
page Q\&A:Walker says markets curious
5 about AKLNG; he's not giving up

This week's Mining News


New 'GAME' in Alaska


Explorer merges Interior Monte Cristo, Uncle Sam properties into district-scale gold project. Read more in Mining News, page 9.

## State works to keep Alaska sales in Interior's 2017-22 OCS plan

The state is working to ensure that Alaska is included in the U.S. Department of the Interior's 2017-22 outer continental shelf lease sale program.
In an Oct. 6 letter to Secretary of the Interior Sally Jewell, Gov. Bill Walker formally nominated the Beaufort Sea, Chukchi Sea and Cook Inlet for inclusion in the five-year program.

He said the nomination was "necessary
 to ensure the three proposed lease sales" remain in the five-year program. The governor also said that once lease sales are scheduled in the Arctic OCS, the state "will nomisee ALASKA SALES page 14

## CIE wants to move processing of

 WMR crude to Kustatan facilityCook Inlet Energy, the local operating arm of Glacier Oil and Gas, wants to move processing for crude oil from its West McArthur field where the facilities are aging to the newer and underutilized - Kustatan production facilities.

The move would require a waiver from the Alaska Oil and Gas Conservation Commission for the use of multiphase flow meters at the West McArthur River and Redoubt production facilities; Redoubt oil is processed at Kustatan. The commission received the CIE request in May and asked for additional information, receiving more detail on the proposal in June and July.

The commission held a hearing on the proposal Oct. 11 David Kumar, CIE production manager, and Leland Tate, see PROCESSING MOVE page 20

## EXPLORATION \& PRODUCTION

## A major new ERD rig

ConocoPhillips has commissioned drilling unit for Fiord West development

## by ALAN Balley

Petroleum News

ConocoPhillips Alaska has commissioned Doyon Drilling Inc. to build a new extended reach drilling rig for the North Slope, ConocoPhillips announced Oct. 6. The rig, the third new North Slope rig that ConocoPhillips has commissioned since 2013, will increase the surface area that can be accessed from a single drill site from 55 square miles to 125 square miles, thus reducing the oil development footprint on the North Slope, the company said.

The company said that the rig will initially target Fiord West, a hitherto undeveloped satellite oil field adjacent the Beaufort Sea coast, on the west side of the Colville River delta, in the extreme

> Reports on the production testing in the Kuparuk indicated flow rates of some 3,750 barrels per day of light, 37 API, oil. Flow testing in the Nechelik showed 28 API oil flowing at some 270 barrels per day.

## northwest of the Colville River unit.

## Drill from existing pads

The new rig will be able drill to distances of more than 33,000 feet, compared with the reach of some 22,000 feet of current rigs, ConocoPhillips says. ConocoPhillips spokeswoman Natalie Lowman has told Petroleum News that the extend-
see ERD RIG page 18

## - government

## Carbon tax furor

Trudeau overrides federal-provincial consultations with GHG tax of C $\mathbf{\$ 5 0}$ by '22

## By GARY PARK <br> For Petroleum News

When he was elected a year ago, Canadian Prime Minister Justin Trudeau promised to consult with provincial and territorial governments on all major issues.

That pledge is now in tatters, with Trudeau accused by Saskatchewan Premie Brad Wall of demonstrating a "stunning level of disrespect" by taking unilateral action on a national carbon tax.

Wall and the premiers of Nova Scotia and Newfoundland were enraged by Trudeau's ultimatum that unless provinces adopt either a tax on greenhouse

gas emissions or introduce a cap-and-trade system by 2018 the Canadian government will impose its plan.

Wall said he could not believe that Trudeau announced the tax in the House of Commons at the same time provincial and territorial environment ministers were meeting with federal Environment Minister Catherine McKenna "on a socalled collaborative climate change plan.'

## $\mathbf{C} \$ 10$ per ton

The tax will start at $\mathrm{C} \$ 10$ per metric ton in 2018 and grow by $\mathrm{C} \$ 10$ a year to $\mathrm{C} \$ 50$ by 2022, a level that is $\mathrm{C} \$ 20$ above a tax proposed by Alberta and see CARBON taX page 14

## - UTILITIES

## Some concerns raised

Have HEA members have been given a fully balanced perspective on deregulation?

## By ALAN BAILEY

Petroleum News

While members of Homer Electric Association are engaged in a ballot on whether the Kenai Peninsula utility should become deregulated from the Regulatory Commission of Alaska, on Oct. 12 the commission held a public meeting to review comments on the deregulation issue. Some members of the public and individual commissioners expressed concern that information provided to HEA members by the utility had not provided a fully balanced view of the deregulation question. HEA did not send any representatives to the RCA meeting to answer the concerns raised.

Commission Chairman Robert Pickett said that he had attended the two public information meetings that HEA had convened, one in Homer and

McAlpine also questioned the practicalities of HEA members challenging board decisions through Superior Court, given the formality and cost of taking court action.
one in Kenai, and that the utility and its board had welcomed his participation in the discussions. The commission does not question the legality of HEA's deregulation move, nor that of the process that the utility is using to ballot its members and hence arrive at a deregulation decision. The concern is the extent to which the information that HEA is providing to its members enables those members to make a fully informed decision.
see HEA DEREGULATION page 19


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- EXPLORATION \& PRODUCTION


## ANS crude production down 1\% from August

For September, North Slope averages 474,810 bpd, off from 478,842 bpd; August Cook Inlet production down marginally from July

## By KRISTEN NELSON

Petroleum News

Alaska North Slope crude oil production averaged 474,810 barrels per day in September, down 0.84 percent from an August average of $478,842 \mathrm{bpd}$. The largest month-over-month changes were at Hilcorp Alaska-operated Endicott and at BP Exploration (Alaska)-operated Lisburne.

Endicott averaged 8,521 bpd for September, up 111.4 percent from an August average of 4,030 bpd. Endicott production has typically averaged more than 8,000 bpd, but dropped into the $6,000-$ bpd range in late August and then in September ranged from a low of 4 bpd to a high of more than $8,000 \mathrm{bpd}$ at the end of that month before settling back into the 8,000 -bpd range in September.
Endicott production includes satellite production from Sag Delta, Eider and Minke, as well as production from the Glacier Oil \& Gas Corp. subsidiary Savant Alaska-operated Badami field and the ExxonMobil-operated Point Thomson field.
Badami averaged 981 bpd in August, on par with 980 bpd in September.

Point Thomson averaged 1,230 bpd in August, up 16 percent, 169 bpd, from a July average of $1,061 \mathrm{bpd}$.
Information for September comes from the Alaska Department of Revenue's Tax Division which reports North Slope oil production consolidated by major production centers and provides daily production and monthly averages. More detailed information, including Cook Inlet and individual North Slope fields and pools, is reported by the Alaska Oil and Gas Conservation Commission on a month-delay basis.

## Lisburne, Prudhoe

Lisburne production averaged 6,342 bpd in September, down 65.7 percent, $12,153 \mathrm{bpd}$, from an August average of $18,495 \mathrm{bpd}$, a drop in production due to scheduled maintenance which began in late August and took the field's facilities completely offline. It came back online

## Point Thomson averaged 1,230 bpd in August, up 16 percent, 169 bpd, from a July average of 1,061 bpd.

Sept. 20. Production from Lisburne, part of greater Prudhoe Bay, includes Point McIntyre, Niakuk and Raven.

Production from BP-operated Prudhoe Bay, the North Slope's largest field, averaged 258,806 bpd in September, down 2.2 percent, 5,743 bpd, from an August average of 264,549 bpd. Volumes shown include satellite production from Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu, as well as from the Hilcorp-operated Milne Point and Northstar fields.

AOGCC data show Milne Point averaged 19,587 bpd in August, up 0.9 percent from a July average of 19,413 , while Northstar averaged 5,631 bpd, up 24.6 percent from a July average of 4,521 bpd.

## Alpine, Kuparuk

The ConocoPhillips Alaska-operated Alpine field averaged $62,281 \mathrm{bpd}$ in September, up 9.5 percent from an August average of 56,864 bpd.

Alpine includes volumes from satellites at Fiord, Nanuq and Qannik.

Kuparuk River, also operated by ConocoPhillips, averaged 138,860 bpd in September, up 2.9 percent, $3,956 \mathrm{bpd}$, from an August average of $134,904 \mathrm{bpd}$. Volumes shown for Kuparuk include satellite production from Meltwater, Tabasco, Tarn and West Sak, as well as volumes from the Eni-operated Nikaitchuq field and the Caelus Alaskaoperated Oooguruk field.
AOGCC data for August show Nikaitchuq averaged 23,104 bpd, down 5.3 percent, $1,288 \mathrm{bpd}$, from a July average of 24,392 , while Oooguruk averaged 14,537 bpd, down 5.3 percent, 819 bpd, from a July average of $15,356 \mathrm{bpd}$.

## Cook Inlet

Cook Inlet crude oil production aversee CRUDE PRODUCTION page 6


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## - Government

## Walker: Markets curious about AKLNG

Entering halfway mark of his term, Gov. Bill Walker says he's not ready to give up on project industry currently calls uneconomic

## By STEVE QUINN <br> For Petroleum News

Gov. Bill Walker has logged several thousand miles these last few weeks. He's been to Asia twice and Washington, D.C., meeting with Interior Secretary Sally Jewell, touting Alaska's resource potential. And he's got one more trip to Asia in November. Awaiting him will be a highly critical Legislature which needs convincing that he and his gas line team are on the right path to advance a gas pipeline after North Slope leaseholders have called the project uneconomic. Before embarking on a last-minute trip to South Korea, Walker spoke to Petroleum News about his first of what will be three Asia visits this fall, and how he views the situation with AKLNG.

Petroleum News: In a nutshell
 what do you believe you've accomplished with this trip?

Walker: First things first, we had an opportunity to correct the record. There had been a very inaccurate headline came out in Forbes magazine. It came up a couple of times in our meeting prior to my address at the conference in Singapore. Right off the bat, we corrected the record that the Alaska project is absolutely still on the drawing board and still moving forward.

Petroleum News: OK, so on one hand we hear that Alaska has a great reputation for delivery and then we hear there are misconceptions about the status of the gas line. How does that happen?

Walker: Well it happens when you have articles with headlines that say the Alaska LNG project crashes and burns as a result of the producers changing their role in the project. So that's how that happens. They thought I was there to give last rites to the Alaska project and it was exactly the opposite. From that standpoint I was very, very pleased to be there to set the record straight and also be there to answer questions from individual companies.

Petroleum News: So what progress do you feel you've made other than to quell fears? Anything beyond that?

Walker: Absolutely. This is the first time we've ever presented the Alaska project: Before we've always been sort of up in the bleachers with TransCanada on the field. This is our very first time in state history we've had a team of people to present and talk specifically about the project without being limited by what we could or couldn't say as a result of other partner participants. To have the commissioner (Andy Mack) of DNR there, to have John Hendrix talk about upstream opportunities with oil and of course Keith Meyer is certainly recognized in the conference because he's a known entity in the LNG world.

Petroleum News: OK, what more do you think you can accomplish next month in Japan?

Walker: Well, it will be a continuation. Next month is a significantly larger gathering than what took place in Singapore. We will once again retrace our steps. This time we have a significantly different story to tell. Last time we were there, they wanted to know how they could be a financial participant in the project. At that time all I could say was we were a 25 percent participation. If we diluted our 25 percent, there may be some equity possibilities there. Now it's just the opposite. So I'm very anxious to have that discussion with them. All of them expressed a desire to explore an equity opportunity for their company.

Petroleum News: Back home, there were several Resources meetings over the course of the summer and into the fall. There were several concerns expressed by lawmakers. One was the state was moving forward with an uneconomic project. How do you respond to that?

Walker: Well I do follow what is said. One thing about the Wood MacKenzie analysis is that it showed us what it would take to get to an economic project. Whose economics are we looking at? Are we looking at a 12 percent rate of a return off of some infrastructure? What Wood MacKenzie said is the path we've been on for the past couple of years trying to satisfy the fiscal needs of the producers was not working. We knew that. That was not a surprise. They said what does work is if we have a lower interest rate and a lower utility rate of return I believe they used 8 percent - it brings it into the competitive range. What they said was what you're doing wasn't working and I actually appreciated that. We knew that. Trying to give upstream like returns on a downstream project, but they also said state ownership, lower rates of returns help. You can take whatever you want from the Wood MacKenzie report. I'm sorry many chose to take that if it doesn't work for the producers, it doesn't work for Alaska. I'm just the opposite. I'm excited. Now we get to find out what works for Alaska.

Petroleum News: One of the other concerns was the turnover your administration has had in the nearly two years you've been in office, losing Marty Rutherford, losing Mark Myers, losing Corri Feige. Lawmakers are concerned they are talking to somebody new each quarter.

Walker: Well, turnover is a fact of life. Some folks wanted to retire and chose to do that, and so be it. Some folks chose to look outside of state government. That was their prerogative to do that. They are all good people. I hate to see them go, but that was their choice.

Petroleum News: Do you feel you've got the core that you need moving forward?

Walker: Absolutely. I really do.
Petroleum News: Will they see the continuity they
believe is lacking?
Walker: I think the continuity will be fine. I'm very pleased with who we have in place. You know to be traveling in the marketplace with someone who was president of Cheniere, it's a sign that things have changed in Alaska that we have somebody in charge of the project with that kind of background and experience. It was very, very helpful.

Petroleum News: One of the other concerns, and even Keith Meyer identified this in the first hearing with the Legislature, were communication issues. How do you address those or do you not see it as a problem?

Walker: We tried a couple ways. Last year we began a program where I believe every Monday morning I would have a meeting with Senate and House Resource co-chairs, and anybody else who wanted to attend and talk about what was going on with the gas line, so we had that on a regular basis. When the bill that came through - SB 125 - on putting legislators on the board, I looked at that. I got two legal opinions from the Department of Law that said it violated two sections of the constitution.

I just can't sign something that the Department of Law says is unconstitutional. Shortly after that, I went to Sen. Giessel and said, why don't we have regular meetings throughout the summer. Not to violate the open meetings act, just do something on a regular basis. We can have an open discussion. I have not heard back on that. She has scheduled a few hearings, but I have not heard back about meeting on a regular basis. So I certainly made the offer and the offers stands.

Petroleum News: Many in leadership felt like you were among most accessible they've worked with, but they also said they felt as though they walked away not knowing what your plan was. How do you respond to that?

Walker: My plan has always been the same. I'm not sure what's confusing. We have followed the letter of the law in SB 138. We haven't attempted to change anything at all. Part of the problem we've had is dividing up the pie over who gets what and fiscal certainty. We need to find out if there is a project before you divide up the pie. We were living and breathing everything on the technical side doing absolutely nothing on the commercial side as far as the market side. Really that's what determines if there is a project, not what we do here dividing who gets what; it's does the project work with the markets and where we see it in the 20232024 range. That is what was significantly missing from the equation.

Petroleum News: You spoke of fiscal certainty. Everybody seems to have a different timeline as to

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## conimed from page 4

## CRUDE PRODUCTION

aged 15,787 bpd in August, up 0.4 percent, 57 bpd , from a July average of 15,729 bpd.
The Hilcorp Alaska-operated Beaver Creek field, Cook Inlet's smallest, averaged 180 bpd in August, up 77.7 percent, 79 bpd , from a July average of 101 bpd .

Hilcorp's Granite Point field averaged 2,485 bpd in August, down 2.9 percent, 74 bpd, from a July average of 2,559 bpd.

BlueCrest's Hansen field, the new Cosmopolitan development, averaged 157 bpd in August, up 10.4 percent, 15 bpd, from a July average of 143 bpd .

Hilcorp's McArthur River field, Cook Inlet's largest, averaged 5,306 bpd in August, up 1.7 percent, 89 bpd, from a July average of $5,217 \mathrm{bpd}$.

Middle Ground Shoal, also operated by Hilcorp, averaged 1,930 bpd in August, up 11.2 percent, 195 bpd,
from a July average of $1,735 \mathrm{bpd}$.
Redoubt Shoal, operated by Glacier Oil \& Gas Corp. subsidiary Cook Inlet Energy, averaged 604 bpd in August, down 35.6 percent, 333 bpd , from a July average of 937 bpd.

Hilcorp's Swanson River field averaged 1,897 bpd in August, down 0.1 percent, 2 bpd , from a July average of $1,899 \mathrm{bpd}$.

Hilcorp's Trading Bay field averaged 2,267 bpd in August, down 2.7 percent from a July average of 2,328 bpd.

West McArthur River, operated by Glacier Oil \& Gas Corp. subsidiary Cook Inlet Energy, averaged 961 bpd in August, up 18.7 percent, 151 bpd, from a July average of 810 bpd .

ANS crude oil production peaked in 1988 at 2.1 million bpd; Cook Inlet crude oil production peaked in 1970 at more than $227,000 \mathrm{bpd}$.

Contact Kristen Nelson
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## LAND \& LEASING

## Apache relinquishes Cook Inlet leasehold

The state Division of Oil and Gas terminated 84 Apache Alaska Corp. leases in September for failure to pay rent. The Texas-based independent suspended its Alaska program earlier this year and announced plans to allow its acreage to expire.

The state terminated one lease operated by Alaska LLC for failure to pay rent The offshore lease - ADL 391465 - was adjacent to the Kitchen Lights unit.
The Glacier Oil \& Gas Corp. subsidiary Cook Inlet Energy LLC surrendered lease ADL 391877. The lease was on the west side of Cook Inlet, north of the Lewis River unit.

A pair of Alaska Natural Gas Corp. leases expired at the end of their primary terms at the end of August. ADL 391463 and ADL 391464 were offshore leases located between the Cook Inlet Energy-operated Trading Bay unit to the north and Redoubt unit to the south.

The state approved the transfer of a 4.16667 percent royalty interest in three North Slope leases - ADL 392047, ADL 392048 and ADL 392049 - from Armstrong Energy LLC to William D. Armstrong. Armstrong Energy acquired the leases from Royale Energy Inc.
The state is considering 13 separate requests to transfer small royalty interests in five leases at the Redoubt unit from independent investors to operator Cook Inlet Energy.

The state is considering three separate requests from Montaigne Minerals LLC to transfer small royalty interests in the AIX Energy-operated ADL 391094 to three companies.

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


## - EXPLORATION \& PRODUCTION

## State OKs Ninilchik unit Kalotsa pad

By KRISTEN NELSON

Petroleum News

The Alaska Department of Natural Resources' Division of Oil and Gas has approved an application from Hilcorp Alaska to construct a new gravel pad, Kalotsa, access road and adjacent pipeline in the Ninilchik unit on the Kenai Peninsula.

The division said in its Sept. 29 approval that the pad, some six miles northeast of Ninilchik on privately owned land, will be for production of natural gas from the Susan Dionne/Paxton participating area in the Ninilchik unit.

Initial separation will be at the Kalotsa

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Kalotsa will not be a manned facility, but will be monitored by personnel staged out of the Susan Dionne pad, with drilling crews housed at an offsite drilling camp or other offsite lodging facilities.
pad with further treatment at the Susan Dionne pad and delivery to the Kenai Beluga Pipeline system.
Flowline installation will include two 6inch flex-steel gas flowlines, bundled with electrical/instrumentation and fiber optic communication cables and burred three feet underground.

The Ninilchik unit consists of state and non-state lands, with the Kalotsa pad to be built on surface lands owned by the Ninilchik Native Association Inc.
The division said the schedule provides for clearing of vegetation and preparing the site beginning Oct. 2 and ending Oct. 25 and construction of the gravel access road, pad and flowline beginning Oct. 16 and ending Nov. 14.

Drilling of the first well is scheduled to begin Nov. 1 and end April 30, with well testing in May and well completion and production in June.

Four wells are proposed for the pad.
The schedule for the first well includes drilling through exploration and "expected development zones" with drilling scheduled to last for six months. Each of the following wells, which will be drilled depending on results from the first well, are expected to be drilled and put into production in less than two months.

A second well would be drilled beginning in February 2018 and a third and fourth well that same year.

The division said targets from Kalotsa are offshore.

The majority of acreage in the Ninilchik
see KALOTSA PAD page 7

# Harvest applies to amend Milne ROW 

By KRISTEN NELSON

Petroleum News

The State Pipeline Coordinator's Section of the Alaska Division of Oil and Gas has received an application from Harvest Alaska LLC to amend the right-of-way lease for the Milne Point Products Pipeline.

SPCS said in a Sept. 29 notice that the Milne line is currently allowed to provide common carrier services for the transportation of natural gas liquids.

Harvest, the managing member of the line, has applied for a change to allow the line to also carry natural gas.

The line is an 8 -inch, 10.4 -mile products pipeline, originating at the Oliktok Pipeline and terminating at the Milne central facilities pad.

The application was received in May when a related application was filed with the Regulatory Commission
of Alaska to allow the line to provide common carrier natural gas transportation service on the line.

SPCS said Harvest anticipates a demand for natural gas in support of Milne Point field operations and the conversion would allow natural gas to be supplied for the facility's generators.

## No NGL customers

The Milne Point Products Pipeline is limited under its lease to transporting natural gas liquids, but currently has no customers for NGLs, Harvest Alaska told SPCS in its application, noting that the Oliktok Pipeline to which the line is connected "has been converted from an NGL pipeline to a natural gas pipeline."

Harvest said Hilcorp Alaska, the Milne Point field operator, is looking into installing micro turbines at Milne and powering the turbines with natural gas from the product pipeline, and has also said it is looking at
using natural gas for field operations in the future and asked that the pipeline "be available to provide natural gas transportation service."

The Milne product line has not had any shippers for its NGL service for several years and has remained unused and Harvest said the Milne Point operator does not anticipate any need for NGLs from the pipeline in the foreseeable future and the pipeline does not know of any other potential NGL shippers.

The pipeline was originally designed to carry either NGLs or natural gas, making conversion relatively simple, Harvest said in its application. Pipeline design and construction would be reviewed, road crossing centralizers would be repaired and a hydro test performed.

SPCS is accepting comments on the application through Oct. 31. $\bullet$

Contact Kristen Nelson at knelson@petroleumnews.com

## - EXPLORATION \& PRODUCTION

# Hilcorp applies for new Northstar rules 

Asks AOGCC to establish pool rules for a Kuparuk oil pool in the Beaufort Sea Northstar oil field offshore the North Slope

By ALAN BAILEY<br>Petroleum News

Hilcorp Alaska LLC has applied to the Alaska Oil and Gas Conservation Commission to establish pool rules for a proposed Kuparuk oil pool in the Northstar oil field. The Northstar field, operating from an offshore gravel island, straddles state and federal waters of the Beaufort Sea, offshore the North Slope, and is jointly overseen by the Alaska Department of Natural Resources and the federal Bureau of Safety and Environmental Enforcement. Hilcorp took over 100 percent ownership and operatorship of the field at the end of 2014, as part of a package of North Slope oilfield assets purchased from BP.

Since Northstar first went into production in 2001 oil has come from a reservoir in the Ivishak formation, a rock unit equivalent to the main reservoir in the giant Prudhoe Bay field, onshore the central North Slope. But wells at the field pass through younger and shallower Kuparuk sands, equivalent to reservoir sands in the onshore Kuparuk River field and also containing oil.

## Kuparuk production

BP , the then field operator, began testing oil production from the Kuparuk as an oil tract in 2006. In 2010 the company began sustained production from the Kuparuk by
plugging one of the Northstar production wells above the Ivishak. Using that well and information from other Ivishak wells in the field, BP mapped out a Kuparuk oil pool. Subsequently in 2012 the company applied for the designation of the Kuparuk at Northstar as the Hooligan participating area.

The state component of the participating area formation required the addition of two leases to the Northstar unit the state approved this unit expansion in 2014. BSEE approved the participating area in 2014, and the state followed suit in 2015, by which time Hilcorp had become field operator. The definition of AOGCC pool rules for the Kuparuk represents the last stage in placing the state's regulatory framework around Kuparuk production at Northstar. AOGCC, as part of its role in preventing the waste of state hydrocarbon resources, requires rules governing how oil pools are produced.

Hilcorp proposes applying the pool rules to the Hooligan participating area, with the Kuparuk pool being defined as the hydrocarbon bearing intervals common to and correlating with the interval between measured depths of 12,136 feet and 12,446 feet in the NS-15 well.

## Current wells

According to the pool rules application, the Northstar field currently has 30 wells, 28 of which are in operation
and two of which are shut in. Hilcorp is currently producing Kuparuk oil from two wells: the NS-08 well is producing from the Kuparuk C sands, while the NS-18 well is producing from the Kuparuk A sands. In 2016 and 2017 Hilcorp anticipates conducting two Kuparuk recompletions or workovers. The company also plans further Kuparuk oil development in parallel with an ongoing enhanced oil recovery project in the Ivishak reservoir, the pool rules application says.

## Gas ration exemption

As part of the rules that Hilcorp has proposed to AOGCC for the Kuparuk, the company has asked for an exemption from a regulation limiting the ratio of gas to oil during oil production. This exemption would maximize recovery from the Kuparuk reservoir while allowing continued production from the Ivishak enhanced oil recovery project and from the NS-08 Kuparuk well, Hilcorp says.

Other proposed rules define how the reservoir pressure will be monitored, and the reporting procedures for the reservoir performance.

AOGCC has scheduled a public hearing at 9 a.m. on Nov. 15 to review Hilcorp's pool rules application. $\bullet$

## Contact Alan Bailey

 Cotabailey@petroleunnews.con
## continued from page 6

## KALOTSA PAD

unit lies offshore, and is accessed from eight pads strung along the shore. Kalotsa will be the ninth.

The gravel pad would be 1.78 acres.
"The angle of drilling to reach the offshore target leaves a limited surface area suitable for pad location," the state said. The pad is within section 7, township 1 south, range 13 west, Seward Meridian, southwest of the Susan Dionne pad and northeast of the Paxton pad.

Buildings at the pad will include a heater/separator unit, communications building and a 200 -barrel produced water tank. Gas will be sent to the Susan Dionne pad for treatment, dehydration and compression. Kalotsa will not be a manned facility, but will be monitored by personnel staged out of the Susan Dionne pad, with drilling crews housed at an offsite drilling camp or other offsite lodging facilities.

The pad will be reached by a new 0.57 mile gravel access road connecting to an existing gravel road that connects with the Sterling Highway. $\bullet$


## State, Anadarko respond in TAPS appeal

Support FERC conclusion that trans-Alaska pipeline strategic reconfiguration project was imprudent, much cost cannot be recovered

By ALAN BAILEY<br>Petroleum News

In a Washington, D.C., Circuit appeal case, in which the owners of the trans-Alaska pipeline are challenging a Federal Energy Regulatory Commission ruling in 2015 that the TAPS strategic reconfiguration project was imprudent, the state of Alaska and Anadarko Petroleum Corp. have filed briefs supporting FERC's position.

Strategic reconfiguration involved the replacement of the original turbine-powered pumps that drove oil through the pipeline with electrically powered pumps, together with the implementation of a more automated pipeline control system. On the grounds that the project had been imprudent, with major cost and schedule overruns, FERC objected to full cost recovery for the project using pipeline usage rates.

The question of having the cost of strategic reconfiguration added to pipeline rates matters to the state because the higher the cost of shipping oil through the pipeline, the lower the state royalties and production taxes for North Slope oil. For Anadarko, a North Slope oil producer that does not have an ownership interest in the pipeline, high shipment rates reduce the profitability of the company's North Slope oil.

At the time of the strategic reconfiguration project five companies owned the pipeline: BP Pipelines (Alaska) Inc., ConocoPhillips Transportation Alaska Inc., ExxonMobil Pipeline Co., Koch Alaska Pipeline Co. LLC and Unocal Pipeline Co.

## A determination in hindsight?

In appealing the FERC order, the five companies have argued that, by concluding in hindsight that the strategic reconfiguration project had been imprudent, FERC deviated from a long-standing no-hindsight rule. The agency has long held that basing its determinations on hindsight, on reasoning backwards from how a project turned out, chills managerial discretion, to the detriment of facility ratepayers, the

The question of having the cost of strategic reconfiguration added to pipeline rates matters to the state because the higher the cost of shipping
oil through the pipeline, the lower the state royalties and production taxes for North Slope oil.

## companies argued

Not so, argued the state in its filing.
The state said that, prior to the strategic reconfiguration project, a report referred to as the Bailey Report, the result of a multiyear engineering study commissioned by the TAPS owners, had recommended keeping the original tur-bine-powered pumps in place while making some modest changes to the pump station control systems. The report recommended a $\$ 52$ million upgrade project which would have saved $\$ 20$ million in operating costs per year, the state said.

After this and some other engineering studies the owners knew that the original gas-turbine pumps were working well and that the economics of the situation did not favor major changes to the pump stations, the state argued.

Nevertheless, the owners decided to move ahead with electrification of the pump stations, taking a "clean sheet" approach that conducted the project from the perspective of building completely new pump stations, rather than just upgrading the existing facilities. This clean sheet approach came to be known as strategic reconfiguration, the state said.

## Compressed timeframe

The project moved ahead on an aggressive timescale, with conceptual engineering compressed from the several years anticipated in the Bailey Report to just three months, and envisaging simultaneous work on all pump stations. That, despite a recommendation in the Bailey Report that automation upgrades at the pump stations should be conducted one pump station at a time, to enable learning from mistakes as the project progressed, the state said.

To compound the project risks, the pipeline owners hired a project manager who had no experience of the scale of project involved, and contracted an engineering company with a poor understanding of the project scope and no Arctic or Alaska experience, the state said. The owners also ignored employee criticism of the project plan, the state said.

And, despite independent reports questioning cost estimates for the project, the owners pursued early project sanction.

In the event, the project massively overran on both cost and timescale, with an initial cost estimate of $\$ 252$ million escalating to more than $\$ 707$ million, despite pump station 1 at the northern end of the pipeline not being electrified, the state said.

## Other issues

Two other issues involved in the appeal consist of whether the pipeline owners should be able to recover retrospectively some property taxes dating from 2006 from pipeline rates in 2010, and whether the carriers should be able to recover from pipeline rates the cost of electrification of pump station 1, an upgrade that was conducted after the original strategic configuration cost recovery challenge was launched.

The state argued that the property tax could not retrospectively be recovered but said that it is premature to rule on the pump station 1 .

Anadarko also argued for the rejection of the no-hindsight argument over the strategic reconfiguration project, saying that there is a massive record of contemporaneous evidence establishing imprudence at every stage of the project. A rule against retroactive ratemaking prohibits the pipeline owners from recovering a 2006 tax increase from 2010 pipeline rates, Anadarko said. And Anadarko agreed that a ruling on the pump station 1 costs is premature. $\bullet$

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page Mallott, BC counterparts formalize 11 trans-boundary waters agreement


After a lengthy permitting process, followed by a focus on bring After a lengthy permitting process, followed by a focus on bring-
ing stability and consistency to Kensington, Coeur Mining is now investing in a robust exploration program that is generating highgrade results from the Southeast Alaska mine's Kensington and Jualin gold deposits.

## Robust exploration at Kensington

Coeur Mining Inc. Oct. 10 provided an update on an expansive exploration program at its Kensington gold mine in Southeast Alaska. This program is focused on potential resource conversion and expansion within the Kensington Main orebody, the nearby Raven vein, and the high-grade Jualin deposit. Drilling at Kensington Main is currently being conducted at four zones - lower Block M and zones 41, 44, and 12 - with a focus on the potential expansion of the Kensington resource down-dip and to the south of the current resource model. One hole drilled in Zone 41 cut 3.7 meters of 1.21 ounces per ton gold. In addition, drilling at Raven has targeted the downplunge extension of a high-grade ore-shoot. With a budget of US\$4.6 million, Coeur plans to complete roughly 18,300 meters of infill drilling aimed at upgrading resources to reserves. The company has budgeted another US $\$ 4.65$ million for some 7,600 meters of underground resource expansion drilling in 2016. Coeur has also accelerated exploration of the high-grade Jualin deposit. In August, the company began a six-hole surface drill program focused on twinning historical holes at Jualin. So far, three holes have been completed. Once the twinning program is complete, Coeur plans to finish off 2016 with a winter drilling program targeting the Jualin Vein \#4 from surface.

## Kensington gold production falls

Coeur Mining Inc. Oct. 6 reported that its Kensington Mine in Southeast Alaska produced 26,459 ounces of gold during the third quarter, compared to $32,210 \mathrm{oz}$. during the previous three months. A blocked tailings line that halted mill production at the end of the third quarter is the primary reason for this 18 percent drop in gold production. Through the first nine months of this year, Kensington has produced 90,643 oz. of gold and Coeur has increased the low end of its 2016 production guidance for the Southeast Alaska mine to 120,000 ounces. Across all of its operations, Coeur produced 3.5 million ounces of silver and 84,871 ounces of gold during the third quarter.

## Drilling hits high-grade copper NE of Caribou Dome deposit

Coventry Resources Ltd. Oct. 11 reported results from the first nine of 22 holes drilled this year at the Caribou Dome copper project about 155 miles north of Anchorage. Three holes drilled northeast of the historical Caribou Dome deposit cut significant high-grade copper. CD16-005, drilled about 120 meters northeast of the deposit, cut 1.1 meters of 5.5 percent copper from a depth of 532.1 meters. CD16-007, drilled about 100 meters southwest of CD16-005, cut 0.3 meter of 1.8 percent copper from a depth of 487.7 meters and one meter of 2 percent
see NEWS NUGGETS page 11


Separate exploration programs have identified significant gold mineralization at Monte Cristo, in the foreground, and Uncle Sam, in the distance. Great American Minerals Exploration recently entered into an option agreement with SMM Exploration that eliminates the boundary and opens up the district-scale potential of the consolidated SAM gold project in Interior Alaska.

## O EXPLORATION

## New 'GAME' in Alaska

Explorer merges Monte Cristo, Uncle Sam into district-scale gold project

By SHANE LASLEY
Mining News

Great American Minerals Exploration Inc. has closed a landmark option agreement with Sumitomo Metal Mining that consolidates the Monte Cristo and Uncle Sam gold properties into a single 55,465 -acre project about 40 miles west of the Pogo Mine in Interior Alaska.

GAME, as the company is commonly known, is no stranger to the Pogo region. In fact, the privately held Nevada corporation staked its first claims there in 1997 and has held onto a position in the area ever since. This property, however, covered only a portion of the district-scale potential of the region.

Over the past several months, Game negotiated deals with three other landholders that reassembled the original Uncle Sam property explored by Kennecott Exploration from 1998 to 2001. Consolidating the


DENNIS MCDOWELL northern half of the district PAT SMITH cleared the way for the reinvigorated exploration company to negotiate an option agreement with Sumitomo for the southern half, Monte Cristo.

Known now as SAM, this newly assembled land package allows Game to explore the previously fenced in district-scale potential.
"To finally be able to start working the geology and eliminate the property lines seems to be in everybody's best interest," said Game Chairman and CEO Dennis McDowell.

The exploration company has also consolidated the geological understanding of this property with the appointment of Patrick Smith as Game president. In addition to nearly four decades of interna-
tional geological experience, Smith brings to the table more than two decades heading up Kennecott's Alaska exploration programs and the new Game president was directly involved with the previous exploration of Uncle Sam.

Under Smith's guidance, Game officials are excited to begin exploring the interesting discoveries made on each side of the Uncle Sam-Monte Cristo border that have long been considered connected but were previously explored separately.
"There is a tremendous amount of data to deal with now, with both packages, and a whole lot of neat geologic thinking and work that needs to be done to pull it all together," said Smith.

## Border deposit

On the Monte Cristo side of the now erased property line, SMM Exploration Corp. - a subsidiary of Sumitomo Metal Mining- has already outlined significant gold mineralization at the Naosi zone.

This deposit piqued interests in June 2011, when SMM Exploration released some tantalizing results from drilling at Naosi.

Highlights included 7.92 meters grading 7.8 grams per metric ton gold and $19.7 \mathrm{~g} / \mathrm{t}$ silver; 22.83 meters grading $4.2 \mathrm{~g} / \mathrm{t}$ gold and $48 \mathrm{~g} / \mathrm{t}$ silver; and 14.69 meters grading $3.6 \mathrm{~g} / \mathrm{t}$ gold and $84.4 \mathrm{~g} / \mathrm{t}$ silver.

All told, SMM Exploration drilled 79 holes at Naosi from 2008 through 2012. This work outlined a deposit that dips shallowly from surface and has been traced for roughly 1,500 meters along strike.

This drilling was incorporated into an independent resource calculation prepared for Game by a third party contractor.

At a cut-off grade of $0.51 \mathrm{~g} / \mathrm{t}$ gold, Naosi hosts an estimated 48.4 million metric tons of inferred resource grading $1.85 \mathrm{~g} / \mathrm{t}(2.88$ million ounces) gold and $33 \mathrm{~g} / \mathrm{t}$ ( 51.4 million oz.) silver, or 3.42 million gold-equivalent ounces.

While this resource has been calculated to NI 43101 standards, the technical report needed to lift it to this level of confidence has not been finalized.
see New 'Game' page 10

## NORTHERN NEIGHBORS <br> Compiled by Shane Lasley



Following a C\$2 million investment by Goldcorp, Independence Gold completed 2,946 meters of drilling at Boulevard, a gold property that wraps around the east and south sides of Goldcorp's recently acquired Coffee Gold project in the Yukon.

## Independence expands Boulevard gold zones

Independence Gold Corp. Oct. 12 provided results from a 30 -hole drill program at its Boulevard gold project in the White Gold District, Yukon. A total of 1,401 meters of reverse circulation drilling was completed in 15 holes within the Sunrise-Sunset area, which is 8.5 kilometers ( 5.3 miles) southwest of Goldcorp Inc.'s recently acquired Coffee deposit. Drilling evaluated multi-element soil anomalies within the 2,300 -meter-long Sunset trend and focused on testing new, potentially sub-parallel mineralized zones at Sunrise. Highlights include 6.1 meters averaging 7.73 grams per metric ton gold and 22.9 meters of $1.19 \mathrm{~g} / \mathrm{t}$ gold at the Sunset zone; and 6.1 meters of $4.36 \mathrm{~g} / \mathrm{t}$ gold within the Sunrise zone. A total of 1,545 meters of RC drilling was completed in 15 drill holes at the Denali zone, situated 14.5 kilometers (nine miles) west of the Coffee deposit, along an interpreted extension of the Coffee Creek fault system. The primary focus for thi drilling program was to test along strike and down dip of YCS15-03, a hole drilled last year that retuned $4.25 \mathrm{~g} / \mathrm{t}$ gold over 6.1 meters. YCS16-08, which was drilled roughly 50 meters down-dip to the northeast from the 2015 discovery hole, cut 4.6 meters averaging $4.28 \mathrm{~g} / \mathrm{t}$ gold. YCS16-07, also drilled down-dip, cut 1.5 meters averaging $1.78 \mathrm{~g} / \mathrm{t}$ gold. Additionally, Independence said it completed 12 holes of rotary air blast drilling at Rosebute, a gold property located 29 kilometers ( 18 miles) north of Kinross' Golden Saddle Deposit. A summary of
see NORTHERN NEIGHBORS page 11


## PacWest

 drilling supply
## continued from page 9

## NEW 'GAME'

Intriguingly, this deposit remains open for expansion and trends towards Lone Wolf, a zone of similar gold mineralization on the north side of the former Monte Cristo-Uncle Sam border.
Past drilling by Kennecott and later exploration companies cut gold grades and widths at Lone Wolf similar to those encountered at Naosi.
The best intercept encountered by Kennecott came in a reverse circulation hole that tapped 21.3 meters averaging 3.2 $\mathrm{g} / \mathrm{t}$ gold, including 6.1 meters of $10.6 \mathrm{~g} / \mathrm{t}$ gold.

Drilling under a partnership between Millrock Resources and Crescent Resources in 2011 returned similar results, including 2.74 meters averaging $3.63 \mathrm{~g} / \mathrm{t}$ gold; 11.46 meters averaging $4.86 \mathrm{~g} / \mathrm{t}$ gold; 3.05 meters averaging $3.27 \mathrm{~g} / \mathrm{t}$ gold; and 2.13 meters averaging $1.81 \mathrm{~g} / \mathrm{t}$ gold.
To date, upwards of US $\$ 20$ million has been invested in exploring the properties that now make up the roughly 90 -squaremile Sam project.
"Right now we are working with OnLine Exploration based in Anchorage, Alaska to pull all of the data for the entire district into one database and doing a full 43-101 - not only for the Naosi deposit but for the whole project," Smith told Mining News.
As a privately held American company, Game is not required to meet NI 43-101 requirements. However, a report of this caliber allows for apples-to-apples comparisons between Sam and gold properties held by publically listed companies, as well as providing the exploration company independent guidance.
"We want to put our best foot forward and the best targets from the work-to-date have never been drill tested," said the Game president.

## Naosi Game plan

Once the Sam technical report is complete, the exploration company will finalize its plan for exploring the consolidated property in 2017.
One of the pieces to Game's plan is expected to include expansion of the oxide zone of the Naosi deposit.

Because of the lack of glaciers stripping away the surface of Interior Alaska during the last ice age, the oxidization typically runs deep in this area. This is the case at Naosi, where oxidized material has been traced to a depth of around 200 meters

Low cost heap leach recovery of gold from oxidized material has already been proven viable at Kinross Gold Corp.'s Fort Knox Mine about 40 miles to the northwest. This low cost method is also planned for Goldcorp's Coffee gold project in the Yukon Territory, a project that shares a number of mineralogy and geology traits with Sam.
"We can define an oxide zone within the existing resource, plus expand it," explained Smith.

This includes expanding the oxide zone north towards Lone Wolf, where deep oxidation was encountered in the holes drilled by Kennecott.
The company would also like to investigate some of the higher grade gold encountered in the deeper sulfide zones within Naosi, such as 30 meters of $14.6 \mathrm{~g} / \mathrm{t}$ gold.
"This has some good high-grade zones within the sulfide minerology that could be very economic," Smith explained.

## District play

While expanding Naosi is a tantalizing

## "We want to put our best foot

 forward and the best targets from the work-to-date have never been drill tested." -Pat Smith, president, Great American Minerals Explorationpiece of the exploration plan for Sam, it is not the piece that Game leadership is most enthusiastic about.
"The most exciting thing of all is to get back to the district play," Smith said.

The Game president said that the geochemistry - especially high bismuth values found in the center of the Sam propery - suggests that Naosi may be an outier to the intrusive source of the gold in the district.

Including Naosi and Lone Wolf, the company has identified an initial six priority exploration targets at Sam.
One of these targets, Lone Tree, is a shallow-dipping zone of gold mineralization drilled by Kennecott during its tenure at Uncle Sam. The first such hole, USC001, cut two zones of gold mineralization: six meters of $0.64 \mathrm{~g} / \mathrm{t}$ gold from 28 meters, and 3.3 meters of $4.38 \mathrm{~g} / \mathrm{t}$ gold from 194 meters.

USC-013, another hole Kennecott drilled at Lone Tree, cut six meters of 1.55 /t gold from 32 meters; and 8.6 meters of $2.8 \mathrm{~g} / \mathrm{t}$ gold from 79.4 meters.

The three other priority zones are large gold-in-soils anomalies associated with magnetic lows.
"If we are successful and lucky, we have a pipeline of multi-million-ounce deposits that we can bring along in the company," said McDowell.

## Cutting-edge Yukon tech

To increase its odds of making this vision a reality, Game plans to utilize a comprehensive database compiled by OnLine Exploration Services, an Alaskabased geological firm that has been exploring the Sam district for years, as well as the innovative exploration methods and tools developed by Yukon-based GroundTruth Exploration.

The brainchild of famed prospector Shawn Ryan and business savvy wife, Cathy Wood, GroundTruth employs a strategic combination of geochemistry, emote sensing, geophysics and tactical drilling.

Game President Smith got to know Ryan when Kennecott was exploring one the prospector's Yukon properties in the early 2000s.

Ryan and Cathy went on to apply soil sampling methods refined over the years to discover a number of important gold deposits in the Yukon, including Golden Saddle at Kinross Gold's White Gold property and Goldcorp's Coffee deposit.
"The tools that he has and the methodology he uses is top-notch," Smith said.

Further refinements led to the founding of GroundTruth, an innovative company utilizing a number of unique tools it has developed - drones for ultra-high resolution imaging; GTProbe, an efficient and minimally invasive way to sample the soil-bedrock interface; and GTRAB, a rubber track mounted rotary air blast drill to provide early stage tactical drilling.
Bringing this cutting-edge exploration that is working so well in the Yukon across the border into Alaska is another piece of Game's plan to quickly and efficiently realize the potential of the consolidated Sam property in Interior Alaska.
"We are excited," said McDowell. "After 14 years, we can make a concerted effort to bring the Sam district forward, working the geology with all of the data." •

## continued from page 9

## NEWS NUGGETS

copper from 507.6 meters. Coventry said these two holes confirm that copper mineralization at the northeastern end of the Caribou Dome deposit extends to depths of greater than 300 meters, which significantly extends the resource area. CD16-009, drilled at the northeastern end of the deposit, cut 4.3 m at 5.2 percent copper from 220.5 meters, 2.2 meters of one percent copper from 243.8 meters and 0.6 meters of 9.1 percent copper from 250.1 meters. Coventry said these results will help refine the interpretation of the thickness, grade and distribution of reasonably shallow mineralization that may be amenable to open pit mining. CD16-008, drilled in the Caribou Dome deposit at the northeastern end of Lenses 4 and 6, cut 3.5 meters of 11.5 percent copper from 49.2 meters and 0.4 meters of 2.4 percent copper from 103.1 meters.

## Alaska, BC formalize agreement to protect trans-boundary rivers

Alaska Lt. Gov. Byron Mallott Oct. 6 announced that Alaska and British Columbia have signed a statement of understanding aimed at strengthening a commitment to protect trans-boundary rivers. Signed by Mallott, B.C. Minister of Energy and Mines Bill Bennett and B.C. Minister of Environment Mary Polak, the agreement formalizes a mutual commitment to protect and enhance the shared environment, including trans-boundary rivers, watersheds and fisheries, for the benefit of both jurisdic tions. "I am pleased that we were able to move forward with this measure," said Mallott. "It is another step in Alaska's commitment to open and transparent collaboration with our Canadian neighbors on the vital issue of safeguarding our precious trans-boundary watersheds that feed our people and nourish our cultures." Implementation of the statement of understanding will be overseen by a bilateral working group, consisting of the commissioners of the

Alaska departments of environmental conservation, fish and game and natural resources and the deputy ministers of the British Columbia ministries of energy and mines and environment. The working group will establish and oversee a technical working group that will identify a reliable and accurate process for the collection and distribution of baseline water quality data; look for opportunities to build on and enhance participation in mine project environmental assessments; and share reports on mine discharges, operations and closure. In addition, the bilateral working group will build on the ongoing collaboration between Alaska and British Columbia in the trans-boundary region. "British Columbia and Alaska have a long history of working together and supporting each other, as good neighbors do," said Bennett. "This statement of cooperation between British Columbia and Alaska ensures we are working together effectively on trans-boundary water quality, environmental assessments and permitting for mine projects, and reporting on mine discharges, operations and closure."


This year's systematic drilling in the Inel area of Colorado Resources' KSP project in northwestern British Columbia cut significant gold intercepts and is advancing the company's understanding of the mineralized system at this Golden Triangle property.
and 1.85 percent zinc. Trench 2 , dug 56 meters southwest of trench 1 , intersected 3.1 meters averaging $31 \mathrm{~g} / \mathrm{t}$ silver, 0.17 percent copper, 2.15 percent lead and 2.86 percent zinc. Trench 3, dug 213 meters further southwest, crossed 2.8 meters averaging $46 \mathrm{~g} / \mathrm{t}$ silver, 0.22 percent copper and 1.14 percent zinc. Composite sub-outcrop gossan samples collected further southwest returned grades of up to 314 $\mathrm{g} / \mathrm{t}$ silver, 13.85 percent lead, 18.7 percent zinc and 1.97 percent copper. Cantex plans to target both the northern gold-zinc-lead-silver area and the newly discovered eastern silver-lead-zinc-copper massive sulfide zones with a large core rig being delivered to North Rackla.

## Colorado drills gold, as it figures out KSP

Colorado Resources Ltd. Oct. 5 released assay results from an additional eight holes drilled at the Inel area of the company's KSP gold property in northwestern British Columbia. Hole INDDH16-046 cut multiple gold intercepts, including two meters of 16.49 grams per metric ton gold; and $45.3 \mathrm{~g} /$ t silver from 60 meters, and 3.7 meters of $14.59 \mathrm{~g} / \mathrm{t}$ gold, $181.35 \mathrm{~g} / \mathrm{t}$ silver and 3.95 percent zinc from 113.3 meters. Hole INDDH16-046 cut one meter of $47.6 \mathrm{~g} / \mathrm{t}$ gold from 97 meters; 11 meters of $4.69 \mathrm{~g} / \mathrm{t}$ gold from 118 meters; and 1.7 meters of $11.92 \mathrm{~g} / \mathrm{t}$ gold from 139 meters. Overall, Colorado drilled 59 holes for $8,861.8$ meters at KSP in 2016. The majority of these holes, 53 , target trends identified within a roughly 75 -acre area at Inel. "This first phase of drilling in 2016 systematically tested portions of the Discovery trend and southern extensions of the Inel Creek trend," explained Colorado President and CEO Adam Travis. "Our drilling in these two zones, along with preliminary surface geological mapping, geophysics and geochemistry highlights six robust sized target zones. We are continuing to advance the technical understanding of this impressive system as we work on cross sections and incorporate all the geological, geophysical and geochemical data.'

## Silver Range confirms Hard Cash in Nunavut

Silver Range Resources Ltd. Oct. 11 reported results from a summer exploration program at the Hard Cash and the Nigel gold properties in the western Kivaliq Region of Nunavut. Located 310 kilometers (193 miles) northeast of Stony Rapids, Saskatchewan, Hard Cash lies within the greenstone belt that hosts Agnico Eagle's Meliadine gold deposit currently being developed by Agnico Eagle. The Swamp showing at Hard Cash hosts Archean gold mineralization consisting of laminated quartz veins carrying pyrite, chalcopyrite, galena and silver sulfides. Sampling over a 200 -meter strike at Swamp in 2012 returned up to 174 grams per metric ton gold and $1,192 \mathrm{~g} / \mathrm{t}$ silver from float and $36 \mathrm{~g} / \mathrm{t}$ gold from bedrock. Prospecting and sampling by Silver Range this year has extended the zone to 1,400 meters. Float samples collected during a mapping
program returned grab samples up to $116 \mathrm{~g} / \mathrm{t}$ gold. Further along strike, a newly discovered zone returned bedrock grab samples up to $11.45 \mathrm{~g} / \mathrm{t}$ gold. Together these discoveries delineate a 3,400 -meter corridor of gold mineralization. About 15 kilometers (nine miles west of Hard Cash, the Nigel property is a recent acquisition by Silver Range. This property covers three structurally hosted Archean gold occurrences - Nigel, Clyde and Bob - which consist of quartz-carbonate veins carrying pyrite and galena. Historical sampling of these showings have returned assays up to $464.9 \mathrm{~g} / \mathrm{t}$ gold. The showings were staked and explored in August 2016. Confirmatory sampling at the Nigel showing returned values of 398 and $178 \mathrm{~g} / \mathrm{t}$ gold. A sample of wall rock returned $2.57 \mathrm{~g} / \mathrm{t}$ gold. Silver Range is building and exploring a portfolio of high-grade gold targets in Nunavut, Northwest Territories and Nevada.

## $B C$ issues permits to go underground at KSM

Seabridge Gold Inc. Oct. 11 reported the receipt of permits necessary to develop an exploration adit into the Deep Kerr Deposit at its KSM Project in northwestern British Columbia. The proposed 2,100 meter long adit is designed to facilitate cost-effective underground drilling of the Deep Kerr Deposit. The adit would be collared in the Sulphurets Valley at the base of Kerr Mountain, declining at a 12 percent grade parallel to the footwall of the Kerr deposit, allowing access to mineralized zones that have only been tested to depths approximately 1,800 meters below surface. To date, all drilling at Deep Kerr has been from surface, resulting in very long holes which are slow and expensive to drill. A preliminary economic assessment released on Oct. 6 recommends that mining of both the Kerr and the Deep Kerr deposit should proceed together by underground block caving. The PEA predicts improved economic returns and a significantly smaller environmental footprint for the KSM Project compared to a preliminary feasibility study published in September. The permits include discharge authorizations for the operation of a water treatment facility; a mining permit authorizing the construction of the exploration adit and associated infrastructure including a rock storage facility; and a water license approving the surface water management system associated with the adit infrastructure. The permits include requirements for posting reclamation securities with the provincial government to cover full reclamation and closure costs associated with the proposed exploration activities. "I would like to express my appreciation for the efforts of BC's regulatory agencies and representatives from the Tahltan Central Government for their dedication in reviewing and approving our permit applications. I would also like to acknowledge the continued involvement of the representatives of the state of Alaska in KSM's permit reviews, thus assisting in the ongoing responsible advancement of our project," said Seabridge Chairman and CEO Rudi Fronk. -


## - government

# BLM seeks comments on NPR-A mitigation 

Agency has proposed a regional strategy for mitigating impacts of oil and gas activities on communities in northeastern NPR-A

## By ALAN BAILEY

Petroleum News

The federal Bureau of Land Management has published a draft regional mitigation strategy for mitigating the impacts of oil and gas activities in the northeastern National Petroleum ReserveAlaska. The strategy addresses impacts on the local Inupiat people, including the ecosystem on which the people depend and the Native culture. The 90 -day public comment period for the document began on Sept. 30.

## Regional scale planning

The development of the regional mitigation strategy emanates from the work conducted to improve mitigation policies and practices as part of BLM's record of decision authorizing ConocoPhillips's Greater Mooses Tooth 1 development in NPR-A. The concept behind issuing a formal regional mitigation strategy is to enable proactive regional scale planning, rather than conducting the planning on a project-by-project basis, the agency says.

BLM's Integrated Activity Plan for the NPR-A requires community and environmental mitigation measures for development projects - the regional mitigation strategy specifically addresses what is referred to as "compensatory mitigation," the actions required as compensation for environmental impacts that cannot be avoided or rectified.
"The intent of the RMS is to provide a well-balanced mitigation framework that will increase consistency, predictability, and certainty for future oil and gas development, while providing for environmentally responsible development of resources within the Northeastern NPR-A," said BLM State Director Bud Cribley. "Once the RMS is finalized, it will be an important step towards ensuring the sustainability of natural resources in the Arctic, including important subsistence wildlife populations."
"This is a positive step toward ensuring that oil companies profiting from development in the western Arctic will take steps to offset the unavoidable negative impacts of their work," said Nicole WhittingtonEvans, Alaska regional director for the Wilderness Society. "The RMS is essential to ensuring that the Bureau of Land Management adheres to the terms of the Integrated Activity Plan, which strikes a balance between conservation and development."

## Collaborative process

BLM says that it is developing the regional strategy through a collaborative process involving representatives from the oil industry; federal and state government agencies; Alaska Native interest groups; North Slope communities; conservation groups; an NPR-A working group; and other stakeholders. Potential mitigation measures may include actions to improve subsistence activities, measures to preserve Inupiat culture and environmental restoration, BLM says.

In compliance with the National Environmental Policy Act, the federal government would conduct a separate environ-

## UTILTIES

## Chugach hosts ribbon-cutting for substation, accepting apps for new board member

On Oct. 11, Chugach Electric Association held a ribbon-cutting ceremony for its 28th distribution substation at the intersection of Hane Street and O'Malley Road in Anchorage.

Construction on the $\$ 10.9$ million Hane Substation, which sits on a little over two acres, began in June 2015 and will be completed by the end of this year.

According to Chugach officials more than 180,000 pounds of steel were used in the substation's construction and more than 25,000 feet of cable was installed

More than 25,000 tons of dirt were removed from the site to complete the facility

The Hane substation was one of two of the largest construction projects for Chugach this past year; the other was the rebuild of a sixmile portion of the utility's 115-kilovolt transmission line between Powerline Pass and the community of Indian.

Other news from the utility includes a five-year extension of its 2006 power sales agreement with the City of Seward, from Dec. 31 of this year to Dec. 31, 2021.
see CHUGACH ELECTRIC page 15 the impacts of developments and the long-term trends in the human and natural environments, including the impacts of climate change, the document says.

The strategy document includes a list of 36 example mitigation actions that might be used as compensation for oil and gas development activities. Suggested actions include the development of programs to enhance local food sources for communities in the region; the funding of cultural camps for youth; and the restoration and maintenance of water flow volumes and quality in the Colville River watershed.

## Contact Alan Bailey

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Chugach board chair Janet Reiser touring the substation with Chugach employees Paul Risse and Brian Hickey.

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## ENVIRONMENT \& SAFETY

## Drift River Terminal cleanup continues

Cleanup is continuing at Cook Inlet Pipeline Co.'s Drift River Terminal Facility on the west side of Cook Inlet following spills discovered in July.

The Alaska Department of Environmental Conservation's Division of Spill Prevention and Response said Oct. 7 in a situation report that CIPL operator Harvest reported an additional release of crude oil at dig site 1 from penetration of an abandoned 10 -inch diameter pressure relief line during installation of sheet piling to support excavation walls.

The spills discovered in July were associated with over pressurization of the 20-inch fill line at the facility. The first spill was discovered July 2 by a CIPL operator during a facility inspection. The second discovery was made when an inspection was conducted of areas above the 20 -inch fill line.

In addition to spills at the two initial areas, free product was discovered in early August during excavation of a buried flange. DEC said total spill volume is unknown but that CIPL will submit a volume estimate based on waste generated as part of its final report.

The agency said it received CIPL's soil sampling plan Sept. 10 and approved it Sept. 15. On Sept. 20, Harvest reported an additional release of crude oil at dig site 1 from penetration of an abandoned 10 -inch pressure relief line.
"Harvest reported the pressure relief line did not appear to leak oil until the line was unearthed," DEC said. Crude oil and standing water at the excavation was immediately recovered using a vacuum truck. The agency said Harvest determined there were 18 barrels of a crude oil and water mixture, with 1.5 barrels of oil and 16.5 barrels of water.

Additional excavation associated with the pressure relief line and plugging of that line were completed Sept. 25, with excavation at dig site 1 completed Sept. 29 and at dig site 3 Oct. 3 .

DEC said additional materials and equipment needed to commence work at dig site 2 where the stain was discovered in late July was scheduled arrive the week of Oct. 10 by barge.

The agency said it will continue to assess and discuss with CIPL the future of the 20 -inch fill line system and testing required for that system.
-PETROLEUM NEWS

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## continued from page 1

## CARBON TAX

British Columbia.
Wall said Saskatchewan will be one of the provinces hardest hit by the tax because of its reliance on resource exports, estimating the cost will reach C $\$ 1,250$ a year for the average family in 2022 and siphon more than C $\$ 2.5$ billion from the Saskatchewan economy.

He said the tax will likely result in an exodus of oil and gas rigs to the United States.

Alberta Premier Rachel Notley withheld support for the move pending federal approval of export pipelines the industry insists are vital to access global prices.

Wall said he does not believe Trudeau's promise to make the tax revenue-neutral by returning the money to provinces and territories, allowing them to cushion the impact on families and industries.
"It's not going to work," he insisted, adding that Saskatchewan is preparing an alternative strategy, using technology to capture carbon from a coal-fired power plant and boosting the use of renewable sources to account for 50 percent of the energy generated in the province by 2030.

If all else fails, Saskatchewan will consider its legal options, including a possible constitutional challenge.

## Industry hesitant to comment

Alberta's largest oil producers were hesitant about passing judgment on the tax regardless of the mounting financial pressures they face.

The Conference Board of Canada estimated the industry is on track to post a pretax loss of C $\$ 10$ billion this year, after losing C $\$ 11$ billion last year, marking the first
time it has registered consecutive annual losses.

Tim McMillan, president of the Canadian Association of Petroleum Producers, said that until the details of the tax are released companies are unable to decide whether they can live with a $\mathrm{C} \$ 50$ levy.

He hopes Alberta and the Canadian government will remain focused on the principle they agreed to in March to pursue a panCanadian strategy that would take into account competitive pressures on key industries, with special emphasis on ener-gy-intensive sectors that face tough international competition.

Lorraine Mitchelmore, former president of Shell Canada, told the Globe and Mail the industry must understand that carbon pricing is a fact of life and will rise over time as international efforts are made to achieve the commitments made last December at the Paris climate summit.

Gary Leach, president of the Explorers and Producers Association of Canada, speaking for small and mid-sized producers, wasted no time attacking the federal plan as "damaging" to his member companies which lack the financial heft of their larger rivals.

Martin King, director of institutional research at GMP First Energy, said the problems for producers will be compounded by mid-2018 unless more pipelines are approved, forcing them to look at options such as rail to move their crude.

He estimated the transportation shortfall will reach 100,000 to 200,000 barrels per day by 2018 , but rail offers a quick solution through its idled capacity of 1 million bpd in Western Canada. $\bullet$

> Contact Gary Park through
> publisher@petroleumnews.com

## ALASKA SALES

nate specific tracts."
The governor said in a Sept. 30 press release that he and Lt. Gov. Byron Mallott and Alaska Department of Natural Resources Commissioner Andy Mack met with members of the Obama administration to request that Alaska remain in the fiveyear OCS lease sale plan.

The administration is also working with communities along the coast. In an Oct. 7 press release Walker said he and Mallott met

with North Slope Borough Mayor Harry Brower and Arctic Slope Regional Corp. President and CEO Rex Rock "to discuss appropriate safeguards and benefits from development in the Arctic." Walker also said the Department of Natural Resources and the North Slope Borough continue to work on a memorandum of understanding to collaborate on Arctic resource development.

Walker said in his letter to Jewell that if Interior accepts the nominations, the state "will use the federal leasing process to facilitate private sector investment and participation in the lease plans."
Walker referenced provisions of the federal Outer Continental Shelf Lands Act in his letter to Jewell, noting that the act specifies that the OCS "should be made available for expeditious and orderly development, subject to environmental safeguards" and that states and affected local governments "are entitled to an opportunity to participate, to the extent consistent with the national interest, in the policy and planning decisions made by the Federal Government, relating to exploration for, and development and production of, minerals of the outer Continental Shelf."

DNR Commissioner Mack told Petroleum News that "OCSLA is a prostate, pro-local community federal law that leans heavily on the states adjacent to the areas being considered for leasing."

If the state and the communities adjacent to the proposed leasing areas - in Alaska's case the Kenai Peninsula and North Slope boroughs - "are in concert and working together and they're making recommendations it's our view that the federal government is required to listen to them and their opinion."

Mack said the state is working closely with local communities, "in particular in the case of the Arctic, we're working with folks up on the North Slope." The state will work

## continued from page 14

## ALASKA SALES

with communities "to make sure that leasing and planning for activity in the OCS is done very carefully, thoughtfully," he said.

Tools that have been used historically, such as conflict avoidance agreements, "would be very helpful in constructing these lease sales," Mack said.

Mack said the process for OCS lease sales is a one-way street, and if an area is pulled out of the five-year plan "it cannot be put back in" and the area would then be on the shelf until there's another five-year plan.

The process includes a draft program with planning areas, he said.

The Beaufort and Chukchi seas and Cook Inlet are included in the planning areas.

The state is nominating areas for leasing "and we're going to promote leasing and we're going to facilitate leasing in these areas ... and by that we mean going out and selling" the OCS opportunity in Alaska, he said.

The state has traditionally worked to promote interest in state lease sales.

Mack said the state thinks OCS development "can be done in a way which makes sense for the communities but also makes a lot of sense for the state of Alaska and ... we will go out and we will talk about these opportunities with companies and we will promote Alaska's resource base."

As to what role the state might play, Mack said with sufficient industry interest the state "would like this to be a partnership where we are promoting both activity and interest while we do what we're also obligated to do which is to make sure we do this with high standards and we do it safely."

In his letter to Jewel the governor cited federal regulations and said: "To the extent it is necessary to protect the State's interest and promote its policies, the State of Alaska intends to participate in lease sales in the Arctic OCS Region as a qualified lessee."

Asked about possible state participation as a lessee, Mack told Petroleum News is an email: "The State's strong preference is a conventional approach where we facilitate participation by companies in federal leases sales. But the State also wants to keep its long term options open. The State has an abiding interest in a long term strategy toward safe OCS development."
—KRISTEN NELSON

## cornted fon peace 13

## CHUGACH ELECTRIC

The agreement contains an evergreen clause providing for an automatic five-year extension unless written notice is provided at least one year prior to the expiration date. The extension was subject to the approval of the Regulatory Commission of Alaska.

## Seeking new board member

On Oct. 5, Chugach announced the resignation of director Bruce Dougherty from its seven-member board, effective Dec. 14.

The board will interview and appoint a Chugach member who meets the qualifications as specified in its bylaws. The appointee will serve until the seat is filled in the May 2017 election, the utility said in its most recent newsletter.

Members interested in the position "must submit a letter of intent, an application form, an attestment of candidate qualifications form, and a resume by noon, Oct. 28."

For more information or to request an application packet, call 907-762-4791. Forms are available on Chugach's website at www.chugachelectric.com.
-PETROLEUM NEWS

## A message from the publisher

October 15, 2016
Dear readers,
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## Petroleum

## Oil Patch Bits

## Expro awarded \$30M production contract in India

International oilfield services company Expro has been awarded a contract worth more than $\$ 30$ million with the Hindustan Oil Exploration Co. for the Dirok gas field in India.

The project will see Expro provide the design, engineering, construction, transportation, installation and commissioning of a modular gas processing plant which will fulfill the requirement of a fast-track early production system as well as long-term
 operational goals. The facility is designed to process up to 35 million standard cubic feet of gas per day with associated liquid condensates.
"This project is a significant milestone for Expro as it marks our first ever contract in India for the provision of a fast-track modular gas processing plant on a lease, operate and maintain basis," said Keith Palmer, president for Expro Production and Asia.

Expro will also supply personnel to operate and maintain the MGPP to assist HOEC in maximizing gas and condensate production from the field over the long-term.

The Dirok field, located in the Assam-Arakan basin, covers a development area of 110 square kilometers in north-eastern India close to the town of Digboi.

## GCI donates $\mathbf{\$ 1 0 0 , 0 0 0}$ for suicide prevention in Alaska

General Communication Inc. in partnership with the Alaska Community Foundation recently announced $\$ 100,000$ will be awarded to nine organizations to support suicide pre vention and promote mental wellness in Alaska. The organizations will receive grants from
the GCI Suicide Prevention Fund, a grant program developed to help reduce Alaska's suicide rate, the highest in the nation.
"With a rate twice the national average, suicide in Alaska has a devastating effect on our employees, their families, and communities across the state," said Paul Landes, GCI senior vice president of consumer services. "We launched the GCI Suicide Prevention Fund as a way to provide funding for promising new programs and to help successful, established programs reach even more people."

More than 40 organizations expressed interest in the initial application process, managed by The Alaska Community Foundation. After a competitive review process, nine programs were awarded grants, ranging from $\$ 5,000$ to $\$ 15,000$. Selected programs include a wide range of prevention strategies across the state, from teaching traditional crafts to atrisk youth to expanding mental health initiatives from high schools to middle schools.

Grant awards represent a mix of small and large organizations from across the Alaska and include a broad range of target audiences and tactics.

During National Suicide Prevention month in September, GCI provided free suicide prevention training to employees, promoted suicide prevention messaging on its social media platforms and has featured suicide prevention public services announcements more than 2,700 times on cable television channels across Alaska.

In 2015, GCI supported the Anchorage Rotary Suicide Prevention Project. The awardwinning public awareness campaign moved the company to further its work in supporting suicide prevention in Alaska, resulting in this year's grant program.

## ASRC announces the creation of new platform company

Arctic Slope Regional Corp. is pleased to announce the establishment of a new platform holding company, ASRC Industrial Services LLC. AIS will be headquartered in Concord, California. Greg Johnson, the president and chief executive officer of ASRC's wholly owned subsidiary Petrochem Insulation Inc. will take over as president and CEO of AIS. Petrochem
see OIL PATCH BITS page 18

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| Alaska Instrument |  | Doyon, Limited | ......... . 2 | NEI Fluid Technology |  |
| Alaska Instrument |  | Doyon Universal Services |  | Nordic Calista |  |
| Alaska Railroad |  | Equipment Source Inc. (ESI) |  | North Slope Telecom | . 13 |
| Alaska Rubber . | . 14 | exp Energy Services |  | Northern Air Cargo ... | . . . 14 |
|  |  | EXPRO Group |  | Northwest Linings |  |
| Alaska Steel Co. |  | Fairweather |  | PacWest Drilling Supply |  |
| Alaska Textiles |  | Flowline Alaska |  | PENCO | . . 4 |
| Alaska West Express . . . . . | ....... 20 | Fluor |  | Petroleum Equipment \& Services |  |
| Alpha Seismic Compressors |  | Foss Maritime |  | PND Engineers Inc. |  |
| American Marine .................. | . .............. . 4 | Foss Maritime |  | SV Engineers inc. |  |
| Arctic Catering \& Support |  | Fountainhead Hotels |  | PRA (Petrotechnical Resources of Alaska) |  |
| Arctic Controls . ........ | ............. . 6 | Fugro |  | Price Gregory International |  |
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| Armstrong |  |  |  |  |  |
| ASRC Energy Services . . . . . . . . . . . . . . . . . . . . . . . . . . . . 8 |  | GCI Industrial Telecom | . . 17 | Resource Development Council |  |
| AT\&T |  | Global Diving \& Salvage |  | Ravn Alaska |  |
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|  |  | Guess \& Rudd, PC |  | Stoel Rives |  |
|  |  | Hawk Consultants |  | Taiga Ventures . | . 10 |
| Bald Mountain Air Service |  | Hudson Chemical Corp. |  | Tanks-A-Lot |  |
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## continued from page 5

## WALKER Q\&A

where that should be addressed. Where do you stand on this?

Walker: Well, if all they are doing is shipping gas, I'm not sure what the fiscal certainty is. If they are not going to be an owner in a piece of pipe, liquefaction or gas conditioning, what exactly is the fiscal certainty for?

If they aren't investing in the gas line, what exactly are we protecting them from? Typically if they invest in a gas line, they are going to want some sort of fiscal certainty but when the shift to the mode of just the shipper, all over the world people ship through gas lines and they don't have fiscal certainty to sell gas. So I'm a little bit surprised that the fiscal certainty march continues on even though they will be just a shipper in the pipe.

Petroleum News: Every governor has his or her share of heavy lifting when it comes to making a case for their gas line plan. Now you're faced with it. What do you see ahead to convince the Legislature that you're on the right path?

Walker: I think when we have investors, marketplace investors. We are the only place in the world that reinjects the volume of gas that we do every day. A lot of projects, they hope they can fill the contract that they get. We are the opposite with the most proved gas anywhere in the world. This isn't shale gas; this is conventional gas. That was a pretty big surprise with people we met with, the sheer volume of gas we re-inject every day.

Petroleum News: So what are your priorities for next session when your team is meeting with lawmakers? What do you do to make your case?

Walker: We tell them we are selling the opportunity of Alaska. The preFEED is almost done. Before we move into FEED we want to make sure there is a market for this project and there are investors for it so really for the Legislature, we need to keep them apprised of what we are hearing from the marketplace, the interest from the marketplace. I've always said if there is not a market for this project, then the project doesn't happen. If we don't find market here in Alaska, you have to meet the market where they are. That's why I'm anxious to again speak at the conference in Japan where they will have 25 to 30 largest buyers in the world gather there to hear what's new with different projects.

Petroleum News: So will this require new legislation or do you see yourself advancing under the umbrella of $S B$ 128?

Walker: At this point, I don't see the need for new legislation. SB 138 is broad enough. It doesn't prohibit us from advancing the way we are.

Petroleum News: So then who is your team, who are your lead voices on this? Parnell had Balash. Murkowski had Jim Clark. Palin had Marty Rutherford. Who from your team will we see out front when discussing this with Resources and Finance?

Walker: Keith Meyer, president of AGDC. He is the one leading this effort. Certainly we'll see some input from Andy Mack as well as John Hendrix.

Petroleum News: Also, with next session, how will discussion on oil taxes play out in the mix of priorities?
"If you look around the world, the sovereigns are very much involved in the infrastructure around the world. Typically people who find the gas ship it down other peoples' pipelines."
-Gov. Bill Walker
Walker: I think we will continue to fix the downside with the floor. We are not going to change anything on the upside, but boy we just can't underwrite the losses when we are in a $\$ 4$ billion deficit ourselves. We are probably going to look at some of what we had before with the floor and the NOLs (net operating losses being carried forward).

Petroleum News: So what's your message to the bond rating agencies who have even weighed in on the news of the gas line taking a different path?
Walker: Well we are not ready to go to the bond market on the gas line. We may not go to the bond market on the gas line. If it's all third-party financing, then we wouldn't go to the bond market. Separate from that, bond markets do watch closely and they reacted when no
action was taken. It's interesting. Since 2013, we've gone down $\$ 12.6$ billion in savings because we haven't changed and we haven't fixed the problem. That's a pretty significant number.

Petroleum News: You've stressed emphatically that the Permanent Fund is not a factor in the gas line. There are a few lawmakers who are not convinced, seeing the Permanent Fund as the state's collateral. How do you see it?

Walker: I don't know why they continue to say that. I guess that's their choice, but we've never said there would be any connection between the gas line and the Permanent Fund whatsoever.

Petroleum News: So if you determine a year from now or a year and a half from now that the project is not economical what do you do then to market North Slope gas?

Walker: We look for other ways to commercialize the gas up there. Some have talked about turning it into a different form and putting some of it into TAPS. Some people have talked about power generation on the North Slope. We need to look at how to monetize it. If there is no market for the gas line, then
we need to stop spending that kind of money we've been spending on it. Right now there has been $\$ 600$ million spent on pre-FEED and if we put that on hold for a period of time, at some point it becomes stale information and you certainly don't want to do that.

Petroleum News: So how do you keep that pre-FEED data fresh?

Walker: It's not done yet but it will be done by the end of the year, so it will be fresh for about a year. We have a lot to offer and a lot to present. The fact that the pre-FEED is almost completed is a big step. There is a lot more gas out there than there is a market; there is a lot of competition we are competing with. If we sit back and watch the market get filled with competing projects then we definitely won't have a project.

Petroleum News: So you're looking for a different way to get the gas to market than what is deemed rather traditional?

Walker: Actually, this is traditional. If you look around the world, the sovereigns are very much involved in the 5
see Walker Q\&A page 19

## Society of Petroleum Engineers <br> 33nd Annual Scholarship BBQ Fundraiser



Alaska Petroleum Section

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## continued from page 1

## ERD RIG

ed reach rig would allow Fiord West to be developed from existing drilling pads, probably the CD-2 and CD-5 pads. Thus, the new rig will avoid the need to build and access a new drilling pad at a remote location in the Colville River Delta region.

However, ConocoPhillips has yet to sanction a Fiord West development or publish any data on the oil resource in the satellite. But, in addition to Fiord West, the rig will have application in other North Slope developments, and possibly for exploration drilling, Lowman said. And, with the rig being mobile, other North Slope operators could potentially use it, she said.
"The new ERD rig is good news for ConocoPhillips and for the state," said Joe Marushack, president of ConocoPhillips Alaska. "Despite the current challenges facing our industry, we are planning for the future and pursuing new development opportunities. Adding the ERD rig to our rig fleet on the North Slope is a potential breakthrough event. It could enable increased oil production by reducing the cost of developing economically challenged or previously unreachable resources."
"Doyon is proud of the contract to build an ERD rig for ConocoPhillips Alaska," said Doyon President and CEO Aaron Schutt. "The addition of this rig to Doyon Drilling's fleet means more jobs and more opportunities for development. This is great news for Doyon's shareholders and for Alaskans.'

The design of the new rig will involve a particularly powerful top drive, capable of delivering the necessary torque to the huge length of subsurface drill pipe. High

capacity pumps will push drilling mud at a relatively high pressure down the drill pipe, Lowman told Petroleum News. And, to accommodate the long wells, the rig will handle casing that is longer and heavier than normal, with a surface casing diameter of 16 inches rather than the traditional 12.5 inches. Consequently, the rig derrick will have capacity to handle more steel than in a traditional rig, Lowman said.

## Agreement with the state

The new rig comes in association with an agreement between ConocoPhillips and the state of Alaska over continuing to hold the state leases associated with Fiord West as part of the Colville River unit. According to correspondence in 2015 and 2016 between ConocoPhillips and Corri Feige, then director of Alaska's Division of Oil and Gas, the Fiord West leases had originally been scheduled to leave the unit at various dates in 2009 and 2010, unless the leases became included in a field participating area by that time. However, in March 2009 ConocoPhillips requested that the leases should remain in

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## Mentioned in 2009

In 2009, at around the time that ConocoPhillips originally asked the state to allow the Fiord West leases to remain in the Colville River unit for an extended period of time, the company filed a permit application with the U.S. Army Corps of Engineers for the development of the CD5 Alpine field satellite in the National Petroleum ReserveAlaska. That permit application outlined possible further oil developments around the Colville River unit, including a potential development at Fiord West.

ConocoPhillips said that Fiord West could be developed from either side of the Nigliq Channel of the Colville River but that the company was evaluating placing the Fiord West pad on the west side of the channel to minimize additional infrastructure in the Colville River Delta. The subsequent development of CD-5 included the construction of a bridge over the Nigliq Channel.
In its Corps of Engineers permit application ConocoPhillips mentioned positive results from the Char No. 1 exploration well, drilled in 2008, as confirming a potential satellite development at Fiord West. Given the length of time since that well was drilled, the Alaska Oil and Gas Conservation Commission has published the data from the well. And that data confirms that ConocoPhillips did indeed make an oil find.

## Oil in Kuparuk and Nechelik

The well penetrated the Nanushuk formation; the Torok formation; the HRZ; the Kuparuk D and C sands; and the Nuiqsut, before bottoming out in the Nechelik formation at a vertical depth of 7,647 feet. Oil flow testing was conducted from the Kuparuk and the Nechelik.

Reports on the production testing in the Kuparuk indicated flow rates of some 3,750 barrels per day of light, 37 API, oil. Flow testing in the Nechelik showed 28 API oil flowing at some 270 barrels per day. These were flow rates achieved through perforations in the near vertical well casing in the appropriate rock intervals - production rates, if the oil pools are developed, would depend on the well completion and oil production strategies employed and could presumably be higher. In the Colville River unit oil fields ConocoPhillips generally uses a system of horizontal injection and production wells. $\bullet$

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## continued from page 16

## OIL PATCH BITS

will be AIS' first operating company.
"On behalf of ASRC's board of directors, I am proud to announce the creation of ASRC Industrial Services," said Crawford Patkotak, ASRC board chairman. Rex A. Rock Sr., president and CEO of ASRC, added, "I believe the establishment of AIS positions ASRC to leverage the talented leadership team and workforce at Petrochem to expand our industrial services offerings into attractive new markets for the benefit of our shareholders."
"I am excited about the future of AIS," said Johnson, president and CEO of AIS. "I look forward to building on the momentum we have created over the last 15 months at Petrochem to expand our service offerings to existing and new customers, provide additional opportunities for our employees and ultimately increased benefits to ASRC's shareholders."

Editor's note: Some of these news items 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.

## continued from page 1

## HEA DEREGULATION

The purpose of RCA regulation is the protection of the interests of customers of "natural monopolies," businesses that, by their nature, have little or no local competition. Under Alaska statutes a utility such as HEA can deregulate provided that a majority of its membership vote for deregulation in an appropriately organized election. Upon deregulation, the role of oversight of issues such as the setting of electricity rates would pass from the RCA to the utility's board. If a member disagrees with a board decision, the member has the right to challenge the decision through an appeal in Alaska Superior Court

## Improved efficiency

HEA has said that deregulation would eliminate the lengthy, expensive and rigid RCA approval process for rate changes, thus enabling the utility to more nimbly and flexibly implement or pilot new service arrangements and rate structures. The utility's board would be able to make strategic decisions on electricity rates ahead of costs from those decisions being incurred, enabling, for example, the feathering in of the costs of new major pieces of infrastructure, rather than having those costs suddenly cause a jump in the rates, HEA has argued.

Currently, under RCA regulation, all rate changes must go through a rate case process that can take up to 450 days to complete.

HEA has cited, as examples of successful deregulation, several other utilities, inside and outside Alaska, including Matanuska Telephone Association and Kodiak Electric Association. But the commission has questioned the validity of these comparisons. Commissioner Stephen McAlpine, for example, commented that MTA operates in a highly competitive telecommunications market, with customers having options to switch to other providers, and not as a monopoly as is the case for HEA. And KEA, unlike HEA, is not connected to the Railbelt transmission grid, an integrated grid serving several utilities, McAlpine said.

## Implications for the grid?

Commissioner Norman Rokeberg particularly focused on the possible implication of the HEA deregulation for current efforts towards integrating the management and operation of the Railbelt transmission grid. HEA owns and operates both the southernmost portion of the grid and the utility's Kenai Peninsula power generation assets through a separate HEA affiliate called Alaska Electric and Energy Cooperative. HEA, itself, operates the electricity distribution system on much of the peninsula. HEA

## HEA has said that deregulation would eliminate the lengthy,

 expensive and rigid RCA approval process for rate changes, thus enabling the utility to more nimbly and flexibly implement or pilot new service arrangements and rate structures.has said the deregulation only applies to the distribution system, and not to AEEC's generation and transmission facilities. Apparently AEEC is a separate utility, with HEA as its only member.

In principle, HEA could, after deregulation, opt to deregulate AEEC, using its single member vote, Rokeberg commented. The commissioners want to know what will happen and what is the intention, he said.

McAlpine also questioned the practicalities of HEA members challenging board decisions through Superior Court, given the formality and cost of taking court action. With HEA as a regulated utility, ratepayers can currently complain about utility services free of charge through the RCA, he said.

## Ratepayer concerns

Bob Shavelson, an HEA member and executive director of environmental organization Cook Inletkeeper, provided comments to the commission, expressing several concerns about the deregulation initiative. Three other HEA ratepayers also commented, generally supporting Shavelson's position.

Shavelson's concerns included his perception that, by using a public relations firm to promote deregulation to the HEA ratepayers, HEA had only presented the positive aspects of the proposal. Shavelson questioned a lack of information about the situation regarding AEEC, especially as AEEC holds some $\$ 363$ million in debt. Moreover, if HEA saves money through deregulation, what will that money be used for, Shavelson asked, commenting that there does not appear to be any commitment to reduce electricity rates. HEA's fiduciary duty appears to be towards itself rather than its members, he said. And, with a large debt overhang, how will HEA be able to invest in new renewable energy sources, he asked.
Shavelson also raised the question of the integrated Railbelt transmission grid, wondering that, if HEA deregulates, other Railbelt utilities might follow suit, thus raising issues over the efficiency and effectiveness of operations across the grid.
Given that the deregulation election has already started, the commission is going to expedite publication on its website of the transcript of its Oct. 12 meeting. $\bullet$

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## continued from page 17

## WALKER Q\&A

infrastructure around the world. Typically people who find the gas ship it down other peoples' pipelines. What we've been trying to do all these years is not the norm - partly because people would rather get a much higher return on the upside than a regulated return on a piece of pipe. What we've been doing is unusual. Now we are trying to move back more into the norm of how it's typically done.

Petroleum News: The Legislature is also looking for a more definitive answer from the IRS on financing the project. Are you pursuing that now?
Walker: Yeah, we are. The biggest test is whether you have all the pieces necessary to be tax exempt. You also want to make sure that it's done in such a way that you see what are the sideboards, what you can and can't do as far as other investors. So is it better to be tax exempt or be taxable and have other investors involved?

Petroleum News: So if gas is put on hold for a different window of availability do you shift to oil as priority and see what the state can do to advance oil exploration?
Walker: I think you do both. I don't think we have the luxury to sit back and do one versus the other. When I was in Washington last week, I was talking about additional access for oil. I'm pleased with announcements from ConocoPhillips, but that's sort of ongoing. It's almost hand-in-hand.

Almost every meeting we had in Asia, the issue of oil came up. They are about 80 percent dependent upon oil from the Middle East. They would very much like to diversity that a bit. They were always asking about if there is an opportunity in Alaska for more oil. Is there any upstream opportunity for them now that we are shipping some oil to Asia? It's nice to have someone like John Hendrix who can talk with specificity about his time with BP and Apache.

Petroleum News: Can you elaborate a little more about your trip to D.C. What did you hope to gain?

Walker: The message there is we want to make sure we stay in the fiveyear OCS plan and not be removed from that. We gave them an update on the gas line. They too had seen some of the media and wondered what was going on. We then met at the White House and a senior advisor to Obama to talk about the five year plan. We emphasized our fiscal situation and how we need better access to our resources.

Petroleum News: I'm sure it's hard to tell what you've accomplished. What was your takeaway?
Walker: You know it is hard to tell. Over these past couple years, we've established a rapport with them. They took seriously our concerns. I know they are under a lot of pressure from different organizations to stop certain development around Alaska. I think that's unfortunate. $\bullet$

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## continued from page 1

## PROCESSING MOVE

chief operating officer for Glacier Oil and Gas, provided an overview of the project at the hearing and answered commission questions.

## WRU production

CIE told the commission in May that WMR produces up to 6,000 barrels per day of fluids, "processed by aging facilities at full capacity." The company wants to move processing of three-phase (oil, gas and water) fluids to the company's Kustatan facility and told the commission that the change at WRU, which would include switching from jet pumps to electrical submersible pumps and workovers, would elevate WRU production to some $10,000 \mathrm{bpd}$ of fluids.

The WMR facilities were installed in 1991 by Stewart Petroleum and were designed to handle some $12,000 \mathrm{bpd}$ of fluids. The facilities have normal operating costs of more than $\$ 5$ million per year and annual maintenance costs approaching $\$ 2$ million per year, CIE said, noting that costs would soon exceed revenues "The field is approaching an economic

As for multiphase metering, CIE said the margins of error between multiphase and single phase meters is about 2.5 percent, which would translate to roughly fewer than 10,000 barrels over the remainder of the life of WMR.
limit, driven by high maintenance requirements," the company said in its application, noting that the risks of spills and injury to personnel are also issues.

One concern has been increased hydrogen sulfide, H2S, levels at the field, currently 600 parts per million, Kumar told Commissioner Dan Seamount.

Glacier's Tate told the commission Oct. 11 that the proposed change was presented to the company's board as a health, safety and environment issue. He said the facility at Kustatan is better able to handle H2S.

CIE said in its May application that H2S was not part of the original design at WMR because there was no H2S in the production stream early in the field's life. CIE said it believes H2S production is a result of ongoing seawater injection at the adjacent Trading Bay field. Kumar told


Seamount in the hearing that he believes the Trading Bay facility has also been seeing higher rates of H 2 s , but said he didn't have numbers for Trading Bay.

## Kustatan

Force Energy constructed the Kustatan production facility in 2002, CIE said, to handle production from Redoubt. The capacity was 25,000 bpd of fluids, but CIE said those volumes were never realized and Redoubt is currently producing about 1,000 bpd and Kustatan "has difficulty continuing to operate economically."
CIE said consolidating processing facilities at the two fields resolves issues by moving "problematic operations to a facility designed to handle the current processing requirements"; reduces costs - both maintenance and operating; and optimizes use of the "more modern 'oversized' facilities" at Kustatan.

## End of life

The commission had questions about the application and in a June response CIE addressed them.

On the end of life for WMR, CIE said the range of "remaining economic
reserves" is zero to 2 million barrels at West McArthur River "due to uncertainties around the degree of corrosion of the processing plant."

Increasing H2S has "negatively impacted the processing plant and field pipelines" in recent years, CIE said, estimating it would take $\$ 1.5$ million to $\$ 2$ million annually "to reduce risk and maintain operations due to corrosion."

As far as Redoubt is concerned, CIE said its life would be extended and recovery or reserves increased by transferring production processing for WMR to Kustatan, because fixed operating costs and maintenance would then be shared between the fields, while the addition of WMR crude to Kustatan would have a "marginal impact" on Kustatan operating costs.
As for multiphase metering, CIE said the margins of error between multiphase and single phase meters is about 2.5 percent, which would translate to roughly fewer than 10,000 barrels over the remainder of the life of WMR.

The company also said that royalties for WMR and Redoubt are similar and that "would ensure that there are no discrepancies in revenues for the state."

## Reliability

In a July response to further questions from the commission CIE said it "has confirmed the reliability of the equipment and pipelines" that would be part of the WMR-Redoubt consolidation, including a tank at WMR which would serve as an intermediary storage tank for sales crude and the 8 -inch pipeline that transfers sales crude from Kustatan.

Asked about economics at WMR, CIE said the production facilities at WMR "are well worn" and stressed by production above original design.

The increase in H2S over the last few years increases risk and danger to employees and CIE said that situation must be remedied to continue with depletion at the field.

The company said it believes the move of production to Kustatan is justified on the basis of H2S alone.

H2S levels are less than 100 parts per million at Kustatan, compared with some 600 ppm at WMR. Downhole completions at WMR will also be modified with ESPs with chemical injection strings, CIE said, giving it an opportunity to inhibit H2S with chemicals.
-KRISTEN NELSON

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