

Vol. 25, No. 14 • www.PetroleumNews.com

A weekly oil & gas newspaper based in Anchorage, Alaska

Week of April 5, 2020 • \$2.50

10 wells target Ugnu reservoir

Last ERD rig module moves to Alpine to drill Fiord West; more

ON MARCH 27 THE LAST PIECE of the big extended reach drilling rig, Doyon 26, left Deadhorse for the CD2 pad in the Colville River unit northwest of the main Alpine field. The derrick and floor section were pulled by three big haul trucks cabled together (see photo in pdf and print versions of this issue).



After the rig is assembled in late April it

will target the Fiord West Kuparuk reservoir for its initial wells. Discovered in 1996, Fiord West has not been developed by its operator, ConocoPhillips, because it's in an environmentally sensitive area along the coast and couldn't be

see **INSIDER** page 11

AIDEA modifies BlueCrest loan; price rout spurs interest-only year

The Alaska Industrial Development and Export Authority board unanimously approved a loan modification for BlueCrest Energy Inc. during a special meeting March 27.

The modification allows for a forbearance of principal payments for 12 months, effective as of the April 1, 2020, payment date through the March 1, 2021, payment date. Following the interest-only J. BENJAMIN JOHNSON

payment period, the amortization period and maturity date for the loan will be extended for one year.

see **BLUECREST LOAN** page 8

Oil Search lays off just 8 in Alaska, versus 92 or so in Sydney

Oil Search Alaska spokeswoman Amy Burnett told Petroleum News March 31 that eight of the 100 or so employees being laid off were attached to the Alaska business unit. None of them were members of the Alaska leadership team.

Due to the reduction in work programs and the uncertain oil price outlook, parent Oil Search Ltd. said March 27 that it made the decision to reduce its **BRUCE DINGEMAN** combined headcount in Sydney and



EXPLORATION & PRODUCTION **Stellar results**

Testing of Nanushuk reservoirs at Oil Search's North Slope wells encouraging

By KAY CASHMAN

Petroleum News

he well tests released by Oil Search L on March 31 for its North Slope Mitquq and Stirrup prospects were very encouraging, said Keiran Wulff, the company's managing director. The wells were drilled during this winter's off-road exploration season.

The results were for the Nanushuk reservoirs encountered in the Mitquq 1 ST1 and the Stirrup 1 exploration wells.

Mitquq 1 ST1, a sidetrack from the Mitquq 1 oil discovery, is 5.6 miles east of the proposed central processing facility of the Pikka unit development



see WELL TESTS page 10

• EXPLORATION & PRODUCTION **Prudhoe drilling ends**

BP worker tests positive for COVID-19; company ends development drilling for '20

By KRISTEN NELSON

Prudhoe Bay worker has tested positive for COVID-19 and field operator BP Exploration (Alaska) is pulling back to essential workers only at the field and ending development drilling for 2020.

In its annual progress report and 2020 plan of Natural Resources' Division of Oil and Gas posted March 26, BP said it expected to drill four to seven wells with a rotary rig and 15 to 20 wells with a coil tubing rig.

The positive COVID-19 test at Prudhoe was

"Our response to the COVID virus has not impacted production," ConocoPhillips said.

announced March 31.

BP Exploration (Alaska) spokeswoman Megan Baldino said the company confirms that a worker at Prudhoe Bay tested positive, and said BP is "following procedures and protocols to minimize" risk from the virus "and ensure the safety of our people."

All non-essential activity on the Slope is being eliminated, she said in an April 1 email.



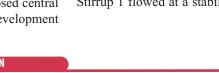
west of the central North Slope. It encountered a net pay zone of 172

feet with a gas cap of 29 feet. On test, the well flowed at a stabilized rate of 1,730 barrels of oil per day from a single stim-

ulated zone. Oil Search said a high quality oil in a deeper reservoir at Mitquq was also discovered but not tested.

The Stirrup 1 exploration well, approximately 7.5 miles west of the 2017

Horseshoe discovery well and 22 miles southwest of the proposed Pikka development, encountered an oil column with net pay of 75 feet. On test, Stirrup 1 flowed at a stabilized rate of 3,520 bopd



Petroleum News

development update, which the Department of

Anchorage by approximately 100 people. Prior to the eight layoffs, Oil Search Alaska staff numbered 151.

see OIL SEARCH LAYOFFS page 8

AOGCC reduces AIX bonding from \$1.6 million to \$200,000

The Alaska Oil and Gas Conservation Commission has issued its first ruling on a bond reconsideration request, reducing the bonding required for four AIX Energy wells at the Kenai Loop field from \$1.6 million to \$200,000.

The commission had increased AIX's bonding from \$200,000 (the old requirement for more than one well) to \$1.6 million based on its new regulations, which went into effect in May, and set bonding at \$400,000 per well for one to 10 wells.

In July, AIX requested a reduction to \$1,037,166, based on a third-party engineering cost estimate to plug and abandon its four gas wells.

In August, AIX requested reconsideration based on other

see AIX BONDING page 9

Keystone XL gets go-ahead

Construction in full swing on giant pipeline; Alberta government takes equity stake

By GARY PARK

For Petroleum News

nderpinned by a major financial commitment from the Alberta government, TC Energy has stunned observers by announcing that the Keystone XL pipeline will emerge from 10-years of regulatory twists and turns and has already launched construction work towards a completion RUSS GIRLING date in mid-2023.

The US\$8 billion project is now scheduled to start delivering 830,000 barrels per day of oil sands bitumen over 1,210 miles from Alberta to Steele City, Nebraska, for onward delivery on an existing pipeline to U.S. Gulf Coast refineries, the largest concentration



of heavy crude refineries in the world.

The Alberta government has agreed to invest US\$1.1 billion in equity, which covers planned construction costs for the rest of 2020.

The remaining US\$6.9 billion of capital investment is expected to cover costs in 2021 and 2022 and be funded through a combination of a credit facility of US\$4.2 billion guaranteed by the Alberta government and a US\$2.7 billion investment by

TC Energy (formerly TransCanada).

TC Energy has already spent C\$6 billion advancing the project, said Alberta Premier Jason Kenney.

He said his government's decision to cover the

see **KEYSTONE XL** page 11

• ENVIRONMENT & SAFETY

UAA publishes virus infection model

Analysis projects potential COVID-19 infection trends in Alaska, based on different policies for slowing the infection spread

By ALAN BAILEY

Petroleum News

A research team in the University of Alaska Anchorage has published the results of modeling of the potential spread of COVID-19 infections in Alaska. The team conducted the study in response to a request from the Municipality of Anchorage — the municipality is seeking data that can enable effective policies to deal with the pandemic.

"Quality data and quality data analysis allow us to project the course of the of the outbreak, so we can put forward appropriate policy and deploy resources in the most effective manner," said Anchorage Mayor Ethan Berkowitz. "The UAA modeling team gathered data, synthesized best practice modeling and provided critical analysis. We will continue to work with them to inform decisions moving forward, and are appreciative that we can share this information and methodology with the governor and the state team, so that municipal and state As a consequence of their findings, the researchers recommended the urgent need for the implementation of some additional virus containment measures, including mandated shelter in place and narrower definitions of what constitutes essential businesses.

actions are coordinated in the time ahead."

Publicly available model

Using a publicly available model for projecting the infection spread, based on available data relating to the properties of the virus, and using current data regarding infections in Alaska, the team was able to construct future scenarios, based on different policies for limiting the rate of spread of infections.

"These mathematical models — along with the experience of other cities and countries around the world — show us how quickly this virus can spread," said research team leader Dr. Tom Hennessy. "What we're seeing is that if we do too little, we will overwhelm our hospitals and break our healthcare system. To save lives, we need to do as much as we can, as soon as we can, to prevent the spread of COVID-19 in Alaska."

Essentially, infections from a virus such as COVID-19 typically increase exponentially, as one infection causes several other people to become infected. Left unchecked, this rapid and escalating rise in infections can overwhelm the capacity of the health care system to deal with serious, potentially fatal cases. If the rate of infection from one person to others can be reduced, the rate of infection increase can be slowed, thus lowering the number of serious cases that need to be dealt with at any specific time.

Four scenarios

The UAA team modeled the potential spread of infec-

see INFECTION MODEL page 4

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Alaska-Mackenzie Rig Report

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status	The Alaska-Mackenzie Rig Report as of April 1, 2020. Active drilling companies only listed.
	Alaska	a Rig Status		TD = rigs equipped with top drive units WO = workover operations
	North	Slope - Onshore		CT = coiled tubing operation SCR = electric rig
Doyon Drilling Dreco 1250 UE	14 (SCR/TD)	Milne Point, M-43	Hilcorp	This rig report was prepared by Marti Reeve
Dreco 1000 UE	16 (SCR/TD)	Standby		
Dreco D2000 Uebd AC Mobile	19 (SCR/TD) 25	Kuparuk, 3H-37 Alpine, CD5-90	ConocoPhillips ConocoPhillips	
OIME 2000	141 (SCR/TD)	Alpine, Tinmiaq-18	ConocoPhillips	
	142 (SCR/TD)	NPRA, Harpoon-2	ConocoPhillips	
TSM 700	Arctic Fox #1	Standby		
Hilcorp Alaska LLC	Rig No.1	Milne Point	Hilcorp Alaska LLC	
Kuukpik Drilling	5	Deadhorse	Available	
Nabors Alaska Drilling				
AC Coil Hybrid	CDR-2 (CTD)	Deadhorse, 01-23A	BP	
AC Coil	CDR-3 (CTD)	Kuparuk, 30-04	ConocoPhillips Oil Coarsh	
Dreco 1000 UE Mid-Continental U36A	7-ES (SCR-TD) 3-S	Kuparuk, Cold Stacked Stacked	Oil Search Available	
Dilwell 700 E	4-ES (SCR)	Stacked	Available	
Dreco 1000 UE	9-ES (SCR/TD)	Stacked	ConocoPhillips	
Dilwell 2000 Hercules Dilwell 2000 Hercules	14-E (SCR) 16-E (SCR/TD)	Deadhorse Stacked	Available Brooks Range Petroleum	
Dilwell 2000 Canrig 1050E	27-E (SCR-TD)	Stacked	Glacier Oil & Gas	
Dilwell 2000	33-E	Deadhorse	Available	
Academy AC Electric CANRIG DIME 2000		Stacked) 12 Acre Pad, stacked	Repsol ENI	BELINT IGNIAL
Academy AC electric CANRIG			Oil Search	
Academy AC electric Heli-Rig	106AC (AC-TD)		Great Bear Petroleum	
Nordic Calista Services				
Superior 700 UE	1 (SCR/CTD)	Deadhorse	Available	
Superior 700 UE	2 (SCR/CTD)	Deadhorse, stacked	Available	
deco 900 Rig Master 1500AC	3 (SCR/TD) 4 (AC/TD)	Charlie #1 Oliktok Point	Accumulate Energy Alaska ENI	
ing master i Sourc			LINI	
Parker Drilling Arctic Operating				
NOV ADS-10SD NOV ADS-10SD	272 273	Prudhoe Bay, J-31 Stacked in Deadhorse	BP Available	
	270			
	North	Slope - Offshore		
BP Top Drive, supersized	Liberty rig	Inactive	BP	
Doyon Drilling Sky top Brewster NE-12	15 (SCR/TD)	Standby		
Nabors Alaska Drilling				
OIME 1000	19AC (AC-TD)	Oooguruk Phase 1	ENI	
	Cook Inl	et Basin – Onshore		
BlueCrest Alaska Operating LLC Land Rig	: BlueCrest Rig #1	Stacked Blue	Crest Alaska Operating LLC	
Glacier Oil & Gas	Rig 37	West McArthur River Unit Work	over Glacier Oil & Gas	
All American Oilfield LLC				
DECO H-37	AAO 111	Stacked in the Peak yard	Available	
Hilcorp Alaska LLC	4 47			
TSM-850 TSM-850	147 169	Stacked Stacked	Hilcorp Alaska LLC Hilcorp Alaska LLC	
				the second secon
	COOK IN	et Basin – Offshore		
Hilcorp Alaska LLC National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC	
	C (1D) Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC Hilcorp Alaska LLC	Baker Hughes North America rotary rig counts*
	Rig 56	Monopod A-13, stacked	Hilcorp Alaska LLC	March 27 March 20 Year Ago
Nordic Calista Services				United States 728 772 1,006
Land Rig	36 (TD)	Kenai, stacked	Available	Canada 54 98 88 Gulf of Mexico 18 19 23
Spartan Drilling				
Baker Marine ILC-Skidoff, jack	-up	Spartan 151, stacked at Rig Ten		Highest/Lowest
Furie Operating Alaska		where pre mobilization work is l	being performed	US/Highest 4530 December 1981
Randolf Yost jack-up		Nikiski, OSK dock	Available	US/Lowest 404 May 2016 *Issued by Baker Hughes since 1944
Glacier Oil & Gas				
National 1320	35	Osprey Platform, activated	Glacier Oil & Gas	The Alaska-Mackenzie Rig Report
_				is sponsored by:
	Mackenz	zie Rig Status		
	Canadi	an Beaufort Sea		A
C Drilling Inc.				
DC CANMAR Island Rig #2 S	DC -	et down at Roland Bay	Available	A R M S T R O N G



ANNOUNCEMENT

Alaska Materials selected by Diamond Grid USA

ANCHORAGE: Alaska Materials president John Horjes, has announced a "Master Distribution Agreement" with Diamond Grid USA. The agreement is exclusive to develop the State of Alaska, and provides an open door to further development in the lower 48 states.

Horjes stated, "this is an example of how Alaska Materials serves as a platform for strategic alliances, and new product development. We will best serve Alaska and Diamond Grid through distribution, and work with the many companies already here in Alaska."

Diamond Grid is "Made In USA", other countries, and is a Global Market Leader in Surface Stabilization and Erosion Control Systems. Founded in Australia, their clients include the three largest mining companies in Australia, leading construction companies, and government entities. Since its beginnings, it's been a natural progression that Diamond Grid bring their high quality manufacturing, products, and services to the United States.

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EXPLORATION & PRODUCTION

DNR cancels tundra travel field season

Concerned with the safety of its staff and of people on the North Slope, in the face of the COVID-19 pandemic, the Alaska Department of Natural Resources has cancelled the remainder of its 2019-20 field season for monitoring snow conditions for off road winter tundra travel, DNR announced March 26.

DNR monitors the snow thickness and soil temperatures in state lands of the North Slope, to ensure that winter off-road travel and industrial operations do not damage the tundra. The agency opened the eastern and western coastal areas for this year's winter season on Jan. 8. The lower and upper foothills areas, to the south, have remained closed.

Normally, DNR continues monitoring surface snow and temperature conditions, eventually announcing the closure of off-road travel when the snow thins and soil temperatures rise to a point where the tundra is no longer adequately protected. But this year the agency says that it will depend on information from people conducting off-road operations, the use of webcams and the monitoring of weather forecasts to make tundra closure decisions. The agency says that it will be contacting operators, asking for information from snow observations.

"While this is not our preferred method for tundra closure, we believe we can still make appropriate decisions with your help," DNR wrote in a notification to operators.

The department also said that, in response to the pandemic, it is combining telecommuting with some office time, and that staff anticipate being available by telephone and email, as normal.

-ALAN BAILEY

continued from page 2 INFECTION MODEL

tions, starting with data for reported COVID-19 cases in Anchorage and the Matanuska-Susitna Borough through March 23. And the team modeled the impact of four different approaches to dealing with the spread of the virus: no action; the use of social distancing; the imposition of a shelter in place order; and the imposition of a lockdown order.

Social distancing would involve the possibility of population-wide testing of the virus, together with the quarantining of infected people. There would be public advocacy around social distancing behaviors, together with some school closures and bans on large gatherings. There would also be voluntary shelter arrangements for people at high risk from the effects of infection.

Shelter in place goes further, by mandating people to stay at home, except for certain activities such as critical employment, obtaining supplies, and exercising. Non-essential businesses would be closed. And violators of the orders could be fined.

In a lockdown, everyone would be subject to home quarantine, with nonessential travel banned, and with the state distributing food.

Model predictions

The modeling predicted that, under the no action scenario, new COVID-19 cases in the Anchorage/Matanuska-Susitna area would overwhelm the region's healthcare capacity within weeks. There could be up to 7,400 patients requiring hospital care, in a region with just over 982 hospital beds, the modeling determined. Social distancing would significantly reduce the number of hospitalizations required and would provide three to four weeks of preparation from March 25 for the influx of hospital patients. After that, current hospital capacity would be overwhelmed.

Currently Anchorage has policies similar to those assumed for the shelter in place scenario. Modeling of this scenario indicates that there would be fewer infection cases so long as the relevant mandates are in place. The infection rate would likely rebound, to far exceed hospital capacity, once the mandates are removed. However, the delay in the infection spike might provide time to increase the capacity of the healthcare system. And it is possible that the impacts of removing the mandates could be mitigated by reducing the restrictions a step at a time, rather than all at once, the researchers suggest.

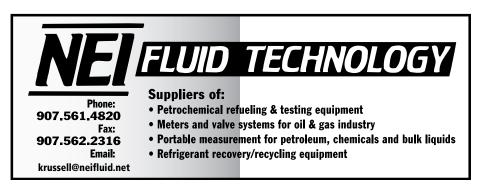
A lockdown scenario, on the other hand, would maintain hospitalizations at levels within the hospital capacity.

Adapting the model to the whole of Alaska, rather than just the Anchorage/Matanuska-Susitna region, showed similar results for the four scenarios, the researchers reported.

Recommendations

As a consequence of their findings, the researchers recommended the urgent need for the implementation of some additional virus containment measures, including mandated shelter in place and narrower definitions of what constitutes essential businesses. The closure of nonessential businesses needs to be enforced; non-essential workers should have to work from home; school closures need to be maintained; and non-essential travel to and within Alaska needs to be restricted. The quarantining of travelers entering Alaska needs to be coordinated between the state and local protocols. And there needs to be continued tracing of people who have contacted others who have been infected, with home quarantining of close contacts, the report says.

OWNER: Petroleum Newspapers of Alaska LLC (PNA) Petroleum News (ISSN 1544-3612) • Vol. 25, No. 14 • Week of April 5, 2020 Published weekly. Address: 5441 Old Seward, #3, Anchorage, AK 99518 (Please mail ALL correspondence to: P.O. Box 231647 Anchorage, AK 99523-1647) Subscription prices in U.S. — \$118.00 1 year, \$216.00 2 years Canada — \$206.00 1 year, \$375.00 2 years Overseas (sent air mail) — \$240.00 1 year, \$436.00 2 years "Periodicals postage paid at Anchorage, AK 99502-9986." POSTMASTER: Send address changes to Petroleum News, P.O. Box 231647 Anchorage, AK 99523-1647. Contact Alan Bailey at abailey@petroleumnews.com



• GOVERNMENT

Alberta's Kenney seeks joint action with US

Looking to combat 'predatory dumping' of Saudi crude; says 'unfriendly dictatorships' out to destroy continental energy sector

By GARY PARK

For Petroleum News

A lberta Premier Jason Kenney, faced with what he calls a "contraction" without precedent in his province's oil industry, has reached out to the U.S. government, congressional leaders and governors from oil-producing states to explore a "coordinated action" to end the price war between Saudi Arabia and Russia.

"If the Saudis and Russians continue this foolishness in the midst of a crash in demand, you will see these kinds of catastrophically low prices for some time," he said. Kenney said



options that could be

explored include tariffs on North American oil imports, a closed U.S.-Canadian oil market that bars shipments of crude from outside the continent, an investigation into dumping activity by OPEC and possible production curtailment.

"We cannot allow the Saudis and Russians to effectively run us out of business," he said. "We cannot let them win."

Given that Alberta accounts for only 3% of global production, Kenney conceded his province could be sideswiped by U.S. action to defend its own oil sector.

He is thus anxious to work in harmony with the U.S. government and industry.

His plea for attention from the U.S. occurred on the same day that Western Canadian Select, the heavy oil benchmark in Canada, dipped below US\$4 a barrel — US\$3 a barrel below the average costs of shipment and, as those still able to muster a light-hearted view observed, less than a cup of coffee or a pint of beer.

The consulting firm of Rystad Energy said more than 75% of Western Canada's storage capacity has been filled, forecasting



SAL

that producers in the region will need to cut output by 440,000 barrels per day by April.

Although Kenney is unwilling to order production cuts over the 8.7% imposed a year ago that has been eased by 250,000 bpd, he noted that market forces are leading companies — including Suncor Energy and Husky Energy — to voluntarily shut-in output.

Mark Oberstoetter, an analyst with Wood Mackenzie, said every project in Alberta is losing money and even if Brent crude prices average US\$35 a barrel in 2020 corporate cash flows in the oil sands would be US\$17 billion in the red.

Mike Walls, a senior analyst with Genscape, said oil demand in the U.S. could slide by up to 3 million bpd.

"Every single crude grade and type is being hit by this, but Canada is being hit especially hard," he told the Calgary Herald.

Kenney managed a shred of hope, suggesting that "once we get through (COVID-19) and see demand return, at some point ... we may want to pursue something like a coordinated approach to curtailment of production across North America."

"What I'm trying to do is remind our partners in Washington and Texas is that we must be partners on a North American basis," he said. \bullet

Contact Gary Park through publisher@petroleumnews.com

EXPLORATION & PRODUCTION

88 Energy's Charlie 1 well looking good

Australia independent 88 Energy said March 31 that its Charlie 1 appraisal well reached total depth of 11,112 feet in the Kuparuk formation on March 30. The well, in the company's central North Slope Icewine project, is operated by 88E subsidiary Accumulate Energy Alaska, which is run by geologist Erik Opstad, who has worked the Slope for more than 34 years.

Having drilled through and logged all seven targets, including the HRZ, 88E said logging while drilling results are "largely consistent" with BP's 1991 Malguk 1 oil well.

With shows and elevated log response recorded over several horizons, the significance of the similarities and differences to Malguk 1 won't be known until after wireline logging has been done and analysis completed.

Wireline logging is underway and will take about seven days. Flow testing is expected to conclude in April.

Charlie 1 was designed as a step out of Malguk 1, which encountered oil shows with elevated resistivity and mud gas readings over multiple horizons during drilling but was not tested due to complications resulting in a lack of time before the winter drilling season closed. It was drilled using 2D seismic, which was inadequate for determining the extent of any of the targets encountered, whereas Charlie 1 was drilled using 2018 3D seismic.

Per 88 Energy, the gross mean prospective resource across the seven stacked targets is 1.6 billion barrels of oil (480 million barrels net to 88E).

—KAY CASHMAN

US drilling rig count down 44 to 728

Baker Hughes reports the number of rigs drilling for oil and natural gas in the U.S. the week ending March 27 was 728, down by 44 from the previous week, eclipsing a 20-rig drop that week, and down by 278 from 1,006 a year ago.

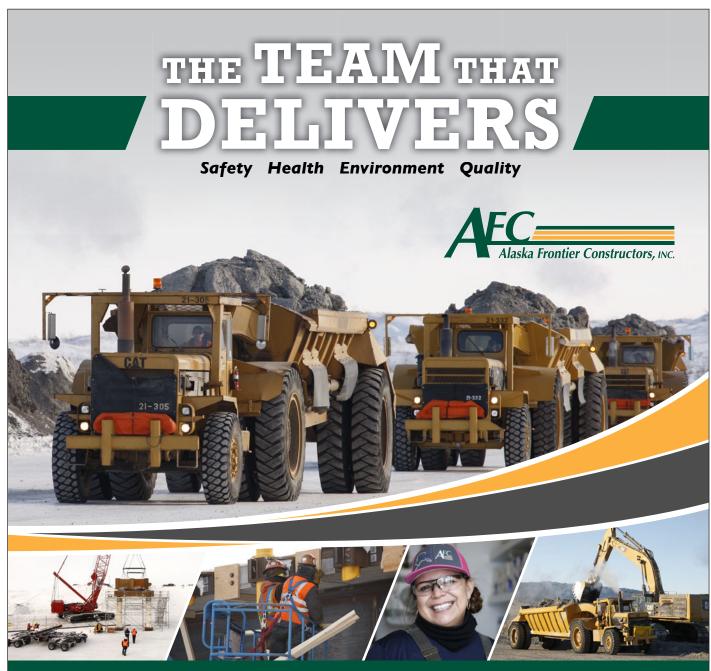
In its weekly rig count the Houston oilfield services company said 624 rigs targeted oil, down 40 from the previous week and down by 192 from a year ago, while 102 targeted natural gas, down four from the previous week and down 88 from a year ago. There were two miscellaneous rigs active, unchanged from the previous week and up by two from a year ago.

The company said 47 of the holes were directional, 653 were horizontal and 28 were vertical.

Only a single state, Utah, had an increase in active rigs, up by one to eight.

The rig count in Texas, the state with the most active rigs at 368, was down by 29 from the previous week.

Oklahoma was down by four rigs (to 39). Louisiana (at 44) and New Mexico (at *see RIG COUNT page 8*



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• EXPLORATION & PRODUCTION

Wanted: East Badami drilling partner

Glacier Oil files 17th annual plan for Badami; after successful exploration well looks to exploit untapped North Slope Killian reservoir

By KAY CASHMAN

Petroleum News

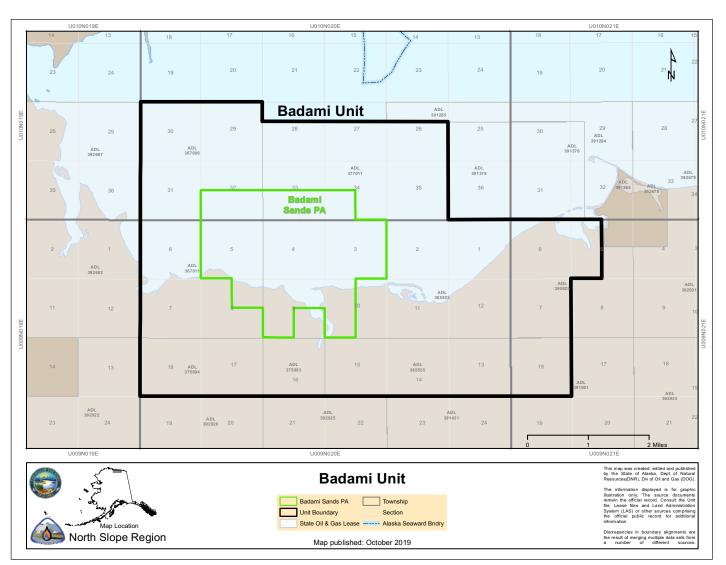
Savant Alaska, a Glacier Oil and Gas company, filed its 17th plan of development for the Badami unit on March 22 with the Alaska Department of Natural Resources' Division of Oil and Gas. Meanwhile, the Houston independent continues to look for a partner to invest \$200 million in a three to four year drilling program in the previously untapped Killian oil discovery on its leases outside the Badami Sands participating area.

The discovery, made in early 2018, is in the East Mikkelsen prospect (renamed Starfish by Glacier) between Badami and the Point Thomson unit.

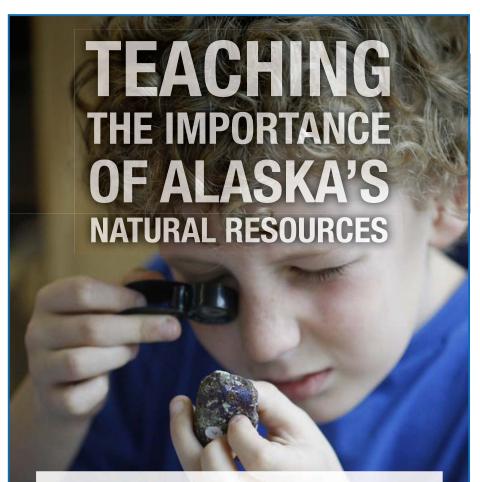
The discovery well, B1-07, was drilled directionally through the entire Canning formation and into the underlying Hue shale to evaluate the potential of the Killian sands. The Cretaceous Killian interval, which is a turbidite sandstone reservoir, is immediately above the oil source rock and below the Badami sands that form the main reservoir for the Badami oil field.

In early testing B1-07 produced 2,500 barrels per day, tapering off to 1,600 bpd by January 2019. Describing the Starfish prospect prior to drilling, a Glacier official said, "If this well works close to what we think it will, it should open five to seven more prospects similar to it."

The Killian sands were previously encountered in the East Mikkelsen Bay No. 1 well drilled in 1971 by ExxonMobil



predecessor Humble Oil & Refining Co. Using outdated technology, the vertical well hit oil in the Killian interval between



11,516 feet and 11,572 feet measured depth, with a tested flow rate of 700 barrels per day of 24 degree API oil.

Savant quickly brought the B1-07 well online in May 2018.

Production without, with Killian oil

Production from the eastern North Slope Badami unit averaged 879 bpd in November 2015 prior to Savant assuming operatorship in January 2016.

By January 2019, Badami was producing 2,323 bpd, with B1-07 accounting for 1,604 bpd.

The unit's processing facilities can handle 38,500 bpd, a reminder of the ambitions of the original operator, BP Exploration (Alaska).

It came as no surprise when Glacier President Phil Elliott told Petroleum News in an April 2019 email that "The B1-07 well was an economic success and proved the prospective value of a Killian-focused drilling initiative," noting the well was expected to "pay out in less than 15 months."

Badami output averaged 1,357 bpd in February, down 3.8%, 53 bpd, from a January average of 1,410 bpd and down 25.6% from a February 2019 average of 1,823 bpd.

Badami problematic for BP

BP brought the Badami oil field into production in August 1998.

From nearly the beginning, the complex geology involving the compartmentalization of the oil reservoir into multiple, discrete sand bodies rendered the Badami unit challenging to produce. Oil output declined severely quite early in field life — BP suspended production on three occasions, with the second suspension lasting for two years. Field suspension allowed the reservoir pressure to recharge, as subsurface oil slowly migrated between the various sand units.

Oil production peaked a month after

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EXPLORATION & PRODUCTION **State OKs Milne Point S Pad expansion**

By KAY CASHMAN

Petroleum News

n March 27 Alaska's Division of Oil and Gas approved Hilcorp Alaska's proposed Milne Point unit S Pad expansion following a 30-day public comment period on the North Slope project, effective immediately.

The Jan. 29 application from Hilcorp came in the form of a unit amendment application to the 38th plan of development, which runs from Jan. 13 through Jan. 12. 2021.

The pad expansion allows Hilcorp to drill 10 new wells to increase production from the Ugnu reservoir.

An estimated 18 billion barrels of heavy oil are known to exist in the shallow Ugnu formation above the reservoir rocks of major oil fields on Alaska's North Slope. In a Feb. 26 presentation to a meeting of the House and Senate Resources committees David Wilkins, senior vice president of Hilcorp Alaska, said conventional Ugnu wells at Milne Point alone could produce a billion barrels of recoverable oil.

The Milne Point field has four oil pools; starting with the shallowest, they are Ugnu, Schrader Bluff. Kuparuk River and Sag River. Ugnu oil is the thickest, coldest and most difficult to extract, making it expensive to develop and too viscous to flow unaided through a pipeline, while also being the least valuable of all North Slope crudes.

The work to expand S Pad, which is approximately 27.5 miles northwest of Deadhorse, involves discharge of 16,000 cubic yards of gravel fill into 2.04 acres (approximately a square shape of 328 feet by 319 feet with a cut out for an existing rectangular pad 179 feet by

see S PAD EXPANSION page 8

continued from page 6 EAST BADAMI

startup at some 7,450 bpd but soon began to drop, falling as low as 876 bpd by August 2007.

In mid-2008, BP took a different approach. The company gave Savant and ASRC Exploration, a subsidiary of Arctic Slope Regional Corp., a stake in Badami in return for returning the unit to operation. With Savant taking the lead with a 67.5% interest, it succeeded in bringing the unit to sustained production, albeit at low levels. (Later, ASRC sold small pieces of working interest to other companies, ending up with a 25% share by mid-2019.)

The partners acquired the field outright in early 2012, followed by the Badami pipeline system, which BP sold to Nutaaq Pipeline, a 67.5/32.5% partnership of Savant and ASRC in 2014.

One well at a time makes no sense

Under its 16th POD for the period July 16, 2019, through July 15, 2020, Glacier is doing what it said it was going to do except for deviating from one soft commitment: Although it continues to evaluate the results of B1-07 and will use the analysis to assess additional drilling locations, it is not drilling additional wells in the Badami unit this winter.

"It makes zero economic sense to drill one well at a time except to prove a concept (e.g., the Starfish/B1-07 well). To develop the Badami field in the most thoughtful way, we need to drill several wells over several drilling seasons, which results in a fairly significant capital outlay. Given the quantum required," Glacier is seeking investors to help fund the drilling program, Elliott told PN in an Aug. 27 email, reconfirming the search for an inventor in a late March email.

Armstrong, And like Bill

ConocoPhillips, Oil Search and other successful explorers on today's North Slope, Glacier describes Starfish as one of "several new target pods of interest" identified through a geologic and geophysical review of the Badami and Killian sands.

Work planned in unit

The long-range components of the 17th POD period from July 16, 2020, through July 15, 2021, include the following:

• On March 15, 2013, the division issued a unit decision approving, in part, Savant's request to expand the Badami unit, giving the company portions of two leases (about 2,204 acres) from ADL 391001 and ADL 390825 of the seven leases (approximately 10,121 acres) in the East Mikkelsen area between Badami and Point Thomson. Savant appealed this decision on April 4, 2013, and requested a stay of its plan of exploration under the decision on Aug. 16, 2013. Although Glacier has met with the Department of Natural Resources regarding the appeal and request for stay, the matter remains unresolved. The company wishes to continue to work with DNR to resolve the matter.

· As economic conditions warrant, Glacier intends to continue stimulating current Badami wells to enhance production and continue drilling as "economically appropriate" to fully develop the Badami Sands PA and the larger unit.

Exploration, delineation plans

Plans for the exploration or delineation of any land in the unit not included in the Badami Sands PA in the 17th POD include:

· Glacier will continue to evaluate B1-07 production and remaining reserves and apply this information to other Killian prospects within the unit.

• As economic conditions warrant, the company will drill additional prospects outside of the Badami Sands PA.

Operations for next 12 months

Proposed operations for at least one year following submission of the 17th POD on March 22 include the following:

• Continue permitting a new Badami drilling pad, the Badami East Pad (initially called the Dock Pad). Once construction is complete it would become the surface drilling pad for additional Killian prospect wells on the eastern side of the Badami unit.

· Continue well and facility maintenance and optimization and explore options to enhance production as appropriate.

· Conduct an engineering feasibility analysis related to infrastructure, tie-in and additional processing requirements for the new Badami East Pad

New road, pipeline and pad, 10 wells

Glacier's 5-year permit from the U.S. Army Corps of Engineers for the development of a new Badami pad inland 1.3 miles from Mikkelsen Bay and some 34 miles east of Deadhorse, will accommodate the drilling of up to 10 new wells.

Issued in August, the permit said pad construction involves excavating a 9.2acre gravel pit, building an 800-foot long, 36 feet wide, access road with culverts, and a 2.5-mile above ground pipeline on one or two (8-inch to 24-inch diameter each) VSMs connecting the new pad to existing field facilities.

The pad itself will be square, with 660foot sides, and will be due east of the existing Badami pad.

The time limit for completing the authorized work ends on April 30, 2024, although the Corps is generally amenable to extensions.

In addition to Badami, Glacier operates West McArthur River, Redoubt and North Fork.

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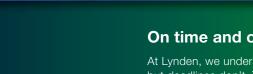
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continued from page 1 BLUECREST LOAN

The request was made by BlueCrest to allow the company flexibility in weathering the recent severe downturn in crude oil pricing, specifically Alaska crude, which benchmarks off of Brent, AIDEA said, adding that Brent has traded below \$30 per barrel, representing a more than 55% decline in the oil price since the start of the year.

"We end up paying more interest on the loan; we just defer paying off the principal on the loan," J. Benjamin Johnson, BlueCrest Energy CEO and president, told Petroleum News April 1. "But we already paid the loan way down to a very low number relative to the value of the rig. This is good for both parties."

The investment committee and the AIDEA board reviewed the loan in July 2019 and the board approved a modification to the loan allowing for the release of its \$6.1 million reserve account as a negotiated pre-payment of the loan, AIDEA said. The principal balance of the loan has been reduced from \$22.9 million in July, to \$13.2 million as of the last payment date March 1, 2020.

Alan Weitzner, AIDEA chief investment officer, said the total amount of deferred principal payments over the year "would be effectively \$4.8 million."

"In that prepayment they have already put us in a position of a lower principal balance than it would otherwise have been at this point in time, to include this period of forbearance on the principal payment," Weitzner said, adding that the loan would be fully paid July 1, 2023, rather than July 1, 2022, as per the original terms. Johnson said he and his investors were diligently working to finance the company's 2020 drilling program, which would multiply jobs at the company's lower Kenai Peninsula Cosmopolitan field exponentially.

AIDEA mission bolstered by BlueCrest loan

One of the cornerstones of AIDEA's mission to promote economic growth is to bolster employment opportunities for Alaskans, and BlueCrest's contribution was noted in the staff recommendations.

"This action will support the retention of the existing 10-person operation staff and lead to the employment of over 150 persons with the continued development of the field by BlueCrest later this year per the plan of development," the authority said.

Johnson said he and his investors were diligently working to finance the company's 2020 drilling program, which would multiply jobs at the company's lower Kenai Peninsula Cosmopolitan field exponentially.

"We're still working with our investors to figure out when we will do it; we've designed it, and we're working on permits but it's just really a function of what happens in the market in the short term here," he said. "When we drill, we easily bring on another 150 jobs running that big rig with all the projects and all the service companies that work with it."

BlueCrest intends to use a trident configuration, which involves the drilling of three fishbone wells into the Hansen oil pool from a single wellbore drilled 3

continued from page 5 **RIG COUNT**

109) were each down by three rigs from the previous week.

Colorado (at 19) and North Dakota (at 48) were each down by two rigs.

Alaska (9) and Wyoming (19) were each down by one rig.

Rig counts were unchanged from the previous week in California (12 rigs), Ohio

continued from page 7

S PAD EXPANSION

96 feet toe-to-toe) of Palustrine emer-

gent wetlands, per a U.S. Army Corps

of Engineers 30-day public comment

notice for the project issued March 9.

In its application to the Division of

(nine rigs), Pennsylvania (24 rigs) and West Virginia (15 rigs).

The nine-rig count Baker Hughes shows for Alaska for the week ending March 27 is up by three from a year ago.

The U.S. rig count peaked at 4,530 in 1981. It bottomed out in May 2016 at 404. —KRISTEN NELSON

> Contact Kristen Nelson at knelson@petroleumnews.com

miles out and 1.5 miles down from the company's shore-based pad situated north of the city of Anchor Point.

"It's really nothing new, what we're doing is just tripling what we've done before — that has worked well," Johnson said. "It's no new technology, but it's just an extension of the existing proven technology that we've already developed."

BlueCrest's activities are also paying into the coffers of the state and the Kenai Peninsula Borough through taxes and royalties.

Tom Boutin, AIDEA CEO and executive director, said the authority had reviewed those payments while working with BlueCrest during 2019.

"It was substantial, the amounts that were paid to the borough and the state by BlueCrest," Boutin said.

BlueCrest 'extremely diligent' in AIDEA payments

The AIDEA staff recommendation noted that BlueCrest has been "extremely diligent in its payment obligations to AIDEA."

Weitzner told the board that BlueCrest has successfully navigated very difficult conditions in the oil patch since the loan was originated, largely due to the abrupt veto of oil tax credit reimbursements under the Walker administration.

"They had initial issues relative to the reduction of tax credits ... that significantly affected their financial position; they've been working with us since that point in time and they have shown commitment to the state of Alaska with the development of the field," Weitzner said.

Board member Bernie Karl, as a small business operator, reacted positively to the good track record of BlueCrest.

"Being a borrower myself, and knowing how tough times can be, I love the good faith that they've shown to this point, and obviously it's your belief that that good will is going to continue; they're asking for us to give them a little hand," Karl said "I'm going to vote in favor of helping them, as they've requested."

Johnson likewise acknowledged the authority's work to smooth the bumps in the road.

"We appreciate the relationship that we have had with AIDEA. We have worked hard to fulfill all of our obliga-

continued from page 1 **OIL SEARCH LAYOFFS**

"This has been a very difficult decision to make, particularly given current global circumstances. We have treated our team members with respect and will continue to offer them support through the hard times ahead," said Oil tions over time, and we appreciate AIDEA's responsiveness to work with us in times of market distress, like we are right now," he said.

"It's slow in the entire world oil industry right now," Johnson said. "The good news is that we are producing and we're generating revenues. A lot of the other producers around the U.S. in particular are having to shut down."

Exogenous factors create challenge for AIDEA, borrowers

"This is a difficult situation brought to Alaska and BlueCrest by exogenous factors and this is a relatively easy answer given the difficulty of this situation," Boutin said. "We'll be bringing other workouts to the board case by case and the answers won't always be as easily reached as the staff ... we think this one is and we strongly recommend that this particular workout be approved in the way we've proposed it."

Dana Pruhs, AIDEA board chair, cautioned that exogenous factors may well make the board's job increasingly difficult in the coming weeks, particularly if the state's visitor industry is hit hard by the coronavirus pandemic.

Pruhs noted that in excess of \$50 million had been committed by the authority for relief so far in the board meeting that day.

"Two million or 4 million doesn't sound like a lot today, but I'm here to tell you that when there's 50 people standing at the door — or 100 — the next thing you know we're not going to have the ability to do anything," Pruhs said.

Pruhs said the authority needed to have the ability to swiftly determine what each forbearance will mean to AIDEA's cash flow, to establish a floor and keep close tabs on it.

"When we do get a request for a loan modification we immediately know what the effect is to the organization," he said.

AIDEA's collateral for the loan — originated in December 2016 — is the BlueCrest Rig No. 1, a 50-person man camp and associated pipe, equipment and tools.

—STEVE SUTHERLIN

Contact Steve Sutherlin at ssutherlin@petroleumnews.com

Oil Search's board and executive team have agreed to take a 20% salary cut for the next six months.

president community affairs; Patrick Flood, vice president commercial; Josef (Joe) Chmielowski, vice president exploration and new ventures; Wanda Lewis, vice president people and culture; Jonathan Boyce, senior vice president finance and project services; Bob Writt, senior vice president projects; Ryan Johnson, vice president supply chain and operations support; Lea Souliotis, senior vice president commercial, planning and strategy; Steve Robinson, senior vice president drilling and completions; James Robinson, senior vice president HSES; Mark Ireland, senior vice president subsurface; Stephanie Kreibich, IT and data management manager; Kolin Fencil, vice president operations; and Stephen Luna, senior vice president legal.



Oil and Gas, Hilcorp's proposed schedule for the project was to place gravel for the pad extension starting March 20, finishing it by May 1. Drilling of the 10 new wells was to begin next and be done on May 1, 2021.

June 1 was the proposed start date for the installation of piping, tie-ins and associated infrastructure, with completion by July 1, 2021.

Hilcorp said half the new wells would be "Jet Pump producers and half injectors as currently planned." But as drilling continued results might "necessitate adjustments to the pumping mechanism or ratio of producers to injectors."

Additional infrastructure, "including a traditional test separator, heaters, polymer facilities, and pump drives, may be installed on pad, but these will be permitted separately once we have the design finalized," the company told the division.

Hilcorp took over operatorship of the mature Milne Point oil field in November 2017 from BP Exploration (Alaska). \bullet

Contact Kay Cashman at publisher@petroleumnews.com Search Managing Director Dr. Keiran Wulff.

Oil Search's board and executive team have agreed to take a 20% salary cut for the next six months.

Oil Search said in the March 27 update that it is also undertaking a systematic review to identify and implement further measures to optimize corporate and operating expenditure, focused on driving long term breakeven costs as low as possible.

"Oil Search greatly values the dedication shown by all team members across the organization during these very challenging times," said Wulff.

As of Feb. 5, Oil Search Alaska's leadership team included the following: Bruce Dingeman, president; Matt Elmer, chief operating officer; Joe Balash, senior vice president government affairs; Cindy Bailey, senior vice

—KAY CASHMAN

Contact Kay Cashman at publisher@petroleumnews.com

continued from page 1 **AIX BONDING**

bonds in place with state agencies.

The commission held a hearing on the reconsideration request in February.

AIX has a bond in place for dismantlement, removal and restoration with the Department of Natural Resources and the company said that bond included an unspecified amount intended to cover P&A costs of its wells.

AIX also said it should get an offset for the \$950,000 certificate of deposit it has in place with the Mental Health Trust Land Office, the landowner. That certificate is dedicated to P&A of AIX's four wells and does not secure any other DR&R obligations.

AIX requested a reduction of its AOGCC bonding to the \$200,000 already in place.

The commission said it found the third-party engineering cost estimate to P&A the wells to be reasonable. It also found the MHTLO certificate of deposit is exclusively for P&A costs and said it "will be accounted for in AIX's bonding obligation to the AOGCC."

But the commission said the \$500,000 bond with DNR "is for the DR&R of the surface of DNR's leases to a condition acceptable to DNR. No evidence was offered that any of that bond is irrevocably restricted to the costs to properly P&A AIX's wells," and said AIX's bonding requirements would not be reduced by the amount of the DR&R bond.

The commission ruled that AIX's bonding requirement "stands at \$200,000 and no increase is required at this time." The AOGCC bonding requirement, formerly \$100,000 for a single well and \$200,000 for multiple wells, was raised last May after a lengthy series of hearings, with the new amounts reflecting the commission's concern that companies would abandon wells, leaving the landowner, typically the State of Alaska, to pick up the cost for plugging and abandonment.

The commission has been working with the Bureau of Land Management for a number of years to get wells drilled decades ago by the federal government in the National Petroleum Reserve-Alaska plugged and abandoned.

The commission notified companies with permitted wellheads last July, laying out the additional amounts required to bring bonding up to the new requirements, which are based on the number of permitted wellheads: \$400,000 per well for one to 10 wells; \$6 million for 11-40 wells; \$10 million for 41-100 wells; \$20 million for \$101-1,000 wells; and \$30 million for more than 1,000 wells.

The commission received requests for reconsideration from a number of companies: AIX Energy, Alaskan Crude, Amaroq Resources, Cook Inlet Energy, Malamute Energy and Savant Alaska.

In 2017, before the new bonding regulations were finalized, the commission considered a requirement for companies to provide estimates of costs to plug and abandon all of their wells, receive the commission's concurrence on the amount and then bond to cover that cost, with an update every five years — or whenever the operator made significant changes.

For exploration wells, an operator applying for a permit to drill would have had to submit an estimate of costs to

properly P&A.

In 2018 the commission dropped that approach and adopted a multitiered bonding approach, eventually settling on what was adopted last year.

The commission was able to increase bonding amounts on its own authority because the \$100,000 and \$200,000 were set in law as minimums, not maximums.

Something the commission can't do on its own and has asked legislators to consider is going after a previous operator if the current operator fails to P&A.

California and Kansas both have the ability to go after previous operators, as California has done after Exxon sold an offshore platform to another operator and that operator went bankrupt. The state was then able to go back to Exxon under the state's "prior operator" law, because Exxon was operating the platform when the law went into effect.

The Legislature has another option: it could set up an idle well fund and charge companies for idle wells, with increasing amounts over time. As the amount to keep a well idle rose over time, companies would have to take a hard look at whether idle wells have utility. And the fund would accumulate and could be used to P&A wells.

Sometimes idle wells do have future utility, as when coiled tubing technology became available on the North Slope and many wells which had been idle were brought back into production with coiled tubing drilling, providing a lot of oil which otherwise wouldn't have been produced. —KRISTEN NELSON

> Contact Kristen Nelson at knelson@petroleumnews.com

Oil Patch Bits

Petroleum

PND announces new members to its team

PND Engineers Inc. said March 26, that it is pleased to announce the additions of Jake Randazzo and Forrest Savel to its team.

Jake Randazzo brings 15 years of experience in hands-on primary and secondary soil testing, data reduction, and soil lab operations. He is also experienced in geotechnical investigations, pile driving analysis, wave equation analysis, pile driving inspection, concrete testing and other inspection work. Randazzo has an Associate Degree in Process Technology from Kenai Peninsula College; holds ACI, NICET and Nuclear Gauge certifications; and has done field work all over Alaska, including the North Slope. He's a lifelong Alaskan who enjoys snowboarding, playing hockey, watching pro sports, oil painting, and spending time with his daughters. Forrest Savel earned his Bachelor of Science in Civil Engineering from the University of Alaska Fairbanks in 2018 and is a lifelong Alaskan who grew up in Glennallen and Palmer. He has a background in construction, having worked previously as a summer laborer with the Alaska Department of Transportation & Public Facilities, and as an intern with R&M Consultants. Most recently he worked fulltime as a distribution designer for Chugach Electric Association. At PND, Savel assists on general civil engineering projects. In his spare time, he likes to travel; he spent the better part of 2019 traveling overseas.



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with Petroleum News

continued from page 1 WELL TESTS

from a single stimulated zone.

Flow tests in both wells included a cleanup, flow period and a pressure buildup prior to the final flow test to assess well deliverability.

"The two Mitquq (Mitquq 1 and Mitquq 1 ST1) and Stirrup 1 oil discoveries, together with the Mitquq 1 ST1 and Stirrup well tests, have provided valuable information regarding the geology and well productivity of the Nanushuk play in the areas to the east and south west of the Pikka unit," Oil Search said.

Increasing reserve estimates

In addition, the discoveries support the potential for material resource growth.

After last winter's exploration season Oil Search contracted with Ryder Scott to do an independent assessment that would only assess oil that will be produced under the present Pikka development plan.

Ryder Scott boosted the certified gross 2C contingent recoverable oil from 500 million barrels to 728 million barrels, a 46% increase.

Wulff weighs in

"We are very encouraged by the success of our 2019/20 Alaskan exploration program, with oil discovered in all three penetrations, at Mitquq 1, Mitquq 1 ST1 and Stirrup, and excellent flow rates achieved in the two well tests," Wulff said.

At present, Oil Search does not plan

On test, Stirrup 1 flowed at a stabilized rate of 3,520 bopd from a single stimulated zone.

to pursue an exploration drilling program in the 2020/21 winter season. Until oil prices improve it will focus on maintaining capabilities, advancing work needed to comply with permitting obligations and pursuing opportunities to minimize costs and add value to Pikka unit development.

All of this will "enable Oil Search to respond quickly when oil prices improve," Wulff said.

But the company "remains committed to progressing the Pikka unit development," he said, which is likely to go online in 2024 and peak at 135,000 bopd.

The company has said that success at the Stirrup prospect could de-risk additional fairways to underpin a possible standalone Horseshoe development, noting Stirrup is a direct analogue to the Horseshoe 1 Nanushuk discovery.

Oil Search has referred to the Mitquq prospect as a "high value tieback" to future Pikka infrastructure.

With testing complete at both well locations, the crews are demobilizing and expected to be off location by mid-April.

In addition, the winter season early civil works program, which has included the construction of ice and gravel roads, gravel pads and a bridge, is expected to be completed shortly, with all crews, equipment and support infrastructure to be demobilized by the end of April. •

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continued from page 1

PRUDHOE DRILLING

"The safety and wellbeing of staff and contractors and respect for the communities in which we operate is our highest priority."

With workforce safety the priority, "Activity is limited to safety critical and regulatory compliant activity so we can focus on safe compliant operations," with this year's two-rig drilling program being ended.

Divestment program

An April 1 release from BP discussed the company's worldwide COVID-19 response. It did not mention any instances of workers testing positive for the virus. The only mention of Alaska was in a discussion of the company's divestment program, which said the company was on track to deliver \$15 billion of announced transactions by mid-2021, but noted that: "The phasing of receipt of \$10 billion of divestment proceeds by the end of 2020 may be revised as transactions complete, particularly while volatile market conditions persist. This includes the sale of our Alaskan business to Hilcorp which we continue to expect will complete during 2020, subject to regulatory approvals."

That \$5.6 billion sale was announced in August.

BP is the current operator at Prudhoe, with a 26.36% interest; other working interest owners in the field are ExxonMobil Alaska Production with 36.4%, ConocoPhillips Alaska with 26.36% and Chevron USA with 1.16%.

Hilcorp is buying BP's Alaska assets, including its share of Prudhoe, and taking over as Prudhoe Bay operator. That deal is going through regulatory approvals, with the Regulatory Commission of Alaska, reviewing the turnover of pipeline assets, recently projecting a September 2020 date to finalize its work on the ownership transfers. Other state agencies have not published completion dates. BP and Hilcorp had said they hoped to finalize the deal in the second quarter of the year.

2019 drilling

The annual progress report and 2020 update covers the initial participating areas at Prudhoe, the oil rim and gas cap participating areas. The greater Point McIntyre area and Prudhoe western satellites are covered in separate plans of development, due in July and October respectively.

The report notes that Prudhoe Bay is in its 43rd year of operation — 32 years beyond the end of its production plateau — and that unit owners are focused on efficient operation of existing wells and facilities.

The field is well developed, with more than 1,400 wells.

"Minimizing natural decline is the constant goal," the report said.

In 2019, a rotary rig and a coil rig worked at Prudhoe in what the report described as "a total of two PBU rig years drilling 27 IPA wells."

Projected 2020 well activity, now ended, was four to seven rotary penetrations, which BP said was about the same as in 2019, but a decrease in coil penetrations from 22 in 2019 to "15-20 in 2020 if more non-IPA wells are drilled and RWOs are done with the rig." IPA rig workovers were expected to increase from five in 2019 to six to nine in 2020.

"Technical work to identify and evaluate drilling locations that are economically viable in the current oil price environment is ongoing," the report said.

New high density broadband seismic was acquired in 2019, BP said, and was processed at an accelerated rate, allowing "more efficient drilling and the progression of additional resources."

A merger of 2015 and 2019 survey data was planned for completion in 2020.

2019 production

Crude and condensate from the IPA averaged 165.03 thousand barrels per day in 2019, down from 174.2 thousand bpd in 2018. BP said the production rate, combined with volumes from the PBU satellite fields and a portion of Point McIntyre, "fully utilized available PBU processing capacity within reservoir management constraints."

The volume delivered to the trans-Alaska oil pipeline in 2019 was 60.2 million barrels, down from 63.6 million barrels in 2018.

IPA gas production was 7,031 million cubic feet per day in 2019, down from 2018 when it averaged 7,051 million, but re-injection of gas was 6,300 million cubic feet per day, up 1% from 2018 when it averaged 6,296 million.

The report said gas production taken in kind and removed from the PBU included 5.5 billion cubic feet, 0.2% of produced gas, and about 12 million barrels of natural gas liquids, about 19 billion cubic feet, 0.7% of produced gas.

IPA NGL production averaged 43,600 bpd for the reporting period, a total of 15.9 million barrels, with 12.1 million barrels delivered to the trans-Alaska oil pipeline and 3.8 million barrels taken to the Kuparuk River unit.

Produced water averaged 985,000 bpd, down from 893,000 in 2018.

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continued from page 10 **PRUDHOE DRILLING**

ConocoPhillips cuts

Other major North Slope fields — Kuparuk and Alpine at the Colville River unit — are operated by ConocoPhillips Alaska. The Colville River POD update, submitted to the division in March, said the company was planning as many as 21 wells. The most recent Kuparuk plan, covering Aug. 1, 2019, through July 31, 2020, called for drilling of five grassroots rotary wells and some 20 coil tubing wells.

In a March 18 update, ConocoPhillips said it was cutting some \$200 million from its Alaska spend. Matt Fox, ConocoPhillips executive vice president and chief operating officer, said there would be "reduced drilling in Kuparuk in the western North Slope. Just laying down a couple of rigs for some time in the Kuparuk and Alpine area," with an estimated 2,000 barrel per day impact on production.

The company said details would be presented in its first quarter earnings conference call on April 30.

In a March 25 update on COVID-19, published on ConocoPhillips' website, the company said there were no cases of COVID-19 at its North Slope operations.

ConocoPhillips Alaska spokeswoman Natalie Lowman told Petroleum News in an April 1 email that this was still current, with no confirmed or suspected cases at the company's Slope operations.

In its online update the company said northbound flights — which had been suspended March 18 — had been resumed on a limited basis, with employees and contractors who normally use the Anchorage International Airport now using the ConocoPhillips Aviation Hangar for boarding and deplaning.

ConocoPhillips implemented a policy on March 18 of requiring workers who live or have traveled out of state and are scheduled to travel to the North Slope to self-quarantine for two weeks before the start of their next scheduled shift. "By self-quarantine, we mean that people should not travel outside of Alaska and comply with all measures issued by the CDC and the State of Alaska," the company COVID-19 update said. The company said it was encouraging Anchorage-based employees to work for home.

"Our response to the COVID virus has not impacted production," ConocoPhillips said. ●

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 1 **KEYSTONE XL**

spending impetus needed to complete Keystone XL is a "concrete vote of confidence in the future of the Canadian energy sector. We are in a crisis environment with a crash in oil prices, but the (COVID-19) pandemic will end and global demand will return."

"When we reach that point, Alberta absolutely must have a major pipeline in commission," Kenney said.

He said the Saudi Arabia-Russia price war in the middle of a health crisis "highlights now more than ever why we need energy independence" and an interconnected North American oil and gas market.

Without his government's investment "we are certain that Keystone XL would not be built. In part because of the chaos in global energy markets, private sector capital is not available to finance the project. We can't wait any longer," Kenney said.

He said that without Keystone XL he was concerned about the "demoralization of our industry, the zero access to capital, the shutins and layoffs that are happening. (Those trends) could become fatal for our industry if we do not throw lifeline into the future so that when we get back to some kind of normalcy in markets, we can attract that investment."

TC Energy said it expects to buy

regulatory approvals."

He also thanked President Donald Trump (who reversed President Barack Obama's decision to scuttle the venture) and Kenney "for their advocacy without which ... this project could not have advanced."

In addition, Girling noted that TC Energy has an existing C\$30 billion secured capital program. To get ahead of the anticipated opposition, the company noted that six comprehensive reviews by the U.S. Department of State over the past decade concluded that the project "can be built and operated in an environmentally sustainable and responsible way."

As well, Keystone XL will be safer and generate less greenhouse gas emissions than "current methods of transporting crude oil to market."

On an earnings call in February, Girling noted that his company had acquired 100% of the needed pipeline right of way through Montana, South Dakota and Nebraska.

Contact Gary Park through publisher@petroleumnews.com

Computing Alternatives



On March 27 the last piece of Doyon's extended reach drilling rig, Doyon 26, left Deadhorse for the CD2 pad in the Colville River unit. The derrick and floor section module pictured here is being pulled by three large haul trucks cabled together.

continued from page 1 **INSIDER**

accessed.

Also known as the "Beast," Rig 26 can reach reservoirs some 7 miles from its surface location. This means the 9.5 million pound high-tech ERD rig will be able to develop 154 square miles of reservoir versus the standard 55 square miles accessed by other North Slope rigs.

Fiord West is projected to produce 20,000 barrels of oil per day at its peak.

The wells will be drilled into the 12,015-acre Fiord West Kuparuk participating area, which is jointly managed by the State of Alaska, Arctic Slope Regional Corp. and the U.S. Bureau of Land Management and includes state and joint state-ASRC and BLM leases.

The Fiord West Kuparuk PA is about a mile west of the Fiord Nechelik PA — an area with seven exploration wells, six of which encountered the Lower Cretaceous Kuparuk River formation.

Using a standard rig, ConocoPhillips drilled one well in the new Fiord West Kuparuk PA with production from that well already online.

The 9.5 million pound ERD rig weight equivalent to almost 10 fully loaded Boeing 747s — has four 2,200 horsepower mud pumps.

It can burn a mix of processed field gas and diesel. Doyon 26 can displace about 50% of the diesel required to operate the rig, which will be a big savings for ConocoPhillips, both in terms of cost and emissions.

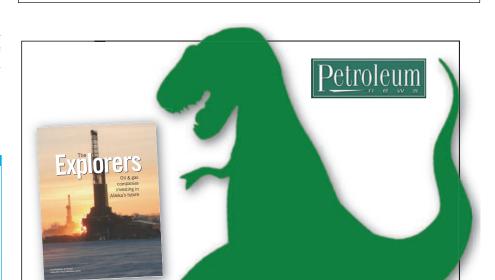
ConocoPhillips Alaska has been working on the rig from initial FEED, or front end engineering design, studies and concept stage for about four years. During construction they had assistance from ConocoPhillips Canada.

The team recognizes what a game changer this will be for ConocoPhillips in Alaska, said Paul McGrath, ERD project director.

The CD2 pad was extended to 12 acres to accommodate the ERD rig and development.

Other drilling rigs do not have the capability to access Fiord West without building a new gravel pad, additional pipelines and more roads —

see **INSIDER** page 12



Alberta's US\$1.1 billion stake once the pipeline is in service and plans to raise about US\$1 billion by selling some of its shares.

TC Energy said it has 20-year shipping agreements with "strong, credit-worthy counterparties" for 575,000 bpd and estimates those deals will generate US\$1.3 billion a year in earnings.

In addition, current contracts for 115,000 bpd from Hardisty in central Alberta to the Gulf Coast on the existing Keystone line will be transferred to the new facility under 20-year contracts.

It estimates construction work over the next three years will create thousands of construction jobs in Canada and the U.S. and eventually yield "tens of millions in property and income taxes" every year.

TC Energy Chief Executive Officer Russ Girling said his company was grateful for the "backing of landowners, customers, indigenous groups and numerous partners ... to help us secure project support and key

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INSIDER

hence increasing the development footprint in an environmentally sensitive area.

About 65 Doyon employees will work on Rig 26. Workers will also be needed for camps, transport and other oilfield support services.

—KAY CASHMAN

AOGA conference rescheduled

ORIGINALLY SCHEDULED FOR MAY 28, the Alaska Oil and Gas Association's annual conference has been rescheduled to July 30.

"Due to the recent outbreak of COVID-19 and the unknowns around its resolution, our team feels that postponing this year's annual conference would be in the best interest of the health and safety of all participants," AOGA said on its website.

The big annual oil and gas conference will be held at the Dena'ina Civic & Convention Center in Anchorage.

Sponsorship, exhibitor and individual registration information can be found at www.aogaconference.org

-KAY CASHMAN

China produces record amounts of hydrates

IN 2017 CHINA ANNOUNCED that for the first time it had extracted gas from an ice-like solid, methane hydrate, under the South China Sea. Methane is the primary component of natural gas, which in the icy solid is trapped in a lattice of water molecules.

Methane hydrates hold vast reserves of natural gas and are often referred to as "fire ice" or "flammable ice" because when the methane is released it will burn when it encounters fire.

The U.S. Department of Energy says the world's

methane gas hydrates supply could be as much as 250,000 to 700,000 trillion cubic feet.

Many other regions including Alaska's North Slope and off the west coast of Japan are working on how to tap those reserves, but extraction is extremely difficult and expensive — i.e. not cost-effective.

Officially known as methane clathrates, they are formed at sub-zero temperatures and under high pressure and can be found in sediments under the ocean floor as well as beneath permafrost on land.

Gas can be released from hydrates through a combination of elevating the temperature or reducing the pressure causing them to break down into water and methane gas, the primary component of natural gas. One cubic meter of the compound releases about 164 cubic meters of gas.

According to a March 30 article in OilPrice.com, the Chinese claim they have produced a record amount of hydrates — 861,400 cubic meters.

Hydrates may be more abundant than all other hydrocarbons taken together: oil, gas and coal, OilPrice.com reported.

Intriguingly, methane hydrate disassociation has been credited for sustained gas production from the East Barrow gas field at the western end of the North Slope. If this theory for gas production from the field proves correct, the phenomenon would demonstrate the possibility of continuous gas production from hydrates through depressurization of the hydrate resource.

—KAY CASHMAN

Trump meeting with U.S. oil executives

PRESIDENT DONALD TRUMP IS MEETING with U.S. oil industry leaders at the White House on April 3 to discuss ways to help the domestic oil and gas industry as companies are "ravaged" by a price war between Saudi Arabia and Russia and falling demand for energy due to the coronavirus outbreak.

Executives from Exxon Mobil, Chevron, Occidental Petroleum and Continental Resources are among those that have been invited to meet with the president.

First reported by The Wall Street Journal, Trump confirmed the meeting at a White House press briefing the evening of April 1. "I'm going to meet with the oil



DONALD TRUMP

companies on Friday," he said. "I'm going to meet with independent oil producers also on Friday, or Saturday, maybe Sunday. We're having a lot of meetings on it."

The Journal reported that topics to be raised at the meetings will include a tariff on Saudi Arabia oil coming into the U.S. and a Jones Act waiver that would allow non-American ships to transport oil and other goods between U.S. ports.

Such waivers have been used by the federal government before during emergency situations, and at least once to bring a jack-up drilling rig into Alaska's Cook Inlet.

Trump also said he had recently spoken with the leaders of both Russia and Saudi Arabia and believed the two countries would make a deal to end their price war and within a "few days" lower production in order to help bring oil and gas prices back up.

"Worldwide, the oil industry has been ravaged," he said. "It's very bad for Russia, it's very bad for Saudi Arabia. I mean, it's very bad for both. I think they're going to make a deal," he was quoted as saying in press coverage.

A source familiar with Trump's plan told Reuters that oil refiners and small producers would also be represented in the meetings.

-PETROLEUM NEWS

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