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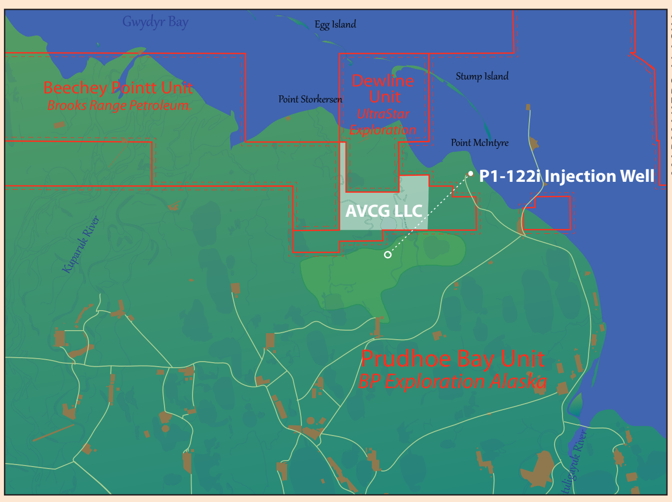
page 5 Q&A: Rep. Peggy Wilson reflects on 14 years in Alaska Legislature

Midnight Sun



MAPMAKERS ALASKA

BP is planning an injection well from Point McIntyre to Midnight Sun. See story page 12.

Pew meets with OMB on proposed Arctic offshore drilling rules

According to information on the website of the White House Office of Management and Budget, or OMB, on Oct. 8 representatives of Pew Charitable Trusts met with officials from OMB and the Department of the Interior to discuss standards for offshore oil drilling in the Arctic. The meeting came in conjunction with a review that OMB is conducting of new Arctic offshore drilling safety rules that the Bureau of Safety and Environmental Enforcement, or BSEE, has been preparing, in the wake of the Deepwater Horizon disaster. The OMB review forms part of the federal regulation development process, prior to BSEE releasing its new regulations for public comment.

As reported previously in Petroleum News, Shell met with OMB officials in September to express its views on potential Arctic drilling rules. Shell and other companies interested in exploring Alaska's Chukchi and Beaufort seas are awaiting the publication of BSEE's new regulations, to assess the impact of the regulations on the practicalities and economics of Arctic offshore exploration.

Pew proposed standards

In September 2013 Pew Charitable Trusts, a nonprofit

see PEW MEETING page 14

Canada fumbles Arctic mapping

Canada is ill-equipped to oversee marine traffic in the Arctic because it lacks marine charts, navigation aids and icebreaking equipment, says an audit by federal Environment Commissioner Julie Gelfand.

The report said that although vessel movement in the area is on the increase, higher-risk areas are poorly surveyed and charted and rely on maps that in many cases are more than 40 years old and were produced with antiquated technology.

In addition, the Canadian Coast Guard is unable to properly meet growing demand for new and improved fixed navigational aids, such as beacons and shore lights.

The report said that despite the growth in Arctic traffic and a shipping season that keeps extending, icebreakers are spending less time in the Arctic, while the Coast Guard does not have the resources to deal with a rising demand for its services, noting that plans to update some of the fleet and decommission some vessels will limit the number of available icebreakers to five through 2021.

It said Canada lacks a national vision or coordinated department strategy to ensure safe Arctic marine navigation, while the Coast Guard was unable to say whether its services are meeting the needs of users, nor has it fully assessed the level of risk posed by its reduced presence in the Arctic.

see ARCTIC MAPPING page 15

EXPLORATION & PRODUCTION

Incremental gains

Lalicker describes Hilcorp's approach to rejuvenating Cook Inlet fields

By ALAN BAILEY
Petroleum News

A key to Hilcorp Alaska's success in upping production from the oil and gas fields of Alaska's Cook Inlet is the empowerment of the company's employees and contractors to find improved ways of teasing more hydrocarbons from field reservoirs, Greg Lalicker, president of Hilcorp Energy, told a breakfast meeting of the Alaska Support Industry Alliance on Oct. 9.

"It's actually that incremental effort and dedication at the margin that makes a much bigger difference than any clever, brilliant idea that we could drop down from above," Lalicker said. "The empowerment happens when you get the foreman and the whole team of operators, mechanics and everyone out there with that mentality of wanting to hit their targets."

JUDY PATRICK

GREG LALICKER

Hilcorp specializes in the purchase and rejuvenation of old oil and gas fields, while also seeking new development opportunities close to its purchased assets, Lalicker said. And to encourage its employees' creative juices, Hilcorp offers an incentive scheme, paying out large bonuses at the end of a five-year planning cycle if the company meets its growth targets for that cycle.

see HILCORP APPROACH page 18

NATURAL GAS

LNG breaking point

BC gets warning industry development in province 'not a foregone conclusion'

By GARY PARK
For Petroleum News

The British Columbia government has been served with notice that unless it provides "clarity and certainty" on its LNG tax and regulatory regime it risks losing a "rare and important opportunity" to attract a multibillion-dollar investment.

The message came from David Keane, a former executive for United Kingdom-based gas producer BG Group and now president of the industry's B.C. LNG Alliance, who told Vancouver's Board of Trade that if the province tries to squeeze project proponents it will scare them away.

"A company sizing up a final investment decision does so not just in the context of what is happening in British Columbia, but also what is happening globally," he said. "When you prepare to invest billions of dollars on an LNG project, you do so based on sound due diligence, foresight and a strong understanding of the economics."

But he declined to provide specific numbers on what level of taxation would make LNG development in the province uncompetitive.

"A new LNG industry in British Columbia is not a foregone conclusion," he said, noting that B.C. lags in the global LNG race against Australia,

see BREAKING POINT page 14

LAND & LEASING

AVCG terminates unit

Kachemach was in 'billion-dollar fairway,' between Kuparuk River, Colville River

By ERIC LIDJI
For Petroleum News

The Alaska Venture Capital Group is leaving the Kachemach unit.

Earlier in October the Kansas-based AVCG LLC terminated the onshore North Slope unit, which allowed 18 leases there to expire, effective Sept. 5. The unit was located in the "billion-dollar fairway" between the Kuparuk River and Colville River units.

In December 2010, the AVCG operating arm Brooks Range Petroleum Corp. asked the state to form the Southern Miluveach unit over 40 leases covering some 60,864 acres.

The state ultimately approved two smaller units. The Southern Miluveach unit included five state leases covering some 8,960 acres and the Kachemach unit included 11 joint state of Alaska and Arctic Slope Regional Corp. leases covering some 16,487 acres.

The remaining leases stayed un-unitized.

The Kachemach unit agreement split the area into two exploration blocks. The agreement required Brooks Range Petroleum to complete a well in Block A targeting the Caribou trend and another well in Block A targeting the Moonlight trend by May 31, 2013.

The wells would have been the first exploration at the leases. Nearby, Union Oil Company of California had drilled the Kookpuk No. 1 in 1966 and 1967, ARCO had drilled Colville River No. 1

see UNIT TERMINATION page 18

contents

Petroleum News *North America's source for oil and gas news*

Alaska - Mackenzie Rig Report

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)	Prudhoe Bay DS 18-20	BP
Dreco 1000 UE	16 (SCR/TD)	Prudhoe Bay S-108, workover	BP
Dreco D2000 Uebd	19 (SCR/TD)	Alpine CD4	ConocoPhillips
AC Mobile	25	Prudhoe Bay DS 11-39	BP
OIME 2000	141 (SCR/TD)	Kuparuk, Rig Maintenance	ConocoPhillips
Kuukpik	5	Prudhoe Bay	Available
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2	Kuparuk 2F-18	ConocoPhillips
Dreco 1000 UE	2-ES (SCR-TD)	Prudhoe Bay	Available
Mid-Continental U36A	3-S	Prudhoe Bay	Available
Oilwell 700 E	4-ES (SCR)	Prudhoe Bay	Available
Dreco 1000 UE	7-ES (SCR/TD)	Kuparuk	ConocoPhillips
Dreco 1000 UE	9-ES (SCR/TD)	Kuparuk	ConocoPhillips
Oilwell 2000 Hercules	14-E (SCR)	Prudhoe Bay	Available
Oilwell 2000 Hercules	16 (SCR/TD)	Prudhoe Bay S-108	BP
Emsco Electro-hoist-2	18-E (SCR)	Prudhoe Bay	Stacked
Emsco Electro-hoist Varco TDS3	22-E (SCR/TD)	Prudhoe Bay	Stacked
Emsco Electro-hoist Canrig 1050E	27-E (SCR-TD)	Deadhorse, under contract to ExxonMobil for 2015	
Emsco Electro-hoist	28-E (SCR)	Prudhoe Bay	Stacked
Oilwell 2000	33-E	Prudhoe Bay	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Deadhorse	Availablel
OIME 2000	245-E (SCR-ACTD)	Oliktok Point	ENI
Academy AC electric CANRIG	105AC (AC-TD)	Deadhorse	Available
Academy AC electric Heli-Rig	106-E (AC-TD)	Deadhorse	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Prudhoe Bay Drill Site G-15	BP
Superior 700 UE	2 (SCR/CTD)	Prudhoe Bay Well Drill Site 1-15C	BP
Ideco 900	3 (SCR/TD)	Kuparuk Well 1A-25	ConocoPhillips
Parker Drilling Arctic Operating Inc.			
NOV ADS-10SD	272	Prudhoe Bay DS 18	BP
NOV ADS-10SD	273	Prudhoe Bay DS W-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)	Spy Island SP21-NW1	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk ODSN-02	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 Associates			
IDECO H-37	AAO 111	Going over to Trading Bay to perform a workover starting on 10/3/14	Cook Inlet Energy
Aurora Well Services			
Franks 300 Srs. Explorer III	AWS 1	Sterling, Stacked out at D&D yard	Available
Doyon Drilling			
TSM 7000	Arctic Fox #1	North Kenai, stacked	Nordaq
Nabors Alaska Drilling			
Continental Emsco E3000	273E	Kenai	Available
Franks	26	Kenai	Stacked
IDECO 2100 E	429E (SCR)	Kenai	Stacked
Rigmaster 850	129	Kenai	Available
Saxon			
TSM-850	147	Ninilchik Unit, Bartolowits pad drilling Frances #1	Hilcorp Alaska
TSM-850	169	Swanson River	Hilcorp Alaska

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
XTO Energy			
National 110	C (TD)	Idle	XTO
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151 Upper Cook Inlet KLU#1	Furie
Cook Inlet Energy			
National 1320	35	Osprey Platform RU-1, workover	Cook Inlet Energy
Hilcorp Alaska LLC (Kuukpik Drilling, management contract)			
		Monopod Platform, Drilling Trading Bay ST A-31	Hilcorp Alaska LLC
Patterson UTI Drilling Co LLC			
	191	West McArthur River Unit #8	Cook Inlet Energy
Kenai Offshore Ventures			
LeTourneau Class 116-C, jack-up	Endeavor	Port Graham	Buccaneer Energy Ltd.

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

The Alaska - Mackenzie Rig Report as of October 16, 2014.
Active drilling companies only listed.

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

This rig report was prepared by Marti Reeve

JUDY PATRICK

Baker Hughes North America rotary rig counts*

	Oct. 10	Oct. 3	Year Ago
US	1,930	1,922	1,743
Canada	420	430	357
Gulf	56	59	56

Highest/Lowest

US/Highest	4530	December 1981
US/Lowest	488	April 1999
Canada/Highest	558	January 2000
Canada/Lowest	29	April 1992

*Issued by Baker Hughes since 1944

The Alaska - Mackenzie Rig Report is sponsored by:

Cook Inlet Energy

● ENVIRONMENT & SAFETY

Draft Cook Inlet Risk Assessment out

By KRISTEN NELSON
Petroleum News

The Cook Inlet Risk Assessment, in the works since 2011, is out for public review.

The assessment was initiated and led by the Alaska Department of Environmental Conservation, the U.S. Coast Guard and the Cook Inlet Regional Citizens' Advisory Council, who comprised the management team with input from a multi-stakeholder advisory panel.

The assessment is available online at www.cookinletriskassessment.com/; comments are due Oct. 27 and may be emailed to cira.comments@nukaresearch.com.

The report said Cook Inlet maritime transportation safety has been a heightened concern of the Cook Inlet RCAC, ADEC and the U.S. Coast Guard since the grounding of the T/V Seabulk Pride in 2006, although efforts dating back 15 years laid the groundwork for the assessment.

In phase one of the project baseline data was collected about the risks of marine accidents in Cook Inlet. Included were studies of vessel traffic, accident causality and potential spill consequences.

The report said Cook Inlet maritime transportation safety has been a heightened concern of the Cook Inlet RCAC, ADEC and the U.S. Coast Guard since the grounding of the T/V Seabulk Pride in 2006, although efforts dating back 15 years laid the groundwork for the assessment.

The second phase included technical analyses to provide information on selected risk reduction options.

The report issued in mid-September summarizes the technical analyses and describes final recommendations of the study stakeholder advisory panel.

"All recommendations were developed based on consensus from the group," the draft report said.

Twenty-one potential risk reduction options were compiled; the stakeholder group recommended "13 risk reduction options to maintain and enhance the level of risk mitigation already achieved on Cook Inlet's waters."

The report recommends sustaining and in some cases enhancing those efforts already under way.

13 risk reduction options

The options in the report include:

•Construction of a subsea pipeline across Cook Inlet;

•Establishing a harbor safety committee;

•Sustaining/enhancing training for pilots;

•Having harbormasters notify U.S. Coast Guard of unsafe vessels and identify and communicate facility or equipment limits to all users;

•Maintaining project depth at Knik Arm;

•Expanding cellular and very high frequency radio coverage;

•Using AIS broadcasts to enhance situational awareness;

•Conducting third-party inspections of workboats;

•Enhancing emergency towing;

•Enhancing vessel self-arrest;

•Promulgating federal non-tank vessel response planning regulations;

•Updating and improving subarea contingency plan; and

•Continuing to improve oil spill response equipment as proven options are developed.

The assessment says the advisory panel "supported either continuation or further consideration of several risk reduction options that relate to the elimination of root causes of accidents and spills," with a subsea pipeline to displace cross-inlet tanker traffic both "the most resource-intensive of these options" and the option that "has the most readily quantified reduction of risk."

Other risk reduction options include improving communication, coordination through establishment of a harbor safety committee and "rigorous training of captains, pilots, and crew to a high standard and in Cook Inlet-specific conditions."

There are also recommendations for reducing "the frequency of immediate causes or exposure to hazardous situations" such as dredging the Knik Arm Shoal near Anchorage and expanding cellular and VHF coverage to improve communication between vessels.

Some of the recommendations are risk reduction options designed to prevent accidents if incidents occur, including rescuing distressed vessels prior to grounding by enhancing emergency towing and the ability of distressed vessels to set an anchor.

Risk reduction options related to reducing oil outflow and spill impacts include reviewing and updating the Cook Inlet subarea contingency plan and making continuous improvements in spill response equipment for Cook Inlet conditions. ●

Contact Kristen Nelson at knelson@petroleumnews.com

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www.PetroleumNews.com

Kay Cashman	PUBLISHER & EXECUTIVE EDITOR
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
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Renee Garbutt	CIRCULATION SALES
Ashley Lindly	RESEARCH ASSOCIATE
Dee Cashman	RESEARCH ASSOCIATE

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

Bonnie Yonker • 425.483.9705
byonker@petroleumnews.com

FAX FOR ALL DEPARTMENTS
907.522.9583

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GOVERNMENT

AOGCC scheduling Kenai Loop hearings

The Alaska Oil and Gas Conservation Commission is scheduling a December hearing to resolve a correlative rights dispute at the Kenai Loop gas field in the Cook Inlet basin.

The three-day public hearing beginning Dec. 3 will allow anyone to comment on the ongoing drainage dispute at the field, including "any operator, owner or landowner."

The commission began holding hearings on Kenai Loop in August 2013, when Cook Inlet Region Inc. objected to a permit application by field operator Buccaneer Energy Ltd. Since bringing Kenai Loop into production in early 2012, Buccaneer has only paid royalties to Alaska Mental Health Trust, which owns the surface rights at the drilling pad.

But the wells have since proven to be draining from surrounding leases, including those owned by CIRI and the state of Alaska. The parties have been unable to resolve the dispute, which is why the AOGCC has the obligation to order pooling and/or unitization.

The matter is complicated by the ongoing bankruptcy case of Buccaneer.

On Oct. 7, Buccaneer asked the court to schedule a sale and approve sale procedures, which, if approved, could move both cases closer toward a resolution.

—ERIC LIDJI

● GOVERNMENT

Wilson reflects on 14 years in Juneau

Wrangell Republican says communication across the aisle has improved, encouraged by Parnell oil tax change, progress on gas line

By STEVE QUINN
For Petroleum News

House Rep. Peggy Wilson is closing out her 14-year career with the Alaska House of Representatives, having spent the last four on the House Resources Committee.

The Republican from Wrangell is among a few who have held public office in two state Legislatures, North Carolina and Alaska, giving her 19 years in office between the two states.

In seven terms, she's been around for some of the most hotly contested debates over oil taxes — from the Petroleum Production Tax to ACES to the newly minted More Alaska Production Act — and natural gas pipeline proposals: the Stranded Gas Development Act; Alaska Gasline Inducement Act and the recently passed Senate Bill 138 that brings the state into partnership with North Slope leaseholders ExxonMobil, ConocoPhillips and BP, plus pipeline company TransCanada.

Her last two years may be the most memorable, starting with Gov. Sean Parnell's tax rewrite that survived a voter referendum and, she believes, put the state on the right track, having been derailed by Gov. Sarah Palin's Alaska's Clear and Equitable Share plan.

One of her final votes backed Parnell's gas pipeline/LNG export proposal to draft a development plan with the industry and bring it back to the Legislature for approval late next year.

By then Wilson will have to read about it from her Wrangell home, leaving it to a yet-to-be-elected successor to cast the next vote.

Wilson spoke to Petroleum News, reflecting on her time in office and what the state needs to advance its resource development prospects.

Petroleum News: What stands out to you the most when it comes to resource development?

Wilson: I believe we can do resource development responsibly. I want to put that caveat in there. We have to do it responsibly. We don't have a chance if we don't. If we want to continue and sustain what we have, we have to do it responsibly. However, we have not been able to do a whole lot because every time we try to do something we get stomped by people who are opposed to any kind of development.


REP. PEGGY WILSON

Petroleum News: So what can be done to advance this?

Wilson: I think nothing is going to happen until we have a different administration in Washington, D.C. I think we will have not too much trouble with the gas pipeline because it's clean. However, the people who don't want anything to happen, they are not realizing things taking place in our world. They want things like electric cars and all things they believe are not going to use our disposable resources. All the things they want, all the technology and all the electric car batteries, the cell phones, all of those things they want, it takes resources out of the ground to make them happen. They can't have what they want and keep doing what they are doing with lawsuits.

Petroleum News: So what do you believe have been the state's biggest achievements in the 14 years you were in office?

Wilson: I think that we are doing better at communicating across party lines in the Legislature. We are further along than we've ever been on the gas pipeline, and that's been in the works for over 30 years. I also think we are starting to get a transportation plan in place for our state so we can expand our infrastructure.

Every single state has infrastructure in place so people can get from one place to another before they start growing.

We need that. The other areas of the state need it. We need to start looking at how we can move people so that they can get from one spot to another for work. I'm not talking about one specific road but roads.

Most legislators — and this is something I've found over the years — have a very narrow view of what's best for the state. Their view is how can I get the most money for my district; therefore they are not united as a whole of what's best for Alaska as a whole.

We are state representatives. We are not district representatives. Now we represent our district of course and we want to do what we can for our district, but we should look first at what's best for the state as a whole to grow. We all flow to the top together.

That's connected with a state fiscal policy. It's very hard to get a state fiscal policy because everybody is fighting for a piece of the pie. You have to look at the whole state to make things happen. If you think about it, the fiscal policy is a small group. It's never been a majority, and that's sad.

Q AND A

Petroleum News: Does that become more important as the state has to contribute a share for a gas line?

Wilson: Definitely. We are in a bust cycle right now because our revenues are down. They are down because we didn't have the right tax policy in place for Alaska. For instance, when you look at Canada and you look at Alaska. When we put ACES in place, and I'm saying we as a Legislature because I didn't vote for it, Canada saw what we did and they changed theirs, too. They saw what was happening quicker than we did, and they changed back. They saw the writing on the wall — they changed, and we didn't. We were not incentivizing the oil companies to have more production. It was counter intuitive. The more they produced, the more they paid. Why would they want to produce more?

The companies in Alaska, their machinery in Alaska has to fight within their company, has to fight on the worldwide market for investment. Take Exxon. They have people in Australia, Africa, all over. Those people, including the ones in Alaska, fight for a piece of the pie. Where is the company going to put their money? Where they make the most money. And it sure is not Alaska. Granted Alaska is safe as far as we are not at war. Did we incentivize them to put money in Alaska? No we didn't and we saw the result. We still have people fighting us to keep that tax structure.

We will see some changes now, but it will take a couple of years to ramp up. We will see low revenues, for sure, three to five years. I would even say three to seven years. We have to look at the writing on the wall and see what the consequences are from our actions or our inactions, so it's going to be tough.

Petroleum News: You mentioned people still fight this. Why do you suppose this debate went on for so long?

Wilson: The only way I can explain it is, I went to Colorado Springs for a legislative seminar. They put us all into five different groups for personality types. They told us about some people who were very outgoing, constantly visiting with other people. That was their personality type. In fact, during the session, they weren't even listening all the time. They were out talking all the time.

So my personality was that my brain looks into the future and it realizes things. Ours was the smallest group. During that time, they trained us on how and why we had to be careful. They said you will have these visions and go for-

see WILSON Q&A page 17

NATURAL GAS

Flowing the gas around Fairbanks

The Interior Gas Utility, or IGU, the gas utility owned by Fairbanks North Star Borough, has been planning its gas distribution pipeline network for the Fairbanks area and has determined that it will need a gas transmission line around the perimeter of the city, David Prusak, the project manager for IGU's distribution network construction, told the Alaska Industrial Development and Export Authority board on Sept. 25. IGU is planning a six-phase build out of its network, extending the network around the city, with each of the phases taking a year to complete. Gas feedstock for the system, obtained in the form of liquefied natural gas, would enter the system at North Pole, to the southeast of the city, and move counterclockwise around the city.

The IGU development is one component of the Interior Energy Project, a project to bring affordable natural gas to Fairbanks by trucking LNG from the North Slope. AIDEA is providing funding assistance for the project.

Hydraulic modeling

With assistance from Enstar Natural Gas Co., IGU has been modeling the hydraulics of gas flow around the planned system, in part to ensure redundancy in gas supply routing as a means of underpinning supply reliability. But the modeling found that, to maintain that flow around the entire city, the gas pressure must be raised above the level appropriate to gas distribution to consumers, Prusak said. The solution appears to be to run a transmission line around the city's perimeter, to feed gas into the distribution system at various points, he explained.

Gas utility Fairbanks Natural Gas distributes gas in the central part of Fairbanks, with IGU's service area encompassing the city's perimeter. But there is no cost advantage in transmitting gas radially out from the center to supply IGU's network, Prusak said. Besides, the location of IGU's main storage and feed point at North Pole would be convenient if in the future IGU's services were to be extended into the military base at Fort Wainwright, to the east of Fairbanks, he explained.

—ALAN BAILEY

● EXPLORATION & PRODUCTION

Global Geophysical files Glennallen seismic plan

Wants to conduct survey for Ahtna as part of search for natural gas as an affordable energy source for Copper River region

By ALAN BAILEY
Petroleum News

Global Geophysical Services has applied to the Alaska Department of Natural Resources for a permit to conduct a 2-D seismic survey around the Glenn Highway, to the west of the town of Glennallen in the Copper River basin. Ahtna Inc., the Native regional corporation for the Copper River region, has commissioned the survey. In December 2013 the state issued an exploration license to Ahtna for state land around the Tolsona Lake — most of the planned seismic surveying will take place within the approximately 46,000 acres of land encompassed by the license.

Ahtna has said that it is searching for natural gas resources, as a potential energy source for the Copper River region. The idea is to reduce utility costs for local energy consumers, given the manner in which high energy costs are driving some people to leave the region. The export of gas from the region is also a possibility, if a large enough gas resource were to be found, Ahtna has said.

40 linear miles

The planned survey lines will total 40 linear miles, forming a grid straddling the exploration license land. Data acquisition will likely take place in early- to mid-December, Global's permit application says. The clearing of lines for the survey will begin in early November, and the demobilization of the survey equipment will be complete by the end of the year.

The application says that Global anticipates setting up an operations base in Glennallen, using existing roads and trails to access survey lines. Global is negotiating with a landowner over access to some private land, both for conducting the survey and for establishing a staging area, the application says.

The planned survey lines will total 40 linear miles, forming a grid straddling the exploration license land.

The survey will use vibroseis technology, a system that involves the operation of vehicles with equipment that imparts controlled vibrations into the ground. The seismic source signals from the system will be generated at 165-foot intervals along seismic lines, with receivers placed along the lines at 55-foot intervals, to detect the subsurface echoes of the source signals.

The Department of Natural Resources requires comments on the plan by Nov. 7.

Prospective for gas

Ahtna's exploration license lies within the Copper River basin, a broad area of sedimentary rock that lies under the Copper River region and is thought to be prospective for the discovery of natural gas. The geology of the region bears strong similarities to that of the Cook Inlet basin, the prolific oil and gas basin to the southwest of the city of Anchorage.

But the Copper River basin is substantially under explored, having seen the drilling of only 11 wells in the past half century. All of these wells had gas shows.

see GLENNALLEN SEISMIC page 10

● INTERNATIONAL

One up, one down

Alberta oil sands gains as European Union scraps plans to penalize bitumen, but sector fingered by Canada's environmental watchdog

By GARY PARK
For Petroleum News

The Alberta oil sands have received a lift on the international front and a knockback domestically.

The European Union has declared it will abandon a plan to officially label crude bitumen as "dirty," meaning a sustained lobbying effort by the Canadian government to open a route from Alberta to Europe is on the verge of succeeding.

That reinforces the case being made by TransCanada for its C$12 billion Energy East pipeline which is on the verge of being submitted to Canada's National Energy Board. The 2,800-mile system is designed to carry 1.1 million barrels per day of oil sands production and possibly light crude from the Bakken to Ontario and Quebec refineries and eventually to New Brunswick for export to Europe.

It is also the Canadian petroleum industry's strategy to counter President Barack Obama's stalling on Keystone XL.

Accusing finger

But as fast as Energy East showed signs of making headway, the Canadian government's own environmental watchdog fueled the resentment against oil sands development.

Newly appointed Environment and Sustainable Development Commissioner Julie Gelfand delivered her first report pointing an accusing finger at the federal government's failure to comply with the Copenhagen Accord by reducing greenhouse gas emissions by 17 percent from 2005 levels by 2020.

She said it is "not clear how the government intends to address the significant environmental challenges that future growth and development will likely bring about," with the oil sands portrayed as the chief culprit.

In 2012, the Canadian and Alberta governments unveiled a Joint Oil Sands Monitoring, JOSM, program to be functioning by 2015.

Gelfand's office selected nine of the 38 monitoring initiatives that were being led by the federal government and found that four were delayed, due to factors such as a lack of staff, delayed contracts with laboratories and delays in obtaining permits to establish monitoring sites.

The report also determined that the federal role in monitoring the oil sands was "unclear" after 2015.

The auditors said Environment Canada's "continued involvement was important" to stakeholders even though the role has yet to be determined.

They also found that in the 2013-14 fiscal year, the petroleum industry covered C$18.1 million of the C$24.6 million spent on 38 of JOSM's 58 projects for monitoring air, water and wildlife in the oil sands region.

Emissions regulations promised

In 2006, the government of Prime Minister Stephen Harper promised emissions regulations for the oil and gas sector which are deemed critical to meeting emissions reductions targets.

The report said that, despite evasive government action on the status of the regulations, a framework has been completed and "detailed regulatory proposals have been available internally for over a year," but the Harper administration has kept its consultations confined to a small working group.

Environment Minister Leona Aglukkaq refused to discuss the findings with reporters and Gelfand's claim that the federal government is making no effort to work with the province's, while her department issued a written report citing only what the government has already done.

No transportation fuel penalties

On the other side of the Atlantic, a new European Commission proposal will ensure that no transportation fuel, such as diesel and compressed natural gas, supplied to the 28-country European Union will be penalized based on the carbon intensity of the base fuel, such as oil sands crude.

European Commission Climate Commissioner Connie Hedegaard said it was "no secret" that the initial proposal, labeled a Fuel Quality Directive, would be rejected because of resistance in some member countries.

However, she said the commission will try to ensure that measures are taken to ensure that less polluting fuels get preference.

For the oil sands industry the door is now open to determine whether European refineries are equipped to upgrade crude bitumen into transportation fuels.

The first test is already under way involving a shipment of 570,000 barrels from Suncor Energy's oil sands operation to a refinery owned by Repsol, Spain's national oil company.

The European Union's attempts to block imports of crude bitumen started in 2009 when member states adopted legislation to cut emissions from transportation fuels by 6 percent by 2020, having already claimed the oil sands are significantly more polluting than conventional crude.

The Canadian government retaliated through a lobbying effort that accused the European Union of unfairly singling out the oil sands.

Amid the conflict in the Ukraine and concerns that oil and gas supplies from Russia to Europe could be cut off, Harper told reporters at the Group of Seven summit in Brussels in June that the Ukraine crisis was an opportunity for Canada to present itself to its European allies as a "secure and stable" energy supplier.

Alberta Premier Jim Prentice told the Financial Post the apparent removal of an obstacle to Europe is "very positive news" for his province which stands to gain "equal access to critical markets" for its oil sands production.

Franziska Achterberg, Greenpeace's European Union energy and transportation policy director, said the European Commission's retreat from its earlier hard line "will do nothing to stop climate wrecking fuels like the tar sands from entering the EU market." ●

Contact Gary Park through publisher@petroleumnews.com

EXPLORATION & PRODUCTION

Caelus amending Oooguruk plans

Caelus Natural Resources Alaska LLC wants to expand the onshore tie-in pad supporting the Oooguruk unit, essentially doubling an expansion proposal from a previous operator.

The Texas-based independent wants to add some 3 acres to the onshore tie-in pad at Oliktok Point to accommodate a new work camp, warehouse and "other storage areas."

The expansion would "reduce commute times for workers and improve overall operational efficiency of the Oooguruk development," the company told state officials.

> *The expansion would "reduce commute times for workers and improve overall operational efficiency of the Oooguruk development," the company told state officials.*

Previous operator Pioneer Natural Resources Alaska Inc. had proposed the Oooguruk expansion plan in August 2013, planning to expand the offshore gravel drilling island, the onshore tie-in pad and the a seawater flowline. Pioneer sold the unit to Caelus last year.

The original expansion proposal called for adding some 1.4 acres of gravel to the onshore tie-in pad. The expansion was meant to accommodate facilities for a Nuna drill site.

Nuna is a proposed development in the southern reaches of the Oooguruk unit, too far to reach from the gravel island. Caelus is currently deciding whether to sanction the development, which is thought to hold between 75 million and 100 million barrels of oil.

Maximize existing infrastructure

Placing the Nuna facilities at the existing Oooguruk tie-in pad would maximize existing infrastructure and avoid duplication. The expansion would require a short three-phase flowline connecting to the ConocoPhillips-operated Kuparuk River Unit Drill Site 3H.

The new proposal from Caelus would eliminate the need for building an additional spur road from the DS-3H facilities. The new proposal would "utilize the existing access road to DS-3H while integrating a separate access within the footprint of the southern expansion," Caelus wrote in filings. This would reduce the footprint of the project and would keep Caelus crews out of the way of ConocoPhillips crews, according to Caelus.

The project would begin next year with gravel placement and run through April 2016.

The state Division of Oil and Gas is taking comments on the plan through Nov. 5.

—ERIC LIDJI

● EXPLORATION & PRODUCTION

Linc moving on Umiat, UCG

Australian independent anticipates 70-well development program at Umiat, expects Cook Inlet gas agreements next year

By ERIC LIDJI

For Petroleum News

Linc Energy Ltd. expects a big year in Alaska in 2015.

The Australian independent has completed early engineering for a potential development at the Umiat field and is moving toward commercialization of its Cook Inlet gas supplies.

Linc said it has wrapped up the first phase of "select engineering" at Umiat, which "identifies and analyses road options, pipeline routes, and environmental assessments of various development options," according to a recent annual report from the company.

Environmental studies are in their fifth year, according to the company, which seemingly includes work performed before Linc acquired Renaissance Umiat LLC in 2011. Those studies will support a future environmental impact statement, a crucial component of any future development plans. Because Umiat is partially located in the National Petroleum Reserve-Alaska, Linc must file the plan with the U.S. Bureau of Land Management.

The development plan remains a ways off, but Linc said in the annual report that initial development could include as many as 70 wells. Given the size and isolation of Umiat, Linc has been entertaining "inquiries concerning possible joint ventures or acquisitions."

Earlier this year, Linc completed Umiat 23H well, the first horizontal well ever drilled and flow tested at the known oil fields in the foothills of the Brooks Range Mountains.

The results — a peak rate of 800 barrels per day and a sustained rate of 250 barrels per day — convinced the company to progress toward development. The drilling capped off three winters of exploration work, which happened to coincide with debates over revisions to the tax code that became law as the More Alaska Production Act.

Linc credits the law within increasing the value of Umiat by $1 billion — from a PV-10 value of $1.5 billion in July 2012 to a PV-10 value of $2.5 billion September 2013. The PV-10 value is the present value, minus expenses and discounted at 10 percent annually.

The legislation became law in May 2013.

Cook Inlet

As it proceeds at Umiat, Linc continues to pursue underground coal gasification opportunities in the Cook Inlet basin, which is what initially attracted the company to Alaska.

The appraisal program aims to synthesize natural gas underground by injecting heat and oxygen into deep coal seams to "create" methane using the carbon contained in coal.

The company believes there is 35 billion cubic feet of local demand for synthesized natural gas in the region "with the potential for export in the form of liquefied natural gas further increasing demand." This coming year, Linc expects to finalize a commercial pathway for a proposed synthesized natural gas hub in

see LINC MOVES page 10

● LAND & LEASING

CIE applies for 640-acre unit expansion

West McArthur River unit operator Cook Inlet Energy wants area where Sword well producing included, new participating area formed

By KRISTEN NELSON
Petroleum News

Cook Inlet Energy has applied to the Alaska Department of Natural Resources for expansion and contraction of the West McArthur River unit and creation of the Sword participating area.

CIE, the 100 percent working interest owner, said in an Aug. 28 application that it had applied in January to have the Sword No. 1 well certified as capable of producing in paying quantities, but said DNR "determined that request not to be timely, so CIE hereby renews that request."

The company said that since it acquired the West McArthur River unit leases in December 2009 it has restarted production, optimized production from the participating area "through sidetracks and workovers" and completed the Sword No. 1 exploration well, "which is currently being produced under an approved tract operation."

> *The 640 acre expansion area includes "approximately 200 acres contributing to production" from the Sword No. 1 well, the company said, "with the remaining production coming from Tract 1 of the WMRU."*

CIE said its request would incorporate oil pools under two state oil and gas leases — one of which is currently within the unit — into the unit and contract acreage not currently contributing to unit production.

Alaska Oil and Gas Conservation Commission records show that the West McArthur River unit has produced 13.6 million barrels of crude through the end of August. August production at the field averaged 1,767 barrels per day.

Sword well

The 640 acre expansion area includes "approximately 200 acres contributing to production" from the Sword No. 1 well, the company said, "with the remaining production coming from Tract 1 of the WMRU." The segment of ADL 17602 requested for inclusion is section 2 of township 8 north, range 14 west, Seward Meridian, which extends the offshore unit to the east. CIE said the remainder of section 2 "is believed to cover a portion of a potential hydrocarbon accumulation, which CIE has named Sabre, which is scheduled for drilling" in the approved 23rd plan of development for the West McArthur River unit.

The unit lies offshore the eastern side of West Foreland on the western side of Cook Inlet, with production facilities onshore.

The requested Sword participating area would include 360 acres including portions of sections 2 and 3 of T8N, R14W, SM. CIE said production would be from the Hemlock, Lower Tyonek (oil) and Lower Tyonek (upper).

CIE said current pilot production from the Sword No. 1 well is approximately 600 barrels per day of oil from multiple zones. That oil is being processed at the West McArthur River unit production facility under DNR approved tract operations.

The company said its decision to apply for a single Sword participating area is based on commingling authorization from the Alaska Oil and Gas Conservation Commission and vertical stacking of multiple pay zones.

CIE is applying for contraction to exclude a portion of ADL 359112, the most southerly portion of the unit, "not currently contributing to production and for which CIE has no near-term plans for further evaluation."

The division said the application was deemed complete Oct. 10 and it accepting written comments on the application through 4:30 p.m. Nov. 17. The division said it would issue a written decision to approve or deny the unit expansion application within 60 days of the close of the comment period. ●

Contact Kristen Nelson at knelson@petroleumnews.com

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LINC MOVES

the region and to enter "several supplier agreements" to provide both synthesized natural gas and carbon dioxide.

Over the past year, Linc sold some $65.2 million in state production tax credits for approximately $54.4 million. The state issues tax credits for certain exploration work. ●

Contact Eric Lidji at ericlidji@mac.com

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GLENNALLEN SEISMIC

Most recently, between 2005 and 2007, Texas-based Rutter and Wilbanks drilled a well near the town of Glennallen, not far from the Ahtna exploration license area. The Rutter and Wilbanks well found a gas reservoir but, having encountered severe problems associated with excessive downhole pressures and water incursion, the company eventually plugged and abandoned the well.

In January Joe Bovee, Ahtna land and resource manager, told the Alaska Support Industry Alliance Meet Alaska conference that Ahtna is particularly focusing its exploration efforts on the Nelchina sands, a highly pressurized, porous and permeable gas-bearing sandstone that occurs in faulted blocks over an area of roughly 120 square miles. Existing seismic data point to possible gas targets at depths ranging from 4,000 feet to 12,000 feet in the exploration area, Bovee said. ●

Contact Alan Bailey at abailey@petroleumnews.com

● NATURAL GAS

Why LNG doesn't trade like oil

Liquefied natural gas marketed regionally, based on long-term contracts, while crude oil has a global market with transparent prices

By JEANNETTE LEE
Researcher/Writer, Office of the Federal Coordinator

The multibillion-dollar natural gas project proposed for Alaska looks similar to the oil pipeline built almost 40 years ago: Extract a hydrocarbon from the North Slope and send it through an 800-mile pipeline to a year-round port, then pour it into ships to take the product to market.

1 2 SERIES

But comparing the two commodities is like comparing baseball and slow-pitch softball. Oil and LNG are in many ways related, but their markets are separated by essential differences in how they're played — especially the curves thrown at traders, and whether buyers or sellers have the home-field pricing advantage.

Oil is a global commodity trading rapidly, frequently and at enormous volumes on spot and futures exchanges among a vast array of producing, consuming, shipping and trading firms that have shaped the business since the first international oil deals more than 150 years ago. Prices are transparent and keyed to widely accepted benchmarks based in large part on the composition of the crude.

Global oil production in 2013 was 86 million barrels per day; the export-import trade averaged 56 million barrels a day. The amount of LNG traded was equal to 5.9 million barrels of oil per day.

By contrast, liquefied natural gas is still largely a regional industry and, at 50 years old, much younger. Oil is the established old-timer, while LNG is the youngster trying to make the big leagues.

Despite its youth, LNG has some established traditions. It remains governed by the sanctity of long-term contracts and relationships between a relatively small number of buyers and sellers. Prices are less transparent than those for oil, though buyers are pushing to change the benchmarks for calculating prices.

The LNG trade is in its second decade of considerable growth, but still trades at a much smaller volume than oil. Much of that has to do with supply. Average daily global oil production is almost 15 times that of LNG on an energy-equivalent basis.

Of the almost 200 countries in the world, fewer than 30 import LNG and just 20 export the fuel, whereas nearly every country trades in oil.

Why is oil a global commodity, while LNG is not? The answer lies in supply, transportation and the number of buyers and sellers in each market.

Oil dominates energy trading

A crowd of shouting traders flashing cryptic hand signals in the pit of the New York Mercantile Exchange is perhaps the scene most emblematic of the world oil trade. The NYMEX, the largest physical commodities exchange in the world, is where much of the buying and selling of oil futures (contracts for future deliveries) takes place. Oil contracts are also traded through the Intercontinental Exchange in London and other smaller exchanges, as well as electronically 24 hours a day.

Light Sweet Crude Oil (also known as West Texas Intermediate) futures and options (the option to buy or sell oil at a future date) are the world's most actively traded energy investments. The 850,000 WTI futures and options contracts traded on an average day represent 850 million barrels, almost 10 times daily global oil consumption.

Futures trading develops in the wake

see **LNG TRADING** *page 13*

LAND & LEASING

DNR calls for new Cook Inlet sale information

The Alaska Department of Natural Resources Division of Oil and Gas is calling for new information for a Cook Inlet areawide oil and gas lease sale tentatively scheduled for the spring of 2015, requesting "substantial new information" on the Cook Inlet area "that has become available over the last year."

The Alaska Peninsula areawide sale is also held in the spring, but the division said there was no call for new information for that sale because a preliminary best interest finding for the Alaska Peninsula was issued in June and the division plans to issue a new final BIF for that sale which will apply to the spring sale.

The Cook Inlet sale area includes some 4.2 million gross acres including state-owned uplands in the Matanuska and Susitna valleys "generally south and west of Houston and Wasilla, the Anchorage bowl, and the western shore of Cook Inlet from Beluga River to Harriet Point." The sale also includes "the tide and submerged lands in upper Cook Inlet from Knik Arm and Turnagain Arm south to Anchor Point and Tuxedni."

The most recent Cook Inlet areawide BIF was issued in 2009 and the latest supplement in February 2011. Both are available online at: http://dog.dnr.alaska.gov/Leasing/BestInterestFindings.htm.

The deadline for receipt of new information at the division is Nov. 10 at 5 p.m.

—PETROLEUM NEWS

● EXPLORATION & PRODUCTION

BP planning Midnight Sun EOR

Injection well from Pt. McIntyre would bring miscible injection to Midnight Sun, which currently uses waterflood exclusively

By ERIC LIDJI
For Petroleum News

BP Exploration (Alaska) Inc. is expanding enhanced oil recovery at Midnight Sun.

The British oil giant plans to drill a miscible injection well sometime early next year at the satellite field located at the center of the northern border of the Prudhoe Bay unit.

BP discovered the Midnight Sun field with the Sambuca No. 1 exploration well in 1997 and began production from the Kuparuk formation in October 1998, according to the Alaska Oil and Gas Conservation Commission. The satellite is currently being developed with two producers and three injectors at E pad. The most recent was drilled in 2001.

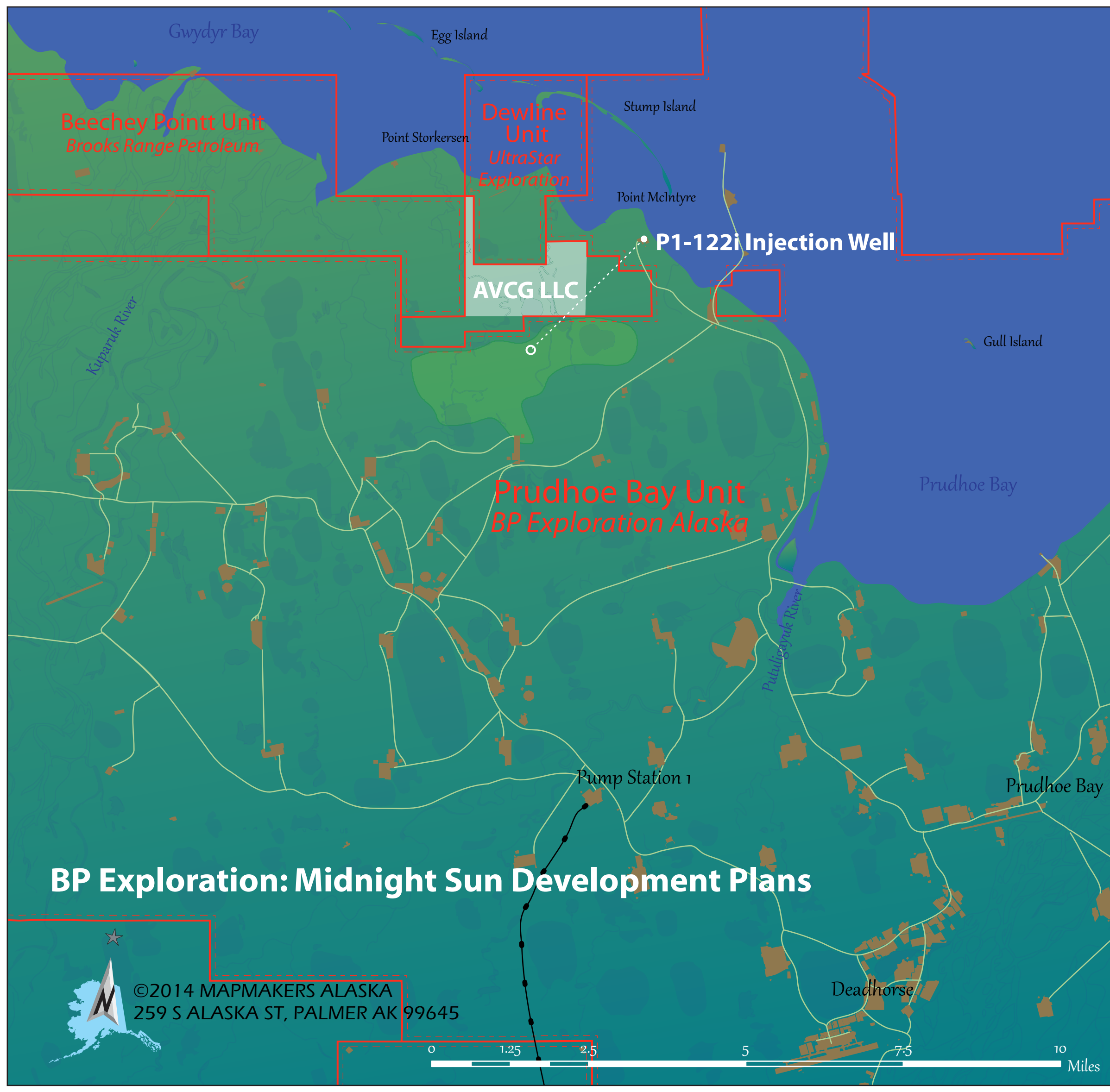
Of the 100 million barrels of oil in place at Midnight Sun, BP had produced slightly more than 20 million barrels through July 2014. Oil production is currently below 1,000 barrels per day, according to a 2014 plan of development, which BP filed in September 2013.

Water injection to date

Since BP began enhanced oil recovery operations at Midnight Sun in October 2000, the company has exclusively used water injections to improve reservoir pressure at the satellite. A 2001 upgrade of the produced water injection pump at Gathering Center No. 1, which handles Midnight Sun production, allowed BP to increase injection volumes to between 20,000 and 25,000 barrels per day and subsequently increase injection pressure.

A key metric for water injection is the relationship between the amount being injected and the amount being produced, a figure known as the "voidage replacement ratio," or VRR. Current reservoir management strategy at Midnight Sun calls for BP to aim for a VRR between 1.0

see **MIDNIGHT SUN** *page 14*



PIPELINES & DOWNSTREAM

First US cellulosic ethanol plant opens

The first commercial-scale plant to produce ethanol from cellulosic material opened in Emmetsburg, Iowa, on Sept. 3, the Energy Information Administration has announced. Operated by a joint venture called POET-DSM Advanced Biofuels, the plant can generate ethanol from corn waste such as the plants' leaves, husks and stalks. The plant is the first of three similar facilities planned for development in the Midwest, EIA said.

By using agricultural waste products rather than corn that could otherwise be used as food, cellulosic ethanol offers distinct advantages over the production of conventional corn ethanol. But the relative complexity of producing ethanol from cellulosic material has presented economic hurdles in upscaling the technique from a laboratory process to a commercial operation. Cellulosic ethanol development has also faced the headwind of ethanol demand reaching a ceiling, because of limits in how much ethanol can be mixed with gasoline and because of declining U.S. gasoline demand.

see **ETHANOL PLANT** *page 15*

● ALTERNATIVE ENERGY

ML&P won't quantify Fire Island impacts

Says wind farm has negative impacts but that it is not cost effective to quantify those impacts and claim compensation for them

By ALAN BAILEY

Petroleum News

In a report filed with the Regulatory Commission of Alaska on Sept. 26, Chugach Electric Association told the commission that, although electric utility Municipal Light & Power has reported impacts on its systems from the wind farm on Fire Island near Anchorage, ML&P does not think that the monitoring necessary to quantify these impacts would be cost effective. Consequently, at present ML&P does not propose billing Chugach Electric for the negative impacts of the wind farm, Chugach Electric told the commission.

The wind farm, owned and operated by Cook Inlet Region Inc., went into operation in September 2012, supplying power to Chugach Electric, the farm's sole customer. Commissioning of the facility followed a lengthy and heated debate over the potential impact of the farm's intermittent power output on the stability and cost of power generation in the Alaska Railbelt power grid. The intermittent output needs to be counterbalanced by a varying power supply from elsewhere, with Chugach Electric primarily using the hydropower facility at Bradley Lake on the Kenai Peninsula as that variable, compensating power source.

Chugach Electric is in the process of installing a flywheel and battery system, to evaluate this technology as an alternative means of smoothing out the wind farm's constantly varying output, the utility told the commission.

Compensation agreement

When the wind farm went into operation Chugach Electric undertook to compensate other utilities using the Railbelt grid for any costs incurred as a consequence of the integration of the wind farm into the grid.

In a letter dated Sept. 18 to Chugach Electric ML&P said that its power generation system had experienced increased frequency variability since the wind farm had been connected to the grid, and that variations in the ML&P power output appeared to correlate with variations in the wind farm output. As a consequence, ML&P has concluded that the wind farm has had negative impacts on ML&P's power output, despite the fact that ML&P is not a purchaser of Fire Island power, the utility wrote.

But the cost of additional new metering that would be necessary to quantify those impacts, to enable ML&P to bill for the impacts, would cost more than the compensation that ML&P would likely be entitled to receive, the letter said. Given the limited level of intermittent power generation on the grid and Chugach Electric's planned evaluation of a flywheel and battery system, for the time being ML&P does not plan to claim compensation for the wind farm impacts, the letter said. ●

Contact Alan Bailey at abailey@petroleumnews.com

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LNG TRADING

of vibrant markets in which prices are volatile and unpredictable. To minimize the risk of losses caused by price swings, buyers and sellers seek ways to lock in prices for deliveries at future dates. They may bet wrong and overpay or underpay as the market moves, but they will have protected themselves against too much movement — or profited if they bet correctly.

Speculators, who bet on the price swings and often have no intention of actually delivering or taking delivery of any oil, are another set of important actors on exchanges and frequently act as counterparties to buyers and sellers.

There is no equivalent in the LNG world to the frenzy of futures exchanges like the NYMEX. In fact, there is no futures trading at all.

Japan, the world's largest buyer of LNG, plans to list the world's first futures contracts for LNG on the Tokyo Commodity Exchange by sometime in 2015, but that will not mean LNG all of a sudden becomes a global commodity. In fact, most analysts do not believe that it will be traded as a global commodity anytime soon, even if futures contracts are sold in Japan. There just isn't enough of it available and sold openly.

Growing spot markets for LNG

Oil is also traded on a spot basis for individual cargoes, with main spot markets or trading centers in Rotterdam for Europe, Singapore for Asia and New York for the United States.

In contrast, most LNG changes hands privately through long-term contracts typically spanning 15 to 20 years. The enormous capital cost of liquefied gas projects is one reason deals are most commonly cemented on a long-term basis between producers and customers. Producers need the certainty that they can sell their product in order to attract financing for pricey investments in liquefaction plants, storage tanks and LNG carriers that cost twice as much as oil tankers. Even a small liquefaction project can top $10 billion, with the larger and more complex projects costing $30 billion and up.

Long-term contracts cover everything from upstream gas-supply agreements to shipping charters to loan arrangements and, of course, the LNG sale and purchase agreement, Nelly Mikhaiel, a New York City-based senior consultant at FACTS Global Energy, wrote in a July 2014 email interview. The destination and any resale under these sales-and-purchase agreements are typically tightly controlled.

Still, spot trading and short-term contracts (considered to be four years or less) make up a growing segment of LNG trading — rising in the past decade from around 5 percent to 20 percent of worldwide trade.

For contracts starting delivery before 2000 the average length for contracts was 20.3 years, while contracts starting delivery after 2000 averaged 16.7 years. The shrinking contract durations are due to declining gas production at mature fields in Australia and Asia; new projects with smaller feed-gas reserves than those in the past; greater desire by producing countries to keep more gas for domestic use; and the rise of the short-term market, Mikhaiel wrote.

LNG enters the spot market for many reasons.

Projects sometimes produce more LNG than expected and sell the excess on the spot market. Or a project might reach a final investment decision without committing 100 percent of its production. Perhaps the developers could not secure long-term buyers for all of the volume (due to differences of opinion about key issues such as pricing). Or, satisfied that enough of the production had been sold under long-term contracts to turn a profit, they might choose to retain a little gas for opportunistic sales.

Buyers can also be a source of spot sales. Under less common but more flexible deals, buyers may be able to sell some of their cargoes on the open market. These deals let buyers rid themselves of excess LNG or play the spot market for better returns.

Supply speaks volumes

The cacophony of the NYMEX, described as "a great roaring rug of squall" by journalist Lisa Margonelli in her 2008 book, "Oil on the Brain," is made possible in part by steady supplies of American crude oil with industry-accepted grading standards.

Ample supplies of a commodity are important for backing up contracts on a futures exchange. Sellers need to be able to guarantee that buyers will get the product, should they choose to take physical delivery.

The plentiful supply of West Texas Intermediate powers the NYMEX engine. Crude streams elsewhere in the world help keep other exchanges busy.

The LNG trade, in contrast, lacks oil's volume. Global oil production in 2013 was 86 million barrels per day; the export-import trade averaged 56 million barrels a day. The amount of LNG traded was equal to 5.9 million barrels of oil per day.

The problem is not the existence of natural gas itself, which is abundant. Proved reserves of oil in 2013 were almost 1.7 trillion barrels, and the natural gas equivalent was likewise impressive at 1.23 trillion barrels.

LNG costly to transport

Oil enjoys a robust global transportation network of pipelines, tankers, trucks and trains. There are thousands of ports dedicated to loading and unloading oil; a large, competitive and flexible shipping fleet to carry oil from buyers to sellers; and hundreds of refineries around the world dedicated to making a wide range of petroleum products.

For LNG, transportation costs and logistics are a major impediment to expanding the market to the point where it could become a globally traded commodity like oil.

Most natural gas moves by pipeline, which works just fine on dry land or short distances underwater. But to cross an ocean, supercooling the gas into a liquid that can be loaded on to a ship is a more cost-effective way to move the molecules.

"The transportation of natural gas ... is a challenge much more difficult to overcome than arguably any other fuel," The World Energy Council said in its 2010 report, "Logistics Bottlenecks." The council was referring to both pipeline gas and LNG, but the transportation costs and challenges tend to be even larger for LNG.

Because of the high costs and technological complexities, liquefied gas is preferred to pipeline gas only when geopolitics, physical distances or ocean trenches render pipelines impractical or cost-ineffective.

Out on the high seas, oil wins on volume and cost.

Almost 10 times more oil than LNG moved by sea in 2012, measured in tons per mile, according to the United Nations Conference on Trade and Development.

Oil is immensely more energy-dense and profitable per tanker load than LNG. The payload aboard a 1,000-foot long LNG tanker carrying a spot-sales cargo to Asia in summer 2014 was worth almost $40 million. An oil tanker of the same size would be carrying more than $100 million worth of crude. ●

Editor's note: Part 2 of this story will appear in the Oct. 26 issue.

Editor's note: This is a reprint from the Office of the Federal Coordinator, Alaska Natural Gas Transportation Projects, online at www.arcticgas.gov/why-lng-does-not-trade-like-oil.

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BREAKING POINT

Qatar, Nigeria and the United States.

The alliance's original four members are Petronas (Pacific NorthWest LNG), Royal Dutch Shell (LNG Canada), BG Group (Prince Rupert LNG) and Chevron (Kitimat LNG), joined recently by AltaGas and Idemitsu (Triton LNG) and Pacific Oil & Gas Group (Woodfibre LNG).

Petronas steals limelight

Tensions between the industry and government were further strained earlier in October when Petronas stole the limelight from the British Columbia government on the day a new legislative session started.

Normally that event gives the government an exclusive chance to occupy center stage by outlining its legislative agenda, while delivering an upbeat speech.

Instead, Petronas issued a news release just before the session opened when its Chief Executive Officer Shamsul Abbas said that unless LNG tax and regulatory issues were resolved by the end of October the company would likely stall potential investments of up to C$36 billion on the Pacific NorthWest project by 10 to 15 years.

That came a few days after Abbas met with Premier Christy Clark and Natural Gas Development Minister Rich Coleman, who is the cabinet point man on LNG.

The far from "cordial" message from Abbas could indicate he failed to make any headway in his bargaining with the government leaders.

From polite to hardball

The release was polite enough to begin with, noting Petronas was "encouraged by the commitment expressed by the B.C. government" to launching LNG projects and the opportunity to "monetize, add value and link B.C. natural gas to the global market, to the benefit and prosperity of Canadians, especially British Columbians."

Shamsul then resorted to hardball, noting:

*"The reality of the global LNG market is that we are facing potential overhang and decreasing demand that creates downward pressures on LNG prices. ... There is a need for international energy companies such as Petronas to seriously prioritize and reassess our investments. The proposed fiscal package and regulatory pace in Canada threatens global competitiveness of the (Pacific NorthWest) project."

*"This is further exacerbated by preliminary project costs, which indicates the cost of local contractors to be higher and not benchmarked to global contractors' costs. The additional tax and high cost environment will negatively impact the project's economic viability and competitiveness. In fact, our last portfolio review exercise (indicated) the current project economics appeared marginal."

*"Petronas needs to secure consensus on key principles vital to the success of this project by the end of October. Missing this date will have the impact of having to defer our investments until the next LNG marketing window, anticipated in 10-15 years."

Scarce mention of promises

The government's speech made scant mention of Clark's sweeping promises of an LNG industry that could erase British Columbia's debt, currently at C$60 billion, provide C$1 trillion in new economic prosperity and create up to 100,000 jobs.

Instead, the hopes have now been lowered to a "chance ... not a windfall" that would help British Columbia "maintain the same world-class services we rely on."

"And the inescapable truth is that they can only be protected if we can afford them. The opportunity afforded by LNG is more than a chance to make a smart investment."

The government underscored the importance of LNG at a time when its one sturdy export market for natural gas in the United States has dried up "and is never coming back," forcing the province to shift its focus to global markets.

The speech also referred to greenhouse gas emission standards that LNG companies will have to meet, as well as how the government will balance any increased pollution caused by LNG facilities when the province's legislated GHG reduction targets.

"B.C.'s 150-year supply of natural gas is an opportunity to change the world ... an opportunity to dramatically reduce air pollution."

Not a surprise

Keeping his cool, Coleman said none of what Abbas had to say came as a surprise, suggesting the Petronas boss was merely engaging in a "little bit of posturing," having told him in private only a few days earlier he was comfortable that the government was addressing the issues in a timely way.

Ed Kallio, director of gas with Ziff Consulting, said that while the Petronas salvo contained a bit of posturing or negotiating there are also serious risks that British Columbia's proposed LNG production tax could price projects out of the global market.

He said it was "foolhardy" for the province to even talk about a new tax which amounted to treating the LNG sector in a completely different manner from any other industry when it already stood to reap the rewards of royalties from gas production, as well as increased corporate and income taxes.

Asked about the narrow window of opportunity that exists for LNG, Clark told reporters: "We're a government in a hurry." Exactly how desperate will be known later in October when she can either appease the LNG proponents, or watch helplessly as they withdraw, taking her LNG dream with them. ●

Contact Gary Park through publisher@petroleumnews.com

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MIDNIGHT SUN

and 1.3 with an average of 1.2. That range would maintain reservoir pressure while preventing oil from saturating the gas cap, according to BP. From July 2012 to July 2013, the average VRR at Midnight Sun was 1.08 and reservoir pressure remained "stable," with a change of less than 50 pounds per square inch, according to BP.

Candidate for MI

Even with that success, BP has noted that Midnight Sun is a candidate for miscible injection — the cocktail of water, solvents and/or gases used to improve recovery. The biggest obstacle was the lack of a miscible injection pipeline to supply the field.

The plan now is to drill a dedicated miscible injection well from the nearby Point McIntyre 1 pad to the east to supply Midnight Sun directly, rather than through a new pipeline.

The current plan is to use the Parker 273 rig to drill P1-122i from an existing slot at the Point McIntyre 1 pad to drill a "surface hole" to about 5,693 feet and an "intermediate hole" to about 10,746 feet. BP would cement the well through the productive Kuparuk interval.

The well would require a special easement. The northern boundary of the Prudhoe Bay unit is a jagged line. A straight line drawn from the Point McIntyre field to the Midnight Sun field would briefly pass through an Alaska Venture Capital Group lease — ADL 392146. To pass through the neighboring lease, BP needs special state permission.

The state Division of Oil and Gas is taking comments on the plan through Nov. 5. ●

Contact Eric Lidji at ericlidji@mac.com

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PEW MEETING

organization that analyzes public policy, published its own recommendations for Arctic offshore safety standards for the oil industry. And it appears from documentation published on the OMB website that the Oct. 8 meeting involved a discussion of those proposed standards.

Pew says that, while it is not opposed to offshore drilling, it thinks that a balance must be achieved between responsible energy development and protection of the environment. World-leading standards need to be in place to ensure safety and to ensure effective oil spill prevention and response in Arctic environments, the organization says.

In its standards Pew argues for seasonal limits for drilling into hydrocarbon-bearing zones, with drilling only allowed at times of the year when a spill response is possible, with adequate time allowed for the drilling of a relief well from open water should a well blowout occur. Operators must use suitably equipped polar-class drilling rigs. And minimum standards for oil spill contingency arrangements must include oil slick trajectory models that allow for Arctic conditions, with sufficient and appropriate equipment available to clean up an entire spill.

For relief well drilling — the drilling of a secondary well to plug an out-of-control well with cement — the Pew standards would require a back-up drilling rig to be available within 24 to 48 hours. Other recommendations include the required use of Arctic well control experts during drilling operations, and specific equipment and training standards for mechanical oil recovery in the Arctic.

Shell critique

When Shell met with OMB in September it argued for a less prescriptive and more performance-based approach to Arctic safety regulation, an approach that sets safety requirements without necessarily spelling out how those requirements are to be met. Regulatory enforcement would presumably involve verify-

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PEW MEETING

ing that a company has the ability and resources to satisfy the requirements.

Shell particularly criticized mandatory same-season relief well drilling, saying that there is no historical evidence of success in using this technique as an approach to stopping an oil spill. It appears that, instead, the company favors technologies such as well capping and containment systems as response tools. The company also questioned a requirement to have sufficient mechanical recovery equipment to recover all oil from a worst-case scenario spill. This requirement discounts the effectiveness of techniques such as in-situ burning and dispersant use, the company argued.

—ALAN BAILEY

Contact Alan Bailey at abailey@petroleumnews.com

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ETHANOL PLANT

At full capacity, the Iowa plant will process 770 tons per day of corn waste, EIA said.

The plant uses a process called enzymatic hydrolysis, which has been developed over many years and is already in use in a commercial-scale operation that started up in Italy last fall. The parent company for the Italian operation plans to open a similar plant in Brazil later this year, EIA said.

—ALAN BAILEY

Contact Alan Bailey at abailey@petroleumnews.com

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ARCTIC MAPPING

Lack of maps cited

Green Party leader Elizabeth May told the Canadian Broadcasting Corp. that the lack of proper maps and charts for the region is a "significant worry to people who study the Arctic."

She found it surprising that the government of Prime Minister Stephen Harper, who has been a leading advocate of economic development in the Arctic through his highly-touted Northern Strategy, is failing to provide services for resource companies that need to operate in Arctic waters to develop the area.

"We're looking at potentially 300 more navigations through these waters in the near term in order to accommodate development interests," May said.

Megan Leslie, environment spokesman for the New Democratic Party, said the increasing volume of marine traffic in the Arctic poses a serious concern about how an accident would be handled.

"There is a really small window right now when we could actually do a cleanup," she said. "We've seen a lot of discussion about drilling in the Arctic and that's one of the major concerns if something were to happen."

Gelfand told reporters the Canadian Hydrographic Service should establish a priority list of the "important places in the Arctic that need to be charted ... where do we need to put the resources?"

Transport Minister Lisa Raitt said her department has been delving into the concerns "for a very long period of time."

"We actually have a world-class tanker panel that had been looking at safety, including specifically on shipping in the North," and should "soon" complete its work, she said.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

A message from the publisher

October 15, 2014

Dear readers,

We are required to publish the following information by the U.S. Post Office as part of our periodicals mailing permit. The numbers are for print copies only and represent only a fraction of Petroleum News readers because Petroleum News and its affiliated publications, Petroleum News Bakken and North of 60 Mining News, are largely distributed online.

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In addition to individual subscriptions, almost half the top 70 oil and gas explorers in the United States and Canada have purchased bulk online subscriptions to Petroleum News and Petroleum News Bakken for all their employees. Several pipeline, drilling, and service and supply companies have followed suit, as have numerous local, state/province and federal government offices.

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Sincerely,

Kay Cashman
Publisher & executive editor

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Publisher *(Name and complete mailing address)*
Kay Cashman P.O. Box 231647 Anchorage, AK 99523

Editor *(Name and complete mailing address)*
Kristen Nelson P.O. Box 231647 Anchorage, AK 99523

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Kay Cashman P.O. Box 231647 Anchorage, AK 99523

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Full Name	Complete Mailing Address
Barbara Lasley, Member	P.O. Box 231647 Anchorage, AK 99523
Kristen Nelson, Member Manager	P.O. Box 231647 Anchorage, AK 99523
Mary Mack, Member Manager	P.O. Box 231647 Anchorage, AK 99523
Susan Crane, Member Manager	P.O. Box 231647 Anchorage, AK 99523

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PS Form **3526**, September 2007 *(Page 2 of 3)*

Oil Patch Bits

URS adds Luke Hoffmann to its team

LUKE HOFFMANN

URS Corp. recently said that Luke Hoffmann has joined its team as a staff geologist. Hoffmann recently graduated from the University of Alaska Anchorage with his Bachelor of Science degree in Geology. For the last 14 years, he has held various positions in Alaska, all pertaining to remote field work. Hoffmann's areas of expertise include environmental geology and mineral exploration.

Lynden Transport earns highest score of LTL carriers

Lynden Transport earned the top score among Less-than-Truckload carriers in the Western Region in Logistics Management magazine's 31st annual Quest for Quality Awards. Lynden swept the category, earning No. 1 rankings for on-time performance, customer service, equipment and operations and information technology. Its total weighted score of 53.01 was the highest among all carriers in the national LTL sectors of Western, Northeast, South/South Central and Midwest/North Central. This is the second year Lynden Transport earned the No. 1 ranking for on-time performance in the Western Region.

The Quest for Quality Awards goes straight to the customers, asking shippers to evaluate providers on the following criteria: on-time performance, equipment and operations, value, information technology and customer service. This year the research group received 7,451 total responses — 1,272 more than last year. In order to be a "winner," a company had to receive at least 5 percent of the category vote. With this year's award, Lynden Transport has received 18 Quest for Quality Awards.

According to editors at Logistics Management magazine, "Lynden Transport is among the carriers who received the ultimate vote of confidence, posting the highest scores across our lists of critical service criteria. Those in the Regional LTL sector work tirelessly to manage the onslaught of increased regulation and related operational challenges while maintain top service levels."

ASRC top Alaska business for 20th consecutive year

Arctic Slope Regional Corp. is once again honored to be recognized by the Alaska State Chamber of Commerce, Alaska Business Monthly magazine and local business leaders as the top Alaska-owned and operated corporation. This is the 20th consecutive year that ASRC has ranked No. 1 on the "Top 49ers List," based on the prior year's gross revenues. The list can be seen in its entirety in the October 2014 edition of Alaska Business Monthly magazine.

"Growth, diversity and adhering to our Inupiaq values have been the keys to our long-

see **OIL PATCH BITS** *page 17*

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

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

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WILSON Q&A

ward with it, but you will turn around and no one will be following you. I said, how come? I used to get really upset with people. I thought they were being bullheaded. The trainers said, others don't get it and don't see it that way; they don't see it your way.

So it's kind of like our political philosophies in life. The Democrat philosophy is give people fish. The Republican philosophy is teach people to fish. We just think differently. So it's difficult to get a bunch of legislators to do one thing and come up with one plan. Our brains aren't capable of always seeing what the other people are seeing.

Petroleum News: So with that in mind, what would your message to your colleagues be these next two to four years as you continue to pack your boxes?

Wilson: People are going have to work harder on personal relationships. That's hard. Even within your own caucus, it's difficult.

We used to do it better when we had 120 days of session. We were in Juneau and we had time to get to know each other and understand each other. Now that we are down to 90 days, we don't have time for those personal relationships.

You have to take time for that. They are going to have to work harder at getting to know each other better. When they are friends they are more open to trying to understand each other and where they are coming from.

Petroleum News: Let's look at the gas line, the last piece of major legislation in your tenure with the Legislature. What do you believe has been accomplished thus far?

Wilson: We are making progress — definitely making progress. We are in the lull right now while we figure out if this is going to be economically feasible. I think they are looking at the three Ps — public, private partnership. I think it's going to take that to make it happen. But right now the state doesn't have the money. I don't know how the companies are going to do it. We have silos (systems) yet we are trying to pull everybody together at the same time. It's pretty difficult to do. If we can pull this off, it will be one of the first times in the world that something will be done this way. The state of Alaska can make deals and so can the companies make deals. We aren't going to tell them what our deals are and they aren't going to tell us what their deals are. So that makes it tough.

Petroleum News: You mentioned the Arctic for development and how a change in the administration might loosen some regulatory burdens. Do you see that happening soon?

Wilson: That remains to be seen. It's not going to happen under this administration. I'm hoping it will happen under the next administration. We are hoping the courts will step and get things taken care of early rather than later.

Petroleum News: What would you say was the toughest time for the Legislature? Would it have been the 2006-2007 block when the cloud of corruption hung over lawmakers?

Wilson: That was such a crazy time. It was just an embarrassing time for our state. But I think the worst time is now because the Legislature during the good times when the money was rolling, all they think about is how to spend it and they are not always wise on what's best for the state as a whole. I do not think we were wrong in having big capital budgets. The reason I think that is because if we wouldn't have had the capital budgets that we had — and they were high — if we wouldn't have had them, Alaska would have gone through the terrible dip that the Lower 48 did. But we should not have been throwing bunches of money and growing the operating budget.

The operating budget is the budget that we have to contain. We have to constantly look at are there redundancies? Is there a better way to do this? Can we take this program here and that program there, then merge them together to do the same thing with less and still not hurt the service? We didn't do those things. I think that is sad.

Now we are going to be forced to. No matter what we do, people are not going to be happy. I have found even if you did the right thing all the time, people are going to be upset with you. Legislators have to realize that. Sometimes they try to please too many people. So it's the operating budget has to be curtailed and not let it grow. It grew every single year. Now we have to say, we need to keep it down to 1 percent, so that we could sustain it.

Remember when we got rid of the longevity bonus. When we got rid of the longevity bonus that made so many people made. Let's face it we might have been able to do it differently. Once people have something and you take it away, you're in a no-win situation. We've put ourselves back into that position with all of our departments.

We are going to have to cut back and you know what people are going to be mad. They don't care as long as it doesn't bother their corner of the budget. But when it bothers their budget, they come out of the woodwork. They are the same people who say cut the budget, we've got to be careful, but just don't do it in my area. I think the time coming up in the next few years is going to be very difficult for legislators. It goes back to ACES.

It's easier to take a step back and look. Then you see some things you don't like. It's going to be hard; they are going to have to do some things they don't want to do, but they are things they have to do. In the past when we made cuts, I think some of it was a little fat that we got rid of but this will be interesting. Even last year when we held the budget back, we did it in ways that didn't hurt the services. In the next few years they will have to hurt services.

Petroleum News: So where do you think the state's biggest promise lies when it comes to resource development?

Wilson: I would say, is right now, the promise is we are going to see what we can do. I don't think there is anyone saying there's a promise we are going to get a gas line even if all of our data shows it's impossible (editor's note — AGIA was to go forward even if there were no takers at an open season). We do promise that we are going forward to fully evaluate this in every way that we can to make it happen if we can. As far as the Arctic goes, we can't do a lot of that until Washington, D.C., changes some things. One of them is being part of the Laws of the Sea. Alaska will lose out on so much if we don't get that taken care of.

The other thing is other countries are already taking steps and doing things to make sure they have a place in the Arctic and the United States hasn't done that. The development will come. It will come up through there and if we are not prepared, they will just say move out of the way. There will be an oil spill and the traffic will increase tremendously.

Petroleum News: So you're saying the future is we'll see what we can do?

Wilson: I hate to think of it that way, but there are a lot of things up in the air. If we can get some things settled within the Alaska area and get some priorities to see what's best for Alaska as a whole, I think we can get some things done. We have to look at Alaska as a whole and stop chopping it up into districts. When you do that, then Railbelt has all the votes and we don't do what's best for Alaska because the other areas where our resources come from don't get taken care of like they should. So a lot of it is going to be up to the Alaska Legislature. In the Arctic, we can be ready and be ready to do what we can. We are going to have to spend some money up there and we don't have the money to spend right now so it's going to be really hard to look at priorities overall and make those decisions. As far as the gas line, we just won't be able to afford it without the private and public partnership.

Maybe the people of Alaska, if they get a chance to own part of the pipeline, if that can be worked out, I think that can help a lot, something like saying put my Permanent Fund Dividend toward that. It's been talked about and will be again. Somebody in the Legislature will bring it up. There are so many different factors right now, I wish I could make the right recommendation, but I can't. ●

Contact Steve Quinn at squinnwrite@gmail.com

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OIL PATCH BITS

term success," said Rex A. Rock Sr., ASRC president and CEO. "We are joined on the Top 49ers list by other well-respected, prominent companies and I'd like to congratulate them on having a successful year."

In 2013 ASRC's revenues topped $2.5 billion. ASRC has six major business segments, including petroleum refining and marketing, energy support services, construction, government services, resource development and industrial services.

Arctic Slope Regional Corp. is owned by and represents the business interests of the Arctic Slope Inupiat. Since opening enrollment in 1989 to Alaska Natives born after 1971, the corporation's shareholder base has nearly tripled, growing from the 3,700 original enrollees to some 11,000 today. Corporate headquarters are based in Barrow, Alaska, with administrative and subsidiary offices located in Anchorage and throughout the United States.

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

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HILCORP APPROACH

Cook Inlet assets

In early 2012 Hilcorp purchased Chevron's Cook Inlet assets, mainly oil fields, while about a year later the purchase of Marathon's assets brought mostly gas fields into Hilcorp's Cook Inlet portfolio. Since taking over the Chevron fields oil production has increased from about 6,000 barrels per day to about 13,000 barrels per day — a recent well drilled from one of the Cook Inlet platforms could bring that production figure up to 14,000 barrels per day, Lalicker said.

Hilcorp has also achieved success in pushing up gas production from the old Chevron and Marathon fields, turning what had been a pending crisis over Southcentral utility gas supplies into a much more comfortable situation.

"Our game is to always stay a year or two ahead of everybody's (gas) needs," Lalicker said. Hilcorp continues to put money into drilling new wells but, at the same time, is anxious not to develop gas that does not have a market outlet, he said.

Fluid handling

On the oil side of the business the big challenge is the scale of the fluid handling needed, given the large volumes of water that now comes out of the field reservoirs along with the oil, Lalicker said. In the McArthur River field, for example, only 4 or 5 percent of some 90,000 barrels of daily fluid production actually consists of oil.

And critical to maintaining and pushing up the production is the remediation of old wells and the drilling of new wells.

"We're going to drill over 20 wells this year," Lalicker said, in addition to ramping up the recompletion of old wells.

"There are a number of old well bores that we think still have opportunities left in

see **HILCORP APPROACH** *page 19*

Alaska to become one-third of Hilcorp sales

Following the completion later this year of the acquisition of some BP North Slope oilfield assets, Hilcorp Energy's Alaska oil and gas production, including production in the Cook Inlet, will represent about one-third of the company's total hydrocarbon sales, Greg Lalicker, president of Hilcorp Energy, told an Alaska Support Industry Alliance breakfast meeting on Oct. 9. That sales picture also takes into account two major acquisitions by Hilcorp in south Texas in the second half of this year, Lalicker said.

The various acquisitions will result in about one-third of Hilcorp product sales coming from Louisiana, one-third from Alaska, almost 25 percent from Texas and 5 percent from the Utica, a shale play in Pennsylvania, he said.

The mix of assets results from the vagaries of when oil and gas properties, of the type that Hilcorp seeks, have come on the market, with the company's Alaska's assets, for example, not forming part of some master plan, Lalicker commented.

"The right person was looking to sell the right assets at the right time in Alaska, and that's how we ended up here," he said.

And the company's current mix of about 50 percent gas production and 50 percent oil production also results from decisions over which properties can make money, rather than from some company strategy for the production mix, Lalicker said.

—ALAN BAILEY

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UNIT TERMINATION

in 1993 and ConocoPhillips had drilled the Oberon No. 1 well in 2003. Based on those wells and seismic information acquired in 2011, Brooks Range Petroleum identified targets in the Nanushuk and the deeper Kuparuk formations.

Priority to Mustang

But Brooks Range Petroleum prioritized exploration at Southern Miluveach, specifically the Mustang development. Those activities proved up an oil discovery. Earlier this year, AVCG and its partner Ramshorn Investments Inc. sold much of their Alaska holdings, as well as Brooks Range Petroleum, to a three-party joint venture for $450 million.

The joint venture is working with the Alaska Industrial Development and Export Authority to finance independent processing facilities at the unit. A development program scheduled to begin later this year could bring the field online by next year.

During the Mustang program, Brooks Range Petroleum officials kept deferring a decision about whether to explore at the nearby Kachemach unit. "Decisions on proceeding — or not proceeding — with some or all of these wells will be made in the next few months and will be based on working interest owners' technical and capital budgeting priorities," AVCG lead member Ken Thompson told Petroleum News in August 2012.

The following month, the company dropped all 21,947 acres of the nearby Putu unit and 42,119 acres on the western side of the Beechey Point unit north of the Prudhoe Bay unit.

Brooks Range Petroleum seemed optimistic about Kachemach in early October. But in December 2012 the company told Petroleum News that the program "remains under consideration within the (Department of Natural Resources), and we are not at liberty to speculate as to the response that may come from the decision issued by the DNR."

In March 2013, as the Kachemach unit deadline approached, Brooks Range Petroleum Chief Operating Officer Bart Armfield told Petroleum News that the company "continues to re-process and merge acquired seismic data to identify optimal drilling location and target" and planed to drill an exploration well in early 2014, pending partner approval.

The company did not drill those wells earlier this year.

Anadarko leases expire

In a continued sign of the company "rightsizing" its portfolio, four Anadarko Petroleum Corp. leases in the foothills of the Brooks Range Mountains expired in September.

The four leases — ADL 391165, ADL 391166, ADL 391167 and ADL 391168 — are small irregular tracts located atop the actual waterway of the Colville River near Umiat. The leases were immediately north and west of a swath of Arctic Slope Regional Corp. leases where Anadarko conducted a pioneering natural gas exploration campaign several years ago. The ASRC leases are known as the Gubik Complex.

Anadarko once held some 3.3 million acres of state, federal and Native leases across the foothills of the Brooks Range. The current leasehold is much smaller, the result of relinquishments and expirations. Anadarko still holds the core of its exploration area.

The Gubik program was the first on the North Slope to specifically target gas, which remains stranded until a pipeline connects the region to market. When Anadarko began the program in 2008, many saw it as an expression of faith in then-Gov. Sarah Palin's efforts to jumpstart stalled pipeline efforts with the Alaska Gasline Inducement Act.

That program has since shifted to the Alaska LNG Project.

The Gubik No. 3 exploration well tested at 15 million cubic feet per day. Anadarko drilled three more exploration wells in the region by the end of 2009. Since then, the only work on the ground has been a rigless test in early 2012. Those results are unknown.

Anadarko held the four expired leases in partnership with Petro-Canada and BG E&P.

Other expirations

Other September expirations included:

•Two ConocoPhillips leases. The first — ADL 391179 — was several miles south of the Meltwater satellite of the Kuparuk River unit. The lease had been among a block of four; the other three expired in January 2014 and included the BP Ekvik No. 1 well. The second — ADL 391401 — was nestled between the Kuparuk River and Qugruk units.

•Nine Repsol E&P USA Inc. leases in several blocks. The first block — containing ADL 391382, ADL 391383, ADL 391384, ADL 391385 and ADL 391386 — were offshore leases north of the Caelus Natural Resources Alaska-operated Oooguruk unit. Two more leases — ADL 391389 and ADL 391390 — are due west. The remaining two leases — ADL 391399 and ADL 391400 — are farther west, beyond Repsol's Qugruk unit. The expirations do not include any leases where Repsol has drilled in recent winters. Earlier this year, the state extended the terms on 22 other Repsol leases across the region.

Also in September, Auxillium Alaska Inc. surrendered two leases in the foothills of the Brooks Range. The New York based independent acquired the leases — ADL 391326 and ADL 391327 — in a May 2012 lease sale, but never performed any exploration activities. Auxillium also picked up a lease in the Alaska Peninsula earlier this year.

Two contractions

The September lease report finalizes a mandatory contract of the Colville River unit.

The Division of Oil and Gas removed 18 leases from the North Slope unit, which is operated by ConocoPhillips. The contraction was built into the original unit agreement.

The state also contracted three leases from the Nikaitchuq unit.

The contract was established in the seventh plan of development for the unit, which operator Eni US Operating Co., Inc. proposed earlier this year. The three leases — ADL 390433, ADL 388573 and ADL 388580 — are at the outer reaches of the offshore unit and would require either extended-reach drilling or a new offshore island to develop.

Cook Inlet activity

In Cook Inlet, the Division of Oil and Gas is considering a request from the Estate of Finlay MacLennan to transfer small royalty interests in various segments of two North Fork unit leases — ADL 2095 and ADL 390514 — to a variety of individuals.

At the Kitchen Lights unit, the state is considering a request from David J. and Catherine T. Doherty to transfer 0.5 percent royalty interest in six leases and a request from Cornucopia Oil & Gas Co. LLC to transfer a small working and royalty interest — all 0.001 percent or smaller — in 29 leases to its subsidiary Corsair Oil & Gas LLC.

The state is considering a request from the Estate of George Kasper to transfer a small royalty interest in one lease at the Redoubt unit — ADL 378114 — to Arlene Kasper.

Also in September, one Apache Alaska Corp. lease expired. The offshore lease — ADL 391109 — was located near the Middle Ground Shoal field and the Kitchen Lights unit.

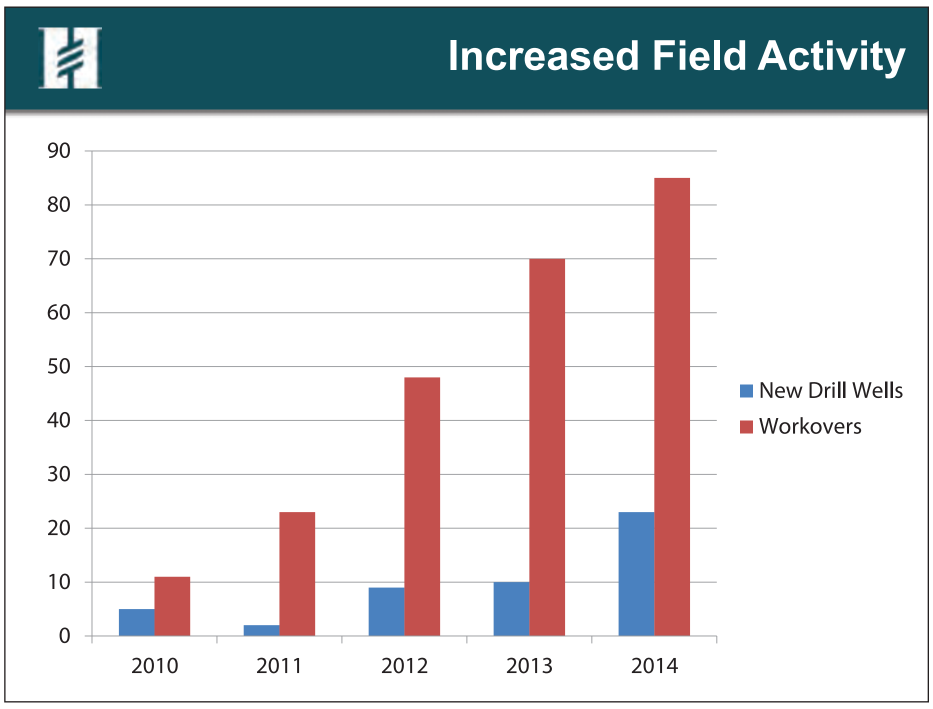
And in September, four Buccaneer Alaska LLC leases expired. One lease — ADL 392387 — was in a block associated with the onshore West Eagle unit in the southern Kenai Peninsula. The other three — ADL 391107, ADL 391108 and ADL 391788 — had been associated with the offshore Southern Cross unit, which has since been terminated.

Buccaneer is currently involved in bankruptcy proceedings.

Finally, Nicholas Van Wyck recently surrendered one lease at Mount Augustine Island. ●

—A copyrighted oil and gas lease map from Mapmakers Alaska was a research tool used in preparing this story.

Contact Eric Lidji at ericlidji@mac.com



Space heater may have caused platform fire

During a meeting of the Alaska Support Industry Alliance on Oct. 9 Greg Lalicker, president of Hilcorp Energy, said that, although the Oct. 2 fire on his company's Baker platform in Alaska's Cook Inlet was still being investigated, it is likely that an overheating space heater in the platform's living quarters caused the blaze. The heater had been inspected in the middle of September, Lalicker said.

The fire, which triggered a response from the Nikiski Fire Brigade, the Alaska Department of Environmental Conservation, the U.S. Coast Guard, Cook Inlet Spill Prevention and Response and Hilcorp, caused extensive damage to the living quarters. Hilcorp had re-activated the previously mothballed platform, to bring on line a single gas well to supply fuel gas for the nearby Middle Ground Shoal field, operated by XTO Energy, Lalicker said. At the time of the fire Hilcorp was engaged in a discussion over the possibility of restarting oil production from the platform, he said.

Having discovered the fire, the four crew members stationed on the platform did everything right, identifying the fire's source, ensuring that everyone was safe and ensuring that the platform was shut down and secure, Lalicker said. And, having determined that they were unable to deal with the blaze, they called in the emergency services and evacuated the platform.

In the event, no one was hurt and nothing was spilled, Lalicker said.

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them, either to be re-activated in their current zones or recompleted in other zones," he said.

Still in the red

But his work does not come cheap — Hilcorp has yet to recover the costs of its Cook Inlet assets, with the company seeing that cost recovery as a six- or seven-year project. The company spent $900 million on acquiring the assets and subsequently invested another $900 million into the assets in terms of capital projects such as the drilling of new wells, well workovers and the repairing of field facilities, Lalicker said. Then, with $360 million in operating costs and overheads offset by $1.5 billion in revenues, Hilcorp is still $600 million in the red in its Cook Inlet venture, some three years after entering the region.

The question is whether the projects that the company knows can make a difference to the production and revenue figures can be executed quickly enough, especially as world oil prices decline, Lalicker said.

"So far it's turning out pretty good, but there's still a long way to go before I'm saying it's really good," he said.

Increase field value

Lalicker explained that Hilcorp's business model is based on the concept of purchasing old oil and gas fields at prices that reflect field performance at the time of acquisition. To then make money out of the acquisitions it is essential to come up with better ways of developing and operating the fields, to elevate field value above purchase price.

Typically, Hilcorp gains about 10 percent of its new value from acquired properties from cost reduction — the use of fewer people and more efficient services, and the better bundling of contracts, Lalicker said. And in the past about 25 percent of the value creation has come from the rising prices of oil and gas. But the remaining two-thirds, "the big needle mover," comes from production rate increases, coupled presumably to the drilling and remediation of wells, leveraging those creative efforts of employees and contractors, to come up with new ideas and new ways of doing things.

Asked for his views on Alaska fiscal policies and the potential impact of those policies on his company's Alaska ventures, Lalicker said that the most important factor is fiscal predictability, to enable long-term business planning. The idea of making investments with payoff periods of five to 10 years or more when the fiscal regime is changing every two to three years "is just untenable," he said.

"If Alaska ever gets to the point where we feel like we cannot predict the fiscal regime we stop investing," Lalicker said. "It's just that simple because that's foolish, putting your money out there and not knowing under what terms you're going to be producing the oil and gas."

Lalicker commented on the way in which the Alaska Oil and Gas Commission and the Alaska Department of Natural Resources have been working with his company, to try to make the permitting of field developments as simple and predictable as possible. Given the company's strategy of doing many little things to improve field performance, the simpler the permitting process the more efficient the field development can become, he said.

BP assets

In the fourth quarter of this year Hilcorp anticipates closing on the purchase of some of BP's North Slope assets, acquiring 100 percent interests in the Endicott and Northstar fields, and a 50 percent interest in the Milne Point field. Hilcorp also has an option to take a 50 percent stake in the undeveloped Liberty oil field, offshore in the Beaufort Sea.

Lalicker said that Hilcorp's immediate priority upon taking over the BP assets would be to increase field production rates.

"Our goal is to start moving rate up as quickly as possible," he said.

He said that a decision on the Liberty acquisition would follow an investigation into whether the development is viable and is likely to make money in a reasonable timeframe. In 2012 BP abandoned a plan to develop Liberty using ultra-extended-reach drilling from an expanded production island at the Endicott field, favoring instead an earlier concept of building an artificial production island at the Liberty location.

Heavy oil

Asked about Hilcorp's views on potential heavy oil development in the Milne Point field, Lalicker said his company's short-term priorities revolve around relatively small-scale projects that deal with conventional oil resources, with consideration of heavy oil and other bigger and more technically challenging projects coming later. In 2011 BP activated a heavy oil test facility in Milne Point. But, after some success in heavy oil test production, in 2013 the company suspended the project, presumably having encountered difficulties in overcoming the technical and economic challenges of developing this massive but difficult resource.

Questioned about the challenges for North Slope employees involved in the transition to Hilcorp employment, Lalicker commented that, given Hilcorp's policy of pushing decision making and accountability down the chain of command, people at the foreman level tend to experience the biggest disruption. Hilcorp expects individuals at that level to figure out how best to run their assets, making their own decisions based on their own fund of experience. It can take a while for people to get their feet under the idea of deciding what to do, rather than being told what to do, Lalicker said. ●

Contact Alan Bailey at abailey@petroleumnews.com