Celebrating 20 years: 1996-2016

Petroleum news

page 5 Q&A: MacKinnon: caution needed so tax changes don't set state back

Vol. 21, No. 20 • www.PetroleumNews.com | A weekly oil & gas newspaper based in Anchorage, Alaska | Week of May 15, 2016 • $2.50

This week's Mining News


NORTH OF 60 MINING news

page 13 Constantine, Dowa aim to drill more VMS deposits at Palmer

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NEWS NUGGETS

Tetlin drilling finds Connector; could link North, Peak deposits

LAND STATUS

Bad faith in Fortymile

Federal judge slams BLM for reckless, frivolous claims to Mosquito Fork

By SHANE LASLEY

Federal judge slams BLM for reckless, frivolous claims to Mosquito Fork in heart of the Fortymile Mining District. See page 11.

Furie jack-up rig on location

Furie Operating Alaska's Randolf Yost jack-up rig is in position on site, stationed a few feet from the Julius R. platform, the production platform for the Kitchen Lights gas field offshore in Alaska's Cook Inlet, Bruce Webb, Furie senior vice president, told Petroleum News in a May 11 email. On May 5 the rig left Homer, where it had been stationed since arriving in Cook Inlet, Webb said. After being towed by tug to the Julius R. platform, the rig had to be anchored to the

see FURIE JACK-UP page 22

Shell, Conoco drop Chukchi leases

Shell and ConocoPhillips are relinquishing their oil and gas leases in the Chukchi Sea, with Shell retaining just one lease around the Burger J well that the company drilled in 2015. Statoil, the other oil major with exploration interests in the Chukchi, announced in November 2015 that it was going to relinquish its leases in the region following a decision to terminate its Chukchi exploration program.

"After extensive consideration and evaluation, Shell will

see CHUKCHI LEASES page 19

House Rules hears CS for HB 247

A House Rules substitute for House Bill 247, the governor's oil tax credit bill, had hearings in the committee May 10 and 11 and appeared headed for the House floor, perhaps as early as the weekend of May 14-15, as this issue of Petroleum News went to press May 12.

The issues remain the same — the state lacks the funds to pay credits under existing statutes and industry, both producers and developers, have based plans on existing statutes.

see HB 247 page 22

EXPLORATION & PRODUCTION

The Chukchi enigma

Region continues to hold major resource potential despite setbacks

By ALAN BAILEY
Petroleum News

The cancellation of Shell's Arctic offshore exploration program and the relinquishment of most Chukchi Sea oil and gas leases clearly mark the end of the most recent phase of hydrocarbon exploration in the region. But the rocks under the Chukchi's frigid waters have not changed: The region continues as a world-class, relatively unexplored petroleum province.

Bureau of Ocean Energy Management geologist Kirk Sherwood told Petroleum News May 9 that the very complexity of the Chukchi geology adds to the likelihood of the region containing substantial petroleum resources. The fact that Shell's most recent drilling did not find significant oil is probably best viewed as an indication of that complexity, and not as a pointer to a lack of resource potential. It is all a question of the timing of oil generation in oil source rocks, and the underground plumbing whereby the generated oil flows into oil traps.

> *"It's rare to find a basin where so much comes together."*
> ***—BOEM geologist Kirk Sherwood***

"All the key things are there and appear to be present in quantity," Sherwood said. "It's the right

see CHUKCHI ENIGMA page 23

EXPLORATION & PRODUCTION

Slope drilling steady

Large unit wells counts even in 1st quarter compared to previous 2 years

By ERIC LIDJI
For Petroleum News

Even with oil prices at historic lows, and some producers reducing their workforces, development drilling on the North Slope has remained steady over the past three years.

According to Alaska Oil and Gas Conservation Commission completion reports, the operators of the six most productive North Slope units drilled 36 development wells in the first quarter of 2014, 44 development wells in the first quarter of 2015 and 47 development wells in the first quarter of this year — a slight increase in drilling activity.

Over that time, the average spot price of Alaska North Slope crude oil at West Coast markets fell from $107.90 per barrel in March 2014, to $52.27 per barrel in March 2015, to $38.10 per barrel in March 2016, according to the Alaska Department of Revenue.

> *The Colville River unit saw a spike in activities as operator ConocoPhillips began developing its CD5 pad in late 2015.*

The figures represent administrative filings published through May 2016. AOGCC completion reports occasionally lag behind actual drilling and are often revised. With revisions, the first quarter 2016 figures could be higher but are unlikely to be lower.

see SLOPE DRILLING page 22

EXPLORATION & PRODUCTION

A second whammy

Oil sands 'capital' of 88,000 evacuated; damage to city, production facilities

By GARY PARK
For Petroleum News

Reeling from 18 months of measured production cutbacks, thousands of layoffs and tens of billions of dollars in reduced capital spending, northern Alberta's oil sands region has been brought to its knees.

Until the start of May the enemy was global market forces.

No one was counting on an even greater force — one that has turned out to be unmanageable, verging on devastation.

After six months of negligible rain and snow falls, the area which accounts for 4 million barrels per day of Canada's total crude output of 5 million bpd and was expected to push those volumes above 6 million bpd by mid-June, turned tinder dry.

> *No one was even hazarding a guess at a timetable for restarting oil production.*

Without warning the boreal forest ignited, fueled by strong winds, and invaded the outskirts of Fort McMurray, the operations center of the oil sands.

Some communities in the city of 88,000 were wiped out, with an estimated 1,600 homes, some small businesses and other structures destroyed, and with the airport, hospital and downtown under dire threat, authorities ordered a mandatory evacuation.

That mission, despite some harrowing moments for those driving down a tunnel of towering flames,

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Alaska - Mackenzie Rig Report

The Alaska - Mackenzie Rig Report as of May 11, 2016.
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

Alaska Rig Status

North Slope - Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Milne Point J-27	Hilcorp Alaska LLC
Dreco 1000 UE	16 (SCR/TD)	Standby	BP
Dreco D2000 Uebd	19 (SCR/TD)	Alpine CD5-02A	ConocoPhillips
AC Mobile	25	Standby	
OIME 2000	141 (SCR/TD)	Kuparuk 1J-182	ConocoPhillips
	142	Kuparuk 3S-614	ConocoPhillips
TSM 7000	Arctic Fox #1	Tight Hold	Caelus
Hillcorp Alaska LLC			
	Rig No.1	Milne Point	Hilcorp Alaska LLC
Kuukpik Drilling	5	Offshore Modification	Hilcorp
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2	Kuparuk 2F-18	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Deadhorse	Available
Mid-Continental U36A	3-S	Deadhorse	Available
Oilwell 700 E	4-ES (SCR)	Deadhorse	Available
Dreco 1000 UE	7-ES (SCR/TD)	Deadhorse	Available
Dreco 1000 UE	9-ES (SCR/TD)	Deadhorse	Available
Oilwell 2000 Hercules	14-E (SCR)	Deadhorse	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Mustang location	Available
Oilwell 2000 Canrig 1050E	27-E (SCR-TD)	Deadhorse	Available
Oilwell 2000	33-E	Deadhorse	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Deadhorse	Available
OIME 2000	245-E (SCR-ACTD)	Oliktok Point	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Deadhorse	Available
Academy AC electric Heli-Rig	106AC (AC-TD)	Deadhorse	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay, Standby	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Drill Site 4, Well 33	BP
Ideco 900	3 (SCR/TD)		Available
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DSW-59	BP

North Slope - Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BP			
Top Drive, supersized	Liberty rig	Inactive	BP
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Nikaitchuq SP04-SE5	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk Cold Stacked	Caelus Alaska

Cook Inlet Basin – Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Miller Energy Resources			
Mesa 1000	Rig 37	Mobilized to North Fork to begin drilling this winter	Miller Energy Resources
All American Oilfield LLC			
IDECO H-37	AAO 111	In All American Oilfield's yard in Kenai, Alaska	Available
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Stacked out west side of Cook Inlet	Available
Saxon			
TSM-850	147	Stacked	Hilcorp Alaska LLC
TSM-850	169	Stacked	Hilcorp Alaska LLC

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Hilcorp Alaska LLC			
National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC
	Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC
	Rig 51	Monopod Platform, Drilling	Hilcorp Alaska LLC
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151 Upper Cook Inlet KLU#1	Furie
Cook Inlet Energy			
National 1320	35	Osprey Platform, Suspended	Cook Inlet Energy

Mackenzie Rig Status

Canadian Beaufort Sea

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
SDC Drilling Inc.			
SSDC CANMAR Island Rig #2	SDC	Set down at Roland Bay	Available

Central Mackenzie Valley

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Akita			
TSM-7000	37	Racked in Norman Well, NT	Available

Baker Hughes North America rotary rig counts*

	May 6	April 29	Year Ago
United States	415	420	894
Canada	36	37	75
Gulf of Mexico	23	24	33

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

● EXPLORATION & PRODUCTION

Hilcorp planning Milne Point revival

Development program at North Slope field would include as many as eight new wells, 16 workover projects and a new drilling pad

By ERIC LIDJI

For Petroleum News

Hilcorp Alaska LLC is proposing a major development program at the Milne Point unit over the coming year, including plans for constructing a new drilling pad at the field.

If executed to its full extent, the program would involve drilling eight new wells at five pads targeting three of the four formations present at the North Slope unit, working over as many as 16 existing wells, constructing a new pad in the western end of the unit and expanding other infrastructure to accommodate an expected increase in oil production.

The proposed program represents a shift in focus from 2015 activities, when Hilcorp completed just three new wells in one formation and conducted 54 workover operations.

The current program would run from July 1, 2016, until July 31, 2017, and would be in addition to the three wells Hilcorp has already drilled at the unit this calendar year.

Six Schrader wells drilled

The six wells Hilcorp drilled at the Milne Point unit in 2015 and the first quarter of 2016 all targeted the Schrader Bluff formation, specifically the Schrader OA Lower Lobe interval. The program consisted of three production wells and three injection wells. The workover program included 29 projects in the Kuparuk formation, 23 projects in the Schrader Bluff formation and two projects in the Ugnu formation and largely involved changing out the electric submersible pumps used to extract liquid from well bores.

Including the wells drilled earlier this year, the proposed 2016 program includes a producer and injector pair at L pad targeting the Schrader OA Lower Lobe interval, a producer and injector pair at B pad targeting the Schrader ND interval, two producers and two injectors at J pad targeting the Schrader NB interval, one producer at K pad targeting the Kuparuk formation and one producer at C pad targeting the Sag River formation.

Of those, two are already online. Hilcorp completed the Milne Point Unit L-47 well in mid-February and brought the well online at 700 barrels per day of oil and 100,000 cubic feet per day of natural gas. The company completed the Milne Point Unit B-28 well in late March and brought the well online at 2,100 barrels per day of oil, 300,000 cubic feet per day of natural gas and 140 barrels per day of water, according to the company.

Moose Pad development

The proposed Moose Pad Development Project would include a drilling pad and access road within leases ADL 25514 and ADL 25515. Those leases are at the western edge of the unit. Previous operator-BP Exploration (Alaska) Inc. drilled the Pesado No. 1 well and sidetrack at ADL 25515 and the Liviano No. 1 well and sidetrack at ADL 25514.

"Contingent on market conditions," Hilcorp also plans to expand existing pipeline, electrical and communications infrastructure to accommodate activity in the area.

The company told state officials it would apply for permits in the second quarter and, pending approval, begin work at the end of this year and at the beginning of next year.

Oil production remained fairly steady with a slight decline over the past year. The unit started 2015 producing 599,423 barrels per month and finished the year producing 579,914 barrels per month. This year, the unit has produced 19,273 barrels per day, down from 19,400 barrels per day at the end of January 2015, according to Hilcorp.

Duck Island and Northstar

For the time being, Milne Point is the focus for Hilcorp on the North Slope.

Through a late 2014 acquisition from BP, the Houston-based independent became the operator of the Milne Point, Northstar and Duck Island units and the federal Liberty unit.

At both the Duck Island and Northstar units, Hilcorp has been focusing on working over existing wells over the past year instead of new drilling. The company drilled no new wells or sidetracks at either unit in 2015 and has no plans to do so this year, either.

Hilcorp conducted 11 workover projects at Duck Island between July 2015 and April 2016 and five workover projects at the Northstar unit over the same time. The company is proposing five projects at Duck Island and three at North Star over the coming year.

Duck Island oil production increased to 267,331 barrels per month from 258,350 barrels per month in 2015 and has produced 8,076 barrels per day, on average, in 2016. Northstar oil production decreased to 319,825 barrels per month from 328,019 barrels per month in 2015 and has produced 10,006 barrels per day, on average, in 2016, according to Hilcorp. ●

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LAND & LEASING

CINGSA mineral rights decision upheld

The Alaska Supreme Court has upheld a Superior Court decision affirming that the state of Alaska and Cook Inlet Region Inc. own the subsurface mineral rights for the Cook Inlet Natural Gas Storage Alaska facility on the south side of the city of Kenai. CINGSA operates the gas storage facility, which uses a depleted underground reservoir in the Cannery Loop gas field to warehouse gas for Southcentral gas and electricity utilities.

The city of Kenai, as owner of 576 acres of surface land over the storage facility, had claimed that it owns gas storage rights and is, therefore, entitled to payment for use of the land. The city argued that gas storage rights are different from the mineral rights associated with discovery and development of natural resources. After negotiations over the issue came to naught, CINGSA filed suit over the matter.

The Superior Court rejected the city's argument and confirmed that the state and CIRI, and not the city, own the subsurface storage rights for the CINGSA facility. The Supreme Court has now upheld that ruling.

—ALAN BAILEY

GOVERNMENT

MacKinnon: Proceed with caution

Eagle River Republican says Legislature must be careful with any changes to oil tax system so they don't set state back in long term

By STEVE QUINN
For Petroleum News

Senate Finance Committee co-chair Anna MacKinnon says oil tax debates are never easy. This year is no exception. With the Legislature mired in overtime trying to craft an oil tax credit bill that will establish stability and help the state chip away at a $4 billion budget deficit, MacKinnon says the debate requires measured discussion. The Eagle River Republican says lawmakers need to be careful that final decisions do not discourage investment and exacerbate problems already caused by a chronically depressed market. She shared her thoughts in an interview with Petroleum News.

Petroleum News: You closed out one of the recent Senate Finance hearings by giving every member on the committee a chance to weigh in on SB 130 and the broad issue of changing portions of the state's oil tax regime. The perspectives ranged from don't change anything to something definitely needs to change. It seemed to illustrate conflicting views even among a group in the majority, further demonstrating perhaps how complex this issue is. Is that an accurate assessment?

MacKinnon: Yes. I think it's important for people from different geographic regions to offer different perspectives so the people of Alaska know we are considering holistically this conversation about the place Alaska finds itself in — a $4 billion revenue shortfall as well as the majors who are trying to close their revenue shortfall. So in that hearing you're referring to, I asked my colleagues their perspective on the oil and gas bill before us.

Petroleum News: So what was your take from going around the table and getting their thoughts?

MacKinnon: You stated it fairly to say that there is a different perspective from different people throughout Alaska, from industry and from communities. So each of those interests are valid in the discussion. The views represented in Senate Finance reflect that diversity of views across the state of Alaska.

Petroleum News: You told people that it was not the committee's intent to go after the industry. Can you elaborate on that assessment?

MacKinnon: I don't recall the exact words, but we are in a $4 billion deficit and we are reviewing the foundation of state budgets and by budgets I mean different departments and how different departments are net takers of budgets, of resources, net receivers of revenues or net producers.

So if you look at DNR's budget, you look at an area where you invest money into a place where you've experienced large amounts of revenue from the work that's done there. We are trying to evaluate what any good board of directors would do, a return on investment.

In looking at ourselves as a corporation, a function of government, we are trying step back and see, if we were serving as a board of directors, what would be the best business decisions and how would you analyze those decisions. So that's what we were trying to do in the roundtable of the discussions.


ANNA MACKINNON

What the Finance Committee is trying to do is make sure we protect Alaska's interests. And those interests go for the individual people in the communities but they also go for the businesses who are working in our economy and providing revenue through taxation, through production or through other kinds of investment, resources for state government and resources for the state of Alaska.

We want to provide a stable environment. Like the companies who are bleeding red ink right now so is the state of Alaska. Our cash flow is in jeopardy. We have lots of money at least from my perspective when you talk about billions of dollars in your savings account.

But we are bleeding red also. We do not have revenue that will meet our current day-to-day operating expenses. Some will interpret that state government is too big, that it needs to be cut further, so we are going through a process that evaluates that, too. We need 11 and 21 — 11 Senate members and 21 House members — to come together in concert with the governor's blessing per se, an agreement that he doesn't veto it.

We have been making huge efforts along the way the last three years. We have proposed if not accomplished $1.5 billion in cuts. While our budgets are being cut, we recognize that bringing them down will take time and we are trying to do that strategically from the Senate's perspective.

Petroleum News: So what is your take on SB 130, the governor's version? There's an issues of credits and there's an issue with the 4 percent soft floor and the carry forward credits. First the credits, especially as you were on the working group during the interim.

MacKinnon: I sat on the working group, but I wasn't there all the time because Senate Finance had meetings during the interim. But I was there for multiple presentations about the health of the industry overall and how the investments were used by those working interests to benefit Alaskans as a whole.

This could benefit the Cook Inlet region in providing a stable flow of gas for that region at what some would say is a subsidized rate by that credit investment and how the lease holdings of the different projects they were working on were poised to set more gas into play for the people of Alaska or more oil into play.

Petroleum News: What do you think the Cook Inlet credits accomplished?

MacKinnon: We were going through brownouts several years ago. When I served on the Anchorage Assembly I was involved in conversations that we were looking at the contracts and the expiration of those contracts. During my several years of service until 2006, we were still talking about gas shortages on our horizon. The big issue for the people of the Railbelt, if you don't have the gas supply will it lead to importing natural gas and what can we do to prevent that importing.

We will be paying additional transportation charges. Other countries will get the jobs connected to that project. From an Alaska perspective being a resource rich state why would we start importing when we have the rocks to explore and create for ourselves that natural gas? That whole dialogue was happening in the 2005 era. Fast forward to 2010, there were three mayors involved when we started going from red light to green light to yellow light.

Green light meaning we have enough supply to operate our utilities and our energy systems businesses and our homes; yellow would be cautionary and we are probably in the winter months and there is a surge in the call for energy, specifically natural gas in homes, meaning there are lower temperatures outside and we need hydrocarbons to heat our homes.

Then we added brown and we didn't want to have brownouts where we would ask industry to shut down operations and the utilities to shut off turbines to create

see MACKINNON Q&A page 21

● ENVIRONMENT & SAFETY

Emission rules not needed

TransCanada, Imperial take issue with new climate change regulations by Alberta and Canada; Girling argues for pipeline exemption

By GARY PARK
For Petroleum News

TransCanada and Imperial Oil, two of Canada's largest energy companies, agree that a legislated limit on greenhouse gas emissions from the oil sands is an unnecessary part of climate change plans by the Canadian and Alberta governments.

Russ Girling, chief executive officer of TransCanada, said new federal requirements that take into account upstream emissions related to pipeline proposals are not needed.

He said oil and natural gas exploration and production projects are already subject to rigorous regulations, suggesting that regulatory reviews of pipeline applications should concentrate instead on safety and spill response measures, rather that dealing with issues that are not germane to pipelines.

"The emissions, both upstream and downstream, are reviewed in other regulatory processes, when those facilities themselves are approved," Girling told his company's annual meeting. "Once approved, all we do is move that product from A to B."

He said that the federal moves to expand reviews will eventually determine that building a pipeline does not have any impact on the rate of growth for oil and natural gas production or the downstream refining and processing of those resources.

But Girling said he hopes the efforts by the Alberta and Canadian governments to cap and lower carbon emissions will help reduce the public "noise" around the issue as it relates to pipelines.

Imperial has similar view

At Imperial's annual meeting, Chief Executive Officer Rich Kruger adopted a similar stand, although his concerns were more specifically directed at the Alberta governments plan to impose a C$30 per metric ton levy on carbon emissions.

When the plan was unveiled last November, Imperial pointedly refused to appear with other major producers — notably Suncor Energy, Cenovus Energy, Canadian Natural Resources and Royal Dutch Shell — in aligning themselves with Alberta Premier Rachel Notley.

"We didn't think the cap was necessary," he said. "The climate leadership plan in Alberta has many aspects, many of which we think are really good. The cap is not one of those."

Kruger said he believes there is room to negotiate with Alberta on rules around the 100 million metric ton per year emissions limit, of which the industry currently accounts for about two-thirds.

He said Imperial thinks there were other ways to improve environmental performance and, to that end, the company is working with the provincial government to "put the right regulations in place so industry overall can maximize production under the cap, achieve the objectives the government has set out and do it in a way that is acceptable to industry. So the message is: 'Stay tuned.'"

Otherwise, he said much has to be resolved on the proposed cap, including how projects that have already received regulatory approval will be treated.

Imperial's own initiatives include the use of solvent assisted technology to reduce GHG emissions below steam-driven facilities at its Cold Lake thermal recovery project in northeastern Alberta.

Imperial production in the first quarter averaged 421,000 barrels of oil equivalent per day, up 98,000 boe per day a year ago, which was accomplished while the company slashed its costs by C$1.5 billion without laying off a single employee. ●

Contact Gary Park through publisher@petroleumnews.com

● GOVERNMENT

Getting off 'crack cocaine'

Alberta forced to consider unthinkable, join rest of Canada with provincial sales tax; digs in against cuts to regain credit rating

By GARY PARK
For Petroleum News

As Alberta comes to grips with a new world that most observers doubt will ever again involve oil at US$100 a barrel, the province is figuring out how to cope with drastically reduced resource revenues that a former government treasury official described as "the crack cocaine of public finances."

In the process, the unthinkable is happening, with momentum building towards Alberta relinquishing its treasured place as the only one of Canada's 10 provinces not to have a sales tax.

Albertans still revel in paying only a federal Goods and Services Tax of 5 percent, a level matched only by the three territories — Northwest Territories, Yukon and Nunavut — where the cost of living is beyond the imaginations of those who live in southern Canada.

However, all nine other provinces have combined federal and provincial sales taxes at a minimum 10 percent, peaking at 15 percent for Nova Scotia, Newfoundland and Prince Edward Island.

Sales tax 'out of the question'

But even the mention of a sales tax is deemed "out of the question" by Alberta Finance Minister Joe Ceci, regardless of his pledge to restore Alberta's triple-A credit rating.

His only problem is the lack of any weapons when he wages battle with rating agencies.

"Frankly, I'm going to work, I'm going to fight to get (triple-A) back," he told Calgary business leaders.

But, in case that campaign fails, Ceci said he'd rather have a weaker credit rating than make "draconian" spending cuts to services to obtain a premium assessment.

"We are going to lay out our fiscal plan," he said. "We've got a good track record for the one year we've been in government. We've told (the rating agencies) what we will do and we've delivered on that."

However, Alberta is stuck with a projected C$10.4 billion deficit for 2016-17, while borrowing to cover operating and capital costs will raise the province's debt to C$58 billion in 2018, 10 years after it wiped out the debt.

As well, the left-leaning New Democratic Party government does not expect it will return to a surplus until 2024.

Ceci said he will not bend to any pressure from the rating agencies to accelerate the timeline for balancing the books.

Grim reality

However much the government digs in its heels, Alberta can't avoid the grimmest reality of all — its nonrenewable resource revenue is pegged at C$1.4 billion for the new budget year, accounting for only 3.3 percent of total revenue, compared with C$11.6 percent or 27 percent of the overall take in 2011-12.

It won't need any reminding that when the Alberta government of 20 years ago tackled its deficits and debt it embarked on sweeping public-sector job cuts and pulled hundreds of millions of dollars from health, education and social services.

Instead, Ceci said he will "bend the cost curve" rather

see **SALES TAX** page 8

● EXPLORATION & PRODUCTION

Conoco asks regulators for metering waiver

Greater Mooses Tooth unit won't have own production facilities; company requests custody transfer metering at Colville River unit

By KRISTEN NELSON
Petroleum News

Hydrocarbons produced at ConocoPhillips Alaska's proposed Greater Mooses Tooth 1 development in the National Petroleum Reserve-Alaska will not be processed at the unit, but instead shipped to the Alpine Central Processing Facilities. GMT1, the first drill site in the unit, will be 14 miles west of the Alpine facilities at the Colville River unit. Processing of crude oil off unit only occurs at one other development on Alaska's North Slope — Oooguruk oil is shipped to the Kuparuk River unit for processing.

Because processing would not be done at the unit, metering exceptions are required. At Oooguruk those were from the Alaska Oil and Gas Conservation Commission. At GMT1, because it is in NPR-A, metering exceptions are required from both AOGCC and the federal Bureau of Land Management, which manages NPR-A.

AOGCC heard metering waiver requests from ConocoPhillips Alaska at a May 3 hearing in Anchorage.

ConocoPhillips Alaska has applied for a waiver from commission regulations to allow for final custody transfer metering of hydrocarbons sold from the GMT1 to occur off unit and for the final custody transfer metering of gas sold from the Colville River unit to GMT1 to occur after the gas is severed from the Colville River unit.

At the May 3 hearing attorney Jon Goltz of ConocoPhillips told Commissioners Cathy Foerster and Dan Seamount that the arrangement was similar to that at Oooguruk, which also lacks its own production facilities.

Crude oil from Oooguruk is processed at the Kuparuk River unit. According to regulatory approvals the commission issued for Oooguruk it granted approval for the use of multiphase meters for well testing and production allocation within the Oooguruk unit and the use of multiphase meters to allocate production between Oooguruk and Kuparuk.

Goltz told the commission that GMT1 is a modest development which wouldn't on its own support production facilities. Because GMT is a federally administered unit, ConocoPhillips is working with both AOGCC and BLM for approval of the metering issues, he said.

Separation, recombination

Brandon Viator, project integration manager for GMT, said the proposed measurement design evolved through multiple discussions with stakeholders, including both state and federal agencies, and said the proposal allows a high level of measurement accuracy within a cost that allows GMT1 to remain viable.

Oil, gas and water would be separated and measured at GMT1 in a three-phase separator, recombined and then sent to Alpine. GMT1 production would be combined with production from the CD5 pad prior to reaching the Alpine Central Facility at the Colville River unit for processing, where they would be processed along with Colville River unit hydrocarbons, and the sales grade crude oil sold down the Alpine pipeline.

Water will be returned to GMT1 for injection. Fuel gas and lift gas would go from Alpine to GMT1 in one line and miscible injection gas would be sent in a second line. The gas streams would be measured at GMT1 and the water measured at the wellhead at GMT1.

Commission questions

Commissioner Dan Seamount asked Viator if the same approval would be requested when the Bear Tooth unit was developed. Bear Tooth is the ConocoPhillips NPR-A unit west of GMT. Viator said he couldn't say — that not enough work had been done at Bear Tooth.

Seamount also asked about a four-year delay which had been discussed if the proposed metering method were not approved, and Viator said GMT1 wouldn't proceed if agencies required production facilities at GMT. The four years, he said, was a reference to going back to the engineering phase and re-permitting the project, going back to the environmental impact statement.

Seamount then asked if ConocoPhillips would give up on the project if production facilities were required at GMT1 and Viator said yes.

Gas measurement

Commission Chair Cathy Foerster asked why gas was measured at GMT1 rather than at Alpine. Viator said the last T in the gas line was at CD5, which was a possible location for a meter, but because space was not planned for another module at CD5, it would be much simpler to have it in the design at GMT1. He said there would be no difference in accuracy.

Metering is an issue because GMT and CRU are separate units.

Foerster asked if ConocoPhillips had considered combining the two into one unit. Viator said the decision to have separate units was already made by the time the metering decision was made, and said, in response to a further question from Foerster, that he didn't know why the separate unit decision was made. She asked for background on that decision.

Foerster said the commission had required more economic analysis for Oooguruk and said the commission would keep the record open for answers to a number of questions, including a more detailed economic analysis, which she said would be treated as confidential. ●

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SALES TAX

than flatten it as he shows some compassion for people who are already hurting from a faltering economy.

Earlier this year, a group of 19 academics estimated that a 5 percent Provincial Sales Tax would generate C$5 billion a year.

A panel discussion at the University of Alberta in late April was unable to reach a consensus on whether a sales tax is unavoidable.

Debt servicing

But the participants largely agreed that projected borrowing of C$12.5 billion in 2018-19 could push debt servicing costs to C$2 billion a year, making it the fifth largest government expenditure.

Grant Robertson, a former deputy minister for the government's treasury board, said dependency on resource revenue has to end.

"It is really the crack cocaine of public finances," he said. "When you get it, you just get stupid."

Carmen McNary, from the Alberta Chambers of Commerce, chided the government for its tax-and-spend policies, suggesting that "somewhere in the middle is sensible policy."

He said a 3 percent cut for all government agencies would not be unreasonable, while suggesting the basic taxation Albertans face is "too generous."

Paige McPherson, of the Alberta Taxpayers Federation, said "corporate welfare" must also be addressed, arguing that "business should have to sink or swim on their own." ●

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ENVIRONMENT & SAFETY

En banc polar bear rehearing requested

Following a February court order by a panel of three judges from the United States Court of Appeals for the 9th Circuit, overturning a District Court decision rejecting the U.S. Fish and Wildlife's designation of critical habitat for the polar bear, the appellees in the case have filed a request for an en banc rehearing of the case. If granted, the en banc rehearing would have all of the 9th Circuit judges reconsider the case, rather than have the case decided by a three-judge panel.

Fish and Wildlife issued the critical habitat designation in November 2010, following the 2009 listing of the polar bear as threatened, under the terms of the Endangered Species Act. The designation covered a total area of 187,157 square miles, including a vast offshore area; barrier islands and spits along Alaska's northern coast; and polar bear denning habitat along Alaska's northern coast. Loss of sea ice resulting from global warming is thought to be the main threat to the bears.

Worried about the possible impact of the habitat designation on economic activity, a number of organizations including the Alaska Oil and Gas Association, the

see **REHEARING** *page 10*

● FINANCE & ECONOMY

EIA forecasts growth in US production

Projection for 2017 up 100,000 bpd from previous estimate on higher oil prices; April North Sea Brent up $3 per barrel from March

By KRISTEN NELSON
Petroleum News

Crude oil prices are rising along with the forecast for U.S. production, the U.S. Energy Information Administration said in its latest Short-Term Energy Outlook, released May 10.

The average price for North Sea Brent was $42 per barrel in April, up $3 per barrel from March, the agency said, attributing the price increase to improving economic data, growing supply disruptions, falling U.S. crude oil production and falling U.S. rig counts.

So where does the U.S. production increase come in? It's in the forecast for 2017.

"U.S. crude oil production in 2017 is expected to be more than 100,000 barrels per day higher than previously forecast in response to higher oil prices," EIA Administrator Adam Sieminski said in a statement.

EIA's forecast is for U.S. crude oil production to decrease from a 2015 average of 9.4 million bpd to 8.6 million bpd this year and 8.2 million bpd in 2017. That 2017 forecast is 100,000 bpd higher than the agency forecast in April because of expected higher crude oil prices.

Lower 48 onshore

U.S. crude oil production is estimated to have fallen by 700,000 bpd since last April to an average of 9 million bpd this April, with the entire decline in the Lower 48 onshore.

EIA said that based on its current oil price forecast it expects oil production to decline in most Lower 48 onshore regions.

"The expectation of reduced cash flows in 2016 and 2017 has prompted many companies to scale back investment programs, deferring major new undertakings until a sustained price recovery occurs," the agency said. The availability of capital for many smaller producers will likely be limited by the prospect of higher interest rates and tighter lending conditions, "giving rise to distressed asset sales and consolidation of acreage holdings by firms that are more financially sound," EIA said. That lower onshore investment is expected to reduce the rig count for oil drilling and well completions both this year and next.

Rig and well productivity are increasing and drilling and completion costs are falling, but EIA said despite those factors the price outlook is expected to limit onshore drilling and completions.

Baker Hughes' rig counts are continuing to decline and that "continues to limit EIA's forecast of future drilling and production through 2017."

Rapid production fall

EIA said U.S. crude oil production is projected to decline from 9.1 million bpd in the first quarter of this year to 8.1 million in the third quarter of 2017, a production level down 1.6 million bpd from April 2015, which saw the highest monthly production rate since April 1971.

The agency expects the most rapid production drop to occur between April and September of this year, with an average drop of some 160,000 bpd each month. Flat production is expected from October through July 2017, averaging some 8.2 million bpd.

EIA expects production to rise in late 2017, reflecting "productivity improvements, lower breakeven costs, and forecast oil price increases." The agency notes that its forecast "remains sensitive to actual wellhead prices and rapidly changing drilling economics that vary across regions and operators."

EIA expects production to rise in late 2017, reflecting "productivity improvements, lower breakeven costs, and forecast oil price increases."

Crude prices up

EIA said Brent crude oil prices are forecast to average $41 per barrel this year, rising to $51 in 2017. Both numbers are increases over the April forecast, a $6 increase for 2016 and a $10 increase for 2017.

The April average for the Brent crude oil spot price, $42 per barrel, was a $3 increase from March, the third consecutive increase in the monthly average and the highest monthly average for Brent so far this year, the agency said.

EIA cited several factors for upward pressure on crude oil prices in April: "improving economic data and related indications that global oil demand growth is accelerating; ongoing declines in the U.S. rig count and crude oil production; and growing oil supply outages."

An expected growth in global inventories will limit upward price pressures in coming months, EIA said, with Brent expected to average $42 per barrel in the second and third quarters, rising to $44 in the four quarter because of slowing global oil inventory growth.

The agency said it expects global oil inventory draws to begin in the third quarter of 2017, contributing to forecast rising prices, which are expected to accelerate later in 2017.

EIA said Brent crude oil prices are forecast to average $41 per barrel this year, rising to $51 in 2017.

The higher oil price forecast compared with April "largely reflects tighter market balances, particularly for the second half of 2017, based on a stronger outlook for global oil consumption," the agency said.

"Higher oil demand in China and India will contribute to a drawdown in global oil inventories during the second half of 2017," Sieminski said.

West Texas Intermediate is forecast to average slightly less than Brent in 2016 and the same as Brent in 2017. ●

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● EXPLORATION & PRODUCTION

Months of anticipation and excitement

Quarles characterizes the successful startup of ExxonMobil's Point Thomson field on the North Slope as a new legacy for the company

By ALAN BAILEY
Petroleum News

After the anticipation and excitement of the last few months, as the Point Thomson field on Alaska's North Slope moved towards production startup, initiating the flow of condensate into the field's export pipeline around noon on April 2 marked the beginning of a new legacy for ExxonMobil, Cory Quarles, the company's Alaska production manager, told a meeting of the Resource Development Council on May 5. The safe execution of the Point Thomson project and the company's $4 billion investment in the field demonstrates the company's full commitment to the economic development of resources on the North Slope, Quarles said.

JUDY PATRICK

CORY QUARLES

ExxonMobil publicly announced the field startup on April 22. Although initially only producing condensate, a mixture of low-density hydrocarbons, ExxonMobil anticipates the field, with about 8 trillion cubic feet of natural gas, to ultimately supply gas for a proposed gas export pipeline from the Slope, in a project called Alaska Liquefied Natural Gas, or AKLNG.

"Point Thomson marks the very first time that ExxonMobil has operated on the North Slope," Quarles said. "It established strategic infrastructure for future North Slope gas production."

The 11 million work hours that went into construction for the Point Thomson project did not result in any lost time incidents, a safety record that ExxonMobil plans to maintain, Quarles said. And the Alaska Oil and Gas Association has named Point Thomson as the project of the year for environmental stewardship and innovation, he said.

Condensate and gas

The Point Thomson field reservoir contains a mixture of condensate and natural gas at an exceptionally high pressure. Because the reservoir pressure must be maintained to prevent condensate dropping out of solution inside the reservoir, and hence degrading the condensate production at the surface, gas at high pressure has to be continuously cycled through the reservoir using an appropriate configuration of injection and production wells. For initial production, ExxonMobil is using two injection wells, drilled from the field's central pad, and a single production well on the west pad.

Because the reservoir extends beneath the waters of the Beaufort Sea, the wells have had to be drilled directionally from onshore to strategic points within the reservoir. The need for directional drilling into such a high pressure reservoir has compounded the technical difficulty of developing the field.

The initial field configuration has been designed in expectation of producing about 10,000 barrels of condensate per day. If the field is expanded for gas production that volume would presumably increase, although the efficiency of condensate production would decrease as gas production takes its toll on the reservoir pressure.

Quarles said that, recognizing that 10,000 barrels per day of condensate production is not the end game for the field, ExxonMobil built the field's condensate export pipeline with a maximum capacity of 70,000 barrels per day.

Three factors

Quarles said that there are three factors underpinning success at Point Thomson: technology, people and the company culture.

From the perspective of technology challenges, Quarles particularly homed in on the field's exceptional 10,000 pounds per square inch reservoir pressure, a pressure that he said corresponded to the effect of an elephant standing on the end of someone's thumb. That reservoir pressure is the highest in ExxonMobil's global portfolio, and probably the highest of any producing field in the world, he said. And, to re-inject gas back into the reservoir, it is necessary to compress the gas to more than 10,000 pounds per square inch, he explained.

Technology also plays a significant role in environmental protection at Point Thomson. Having, for example, consulted with the nearby community of Kaktovik, ExxonMobil has implemented a system for the satellite image surveillance of caribou, rather than using low flying aircraft for this purpose. The local people were concerned about the potential disturbance caused by aerial surveys, Quarles said.

"To our knowledge this is the first time that satellite imaging has been used to monitor caribou on the North Slope," Quarles said.

People and culture

Likening the Point Thomson team to a second family, Quarles emphasized the importance of people in overcoming the field's technical challenges and in efficiently bringing the field into production. The majority of both the construction team and the field's operations team consist of Alaskans, he said. After sending the operations team for training at ExxonMobil facilities in the Lower 48, Quarles received feedback that this was the best group of new hires that the trainers had ever seen, he said.

And company culture forms the glue holding the company family together, Quarles said. ExxonMobil's culture is rooted in the company's Operations Integrity Management System, a system born from the learnings from the Exxon Valdez oil spill in 1989.

"It sets very clear and high expectations for things that matter most, and that's keeping people safe and protecting the environment," Quarles said.

Within ExxonMobil people hold each other accountable, to make sure that everyone does what they say they will do and that they place the highest value on risk management, he said.

The AKLNG project

Quarles also talked briefly about the AKLNG project, re-iterating that ExxonMobil does not see the $4 billion that the company has spent on the Point Thomson field as being the end game for the field. With an estimated $45 billion to $65 billion price tag, AKLNG would be the largest investment of its kind in U.S. history — Point Thomson is a pre-investment in major natural gas sales from the North Slope, he said. AKLNG is currently pressing ahead through its pre-front end engineering and design phase, prior to making a decision on whether to proceed to the massive expense of engineering and design. A current focus is investigating options to reduce project costs, to make the project more competitive with other LNG projects globally, Quarles said.

The timing of the AKLNG project depends on three major drivers: the need to beat the market, the cost of the LNG supply and fiscal stability, he said.

The best option

Asked what would happen to Point Thomson if the AKNLG project does not move forward, Quarles said that, while AKLNG represents the best option for the field, there are other options, which are being evaluated.

Asked a similar question during an ExxonMobil earnings call on April 29, Jeff Woodbury, vice president of investor relations, said that ExxonMobil takes a long term perspective and has "a constructive view" of what gas will do over time. The company is confident that Alaska gas will be commercialized at some point, although the means of doing that may vary from what is currently being considered, Woodbury said. ExxonMobil has been active with its partners in identifying the highest value opportunity that can compete globally. Putting in place a transparent, predictable and stable fiscal structure will be critical in underpinning such a significant investment, he said. ●

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REHEARING

American Petroleum Institute, Arctic Slope Regional Corp., the state of Alaska and the Inupiat Community of the Arctic Slope appealed the designation in federal District Court in Alaska. In 2013 the District Court rejected the designation, saying that Fish and Wildlife's designation of onshore tracts was too broad and only included small areas with habitat features.

The 9th Circuit order in February overturned the District Court decision, saying that the federal agency had correctly identified areas that contain the constituent elements for polar bear survival.

In requesting an en banc rehearing, the appellees now say that the 9th Circuit's order is contrary to established precedent for the court for the review of Endangered Species Act agency actions; and that the order relied on invalid reasoning for where the critical habitat is located.

—ALAN BAILEY

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NORTH OF 60 MINING news

page 13 Constantine, Dowa aim to drill more VMS deposits at Palmer

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of May 15, 2016

NEWS NUGGETS

Compiled by Shane Lasley

SHANE LASLEY

This core is from a 17.3-meter section of a hole drilled in the Peak Zone at Tetlin in 2012 that averaged 21.78 grams per metric ton gold, 7.4 g/t silver and 0.319 percent copper. By comparison, the 2016 winter program cut longer sections of higher grades at the nearby North and Connector zones.

Tetlin drilling finds Connector; could link North, Peak deposits

Contango ORE Inc. May 5 posted results from the first-ever winter drill program carried out on the Tetlin properties near Tok, Alaska. Peak Gold, a limited liability joint venture managed by a subsidiary of Royal Gold Inc., invested roughly US$1.9 million in this initial 2016 program focused on exploring at and around the Peak Zone gold deposit at Tetlin. A 2014 resource for the Peak Zone outlines 6 million metric tons averaging 3.46 grams-per-metric-ton gold, 11 g/t silver and 0.25 percent copper. Additionally, the skarn deposit has an inferred resource of 3.9 million metric tons averaging 2.07 g/t gold, 14.28 g/t silver and 0.23 percent copper. Using a single rig, the road-supported winter program completed 4,040 meters of diamond core drilling in 19 holes at the North Peak, West Peak, Two O'clock and Connector zones, all near the Peak Zone. The North Zone, not included in the resource but extensively drilled in 2015, continues to return good results. TET16192 cut six mineralized intercepts at North zone, including 13.27 meters averaging 49.19 g/t gold, 4.5 g/t silver and 0.035 percent copper from a depth of 78.5 meters; TET16204 cut three mineralized intercepts at North Zone, including a silver-rich 1.82-meter zone averaging 16.34 g/t gold, 328.4 g/t silver and 0.157 percent copper from a depth of 60.95 meters; and TET16206 cut 43.43 meters at the North Zone averaging 3.6 g/t gold, 2.08 g/t silver and 0.108 percent copper from a depth of 78.5 meters. TET16210, drilled about 200 meters southeast of North Zone and 200 meters northeast of Peak Zone, is of particular interest. This final hole of the winter program cut two mineralized intercepts, including 43.96 meters averaging 3.28 g/t gold, 30.6 g/t silver and 0.402 percent copper. Drilled in an area now know as Connector, TET16210 shows the potential to link the Peak and North zones, which would significantly expand the footprint of the skarn deposit(s) identified. "The winter drilling program was successful in expanding the known limits of both the Peak and North Peak zones, and perhaps most importantly found new, significant mineralization in its first drill hole in the Connector Zone that may lead to a better understanding of the relationship between Peak and North Peak and possible further expansion of the mineral system," explained Contango ORE President and CEO Brad Juneau. "It was previously thought that the Peak and North Peak areas were separate zones, but the mineralization found at the Connector Zone (Hole 16210) more than 200 meters from the nearest existing known mineralization at Peak-North Peak may be part of a single, larger gold system." A summer drill program is slated to begin in mid-May as follow-up to the winter drill results and to test previously undrilled areas. Details of the summer program are anticipated in the coming weeks. Under a deal signed in early 2015, Royal Gold can earn up to a 40 percent interest in the Peak Gold JV by

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LAND STATUS

Bad faith in Fortymile

Federal judge slams BLM for reckless, frivolous claims to Mosquito Fork

By SHANE LASLEY

Mining News

U.S. District Court Judge Sharon Gleason slammed federal attorneys representing the U.S. Bureau of Land Management for acting in "bad faith" while stalling the resolution of Alaska's ownership of lands under the navigable Mosquito Fork in the Fortymile Mining District.

Alaska, like all other states in union, owns the beds of navigable waters within its borders. This state ownership of these important trade transportation routes is protected by the United States Constitution. While the last bastion of dispute over states' ownership of navigable waters was settled nearly four decades ago, Alaska and federal land managers continue to wrangle over the navigability and therefore ownership of thousands of miles of waterways in the state.

The case, decided on May 4, considered Alaska's argument that the U.S. Department of Justice attorneys representing BLM put forward frivolous arguments and employed delay tactics that ran up the costs in preparation for a trial that they pulled out of at the last minute.

The federal judge agreed with the State on most of the points; however, she found one aspect of the federal attorney's tactics particularly troubling.

"(T)he United States' refusal to follow (U. S.) Supreme Court and Ninth Circuit (Court of Appeals) precedent greatly increased the length of this case and its burden on the state. Accordingly, the court finds that … it acted in bad faith," Gleason wrote in a 22-page ruling.

Frivolous arguments

Since filing litigation over ownership of Mosquito Fork in 2012, Alaska carried out and documented a thorough investigation of the navigability and historic use of the river, accruing an estimated US$750,000 in attorney fees.

"We spent considerable time, money and effort in hopes of getting a precedent-setting ruling on the important issues of navigability in the state," Brent Goodrum, director of the Division of Mining Land & Water, Alaska Department of Natural Resources, told Mining News.

Alaska, however, never got its day in court. In July of last year, a day before oral arguments were to begin, BLM abandoned its claim to the disputed Mosquito Fork.

By turning Mosquito Fork over to Alaska before being forced to by the court, BLM's attorneys avoided a potential precedent-setting case.

While the timing of the concession was suspect, Judge Gleason's bad faith ruling was based on the Department of Justice attorneys' "frivolous" argument that only commercial use of a waterway could be considered when determining a river's navigability.

Citing other cases both in and out of Alaska, the district court judge determined that the federal government's position "is at odds with both Ninth Circuit and the Supreme Court precedent" and "these frivolous arguments were at least recklessly, if not knowingly, raised."

Upon finding bad faith, Gleason ordered the U.S.

ROCKY WEBER

In preparation for a trial to prove that Mosquito Fork is navigable and therefore is owned by Alaska, state officials conducted field surveys in 2012 of this 80.5-mile-long stretch of river that runs through the heart of the Fortymile Mining District.

government to reimburse Alaska's attorney fees, which could be north of US$1 million once the additional costs of getting the reimbursement is tacked on. This does not include the money the federal government spent to block Alaska ownership of Mosquito Fork, all of which is funded by U.S. taxpayers.

While the money is important, especially during the current budget shortfalls in Alaska, Goodrum believes that a federal judge ruling that BLM and federal attorneys inappropriately ignored precedent may be the most critical aspect of the case. He is optimistic that this will open doors to a more cooperative and efficient means for the Alaska and federal governments to resolve navigability issues going forward.

"My hope is after this decision we can have real and meaningful discussions about how we better work this process so that it is clear to everyone who owns those submerged lands beneath navigable water bodies," he said.

Alaska Attorney General Craig Richards agrees.

"This decision sends a strong message to the federal government that they need to come to the table and work with the State," he said.

Beyond Fortymile

The resolution of ownership of the 80.5-mile stretch of Mosquito Fork was good news for placer miners with claims on this river that runs through the Fortymile, a mining district that has been continually mined since gold was discovered in its streams in 1886.

Alaska had granted state mining claims on the disputed section of Mosquito Fork. But BLM also claimed ownership of the bed of the river, and threatened to arrest and criminally prosecute anyone mining in the disputed section of the river.

"You don't want someone who is working a project with state authorization having to worry about federal prosecution for doing those authorized activities," Goodrum said.

With at least 3,834 miles of Alaska rivers and 42,488 acres of Alaska lakes in active dispute, the ownership issue extends well beyond the Fortymile District.

This could be especially onerous for a project like the hoped-for natural gas pipeline, which would cross numerous rivers on the roughly 800-mile stretch between Alaska's North Slope and Kenai Peninsula.

When asked if the precedent set in Gleason's rul-

see **FORTYMILE** *page 13*

NORTHERN NEIGHBORS

Compiled by Shane Lasley

Skeena to add resource, test new Spectrum targets

Skeena Resources Ltd. May 9 unveiled plans for a 10,000-meter drill program this year at its Spectrum gold-copper project in northwestern British Columbia. Roughly 6,000 meters of this drilling will focus on expanding the Central Zone, which hosts 8.95 million metric tons of indicated resource averaging 1.04 grams per metric ton (290,000 ounces) gold, 6.58 g/t (1.82 million oz.) silver and 0.11 percent (20.835 million pounds) copper. Additionally, the deposit hosts 22.63 million metric tons of inferred resource averaging 1.03 g/t (750,000 oz.) gold, 3.85 g/t (2.8 million oz.) silver and 0.11 (54.89 million lbs.) copper. Skeena said a review of the drilling it completed last year along with historical drill results indicates that a newly recognized panel of porphyry gold-copper mineralization partially overlaps and occurs west of the Central Zone resource and is open to the west, south and north. "We believe there is tremendous potential to increase the maiden resource we announced at Spectrum on April 25, 2016," said Skeena President and CEO Walter Coles Jr. "We now have a better understanding of the geological controls, and therefore believe that we should be able to add ounces much more efficiently this season compared to 2015." Outside of the Central zone, the company has completed a property-wide compilation of drill, trench, prospecting and soil results. This effort outlined several promising areas with potential for building additional high-grade and bulk tonnage resources. Up to 4,000 meters of drilling is planned to target some of these outlying prospects. High-priority exploration targets include: 300 Colour Zone, a strong gold-in-soil anomaly where one hole drilled last year cut 52 meters grading 1.15 g/t gold; Road-Boundary, an area about 125 meters east of Central Zone where a 2015 drill hole cut 1.14 meters grading 10.5 g/t gold; Fog, a soil anomaly in the western part of the property where one historic hole cut 40.8 meters grading 1.03 g/t gold; and the Far West copper-molybdenum soil anomaly. In additional to drilling, Skeena will complete additional bench-scale metallurgical studies; baseline environmental and archaeological studies; and permitting and engineering studies to support future economic and technical evaluations. Community outreach has begun on the company's projects, which are all located in the traditional territory of the Tahltan First Nation.

New Northwest Territories diamond mine nears

Mountain Province Diamonds Inc. May 9 reported that development of the Gahcho Kué diamond mine in Northwest Territories is roughly 94 percent complete and on track for first production during the second half of 2016. Mountain Province President and CEO Patrick Evans said, "Mechanical completion has been achieved at the process plant and truck shop, and we are on schedule to achieve mechanical completion of the primary crusher during the current quarter. Key areas of focus are commissioning of the diamond process plant, remaining earthworks, pre-stripping and stockpiling of kimberlite as well as preparations for operational readiness." Gahcho Kué – a joint venture between De Beers Canada (51 percent) and Mountain Province Diamonds (49 percent) – is anticipated to produce 53.4 million carats of diamonds over a 12-year mine-life, according to a 2014 feasibility study.

Strategic phase 1 work seeks Yukon drill targets

Strategic Metals Ltd. May 10 reported a budget of C$820,000 for an initial phase of field work at some of its precious metal projects in Yukon Territory. The program will systematically advance high-grade discoveries made in

see **NORTHERN NEIGHBORS** *page 13*

Petroleum news

North of 60 Mining News is a weekly supplement of the weekly newspaper, Petroleum News.

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● OPINION

Alaska's future may yet be rewritten

The November election could impact the interminable contention Alaskans face in securing the right to cross and use federal lands

By J. P. TANGEN

Special to Mining News

Three score and a bunch of years ago, when I was just a lad, the coal man delivered coal to our house, the iceman brought the ice and the milkman brought the milk. In those days milk was not routinely homogenized, so at the top of each bottle was a layer of cream which was set aside for my mother's coffee. I still think the homogenization of milk is the primary cause of obesity in the United States today. I remember liking Ike, but I would have to Google it to recall whom I didn't like. As it happened, Ike was a philanderer who had no formal experience as a politician and when elected to be President of the United States, he spent his time worrying about the "Military-Industrial Complex." The Republic somehow survived.

Today, we apparently are about to be confronted with a choice between an experienced politician on the one hand and a political novice on the other. Due to some crazy notion about time zones, Alaskans won't get to vote until almost everyone else in the queue, so our votes will have virtually no impact on the outcome of the race. Once again, Alaska will be the political tail on the national pig, and our fate is in the hands of others.

We know what has happened at the hands of the federal government incessantly since statehood. First, we had to fight vigorously to become a state because statehood intimated two more Democratic senators in Congress. The saving grace at the time was that Republican Hawaii could be also admitted, so that would expand the Senate by two Republicans. Nonetheless, there was serious pushback on questions such as how much of the Territory of Alaska should be included in the new State. The more expansive inclusion turned on the realization that our existence depended upon the successful development of our gold, oil, fish and trees.

Statehood brought an entitlement to all of the adjacent submerged lands as well as innumerable trails and rights-of-way throughout a vast roadless area, flush with opportunities and harsh beyond measure. Prospectors and adventurers alike fanned out across the area seeking their fortunes by providing needed commodities and opportunities. Their access, however, has been routinely foiled, not by the concept, but by definitions of which waterways fit the definition of "navigable" and when specific trails were in place.

Unfortunately, statehood did not resolve Alaska Native land claims, so an additional 40-million-acre chunk of Alaska was carved out to resolve that problem. The good news was that the land went to essentially private entities,

Mining & the law

J.P. TANGEN

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frequently motivated to develop the entrained resources responsibly. The bad news is that the United States retained dominion over the remaining lands in the State. The bulk of that domain was dispersed among four autocracies with unrestrained access to the national treasury and staffed with under-tasked minions who take great pleasure in ensuring that Alaskans are precluded from doing things on land that should belong to Alaska, but somehow does not.

This deranging by our absentee landlord has been ongoing since statehood, at an increasing rate and through successive administrations, without regard to the race, creed or gender of the President. There is no end in sight. Neither of the leading candidates for the White House at this point has offered any comforting words. Former Secretary of State Hillary Clinton, if elected, may reasonably be expected to extend the incumbent's Alaska policies for another quadrennial or two; whereas the Republican contender may simply allow the agencies to continue running amuck for want of an interest in the problem.

One solution that has been posited is to find the way to cause the United States to devolve jurisdiction over federal lands within the state to the State. Such devolution has occurred elsewhere with apparent success. Notably, the concept of local administration over the affairs of the nation has long been part of our national philosophy; witness the constitutional commitment to a federal form of government and the Tenth Amendment, reserving powers not delegated to the states or the people.

The concept of demanding that the United States convey federal lands to the states wherein the lands are situated has been contemplated for many years, not only by Alaskans but also by other states across the West. Without suggesting here how that result might be accomplished, and the implications of success, it appears that the notion of conveyance of public land to the states is gaining traction.

Or perhaps, the cream may float to the top of the bottle once more. ●

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NEWS NUGGETS

2015. Upon receiving phase-1 results, Strategic will consider a second phase of diamond drilling program at one or more properties. At the road-accessible Hopper property, heritage studies and road construction will be undertaken along the up-dip extension of a new gold-rich skarn horizon. The only two drill intercepts from this 2015 discovery – one meter of 43.6 grams per metric ton gold and 2.65 meters of 12.15 g/t gold – are located 367 meters apart and roughly 400 meters from the surface. A new road will allow systematic drill testing with relatively short holes. Hand-trenching at the Hartless Joe property will be focused on expanding a 2015 outcrop discovery where a continuous chip sample returned 60 g/t gold, 554 g/t silver, 5.01 percent lead and 0.35 percent copper over 1.2 meters This isolated outcrop is located in an otherwise overburden-covered area where float samples have returned up to 73 g/t gold. The primary target at this property is an Eskay Creek-type exhalative horizon. Work is also planned at 10 of Strategic's other projects, including the OOO property in the Dawson Range gold belt; and the Rod property within the western part of the Rackla Trend. Strategic has received, or applied for, land use approvals that will permit advanced exploration activities at 24 of its precious metal projects in Yukon. The approvals contemplate tens to hundreds of drill holes and other related work at each project. These approvals will allow Strategic or optionees to rapidly advance promising discoveries.

Kaminak de-risks Coffee; revives exploration roots

Kaminak Gold Corp. May 5 posted a C$29 million budget for the 2016 program at its Coffee Gold project in Yukon Territory. Nearly half of the 2016 budget (C$13.9 million) has been allocated to mine permitting; another C$6.2 million will be spent on pre-development and advanced engineering; and C$5 million has been earmarked for exploration. The remaining funds will be set aside for general and administrative expenses, marketing and the opening of offices in Whitehorse and Dawson City. A January feasibility study for Coffee indicates the C$317 million open-pit, heap-leach gold project would repay capital in two years and produce 184,000 ounces of gold annually over a 10-year mine life at all-in sustaining costs of US$550/oz. Kaminak expects mine permitting to start in the third quarter, with the goal of receiving all permits required to begin construction at Coffee by the second half of 2018. Anticipating a roughly 18-month construction period, the company hopes to produce first gold at Coffee by year's end 2019. Significant resource expansion potential remains both proximal to the main resource area and across the 150,000-acre Coffee property. A C$2.6-million initial phase of drilling focused on testing new targets and expanding previously drilled nearby discoveries, but not included in the current mine plan, will begin in the coming weeks. Priority targets include step-out drilling on known gold-bearing structures such as Supremo T3, which contributes more than one million ounces to the proposed Coffee mine plan and remains open along strike and to depth. Proceeds of C$14.4 million from the exercise of 13,719,512 warrants issued as part of an October 2015 private placement will provide Kaminak with sufficient capital to carry out its 2016 work plans and end the year with roughly C$9 million. "Initiating the permitting process for our first gold mining opportunity remains a top priority, but exploration to realize some of the significant resource expansion potential that exists proximal to the main resource area and regionally within the under-explored Coffee gold district, is also an important theme. We are excited to be getting back to our exploration roots and focused on making new gold discoveries in 2016," explained Kaminak CEO Eira Thomas. ●

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NORTHERN NEIGHBORS

investing up to US$30 million in the Tetlin project by October 2018. Of this amount, Royal has contributed US$8.4 million to Peak Gold, of which US$1.8 million was held in cash equivalents at March 31.

Milder winter weather equals more gold at Fort Knox Mine

Kinross Gold Corp. May 10 reported that its Fort Knox Mine near Fairbanks, Alaska, produced 87,800 ounces of gold during the first quarter, compared with 82,673 oz. during the first three months of 2015. The company attributes the 5,127-oz. increase to improved mining and heap leach operations due to mild weather. The per-ounce cost of Fort Knox gold sold during the quarter was US$705, compared with US$672 during the same period last year. Kinross said the five percent cost hike is due mainly to increased usage of re-agents and additional labor needed to stack more ore on heap leach pads.

SuperLig stage one a success, pilot plant creates pure REEs

Ucore Rare Metals Inc. May 9 reported that the SuperLig-One rare earth element separation pilot plant has successfully created 99 percent pure rare earths from a pregnant leach solution derived from the company's Bokan-Dotson Ridge project in Southeast Alaska. SuperLig-One, designed and constructed by Utah-based IBC Advanced Technologies Inc., utilizes a highly-selective process known as molecular recognition technology to isolate rare earth elements suspended in a solution. During the initial stage of testing the pilot plant, the suite of rare earths contained in the pregnant leach solution was separated from non-REE constituents such as iron, thorium, uranium, zinc, copper, nickel, titanium, zirconium, and other trace base metals. Ucore says this early removal of impurity metals distinguishes SuperLig-One from less selective legacy technologies such as solvent extraction and ion exchange, which require multiple separation stages downstream in order to achieve the same purity levels obtained by SuperLig. In the process of removing impurities, the pilot plant retained more than 99 percent of the rare earths in the solution, leaving essentially all of the rare earths originally present in the solution available for the next steps of separation. The next stages of operation consist of running the pure REE solution sequentially through each unit operation in the plant to separate out scandium, a highly valued REE used in advanced aluminum alloys for the aerospace sector, then light and heavy rare earths and finally, heavy rare earths into individual critical REEs. Upon completion of these four stages, the pilot plant is expected to produce terbium and europium that exceeds 99 percent purity and dysprosium at 99.99 percent purity. The remaining solutions containing heavy and light REEs will be retained for future separations. After confirmatory testing of each stage of operation, the plant will undergo a continuous run of rare earth-bearing solution.

Partners seek new VMS deposits, prepare to extend road at Palmer

Constantine Metal Resources Ltd. May 9 outlined plans for a US$3.7 million work program at the Palmer volcanogenic massive sulfide project in Southeast Alaska. This work will include a drill program to test several exploration targets located within a 3,000-meter radius of the resource identified in the RW and South Wall zones of the Glacier Creek deposit. In 2015, Constantine published an inferred resource of 8.125 million metric tons averaging 1.41 percent (252.6 million pounds) copper, 5.25 percent (940.4 million lbs.) zinc, 0.32 grams per metric ton (83,600 ounces) gold and 31.7 g/t (8.3 million oz) silver for the RW and South Wall zones. An initial 1,700-meter drill program scheduled to begin in early July will target new deposits in proximity to the existing resource and infrastructure. "We remain focused on steadily advancing the high-grade RW and South Wall resources that are open to expansion in multiple directions. We are also very pleased to begin testing some of the other high-quality prospects at Palmer, several of which are precious metals rich," Constantine President and CEO Garfield MacVeigh explained. In addition to drilling, the company intends to build a 2.5-mile road to the resource area at Palmer, pending approvals of permits for the construction. At the end of April, the U.S. Bureau of Land Management opened a 30-day public review and comment period on an environmental analysis for Constantine's proposed plan to build the road, after which the federal agency will make an approval determination. Environmental, geotechnical and engineering studies and evaluation of a potential exploration drift for the purpose of underground drilling of the deeper portion of the existing resource also will continue this year. The 2016 program at Palmer is being funded by Dowa Metals & Mining Co., which can earn 49 percent interest in the VMS project by investing US$22 million over four years. To the end of 2015, Dowa has spent roughly US$16.2 million on the project and has indicated its intent to earn a 49 percent interest by the end 2016. Any unspent funds at year's end will be deposited in an account to cover initial joint venture cash calls. Following formation of the JV and use of any carry-over funds, Constantine and Dowa will fund the project in proportion to their ownership interest. ●

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FORTYMILE

ing opens the door for resolving state ownership of large blocks of Alaska rivers with disputed navigability but with similar traits as Mosquito Fork, Goodrum said, "It is beyond time for us to have those discussions; let's describe the box (physical characteristics) that defines navigability within the state." ●

● NATURAL GAS

British Columbia's LNG teeter-totter

Petronas holds out hope of Pacific NorthWest FID this year; Shell juggles LNG Canada with two proposals for United States

By GARY PARK

For Petroleum News

In British Columbia's LNG major league, it's a case of one franchise hoping for survival and one loosening its grip.

The Pacific NorthWest project led by Malaysia's Petronas is counting on final regulatory approval this fall leading to corporate sanctioning after more than three years of being subjected to review.

But Royal Dutch Shell doubts its LNG Canada proposal will make a final investment decision this year as the supermajor gives priority to two other LNG projects in the United States as well as a chemical plant in Pennsylvania.

For Pacific NorthWest, the finish line is in sight as the proponent submits its plans to build infrastructure at the tanker terminal and liquefaction plant site near Prince Rupert.

Federal Environment Minister Catherine McKenna said that if the Canadian Environmental Assessment Agency issues a go-ahead for the project she will ask the federal cabinet to start its designated 90 days of discussions on whether to approve the C$11.4 terminal construction.

Martin King, a vice president at FirstEnergy Capital, said that given the global slump in LNG prices, there is a "growing possibility that no LNG projects (in British Columbia) will get a final investment decision this side of 2020."

Science answers

Pacific NorthWest director Michael Cuthbert told the Globe and Mail the consortium is confident it has final stages of dealing with information requests.

"Let science answer the questions," he said. "We've gone through a rigorous assessment process."

If the cabinet gives the green light, Pacific NorthWest can potentially make its final investment decision in September along with its partners from China, Japan, India and Brunei.

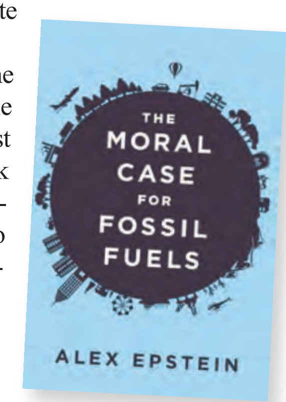
In a recent survey of 1,000 British Columbians commissioned by Pacific NorthWest, 63 percent supported the proj-

see TEETER-TOTTER page 16

ASSOCIATIONS

Fascinating agenda set for AOGA 50th

The Alaska Oil & Gas Association's 50th anniversary celebration on May 25 at the Dena'ina Civic & Center in Anchorage is packed with interesting speakers, awards and last, but not least, a debate on the morals of fossil fuels at 3:30 p.m. between Alex Epstein and the University of Alaska Anchorage's debate team, which is followed by a 4:30 cocktail reception.



"The debate will be lively, as Eric Epstein, author of The Moral Case for Fossil Fuels, is exceedingly knowledgeable and can take apart — with facts — any argument against the use of oil and gas," industry photographer Judy Patrick told Petroleum News. "I think the book should be mandatory reading for anyone in the industry because we need to let others know of the benefits of fossil fuels and quit apologizing for extracting it!"

AOGA's anniversary celebration opens with a breakfast buffet at 7 a.m., followed by a global perspective on energy panel discussing where Alaska fits in. Panelists are Jim Musselman, Caelus Energy president and CEO, and Andy Hopwood, BP's chief operation officer of upstream region and strategy.

At 9: 30, Ed Goeas, president and CEO of The Tarrance Group, Celinda Lake, president of Lake Research Partners, and Matt Larkin of Dittman Research discuss "petroleum and politics, can energy policy be bipartisan?"

A legislative update is scheduled at 10:30.

Atul Arya, IHS senior vice president, energy insight, is the keynote speaker at an 11:30 luncheon; Gov. Bill Walker will offer some remarks.

Next, at 1:30, is an Arctic opportunities presentation. Speakers are Thomas Mack, president of Aleut Corp.; Matt Ganley, VP of media and external affairs for Bering Straits Native Corp.; and Hugh Short, president and CEO of Pt Capital. Moderator Tara Sweeney is chair of the Arctic Economic Council.

"Polar bears, sage grouse, and lesser prairie chickens, oh my! The science and law behind the Endangered Species Act" is next at 2:30, with Jeff Leppo, managing partner for Stoel Rives.

Throughout the day AOGA awards will be handed out, starting with Contractor of the Year for Safety Performance to Pacific Rim Logistics; Project of the Year for Environmental Stewardship and Innovation to ExxonMobil's Point Thomson project (see related news item in this issue); Marilyn Crockett Lifetime Industry Achievement to Kevin Tabler of Hilcorp Alaska; and Rising Star to Sterling Reardon of BP Alaska. An AOGA scholarship to the University of Alaska will be awarded to East Anchorage High School student Erica Williams.

—KAY CASHMAN

GOVERNMENT

F&W names new Alaska regional director

The U.S. Fish and Wildlife Service has appointed Gregory Siekaniec as the agency's regional director for Alaska. Siekaniec, who previously served the agency as deputy director for policy until 2012, is returning to the agency after working as CEO of Ducks Unlimited Canada, a prominent Canadian conservation organization.

"Greg Siekaniec has been an outstanding conservation leader throughout his long career in the Fish and Wildlife Service, and we're fortunate to have him returning to the agency to lead our Alaska Region," said Dan Ashe, director of the Fish and Wildlife Service, when announcing the appointment. "Greg spent much of his career as a refuge employee and manager in Alaska, and he's intimately familiar with the region's outstanding employees and incredible conservation work."

Siekaniec spent eight years as refuge manager of Alaska Maritime National Wildlife Refuge before becoming chief of the National Wildlife Refuge System between 2009 and 2011. As regional director in Alaska, Siekaniec will oversee the national wildlife refuge system in the state, including the Arctic National Wildlife Refuge, the Yukon Flats National Wildlife Refuge and the Kenai National Wildlife Refuge.

—ALAN BAILEY

ASSOCIATIONS

Exxon's Pt Thomson development wins AOGA 2016 project of the year award

The ExxonMobil-operated Point Thomson development won the 2016 project of the year for environmental stewardship and innovation from the Alaska Oil and Gas Association.

According to statements issued by AOGA and ExxonMobil in early May, the award will be accepted by Point Thomson senior management at AOGA's 50th anniversary celebration and conference at the Dena'ina Center in Anchorage on May 25.

"This award recognizes more than 100 Alaska companies and thousands of Alaskans who helped build this project," said Gina Dickerson, senior project manager.

The Point Thomson field's initial production system, designed to cycle 200 million cubic feet of natural gas and produce 10,000 barrels per day of natural gas condensate, establishes infrastructure for future gas development on the North Slope.

Throughout development, environmental excellence was a priority, including implementation of an innovative wildlife mitigation plan, unique design elements such as a non-glare pipeline jacket to reduce visibility, and its close working relationship with the local community of Kaktovik.

ExxonMobil also minimized Point Thomson's environmental footprint by using long-reach onshore drilling to access the offshore resource, as well as adopted a module barge and near-shore bulkhead system to eliminate the need for a causeway.

"We recognize that we are guests on the North Slope, and as such, we operate with deference to the environment and communities around us," said Cory Quarles, Alaska production manager for ExxonMobil.

Point Thomson, which started operations in April, is 60 miles east of Prudhoe Bay and 60 miles west of Kaktovik. The reservoir holds an estimated 8 trillion cubic feet of natural gas, which represents about 25 percent of the known gas reserves on the North Slope.

—PETROLEUM NEWS

EXPLORATION & PRODUCTION

Commission OKs Beaver Creek pool

The Alaska Oil and Gas Conservation Commission has approved a request from Hilcorp Alaska to define a third gas pool, the Tyonek, at the Beaver Creek field on the Kenai National Wildlife Refuge.

In a May 6 order the commission said that information gathered since pool rules were last modified for Beaver Creek "demonstrates that existing statewide well spacing requirements do not promote efficient development of the proposed Tyonek Gas Pool within the Beaver Creek Unit."

Under the revised rules there are no restrictions on well spacing in the Sterling, Beluga and Tyonek gas pools except the requirement that there be 1,500 feet between the pay zones in a well and the exterior boundary of the unit "where owners and landowners are not the same on both sides of the line."

In testimony at a March 29 hearing Hilcorp told the commission the proposed Tyonek gas pool is gas found between the Sterling and Beluga gas pools and the Tyonek oil pool, describing the Beaver Creek Tyonek gas pool as similar to Tyonek elsewhere with abundant coal markers.

Tyonek gas at Beaver Creek was relatively overlooked until a recent well found commercial gas, although there were three Tyonek gas tests beginning with a 1996 well. That well stopped producing prior to Hilcorp taking over the field from Marathon in 2012 and while Hilcorp found gas in a well tested in 2014 that well quickly became unproductive.

A well perforated in 2015 produced 11 million cubic feet a day of natural gas in the Tyonek.

Hilcorp has drilled wells and sidetracks at Beaver Creek and the commission approved a vertical expansion of the Beluga gas pool in 2014 to include all potentially gas-bearing sands in the pool.

In a separate request, Hilcorp asked the commission May 5 to authorize downhole commingling of production from the Tyonek and Beluga gas pools in the Beaver Creek Unit No. 23 well.

—KRISTEN NELSON

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TEETER-TOTTER

ect, 20 percent opposed and 17 percent were neutral.

But environmental groups and some First Nations continue to raise objections to the dangers the project will pose to salmon habitat.

GHG impact an issue

The Alberta-based think-tank Pembina Institute said cabinet will also have to consider the impact of greenhouse gas emissions.

Pembina associate director Matt Horne did not buy the argument that LNG will replace Asia's use of coal and diesel which generates more carbon.

He said the world needs to also produce less natural gas to lower pollution levels, noting that Pacific NorthWest is estimated to generate 4.9 million metric tons a year of equivalent carbon dioxide, undermining the British Columbia government's target for allowable GHG emissions in the province.

View from Shell

Shell financial officer Simon Henry told a conference call that it is "unlikely more than two and maybe only one" of his company's LNG ventures will be under construction by 2020 — British Columbia's goal for starting LNG exports.

However, he said Shell has yet to make a final decision on any of the projects "one way or another."

Martin King, a vice president at FirstEnergy Capital, said that given the global slump in LNG prices, there is a "growing possibility that no LNG projects (in British Columbia) will get a final investment decision this side of 2020."

He said the state of the LNG market has left Canada's export hopes "in limbo and looking uneconomic."

Dirk Lever, an institutional equity research specialist at AltaCorp Capital, said that although Shell is not likely to make a decision this year the fact that it has completed all of its regulatory work means the project is "never dead."

The uncertainty facing LNG Canada has been mixed with a dose of good news.

TransCanada has permits

TransCanada said it has now secured all the permits required to build the Coastal Gaslink Pipeline connecting shale gas basins in northeastern British Columbia to the terminal site in Kitimat.

If Shell and its Asian partners decide this year to proceed with the project construction on the pipeline will start in 2017.

The final two of 10 permits for the 330-mile pipeline were issued by the British Columbia Oil and Gas Commission on May 5.

TransCanada also said the pipeline has been endorsed by 11 First Nations along the right of way and progress is being made with other aboriginal communities. ●

Contact Gary Park through publisher@petroleumnews.com

PIPELINES & DOWNSTREAM

Milne Point Pipeline applies to move gas

Milne Point Pipeline LLC has applied to the Regulatory Commission of Alaska to allow the Milne Point Product pipeline to provide common carrier natural gas transportation service.

Initially the service would be to supply natural gas to fuel generators at Module 68, some 400 feet from the southern end of the pipeline. The module currently uses diesel fuel which is trucked from Milne Point.

Plans are to flange off the pipeline at Module 68 until there is a third-party customer needing service. The pipeline company said it has been approached by the Milne Point field operator, Hilcorp Alaska, about the possibility of transporting natural gas to the field starting in 2018. A letter from Hilcorp Alaska to Harvest Alaska LLC, the pipeline operator, notes that the Oliktok Pipeline converted that 16-inch NGL line to natural gas service in 2015, and said the Milne Point unit "anticipates a future requirement to receive natural gas via the converted Oliktok pipeline." The letter also said "Hilcorp Alaska is looking into the possibility of installing micro turbines at Module 68 and supplying the turbines with gas via the Milne Point Product pipeline."

"In anticipation of these two potential projects, Hilcorp Alaska requests that Harvest Alaska undertake the process to convert the Milne Point Product pipeline to natural gas."

The pipeline is a 10.4-mile, 8-inch diameter NGL pipeline built in 2001 which began transporting NGLs late that year or early 2002, the company has no customers because Milne Point has not needed NGLs for several years.

The pipeline was constructed to accommodate either natural gas liquids or natural gas.

The Milne Point Product pipeline has been connected to the Oliktok Pipeline, which has been converted from an NGL pipeline to a natural gas pipeline. The Oliktok Pipeline transports natural gas from Prudhoe Bay to the Kuparuk field.

—KRISTEN NELSON

PIPELINES & DOWNSTREAM

Nutaaq files to increase pipeline tariff

Nutaaq Pipeline LLC has filed with the Regulatory Commission of Alaska to increase its intrastate petroleum transportation rate from $1.78 per barrel to $2.71 per barrel.

Nutaaq runs from Badami to a tie-in point with the Endicott Pipeline.

A filing with RCA says the current rate, effective Jan. 1, "was premised on the addition of throughput from PTE Pipeline LLC, anticipated to commence in March 2016. The commencement of production did not occur as anticipated but is instead projected to begin in May 2016."

PTE Pipeline is the line from Point Thomson to Badami.

ExxonMobil said April 22 that production had begun from Point Thomson, with an initial rate estimated at some 5,000 barrels per day. Data posted by the Alaska Department of Revenue's Tax Division indicates ramp up is proceeding slowly. Point Thomson production shows up under Endicott on the Tax Division's listing, which combines volumes by major producing centers. Production shown under Endicott averaged 8,358 bpd in March, increasing to 10,231 bpd in April. Production for May, through May 5, averaged 9,970 bpd.

Alaska Oil and Gas Conservation Commission data, provided on a month-delay basis, does show production by field, but April volumes will not be available until June.

The tariff revision filing said the $2.71 per barrel tariff "was calculated by dividing the original cost of service, net of projected throughput revenues through the end of May, by the revised throughput forecast for June through December."

The company said with the mid-year correction Nutaaq would "achieve its 2016 cost of service based upon the revised throughput projection."

Nutaaq requested that the commission make the revised tariff effective June 1.

In other Point Thomson-related tariff activities, PTE Pipeline LLC, ConocoPhillips Alaska and the Alaska Department of Law notified the commission April 21 that they are still in settlement negotiations over the proposed $20.39 per barrel tariff for the Point Thomson Export Pipeline.

The commission said the next status report on settlement negotiations will be submitted on or before June 24.

—KRISTEN NELSON

PIPELINES & DOWNSTREAM

Enbridge keeps Northern Gateway project alive

By GARY PARK

For Petroleum News

Enbridge is defying the odds by clinging to its proposed Northern Gateway pipeline to export crude bitumen from Alberta to Asia.

The Calgary-based company said it and contracted shippers have asked the National Energy Board for a three-year extension to the end of 2019 on its construction permit.

It said the new deadline would give it a chance to achieve "legal and regulatory certainty and to continue important discussions with First Nations and Metis communities" on benefits and access agreements.

Enbridge conceded it should "have done a better job" of building relationships and developing "true" partnerships with indigenous communities, especially those on the British Columbia coast. The company said it and Northern Gateway partners now favor reducing their ownership stake in the C$5.9 billion venture to raise the aboriginal share to 33 percent from 10 percent.

That would double First Nations and Metis benefits to C$2 billion from C$1 billion. The consortium has also proposed a "joint governance structure" to incorporate indigenous and industry voices.

"Northern Gateway has changed," John Carruthers, president of the pipeline operator, said in a statement.

"We are making progress and remain open to further changes."

The project was endorsed by the previous Canadian government two years ago, when 209 conditions were attached to final approvals for the 720-mile twin pipeline system to export 525,000 barrels per day of unrefined bitumen and import 193,000 bpd of condensate.

Many First Nations and environmentalists have mounted even stiffer opposition to the project, including launching a challenge in the Federal Court of Appeal, while the British Columbia Supreme Court has ruled the province's environmental assessment agency must issue its own certificate and is at liberty to impose its own conditions.

Enbridge said the rejection by the Obama administration of TransCanada's Keystone XL proposal and the lifting by the United States of its oil export ban have stepped up the urgent need for Canada to gain access to crude markets beyond North America, noting it is now uncertain have much "additional capacity to the United States will be afforded to Canadian oil producers." ●

Contact Gary Park through publisher@petroleumnews.com

EXPLORATION & PRODUCTION

All North Slope winter tundra travel closed

With the May 5 closure of the state's upper foothills area for off-road winter travel and a similar closure announced on May 10 for off-road travel in the National Petroleum Reserve-Alaska, all areas of Alaska's North Slope are now off limits for off-road vehicle usage. The state's eastern coastal area closed on April 26 and the western coastal area closed on May 3. Because of poor snow conditions, the state's lower foothills area did not open for off-road travel at any time during the past winter.

In closing the upper foothills area, the Alaska Department of Natural Resources said that, with widespread snow pack deterioration and large swaths of visible vegetation, conditions in the area are no longer suitable for off-road vehicle operation. However, the snow cover is very variable, with adequate cover is some areas but not others — the agency will consider travel extensions on a case-by-case basis, where the snow cover is appropriate.

Summer off-road travel using vehicles approved for tundra operations may begin on or after July 15 but will require a state permit, DNR said.

The Bureau of Land Management, the federal agency that manages the NPR-A, said that snow and weather conditions in the NPR-A are no longer adequate for winter overland tundra travel.

—ALAN BAILEY

LAND & LEASING

Southcentral exploration licensing OK'd

The director of the Alaska Division of Oil and Gas has made a written determination that state land in Southcentral Alaska may be available for exploration licensing. Public comment was requested on a preliminary determination, issued in February. The division said in the May 9 determination that it received 22 timely public comments, with the commenters in general opposed to oil and gas exploration development within specific portions of Southcentral area.

After evaluating comments the director determined that boundaries and scope of the preliminary determination would not be changed.

The division quoted Alaska's constitution to the effect that the state is directed "to encourage ... the development of its resources by making them available for maximum use consistent with the public interest," and said the people of the state have an interest in developing the state's oil and gas resources and maximizing the economic and physical recovery of those resources.

The director's final determination is that all state-owned acreage in the Southcentral determination area will be available for oil and gas exploration licensing subject to state statute, noting that only state-owned oil and gas mineral estates within the area that are free and unencumbered may be available for licensing.

The available area excludes acreage offered under the Cook Inlet areawide oil and gas leasing program.

In general the border of the area runs from west of Yakutat north, then west in the vicinity of Tok to the eastern portion of the Denali Borough, south through the Matanuska-Susitna Borough almost to the Kenai Peninsula Borough, east almost to Palmer, then south to the eastern side of the Kenai Peninsula and then follows the coastline east almost to Yakutat. A map and legal description are available at http://dog.dnr.alaska.gov/.

Exploration licensing areas must be between 10,000 and 500,000 acres. The state may request proposals to explore designated areas and each year in the month of April applicants may submit proposals for exploration licenses, which require a work commitment, expressed in dollars.

Licensees are required to provide any data collected under a license to the state.

—PETROLEUM NEWS

GOVERNMENT

Air quality comment deadline extended

The Bureau of Ocean Energy Management has extended the deadline for public comments on its proposed new regulations for air emissions from offshore oil and gas activities on the U.S. outer continental shelf. Following requests for additional time to provide comments, the agency has extended the deadline from June 6 to June 20.

In 2011 the U.S. Congress transferred jurisdiction for outer continental shelf air quality from the Environmental Protection Agency to the Department of the Interior. Previously Interior had only been responsible for air quality in part of the Gulf of Mexico. BOEM, rather than issuing air quality permits, requires air emissions specifications to be included in exploration and development plans that the agency approves.

BOEM says that its proposed new regulations will cross-reference to EPA's air quality standards and will modernize and strengthen the requirements for identifying, modeling, measuring and tracking pollutant emissions. The regulations target the emission of volatile organic compounds, nitrogen oxides, sulfur dioxide, carbon monoxide and particulate matter.

Among its new provisions, BOEM proposes aggregating the analysis of emissions from closely spaced activities and facilities, and evaluating the emissions from facility support vessels during their entire transits, rather than just when the vessels are located within 25 miles of the facility.

—ALAN BAILEY

continued from page 1

FORT MCMURRAY

was accomplished as residents made the five-hour trip to evacuation centers in Edmonton, and other communities.

Production offline

Although none of the 14 oil sands operations — seven mines and seven in-situ plants — were hit by the wildfire, most took the precautionary measure of taking all or some of their production offline, led by the giant Syncrude Canada facility which has design capacity of about 350,000 bpd.

By the end of the fire's first week, the cutbacks were approaching 1.3 million bpd, or more than a quarter of Canada's total volumes, as Imperial Oil, Cenovus Energy, ConocoPhillips, Total, Suncor Energy, Royal Dutch Shell and Husky Energy joined the list of those halting oil sands activity or lowering production.

Enbridge shut down its major Cheecham terminal and reduced staff at its Athabasca terminal, affecting storage for about 6.9 million barrels.

Even before the fire hit, the Canadian government reported that almost 21,000 jobs were lost in Alberta during April as out-migration from the province far exceeded in-migration.

Aside from that Fort McMurray city officials and councilors are quietly warning that many people under stress from the drastic downsizing of the oil sands sector may take the chance to leave the area permanently.

The insurance costs related to the disaster are already estimated at C$9 billion, exceeding Canada's largest previous claim by five-fold.

The Royal Bank of Canada calculates that if the production outages lasted by only two weeks, half a percentage point would be shaved from Canada's gross domestic product in May.

Long outages for services

But Alberta Premier Rachel Notley and emergency officials are warning that it could take until 2017 at the earliest to restore essential water and electricity services along with damaged oil pipelines.

Some industrial transformers, large power lines and fiber-optic cables occupy swampy muskeg areas that are largely impassable in warmer weather and could take up to a year to replace because of backlogs at the manufacturers, said Jason George, a manager at Catch Engineering in Calgary.

He said that diesel powered generators might be able to operate basic facilities, but would never run industrial plants.

No one was even hazarding a guess at a timetable for restarting oil production.

Aside from that Fort McMurray city officials and councilors are quietly warning that many people under stress from the drastic downsizing of the oil sands sector may take the chance to leave the area permanently.

For those who would like to stay, they could be deterred by the fact that Fort McMurray is hundreds of miles from major supply centers which could send repair and reconstruction costs soaring to unacceptable heights.

Greg Pardy, an analyst at RBC Dominion Securities, said in a note that staffing operations could require the use of more fly-in, fly-out labor at the level of Canadian Natural Resources' Horizon project which uses its own airport to transport 78 percent of employees to the work site. ●

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CHUKCHI LEASES

relinquish all but one of its federal offshore leases in Alaska's Chukchi Sea," Shell spokesman Curtis Smith told Petroleum News in a May 10 email. "Separate evaluations are underway for our federal offshore leases in the Beaufort Sea."

Smith said that Shell's action is consistent with the company's earlier decision not to explore in offshore Alaska for the foreseeable future and reflects the outcome of drilling the Burger J well in 2015 coupled with the high cost of the exploration project.

"While we support regulations that enforce high safety and environmental standards, the unpredictable federal regulatory environment for the Alaska outer continental shelf also made it difficult to operate efficiently," Smith said.

Shell will remove its remaining equipment from Alaska drilling sites during the summer of 2016, Smith said. He said that Shell continues to believe that offshore Alaska and the broader Arctic have strong exploration potential and could ultimately become important sources of energy for Alaska, the United States and the world.

ConocoPhillips spokeswoman Natalie Lowman told Petroleum News in a May 10 email that BOEM had accepted relinquishment of her company's Chukchi leases on April 26.

"Given the current environment, our prospects in the Chukchi Sea are not competitive within our portfolio," Lowman said. "This will effectively eliminate any near term plans for Chukchi exploration for the company."

"It's sad but not surprising to see companies pulling back from Alaska's Arctic offshore," said Kara Moriarty, president and CEO of the Alaska Oil and Gas Association. "Low oil prices combined with high uncertainty about federal regulations and restrictions makes a clear business case for companies to cut losses and move on to other parts of the world with more stable and predictable rules. … The investment that was slated to come our way would have been staggering, with thousands of jobs, billions in revenues, and substantial oil volumes that would sustain the trans-Alaska pipeline for decades."

Shell paid $2.1 billion for its Chukchi Sea leases in a 2008 lease sale, in a strategic move to try to establish a new oil province to bolster its global portfolio of oil resources. But after a series of delays to its drilling plans, and having spent several billion dollars on its Chukchi venture, the company decided to pull out of its Arctic offshore exploration after disappointing results from the Burger J well.

ConocoPhillips also purchased leases in the 2008 lease sale and subsequently developed detailed plans to test the Devil's Paw prospect, the site of a major Chukchi Sea geologic structure. In 2010 the company commented that it had shifted its exploration focus from onshore Alaska to the Chukchi. But, as the company watched Shell's difficulties in moving forward with its Chukchi program, ConocoPhillips eventually put its Chukchi plans on hold.

Environmental organizations, most of which are adamantly opposed to Arctic offshore oil exploration and development, have been happy to see the lease relinquishments.

"Today we are an important step closer to a sustainable future for the Arctic Ocean," said Michael LeVine, Pacific senior counsel for Oceana. "After spending more than a decade and billions of dollars, even Shell has had to recognize that offshore oil exploration in the Arctic is not worth the environmental or economic risks."

—ALAN BAILEY

Petroleum News Oil Patch Bits

NOSI becomes newest member of Saltchuk family

Saltchuk said recently that NANA Oilfield Services will operate as a sister company to Delta Western, the leading distributor of petroleum products and lubricants in Alaska, under North Star Petroleum, the petroleum distribution unit of Saltchuk.

NOSI's facilities in Deadhorse distribute jet A and B aviation fuel, diesel, heating fuels and gasoline as well as drilling fluids and potable water to camps all over the North Slope. The acquisition further diversifies and expands North Star Petroleum's footprint in the state.

"We are very happy to have NOSI as well as Brad Osborne and his team join the Saltchuk family of companies," said Brian Bogen, president and CEO of North Star Petroleum, "We currently serve the North Slope from Delta Western's location in Fairbanks. Expanding services in Deadhorse is reflective of our long term commitment to the state of Alaska and our oil and gas customers."

The purchase was completed on April 30. Leadership from North Star Petroleum and Saltchuk will travel to meet with NOSI's 36 employees in Anchorage, Fairbanks and Deadhorse over the coming week.

"It's a great fit. Saltchuk's values and commitment to Alaska make me very confident that we have found a great home," said Brad Osborne, president of NOSI. Osborne will stay on as president of the company. "We've got a long and exciting future ahead. I'm looking forward to being a part of the Saltchuk family."

Crowley announces acquisition of Ace Fuels in Anchorage

Anchorage-based Crowley Fuels said May 2 that it has completed an asset acquisition of the aviation fuels business of Ace Fuels LLC, a fixed base operator headquartered at Merrill Field in downtown Anchorage offering Jet A and AV 100LL fuels. The acquisition includes the company's six, 24-hour self-service aviation fuels pump stations and associated buildings located at the Merrill field strip, Merrill Field main airport, Willow airport, Wasilla airport, Lake Hood strip and Fairbanks International Airport.

"Congratulations to the entire team on completing this acquisition of two like-minded, privately owned and operated businesses," said Rocky Smith, senior vice president and general manager. "While it will immediately expand Crowley's footprint by adding additional aviation fuels service stations throughout Alaska, it also gives Ace Fuels customers better access to Crowley's high quality fuels in southcentral and western parts of the state."

While ownership has changed, Crowley will continue to provide great products and services under the Ace Fuels name and eventually rebrand the stations as Crowley. Ace Fuels Manager Michelle LaRose will join the Crowley team, and company owner Richard Armstrong will leave to pursue other interests.

Motion Industries agrees to acquire Colmar Belting Co.

Motion Industries Inc., a wholly owned subsidiary of Genuine Parts Co., has entered into a definitive agreement to acquire Colmar Belting Co. The closing of the transaction was expected to occur May 1.

Colmar Belting Co. is a regional distributor focused primarily on power transmission and belting sales and service based in South Boston, Massachusetts. Their offerings include material handling related products such as conveyor belting, idlers and pulleys, as well as a wide spectrum of custom belt services such as slitting, fastening, and vulcanizing.

In business since 1933, Colmar serves the needs of numerous industries including aggregate, manufacturing, food processing, HVAC and recycling.

Michelle and Rob Labossiere, owners of Colmar Belting, said, "Throughout the growth of the company, Colmar has continually diversified to meet the challenges of this rapidly changing industry. Joining the Motion Industries team allows Colmar to continue to provide outstanding service to our customers, while providing excellent opportunities for our employees. We are excited to be part of Motion Industries." Colmar Belting will continue operations under its existing management team in all locations.

"Growth is the key driver behind this transaction, and the complement of Colmar's belting and power transmission expertise places us in an even stronger competitive position in the Northeast," said Tony Cefalu, Motion's senior vice president of shops and services.

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

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MACKINNON Q&A

intermittent energy supply.

To that end the state tried to accommodate the Railbelt utilities and offer a variety of incentives, first off the jack-up rigs, a $25 million credit to incentivize additional drilling in the Cook Inlet.

We created a partnership to create storage and that storage was utilized in the first year of operation when the weather hit Alaska hard. It was a January-February time period and it got exceptionally cold, and they had to draw off the storage facilities to heat Alaska homes. So it worked. We have supply that we can bring on during peak periods and can accommodate almost 50 percent of the population in that Railbelt area.

Petroleum News: So you've talked about what the credits accomplished. Now you're faced with the prospect of scaling back the credits in some form, what are your thoughts on that, having been in the meetings earlier and during hearings?

MacKinnon: No one wants to scale it back. I think that we wanted to let the credits expire when they were scheduled to expire. Unfortunately with the dramatic drop in oil and gas prices globally, a market that we cannot affect, the cash flow for the state of Alaska needs to be reviewed: How healthy Alaska stays in cooperation with the investments to provide energy for Alaskans.

Petroleum News: What about taxing oil profits in Cook Inlet?

MacKinnon: I think that is on the table for consideration. We need to look at any phased approach to give the industry as much time as possible. What I'm trying to say is that we have cash available to us to continue paying credits, but it could be at the expense of other things and other services so we have to analyze that return on investment. What are we getting for our investment in Cook Inlet and can those investments be sustained? If they can't and we do have to look at changing those investments, then how can we not impact the economy as a whole and individual Alaskans as a whole, and those folks working in the industry? That's what the Senate Finance Committee is talking about when we look at those questions. There are $400 million of tax credits asked of the state of Alaska from Cook Inlet.

The criticism from inside of Cook Inlet is they are selling some of the highest priced gas not only in the nation but the world right now at over $6 an mcf and they are being incentivized with state of Alaska tax credits so their risk is pretty low in pursuing projects to bring other hydrocarbon projects online. So how much is enough is the bottom line. That is the evaluation process the Senate Finance Committee is going through. Can we sustain what we have and what is the right balance inside any of those economies? Whether it's oil. Whether it's gas. Whether it's otherwise.

So back to your question, should we tax oil in Cook Inlet? From a layman's perspective, at first blush, absolutely. But when you are talking about removing $400 million that used to be inside that economy, inside the Cook Inlet economy for energy, do you want to start taxing in addition to removing credits?

I think Sen. (Pete) Kelly has rightfully stated, as others have, what will any change to tax credit structure do to increase production? If it doesn't increase production, if it does just the opposite, who will be affected? For me as a representative from the Eagle River area, I worry, I ponder, I consider, I struggle with how many of my constituents understand that the state has been providing a benefit in the Cook Inlet area that they have been receiving in a lower cost on their consumer bills and they will increase as we pull these credits off.

What I have been saying is be careful what you wish for. What will that impact be on those who are currently receiving a benefit from that investment? Others like to call it a subsidy. Has the Railbelt been receiving a subsidy of up to $400 million in state money to reduce costs or at least provide production for energy in the Railbelt?

Petroleum News: Now on to the North Slope with discussions over the minimum rate at 4 percent floor being penetrated with the stackable credits. The governor wants to harden that floor and raise it to 5 percent.

MacKinnon: So on the 4 to 5 percent, if somebody is bleeding red ink, and we are considering from their perspective raising taxes. It's a dialogue that we are having. As far as a conversation piece goes, I think that any kind of tax conversation should be deferred to a different time, but some people are insisting on this as this time. I would just say to the general public that some of the piercing of the floor is going to be taken care of with low oil prices, so big industry and corporate boards are trying to cut their expenses as quickly as possible. As much as we don't like to see any layoffs or shutting down of rigs or any other negative factors that would affect production, the companies are reducing costs and so it is self-correcting some of the net operating loss carry forwards.

So we are speaking with the governor about how accurate and how precise his numbers are in how companies versus the state can respond in reducing expenses so we think some of it is self correcting and we are looking at that very closely to see if they can actually pierce the floor. When you look at return on investment, the North Slope has been Alaska's bread and butter for revenue generation for some 35-plus years.

So whatever we do on the North Slope you're talking about at the expense of revenue coming into the state of Alaska and so for me the question gets even louder from the North Slope region: Is affecting the net operating loss or the change in tax structure going to positively affect production because we can't affect the price for what the commodity is selling for globally but we do have some interaction with production by how we allow loss carry forward to happen, by how we set the floor at a 4 percent minimum or 5 percent, how we look at a 35 percent tax rate, a sliding barrel credit that's attached directly to oil production.

That's what we've tried to accomplish in response to the people of Alaska. Production is up slightly this year. That's one year off an initiative trying to change the oil tax structure so that delayed some investment so we are into a time after the last election cycle which confirmed we should move forward.

Now we've seen the investment happen. We've seen slight increase in production and now we've seen a dramatic swing in loss of value of commodity. So I understand and absolutely am watching closely how that impacts Alaskans. When you've lived for 35 years on a single commodity and the rollercoaster of pricing production calculation, this is an absolute down curve we have to look at.

I don't want to use a cliché, but we don't want to kill the goose that has been laying the golden eggs, the revenue for the state of Alaska for 35 years by doing something too soon.

Petroleum News: What about the penetration of the floor. That seemed to catch people off guard.

MacKinnon: I think we have had members of the Senate talking about piercing the floor for some time, so it may be new to some. Of course when you share risk along with continuum of pricing, which is what was accomplished under ACES and under SB 21, so under ACES Alaska shared in the revenue under progressivity as prices rose and some would say too much because the industry on the low end took all the risk. So SB 21 shared some of the risk on the low end and that's why the floor is setting a minimum tax at 4 percent. It's a conversation we are having. We don't want it to be pierced. We want the 4 percent minimum to hold and we are reviewing how strong we can make that floor, but if you're going back in and changing the structure of oil taxes I think there is some trepidation in changing oil taxes. It was our belief we were looking at oil tax reform and that was specifically happening with cash calls to the state of Alaska and that was specifically occurring in Cook Inlet.

Petroleum News: Do you see the tax credits as part of the oil tax system for this discussion? Some see it as separate others do not.

MacKinnon: To industry it's the same conversation. If you withdraw a tax credit, you create a new cost for them, so I think that's fair from their perspective. From the state's perspective, we have offered incentives we can no longer afford to offer and we need to review the incentives we are offering. For me it comes down to a sense of timing.

We made a commitment through state statutes that's always available for the next legislative body to change. I think it's unwise to keep changing all the time. Industry has always asked for stability in whatever we do, so that they can understand how a decision they make today will be affected in the future. So from their perspective it's a tax increase and from ours it's an incentive conversation.

Just like they are bleeding red ink, we no longer have the services that we provided in the past. We can't respond as quickly as a private corporation does because when we do that, we need 11 senators and 21 representatives to agree with those cuts, then we need to make sure the governor is in line or OK with those cuts. He does have some weight in the conversation.

Petroleum News: Is the state's regime unstable or is it the market that's unstable, or does one beget the other?

MacKinnon: We have election cycles every two years that provide a different perspective from Alaskans on everything inside of Alaska state statutes. So from the industry's perspective when you change taxes every election cycle, it's difficult for them to plan. I believe that's why under the AKLNG project conversation, they are asking the people of Alaska to commit to a 20-year time period because gas is such a lower dollar value commodity. It's a huge difference in economies. That's why they are saying they need a constitutional amendment or a vote of the people to secure that transaction to make it more stable. ●

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SLOPE DRILLING

Also, the reports only measure wells, laterals and sidetracks and not "workover" activities, where operators perform maintenance to improve production at older wells.

For these purposes, reference to "wells" includes laterals and sidetracks. The well totals include both production wells and injection wells required to maintain field pressure.

Stability at big units

The stability is strongest at the Prudhoe Bay and Kuparuk River units.

At Prudhoe Bay, BP Exploration (Alaska) Inc. drilled nine wells in the first quarter of 2014, 18 wells in the first quarter of 2015 and 20 wells in the first quarter of 2016.

At the Kuparuk River unit, ConocoPhillips Alaska Inc. drilled 10 wells in the first quarter of 2014, 19 wells in the first quarter of 2015 and 18 wells in the first quarter of 2016.

(In the first quarter of 2015, the company also completed the Moraine No. 1 well, which is listed as a development well but was drilled from a temporary ice pad and described in permitting documents as a delineation well and therefore excluded from these totals.)

The trends are more complicated at the Colville River unit, the Milne Point unit, the Nikaitchuq unit and the Ooguruk unit, where well counts are generally smaller.

The Colville River unit saw a spike in activities as operator ConocoPhillips began developing its CD5 pad in late

The trends are more complicated at the Colville River unit, the Milne Point unit, the Nikaitchuq unit and the Ooguruk unit, where well counts are generally smaller.

2015. The company drilled one wells in the first quarter of 2014, two wells in the first quarter of 2015 and four wells in the first quarter of 2016.

The Milne Point unit reflects a transition as BP handed control of the unit to its new partner Hilcorp Alaska LLC. BP drilled 12 wells in the first quarter of 2014 while Hilcorp drilled no wells in the first quarter of 2015 and three wells in the first quarter of 2016. While drilling declined, Hilcorp conducted a major workover campaign at the unit in 2015 and recently proposed a large drilling program for the coming year.

At the Nikaitchuq unit, Eni US Operating Co. Inc. drilled three wells in the first quarter of 2014, three wells in the first quarter of 2015 and no wells in the first quarter of 2016.

Over the past few years, the Italian company has been completing its initial development program at the unit and evaluating whether and how to expand its development activities.

At the nearby Oooguruk unit, Pioneer Natural Resources Alaska LLC drilled one well in the first quarter of 2014 and its successor Caelus Natural Resources Alaska LLC drilled two wells in the first quarter of 2015 and two wells in the first quarter of 2016. ●

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FURIE JACK-UP

seafloor and winched into position.

Furie is still finishing up some minor modifications to the rig, testing systems, having inspections carried out and loading materials such as fuel, water and drilling fluids, Webb said. Drilling will begin in about 30 days, he said.

Under Furie's latest Kitchen Lights plan of operations, the company has said that it will complete two new development wells this year, and two more wells between April 2017 and October 2018. Furie also plans some new exploration drilling using the Randolf Yost jack-up.

Previously Furie has used the Spartan 151 jack-up rig for its Kitchen Lights drilling. However, the company has brought in the Randolf Yost, which is bigger and can be more safely cantilevered over the Julius R. platform. And, being bigger and more powerful than the Spartan 151, the Randolf Yost is capable of operating in deeper water and drilling deeper wells.

—ALAN BAILEY

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HB 247

The driver is low oil prices which are pummeling both the state and industry.

The bill has some significant changes from previous versions and while the administration said it was movement forward, industry testimony on the committee substitute was negative.

A previous CS was amended on the House floor in early April, but was returned to the Rules Committee April 13.

CS version summary

A summary of the "D" version CS, prepared by House Rules, says under the work draft the state's tax credit program would be closed out between Jan. 1, 2017, and Jan. 1, 2020, except for the Middle Earth 40 percent exploration credit which sunsets Jan. 1, 2022.

The net operating loss carry forward credit on the North Slope is phased out in the CS and replaced with a system of carrying forward for lease expenditures that a business is unable to deduct in the current year, which hardens the gross minimum tax floor against losses.

Under the current tax regime losses can reduce the minimum gross floor of 4 percent to zero, an unanticipated result of Senate Bill 21 passed in 2013. At that time legislators did not anticipate that major North Slope producers would have losses, a result of the drastic drop in oil prices.

Cook Inlet unsustainable

The Legislature's consultants enalytica focused on North Slope new developer impacts, but said the Rules CS provides a steady ramp down to zero for the Cook Inlet credit regime, which enalytica has characterized throughout the hearings as unsustainable, while providing time for current companies to become cash self-sustaining.

The CS lowers the limit on reimbursement and then ends refundable credits altogether, enalytica said, noting that companies with capital-intensive projects will need to find more equity capital or bring in working interest partners.

By phasing out NOL credits in favor of expenditure carry forward, the CS effectively hardens the 4 percent floor, enalytica said.

The 10-year limit on the gross value reduction, which benefits new oil, mitigates the impact of that change on project value, but 15 years would be required to preserve most of the status quo value.

Ending the credit refund impacts capital needs for new developers, increasing capital needs by more than 50 percent, enalytica said, and new projects currently proposed by smaller companies may not be feasible in their current form.

Industry response

Speaking for Alaska Oil and Gas Association members, AOGA President and CEO Kara Moriarty told the committee

Bill Armstrong of Armstrong Oil and Gas, which has been planning a major development on the North Slope, said the bill appeared designed to get independents off the North Slope.

the bill represented a "flagrant money grab" that would result in "less oil production, less investment, fewer Alaskans working, and ultimately, and somewhat ironically, less revenue for the State."

She said AOGA member companies "will not pursue projects that don't pencil out."

Moriarty noted that Prudhoe Bay owners have just updated their plan of development and are now estimating that production will decline by 20,000 to 60,000 barrels per day due to the shutdown of three rigs and fewer workovers due to lower oil prices.

Bill Armstrong of Armstrong Oil and Gas, which has been planning a major development on the North Slope, said the bill appeared designed to get independents off the North Slope.

Scott Jepsen and Paul Rusch, testifying for ConocoPhillips, said the hard minimum floor represents a potential tax increase when oil prices are low. ConocoPhillips had obligations to the state of $665 million in 2015, they said, with negative cash flow in excess of $100 million, and obligations of $77 million in the first quarter of 2016, with negative cash flow of some $100 million and said the 10-year time limit on the GVR potentially makes new oil developments less competitive.

Administration response

Commissioner of Revenue Randall Hoffbeck and Ken Alper, director of Revenue's Tax Division provided the administration's view on the CS.

Hoffbeck noted that the state's production tax is not an income tax, but a severance tax imposed on the removal of nonrenewable resources. The severance tax, he said, while calibrated using the income tax, is different than an income tax and in the opinion of the administration losses shouldn't be carried forward under a severance tax.

Alper said the CS makes progress on some goals — reducing future spending by rolling back credit programs, a limited strengthening of the floor and transparency — but maintains large future liability through carried-forward lease expenditures.

He cited several major and minor concerns the administration has with the CS, including that it represents a shift in favor of producers and away from support for independents, and provides for ongoing liability without any state pre-approval or other filter.

—KRISTEN NELSON

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CHUKCHI ENIGMA

combination that we're looking for."

Burger still promising

Despite Shell's disappointment from its drilling in the Burger prospect, the main target of the company's recent Chukchi Sea exploration program, BOEM still sees this prospect as a prime exploration play. Shell drilled into one section of the main geologic structure at Burger, but the complete exploration play extends across a substantial area across and on the west side of that structure.

"It's a wonderful play," Sherwood said. "It's still the dominant oil and gas play out there in the Chukchi."

There is a known major gas field in the main Burger structure, discovered from the original Burger well, drilled by Shell during a 1989 to 1991 exploration program. In its 2015 drilling Shell clearly tried unsuccessfully to find an oil pool under the gas. But there could be oil and gas elsewhere in the structure, and there are several other untested structures in the play, Sherwood said.

Excellent source rocks

The key to optimism over the oil potential of the Chukchi is the known existence of the Shublik formation, one of the major oil source rocks of Arctic Alaska, under much of the Chukchi Sea region. The Klondike well, in particular, also drilled by Shell in that earlier exploration program, encountered a tremendous source rock section. The well penetrated a structure in what ConocoPhillips has referred to as the Devil's Paw prospect in its recently abandoned Chukchi exploration program.

The Shublik at the Klondike well is an excellent source rock, with almost the characteristics of an oil shale. At this location there are about 500 feet of the top quality source rock and, in total, about 1,000 feet of oil-prone source, Sherwood said.

"That's a huge plus for the basin," he said.

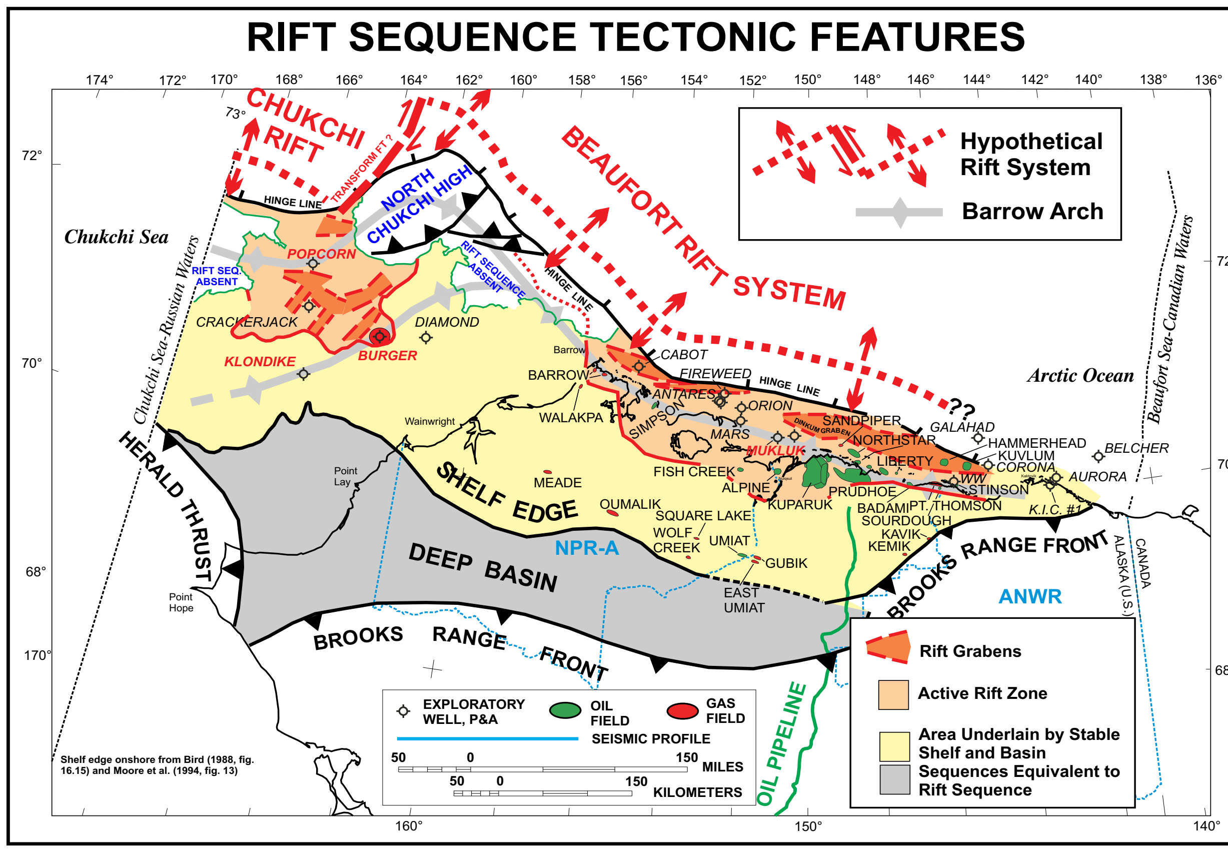
Modeling of the history of the source rocks indicates that these rocks have reached temperatures conducive to the formation of oil and gas across much of the region, with oil rather than gas likely to have been formed under the locations of the Burger and Devil's Paw prospects. In 1995 Sherwood and his colleagues estimated that as much as 3 trillion barrels of oil could have been generated from the offshore oil kitchen.

Oil found from the Klondike well shows affinity with the oil from the Alpine field in the central North Slope. But, curiously, liquid hydrocarbons found in the gas encountered by the original Burger well had an isotope composition matching the pebble shale, another Arctic Alaska source rock. But in the Chukchi Sea region the pebble shale appears to be more gas prone than oil prone, Sherwood said.

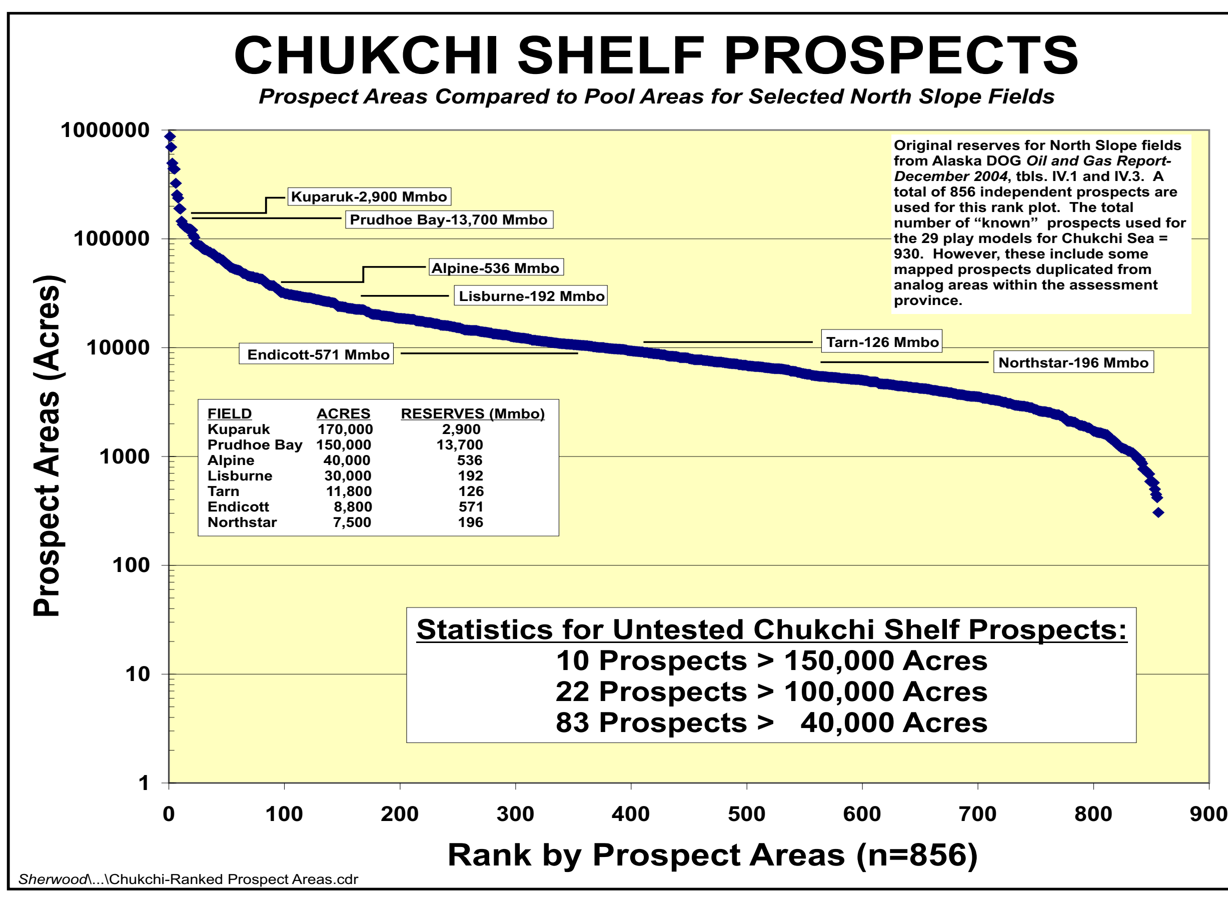
Major rock sequences

The Chukchi sea region holds all three of the major petroleum bearing rock sequences that are found onshore Arctic Alaska: the late Devonian through Triassic Ellesmerian sequence; the Jurassic and early Cretaceous Beaufortian rift sequence; and the Cretaceous and Tertiary Brookian sequence.

Despite the fact that perhaps half of the potential Chukchi Sea oil and gas plays that BOEM geoscientists have recognized exist in the Brookian sequence, the prime potential exploration targets remain in the older Ellesmerian and Beaufortian sequences, in major geologic structures that were identified many years ago from 2-D seismic surveys, Sherwood said. The Ellesmerian, the sequence that includes the Ivishak formation, the primary reservoir rock for the giant Prudhoe Bay field, tends to hold relatively thick rock units with reservoir potential. Plays involving the Beaufortian tend to have thinner reservoir targets.



The Chukchi Sea has major geologic structures in the areas of the Burger prospect and the Crackerjack well. These areas remain prime targets for oil and gas exploration.



The frequency distribution of the areas of Chukchi Sea oil and gas prospects mapped by Bureau of Ocean Energy Management scientists using seismic data. The areas of quite a few prospects are larger than the areas of the Prudhoe Bay and Kuparuk River fields.

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BOEM publishes new OCS resource assessment

The Bureau of Ocean Energy Management has published its 2016 assessment of undiscovered oil and gas resources under the U.S. outer continental shelf. The agency reruns its resource assessment every five years, in conjunction with its five-year lease sale program — the last assessment was published in 2011. The 2016 assessment incorporated data available as of Jan. 1, 2014.

Estimates for undiscovered resources for the Alaska outer continental shelf appear to have changed little since the 2011 assessment. The mean estimates of undiscovered, technically recoverable oil are again headed by the Chukchi Sea, with a mean value of 15.38 billion barrels. The mean for the Beaufort Sea is 8.22 billion barrels, while the mean for the federal waters of Cook Inlet is 1.01 billion barrels. The equivalent estimates for natural gas are 76 trillion cubic feet for the Chukchi Sea, 27 tcf for the Beaufort and just over 1 tcf for Cook Inlet. The assessment suggests that, while there may be some oil under the federal waters of the Gulf of Alaska, that region is more prospective for gas, with an estimated undiscovered resource of some 4 tcf.

As usual, the estimates indicate a wide range of uncertainty, with the oil estimate for the Chukchi, for example, ranging from a 95 percent probability of at least 9.3 billion barrels to a 5 percent probability of 23.08 billion barrels.

Estimates of undiscovered resources that may be economically recoverable show numbers that shrink to near zero at current low oil prices and require a significant price rise to increase to substantial numbers. In the Chukchi Sea, a remote region far from the nearest oil and gas infrastructure, an oil price of $60 per barrel results in an estimated recoverable volume of 2.87 billion barrels, while a price of $110 per barrel is needed to push that volume above 10 billion barrels.

—ALAN BAILEY

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CHUKCHI ENIGMA

Two top plays

The top two plays for BOEM's new 2016 Chukchi Sea resource assessment are the Burger play and the Endicott play. Burger is on the east side of a major geologic trough called the Hanna Trough, which runs north to south under the Chukchi. The Endicott play involves huge faulted blocks on the west side of the trough.

As part of its 1989 to 1991 program, Shell drilled the Crackerjack well into one of several very large structures in the Endicott play. The well, which was drilled about 2,000 feet down from the crest of the structure, targeted what had been misidentified from seismic data as a wedge of the Sadlerochit group, the rock group that includes the Ivishak. Instead, the well encountered an older shale that, while containing some oil, was too tight to produce, Sherwood said.

The Klondike well, in what is now referred to as the Devil's Paw prospect, also on the west side of the Hanna Trough, targeted and found the Ivishak. Unfortunately, however, at the Klondike

The top two plays for BOEM's new 2016 Chukchi Sea resource assessment are the Burger play and the Endicott play.

location the Ivishak, rather than being porous sandstone, consists of organic shale, a part of the source rock sequence rather than an oil reservoir, Sherwood said. On its way to the Ivishak the well did pass through some Beaufortian sands with reservoir potential and indications of oil, but, with these sands not being a target, and with a casing shoe in the well disrupting the well logging for the Beaufortian interval, the findings were inconclusive, Sherwood said.

Brookian prospects

When it comes to the Brookian sequence, there are some large prospects in the extreme northern Chukchi and a prospective fold belt under the southern part of the sea.

A significant risk when it comes to the oil potential in the fold belt relates to uncertainty over when the folds in the rock strata formed in relation to the timing of oil generation from the oil source rocks: The folds in the strata could trap oil but may have formed after the oil had already migrated from the source. On the other hand, geologic faults known to rise into the folds could have acted as conduits for oil to flow into the fold structures. And some massive exposures of Brookian conglomerates and sandstones at bluffs to the east of Point Lisburne point to the possibility of excellent reservoir rocks in the fold belt.

In general, the BOEM scientists recognize the potential for stratigraphic oil traps in the Brookian of the Chukchi Sea region and have attributed oil resources to this trapping option, Sherwood said. However, there is major uncertainty associated with the play. And over much of the Chukchi shelf the Brookian appears to be somewhat sand starved. A stratigraphic trap involves a situation in which the interlaying of impermeable and permeable rock strata creates a situation in which oil becomes trapped.

Under the northern part of the Chukchi Sea there are some ancient incised valleys, later filled with sands of Tertiary age. Although the manner in which the sands lap against the walls of the valleys leads to difficulty in potential reservoir geometries, there are situations where the sand can stack up to create a potential hydrocarbon play, Sherwood said.

The northeastern Chukchi

The extreme northeastern section of the Chukchi contains some particularly intriguing geology, with a massive thickness of ancient basement rocks, predating the Ellesmerian sequence. The basement rock sequence includes about 15,000 feet of carbonate rocks, overlain by 15,000 feet of clastic sediments. Rocks in the Canadian Arctic Islands thought to be analogous to the Chukchi rocks are known to contain oil. And in 1988 Amoco thought that it had detected small oil seeps over a structure in these ancient rocks of the Chukchi region, Sherwood said.

Overall, there are excellent source rocks, good reservoir rocks and giant geologic structures under the Chukchi Sea. The BOEM scientists have identified many prospects with areal extents larger than those of the Prudhoe Bay and Kuparuk River fields on the North Slope.

"It's rare to find a basin where so much comes together," Sherwood said. ●

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