Petroleum news

page 3 von Imhof says HB 111 changes should be kept to cashable credits

Vol. 22, No. 20 • www.PetroleumNews.com *A weekly oil & gas newspaper based in Anchorage, Alaska* Week of May 14, 2017 • $2.50

This week's Mining News

NORTH OF 60 MINING news

page 8 Peak Gold completes spring 2017 Tetlin drilling; new resource soon

www.MiningNewsNorth.com *The weekly mining newspaper for Alaska and Canada's North* Week of May 14, 2017

NEWS NUGGETS

Compiled by Shane Lasley

KINROSS GOLD CORP.

After more than 20 years of operation, Kinross Gold Corp. continues to find ore next to the pit at the Fort Knox Mine in Interior Alaska.

BLM considers relinquishing lands next to Fort Knox Mine

The U.S. Bureau of Land Management May 8 announced that its Eastern Interior Field Office is considering a proposal to relinquish 709 acres of a National Oceanic and Atmospheric Administration land adjacent to Kinross Gold Corp.'s Fort Knox gold mine near Fairbanks. This land is a priority for acquisition by the state. In October, NOAA filed a notice of intent to relinquish this 709-acre parcel that lies about three miles northeast of NOAA's Fairbanks Command and Data Acquisition Station, commonly known as the Gilmore Creek Satellite Tracking Station. The administration said it no longer needs this land withdrawal to fulfill its mission. This area, however, covers an area immediately west of the phase-8 expansion of Fort Knox and could add to the mine's life. In 2014, BLM authorized Kinross to carry out exploration on this property. The BLM Eastern Interior Field Office is now preparing an environmental assessment under the National Environmental Policy Act to assess the relinquishment and determine whether the land is suitable for return to the public domain. The federal land manager is seeking input from the public to identify current uses and issues within the parcel to aid in its determination. A public comment period for the project started April 25 and has been extended through June 1. The public can learn more about the proposal and submit comments at a May 18 public meeting at the Steese Fire Department Station 62 in Fairbanks.

Drills turning at Golden Summit

Freegold Ventures Ltd. May 9 announced the start of an initial phase of 2017 drilling aimed at expanding the oxide gold resource at its Golden Summit project about 25 miles north of Fairbanks and about four miles north of Kinross Gold Corp.'s Fort Knox Mine. During this this phase-one program, the company plans to drill 20 to 25 shallow holes to the north of the current mineral resource where previous rotary air blast drilling has identified the potential for higher grade material. In 2016, Freegold published a preliminary economic assessment for Golden Summit that evaluates a 20,000-metric-ton-per-day operation – 10,000 tpd heap leach facility to process the oxide material and 10,000 tpd bio-oxidation plant for the sulfide material – that averages around 96,000 ounces of gold annually over a 24-year mine life. The area being considered for mining hosts 61.5 million metric tons of indicated resource averaging 0.69 grams per metric ton (1.36 million oz) gold; and 71.5 million metric tons of inferred resource of averaging 0.69 g/t (1.58 million oz) gold. The oxide portion of this deposit, which is found largely within the upper 60 meters of the overall resource, hosts 16.2 million metric tons of indicated resource averaging 0.66 g/t (345,000 oz) gold; and an inferred resource of 9.6 million metric tons averaging 0.59 g/t (183,000 oz) gold. Freegold said the oxide resource expansion drilling and the metallurgical work currently underway are aimed at improving the overall project economics. In addition to the expansion of the oxide resource, Freegold said upgrading of the inferred

see **NEWS NUGGETS** *page 8*

PHOTO BY WWW.ARHCBOULD.COM, COURTESY OF GOLDCORP INC.

Goldcorp Executive Brent Bergeron (right) goes over maps and core with Kaminak geologists during a 2016 visit to Coffee gold project in the Yukon.

EXPLORATION & DEVELOPMENT

Major Yukon gold rush

Global miners pick up great gold projects across the home of the Klondike

By SHANE LASLEY

Mining News

Sparked by the discovery of the White Gold district and fueled by investors' appetite for mining stocks, the Yukon experienced a modern era gold rush in 2007 that included nearly C$1 billion of exploration spending during over six years. This frenzied exploration turned up dozens of gold projects across the northern territory and now some of the world's biggest gold miners are cutting deals on the best of the discoveries made.

Kinross Gold Corp. was the first of the major gold miners to make a move on these discoveries when it grabbed up White Gold, the property that sparked the Yukon gold rush, in 2009.

The real major Yukon gold rush, however, started with Goldcorp Inc.'s C$520 million buyout of Kaminak Gold Corp. in 2016. Since then, Agnico Eagle Mines Ltd., Newmont Mining Corp. and Barrick Gold Corp. have all picked up gold properties in the territory.

"Large companies are looking for a place where there is still near surface high-grade gold to be found in a geopolitically stable environment," said Goldstrike Resources COO Bill Chornobay. "The entry into Yukon of Newmont, Barrick, Agnico, Kinross, and Goldcorp is a very strong testament to that and to their belief in the future of Yukon."

Goldstrike for Newmont

Chornobay has first-hand experience with high-grade gold in the Yukon and the major miners looking there. In April, Goldstrike closed a C$53 million deal with Newmont on Plateau, an expansive exploration property in the Yukon known for its prolific visible gold.

For several years, Goldstrike has been discovering and expanding thee zones of high-grade gold across its 3,500-hectare (8,650 acres) Plateau property in eastern Yukon. Last year, however, was a particularly successful year for the gold explorer – resulting in the discovery of six new zones on the property.

The first such find was Bonanza, discovered about 4,000 meters away from Goldstack, one of the three primary gold zones originally found along a 50-kilometer- (31 miles) trend at Plateau South.

Initial mapping of a small outcrop at Bonanza identified the most pervasive coarse visible gold seen in bedrock at Plateau property. One grab sample collected from this 12- by 20-meter area of surface bedrock assayed at 436.4 grams per metric ton gold. Prospecting and drilling confirmed that this Bonanza gold extends well beyond the outcrop.

The 2016 exploration discovered at least five other new zones – Goldback, Goldbar, Gold Standard, Goldworks and Big Bang.

These discoveries, coupled with the zones already found across a broad expanse of this property caught Newmont's attention.

In March, the gold major cut a deal to earn up to 75 percent stake in Plateau.

The agreement included a C$6 million private placement financing under which Newmont purchased 12.71 million Goldstrike shares at C47.4 cents each.

As a result, Newmont has the option to earn an initial 51 interest in Plateau by paying C$8 million to Goldstrike; investing C$17.4 million on exploration at Plateau; and completing an NI 43-101 resource estimate on the property.

If Newmont decides to up its ownership of Plateau to 75 percent, it must invest another C$21.4 in exploration and complete a feasibility study for Plateau by the end of 2027.

After earning 75 percent interest in Plateau, Newmont has agreed to fund all costs until it delivers a program and budget for the development of the first mine on the property. At this point, Goldstrike has a financing option under which Newmont

see **YUKON RUSH** *page 9*

Global miners pick up great gold projects across the home of the Klondike. Read more in North of 60 Mining News, page 7.

Conoco dropping Thomson acreage

ConocoPhillips Alaska is dropping its working interest ownership in the Point Thomson unit, the company said, confirming news first reported in the Alaska Dispatch.

The company's interest, about 5 percent, is being relinquished to the other unit owners per the unit operating agreement, ConocoPhillips Alaska spokeswoman Natalie Lowman told Petroleum News in a May 4 email.

"In the current oil price environment, we are scrutinizing

see **THOMSON ACREAGE** *page 12*

EPA ups Fairbanks air quality ante

The Environmental Protection Agency is raising its classification of air quality problems in Fairbanks from "moderate" to "serious," for non-attainment of national air quality standards. The agency says that it understands the air quality challenge that the city faces and that it will work with the Fairbanks North Star Borough to find solutions. The new classification will go into effect 30 days after the rule is published in the Federal Register.

see **AIR QUALITY** *page 16*

CS for HB 111 still in works

When Petroleum News went to press for this issue Senate Finance had yet to release a committee substitute for House Bill 111, the oil and gas tax and credit rewrite.

The committee had held several hearings on the Senate Resources CS and Department of Revenue Tax Division Director Ken Alper indicated in hearings in early May that discussions had been held with committee staff on various technical issues of concern to the division.

Senate Finance had a hearing scheduled on HB 111 May 11.

—PETROLEUM NEWS

EXPLORATION & PRODUCTION

Mustang deadlines

Brooks Range Petroleum working to complete Slope development by year-end

By ERIC LIDJI

For Petroleum News

A joint venture operated by Brooks Range Petroleum Corp. is working to develop new financing or to possibly find new partners in order to bring its Mustang development project into production, preferably before a key deadline arrives at the end of the year.

Most of the modules for the Mustang Operations Center No. 1 processing facility at the North Slope development have been completed and are currently being stored in the United States and Canada, according to a recent project update from the Alaska Industrial Development and Export Authority. But the oil company needs to secure more financing in order to finish constructing the center and to begin drilling new development wells.

The proved reserves at Mustang are contained in 11 fault blocks. The current plan calls for drilling horizontal producers into each of the blocks and vertical injectors.

According to the largest owner of the Mustang project, the joint venture recently "re-optimized" the project to account for persistently low oil prices. "This re-optimization included delaying the drilling of development wells and water injectors until oil production commenced and could be

see **MUSTANG** *page 14*

PIPELINES & DOWNSTREAM

A safer arrangement

Hilcorp plans to ship oil across Cook Inlet by pipeline rather than tanker

By ALAN BAILEY

Petroleum News

Hilcorp Alaska is planning to transport crude oil direct to the Tesoro oil refinery on the Kenai Peninsula by pipeline from oil fields on the west side of the inlet, David Wilkins, Hilcorp Alaska senior vice president, told a meeting of the Resource Development Council on May 4. The idea is to eliminate the use of the Drift River terminal on the west side of the inlet, the oil terminal that is currently used to load tankers for the shipment of oil to the refinery.

For a number of years the Drift River terminal has been a cause of concern because of its proximity to the Redoubt volcano. In 2009 an eruption of the volcano forced an evacuation of the terminal and an emergency drawdown of oil stored at the terminal site.

Novcaski also pointed out that using an existing pipeline, rather than building a new oil pipeline, eliminates uncertainty associated with subsea stability for a new line.

Wilkins said that the proposed pipeline arrangement would meet both the oil and the gas needs of

see **HILCORP PIPELINE** *page 15*

EXPLORATION & PRODUCTION

Glacier defers Sabre

CEO says confidence in project economics undermined by state tax uncertainty

By ALAN BAILEY

Petroleum News

Glacier Oil & Gas Corp. is delaying the drilling of its Sabre No. 1 oil exploration well, offshore on the west side of Cook Inlet, until the spring of 2018, Glacier CEO Carl Giesler has told Petroleum News. The company had hoped to start the 70-day drilling project in late March or early April of this year and has been gearing up for the drilling using the Spartan 151 jack-up drilling rig. But uncertainties over the future of Alaska's oil and gas production taxes have caused the company to defer the work, Giesler said, referencing the current debate in the state Legislature over changes to the tax laws.

"With the fiscal uncertainty in the state it was hard to pencil out the exact economics. We think it's an extremely promising prospect and would require development over a year or two. It's just hard to commit to something of that size … without having fiscal stability," Giesler said.

One concern with the delay in the project is the continued availability of a jack-up rig to conduct the drilling.

Cook Inlet Energy, Glacier's subsidiary in the Cook Inlet region, had previously considered drilling the well as an extended reach operation, drilled from an onshore location. However, that original plan eventually morphed into the current

see **SABRE DEFERRED** *page 16*

● NATURAL GAS

Prudhoe Bay owners detail gas activities

By KRISTEN NELSON
Petroleum News

As part of the annual plan of development for the initial participating areas at Prudhoe Bay, field operator BP Exploration (Alaska) summarized activities related to a major gas sale, including evaluating subsurface studies of how the maximum amount of natural gas could be provided through Prudhoe Bay unit facilities.

In addition to IPA work, BP has evaluated production from Point McIntyre and Lisburne as part of the strategy to optimize the natural gas opportunity and use of the Point McIntyre field for by-product injection after gas has been recovered.

Other projects, while not directly major gas sale related, would have an impact on that project, such as upgrades and maintenance "to improve the dew point of dehydrated gas from flow stations and gathering centers," which BP said would improve reliability of the central gas facility, benefiting oil production and potential major gas sales.

IPA work

Major gas sales work at the initial participating areas includes: producing more higher Btu specification gas from the CGF through use of existing miscible injectant; use of L and V pads for by-product injection; further refinement of injection opportunities for by-product use; and evaluating potential impact of an extended outage of the trans-Alaska oil pipeline on delivery of gas to the gas treatment plant.

Surface studies related to a major gas sale include working with the Alaska LNG project to confirm feasibility of by-product from Prudhoe to the GTP flares in the event of an operational upset; CGF tie-in philosophy and facility maintenance turnaround strategy, with a sales gas tie-in designed from the existing CGF to the GTP tie-in; providing greater operational flexibility; reducing requirement for maintenance turnaround during construction; and reducing overall cost from the initial design.

Requests for information

BP said it has been responding to requests for information from parties interested in large ANS gas development projects for years, most recently from AKLNG. During 2016 information requested included: review and analysis of AKLNG's GTP air permitting modeling; review and analysis of AKLNG's documents on the interface between the GTP and Prudhoe Bay unit facilities; confirmation that sales gas could be sent to the GTP tie-in point at 720 psig versus the existing sales gas system design pressure of 790 psig; confirmation of feasibility of flowing by-product from Prudhoe to the GTP flares; design of a sales gas tie-in from the CGF to the GTP that provides greater operational flexibility, reduces the requirement for a maintenance turnaround during construction and reduces overall cost of the initial design; review and analysis of AKLNG's draft Federal Energy Regulatory Commission resource reports by subject matter experts; response to requests for detailed CGF documentation; and review and analysis of AKLNG's GTP infrastructure needs and potential impacts to the Prudhoe Bay unit.

"As appropriate, activities will be undertaken during 2017-18 plan period to prepare for a MGS," BP said, adding that it plans to respond to requests for information from the Alaska Gasline Development Corp. related to AKLNG.

BP said AGDC is considering options including phased development, and when AGDC issues a timeline for major project milestones, "the unit owners anticipate undertaking appropriate activities to position for an MGS consistent with AGDC's progress."

BP also listed activities to optimize use of gas before a major gas sale by producing oil by injection of lean gas and miscible injection into Prudhoe Bay reservoirs, noting that the use of gas injection contributes some 40 percent of Prudhoe oil production through vaporization and enhanced oil recovery with miscible injectant.

"The use of gas is a valuable opportunity in the near-term and current activities will continue to pursue production through the use of processed gas," BP said. ●

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GOVERNMENT

Von Imhof: Keep HB 111 to cashable credits

Anchorage Republican, freshman lawmaker, uses finance acumen — replete with spreadsheets, charts, color markers — to reach conclusions

By STEVE QUINN
For Petroleum News

Sen. Natasha von Imhof began her first year in office as the lone legislator to serve on the Resources and Finance committees. That changed when Sen. Shelley Hughes, already on Resources, took the Finance seat since vacated by Sen. Mike Dunleavey. But von Imhof, an Anchorage Republican, has been along for double duty since day one. She's known for her finance acumen and self-proclaimed love for spreadsheets and multi-colored flip charts that can lead to answers on heavy hitting items like an oil tax bill, HB 111. Von Imhof shared her views on her first year in office and the state's oil tax regime.

Petroleum News: Until the recent change with Sen. Hughes you were the only lawmaker in either chamber to be on both the Resources and Finance committees. So my question to you is, is this something you pursued? I understand the caucus has the final vote on these assignments.

Von Imhof: I think how it worked out is when I was elected I looked at the different committees and wanted to see where my strengths were, education of course being on the school board. You have a forum that says you have all of these different committees, what interests you? Transportation? State Affairs? Whatever it may be.

I had wanted Finance because that's my background. I had been a financial analyst for 15 years. My background is that I have an MBA. We had two years of financial training. I worked as a financial analyst for a company called Latash Investments. What that was, is when Elmer Rasmuson passed away in 2000, he bequeathed his $500 million worth of Wells Fargo stock to the Rasmuson Foundation.

Well we had to diversify it. Diversifying $500 million in stock is no easy task. So, I spent the first five years of the 2000s traveling across the United States looking at all the different types of investments: private equity; hedge funds; venture capitalists; public equity funds. Then diversifying the $500 million into a varied portfolio.

So that's my background. As you can see, I do spreadsheets and spreadsheets and spreadsheets so I can see where the answers are.

Senate Resources (Committee Chair) Cathy Giessel reached out to me and asked me to join Resources, and I accepted. So that's how it worked out.

Petroleum News: OK, so let's start with Resources first. What have you learned by being on Resources?

Von Imhof: Being on any committee, it is a Ph.D., it feels like, in a variety of subjects. When they say you are going to be drinking from the firehouse, that's exactly what it is. What have I learned being on Resources? We have received in-depth presentations on Alaska Seafood Marketing, Alaska Tourism Industry, DNR mapping in Alaska, Alaska Standalone Pipeline, Alaska LNG project, Mental Health Land Trust law. We learned very in-depth, detailed descriptions on many things resources. Oil. Seafood. Tourism. Mining, though I've been to several mining symposiums. That's what we're learning.

NATASHA VON IMHOF

Petroleum News: So are you having fun learning all this? It's clearly a lot of work.

Von Imhof: Click Bishop and I have been working together. I finally got this big flip chart. It's like a big giant, sticky note. We have eight colored markers. We're down in his office periodically the last couple weeks. We're having people explain to us the tax credit process and how it all works. With all of these different markers, we're able to follow the conversation in a visual way. We peel off the giant flip chart sticky and put it on the all.

All of the sudden you have all of the charts and you can follow along. It begins to make sense. We'll put them all together then we have a new person come in. Person B comes in and we do it all over again. We can at least cross compare. That has been really helpful. I'm a big fan of giant sticky note flip charts with color markers because it's been really helpful.

Petroleum News: What have you learned as far as the commitment, the heavy lifting, the dynamics?

Von Imhof: Alaska is a resource state and brings in revenue through a variety of taxes. To me, it's important to keep tax appropriate and the regulatory structure so we can attract and retain capital in order to keep our economy going in perpetuity.

In all of the different resources — whether it be mining, fishing, oil and gas, tourism — where can we tax those industries to help fund government in a variety of ways, but at the same time not drive out industry. That's a tough — a difficult thing to do. You also have the regulatory pressure as well. Look at the federal government.

When you had Obama close down hundreds of miles of coast line. That's not really helpful. Is there a way to protect the coast line but at the same time have resource extraction from it? What I'm learning is Alaska is a resource state. That is how we make our money. We can't lock up our state in perpetuity. We have to be able to in a very thoughtful and prudent manner continue to move forward and extract resources.

Petroleum News: Let's talk about one of those areas. I'm not sure how much you've paid attention to the discussion of ANWR (1002). It's been up for discussion every two years on the congressional cycle and two years here. Do you see that as a futile fight or is it an essential fight?

Q AND A

Von Imhof: I think it depends on who is president. Right now we are seeing the Izembek Road kind of moving forward. Everyone thought that was futile. So, I think that it depends on the leadership that we have. It depends on the political sentiment at the time. No I don't think it's futile. I think it's something our state needs to continue to advocate for as long as we can because that's our future. Again in an environmentally thoughtful way.

Petroleum News: Getting back to who is in power, are you more optimistic about development prospects now that you've got a new administration and a GOP-led Congress?

Von Imhof: Yes. Izembek Road is the first example of that. The Trump administration just released some offshore drilling allowances. With the Obama administration, neither of those were options. They are now. That leads me to believe that potentially other things will develop over time. Hopefully.

Petroleum News: So, you're on Resources and that's your first crack at HB 111. So how does being on Resources help you with being on Finance?

Von Imhof: On Finance you see the whole picture. You see revenue and expenses. You see all agency funding including big-ticket items like (Department of Education and Early Development) and (Health and Social Services). You see it all in Finance but you see the expense part. Resources usually deals with the revenue side because we are a resource extraction state. My guess is over time, if I was going to be here for a long period of time, patterns and trends could emerge on the Resources side then we can see this is what the future is for fishing or for tourism, or this is what we think of oil and gas if we are looking at a global picture.

Then you take this information and you take it over to Finance when you're doing the operating budget and say collectively when I'm looking at these resources, the future looks good or the future doesn't look so good. Or the future looks good in this industry but not so good in that industry because I'm seeing all these presentations.

I can put things together and see that we may have a tough time in revenue in a few years and we may want to be thinking accordingly when we start making our long-term budget plans. That's how I think those two can mesh together.

Petroleum News: How about as it relates to HB 111? Does it help you that it was already in one of your committees and now it's followed you to another?

Von Imhof: The more often that you see it and hear from the experts, if you hear it more than once, you understand it better. It's a very complicated bill. We were able to hear all the presentations in Resources. Much of it was the same again in Finance. It solidified the details of the bill.

Outside of Finance, several of us senators have been meeting with (tax direc-

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EXPLORATION & PRODUCTION

Alaska Oil and Gas Conservation Commission: April 2017

•On March 30, the Alaska Oil and Gas Conservation Commission approved (Conservation Order No. 462.007) a request from Hilcorp Alaska LLC to allow for unrestricted well spacing in the Endicott Oil Pool at the Duck Island unit.

A rule in Conservation Order No. 462 allowed for 40-acre spacing at the pool but also gave the commission the authority to change the spacing, within certain limitations.

According to Hilcorp, the upper subzones within the Endicott pool are "particularly discontinuous, unpredictable and drain small areas (less than 40 acres)." Over the past year, the company required spacing exemptions for three new Endicott development wells. The three wells added about 275 barrels of oil per day in production and about 300,000 barrels of reserves to the Endicott pool, which began production in 1987 and peaked soon thereafter. "Due to the maturity of the pool," according to the recent commission ruling, "future development targets will be small accumulations of bypassed oil that cannot be effectively recovered under a 40-acre spacing requirement."

The AOGCC has tentatively scheduled a meeting for May 25 to consider requests from BlueCrest Energy Inc. for spacing exemptions at two planned Cosmopolitan wells.

The new spacing provision maintains exterior boundaries with neighboring leaseholders.

•On March 30, the AOGCC approved (Docket Number: AIO-17-009) a request from ConocoPhillips Alaska Inc. to change the annual Mechanical Integrity Test date for 97 wells at the Kuparuk River unit and Colville River unit to align with other test dates.

The company has been working with the commission on the consolidation program since late 2015. The goal is to create efficiencies by scheduling multiple tests close together.

•On April 6, the AOGCC approved (Area Injection Order No. 4G.006) a request from BP Exploration (Alaska) Inc. to continue water only injection at the Prudhoe Bay Unit 04-43 well. The company reported potential casing and tubing leaks and, in June 2016, performed diagnostics and a coil tubing cement job at 450 feet, which excludes the dimensions of a well bore required for monitoring under state codes. But subsequent testing convinced the commission of the integrity of the well for health and safety.

•On April 11, the AOGCC upheld an early fine imposed on the Glacier Oil & Gas Corp. subsidiary Cook Inlet Energy LLC for long-term violations of safety valve regulations.

The commission imposed (Other Order 102) penalties of $446,000 against the company in February 2017 and agreed to reconsider the penalty in March, upon request of the company. The company claimed it had acted in good faith and mitigated its violations and argued that the fine was inconsistent with previous actions taken by the AOGCC.

Upon reconsideration, the AOGCC determined that its original ruling was appropriate.

•On April 12, the AOGCC approved (Area Injection Order No. 2B.060 Cancellation) a request from ConocoPhillips Alaska Inc. to cancel Area Injection Order 2B.060.

The commission issued the original area injection order after the Kuparuk River Unit 1B-11 well developed a surface casing leak in March 2011. The order allowed ConocoPhillips to continue water only injections at the well, as long as it honored certain restrictions.

The company repaired the well in February 2017 with a rig workover. The workover accidentally damaged the surface casing, leading to a new seven-inch liner. One result of the workover was that Area Injection Order 2B.060 was no longer applicable to the well.

Instead, also on April 12, the commission approved (Area Injection Order No. 2C.044) a request from the company to continue water alternating gas injections at the well.

•The AOGCC has tentatively scheduled a meeting for May 25 to consider requests from BlueCrest Energy Inc. for spacing exemptions at two planned Cosmopolitan wells.

In a request submitted on April 17, the Texas-based independent asked the commission to waive regulatory spacing requirements for the proposed Hansen H-12 well and associated Hansen H12L1 lateral, which would both be drilled in the same governmental quarter sections as the Hansen 1AL1 and Hansen H-16, Hanson H-14 and Hanson H14L1 wells.

The commission will hold the hearing if it receives a request to do so by May 8.

—ERIC LIDJI

● EXPLORATION & PRODUCTION

Big North Slope program for Hilcorp

Company expects to drill as many as 25 wells and preform many workovers at Milne Point, Duck Island and Northstar

By ERIC LIDJI
For Petroleum News

Hilcorp Alaska LLC is planning a busy year at its North Slope properties.

In addition to another large drilling and maintenance program at the Milne Point unit, the company is ramping up activities at the Duck Island unit and planning Northstar work.

The company saw production increases at all three units last year.

The largest program continues to be at Milne Point, which has received the largest share of investment since Hilcorp acquired a package of North Slop properties from BP.

The local subsidiary of the Texas-based independent expects to drill as many as 18 development wells at the Milne Point unit this year. The drilling program includes as many as four pads and targets all three of the major formations present at the unit.

In addition to the drilling program, the company expects to complete workover projects on as many as 16 existing wells this year. While the proposed drilling program represents an increase of 2016 drilling work, the workover activity would be equal to 2016 levels.

As described in the most recent plan of development, submitted to the Division of Oil and Gas in May, the program would run for one year starting in July 2017. In the course of the year, Hilcorp plans to drill as many as 10 wells at F pad (four producers and five injectors into the Schrader Bluff OA sands and one producer into the Sag River), five wells at L pad (two producers and two injectors into the Schrader Bluff N sands and one producer into the Sag River), two wells at E pad (one producer and one injector into the Schrader Bluff formation) and one well at C pad (an injector into the Kuparuk formation).

Among the major facility projects on the docket for this year is construction of the 44-well Moose Pad, which would target reserves in the western end of the unit.

Hilcorp drilled 10 wells at the Milne Point unit in 2016 and another three wells through the first four months of this year. The recently completed program included five wells at B pad, four wells at J pad, two wells at L pad, one well at K pad and one well at C pad.

The B pad program included the B-28 lateral producer and B-29 later injector into the Schrader ND sand, the B-32 lateral producer and B-33 lateral injector into the Schrader NC sand and the B-34 injector into the Ugnu, part of a recent grind and inject project.

Although most of its North Slope resources are going toward the Milne Point unit, Hilcorp is in the early stages of efforts to revitalize its other North Slope properties.

The J pad program included the J-23A and J-24A sidetrack lateral injectors into the Schrader NB sand and the J-27 and J-28 lateral producers into the Schrader NB sand.

The L pad program included the L-47 lateral producer and L-50 lateral injector, both targeting the lower lobe of the Schrader OA sand. The K-44 producer targeting the Kuparuk C/B sands and the C-15A sidetrack producer targeted the Sag River formation.

Hilcorp also performed 16 workover projects in 2016 and another seven in early 2017.

Milne Point produced 19,869 barrels of oil per day in 2016, starting the year at 582,669 barrels per month and finishing at 636,836 barrels per month. The unit produced 7.148 million barrels of oil and 4.943 billion cubic feet of gas in 2016, according to Hilcorp.

Duck Island

Although most of its North Slope resources are going toward the Milne Point unit, Hilcorp is in the early stages of efforts to revitalize its other North Slope properties.

The company is planning a seven-well development program at the Duck Island unit in the year starting July 1. The program would include at least one new well and as many as six sidetracks, according to the most recent plan of development. Additional candidates for sidetracking will likely come from currently shut-in wells, according to Hilcorp.

Hilcorp is also planning at least two workover projects in the coming year.

Although the company did not drill any wells or sidetracks last year, it undertook a major Duck Island workover program, which is still underway. The company completed at least 12 workover projects in 2016, expected to complete another 10 project this year through July 1 and had three other projects underway that would last into the second half of 2017.

Individually, many of those workover projects added incremental oil production to the unit. The unit produced 2.7 million barrels of oil and 114 billion cubic feet of gas in 2016, starting the year at 266,585 barrels per month and finishing the year at 257,991 barrels per month. But those figures fail to record the large production increase at the unit, which produced 8,076 barrels per day in 2015 and 8,762 barrels per day in 2016.

Northstar

The Northstar unit continues to receive the lowest investment, at the moment.

Hilcorp is not planning to drill any wells or sidetracks at the unit over the coming year, although it is planning three workovers, one at each of the unit's participating areas. The company is also planning some facility upgrades and some pipeline maintenance.

The company did not drill at Northstar last year, either, but did complete seven workover projects — five at the Northstar participating area and two at the Hooligan participating area. The company also completed some facility upgrades during the previous year.

The Northstar unit produced nearly 3.3 million barrels of oil in 2016, starting the year at 328,806 barrels per month and finishing the year at 313,688 barrels per month. The unit produced 10,478 barrels per day in 2016, up from 10,006 barrels per day in 2015. ●

Contact Eric Lidji at ericlidji@mac.com

EXPLORATION & PRODUCTION

Intermediate casing at Icewine well

Accumulate Energy Alaska Inc. has completed the intermediate hole at Icewine No. 2.

The North Slope exploration well reached a depth of 10,715 feet on May 8, according to the press release from the local subsidiary of Australian based 88 Energy Ltd. The company was cementing intermediate casing prior to continuing to production depth.

—ERIC LIDJI

ENVIRONMENT & SAFETY

ExxonMobil's climate change manifesto

Report sets out company's position on greenhouse gas emissions and the future challenges of meeting rising global energy demand

By ALAN BAILEY
Petroleum News

Presumably responding to questions over the future of the petroleum industry in the light of concerns about the impact of carbon dioxide emissions on the climate, ExxonMobil has published a report setting out its position relative to climate change questions. While accepting that greenhouse gas emissions pose serious climate change risks, the report also comments on the importance of energy supplies in supporting global prosperity. The company suggests that the imposition of a carbon tax would be consistent with a policy objective of limiting carbon emissions in a free market environment.

The company expects all of the hydrocarbons in its current inventory of 20 billion barrels of oil-equivalent proved reserves to ultimately be produced rather than becoming stranded assets, the report says.

Dual challenge

"Society continues to face the dual challenge of meeting energy demand to support the economic growth needed for improved living standards, while simultaneously addressing the environmental risks posed by rising greenhouse gas emissions and climate change," the report says.

ExxonMobil says that it sees its mission as helping power the world's progress by safely and responsibly producing and delivering energy supplies. And, with access to affordable energy raising standards of living, energy demand is expected to increase by 25 percent by 2040, even with improved energy efficiency, as the global population grows and the number of people enjoying middleclass lifestyles doubles.

In its report the company says that it wants to be part of the climate change solution by reducing greenhouse gas emissions from its operations; helping consumers reduce their emissions; supporting research into technologies that can develop economically feasible energy solutions that have lower carbon intensities; and participating in constructive dialogue on policy options.

Continuing need for oil and gas

The report says that ExxonMobil's annual Outlook for Energy publication points to a need for substantial ongoing development and investment in oil and natural gas. This conclusion is consistent with the findings of the International Energy Agency and the U.S. Energy Information Administration, the report says.

The IEA's future energy scenario, based on limiting the global temperature increase to 2 degrees C by 2100, requires about 800 billion barrels of oil over the period 2016 to 2040, ExxonMobil's report says. Between $11 trillion and $18 trillion will be required in upstream oil and gas investments, mainly to offset natural production declines. Currently, ExxonMobil contributes less than 3 percent of global production and remains well positioned to support the additional development to meet the anticipated demand, the report says.

The company expects all of the hydrocarbons in its current inventory of 20 billion barrels of oil-equivalent proved reserves to ultimately be produced rather than becoming stranded assets, the report says.

And the company uses a dynamic resource development approach to selectively invest in attractive opportunities, making development decisions that create long-term shareholder value, the report says.

Minimizing emissions

At the same time, ExxonMobil has been minimizing the greenhouse gas emissions from its operations through initiatives such as efforts to reduce flaring and venting, and the implementation of emission reduction technologies such as the use of cogeneration plants for power generation. In addition, ExxonMobil has a working interest in about one quarter of the world's carbon capture and storage capacity. The company has invested nearly $7 billion in technologies for reducing greenhouse gas emissions across its operations, the report says.

In terms of helping consumers reduce their emissions, ExxonMobil has been enabling improved energy efficiency and reduced carbon emissions through the improved performance of the company's products, through the increased use of natural gas as a fuel, and through the development of new fuels, lubricants and chemical products, the report says.

The company has been conducting fundamental research into the development of energy solutions that lower the carbon intensity of energy use while also pioneering scientific research into next-generation energy sources such as algae biofuels, the report says.

Policy options

In terms of policy options, ExxonMobil believes that there is a need to reduce climate change risks while maintaining a balance with other societal priorities associated with boosting living standards.

"We fundamentally believe that the free markets, innovation and technology are essential to addressing the risks of climate change," the report says. "Policies need to be clear, effective and guard against duplicative, overlapping and conflicting regulations, which send mixed signals to the market and impose unnecessary costs on consumers."

One policy option consistent with these principles would be a revenue-neutral carbon tax, the report says. ●

Contact Alan Bailey at abailey@petroleumnews.com

NORTH OF 60 MINING news

page 8 Peak Gold completes spring 2017 Tetlin drilling; new resource soon

www.MiningNewsNorth.com | *The weekly mining newspaper for Alaska and Canada's North* | Week of May 14, 2017

NEWS NUGGETS

Compiled by Shane Lasley

KINROSS GOLD CORP.

After more than 20 years of operation, Kinross Gold Corp. continues to find ore next to the pit at the Fort Knox Mine in Interior Alaska.

BLM considers relinquishing lands next to Fort Knox Mine

The U.S. Bureau of Land Management May 8 announced that its Eastern Interior Field Office is considering a proposal to relinquish 709 acres of a National Oceanic and Atmospheric Administration land adjacent to Kinross Gold Corp.'s Fort Knox gold mine near Fairbanks. This land is a priority for acquisition by the state. In October, NOAA filed a notice of intent to relinquish this 709-acre parcel that lies about three miles northeast of NOAA's Fairbanks Command and Data Acquisition Station, commonly known as the Gilmore Creek Satellite Tracking Station. The administration said it no longer needs this land withdrawal to fulfill its mission. This area, however, covers an area immediately west of the phase-8 expansion of Fort Knox and could add to the mine's life. In 2014, BLM authorized Kinross to carry out exploration on this property. The BLM Eastern Interior Field Office is now preparing an environmental assessment under the National Environmental Policy Act to assess the relinquishment and determine whether the land is suitable for return to the public domain. The federal land manager is seeking input from the public to identify current uses and issues within the parcel to aid in its determination. A public comment period for the project started April 25 and has been extended through June 1. The public can learn more about the proposal and submit comments at a May 18 public meeting at the Steese Fire Department Station 62 in Fairbanks.

Drills turning at Golden Summit

Freegold Ventures Ltd. May 9 announced the start of an initial phase of 2017 drilling aimed at expanding the oxide gold resource at its Golden Summit project about 25 miles north of Fairbanks and about four miles north of Kinross Gold Corp.'s Fort Knox Mine. During this this phase-one program, the company plans to drill 20 to 25 shallow holes to the north of the current mineral resource where previous rotary air blast drilling has identified the potential for higher grade material. In 2016, Freegold published a preliminary economic assessment for Golden Summit that evaluates a 20,000-metric-ton-per-day operation – 10,000 tpd heap leach facility to process the oxide material and 10,000 tpd bio-oxidation plant for the sulfide material – that averages around 96,000 ounces of gold annually over a 24-year mine life. The area being considered for mining hosts 61.5 million metric tons of indicated resource averaging 0.69 grams per metric ton (1.36 million oz) gold; and 71.5 million metric tons of inferred resource of averaging 0.69 g/t (1.58 million oz) gold. The oxide portion of this deposit, which is found largely within the upper 60 meters of the overall resource, hosts 16.2 million metric tons of indicated resource averaging 0.66 g/t (345,000 oz) gold; and an inferred resource of 9.6 million metric tons averaging 0.59 g/t (183,000 oz) gold. Freegold said the oxide resource expansion drilling and the metallurgical work currently underway are aimed at improving the overall project economics. In addition to the expansion of the oxide resource, Freegold said upgrading of the inferred

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PHOTO BY WWW.ARCHBOULD.COM, COURTESY OF GOLDCORP INC.

Goldcorp Executive Brent Bergeron (right) goes over maps and core with Kaminak geologists during a 2016 visit to Coffee gold project in the Yukon.

EXPLORATION & DEVELOPMENT

Major Yukon gold rush

Global miners pick up great gold projects across the home of the Klondike

By SHANE LASLEY

Mining News

Sparked by the discovery of the White Gold district and fueled by investors' appetite for mining stocks, the Yukon experienced a modern era gold rush in 2007 that included nearly C$1 billion of exploration spending during over six years. This frenzied exploration turned up dozens of gold projects across the northern territory and now some of the world's biggest gold miners are cutting deals on the best of the discoveries made.

Kinross Gold Corp. was the first of the major gold miners to make a move on these discoveries when it grabbed up White Gold, the property that sparked the Yukon gold rush, in 2009.

The real major Yukon gold rush, however, started with Goldcorp Inc.'s C$520 million buyout of Kaminak Gold Corp. in 2016. Since then, Agnico Eagle Mines Ltd., Newmont Mining Corp. and Barrick Gold Corp. have all picked up gold properties in the territory.

"Large companies are looking for a place where there is still near surface high-grade gold to be found in a geopolitically stable environment," said Goldstrike Resources COO Bill Chornobay. "The entry into Yukon of Newmont, Barrick, Agnico, Kinross, and Goldcorp is a very strong testament to that and to their belief in the future of Yukon."

Goldstrike for Newmont

Chornobay has first-hand experience with high-grade gold in the Yukon and the major miners looking there. In April, Goldstrike closed a C$53 million deal with Newmont on Plateau, an expansive exploration property in the Yukon known for its prolific visible gold.

For several years, Goldstrike has been discovering and expanding thee zones of high-grade gold across its 3,500-hectare (8,650 acres) Plateau property in eastern Yukon. Last year, however, was a particularly successful year for the gold explorer – resulting in the discovery of six new zones on the property.

The first such find was Bonanza, discovered about 4,000 meters away from Goldstack, one of the three primary gold zones originally found along a 50-kilometer- (31 miles) trend at Plateau South.

Initial mapping of a small outcrop at Bonanza identified the most pervasive coarse visible gold seen in bedrock at Plateau property. One grab sample collected from this 12- by 20-meter area of surface bedrock assayed at 436.4 grams per metric ton gold. Prospecting and drilling confirmed that this Bonanza gold extends well beyond the outcrop.

The 2016 exploration discovered at least five other new zones – Goldback, Goldbar, Gold Standard, Goldworks and Big Bang.

These discoveries, coupled with the zones already found across a broad expanse of this property caught Newmont's attention.

In March, the gold major cut a deal to earn up to 75 percent stake in Plateau.

The agreement included a C$6 million private placement financing under which Newmont purchased 12.71 million Goldstrike shares at C47.4 cents each.

As a result, Newmont has the option to earn an initial 51 interest in Plateau by paying C$8 million to Goldstrike; investing C$17.4 million on exploration at Plateau; and completing an NI 43-101 resource estimate on the property.

If Newmont decides to up its ownership of Plateau to 75 percent, it must invest another C$21.4 in exploration and complete a feasibility study for Plateau by the end of 2027.

After earning 75 percent interest in Plateau, Newmont has agreed to fund all costs until it delivers a program and budget for the development of the first mine on the property. At this point, Goldstrike has a financing option under which Newmont

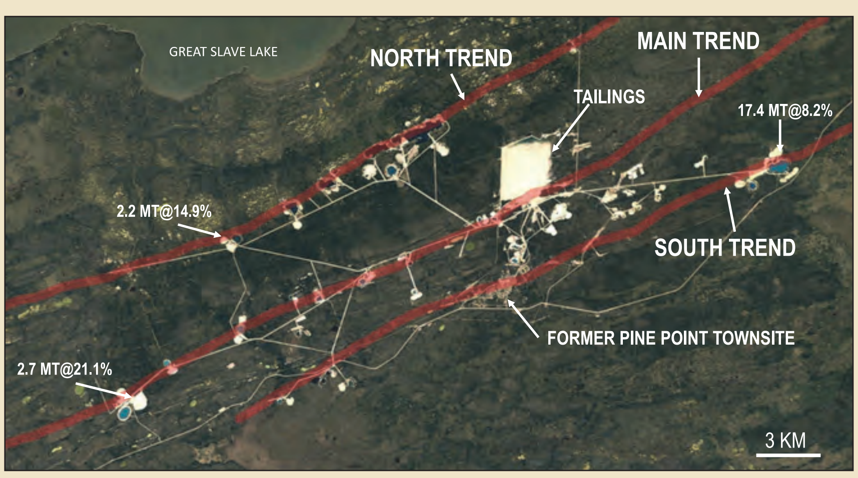
see **YUKON RUSH** *page 9*

NORTHERN NEIGHBORS

Compiled by Shane Lasley

Alexco makes progress Keno Hill Mine restart

Alexco Resource Corp. May 7 said it is putting all the pieces in place to restart the Keno Hill silver mine in the Yukon. In March, the company published a preliminary economic assessment that outlines an operation at the re-opened Keno Hill Mine that would produce 25.1 million ounces of silver, 77.3 million pounds of zinc, 67 million lb of lead and 4,870 oz of gold over eight years. This PEA is centered on the Flame & Moth deposit at Keno Hill but includes ore from the Bermingham, Bellekeno, Lucky Queen and Onek deposit. These deposits would provide the mill with 1.02 million metric tons of material averaging 843 g/t over the mine-life considered in the assessment. This year, Alexco is focusing its exploration on Bellekeno, a high-grade discovery with 868,000 metric tons of indicated resource averaging 628 g/t (17.3 million oz) silver. Alexco plans to invest roughly C$3.2 million on roughly 12,000 meters of surface drilling to further explore targets in the immediate vicinity of the Bermingham deposit. Alexco also plans to invest another C$8.7 million on underground exploration at Bermingham. Subject to permitting, this program is to include a 600-meter exploration decline and roughly 5,000 meters of infill and confirmation drilling. "Alexco is launching into the balance of 2017 squarely focused on moving forward with underground access to the high-grade Bermingham deposit in anticipation of extensive underground exploration drilling, as well as getting started on a plus-12,000-meter surface exploration program in areas proximal to the Bermingham discovery. Equipment rebuilds, mill, camp and infrastructure upgrades will also be completed alongside a prefeasibility level study, as we move Keno Hill back toward a final production decision," said Alexco Executive Chairman and CEO Clynt Nauman. Alexco ended the first quarter (March 31) with C$20.8 million in cash and cash-equivalents. The company believes this is sufficient to carry out all of its planned activities into 2018.



DARNLEY BAY RESOURCES LTD.

Drill taps germanium, gallium at Pine Point

Darnley Bay Resources Ltd. May 3 reported assay results for the first hole of the winter 2017 drill program at the Pine Point zinc project near Hay River, Northwest Territories. The results have confirmed high-grade zinc and lead mineralization with good continuity. The company also identified high-grade gallium and germanium in this first hole. Drilled into the W85 deposit, hole W85-17-DBL-001 cut 50.5 meters averaging 9.03 percent zinc, 4.1 percent lead, 16.9 grams per metric ton germanium and 4.4 g/t gallium. As part of the 2017 program, Darnley Bay has begun assaying for germanium and gallium,

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Petroleum news

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NEWS NUGGETS

mineral resource to the measured and indicated category will also be necessary in order to further advance Golden Summit to pre-feasibility.

EPA, USACE seek states input on WOTUS

U.S. Environmental Protection Agency and the U.S. Army May 10 announced that they have sent a letter to governors today soliciting input from states on a new definition of protected waters that is in-line with a Supreme Court Justice Antonin Scalia's opinion in the 2006 Rapanos vs. United States case. Scalia's definition explains that federal oversight should extend to "relatively permanent" waters and wetlands with a "continuous surface connection" to large rivers and streams. The Clean Water Act asserts federal control over "navigable waters" without providing clarity about the law's scope. President Donald Trump signed an executive order in February to direct federal agencies to roll back and replace the Obama Administration's Clean Water Rule – also known as the "Waters of the U.S." or WOTUS – to ensure that the nation's navigable waters are kept free from pollution, while at the same time promoting economic growth, minimizing regulatory uncertainty, and showing due regard for the roles of Congress and the States under the Constitution. To meet the objectives of the executive order, federal agencies are following a two-step process that will provide as much certainty as possible, as quickly as possible, to the regulated community and the public during the development of the replacement rule. The first step is to re-codify the definition of "Waters of the United States" which currently governs administration of the Clean Water Act, in light of a decision by the U.S. Court of Appeals for the Sixth Circuit staying a definition of "Waters of the United States" under Obama. This action will simply make the regulations reflect the definition in effect under the Sixth Circuit stay. This action, when final, will not change current practice with respect to the how the definition applies, which is consistent with Supreme Court decisions, agency guidance documents, and longstanding practice. The second step will be a public notice-and-comment rulemaking involving a substantive re-evaluation and revision of the definition of WOTUS in accordance with the executive order. The letter sent to governors today is seeking input on the second step of the process. "EPA is restoring states' important role in the regulation of water," said EPA Administrator Scott Pruitt. "Like President Trump, I believe that we need to work with our state governments to understand what they think is the best way to protect their waters, and what actions they are already taking to do so. We want to return to a regulatory partnership, rather than regulate by executive fiat."

AVALON DEVELOPMENT CORP.

A geologist working for Avalon Development completes reconnaissance exploration of one of the many exploration targets identified across the 843,000-acre Tetlin project near Tok, Alaska.

Peak zones resource expansion drilling done

Contango Ore Inc. May 9 reported that 5,236 meters of drilling was completed in 47 holes during the initial phase of drilling at the Tetlin gold project near Tok, Alaska. Carried out by Peak Gold LLC, a joint venture between Contango Ore and an Alaska subsidiary of Royal Gold Inc., this program tested the boundaries of the North Peak deposit and an outlying prospect known as Blue Moon. "The phase 1 2017 drilling program finished up in early April 2017, consisting primarily of holes around the edges of the North Peak deposit area in an effort to better define the mineral resource," said Contango Ore President and CEO Brad Juneau. "There were also six initial holes drilled in the True Blue Moon target area, a new prospect generated from airborne magnetics/resistivity and surface recon data. We have received assays on four of these holes which showed one gold-bearing interval in one hole but no material gold in the other holes. We expect to receive assays on the other two holes within the next few days, and will evaluate these results before deciding whether to drill further holes in this area." Highlights from the latest round of drill results include 6.26 meters of 11.98 grams per metric ton gold in hole TET17326, drilled at the southeast end of the deposit; 25.5 meters of 4.87 gg/t gold and 12.3 meters of 14.04 g/t gold in hole TET17335, drilled at the northwest end of the deposit; and 22.6 meters of 3.64 g/t gold in hole TET17344, drilled about 50 meters west of TET17326. Drilling has delineated a zone of skarn mineralization at North Peak that measures 600 meters long by about 200 meters wide. Calculated in 2013, the latest resource calculated for Tetlin includes 6 million metric tons of indicated resources averaging 3.46 g/t (664,112 ounces) gold, 11 g/t silver and 0.25 percent copper; and 3.9 million metric tons of inferred resources averaging 2.07 g/t (256,000 oz.) gold, 14.28 g/t silver and 0.23 percent copper. All of this resource is contained in the main Peak zone, which has been expanded with drilling. An updated resource that includes North Peak and the additional drilling at Peak is expected to be completed in the coming weeks. Peak Gold is gearing up for a summer drill program the will test some of

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YUKON RUSH

would fund all costs relating to Plateau, including all mine development costs, and Goldstrike would pay Newmont back from 80 percent of the explorer's share of cash flow from the mine.

"This new strategic alliance is an excellent foundation for a long term, mutually beneficial relationship, with Newmont being the advanced explorer, mine builder and producer, and Goldstrike being the project generator, prospector and grass roots explorers – a passionate team focused on discovery," said Goldstrike President and CEO Terrance King.

WWW.ARHCBOULD.COM, COURTESY OF GOLDCORP INC.

The exploration camp at Goldcorp's Coffee property lies along the Yukon River, a location that is scenic and provides commercial barge transportation to the gold mine project.

Barrick nabs Carlin-style gold

Barrick Gold Corp. has also staked its claim in the Yukon, cutting a deal to earn up to a 70 percent interest in a portion of Atac Resources Ltd.'s Rackla Gold property.

In total, the Rackla property blankets a gold prospective area that stretches for some 114 miles (185 kilometers across the Yukon.

In recent years, Atac has subdivided this massive land package into two projects – Rau, an area at the western end of the property that includes the Tiger gold deposit, and Nadaleen, an area that includes the Orion deposit and a number of other Carlin-style gold discoveries made in the eastern half of Rackla.

It is a section of the Carlin-style gold that Barrick is interested in. To accommodate this interest, Atac has divided Rackla into three separate projects – Rau, which encompasses 255 square miles (660 square kilometers) at the western end of Rackla; Osiris, a 117-square-mile (302 square-kilometers property at the eastern end of Rackla that hosts the Osiris, Conrad, Ibis, and Sunrise discoveries; and Orion, a 301-square-mile (780 square kilometers) section in the middle that hosts the Orion, Anubis, and eight other early stage Carlin-type gold prospects.

To earn an initial 60 percent interest in Orion, the central project, Barrick must spend C$35 million on exploration at the project over the next five years.

Upon spending this initial earn-in, the companies will form a joint venture and Barrick can earn another 10 percent interest in Orion by investing an additional C$20 million before the end of 2026.

"Atac's generative exploration skills and Barrick's knowledge and experience in Carlin-style systems will be a great combination to unlock the full potential of this district," said Rob Krcmarov, executive vice president, exploration and growth, Barrick.

To further stake its claim to this gold-rich section of the Yukon, Barrick paid C$8.34 million to buy 16.68 million Atac shares, giving the major a 19.9 percent interest in the Yukon-focused explorer.

Atac plans to apply the money raised with the financing that closed on May 4 towards a planned C$10 million exploration program on the Rau and Osiris projects in 2017.

"With over 15,000 meters of drilling planned, we anticipate making significant progress in evaluating known gold zones as well as continuing exploration work across our large district-sized land package," said Atac President and CEO Graham Downs.

Coffee gold by 2021

In the meantime, Goldcorp, the company that sparked the major Yukon gold rush, continues to make progress on advancing towards a major mine development at Coffee.

Prior to being bought out by Goldcorp, Kaminak published a feasibility study that details an open-pit, heap-leach gold operation at Coffee producing 184,000 oz of gold annually over a 10-year mine life at all-in sustaining costs of US$550/oz.

This mine plan is based on 63.7 million metric tons of indicated resources averaging 1.45 g/t (2.97 million oz) gold and 52.4 million metric tons of inferred resources averaging 1.31 g/t (2.1 million oz) gold.

"With the acquisition of Kaminak and its Coffee project, Goldcorp has inherited a very prospective land package with over 60,000 hectares (150,000 acres) that demonstrates potential for near mine discoveries with mineralization remaining open along strike and at depth and the potential for the discovery of a major new mineral system," Goldcorp President and CEO David Garofalo said at the time of the acquisition.

Over the ensuing year, the major has been busy exploring that potential, including roughly US$15 million of work last year and an initial phase of 2017 drilling that kicked off in March.

This year's drilling is focused on the Supremo T8-9 and Arabica targets.

Supremo T8-9 is located about 200 meters east of the planned Supremo open-pit mine. Highlights from 17 holes drilled during the first quarter include: 10.66 meters of 1.88 g/t gold from a depth of 51.82 meters; and 15.24 meters of 1.38 g/t gold from 59.44 meters.

Results from Arabica, which is located about 1,500 meters east of the planned Supremo pit, have yet to be released.

While exploring the property, Goldcorp is making headway on the permitting needed to build the mine.

Officially launching the permitting process with the submission of an environmental socioeconomic assessment application for Coffee, Goldcorp is targeting commercial production at its Yukon gold property by 2021.

For the Yukon, this could be the first in a series of mines resulting from this major gold rush to the home of the Klondike. ●

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NEWS NUGGETS

the outlying targets at Tetlin. "While there are still areas with potential room for expansion of North Peak, we intend to focus our summer 2017 program drilling exploration targets both near Main/North Peak as well as more remote targets relative to our existing infrastructure," Juneau explained. "While all exploration activity by definition has risks, these prospects are sizeable in potential area with similar geophysical and geochemical properties to our Main Peak and North Peak properties." During the quarter, Peak Gold expanded the Tetlin property by staking 68,000 acres of state mining claims covering Noah and other prospects the Alaska Division of Geological & Geological Surveys identified on state lands adjacent to the Tetlin property. Royal Gold, which is the operator of the JV, can earn up to a 40 percent interest in Tetlin by investing US$30 million in Contango Ore's 843,000-acre underexplored project by October 2018. Through the end of the first quarter, the Denver-based royalty company has contributed roughly US$20 million to Peak Gold and earned a 24.9 percent interest in the JV.

Pebble, EPA row nearly resolved

Pebble Limited Partnership and the U.S. Environmental Protection Agency are on the cusp of reaching a settlement of the longstanding legal dispute over the federal agency's attempt to use Section 404 (c) of the Clean Water Act to place pre-emptive restrictions on permits needed to develop a mine at the Pebble copper-gold-molybdenum project in Southwest Alaska. The federal court where the lawsuit was being heard granted a stay of proceedings until May 4 to provide Pebble and EPA time to settle the dispute outside of the courtroom. While the parties where near to an agreement by May 4, they asked the federal court for a one-week extension of the stay to finalize the details. "A great deal of common ground has been established between the parties, including on the importance of upholding the rule of law when it comes to administering statutorily mandated processes under the Clean Water Act, the National Environmental Policy Act and other federal statutes. On that basis, we anticipate achieving a resolution to these matters next week," explained Pebble Partnership CEO Tom Collier. While sources tell Mining News that a resolution remains on track for this week, the negotiated settlement was not finalized before going to press on May 11. ●

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NORTHERN NEIGHBORS

which have properties that make them important minerals in a number of modern applications including solar cells, infrared optics, LEDs, semiconductors and smartphones. Germanium was recovered by Cominco when the historical Pine Point Mine was in operation from 1964-1987. It is not currently known whether these elements will be economically recoverable due to the limited capacity of zinc smelters worldwide to recover them. Germanium currently sells for around C$1.10 per gram for the refined metal and is mainly used in fiber and infrared optics. Gallium currently sells for about C30 cents per gram and is used primarily in semiconductors. W85 is one of 10 deposits considered in a preliminary economic assessment completed for Darnley Bay in April. Based on the currently identified resources, this PEA anticipates that a newly established Pine Point Mine could produce 1.35 billion pounds of zinc and 536 million pounds of lead over a 13-year mine life. A C$5 million program being carried out by Darnley Bay this year aims to confirm and possibly expand known historical deposits that were not included in the PEA, test undrilled geophysical anomalies, and obtain metallurgical samples in order to improve recoveries. Estimated recoveries in the PEA were lower than historically obtained by Cominco and Darnley Bay expects that additional testing will improve recoveries in the final feasibility study. The company is also preparing to start a large geophysical program, consisting mainly induced polarization surveys, on underexplored portions of the Pine Point property. The company said many of the more than 100 deposits discovered in the past were discovered by drilling IP anomalies. The company plans to follow up on any new anomalies discovered by this geophysical work with drilling. "Historically, the 50 open pit deposits mined out by Cominco were in the range of 10 percent combined lead and zinc," said Darnley Bay President and CEO Jamie Levy. "Our goal with the 2017 program is to find more of these high grade deposits which would significantly improve the already robust economics at Pine Point."

Kivalliq acquires NU gold project

Kivalliq Energy Corp. May 8 said it has cut deals with Nunavut Tunngavik Inc., a group that oversees Inuit land claims in Nunavut, and Commander Resources Ltd. to acquire the Baffin Gold property, a 408,982-hectare (1 million acres) land package that blankets the Foxe Fold greenstone belt on Baffin Island, Nunavut. BHP-Billiton, Falconbridge, Commander Resources and AngloGold Ashanti completed more than C$25 million of exploration on this property over a decade starting in 2001. This work includes drilling 158 holes at four prospects on the property. Highlights from this work include 4.2 meters of 21.3 grams per metric ton gold; 4.5 meters of 10.2 g/t gold and 6 meters of 9.2 g/t gold. "Our team will benefit greatly from the significant exploration expenditures from previous operators, which generated extremely high-grade gold numbers at exploration targets that also exhibited potential for significant size and scale," said Kivalliq Energy CEO Jim Paterson. In recent years, Kivalliq has been focused on exploration of two northern Canada uranium properties, Angilak in Nunavut and Hatchet Lake in northern Saskatchewan. "We feel the combination of the Baffin Gold project's key attributes, including: low entry cost; high potential for discovery and expansion of known gold zones; in a mining friendly jurisdiction, make this a highly valuable acquisition for the shareholders of Kivalliq. Our group has multi-decades of experience running successful northern projects and the Baffin Gold property is a great addition to the Kivalliq portfolio," Paterson added. ●

EXPLORATION & PRODUCTION

All tundra travel is closed for season

Federal and state agencies have closed all winter off-road tundra travel north of the Brooks Range for the season.

On May 5 the Bureau of Land Management closed overland tundra travel in the National Petroleum Reserve-Alaska. And on May 9 the Alaska Department of Natural Resources closed the eastern and western coastal areas of state land. The upper foothills area of state land closed on May 3 while the lower foothills area has remained closed all winter because of insufficient snow cover.

DNR says that, while snow quality can be good in localized areas, the snow cover is now very variable. And air temperatures are continuing to warm, with clear skies enabling the sun to compromise the snow pack. The agency says that summer off-road travel may commence on July 15 for operators with appropriate permits for the use of vehicles approved for off-road use on the tundra.

Unlike the state, which sets opening and closing dates for tundra travel based on parameters for ground temperatures and snow cover, BLM issues federal off-road permits for NPR-A on a case-by-case basis, using performance based standards for protecting the tundra. But, while BLM's approach does not require the agency to set any specific start date for winter tundra travel, the agency's regulations do require the agency to set an end-date, by which off-road operations must finish for the season.

—ALAN BAILEY

● ENVIRONMENT & SAFETY

ADEC issues platform incident final report

By ALAN BAILEY
Petroleum News

The Alaska Department of Environmental Conservation has issued a final situation report on the April 1 oil spill incident at Hilcorp's Anna platform in Cook Inlet. The report says that an estimated three gallons or less of natural gas condensate were released to the environment and that the condensate originated from the platform's gas flaring system. Hilcorp is taking corrective action to prevent a similar discharge in the future, the report says.

On April 1 the company shut down crude oil production from the Anna platform in its Granite Point field after personnel on the platform felt an impact and observed a sheen and bubbles near one of the platform legs where an eight-inch crude gathering line between the Anna and Bruce platforms is located.

The unified command for the incident stood down a couple of days after the incident occurred, once it had been established that no further oil sheening from spilled fluids could be observed in the water near the platform.

Investigation

At first blush it appeared that a leak in the pipeline had caused the problem. As a consequence, oil was removed from the line and the line was shut in. However, pressure testing of the line and an inspection by divers demonstrated that the line was, in fact, intact. A subsequent investigation by Hilcorp determined that the spilled fluid had originated from the Anna platform's fuel gas flare system during maintenance of this system. When ice jolted the platform, the fluid had been knocked out of the system and into the water of the inlet, Hilcorp said.

Hilcorp has said that in future it will prevent a recurrence of the problem by using a different source of gas for the flare's pilot when conducting flare system maintenance.

According to ADEC's situation report, Hilcorp has said that the gas feed line that the company had been using during the flare system maintenance can hold a maximum of eight gallons of fluid and that five gallons of fluid had been removed from the line following the spill incident. That would have left a maximum of three gallons of fluid for the spill, ADEC reported.

Restart authorized

Following clarification of the cause of the incident, on April 28 ADEC authorized the restart of the Anna platform and its associated subsea oil pipeline. However, the

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PIPELINES & DOWNSTREAM

Pipeline safety violation penalties increase

The Pipeline and Hazardous Materials Safety Administration has increased the penalties that it levies for violations of federal pipeline safety law. The increases in the penalties reflect a mandate to adjust the penalties annually to account for changes in inflation, the agency says.

The maximum civil penalty for a single violation has increased from $205,638 to $209,002 for each day a violation continues, with the maximum penalty for a series of related violations increasing from $2,056,380 to $2,090,022. The maximum penalty for a violation concerning employee protections has increased from $1,194 to $1,214, and for a violation concerning liquefied natural gas operations from $75,123 to $76,352. According to the Federal Register entry for the new penalties, federal law allows PHMSA to increase the penalties in line with inflation without public comment on the changes.

—ALAN BAILEY

First maintenance shutdown of the year

Alyeska Pipeline Service Co. performed an 18-hour major maintenance shutdown of the trans-Alaska oil pipeline beginning 6 a.m. May 6, the first shutdown of the year.

Projects scheduled for the shutdown included isolation of below-ground piping at the Valdez Marine Terminal for internal integrity inspection using new technology; confirming functionality of newly installed control systems; and routine maintenance on electrical and mechanical systems at various pump stations.

Alyeska said other project and major maintenance work is planned for upcoming months during a subsequent 18-hour shutdown and multiple short-duration shutdowns that will last up to 10 hours.

Alyeska said other project and major maintenance work is planned for upcoming months during a subsequent 18-hour shutdown and multiple short-duration shutdowns that will last up to 10 hours.

BP Exploration (Alaska) spokeswoman Dawn Patience told Petroleum News in an email that BP has a scheduled turnaround later this summer. Work will be at Gathering Center 1 and will be "focused on piping replacements, facility maintenance, vessel repairs and other improvement projects," with the temporary facility shutdowns allowing workers to safely work around equipment.

Hilcorp Alaska took advantage of the May shutdown of the pipeline. Spokeswoman Lori Nelson told Petroleum News Hilcorp "did planned maintenance on pumps, generators, valves and vessels and some required well work" which could be sheltered within the 18-hour showdown which required a 30 percent cut in production.

—KRISTEN NELSON

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THOMSON ACREAGE

all our investments and PTU does not compete in our portfolio with other projects," she said. The company will be focusing "on assets where we have more significant working interest," Lowman said.

At the Point Thomson initial participating area ConocoPhillips' ownership was 5 percent in 11 tracts and 3.5 percent in a 12th tract.

ExxonMobil, the Point Thomson operator, has the largest working interest ownership, 62.7 percent (prior to ConocoPhillips' exit) in 11 tracts and 46.3 percent in a 12th; BP, also prior to ConocoPhillips' exit, had a 32.3 percent interest in 11 tracts and a 22.7 percent interest in a 12th.

No PTE Pipeline interest

ConocoPhillips was not a partner in the PTE Pipeline, built to move Point Thomson condensate production to a connecting point with an existing line at Badami. PTE is owned by ExxonMobil Pipeline Co., 68 percent, and BP Transportation (Alaska) Inc., 32 percent. The line, built to carry 70,000 barrels per day, has the potential to serve other fields which might be developed on the eastern side of the North Slope.

ConocoPhillips joined the state of Alaska in protesting an initial tariff of $20.39 per barrel proposed by PTE Pipeline. The parties reached a settlement in September, providing for an initial rate through March 2017 of $17.56 per barrel and a rate of $12.09 per barrel beginning April 2017 and ending when PTE places a new rate in effect, but no later than July 1, 2019.

In initial protests the state called the proposed $20.39 rate "unjust, unreasonable and unlawful" and when it intervened ConocoPhillips noted that as a part owner at Point Thomson it would be a shipper and had a direct financial interest in the outcome of the tariff proceeding.

In approving the settlement in October, the Regulatory Commission of Alaska noted that the state, as a royalty interest owner and ConocoPhillips as a working interest owner, had interests "diverse from those of PTEP LLC."

When ConocoPhillips filed to intervene in November 2015 it said it would be a future shipper and "therefore has a direct financial interest in the outcome of the proceedings."

No connection to major gas project

ConocoPhillips said its decision to drop its working interest ownership at Point Thomson "is no reflection on our support for a state-led project to monetize NS gas. We have been and are still willing to make our gas available for sale at the wellhead."

In a joint letter to Gov. Bill Walker last September, in support of the Alaska Gasline Development Corp. taking the lead on a project to commercialize North Slope natural gas, BP and ConocoPhillips said "our affiliates have supported a State-led project by committing to make gas available to a viable ANS gas project through bilateral negotiations of mutually agreed, commercially reasonable terms."

The project, originally led by ExxonMobil, included BP, ConocoPhillips and the state in a joint effort to move North Slope natural gas to market through a liquefied natural gas project.

—KRISTEN NELSON

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Petroleum news

Oil Patch Bits

BP recognizes 29 Alaska teachers of excellence

BP said May 8, that it will again honor a select group of teachers from across Alaska for their exceptional performance in the classroom, dedication to students and contribution to the state's future.

Now in its 22nd year, the BP teachers of excellence program will recognize 29 Alaska teachers from across the state. These teachers will receive a $500 gift card and a $500 matching grant to their school. This year, the program attracted 1,000 nominations.

"These educators have changed lives of many young Alaskans, and the BP Teachers of Excellence program is our commitment to continuing investment in Alaska," said BP Alaska Regional President Janet Weiss. "We're honored to support outstanding teachers."

The program honors K-12 teachers from all school districts, including public and private schools. Since the program's inception in 1995, BP has recognized nearly 750 teachers for their dedication to teaching and inspiring students. This year the program will also honor five school staff members for their support of Alaska's teachers as BP Educational Allies. For the complete list of winners across the state visit: BPteachers.com

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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VON IMHOF Q&A

tor) Ken Alper, with DNR as well as other viewpoints of industry experts, people who are past tax folks, people who are associated with oil and gas but maybe not having a dog in the fight. So, we are trying to get everyone's viewpoints and do what I call vectoring. You go in the middle and see where opinions are landing at this point.

I also think the tax code is very complicated and to try to change anything in a couple of weeks is not fiscally responsible. It's been agreed upon all along by the governor, and the Senate and the House that tax credits — cashable tax credits — need to be addressed. There was never any discussion about addressing SB 21 and production taxes as a whole. If people want to do that, there needs to be a thought out committee over the interim made up of a variety of people and if that's the direction we want to go to, we need to take time and do it right. You have to have industry experts come in. We have our consultants, we have to make sure our consultants are involved whomever they may be and help with modeling.

The oil tax credits is what we need to be dealing with. The cashable credits. And that's it in my opinion.

Petroleum News: One of the criticisms of portions of SB 21 is that the state can't afford it. Do you see a bill ultimately emerging of something the state can afford?

Von Imhof: Just because you can doesn't necessarily mean that you should sometimes. We would have to have significantly higher prices in order to theoretically afford a cashable credit program, but I would argue that we may not want to do that anyway for a variety of reasons. I think that (consultant) Rich Ruggiero stated there is no other regime in the world that does cashable credits. So do we want to be an outlier on this? Does it make sense to be an outlier in this particular program? In some things you want to be a leader in a new movement. Sometimes you don't want to. I think in this particular instance, we are moving away from cashable credits and I would not urge that we go back to that program in the near future.

Petroleum News: It still looks like there will be a credit program of some kind.

Von Imhof: Yeah, per barrel credits. Net operating loss. Carry forwards. That's not necessarily cashable. It's an exchange for less revenue, which is a different funding mechanism. Rather than paying out a bunch of cash up front, we take less cash over time in revenue, depending on whether it's a full 100 percent or a discounted rate and how it relates to the per barrel credit.

Petroleum News: So, let's say you have a working group during the interim that examined other features of SB 21 that some are concerned about and others are not, who would make up this working group? The Senate had one a few years ago (to examine credits) but it was just the Senate and industry people.

Von Imhof: You know, I don't know because this is all kind of new to me. It would make sense to have people who have a variety of viewpoints but also with substantial experience in this area. We have people who can think three dimensionally and understand the cause and effects of a variety of decisions that interact with one another. (People) who actually have experience and can draw from that experience, this is what happened in the past when you have these combination of factors. Or using my experience in more of a global or national sense, if we do these combination of factors, I predict this will happen.

That's what we need. Those people are not a dime a dozen. They are specialists. We would have to look around and see both in-state and out of state. You have to be mindful of costs. I really don' know who those people are.

Petroleum News: So this group would be made up of the House and Senate and you would invite others to talk?

Von Imhof: That would make sense to me, yes. To be balanced.

Petroleum News: The other concerns that some had about SB 21 is hardening the floor. What are your thoughts on that?

Von Imhof: It's better for the state to harden the floor; however, at very low prices it can be difficult for companies who are generating cash losses and not necessarily booking losses and still having to still pay a tax. Having to balance that between legacy and new fields, with the theory that legacy fields are still making money at somewhat lower prices. Of course, there is a threshold with the cost of transportation. I think we are trying to be fair that if we do harden the floor, we are making it in a way that there are mechanisms that's fair to both the state and the producers within a certain type of price range.

Petroleum News: Let's switch subjects. I want to talk about the gas line as much as you're comfortable. What is your take right now on the gas line? You said you've learned about different segments of it whether it's standalone — ASAP — or AKLNG.

Von Imhof: I don't think you can force a project to happen out of sheer will if you're playing in a global environment, because you cannot force buyers to buy your gas at a certain price. You can control what you control and the governor is trying to do that to the degree that he can with becoming a tax exempt entity. I don't know how he's going to control the cost of actually building the line. Steel is what steel is and the permitting costs are what they are.

When Conoco is pulling out of Point Thomson, it's kind of worrisome. You kind of worry if that's an indicator. The governor has stated on the record that he is going to try to make a go or no-go decision or something along that line by year end, so we may be able to put this to rest one way or the other.

Petroleum News: What would you like to hear next from the administration on the gas line project that might help you?

Von Imhof: I sent an email out. When they (AGDC) came and spoke to us, I said if you're going to present to the Legislature in the future, your presentation needs to have these five big ticket items. You should have a full analysis and a model. There are five inputs: the FERC licensing; the global demand; the actual cost of the pipe itself; the cost of the LNG; financing. You should have a model and say, OK these are all the inputs that need to go into an Alaskan, 800-mile LNG project with all of the different LNG plants and compression plants. Your model should say we need to have rates at 3 percent and we need to have buyers at $7 (an mcf); we need to have 3 billion cubic feet coming down the pipe at any given time; we need to have the supply to be this amount to the demand will be this amount.

So you have to tell us all of the five inputs, the ranges by which it works, then you have to tell us are we at those ranges today? Can you manipulate them? What can you do to make those inputs work? Right now they are not telling us any of those key inputs as far as I can tell or it's just disjointed. Then we don't know what the ranges are and we don't know where we are today and how we are going to march to making the model work. So I sent all that out in an email and so we'll see what the next presentation is. Hopefully it will have those inputs. If I were a private industry person, that's what I would do.

Petroleum News: Are you at all heartened that China's president sought an audience with the governor during a stopover?

Von Imhof: No. It's the five factors that I just described. That's what going to make a difference. ●

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PLATFORM REPORT

agency required careful monitoring for any fluid leakage during the startup operation. The federal Pipeline and Hazardous Materials Safety Administration also approved the restart.

The ADEC report also says that on May 1 PHMSA withdrew its corrective action order for the incident, saying that PHMSA had conducted a thorough review of Hilcorp's documentation that characterized the fluid release as originating from components on the Anna platform, and not from a regulated flow line. ●

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MUSTANG

financed from cash flow rather than from debt or equity prior to the commencement of full production," Independent Non-Executive Chairman Ravinder Singh Grewal and then-Executive Director and CEO Dean Lloyd Gallegos wrote in an April 12, 2017, annual report for Alpha Energy Holdings Ltd.

In the report, Grewal and Gallegos noted that the joint venture was unlikely to resume drilling activities before the second half of 2017. They also noted that before drilling can resume, construction of the Mustang Operations Center must resume. According to the annual report, the joint venture is obligated to acquire the operations center by April 1, 2018, and "is currently in discussions with financial institutions in respect to this acquisition and additional funding to recommence and complete the MOC construction."

According to Alpha Energy, all long lead-time modules have been built. Construction on the facilities is approximately 40 percent completed, with some $85 million spent to date.

The company also noted that it had reclassified its Alaska tax credits in financial filings to account for uncertainty over budget negotiations and potential gubernatorial vetoes.

The Mustang project is the first development planned for the Southern Miluveach unit, which is located on state land at the western edge of the central North Slope.

Upcoming deadline

In addition to financial pressure, Brooks Range Petroleum is facing regulatory pressures.

A March 2017 report from DeGolyer and MacNaughton estimated that the Mustang field contained some 20.8 million gross barrels of 1P reserves, with an estimated 30 percent recovery rate.

Under its current terms, the Southern Miluveach unit will expire at the end of this year unless Brooks Range Petroleum begins production, proves that one of its previous wells is capable of producing economically or convinces the state to grant an extension.

The Southern Miluveach unit was originally set to expire on March 31, 2016. At that time, the state Division of Oil and Gas agreed to extend the terms until the end of 2017, in order to give the company time to resolve the geologic problems it had encountered.

In its most recent plan of development for the Southern Miluveach unit, submitted in late September 2016, Brooks Range Petroleum proposed a plan of work for bringing the Mustang field online by the end of this year. The plan called for installing cross-country pipelines, pipeline tie-ins and on-pad piles in the first half of 2017. The company expected to finish building its modules by July 2017 — installing the Alaska-built modules between April and September and the Canadian modules between August and October — and resume development drilling during the fourth quarter, with first oil in December.

In a late November 2017 decision approving the new plan of development, Acting Division of Oil and Gas Director James B. Beckham wrote, "While BRPC has committed to development activities that could result in production, the Division remains concerned that BRPC will be successful in completing these activities during the 4th (Plan of Development) period. BRPC has set forth a schedule to achieve first oil by December 2017. Based on the materials BRPC provided, it appears possible for BRPC to meet this deadline. But the schedule is extremely tight and leaves little room for deviation."

Beckham also referenced a private technical conference where Brooks Range Petroleum officials "identified two particularly critical milestones: completing the Alpine tie-in by end of the winter season and completing third party studies regarding Kuparuk C sands."

Beckham noted that in filings accompanying its plan of development, Brooks Range Petroleum said it "will be reluctant to return to any drilling at SMU" without those third party studies. But at the conference, company officials said they might drill the first three wells before the studies were complete. During the conference, the company also "described financial hurdles" as it pursued the work described in its plan of development.

The concerns of the division were "particularly acute," according to Beckham, because of the upcoming unit expiration at the end of the year. To save the unit from expiration, Brooks Range Petroleum would need to begin production or drill a well that the state certifies as capable of producing in paying quantities, Beckham wrote. Alternately, the company would need to propose and get state approval for a new plan of exploration.

"The Division would like to see BRPC succeed with SMU," he wrote. "But the tight schedule, impending unit expiration, and concerns BRPC has raised with technical issues and financing cause the Division to question the likelihood of success." Even with those concerns, he approved the plan because it "set forth a possible path toward production."

In its annual report, Alpha Energy acknowledged the deadline for bringing Mustang into production by the end of the year. But, the company also noted, "the Alaskan State laws, however, contain certain provisions which allow the Group to seek approval for the renewal of the term prior to its expiration or rectify the default over a cure period."

Ups and downs

The Mustang project has some unique advantages and challenges.

A March 2017 report from DeGolyer and MacNaughton estimated that the Mustang field contained some 20.8 million gross barrels of 1P reserves, with an estimated 30 percent recovery rate. The report also estimated 2P reserves of 33.3 million barrels at 35 percent recovery and 3P reserves of 38.1 million barrels at 40 percent recovery for the field.

While those figures are relatively small by the standards of existing North Slope developments and recent North Slope discoveries, they are sizable given the location of the field. The Southern Miluveach unit is adjacent to the southeastern boundary of the Kuparuk River unit, making it only about 650 feet from the Alpine Oil Pipeline.

With help from the Alaska Industrial Development and Export Authority, Brooks Range Petroleum has already built a 4.3-mile gravel access road and a 17-acre drilling pad. The public corporation was also an important financier for the Mustang Operations Center.

The road and the eventual processing center were designed to be pieces of regional infrastructure. With other potential development projects nearby, particularly the Placer development operated by ASRC Exploration LLC, the Mustang facilities are well positioned to serve other operators and potential earn revenue through facility sharing.

But the strategic location of the Southern Miluveach unit is offset by the complexity of its geology. The proved reserves at Mustang are contained in 11 fault blocks. The current plan calls for drilling horizontal producers into each of the blocks and vertical injectors.

The geology presented a challenge for Brooks Range Petroleum during the first attempt at development. The company drilled three development wells at Mustang in 2015.

The program started with the SMU No. 2 (Lipizzan) well in early 2015. The well reached target depth and was completed and cased as planned, according to Alpha Energy.

The second well, SMU No. 3 (Shamrock) also reached target depth. But while surface casing was successful, shale and sand incursion from higher-than-expected pressures prevented the company from installing intermediate casing. The company plugged the well back to the surface casing with the plan of reuse the top of the wellbore at a future date.

In June 2015, the company tried to use the surface and intermediate portions of the SMU No. 1 (Mustang lateral) well to drill a 5,800-foot horizontal lateral for production. But underground pressure prevented the company from being able to complete the project.

The disappointing results of the program forced Brooks Range Petroleum to launch a review of its operations, leading to a decision to upgrade drilling equipment.

In the exploration phase of the project, Brooks Range Petroleum drilled the North

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HILCORP PIPELINE

the inlet. He commented that Hilcorp's new pipeline proposal demonstrates his company's long-term commitment to the Cook Inlet.

"We see much more development in the Cook Inlet. Many more drill wells. And we see decades worth of production in the Cook Inlet and we're going to re-invest in the Cook Inlet," Wilkins said.

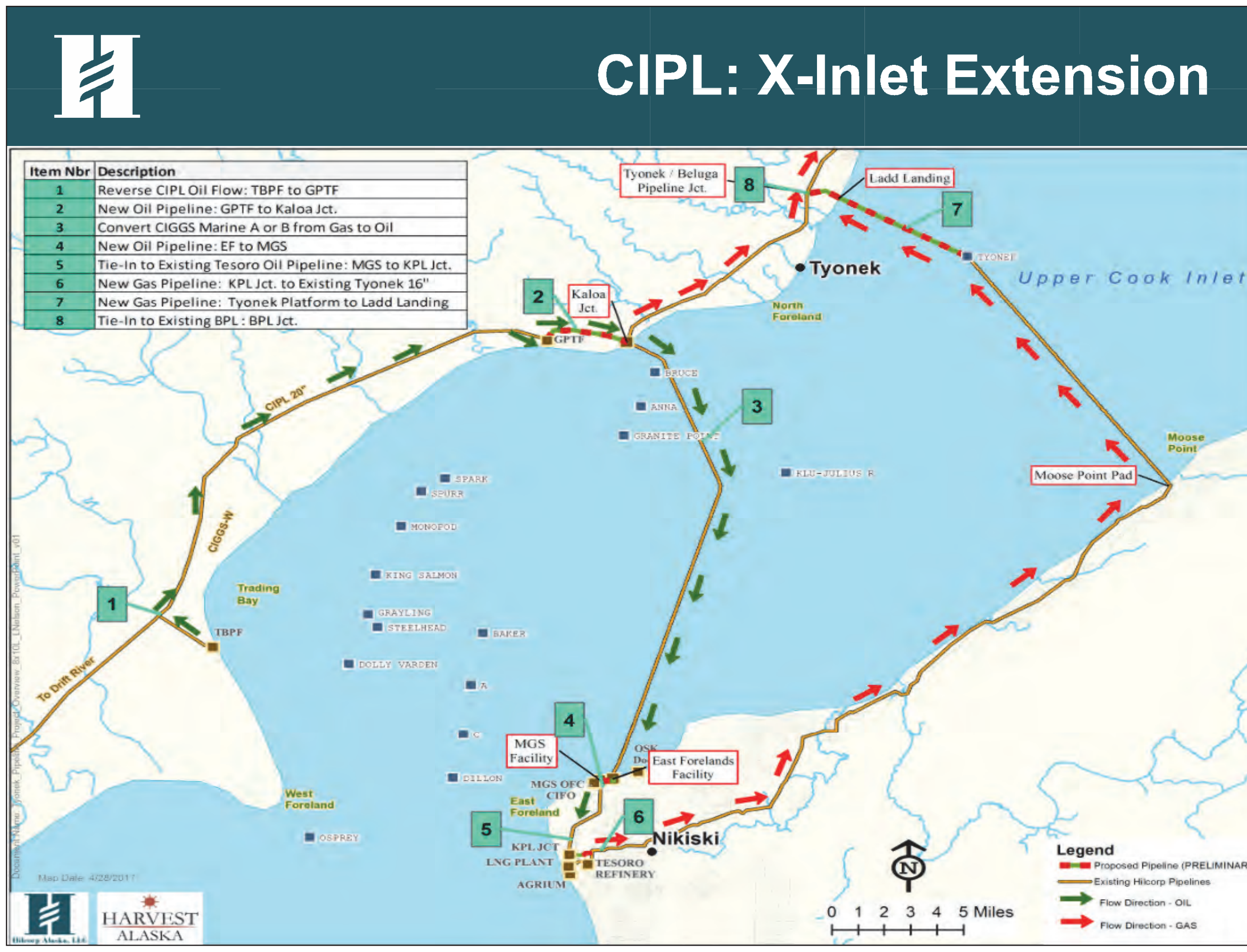
Convert a CIGGS line

The $75 million pipeline project would involve converting one of the twin pipelines of the existing Cook Inlet Gas Gathering System to the carriage of oil and building a new relatively short subsea gas pipeline across the northern part of the inlet from the Tyonek platform to Ladd Landing, north of the village of Tyonek. An existing gas pipeline that connects the platform to Nikiski on the Kenai Peninsula would then enable the transmission of gas all the way across the northern part of the inlet, into the existing Beluga gas transmission pipeline on the west side of the inlet.

The planned oil pipeline arrangements will require the construction of two new, short pipeline segments, one to connect the northern end of the existing Cook Inlet Pipeline on the west side of the inlet to the northern end of the CIGGS line that is earmarked for oil transportation, and one to connect the southern end of the CIGGS line at East Foreland to the line that feeds oil to the Tesoro oil refinery, Richard Novcaski, Alaska operations manager for Harvest Alaska, Hilcorp Energy's Alaska pipeline subsidiary, has told Petroleum News.

To bring the new arrangements into operation, potentially in the fall of 2018, the direction of flow through the Cook Inlet Pipeline will need to be reversed, switching from southward flow to northward flow, Novcaski said. Once the new flow regime is in operation, Hilcorp plans to decommission the Drift River terminal and the section of the Cook Inlet Pipeline that connects to the terminal. Decommissioning will involve removing all hydrocarbons from the facilities, Novcaski said.

The pipeline plan comes as part of Hilcorp's program of investment in Cook Inlet, upgrading the infrastructure and making the infrastructure more efficient, Novcaski said. After evaluating several possibilities for improving the transportation of Cook Inlet oil, Hilcorp's recent acquisition from ConocoPhillips of the Tyonek platform has provided the opportunity to pursue the pipeline configuration that Hilcorp now plans. And the new oil pipeline arrangements will reduce oil transportation costs, Novcaski said.



Hilcorp spokeswoman Lori Nelson told Petroleum News that, following upgrades to the Drift River Terminal after Hilcorp entered the Cook Inlet oil industry a few years ago, the company had committed to the Cook Inlet Regional Citizens Advisory Council to, within five years, start evaluating other options for transporting oil across the inlet. The new pipeline proposal follows up on that commitment, Nelson said.

A safe proposal

A recent gas leak from a subsea fuel gas line associated with the Middle Ground Shoal oil field on the east side of the inlet has raised concerns about the condition of the subsea pipelines in the inlet. But the CIGGS lines under the inlet were built in the mid-1980s, more recently than the older Cook Inlet infrastructure, Novcaski said. Moreover, Hilcorp has been able to regularly check the condition of the CIGGS lines using instrumented pigs that travel inside the lines. With a good history of stability, the pipelines are known to be in excellent condition, Novcaski said. And the lines, being gas lines, were designed to withstand higher pressures than are involved in the transportation of oil. The lines are not impacted by abrasion issues on the seafloor, as was the case with the leaking gas line, Novcaski said.

Moreover, Hilcorp has recently upgraded to a new state-of-the-art leak detection system for its Cook Inlet oil pipelines, he said.

Novcaski also pointed out that using an existing pipeline, rather than building a new oil pipeline, eliminates uncertainty associated with subsea stability for a new line. And the use of a pipeline for shipping oil across the inlet will eliminate the risks associated with carrying the oil by tanker in waters with strong tidal currents and that are impacted by sea ice in the winter. Tankers from Drift River offload oil at the Nikiski dock, near to where the Tesoro refinery is located.

Splitting the existing subsea gas transmission under the Inlet into two pipelines several miles apart can also improve the reliability of the transmission system, Novcaski said. Moreover, bringing the pipeline from the Tyonek platform under regulation could bring new opportunities for gas development in the northwestern Kenai Peninsula, he commented.

Gas transportation capacity

The east to west transportation of gas under Cook Inlet has become vital to Southcentral gas and power utilities, especially in the winter. The transmission of gas through the Tyonek pipeline and the new pipeline to Ladd Landing will, in effect, replace the transmission of gas through the CIGGS line that will be switched to oil transportation, thus enabling the east-west gas transportation capacity to be maintained. And, with the compressors used to push gas east to west through the pipeline system being upstream of the junction on the Kenai Peninsula between the Tyonek line and the Kenai Beluga Pipeline system that includes the CIGGS lines, Hilcorp anticipates being able to continue to maintain the required maximum gas transportation rates across the inlet, Novcaski said.

Existing arrangements enabling gas flow in either direction under the inlet, not just east to west, will also be maintained, he said.

However, the changes to the pipeline configurations and usage will require approval by the Regulatory Commission of Alaska. Hilcorp will ask the commission to approve a gas capacity exchange between the converted CIGGS line and the new pipeline arrangement via the Tyonek platform, Novcaski said. ●

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AIR QUALITY

Wood stove use

The air quality issue arises primarily because of the widespread use of wood stoves to heat houses during the winter in the Fairbanks area, given the high cost of alternative forms of heating. During severe cold weather, thermal inversions tend to trap the fine particulates from wood smoke close to ground level, causing people to inhale the polluted air.

Unfortunately, the thermal inversions that exacerbate the problem occur at times when heating is most needed.

"Fairbanks North Star Borough faces an especially difficult challenge of meeting existing pollution standards for a number of reasons including a high reliance on wood stoves and wood heaters to stay warm," said Tim Hamlin, director of EPA's Region 10 Office of Air and Waste, on May 1 when announcing the raising of the Fairbanks air quality classification. "We recognize their challenges and will work closely with the State of Alaska and the borough to find solutions that will achieve both clean, healthy air and warm homes."

EPA says that it is raising the Fairbanks air quality classification because the city had failed to meet federal air quality standards by the end of 2015, as originally required. Under the new classification the State of Alaska will need to submit a Fairbanks serious air quality plan to EPA by the end of this year — the state and the borough are currently developing a plan, with technical assistance and support from EPA, the EPA says. The plan must involve the adoption of the best available control measures and control technology, and demonstrate attainment of the required air quality standard by Dec. 31, 2019.

Interior Energy Project

A prime objective of the Alaska Industrial Development and Export Authority's Interior Energy Project is to address Fairbanks air quality problems by greatly expanding the use of natural gas for the heating of buildings in the city. That project is trying to establish a new gas supply at a workable price from the Cook Inlet basin, with the gas to be transported in liquefied form to Fairbanks. The gas in Fairbanks needs to be priced at a level that will motivate a significant number of households and businesses to convert to gas heating. The potential availability of low-cost financing for heating system conversions may help in this effort.

If people are burning wood for heat, the EPA suggests the use of dry wood in professionally installed, certified wood stoves, as a means of reducing particulate emissions through the complete burning of the wood at relatively high temperatures.

—ALAN BAILEY

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MUSTANG

Tarn No. 1 well and No. 1A sidetrack and the Mustang No. 1 well at the field. According to the Alpha Energy annual report, the company cased and plugged those vertical wells in such a way as to accommodate future re-entry, with the idea of potentially returning at some point to drill horizontal sections from the wells to accommodate oil production.

Ownership

When Brooks Range Petroleum announced the Mustang discovery in early 2012, company officials said they likely needed help bringing the field into production.

Help arrived in mid-2014, when JK E&P Group Pte. Ltd., Thyssen Petroleum North Slope Development LLC and MEP Alaska LLC acquired BRPC and a package of North Slope properties from Alaska Venture Capital Group and Ramshorn Investments Inc. for $450 million. Today, JK E&P subsidiary Caracol Petroleum LLC owns a 50 percent interest in Brooks Range Petroleum, TP North Slope Development LLC owns a 32.5 percent interest and MEP Alaska LLC owns a 15 percent interest. (The remaining 2.5 percent is unaccounted for in the Alaska corporations database, as of early May.)

Additional financial help came from AIDEA, which partly financed two infrastructure ventures at the unit in return for an interest in the leases at the Southern Miluveach unit.

Brooks Range Petroleum operates the unit on behalf of seven working interest owners: Caracol Petroleum LLC (36.28 percent), TP North Slope Development LLC (22.46 percent), AIDEA-subsidiary Mustang Operations Center 1 LLC (20 percent), MEP Alaska LLC (10.37 percent), Ramshorn Investment Inc. (6.08 percent), Alaska Venture Capital Group LLC (3.82 percent) and AIDEA-subsidiary Mustang Road LLC (1 percent).

Caracol Petroleum is a wholly owned subsidiary of JK North Slope LLC, which is in turn a wholly owned subsidiary of JK North Slope Group Inc Srl. JK North Slope Group is a wholly owned subsidiary of JK E&P Group Pte Ltd., which is in turn a wholly owned subsidiary of Alpha Energy Holdings Ltd. The parent companies are based in Singapore.

Although based in Singapore, the companies have a connection to Alaska.

Alpha Energy appointed Dean Gallegos to be its chief financial officer in September 2014 and promoted him to executive director and chief executive officer in January 2016.

Gallegos previously worked for the Australian independent Buccaneer Energy Ltd., which operated a range of exploration and development projects throughout the Cook Inlet region before filing for bankruptcy protection in mid-2014, about seven months after Gallegos left the company, according to his biography. Buccaneer also partnered with AIDEA on infrastructure financing, particularly the acquisition of a jack-up rig.

According to a recent press release from Alpha Energy, Gallegos resigned his position as head of Alpha Energy on May 3, 2017, with an effective date in early August 2017. ●

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SABRE DEFERRED

concept of drilling vertically from a jack-up rig. The planned well location is about 3.5 miles east of the onshore Trading Bay production facility, towards the northern edge of the Cook Inlet Energy-operated West McArthur River unit. Cook Inlet Energy had previously indicated the eventual possibility of a six-well development. The nearby Sword No. 1 well, also in the West McArthur River unit, went into production in November 2013.

Oil and gas potential

Giesler said that the Sabre prospect has both oil and gas potential, with the possibility that development of the prospect would make a step change to the Cook Inlet oil and gas industries. The idea of drilling vertically from the jack-up rig is to enable the testing for a gas cap above the oil pool — drilling directionally from shore would have only tested for oil.

The project is definitely viable under the current production tax structure, although the price of oil also obviously plays into the project economics, Giesler said.

Giesler commented that he empathizes with the state's governor and legislators over the fiscal predicament that they are grappling with. But uncertainty over future tax arrangements causes the providers of capital to hesitate over commitments to investments.

"One of the consequences, whether it is intended or not, is that it certainly causes pause in investment, and the Sabre project is a reflection of that," he said.

One concern with the delay in the project is the continued availability of a jack-up rig to conduct the drilling. Currently there are two jack-ups in the Cook Inlet region, the Spartan rig and the Randolf Yost rig that Furie Operating Alaska is using for drilling in the Kitchen Lights unit. The longer the Spartan rig sits idle, unused, the greater the incentive for the rig owner to pull the rig from the region, Giesler said.

The deferral of the Sabre well drilling was originally reported by the Alaska Dispatch News. ●

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