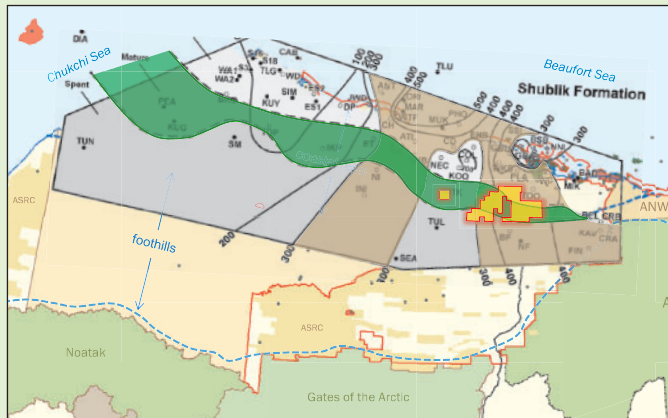




## Great Bear targets shale oil



Great Bear Petroleum is looking at the unconventional oil potential of Alaska's North Slope. In a September talk to the Alaska Geological Society, geologist Paul Decker from Alaska's Division of Oil and Gas described the ins and outs of oil development from the North Slope's prolific source rocks. See story on page 10.

## Escopeta runs into problems drilling upper Cook Inlet well

Although Escopeta Oil Co. should soon be back on track with drilling its first well in Alaska's upper Cook Inlet, the company has been stuck at 1,805 feet for close to two weeks.

The Texas-based independent began drilling the Kitchen Lights Unit No. 1 well on Sept. 2, using the Spartan 151 jack-up rig.

About 10 miles north of Nikiski in the Corsair prospect, KLU No. 1 is one of five wells in Escopeta's multiyear oil and gas exploration program in the offshore Kitchen Lights unit, which also includes the East Kitchen, Kitchen and Northern Lights oil and gas prospects.

By the morning of Sept. 7, the Spartan 151 had drilled a narrow, 12 and 1/2-inch, hole down to 1,800 feet, and had already begun to re-drill the hole, widening it to 26 inches for 20-inch casing.

see ESCOPETA page 18

## Harper calls Keystone approval a 'no brainer' for US administration

Canadian Prime Minister Stephen Harper rates U.S. government approval of TransCanada's Keystone XL pipeline as a "no brainer" and a host of influential North American newspapers agrees with him.

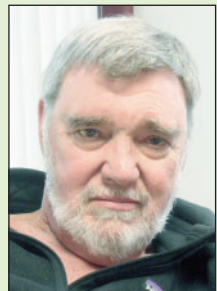
But the prospect of seeing another 500,000 barrels per day of crude bitumen from the Alberta oil sands flowing into the U.S. seems to have aroused the Kingdom of Saudi Arabia, while established opponents of Keystone are stepping up their fight as the U.S. State Department embarks on a fresh round of public hearings.

Harper, in New York for the United Nations General Assembly, joined the chorus of those making a case for oil sands production to play a major role in meeting the U.S. demand for energy and for offering a palatable alternative to imports from Saudi Arabia, Venezuela and Nigeria.

"It's hard for me to imagine that the eventual decision (by the Obama administration) would be not to build Keystone," he said.

But he warned the delays in arriving at a decision are "all

see KEYSTONE DECISION page 18



ED OLIVER



STEPHEN HARPER

## LAND & LEASING

# Rentals encourage work

State sets varying minimum bids, annual rentals for Beaufort, North Slope sales

By KRISTEN NELSON  
Petroleum News

The Alaska Department of Natural Resources, Division of Oil and Gas, has developed new terms for its annual fall areawide oil and gas lease sales scheduled to be held Dec. 7.

As described in sale notices published Sept. 27 for the Beaufort Sea, North Slope and North Slope Foothills sales, the different minimum bids and rental rates seem designed to encourage development.

"These lease terms are designed to encourage financially sound, responsible operators to join in the accelerated development of the state's natural resources," Division Director Bill Barron said in a Sept. 28 news release on the sales.



BILL BARRON

"Our efforts have been undertaken as part of the state's focus on boosting oil production on the North Slope," he said.

Barron told Petroleum News in a Sept. 28 telephone interview that the state's goal is to "encourage people to prudently and responsibly explore and delineate their acreage within the primary lease term."

Under the new lease terms, rental rates for portions of the North Slope and Beaufort Sea sales increase from \$10 an acre to \$250 an acre after seven years of the 10-year lease term.

There is a stable rental rate for the first seven years, Barron said. But if leaseholders have not demonstrated diligent effort, then rental rates go up; if they have shown diligent effort and done work and

see LEASE SALES page 19

## PIPELINES & DOWNSTREAM

# Overstating the case?

NRDC commissioned report says that TAPS low flow issues can be easily solved

By ALAN BAILEY  
Petroleum News

A new report, prepared by Innovation & Information Consultants Inc. for the National Resource Defense Council, an environmental action organization, says that Alyeska Pipeline Service Co. is overstating the potential problems associated with low oil flow down the trans-Alaska oil pipeline, and that the pipeline can continue viable operations for many years without any need to seek new oil fields to bolster oil throughput.

Low flow problems arise primarily from the increased cooling of oil in the line, as the transit time down the line increases.

In June Alyeska published the results of a lengthy internal study into the consequences of declining oil flow through TAPS, with the report saying that mitigation measures to counter issues such as ice and wax formation in the pipeline would be needed at flow rates below about 550,000 barrels per day and that, even with mitigation measures in place, flow rates below 350,000 barrels per day would become problematic. Although the report listed a series of mitigation measures that could be implemented to counteract the low flow problems, Alyeska President Tom Barrett commented that the simplest and most cost effective way of addressing TAPS low flow would be to produce more oil on the North Slope.

see FLOW ISSUES page 17

## EXPLORATION & PRODUCTION

# Explorers up from 5 to 7

Pioneer, Savant plan North Slope exploration wells; season could beat 1969 record

By KAY CASHMAN  
Petroleum News

Two more northern Alaska oil companies are planning to drill exploration wells in the coming year, bringing the total of on- and nearshore wells to 34, exceeding the record to date, which was 33 in 1969, when 33 exploration wells were drilled after the discovery of the giant Prudhoe Bay field.

The two new explorers are North Slope producers Pioneer Natural Resources Alaska, which is planning two wells in its Nuna development within the Ooguruk unit (see sidebar to this article), and Savant Alaska, which is looking at a well on the crest of its Red Wolf prospect in the Badami unit.

see EXPLORERS page 20

## Apples to apples

The Sept. 25 issue of Petroleum News reported that Pioneer Natural Resources was planning to drill two Nuna "appraisal wells" this winter, targeting the Torok formation.

Both Pioneer and the Alaska Oil and Gas Conservation Commission defined the wells as exploratory, which means they were being drilled to discover or delineate a new pool.

Because the bottom holes of both wells were inside an existing producing unit, Petroleum News initially elected not to

see APPLES page 20

# contents

Petroleum News

North America's source for oil and gas news

## ON THE COVER

### Rentals encourage work

State sets varying minimum bids, annual rentals for Beaufort, North Slope sales



### Overstating the case?

NRDC commissioned report says that TAPS low flow issues can be easily solved

### Explorers up from 5 to 7

Pioneer, Savant plan North Slope exploration wells; season could beat 1969 record

**SIDEBAR**, Page 1: Apples to apples

### Escopeta runs into problems drilling upper Cook Inlet well

### Harper calls Keystone approval a 'no brainer' for US administration



## ENVIRONMENT & SAFETY

**6** ADEC team collects Chukchi water samples

## EXPLORATION & PRODUCTION

### 6 Aiming to increase Badami production

Savant preparing for another year of development work at the easternmost producing field on the North Slope of Alaska

### 10 Taking a look at NS shale oil potential

The possibility of unconventional oil development in the North Slope's world-class source rocks raises some intriguing questions

**SIDEBAR**, Page 11: USGS starts NS unconventional resource assessment

**17** US oil and gas rig count up by 6 to 1,991

## FINANCE & ECONOMY

### 5 Land tops production royalties

Think tank urges Western Canadian provinces to rely more on land auctions, less on royalty-raising schemes

**SIDEBAR**, Page 5: Alberta land tops C\$3 billion

**14** Oil up near \$82 after EU debt fund vote

## GOVERNMENT

### 4 Hollis French looks to Norway as model

Anchorage Senator calls for state investment in oilfield developments; says Alaska's oil and gas production tax is not too high



### 8 Alaska leaders make ANWR case — again

Congressional hearing focuses on coastal plain as a source of jobs, energy and revenue; critic calls it 'kowtowing' to industry

## LAND & LEASING

### 15 DOG turns down Coho unit application

Division says unitization of some Aurora Gas leases around the Coho well on the Kenai Peninsula would not benefit the state

## NATURAL GAS

### 7 Panel discusses gas storage, LNG imports

Construction on schedule for CINGSA gas storage facility; Cook Inlet utilities still expect some imports of LNG will be required

**14** Canadian gas producers face tough times

## PIPELINES & DOWNSTREAM

### 9 Exxon signs deal for two new tankers

Double-hull ships to replace two aging tankers hauling Alaska oil; construction agreement with Pa. shipyard worth \$400 million

### 12 Low volumes complicate Alyeska operations

Barrett tells Alaska Oil & Gas Congress pipeline can handle low-flow issues, but lower volumes mean higher chance of shutdowns



EXPANDED SERVICES + SEASONED CREW

ARCHITECTURE | ENGINEERING | SURVEYING



UMIAQ

reach new horizons.

A MEMBER OF THE UKPEAĠVIK INUPIAT CORPORATION FAMILY OF COMPANIES

REGULATORY PLANNING | STAKEHOLDER RELATIONS | GEOSPATIAL ANALYSIS | RESPONSE PLANNING & OPERATIONS | LOGISTICS & FULL-SERVICE CAMPS | UKPIK.COM

# Alaska - Mackenzie Rig Report

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

## Alaska Rig Status

### North Slope - Onshore

<b>Doyon Drilling</b>			
Dreco 1250 UE	14 (SCR/TD)	Prudhoe Bay Z-65	BP
Dreco 1000 UE	16 (SCR/TD)	Prudhoe Bay S-09/OH	BP
Dreco D2000 UEBD	19 (SCR/TD)	Alpine, Maintenance	ConocoPhillips
AC Mobile	25	Prudhoe Bay 18-12C	BP
OIME 2000	141 (SCR/TD)	Kuparuk Standby	ConocoPhillips
TSM 7000	Arctic Wolf #2	In Nisku, AB	Available

<b>Kuukpik</b>	5	Drilling Savik #1	North Slope Borough
----------------	---	-------------------	---------------------

<b>Nabors Alaska Drilling</b>			
Trans-ocean rig	CDR-1 (CT)	Stacked, Prudhoe Bay	Available
AC Coil Hybrid	CDR-2	Kuparuk 1E-27	ConocoPhillips
Dreco 1000 UE	2-ES	Prudhoe Bay Stacked out	Available
Mid-Continental U36A	3-S	Prudhoe Bay Stacked out	Available
Oilwell 700 E	4-ES (SCR)	Prudhoe Bay X-22A	BP
Emsco Electro-hoist	7-E (SCR-TD)	Prudhoe Bay DS12-27A	BP
Dreco 1000 UE	7-ES (SCR/TD)	Prudhoe Bay R14-B	BP
Dreco 1000 UE	9-ES (SCR/TD)	Has been released by Brooks Range Petroleum	Available
Oilwell 2000 Hercules	14-E (SCR)	Prudhoe Bay Stacked out	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Prudhoe Bay Stacked out	Available
Oilwell 2000	17-E (SCR/TD)	Prudhoe Bay Stacked out	Available
Emsco Electro-hoist -2	18-E (SCR)	Stacked, Deadhorse	Available
Emsco Electro-hoist Varco TDS3	22-E (SCR/TD)	Stacked, Milne Point	Available
Emsco Electro-hoist	28-E (SCR)	Stacked, Deadhorse	Available
Emsco Electro-hoist Canrig 1050E	27-E (SCR-TD)	Stacked at Deadhorse, will go to Oooguruk for exploration drilling in January	Pioneer
Academy AC electric Heli-Rig	106-E (SCR/TD)	Stacked at Deadhorse	Available
OIME 2000	245-E	Oliktok Point OI06-05	ENI

\*Nabors 27-E will be under contract at Oooguruk/Nuna for Pioneer this winter

<b>Nordic Calista Services</b>			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay Drill Site H-04B	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Well Drill Site C-10B	BP
Ideco 900	3 (SCR/TD)	Kuparuk Well 3K-10	ConocoPhillips

<b>Parker Drilling Arctic Operating Inc.</b>			
Superior 700 UE	272	Prudhoe Bay final construction and commissioning	BP
Superior 700 UE	273	Prudhoe Bay final construction and commissioning	BP

### North Slope - Offshore

<b>BP (rig built &amp; being assembled by Parker)</b>			
Top drive, supersized	Liberty rig	Endicott SDI for Liberty oil field	BP

<b>Nabors Alaska Drilling</b>			
OIME 1000	19-E (SCR)	Oooguruk ODSK-13	Pioneer Natural Resources
Oilwell 2000	33-E	Prudhoe Bay Stacked out	Available

<b>Doyon Drilling</b>			
Sky Top Brewster NE-12	15 (SCR/TD)	Spy Island SD37-DSP1	ENI

### Cook Inlet Basin – Onshore

<b>Aurora Well Service</b>			
Franks 300 Srs. Explorer III	AWS 1	Rigging up on Three Mile Creek #3	Aurora Gas

<b>Cook Inlet Energy</b>			
Atlas Copco RD20 34		Undergoing winterization at W. McArthur River Unit	Cook Inlet Energy

<b>Doyon Drilling</b>			
TSM 7000	Arctic Fox #1	Beluga 224-23T	ConocoPhillips

<b>Marathon Oil Co. (Inlet Drilling Alaska labor contractor)</b>			
Taylor	Glacier 1	Kenai Loop #3	Buccaneer Alaska

<b>Nabors Alaska Drilling</b>			
Continental Emsco E3000	273	Stacked, Kenai	Available
Franks	26	Stacked	Available
IDECO 2100 E	429E (SCR)	Stacked	Available
Academy AC electric Canrig	105-E (SCR-TD)	Kenai CLU-4	CINGSA
Rigmaster 850	129	Kenai Stacked out	Available

### Cook Inlet Basin – Offshore

<b>Chevron (Nabors Alaska Drilling labor contract)</b>			
	428	M-11 Steelhead Platform	Chevron

<b>XTO Energy</b>			
National 1320	A	Coil tubing cleanout planned off Platform A in the near future	XTO
National 110	C (TD)	Idle	XTO

<b>Spartan Drilling</b>			
Baker Marine ILC-Skidoff, jack-up		Spartan 151	Escopeta
		Upper Cook Inlet KLU#1	

## Mackenzie Rig Status

### Canadian Beaufort Sea

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

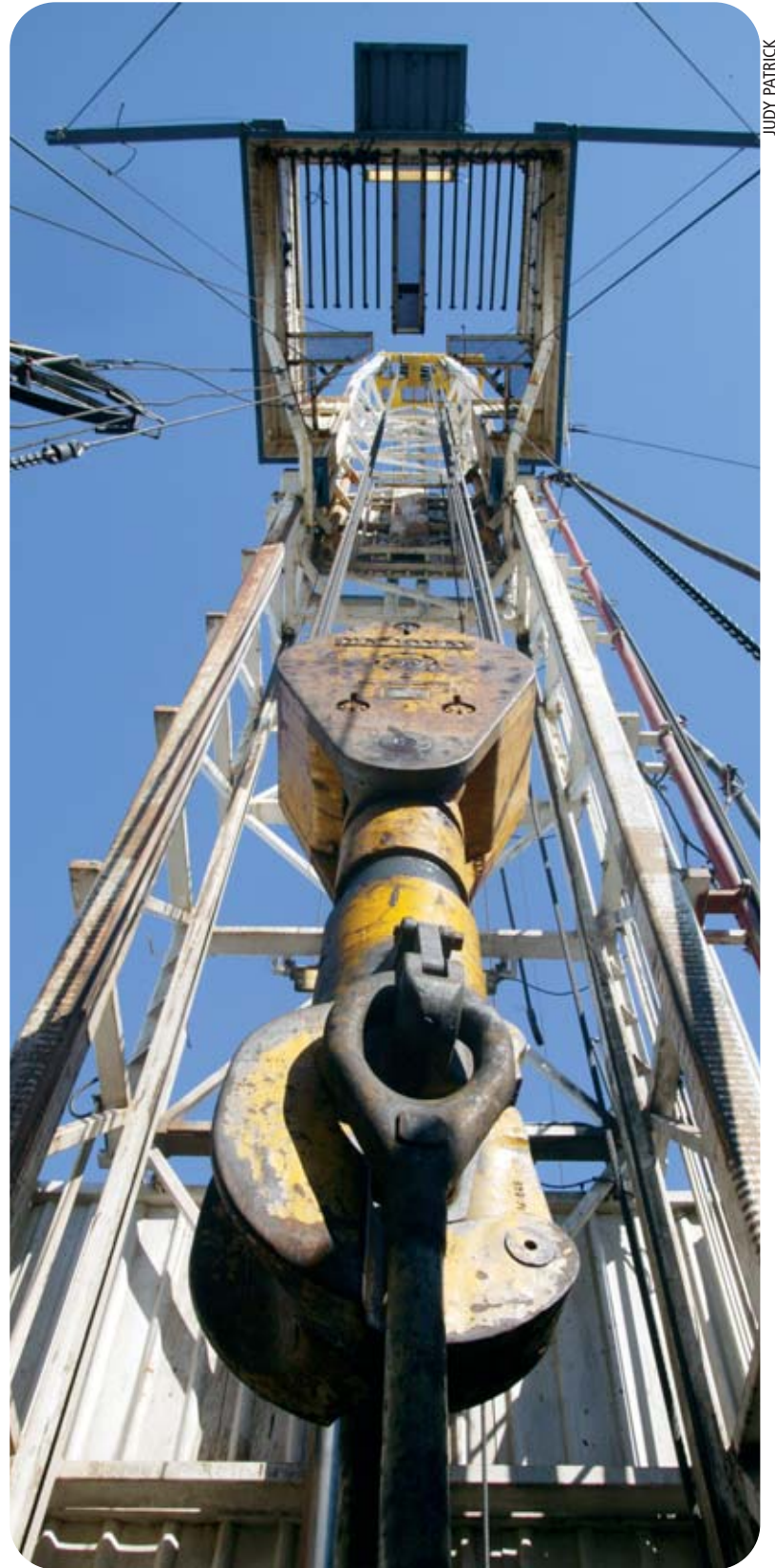
### Central Mackenzie Valley

<b>Akita/SAHTU</b>			
Oilwell 500	51	Has left the NWT	Available

The Alaska - Mackenzie Rig Report as of September 29, 2011.  
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



JUDY PATRICK

### Baker Hughes North America rotary rig counts\*

	September 23	September 16	Year Ago
US	1,991	1,985	1,650
Canada	505	502	282
Gulf	31	30	15

### 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

The Alaska - Mackenzie Rig Report  
is sponsored by:



## GOVERNMENT

# Hollis French looks to Norway as model

Anchorage Senator calls for state investment in oilfield developments; says Alaska's oil and gas production tax is not too high

By STEFAN MILKOWSKI

For Petroleum News

A group of about three dozen Alaskans, including state lawmakers, federal, state and local officials, and private sector representatives travelled to Norway at the end of August to study the northern country's approach to oil and gas development.

"(It was) sort of a weeklong, graduate-level seminar in how that country operates," said Sen. Hollis French, one attendee.

The trip was organized by the Institute of the North, a nonprofit research and advocacy group founded by former Gov. Wally Hickel, and included visits with officials from Norway's ministries of foreign affairs, petroleum, and finance.

Twelve state lawmakers made the trip:

Sens. Johnny Ellis, Lyman Hoffman, Linda Menard, Donny Olson, Gary Stevens, Joe Thomas, Tom Wagoner and French; and Reps. Bryce Edgmon, Neal Foster, Bob Herron and Paul Seaton.

Larry Persily, the Federal Coordinator for Alaska Natural Gas Transportation projects, also attended.

Petroleum News spoke with French on Sept. 23.

French is a member of the Senate Resources Committee, a committee of referral for Gov. Sean Parnell's oil tax legislation, House Bill 110. French says he remains skeptical of the governor's plan



SEN. HOLLIS FRENCH

and is more interested in an approach used in Norway called state direct financial investment, which he argues would help keep investment dollars in Alaska.

*Petroleum News: Why did you want to go on this trip?*

French: It looked to me like a great opportunity to see how another northern country has managed its relationship with the oil industry and how it's managed its oil wealth.

*Petroleum News: What did you learn?*

French: We learned a lot. The Institute of the North was the entity that organized the trip, set up the agenda, and did all the logistical work. First of all, hats off to them for doing a fantastic job. There were 30 of us that went over — legislators, state and municipal officers, private sector representatives. There was a big group of people. Their name for the Norway trip was Exploring the Norway Model. We were looking at a series of issues, including development of offshore oil and gas; meeting community needs; How does their state-run oil company, Statoil, work?; How does their government pension fund — their permanent fund — work?; How do they meet their internal energy needs?; What's Norway's role in the arctic?; and so forth. So it had the potential to be — and in fact was — sort of a weeklong, graduate-level seminar in how that country operates.

My takeaways were several. First — I guess on the issue that's probably uppermost on the minds of a lot of legislators right now — is, What do we do with this oil tax debate that is raging in Juneau? For me it was refreshing to see a country that frankly taxes higher than we do, has done so for a long time, and doesn't have this raging debate because they're not changing, they're not budging, they're not moving.

If you want to do business in Norway — and many, many oil companies do — they know what the rules are going in. The Norwegians are not going to change the rules, and so the debate isn't happening. It's just a business-like arrangement. Everybody knows the rules, and industry is strong and healthy there.

*Petroleum News: It seems like there's a fundamental difference in that Norway doesn't rely as heavily as Alaska on oil revenues.*

French: That's a good point. It is a huge difference. Like us, Norway made their big find in 1969. Unlike us, Norway did not eliminate its income tax and other taxes when oil was found. The people of the country of Norway continued to pay taxes to the government and that has given them the luxury of not depending so heavily on oil.

They also made some other big policy decisions before oil came along and after

that left them in strong financial shape. One is a national policy of rural electrification. A long time ago, they said, Look, we're going to make ourselves a leader in hydropower, we're going to connect the entire country to a grid, power's going to be cheap. That left them in a position of being able to sell the majority of their oil and gas once it comes to market.

*Petroleum News: Are there things you saw that you think might work in Alaska?*

French: Actually, (their approach) explains a lot of the interest in the Watana dam. As you look at the future and see oil and gas getting scarcer and more expensive, anybody that has access to hydropower should be building it.

Besides that, Norway has both a state-run oil company, Statoil, and another mechanism called state direct financial investment, SDFI. And SDFI is just a way for the nation of Norway — or the state of Alaska — to invest right alongside the industry in projects here in this state in

our case. It's a way to lower the risk of projects, because you're spreading it amongst more financial partners. It's a way to increase the number of projects done, because access to capital is always a problem — we hear that frequently in our conversations with industry people, and it's an argument we hear from the other side of the oil tax debate: Hey, capital can go anywhere it wants. Well, if the state puts some of its capital up to work, it'll be done here in Alaska on Alaskan projects. So I think you're going to hear a lot about SDFI during the next legislative session.

*Petroleum News: Because you'll be proposing something?*

French: Yes.

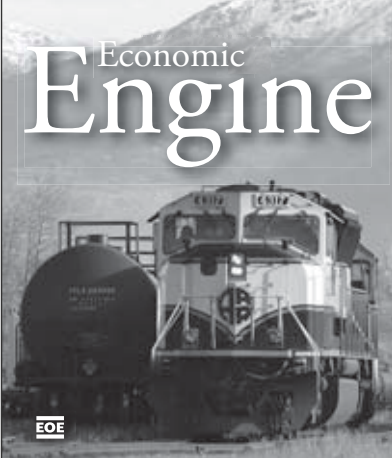
*Petroleum News: Why is that better than giving tax credits for oilfield developments?*

French: Well, the industry's telling us that isn't enough. So if you believe industry, then you think, Okay, we need to do something to make projects more enticing. You know, (ConocoPhillips CEO) Jim Mulva came down to Juneau and said, Look, if you reduce oil taxes, here's a project that's right on the cusp, this big drill site full of wells would handle a lot more gas. Frankly, the state could take a financial position in that project, make it happen, and thus increase the gas-handling abilities on the North Slope and thus produce more oil.

So that's a way for the state to help make projects happen. Instead of sort of pushing oil tax money across the table and hoping that that project takes place, you become a financial partner. That's part one — you get more projects and the projects are in Alaska.


Two, you reap the financial rewards. If

see FRENCH Q&A page 15



In terms of powering Alaska's economy, few things outperform our trains. In 2010, we carried more than six million tons of freight and 400,000 passengers over 651 miles of track.

(907) 265-2300  
1-800-321-6518  
AlaskaRailroad.com  
TDD (907) 265-2621




www.PetroleumNews.com

<b>Kay Cashman</b>	PUBLISHER & EXECUTIVE EDITOR	<b>ADDRESS</b>
<b>Mary Mack</b>	CHIEF FINANCIAL OFFICER	P.O. Box 231647
<b>Kristen Nelson</b>	EDITOR-IN-CHIEF	Anchorage, AK 99523-1647
<b>Clint Lasley</b>	GM & CIRCULATION DIRECTOR	<b>NEWS</b>
<b>Susan Crane</b>	ADVERTISING DIRECTOR	907.522.9469
<b>Bonnie Yonker</b>	AK / NATL. ADVERTISING SPECIALIST	publisher@petroleumnews.com
<b>Heather Yates</b>	BOOKKEEPER	<b>CIRCULATION</b>
<b>Shane Lasley</b>	IT CHIEF	907.522.9469
<b>Marti Reeve</b>	SPECIAL PUBLICATIONS DIRECTOR	circulation@petroleumnews.com
<b>Steven Merritt</b>	PRODUCTION DIRECTOR	<b>ADVERTISING</b>
<b>Alan Bailey</b>	SENIOR STAFF WRITER	Susan Crane • 907.770.5592
<b>Wesley Loy</b>	CONTRIBUTING WRITER	scrane@petroleumnews.com
<b>Gary Park</b>	CONTRIBUTING WRITER (CANADA)	Bonnie Yonker • 425.483.9705
<b>Rose Ragsdale</b>	CONTRIBUTING WRITER	byonker@petroleumnews.com
<b>Ray Tyson</b>	CONTRIBUTING WRITER	<b>FAX FOR ALL DEPARTMENTS</b>
<b>John Lasley</b>	STAFF WRITER	907.522.9583
<b>Allen Baker</b>	CONTRIBUTING WRITER	<i>Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.</i>
<b>Judy Patrick Photography</b>	CONTRACT PHOTOGRAPHER	
<b>Mapmakers Alaska</b>	CARTOGRAPHY	
<b>Forrest Crane</b>	CONTRACT PHOTOGRAPHER	
<b>Tom Kearney</b>	ADVERTISING DESIGN MANAGER	
<b>Amy Spittler</b>	MARKETING CONSULTANT	
<b>Dee Cashman</b>	CIRCULATION REPRESENTATIVE	

OWNER: Petroleum Newspapers of Alaska LLC (PNA)  
Petroleum News (ISSN 1544-3612) • Vol. 16, No. 40 • Week of October 2, 2011  
Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518  
(Please mail ALL correspondence to:  
P.O. Box 231647 Anchorage, AK 99523-1647)  
Subscription prices in U.S. — \$98.00 1 year, \$176.00 2 years, \$249.00 3 years  
Canada — \$185.95 1 year, \$334.95 2 years, \$473.95 3 years  
Overseas (sent air mail) — \$220.00 1 year, \$396.00 2 years, \$561.00 3 years  
"Periodicals postage paid at Anchorage, AK 99502-9986."

POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647.

**Alaska's Underwater Professionals: "Where Safety is the First Step"**



Offshore Oil & Gas Dive Support Services:  
Air, Gas, & Saturation Diving to 1,000ft

Production Platforms & Subsea Pipelines:  
Installations, Inspections, Repairs, P&A, Decommissioning

Deepwater Mooring Systems:  
Installations & Maintenance

Office: (907) 563-9060 • www.gdiving.com • Fax: (907) 563-9061

Diving Services • ROV Services • Environmental Services • Emergency Response

● FINANCE & ECONOMY

# Land tops production royalties

Canadian think tank urges Western Canadian provinces to rely more on land auctions, less on royalty-raising schemes like Alberta's

By GARY PARK

For Petroleum News

Still reeling from the aftershocks of its failed attempt to hike royalty rates in 2007, the Alberta government — along with neighboring British Columbia and Saskatchewan — is again being urged to rethink its methods of taxing oil and gas development.

The C.D. Howe Institute, a respected independent think tank, has recommended changes it believes would result in greater fiscal certainty for industry and higher returns for the provincial governments, which, under Canada's Constitution, own the natural resources within their borders.

A report by the institute argues the traditional collection of royalties from oil and gas production, rather than maximizing resource revenues, may actually discourage development of unconventional oil and natural gas.

And it cautions against temptations to stage a revenue grab by taking advantage of the rise in oil prices.

## Emphasis on auctions

Instead, it says the provinces could increase their total resource revenues by increasing their reliance on auctions to explore and drill for resources, resulting in more predictable revenues and reducing the "economic distortion caused by royalties."

The report noted that in response to Alberta's 2007 royalty hike, the average auction bids for exploration licenses fell 59 percent in average value and the number of bids declined "because producers stopped making bids on otherwise marginal reserves."

C.D. Howe said that although it is "not able to point to a specific optimal royalty rate," its analysis does indicate the "superiority of lower royalty rates and the substantial effect that gross royalty rates have on distorting investment decisions."

As a result, it calls for the provinces to lower royalties on new, conventional oil and gas and shale gas production, regardless of whether those plays are mature or

## Alberta land tops C\$3 billion

For the second time, the Alberta government has raked in more than C\$3 billion in annual land sales revenue and now has its sights fixed on beating the 2006 record of C\$3.4 billion.

At the three-quarter mark for 2011, the province has collected C\$3.06 billion in winning bids, fueled by continuing interest in the Duvernay shale play.

The latest auction yielded C\$298 million from the sale of 210,642 hectares (520,496 acres) at an average C\$1,416 per hectare.

Ryan Money, an analyst with Macquarie Securities, said producers paid C\$185 million to acquire 37,248 hectares of Duvernay land in a pocket of the Greater Pembina area.

He said a per-hectare average of C\$5,276 for a 4,736-hectare license in northern Alberta points to interest in a carbonate play in an area where Penn West Petroleum and Pinecrest Energy have been active.

The peak per-hectare average of C\$9,118 was submitted by broker Standard Land Co. in a successful bid of C\$54.85 million in an area where Devon NEC and Birchill Exploration have wells licensed in what is also a Duvernay target.

—GARY PARK

emerging, such as the shale gas fields in British Columbia and Quebec.

The report said high royalties would restrict development and have a negative impact on revenues where there were few existing producers and would also discourage new development in mature areas if remaining resources were rendered uneconomic.

## Impact of global downturn

Co-author Bev Dahlby, an economist with the University of Alberta, said that what the Alberta government failed to take into account in launching its first royalty increase in 30 years was the impact of a global financial downturn.

The combined recession and an industry backlash against higher royalties forced the Alberta government to backtrack by reducing rates seven times over two years before effectively returning to square one.

Alberta Energy Minister Ron Liepert, who was not in the post during the royalty overhaul, credited an incentive program introduced in 2009 with restoring "trust" between government and industry and Alberta's standing as a competitive place for investment.

*he C.D. Howe report actually concluded that during the royalty debacle Alberta saw its land sales and other fees in the face of reduced drilling and well counts drop by about the same C\$2 billion it anticipated collecting from higher royalties.*

are a better way to gauge the speculative value of natural resources and stimulate higher levels of industry activity.

Increasing reliance on land auctions "could make government revenues more predictable and help policymakers better understand that resource revenues are akin to asset sales," he said.

Dahlby said the current heavy reliance on royalties impedes resource exploitation and development, while a shift in emphasis to auctions revenues would ease government revenue volatility that results from short-term energy price shocks. ●

Contact Gary Park through [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)



Tire Distribution Systems, Inc.

Toll Free: 800 478-2010

Anchorage: 907 562-2010

Fairbanks: 907 452-7131

COMPLETE TIRE SERVICE  
PASSENGER  
TRUCK  
INDUSTRIAL  
OFF THE ROAD

Bridgestone, General, Bandag,  
Cooper, Firestone, Yokohama

## NEI FLUID TECHNOLOGY

### Suppliers of:

Phone: 907.561.4820  
Fax: 907.562.2316  
Email: sales@neifluid.com

- Petrochemical refueling & testing equipment
- Meters and valve systems for oil & gas industry
- Portable measurement for petroleum, chemicals and bulk liquids
- Refrigerant recovery/recycling equipment

**Pump, Tank,  
Pipeline & Filtration  
RENTALS**

**Rain for Rent  
Kenai, AK 99611  
800.742.7246  
907.283.4487  
rainforrent.com**

Complete Solutions...  
Proven Results.™



## Top-Notch Industrial Service & Innovation Are The Keys To TEAM's Success

TEAM has become the largest specialized industrial service company in North America through service leadership and innovation. The company's more than 3,500 trained, and experienced technicians provide mechanical, inspection, and heat treating services and products for 7,000 customers worldwide. TEAM also provides other services and products:

- On stream leak repairs
- Hot taps and line stops
- Line freezing
- Field machining
- Mobile machining
- Technical bolting
- Valve repairs
- Heat-treating hardware and products
- Emissions control services
- Pipe isolation and weld testing
- Pipe repair clamps and enclosures
- Pipeline services
- Composite wraps

## TEAM Industrial Services

53341 Sandy Lane Kenai, Alaska 99611  
P: 907-335-1446 | F: 907-335-1448

The TEAM Alaska office specializes In NDT Services and Field Heat Treating

## ENVIRONMENT & SAFETY

### ADEC team collects Chukchi water samples

As part of an Environmental Protection Agency assessment of U.S. coastal waters a team of scientists, led by the Alaska Department of Environmental Conservation, has completed the sampling of seawater from 30 sites along the Chukchi Sea coast from Point Lay to Barrow, ADEC said Sept. 27. In addition to ADEC scientists, the 13-member team included researchers from the University of Alaska Fairbanks, School of Fisheries and Ocean Sciences, and from the National Oceanic and Atmospheric Administration's National Status and Trends Program. The Chukchi Sea sampling program, conducted by boat, took 12 days to complete.

"With the good weather we were able to collect data at three sites most days," said Doug Dasher, DEC's lead scientist for the survey. "This research will help establish baseline conditions and assist environmental managers in evaluating potential changes in the future. In the near-term, it will help environmental managers protect coastal marine environments, mitigate damage to the marine ecosystem and establish wastewater discharge requirements in state and federal permits."

The University of Alaska Fairbanks will analyze the bulk of the water samples collected during the survey, with some samples going to the Texas A&M Geological Environment Research Group Laboratory. The coastal survey and subsequent sample analyses will generate water quality data, including pH values, chemical content, water temperatures, salinity and dissolved oxygen levels, as well as documenting some water quality indicators such as fish abundance.

—ALAN BAILEY

## EXPLORATION & PRODUCTION

# Aiming to increase Badami production

*Savant preparing for another year of development work at the easternmost producing field on the North Slope of Alaska*

By ERIC LIDJI

For Petroleum News

Savant Alaska LLC plans to continue its attack on production problems at the Badami unit this coming year by drilling as many as three coil tubing sidetracks on existing wells into the Badami sands.

The goal is to increase output at the eastern North Slope field by bringing new technology to bear on a complex geology of the reservoir. After three years of renewed operations, Badami is producing 1,300 barrels of oil per day for the year, according to Savant Alaska President Greg Vigil. "We just want to increase production, period," Vigil told Petroleum News on Sept. 21. "We don't have a production target, if you will."

Unit operator BP Exploration (Alaska) Inc. brought the local subsidiary of Denver-based independent Savant Resources LLC on as a partner at Badami in mid-2008 in the hopes of re-starting and ultimately sustaining production at the troubled field using horizontal drilling and hydraulic fracturing. ASRC Exploration is a minority partner on the project.

Under a ninth plan of development submitted to the Alaska Department of Natural Resources in late August, BP proposed work on four existing development wells, as detailed plans for an future exploratory well. That plan is still awaiting approval.

### Proposed workload for Savant

Savant would be the company to do that work.

The plan calls for Savant to stimulate the B1-18A well to "determine the economic viability of additional application of stimulated horizontal well construction in the Badami Sands interval." Savant would use coiled tubing frac technology, propellant frac technology or hydraulic fracture treatment technology to stimulate the well.

Savant drilled the B1-18 sidetrack in 2010 into younger and shallower Brookian rocks.

The plan also calls for Savant to use hydraulic fracturing to stimulate the B1-38 well in order to evaluate the impact on productivity and reserves, and to gather information about a reservoir in the Killian

sands targeted in a previous seismic survey. That work could lead to future horizontal wells and a participating area for the Killian Sands Pool.

Savant drilled B1-38 into the Red Wolf prospect in early 2010 and found oil in two horizons. The first was the deeper Kekiktuk formation that also contains the oil reservoir for the Endicott field to the west. The second was the shallower late Cretaceous Killian sands that Savant used when it brought Badami back online in September 2010.

Savant attempted to hydraulically fracture that well this year, but Vigil said the operation wasn't successful because of issues related to pressure limitations at the wellhead. The company did not perform a planned hydraulic fracturing operation on the B1-18 well because it needed "some different technology on the Slope" before it could continue.

### Exploratory well in plan

The plan also calls for Savant to drill an exploratory well from a "remote ice pad to the crest of the Red Wolf (Kekiktuk) prospect," subject to rig availability.

The plan calls for Savant to sidetrack the B1-16 and B1-28 wells using a coiled tubing drilling rig to further evaluate the impact of horizontal drilling on the Badami Sands.

B1-16 and B1-28 are existing wells at the Badami unit.

Finally, the plan calls for Savant to continue producing at all wells currently online, and to continue using a chemical paraffin inhibitor program implemented over the past year to improve productivity and reduce operating expenditures by keeping wells online.

The ninth plan of development would run from Nov. 15, 2011, to Nov. 15, 2013.

Over the period covered by the eighth plan of development — Nov. 15, 2010 to Nov. 15, 2011 — Savant produced from the B1-18A, B1-38 and B1-36 wells, but abandoned plans to convert the B1-21 production well into a gas injection well and later shut-in the well. ●

Contact Eric Lidji  
at ericlidji@mac.com





**THE LOCAL PAGES**  
OF ALASKA  
THE BEST PHONE BOOK IN TOWN™

**ALASKA'S STRONGEST ADVERTISING RESOURCE**

- The only Yellow Page Directory that covers AND delivers to all of The Bush
- Specialized Sections for the Oil & Gas industries allowing you to target your market
- We make it easy and affordable to have state-wide coverage - Ask about our 23-book special!

**Call: 907-310-6849**




## Laptops for Foster Kids

Do you have an extra laptop you'd be willing to part with? No, I'm not adding to my own stockpile of consumer electronics or trying to strike it rich on the pawn shop circuit. Rep. Les Gara is working with Facing Foster Care Alaska to collect laptops for foster youth. Laptops are a critical tool for foster youth to keep up with schoolwork and stay connected with family and friends while they are moved to different homes and schools.

**If you are interested in donating a laptop, please make sure it is fully functional and meets the following standards:**

- Is in excellent working order;
- Is no more than 4 years old;
- Has a word processing program;
- Does not need any repairs.

For more information, or to donate a laptop, please contact either Rep. Gara's office at (907) 465-2647, or Amanda Metivier at Facing Foster Care Alaska at (907) 230-8237.



**ALASKA**



**ANALYTICAL**

**LABORATORY**

Alaska Analytical Laboratory is an environmental lab performing the following services: soil analyses for Gasoline Range Organics (GRO), BTEX (Benzene, Toluene, Ethylbenzene, and Xylene); Diesel Range Organics (DRO) and Residual Range Organics (RRO) following the SW-846 EPA/Alaska Methods.

**1956 Richardson Highway  
North Pole, Alaska 99705  
Phone: (907) 687-7394  
Email: klovejoy@alaska-analytical.com**

• NATURAL GAS

# Panel discusses gas storage, LNG imports

Construction on schedule for CINGSA gas storage facility; Cook Inlet utilities still expect some imports of LNG will be required

By **BILL WHITE**

Researcher/writer for the Office of the Federal Coordinator

Construction is on schedule for an estimated \$180 million natural gas storage facility in Alaska's Cook Inlet region. But local utilities think liquefied natural gas imports still might be necessary in a few years, even after storage smoothes the flow of gas supply.

These were among the messages delivered by panelists Sept. 22 at an Alaska In-State Energy Supply Summit in Anchorage, an adjunct event to the annual Alaska Oil & Gas Congress held earlier in the week.

The new Kenai Peninsula storage site should be ready to take injection of its first natural gas in April 2012, said Colleen Starring, chief executive of Enstar Natural Gas Co., an Anchorage-based utility. Withdrawals could start in November or December that year, as winter demand picks up from utilities such as Enstar, she said.

Enstar's parent company, Michigan-based Semco Energy, is 65.5 percent owner of the venture, called Cook Inlet Natural Gas Storage Alaska. Iowa-based MidAmerican Energy holds a 26.5 percent interest. The partnership is expected to announce soon that two Alaska investors have taken 4 percent stakes each, Starring said.

Spending has totaled \$57 million so far, with one of the five wells completed, two more under way and a fourth expected to be started during the week of Sept. 26. The wells bore down 4,200 feet, then out horizontally for a total length of 8,600 feet, she said. Gas will be injected and withdrawn via the wells.

## First third-party storage

The project is the first independent, third-party-owned storage site in Alaska — some Cook Inlet gas producers own storage they use themselves to ensure steady flows to their customers. Starring said the storage will provide multiple benefits:

It will smooth the seasonal supply-demand imbalance for Southcentral Alaska utilities. At present, Cook Inlet area gas fields produce more gas than utilities need

in summer and less than is used in the cold of winter.

It will provide a stockpile of gas — an insurance policy, Starring called it — should local supply be disrupted by a production platform shutdown or pipeline maintenance problem.

It could store gas piped from the North Slope to Southcentral, whether via a spur pipe off the proposed 1,700-mile mainline linking North Slope fields with the North American pipeline network in Canada, or via an in-state gas line from Prudhoe Bay.

## Four customers

Four customers have signed up to use the storage. Enstar wants 5 billion cubic feet of storage initially, ramping up eventually to about 9 bcf. Chugach Electric Association in Anchorage has reserved 2.4 bcf of space. Municipal Light & Power in Anchorage has 500 million cubic feet of space. Homer Electric Association has 125 million cubic feet of storage. The utilities will pay a fee for the storage service, a cost they will pass through to consumers.

In all, the storage capacity will be 11 bcf, expandable to 17 bcf, Starring said. She mentioned talk of investors eventually adding an additional 20 bcf of storage in Cook Inlet, enough to ease for many years the utilities' worries about reliable supply.

Gas storage is commonly used in the Lower 48 to balance steady year-round gas production with wild seasonal swings in consumption.

But Southcentral utilities generally have avoided winter supply shortages since the first Cook Inlet fields began production in the 1960s. Cook Inlet historically has had so much production that excess supply was exported as liquefied natural gas or fertilizer. But local electricity and heating demand has risen with population growth, and Cook Inlet production has fallen, so much that the fertilizer plant closed a few years ago and the last tanker is expected to sail this fall from the LNG plant, which is closing for lack of reliable, affordable gas supply.

## Utilities discussing import

Now a region that has exported LNG for 42 years might become a place that imports it.

Enstar, Chugach Electric and ML&P are studying whether to start importing LNG if local gas demand outstrips local production.

In June, they told state regulators they might need their first LNG imports in 2014. In presentations at the Energy Supply

Summit, they pushed that date back to 2015.

Starring said the utilities think they'll need 2 billion to 3 billion cubic feet of LNG imports a year initially. That's not much — a 10- to 15-day supply at today's consumption rate. But, utility managers said, the power companies could need those imports to avoid the doomsday option: rolling blackouts for their customers.

No decisions have been made whether to proceed with LNG imports or any of the details, such as where to receive the LNG, how to regasify the liquid, and whether to ship foreign LNG to Alaska or truck it in from the North Slope.

## LNG expensive option

LNG is an expensive option for consumers, noted Joe Griffith, general manager of Matanuska Electric Association in Palmer. The region's electric utilities now pay an average \$6.84 per million Btu of gas. Price estimates for imported LNG are \$16 per million Btu from Russia's Sakhalin Island, \$13 to \$15 for Canadian LNG, and \$12 for trucked North Slope LNG, he said.

Trucked LNG already is an option being chased in the Fairbanks area. Golden Valley Electric Association and the Flint Hills oil refinery announced in August a \$200 million plan to start trucking LNG from the North Slope in 2014. Between them they plan to replace the expensive oil they burn now with about 7 bcf a year of gas. Brian Newton, CEO of Golden Valley, said he hopes his utility will save \$1 million a month in fuel costs by buying the LNG.

## Utilities pursue other options

Meanwhile, the electrical utilities are taking a variety of steps to ease their appetites for Cook Inlet natural gas, especially in light of concerns that production might fall short of demand within a few years.

Two small wind farm projects are in play, one in Anchorage and the other at Eva Creek south of Fairbanks. The two Anchorage power companies, Chugach and ML&P, are jointly building a 183-megawatt gas-fired plant in Anchorage; the three new turbines will burn 25 percent less gas than the turbines they'll replace, said Jim Posey, ML&P general manager.

The electric companies also are urging the state to pursue a multibillion-dollar Susitna River hydroelectric dam that would meet some of the region's electricity demand in lieu of fueling turbines with natural gas.

The utilities also are hopeful that revived interest in drilling exploration wells in Cook Inlet will find fresh reserves of gas, and that a North Slope gas pipeline eventually will get built. But those efforts might not deliver gas soon enough.

"My guess is we're going to import LNG before we ever get additional supply," Griffith said. ●

*Editor's note: This is a reprint from the Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects, online at [www.arcticgas.gov/Southcentral-Alaska-Gas-Storage-LNG-Imports-Discussed](http://www.arcticgas.gov/Southcentral-Alaska-Gas-Storage-LNG-Imports-Discussed).*



**BILL WHITE**

**PARTNERS IN QUALITY  
GROWING TOGETHER**

- Oil and Gas Exploration • ALTA/ACSM Surveys • 3-D Laser Scanning
- Planning & Permitting • Utility and Drainage Projects
- Commercial and Residential Site Development
- Traffic Engineering • Statewide Service

**experience you can use**  
ESTABLISHED 1949

[www.lounsburyinc.com](http://www.lounsburyinc.com)

**Alutiig OILFIELD SOLUTIONS LLC**  
A Wholly Owned Subsidiary of Afognak Native Corporation

**Oilfield and Remote  
Coatings**

- Sandblasting
- Tank Coatings
- Pipeline Coatings
- Fireproof Coatings
- Weatherproof Coatings
- Roof and Floor Coatings
- Interior Vessel Coatings
- Spray-Applied Insulation

Formerly doing business as Compositech

[coatings@alutiig.com](mailto:coatings@alutiig.com)  
(907) 456-4433 • (877) 628-4433

● GOVERNMENT

# Alaska leaders make ANWR case — again

Congressional hearing focuses on coastal plain as a source of jobs, energy and revenue; critic calls it 'kowtowing' to industry

By WESLEY LOY

For Petroleum News

It's long been the case that Alaska's top elected officials, regardless of party, have supported opening the coastal plain of the Arctic National Wildlife Refuge to oil and gas development.

The state's current crop of leaders again demonstrated that stance during a Sept. 21 congressional hearing that one witness panned as "political theater."

The House Natural Resources Committee and its Republican chairman, Rep. Doc Hastings of Washington state, convened the hearing to discuss ANWR in the context of jobs, national energy supply and reducing the deficit with leasing and royalty revenue.

The witness list was stacked with supporters of opening the coastal plain to drillers. They included Alaska's three-member congressional delegation, Gov.

Sean Parnell, a prominent resident from a village along the ANWR coast, and a truck driver who hauls freight to the North Slope oil fields.

They said opening the coastal plain could sustain or create scores of jobs and work economic wonders for the state and nation.

## Murkowski 'insulted'

Alaska's senators, Democrat Mark Begich and Republican Lisa Murkowski, each expressed support for opening the coastal plain.

"With gasoline prices averaging \$3.65 in the lower 48 states and unemployment around 9 percent, Alaska is here to help," said Begich, according to the text of his testimony. "We can offer relief to consumers at the pump, provide well-paying jobs in Alaska and the Lower 48 and help reduce our \$14 trillion deficit."

Murkowski focused on the Obama

administration's consideration of designating practically all of the refuge — including the potentially oil-rich coastal plain — as wilderness. Such a move, which would take the consent of Congress, would pretty much foreclose the possibility of drilling.

"I find it to be both misguided and, as an Alaskan, somewhat insulting when federal agencies continue to look for ways to lock up additional wilderness in Alaska when Alaska doesn't want it and when the law says, plainly, 'no more,'" Murkowski's written testimony said.

She was referring to the U.S. Fish and Wildlife Service effort write a new "comprehensive conservation plan" for ANWR. Murkowski argues the Alaska National Interest Lands Conservation Act of 1980 prohibits agencies from undertaking studies for new wilderness areas without congressional authorization.

"When an agency's response to our

Nation's current debt and jobs crisis is to seek more ways to twist the law just to keep money buried in the ground, our priorities have spun out of the realm of rationality," said Murkowski's written testimony.

## Young, governor weigh in

Alaska's lone congressman, Republican Don Young, also cited the high price of gasoline in his testimony. It's because domestic oil production hasn't kept pace with demand, he said.

He gave a nod to those who fear oil and gas activity would compromise what has been described as ANWR's pristine character.

"Let's be honest and say that there will be some consequences to exploring and producing in ANWR," said Young's written testimony. "But let's also be honest and say that if we import the oil it will arrive in the U.S. in foreign ships that sometimes are not up to our standards. And our environmental safeguards for oil production are much more stringent than theirs are. So if you are really concerned about the environment you should prefer oil to be produced here rather than somewhere else in the world. Just a few short weeks ago news broke of a deal that will partner Exxon and Russia to drill in the Arctic. Do we really trust that Russia can protect the Arctic better than we can?"

Gov. Parnell, a Republican, spoke to the committee via video conference.

"Look at the states doing relatively well in this economic downturn — they are America's major energy producers," he said. "And Alaska is one of those states. Yet we are held back from contributing more affordable energy to other Americans by federal regulators who want to keep federal lands off-limits to oil and gas exploration."

Parnell told the committee the viability of the trans-Alaska pipeline is threatened by declining oil production. His goal is to boost throughput to 1 million barrels a day, well above the current level of around 600,000 barrels.

With modern technology, the governor said, the oil industry's "footprint" could cover less than 2,000 acres of the refuge, which is nearly the size of South Carolina.

"For most of the year, the coastal plain is frozen. It has low biological activity," Parnell said. "Experience shows that seasonal restrictions and other environmental stipulations can be used to protect caribou during their six-week calving season each summer. Appropriate restrictions can also protect migratory birds and fish. Our experience with other North Slope fields shows it can be done."

## A villager and a trucker

The U.S. Geological Survey, in a 2005 paper, estimated the coastal plain's undiscovered, technically recoverable crude oil at 5.7 billion to 16 billion barrels, with a mean of 10.4 billion.

Fenton Rexford, a member of the Kaktovik City Council and a candidate for mayor of the North Slope Borough, told the committee that people in his village support responsible development on the coastal plain.

"I am a life-long resident of Kaktovik and I intend to grow old there," his written testimony said. "I can compare what

# ALASKAN OIL & GAS EXPLORATION 101

## OVERVIEW

This seminar will serve as an introduction to the oil and gas industry in general and the Alaskan oil and gas industry in particular. It will focus on the basic functions of the industry as it utilizes scientific evaluation methods combined with physical exploration operations to find and produce its product. Of special importance will be the manner in which these operations are carried out in the onshore and offshore areas of Alaska.

Oil and gas wells have been drilled for approximately 130 years with significant refinements occurring over that time. Computers have increased the body of knowledge available to the drilling contractor and the dynamics of the producing formations has increased almost exponentially. The various types of drilling rigs needed for differing conditions will be presented and discussed.

The benefit to the State of Alaska and its residents will also be presented in terms of jobs, local and state taxes and other benefits to Alaskans. How does Alaska compare with the other forty-nine states? Where is the greatest impact to the economy? How is the revenue produced which provides for the Permanent Fund Dividend Checks and the revenue to fund state operations thus avoiding state income tax?

## TOPICS COVERED

Course Introduction  
Petroleum  
Ownership  
Petroleum Exploration  
Players  
Operators  
Project Economics

Permitting  
Science  
Types of Drilling Rigs  
Other Equipment  
Rolling Stock  
Ice Road Construction  
Mob & Demob

Logistics  
Exploration Drilling  
Well Control  
Manpower  
Results  
Producing Alaska Oil & Gas Fields

### LOCATION:

Petroleum Club of Anchorage, 3301 C Street, Suite 120

### DATE:

Wednesday, October 12, 2011

### TIME:

7:30 am – 8:00 am: Registration – coffee provided  
8:00 am – 12:00 pm: Presentation – coffee provided  
Noon: lunch – provided at the PCA  
1:00 pm – 5:00 pm: Presentation – coffee & soft drinks provided

### COST:

\$495 Single Registrant  
\$475 Multiple Registrants from the same employer/department (each employee)

Registration includes hard copy of slide material and a glossary of terms. Classroom credit available upon request

PLEASE VISIT  
**WWW.ALASKANSEMINARS.NET**

FOR MORE INFORMATION OR TO REGISTER

ARLEN EHM T 907-333-8880 F 907-333-3454 C 907-230-8144 E ARLENEHM@GCI.NET  
2420 FOXHALL DRIVE ANCHORAGE, AK 99504-3342

PRESENTED BY  
**ARLEN EHM**  
OF



**ALASKAN SEMINARS**

SEMINARS IN OIL & GAS TOPICS



● PIPELINES & DOWNSTREAM

# Exxon signs deal for two new tankers

Double-hull ships to replace two aging tankers hauling Alaska oil; construction agreement with Pa. shipyard worth \$400 million

By **WESLEY LOY**

For Petroleum News

**E**xxon Mobil Corp.'s U.S. shipping affiliate, SeaRiver Maritime Inc., on Sept. 29 signed a deal for construction of two double-hull tankers to carry Alaska North Slope crude oil.

The agreement with Aker Philadelphia Shipyard in Pennsylvania is worth \$400 million and will create more than 1,000 direct jobs, an ExxonMobil press release said.

The new Liberty Class tankers will replace two existing double-hull tankers now working in the Alaska trade. The ships to be replaced are the Kodiak and the Sierra, a SeaRiver spokesman told Petroleum News in July, when a letter of intent with Aker was announced.

The Kodiak and the Sierra were built in the late 1970s. ExxonMobil in 2005 acquired the tankers, which were

*Around 15 tankers regularly call on Valdez, the terminus of the 800-mile trans-Alaska pipeline, to pick up oil for delivery to West Coast refineries.*

hauling oil for BP, and had them refurbished to replace single-hull ships.

### Ships will create jobs

"This project is a reminder of the importance of America's energy industry during the current challenging economic times," Andrew P. Swiger, ExxonMobil senior vice president, said at a ceremony in Philadelphia. Pennsylvania Gov. Tom Corbett attended the event.

Swiger continued: "The jobs and other benefits gener-

ated by the construction of these ships will be in addition to the thousands of jobs and millions in government revenues our industry has already created in Pennsylvania through development of Marcellus shale gas, which is also providing new, affordable supplies of energy to fuel our nation's economy."

Aker Philadelphia Shipyard will build the U.S.-flag tankers "in partnership with Samsung Heavy Industries, a leader in shipbuilding technologies," the ExxonMobil press release said.

"Even before the first cut of steel, the project will contribute to the ongoing growth and development of the economy and Aker Philadelphia Shipyard," said Will Jenkins, president of Houston-based SeaRiver. "It will support jobs for the shipyard workforce, for the steel industry, and for countless material, equipment and service

see **NEW TANKERS** page 14

continued from page 8

## ANWR

life in Kaktovik was like prior to oil development on the North Slope to the quality of life we have today because of my personal experience."

He said ANWR development means a continuation of modern life for villagers: running water and flush toilets, a local school, police and fire services.

The Inupiat villagers wouldn't favor development, Rexford said, unless they were confident development wouldn't hurt their subsistence way of life.

The committee also heard from Carey Hall, a truck driver for Carlisle Transportation Systems. He said he works on the "ice roads" hauling freight to and from the North Slope.

Finding new oil in places such as ANWR is crucial, he said.

"The oil and gas industry represents the cornerstone of our business," he said. "It is not only important to contractors and vendors such as trucking companies but to all our citizens in the state of Alaska and as a nation. It produces jobs, lots of jobs, and we need jobs."

### The critics

Two witnesses invited by the committee minority had a markedly different view on using ANWR as a tool for creating jobs and fighting the national debt.

Gene Karpinski, president of the non-profit League of Conservation Voters, said he is fighting for permanent protection of the coastal plain. He characterized the hearing as "nothing more than political theater."

"Drilling in the Arctic Refuge is and always will be a political hot potato that has been voted on 20 times in the past 30 years, in the House of Representatives alone," said the written text of Karpinski's testimony. "Over and over again, pro-drilling members of Congress have trotted out our nation's last great wilderness place as a panacea for everything from the budget deficit and high unemployment to providing heat for the poor, relief to hurricane ravaged states, support for our troops and health benefits to coal workers.

"Through it all, every attempt to drill the Arctic Refuge has ultimately failed because of the continued strong support of the American people who see this never-ending political spectacle for what it is — a kowtow to the wealthiest corporations in the world, the only ones who will actually benefit from opening the Arctic Refuge to drilling."

David Jenkins, of Republicans for Environmental Protection, questioned the idea of the industry disturbing only 2,000

acres. Citing the USGS, he said any oil is likely to be scattered in small pockets across the entire plain.

"Oil development would necessitate a massive spider web of pipelines throughout

the area," he testified.

Rosy job projections on ANWR's unproven oil reserves are overblown, and even a major oil find would be unlikely to significantly improve the nation's energy

security or reduce gasoline prices, Jenkins said. ●

Contact Wesley Loy at [wloy@petroleumnews.com](mailto:wloy@petroleumnews.com)

**LYNDEN**

*Only pay for the speed you need...  
Dynamic Routing!™*

*With shipping costs on the rise it only makes sense to match your time requirements to the mode. Lynden's exclusive Dynamic Routing™ makes it easy to change routing between modes to meet your delivery requirements. If your vendor is behind schedule we can make up time and keep your business running smoothly. If your vendor is early we can save you money and hassle by slowing down the delivery to arrive just as it is needed. Call a Lynden professional and let us design a Dynamic Routing™ plan to meet your supply chain needs.*

[www.lynden.com](http://www.lynden.com)  
1-888-596-3361

The Lynden Family of Companies  
Innovative Transportation Solutions

● EXPLORATION & PRODUCTION

# Taking a look at NS shale oil potential

The possibility of unconventional oil development in the North Slope's world-class source rocks raises some intriguing questions

By ALAN BAILEY

Petroleum News

Having purchased about 500,000 acres in leases to the south of Alaska's Prudhoe Bay field in a 2010 lease sale, Alaska newcomer Great Bear Petroleum is moving forward with plans to drill some wells to test the production of oil direct from the prolific source rocks of the North Slope. This "unconventional" type of oil play, sometimes referred to as shale oil or source reservoir oil, has become a major growth area for the Lower 48 oil industry but is new to Alaska.

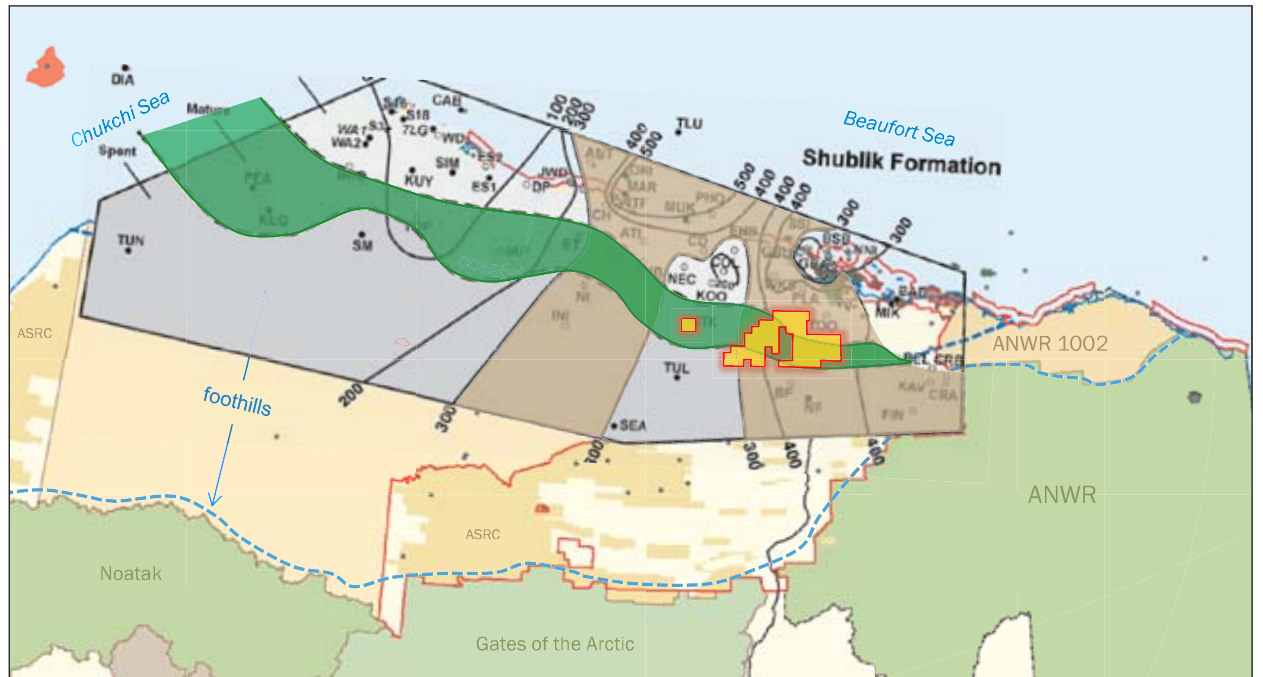
At a meeting of the Alaska Geological Society on Sept. 15 geologist Paul Decker from Alaska's Division of Oil and Gas described the ins and outs of source reservoir oil development, and overviewed the potential for this type of development in northern Alaska.

Unconventional oil resources tend to be distributed continuously across quite wide areas within relatively impermeable rock units that have both generated and trapped the oil, Decker said. This relatively wide, continuous distribution of oil trapped in known oil source rocks renders the geologic risk of finding source oil relatively low compared with the search for oil in the isolated hydrocarbon accumulations of conventional oil reservoirs and traps.

But an unconventional play usually entails a higher engineering risk than a conventional play, because the feasibility of stimulating the rock into releasing oil in viable quantities and at viable rates is often unknown until the play is tested, Decker said. The stimulation of the rock, done using hydraulic fracturing, or fracing, has to be both massive and successful, he said.

### Three source rocks

There are three primary oil source rocks on Alaska's North Slope, each of which may have potential for



ALASKA DEPARTMENT OF NATURAL RESOURCES, MODIFIED FROM PETERS AND OTHERS, 2006, AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS BULLETIN

**Hitting the target?** Great Bear Petroleum's North Slope leases lie over the fairway (colored green) where the late Triassic Shublik formation has been interpreted to have been exposed to subsurface temperatures conducive for oil formation. High hydrogen index values (colored brown) indicate the likely oil-prone source potential of the Shublik in the lease area.

exploitation in a source reservoir oil play. The oldest and deepest of these, the Shublik formation, is of late Triassic age and consists of interlayered limestones, shales, sandstones and siltstones. Deposited on an ancient marine shelf in a situation where the upwelling of seawater caused an influx of rich organic nutrients, the rock contains large quantities of organic material appropriate to the generation of oil when heated. The Shublik is the presumed source of the oil in the huge Kuparuk River field, Decker said.

The second prime source rock is the slightly younger and shallower lower Kingak formation of lower Jurassic

age. This rock consists essentially of shale, formed from clay and deposited on a marine platform in a situation where oxygen depletion in the water enabled the preservation and accumulation of large quantities of organic material. The Kingak sourced the relatively light oil of the Alpine field, Decker said.

Toward the eastern end of the North Slope the Shublik and lower Kingak tend to be absent, where they have been eroded out at a major discontinuity in the stratigraphic sequence known as the lower Cretaceous uncon-

see **SHAILE OIL POTENTIAL** page 11

# Process Industries

## That Vitalize Alaska's Economy

*You're Invited* November 1, 2011

Alaska Process Industry Careers Consortium **APICC**

## Annual Meeting and Conference

Dena'ina Civic & Convention Center,  
Anchorage, Alaska

The 2011 APICC Meeting and Conference is focused on developments in Alaska's process industries, related training and career/job opportunities for Alaskans. As Alaska enters its second fifty years of Statehood, economic vitality will be driven by our people and our resources. Come and learn from Alaska's business and industry what the future holds.

## Register at [www.apicc.org](http://www.apicc.org)

Photo: Ken Graham Photography, Anchorage Convention & Visitors Bureau

continued from page 10

## SHALE OIL POTENTIAL

formity.

Above the lower Cretaceous unconformity lies the third primary oil source, the Cretaceous Hue shale, containing a distinctive oil source zone referred to as the GRZ. The Hue shale/GRZ was deposited in deep water at the toes of west-to-east sloping lenses of sediment in what used to be an oxygen-starved marine basin to the north of the emerging Brooks Range. The Hue shale/GRZ sourced the high-quality light oil of the Tarn field.

Great Bear has expressed a particular interest in investigating the production potential of the Shublik, but with an intent to also investigate the potential of the lower Kingak and the Hue shale/GRZ.

### Key factors

The productivity of any of these source rocks in a source reservoir oil play will depend on four key factors: the rock's organic content; the manner in which the rock has been heated, stressed and deformed at depth; the physical properties of the rock, in terms of the rock's ability to hold and flow fluids; and the ease with which the rock tends to fracture under stress, rather than bend or flow, Decker explained.

Assessing these four factors in any particular oil play can involve the use of several techniques, including rock sampling and testing from surface exposures and subsurface well cores; the chemical analysis of rock samples; testing the desorption of oil or gas from rock samples; using well log data to obtain information about rock fracture systems and areas likely to be rich in organic material; and the use of sophisticated seismic data analysis techniques to assess how brittle the subsurface rocks are, and the likely orientations of natural fracture patterns, Decker said.

And although the North Slope source rocks have promise as targets for source reservoir oil development, understanding their true potential will depend on drilling and testing, to tease out information about those four key oil productivity factors.

### The Shublik

The Shublik, for example, is seen in surface outcrop in the western part of the North Slope and in the Brooks Range foothills but has been penetrated by just

## USGS starts NS unconventional resource assessment

The U.S. Geological Survey is conducting an assessment of unconventional oil and gas resources on the Alaska North Slope and has scheduled a meeting in Anchorage on Oct. 25 to solicit feedback from the Alaska geological community on the geologic framework that the agency plans to use.

Assessing technically recoverable oil and gas volumes from an unconventional play involves very different techniques from a conventional assessment, in which estimates are usually made of the sizes and probability distributions of potential oil and gas prospects.

In an unconventional play, oil and gas resources are assumed to be distributed continuously across a relatively wide area, so that the critical components of an assessment consist of estimating the total area of hydrocarbon source that can be accessed from a single well, and estimating the total ultimate oil or gas production from each well, geologist Paul Decker from Alaska's Division of Oil and Gas told the Alaska Geological Society on Sept. 15.

The total area of the play is divided into cells, with each cell representing the area of hydrocarbon source accessed by a single well.

The statistical range of possible ultimate production from each well is multiplied by the total number of cells in the play to derive an estimate of the potential range of feasible total production from the entire play, Decker said.

—ALAN BAILEY

two wells on Great Bear's acreage, in the area thought to be prospective for a source reservoir oil play. However, some years ago a well test in the undeveloped Kemik gas field, in the foothills immediately west of the Arctic National Wildlife Refuge, showed a natural gas flow rate of about 12 million cubic feet per day from the Shublik, a promising indication of the Shublik's potential. And two wells on the northern side of the Prudhoe Bay field exhibited oil flow rates of 1,100 to 2,500 barrels per day from the Shublik, although that oil had probably migrated into those locations from elsewhere, Decker said.

Studies of various indicators of the thermal history of the North Slope rocks point to a zone in which the rocks have at some point been heated sufficiently to generate oil without being heated to the point where all the hydrocarbons would have been baked into natural gas. A plot of this zone indicates that the Shublik would have reached temperatures conducive to oil formation along a swath of territory running west to east under the Slope, a few miles inland, and right under the locations of Great Bear's leases to the south of Prudhoe Bay. And a plot of what is known as the "hydrogen index," an indicator of the oil potential of the rock, also suggests that Great Bear's leases are well located, Decker said.

### Eagle Ford analogy

There are also some quite close analogies between the rock characteristics of the Shublik and those of the Eagle Ford shale, a rock unit that has been the successful target of shale oil development in

Texas: Both rocks contain similar quantities of organic carbon; both contain organic material appropriate for oil formation; and both contain abundant limestone, brittle enough to readily fractured. The Eagle Ford does contain some regions of relatively high fluid pressure that help push oil into production wells, but if the Shublik has an analogous zone of high subsurface pressure, it has not yet been drilled.

North Slope well log data indicate that zones containing differing rock types within the Shublik are fairly continuous and consistent across wide areas of the North Slope, a feature that should aid with development predictability, as new wells are drilled, Decker said.

Very little is known about the source reservoir characteristics of the lower Kingak formation, above the Shublik, Decker said. However, as with the Shublik, the Great Bear leases appear to be well located, over the fairway where

the Kingak has reached subsurface temperatures that are appropriate for oil formation. And there may be potential for the simultaneous development of the closely spaced Shublik and Kingak, as a kind of "shale sandwich."

The carbon content, temperature and rock thickness distributions of the Hue shale/GRZ also point to the Great Bear leases being in a favorable position for that oil source, Decker said.

### Development challenges

However, assuming that northern Alaska source rocks have the appropriate properties for shale oil production, there will be some significant technical and economic challenges along the route to viable development.

In essence, hydraulic fracturing involves pumping huge volumes of a slurry of water and sand down a well bore that

see **SHALE OIL POTENTIAL** page 13



- Casing Services
- Oilfield Eq. Rentals
- Rig Mats
- Float Equipment
- Welding
- Fabrication
- Design
- Tire Sales / Service

**Anchorage — 907-563-3550**

**Kenai — 907-529-1949**

**Prudhoe Bay — 907-659-2450**

### Computing Alternatives



Information Technology Professionals

**WE OFFER THE FOLLOWING SOLUTIONS TO PUBLIC AND PRIVATE SECTORS**

- Custom Web & Desktop Applications
- IT Requirements Analysis
- Database Design & Modeling
- Server 2003/2008 Configuration & Maintenance
- SQL Server Database Administration
- Network Design & Security Administration
- POS Applications

Ph| 907-644-4522

Fx| 907-644-4523

services@Computing-ALT.com

www.Computing-ALT.com

5701 Silverado Way, Ste. I

Anchorage, AK 99518

# Aspen Hotels

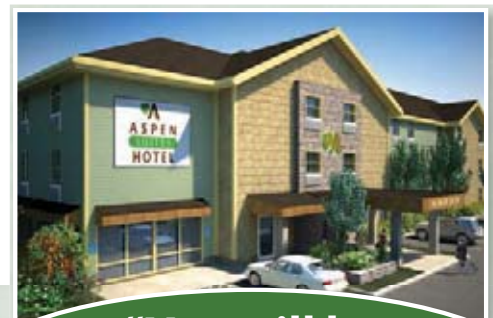
**Special rates for weekly & monthly stays for all petroleum companies.**

*Rooms with kitchenettes*

Please contact Pat Wallace at  
[patw@aspenmanagement.net](mailto:patw@aspenmanagement.net)



**ASPEN HOTELS**



**"You will be AMAZED by the size of our rooms!"**



**KENAI • SOLDOTNA • JUNEAU**

## ● PIPELINES &amp; DOWNSTREAM

# Low volumes complicate Alyeska operations

Barrett tells Alaska Oil & Gas Congress pipeline can handle low-flow issues, but lower volumes mean higher chance of shutdowns

By KRISTEN NELSON  
Petroleum News

The trans-Alaska oil pipeline has been in operation for 34 years and it's "a great asset," "in pretty good condition" with "a great workforce," Alyeska Pipeline Service Co. President Tom Barrett told the Alaska Oil and Gas Congress Sept. 20.

But, Barrett said, he wants more oil moving through the line, which was designed for 1.5 million barrels per day, peaked at 2.1 million bpd in the 1980s

and has been in decline ever since, currently moving some 600,000 bpd.

The line averaged 700,000 bpd in its first year of operation, Barrett said. With throughput below where the line started, "you're in kind of new territory every day."

That presents operational difficulties, Barrett said, comparing it to running a car



TOM BARRETT

at 15 miles per hour instead of its 45-60 mph optimal speed.

Alyeska invested \$10 million in a two-year low-flow study completed earlier this year, available on Alyeska's website ([www.alyeska-pipe.com](http://www.alyeska-pipe.com)), addressing the implications for the pipeline operator, he said.

## Velocity and temperature

"There are two issues ... one is velocity and one is the temperature," Barrett said. "It used to take four days to move a barrel of oil from Prudhoe Bay down to Valdez to the terminal. Right now it takes about 15," but if rates drop to 200,000 bpd, he said, it will take a month.

Oil goes into the line at above 100 degrees; right now, depending on ambient temperature, it is about 40 degrees when it reaches Valdez.

If the temperature in the line drops below freezing, water in the oil falls out and ice starts to build up. There isn't much water in the oil, he said, but there's always some. If ice builds up, especially at low points in the line, that ice could move into strainers and pumps, causing problems.

"We get more wax settlement as the flow declines," Barrett said, which creates problems because it increases the risk of corrosion, even though Alyeska scrapes the line for wax regularly.

Those are among the problems Alyeska has to handle with reduced flow through the line, and "individually they can be managed ... together they really

"There are two issues ... one is velocity and one is the temperature." — Tom Barrett, president, Alyeska Pipeline Service Co.

compound," he said.

## Risk of shutdowns

Barrett said it isn't the risk of leaking oil, but the risk "that we will be shut down more to address these problems."

Because of wax due to lower flow, Alyeska runs more pigs to get the wax out.

Alyeska had a shutdown in January and "part of the startup issue is we had pigs in the line," and when you start up after a length of time, you push wax and ice, whatever is in the line, "towards your strainers and your pumps. And if you take out a mainline pump with that type of stuff you're going to be down ... for a long while," he said.

So you run more pigs to address the wax issue, "solving one problem and increasing the risk on the other side."

"Figuring that out, whether we're adding launchers-receivers, or just the type of pigs we run, is complex — it's complicated petroleum pipeline engineering. You have people that can do it, but it is a challenge," Barrett said.

## Increasing the flow

If you increase the flow to the million-

see **LOW VOLUMES** page 14



A SUMITOMO CORPORATION SUBSIDIARY

**Serving Alaska's Petroleum Industry for Over 35 Years**

**Threading**

API - 5CT & 7B • Vallourec • VAM AB • Tenaris • Hunting  
NS Connection Technology • NOV Grant Prideco • Vam USA

**Welding**

Production Welding  
Certified Welding  
Fabrication

**Machining**

OEM Equipment  
Accessories  
Repair and Overhaul

**- ISO 9001 and API Q1 Certified -**

8875 King St., Anchorage | 907 563-3012 | [pat.hanley@umalaska.com](mailto:pat.hanley@umalaska.com) | [www.umalaska.com](http://www.umalaska.com)

## FOR SOLUTIONS BUILT TO LAST...



## ...DEPEND ON HOOVER

For over 100 years, Hoover has been manufacturing quality Intermediate Bulk Containers. ISO 9001:2008 certified, Hoover sells and rents containers, frames, and related equipment, and provides onsite service and fleet management programs. **When you're looking for solutions built to last ... Depend on Hoover.**



Scan this QR Code for the Hoover Product Guide

For more information, contact Bill Underwood, Sales Manager, Western Division: 402-676-8001 • [bunderwood@hooversolutions.com](mailto:bunderwood@hooversolutions.com)  
Corporate: 888-771-3209 • Fax: 281-870-8697 • [info@hooversolutions.com](mailto:info@hooversolutions.com) • [www.HooverSolutions.com](http://www.HooverSolutions.com)

• FINANCE & ECONOMY

# Leading by numbers and example

Outside markets needed, consultant says; next-generation technology could benefit other development; but challenges in short term

By **GARY PARK**

For Petroleum News

Canada must first secure markets outside North America if it is to have any chance of becoming a global leader in responsible and sustainable hydrocarbon development, says an oil sands report by consulting firm Deloitte.

It said that probably no other jurisdiction with so much resource potential has “anywhere near Canada’s combination of political stability, advanced education, technical prowess and transparency in business dealings.”

“Canada is poised to do for global hydrocarbon-based energy development what Germany has done for the renewable energy R&D and manufacturing sectors — lead not only by the numbers, but, most especially, by the example of vision and political will,” said the report entitled *Gaining Ground in the Sands 2012*.

However, Chris Lee, Deloitte Canada’s leader of national energy and resources practice, said attaining the strategy will require the industry and government to involve all interest groups in the creation of a single vision.

He said that process started in July at a conference of federal, provincial and territorial energy ministers, adding he is hopeful the election of a majority federal government and the rising importance of the oil sands in the Canadian economy could move those discussions to the next level of a national energy strategy.

The Deloitte report said the Canadian government of Prime Minister Stephen Harper provides an opportunity to encourage pipeline construction in particular that could lead to expanded markets.

## Technology development

The report said the oil sands sector is “front and center in terms of influence and long-term energy-related social policy.”

The sector should be “looking to parlay its technology development into a number of enduring values, starting with the technology itself as a home-grown intellectual property of potential application and value elsewhere in the world and also as instrumental in helping to mitigate and/or eliminate ongoing concerns about health and environmental impacts.

“The prize isn’t simply technology itself but in ensuring that we don’t lose the opportunity to develop important secondary industries and market potential,” Deloitte said.

The report forecast that next-generation oil sands technology could yield more bitumen with less effort, energy and impact and some of those advances could be used in other resource plays.

Among those technologies, it listed SC-SAGD (solvent-cyclic steam assisted gravity drainage) which could unlock the massive bitumen trapped in carbonate rocks and EM (electromagnetic) production of bitumen through the stimulation of reservoirs too shallow for SAGD, but too deep for mining.

Another gain is possible through in-situ upgrading of bitumen into synthetic crude which involves a combustion process that leaves unwanted byproducts underground, while capturing carbon which could potentially reduce water use and fuel gas consumption for steam generation by as much as 80 percent, while increasing recovery factors by up to 50 percent, the report said.

see OIL SANDS REPORT page 14

continued from page 11

## SHALE OIL POTENTIAL

penetrates horizontally through the target source rock, Decker said. The well is stimulated in a series of isolated sections, in a process known as multistage fracturing. The fluid pressure is progressively increased in each section until the pressure exceeds the surrounding rock strength, causing fractures to propagate outwards from the well bore. The slurry flows into the fractures, with the water subsequently flowing back out, but with the sand remaining in the fractures to keep the fractures open and allow oil to flow from the surrounding rock into the well.

Although there has been controversy about the use of hydraulic fracturing, with questions raised over the potential contamination of subsurface aquifers, it is important to take a factual perspective of any risks associated with the technique — there are no documented cases of proven groundwater contamination from fracturing operations, Decker said. In fact, it is possible to use seismic detectors to determine the distances that the stimulated fractures extend from the wells, with those distances typically ranging up to a maximum of around 750 feet. By comparison, North Slope source rocks are about a mile below the closest aquifer, Decker said.

## 96 percent water

The fracturing fluid itself consists mostly of water. Decker cited a representative example from a frac job in a West Virginia shale gas play in which the frac fluid consisted of about 96 percent water, 3.8 percent sand and 0.2 percent chemical additives, such as biocides, scale inhibitors

and gel breaking agents. Many of the chemicals additives are present in common household products, he said.

One challenge for North Slope unconventional oil production will be obtaining water for the fracturing operations. The multistage fracturing of a typical well requires 1 million to 6 million gallons of water — that compares with the 1 million to 1.5 million gallons of water used per mile to construct a typical winter ice road on the North Slope, Decker said.

Given the paucity of lakes in some parts of the North Slope and the need to avoid the complete draining of lakes, it will be necessary to find sources of water other than surface water, with treated seawater or water from underground aquifers being possible alternative sources. And although it is possible to recycle fracturing fluids from one well to another, injection wells for the disposal of some used fluid will eventually be necessary, Decker said.

Finding a suitable source of sand for the fracturing fluid will be another issue.

## Many wells

A critical issue in the economics of unconventional oil production is the area of subsurface source rock that each production well can access through the fractures propagating from the well bore, with the size of that area determining the total number of wells required in a particular play — typical unconventional oil developments require a relatively large number of wells, although directional and horizontal drilling techniques reduce the surface footprint of the wellheads. Using a comparison with developments in the Eagle Ford shale, Great Bear has speculated that each North Slope unconvention-

al oil well may access somewhere between 120 and 160 acres of source rock, Decker said.

The typical production profile for a shale oil or shale gas well involves an initial rapid decline in the production rate, followed by a period of slow decline that can last for many years and that appears somewhat similar to the production decline of a conventional well. Oil production from the Bakken formation in North Dakota, another successful Lower 48 unconventional oil play, appears viable, even for the wells with low production rates — the presence of 150 operational drilling rigs in the region attests to the economic success of the play. However, North Dakota drilling costs are lower than those in Alaska, perhaps by a factor of two or three, while well operating costs are also relatively low in North Dakota, Decker said. Reduced drilling and operating costs may be necessary for successful unconventional oil development in Alaska, he said.

So, what may be the way forward for source reservoir oil production on the North Slope?

Great Bear plans to start drilling in its leases this coming winter to investigate and test its target source rocks. If that testing proves successful, the next step would be some small-scale pilot oil production, to test the production characteristics of the rocks over time. A subsequent transition into full scale development and production would require a major ramp up in operations, with more drilling and frac crews, and with all-season roads for year-round drilling access, Decker said. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)



The Alaska Humane Society’s “Adopt-A-Cat” program is a no-kill, non-profit cat shelter currently caring for more than 200 cats and kittens that live cage-free at this facility. We are staffed entirely by volunteers and funded entirely by donations.

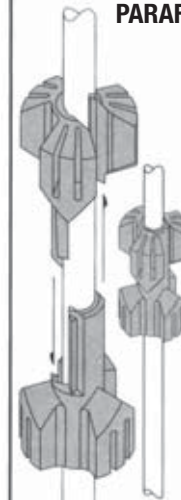
The facility is located at 1224 E. 76th Avenue, Anchorage at the back of the complex. For directions to the shelter call 907-344-8808.

Hours of Operation:  
Monday thru Friday, 7 p.m. - 9 p.m.  
Saturday & Sunday, 3 p.m. - 6 p.m.

To learn more about the “Adopt-A-Cat” program, please visit [www.adopt-a-cat.org](http://www.adopt-a-cat.org).

## Oilfield Improvements™

ULTRA-FLOW™  
FIELD-INSTALLED  
CENTRALIZERS/  
PARAFFIN SCRAPERS



Full-circle Wiping  
of Tubing I.D.

More Gripping  
Force on Sucker Rods

More Fluid Flow-by  
Volume

Longer Useful Life  
from Longer Vanes  
& Bearing Surfaces

Positive Wear  
Indicators

Amodel with Glass Fill

CALL 1-800-LES WEAR  
(800-537-9327) OR YOUR  
Oilfield Supply Store

[www.rodguides.com](http://www.rodguides.com)

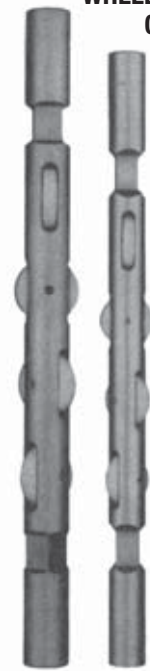
**Oilfield Improvements, Inc.**

1902 N. Yellowwood Ave.  
Broken Arrow, Oklahoma 74012 U.S.A.  
PHO 918-250-5584 • FAX 918-250-4666



## Oilfield Improvements™

WHEELED ROD GUIDE™  
COUPLINGS



For Deviated,  
Directional and  
Horizontal Wells

Used Successfully for  
Over 27 Years by Over  
90% of Major Oil &  
Gas Companies in  
Over 40 Countries —  
Onshore and Offshore

Wheels are  
Field-replaceable

Call  
800-537-9327  
or Your Oilfield  
Supply Store

[www.rodguides.com](http://www.rodguides.com)

**Oilfield Improvements, Inc.**

1902 N. Yellowwood Ave.  
Broken Arrow, Oklahoma 74012 U.S.A.  
PHO 918-250-5584 • FAX 918-250-4666



## NATURAL GAS

### Canadian gas producers face tough times

Canada's share of North American natural gas production has fallen over the past five years from one-quarter to one-fifth and profit margins have plummeted from 10-13 percent in 2007 to 1.3-1.8 percent in 2009 and 2010, according to the Conference Board of Canada.

In a summer 2011 outlook report, the board said that bleak picture is likely to continue over the short term, while medium-term prospects are "only slightly more optimistic," said board economist Todd Crawford.

He said the "threat that more shale gas will flood the market, coupled with only moderate demand growth" points to average prices of C\$3.80 per thousand cubic feet for 2011 that will not climb back above C\$6 until 2015.

The report forecasts that drilling activity will remain well below pre-recession levels, especially in Alberta, where output is expected to decline by 20 percent from 2010 levels to 8.1 billion cubic feet per day in 2015.

Strong increases from British Columbia's shale gas deposits and new output, starting this year, from Nova Scotia's offshore Deep Panuke project will help slow the decline in production, but not enough to offset the decrease in Alberta.

#### Not everyone agrees

But not everyone agreed with the board's assessment.

Mark Salkeld, president of the Petroleum Services Association of Canada, said drilling activity "is not weak — all appropriate and available equipment is working or booked to work and new bigger triple-type rigs are being manufactured to better handle the deeper horizontal wells and lateral sections."

While there is no doubt that the industry has shifted to oil from natural gas, gas drilling remains strong because of the focus on liquids-rich deposits, he said.

Gary Leach, executive director of the Small Explorers and Producers Association of Canada, agreed the gas sector is in transition, but disputed the board's finding that Canada's overall production will "fall indefinitely."

He said there are already indications that Western Canada's volumes are stabilizing.

#### Global markets needed

The board said that unless North American producers can access global markets where demand is strong, the gas price at Alberta's AECO trading hub will rise to only C\$4.20 in 2012 and C\$6.14 in 2015, although that would boost revenues to C\$54.6 billion from C\$34.7 billion in 2011.

Industry spending should increase to C\$48.5 billion in 2015 from about C\$34 billion this year, while pre-tax profits will increase to C\$6.1 billion from C\$774 million over the same period, the report said.

The board estimated U.S. production of marketable gas, excluding Alaska and the Gulf of Mexico, will average 61.8 billion cubic feet per day this year, up 25 percent from its 2005 trough, but it expects production increases will slow over the next few years, with the Gulf continuing its decline from peak levels.

It said companies have been forced to drill at least one well for every 640 acres to retain long-term leases on their assets, thus artificially inflating the market-determined level, but it projects U.S. demand will accelerate to a moderate pace over the years to 2015 unless the U.S. slips back into recession or experiences a sustained period of lackluster growth.

—GARY PARK

## FINANCE & ECONOMY

### Oil up near \$82 after EU debt fund vote

Oil prices ticked up nearer to \$82 a barrel Sept. 29 after Germany approved a measure to strengthen a bailout fund intended to help Europe overcome its debt crisis.

By early afternoon in Europe, benchmark oil was up 53 cents to \$81.74 a barrel in electronic trading on the New York Mercantile Exchange. The contract fell \$3.24, nearly 4 percent, to \$81.21 per barrel on the Nymex on Sept. 28.

In London, Brent crude for November delivery was up 59 cents at \$104.40 on the ICE Futures exchange. Oil rose sharply earlier in the week as Europe appeared to get a better handle on its debt crisis.

"Crude oil continues to fluctuate wildly over the same ground as the sentiment pendulum swings between confidence and pessimism over whether or not the global economy is headed for recession," said Michael Fitzpatrick, editor-in-chief of The Kilduff Report in New York. Crude oil has fallen about 15 percent since July and is down 26 percent since hitting a high for the year of \$113.93 per barrel on April 29.

—THE ASSOCIATED PRESS

continued from page 9

### NEW TANKERS

providers across the commonwealth and beyond. Following commissioning, the vessels will join our fleet in supporting our customers and the energy needs along the U.S. West Coast for decades to come."

#### Last to build

ExxonMobil is the last of Alaska's three major North Slope oil producers to build double-hull tankers. BP and ConocoPhillips already have built new tankers.

Congress mandated a transition to double-hull tankers following the Exxon Valdez oil spill in Alaska's Prince William Sound in 1989.

The tanker fleet serving Alaska already has fully converted to double hulls.

Around 15 tankers regularly call on Valdez, the terminus of the 800-mile trans-Alaska pipeline, to pick up oil for delivery to West Coast refineries. BP and ConocoPhillips operate four tankers each, while ExxonMobil has used three ships. Some tankers also call on Valdez for

Tesoro.

Project planning work already is under way on the new SeaRiver tankers, the ExxonMobil press release said.

Construction of the 820-foot, 115,000 deadweight ton tankers is expected to begin by mid-2012. The vessels are scheduled for delivery in 2014.

Each will have a carrying capacity of 730,000 barrels of crude.

"All cargo and fuel compartments will be equipped with double hull protection," the ExxonMobil press release said. "Main engine and auxiliary systems will be energy efficient and generate lower air emissions than what is required by current regulatory standards."

The tankers also will feature the latest navigation and communications equipment, ExxonMobil said.

Swiger used the Philadelphia ceremony to note that the U.S. oil and gas industry could do more to create jobs and economic growth with access to resources now off-limits due to government policies. ●

Contact Wesley Loy  
at wloy@petroleumnews.com

continued from page 12

### LOW VOLUMES

barrels-a-day target set by the governor, "a lot of these problems fall off from an operating point of view," he said.

Barrett said he believes "we're a couple of years behind" where we should be on getting more oil in the line.

When Alyeska started its low-flow study in 2008, the projection for 2011 was 700,000 bpd.

"We're seeing 600,000 barrels," he said, adding that he worries that there

isn't the urgency needed to get additional barrels into the line.

The resources are there, the infrastructure is there, so what's stopping Alaska from moving a million bpd, he asked.

"Two things: political will ... political will in Juneau; political will in Washington."

"I actually think that's the obstacle to turning this dynamic around and allowing us to operate better in the future." ●

Contact Kristen Nelson  
at knelson@petroleumnews.com

continued from page 13

### OIL SANDS REPORT

#### Short-term challenges

Deloitte also points to challenges faced by oil sands operators over the short-term, including the importance of cost reductions

and increased operational efficiencies, along with labor logistics.

In addition to industry moves to outsource or partner with third parties for housing, transportation and steam generation, there are opportunities to collaborate in safety training and environmental measures where all companies are faced with meeting the same standards, but vary their approach and procedures.

The report said the oil sands sector could adopt manufacturing approaches to reduce cycle times (to initial oil or gas production) by 30-50 percent, overall operational costs by 15-20 percent and eliminate non-productive activity (such as recruiting, training, housing and moving people) by more than 50 percent.

Lee said the pressures could build rapidly if the development of oil sands carbonates is proven economic or more upgraders are built, requiring more skilled works. ●

Contact Gary Park through  
publisher@petroleumnews.com



**egli air haul**  
INC.

Serving Alaska since 1982

Mountain Work • Sling Load Operations

Crew Haul • Aerial Survey

Aerial Filming • Offshore Operations

Ph: 907-246-3554 Fx: 907-246-3654

Web: www.egliair.com



**NORDIC-Galista**

Providing innovative completion, workover, sidetrack,  
and drilling services on the North Slope of Alaska

Phone: (907)561-7458 | 4700 Business Park Blvd., Suite 19, Anchorage, AK 99503

## ● LAND &amp; LEASING

# DOG turns down Cohoe unit application

Division says unitization of some Aurora Gas leases around the Cohoe well on the Kenai Peninsula would not benefit the state

By ALAN BAILEY & KRISTEN NELSON

Petroleum News

The Alaska Division of Oil and Gas has denied an application by Aurora Gas LLC to form the Cohoe unit on Alaska's Kenai Peninsula. In a Sept. 23 decision, the division said the unit application was denied because it is not in the interests of the state or the public.

The lands proposed for inclusion in the unit, located near the intersection of the Sterling Highway and Kalifonsky Beach Road near Kasilof on the Kenai Peninsula, include two State of Alaska leases and one Cook Inlet Region Inc. lease. Without the unit application, the state leases would have expired on Sept. 30, 2010, and the CIRI lease would have expired on Aug. 17, 2011.

## Cohoe well

The leases include the Cohoe Unit No. 1 well, drilled by Unocal in 1973. In a plan of exploration accompanying its application to form a new Cohoe unit Aurora proposed re-entering the well by Dec. 31, 2011, to perforate selected zones. But as of Sept. 9, the company had yet to obtain a drilling permit from the Alaska Oil and Gas Conservation Commission, the division said. Aurora also proposed to obtain 3-D seismic over the acreage.

The division said that while Aurora would benefit from unitization because the leases would be extended, unitization would not "offer equal benefit or protection to

the people of Alaska or the state," and "could deprive the state of the benefits of oil and gas leasing." Essentially, any of the activities that Aurora proposed carrying out after unitization could equally well be performed on the leases without unitization, thus leaving the state with no overall benefit had unitization proceeded, the division said.

"The Cohoe unit plan of exploration does not demonstrate that unitization will encourage earlier delineation drilling activities upon the subject leases than if these activities were conducted on a lease-by-lease basis, other than to provide Aurora an extension to the leases' primary terms," wrote Division of Oil and Gas Director William Barron in the notice of denial for the unitization. "(Earlier) drilling operations on any one of these leases would have extended the drilled lease's primary term."

In a Sept. 27 email Ed Jones, Aurora Gas executive vice president, oil and gas, told Petroleum News that his company is disappointed with the DOG decision.

"We are obviously very disappointed and are considering an appeal," Jones said.

## Bypass play

Unocal would have originally drilled the Cohoe Unit No. 1 well in a search for oil —

Aurora Gas has been hoping to investigate the Cohoe prospect in a classic "bypass play," seeking natural gas resources bypassed during oil exploration. The gas would typically be located in shallower horizons than the hori-

zon targeted for oil at the bottom of the well.

According to information presented in the division's denial of the unit application, the Cohoe well was drilled to a depth of 15,683 feet, bottoming out in the West Foreland formation. Drill stem tests were conducted in nine zones at various levels in the well, with three of those tests, two in the Sterling formation and one in the Beluga formation, showing small amounts of natural gas.

In August 2010 Scott Pfoff, the then president of Aurora Gas, told Petroleum News that Aurora's first preference at Cohoe would be to shoot some new 3-D seismic over the prospect. Bruce Webb, Aurora Gas manager of land and regulatory affairs, later told Petroleum News that Aurora wanted new seismic because the company did not think that the Cohoe well had penetrated the top of the prospect's geologic structure.

Pfoff said that Aurora had applied for unitization of the Cohoe leases but that the company was planning to re-enter the Cohoe well using the Aurora Well Services No. 1 drilling rig prior to lease termination, in case the unitization fell through. But in October 2010, after the expiry date of the state leases, Webb said that it had not proved possible to move the rig to the Kenai Peninsula for the drilling because the rig had been needed for a drilling operation in Aurora's Three Mile Creek gas field on the west side of the Cook Inlet. ●

Contact Kristen Nelson at [knelson@petroleumnews.com](mailto:knelson@petroleumnews.com)

Contact Alan Bailey at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

continued from page 4

## FRENCH Q&A

the projects are successful, you are an investor in the project and you get a return on your investment.

*Petroleum News: Do you think the state would have to tweak its oil tax if it started making direct financial investments?*

French: In my view, no. The state, if it were to enjoy making profits, would have to turn around and pay the state? I mean, you have to work out exactly how the state handles its end of the finances, but it's an alternative path. (Regarding the oil tax debate,) no one is saying, Hey, the oil industry needs to make more money — except for a very, very few people. Most people are saying, Look, if you reduce oil taxes, you'll get more investment, you'll get more action, you'll get more economic activity on the North Slope.

One of our concerns is that if you do reduce oil taxes, all you'll do is make the oil industry more money without any more concomitant investment.

This is a way to do that, to make more investment happen on the North Slope and, frankly, to lower the industry's cost of doing business, because you're putting up part of the capital.

*Petroleum News: Norway handles leases differently than we do. What do you think about the way they do it, and might that work for Alaska?*

French: Well, there's a huge lease sale happening this December, and since it's unlikely that we'll have the opportunity to change the rules before then, I'm not sure what practical effect it will have.

They do have much more aggressive drill-or-drop provisions than we have. To me the likelihood of us changing our leasing — it's less likely that we pursue that than pursue something on the SDFI.

*Petroleum News: What did you learn about industry regulation?*

French: They're tough regulators. I

think we are as well. I don't know that there's an enormous difference in the practical effect of either approach. I don't think they have strong state presences the way we do here in the United States. One hundred percent of their oil is located offshore — there's little to no onshore oil exploration; there are onshore facilities, of course. So I think you just deal with one government entity to get your permits rather than two, which is more often the case here.

*Petroleum News: Were you convinced that offshore drilling can be done safely?*

French: I guess the short answer is yes. There's a much longer answer. They are in a far more developed area. Their first find was offshore in 1969 — they've been doing it much longer than we have. Interestingly enough, they are going more and more to a subsea wellhead model that employs very little surface technology. Instead of having a platform that the well flows to, and then you separate liquids on a platform and handle those liquids and so forth, they do it all subsea and flow it to a facility onshore. So they've been working offshore much longer than we have.

There was a spill, I think on a Shell platform, in the (United Kingdom) North Sea about the time we were heading over there. So spills happen. What they don't have are year-round ice conditions, or even heavy, heavy ice conditions like we get. They get some ice in their fields, but not like the kind of ice you get off the North Slope of Alaska.

*Petroleum News: Did anything you saw there change how you think about the state's oil production tax?*

French: For me I guess it was just sort of interesting to see a place where the debate was over a long time ago — and the world did not come to an end. Norway taxes very aggressively. I don't think we'll ever have a state-run oil company to step in and do business where private industry will not.

A lot of people are looking at Norway saying, How did you get a permanent fund worth \$550 billion? They did it part-

ly by some good luck, but also through smart planning and being consistently patriotic towards their own country and making sure the country's interests got settled first, before looking after industry's interests.

*Petroleum News: Can you explain your position on the governor's oil tax bill?*

French: I remain skeptical. I've been fairly clear in this interview and other places that our greatest concern is that you would push \$8 billion across the table over the next five years to industry and not get \$8 billion more investment, get quite a bit less investment than that. And that just means that we've been chumped.

So we're looking for a way — if you feel the need to stimulate more economic activity on the North Slope — to do it in a way that makes sure we get dollar-for-dollar increased investment for every dollar less we take in to the state. At least that's my goal, and I think that's the goal of a lot of my colleagues.

*Petroleum News: In your constituent newsletter, you mentioned the Law of the Sea Treaty. Why do you believe it's important to ratify the treaty?*

French: It has enormous ramifications for ownership of the seabed off of Alaska. Our delegation gets it and supports ratification. Unfortunately, the treaty's being held up by, as somebody mentioned, a few senators who cannot see the sea, smell the sea, or know what the sea looks like from their home states.

*Petroleum News: In light of Norway's savings, do you think Alaska should have an income tax?*

French: No. A lot of those things just don't translate. We're not going to have a state-run oil company. Alaskans are not going to embrace a state income tax when there's \$12 billion in savings in the bank to pay for state government.

*Petroleum News: Did people in Norway seem frustrated by the high taxes?*

French: No. The short answer is no. Part of the reason is Norway's not part of the (European Union), so the debt crisis in Greece, Spain, Portugal, Italy is not being paid for by Norwegian dollars. (My wife Peggy and I) spent some time in Germany after the trip to Norway, and of course we talked to some German citizens who weren't happy at having to bail out Greece. But Norway's not part of the EU, so that's not a problem.

And frankly the political spectrum in Norway is far narrower than it is here in Alaska, and it's more left. So some things just don't translate back here.

*Petroleum News: Why do you think it was mostly majority senators who went on the trip?*

French: Can't answer that. Can't speak to the motivations of anybody else besides me. I thought this was a great opportunity to look at a place that's geographically very similar to Alaska and is doing very well by themselves, and to see how they're doing it.

*Petroleum News: What can you tell me about your plans for SDFI?*

French: It's an idea that many of us have been kicking around for some time. Sen. (Bill) Wielechowski and I were close to doing something about it towards the end of last session, because we really saw this as an alternative to what the governor was proposing.

We've just been kicking the idea around. Seeing it at work in Norway solidified that it's a viable practice. And frankly some of the industry folks who were on the tour there with us also seemed to think highly of it. So it went from being something the two of us were kicking around to being an idea that obviously works in other places and gets respect across industry-slash-government lines.

*Petroleum News: Any feedback on the idea from the administration?*

French: We haven't broached it with them yet. ●



**TOTE dedication honors maritime industry legend**

Totem Ocean Trailer Express Inc. said Sept. 22 that legendary maritime and Pierce County community leader, Robert P. Magee, was honored Sept. 21 with the naming of Totem Ocean Trailer Express Inc.'s Tacoma terminal in his memory.

The Robert P. Magee Terminal dedication ceremony at Port of Tacoma was attended by about 150 industry and community leaders, extended family members, TOTE customers and employees who gathered to pay tribute to a man many described as visionary.

After Bob's death in November 2009, TOTE employees rallied around the idea of honoring Bob's memory with a tribute. "The terminal was perfect because Bob loved Tacoma. He came out of the vessel department and so spent much of his time at our terminal. Even as the CEO of American Shipping group, TOTE's parent company, you could always find Bob back down at the terminal on a random afternoon or the morning after a ship sailed," said



COURTESY TOTE

John Parrott, TOTE president.

The Robert P. Magee Terminal name is proudly displayed on signs at each gated entrance to the terminal, as well as in front of the administration building at 500 Alexander Ave in Tacoma, Wash.

**Team announces its new Anchorage location**

Team Industrial Services said Sept. 27 that it has opened the doors to its new location at 8141 Dimond Hook Drive in Anchorage. The new location houses a welder-qualifying lab, and RT trucks for use in radiography.

Team Industrial Services is the largest specialized industrial services company in North America through service, safety, quality, leadership and innovation.

Team recognizes that its success ultimately is a result of its customers' trust and confidence which is earned through continuing outstanding service.



COURTESY TEAM INDUSTRIAL

see **OIL PATCH BITS** page 17

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

ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS	ADVERTISER	PAGE AD APPEARS
<b>A</b>					
Acuren USA		Delta P Pump and Equipment		Nalco	
AECOM Environment		Denali Industrial		NANA Regional Corp.	
Air Liquide		Dowland-Bach Corp.		NANA WorleyParsons	
AIRVAC Environmental Group		Doyon Drilling		NASCO Industries Inc.	
Alaska Air Cargo		Doyon Emerald		Nature Conservancy, The	
Alaska Analytical Laboratory	.6	Doyon LTD		NEI Fluid Technology	.15
Alaska Cover-All		Doyon Universal Services		Nordic Calista	.14
Alaska Division of Oil and Gas		Egli Air Haul	.14	North Slope Telecom	
Alaska Dreams		Era Alaska		Northern Air Cargo	
Alaska Frontier Constructors		ERA Helicopters		Northwest Technical Services	
Alaska Interstate Construction (AIC)		Everts Air Cargo		Oil & Gas Supply	
Alaska Marine Lines	.9	Expro Americas LLC		Oilfield Improvements	.13
Alaska Railroad Corp.	.4	ExxonMobil		Opti Staffing Group	.18
Alaska Rubber		Flowline Alaska		PacWest Drilling Supply	
Alaska Steel Co.		Fluor		PDC Harris Group	
Alaska Telecom		Foss Maritime		Peak Civil Technologies	
Alaska Tent & Tarp		Friends of Pets		PENCO	.18
Alaska West Express	.9	Fugro		Pebble Partnership	
Alaskan Energy Resources Inc.		<b>G-M</b>			
Alpha Seismic Compressors		Garness Engineering Group		Petroleum Equipment & Services	.18
Alutiiq Oilfield Solutions	.7	GBR Equipment	.11	PND Engineers Inc.	
American Marine	.18	GCI Industrial Telecom		PRA (Petrotechnical Resources of Alaska)	
Arctic Controls		Geokinetics, formerly PGS Onshore		Price Gregory International	
Arctic Foundations		Global Diving & Salvage	.4	<b>Q-Z</b>	
Arctic Fox Environmental		Golder Associates		Rain for Rent	.5
Arctic Slope Telephone Assoc. Co-op.		Greer Tank & Welding		SAExploration	
Arctic Wire Rope & Supply		Guess & Rudd, PC		Salt + Light Creative	
Armstrong		Hawk Consultants		Seekins Ford	
Aspen Hotels	.11	Hoover Materials Handling Group	.12	Shell Exploration & Production	
ASRC Energy Services		Inspirations		STEELFAB	
Avalon Development		Jackovich Industrial & Construction Supply		Stoel Rives	
<b>B-F</b>					
Baker Hughes		Judy Patrick Photography		Taiga Ventures	
Bald Mountain Air Service		Kenworth Alaska		Tanks-A-Lot	
Bombay Deluxe		Kuukpik Arctic Services		TEAM Industrial Services	.5
Bristol Bay Native Corp.		Last Frontier Air Ventures		The Local Pages	.6
Brooks Range Supply		Lister Industries		Tire Distribution Systems (TDS)	.5
Calista Corp.		Lounsbury & Associates	.7	Total Safety U.S. Inc.	
Canadian Mat Systems (Alaska)		Lynden Air Cargo	.9	TOTE-Totem Ocean Trailer Express	
Canrig Drilling Technology		Lynden Air Freight	.9	Totem Equipment & Supply	
Carlile Transportation Services		Lynden Inc.	.9	Transcube USA	
CGGVeritas U.S. Land		Lynden International	.9	TTT Environmental	
CH2M Hill		Lynden Logistics	.9	Udelhoven Oilfield Systems Services	
Chiulista Services		Lynden Transport	.9	UMIAQ	.2
Colville Inc.		Mapmakers of Alaska		Unique Machine	.12
Computing Alternatives	.11	MAPPA Testlab		Univar USA	.17
ConocoPhillips Alaska	.3	Maritime Helicopters		URS Corp.	.17
Construction Machinery Industrial		M-I Swaco		US Mat Systems	
Craig Taylor Equipment		MRO Sales		Usibelli	
Crowley Alaska		M.T. Housing		Western Steel Structures	
Cruz Construction	.20	<b>N-P</b>			
		Nabors Alaska Drilling		Weston Solutions	
				XTO Energy	

All of the companies listed above advertise on a regular basis with Petroleum News



continued from page 1

## FLOW ISSUES

### Threshold throughputs

The NRDC report does not question the issues that are likely to arise as a consequence of low oil temperatures in TAPS, as the oil flow declines, but says that operational problems will not start to appear until the flow rate drops to 500,000 barrels per day, a situation that is unlikely to arise until sometime around 2020 to 2046. This timeline is based on Alaska production forecasts from the Alaska Department of Natural Resources and the U.S. Department of Energy for existing oil fields and fields under development.

**“Our study exposes Alyeska’s big lie that more drilling should be allowed — so that more oil can be shipped through its pipeline.”**

**—Chuck Clusen, National Resource Defense Council**

The report also says that the lower limit of pipeline throughput, after implementing low flow mitigation measures, would be 150,000 to 200,000 barrels per day, with the flow rates not dropping to those levels until 2036 to 2046, using the same DNR and DOE forecasts. Moreover, the required low flow mitigation measures could be implemented at a cost in the range \$539 million to \$721 million, a cost level that would enable the pipeline owners to make healthy profits from continuing North Slope oil production — the pipeline tariff would be substantially lower than current and projected future oil prices, even with the low flow mitigation costs factored into the tariff rates, the report says.

“Our study exposes Alyeska’s big lie that more drilling should be allowed — so that more oil can be shipped through its pipeline,” said Chuck Clusen, NRDC’s director of national parks and Alaska projects, when announcing the release of the NRDC report. “Contrary to the industry’s ‘the sky is falling’ claim, TAPS is not in danger of being shut down without drilling in environmentally sensitive areas such as the Arctic National Wildlife Refuge and the Arctic Ocean.”

continued from page 16

## OIL PATCH BITS

Team has an array of specialty services related to maintenance, inspection and construction; specializing in NDT/NDE and heat treating as well as offering hot tap, field machining, technical bolting, valve repair, and much more.

Team plans to host an open house at its new location in the future. For more information call 907-334-1446 or visit [www.teaminc.com](http://www.teaminc.com).

### Doyon President and CEO announces his retirement

Doyon Ltd. said Sept. 1 that President and CEO Norman L. Phillips Jr. has announced his intent to retire on Sept. 30.

A Doyon employee for 23 years, Phillips was hired as the president and CEO in May 2008. He first joined the corporation in 1988 as an engineering geologist and later served as natural resource manager from 1996 until 2008 when he became president and CEO.

“It has been my honor to serve in this capacity on behalf of our 18,300 shareholders. I am proud of Doyon’s accomplishments during my tenure,” Phillips said.

“The Doyon board thanks Mr. Phillips for his service over the past 23 years. He has

**“Achieving the governor’s goal of one million barrels per day by 2020 would appear to be a win-win situation — more barrels means less time required (for oil) to travel in the coldest parts of the pipeline during winter.”**

**—Joe Balash, deputy commissioner, Alaska Department of Natural Resources**

### Balash: win-win

Alaska Gov. Sean Parnell has been promoting a campaign to boost TAPS throughput to a rate of 1 million barrels per day by 2020 through new oil development onshore and offshore northern Alaska, in part to head off TAPS low flow issues. In a Sept. 28 email to Petroleum News Joe Balash, deputy commissioner of Alaska’s Department of Natural Resources, questioned what appeared to be a lack of engineering involvement in the NRDC report preparation, saying that the State Pipeline Coordinator’s Office has for several years been expressing concerns about issues relating to TAPS low oil flow and the ability to restart the pipeline after a shutdown in cold conditions. Engineering staff in the Joint Pipeline Office have arrived at similar conclusions to Alyeska’s most recent prognosis on the low flow issues, and although there is general agreement that measures can be taken to allow TAPS to operate at lower flow rates, the optimum choice of these measures is unknown, Balash wrote.

“Achieving the governor’s goal of one million barrels per day by 2020 would appear to be a win-win situation — more barrels means less time required (for oil) to travel in the coldest parts of the pipeline during winter,” he wrote.

According to the NRDC report, the report’s 500,000 barrels per day figure for the threshold for low flow problems comes from a report prepared for Alyeska by Mustang Engineering Inc. and presented as testimony in a TAPS valuation court case in 2010. The NRDC report says that in that same court case Alyeska had said that the installation of heaters on TAPS would enable the pipeline to operate at flow rates as low as 200,000 barrels per day, with an expert witness also testifying that with the installation of heaters, the completion of a major pipeline reconfiguration that Alyeska has been implementing, and perhaps the

served our shareholders, customers, partners and the employees of the Doyon Family of Companies very well. On behalf of the board and shareholders, I wish Norm all the best as he allows himself more time to dedicate to his family and other private pursuits,” said Doyon Ltd. Chairman Ori Williams.

After his retirement Phillips will continue to assist the corporation as needed with the new president’s transition.

*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.*

addition of some new stations for operating pipeline “pigs,” the minimum flow rate might be reduced to 150,000 barrels per day.

The range of potential mitigation measure costs quoted in the NRDC report is based on cost estimates from the Mustang Engineering report and the expert witness’s court testimony.

### Temperature estimates

The NRDC report says that a prime reason for the difference between the Alyeska figure of 550,000 barrels per day for the onset of low flow problems and the Mustang Engineering figure of 500,000

barrels per day appears to result from differences in the estimates for the temperature profile in the pipeline at different flow rates. And other factors, such as the heat flow between the pipeline and the external environment, and the warming effect of pumping the oil over mountain passes, may render even the Mustang Engineering estimates overly pessimistic.

At the time Petroleum News went to press Alyeska had not responded to requests for comments on the NRDC report. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

## EXPLORATION & PRODUCTION

### US oil and gas rig count up by 6 to 1,991

The number of rigs actively exploring for oil and natural gas in the U.S. increased by six the week ending Sept. 23 to 1,991.

Houston-based drilling product provider Baker Hughes Inc. reported that 1,071 rigs were exploring for oil and 912 for natural gas. Eight were listed as miscellaneous. A year ago this week the rig count stood at 1,650.

Of the major oil- and gas-producing states, Texas gained eight rigs, North Dakota gained six, Colorado gained two and Wyoming gained one.

Louisiana and Pennsylvania each lost four rigs and Alaska, New Mexico and Oklahoma each lost one.

Arkansas, California and West Virginia were unchanged.

The rig count peaked at 4,530 in 1981. A low of 488 was recorded in 1999.

—THE ASSOCIATED PRESS



# I want in!

To advertise in Petroleum News, please contact Susan Crane at 907-770-5592, or Bonnie Yonker at 425-483-9705.



# UNIVAR

Your Alaskan Chemical Source since 1924

- Products & Services for Oil, Gas — Production, Processing & Refining
- Mining, Municipalities, Aviation & the Transportation Industry
- Meeting your chemical waste needs with our exclusive ChemCare® Waste Management Services

For Statewide Service call:

800-478-7444 • [www.univarusa.com](http://www.univarusa.com)  
590 E. 100<sup>th</sup> Avenue • Anchorage, AK 99515

# URS

THE HIGHEST STANDARD IN  
**ENGINEERING  
EXCELLENCE**

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTORS

URS is one of the world’s leading engineering firms. Our professional staff work together to develop innovative and cost-effective solutions to the challenges facing government and industry.

**ANCHORAGE**  
700 G Street,  
Suite 500  
Tel: 907.562.3366

**FAIRBANKS**  
3504 Industrial Avenue,  
Suite 125  
Tel: 907.374.0303

**JUNEAU**  
217 2nd Street,  
Suite 207  
Tel: 907.463.4915

continued from page 1

## ESCOPETA

The smaller diameter hole was drilled as a safety precaution, to make sure there were no unexpected pockets of natural gas in the well bore, Escopeta said.

Drillers had reached 1,080 feet with the larger hole by the morning of Sept. 8.

Shortly thereafter they ran into trouble.

It was over “a busted clip on an O-ring,” Escopeta President Ed Oliver told Petroleum News Sept. 29.

“We had a malfunction on a downhole tool. ... We had the best contractor in the world on these downhole tools. ... But it can happen. And every time we started to do something, something else went wrong, like the parts had to come out of Houston — that cost us three days. And then a contractor didn’t work on weekends. Then a warehouse misplaced something; that cost us another three days. What started out as a routine problem, took 10 or 12 days to fix,” Oliver said.

“If Murphy was alive and well he would have been on this well.”

The mud log report of Sept. 27 showed the well depth at 1,805 feet true vertical depth, with the 20-inch casing also set at that depth.

It appeared that with the casing on bottom and presumably cemented in place, rig workers were pre-heating the casing in order to weld the new wellhead onto it.

Once that was complete, a PN source said they will “nipple up or assemble the blowout preventer on the well head and run a test.”

Oliver confirmed that.

“We’re waiting for the cement to dry

on the casing,” he said, predicting drilling would begin again in “four or five more days.”

### Likely make 4,800 feet this year

The well’s ultimate depth will be about 16,000 feet, which will take it down to the pre-tertiary zone, stratigraphically equivalent to the Jurassic interval.

Escopeta initially planned to stop drilling at 4,800 feet for another inspection from state regulators, a point where the well casing was to be changed to 13 and 3/8 inches.

One of the factors in the state’s evaluation will be the weather and ice formation in the upper Cook Inlet.

“At this point we feel comfortable about going down to 4,800 feet,” Oliver said.

“We’ve been in regular communication with AOGCC and DNR. We’re not going to jeopardize (the operation) by pushing safety issues. ... We’re all comfortable not making full depth this year.”

Is Oliver concerned the Alaska Department of Natural Resources will take back Escopeta’s leases because of not making a unit deadline of Oct. 31 to reach the Jurassic?

“That’s sort of a loaded question. ... I am not overly concerned. In fact I hadn’t thought about it ... until you raised the question,” he said, referring to his firm’s ongoing communications about the well with state officials.

“I think we’ll work something out. Right now we’re just trying to do what we’re up there to do, and that’s drill this well.”

—KAY CASHMAN

Contact Kay Cashman  
at publisher@petroleumnews.com

continued from page 1

## KEYSTONE DECISION

the more reason why Canada should look at trade diversification and particularly diversification of energy exports.”

### Access to Asian markets

Harper also delivered a strong endorsement of attempts to open export routes to Asia, including Enbridge’s Northern Gateway project, with federal Natural Resources Minister Joe Oliver declaring the Canadian government wants increased access to Asian markets to “secure the benefits of our resources now and for the long term.”

Oliver said that while the government respects the regulatory process, it is a “key strategic objective to diversify our customer base” beyond the United States.

He said the oil and gas industry will remain a critical driver of a healthy Canadian economy, even as government and industry work to reduce its environmental impact.

Oliver said Keystone opponents fail to mention that coal plants in Wisconsin emit more greenhouse gases than the oil sands, or that California’s unconventional, thermal oil industry is more GHG-intensive than the oil sands.

### Editorial endorsements

With the State Department expected to decide the fate of Keystone later this year, the battle for hearts and minds has seen seven leading U.S. newspapers along with The Globe and Mail of Toronto endorse the project, leaving only the New York Times on the other side of the fence.

Pro-pipeline editorials have been carried by the Wall Street Journal, Washington Post, USA Today, Los Angeles Times, Chicago Tribune, Houston Chronicle and Boston Herald.

The Chicago Tribune argued that even if Keystone is defeated, Canada will ship its oil to the U.S. by “rail, barge or truck, if need be. ... Americans should be celebrating a development that will reduce the dependence on oil from less-congenial foreign sources ... (and) will keep prices in check when the economy starts growing in earnest again.”

The New York Times said it has two main objections to Keystone: The risk of oil spills along the pipeline and the fact that the “extraction of petroleum from the tar sands creates far more greenhouse emissions than conventional production does.”

### Saudi Arabia

Meanwhile, the battle added a fresh twist, with the Saudi Arabian government showing that it is riled over growing alle-

gations that U.S. reliance on Canada’s oil sands production is more “ethical” than buying crude from Saudi Arabia.

In the process, it has drawn a stern rebuke from the Canadian government, amid reports that the Saudi government has threatened legal action to prevent a Toronto-based advocacy group from running a TV ad arguing that “ethical” crude from the Alberta oil sands is a better choice than “funding oppression” by importing Saudi oil.

Foreign Affairs Minister John Baird said in a statement Sept. 22 he will ask Saudi officials in Canada to explain their attempts to “stifle free speech.”

Natural Resources Minister Joe Oliver and Immigration Minister Jason Kenney added their objections to attempts by a foreign government to undermine freedom of speech in Canada, while the House of Commons Foreign Affairs Committee said it will consider investigating the dispute.

### EthicalOil.org

EthicalOil.org ran a 35-second ad in August on the Sun News Network and the Oprah Winfrey Network in Canada making its case for Alberta crude over oil from a country that refuses to let women drive and prevents them from leaving their homes or taking employment without permission from male guardians.

The Saudis hired the international law firm of Norton Rose to send “cease and desist” letters to the Television Bureau of Canada, pressuring the privately funded review agency to withdraw approval of the ad and warning about possible legal action.

CTV News confirmed it is not prepared to run the ad until the dispute between EthicalOil and Saudi Arabia is resolved.

Alykhan Velshi, executive director of EthicalOil and a former aide to Kenney, said his group is so outraged by the Saudis’ “intimidation tactics” it has resumed running the commercials again on the Sun network.

EthicalOil is funded by companies and individuals, many of them associated with the petroleum industry, but has no ties with the Canadian Association of Petroleum Producers.

Based on rising oil sands production, Canada has steadily expanded its share of the United States oil market, exporting close to 2 million barrels per day in 2010 and relegating Saudi Arabia to fourth place after Mexico and Venezuela at about 900,000 bpd.

—GARY PARK

Contact Gary Park through  
publisher@petroleumnews.com



**Our success is determined by your success.**

**opti**  
STAFFING GROUP

**Alaska's Premier Placement Service**

Phone: 907.677.9675

**CHOOSE OPTI STAFFING**

- Oil & Gas
- Skilled Trades
- Administrative Support
- Accounting

[www.OptiStaffing.com](http://www.OptiStaffing.com)

**Petroleum Equipment & Services Inc.**

is proud to represent  
Weatherford/Gemoco Casing Accessories



Anchorage: (907) 248-0066  
Prudhoe Bay: (907) 659-9206  
fax: (907) 248-4429  
5631 Silverado Way, Suite G  
Anchorage, AK 99518  
[www.pesiak.com](http://www.pesiak.com)

**PERFORMANCE UNDER PRESSURE**



**AMERICAN MARINE CORPORATION**

- Commercial Diving
- Marine Construction Services
- Platform Installation, Maintenance and Repair
- Pipeline Installation, Maintenance and Repair
- Underwater Certified Welding
- NDT Services
- Salvage Operations
- Vessel Support and Operations

**AMERICAN MARINE SERVICES GROUP**

6000 A Street, Anchorage, AK 99518  
**907-562-5420**  
Deadhorse, AK  
**907-659-9010**

[www.amarinecorp.com](http://www.amarinecorp.com) • [www.penco.org](http://www.penco.org)  
alaska@amarinecorp.com

**PENCO PACIFIC ENVIRONMENTAL CORPORATION**

- Environmental Services
- Oil-Spill Response, Containment and Clean-Up
- Hazardous Wastes and Contaminated Site Clean-Up and Remediation
- Petroleum Vessel Services, e.g. Fuel Transfer
- Bulk Fuel Oil Facility and Storage Tank Maintenance, Management, and Operations

**Anchorage Honolulu Los Angeles**

continued from page 1

## LEASE SALES

brought on production, the commissioner can waive the increased rental, he said, describing the change in rental rates as performance-based.

Barron said the state looked at what other jurisdictions do, at suggestions from companies and at what changes it is allowed to make in lease sale terms. Some jurisdictions, he said, can change the length of leases based on performance. Alaska can't do that, he said, but can work with rental rates.

The goal with the changes was to look at what could be done that would be in the best interests of the state to encourage development at a rapid pace, but in "absolutely the most responsible manner possible," Barron said.

### Terms, royalty rates

All leases in the three sales have 10-year lease terms. In last year's sales, Beaufort Sea and North Slope tracts had either seven- or 10-year terms, based on location, with tracts nearer to infrastructure having seven-year terms; all North Slope Foothills' tracts had 10-year terms.

For the this year's Foothills sale, all tracts have a minimum bid of \$10 an acre, a fixed royalty rate of 12.5 percent and rental rates standard for state lease sales: \$1 per acre for the first year, \$1.50 per acre for the second year, \$2 per acre for the third year, \$2.50 per acre for the fourth year and \$3 per acre for the fifth and subsequent years.

For the Beaufort Sea and North Slope sales, tracts adjacent to federal lands (the Arctic National Wildlife Refuge, the National Petroleum Reserve-Alaska and the federal outer continental shelf) have a minimum bid of \$10 per acre, and rental and royalty rates the same as those described above for the Foothills sale.

Barron said those areas adjacent to federal acreage are areas where the acreage is not yet fully assessed, while areas with higher bonus bid requirements and higher rentals are where prospectivity is known and higher.

Available tracts adjacent to federal acreage appear to include the majority of tracts in the Beaufort sale; they are a minority on the eastern and western edges of the North Slope sale.

In addition to what the state describes as a sub-region of acreage adjacent to federal acreage, the North Slope sale is divided into northern and southern sub-regions, with the southern sub-region, farther from infrastructure, having a 12.5 percent royalty rate (in common with the area adjacent to federal acreage) while the northern sub-region has a 16.67 percent royalty.

A striking feature of the North Slope sale is the division of 5,760-acre tracts into four parcels, designated A, B, C and D.

Barron said the division of tracts into smaller parcels, 1,440 acres each, was driven by recognition that a lot of the acreage available in the North Slope sale will probably be a target for unconventional shale development.

He said that because one well holds a lease and in unconventional plays like shale more wells are required for development, the idea is that leasing in smaller acreage sizes would increase activity and completion.

Barron said that in trying to work through issues of unconventional development and how wells do and do not connect and how to manage land, the division decided that breaking leases into smaller tracts would give everyone a better opportunity from the development standpoint.

### Varying rental rates

For tracts in the Beaufort sale not adjacent to federal acreage and tracts in the

south and north sub-regions of the North Slope sale, the minimum bid is \$25 per acre.

In last year's sales, the minimum bid was \$10 an acre for all tracts in the Beaufort Sea and North Slope sales, \$5 an acre in the Foothills sale.

In the North Slope sale tracts in the south and adjacent to federal lands sub-regions have a fixed royalty rate of 12.5 percent; tracts in the north sub-region have a fixed royalty rate of 16.67 percent.

The new higher rental rate, \$10 an acre for the first seven years and \$250 an acre thereafter, applies to all tracts in the Beaufort and North Sales except those adjacent to federal acreage.

The state said in its sale notice that the \$250-per acre rental beginning in year eight applies, "except that beginning in the year after the year in which sustained production commences on this lease or the state otherwise determines in its sole discretion, upon request, that the lessee has exercised reasonable diligence in exploring and develop-

ing this lease the annual rental will be \$10.00 per acre or fraction of an acre."

In evaluating requests to decrease rental "based on the exercise of reasonable diligence, the state will consider the funds expended by the lessee to explore and develop this lease and the types of work completed by or on behalf of the lessee on this lease."

### Acreage

The state said the Beaufort Sea areawide sale area is divided into 573 tracts ranging in size from 640 to 5,760 acres located within the North Slope Borough. The sale includes state-owned tide and submerged lands in the Beaufort Sea between the Canadian border and Point Barrow and the southern fringe of the sale includes some state-owned uplands between NPR-A and ANWR.

The North Slope areawide sale is divided into 1,225 tracts ranging in size from 640 to 5,760 acres. The state said that for this

sale certain tracts have been divided into four parcels, A, B, C and D. North Slope areawide sale tracts are within the North Slope Borough between the Canning River and ANWR in the east and the Colville River and NPR-A in the west. The Umiat Meridian baseline forms the southern boundary of this sale area.

The North Slope areawide is divided into three sub-regions: North, South and Adjacent to Federal Lands.

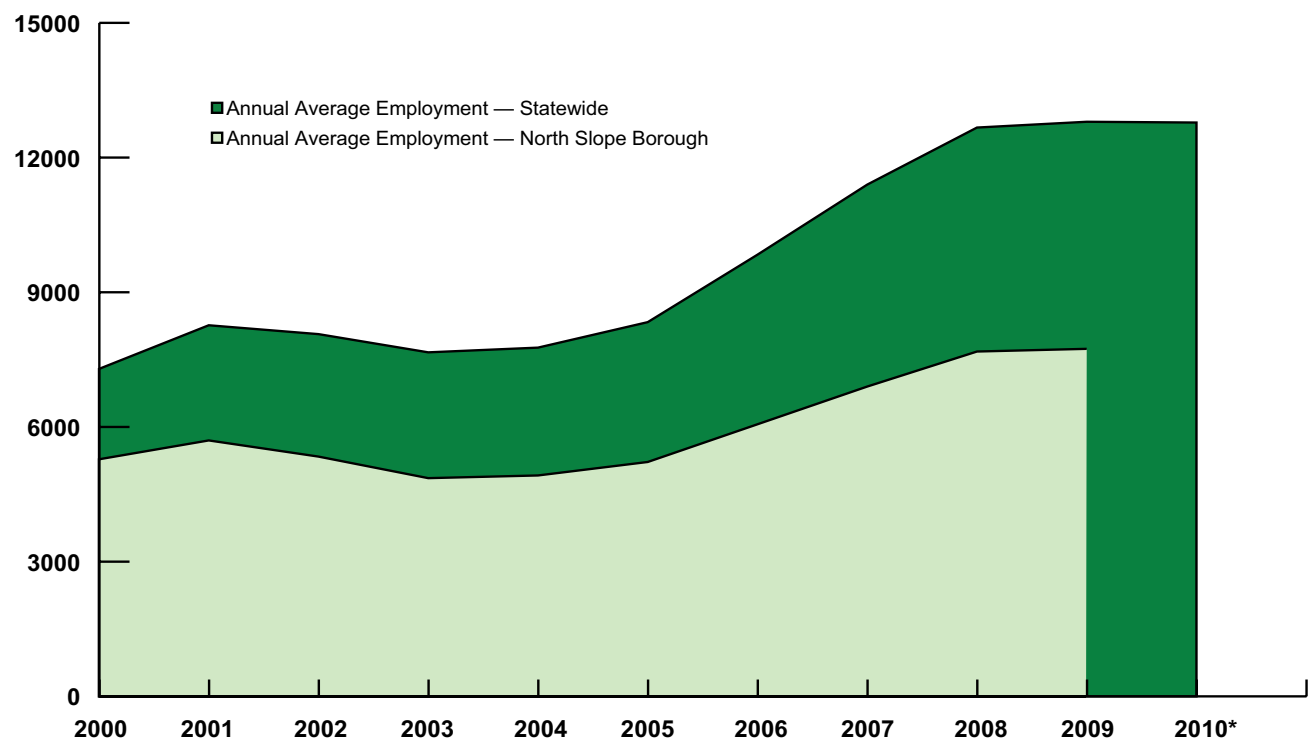
The North Slope Foothills sale area is divided into 1,347 tracts ranging in size from 1,280 to 5,760 acres. The tracts are between ANWR and NPR-A. The northern boundary of the sale is the Umiat Meridian baseline; the southern boundary is the Gates of the Arctic National Park and Preserve.

For complete sales details, including regional tract maps, see the division's website <http://dog.dnr.alaska.gov/>. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

## Alaska Statistics

### Alaska Oil Industry Employment Statewide and North Slope Borough 2000-2010\*

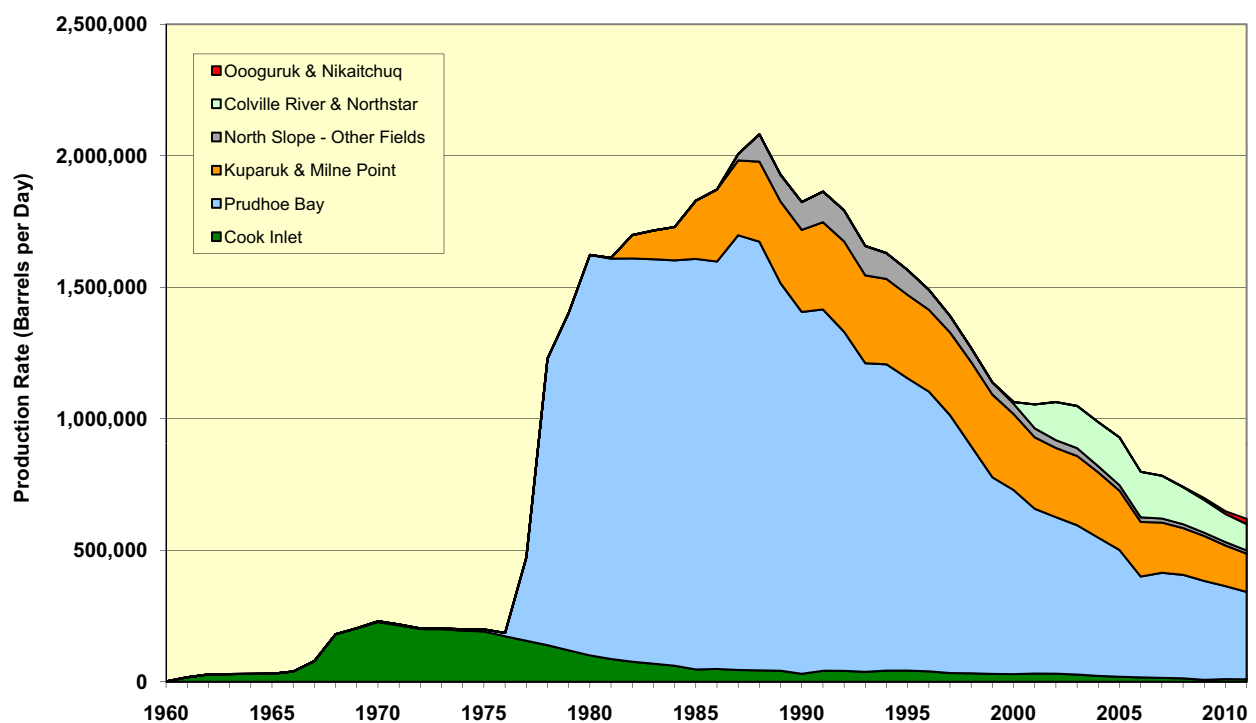


\*Preliminary

2010 annual average employment numbers for the North Slope Borough were not available as of the publish date for this chart

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section and U.S. Bureau of Labor Statistics

### Alaska's Average Daily Oil and NGL Production Rate 1960 - 2010



Petroleum News will be reproducing this standalone chart from the Alaska Oil and Gas Conservation Commission on a regular basis because of the interest in the decline in Alaska's oil production.

continued from page 1

## EXPLORERS

Two of the proposed 34 wells, which would be operated by UltraStar and Savant, could be delayed until next winter because the companies have not yet been able to secure drilling rigs. As of Sept. 22, Great Bear was also still shopping for a rig, but since it is probably looking to keep a rig and drill year round, it may have better luck securing one.

Following are the companies planning to drill exploration wells between November of this year and November of next:

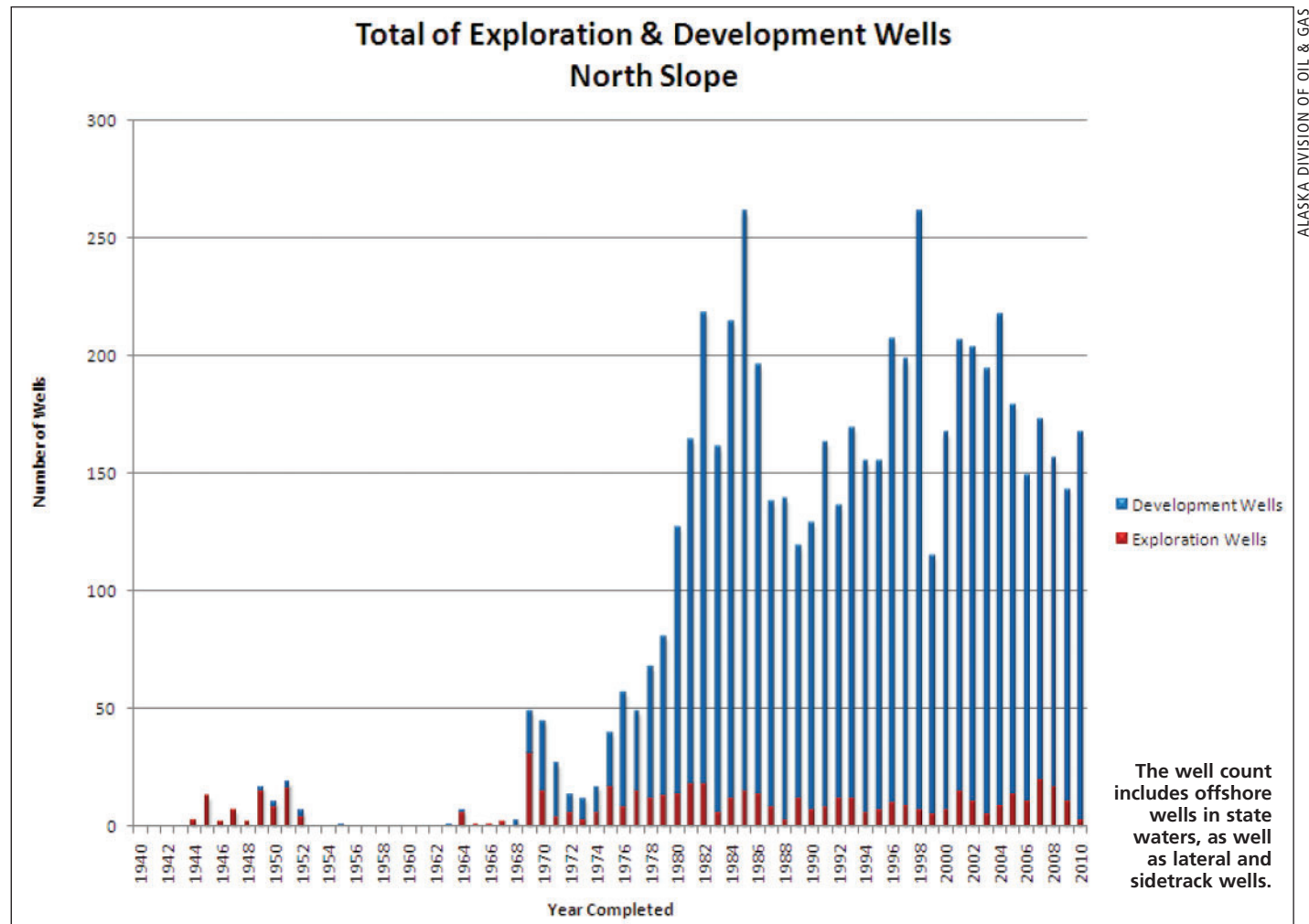
- Brooks Range Petroleum: 1 rig, 2 wells
- Great Bear Petroleum: 1 rig, 8 wells
- Linc Energy (Renaissance Umiat): 1 rig, 5 wells
- Pioneer 1 rig, 2 wells
- Repsol: 5 rigs, 15 wells
- Savant 1 rig, 1 well
- UltraStar: 1 rig, 1 well

### Great Bear is the exception

Normally, the North Slope off-road exploration season, which includes the nearshore Beaufort Sea, would start in December, with first drilling no sooner than January, and end sometime in April or May, depending on the condition of the tundra. No one can travel off-road on the North Slope unless the ground is sufficiently frozen and the snow is deep enough to protect the fragile Arctic tundra. (The exception is travel via one of the few tundra-certified vehicles designed for very low-pressure impact.)

But if Great Bear can secure the appropriate permits and authorizations, its wells will not require temporary winter roads and pads of snow and ice. Rather, the company will be able to place as many as six gravel drill sites along a 15-mile long stretch following the Dalton Highway and the trans-Alaska oil pipeline, chosen because the corridor is a previously disturbed, active industrial area with existing gravel roads and sites, thus minimizing the environmental impact of drilling — and, of course, providing year-round access, which is a standard in all source rock drilling operations in the United States and Canada.

According to the proposed plan of operations Great Bear filed in mid-September with the Alaska Department of Natural Resources' Division of Oil and Gas, pad construction and gravel repair and conditioning work for its first drill pad would start in early to mid-November, with



ALASKA DIVISION OF OIL & GAS

continued from page 1

## APPLES

include them in its list of upcoming exploration wells.

But the newspaper has revised its definition of an exploration well to match that of AOGCC because the historical records kept by the Alaska

Department of Natural Resources and other agencies use AOGCC's definition, which makes comparisons with exploration activity in other years consistent — apples to apples.

—KAY CASHMAN

Contact Kay Cashman  
at [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)

drilling to begin in mid-to-late November, and continue on and off for about 12 months. (See story in the Sept. 25 edition of Petroleum News.)

While the company has selected six drill site locations, which means it could drill 12 wells — six verticals and at least six laterals — Great Bear's plan of operations says the possibility of drilling more than eight wells from four pads is remote.

### Savant hopes to drill at Red Wolf

According to an article in this issue of Petroleum News (see page 6,) Savant said in its 9th Plan of Development for the eastern North Slope's Badami unit, filed recent-

ly with the Division of Oil and Gas, that its proposed Red Wolf exploration well will target the Kekiktuk formation, which is the formation that contains the oil reservoir for the Endicott field west of Badami.

"We would like to drill the well this winter but as you know rigs are tight. We are working multiple fronts with respect to securing a rig," Savant Vice President Greg Vigil told Petroleum News in an email Sept. 26.

### Linc adds one well at Umiat

Linc Energy, the Australian independent that acquired controlling interest in Renaissance Alaska and therefore control of

## On the Web



See previous Petroleum News coverage:

"Pioneer permitting two Nuna ... wells targeting Torok," in Sept. 25, 2011, issue at [www.petroleumnews.com/cgi-bin/htmllos.cgi/004023.1.094821910310223200](http://www.petroleumnews.com/cgi-bin/htmllos.cgi/004023.1.094821910310223200)

(Wells have since been reclassified as exploration wells by Petroleum News, in accordance with AOGCC's definition.) "Permitting under way," (Repsol) in the Sept. 18, 2011, issue at [www.petroleumnews.com/pnads/759134526.shtml](http://www.petroleumnews.com/pnads/759134526.shtml)

"North Slope exploration plans on track" in the Sept. 11, 2011, issue at [www.petroleumnews.com/pnads/931958886.shtml](http://www.petroleumnews.com/pnads/931958886.shtml)

"North Slope booms" in the Aug. 14, 2011, issue at [www.petroleumnews.com/cgi-bin/htmllos.cgi/003743.1.068385778811849102](http://www.petroleumnews.com/cgi-bin/htmllos.cgi/003743.1.068385778811849102)

its subsidiary Renaissance Umiat, has said it was going to drill a minimum of four wells at the undeveloped Umiat oil field in the Brooks Range Foothills along the southeastern border of the National Petroleum Reserve-Alaska.

But on Sept. 23, a BLM permitting official told Petroleum News that Linc had told the agency it was looking at five wells.

Most of the permitting was already done by Renaissance in 2007. Linc is renewing one of the four drilling permits because it expires in January, and adding a fifth well, BLM said.

### Anadarko conducts rig-less test

Also part of the upcoming exploration season are several seismic surveys and Anadarko Petroleum's rig-less testing of its Chandler No. 1 gas well.

Seismic yields drilling opportunities for future exploration wells and Anadarko's work could mean the big independent and its partners might resurrect their multiyear drilling program at the Gubik Complex on state, federal and Native acreage in the Brooks Range Foothills.

Inactive since 2009, Anadarko's program was the first exploration effort in northern Alaska to explicitly target natural gas for other than local use.

The Gubik Complex contains the undeveloped Chandler, Gubik and Wolf Creek gas fields. ●

Contact Kay Cashman  
at [publisher@petroleumnews.com](mailto:publisher@petroleumnews.com)

# Where the road ends...

# Our Work Begins

**cruzconstruct.com**  
Main Office (907) 746-3144

**Anywhere you need it. Any season of the year.**

Cruz has the right experience for large-scale civil construction. We can provide the right people and the right equipment anywhere in Alaska.

Our clients rely on us to tackle the most challenging projects – and get the job done on time and under budget.