alaska Department of Law protested the tariff in an Oct. 5 filing; In a Nov. 12 order RCA suspended the tariff rate and rules filed by PTE Pipeline for an initial six-month period and established a temporary rate equal to the filed rate, "to be collected subject to refund with interest."

ConocoPhillips Alaska filed Nov. 24 to intervene, noting that it will be a future shipper and "therefore has a direct financial interest in the outcome of the proceedings."

Statements from a transcript of a prehearing conference Nov. 30, during which the parties asked for a 60-day window, indicated the parties were involved in settlement discussions which they believed would narrow if not eliminate the issues identified in the state's complaint.

Parallel FERC proceeding

The RCA proceeding covers the intrastate tariff; the Federal Energy Regulatory Commission has a parallel proceeding on interstate rates. Settlement negotiations are underway for both proceedings.

The parties requested Jan. 29 as the date to provide a status report to RCA.

The parties also said that if they are making progress in the settlement negotiations they would continue to ask that proceedings at both RCA and FERC be suspended until the parties either settle or conclude that they cannot reach settlement on all issues.

RCA order

In a Dec. 9 ruling RCA affirmed the Nov. 30 ruling by the administrative law judge granting ConocoPhillips' petition to intervene, and granted the request of all parties that proceedings be held in abeyance until a status report on settlement negotiations is filed on or before Jan. 29.

In early November RCA approved a for interconnection ExxonMobil's Point Thomson unit production facilities to the Point Thomson Export Pipeline System.

PTEP is a 22-mile common carrier pipeline which will transport liquids from Point Thomson to the Badami central processing facility. PTEP is already connected to the Badami Pipeline, which is connected to the Endicott Pipeline which is connected to the trans-Alaska oil

The applicants told RCA in the con-

The RCA proceeding covers the intrastate tariff; the Federal **Energy Regulatory Commission** has a parallel proceeding on interstate rates.

nection application that ExxonMobil, the Point Thomson field operator, intended to begin transporting petroleum through the connection in the 2015-16 winter season.

PTE Pipeline answer

PTE Pipeline responded Nov. 30 to the state's complaint about the proposed tariff (see story in Oct. 11 issue), saying it does not object to the state's request for an investigation into the justness and reasonableness of the proposed rates, or to the state's proposal that RCA suspend the initial rates and allow them to be collected subject to refund.

PTEP said the state used a superseded throughput, 5,000 barrels per day, rather than the 5,800 bpd PTEP used in its calculations. It also says the state argues the initial rate will "be indefinitely applied."

"PTEP does not assume that it will use its present throughput figures to set rates indefinitely," the company said, but "will be in a position to adjust its rates to reflect changes in throughput, should they

On some issues which the state raised PTEP said they were "typical rate case issues" and would be "further explored in these proceedings, in which additional information will be provided by PTEP."

The state argued that an allowance for dismantlement, removal and restoration should be deposited in a separate fund. PTEP said DR&R obligations are imposed in the state's right-of-way lease for the pipeline and PTEP should not be required to deposit those monies in a separate fund because PTEP's owners have already submitted a guarantee "that they will perform DR&R obligations when they come due."

Modules have arrived

ExxonMobil said in early September that processing modules for the Point Thomson field had arrived by barge from Korea and that installation of the modules would keep the project on scheduled for an early 2016 startup.

Point Thomson, some 60 miles east of Prudhoe Bay, contains natural gas and condensate at exceptionally high pressure and that pressure must be maintained for optimum production of the condensate. The initial production system at the field will use two gas injection wells and a single production well. Compressors will recycle gas back into the reservoir once condensate is removed.

The initial production system is designed to produce up to 10,000 bpd of condensate.

Point Thomson contains an estimated 8 trillion cubic feet of natural gas and is planned to be part of the natural gas produced in the Alaska LNG Project. •

> Contact Kristen Nelson at knelson@petroleumnews.com

• GOVERNMENT

Stedman: 'I believe we have a project'

Sitka Republican says state took correct step to buyout TransCanada, must keep oil policy separate from natural gas decisions

By STEVE QUINN

For Petroleum News

Sen. Bert Stedman has never been reluctant to speak out against the majority, even on high profile issues like the recent tax rewrite SB 21 and the gas line legislation SB 138 when he voiced opposition against TransCanada's involvement.

Well, TransCanada is no longer a partner thanks to SB 3001 in the recent special session and oil tax credits are being revisited. Stedman says he doesn't want to be right; he wants the Legislature and Gov. Bill Walker's administration to work toward getting it right.

Stedman, a Sitka Republican with a resume of serving on several national energy boards, reviewed recent developments in an interview with Petroleum News.

Petroleum News: A lot's happened since the special session, particularly with changes in AGDC with John Burns and Dan Fauske leaving. What are your thoughts on that?

Stedman: I liked John Burns. I thought he was a good guy. I don't quite understand that one. I thought it was a bit of a surprise. With that being said, every governor appoints who he feels should be in that position. So I'm not so concerned that the governor is changing around the deck chairs.

Petroleum News: Even as it's been over a year since he took office? Are you OK with constant changes?

Stedman: I think when you look at any change of administration, it takes a little while to get the deck chairs rearranged. Also when you get something so complex, it's going to take time for the chief executive to come up to speed on information he wasn't aware of at the time through more detailed briefings. It does not come as a surprise. You have to give the governor a little flexibility when he first sits down. Just like any other elected official, he can perceive something one way, when you get elected and sit in that chair and the perception changes. It doesn't matter if you are on the borough council, the Legislature or the governor.

Petroleum News: You mentioned Burns, what about Dan Fauske also leaving?

Stedman: Dan's a good guy but I don't think he has a pipeline background. I recall the testimony when I was in charge of the Finance Committee and we asked him about that. His response was he had enthusiasm.

Petroleum News: So what would you like see in that spot, even if you aren't sure just who?

Stedman: I'd like to see somebody who has extensive background in LNG projects.

Petroleum News: Now one of the discussions over the qualification issue is that person may not reside in Alaska. Are you worried about bringing someone from the Outside?

Stedman: I'm more concerned about having somebody who technically

knows what he's doing rather than where he resides in Alaska and/or has a real good feel for the culture of the state; that would be even better. But that's his job. We are the appropriators; we are not the chief executive.



SEN. BERT STEDMAN

Petroleum News: How soon do you think someone needs to be in place?

Stedman: In an organization that complex the sooner the better is the general answer. I want to see this project continue to move forward. It's in the state and the industry's best interest. It's also in the country's best interest for a balance of trade. And we also have a potential to look at a huge capital project at a time when the industry is in a capital slowdown and we should be able to get some price concessions for some materials.

Petroleum News: You voted against the two prevailing bills right now, SB 21, the tax regime rewrite and SB 138, the current path for a gas pipeline, but you voted in favor SB 3001. What's changed?

Stedman: If we are referencing SB 21, I think we will show here this winter there were significant structural flaws within that bill. They need to be worked through and quite frankly toward a more balanced product, a more balanced fiscal structure to not disadvantage the industry or the state in any given the price environment.

With SB 138, the reason I didn't vote for that was I didn't support
TransCanada and that forced misalignment with the state and the other partners and giving up our voting rights when I saw there was no need to have them

Now we've passed a bill to get their capital back to them and getting our vot-

ing rights back. They were not holding the state's interest — in my view they were in front of the state's interest. So I had a different viewpoint on SB 138. That's why I didn't vote for it.

So I'm glad to see TransCanada exit because it's imperative that we have alignment with our gas and fiscal ownership of the liquefaction plant, the pipe and the treatment plant to align ourselves with our three partners. Otherwise, we would be put in a position of countless decades of arguing over costs and tariffs, all of the stuff that's haunted us with TAPS over the last 30 years.

Petroleum News: Was there anything about 3001 you didn't like or that concerns you?

Stedman: Not necessarily. There is always the interest the Legislature has in some of the management decisions the governor makes — whoever the governor is. In that regard, having the hearings will hopeful-

ly end up being a net-positive for the project in helping bring some things to light, some things that might in the future be smoothed out between the Legislature and the administration.

Petroleum News: There were some very vocal concerns about transparency and who is in charge. Do you share those concerns?

Stedman: The governor is in charge. We have the strongest governor in the country. I'm not talking about him personally. I'm talking about the structure of this state. It's the strongest governor of all 50 states. You see that in the style in which they govern. I've seen that in all four governors who served in this building since I've been here.

So I think it's pretty normal. If it's a question of management and who is making the decisions, that will get streamlined out.

Petroleum News: There is also the question over whether a 48-inch pipe should be built rather than a 42-inch pipeline. Is that something you believes warrants attention?

Stedman: That is an economic decision the four partners need to make and they need to make an economic decision that's in their best interest. Our viewpoint might be a little different than the individual one of the remaining three. I'm more concerned about having a project.

I kind of like a 48-inche pipe, but I'm more optimistic than some of my colleagues about of volume of gas that will be available, which is substantially more than what's up there today in Prudhoe Bay and Point Thomson. I don't think this is the 30-year life project; I think it's a century longer. If we can get some

expansion in that area, I think it will prove that I'm right.

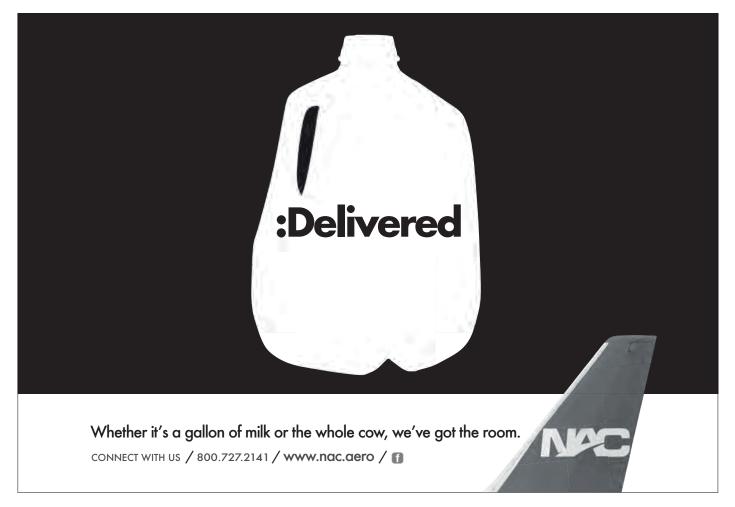
If we ever crack the hydrates, which eventually we will, it's going to take our volume numbers — it

will be so big, we won't be able to comprehend them. Literally. Whatever we build, having access capacity, through looping, compression or size of the pipe to make sure whoever is up there can get access to the pipe and sell the product because it doesn't do us any good to leave it in the ground.

Petroleum News: Do you think it will encourage more players, a 48-inch pipe?

Stedman: Depends on how the agreements go and how much excess capacity you have. That's the preference of going to a 48-inch line, but does 42-inch line with looping and compression work more economically than a 48-inch line? I don't know. Let the guys who know the gas business bring forward from a commerce position what's in the best interest of everybody. I'm sure if one or two of the partners disagree, we'll hear about it.

see STEDMAN Q&A page 17



INTERNATIONAL

Mexican reforms take shape

2013 constitutional changes launch bidding rounds, including 25 onshore blocks; officials promise 'transparent, accountable' process

By GARY PARK

For Petroleum News

In its 22 years of existence, the North American Free Trade Agreement is supposed to have been a trilateral pact when it has really operated at a bilateral level between the United States and Canada.

Mexico has been the forgotten partner. But that is changing fast in the energy sector, with Mexico and Canada emerging as fierce rivals as the so-called "three amigos" show signs of drifting farther apart.

The signs of deepening tension were evident in the last summit of the three national leaders almost two years ago when the best they could manage was an agreement to vaguely discuss "opportuni-

"This reform is the deepest transformation that the Mexican energy sector has experienced in the past 80 years." —Mexican Energy Secretary Pedro Joaquin Coldwell

ties to promote common strategies" in areas such as trade, infrastructure and unconventional energy.

In the old conventional oil and gas world, U.S. and Mexican production was seemingly in relentless decline.

Canada was viewed as the supplier of the future, delivering safe supplies of oil, natural and electricity to the U.S.

Dynamic changes

But that dynamic got rapidly turned on its head with the surge in shale oil and gas development, displacing both Canadian gas and U.S. coal used to fire power plants.

In the process the U.S. decisively regained its place as an energy superpower, racing past Saudi Arabia and Russia, while accelerating plans to export LNG to Asia and elsewhere, challenging Canada's slow-moving attempts to enter the LNG market.

Then Mexico's state-owned Pemex started to shake off its traditional role as a cash cow for the government, channeling 55 percent of its revenues into royalties and taxes, while being denied the chance to makes its own decisions in the absence of any independent directors and subjecting itself to a close, line-by-line vetting of its budget.

With 151,000 employees, Pemex's output of oil before the reform process was well short of its foreign counterparts.

The result was a series of poor investment decisions, notably in its crown jewel Cantarell operation, a prolific shallow-water field where production has plummeted to 400,000 barrels per day from 2 million bpd despite US\$70 billion being poured into exploration and production between 2008 and 2012.

Although foreign companies were allowed a limited presence in the upstream sector under fee-for-service agreements, Mexico experienced a sharp decline in production over a decade to 2.5 million bpd from 3.4 million bpd.

To reverse that trend, it has been estimated that Mexico needs to spend US\$30 billion a year to regain 700,000 bpd of lost production from its 115 billion barrels of unconventional deepwater, tight oil and natural gas and shale oil and gas and US\$100 billion to reach 4 million bpd.

Change underway

But the long-demanded change in the structure of Mexico's energy industry seems finally to be underway after changes to the constitution in 2013 that opened the sector to foreigners.

"This reform is the deepest transformation that the Mexican energy sector has experienced in the past 80 years," Mexican Energy Secretary Pedro Joaquin Coldwell told the Calgary Petroleum Club in early December.

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Alaska's North Slope

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"During this period, the sector was essentially shut to private investment. Today, Mexico is one of the most open economies on the planet."

The first taste of this transformation is a bidding round later in December for 25 mature, onshore blocks with proven reserves.

Subdued Canadian interest

However, the interest among Canadian companies has been subdued so far, with only four companies — none of them household names — qualifying for the bidding round.

Two are public companies — Gran Tierra Energy and Renaissance Oil — and two are privately held entities formed specifically to bid — Torenco Energy and Sun God Resources.

Kevin Smith, a vice president at Renaissance, told the Calgary Herald that he believes Calgary companies are missing a great opportunity, rating Mexico as an "excellent place to do business and grow a company for years to come given all the deal flow we expect."

A spokesman for Gran Tierra said his company views its qualification as a foot in the door, to evaluate prospects and participate in what is expected to be a steady series of bidding rounds in the next five years.

Juan Carlos Zepeda, president of Mexico's National Commission of Hydrocarbons, told the Canadian energy leaders that the bidding rounds place a strong emphasis on transparency and accountability, requiring companies and bidders to pose any questions they have on a public website.

He said that more than 100,000 viewers watched the most recent bidding process, while conceding that officials were disappointed that only two of 14 properties were sold in the first round, prompting changes that resulted in three more blocks being awarded.

Zepeda said 79 companies have prequalified for the upcoming bids, 36 as individuals and the rest participating in 16 consortiums.

How far Mexico has gone in its pursuit of new beginnings should be more evident in two calls for bids that are scheduled in 2016. ●

Contact Gary Park through publisher@petroleumnews.com

WHEN IT COMES TO SAFETY...

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LAND & LEASING

Shell appeals decision not to extend leases

On Dec. 11 Shell appealed to the Department of the Interior over an October decision by the Bureau of Safety and Environmental Enforcement to deny a request for lease suspensions for the company's Beaufort and Chukchi sea leases. The suspensions would, in effect, extend the terms of the leases by five years. The leases are currently due to expire between 2017 and 2020. In its request for lease suspensions, submitted in July 2014, Shell had argued that circumstance beyond its control, including regulatory restrictions, regulatory uncertainty, court challenges and the limited availability of appropriate drilling rigs had delayed its exploration efforts in the leases.

In September of this year, following disappointing drilling results in its Chukchi Sea Burger prospect, Shell announced that it was ceasing its multibillion-dollar exploration activities in offshore Alaska for the foreseeable future.

In its October ruling over Shell's lease suspension request, BSEE said that, given Shell's withdrawal from further drilling activities in the Chukchi or Beaufort seas, and given the lack of a plan for resuming or commencing leaseholder activities, Shell had not shown a justification for the lease suspension request.

In appealing that October ruling, with the appeal presumably heading for the Interior Board of Land Appears, Shell has obviously flagged its desire to hold onto its Alaska leases. But the company also says that it stands by its September decision to bring its Alaska exploration program to an end.

"We believe (lease) suspensions are warranted for reasons outlined in our original request submitted in July 2014," Shell spokesman Curtis Smith told Petroleum News in a Dec. 15 email. "The appeal does not affect our recent decision to stop exploration offshore Alaska for the foreseeable future."

—ALAN BAILEY

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PETROLEUM NEWS • WEEK OF DECEMBER 20, 2015

Congratulations -Ure

Compliments to Furie Operating Alaska's on its recent start-up of the Kitchen Lights natural gas field, offshore in Cook Inlet.

Bruce Webb, Furie senior vice president, told Petroleum News that the company is selling its gas through an initial sales contract which will last until at least the end of the yearproduction will ramp up to 12 million cubic feet per day. Webb said a gas supply agreement for 12.4 million cubic feet per day with Homer Electric Association comes into effect in April.



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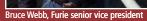
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State's fiscal woes have no easy answer

ISER economist reviews the nature of the problem and discusses the options for closing the gap between expenditures and revenues

By ALAN BAILEY

Petroleum News

s oil prices tumble and with them the potential solvency of the state of Alaska's finances, a heated debate is emerging over both the extent of the problem and the means of putting the state's fiscal position back onto an even keel.

On Dec. 7, during Law Seminars International's Energy in Alaska conference, Gunnar Knapp, director of the Institute of Social and Economic Research at the University of Alaska Anchorage, provided a factual and objective overview of the state's fiscal situation and the various possible options to deal with the state's financial problems.

"Our state faces an extremely serious fiscal challenge," Knapp said. "We are spending this fiscal year well over twice the revenues that we're bringing in, and we are paying for this deficit in our spending by drawing down our savings."

Unsustainable deficits

In the past three years the state has drawn down its savings reserves from more than \$16 billion to \$7.6 billion: Continuing deficits at current levels could drain those reserves completely in two to three years, Knapp said. With budgeted spending for the current financial year amounting to \$5.2 billion, in the absence of some additional source of state revenue nearly \$3 billion of this expenditure would need to come from savings. But the revenue level in this calculation assumes an oil price of \$66 per barrel — the current price of \$42 will make the deficit even larger.

"You can't continue with deficits of this magnitude for very long," Knapp said. "We will have to ... close the funding gap between our spending and our revenues."

Closing the gap will require some combination of spending cuts, new state revenue sources and the use of earnings from the Alaska Permanent Fund, Knapp said, adding that there are no easy or popular choices to be made. And, while the use of the state's savings can enable a deferral of the hard choices for perhaps a couple of years, the longer the decisions are delayed the worse the problem becomes, given the resulting erosion of state savings and the increasing risk to the state's credit rating and investor confidence

People need to question whether the state's current savings are to be used to "keep the party going for a few more years," or whether they should provide benefit for future generations of Alaskans, Knapp commented.

"You can't go on indefinitely paying for almost all of state government for a larger and larger population from ever declining oil production." —Gunnar Knapp, director, ISER

The fundamental challenge

The fundamental challenge for the state of Alaska is that 90 percent of its income currently comes from oil revenues, while the state's oil production is falling and the state's population is rising.

"You can't go on indefinitely paying for almost all of state government for a larger and larger population from ever declining oil production," Knapp said.

Moreover, state oil revenues are extremely sensitive to the oil price. And with the current bust in that price, much of the state's income has evaporated. However, with the sensitivity to oil prices being lower below an \$80 oil price than above that price level, it would take a price rise to above \$80 to create a major increase in income to the state treasury, Knapp said. And there is no oil tax regime that could restore state oil revenues to the levels of a few years ago, he said.

To put things into perspective, even at the assumed \$66 oil price, the projected state deficit is huge, amounting to around \$4,100 per Alaska resident, Knapp said. In fact, just giving up the entire permanent fund dividend this year would solve less than half of the problem, he said. At the same time, simply hoping that oil prices will go back up again is neither a realistic nor a responsible approach to meeting the fiscal challenge, he said. Even a price rise to around \$70 to \$90, a price level at which much oil production becomes profitable, would leave revenues well short of expenditure. Moreover, declining North Slope oil production will likely continue to put downward pressure on oil revenues.

What are the options?

So what is the state's current annual expenditure of \$5.2 billion being used for? And what scope is there to trim back the state budget?

Given the barebones capital budget, already cut in response to the fiscal crisis; and given the impossibility of cutting state employee retirement commitments or of cutting debt servicing payments, future cuts will need to come from oil industry tax credits, currently budgeted at roughly \$500 million, or from the operating costs of state departments, Knapp said.

Education funding and expenses for health and social

see **FISCAL WOES** page 13

The workings of the Alaska Permanent Fund

Established in 1976 as a means of setting aside some of Alaska's oil and gas revenues to build a rainy-day fund for the future the state's Permanent Fund has grown to a current value of more than \$50 billion. Given the state of Alaska's current fiscal deficit, the use of earnings from the fund to bolster state revenues is being discussed.

The primary source of income for the Permanent Fund consists of some 30 percent of the royalties that companies pay for oil and gas production in the state. Money in the fund is invested, with realized earnings from those investments being moved into an earnings reserve account. Permanent fund dividends paid annually to Alaska residents come from the earnings reserves — under the terms of the Alaska constitution money cannot be withdrawn from the Permanent Fund itself. Some money from the earnings reserve has also been paid back into the Permanent Fund from time to time, to inflation proof the fund. However, since payments from the earning reserve, including dividend payments, have been less than the Permanent Fund earnings over the years, the savings in the earnings reserve have grown.

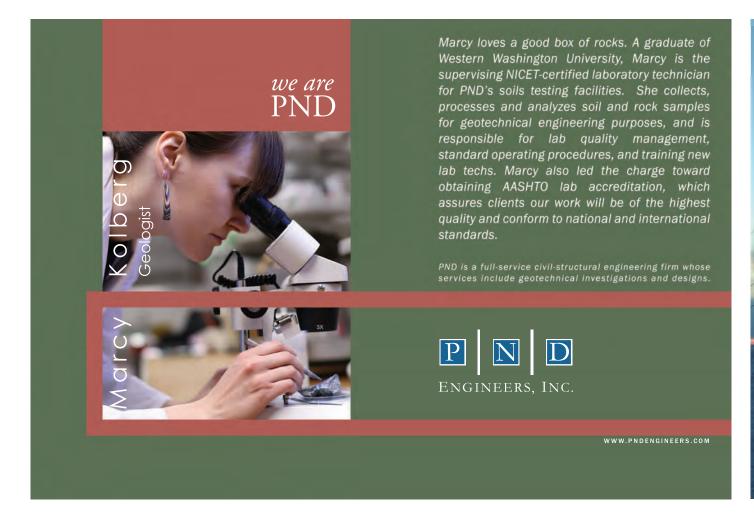
Tapping the earnings

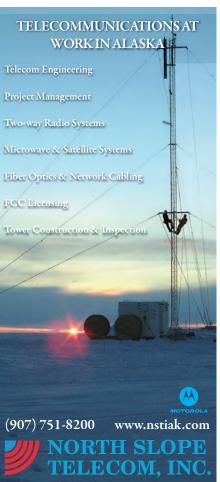
On Dec. 7, during Law Seminars International's Energy in Alaska conference, Gunnar Knapp, director of the Institute of Social and Economic Research at the University of Alaska Anchorage, talked about ways in which the fund's earnings might be tapped for state use. There are two potential approaches to using Permanent Fund earnings as a means of bolstering state revenues, Knapp said.

First, the amount of money paid out as permanent fund dividends could be reduced, thus making more earnings available for state use. This would have the immediate effect of reducing Alaska household incomes in a manner that would impact the Alaska economy, with a disproportionate effect on poor families, Knapp said.

Second, the dividend payouts could continue as at present, but with the state taking revenues from the remaining Permanent Fund earnings. However, while there would be no immediate impact on

see **THE PFD** page 13







page Pretium discovers new zones beyond Valley of the Kings

www.MiningNewsNorth.com

The weekly mining newspaper for Alaska and Canada's North

Week of December 20, 2015





Ucore Rare Metals and IBC Advanced technologies are building a pilot separation plant that will refine rare earths into individual salts exceeding 99 percent purity. Concentrates from Ucore's Bokan-Dotson Ridge deposit in Southeast Alaska are anticipated to be used to test the plant sometime early in 2016.

Ucore's rare earth separation plant draws new investor, US\$5 million

Ucore Rare Metals Inc. Dec. 14 reported that a foreign investment fund has agreed to pay US\$5 million (roughly C\$6.9 million) in consideration for a royalty or profit share on the sale of products and services related to the processing of rare earth elements and other specialty metals using SuperLig® molecular recognition technology. SuperLig is an innovative method of separating rare earths using resins designed to bind selectively with ions based on multiple parameters such as size, chemistry, and geometry. In March, Ucore and Utah-based IBC Advanced Technologies formed a joint venture to develop the new method of separating rare earths into individual salts exceeding 99 percent purity. Under the terms of the JV, Ucore holds a 60 percent interest while IBC retains 40 percent interest in exclusive rights to the SuperLig MRT platform developed by IBC. The unnamed foreign investor has agreed to pay Ucore US\$2.5 million upon execution of the agreement and the remaining US\$2.5 million by April 30. In exchange, the investor will receive a royalty from the production of Ucore's early-stage MRT installations. The royalty will be comprised of two components: a 5 percent gross royalty from Ucore's first MRT installation or installations, payable until the recapture of the investment; and a royalty equal to 5 percent of Ucore's net profits from the installation. The foreign fund has the option to increase its investment by up to US\$1 million. Each US\$500,000 tranche of additional investment will result in a 0.5 percent increase in the net profits royalty. This marks the third investor Ucore has attracted to the SuperLig MRT technology. "We're pleased to announce the agreement for yet another significant royalty financing," said Ucore President and CEO Jim McKenzie. "The obtainment of repeated financings during this challenging time in the resource sector is an exceptional achievement. Remarkably, this form of financing is prospectively non-dilutive, a substantial plus for new and existing Ucore shareholders. The company is excited to be pushing forward with the development of this promising MRT platform. This funding will contribute toward the completion of our MRT pilot plant, which we anticipate during Q1 of 2016." The foreign investor has the right to convert the total amount of the investment, minus any royalty amounts already paid by Ucore, into common shares of Ucore. If the investor elects to convert such amount, then Ucore's royalty obligations shall cease and the conversion amount shall be converted into common shares at the greater of: The 30-day volume weighted average share price of Ucore's common shares, less a 20 percent discount; the market price of Ucore's common shares on the day immediately prior to the conversion date, less a 20 percent discount; or C20 cents per common share. •



Millrock Resources geologists are looking forward to investigating the newly acquired Golden Triangle properties in Northwest British Columbia, where receding glaciers are exposing never before seen geology across the mineral-rich landscape.

EXPLORATION

Enter Golden Triangle

Millrock adds Northwest BC gold-copper projects to rapidly expanding portfolio

By SHANE LASLEY

Mining News

The prolonged downturn in the metals market is like Black Friday for project generators such as Millrock Resources Inc. The Vancouver, B.C.-based junior has added a dozen gold and base metals projects to its exploration portfolio during the past six months. The most recent of these

acquisitions gives the mineral explorer a foothold in the Golden Triangle region of Northwest British Columbia.

"This is the exact time Millrock has been waiting for all along," Gregory Beischer, the company's president and CEO, told Mining News. "We have stuck rigorously to our

model, and here we are now GREGORY BEISCHER ... taking advantage of the

tremendous opportunities that are in front of us." On Dec. 14, Millrock announced it had orchestrated a series of deals to acquire three properties -Todd Creek, Poly and Oweegee Dome - that blanket more than 600 square kilometers (230 square miles) of the Golden Triangle near the Brucejack and KSM properties.

"It has taken substantial effort, coordination and cooperation by all parties to execute eight different agreements simultaneously with six different claim owners, royalty owners and creditors. However, the result is that we have assembled three large, cohesive mining claim blocks covering highly prospective lands in a very attractive and active exploration and mine development district," Beischer explained.

While a number of companies held various interests or royalties in these properties, Geofine Exploration Consultants Ltd., a geological consulting firm with vast experience in Golden Triangle, is a common denominator.

"The Golden Triangle is truly one of the world's

most prolific and best-mineralized slices of the earth's crust," said Beischer. "By merging our exploration approach with the institutional knowledge and local operational ability of Geofine Exploration Consultants, we intend to assert ourselves as the premier generative exploration company in the district. These three main projects will be a great start."

Golden Triangle properties

Todd Creek, which covers 20,276 hectares (50,103 acres) of land immediately south of Pretium Resources Inc.'s Brucejack project, is the most advanced of the three Golden Triangle properties acquired by Millrock.

The property shows the potential for precious metals-rich volcanogenic massive sulfide deposits similar to the historic Eskay Creek Mine located 60 kilometers (37 miles) to the northwest.

Beischer said Todd Creek "is probably the best volcanogenic massive sulfide property" he has come across in his more than 30 years as an exploration geologist.

One hole drilled by Noranda Exploration Company at the Fall Creek Zone at Todd Creek in 1988 cut 5.95 meters averaging 14.5 grams per metric ton gold and 2.06 percent copper.

In its annual report for 1988, Hemlo Mines Inc. reported an historical resource of 207,000 short tons averaging 5.85 g/t gold at the South Zone deposit, which is situated about five kilometers (three miles) south of the Fall Creek zone.

While South zone has the potential for expansion, Beischer is particularly intrigued by the deposit's gold enrichment and what that could mean for a large VMS deposit in the area.

"I view it as a really good sign that any VMS there is going to be precious metals-enriched," he said. "There are enormous alteration zones nearby that tell me this is a really big system."

Fall Creek and South Zone represent two of eight zones identified along an eight-kilometer

see GOLDEN TRIANGLE page 11



NORTHERN NEIGHBORS



Compiled by Shane Lasle



With development of a mine underway at the high-grade Valley of the Kings gold deposit, Pretium Resources Inc. is finding new prospects to explore across the larger Brucejack project in Northwest British Columbia.

Pretium discovers more new zones at Brucejack

Pretium Resources Inc. Dec. 14 reported that the final set of results from the 2015 regional grassroots drill program returned long intervals of low-grade gold mineralization at depth to the south and southeast of the Valley of the Kings deposit, as well as polymetallic mineralization in new zones 13 kilometers (eight miles) southeast of the project. Hole SU-671, drilled some 700 meters southeast of the Valley of the Kings deposit, intersected an east-west trending stockwork that included 8.68 meters averaging 9.94 grams per metric ton gold. This interval was within a broad zone of low-grade gold and elevated silver values. The high-grade stockwork mineralization remains open to the east. Hole SU-673, drilled roughly 2,000 meters south of the Valley of the Kings, cut 561.5 meters averaging 0.53 g/t gold. The gold grades within this broad zone of mineralization were improving at depth with several higher grade intersections near the bottom of the hole. Pretium said the results from holes 71 and 73, in conjunction with exploration work completed to date, demonstrate that the Valley of the Kings, West Zone and other zones to the east and southeast – Flow Dome, Bridge and Kitchen View – are part of a hydrothermal system that has a larger area extent than previously thought. Drilling in the Bowser area, located about 15 kilometers (nine miles) southeast of the Valley of the Kings, was focused on testing a circular magnetic feature identified with a regional airborne electromagnetic survey completed during the 2015 regional exploration program. Holes SU-674 and SU-675 intersected a thick interval of Salmon River sediments – host rock to the Eskay Creek deposit, which is located 20 kilometers (12.5 miles) to the northwest –that contained bedded pyrite. Both holes also intersected varying thicknesses of lowgrade zinc and anomalous molybdenum mineralization. In the Kirkham Zone, located some 13 kilometers (eight miles) southeast of the Valley of the Kings, five holes tested high-grade surface showings. SU-682 returned significant silver and lead values in a shear hosted, quartz-carbonate stockwork. Another stockwork located 2,000 meters to the southwest returned surface values of 3

see NORTHERN NEIGHBORS page 11

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OPINION

Alaskans discuss 35 years under ANILCA

Columnist offers U.S. Senate Committee thoughts on how ANILCA can be made more workable for Alaska's development industries

By J.P. TANGEN

Special to Mining News

For many of us, Dec. 2, 1980 was one of the darkest days in Alaska's history, for that was the day that more than 100 million acres of public land in Alaska were ripped from the public domain and placed off limits to virtually all forms of development. Fortunately, Alaskans were promised two things by the Alaska National Interest Lands Conservation Act: First, that this statute satisfied the need of the Carter administration to bend to the will of his Green constituency; and second, that the withdrawals would not preclude access across the withdrawn lands by Alaskans.

Of course, these promises were simply lies. Twenty years after ANILCA was passed the Alaska Miners Association published a short book called "d(2), Part 2, a Report to the People of Alaska on the Land Promises Made in ANILCA 20 Years Later." That book detailed many of the abuses by the land management agencies that had taken place in the two decades that preceded its publication.

Now another 15 years have elapsed, and the troubling problems that first bedeviled us are still like open sores on a leper, while new and even more problems continue to emerge.

On Dec. 3, 2015, U.S. Sen. Lisa Murkowski, chairwoman of the Senate Energy and Natural Resources Committee held a hearing on the problems that ANILCA has created and solicited recommendations from a panel of Alaskans as to how some of these problems could be remedied. I was honored to have been invited to testify on that panel.

In my oral testimony, due to time constraints, I was able to identify only a couple of matters that were illustrative of the problems that Alaskans have with the way the land managing agencies are implementing their statutory responsibilities; however, the list is long. I also identified for the committee more than a dozen remedial actions that Congress should consider enacting to put a stop to the federal overreach which is so visible in the context of ANILCA.

What came through to me, however, more than any other single point, is that the depredations are rampant and ongoing, perpetrated by bureaucrats who care neither for the needs of Alaska to develop its resources nor for the words of the law that demand they circumscribe their ambitions.

Accordingly, I walked away from the hearing more determined than ever to ensure that d(2), Part 2, Second Edition is published and have started the process to make that happen. Because it is a volume about Alaskans, I feel it should be by Alaskans, and am aggressively soliciting contributions to the manuscript by anyone who has a tale to share.

The first edition included 15 articles, frequently anecdotal, about how we got to where we were and what the issues of the day were. Interested readers of this

Mining & the law



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Alaska since 1975. He can be reached at jpt@jptangen.com or visit his Web site at www.jptangen.com. His opinions do not necessarily reflect those of the publishers

column ought to be able to secure a copy of the first edition from the Alaska Miners Association. I also understand that it may soon be available digitally from the AMA.

of Mining News and Petroleum News.

Individuals wishing to make contributions to the next edition should contact me or Steve Borell, former executive director of the AMA to discuss the details of their proposed chapter. The main point is that writers need to plan on a Feb. 1, 2016 deadline.

Among the things that I feel should be addressed by Congress are the following:

That ANILCA ought to be considered an action-forcing statute binding on federal land managers in Alaska;

That the federal courts should review de novo agency decisions that deny Alaskans access through and across Conservation System Units (CSUs);

That all waters in Alaska be deemed navigable and subject to the exclusive jurisdiction of the state unless the affected agency can prove that a specific reach or impoundment is not owned by the state; and that logging roads and historic RS 2477 rights of way be deemed grant-

I also recommended that permits and studies required by an agency shall be paid for by that agency; that applications for access to or development of resources on inholdings shall be approved, unless denied for cause, within one year of the filing date; that all lapsed Public Land Orders be revoked by statute; and that wetlands within the more than 104 million acres of CSUs and Wilderness Areas in Alaska be deemed sufficient to satisfy the Clean Water Act's mitigation requirements for any development project in Alaska;

In addition, I urged that the Alaska Land Use Council be re-established to ensure that the promises of ANILCA are kept; that the Quiet Title Act should not apply to the transfer to the state of public lands in Alaska; and that the Mining in the Parks Act shall not apply to Alaska.

Although I recognize that the foregoing list is not comprehensive, and probably not politically possible, it seems to me that these few points are a place to start the conversation. It does have to be a conversation that involves all of these points and more, though. We have literally lost our timber industry in Alaska. Oil and gas takes it on the chin on a reg-

GOLDEN TRIANGLE

(five miles) trend at Todd Creek.

Poly, located about 10 kilometers (six miles) southeast of Todd Creek, is prospective for both volcanogenic massive sulfide and epithermal gold deposits.

A number of mineral outcrops and geochemical anomalies have been identified along an eight-kilometer (five miles) fault structure that localizes mineralization on the Poly property.

Oweegee Dome, also known as the Stewart property, is geologically similar to the Brucejack property that lies immediately to the east. Past work on this 32,000-hectare (79,000 acres) is prospective for the gold-vein, porphyry copper-gold and polymetallic VMS deposits for which the Golden Triangle is renowned.

The Millrock team's first order of business is to compile, digitize, organize and do quality control on all the various data available for these properties.

"That is going to be a big job in the coming months," Beischer said.

The Millrock CEO said the project generator would welcome a partner seeking exclusive rights to these newly consolidated properties, even at this early stage. For a very modest investment, such a company would have its choice of properties that it might want to joint venture once the data is compiled and the first-pass field work is completed.

"We can't wait to get out there next summer and see what might be lying right there on the ground," Beischer

All three of the properties also have the distinct advantage of being transected or very close to paved highways and 287 kilovolts of industrial grade electricity being delivered by the recently energized Northwest Transmission Line.

They are also located in a jurisdiction that appreciates its mining sector.

"They get it in B.C.," Beischer told Mining News. "They make explorers and miners feel welcome, and we want to be there.

Growing portfolio

In order to acquire the Golden Triangle and other properties, Millrock raised C\$1.33 million through a non-brokered private placement that involved the issuance of 8,321,509 priced at C16 cents apiece.

Millrock only needed to pay out C\$313,000 of the raised cash to consolidate ownership of the three northwestern British Columbia properties, but did issue an additional 2,732,998 shares to the various parties holding

various interests and royalties.

Management believes the potential of its expanded portfolio more than offsets the additional shares now in the market.

Beischer explained to shareholders in November, when the company announced plans to raise the funds, "While we are cognizant of the dilution this strategic financing will cause, we believe that the property acquisitions that we intend to make with the proceeds of this financing will ultimately pay off for all Millrock shareholders.'

In addition to the Golden Triangle properties, Millrock has picked up six gold and copper properties in Mexico since the Nov. 10 financing announcement, adding to a dozen such projects the company acquired there last year. The company also acquired three Alaska gold and copper properties since late July. All told, the company has added two dozen gold and copper properties to its portfolio during the past 18 months.

Beischer said future property acquisitions are likely.

"We are being very aggressive in our property acquisitions," he said.

Sticking with its project generator model, Millrock is seeking joint venture partners to unwrap the potential of the projects that the company has found during the mining sector's equivalent of Black Friday sales.

continued from page 10

NORTHERN NEIGHBORS

percent copper and 3,700 g/t silver across

0.71 meters. These showings suggest the potential for finding intrusion-related, structurally controlled mineralization, particularly in the more competent volcanic units below the sediments. Pretium said the 2015 regional exploration program was successful in extending known gold zones and establishing several new ones, some that could potentially host volcanogenic massive sulfide, replacement or epithermal-style mineralization. The 2015 surface exploration drill program consisted of approximately 20,000 meters of drilling which targeted porphyry-epithermal-style mineralization to the east of the Brucejack Project. Of this, the majority was targeted at or in the vicinity of the Flow Dome Zone approximately 1,000 meters east of the Valley of the Kings. Pretium said high-grade intersections along with long intervals of lowgrade mineralization encountered at Flow Dome show this zone to be an extension of the Valley of the Kings deposit. In addition to drilling, the grassroots exploration program included airborne geophysical surveying and prospecting. Pretium said results from the program will be used to prioritize targets for follow-up regional exploration programs.

Nord Gold floats offer to buy out Northquest

Northquest Ltd. Dec. 15 announced that Nord Gold N.V. – a Netherlandsbased gold producer with operations in Russia, Kazakhstan, Burkina Faso and Guinea – intends to make an all-cash offer for all of the issued and outstanding Northquest shares it doesn't already own at a price of C25.3 cents per share. This offer is slightly higher than the minimum outlined in a subscription agreement the two companies entered into on June 1. In late November, Nord Gold invested C\$5 million to buy 17.5 million Northquest shares, through the exercise of all the warrants it held in connection with previous investments. As a result, the Netherlands-based company holds 55.575 million Northquest shares, or about 52.3 percent on a non-diluted basis. A special committee of Northquest's board of directors is reviewing and evaluating Nord Gold's informal offer with its financial and legal advisors. Northquest recommends that shareholders take no action until the directors make a recommendation as to the merits of the offer. Nord Gold has also announced its intention to requisition a special shareholders meeting for the election of a new slate of directors to the Northquest board. While Nord Gold has said it intends to make the offer, Northquest notes that it has not yet received a formal offer from the compa-

Northquest aims to drill new Howitzer zone

Northquest Ltd. Dec. 15 said results

from a glacial till sampling program recently completed at its Pistol Bay gold project in Nunavut has identified a large new zone that will be the target of significant drilling in 2016. This year, the company set aside C\$500,000 for geochemical surveying of promising gold targets concealed by glacial overburden, known as till. An initial 40-sample pilot survey was conducted in July to test the Vickers gold zone and Bazooka gold occurrence. The 12-kilogram samples were collected at 200-meter intervals on lines 500 meters apart and oriented northeast, perpendicular to the southeast glacial ice flow path. At Vickers, a 200-meter-wide gold dispersal train with gold counts up to 731 grains per sample was identified and traced 500 meters along the southeasterly direction of glacial ice flow. At the Bazooka gold occurrence, a 1,000meter-wide gold grain anomaly with counts up to 358 grains per sample was identified. This anomaly covered an area much larger than the relatively small Bazooka gold occurrence and extended glacially up-ice beyond the showing, indicating a previously unknown bedrock source to the northwest. The pilot survey was followed by a larger, 424-sample survey covering an additional 50 square kilometers (19 square miles) at each Vickers and Bazooka. At Vickers, the dispersal train from the known gold deposit was delineated more precisely but only a few small outlying gold grain anomalies were encountered. At Bazooka, however, the newly discovered anomaly was shown to be part of a very large and systematic dispersal train that the company is calling the "Howitzer Anomaly." Northquest said the data from the survey provides sufficient density of sampling to target drilling of the Howitzer Anomaly. As soon as possible in 2016, geologists will map and sample the outcrops in the source area of the gold dispersion train and lay out the first bank of drill holes. Given the large size of the anomaly, it is

anticipated that a minimum of 10,000 meters of drilling will be required for the initial evaluation of Howitzer. Northquest CEO Jon North said, "This new discovery is associated with a large area of mineralized intrusive rocks that resemble those at the Vickers gold zone is particularly encouraging, and we look forward to drilling the first holes at the Howitzer Anomaly in 2016."

Electrum property in NW BC lives up to name

American Creek Resources Ltd. Dec. 11 said that an eight-hole drill program at the Electrum project in northwestern British Columbia encountered near-surface gold-silver zones. Six of the holes cut significant gold-silver mineralization, including: one meter of 6.09 grams per metric ton gold and 242 g/t silver from a depth of 16.5 meters in hole EL 15-03; one meter of 1.31 g/t gold and 189 g/t silver from a depth of 28 meters, and one meter of 6.93 g/t gold and 62 g/t silver from a depth of 35 meters in hole EL 15-

05; and one meter of 14.65 g/t gold and 22 g/t silver from a depth of 13 meters, one meter of 6.59 g/t gold and 461 g/t silver from a depth of 14 meters, and one meter of 3.47 g/t gold and 58 g/t silver from a depth of 35 meters in hole EL 15-07. The fall exploration program also included the collection of roughly 100 grab samples to identify new mineralized zones. American Creek COO Darren Blaney said, "The program conducted this fall has been a great success in that we appear to have now unlocked one of the major hurdles encountered in previous work conducted on the property as we have identified a discernable alteration pattern and mineral sequence. This is a major breakthrough in validating and proving the newly developed geological model and associated exploration concept for the Electrum, and we are excited for what this means going forward." In 2016, the company plans to outline the size, shape and grade of mineralized bodies so that bulk sampling for grade and recovery characteristics can be determined.

continued from page 10

TANGEN

ular basis. Most miners wouldn't consider trying to bring a new property on federal land into production, and mining on State land is often the target of those who believe we should all live

in trees and eat snakes. Management of hunting and trapping on the public lands is continuously being circumscribed.

It is high time that interested Alaskans ask ourselves whether this is the treatment that we deserve from our federal government, and if not, what we are going to do about it. •



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Sustainable Productivity



FISCAL WOES

services are by far the two biggest line items in state departmental spending, he said. And much of this spending is driven by spending formulas. Education funding predominantly includes K through 12 schooling, while health and social services include Medicaid and services for addressing some of the ills in our society.

"These things are not easy to cut," Knapp said, commenting that there will be considerable scrutiny of the oil tax credits, especially given the legal mandates surrounding state support for services such as education.

Other significant budget items include the University of Alaska, the Department of Corrections and the Department of Transportation.

Cuts not enough

Moreover, with the deficit being more than half of current spending levels, spending cuts by themselves are extremely unlikely to solve the problem, Knapp said.

On the other hand there are several ways of addressing the state's fiscal problem through increasing state revenues. Options include the introduction of a state income tax; the introduction of a statewide sales tax, increasing fishing or mining taxes; or tweaking oil production taxes. But none of these options either individually or together would provide sufficient income to close the fiscal gap, Knapp pointed out.

So, given the improbability of closing the gap through cuts in expenditures or raising new revenues, there is much interest in the potential to use earnings from the Alaska Permanent Fund to bolster state income, Knapp said. This year the Permanent Fund earnings have been greater than the state's oil revenues, he commented.

"How could your largest source of revenues be off the table in any discussion about your fiscal options?" he asked.

Moreover, while oil revenues can be expected to decline over the years, as oil production drops, earnings from the Permanent Fund can be expected to grow.

Permanent Fund earnings

There are several possible mechanisms by which Permanent Fund earnings could be channeled into the state's general fund, for state use.

In the simplest approach, the state Legislature could simply vote to appropriate some of the earnings.

As an alternative, it could be possible to scrap the payment of Permanent Fund dividends from the fund's earnings reserve

continued from page 8

THE PFD

Alaskans with this approach, the draining of fund earnings would slow Permanent Fund growth in the long term, ultimately having the probable impact of lower future dividend payouts, Knapp said.

Within those approaches, there are several potential ways to generate earnings from the fund, including the channeling of all oil revenues, including oil taxes, into the fund, and potentially the generation of dividends as a percentage of royalties, rather than using fund earnings for this purpose. Any restructuring that entails the withdrawal of money from the fund itself, rather than from the earnings reserve, would require a constitutional amendment, approved by the electorate.

—ALAN BAILEY

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account, as at present, and instead pay out annually a combination of state revenues and Permanent Fund dividends as some set percentage of the total market value of the fund. This approach commonly used by large endowment funds and referred to as percent of market value, or POMV, approach, would require a constitutional amendment but would result in a relatively stable payout. However, the POMV approach was proposed in the late 1990s and at that time was resoundingly rejected by the Alaska electorate, Knapp said.

A bill, SB 114, recently introduced for consideration in the state Legislature, sug-

gests a different approach in which dividends for Alaska residents would be paid as a percentage of oil royalties, rather than from Permanent Fund earnings. The remainder of the royalties would go into the Permanent Fund. All of the earnings from the Permanent Fund would then be available for use as a source of state revenues.

The Walker administration has proposed a more radical overhaul of the Permanent Fund arrangements, converting the fund into what is referred to as a sovereign wealth fund. As in SB 114, residents' dividends would be paid as a percentage of oil and gas royalties, rather than coming from

the Permanent Fund. The remainder of the royalties, together with oil and gas taxes, would go into the Permanent Fund, with a fixed payout from the Permanent Fund then being transferred each year into the state's general fund for state government spending.

Under the administration's proposal, however, the dividend payout would be set at a lower level than in SB 114.

Alaska has options

So, despite the angst over the state's fiscal situation, continuing oil revenues and the continuing stream of earnings from the Permanent Fund do give Alaska options that other states do not enjoy, Knapp said. But Alaska will need to move its fiscal arrangement more towards what other states do, spending less on government, taxing more and paying smaller dividends to residents, Knapp said.

Alaskans can simplify the fiscal debate by agreeing on their economic assumptions for the future; agreeing on dividend, savings and spending objectives; and agreeing on what fiscal system would best achieve those objectives, Knapp said. ●

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PIPELINES & DOWNSTREAM

Straightening Canadian pipeline facts

Retiring head of leading energy pipeline organization discusses safety record of 12-member CEPA, monies spent on safety, efficiency

By GARY PARK

For Petroleum News

The head of Canada's leading energy pipeline organization is retiring, comfortable in the knowledge that, despite coming under frequent public disapproval, the industry can take pride in what it has accomplished.

For Brenda Kenny, president and chief executive officer of the Canadian Energy Pipeline Association for the past decade, the numbers are clear proof that the statistical record of pipeline safety by the association's 12 member companies should make Canadians who live close to pipelines "feel more secure now than ever."

She said the companies "don't compete in safety (because) there is a deep recognition that anybody's incident is everybody's incident."

The performance standards compiled by CEPA should cause the critics to give the benefit of the doubt to an industry they have treated so badly.

In summary:

•Over 50 years of shipping oil and natural gas on a network that now covers almost 75,000 miles in Canada there had been only two fatalities — both the result of individuals operating backhoes that struck gas lines without first undertaking the required checks on pipeline locations.

•The volume of oil spilled by pipelines in 2014 would fill about two-thirds of a rail car.

•Regulators now evaluate and test more evidence than ever before.

C\$1.5B year spent on safety, efficiency

She said CEPA's companies spend more than C\$1.5 billion a year to ensure crude oil and natural gas are delivered safely and efficiently, with 99.9997 percent of oil transported without incident in 2014 when liquids and gas spills and releases tallied 122 for the year.

Federal and provincial regulators ensure that pipeline builders and operators design, construct, run and dismantle pipeline facilities in "a safe and environmentally responsible manner," Kenny said.

She said CEPA plays a role by bringing the "best and brightest minds in the industry together in collaboration, making sure the industry puts aside competition when it comes to areas like technology, opting instead to focus on sharing knowledge and lessons learned so we can improve as an industry."

Kenney said there is a new initiative that brings together CEPA, the Canadian Association of Petroleum Producers and Alberta Innovates-Technology Futures to pursue "responsible advancement of pipeline operations and technology."

She said the pipeline companies have voluntarily chosen "to work together and improve our collective response capabilities by agreeing to share resources and best practices during an emergency" through an "all hands on deck" approach.

Kenny noted that critics still fail to distinguish between transmission pipelines that are highly regulated and monitored and pipelines that are part of production units.

As she clears out her desk, Kenny offered three ideas to improve the industry: Governments should incorporate serious consultation and accommodation with First Nations, rather than relying on pipeline companies; the Paris climate change summit should be followed up with clear policies to prevent pipeline applications being paralyzed by climate change advocacy; and Canada should return to its former practice of reviewing pipelines based on what is in the national interest.

Kenny indicates unease about the new Canadian government's commitment to reform the National Energy Board and improve its environmental assessments, arguing the NEB already deals with an "extreme volume of information that is cross-examined and tested," with environmental studies, engineering studies, transparency and evaluation far exceeding any previous standards. ●

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• FINANCE & ECONOMY

Suncor, Cenovus fight despite low prices

Both companies have upbeat outlooks, with Suncor increasing capital budget 15%; Cenovus' budget down, but production goals flat

By GARY PARK

For Petroleum News

anada's high-cost, low-return oil sands players are not altogether crawling into a hole to ride out the storm.

Suncor Energy and Cenovus Energy, the two largest oil sands producers and barometers to the sector's future, have delivered surprisingly upbeat outlooks for 2016 and beyond.

Suncor set its capital budget for next year at C\$6.7 billion-C\$7.3 billion, up 15 percent at the midpoint from the C\$5.8 billion-C\$6.4 billion it expects to spend this year.

Of that spending program, 55 percent has been earmarked for upstream growth projects, with the balance allocated to sustaining operations at a cost of C\$27-C\$30 a barrel, compared with C\$28-C\$31 this year and continuing a trend that has seen Suncor reduce its oil sands cash costs by 11 percent since 2011.

Suncor Chief Executive Officer Steve Williams told analysts that his company is positioning itself to be the "last guy standing" in a world of weak oil prices and rising demands to reduce carbon emissions.

The spending is targeted at achieving output of 525,000-565,000 barrels of oil equivalent per day (including 95,000-105,000 barrels per day of conventional oil) in 2016, down 5 percent at the midpoint from this year's anticipated 550,000-595,000 boe per day partly because of planned maintenance at several facilities.

Suncor Chief Executive Officer Steve Williams told analysts that his company is positioning itself to be the "last guy standing" in a world of weak oil prices and rising demands to reduce carbon emissions.

He conceded to the Globe and Mail that his industry is in a fight for its life against depressed crude prices, new Alberta regulations to cap carbon emissions and mounting global resolve to get off a diet of fossil fuels.

Williams said the answer is to both reduce costs and greenhouse gas emissions and make Canada the "place of choice" in the oil businesses because it is "innovative; it's got new technology; it's got the rule of law; it's got great regulation; and it's got companies that are willing to invest here."

He argued Suncor is already "busting the myth" that it remains a high-cost producer by driving operating costs closer to US\$20 a barrel, adding that it also primarily receives international prices for its upgraded crude.

Cenovus Chief Executive Officer Brian Ferguson put his own twist on an optimistic outlook, suggesting the company can revive oil sands projects in the coming year without relying on a recovery in oil prices.

He said the deciding factors will be clarity over government policy changes, such as the outcome of Alberta's royalty review, and assurances that cost savings are sustainable

Ferguson said Cenovus is in good enough financial shape to invest in projects — even though it has deferred its Narrows Lake oil sands project and future expansions of its core Foster Creek and Christina

Lake operations — provided it has certainty over regulatory and cost factors.

"These are 30-year investment decisions," he said, noting that projects stand to benefit from reductions in the cost of labor and materials that Cenovus and its peers are determined will last beyond the eventual recovery in oil prices.

Cenovus has set its 2016 capital budget at C\$1.4 billion-C\$1.6 billion, down by C\$350 million from this year, but leaving intact the company's goal of achieving production of more than 600,000 bpd from net existing or approved projects.

Analyst Greg Pardy of RBC Dominion Securities gave the budget a "positive" mark, noting that although spending is 18 percent below his outlook production is off by only 1 percent.

Cenovus, which jointly operates Foster Creek and Christina Lake with ConocoPhillips in return for its partnership in two U.S. refineries operated by ConocoPhillips, said it plans to use about 80 percent of its 2016 budget to sustain capital investments, with the remaining 20percent allocated mainly to growth projects. ●

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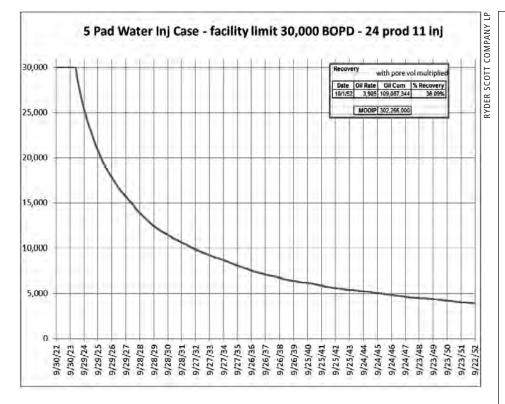
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UMIAT REPORT

The updated report estimates 2P reserves of nearly 99 million barrels of oil equivalent (down from some 154.6 million barrels in the previous report) and 3P reserves of some 144.7 million barrels of oil equivalent (down from more than 194 million barrels).

Generally, "probable" means the estimate has at least a 50 percent chance of actual recovered volumes meeting or exceeding the P2 estimate, and "possible" meaning at least a 10 percent chance of actual recovered volumes meeting or exceeding the P3 estimate.

Smaller project

Since completing a two-well exploration program at Umiat in early 2014, Linc has been analyzing drilling results with the goal of creating a development strategy for the field.

The initial reserves report from September 2013 used limited modeling of the Lower Grand Formation before Linc had completed its exploration campaign. In 2014, Linc hired Petrotechnical Resources of Alaska LLC to develop a fuller model of the field.

One of the changes applied to the newer model was a scaled back development program.

In October 2014, Linc said an initial Umiat development could include as many as 70 wells. By June 2015, the company was outlining a development program calling for approximately 13 drilling pads to accommodate 150 wells with drilling to begin as early as 2021. In October 2015, the company announced a plan to construct five drilling pads with approximately 35 development wells in order to bring the field online by 2022.

Initially, that most recent scheme was expected to produce 45,000 barrels per day at its peak. Now, the company believes a 30,000-barrel-per-day project would be more economic "over the life of the project" by requiring smaller facilities and pipelines.

New reserves report

With the reduction, the company commissioned a new reserves report.

The newer report is hardly a crystal ball. Ryder Scott acknowledged that alternative well patterns could improve the economics of the projects and seemed to suggest that an operator could potentially shift gears years into develop to speed up production. The report is also based on the ACES tax system as modified by Senate Bill 21. The specifics of the Alaska tax code, as Ryder Scott put it,

With the exploration program, Linc believes it identified drilling and completion techniques that would resolve the temperature and pressure challenges of the field.

"are always subject to revision and amendment."

The report also forecasts a rise in oil prices, starting at \$66.03 per barrel in 2016, jumping to \$86.66 per barrel in 2017 and climbing as high as \$124.34 per barrel by 2024.

The report uses a net cost of \$12 per barrel for development activities.

Even with the reduction, Linc believes the report "has continued to verify the Umiat field as an asset of significant value to our shareholders," CEO Craig Ricato said in a statement. "Linc Energy remains committed to the development of the Umiat oil project and will continue to focus on achieving key project development approval milestones in the near term. The 2016 work program will progress these project approvals."

Undeveloped for ages

Although Umiat is one of the largest known and undeveloped oil fields in Alaska, its remoteness and technical challenges have kept it from being developed.

Developing the field would probably require a roughly 100-mile road and pipeline corridor to connect to the trans-Alaska oil pipeline and the Dalton

Even with the transportation problem solved, any development program would need to account for the unusually shallow reservoirs, which are partially buried in permafrost.

The U.S. Navy drilled 11 wells at the field in the late 1940s and early 1950s to follow up on seeps in the region, and Husky Oil returned in 1979 to drill an additional well.

Various companies pursued the Umiat field over the intervening decades but none were able to successfully arrange an exploration program until Linc acquired the leases. The company drilled the Umiat No. 18 well in early 2013 and the Umiat No. 23H well in early 2014. The latter was the first horizontal well to be drilled at the Umiat field.

With the exploration program, Linc believes it identified drilling and completion techniques that would resolve the temperature and pressure challenges of the field.

—ERIC LIDJI

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NATURAL GAS

Go ahead for BC gas complex

Calgary-based Veresen, a partner in Oregon's Jordan Cove LNG project, has sanctioned a C\$715 million gas processing facility in northeastern British Columbia, its second new plant under construction in the area.

The Tower complex, part of Veresen's C\$1 billion infrastructure development program, will have capacity for 200 million cubic feet per day of rich gas and 20,000 barrels per day of condensate and natural gas liquids from the prolific Montney resource

The Port of Coos Bay in

Oregon offers what Veresen

describes as a "low cost

shipping benefit for

exporting LNG" to markets

throughout the Asia Pacific region, Hawaii, Alaska and

South America.

The Tower project involves the Cutbank Ridge partnership of Veresen, Encana and Japan's Mitsubishi, which agreed last year to undertake about C\$5 billion of projects.

Work is already proceeding on the C\$860 million Sunrise gas plant, Burstall ethane storage facility and Aux Sable fractionation expan-

Veresen said the Montney formation is Western Canada's "most actively developed gas resource play and continues to deliver strong results even against a challenging macro envi-

ronment." It is one of the anchor fields positioned to supply feedstock gas to any LNG projects that get launched in British Columbia.

The company said its 55 percent to 60 percent share of Tower will be funded from its C\$1.275 billion credit facility, which is largely undrawn.

Additional growth projects

Company President Don Althoff said that beyond 2018 Veresen has a "number of material growth projects" under development, including Jordan Cove LNG and the Pacific Connector Pipeline, a key transportation link for feedstock gas to Jordan Cove.

Jordan Cove, despite being caught up in a legal tussle over the plans to convert the facility to an export from an import proposal, is pressing ahead with design work on a liquefaction facility to initially ship 6 million metric tons a year of LNG from 1 billion cubic feet per day of gas.

The Port of Coos Bay in Oregon offers what Veresen describes as a "low cost shipping benefit for exporting LNG" to markets throughout the Asia Pacific region, Hawaii, Alaska and South America.

Jordan Cove has already been granted an export license to ship LNG to Free Trade Agreement countries as well as a conditional order to export to non-FTA countries.

—GARY PARK





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TOTE Maritime Alaska names Michael Noone president

TOTE Maritime Alaska is pleased to announce that Michael Noone will assume the role of president, effective Jan. 1.

Noone joined TOTE Maritime Alaska as chief operating officer in August 2013, bringing his 28 years of experience in the shipping and logistics field. As COO, he has been responsible for creating strategic and operating plans for sales, pricing and operations.

Noone received his bachelor's degree from Wagner College and is certified by some of the nation's top executive programs in logistics, including the SMEAL College of Business Administration at Penn State University and the Fisher College of Business at Ohio State University. He also earned certifications in advance management from INSEAD, in strategic planning and implementation from the



MICHAEL NOONE

Ross School of Business at the University of Michigan and is a past steering committee member at the Retail Industry Leaders Assoc.

Noone's predecessor John Parrott, who has served as the company's president since 2009, will join TOTE's sister company, Foss Maritime as COO, where he will be responsible for the oversight of Foss's key operating divisions.

"We thank John Parrott for his many contributions, accomplishments and leadership for TOTE Maritime Alaska," said TOTE President and CEO Anthony Chiarello. "We wish him well in his new role at Foss and look forward to TOTE's continued success under Mike's capable

Fluor agrees to acquire Stork Holding B.V.

ADVERTISER

Fluor Corp. and Stork announced that Fluor has signed an agreement with UK-based private equity firm Arle Capital Partners to acquire 100 percent of Stork Holding B.V., based in

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the Netherlands, for an investment of approximately

Stork is a global provider of maintenance, modification and asset integrity services associated with large existing industrial facilities in the oil and gas, chemicals, petrochemicals, industrial and power markets. Founded in 1827, Stork has built a powerful brand in the industry and has long-term relationships with a diverse range of blue chip customers. It has operations in Continental Europe, the United Kingdom, the Middle East, Asia Pacific and the Americas, with an annualized run-rate revenue of approximately \$1.7 billion and EBITDA of approximately \$109 million, implying a transaction multiple of just under seven times EBITDA.

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Stork is a global provider of maintenance, modification and asset integrity services associated with large existing industrial facilities in the oil and gas, chemicals, petrochemicals, industrial and power markets.

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Upon closing of the acquisition, Fluor will begin combining Fluor's operations and maintenance organization with Stork. Current Stork CEO, Arnold Steenbakker, will lead the combined group and report directly to Fluor's CEO, David Seaton. The management team will be formed by Stork's existing management combined with the managers of Fluor's operations and maintenance business. The combined group, branded Stork and headquartered in the Netherlands, will have an annual turnover of approximately \$2.3 billion and a total of approximately 19,000 employees.

The acquisition is expected to be accretive to Fluor's earnings per share in 2016. Fluor expects to achieve significant synergies including increased revenues from cross-selling and expansion into new markets.

Editor's note: All of these news items — some in expanded form — will appear in the next Arctic Oil & Gas Directory, a full color magazine that serves as a marketing tool for Petroleum News' contracted advertisers. The next edition will be released in March.

Companies involved in Alaska and northern Canada's oil and gas industry

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STEDMAN Q&A

I don't have the background to tell you what's one or the other. I think what resides in this building is more of a political argument than a technical argument.

You've got the cost of the pipe; can it be made; the availability of the steel; is it proven. There are a whole list of items you've got to check before you jump in and decide what size pipeline you are going to make. It's more than just a diameter increase. I'd rather have someone who knows what they are doing make the decision and come tell me what they think. We'll get a better product that way.

Petroleum News: Do you think the Legislature accomplished all it could do during the special session or could there have been other things on the call?

Stedman: I think this is the more timely thing on the call. When you talk about the other agreements in the negotiations, one of the concerns I have is you have timelines on this mega project and the timeline starts driving the decisions and you start making subpar decisions.

That ends up costing you a lot of money. That is one of the messages that came out of the mega project class we had two years ago. I'm interested in this project for monetary issues of it. There's always the arguments of gas to Alaskans. I'm more interested in dollars to the treasury. We will have all the gas Alaskans will need for over a century.

We don't have to worry about that. I'm concerned that public in the Railbelt will expect cheap gas out of this, the LNG line. It's not going to be cheap because of tariffs and costs compared to competitive advantage Cook Inlet will bring.

Petroleum News: So was there anything missing on the call?

Stedman: I don't want them to bring stuff into the legislative environment until it's ready. Having a fall deadline two years ago for this fall and even last winter when they were talking about the October special session — I was concerned the date would drive the project versus the product. If you ever want to mess up a mega project, set up the date and walk into it. That's a good way to mess it up. Until they get it ready, those documents negotiated and ready, we'll wait.

Petroleum News: So did you anticipate the buyout of TransCanada, knowing you weren't happy with that provision in SB

Stedman: It's not an I told you so. As the clocked ticked and there was an off ramp, which was put in by the previous administration. They put it in for a reason so we could get on it. It gave us time to look at it and understand the project more and make the decision. I'm glad that was the decision. What I do not want to do is take the gas at the wellhead and not have

ownership of the infrastructure. This is business. It has nothing to do with liking or not liking TransCanada. TransCanada is a damn good company. That's not the issue. The issue is our ownership of that gas and getting fair value — maximizing that value — for the people of Alaska who own it. If we want to minimize it take it at the wellhead or leave in the ground, right?

Petroleum News: Speaking of regional areas in Alaska, there is talk of Avista bringing LNG to Southeast. Do you think if something like that comes to fruition in Juneau that could help other communities in Southeast?

Stedman: I think if they brought LNG or compressed gas into Southeast, it will come from B.C. Once they get an anchor tenant to make the economics work, there will be derivative customers off of that who will benefit. It really comes down to the cost of producing the electricity versus the infrastructure that's already in place. I'm kind of curious about the costs they are going to run into when they start plumbing the towns and those type of challenges. But you need an anchor tenant. Obviously Juneau's got 35,000 people; Ketchikan's got 13,000 and Sitka's got 9,000 so Juneau would be the target. It may end up being beneficial to some of the smaller communities. I haven't seen the analysis yet. If it brings lower costs of energy to the islands, I'll be looking at it favorably.

Petroleum News: So looking ahead at next year, and we touched on this early, there will be tax credits addressed, what would you like to see done?

Stedman: My concern about SB 21 was it was sold to the public as a 35 percent tax on the net and you were going to have an increase in production. You can define an increase in production numerous ways. All the forecasts I've ever seen is declining production. This parabolic curve we've been on for a while doesn't appear to have changed. We will have a shallowing of decrease for a year or two possibly. There will be a slight benefit in that regard. Those who think we are going back to 750,000 barrels per day are dreaming.

That being said, when you get to the credits, they aren't put on production.

They are put on capital investment so the whole fiscal structure is put on its head.

As time goes on, the public will see that it doesn't work. I think some of that is going to be rolled out in glaring form this winter.

We can't have a fiscal structure where the sovereign pays for the extraction of its resources. They don't do that. Once we see how the mechanics of this works, we'll see the problems that are embedded in it. They will be rectified.

Petroleum News: So where should tax credits be applied?

Stedman: I think when you look at tax credits all over the globe, you'll see they

are put on investments, capital expenditures to change the cash flow dynamics to make marginal projects get over the hurdle rates. They are not put on barrels produced with increasing credits as price declines. What you've created here is, well let's put it in numbers. This year we are sitting in now, the expectation is the per-barrel credit will generate somewhere around \$1.3 billion in credits and they can't be rolled forward. Then you have another \$700 million in other credits. That's \$2 billion in credits. You have very little net. It's a net tax system. So yeah, there are huge structural flaws. Even, if for whatever reason, you want to do your credits on per barrels, you'll have to make some adjustments, because the structure doesn't work. The international royalty rate is about 20; our royalty rate is 12.5. It doesn't take a mathematician to work on the back of an envelope and conclude there is a huge amount of instability imbedded in this oil tax system and we need to get it out so we have an oil tax structure that works at \$50 and \$150.

With the exit of TransCanada I think we are going to have real strong alignment with our partners on the gas line, so let's not mix up gas and oil. If we can get alignment in this oil structure, something similar to gas, where regardless of the price, we are rewarded and penalized together, I think we'll have a system that will stand the test of time.

With that negative severance tax, how do you go forward and say you've got 35 percent tax? The concentration should not be who voted which way in SB 21, what should be before the Legislature is how do we adjust within the structure for a more stable oil tax environment? When we cut school funding and we reduce state dividends and we have a negative severance tax, we have the dynamics that are going to be explosive in the ballot

box. I don't want to see all of those things come together.

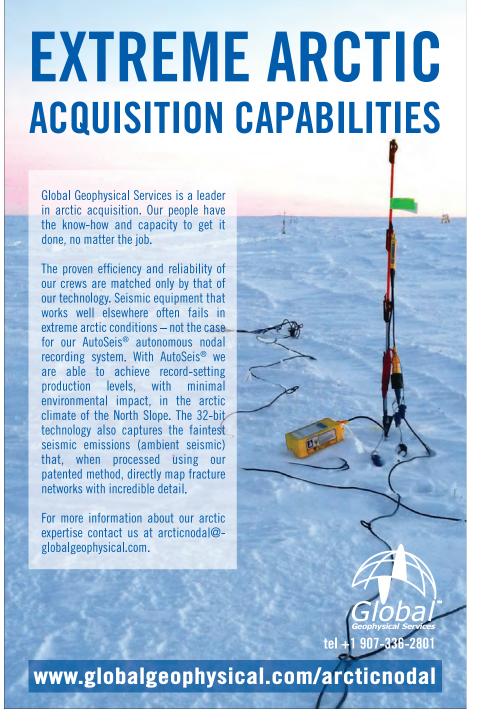
Alberta threw out its entire government, lock stock and barrel. We just all need to sit at the table and figure this out.

Also, I'm concerned about stackable credits against the treasury going forward and I asked about that a year ago, so we'll be asking about that again. It's standard business: what do we have in deductions; what's the net; what's the revenue; what's coming next year. It's basic business. There is no gotcha. My concern is you have potential with loss carry forward in stacking. You have an environment where you've got \$1.3 billion per barrel credits, then you have these stacked credits in front of you. The treasury can't recoup. You're turning the state into an insolvent position. That's unacceptable.

I would suspect there would be substantial interest by some companies in keeping the credits. It doesn't matter if it's a fish tax credit or an oil tax credit. But in how we phase them out or change them, it's going to be a political discussion. From my viewpoint the quicker we turn them off together. These are unprecedented times, not only from the industry to deal with but the state of Alaska

Now Cook Inlet is going to phase out in 2022. You've got to have some rationale. Hopefully all that works out in the discussion trying to get to a stable environment, fiscal environment. I don't see the state in a position, after we fix the ability not to make payroll, that we are going to be able to compile any significant cash. That's not a good position to be in. ●

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CONOCO OPTIMISM

That vision greatly contradicts the general attitude in the state in recent years, which has been marked by worries over declining production and debates over government take.

The budget ConocoPhillips approved for its global operations next year is a 25 percent reduction from its budget for this year. But its Alaska budget fell only 5 per-

The small drop becomes even smaller in light of that fact that the company completed two major projects this year, which removes those costs from the upcoming plan. The \$1.3 billion budget ConocoPhillips approved for Alaska next year will "mostly target development drilling, base maintenance and the progression of several major projects."

Even odder, the startup of those two projects could likely result in a year-overyear increase in oil production from Alaska operations after some 15 years of steady declines.

And with several projects in the hopper — some underway, some sanctioned and some under consideration — the company believes it can keep production steady for a while.

The Alaska spending plan represents 17 percent of the total \$7.7 billion budget. The company also plans to spend \$2.6 billion in the Lower 48, \$1.4 billion in the Asia Pacific and the Middle East regions, \$1.3 billion in Europe and \$800 million in

During the event, Paul Sankey of Wolfe Research noted the optimism over Alaska and asked, "What changed there? It's being perceived obviously to be a decline area."

The Alaska spending plan represents 17 percent of the total \$7.7 billion budget. The company also plans to spend \$2.6 billion in the Lower 48, \$1.4 billion in the Asia Pacific and the Middle East regions, \$1.3 billion in Europe and \$800 million in Canada.

ConocoPhillips' Executive Vice President for Exploration and Production Matt Fox attributed the situation to improved technology, successful exploration and a favorable fiscal regime before summing up the company's outlook for Alaska: "a slight increase in production next year for less capital and we believe that we can sustain that for 10 years."

Two factors

The current situation — a decrease in spending and an increase in production is the result of two simultaneous factors: infield drilling and infrastructure-led exploration.

By bringing a dedicated coiled tubing drilling rig to the Kuparuk River unit, ConocoPhillips has been able to expand a technique deemed successful in recent

That activity will continue under the upcoming budget.

At the same time, ConocoPhillips sanctioned four major development projects in recent years: the CD5 pad at the Colville River unit, Drill Site 2S and the Drill Site 1H NEWS project at Kuparuk and the GMT-1 development in the Greater Mooses Tooth unit.

The projects are all near existing infrastructure, which is a shift from the strategy ConocoPhillips seemed to be pursuing a decade ago, when it drilled several wildcat exploration wells in distant corners of the National Petroleum Reserve-Alaska and collected an expensive portfolio of leases in the Beaufort Sea and Chukchi

While the NEWS project is an expansion of existing infrastructure to target heavier oil deposits in the West Sak formation at the Kuparuk River unit, the other three projects represent a similar type of strategic advance. Like a billiards player using spin to attempt one shot while positioning for the next shot, ConocoPhillips appears to be selecting exploration and development opportunities on the basis of their future possibili-

ConocoPhillips has been using this strategy in Alaska since at least 2000, when it created a staged development scheme for developing the Colville River unit. That program has allowed the company to bring satellites into production every few years without expanding pipeline and processing capacity. The CD5 project is the latest stage of that long-term effort, and the GMT-1 project will carry the program into the NPR-A.

But now, having abandoned its offshore programs and avoided any risky exploration ventures, the stepping-out strategy appears to be much more central to operations.

Steady advance

With CD5 now online, ConocoPhillips is slowly crossing the Colville River, which will make it significantly easier to pursue development on federal leases in

There are many. The GMT-1 project will be along the eastern edge of the Greater Mooses Tooth unit. The proposed GMT-2 project would be in the center of the unit. And in early December, ConocoPhillips applied for two drilling permits at the far western end of the unit. From there, ConocoPhillips could easily head north to develop its Bear Tooth unit.

At one time, ConocoPhillips referred to the GMT-1 project as "CD6," meaning the next Colville River unit satellite. The other Greater Mooses Tooth unit projects are similar. The current proposal for the GMT-2 pad is a variation of previous proposals for a CD7.

While the projects are prone to change over time, ConocoPhillips previously suggested a GMT-2 project with a base plan of 10 wells and the potential for as many as 19 wells.

Earlier this year, in late August, ConocoPhillips began permitting the project when it applied for the GMT2-R112 oil well on lease AA081800, in the center of the unit.

At the same time, the company was looking even farther out. The company staked seven potential well locations deeper into the unit and beyond the western and southern borders.

Staking is merely an indicator of interest. But in early December, the U.S. Bureau of Land Management posted notices for two ConocoPhillips drilling applications: the Tinmiaq No. 2 well on lease AA081808 and the Tinmiaq No. 6 well on lease AA081807.

Those two leases are at the western end of the federal unit, in the general vicinity of the previously drilled Grandview No. 1 well and the proposed Spark No. 7 well.

Seismic shift

Similarly, the recent Kuparuk River projects could be models for future devel-

The Kuparuk West Sak 3-D seismic survey in 2005 gave ConocoPhillips "a significant number of leads for infill or sidetrack drilling," as the company explained in its 2014 plan of development for the Kuparuk River unit. A custom built coiled-tubing drilling rig has been steadily working through that portfolio of drilling candidates since May 2009.

In 2011, ConocoPhillips commissioned the Western Kuparuk 3-D seismic survey, which prompted an "infrastructure-led exploration strategy" focusing on drilling opportunities near existing infrastructure. For instance: the company drilled the Shark Tooth No. 1 well in the southwest corner of the unit in early 2012 to appraise an ARCO Alaska discovery from the late 1980s. The successful appraisal was the basis for the Drill Site 2S project.

Similarly, in the winter of 2012-13, the company conducted a pilot test on DS 3S-19, one of its original development wells for the Palm satellite of Kuparuk in 2003. The test involved adding a perforation to the well and performing hydraulic fracturing operations to gauge the potential of developing the overlying Cretaceous Brookian Moraine interval.

Earlier this year, the company drilled the 3S-620 Moraine well from Drill Site 3S and the Moraine No. 1 well from an ice pad in the northwest corner of the unit. The company has yet to release any results, but the wells present an opportunity to replicate Drill Site 2S.

The 1H NEWS project could also become a model. The nine-acre expansion of the existing drill site is expected to come online in early 2017. At an analyst conference earlier this year, ConocoPhillips floated the idea of 1N and 1P NEWS developments. •



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TOLSONA PLAN

terms of a state exploration license for the Tolsona area. In 2014 the corporation acquired more than 40 line miles of new seismic data and processed more than 80 miles of existing data for the license region, before deciding on an exploration drilling site.

A previous gas exploration well, the Ahtna 1-19 well, drilled by Rutter and Wilbanks between 2005 and 2007 at a location about two miles east of the proposed Tolsona well, encountered gas but was eventually abandoned because of exceptionally high formation pressures and problems with water encroachment.

Ahtna is contracting with HXR Drilling Services to drill the Tolsona well, possibly using the Saxon 147 drilling rig, Ahtna's plan of operations says.

The primary purpose of Ahtna's gas exploration program is to find a gas supply for local use in the Copper River region, to alleviate the high cost of energy in the region. In the immediate future, the drilling project will bring a number of local jobs, the corporation says.

Small gravel pad

Drilling of the Tolsona well will take place from an approximately four acre gravel pad about a mile north of the Parks Highway and to be connected to the highway by a gravel road. To minimize the size of the new pad, Ahtna plans to use the old Ahtna 1-19 pad as a staging area. After completion of drilling operations and any subsequent gas-field-related usage, the new

road and pad could be used for recreational access to state land in the Tolsona area, Ahtna says.

According to its operations plan, Ahtna anticipates constructing the Tolsona gravel pad and access road between early January and mid-February. Following the mobilization of equipment, drilling should take place between mid-March and mid-April, with the well being completed by late April and well testing taking place in late April and early May. Demobilization and site cleanup should be complete by the end of June, Ahtna's plan says.

Ahtna says that, because of a forecasted mild and short winter, and because of a lack of an adequate local water supply, it had discounted the possibility of drilling in the winter, using ice-road access to an ice drilling pad.

Permits needed

Ahtna will need to obtain a U.S. Army Corps of Engineers Section 404 dredge and fill permit, and easement permits from the Alaska Department of Natural Resources, before the drilling project can be conducted.

The Copper River basin in which Ahtna plans to drill has similar geology to the prolific Cook Inlet basin but has seen very little exploration. Although the Mesozoic rock unit that sources oil in the Cook Inlet region is known to exist in the Copper River area, differences in the precise nature of the rocks are thought to make the Copper River basin more prospective for natural gas than for oil

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NORTHERN GATEWAY

the north coast.

Monaco said Trudeau and Natural Resources Minister Jim Carr have signaled "their openness to listen; they have talked about the importance of Canada securing markets, so all we can say at this point is that we are looking forward to engaging federal staff on this."

Winning over First Nations

For now, Enbridge will plug on with its efforts to win over First Nations affected by the pipeline route and terminal location.

"We have 28 aboriginal partners that are keen to invest in the project (as 10 percent equity partners) alongside us so we will be working with them ... and hopefully we will have some good discussions with all levels of government,"

He said Enbridge will speak with British Columbia's provincial and municipal governments and local communities to ensure people have a full understanding of the project, which is designed to export 525,000 barrels per day of crude bitumen, mostly to Asia, and import 193,000 bpd of condensate to thin bitumen and facilitate pipeline shipments.

Monaco said the slump in oil prices has lowered production in Alberta, meaning his company should be able to serve its customers without Northern Gateway for the next little while.

"So, in a way, timing (of Northern Gateway) isn't too concerning for us. We continue to work on the kind of things we need as far as communities, First Nations and governments" are concerned.

Taking a bullish view

Oil traders say refineries in Eastern Canada have started tapping into cheaper oil produced in Western Canada and the U.S. Bakken now that Enbridge's Line 9 reversal and expansion has started commercial shipments.

The first 60,000 barrels per day on the 300,000 bpd system reached their destination at Quebec refineries operated by Suncor Energy and Valero Energy, both of which have said they hope to rely on 100 percent North American crude once Line 9 ramps up to full capacity late this year.

The landlocked North American crudes typically sell at a discount to waterborne supplies, which have been the almost exclusive source of feedstock over many years for the refineries.

The new shipping option has redirected some crude that used to go to the trading hub at Cushing, Oklahoma, the largest storage point on Enbridge's Spearhead pipeline, which connects Illinois with Cushing.

Guy Jarvis, Enbridge's president of liquids pipelines, told analysts Line 9 is in operation, giving shippers the ability to use their contracts as they choose.

Chief Executive Officer Al Monaco said his company is confident it can continue to build on the 50 percent increase in its dividends over the past two years because it has a strong liquids outlook and C\$25 billion in secured capital in execution that provides low-risk cash flow growth.

He also said Enbridge is largely insulated from low commodity prices in the near- to medium-term because less than 3 percent of its business is subject to direct commodity price exposure and 95 percent of cash flow is underpinned by strong commercial contracts.

Monaco said oil sands projects under construction are expected to provide 800,000 bpd of incremental growth out of Western Canada through 2019, putting pressure on pipeline capacity out of Alberta.

"Even in a bearish case there is 500,000 bpd shortage of (pipeline capacity out of Alberta) by 2021 and in any scenario our liquids systems are competitively positioned because our tolls are the most economical to key markets," he said.

—GARY PARK

Belief in project dwindles

Outside the Enbridge executive suite, belief in the project has dwindled to the point that it no longer arouses heated discussion.

Analysts seldom bother to raise questions on conference calls, while contracting and engineering firms have turned their attention elsewhere and Enbridge has yet to report that any of the 209 conditions attached by the National Energy Board and federal government have been resolved, although it has filed progress reports on 15 of the items.

Some take the view that Enbridge is reluctant to admit to shareholders that its investment of about C\$500 million in Northern Gateway should be written off.

The gloomy external mood was cap-

tured by Steve Williams, chief executive officer of Suncor Energy — a contracted shipper on the pipeline — who said Northern Gateway is "not executable" in its current form, arguing that more negotiations are needed with First Nations.

More hope for Energy East

He said TransCanada's proposed Energy East pipeline to deliver 1.1 million bpd of crude to Quebec and New Brunswick refineries and export tanker terminals holds greater promise.

"It is a complicated and long pipeline, but I think you've got to say that's probably where betting money would be at the moment," he said.

Laura Lau, a senior vice president with Brompton Funds, told the Globe and Mail that oil producers started seriously looking for other shipping options three years ago and, at this point, probably "see a higher probability in Energy East. A lot of pipe (including a natural gas pipeline to Ontario which would be converted to carry crude) is in the ground. And it is made-in-Canada. It is almost like a nation-building exercise."

Although the Alberta government's role in Northern Gateway decision-making is limited, Premier Rachel Notley said during the provincial election campaign last spring that a New Democratic Party administration would scrap provincial support for the project, saying it is not worth risking political capital.

Legislation to ban tankers

Trudeau has directed Transport Minister Marc Garneau to prepare legislation banning oil tankers in north coast waters, but one expert suggests such a ban would be difficult to implement.

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CAELUS WORRIES

lines and get going full speed on facilities fabrication and still try and make our late 2017 oil start."

With low oil prices pushing the state of Alaska's finances into deficit, people in the state have been talking of adjusting the state's oil tax laws and making changes to the tax credits that the state has been providing to encourage oil and gas exploration and development.

Foley said that the state's current tax system, passed under legislation referred to as Senate Bill 21, had attracted Caelus to Alaska and that under this system the tax situation had started to settle down. But rumblings about possible tax changes are causing concern.

"As we look around today we're starting to get a little bit nervous," Foley said.

Oooguruk

Caelus entered the Alaska oil and gas industry in 2014 when it purchased the Alaska assets of Pioneer Natural Resources, becoming the operator of the Oooguruk oil field. Oooguruk produces oil from a gravel island offshore in the shal-

low nearshore waters of the Beaufort Sea. The field went into production in 2008, with oil coming from two pools referred to as the Kuparuk and the Nuiqsut.

Nuna involves the development of a third, relatively shallow pool in the field, with development drilling and oil production from an onshore gravel well pad. Although the pad has been constructed, Caelus has yet to install any of the facilities required to produce oil from the Nuna pool.

However, Caelus has been forging ahead with continuing development in the other Oooguruk oil pools and is engaging in major hydraulic fracturing, or fracking, operations to invigorate oil production. During the next drilling season the company hopes to frack six wells, Foley said. And, with a measured depth of 22,200 feet, one of the Oooguruk wells is the longest that the company has ever drilled, he said.

Pioneer and Caelus have between them spent more than \$2 billion on the Oooguruk field, which has produced about 23 million barrels of oil to date, Foley said. But despite the successful development of the field, the field has yet to make a profit, he said. Presumably field revenues to date have simply offset up front

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Smith Bay

In a new venture on the Beaufort Sea coast, at a remote location about 150 miles west of Prudhoe Bay, Caelus is ramping up an exploration drilling project in the shallow waters of Smith Bay. The company hopes to drill two wells in the bay, in an area thought to be highly prospective for a significant oil discovery.

"It's a very exciting exploration play," Foley said. "Every person that I've seen exposed to this project, their eyes, they just light up. These are two wells that just need to get drilled."

But Caelus expects to maintain tight confidentiality over the drilling results.

"Success will be if you see us back out there the next year," Foley said.

The Smith Bay project in leases referred to as the Tulimaniq leases had originally been planned by NordAq Energy. But after purchasing a 75 percent stake in the leases in June, Caelus is now conducting the exploration program.

Caelus has mobilized Doyon's Arctic Fox drilling rig and 35 barge loads of material to Cape Lonely, to the east of Smith Bay, in preparation for the start of the drilling season, Foley said.

"We're just waiting for weather right now to construct our small ice roads, our two offshore drill sites ... and we hope to spud in February," he said.

Exploration block

Caelus also has exploration interests in a 350,000-acre block of state leases to the east of Prudhoe Bay between Prudhoe Bay and Point Thomson. Foley said that Caelus has now received the data from a high-resolution 3-D seismic survey that the company conducted in this acreage.

"It's phenomenal data. We're really excited," Foley said.

He commented that the Smith Bay exploration play, the Nuna development and the Caelus exploration prospects to the east of Prudhoe Bay all involve potential oil reservoirs in what are called Brookian turbidites. Turbidites are rocks consisting of sandstone layers and channels, laid down as a consequence of periodic submarine sand flows in ancient marine basins. The Brookian refers to the youngest and shallowest of the major rock sequences under the North Slope.

"They're all really easy to identify on high-resolution seismic," Foley said.

An excellent year

Reflecting on activity at Oooguruk, the field that forms the centerpiece of Caelus' Alaska operations, Foley said that his company had enjoyed an excellent year, with high production levels, with an exemplary safety record and with people engaged in community involvement both on the North Slope and elsewhere in Alaska.

"In 2015 we've had a great year," he said. "We've produced about 4 million barrels. That's the largest year of production that we've ever had."

As a private equity funded company based in Dallas, the Caelus management team has a strong track record of success in oil exploration, Foley said. And when the company came to Alaska it wanted a stable and predictable environment that encouraged investment, he said.

"That's the path we were on. That's the path I hope we can stay on," Foley said.

—ALAN BAILEY

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NORTHERN GATEWAY

Robert Hage, a senior fellow at the University of Ottawa's Graduate School of Public and International Affairs, told the Globe and Mail that a law would need to cover Dixon Entrance, Hecate Strait and Queen Charlotte Sound to be effective — a possibility that would raise the ire of the United States, while a "mariner's notice" would not have the force of law.

He said the government would be better off taking a broader look at how Canada can get oil and LNG to offshore markets, giving priority to including First Nations.

Gaetan Caron, a former chairman of the National Energy Board, said Northern Gateway could be a small, yet vital part of the Trudeau government's pledge to achieve reconciliation with indigenous people. Such an agreement could see the pipeline go ahead, he said.

Also in the works is a court challenge by one First Nations group which the Federal Court of Canada is expected to rule on early in 2016. ●



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