



page US crude to average 11.4 million 3 bpd this year, drop to 11.1 million

Vol. 25, No. 46 • www.PetroleumNews.com

A weekly oil & gas newspaper based in Anchorage, Alaska

Week of November 15, 2020 • \$2.50

2020 Producers inside



Inside this week's issue is the annual Producers magazine, a look at oil and gas companies investing in Alaska's future.

Oil tax Ballot Measure 1 failing; Alaska loses ANWR border fight

AS PETROLEUM NEWS went to press Thursday morning Nov. 12, Ballot Measure 1, the proposed oil tax increase pushed by attorney Robin Brena, continues to fail by a significant margin, while the U.S. Presidential election might not be decided until recounts are final and court challenges have been resolved nationwide.



There were an unusual number of Alaskans

see **INSIDER** page 9

Amaroq wins reduced Nicolai Creek bonding on nearby P&A costs

The Alaska Oil and Gas Conservation Commission has reduced bonding requirements for Amaroq Resources based on costs to plug and abandon wells in the vicinity of Amaroq's wells at Nicolai Creek which, the commission said, are comparable to Amaroq's wells. Amaroq has been making an argument for reduced bonding based on P&A costs in the area of its natural gas field on the west side of Cook Inlet since the commission issued its new bonding requirements in 2019. The company has also argued, as have oth-

EXPLORATION & PRODUCTION

Another assessment

USGS scientists now evaluating western North Slope oil and gas potential

Society

By ALAN BAILEY

For Petroleum News

he U.S. Geological Survey is embarking on what it refers to as its Western North Slope Assessment, evaluating potential undiscovered, technically recoverable oil and gas resources to the west of the western boundary of the National Petroleum Reserve-Alaska. The region in DAVE HOUSEKNECHT

question includes the Lisburne Peninsula and extends north to Icy Cape on the Chukchi Sea coast. The western NPR-A boundary extends south from Icy Cape.

The agency anticipates publishing the results of its assessment in January.

In a Nov. 5 meeting of the Alaska Geological

FINANCE & ECONOMY



completed an assessment of the North Slope Torok and Nanushuk formations later that year. And in January 2020 the agency completed an assessment of the central North Slope. In recent years the agency

USGS

inform the assessment.

Houseknecht provided a detailed overview

of what is known about the petroleum geology of the assessment area. Houseknecht

was seeking feedback from other geologists on the geologic parameters that will

Houseknecht said that the new assess-

ment forms part of a series of North Slope

assessments triggered by a 2017 order by then Interior Secretary Ryan Zinke. USGS

see **SLOPE ASSESSMENT** page 10

geologist

Dave



Gardes buys North Fork unit; looking for more natural gas assets in Alaska

By KAY CASHMAN

Petroleum News

In a Nov. 6 interview with Petroleum News Bob Gardes, president of Gardes Holdings, confirmed his firm has purchased the southern Kenai Peninsula North Fork unit and is in the market for more gas properties in Alaska: "North Fork is just the first one of several we have **BOB GARDES** been negotiating."

Gardes purchased North Fork, which produced an average of 3,296 thousand cubic feet of natural gas per day in September, from Cook Inlet Energy, a Glacier Oil and Gas company.

"We see the Cook Inlet basin as one of the four top gas regions in the world," Gardes said, noting



that his interest in stranded gas properties is mainly in Cook Inlet and Interior Alaska, not the North Slope.

Gardes Holdings, which was registered in Nevada four years ago, is affiliated with his main firm Gardes Energy Services of Lafayette, Louisiana, which was incorporated in May 1977. Both companies are privately owned.

Gardes is not interested in doing business as a service company in Alaska; rather he is looking to be a top gas producer.

"Natural gas is the fuel of the future. We hope to be gold star presence among oil and gas companies in Cook Inlet," Gardes said. "We plan on acquiring

see **REDUCED BONDING** page 6

Canada: gas gathers steam as asset values attract leading players

The pace of natural gas development is quickening in Canada, led by a fresh round of corporate consolidation and a decision by Alberta's largest power generation utility to accelerate its conversion to gas from coal to fuel two of its units.

The takeovers and switches from coal-to-gas are partly responsible for prompting Canada's two largest gas producers to roll out plans for increased gas.

Tim McKay, the president of Canadian Natural Resources,

see **GAS DEVELOPMENT** page 6

FINANCE & ECONOMY

Oil price skyrockets

Vaccine results boost hopes for pandemic recovery as oil inventories drop

By STEVE SUTHERLIN

Petroleum News

il prices blasted off to begin the week Monday Nov. 9, the same day Pfizer Inc. and its German partner BioNTech SE revealed positive results from late-stage COVID-19 vaccine trials.

Pfizer said the vaccine was found to be more than 90% effective against symptomatic infections, far above the U.S. Food and Drug Administration's minimum effectiveness bar of 50%.

Alaska North Slope crude spiked 8.34% on the day, closing up \$3.20 at \$41.46 per barrel. West Texas Intermediate rose \$3.15 to \$40.29, while Brent rose to \$42.40, up \$2.95.

ANS led the pack higher again Nov. 10, up \$1.55 to \$43.01. WTI and Brent closed at \$41.36 and \$43.61, respectively.

Prices found additional support Nov. 10 when the American Petroleum Institute reported a draw on crude oil inventories of 5.147 million barrels for the week ending Nov. 6, dwarfing the draw of 913,000 barrels which analysts had predicted.

In the previous week, API reported a draw in oil inventories of 8.01 million barrels, versus a build of 890,000 barrels for the week predicted by analysts.

The bullish surge peaked Nov. 11, as Brent crossed above the \$45 mark for the first time in 10

see OIL PRICES page 11

• GOVERNMENT

Canada sees Keystone XL pipeline in peril

A plea from north of the border for acknowledgement of benefits of two-way energy trade to continental O&G security, job creation

By GARY PARK

For Petroleum News

The Canadian and Alberta governments are living in hopes that President-elect Joe Biden, or his senior supporters, will pay close attention to their public statements and emails making a vigorous case for allowing Keystone XL to proceed.

Depending on Biden's response they will learn quickly whether it really was Biden, or just a looselipped Democratic campaign official, who said one of the incoming president's first acts would be to cancel the U.S. permits issued for the TC Energy pipeline.

Canada's Foreign Affairs Minister Francoise-Philippe Champagne vowed to press Biden to reverse any stance he may have, or is inclined to take to reverse the incoming administration's opposition to completion of the long-delayed Keystone XL system to carry up to 830,000 barrels per day of Alberta oil sands bitumen to Gulf Coast refineries.

"This is top of the agenda," Champagne said on Nov.

8. "We're going to be making our case, saying that Canada is the most reliable energy supplier to the United States ... we've been working together for decades now. It's all about energy security in North America."

Kavi Bal, press secretary to Alberta Energy Minister Sonya Savage, said U.S. energy security hinges on Alberta as the largest source of oil imports.

"Much of the U.S. economy is fueled by Alberta energy. We look forward to working with president-elect Biden's transition team and future administration to ensure that this vital economic partnership continues," he said.

Call for working closely

Alberta Premier Jason Kenney, in a note of congratulations, carefully avoided any reference to Keystone XL in emphasizing how much the U.S. depends on Alberta energy.

"Canada and the United States must work closely together to protect lives and livelihoods through the

COVID crisis and to return our economies to growth," he said, indirectly pointing to the hopes of Alberta and Canada that Biden will be willing to reset bilateral trade relations.

That underscores Canada's desire to move beyond President Donald Trump's America First strategy that resulted in the erection of trade barriers.

Alberta Opposition leader and former premier Rachel Notley raised the issue of uncertainty over the fate of Keystone XL, arguing that the best way for Kenney to protect the interest Albertans have in the pipeline is to abandon his refusal to address climate change by reducing the province's carbon emissions.

The Canadian Association of Petroleum Producers, the industry's leading lobby organization, said decades of cooperation on oil and natural gas exports from Canada to the U.S. "has delivered immense benefits to both of our countries. We will work with governments in Canada and the United States to ensure the progress made on important infrastructure projects continues,"

Alaska's source for oil and gas news

see ENERGY TRADE page 3

contents

ON THE COVER

Another assessment

USGS scientists now evaluating western Slope oil and gas potential

New player on a roll

Gardes buys North Fork unit; looking for more gas assets in Alaska

Oil price skyrockets

Vaccine results boost recovery hopes as oil inventories drop

Oil Patch Insider: Oil tax Ballot Measure 1 failing; Alaska loses ANWR border fight

Amaroq wins reduced Nicolai Creek bonding on nearby P&A costs

Canada: gas gathers steam as asset values attract leading players

EXPLORATION & PRODUCTION

4 Conoco wants Alpine, Fiord pools combined

As it prepares for extended reach drilling at CRU's Fiord West, Conoco requests pool rule, injection changes from AOGCC

7 88 Energy selects farm-out partner for Nanushuk North Slope exploration wells

7 Oil Search files Pikka POD supplement

Petroleum News

FINANCE & ECONOMY

3 EIA says \$40 Brent this year, \$47 in 2021

US crude averaged 10.6 million bpd in August, expected to average 11.4 million bpd this year, drop to 11.1 million bpd in 2021

GOVERNMENT

2 Canada sees Keystone XL pipeline in peril

A plea from north of the border for acknowledgement of benefits of two-way energy trade to continental O&G security, job creation

6 Further filing in NPR-A exploration appeal

INTERNATIONAL

8 Libya's oil output recovers past 1 million bpd

NATURAL GAS

5 AGDC board hears progress on year-end goal

Focus: advancing work with strategic parties, discussing participation with other entities; finalizing 8-Star structure



Dependable Service Since 1898 Visit www.SourdoughExpress.com

FINANCE & ECONOMY

EIA says \$40 Brent this year, \$47 in 2021

US crude averaged 10.6 million bpd in August, expected to average 11.4 million bpd this year, drop to 11.1 million bpd in 2021

By KRISTEN NELSON

Petroleum News

The U.S. Energy Information Administration said Nov. 10 in its Short-Term Energy Outlook that August crude oil production in the U.S. averaged 10.6 million barrels per day, down 400,000 bpd from July. August is the most recent month for which historical production volumes are available. EIA attributed the drop in August to hurricane disruption of U.S. Gulf of Mexico production, which averaged 1.2 million bpd in August, down 500,000 bpd from July.

The agency said U.S. production reached a two-anda-half year low of 10 million bpd in May and is estimated to rise to 11.2 million bpd in November. Since May, EIA said, "when producers curtailed wells, LINDA CAPUANO



U.S. crude oil pro-

duction has increased mainly because tight oil operators have brought wells back online in response to rising prices."

The agency expects U.S. crude production to decline to an average of 11 million bpd in the second quarter of 2021 "because new drilling activity will not generate enough production to offset declines from existing wells."

U.S. drilling activity is expected to rise in the second half of 2021 with production reaching 11.3 million bpd in the fourth quarter of 2021.

EIA said that annual average production is expected to fall from 12.2 million bpd in 2019 to 11.4 million bpd this year and 11.1 million bpd in 2021.

Crude consumption

EIA said uncertainty about response to the increase in COVID-19 cases worldwide, which reached a record high in October, leading to renewed economic pressure, "presents downside risk to EIA's global oil demand forecast for the fourth quarter of 2020 and first half of 2021."

The agency now expects global oil consumption to average 97.3 million bpd

continued from page 2 ENERGY TRADE from the fourth quarter of 2020 through the first half of 2021, 400,000 bpd lower than it forecast in October.

"The pace of oil demand recovery will affect not only expectations of petroleum inventory withdrawals but also could affect planned oil supply increases from members of the Organization of the Petroleum Countries" and partner countries, scheduled to meet Nov. 30, EIA said.

The agency said it expects OPEC production "will generally be tailored to match the pace of global oil demand recovery."

Crude spot prices

"Brent crude oil prices in October were down a dollar from September as production in Libya came back online and worldwide COVID-19 cases rose," EIA Administrator Dr. Linda Capuano said in a statement accompanying the short-term energy release. "EIA expects Brent prices will remain near October's average of \$40 per barrel for the rest of the year as high oil inventories and surplus production capacity limit upward price pressure," she said.

EIA said global oil inventories are expected to continue falling in the coming months, but "expects high global oil inventory levels and surplus crude oil production capacity will limit upward pressure on oil prices" with Brent expected to remain near \$40 through the end of the year.

"EIA forecasts Brent crude oil prices will increase to \$47 per barrel in 2021 as

"EIA expects LNG exports to return to late 2019 levels in November. We forecast exports will increase 31% from 2020 to 2021." — Dr. Linda Capuano

global demand increases," Capuano said. The agency cited rises in global oil demand and forecast inventory draws as the cause of "some upward oil price pressures" next year.

Natural gas

"October Henry Hub natural gas spot prices increased 47 cents from September to average \$2.39 per million British thermal units," Capuano said. "EIA expects growing global demand for U.S. LNG exports and rising domestic demand for space heating will increase prices to an average \$3.42 per million British thermal units in January 2021," she said.

LNG exports have been strong, Capuano said, with U.S. exports in October reflecting "the largest monthon-month increase since the United States began exporting LNG in 2016."

"EIA expects LNG exports to return to late 2019 levels in November. We forecast exports will increase 31% from 2020 to 2021," she said.

U.S. exports of LNG were estimated at 7.2 billion cubic feet per day in October, EIA said, up 2.3 bcf per day from September, and are expected to average 8.5 bcf per day in November and 8.4 bcf for 2021.

U.S. consumption of natural is expected to average 83.7 bcf per day this year, down 1.7% from 2019, EIA said, with the decline reflecting less heating demand in early 2020 combined with reduced commercial and industrial demand.

U.S. natural gas consumption is expected to average 79.4 bcf per day in 2021, down 5.2% due to rising natural gas prices reducing demand in the electric power sector.

> Contact Kristen Nelson at knelson@petroleumnews.com



Safety

 Local

 Productivity

 Expertise

 Solutions

"With the largest inventory of access equipment and more industrial services."

BrandSafway.com I 907.349.3720 or 907.301.0204

ALASKA'S MOST ADVANCED

provides the only redundant fiber-optic network to the North Slope.

the association said, arguing the two countries have developed "some of the most responsible-produced oil and natural gas in the world."

TC Energy said Keystone XL is "already injecting hundreds of millions of dollars into the North American economy and creating thousands of jobs. Additionally, our equity ownership agreements with Indigenous communities and partnerships with leading labor unions are helping lead North America's COVID-19 economic recovery."

"When completed the project will provide critical energy resources to meet consumer demands while adhering to some of the most rigorous regulatory and environmental compliance standards anywhere," the company said.

> Contact Gary Park through publisher@petroleumnews.com



• EXPLORATION & PRODUCTION

Conoco wants Alpine, Fiord pools combined

As it prepares for extended reach drilling at CRU's Fiord West, ConocoPhillips requests pool rule, injection changes from AOGCC

By KRISTEN NELSON

Petroleum News

ConocoPhillips Alaska is preparing to begin extended reach drilling at the Colville River unit to develop Fiord West and has applied to the Alaska Oil and Gas Conservation Commission for changes in the pool rules and the area injection orders for the CRU Alpine and Fiord oil pools.

In a notice of the change request the commission said ConocoPhillips wants to expand the area of the Alpine Oil pool to include acreage within the CRU but not currently within the AOP and expand the vertical limits of the AOP. The changes, the commission said, would have the effect of incorporating the Fiord Oil pool into the AOP.

In a cover letter accompanying the application the company said the amendments it is proposing would expand the AOP for future Fiord West development from the Colville Delta 2 drill site, "accommodate continued western and southern development" from the CD5 drill The company said there are seven Fiord West Kuparuk and 29 Fiord Nechelik potential wells using ERD technology.

site and "update and standardize pool rules for the deep CRU intervals to enable efficient operation and development under a single set of rules for these similar, related, and interconnected intervals," effectively incorporating the FOP into the AOP, and terminating separate pool rules and area injection rules for the FOP.

Reservoirs

ConocoPhillips said in its application that the current AOP includes the Alpine and Nanuq Kuparuk reservoirs and the current FOP includes the Fiord Nechelik, Fiord Kuparuk and eastern Fiord West Kuparuk reservoirs.

"This application will enable the AOGCC to establish rules that will allow economic development of the resources,



Petroleum

		enoieunnivews.com
Kay Cashman	PUBLISHER & FOUNDER	ADDRESS
		P.O. Box 231647
Mary Mack	CEO & GENERAL MANAGER	Anchorage, AK 99523-1647
Kristen Nelson	EDITOR-IN-CHIEF	NEWS
		907.522.9469 publisher@petroleumnews.com
Susan Crane	ADVERTISING DIRECTOR	publisher@petroleurnnews.com
		CIRCULATION
Heather Yates	BOOKKEEPER	907.522.9469
		circulation@petroleumnews.com
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR	
		ADVERTISING
Steven Merritt	PRODUCTION DIRECTOR	Susan Crane • 907.770.5592
		scrane@petroleumnews.com

promote greater ultimate recovery, prevent waste, and improve operational efficiency within the AOP," the company said.

The vertical limits of the proposed expanded AOP correlate to the interval between 6,920 feet and 7,559 feet measured depth in the Alpine No. 3 well.

"Three reservoirs are present within the proposed pool: the Jurassic reservoirs commonly known as the Nechelik and Alpine sandstones within the Kingak Formation, and sands within the Lower Cretaceous Kuparuk River Formation (Kuparuk C)," the company said.

Fiord West is west of the FOP and north of the AOP, encompassing the western continuation of existing Fiord West Kuparuk and Fiord Nechelik accumulations, ConocoPhillips said, with Fiord West Kuparuk a third accumulation of Kuparuk C sandstone in the CRU, portions of which are covered by the existing AOP and FOP.

ConocoPhillips Alaska is operator and 100% working interest owner of producing intervals at CRU. It said participating areas at CRU would be unaffected by the pool expansion.

OOIP

ConocoPhillips said original oil in place at Fiord West, prior to development, is estimated at between 28 and 116 million stock tank barrels, with estimates for the undeveloped extension west of the existing Fiord Nechelik reservoir from 98 to 167 million stock tank barrels. The company said the estimates are based on well control, core data analysis, 3D seismic and production data to date.

Within the Alpine reservoir, two primary potential development areas are the northwestern CD5 and southwestern CD5 areas, with OOIP estimates of 20 to 47 million stock tank barrels and 11 to 26 million stock tank barrels respectively.

ConocoPhillips said the OOIP numbers "are based on current information and are subject to change as additional reservoir data" from potential Alpine CD5 wells become available "and enhance the understanding of sand distributions."

Development plan

The AOP is being developed from four CRU drill sites: CD1, CD2, CD4 and CD5; FOP is being developed from CD3. Fiord West reservoirs will be developed

from CD2.

ConocoPhillips said future develop-

ment includes continued horizontal drilling at CD5 in the Alpine A and C sands to the west, Alpine A sand to the southwest and initiation of Fiord West development.

"There are currently four western and four southwestern potential wells to target the Alpine sands," the company said.

Fiord West will be the first application of extended reach drilling at Alpine, with Fiord West Kuparuk and Fiord Nechelik targets to be drilled from CD2. The company said there are seven Fiord West Kuparuk and 29 Fiord Nechelik potential wells using ERD technology.

Success of secondary and tertiary recovery in existing development "provides an analog for the expected performance of future development in the AOP," the company said.

Primary recovery would yield up to 20% of OOIP, the company said.

With favorable rock properties and waterflood mobility throughout the proposed AOP reservoirs, enriched water alternating gas recovery is expected to yield an ultimate recovery from 50-70% of OOIP.

For Fiord Kuparuk and Fiord Nechelik, EWAG recovery is expected to be in the range of 30-35% of OOIP.

Production

AOP oil, gas and water production will be commingled with production from other CRU pools and Greater Moose's Tooth unit prior to processing at Alpine, ConocoPhillips said.

Sales quality crude oil will be sent to the trans-Alaska oil pipeline through the Alpine Pipeline; water production will be injected; produced gas will be injected as dry gas for gas lift and drill site fuel or enriched for enhanced recovery.

"AOP production is expected to be fully compatible with production from other CRU pools and GMTU pools from both a production processing and injection perspective," the company said.

AOGCC has tentatively scheduled a hearing on the application for Dec. 15 at 10 a.m. at its Anchorage offices but said if there are no timely requests filed for a hearing, it may consider issuance of an order without a hearing. Information on whether a hearing will be held can be obtained by calling 907-279-1433 after Nov. 30. \bullet

Alan Bailey	CONTRIBUTING WRITER
Eric Lidji	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Steve Sutherlin	CONTRIBUTING WRITER
Judy Patrick Photograp	hy CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Renee Garbutt	CIRCULATION MANAGER

Petroleum News and its supplement, Petroleum Directory, are owned by Petroleum Newspapers of Alaska LLC. The newspaper is published weekly. Several of the individuals listed above work for independent companies that contract services to Petroleum Newspapers of Alaska LLC or are freelance writers.

OWNER: Petroleum Newspapers of Alaska LLC (PNA) Petroleum News (ISSN 1544-3612) • Vol. 25, No. 46 • Week of November 15, 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.



• NATURAL GAS

AGDC board hears progress on year-end Alaska LNG goal

Focus: advancing work with strategic parties, discussing participation with other interested entities; finalizing 8-Star structure

By KRISTEN NELSON

Petroleum News

The Alaska Gasline Development Corp. has a year-end goal to designate a new project sponsor for the Alaska LNG Project and transition from state control to new project leadership by June 30.

While the dream of moving Alaska North Slope natural gas to markets dates to the development of Prudhoe Bay in the 1970s, AGDC grew out of an effort, begun by the Alaska Legislature in 2009, to explore an in-state

North Slope natural gas pipeline. AGDC was created in 2010 as a subsidiary of the Alaska Housing Finance Corp. and worked initially on the Alaska Stand Alone Pipeline project, geared to bring North Slope gas



FRANK RICHARDS

south for in-state use. In 2013 the Legislature established AGDC as an independent public corporation of the State of Alaska; for administrative purposes, AGDC is in the Alaska Department of Commerce, Community and Economic Development.

The Legislature expanded AGDC's mission in 2014 to include developing an Alaska LNG project. AGDC filed an application for the Alaska LNG Project with the Federal Energy Regulatory Commission in 2017, FERC issued a draft environmental impact statement in 2019, a final EIS in March 2020 and an authorization to construct and operate the project in May 2020.

State takes over

In a previous iteration of the Alaska LNG Project the state partnered with North Slope producers BP, ConocoPhillips and ExxonMobil. The project reached a stage-gate in 2016 following completion of preliminary front-end engineering and design and the industry partners declined to move into FEED based on economic In overheads prepared for the board meeting Richards said AGDC is targeting additional strategic parties with experience in LNG and major projects development.

Primary focus

In AGDC President Frank Richards' Nov. 5 update to the board, advancing a development agreement with strategic parties and discussing participation with interested entities topped the list, followed by finalizing the asset structure of 8-Star LLC and working with joint venture agreement parties to agree to future transfer.

In overheads prepared for the board meeting Richards said AGDC is targeting additional strategic parties with experience in LNG and major projects development.

The purpose of 8-Star, established in 2018, is to provide a vehicle for AGDC to transfer project ownership to the private sector.

Richards also said the project is being further optimized, with recent cost reductions putting Alaska LNG on a competitive footing with the lowest cost Gulf of Mexico projects, with higher infrastructure costs offset by lower gas supply and shipping costs.

But he noted the challenge of high capital requirements and a need for property taxes to be in line with competing projects, with fiscal certainty needed for investors to move forward.

Walker, Meyer

AGDC has not released names of the strategic parties it has been working with as it moves to hand off the project to the private sector, but another entity has surfaced.

Former Gov. Bill Walker and former AGDC CEO Keith Meyer, along with Bernie Karl and Laborer's Local 341, are the organizers of Alaska Gasline & LNG LLC, established Nov. 8, according to the Alaska Department of Commerce, Community and Economic Development



GMW has many years of experience working in Deadhorse, supporting oil field activities on the North Slope of Alaska.

GMW Provides the Following Services

- Fire Sprinkler Design and Installation
- Fire Sprinkler Inspections and Maintenance
 - Fire Alarm Design and Installation
- Fire Alarm Inspections and Maintenance
- Special Hazards Design and Installation

including FM-200 and water mist suppression systems

• Fire Extinguisher Inspection and Service including hydro-testing and re-charge

- Fire pump certification and inspections
- Portable gas monitors and systems installation and calibration
 - Kitchen hood service and maintenance
 - CO2 system maintenance and recharge

(907) 336-5000 www.gmwfireprotection.com GMW Fire Protection has offices in Anchorage and Deadhorse





issues.

Under former Gov. Bill Walker, AGDC then took over as the project's sole proponent, working with state funding.

The direction of AGDC changed in 2018 when Gov. Mike Dunleavy was elected. He replaced a majority of the AGDC board and the new board replaced AGDC's president and returned to a stage-gate process, abandoned under the Walker administration.

Under a strategic plan adopted by the new board, AGDC's year-end goal is to designate a new project sponsor, with a transition to new project leadership by June 30.

Petroleum

corporation website.

The purpose is listed as: "Build a large volume integrated Trans Alaska gasline LNG project from the North Slope to tidewater."

According to a story by Alaska's Energy Desk, at a Nov. 9 press conference, the four organizers are the only current investors, and Meyer said if the state turns AGDC over to their venture, they aim to get the project built by 2028.

Meyer has previously presented a proposal to the AGDC board to take over the project. \bullet

Contact Kristen Nelson at knelson@petroleumnews.com

Advertise in Petroleum News:

Call 907.250.9769

GOVERNMENT

Further filing in NPR-A exploration appeal

Environmental organizations that, together with the village of Nuiqsut, have appealed the Bureau of Land Management's environmental approval of ConocoPhillips' 2018-19 National Petroleum Reserve-Alaska exploration program, have made a new filing in the case. The exploration in question involved the drilling

of up to six exploration wells in or near the Bear Tooth unit, together with the construction of ice roads, ice pads, an airstrip and temporary accommodation. After the federal District Court rejected the appeal in January, the appeal was elevated to the U.S. Court of Appeals for the 9th Circuit.

Both BLM and ConocoPhillips have filed 9th Circuit briefs arguing, among other things, that the case is moot, since The exploration in question involved the drilling of up to six exploration wells in or near the Bear Tooth unit, together with the construction of ice roads, ice pads, an airstrip and temporary

accommodation.

the exploration in question has already been completed, and because circumstances under which the project was approved have changed. The core of the case revolves around whether BLM should have prepared an environmental impact statement for the exploration project, rather than conducting an environmental assessment linked back to the EIS for BLM's NPR-A integrated activity plan.

In their new 9th Circuit filing the environmental organizations have objected to a motion to supplement the court record, filed by ConocoPhillips on Oct. 16. This motion presents arguments for declaring the case moot. The organizations argue that the company, rather than presenting evidence in support of the mootness argument, simply commented that the exploration project in question had been completed without any significant environmental impact.

At issue is the question of whether the outcome of this appeal could become a precedent for future court decisions in similar cases. BLM and ConocoPhillips argue that the exploration project at issue was unique, and that a new NPR-A IAP and associated EIS have altered the environmental playing field under which future NPR-A exploration would be evaluated.

-ALAN BAILEY

Commited to Alaska's Growth

Anytime, Anywhere

www.nordic-calista.com (907) 561-7458

For Your Rig and Mobile Camp Needs



COMPANIES



ers, that its \$500,000 bond with the Alaska Department of Natural Resources to dismantle, remove and restore should be considered.

While the commission has proposed regulatory changes under consideration, its Nov. 9 Amaroq ruling is based on existing provisions allowing changes to bonding amounts based on "engineering, geotechnical, environmental, or location conditions" which warrant changing the bonding amount, and not on proposed changes the commission is considering.

Amaroq was originally assessed \$2.4 million based on six wells (\$400,000 each). It has an existing \$200,000 statewide bond with the commission based on previous regulations, so its additional bonding requirement would have been \$2.2 million.

Under the commission's Nov. 9 ruling, Amaroq's total bonding requirement is \$900,000. Less the existing \$200,000 bond, an additional \$700,000 is required.

P&A costs

The commission said Amaroq had filed a September 2017 affidavit of Edward Jones which estimated the cost to properly P&A the Amaroq wells at between \$100,000 and \$200,000 per well.

In 2019 Jones, operating as Plugging Inlet LLC, successfully plugged and abandoned 10 wells on Cook Inlet Region Inc. land near the Nicolai Creek field. The estimate Jones made in 2017 was based on the plan AOGCC approved for P&A of the CIRI wells, the commission said.

At a 2020 hearing on bonding reconsideration requests (see story in Feb. 23, 2020, issue of Petroleum News), Amaroq said it had hired Solsten XP to determine total P&A costs for Nicolai Creek, which Solsten

continued from page 1 GAS DEVELOPMENT

told analysts that the prospects for gas are stronger in the short term than for oil, while the potential for LNG exports and conversions of coal-fired power plants to gas has improved the outlook for that commodity.

As a result CNR has shuffled C\$2.7 billion of its 2020 capital budget to gas from oil.

But McKay said he is not concerned that hiking gas expenditures by CNR and other upstream companies could flood Alberta's



The commission said Amaroq provided a second third-party P&A cost estimate totaling \$470,000 or \$78,333 per well for the six wells. AOGCC requested estimates for each well, and in March, Amaroq provided a revised third-party cost estimate of \$491,675 to P&A the six wells.

The commission said Jones, operating as Plugging Inlet LLC, successfully completed the P&A of the CIRI wells in 2019.

"Because of the similarity of the CIRI wells to the Amaroq wells, on May 1, 2020, the AOGCC requested documentation of the actual costs incurred to P&A those 10 wells. On May 13, 2020, Jones provided the information which showed an average cost to P&A the CIRI wells of \$151,000 per well," the commission said.

\$150,000 per well

In its Nov. 9 decision, the commission said that based on actual costs incurred in 2018 and 2019 to P&A the CIRI wells, as well as evidence provided by Jones, it found an average cost of \$150,000 per well, \$900,000 for the six wells, to be a reasonable estimate for the Amaroq's wells.

On the issue of the DNR bond and trust account, the commission said that as of the date of its order "no evidence has been offered as to the amount of the DR&R funding that is dedicated to the costs to properly P&A Amaroq's wells," so Amaroq's bonding amounts will not be reduced to reflect the DNR bond.

The commission reduced Amaroq's bonding requirement to \$900,000, less its existing \$200,000 AOGCC bond, for a revised bond requirement of an additional \$700,000.

-KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

gas market, triggering even more price volatility than the sector has experienced since 2017.

"It takes a lot of capital and a lot of activity to increase production substantially," he said. "Today there are only about 70 or 80 rigs running in Western Canada. I don't have any concerns in the short run."

Other capital reallocations

Tourmaline Oil, Canada's leading gas producer, has made similar moves by allocating an extra C\$35 million of gas spending to its capital budget, raising its forecast total to C\$835 million.

Even more significantly, Tourmaline took a sizeable plunge into the gas acquisition market on Nov. 4, buying two private gas producers for C\$740 million, including debt of C\$244 million, to boost its 2021 production target by 25% or 76,000 barrels of oil equivalent per day to 400,000 boe/d, raising its project cash flow for next year to C\$2 billion.

BUILDING ALASKA FOR MORE THAN 40 years

Experts in Resource Development and Heavy Civil Construction

Cruz Construction | Alaska Interstate Construction

"The acquisitions are way less expensive than they were even two years ago," said Tourmaline Chief Executive Officer Mike Rose. "I think the trend will continue over the next 12 to 24 months."

He said the current environment, in which many companies continue to struggle after the spring energy market collapse, has yielded big opportunities to hook assets in Tourmaline's main operating regions in the Deep Basin and Montney plays of Alberta and British Columbia.

Rose said the takeovers of Jupiter Resources and Modern Resources will also allow his company to lower operating costs and generate strong free cash flow.

The deals come on the heels of several oil patch mergers and acquisitions this year,

see GAS DEVELOPMENT page 7

EXPLORATION & PRODUCTION

Oil Search files Pikka POD supplement

According to the Alaska Department of Natural Resources' Division of Oil and Gas on Nov. 9 Oil Search (Alaska) filed a supplement to its second plan of development for the North Slope Pikka unit, a period that begins Feb. 1 and continues through Jan. 31, 2022. Per the division the POD was filed on Nov.1 (see story in Nov. 8 issue of Petroleum News) with both the division and Arctic Slope Regional Corp.

The Pikka unit is west of the Prudhoe Bay unit, between the Kuparuk River and Colville River units and is the site of the first big Nanushuk oil reservoir discovery on the North Slope.

The supplement provides additional information to clarify the proposed near-term activities in the second POD.

"Field activities in 2021 include spring breakup and summer work to maintain and improve gravel infrastructure installed during the 2019-2020 winter season," Oil Search said.

During breakup, annual hydrology studies will be conducted within and in support of the unit. Select culverts under roadways will be cleared to minimize flooding events. Gravel will be reworked on the Nanushuk Operations Pad and the MC7903 lake access road and pad, and Oil Search will "maintain and continue to improve sections of the Nanushuk and Mustang roads."

The company will continue to "refine subsurface modeling and advance development well design in 2021, in preparation for development drilling activities scheduled to commence in 2022."

The modeling effort includes "full integration of seismic, high resolution log information, special core analysis and other reservoir information to achieve a fully history-matched and peer-reviewed model," Oil Search said. "The model is used to optimize drilling locations and recovery mechanisms for waterflood and EOR. Drilling plans and individual well drilling and stimulation procedures also will be developed."

Upon FEED, or front-end engineering and design, entry, Oil Search said it will engage in a major engineering effort, including work on all major initial project phase components.

This work will include engineering and design of the following:

- · Operations camp and associated facilities.
- · Production facility,
- Grind and Inject facility.
- Drill site infrastructure.
- · Seawater treatment plant facility.
- Pipelines and associated infrastructure.

The POD supplement was filed by Oil Search (Alaska) COO Matt Elmer. Pikka is expected to go online in 2025.

—KAY CASHMAN

continued from page 6 GAS DEVELOPMENT

notably CNR's C\$461 million acquisition of Painted Pony Energy and Whitecap Resources purchase of NAL Resources for C\$155 million, all of which were overshadowed by October's blockbuster C\$3.8 billion purchase of Husky Energy by Cenovus Energy.

Rose noted that a dozen years ago buyers were forking over C\$30,000-C\$40,000 per flowing boe for gas holdings in Deep Basin and Montney; today those price tags are in the range of C\$8,000-C\$15,000.

AECO benchmark

On the flip side the AECO benchmark gas price in Alberta is close C\$3 per thousand cubic feet, compared with C\$1.61 in 2018.

from Calgary-based TransAlta, which announced it will move about four years ahead of schedule to end operations at a thermal coal mine west of Edmonton within the next year and switch to has at all of its operated coal-fired power plants.

But the conversions will see a sharp lowering of output capacity at the TransAlta units from 395 MW to 70 MW in two cases and from 406 MW to 113 MW at a third unit.

The move away from coal will also result in hundreds of layoffs at a company mine to about 40 or 50 people from a peak of about 1,500, said TransAlta Chief Executive Officer Dawn Farrell.

The company also confirmed it has closed a C\$400 million tranche of a C\$750 million investment by an affiliate of Brookfield Asset Management, with the proceeds to be used to advance its coal-to-gas conversion program.

EXPLORATION & PRODUCTION

88 Energy selects farm-out partner for Nanushuk North Slope exploration wells

88 Energy Ltd. said Nov. 9 that planning and permitting for the first well at its North Slope Project Peregrine remains on schedule for a late February spud.

The Australia independent, a Perth-based ASX and AIM listed firm, previously said it plans to drill two exploration wells at Project Peregrine in the National Petroleum Reserve-Alaska on acreage it acquired in an off-market takeover of XCD Energy.

The wells will be drilled by 88 Energy operating subsidiary Accumulate Energy Alaska, which is run by long-time North Slope geologist Erik Opstad.

The Nov. 9 ASX announcement said a preferred bidder had been selected for the Peregrine farm-out, although until the final documents are executed more details about the deal and the selected bidder's name won't be made public.

"Subject only to finalization of standard documentation," execution of the final documents is already underway and will be finished "in the next few weeks," 88 Energy said, noting the "multiple" bids received were "competitive."



last few months. We look forward to working with the preferred bidder to close the transaction and get going on the drill program."

Targeting the Nanushuk

The main target of the two wells is the prolific Nanushuk reservoir.

The prospects to be drilled in the 195,000-acre Peregrine block are Harrier and Merlin.

Merlin 1 is considered a direct analogy to ConocoPhillips' Willow oil discovery, while ConocoPhillips' Harpoon prospect is interpreted to lie on the same sequence boundaries as Harrier 1.

The prospects lie between the Umiat oil field to the south and Willow and Harpoon to the north.

Opstad told Petroleum News that the Nanushuk can be reached at less than 5,000 feet in the area, while a third prospect in the Peregrine block, Harrier Deep, has a Torok objective at about 10,000 feet. It will not be drilled in the 2020-21 winter season.

—KAY CASHMAN



Wednesday, November 18th

The agenda will feature speakers from the fishing, forestry, mining, oil and gas, and tourism industries. Presentations will include important updates on major projects, prospects, and issues. This year, the conference will be held virtually. Additional details are posted online at akrdc.org



ATB Capital Markets analyst Patrick O'Rourke said he is cautiously hopeful about the commodity prices in 2021 if producers stick to showing discipline and market fundamentals improve.

On the M&A front, he said financially robust companies such as Tourmaline are well positioned to enter the buying market, adding "we need larger and stronger entities that are more appealing to not only investors in Canada, but to bring back global investors."

Chris Cox, an analyst at Raymond James, said in a research note that strengthening gas prices "likely won't move the needle on free cash flow considerably, though (they will provide a company with the ability) to deploy somewhat modest capital at very attractive returns and should put a bit more focus on a company's portfolio of gas-weighted assets in Western Canada."

A further boost to the gas sector came

Farrell said the company's decision to speed up its conversions is related to the economics of producing power in Alberta as the government raises in tax on carbon emissions from C\$30 per metric ton this year to C\$40 in 2021 and C\$50 in 2022, making coal plants less flexible in a merchant market.

The percentage of power generated from coal in Alberta has tumbled from more than 80% since the 1980s to less than 33%.

She said TransAlta's greenhouse gas emissions will be under 11.5 million metric tons a year by the end of 2022, down almost 70% from 2005.

To date, TransAlta has delivered 10% of Canada's goal of reducing its GHGs by 220 million metric tons a year by 2030.

-GARY PARK

Contact Gary Park through publisher@petroleumnews.com



"We see the Cook Inlet basin as one of the

four top gas regions in the world," Gardes

said, noting that his interest in stranded gas

properties is mainly in Cook Inlet and Interior

Alaska, not the North Slope.

continued from page 1 **NEW PLAYER**

our service needs from local Alaskan companies."

Glacier focus on Badami

When asked why his company sold North Fork, Glacier President Stephen Ratcliff told PN that right now Glacier's focus is on the North Slope, particularly on the Badami unit, and selling the Cook Inlet gas producing asset helped provide needed capital.

Savant Alaska, a Glacier company, restarted the eastern North Slope Badami pad in October. During the 24 days the field produced that month it yielded more than 2,000 barrels of oil a day, Ratcliff said.

"We put the (North Fork) asset in someone's hands who wants to invest in it despite the tough economic conditions," Ratcliff said. "We did a phenomenal job with North Fork, but Gardes has got the ability to push it forward past what we've done. We're happy for them. ... We are excited to see someone who wants to come in and move it forward."

Looking for bypassed gas

"For the last 20 years we've been coming to Alaska," Gardes said.

"We see opportunities in gas here," he said, noting his company was one of the early pioneers of coalbed methane in the Lower 48.

"There is a lot of bypassed gas here because the deposits weren't big enough" for the companies to bother with them, Gardes said. There also wasn't a market in Southcentral Alaska. But eventually gas became the fuel of choice for heating buildings in much of Southcentral Alaska, while gas-fired generation became the favored source of electrical STEPHEN RATCLIFF power.

"We think the future in the U.S. is gas. It burns 98% cleaner than oil and coal. It is a transformational resource," he said.

Armstrong put North Fork online

The North Fork unit's 55th plan of development, or POD, was approved Jan 22, 2020.

The unit was formed in May 1965 but was not put into production until third quarter 2011 by a partnership led a Bill Armstrong company, Armstrong Cook Inlet Energy.

The field was discovered in 1965 by Chevron (then Standard Oil of California) in its hunt for oil. Chevron drilled the NFU No. 41-35 discovery well, which tested gas production from the Tyonek formation. It was certified capable of producing but subsequently shut-in because the company wanted oil, not natural gas.

Despite no production, the North Fork unit was kept alive through a series of negotiated extensions and annual POD approvals.



In its only foray into the Cook Inlet basin, successful North Slope player Armstrong acquired North Fork in 2007, reentered NFU No. 41-35 and drilled three new wells. They also acquired a 3D seismic survey over the field and built a 12-mile pipeline to join the Enstar line extension to Anchor Point.

Effective April 2014 Cook Inlet Energy, then a Miller Energy subsidiary and today part of Glacier Oil, acquired the unit and is the current operator.

Tom Stokes, director of the Alaska Department of Natural Resources' Division of Oil and Gas, said he was pleased with what he knew of Gardes and that the company initially approached DNR about investing in Alaska several months before he heard about their deal with Glacier.

The transfer of operatorship from Cook Inlet Energy to Gardes, he said, has to be approved by the division.

In the meantime. Stokes said, Cook Inlet Energy would remain the operator. The sale itself, he noted, did not have to be approved by the division.

> Contact Kav Cashman at publisher@petroleumnews.com

> > **INTERNATIONAL**

Wholesale Construction & Specialty Materials



Timbers & Piling neitesinder redmit Pressure Treating **Rigid Feam - SIPS Boardwalks Helical Piers** Logistic Services

PO Box 92688 Anchorage, Alaska 99509 Office (907) 290-8031 Toll Free (844) 479-0763 alaskamaterials.com info@alaskamaterials.com

A L A S K A Materials

Keepina Alaska Open for Bus

Libya's oil output recovers past 1 million bpd

Libya's oil production has surged past 1 million barrels a day, national petroleum officials said Nov. 7, marking an important milestone months after its civil war almost choked the country's energy production.

Oil-rich Libya has been pushing to recover production levels in recent weeks, as talks proceed between the warring groups in the North African country to reach a political settlement to the country's conflict.

Libyan commander Khalifa Hifter's forces announced in September an end to a months-long blockade of the country's vital oil fields and terminals. The move followed on his forces failure to capture the capital of Tripoli earlier in the year, and the growing military intervention of Turkey, which has supported the rival U.N.-backed government there

The Libyan National Oil Corp. said in a statement on its website it has pumped over 1 million barrels a day, from a reported 800,000 barrels a day earlier in the month. The country's oil production was under 100,000 barrels



Northern Air Cargo is committed to continuing our cargo operations while maintaining the health and safety of our customers and employees.

Regulations are changing constantly. For the most up-to-date information visit www.nac.aero.



a day earlier in September.

The Tripoli-based company meanwhile warned that it would not be able to continue pumping at the current levels, because of what it said were work obstructions caused by "entities" it did not name.

The NOC said it has suffered from financial difficulties amid a "huge shortage" in its budget. The oil blockade deprived it of nearly \$10 billion in revenue and led to nationwide fuel shortages, the corporation said in August.

The dramatic rise in Libya's production, however, comes as oil prices have collapsed this year, which is partially a consequence of the coronavirus pandemic. On Nov. 6, Brent crude oil for January delivery fell \$1.48 to \$39.45 a barrel.

-ASSOCIATED PRESS

continued from page 1 INSIDER

who voted early or by mail this year due to COVID-19 concerns — 156,000 people, which represents 45% of all ballots cast in the 2020 election.

Both Republican President Donald Trump and Alaska's Republican congressional incumbents Sen. Dan Sullivan and Rep. Don Young are holding on to significant leads, despite their challengers hoping mail-in and early voters would increase their Nov. 3 totals.

By Wednesday night Nov. 11, Alaska's Division of Elections had released more results that didn't significantly alter the outcome of either race. Approximately 60,000 votes were left to count.

Down by more than 29 percentage points on Election Day, Ballot Measure 1's tax increase still trailed by nearly 20 points after more absentee and early vote counts were released by the Division of Elections Nov. 11.

Those new results told a different story for Ballot Measure 2, the election process change proposal that was

so heavily funded by big money from Outside Alaska. Behind by 13 percentage points on Election Day, on the morning of Nov. 12 it trailed by only about 3 points.

All judges on the ballot looked as though they would be retained.

Counting the remainder of the ballots was to resume on Nov. 12, as Petroleum News went to press.

State loses latest ANWR border challenge

IN THE LATEST ROUND of the State of Alaska's fight with the federal government for ownership of 19,322 acres along the western edge of the Arctic National Wildlife Refuge, the U.S. Department of the Interior Board of Land Appeals ruled against the state on Nov. 9. The ruling was based on an appeal filed by the Alaska Department of Natural Resources' Division of Mining, Land and Water, protesting the 2016 decision of Interior's Bureau of Land Management.

"We find that Appellant has not met its burden to demonstrate error in the appealed Decisions or in BLM's

performance of the surveys underlying those Decisions. Therefore, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, we affirm BLM's February 2016 Decision and November 2016 Decision," wrote IBLA's Office of Hearings and Appeals in its 52-page decision.

The decision was signed by Acting Administrative Judges Matthew T. Ballenger and Amy B. Sosin.

The disputed acreage lies between the Canning and Staines rivers, which flow northward along the western side of ANWR into the Arctic Ocean. The land is highly prospective for oil and gas and is a high priority area for the state

While DNR's Division of Oil and Gas includes the disputed acreage in its areawide lease sales, leaseholders are warned that parts of their leases are in a disputed area.

Marty Parsons, director of the Division of Mining, Land and Water, told Petroleum News in 2018 that if the agency's effort to resolve the dispute was not successful, the next step would be federal court (see DMLW's current position in next week's Petroleum News).

—KAY CASHMAN

Petroleum

PND Engineers Inc. welcomes two recent hires

PND Engineers Inc. said Nov. 5 that it was pleased to welcome Cameron Klatt, EIT, and Michael Ulmgren, EIT, to its Anchorage office.

Klatt, a lifelong Alaskan, has joined PND's geotechnical team. He earned his bachelor's degree in civil engineering from Montana State University, and a master's degree in geotechnical engineering from the University of Washington, which he completed this past June. He has interned with HDL Engineering and Kiewit Bridge



MICHAEL ULMGREN

and Marine, building experience in geotechnical investigations, calculations for foundation and retaining wall design, geotechnical report writing, and primary and secondary lab testing. Growing up in Alaska, Klatt enjoyed playing hockey, skiing, fishing, hunting, and exploring the outdoors.

Ulmgren brings experience as a research professional at the University of Alaska Anchorage, where he conducted wave and storm surge modeling, shoreline change modeling and sediment transport studies. Before joining UAA, he was a civil associate at Michael Baker International, where he performed hydraulic and hydrology modeling and analysis, stream stability and scour analysis. As part of his academic studies, he assisted with hydrokinetic research. A Swedish immigrant and now a United States citizen, Ulmgren moved to the U.S. in 2001 and to Alaska in 2003.

Bright up the night holiday display comes to fair

Presented by AT&T, bright up the night, Alaska's largest drive-through holiday light display, comes to the Alaska State Fair for a 29-day run.

Oil Patch Bits

The light display, designed by North Pole Productions, features more than 70 different exhibitions spanning the entire length of the fairgrounds. From the warmth and comfort of their vehicles, guests drive through about a mile of festive light displays while enjoying the holiday music broadcast synced directly to their radio.

Bright up the night is open Thursday through Sunday from Nov. 26 through Dec. 13, and daily from Dec. 17 through Jan. 2. Hours are from 4 to 9 p.m.

Tickets are on sale now at alaskastatefair.org. All tickets must be purchased online. Special advance prices, starting at \$20 for personal use vehicles, are available for tickets purchased by Nov. 25.

Guests can double their holiday cheer by taking advantage of the fair's partnership with The Christmas Factory, which offers a 10% discount code to anyone who buys tickets to either event.

At The Christmas Factory, located on the fairgrounds, visitors experience the magic of Christmas by touring Santa's workshop, delivering a personalized letter to Santa's mailbox, getting a peek into the elf wrapping room, powering up Santa's sleigh, enjoying a treat in Mrs. Claus' bakery, and even meeting Santa himself.

For more information, visit alaskastatefair.org or contact Melissa Keefe, marketing and communications manager, at mk@alaskastatefair.org.

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

Companies involved in Alaska's oil and gas industry

ADVERTISER



Acuren **AES Electric Supply, Inc** Afognak Leasing LLC Ahtna, Inc. Airport Equipment Rental Alaska Dreams Alaska Frontier Constructors (AFC) Alaska Marine Lines

PAGE AD APPEARS ADVERTISER **CONAM Construction**

Doyon Anvil

Doyon Drilling

Doyon, Limited

Egli Air Haul

.8

Doyon Associated

Denali Universal Services (DUS)

EEIS Consulting Engineers, Inc.

PAGE AD APPEARS

Lynden Logistics Lynden Transport

ADVERTISER

PAGE AD APPEARS

Maritime Helicopters

N-P

Nabors Alaska Drilling **NANA Worley** Nature Conservancy, The NEI Fluid Technology



Alaska Railroad
Alaska Steel Co
Alaska Tent & Tarp
Alaska Textiles4
Alaska West Express
Arctic Controls
ARCTOS Alaska, Division of NORTECH
Armstrong
AT&T12
Avalon Development

Α

B-F

Bombay Deluxe
BrandSafway Services
Brooks Range Supply
C & R Pipe and Steel
Calista Corp.
ChampionX
Chosen Construction
Colville Inc.
Computing Alternatives

R. Bell & Associates, Inc
Flowline Alaska
rost Engineering Service Co. – NW
Fugro

G-M

exp Energy Services10

Greer Tank & Welding Guess & Rudd, PC HDR Engineering, Inc. ICE Services, Inc. Inlet Energy Inspirations Judy Patrick Photography Little Red Services, Inc. (LRS) LONG Building Technologies Lounsbury & Associates Lynden Air Cargo Lynden Air Freight Lynden Inc. Lynden International

North Slope Borough	
North Slope Telecom	
Northern Air Cargo	
NRC Alaska, a US Ecology Co.	
Oil Search	
PND Engineers, Inc.	
PRA (Petrotechnical Resources of Alaska)	
Price Gregory International	

Q-Z

Raven Alaska – Jon Adler
Resource Development Council7
Security Aviation
Shoreside Petroleum
Soloy Helicopters
Sourdough Express
Strategic Action Associates
Tanks-A-Lot
Weston Solutions
Wolfpack Land Co.
All of the companies listed above advertise on a regular basis with Petroleum News

continued from page 1 **SLOPE ASSESSMENT**

has also completed assessments of potential resource recovery from North Slope oil and gas source rocks, and of potential natural gas recovery from North Slope methane hydrate deposits. Houseknecht said that USGS had originally planned an assessment of the 1002 area of the Arctic National Wildlife Refuge after the Torok/Nanushuk assessment. However, the Department of the Interior decided to defer that assessment until 3D seismic data becomes available for the 1002 area, Houseknecht said.

And, because the 2017 Torok/Nanushuk assessment encompassed the Western North Slope Assessment area, the new assessment will not include an evaluation of those rock formations in the assessment area, Houseknecht said.

Sparse data

Fascinating geology

Houseknecht commented that the sparsity of geologic data for the new assessment area will make the assessment quite challenging. There are just three wells in the area: the Eagle Creek, Akulik and Tungak Creek wells. The nearest deep well is the Tunalik well, in the NPR-A a few miles east of Icy Cape. Given the nature of the regional geology, the Klondike well, some distance offshore in the Chukchi Sea, can provide valuable information. There are two important rock outcrops in the assessment area at Redwul and Surprise Creek. Another outcrop, the Kokolik River oil sandstone, lies a short distance inside the NPR-A. Seismic data are limited to about a dozen vintage 1971 2D seismic lines, Houseknecht said.

However, the geology of the area is fas-

≪USGS Klondike Kugrua USGS C7 Tunalik Meade Wrongel Kaolak Tungak Western NPR-A Herald Arch Kokolik River oil ss North Slope Lower Jurassic Assessment Area strata 45 ft below seafloor Akulik Strata at TD Awuna Surprise Cree Nanushuk Torok 🔵 Mt Kelly Kingak Eagle Creel Shublik Sadlerochit C Lisburne Lisburne Endicott 50 m Hills Basement 50 100

The USGS Western North Slope Assessment will encompass an area west of the western boundary of the National Petroleum Reserve-Alaska. The colored circles indicate well locations, with the colors corresponding to the rock formations penetrated at the bottoms of the wells. The Tunalik well is the nearest deep well to the assessment area. Orange dots indicate important rock outcrops.

cinating, lying at the intersection of regional geologic structures of the Chukchi Sea and the western North Slope. The Hanna Trough, a major northwest to southeast trending feature of the Chukchi, trends into the assessment area, where it morphs into a major hollow in the ancient basement rocks that underlie the region. The sedimentary basin to the north of the Brooks Range merges westward into this broad structure. And within this geologic setting lie many of the rock formations familiar elsewhere on

Since 1982 Since 1982 Since 1982 Full Line Steel and Aluminum Distributor Specializing in low temperature steel 6180 Electron Drive Anchorage, AK 99518 (907) 561-1188 www.alaskasteel.com (800) 770-0969 Kenai • Fairbanks the North Slope, albeit with features and characteristic impacted by this particular southwestern North Slope setting.

The Ellesmerian rock sequence, for example, the sequence holding the giant Prudhoe Bay oilfield to the northeast, consists in the assessment area of a series of faulted slabs pushed north by the uplift of the Brooks Range. Here the Saddlerochit Group that hosts the Prudhoe Bay reservoir consists mainly of shale and has some oil and gas source potential. The Shublik, a prolific North Slope oil source rock, is also found in the assessment area and is exposed at Surprise Creek in what appears to be a transition into the Otuk formation, the equivalent formation in the Brooks Range foothills.

Evidence indicates that the presence of rich, thick oil source rocks, spanning the rock sequence from the Shublik up to the base of the Brookian that contains the Nanushuk and Torok, would have resulted in an oil generation kitchen, with oil migrating northward, upwards into a geologic high referred to as the Arctic Platform, Houseknecht commented.

The Nanushuk and Torok formations lie in the Brookian sequence, the youngest and



shallowest of the North Slope petroleum bearing rock sequences. In the Brookian of the Western North Slope assessment area, the Mount Kelly tongue of the Fortress Mountain formation lies below the Nanushuk and Torok. There is evidence that in the assessment area the Nanushuk and Torok were deposited in the southwestern extremity of the basin in which these formations were deposited in the northern part of NPR-A.

Some rocks of the Beaufortian sequence, the sequence that hosts the Kuparuk River and Alpine fields, lie between the Mount Kelly Tongue and the underlying Ellesmerian strata.

Oil and gas potential

There are questions regarding the thermal maturity of the various source rocks in the region, with the older rocks appearing to have mainly been subjected to temperatures where gas rather than oil would have formed. There is the potential for structural oil and gas traps to have formed in the Ellesmerian rocks south of Surprise Creek. However, there appears to be only limited potential for discovering large structural traps below the Torok in the more northerly part of the area, Houseknecht said. He also commented that data from well penetrations relevant to this area suggest poor oil and gas reservoir quality below the Torok.

Houseknecht also presented some initial ideas on how the USGS may subdivide the Western North Slope area for the purposes of carrying out the new assessment. He sees little oil and gas potential in the Lisburne Hills, in the southwestern corner of the area, and does not anticipate conducting a quantitative assessment of this part of the area. A second southern part of the area to the east of the Lisburne hills has some trap potential in the Ellesmerian, although the reservoir quality appears poor. The rocks in more northerly part of the area have good potential as an oil and gas source but, below the Brookian, appear to have poor potential for trapping hydrocarbons and forming reservoirs. Houseknecht said that he is starting to consider this as a source area for oil and gas that would have migrated north, and perhaps northeast. The Brookian in this part of the area has reservoir potential but is excluded from the assessment, having already been assessed in 2017.

Energy industry leader in pipeline engineering, project permitting, data integration, life-cycle asset integrity and compliance

let's explore the possibilities.

exp•com

Contact: Chris Humphrey - Vice President, Arctic Region | chris.humphrey@exp.com

Contact Alan Bailey at abailey@petroleumnews.com

continued from page 1 OIL PRICES

weeks, briefly touching \$45.28 in early morning trading before sliding as the day wore on — closing up 17 cents to \$43.78. WTI mirrored Brent, hitting \$43.05 in the morning before settling to \$41.45 at the New York Mercantile Exchange, a gain of 9 cents on the day.

Oil company stock prices responded positively to the vaccine news, up for the week — as a group — approximately 20%, according to a Forbes report Nov. 11.

Demand outlook uncertain

Despite the positive sentiment generated by the Pfizer's vaccine announcement, the outlook for oil demand remains clouded in the near to medium term due to the risk of new lockdowns and curfews to prevent virus spread. COVID-19 cases are rising in the United States, Europe and other areas around the globe.

The Organization of Petroleum Exporting Countries cut its forecast for oil demand by 300,000 barrels per day this year, in its monthly oil market report released Nov. 11.

OPEC now expects global oil demand of just above 90.0 million bpd this year, down 9.8 million bpd versus 2019.

OPEC also cut its estimate for global oil demand in 2021, calling for demand to grow by 6.2 million bpd versus 2020 — a downward revision of 300,000 bpd compared to its October market report. At an estimated 96.3 million bpd, 2021 global demand would fall short of demand before the pandemic.

Jet fuel demand has been the weak link in the recovery of demand for transportation fuels, as air passenger numbers have recovered much more slowly than



passenger car travel from the abrupt fall in travel earlier in 2020.

While the global daily flight count staged an impressive rebound during the April to August period, the growth appears to have stalled in recent months, according to data compiled by Flightradar24 Live Air Traffic.

Flightradar said the seven-day average of flight counts remains 22.5% under flight count averages for the same period last year.

According to total traveler throughput data compiled by the U.S. Transportation Security Administration, 973,020 travelers passed through TSA checkpoints Nov. 8, versus 2,356,349 on the corresponding day in 2019. That was the highest count so far in November, but shy of the 1,031,505 post-COVID traveler peak set on Oct. 18.

It is unclear to what extent the flatline in flight count data is a result of pandemic-induced travel restrictions and business curtailments, as opposed to normal seasonal reductions in travel demand. In the United States, recent gasoline demand has been stronger than anticipated.

The API reported a 3.297 million-barrel drawdown of gasoline inventories for the week ending Nov. 6, versus a 263,000-barrel draw for the week which analysts had expected.

OPEC said that "sluggishness in transportation and industrial fuel demand is now assumed to last until mid-2021."

The effect of OPEC's less optimistic projections may have mixed results as far as oil price action is concerned. Oil traders are anticipating a summit scheduled for Nov. 30 and Dec. 1 between OPEC, Russia and other partners to discuss the state of oil markets and strategies to proceed with ongoing OPEC+ production cuts.

The demand recovery is proceeding more slowly than OPEC had anticipated, and the cartel has been adjusting its outlook down over the past five months, raising hopes that OPEC+ will extend its current 7.7 million-bpd cut into 2021, rather than dialing it down to 5.7 million bpd on Jan 1, as per its originally agreed schedule.

OPEC's deliberations are further complicated by the return of Libyan oil production to the market.

Libya — home to Africa's largest crude reserves — has raised its oil output to more than 1.1 million bpd, approaching the level it was producing at before the country's civil war paralyzed its energy industry in January, Bloomberg reported Nov. 11.

Bloomberg said Libya ramped up production at its biggest oil fields including Sharara and Waha, quoting "a person familiar with the matter who asked not to be identified because the information isn't public."

Longer term, OPEC sees a brighter picture, with global primary energy demand rising by 25% in the period to 2045, according to OPEC Secretary General Mohammad Sanusi Barkindo.

The jump in demand will be fueled by two main factors: a massive doubling of GDP growth, combined with a 1.7 billion-person rise in global population by 2045, Barkindo said in remarks via video conference Nov. 4 to the 1st High-level Meeting of the OPEC-GECF (Gas Exporting Countries Forum) Energy Dialogue.

"In terms of renewable energy, we expect it to grow faster than any other source of energy, at an average of around 6.6% annually, but oil and gas will continue to make up the lion's share of the energy mix throughout the forecast period," Barkindo said. "Oil is forecast to supply nearly 28% of global needs, followed by gas at around 25%." \bullet

Contact Steve Sutherlin at ssutherlin@petroleumnews.com



Quality & Convenience FOR SALES INFO CALL (907) 852-0320

FORTIFY your business

with a centralized security dashboard and insights from a global intelligence team

FORTIFY your business with AT&T Cybersecurity. Learn more at att.com/cybersecurity

©2020 AT&T Intellectual Property. All Rights Reserved.

