Petroleum news

page 3 Q&A: Stedman says oil tax change not a must have for this session

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Christy Lee platform

GLOBAL OFFSHORE DIVERS

Tankers arrive about twice a month at the Christy Lee loading platform in Alaska's Cook Inlet to take aboard crude oil. The state is proposing to renew an air quality permit for the platform and the nearby Drift River oil storage terminal. See story on page 12.

NordAq spuds Shadura natural gas exploration well near Nikiski

NordAq Energy Inc. has spudded its Shadura No. 1 gas exploration well on the Kenai Peninsula in Southcentral Alaska.

The company said in a Feb. 5 news release that it had completed the ice road and ice pad to support drilling of its Shadura No. 1 exploration well and spudded the well.

Shadura is on Cook Inlet Region Inc. subsurface in the Kenai National Wildlife Refuge northeast of Nikiski.

NordAq is an Alaska-based oil and gas exploration company, and said it was encouraged through the project by CIRI, the owner of the subsurface estate, and received assistance from numerous local companies.

"NordAq is an early stage company," Robert Warthen, NordAq's president and major shareholder, said in a statement. "We would not have been able to establish ourselves without the encouragement of these groups, and we are particularly grateful for their support."

Warthen said "NordAq is keenly aware of its duties to the natural environment," and while it could have built a gravel road, "decided to build an ice road and pad. If we are unsuccessful in

see **NORDAQ WELL** *page 20*

Even with setbacks for Shell and BP, 2011 spending should be high

While federal permits may move slowly these days, news about them travels fast.

When the Institute of Social and Economic Research at the University of Alaska Anchorage released its annual construction forecast on Feb. 2, the oil and gas sector offered a big question mark. The forecast estimated that $2.91 billion in oil and gas industry spending would account for 41 percent of all construction spending this year.

Oil Patch Insider

That would be a 3 percent jump from 2010, despite a slow exploration season.

But the next day, Shell pushed off its 2011 exploration program in the Beaufort Sea until 2012, saying it didn't expect to get an air quality permit in time to drill this summer.

At the same time, BP released year-end financial information that moved the startup date for its Liberty project out to at least 2013, from an earlier target start-up date of 2012.

Those delays shave about $300 million from the $2.91 billion estimate, according to Scott Goldsmith, a UAA economics professor and one of the minds behinds the forecast.

ConocoPhillips also presents uncertainty for the forecast,

see **INSIDER** *page 21*

EXPLORATION & PRODUCTION

Nikaitchuq online

Eni brings North Slope oil field online three years after sanctioning

By ERIC LIDJI
For Petroleum News

Eni Petroleum has started production from its Nikaitchuq unit, a nearshore field off the northern coast of Alaska, the Italian major announced Feb. 9 from its Milan headquarters.

The announcement makes Eni the fourth operator on the North Slope after BP, ConocoPhillips and Pioneer Natural Resources, and the first company aside from BP or ConocoPhillips to own and operate a production facility on the North Slope.

Eni expects Nikaitchuq to produce for more than 30 years, peaking at 28,000 barrels per day, and estimates that the field contains 220 million barrels of recoverable reserves.

The announcement makes Eni the fourth operator on the North Slope after BP, ConocoPhillips and Pioneer Natural Resources, and the first company aside from BP or ConocoPhillips to own and operate a production facility on the North Slope.

Nikaitchuq is the first Arctic project completely owned and operated by Eni, although the company has some Arctic experience through its partnerships with Statoil.

Eni is still in the early stages of development at Nikaitchuq, having drilled only 12 of the 52 wells

see **NIKAITCHUQ** *page 23*

NATURAL GAS

AGIA an issue in Juneau

House Bill 142 says line uneconomic without firm commitments by summer

By KRISTEN NELSON
Petroleum News

REP. MIKE CHENAULT

REP. MIKE HAWKER

TONY PALMER

Is it time to declare AGIA dead? That's the question some Alaska legislators are asking.

The TransCanada-ExxonMobil Alaska Pipeline Project, one of two projects to move Alaska North Slope gas to market, was licensed by the state under the Alaska Gasline Inducement Act.

Tony Palmer, vice president of Alaska development for TransCanada, said after the close of the July 30 open season last year for the Alaska Pipeline Project that "we have received multiple bids from major industry players and others for significant volumes."

The next step, he said, is to work with potential customers to resolve conditions on the bids: "That's what we'll be doing over the next several months."

see **HB 142** *page 22*

PIPELINES & DOWNSTREAM

Battle for hearts, minds

Kinder Morgan, Enbridge continue race to ship Canadian crude to Asia

By GARY PARK
For Petroleum News

For one, the route from Canada to Asia is step-by-step. For the other, it's one giant leap. For both, it's a challenge to build support at home.

What is increasingly evident is that both Kinder Morgan and Enbridge are engaged in an all-out race to build a bridge across the Pacific for Alberta oil sands crude.

And they have added incentive from a newly released analysis by the U.S. Department of Energy that fuels Washington's worries about the ramifications of Canada opening up a new market for its crude.

The report concluded that "if more oil is shipped to Asia instead of the U.S. this would lead to higher U.S. imports of crude oil from non-Canadian sources, notably the Middle East" — a more-than-usual cause for unease given the increasingly erratic, uncertain outlook in the Middle East.

But, even if Canada does significantly increase its crude exports to Asia starting in 2015, that doesn't rule out shipments to the U.S., especially if Kinder Morgan proceeds with additions to its 300,000-barrel-per-day Trans Mountain pipeline from Alberta to Vancouver and Washington state.

Declining Alaska volumes

Chad Friess, an analyst with UBS Securities, said some of the greater volumes on Trans Mountain could end up in California, replacing "a lot of the

see **CRUDE EXPORTS** *page 23*

GOVERNMENT

Stedman: Seeks investment, tax balance

Senate Finance Committee co-chairman says if production tax isn't done in 90 days the world is not going to end; oil where money is

By STEVE QUINN
For Petroleum News

Sen. Bert Stedman rarely minces words.

For the next two years the Sitka Republican will have his chance to weigh in on prospective changes to the State of Alaska's tax policies, the uncertainty of a large-diameter gas pipeline project and the federal government hindering prospective offshore drilling.

Stedman begins his fifth year as the Senate Finance Committee co-chairman and seventh year as a member of Senate Resources.

He'll also serve as vice chairman of the Legislative Budget and Audit Committee and vice chairman of the Alaska Northern Waters Taskforce.

He is long a critic of the Alaska Gasline Inducement Act that forged a state-backed partnership with TransCanada's large-diameter project.

Stedman sat down with Petroleum News to discuss issues ranging from AGIA to the current oil tax and credit structure and his efforts at separating oil tax from gas tax, a bill vetoed by Gov. Sean Parnell last year.

Petroleum News: What is your plan for the tax system we have? Are the credits the problem? Is it the rate? Is it the progressivity?

Stedman: There are several issues. I wouldn't necessarily prioritize them in this order, but start with credits. My concerns are there are roughly 850 million of credits in the budget. Roughly 60 or so million is for Cook Inlet, so you're right at about 800 million, so what are they spending money on to generate that size of credits: maintenance or development?

It appears that a substantial amount of that is maintenance or expenditures that don't add more drilling. That's something we are going to sort out in the finance committee.

With (the progressivity trigger) being pulled back from 40 dollars to 30 dollars on the net and increased the slope from 0.2 to 0.4, I haven't seen any analysis where 0.4 is where it should be.

The base rate, the submission from (former Gov. Frank) Murkowski was 20 percent. Previous to progressivity it could have been anywhere from 20 to 30. Some people in the Senate wanted 25; some wanted 20. We settled at 22.5. That's the science behind it.

Sarah (Palin, former Alaska governor) thought the whole thing was corrupt and everybody was bought off in the Legislature.

She was the only pure one, and the rate needed to be 25. That's what she wanted, was a sound bite at 25. She didn't care about anything else in ACES.

The base rate is now 25 and I don't think there is a lot of appetite in the building to move it. You can justify 25 just as easily as you can justify 27 or 23.

Petroleum News: So what do you think should be done?

Stedman: I don't know. Once we get through the review process in the next few months, I'll have a better idea. The credits I think are under recognized in the Legislature for their impact. A 20 percent credit is big and a 40 percent credit is colossal. It's an issue of balancing between that investment and the tax.

SEN. BERT STEDMAN

Q AND A

Petroleum News: Does something have to be done in a 90-day session?

Stedman: If something isn't done in 90 days the world is not going to end.

The question is will we have the analysis done and will we have enough political support one way or another in the building to do something.

I'd say it's 50-50. In fact I'd say it's less than 50-50. The reports we are expecting from Pedro van Meurs won't be done until June.

We are going to have Wood Mackenzie do a separate public presentation on where Alaska stands.

We are not the highest marginal take. It's Libya 99.4 percent. We are somewhere in the top third.

There is an awful lot of misinformation out there; which is fairly normal in this type of debate.

Petroleum News: What about decoupling, separating oil tax from gas tax? Is that something that should be done sooner rather than later?

Stedman: It should have been done before AGIA was locked down. Now that it's locked down, the time sensitivity isn't as big an issue.

Even today in 2011, I would imagine the impact to the treasury is 125 million to 150 million. Does it need to be rectified? The answer is yes. It's a substantial de-stabilizer within our tax system.

Having a stable tax system is as important as having the numeric correct so both sides are comfortable with the rates.

Petroleum News: Is AGIA dead or is a large-diameter gas line dead?

Stedman: Why would AGIA work if Exxon, BP and ConocoPhillips refused to sign on with AGIA? It can't work. It was designed to exclude those three. It was doomed to fail to begin with. You can't put a concept together like that with the specific intent to exclude the three major producers and expect your project to perform. Look at DNR. Where are the AGIA supporters from DNR? They are gone. Where is the AGIA coordinator? Not hired. I think we need to sit down, take a good look at this situation, and encourage the governor to find a way to negotiate ourselves out of AGIA, and move on to try and find another way to move the gas to market. Under AGIA, we removed ourselves to support other projects.

Petroleum News: Is it a problem with AGIA or a problem with TransCanada?

Stedman: I have no problem with TransCanada. That's a quality company. It's the AGIA process. It was flawed to begin with. You can't put together a proposal that excluded the majors from the get go.

Petroleum News: What made you vote for the law?

Stedman: I didn't want the $40 million appropriation for Swan-Tyee to be vetoed by the governor (Palin). It was going to pass anyway, so I had to play politics.

Petroleum News: Is HB 142 a way out?

Stedman: It's a good bill to have a discussion on and start the process. Denali has the same hurdles as the AGIA project.

It was a disastrous policy (to) put forward; frankly I'm not so sure it didn't cost us the small window we had to move this project forward.

Petroleum News: So there is no Plan B?

Stedman: You can't get to a Plan B if you don't get out from under AGIA. You're stuck. You can't incentivize another group without having triple damages (for backing out of AGIA).

Petroleum News: What do you do to monetize the gas?

Stedman: If I had that answer, I'd be running ExxonMobil. I'm just a boy from the islands. Maybe there is always the possibility for an export license. How do you get away from the $30 billion to $40 billion in infrastructure cost to get your gas to market? There is a wild card in there, too, in that the Alberta oil sands need a huge energy supply to generate steam to general oil. That's something that can't be forgotten.

Petroleum News: What can be done in the next two years?

see **STEDMAN** page 11

● EXPLORATION & PRODUCTION

USGS assessing unconventional resources

Agency is investigating the Alaska potential for developing unconventional plays such as shale oil, shale gas and coalbed methane

By ALAN BAILEY
Petroleum News

While much oil and gas interest in North America has focused recently on new so-called unconventional oil and gas plays, especially involving the extraction of hydrocarbon resources directly from oil and gas shales, the Alaska oil industry has continued along a route of seeking and developing oil from conventional porous and permeable reservoir rocks.

But with Great Bear Petroleum forging ahead with plans to extract oil directly from source rocks on the North Slope, Alaska looks set to join the unconventional oil and gas bandwagon.


DAVE HOUSEKNECHT

And the U.S. Geological Survey, the federal agency that has for many years conducted assessments of Alaska's conventional onshore oil and gas resources, is now turning its attention to estimating how much unconventional oil and gas might be accessible in northern Alaska and in the Cook Inlet basin.

The agency hopes to complete its Cook Inlet assessment in the late spring or early summer, and run the numbers for its northern Alaska assessment sometime in the fall, USGS geologist Dave Houseknecht told Petroleum News Feb. 8.

Trapped in the rock

Unlike a conventional oil and gas play, where hydrocarbons migrate into a porous source rock to become trapped under an impervious seal rock, an unconventional play, sometimes referred to as a "continuous" play, involves a rock unit saturated with oil or gas over a broad area, with the fabric of the rock itself, rather than an overlying seal rock, trapping the hydrocarbons in place. The much publicized "fracking" techniques used in this type of play release the hydrocarbons by smashing open the rock fabric.

Estimating the producible volumes of hydrocarbon resources in this type of unconventional play involves assessing three factors: the extent and thickness of the hydrocarbon bearing rock unit; the mechanical and oil production properties of the rock; and the likely success rates for well production from the rock, Houseknecht explained. Essentially, a geologist conducting the assessment will use the rock properties to estimate the sizes of cells from which individual wells might be able to drain hydrocarbons and will use the hydrocarbon production characteristics of the rock to estimate ultimate production volumes for the wells. The geologist will then statistically combine possible ranges of cell sizes and likely production volume ranges, together with ranges in the estimated extent of the complete rock unit, to derive a range of potential, extractable hydrocarbon in the play as a whole.

USGS conducted an assessment of North Slope coalbed methane resources in 2006. And, although there are likely to be substantial unconventional North Slope resources in impermeable, "tight" sands, USGS needs access to appropriate 3-D seismic data to delineate the tight sand bodies, Houseknecht said. There are probably resources in tight sands, even within existing North Slope productions units, but individual sand bodies are probably limited in extent, he said.

Focus on source rock

So, the agency is focusing on potential oil and gas production direct from source rocks, starting with the Cretaceous Gamma Ray Zone and Hue shale, and the Triassic Shublik formation, two prominent source rock intervals that have generated much oil in the North Slope oil fields, Houseknecht said. Could the source rocks in these intervals be tapped directly for oil production, using hydraulic fracking?

Existing seismic data tied into data from existing wells give geologists a good handle on the geographic extent and thicknesses of the source rock units. But, given the total lack of any track record of unconventional oil and gas production on the North Slope, estimating the rock's production characteristics, the parameters needed to estimate the well drainage cell sizes and well productivity, is one of the biggest challenge in conducting an unconventional resource assessment in northern Alaska, Houseknecht said. Essentially, the geologists have to find analogous rocks from the Lower 48, rocks that have been used for unconventional production and that appear to have somewhat similar characteristics to those on the North Slope, in order to infer the required North Slope production characteristics.

Quite a bit is, however, already known about one key rock property: the distribution of thermal maturity, the measure of the extent to which the rock has been heated to generate oil or natural gas. In general, for example, the thermal maturity is relatively low on the crest of the Barrow arch, a major geologic structure along the Beaufort Sea coast, but increases to the south.

Gamma ray response

For the Cretaceous sources USGS is using the gamma ray response, a hydrocarbon content indicator, from existing well logs to infer hydrocarbon-rich rock depths and thicknesses at different locations, Houseknecht said. And the good news is that the thickest high-gamma-ray concentrations occur along a trend of thermal maturity appropriate for oil generation, he said.

However, a prevalence of carbonate minerals has distorted the gamma ray responses in the Shublik, causing the USGS geologists to resort to a more complex procedure to locate the likely sweet spots in the Shublik source — using data from the Phoenix well, offshore north of the Colville River Delta, USGS is correlating the thickness of the likely prime hydrocarbon-bearing zone of the Shublik across multiple wells.

And there is evidence from existing well penetrations on the North Slope that the Shublik is fractured and is brittle enough for fracture stimulation, Houseknecht said.

see **USGS ASSESSMENT** page 15

continued from page 3

STEDMAN

Stedman: Well, you don't want to be under AGIA for two years and not having a project moving forward. I firmly believe all three majors want to monetize that gas. I don't see a financial benefit for them not to.

I would say yes due to the fact that they can go after a 20 to 40 percent credit. The question is what's going on in Prudhoe, Alpine and Kuparuk. Those are the cash cows. That's where the easy oil is. That's where the money is at.

Petroleum News: There was a lot of attention paid the last two or three years to a gas line. Do you think attention swayed from oil?

Stedman: Not necessarily, but I think there is finally a realization in the building that the money is in oil not gas. Five years ago, people were talking about a gas economy. That's all hogwash. If you go back to the fiscal analysis done under Murkowski, oil was forecasted to be three times the value of gas, and that's when oil was substantially lower than it is today. You really can't compare the value of oil to the value of gas. Oil is where the money is at. Gas is just a facilitator to get more oil. We've got a normal decline curve in an aging basin. We are not going to go back up to 2 million barrels a day. I'd be shocked if we made it back up to a million a day unless we have a major breakthrough with heavy oil. It's not the fault of a policy call that was misguided that led us into a volume reduction. I don't think that's clear with the public.

Petroleum News: How do you get these wells drilled?

Stedman: You can't move the basin to a warmer climate or population center. Have to deal with it in regulation and you will have to deal with it in fiscal structure to make the basin competitive.

Petroleum News: You're on the Northern Waters Task Force. What are your concerns about federal agencies slowing down drilling?

Stedman: From a federal perspective, you can build tanks to arm your young men and women and send them in harm's way. Or you can develop the Arctic and develop the oil sands and become energy independent as much as absolutely possible. Until the Southern 48 decides to quit building tanks and start drilling wells, we are going to keep building tanks. ●