Petroleum news

Celebrating 20 years: 1996-2016

page 3 Q&A: Olson retiring after 12 years of off-the-radar service

Vol. 21, No. 50 • www.PetroleumNews.com A weekly oil & gas newspaper based in Anchorage, Alaska Week of December 11, 2016 • $2.50

This week's Mining News

NORTH OF 60 MINING news

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of December 11, 2016

page 11 "Exploration Company of the Year" honor goes to Kennady Diamonds

NEWS NUGGETS

Compiled by Shane Lasley

GRAPHITE ONE RESOURCES INC.

The graphite drilled at the aptly named Graphite Creek project in western Alaska has a number of distinguishing features that make it particularly suitable for a number of technology applications, including the anode material for lithium-ion batteries.

Graphite Creek milestone nears

Graphite One Resources Inc. Dec. 7 reported that it is nearing the completion of a preliminary economic assessment for its Graphite Creek project near Nome, Alaska. Raising more than C$2.8 million, the company has achieved a number of major milestones in 2016. These milestones were reached during a comprehensive product development program managed by TRU Group Inc., a technology metals consultant with expertise along the entire graphite-graphene supply chain. This program produced purified graphite from Graphite Creek averaging 99.98 percent graphitic carbon. When TRU Group first began examining Graphite Creek material late in 2014, its technicians recognized distinguishing features they described as spheroidal, thin, aggregate and expanded. The graphite specializing consultant postulated that these distinctive characteristics could lend to different specialized applications with minimal processing. These unique and naturally occurring properties have prompted Graphite One to apply for the trademark, STAX, an acronym to describe Graphite Creek graphite. Further testing found that more than 74 percent of the STAX flake graphite could be turned into spherical graphite without milling. This is a monumental achievement considering that only about 40 percent of the best-performing flake graphite found in any other known deposit can be converted to spherical graphite, even using high-end equipment. In later phases of testing completed this year, TRU Group measured the performance of the spheroidized graphite produced from STAX material in coin cells typically used in watches and similar devices. This testing confirmed high performance, repeatability and stability of the spherical graphite produced from the western Alaska deposit – all indicators of high-quality graphite for lithium-ion batteries. Graphite One and Tru Group are working on the production of exploratory grade samples of coated, spherical graphite for testing by potential end-users. "Our program indicated the unique characteristics of our STAX natural flake graphite, which more than met our expectations for performance on the key metrics for spherical graphite," said Graphite One CEO Anthony Huston. "Our goal for Graphite One is to become a reliable producer of high-quality graphite for the rapidly evolving energy and high-tech sectors." Graphite One said a preliminary economic assessment for the Graphite Creek project, a milestone originally slated for the end of 2016, is now targeted for completion by the end of January 2017.

Hecla, MSHA salute our miners

Hecla Mining Company Dec. 6 recognizes its miners,

see NEWS NUGGETS page 11

MINE SAFETY

Dam lessons learned

After Golder review, ICMM binds members to more stringent TSF management

By SHANE LASLEY

Mining News

Storing the rock leftover after the desired minerals are recovered is one of the most fundamental parts of mining. Typically stored behind massive earthen embankments, these tailings also pose a threat to human life and the environment, if not properly managed. Committed to sustainable mining, the International Council on Mining and Metals has adopted new tailings dam management measures that its 23 member companies must abide by and hopes non-member mining companies adopt similar procedures.

ICMM decided to take action following the high-profile tailings dam failures at Mount Polley, a copper-gold mine in British Columbia operated by Imperial Metals, and Samarco, an iron mine in Brazil operated under a joint venture between BHP Billiton and Vale.

While the downstream effects of the Mount Polley failure in 2014 were limited due to its remote location upstream of a large lake that helped absorb the impact, the Samarco disaster in 2015 was upstream of three towns and killed 19 people, including 14 mine employees.

"ICMM and its members are committed to drive safety and environmental improvements in the industry," said ICMM CEO Tom Butler. "After the tragic failure of the Samarco tailings dam, we had to determine how we could best help to minimize the risk of the recurrence of such a catastrophic event."

Golder report

To find out what can be done to prevent another tragic tailing dam failure, ICMM pulled together a panel of renowned tailings specialists and experts from within it membership to review tailings management practices across the breadth of the council's 23 mining companies.

The review panel hired Golder Associates, a trusted consulting and design company with more than 50 years of experience, to dig further into this problem.

While Golder, as well as other investigations, identified the structural issues that ultimately led to the dam failures at Samarco and Mount Polley, the consulting firm said modern engineering, design and construction practices are adequate to prevent such tailings impoundment failures.

"The shortcoming lies not in the state of knowledge, but rather in the efficacy with which that knowledge is applied," Golder wrote in its report published on Dec. 5. "Therefore, efforts moving forward should focus on improved implementation and verification of controls, rather than restatement of them."

The consulting firm concluded that mining companies and associations need to implement more robust governance and assurances to ensure that best practices are implemented at each and every operation.

"The review did not cover how or why the Samarco tailings dam failed, but takes lessons from the tragic event as well as from other tailing dam failures," explained Dirk van Zyl, a member of the ICMM expert panel. "It finds that a higher level of governance and assurance is key to confirming existing safety standards are implemented consistently."

Golder emphasized that these standards need to be flexible enough to be tailored to the unique circumstances of an individual mine but still be accountable to higher level guidance.

"The shortcoming lies not in the state of knowledge, but rather in the efficacy with which that knowledge is applied." –Golder Associates

Six key elements

In response to the Golder report, the top executives of all 23 ICMM member companies endorsed a position statement "that commits members to minimize the risk of catastrophic failures of tailings dams by adopting six key elements of management and governance."

"I am delighted that as a result of the review, CEOs of the world's 23 leading mining companies committed to a new ICMM framework on how to further enhance the safe management of tailings dams," said van Zyl.

These six key elements of the ICMM position statement are:

•Accountabilities, responsibilities and associated competencies are defined to support appropriate identification and management of tailings storage facility risks.

•The financial and human resources needed to support continued tailings storage facility management and governance are maintained throughout a facility's life cycle.

•Risk management associated with tailings storage facilities includes risk identification, an appropriate control regime and the verification of control performance.

•Risks associated with potential changes are assessed, controlled and communicated to avoid inadvertently compromising tailings storage facility integrity.

•Processes are in place to recognize and respond to impending failure of tailings storage facilities and mitigate the potential impacts arising from a potentially catastrophic failure.

•Internal and external review and assurance processes are in place so that controls for tailings storage facility risks can be comprehensively assessed and continually improved.

Under each of these broad elements are more specific criteria for which the ICMM member companies are bound.

Hope adopted by non-members

ICMM and Golder hope the lessons learned from this review result more stringent tailings management across the wider mining community.

"We were determined to take action at the global level and all of our member companies have adopted this new binding agreement," said ICMM CEO Butler. "We hope that non-member companies will also consider adopting this framework in order to help enhance the whole industry's performance."

Terry Eldridge, senior project reviewer at Golder Associates, added, "I hope that this report will be widely read, not just by ICMM members, but by the mining industry as whole so we can continually improve the safety of the industry." ●

After Golder review, ICMM binds members to more stringent dam management. Read more in North of 60 Mining News, page 9.

Ahtna completes its Tolsona well, plans flow tests for potential gas

On Dec. 5 Ahtna Inc. completed the drilling of its Tolsona No. 1 gas exploration well 11.5 miles west of the town of Glennallen, the Alaska Native regional corporation for the Copper River region has announced. The well reached a vertical depth of 5,500 feet; the drilling rig is being demobilized; and Ahtna plans to begin flow testing for gas in mid-December. The testing will involve perforating the well casing in a roughly 220-foot section identified from well logs at depths between 5,000 and 5,220 feet. The well was drilled to seek natural gas in the Nelchina sandstone in state land within the area of a state exploration license.

If an initial flow test shows positive results, Ahtna expects the subsequent data analysis to take about two months, to gain

see TOLSONA WELL page 13

IEP negotiations continue; cost of natural gas, supply chain critical

The Alaska Industrial Development and Export Authority's Interior Energy Project team continues to feel optimistic about its objective to bring affordable natural gas to Fairbanks and the surrounding Alaska Interior, Gene Therriault, IEP team leader, told the AIDEA board on Dec. 1.

"We still think very much that that is possible," Therriault said.

Gas in modest quantities is currently supplied to Fairbanks via a small liquefied natural gas plant near Point MacKenzie and a trucking operation to ship the LNG to the Interior city. The IEP concept involves increasing the gas supply by expanding the LNG plant and ramping up the LNG transportation operation.

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ANALYSIS

Trump on Alaska?

Unknowns on oil, state, are big with focus on cabinet, industrial policy

By TIM BRADNER

For Petroleum News

DONALD TRUMP

What effects will Donald Trump's election as president have on policies affecting Alaska's oil gas industry? For starters, don't expect a lot to happen soon.

Energy, public lands and the Arctic aren't on the front burner for the new president-elect, who is preoccupied right now with making cabinet picks, industrial policy and dealing with China.

Who Trump chooses as secretary of the Interior is important, and there haven't been a lot of names tossed out since Sarah Palin's was floated shortly after the election.

Palin's name may be crossed out, however, after the maverick former Alaska governor unloaded on Trump over business cronyism in appointing Wall Street high-ups to cabinet positions.

Another name floated, at least in Alaska newspapers, is local billionaire Robert Gillam, known best for being an arch-foe of Pebble mine development. Whether Trump will warm to a fellow billionaire for the job is unknown. Having money hasn't hurt his other appointees.

Unknown on resources

What the new president-elect will do, and what

see ANALYSIS page 20

EXPLORATION & PRODUCTION

BlueCrest drilling ahead

New rig has spudded well at Cosmopolitan; AIDEA OKs loan modifications

By ALAN BAILEY

Petroleum News

BlueCrest Alaska Operating LLC spudded its first new development well in the company's Cosmopolitan oil field on Nov. 28, John Martineck, president and CEO of BlueCrest Alaska, has told Petroleum News. In April the company started producing oil from the field, using a converted exploration well, but is now using a new powerful rig to directionally drill from an onshore pad into the field's offshore oil reservoir. The well should go into operation around the end of March, Martineck said.

The Cosmopolitan field lies under Cook Inlet near Anchor Point in the southern Kenai Peninsula

BlueCrest obtained financial assistance in the form of a $30 million loan from the Alaska Industrial Development and Export Authority as part of a cost of some $40 million to acquire and assemble the drilling rig. During its Dec. 1 meeting the AIDEA board approved some modifications to the terms of that loan, following a delay in the original planned timeframe for the drilling start, and following the deferral in the payment of state tax credits to BlueCrest.

Up to five wells

A plan of development that BlueCrest filed recently for the field indicated an intent to drill up to five wells at Cosmopolitan, with two of those wells being laterals from the well bores of other wells. The con-

see BLUECREST DRILLING page 15

PIPELINES & DOWNSTREAM

Canadian protests planned

Natural resources minister raises stakes, warns that 'rule of law' will apply

By GARY PARK

For Petroleum News

The battle lines that are rapidly taking shape in Canada over the future of oil pipelines hardened on Dec. 2 when Natural Resources Minister Jim Carr said the federal government was ready to use "defense forces" or police against protesters.

In ratcheting up the debate, he was immediately condemned by political opponents who accused him of "reckless, irresponsible and incendiary language."

At the same time, intentionally or not, he raised the issue to a new level.

"If he is truly concerned about the rule of law, he should know that in this country the federal government has no authority to use our military against pipeline protests," said Randall Garrison, a Member of Parliament from the New Democratic Party.

"Diversity in tactics is a key strategy. That will mean lawsuits, meeting with government officials, showing up at the ballot box (in the May 2017 British Columbia election), protests and direct action." —Greenpeace oil sands campaigner Mike Hudema

Carr, speaking to business leaders in Alberta

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GOVERNMENT

Olson: Proud of off-the-radar service

Quiet House leader retirement pending after 12 years in office, spent mostly on House Resources and chairing Labor and Commerce

By STEVE QUINN
For Petroleum News

House Rep. Kurt Olson is closing out 12 years of service, most notably as chair for the Labor and Commerce Committee. The Soldotna Republican was also called upon to chair the House Special Committee on Oil and Gas during a time when the Legislature came under heavy scrutiny during federal corruption investigations linked to oil taxes. Olson's committee was hardly on the periphery. It received referrals for major bills such as SB 21, the most recent tax regime passed in 2013 and SB 138, the current gas line development legislation. His committees didn't hear all of these bills normally relegated to just the Resources and Finance committees, but "we caught our share of them," Olson said. The outgoing lawmaker reflected with Petroleum News on how the state got to its current state with oil taxes and what he hopes may lie ahead.

Petroleum News: In 12 years, what do you think the state has been able to accomplish? It's taken a hit twice from huge market changes.

Olson: It's not only the market, it's also the timing. A number of things didn't fall into place like we had originally hoped they would. Things got slowed down. We saw eight to 10 months lost at a crucial time due to a pipeline sizing study the governor felt was needed. In addition to slowing us down on any work, we ended up spending $30 million. Three of the biggest companies in the world and probably the biggest pipeline company in North America felt it wasn't necessary.

Petroleum News: Do you think that delay hurt the state as far as advancing the project?

Olson: I think it may have slowed it down a number of years. Six months to a year ago, I was cautiously optimistic. I'm not optimistic at all that we will see it in the foreseeable future.

Petroleum News: Was it the market's drastic changing, meaning chronically low prices and a glut in supply, or is it the direction the administration is heading, or a little of each?

Olson: I think it was a perfect storm: Obviously the market changes and the glut of gas not only in North America but all the emerging fields overseas. I think it was also the change in the people we have running the show. They lost an incredible amount of talent: Mark Myers; Marty Rutherford; (former AGDC board members) Drue (Pearce) who was also at one time the federal pipeline coordinator; Al Bolea who worked for BP and Richard Rabinow who worked for Exxon. They ended up with a different crew calling the shots.

Petroleum News: The loss most lawmakers cited as the most painful one was Marty Rutherford. How do you see it?

Olson: I would say it's a combination of Marty, Mark and Dan Fauske as far as the depth and talent, Marty for being the most involved.

Petroleum News: So is it a matter that it was too much?

Olson: I think it was the governor putting people in who already agreed with his position. Most of those people were involved one way or another with the Port Authority. I think he was looking for people who thought the way he did rather than people may have possibly been needed to tell him not what he wanted to hear but what he needed to hear.

REP. KURT OLSON

Petroleum News: Do you see this as a situation where the state is moving forward with a project that is uneconomic?

Olson: It's uneconomic and I don't believe it's going to happen in the foreseeable future. I think it's DOA. I can give you one slight example. How long has it been since TransCanada was removed from the slate of players? One year? Have you looked at their stock since then? It's gone up about 25 to 30 percent that period (about $30 a share to $44 a share). What it appears to me is the financial institutions and stock markets seem to think that was probably a good move to get out, even though I don't think they left on their own volition. I believe this will happen when it makes economic sense. I don't see that it will be done at this point.

Petroleum News: So what do you think the state should have done? Slowed it down so it could be ramped up if the market takes a favorable turn? Or should they have mothballed it altogether?

Olson: That depends on what day it is could dictate what kind of answer I'd give you. Things change so fast. I think we missed the boat a while back.

Petroleum News: This hits close to your home. For 18 months to two years there was a lot of excitement on the Kenai. We saw land being purchased, jobs and field work being done. Now what are you seeing?

Olson: We are seeing a lot of people scrambling for jobs. I know I've got neighbors and friends who are looking for jobs who have been let go locally or on the North Slope. I'm sure it's not just us. I'm sure it's being felt in Anchorage, Fairbanks and all over the Kenai.

Petroleum News: So if you were still in office. What would you need to hear to keep things moving forward?

Olson: You know I can't even answer that right now. The changes that have been made by the current administration have pushed us back a number of years. We've seen small to medium sized projects being shelved. We've got good-sized finds on the North Slope and I believe the companies are waiting to see what's being done with the tax credits and the tax structure before they are doing anything more. We can certainly use the oil to run through the pipeline. I don't think they are looking for fiscal certainty, which was the catch-all phrase three years ago. I think they want to know that things aren't going to be changed every two or three years. I tend to agree with them. They need to know what the rules are before they can make the investments they are making.

Petroleum News: Let's talk about that. It seems like oil taxes and oil tax credits have been fiercely debated almost every year, if not every legislative session. Why do you believe that is?

Olson: It seems like it's a difficulty in entering into long-term agreements. We have a change in the House, Senate or administration. We suffer from a lack of stability in all of the leadership. Look at what's happening now. In many ways, I wish I were sticking around for two more years. I think you're going to have fun these next two years.

Petroleum News: So why are you thinking another two years wouldn't have been so bad?

Olson: Part of me thinks I have some institutional knowledge. I guess I'll be doing it as letters to the editor and emails.

Petroleum News: Well the House losing a lot of institutional knowledge, either missing people who were voted out of office or retired, starting with you, Mike Hawker and Craig Johnson. How can that hurt the House regardless of how the new caucuses shaped up?

Olson: I know most of the people except most of the new ones coming in and I consider most of them to be friends. The House has been controlled by a Republican majority for almost 20 years or close to it. With that comes advantages that have been in place pretty much going back to statehood where the majority has extra staffing during session. They have the ability to give out higher pay ranges. They get extra staff as a committee chair. In many ways, that has spoiled a number of us. I was in the majority for 12 years and was really never in the minority. I was on the other side of a coup, but that lasted only three or four days. Having said that and what I was

see OLSON Q&A page 17

● LAND & LEASING

Hilcorp seeking Ninilchik expansion

Asking state to expand Falls Creek participating area; requests for Grassim Oskoloff, Susan Dionne/Paxton expansions to come

By ERIC LIDJI
For Petroleum News

After several years of exploration delineation drilling at the Ninilchik unit, Hilcorp Alaska LLC is proposing the first in a series of administrative changes at the unit.

The local subsidiary of the Texas-based independent is asking to expand the Cook Inlet unit by approximately 40 acres to accommodate a proposed expansion of the Falls Creek participating area. The proposal would expand both the aerial and vertical extent of the Falls Creek participating area to accommodate information from recent wells at the unit.

The state Division of Oil and Gas is taking comments through Jan. 4.

The company expects to submit similar proposals for modifying the Grassim Oskoloff and the Susan Dionne/Paxton participating areas sometime in the coming year. “After this unit-wide delineation process is complete, Hilcorp and (the Alaska Department of Natural Resources) can cooperatively address issues related to mandatory unit contraction,” the company wrote in its filing. The state has held off contracting undeveloped portions of the Ninilchik unit while Hilcorp has been pursing delineation.

2014 drilling work

According to Hilcorp, the aerial expansion would accommodate recently drilled wells currently produced outside the existing Falls Creek participating area. The proposed vertical expansion is needed, according to the company, because various Tyonek formation wells in the participating area have been recompleted into the Beluga formation. The vertical expansion would align the participating area with associated Alaska Oil and Gas Conservation Commission pool rules at the Ninilchik unit.

Given that this would be the first revision to the Falls Creek participating area, “Hilcorp anticipates that the revised participating area boundary will also involve the re-allocation of production retroactive to first Falls Creek PA production in 2003,” the company wrote.

The Ninilchik unit follows the coastline of the Kenai Peninsula between Clam Gulch and Ninilchik. Many of the onshore drilling pads at the unit target offshore accumulations.

Chevron formed the original Falls Creek unit after discovering a Tyonek gas field in the area in June 1961. Marathon formed the Ninilchik unit in 2001 and discovered two nearby fields in 2001 and 2002. In 2003, the state expanded the Ninilchik unit to include the former Falls Creek unit. Also in 2003, the state formed the three participating areas: Falls Creek, Grassim Oskoloff and Susan Dionne-Paxton (from north to south).

After acquiring the unit, Hilcorp launched a major exploration and delineation program at Ninilchik. Those activities have already led to several new drilling pads across the unit, as the company targeted accumulations outside of the economic reach of existing pads.

A three-well program in the Falls Creek area in 2014 convinced Hilcorp to pursue an expansion of the participating area. The company drilled the 12,870-foot Frances No. 1 well in early 2014 to target oil. The well was non-commercial for oil, but showed a “strong potential” for natural gas production, according to the company. In August 2014, the company proposed a five-well development program. While the company permitted the Frances No. 2 and Frances No. 3 well, neither had been drilled through this year.

Also in early 2014, Hilcorp completed the 9,725-foot Falls Creek No. 5 well. The well encountered natural gas in both the Tyonek and Beluga formations. After the results of Frances No. 1 and Falls Creek No. 5, the company first suggested expanding the Falls Creek participating area to accommodate Beluga production. Toward the end of 2014, Hilcorp drilled the 9,060-foot Falls Creek No. 6 well to further appraise the Tyonek and Beluga formations area north of the Falls Creek drilling pad. ●

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CORRECTIONS

DNR data release announcement

The article in the Dec. 4 issue of Petroleum News about the release of exploration drilling and seismic data by the Alaska Department of Natural Resources incorrectly indicated that the agency had released the data on the announced dates. In fact, DNR had announced the future release of the data after 30-day public notice periods. The 30-day periods allow time for people who have concerns about the release of the data to appeal the release. Petroleum News apologizes for any confusion.

KF No. 1 natural gas well

An article in the Nov. 20 issue of Petroleum News with the headline, “NordAq drops Cook Inlet Tiger Eye unit,” incorrectly listed the infrastructure associated with ADL 390368. The lease was associated with the KF No. 1 natural gas well, not with the Kustatan Production Facility. Additionally, the article incorrectly claimed that Glacier Oil & Gas Corp. was “decommissioning the facility and shifting operations to the West McArthur River unit.” In truth, Glacier is consolidating operations from the West MacArthur River Production Facility into Kustatan. Petroleum News regrets the errors.

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● PIPELINES & DOWNSTREAM

Mostly decreases for North Slope lines

Increased throughput bringing down tariffs for ConocoPhillips lines; shipping rates to increase for out of state Hilcorp lines

By ERIC LIDJI
For Petroleum News

A majority of the North Slope pipelines are proposing decreases in shipping rates for the coming year, according to recent filings with the Regulatory Commission of Alaska. But some Hilcorp lines appear to be increasing the cost of shipping to out of state markets.

In their annual rate filings, the Kuparuk Transportation Co., Alpine Transportation Co., Milne Point Pipeline LLC, Northstar Pipeline Co. LLC and Endicott Pipeline Co. LLC all proposed declines in the rates they charge to ship oil to markets within Alaska, while the Milne Point Pipeline LLC, Northstar Pipeline Co. LLC and Endicott Pipeline Co. LLC are proposing increases (albeit at seemingly identical rates) for out of state service.

The Oliktok Pipeline Co., on the other hand, is proposing a major rate increase.

ConocoPhillips pipelines

Through subsidiaries, ConocoPhillips Alaska Inc. operates the Kuparuk Pipeline and the Oliktok Pipeline, which connect the Kuparuk River unit to the Prudhoe Bay unit, and the Alpine Pipeline, which connects the Colville River unit to the Kuparuk River unit.

The Kuparuk Transportation Co. is proposing an intrastate rate of 22.8 cents per barrel to ship oil from the Kuparuk River unit to Pump Station 1 of the trans-Alaska oil pipeline (down from 31.6 cents per barrel) and 17.4 cents per barrel to ship oil from the Milne Point Pipeline Connection along the pipeline to Pump Station 1 (down from 23.5 cents per barrel). The RCA is taking comments on the proposed rate change through Dec. 22.

The Alpine Transportation Co. is proposing an intrastate rate of 72 cents per barrel to ship oil from the Colville River unit to the Kuparuk River unit (down from 94 cents per barrel). The RCA is taking comments on the proposed rate change through Dec. 21.

Both companies recently proposed identical decreases with the Federal Energy Regulatory Commission for interstate transportation service to out of state markets.

Both companies calculate shipping rates each year using approved methodologies. The companies attributed its decrease "primarily to a surplus net carry-over balance largely reflecting the fact that actual operating expenses for 2015 were lower than previously estimated and projected throughput for 2016 is currently expected to be higher than previously estimated," according to information included in state and federal filings.

The increase in throughput on the Alpine Pipeline is largely connected with the startup of the CD-5 project at the Colville River unit in late October 2015. While not mentioned in the filings, throughput on the Kuparuk Pipeline benefitted from the startup of Drill Site 2S in October 2015 and could be partly responsible for the proposed rate decrease.

The Oliktok Pipeline Co., on the other hand, is asking to charge $17.15 per thousand cubic feet to ship natural gas from the Prudhoe Bay unit to the Kuparuk River unit (up from $3.12 per mcf) and $12.99 per thousand cubic feet to ship natural gas from the Prudhoe Bay unit to the Milne Point Pipeline Connection (up from $2.37 per mcf).

A similar rate increase proposed for the pipeline last year led shipper BP Exploration Alaska Inc. to challenge the rates. The challenge was partly in response to questions about throughput estimates on the line, which had recently converted to shipping exclusively natural gas after years of shipping both natural gas and natural gas liquids.

Hilcorp pipelines

Through various subsidiaries, Hilcorp Alaska LLC operates the Milne Point Pipeline, which connects to the Kuparuk River unit; and the Northstar Pipeline and Endicott Pipeline, which both connect to Pump Station 1 on the trans-Alaska oil pipeline.

Milne Point Pipeline is proposing an intrastate rate of 63 cents per barrel to ship oil from the Milne Point unit to the Kuparuk River unit (down from $1.11 per barrel). The revision appears to be largely administrative because the pipeline made no revenue last year and expects none this year from intrastate shipments, suggesting that Hilcorp is currently using the pipeline exclusively for shipping oil to out of state markets. The company proposed an identical 2017 rate with FERC for interstate transportation service.

According to the FERC filing, total annual throughput on the pipeline decreased from 2010 through 2012 but increased in 2013 and 2014 before declining in 2015. Former Milne Point unit operator BP Exploration (Alaska) Inc. and current operator Hilcorp Alaska LLC both increased drilling and workover activities at the unit in recent years.

Northstar Pipeline Co. is proposing an intrastate rate of $1.14 per barrel to ship oil from Seal Island at the Northstar unit to Pump Station 1 (down from $3.90 per barrel). As with the Milne Point Pipeline, Hilcorp reported no revenue from intrastate shipments on the Northstar Pipeline in 2016 and forecast none for 2017, suggesting that the line is used exclusively for interstate shipments. The company also proposed a $1.14 per barrel rate with FERC for 2017, but presented the rate as an increase rather than a decrease.

According to the FERC filing, total annual throughput on the pipeline decreased from 2010 through 2012 but increased in 2013 and 2014 before declining in 2015.

Endicott Pipeline Co. is proposing an intrastate rate of $3.27 per barrel to ship oil from the Endicott field to Pump Station 1 (down from $4.86 per barrel) and $2.08 per barrel to ship oil from its Badami connection to Pump Station 1 (down from $3.09 per barrel). As with the other two pipelines, Hilcorp reported no revenue from intrastate shipments in 2016 and forecast none for 2017, suggesting that the line is used exclusively for interstate shipments. The company proposed identical rates with FERC for 2017 but presented them as an increase. The Endicott Pipeline has had decreased throughput in recent years. ●

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GOVERNMENT

NETL awards for shale oil, gas research

The National Energy Technology Laboratory has awarded funding to various Department of Energy national laboratories for research into hydrocarbon extraction from shale reservoirs. The idea is to obtain a better understanding of the factors that affect prudent resource development, NETL says. Although recent technical advances have unlocked vast quantities of oil and gas from low permeability rock formations, recovery efficiencies of less than 30 percent for gas and 10 percent for oil indicate that continuing research is warranted, the agency says.

Research topics include an investigation into the properties of fractures in shale gas reservoirs and the impact on reservoir sustainability of the materials used to keep fractures open.

NETL has selected six projects for funding. The Lawrence Berkeley National Laboratory is conducting three of the projects, while the Los Alamos National Laboratory, the Sandia National Laboratories and the Stanford Linear Accelerator Center are each conducting one project. The projects had already been granted a total of $3.6 million in NETL funding but, based on the projects' merits, that funding has been increased to $4.8 million over a two-year period, NETL says.

Research topics include an investigation into the properties of fractures in shale gas reservoirs and the impact on reservoir sustainability of the materials used to keep fractures open. Another project is investigating the ways in which fluids used for hydraulic fracturing can induce damaged zones that can inhibit the flow of oil and gas.

One project researches the impact on hydrocarbon flow of injected water that is adsorbed onto shale surfaces. Other research areas consist of assessing the production of low-viscosity shale oil; an investigation into hydraulic fracturing processes, to improve hydraulic fracturing performance; and the development of a fluid model for gas release and recovery from shale formations.

—ALAN BAILEY

● FINANCE & ECONOMY

Brent to average $43 this year, $52 in '17

EIA forecasts US crude production at 8.9 million bpd this year, down from 9.4 million in '15; expected to drop to 8.8 million in '17

By KRISTEN NELSON

Petroleum News

The U.S. Energy Information Administration expects U.S. crude oil production to average 8.9 million barrels per day this year, down from 9.4 million bpd last year. The agency said in its Dec. 6 Short-Term Energy Outlook that 2017 production is expected to drop further to 8.8 million bpd.

But there is a caveat, said EIA Administrator Adam Sieminski.

ADAM SIEMINSKI

"U.S. monthly oil production could increase more quickly next year if OPEC's recent decision to trim its output pushes the price of oil above $50 a barrel, which would encourage more investment in U.S. regions that have tight oil production."

The agency's oil price expectations are that Brent will average $43 per barrel this year and $52 per barrel in 2017, with West Texas Intermediate forecast to average about $1 less than Brent in 2017.

EIA increased its Brent oil price forecast by $1 per barrel from November and said both Brent and WTI prices are expected to remain close to $50 per barrel in the first half of 2017, and to end the year at about $55 per barrel.

OPEC

Members of the Organization of the Petroleum Exporting Countries announced a framework for supply reductions at the organization's Nov. 30 meeting and several non-OPEC members also said they would freeze or reduce production. EIA said that the extent to which those plans would be carried out and actually reduce supply below levels which would have occurred anyway is unclear.

The 2016 average for Henry Hub is forecast to be $2.49 per million Btu, rising to $3.27 in 2017.

If the agreement contributes to prices rising above $50 per barrel in the coming months, "it could encourage a return to supply growth in U.S. tight oil more quickly than currently expected," EIA said. Prices near $50 per barrel have resulted in increasing Permian basin investment by some oil companies and prices above $50 "could contribute to supply growth in other U.S. tight oil regions and in other non-OPEC producing countries that do not participate in the OPEC-led supply reductions."

Positive growth

EIA said if there is continuing global supply growth in 2017 that may postpone withdrawals from global inventory until 2018. The agency said inventory build is expected to average 800,000 bpd in the first half of 2017 and to average 400,000 bpd for all of 2017.

Global economic data have been more positive than previous expectations "and increases in oil demand growth could help to support prices in the coming quarters," EIA said.

U.S. oil production has been "more resilient in the current oil price environment" than expected, and this has been reflected in improving financial conditions for oil companies.

"Improved profits could encourage oil producers to increase capital expenditures and expand production in 2017 and beyond, especially if oil prices increase," the agency said.

EIA said a group of 91 publicly traded global oil companies in the third quarter of this year reported the first quarterly upstream profits since the fourth quarter of 2014, collectively earning almost $2.3 billion with Brent averaging $47 per barrel, compared to the third quarter of 2015 when the group lost $54.1 billion at Brent prices averaging $51.

Many companies have written down the value of their assets since the fourth quarter of 2014, reducing earnings in the quarter in which the write-down was taken, the agency said, and the increased earnings in the third quarter of this year are partly attributable to a reduction in asset write-downs, which declined 80 percent year over year, and partially attributable to reductions in operating expenses which were greater than declines in revenue.

Natural gas

The Henry Hub spot price for natural gas increased by 60 cents per million British thermal units from Nov. 1 and settled at $3.51 per million Btu Dec. 1, a drop of 43 cents from the October average.

Natural gas marketed production is forecast to average 77.5 billion cubic feet per day this year, EIA said, down 1.3 bcf

see EIA FORECAST page 8

● EXPLORATION & PRODUCTION

ANS crude production up 4.6% from October

November average 549,263 bpd, compared to 525,033; Cook Inlet production averaged 15,000 bpd in October, down 2% from September

By KRISTEN NELSON

Petroleum News

Alaska North Slope crude oil production averaged 549,263 barrels per day in November, up 4.6 percent from an October average of 525,033 bpd, an increase of 24,230 bpd.

The majority of the increase came from the BP Exploration (Alaska)-operated Prudhoe Bay field, the Slope's largest, which averaged 308,632 bpd in November, up 7.4 percent, 21,149 bpd, from an October average of 287,483 bpd.

Production information for the most recent month 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 data, 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.

Prudhoe volumes include satellite production from Aurora, Borealis, Midnight Sun, Orion, Polaris, Sag River, Schrader Bluff and Ugnu, as well as production from the Hilcorp-Alaska operated Milne Point and Northstar fields.

AOGCC data show Milne Point averaged 19,301 bpd in October, down 1.5 percent (292 bpd) from a September average of 19,593 bpd, while Northstar averaged 4,974 bpd in October, down 8.1 percent (436 bpd) from a September average of 5,409 bpd.

Kuparuk

The second largest per-barrel increase was at the ConocoPhillips Alaska-operated Kuparuk River unit, which averaged 145,906 bpd in November, up 1.7 percent, 2,378 bpd, from an October average of 143,528 bpd.

Volumes for Kuparuk include satellite production from Meltwater, Tabasco, Tarn and West Sak, and from the Eni-operated Nikaitchuq field and the Caelus Alaska-operated Oooguruk field.

The majority of the increase came from the BP Exploration (Alaska)-operated Prudhoe Bay field, the Slope's largest, which averaged 308,632 bpd in November, up 7.4 percent, 21,149 bpd, from an October average of 287,483 bpd.

AOGCC data show Nikaitchuq averaged 22,344 bpd in October, down 1.1 percent, 248 bpd, from a September average of 22,593 bpd. Oooguruk averaged 15,275 bpd in October, up 21.6 percent, 2,716 bpd, from a September average of 12,558 bpd.

Endicott, Point Thomson

The largest month-over-month percentage increase was at Hilcorp-operated Endicott, which averaged 11,736 bpd in November, up 10.8 percent, 1,144 bpd, from an October average of 10,592 bpd.

Endicott volumes include production from satellites at Eider and Minke, from the Glacier Oil and Gas-operated Badami field and from the ExxonMobil-operated Point Thomson field.

AOGCC data show Badami averaged 879 bpd in October, down 3.5 percent, 32 bpd, from a September average of 911 bpd.

Point Thomson averaged 1,688 bpd in October, up more than 5,000 percent, 1,657 bpd, from a September average of 32 bpd.

ExxonMobil has been commissioning facilities at Point Thomson since last spring and in the second half of November and the first few days of December Revenue's daily volumes for Endicott appeared to indicate progressively steadier volumes from Point Thomson, which is expected to be producing some 5,000 bpd initially and some 10,000 bpd when the West Pad at the facility comes online.

Lisburne, Alpine

Volumes for BP-operated Lisburne averaged 22,763 bpd in November, up 2.1 percent, 468 bpd, from an October average of 22,295 bpd. Lisburne includes volumes from Niakuk, Point McIntyre and Raven.

The ConocoPhillips-operated Alpine field was the only facility reported by Revenue to show a month-over-month decline from October to November, averaging 60,226 bpd in November, down 1.5 percent, 909 bpd, from an October average of 61,135 bpd. Alpine includes satellite production from Fiord, Nanuq and Qannik.

Cook Inlet down 2%

AOGCC data show Cook Inlet production averaged 15,000 bpd in October, down 1.9 percent, 291 bpd, from a September average of 15,291 bpd.

Only one field in Cook Inlet, the Glacier Oil and Gas West McArthur River field, had a month-over-month production increase, averaging 842 bpd in October, up 23.6 percent, 161 bpd, from a September average of 682 bpd.

The largest month-over-month decrease, 10.6 percent, was at the BlueCrest Hansen field, the Cosmopolitan project, which averaged 152 bpd in October, down 18 bpd from a September average of 170 bpd.

The Glacier Oil and Gas Redoubt Shoal field averaged 684 bpd in October, down 9.1 percent, 68 bpd, from a September average of 752 bpd.

Hilcorp's Trading Bay field averaged 1,983 bpd in October, down 7.4 percent, 159 bpd, from a September average of 2,142 bpd.

Hilcorp's Beaver Creek field, the inlet's smallest, averaged 198 bpd in October, down 3.5 percent, 7 bpd, from a September average of 205 bpd.

Hilcorp's Middle Ground Shoal averaged 1,823 bpd in October, down 2.7 percent, 50 bpd, from a September average of 1,874 bpd.

Swanson River, also a Hilcorp field, averaged 1,867 bpd in October, down 1.8 percent, 35 bpd, from a September average of 1,902 bpd.

Hilcorp's McArthur River field, the inlet's largest, averaged 4,941 bpd in October, down 1.8 percent, 91 bpd, from a September average of 5,031 bpd.

Granite Point, another Hilcorp field, averaged 2,510 bpd in October, down 0.9 percent, 24 bpd, from a September average of 2,534 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 bpd. ●

Contact Kristen Nelson at knelson@petroleumnews.com

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EIA FORECAST

per day from the 2015 level, and "the first annual production decline since 2005." The agency said natural gas production is forecast to increase next year to 80 bcf per day, up 2.5 bcf per day from the 2016 level.

Increases in the Henry Hub spot price were driven by growing domestic natural gas consumption coupled with higher pipeline exports to Mexico and natural gas exports.

The 2016 average for Henry Hub is forecast to be $2.49 per million Btu, rising to $3.27 in 2017.

"U.S. natural gas inventories were at their highest level ever at the beginning of the current heating season, but stronger gas demand this winter and increased exports are expected to reduce natural gas inventories to more normal levels by the end of winter in late March," Sieminski said. ●

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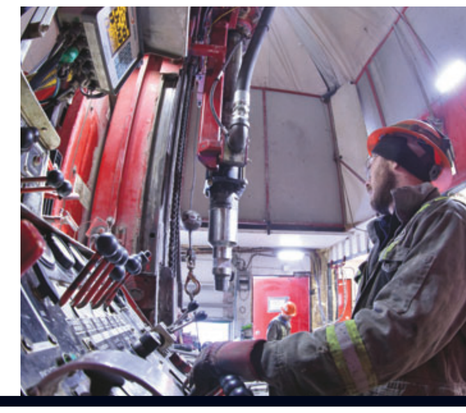
NORTH OF 60 MINING news



page 11 "Exploration Company of the Year" honor goes to Kennady Diamonds

www.MiningNewsNorth.com The weekly mining newspaper for Alaska and Canada's North Week of December 11, 2016

NEWS NUGGETS

Compiled by Shane Lasley

GRAPHITE ONE RESOURCES INC.

The graphite drilled at the aptly named Graphite Creek project in western Alaska has several distinguishing features that make it particularly suitable for a number of technology applications, including the anode material for lithium-ion batteries.

Graphite Creek milestone nears

Graphite One Resources Inc. Dec. 7 reported that it is nearing the completion of a preliminary economic assessment for its Graphite Creek project near Nome, Alaska. Raising more than C$2.8 million, the company has achieved a number of major milestones in 2016. These milestones were reached during a comprehensive product development program managed by TRU Group Inc., a technology metals consultant with expertise along the entire graphite-graphene supply chain. This program produced purified graphite from Graphite Creek averaging 99.98 percent graphitic carbon. When TRU Group first began examining Graphite Creek material late in 2014, its technicians recognized distinguishing features they described as spheroidal, thin, aggregate and expanded. The graphite specializing consultant postulated that these distinctive characteristics could lend to different specialized applications with minimal processing. These unique and naturally occurring properties have prompted Graphite One to apply for the trademark, STAX, an acronym to describe Graphite Creek graphite. Further testing found that more than 74 percent of the STAX flake graphite could be turned into spherical graphite without milling. This is a monumental achievement considering that only about 40 percent of the best-performing flake graphite found in any other known deposit can be converted to spherical graphite, even using high-end equipment. In later phases of testing completed this year, TRU Group measured the performance of the spheroidized graphite produced from STAX material in coin cells typically used in watches and similar devices. This testing confirmed high performance, repeatability and stability of the spherical graphite produced from the western Alaska deposit – all indicators of high-quality graphite for lithium-ion batteries. Graphite One and Tru Group are working on the production of exploratory grade samples of coated, spherical graphite for testing by potential end-users. "Our program indicated the unique characteristics of our STAX natural flake graphite, which more than met our expectations for performance on the key metrics for spherical graphite," said Graphite One CEO Anthony Huston. "Our goal for Graphite One is to become a reliable producer of high-quality graphite for the rapidly evolving energy and high-tech sectors." Graphite One said a preliminary economic assessment for the Graphite Creek project, a milestone originally slated for the end of 2016, is now targeted for completion by the end of January 2017.

Hecla, MSHA salute our miners

Hecla Mining Company Dec. 6 recognizes its miners,

see **NEWS NUGGETS** *page 11*

MINE SAFETY

Dam lessons learned

After Golder review, ICMM binds members to more stringent TSF management

By SHANE LASLEY
Mining News

Storing the rock leftover after the desired minerals are recovered is one of the most fundamental parts of mining. Typically stored behind massive earthen embankments, these tailings also pose a threat to human life and the environment, if not properly managed. Committed to sustainable mining, the International Council on Mining and Metals has adopted new tailings dam management measures that its 23 member companies must abide by and hopes non-member mining companies adopt similar procedures.

ICMM decided to take action following the high-profile tailings dam failures at Mount Polley, a copper-gold mine in British Columbia operated by Imperial Metals, and Samarco, an iron mine in Brazil operated under a joint venture between BHP Billiton and Vale.

While the downstream effects of the Mount Polley failure in 2014 were limited due to its remote location upstream of a large lake that helped absorb the impact, the Samarco disaster in 2015 was upstream of three towns and killed 19 people, including 14 mine employees.

"ICMM and its members are committed to drive safety and environmental improvements in the industry," said ICMM CEO Tom Butler. "After the tragic failure of the Samarco tailings dam, we had to determine how we could best help to minimize the risk of the recurrence of such a catastrophic event."

Golder report

To find out what can be done to prevent another tragic tailing dam failure, ICMM pulled together a panel of renowned tailings specialists and experts from within it membership to review tailings management practices across the breadth of the council's 23 mining companies.

The review panel hired Golder Associates, a trusted consulting and design company with more than 50 years of experience, to dig further into this problem.

While Golder, as well as other investigations, identified the structural issues that ultimately led to the dam failures at Samarco and Mount Polley, the consulting firm said modern engineering, design and construction practices are adequate to prevent such tailings impoundment failures.

"The shortcoming lies not in the state of knowledge, but rather in the efficacy with which that knowledge is applied," Golder wrote in its report published on Dec. 5. "Therefore, efforts moving forward should focus on improved implementation and verification of controls, rather than restatement of them."

The consulting firm concluded that mining companies and associations need to implement more robust governance and assurances to ensure that best practices are implemented at each and every operation.

"The review did not cover how or why the Samarco tailings dam failed, but takes lessons from the tragic event as well as from other tailing dam failures," explained Dirk van Zyl, a member of the ICMM expert panel. "It finds that a higher level of governance and assurance is key to confirming existing safety standards are implemented consistently."

Golder emphasized that these standards

> *"The shortcoming lies not in the state of knowledge, but rather in the efficacy with which that knowledge is applied."*
> *–Golder Associates*

need to be flexible enough to be tailored to the unique circumstances of an individual mine but still be accountable to higher level guidance.

Six key elements

In response to the Golder report, the top executives of all 23 ICMM member companies endorsed a position statement "that commits members to minimize the risk of catastrophic failures of tailings dams by adopting six key elements of management and governance."

"I am delighted that as a result of the review, CEOs of the world's 23 leading mining companies committed to a new ICMM framework on how to further enhance the safe management of tailings dams," said van Zyl.

These six key elements of the ICMM position statement are:

- Accountabilities, responsibilities and associated competencies are defined to support appropriate identification and management of tailings storage facility risks.
- The financial and human resources needed to support continued tailings storage facility management and governance are maintained throughout a facility's life cycle.
- Risk management associated with tailings storage facilities includes risk identification, an appropriate control regime and the verification of control performance.
- Risks associated with potential changes are assessed, controlled and communicated to avoid inadvertently compromising tailings storage facility integrity.
- Processes are in place to recognize and respond to impending failure of tailings storage facilities and mitigate the potential impacts arising from a potentially catastrophic failure.
- Internal and external review and assurance processes are in place so that controls for tailings storage facility risks can be comprehensively assessed and continually improved.

Under each of these broad elements are more specific criteria for which the ICMM member companies are bound.

Hope adopted by non-members

ICMM and Golder hope the lessons learned from this review result more stringent tailings management across the wider mining community.

"We were determined to take action at the global level and all of our member companies have adopted this new binding agreement," said ICMM CEO Butler. "We hope that non-member companies will also consider adopting this framework in order to help enhance the whole industry's performance."

Terry Eldridge, senior project reviewer at Golder Associates, added, "I hope that this report will be widely read, not just by ICMM members, but by the mining industry as whole so we can continually improve the safety of the industry." ●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NEWS NUGGETS

past and present, on National Miner's Day. Established in 1891, Hecla has survived two World Wars, the Great Depression and numerous crests and troughs of the notoriously cyclical metals market. "I want to thank the more than 10,000 hardworking men and women who have been part of the Hecla team over the past 125 years on National Miner's Day," said Hecla President and CEO Phillips Baker, Jr. "Together, through good times and bad, we have built Hecla to become the largest primary silver producer and the third-largest producer of lead and zinc, in the USA. These achievements create jobs for our miners and value for our shareholders." The U.S. Mine Safety and Health Administration also saluted the some 366,000 American miners on Dec. 6. MSHA said U.S. mines produce nearly 100 different kinds of minerals, including coal, gold, copper, silver, granite, limestone, granite, salt and gravel. "They work in every one of the fifty states, and provide the raw materials for heat, electricity, roads and bridges, and countless consumer products, from electronics to cosmetics. Even toothpaste is composed of minerals obtained by miners," MSHA inked in its Miner's Day salute. Baker agrees. "While it is easy to take mining for granted, it is important to take a moment and recognize that without mining, we would not enjoy the lives that we have today. We have never forgotten the integral role our mines play in the fabric of the communities in which they operate. And while the industry has experienced tremendous progress in safety, efficiency and environmental awareness at our mines, we always strive to do even better," said the Hecla CEO. Hecla's Greens Creek Mine in Southeast Alaska is one of the largest and lowest-cost primary silver mines on the planet. Through the first nine months of 2016, Greens Creek produced 7 million oz. of silver, putting this underground mine on pace to reach nearly 9 million oz. this year. The mine is also expected to produce 53,000 oz. of gold as well as healthy quantities of zinc and lead.

Second Shorty Creek copper-gold target tapped

Freegold Ventures Ltd. Dec. 6 said the 2016 drill program at it Shorty Creek project in Interior Alaska has confirmed the presence of a copper-gold-molybdenum porphyry system with an alteration-mineralization footprint that covers roughly 2,500 acres. The company confirmed the porphyry potential in 2015, when it stepped out from the previous shallow reverse circulation drilling completed by Asarco in 1989-1990 with deeper core drilling. The best hole drilled last year, SC15-03, cut 91 meters averaging 0.71 percent copper-equivalent about 245 meters southwest of the historical drilling. Collared about 125 meters further southwest of SC 15-03, the first hole of the 2016 drill program, SC 16-01, cut 434.5 meters averaging 0.12 grams per metric ton gold, 7.46 g/t silver and 0.36 percent copper, or about 0.57 percent copper-equivalent. A 207-meter section of this hole averaged 0.045 percent tungsten trioxide. Freegold said early mineralogical work has confirmed that the tungsten present at Hill 1835 is in the form of wolframite, which is typically recovered by gravity concentration. A further 120 meters southwest, SC 16-02 cut 409.6 meters grading 0.41 percent copper-equivalent. A 409.6-meter section of this hole averaged 0.03 percent tungsten trioxide. Five holes of the 2016 program targeted Hill 1710, a 6,000- by 1,500-meter geophysical and geochemical anomaly situated roughly 2,500 meters northwest of Hill 1835. The holes drilled at Hill 1710 were spaced roughly 400 meters apart, starting on the western edge of the soil geochemical anomaly. Each hole intersected both copper and molybdenum mineralization with the copper values increasing as the drilling moved to the northeast. Hole 16-03, the westernmost hole, cut 172.6 meters averaging 0.03 percent copper and 0.034 percent molybdenum. Hole SC 16-04, collared about 400 meters to the east, averaged 0.05 percent copper and 0.014 percent molybdenum over its entire 426.5-meter length. Hole SC 16-06, collared about 800 meters northeast of hole four, averaged 0.07 percent copper and 0.01 percent molybdenum over the entire 516 meters. Hole SC 16-07 averaged 0.08 percent copper and 0.009 percent molybdenum over its entire 396-meter length, including 0.15 percent copper and 0.009 percent molybdenum in the top 70.8 meters. "The Shorty Creek target represents an exciting porphyry discovery in Alaska that has the potential to host a significant copper-gold-molybdenum resource," said Freegold President and CEO Kristina Walcott. "We are extremely pleased with the results of the 2016 program and given these highly encouraging results we look forward to further drilling to follow up on this exciting discovery." Shorty Creek is adjacent to the Elliot Highway about 75 road miles northwest of Fairbanks.

Whistler explorer rebrands; GoldMining shopping for high-quality gold projects

Brazil Resources Inc., owner of the Whistler gold-copper project in Alaska, Dec. 5 said its board of directors has approved a change of its name to GoldMining Inc., which captures the company's international portfolio and plans moving forward. "We are pleased to change the name of the company to GoldMining Inc. to better reflect our diversified project portfolio and strategy to build a leading gold acquisition and development company throughout the Americas," GoldMining Chairman Amir Adnani explained. "With more than $21 million cash on hand – and now, a name that better reflects our company's objectives – we plan to continue our exceptional growth with additional low-cost acquisitions of high quality gold projects, to build value throughout this period of a weak gold price environment." GoldMining's common shares began trading on Canada's TSX Venture Exchange (under the new symbol "GOLD" and on the OTCQX International market under the new symbol "GLDLF" on Dec. 7. No action will be required by existing shareholders or holders of warrants with respect to the name change. In addition to the Whistler project in Southcentral Alaska, GoldMining is advancing Titiribi, a gold-copper project in Colombia that it recently acquired from Trilogy Metals Inc.; the Cachoeira and São Jorge gold projects in northeastern Brazil; and its Rea uranium project in Alberta, Canada. ●

NORTHERN NEIGHBORS

Compiled by Shane Lasley

Members of the Kennady North technical team take notes outside a drill at Faraday, one of the diamond bearing kimberlite discoveries Kennady Diamonds has made at its Kennady North project in Northwest Territories.

Kennady honored for diamond exploration

Kennady Diamonds Inc. is co-recipient of the prestigious Mines and Money Exploration Company of the Year award for 2016, presented during the Mining Journal Outstanding Achievement Awards Gala Dinner at the Mines and Money Conference in London, England on Dec. 1. Kennady Diamonds received this honor for its work at Kennady North, an advanced diamond exploration project immediately north of Gahcho Kué, a Northwest Territories diamond mine being ramped up to commercial production by De Beers Canada (51 percent) and Mountain Province Diamonds Inc. (49 percent). Upon accepting the award, Kennady Diamonds President and CEO Rory Moore paid tribute to the entire Kennady north team, from founder and former CEO to the camp crew. "Firstly, the former CEO of Kennady, Patrick Evans had the vision and courage to spin out Kennady from Mountain Province in 2012 and initiate an exploration program on the claims immediately north of the Gahcho Kué mine," said Moore. "This area had been previously explored and most diamond explorers were skeptical of his chances for success, but this did not deter Patrick who moved ahead boldly." The Kennady North CEO also recognized Aurora Geosciences Ltd., the Yellowknife-based company that has designed and implemented all of the exploration programs that proved skeptics wrong. "Gary Vivian, the president of Aurora, and Chris Hrkac, senior project manager for the Kennady North project together with their team, deserve the lion's share of credit for the successes that Kennady has enjoyed to date," said Moore. "Their innovative, systematic and dedicated approach to a technically challenging project has resulted in new and unique discoveries, and earned Aurora the respect of its peers in the industry." This work has identified four kimberlites along a 3,000-meter-long corridor at Kennady North that is on trend and northeast of Gahcho Kué. In addition to the technical team and camp crews, Moore recognized the importance of the company's loyal investors. "One will not go far in diamond exploration in the Arctic without strong financial backing and I want to thank all of our shareholders that have supported us along this exciting journey of discovery," he said. "The fortunate combination of solid financing, creative exploration and visionary leadership has led to the great

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Petroleum news

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NORTHERN NEIGHBORS

success of Kennady and its receipt of this award. We intend to honor this award by moving the company toward further discovery of kimberlites and their advancement into diamond resources at Kennady North." Kennady is currently working toward the finalization of a preliminary economic assessment for its namesake project and, if things continue to look good, the company plans to initiate a feasibility study for building Northwest Territories' next diamond mine at Kennady North in 2017. Kennady shares this year's Mines and Money Exploration Company of the Year award with co-recipient NexGen Energy, who was recognized for its impressive uranium discoveries in the Athabasca Basin in northern Saskatchewan.

Agnico grabs interest in White Gold; Yukon

Agnico Eagle Mines Ltd. Dec. 6 announced an agreement to acquire 19.93 percent of the G4G Capital Corp.'s issued and outstanding shares. In late October, G4G Capital announced finalization of an option to acquire 21 properties covering 2,490 square kilometers (roughly 615,300 acres) of the White Gold district in the Yukon from legendary prospector Shawn Ryan and Wildwood Exploration Inc., a company owned by Ryan and his wife, Cathy Wood. To better reflect its focus, G4G Capital plans to change its name to White Gold Corp. and move its headquarters from Vancouver, B.C. to Toronto, Ont. G4G shareholders will vote on the name change at a special meeting scheduled for Dec. 19. Agnico Eagle will pay C$1.20 per share to acquire a nearly 20 percent stake in this emerging White Gold explorer. Closing of the transaction is expected to occur on or about Dec. 13, and is subject to certain conditions. Upon closing, Agnico Eagle will have the right to participate in financings in order to maintain its 19.93 percent stake in White Gold, and have the right to nominate one person for the company's board. Agnico Eagle said it expects White Gold to leverage the unique experience and innovative exploration techniques of Ryan, who is the explorer's chief technical adviser, and GroundTruth, an exploration services company founded by Ryan and Wood, to advance the company's large portfolio of projects in the Yukon Territory.

IDM MINING LTD.

The 2016 drill program at IDM Mining's Red Mountain project has extended all three zones being considered for mining at this underground gold-silver project in northwestern British Columbia.

IDM further expands Red Mountain zones

IDM Mining Ltd. Dec. 6 reported results from the final 13 underground core holes completed during the 2016 season at its Red Mountain gold-silver project 15 kilometers (nine miles) east of Stewart, British Columbia. Highlights from this batch of results include 27 meters averaging 6.2 grams per metric ton gold and 23.25 g/t silver in U16-1214, an infill hole in the AV zone; 6.49 meters of 21.36 g/t gold and 18.093 g/t silver in U16-1218, a step-out hole below the AV zone; 34.01 meters of 8.85 g/t gold and 13.28 g/t silver, in U16-1220, an infill and metallurgical hole at the AV zone; 18.22 meters of 9.12 g/t gold and 27.87 g/t silver in U16-1224, a step-out hole below the JW zone; and six meters of 12.75 g/t gold and 44.19 g/t silver in U16-1226, a step-out to the south of the Marc zone. "The majority of IDM's drilling during 2016 was planned to upgrade resources and gather technical data for our feasibility study, however these results have extended the known limits to mineralization in all three primary zones with mineralization open for further expansion to the north, south and down-dip," said IDM Mining President and CEO Rob McLeod. "Of particular significance is U16-1224, which intersected the widest portion of mineralization identified so far at the JW zone, suggesting potential for another thick area of mineralization as seen in the Marc and AV zones." An updated resource estimate slated for completion in early 2017 will be incorporated into an ongoing feasibility study program. IDM is planning further underground resource expansion and exploration drilling at Red Mountain in 2017.

Alliance nabs coastal Nunavut gold project

Transition Metals Corp. and Nunavut Resources Corp. Nov. 30 announced the signing of an agreement with Nunavut Tunngavik Inc. for exploration of the Arcadia Bay property, an Inuit-owned parcel on the Coronation Gulf coast in Nunavut. The property hosts Archean lode-gold style mineralization with a historical resource of 572,067 metric tons grading 9.6 grams per metric ton gold. While this resource, calculated in 1983, does not meet NI 43-101 standards, Transition considers this historical estimate as an indication of the presence of mineralization. This resource is based on a near surface 680-meter-long section of the 4,200-meter North Vein, one of a series of north-trending gold-bearing vein systems identified on the property. Many of the vein systems have been traced for great distance at surface with good apparent continuity including the more than 1,200-meter Sidewalk Vein, which has returned up to 9.4 g/t gold over 12.5 meters in historical drilling. Transition Metals and Nunavut Resources, a subsidiary of Kitikmeot Inuit Association, are working under an alliance to identify exploration properties that will attract investment and lead to the discovery of economic ore deposits, and the development of new mines and infrastructure in the Kitikmeot region of Nunavut, Canada. The mineral exploration agreement grants the Alliance exclusive rights to explore for minerals within CO-31 and sets out terms to acquire a mineral production lease. Nunavut Resources President Scott Northey said, "We are pleased to consolidate our ownership interest on the Arcadia Bay project to include the portions of the property with established historical resources. The alliance will be actively seeking partnership funding or investment to help us initiate programs of work on the property in 2017." The Arcadia Bay property is located along the coast of the Arctic Ocean, roughly 25 kilometers (15.5 miles) west of the proposed port facility at the terminus of the planned Izok Road Corridor. The Nunavut government and Nunavut Resources recently signed a memorandum of understanding to build the port and a 350-kilometer (220 miles) road that links the deep-water arctic seaport to Contwoyto Lake, near the area of the Izok Lake zinc-copper mine project being advanced by MMG Ltd. ●

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TOLSONA WELL

a better understanding of the potential of the prospect.

"We have learned so much throughout this drilling program and are thankful to have successfully reached our target and completed this important phase," said Michelle Anderson, Ahtna president. "It would not have been possible without the relentless commitment of our drilling team, guidance from other owner/operators, and the support of the Ahtna board and leadership. We are very excited about the potential of this well and the impact it could have on our region if the testing proves positive."

A gas prone region

The region of the drilling is known to be gas prone. A previous gas exploration well, the Ahtna 1-19 well, drilled about two miles east of the Tolsona well between 2005 and 2007, encountered gas but eventually had to be abandoned because of exceptionally high formation pressures and problems with water encroachment.

Based on that experience, the drilling team for the Tolsona well took mitigation measures to guard against problems with high-pressure subsurface water. Those mitigation measures proved effective — Ahtna said that the drilling team successfully isolated the potential gas zone from the high-pressure water zone above it.

However, with complex subsurface geology, the well did prove challenging to drill. In fact, drilling continued to a depth 700 feet deeper than had originally been planned. Ahtna said that Schlumberger, the rig owner, and the next planned operator of the rig had both been cooperative in accommodating the resulting additional time required for the drilling — the well was finally completed in 70 days with no recordable safety incidents, Ahtna said.

Sparse data

Dan Lee, Ahtna oil and gas development manager, told Petroleum News that the challenges for the drilling mainly emanated from sparse data about the subsurface geology.

"One of the biggest challenges is the lack of information," Lee commented, reflecting on the sparse data from wells previously drilled in the region.

Ahtna does have 2-D seismic of the target area, but the geology is complex in detail. And, although the well is being drilled not far from the Ahtna 1-19 well and in a similar geologic setting, the two wells are in different fault blocks with subtly different geology.

"The thicknesses of the zones and the depths at which we encountered the zones are different in all the wells," said Drilling Manager Marty Lemon. "We had to drill the well deeper than we had proposed because the formations were coming in deeper in the fault block that we were in."

Apparently the high pressure subsurface water, which appears to be a feature of the region, permeates fractures in the rocks. The drilling team used especially large diameter casing strings to enable additional casing to be run and cemented when water was encountered, Lemon said. The drillers also used a technique called managed pressure drilling, to hold back the pressure in the well from the surface, he said.

A possible gas resource

Although Ahtna does not yet know whether it has a gas find, log data obtained from the well does indicate the possibility of a gas resource. Lemon said that there are five distinct intervals of interest for the testing.

Ahtna's prime interest in its gas exploration program is the possibility of finding a gas resource that could alleviate the high cost of energy in the Copper River region. Exploration in a region remote from specialized oil and gas support services and infrastructure is challenging. But a project such as the drilling of the Tolsona well brings valued employment and business for residents of the Copper River region, including Ahtna's shareholders. In addition to direct work on preparing the drilling site and conducting the drilling operations, local businesses, including shops and lodges, have seen an uptick in business at a time of year when business is traditionally slack.

And the experience of involvement in the drilling of a well brings a sense of practical purpose and achievement in furthering the economic well being of the region, Ahtna thinks. Ahtna has also indicated that it is "open for business" and welcomes external investment in its exploration efforts. Further exploration opportunities exist in the region.

—ALAN BAILEY

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GOVERNMENT

BOEM publishes environmental reports

The Bureau of Ocean Energy Management has announced the availability of the findings from six research projects conducted as part of the agency's Environmental Studies Program. Two of the studies relate to the Alaska outer continental shelf, while three studies relate to the Gulf of Mexico and the Pacific region. The sixth study investigated the characteristics of sounds emitted during high-resolution marine geophysical surveys.

> *One of the Alaska projects conducted an oil spill risk analysis for the Liberty oil field that Hilcorp proposes to develop from a gravel island in the Beaufort Sea.*

One of the Alaska projects conducted an oil spill risk analysis for the Liberty oil field that Hilcorp proposes to develop from a gravel island in the Beaufort Sea. The study used actual oil spill data from the Gulf of Mexico, the Pacific outer continental shelf and the North Sea to make statistical predictions about what might happen at Liberty. The study found that most spills are likely to occur on the production island, and that the likelihood of a spill from a pipeline or well is very low.

The other Alaska study evaluated the weathering characteristics on the sea surface of three types of Alaska crude oil and three types of refined oil that might be carried by tankers in Alaska waters. The objective was to better understand what might happen from the natural weathering of oil spilled in the Alaska offshore. An understanding of weathering effects can help in planning spill response strategies.

BOEM says its Environmental Studies Program develops, funds and manages rigorous scientific research to inform policy decisions regarding the development of energy and mineral resources on the outer continental shelf. Research results are available online through the agency's ESPIS system.

—ALAN BAILEY

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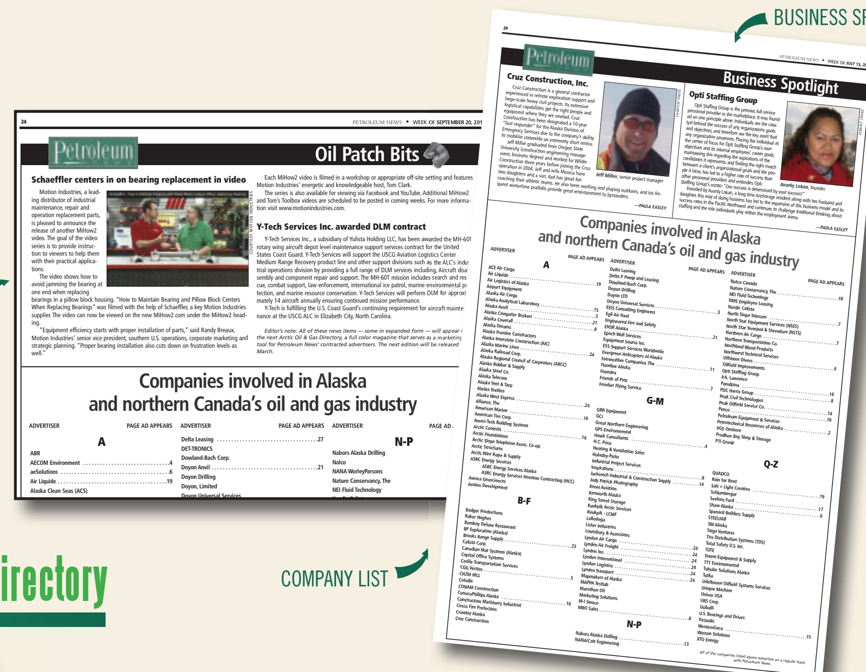

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BLUECREST DRILLING

cept is to use directional drilling to target the offshore reservoir at a depth of some 7,000 feet and then to drill horizontally through the reservoir. The resulting well bores will have measured depths of up to 24,000 feet, an exceptional drilling distance that requires an exceptional rig. In September Benjamin Johnson, president of BlueCrest Energy, told the Alaska Oil and Gas Congress that the rig has a 750-ton top drive and a 7,500-pounds-per-square-inch drilling mud system.

Given the compartmentalized nature of the field reservoir, a typical characteristic of Cook Inlet oil and gas fields, BlueCrest is going to conduct multi-stage fracking in its wells, to open up the barriers within the reservoir, so that oil can flow to the well bores. Martineck said that the reach of the fracking would extend about 220 feet out from the well bores. The first well would involve about 16 frack stages, with multiple stages being conducted together —it would be unlikely to be necessary to frack more than 20 stages in any of the wells, Martineck said.

There is an ample supply of water for the fracking from local state-approved sources and there are several facilities in the region where the waste fracking fluids can safely be disposed, Martineck said. Apparently each frack stage will require some 1,780 barrels of water.

Conventional oil field

Despite the use of fracking techniques similar to those used for the development of shale oil elsewhere in North America, the Cosmopolitan field is a conventional oil field, not a shale oil play: The fracking will open up the oil communications within the reservoir rather than enticing oil from an impermeable oil-bearing rock. And, so, rather than having to regularly drill and frack new wells to entice more oil out of the subsurface, as in a shale-oil situation, each of the limited number of Cosmopolitan wells will be produced in a traditional manner over an extended period of time. In fact, hydraulic fracturing has been used quite frequently for improved field reservoir performance in both the Cook Inlet basin and in oil fields on the North Slope.

BlueCrest is trucking oil from the onshore production pad for Cosmopolitan up the Sterling Highway to the Tesoro oil refinery at Nikiski. Given the oil production rates from the well that started operation in April, a truck, holding between 315 and 320 barrels of crude oil, only has to traverse the highway once about every couple of days, Martineck said. However, the frequency of truck movement will increase as more wells come on line. The new development well will probably have initial production in the range of 2,500 to 4,500 barrels per day, Martineck said.

AIDEA loan

Under a line of credit from AIDEA, BlueCrest received the balance of AIDEA's $30 million-loan in July — the company had originally hoped to complete the installation of the drilling rig and start the drilling of its new well in the spring of 2016. But, following delays in the contracting and construction of the rig, the drilling of the well has only just started. And, so, with BlueCrest needing revenues from ramped up oil production to make its loan payments, the company requested, and AIDEA has now approved, a partial deferral of the start of loan payments. The original maturity date of the loan will be maintained.

The new drilling rig acts as collateral for the loan. And, to cover any shortfall between the loan amount and the potential sale value of the rig, the loan agreement required BlueCrest to establish a reserve account of $15 million. BlueCrest had intended to use the proceeds from state tax credits to fund the reserve account. However, with the deferral of credit payments following a payment veto by Gov. Bill Walker, AIDEA has approved a change to the terms of that reserve account. The reserve fund is now set at the greater of $5 million or 120 percent of the difference between the principal outstanding on the loan and the distressed sale value of the drilling rig, but with BlueCrest incurring an unfunded reserve fee.

Many comments

The appearance of the loan change resolution on the board meeting agenda triggered a flurry of comments from members of the public. A number of people expressed strong concerns about potential environmental issues, mainly voicing worries about the perceived risks of conducting fracking operations in the Cook Inlet region. Other concerns include the risk of a tanker truck accident on the highway and questions over putting funding into oil development rather than renewable energy.

Representatives from the oil industry, including Kara Moriarty, executive director of the Alaska Oil and Gas Association, commented that there is a continuing need for oil development; that the Cosmopolitan field is being developed safely; and that oil fields such as Cosmopolitan bring employment and major economic benefits to the state.

During the board meeting, board member Fred Parady commented that AIDEA acts as a financing entity. Assessing environmental risks and concerns is part of the permitting process for a development project, he said.

The Alaska Oil and Gas Conservation Commission oversees the safety of drilling operations in Alaska and in January 2015 updated its regulations for hydraulic fracturing. Recently Bob Shavelson, executive director of environmental organization Cook Inletkeeper, asked for a further change to the regulations — Shavelson wants a public hearing to be held whenever hydraulic fracturing is proposed for stimulating production in a well. The commission is holding a hearing on the request on Dec. 15. ●

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ENVIRONMENT & SAFETY

Record low sea ice cover in November

Arctic sea ice cover has hit a record low extent for November, the National Snow and Ice Data Center has reported. Following unusually high air temperatures and southerly winds, the November ice extent, at an average of 3.51 million square miles, was well below the long-term average for the month. And, with the Antarctic sea ice cover also setting a record low for November, global sea ice cover was exceptionally low, NSIDC reported.

In the Arctic, relatively fast ice growth for much of November was offset by an almost unprecedented decrease in the ice cover in the middle of the month. Ice growth in November primarily happened in the Chukchi, Beaufort and East Siberian seas, and in Baffin Bay. However, there was a slight loss of ice in the Barents Sea.

Air temperatures in November were well above long-term averages across the entire Arctic Ocean and Canada, with temperatures up to 18 degrees F above average at the North Pole. However, temperatures were up to 8 F below average in northern Eurasia, with record snow falls recorded in Sweden and across Siberia early in the month.

NSIDC says that an unusual jet stream pattern resulted in storms entering the Arctic Ocean through the Fram Strait, between Svalbard and Greenland, setting up a southerly wind flow that caused unusual warmth over the Arctic Ocean while also pushing sea ice northward. Warm Atlantic water circulating across the Arctic continental shelf also kept sea surface temperatures in the Barents and Kara seas unusually high, a factor that also inhibited sea ice formation, NSIDC reported.

—ALAN BAILEY

ENVIRONMENT & SAFETY

Leaked diesel found in platform leg

Responders have completed the lightering and disposal of diesel fuel that had been discovered to have leaked into one of the legs of the Tyonek platform in Cook Inlet. The platform houses the wellheads and production facilities for the North Cook Inlet gas field.

Hilcorp Alaska has recently completed the purchase of the field and platform from ConocoPhillips and discovered the leaked fuel on Nov. 29. On Dec. 1 oil spill response organization Cook Inlet Spill Prevention and Response Inc. began pumping the fuel out of the leg into a tank for transfer to shore in batches for safe discharge. The U.S. Coast Guard oversaw the operation and reported no indications of any oil sheen on the water adjacent the platform.

"The source of the diesel has been identified and is fully contained within a leg of the platform and poses no threat to wildlife," Hilcorp spokeswoman Lori Nelson told Petroleum News in a Dec. 2 email. "Fluids from the leg are being pumped into containers and will be properly disposed of. … This condition existed prior to Hilcorp taking over operation of the platform. As we work in cooperation with the Alaska Department of Environmental Conservation and the United States Coast Guard, the safety of our personnel and the environment remain our top priority."

The Coast Guard has subsequently told Petroleum News that the removal of the diesel fuel from the platform leg was completed by Dec. 5. A total volume of 20,580 gallons of fuel was removed, and none of the fuel escaped into the waters surrounding the platform, Coast Guard spokesman Petty Officer Bill Colclough told Petroleum News.

Nelson also confirmed that no hydrocarbons had been released into the Cook Inlet, "We will continue to work in cooperation with ADEC and the USCG as we do post-inspections and subsequent follow up," Nelson said in a Dec. 7 email.

—ALAN BAILEY

Petroleum news

Oil Patch Bits

BELL selected as PIRATE group of the quarter


COURTESY BELL & ASSOCIATES

BELL and Associates is proud to announce that they have been selected as the personal involvement reduces accidents to everyone work group of the quarter on the North Slope. PIRATE is a behavioral based safety process that requires employee involvement at all levels. The recognition has been a long time in the making.

"I would personally like to thank all the members of the BELL survey team that have made this award possible," said Tim Barnhart, project manager, "and for keeping themselves and those around them safe!" BELL's dedication to safety and the belief that "safety is everyone's business" are reasons why they have not had a lost time incident in more than 15 years and a recordable accident in over 10 years or 605,399 hours worked. The program has been led by BELL employees Josh Erhardt and Kevin Chiasson for the last three years and their message has been heard loud and clear by the group here at BP's main construction camp.

Fluor named to Forbes Just 100 list

Fluor Corp. recently announced that it was named to the inaugural Forbes Just 100 list. Fluor was also ranked as the most just company in the capital goods category.

"We are honored to make the Forbes inaugural Just 100 list of top companies," said David Seaton, chairman and CEO of Fluor. "The recognition reaffirms the values that have contributed to Fluor's 100-plus year global legacy and why we are recognized as an employer of choice in our industry."

The Forbes Just 100 list is the first-ever annual ranking of how America's top companies perform on the issues Americans care most about according to Forbes. The list was compiled through one of the largest surveys ever conducted on attitudes towards corporate behavior involving 50,000 Americans over the last 18 months.

The top six issues ranked highly by the public include the following: providing fair pay for industry and job level; non-discrimination in hiring, firing and promotion practices; providing a safe workplace; following laws and regulations; respecting workers; and creating jobs in the U.S. Each company's score was weighted to reflect the overall priorities of the American public.

The complete list of winners can be found at www.forbes.com/just100. The inaugural list will appear in Forbes magazine's Dec. 20 issue.

Judy Patrick Arctic Oil photo book — on sale now!

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see OIL PATCH BITS page 18

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

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

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OLSON Q&A

leading into, I think over the years I've chaired four or five committees, so I've got the experience of running a committee.

Now when you look down at the roster and at people making up the new House majority, the people with any kind of committee leadership or involvement are the three Republicans. We are going to be looking at a whole slate of people who are going to need to be brought up to speed on how things flow and how to run a committee. Unfortunately, that comes at a difficult time for the state.

Petroleum News: Could there be an advantage of having a different majority make up to bring new perspectives to the forefront?

Olson: The only experience I had was watching the Senate a few years ago. The only thing I saw were a few bills that were weighted in the middle. They were neither left or right. What you've got is the middle. If that's what you're looking for, I don't think that will produce new ideas. I think when you've got something on the cutting edge has come out from one side or the other and has been slightly left or the right.

Having said that I think at the end of last session, you saw an example where everybody worked on a bill that basically nobody ended up liking but most people voted for it, the crime bill (SB 91). That was basically Johnny Ellis and John Coghill, who are basically about as far apart as two people could be politically and they were able to work together on that. It wasn't perfect but it was necessary to start. That was done without a majority.

You asked why I'd like to be down there. I'd like to see how this is going to work out. I wouldn't have organized with them. I would have been watching from the outside.

Petroleum News: So what do you think it's going to take to get a stable tax regime or do you think what we have one now?

Olson: Ultimately we are going to have to have new sources of revenue. We are going to have to broaden the bases. We had two polls that were out, one by Rasmussen and the other by GCI, where there was overwhelming support for using the Permanent Fund. I had the chance to sit down with the governor and the former attorney general after the polls came about and discussed having an advisory vote. So if the numbers that were being put out to the Legislature were accurate, the governor would have the strength of the people behind it. That never happened.

I still think if the governor wants to utilize the Permanent Fund, he is going to have to have the support of the people. I don't think that support is there at this point and time. That is the biggest pot we have available. The next would be the tax regime we tossed out. The one that made the most sense is we have the lowest tax rate for gasoline in the country. We could have tripled it from 8 cents to 24 cents a gallon and still had around the fourth of fifth lowest in the country.

Then again, the problem with that is we would have had a real problem with (aviation) gas. This could have caused us some problems with carriers like Fed Ex. I think we are going to have to look at all the aspects of it. We had an income tax when I moved up to Alaska in the 1970s. It's going to be a tough sell at this point to re-implement it. A state sales tax will have an impact on Southeast and the Kenai Peninsula. If you would do it, Anchorage will start to implement one of their own. There are no easy answers. When you have one person calling the shots saying it's my way or the highway — and we've seen that with other governors not just this one — it's not going to work.

Petroleum News: One of the more high profile tax discussions is always oil tax, even though it's the income tax affecting everyday Alaskans more so, do you see the oil tax talks even more volatile than last year?

Olson: I think you will. What's changed other than the makeup of the organizations? The leadership has changed. The number of people hasn't changed. The views haven't changed.

Petroleum News: What do you think Caelus' Smith Bay discovery will bring to the discussion of oil tax structure?

Olson: I don't think it's going to move forward until there are definite sideboards on any definite tax changes that are going to be put into place.

Petroleum News: Do you see this discovery as any kind of game changer for prospective tax changes?

Olson: I think it's one of them. I think there are others. All are on the North Slope. I hear the governor is thinking of gas-to-liquids again for the North Slope. Having been to the only gas-to-liquids facility, I think they are in possession at least in the United States of what works and what doesn't.

Petroleum News: Do you think it will take some creative or different thinking to advance new policy or generate new exploration beyond rehashing the same debate?

Olson: I've heard some wild ideas these last few years. I've heard of using dirigibles on the North Slope for who knows what. I've heard of using the top of the world route with more days per year they can get vessels through. So we may hear more ideas. I don't know. I remember back in the early to mid-'70s there was talk of running the gas down through the McKenzie Valley. It was called the over the top route, but we would run it into Northern Canada and take it through McKenzie Valley into an Alberta hub. I think on a federal basis and a state basis, we'll never see that. It may have made sense for the producers but it didn't produce enough jobs. We need to factor that in. the whole thing is about revenue and jobs.

Petroleum News: Let's look out of state to D.C. What do you think the new presidential administration could mean to Alaska?

Olson: I'm not going to touch that until that one until I see who gets the Department of the Interior. It would be a different answer for each of the five, six or seven people under consideration, plus there could be another five or six we don't know about.

Petroleum News: Do you have a preference for an Interior secretary?

Olson: Not at this point.

Petroleum News: Would you say you're more optimistic?

Olson: The way I feel right now, it could be someone whose name is not out there in the public right now.

Petroleum News: Obama essentially shut down the Arctic from development from the Interior's five-year plan. Are you surprised?

Olson: Oh, no. I think we are going to hear of a few more between now and January. I think they are burning the midnight candles in D.C. coming up with things they can do by executive order.

Petroleum News: Do you think the Arctic is a good place for exploration? Shell had problems with its rig but they also cited regulatory problems as well.

Olson: I think it's probably much more onerous offshore than it is onshore.

Petroleum News: Looking ahead these next two years, what would you like to see for the state in resource development? We've seen that a lot can happen in two years.

Olson: I'd like everybody to come to an agreement with something they can live with on the tax regime. They don't have to like it but it has to be wrapped up where it's not going to change in two years. That is going to be difficult. Look at the players — and I'm not going to name any of them — you've got people who are hard and fast on one side and others who are hard and fast on the other.

Petroleum News: Why is it so difficult to bring people of their extreme positions and closer toward the middle, even if it's not the middle?

Olson: I think I've seen more finger pointing and blaming of other people on all sides this year, be it the House, the Senate or the administration. Even people in between, the oil companies. It's either somebody else's fault or we're not listening or whatever. I don't see anybody trying to find a solution.

Petroleum News: OK, so 12 years is a lot to serve and it's coming to a close. What will you miss the most about it?

Olson: I really enjoyed committee work. For a long time, every bill moved out of committee with consensus. I was blessed with a good committee most of the time, and that made a difference. I had some real good minority members. That helped. Anything we moved, we were able to get the kinks out to where everybody could live with it. I certainly didn't get everything I wanted it, but we put out a product we could live with. ●

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PIPELINES & DOWNSTREAM

Nutaaq tariff rate of $1.10 starts Jan. 1

The Regulatory Commission of Alaska said Dec. 1 that the rate of $1.10 per barrel proposed by Nutaaq Pipeline LLC for the Badami Oil Pipeline is suspended subject to protests and becomes permanent if no protest is filed. The rate is effective Jan. 1.

The pipeline, owned by Glacier Oil and Gas, runs from Badami to Endicott, and carries crude oil from Badami and condensate from the Point Thomson unit farther east.

RCA said if no protest to the rate is filed, "each day's rate becomes permanent the following day."

If a protest is filed, the rate from the date of filing forward remains suspended until Dec. 31, 2017, unless RCA orders a further suspension.

Nutaaq has filed for the same tariff rate with the Federal Energy Regulatory Commission. RCA regulates rates for in-state transportation; FERC regulates rates for interstate transportation.

Nutaaq's filing with FERC said the rate revision is based on updated expenses for 2017 and updated throughput estimates from PTE Pipeline LLC, the line from Point Thomson to Badami.

"The rate reduction is driven by anticipated materially increased production from PTE Pipeline LLC, up approximately 452 percent from 2016 (605,008 bbls) to 2017 (3,341,910 bbls)," the filing said.

Point Thomson operator ExxonMobil has been bringing the field's condensate production online since last spring and recent production postings from the Alaska Department of Revenue indicate more sustained production from the field, which is expected to initially produce some 5,000 barrels per day. The volumes cited for 2017 would average out to some 10,000 bpd, which is the production level for which Point Thomson facilities are rated.

—KRISTEN NELSON

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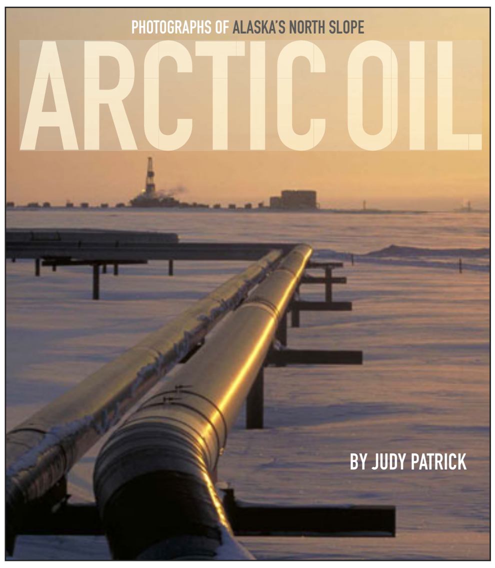
OIL PATCH BITS



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Crowley awarded US Department of Defense contract

The U.S. Transportation Command, an agency of the U.S. Department of Defense, has awarded Crowley Logistics Inc., a subsidiary of Crowley Maritime Corp., a multi-year contract to provide transportation and related services supporting Department of Defense activities in the U.S. and Canada.

The Department of Defense freight transportation services contract is one of the largest logistics contracts awarded by the U.S. government. The period of performance is two base years followed by five option years for a total value of approximately $2.3 billion.

"We are very proud and appreciative of the opportunity to support our country and the Defense Department with transportation and logistics services through this new TRANSCOM contract," said Tom Crowley, company chairman and CEO. "We will reward TRANSCOM's confidence in us by providing the highest quality service with safety, integrity and high performance."

The program encompasses all forms of truck transportation to include less than truckload, full truckload, expedited and refrigerated services. Delivery locations will include vendor facilities, Defense Department warehouses or depots, and U.S. military installations.

Crowley's participation in this contract will provide more than 70 new employment opportunities in the local Jacksonville, Florida, community.

Eschenberg appointed to the AECOM-led joint venture

AECOM, a premier, fully integrated global infrastructure firm, announced today that John Eschenberg, experienced veteran of the nuclear and environmental industry, has been appointed director of salt disposition in the nuclear high level waste program with Savannah River Remediation LLC.

Savannah River Remediation is a limited liability company led by AECOM, Bechtel, BWXT, CH2M and AREVA.

Following a 25-year career with the Department of Energy and the private sector, Eschenberg most recently served as director of capital projects and infrastructure for PricewaterhouseCoopers in Washington, D.C. In this role, he led the firm's overall project management advisory efforts for new nuclear plant construction, development of their operational readiness review program and the initial test program. His responsibilities also included advisory efforts on nuclear power plant decommissioning, financial due diligence, license transfer, dry fuel storage, and construction and management of independent spent fuel storage installations.

"John has a spectacular reputation in the industry," said Dr. Todd Wright, AECOM general manager and executive vice president of nuclear and environment's business unit. "His leadership in the private sector and with the U.S. Department of Energy led to many successes in the DOE complex for both Environmental Management and the National Nuclear Security Administration. John will be a tremendous asset to our organization."

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.

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PROTESTS

and the Canadian Broadcasting Corp., tried to soften his position by insisting that "no warning was intended" in his comments that "if people choose for their own reasons not to be peaceful then the government of Canada, through its defense forces and police forces, will ensure that people will be kept safe. ... We live under the rule of law."

Others distance themselves

Defense Minister Harjit Sajjan and Transport Minister Marc Garneau distanced themselves from Carr's position, declaring they would "always protect the right of Canadians to protest when they don't agree with something. ... We're confident they would do so peacefully."

Prime Minister Justin Trudeau acknowledged "there's lots of people" who disagree with his decisions to approve expansions of Kinder Morgan's Trans Mountain pipeline to Vancouver and Enbridge's Line 3 to Wisconsin, adding: "That's fine and that's fair and you're allowed to.

"I look forward to working with people to manage and mitigate the very real fears that people might have" about the impact of transporting bitumen from the Alberta oil sands to export markets, he said.

But Trudeau also observed that if pipeline construction is stopped there is nothing his government can do to prevent the shipment of crude by rail "which is more expensive, more emitting and much more dangerous."

Ric McIver, interim leader of the Progressive Conservative party in Alberta, noted that federal Green Party leader Elizabeth May said she is prepared to go to jail to prevent the Trans Mountain project from being built.

"She has declared war on common sense and Canadian unity," he said. "We can't let the pipeline get held up by people who will never agree to any standard. The law of the jungle cannot prevail."

Alberta Premier Rachel Notley headed into hostile territory to argue that exporting crude will obtain higher international prices for producers, generating revenues for national health care and education programs, while sending a message to energy-sector investors that Alberta is open for business.

Concerns over pipeline

However, Andrew Weaver, leader of the Green Party in British Columbia, said it was "offensive for the premier of another province to come to our province and to market" production from the oil sands that undermines Canada's climate-change commitments.

"Nobody has any idea of the beast that is going to be unleashed in Vancouver over this issue," he said. "It's out of the box now and I don't know how you'll ever stuff it back in."

Stewart Phillip, president of the Union of British Columbia Indian Chiefs, said the two pipelines would put rivers and coasts at risk and have devastating impacts on climate change.

He said that in less than a week more than 10,000 people has signed a petition to stop Kinder Morgan, while 100 First Nations and tribes across North America have joined forces under a Treaty Alliance Against Tar Sands Expansion to stop Trans Mountain, Line 3, Keystone XL, Energy East and the Dakota Access Pipeline.

Phillips urged Trudeau to see the error of his ways and "not allow the same kind of ugly, hateful and violent reaction to the peaceful prayers of our brothers at sisters" at the Standing Rock camps in North Dakota that have been established to defy federal orders and stop construction of Dakota Access.

Fight on numerous fronts

Sven Biggs, energy and climate campaigner for the environmental group Stand.earth said the Trans Mountain approval "signals the beginning of a new phase in the struggle against pipelines."

He and Greenpeace oil sands campaigner Mike Hudema said they are ready to carry their fight to numerous fronts from the streets to courts and the legislature.

"Diversity in tactics is a key strategy," said Hudema. "That will mean lawsuits, meeting with government officials, showing up at the ballot box (in the May 2017 British Columbia election), protests and direct action."

For B.C. Premier Christy Clark it could be an about-face from the 2013 election campaign when New Democratic Party leader Adrian Dix stunned his own party by unilaterally opposing Trans Mountain and sacrificed what was seen as an insurmountable leader in the polls.

Clark is now faced with tying her re-election chances to arguing that Trans Mountain will be a source of jobs and revenue, provided she can reach an agreement with Kinder Morgan to allocate a portion of its pipeline profits to British Columbia and to establish a "world-class" response program for oil spills on land or water. ●

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IEP NEGOTIATIONS

But the price of gas delivered to Fairbanks consumers is key to the viability of the project. The price needs to be low enough to compete with the cost of heating oil, enticing consumers to convert their building heating systems from oil to gas. IEP has set a target gas price at the burner tip in Fairbanks of $15 per thousand cubic feet, a price significantly below that of the gas currently delivered to the city.

There are currently two gas utilities in Fairbanks: Fairbanks Natural Gas and the Interior Gas Utility. FNG provides the current gas supply to the central area of the city. IGU does not currently supply gas but plans to do so, once an expanded gas supply has been established.

As part of IEP, AIDEA has taken ownership of Pentex Alaska Natural Gas Co., the owner company of FNG and of the companies operating the Point MacKenzie LNG plant and the LNG trucking operation.

Expanding the gas supply

Therriault told the AIDEA board that negotiations continue with a Cook Inlet gas producer over a potential expanded gas supply for the LNG plant. Finding a supply arrangement acceptable to both the producer and IEP is tricky because, while the gas price needs to be low enough to meet the IEP gas price target, initial gas volumes will be relatively small, with no certainty over the scale of eventual gas demand in the Interior.

Similarly, the cost of expanding the LNG plant must fit within the required gas price parameters. The IEP team had been working with Salix Inc., a subsidiary of electric and gas utility company Avista Corp., on a plan for plant expansion. However, a couple of months ago, in a move to drive down costs, Salix withdrew from the project, selling its project documentation for the plant expansion to AIDEA. The idea now is that FNG will pursue the LNG plant expansion — Therriault told Petroleum News that the IEP team is working towards preparing a proposal for plant expansion that can be put before the AIDEA board for approval. Therriault told the board that Dan Britton, president of FNG, has reviewed the Salix documentation and contacted the vendors that had been involved in the LNG plant work.

Reduced transportation cost

IEP has seen success in moves to reduce the cost of transporting LNG to Fairbanks. Following successful tests in 2015 of a prototype large capacity LNG trailer, to improve the economies of scale for the LNG transportation, that trailer continues in use and FNG has ordered more trailers of the same design.

"That's working out well to drop the delivered price of LNG into the community," Therriault said.

As an alternative to road transportation, this fall the Alaska Railroad tested the carriage of LNG by rail, using cryogenic LNG trailers borrowed for the purpose. Britton told the AIDEA board that the railroad test had proved very successful. The challenge now is to reduce the cost associated with shipping the LNG trailers by road between the LNG plant and the railroad, and between the railroad and the LNG storage facilities in Fairbanks. For example, it may be possible to load the containers onto rail cars at some intermediate point on the railroad route, such as Houston or Pittman, Britton commented.

No change to Fairbanks gas price

During its Dec. 1 meeting the board of the Alaska Industrial Development and Export Authority approved a resolution that there will be no change to the price of gas in the New Year for customers of Fairbanks Natural Gas. AIDEA currently owns FNG and, as a state agency, regulates FNG's tariff in place of the Regulatory Commission of Alaska. Also, as a government agency rather than a private company, AIDEA was able to reduce FNG gas pricing in 2016 relative to price levels when FNG was privately owned.

The board also approved a change in FNG's fiscal year, to have the fiscal year end on June 30 rather than Dec. 31. That will line up the gas utility's fiscal year with that of AIDEA. As a consequence there will be another gas rate review at the end of June.

With price increases scheduled for the gas which Hilcorp supplies to FNG, and with warmer than average weather and low fuel oil prices both softening the demand for natural gas in Fairbanks, the FNG gas price may have to go up for the 2018 fiscal year, Dan Britton, president of FNG, told the board.

—ALAN BAILEY

Consolidating the utilities

AIDEA's plan for an expanded gas distribution system in Fairbanks is to sell Pentex to IGU, thus consolidating the utilities into a single organization that can achieve economies of scale while also implementing a fully coordinated gas distribution system. The IEP team had hoped to complete a draft agreement for the Pentex purchase by IGU by the end of this year. Therriault told Petroleum News that negotiations over the purchase are now likely to continue beyond December but that the IEP team hopes to present an agreement to the AIDEA board early in 2017.

Therriault told the board that Jim Whitaker, Gov. Bill Walker's senior adviser for major projects, is now acting as a facilitator in the negotiations between the two Fairbanks utilities. IGU would like to see more of the state funding for the project made available, but there are limitations on how those funds can be used, Therriault said.

Encouraging conversion

With the rate of conversion of Fairbanks homes and businesses to the use of natural gas being so critical to the economics of IEP, the IEP team continues to seek ways to alleviate the conversion costs — the drop in the price of fuel oil following the fall in oil prices since 2014 has rendered the gas conversion question particularly challenging. One possibility is the passing of Property Assessed Clean Energy, or PACE, legislation in Alaska. Legislation of this type, which enables low-interest loans for energy conversions, is being re-introduced in the upcoming legislative session, having missed the cut in this year's session.

The PACE legislation would only apply to commercial properties. The use of PACE for residential properties has been tried in some states but has run into difficulties relating to the transfer of a PACE loan to a house buyer after a house sale, Therriault commented. Essentially, under mortgage arrangements, the transfer of a PACE loan can disqualify a buyer from obtaining financing, he said.

Originated in 2013

IEP originated in 2013 as a consequence of legislation introduced by then Gov. Sean Parnell. The idea was to alleviate the high cost of energy in Fairbanks by making available an affordable supply of natural gas. A secondary purpose was to eliminate the severe winter air pollution in Fairbanks by encouraging residents to use clean burning gas rather than wood stoves for heating their homes.

Unusually for AIDEA, the project was mandated by the Legislature, with state funding appropriated for the project. The Legislature also approved the use of AIDEA loans for some of the project funding.

Originally the plan, as set out in the legislation, was to purchase and liquefy natural gas on the North Slope and then truck the LNG to Fairbanks using the Dalton Highway. The project built a gravel pad on the Slope for the LNG plant, developed a plan for the construction of the plant and advanced negotiations with the Fairbanks utilities. But in January 2015 AIDEA called a halt to the project when it became apparent that the capital and operating costs were going to be too high to meet the project objectives.

A change in direction

Instead, with legislative approval, AIDEA opened up the project to the possibility of obtaining gas from either the North Slope or the Cook Inlet basin; to the possibility of shipping the gas by pipeline as well as in the form of LNG; and even to the possibility of using energy alternatives such as propane. With a source of North Slope gas already established, the Alaska Department of Commerce, Community and Economic Development, AIDEA's parent agency, led an effort to secure an alternative gas supply from Cook Inlet, while the IEP team sought proposals for transporting gas to Fairbanks.

The upshot was a project in which the team entered into gas supply negotiations with a Cook Inlet gas producer while working with Salix on a plan for a Cook Inlet LNG plant. Meanwhile, in 2015, in anticipation of an enlarged gas supply for Fairbanks, FNG and IGU moved ahead with expansions of their gas distribution systems in the city, using funding from AIDEA loans. Also in 2015, AIDEA purchased Pentex, thus becoming owner of FNG and FNG's gas supply chain.

But, under the terms of the 2015 legislative authorization for the broadened scope of the project, the expansion of the Fairbanks gas distribution network was suspended after the 2015 construction season, pending AIDEA approval of new gas supply arrangements.

So, at present, AIDEA owns and operates Pentex's Fairbanks gas supply operation, with plans to sell that operation to IGU. The agency anticipates expanding the Cook Inlet gas supply for the operation at an acceptable gas price. Salix has left the project, but AIDEA's IEP team anticipates expanding the Point MacKenzie LNG facility at an acceptable cost, thus boosting the LNG deliveries to Fairbanks. This would support an expanded gas distribution system in the city and an increasing number of natural gas consumers.

—ALAN BAILEY

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ANALYSIS

his attitude really is on resource issues, is a complete unknown. “In my lifetime, no one has ever become president after having said so little about what they will actually do with the reins of power,” said University of California professor David Victor in an article published by Brookings Institute.

Trump is unpredictable and is even showing signs of waffling on some campaign positions, even on climate change — the president-elect says he is now “open” on the issue.

His appointment of Scott Pruitt, Oklahoma Attorney General and a fierce critic of President Obama’s climate-change policy, as new head of the U.S. Environmental Protection Agency, seems to contradict that, however.

However, even with a pro-development president and a development-friendly Interior secretary, it will take time for policies at the top to trickle down to the field-level agencies where Alaska industries operate.

What could happen?

Meanwhile, here are some things that could happen fairly soon, some believe.

Here are some things not to expect and things that might be expected.

•Is it possible for the president-elect to undo President Obama’s refusal to include Arctic lease sales in the new five-year Outer Continental Shelf program? Some think it might be, although there are different legal views. Some say the record of decision on the government’s environmental impact statement could be redone fairly quickly, which would allow the Arctic sales to be re-inserted into the sale schedule (they were in the draft schedule).

What might also be possible is that the state of Alaska’s plan for a limited one-year winter exploration drilling program in ANWR’s coastal plain, which would involve no leases being issued (and thus no congressional approval) might find favor with the incoming administration.

•Likewise, undoing parts of the highly restrictive Arctic offshore drilling rules might be possible, such as requirements like having a standby rig nearby. Although these rules also apply nationwide in the OCS the Arctic rules are more restrictive.

•What could easily change, however, are federal agency interpretations of the Arctic rules, such as agencies’ rigid interpretation of rules that Arctic OCS drilling operations must be 15 miles apart. This was sprung on Shell late in its Chukchi Sea drilling and it stopped the company from drilling two exploration wells instead of one even with the rig was available and ready to go.

Senate filibusters

Any change that can be done without new legislation might allow near-term action. However, if a change in law is required, the probability of a U.S. Senate filibuster will delay things.

If that happens on the Arctic OCS sale issue it might be more practical to wait for the next cycle in the five-year schedule, the cycle starting in 2022. However, given the time needed for sale preparations and more work on an EIS that could push any new Arctic sales back into the mid-2020s.

•Don’t bet on the coastal plain of the Arctic National Wildlife Refuge being opened to exploration and development, at least in the near term. ANWR is such a lightning-rod nationally that it will be difficult to get this through even a Republican-controlled Senate (it failed last time, when Republicans also were in control).

However, if a bill did get through Congress a President Trump would probably sign it. What might also be possible is that the state of Alaska’s plan for a limited one-year winter exploration drilling program in ANWR’s coastal plain, which would involve no leases being issued (and thus no congressional approval) might find favor with the incoming administration.

Walker another unknown

Interior Secretary Sally Jewell nixed this plan previously when former Gov. Sean Parnell advanced it, even though the state offered to foot the $50 million bill. It’s not known that Gov. Bill Walker will resubmit the plan, however, or that the Legislature would appropriate the $50 million.

•There could also be changes in the Interior Department’s rules establishing large protected areas in the National Petroleum Reserve-Alaska, particularly those along the northeast coast of the reserve where there are very good prospects for discoveries.

These policies were set in the framework of the U.S. Bureau of Land Management’s plan for the NPR-A, and they could be redone by a new administration with a rewrite of the record of decision, which would involve no lengthy new EIS process, some believe. There would still be protected areas but they would be smaller, this argument goes.

However, this would set off a firestorm of opposition and lawsuits from environmentalists, who would set up protection of Teshekpuk Lake, which is near the NPR-A coast, as a new poster-child and fund-raising gambit.

•More easily done, however, are changes to agency policy decisions not done in a regulatory framework, such as interpretations or policy statements. An example is the Obama administration’s presidential order last year requiring federal agencies to develop their own wetlands mitigation and compensation policies, with no regard for current rules under the Clean Water Act administered by the U.S. Army Corps of Engineers.

•Likewise, there could be a review of BLM’s policy for requiring mitigation on oil and gas projects in NPR-A that is separate and in addition to the Army corps’ requirements. These policies affected ConocoPhillips in its permits for GMT-1, a new project in the reserve.

Authority an issue

Critics have argued that BLM has no authority under its statutes to impose these requirements and that the agency’s claim of authority under regulations is flimsy. If BLM’s policies go away it would leave wetlands policy back with the U.S. Army Corps of Engineers.

•Don’t expect, however, a shift in more traditional mitigation rules set out by the corps under the federal Clean Water Act. The Clean Water Act and Clean Air Act, the foundations of federal environmental law, have been in place for decades and have strong bipartisan support.

Overall, “The regulatory apparatus for oil and gas probably won’t change much, although public lands could be different,” Prof. Victor said in his Brookings Institute article.

“A Trump presidency presumably would ease the process for leasing on public lands, although any changes would likely be tied up in the courts as will efforts to speed pipeline projects,” he wrote.

Relief of rules for emissions of methane and use of water for shale gas and oil operations could occur, “but it is already becoming clear that these rules do not have a ruinous effect on drilling. They are instead a compliance cost,” he said.

Victor warned that one of the greatest challenges for the oil and gas industry will be, “to avoid looking at a Trump presidency as a blank check for any production and infrastructure here in the U.S.”

“Instead, oil and gas companies looking at the long term will need to keep working on to find smart ways to reduce emissions and environmental footprints and to sustain public trust, even if the federal government doesn’t offer a credible threat of regulation,” Victor wrote. ●

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