Petroleum news

page 2 ANS output up 3.4% in November; Prudhoe, GMT, have largest gains

Vol. 27, No. 1 • www.PetroleumNews.com A weekly oil & gas newspaper based in Anchorage, Alaska Week of January 2, 2022 • $2.50

Sustained production begins from Narwhal in the Colville River unit

ConocoPhillips Alaska said sustained production began from the Narwhal participating area in the Colville River unit on Dec. 14.

The company applied to the Alaska Division of Oil and Gas and Arctic Slope Regional Corp. Nov. 12 for approval of a participating area at Narwhal and said in that application that it planned to begin sustained production in December.

The PA, covering some 3,360 acres, was approved Dec. 13.

The Narwhal PA encompasses an area on the southeast edge of the Colville River unit where ConocoPhillips drilled the Putu 2 and Putu 2A wells. It is adjacent to the Pikka unit, where Santos (formerly Oil Search) and Repsol are working to develop the Nanushuk.

see **NARWHAL PA** page 12

ERO regulations now in operation

During its Dec. 15 public meeting the Regulatory Commission of Alaska confirmed some minor changes required by the Department of Law to new regulations for electric reliability organizations in Alaska. Approval of the changes means that the revised regulations now go into effect. The regulations implement the terms of Senate Bill 123, a statute passed in 2020 to enable the RCA to regulate EROs in Alaska. The primary purpose of the statute and the associated regulations is to enable the formation of an ERO for the Alaska Railbelt electrical system, to achieve more unified management and operation of the system.

On Dec. 27 the commission issued an order, stating that the amended regulations are now in operation. Under the terms of SB

see **ERO REGS** page 10

AOGCC OKs pool rule changes for 4 Prudhoe Bay satellite fields

The Alaska Oil and Gas Conservation Commission has approved requests from Prudhoe Bay unit operator Hilcorp North Slope to amend pool rules for four Prudhoe oil pools.

Hilcorp took over as Prudhoe operator from BP Exploration (Alaska) in mid-2020.

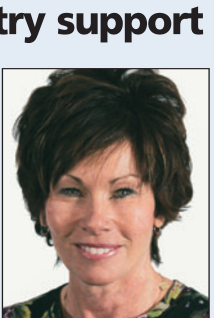
In administrative approvals dated Dec. 20 and Dec. 21, the commission approved amended well spacing for the Aurora, Borealis, Midnight Sun and Polaris oil pools at Prudhoe Bay.

Each of the oil pools previously had specified per-acre spacing for wells in the pools: 40 acres at Aurora and Borealis, 80 acres at Midnight Sun and 20 acres at Polaris.

The commission's statement in its approval of the Aurora spacing amendment is similar to what it said in the other

see **POOL RULES** page 8

Small modular nuclear reactors gain Canada O&G industry support



SONYA SAVAGE

Four Canadian provinces are poised to release a strategic plan to exploit the technology for small modular nuclear reactors, SMRs, which are widely viewed as the answer to cleaning up the conventional oil and gas industry.

A spokeswoman for Alberta Energy Minister Sonya Savage said Alberta, Ontario, Saskatchewan and New Brunswick will issue their joint plan in early 2022, 16 months after announcing a memorandum of understanding to explore and eventually develop the SMRs.

see **MODULAR REACTORS** page 10

EXPLORATION & PRODUCTION

Grey Owl winging

Balcony sees promising indications in eastern North Slope exploration prospect

By **ALAN BAILEY**

For Petroleum News

Balcony Natural Resources Inc. has told Petroleum News that it has obtained very promising results from the reprocessing of seismic data for its Grey Owl prospect, in the eastern North Slope nearly 30 miles south of the Badami oil field. The company says that it anticipates drilling a well in the prospect in the winter of 2022-2023 and is seeking a partner for the drilling.

On Dec. 21 Alaska's Division of Oil and Gas issued a notice that it was granting a lease rental reduction for the last three years of Balcony's state leases that include the Grey Owl prospect. Balcony acquired the leases from Borealis Alaska Oil earlier this year and wants to drill an exploration well in the Grey Owl prospect in the leases. Balcony has told Petroleum News that it has obtained very

The primary target at Grey Owl is in the Canning formation, a Brookian rock formation that is younger than the Nanushuk. The West Kavik well found multiple light oil shows in the Canning, Garrard said.

see **GREY OWL PROSPECT** page 11

FINANCE & ECONOMY

ANS breaches $80

Oil at five-week highs as demand overcomes fears of omicron disruptions

By **STEVE SUTHERLIN**

Petroleum News

Alaska North Slope crude prices crossed back into the $80s Dec. 28, after having crashed out of the mid-$80s in late November due to the announcement of the omicron variant of COVID-19. It dipped to just pennies away from $70 — as Brent and West Texas Intermediate plunged into the $60s — before mounting a staggered post-omicron rally that gained steam as the new variant began to display signs that it was not as deadly or as disruptive as the delta variant.

ANS closed at $80.27 Dec. 28, up 33 cents, while WTI gained 41 cents to close at $75.98 and Brent gained 34 cents to close at $78.94.

The indexes continued upward Dec. 29. ANS rose 55 cents to close at $80.82, WTI rose 58 cents to close at $76.56, and Brent rose 29 cents to close at $79.23.

ANS notched a five-week high Dec. 29. In a Christmas Eve shortened four-day trading week,

Asian buying, or lack of same, factors into the returns from North Slope oil sold on the West Coast, and Asian buyers are making deals to buy oil.

see **OIL PRICES** page 9

EXPLORATION & PRODUCTION

Producers sitting tight

Canadians hesitant to embark on new round of spending with rig hands hard to find

By **GARY PARK**

For Petroleum News

Regardless of the surge in oil and natural gas prices through 2021, Canada's upstream producers are in an unsettled state — gun shy about embarking on a drilling bonanza, while unable to win back skilled rig hands who have been laid off over the past five years, many of whom have opted for jobs in the renewable energy sector.

In its 2022 state-of-the-industry report the Canadian Association of Energy Contractors reflects the mixed view of where the industry is headed.

It points to a cautiously optimistic outlook in which it expects drilling and exploration will rise almost 27% above 2021 levels but suggests there will be a decisive shift towards cleaner energy such as geothermal development and drilling for helium and lithium.

Despite this pattern of ups and downs, "this is the good news story that we've been waiting for (since 2014)," CAOEC President Mark Scholz told reporters.

He said it is the first time in a "very, very long time" that there's a "message of hope."

However, unlike earlier booms, he said the service sector will show strong discipline in how it allocates capital.

Contractor jobs up

Total contractor jobs in 2021 were up 54% from

see **SITTING TIGHT** page 12

● EXPLORATION & PRODUCTION

ANS up 3.4% in November, down from 2020

Largest month-over-month gain at Prudhoe, followed by Greater Mooses Tooth, where GMT2 began producing mid-month; Cook Inlet up

By KRISTEN NELSON

Petroleum News

Alaska North Slope production averaged 497,281 barrels per day in November, up 16,106 bpd, 3.4%, from an October average of 481,176 bpd, but down 1.8% from a November 2020 average of 506,323 bpd.

ANS crude averaged 436,381 bpd, 87.75% of the total, up 8,587 bpd, 2%, from an October average of 427,794 bpd, but down 3.7% from a November 2020 average of 453,036, when crude accounted for 89.5% of total ANS production. ANS Natural gas liquids averaged 60,901 bpd in November, 12.25% of the total, up 7,519 bpd, 14.1%, from an October average of 53,382 bpd, and up 14.3% from a November 2020 average of 53,287 bpd. NGLs are produced at Endicott, Northstar and Prudhoe Bay.

Production data come from the Alaska Oil and Gas Conservation Commission which reports production by field and well on a month delay basis.

The largest per-barrel month-over-month increase was at Hilcorp North Slope-operated Prudhoe Bay, the Slope's largest field, which averaged 283,413 bpd in November, up 7.1%, 18,813 bpd, from an October average of 264,600 bpd and up, by 3.8%, from a November 2020 average of 273,122 bpd.

Crude from Prudhoe averaged 227,203 bpd in November, 80.2% of total volume, up 11,583 bpd, 5.4%, from an October average of 215,620 bpd and up 2.4% from a November 2020 average of 221,988 bpd. Prudhoe NGL production averaged 56,210 bpd in November, 19.8% of the total, up 14.8%, 7,229 bpd, from an October average of 48,981 bpd and up 9.9% from a November 2020 average of 51,133 bpd.

In addition to the primary reservoir, production volumes from Prudhoe include Aurora, Borealis, Lisburne, Midnight Sun, Niakuk, Polaris, Point McIntyre, Put River, Raven and Schrader Bluff.

GMT2 ups Greater Mooses Tooth volumes

The largest percentage increase month-over-month was at ConocoPhillips' Greater Mooses Tooth in the National Petroleum Reserve-Alaska, which averaged 3,933 bpd in November, up 51.5%, 1,336 bpd, from an October average of 2,597 bpd, and up 13% from a November 2020 average of 3,480 bpd.

ConocoPhillips has been producing from GMT1 since October 2018. GMT2, where the company has completed two wells, an injector and a producer, came online partway through November. Based on its 18 days of production, the first producer at GMT2 averaged 2,209 bpd, compared to the three producers at GMT1, which had a combined average for the 30-day month of 2,607 bpd. GMT1 produces from the Lookout oil pool, while GMT2 produces from the Rendezvous oil pool.

Other increases

Hilcorp Alaska's Milne Point field averaged 35,889 bpd in November, up 2.5%, 883 bpd, from an October average of 35,007 but down 1% from a November 2020 average of 36,249 bpd.

ConocoPhillips's Colville River averaged 42,111 bpd in November, up 0.7%, 276 bpd, from an October average of 41,834 bpd but down 13.7% from a November 2020 average of 48,773 bpd.

In addition to oil from the main Alpine pool, Colville production includes satellite production from Nanuq and Qannik.

see **ANS OUTPUT** *page 5*

contents

Petroleum News | *Alaska's source for oil and gas news*

ON THE COVER

EXPLORATION & PRODUCTION

GOVERNMENT

UTILITIES

Keeping you covered.

To advertise in Petroleum News, contact Susan Crane at 907.250.9769

Petroleum news

petroleumnews.com

Alaska-Mackenzie Rig Report

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status

Alaska Rig Status

North Slope - Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
All American Oilfield LLC			
IDECO H-37	AAO 111	Deadhorse, Stacked in Cruz Yard	Available
Doyon Drilling			
Dreco 1250 UE	14 (SCR/TD)	Standby	Hilcorp Alaska LLC
Dreco 1000 UE	16 (SCR/TD)	Standby	
Dreco D2000 Uebd	19 (SCR/TD)	Standby	
AC Mobile	25	Alpine, MT7-05	ConocoPhillips
OIME 2000	141 (SCR/TD)	Standby	
	142 (SCR/TD)	Kuparuk, Start Up	ConocoPhillips
TSM 700	Arctic Fox #1	Commissioning work in Deadhorse yard	Emerald House
ERD	26	Alpine, CD2-310	ConocoPhillips
Hilcorp Alaska LLC			
Rotary Drilling	Innovation	Milne Point, S Pad	Hilcorp Alaska LLC
Nabors Alaska Drilling			
AC Coil Hybrid	CDR-2 (CTD)	Milne Point, Cold Stacked	Available
AC Coil	CDR-3 (CTD)	Kuparuk	ConocoPhillips
Ideco 900	3 (SCR/TD)	Deadhorse, Stacked	Available
Dreco 1000 UE	7-ES (SCR-TD)	Kuparuk	ConocoPhillips
Mid-Continental U36A	3-S	Stacked	Available
Oilwell 700 E	4-ES (SCR)	Stacked	Available
Dreco 1000 UE	9-ES (SCR/TD)	Stacked	Available
Oilwell 2000 Hercules	14-E (SCR)	Deadhorse	Available
Oilwell 2000 Hercules	16-E (SCR/TD)	Stacked	Brooks Range Petroleum
Emsco Electro-hoist			
Oilwell 2000 Canrig 1050E	27-E (SCR-TD)	Stacked	Available
Oilwell 2000	33-E	Deadhorse	Available
Academy AC Electric CANRIG	99AC (AC-TD)	Stacked	Available
OIME 2000	245-E (SCR-ACTD)	12 Acre Pad, stacked	Available
Academy AC electric CANRIG	105AC (AC-TD)	Stacked	Available
Academy AC electric Heli-Rig	106AC (AC-TD)	Stacked	Available
Nordic Calista Services			
Superior 700 UE	1 (SCR/CTD)	Deadhorse	Available
Superior 700 UE	2 (SCR/CTD/TD)	Deadhorse, stacked	Available
Ideco 900	3 (SCR/TD)	Deadhorse, stacked	Great Bear Pantheon
Rig Master 1500AC	4 (AC/TD)	Oliktok Point	ENI
Parker Drilling Arctic Operating LLC			
NOV ADS-10SD	272	Deadhorse, Stacked	Available
NOV ADS-10SD	273	Deadhorse, Stacked	Available

North Slope - Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Doyon Drilling			
Sky top Brewster NE-12	15 (SCR/TD)	Spy Island, SP09-E2 L1	ENI
Nabors Alaska Drilling			
OIME 1000	19AC (AC-TD)	Oooguruk, Stacked	ENI

Cook Inlet Basin – Onshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
BlueCrest Alaska Operating LLC			
Land Rig	BlueCrest Rig #1	Stacked	BlueCrest Alaska Operating LLC
Glacier Oil & Gas	Rig 37	West McArthur River Unit Workover	Glacier Oil & Gas
Hilcorp Alaska LLC			
TSM-850	147	Stacked	Hilcorp Alaska LLC
TSM-850	169	Seaview	Hilcorp Alaska LLC

Cook Inlet Basin – Offshore

Rig Owner/Rig Type	Rig No.	Rig Location/Activity	Operator or Status
Hilcorp Alaska LLC			
National 110	C (TD)	Platform C, Stacked	Hilcorp Alaska LLC
	Rig 51	Steelhead Platform, Stacked	Hilcorp Alaska LLC
	Rig 56	Monopod A-13, stacked	Hilcorp Alaska LLC
Nordic Calista Services			
Land Rig	36 (TD)	Kenai, stacked	Available
Spartan Drilling			
Baker Marine ILC-Skidoff, jack-up		Spartan 151, Tyonek Platform	Hilcorp Alaska LLC
Furie Operating Alaska			
Randolf Yost jack-up		Nikiski, OSK dock	Available
Glacier Oil & Gas			
National 1320	35	Osprey Platform, activated	Glacier Oil & Gas

Mackenzie Rig Status

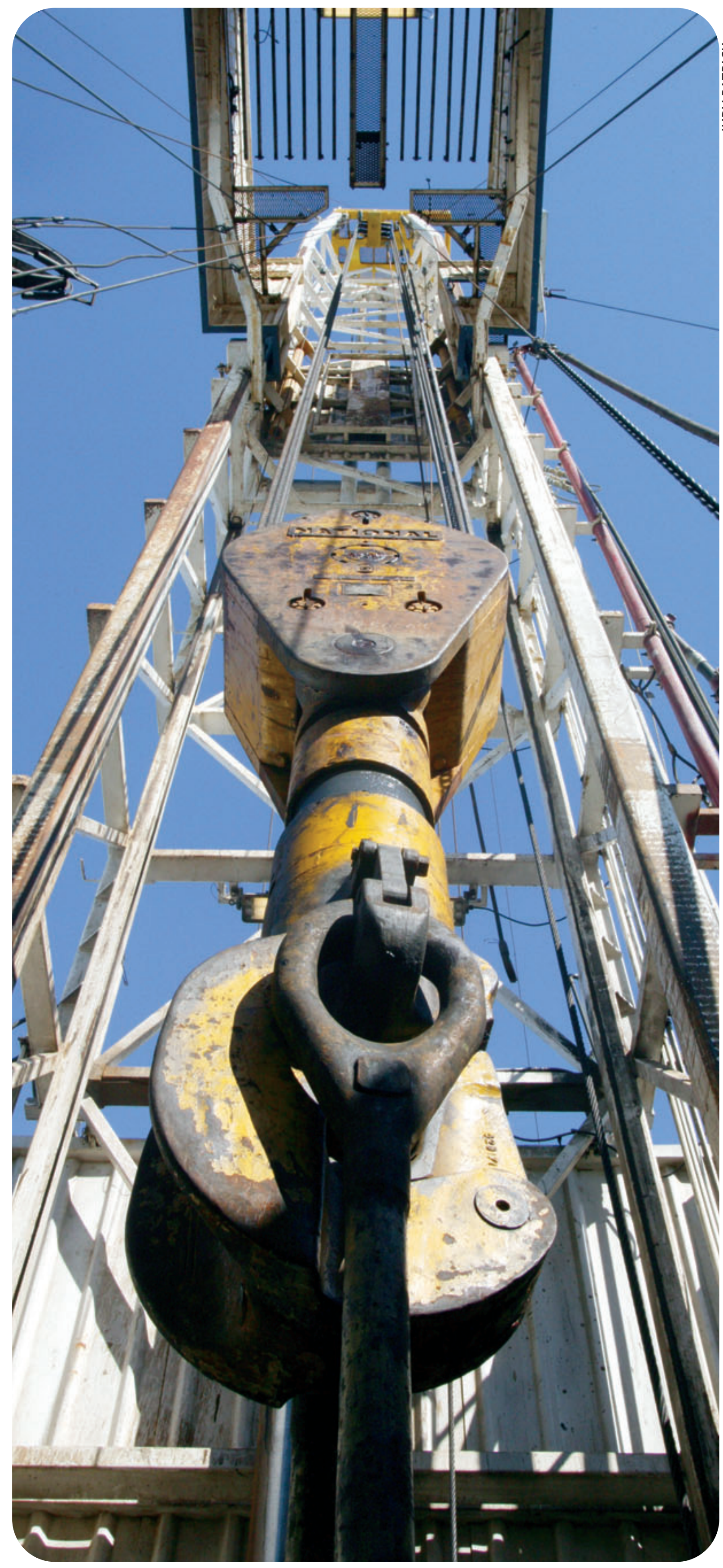
Canadian Beaufort Sea

Rig Owner/Rig Type	Rig Location/Activity	Operator or Status
SDC Drilling Inc.		
SDC Mobile Offshore Drilling Unit Rig #2	Set down at Roland Bay	Available

The Alaska-Mackenzie Rig Report as of December 29, 2021.
Active drilling companies only listed.

TD = rigs equipped with top drive units WO = workover operations
CT = coiled tubing operation SCR = electric rig

This rig report was prepared by Marti Reeve



JUDY PATRICK

Baker Hughes North America rotary rig counts*

	Dec. 23	Dec. 17	Year Ago
United States	586	579	348
Canada	133	167	82
Gulf of Mexico	15	15	17

Highest/Lowest

US/Highest	4530	December 1981
US/Lowest	244	August 2020

*Issued by Baker Hughes since 1944

The Alaska-Mackenzie Rig Report is sponsored by:

ARMSTRONG

GOVERNMENT

AOGCC to meet first Wednesday of month

The Alaska Oil and Gas Conservation Commission will hold public meetings on the first Wednesday of the month in 2022 at 10 a.m. in the commission's hearing room at 333 West 7th Avenue, Anchorage.

Meeting agendas may include — but are not limited to — administrative matters, regulatory matters, policy and budget matters, oil and gas conservation issues, legislative issues, investigative matters, a month report on the commission's activities and agenda items deferred from prior meetings.

Final agendas will be available on the commission's website, although, the commission said, items may be added or deleted from an agenda or a scheduled meeting may be cancelled. Due to COVID-19 health and safety regulations, a scheduled meeting may be changed from in-person to virtual. The commission said such changes will be published on its website at least five business days before the scheduled meeting.

The first public meeting of the year, Jan. 5, will be held via MS Teams, the commission said on its website, with audio call-in at 907-202-7104, conference ID 417 469 471#.

The commission said those wishing to participate remotely using MS Teams should contact AOGCC Special Assistant Ms. Grace Salazar (grace.salazar@alaska.gov) at least two business days prior to the scheduled meeting to request an invitation for MS Teams.

The agenda items listed for the Jan. 5 meeting are R-21-001 adoption of regulation amendments and other business.

—PETROLEUM NEWS

Petroleum news
Subscribe to Petroleum News:
Call 281.978.2771

Petroleum news
www.PetroleumNews.com

Kay Cashman	PUBLISHER & FOUNDER
Mary Mack	CEO & GENERAL MANAGER
Kristen Nelson	EDITOR-IN-CHIEF
Susan Crane	ADVERTISING DIRECTOR
Heather Yates	BOOKKEEPER
Marti Reeve	SPECIAL PUBLICATIONS DIRECTOR
Steven Merritt	PRODUCTION DIRECTOR
Alan Bailey	CONTRIBUTING WRITER
Eric Lidji	CONTRIBUTING WRITER
Gary Park	CONTRIBUTING WRITER (CANADA)
Steve Sutherlin	CONTRIBUTING WRITER
Judy Patrick Photography	CONTRACT PHOTOGRAPHER
Forrest Crane	CONTRACT PHOTOGRAPHER
Renee Garbutt	CIRCULATION MANAGER

ADDRESS
P.O. Box 231647
Anchorage, AK 99523-1647

NEWS
907.522.9469
publisher@petroleumnews.com

CIRCULATION
907.522.9469
circulation@petroleumnews.com

ADVERTISING
Susan Crane • 907.770.5592
scrane@petroleumnews.com

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. 27, No. 1 • Week of January 2, 2022

Published weekly. Address: 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.

GOVERNMENT

Division amends denial of rental reduction

Alaska Division of Oil and Gas Director Tom Stokes has issued a correction to a Dec. 10 denial of rental reduction for four Finnex LLC state oil and gas leases.

He said Dec. 21 that the working interest owners listed in the Dec. 10 decision (Finnex, Caracol Petroleum LLC, TP North Slope Development LLC, Nabors Drilling Technologies USA Inc. and AVCG LLC) were in error.

The rental rate for the 10-year leases is $10 per acre for the first seven years, and $250 per acre for years eight through 10, unless the division determines the lessee has exercised reasonable diligence in exploring and developing the lease.

The decision is amended to correct the WIOs.

Stokes said the application, submitted by Finnex, was on behalf of WIOs including Finnex, Nabors Drilling Technologies USA Inc. and AVCG LLC.

No other aspect of the Dec. 10 decision has been altered.

The reduction request (see story in Dec. 19 issue of Petroleum News) was for four non-contiguous leases some 4 miles southeast of Nuiqsut between the Colville and Kachemach rivers.

The division previously approved a rental reduction for year eight of the leases, based on work completed, but Stokes said in the Dec. 10 decision: "The Lessee has highlighted no additional work since the Prior Application and the WIOs have not exercised reasonable diligence to explore and develop the Leases which would warrant a rental reduction." The rental rate for the 10-year leases is $10 per acre for the first seven years, and $250 per acre for years eight through 10, unless the division determines the lessee has exercised reasonable diligence in exploring and developing the lease.

—KRISTEN NELSON

UTILITIES

Chugach Electric asks COVID adjustment

Southcentral Alaska utility Chugach Electric Association continues to be impacted by a downturn in electricity sales, in particular to its commercial customers, as a consequence of the COVID-19 pandemic. To compensate for the income downturn, the utility has applied to the Regulatory Commission of Alaska for approval of a 4.1% increase in its base rates, the component of its fees used to cover its electricity supply costs. However, the utility anticipates that a reduction in the gas fuel costs that it passes on to its customers will offset the base rate increase — the reduced cost of gas could cause electricity bills to drop by 0.1% to 5%, depending on the class of customer, the utility says.


LEE THIBERT

"Like every business in Alaska, we have worked hard to keep the company healthy, delivering reliable power to our members, while dealing with the impacts of COVID-19," said Chugach Electric CEO Lee Thibert. "It's fortunate that, as we ask for this increase in base rates, members will also have the benefit of lower fuel costs, which will mean bills will not increase early next year."

As previously reported in Petroleum News, in July Chugach Electric applied to the RCA for approval of a modification to the terms of the agreement under which Chugach Electric purchased Municipal Light & Power in October 2020. The modification provided a means of avoiding a rate increase because of the impact of the pandemic on electricity sales. The commission did approve that request for 2021, but not for 2022. Hence, the request now for approval of a base rate increase.

The reduction in the cost of fuel gas results from Chugach Electric's purchase of ML&P. Essentially, as part of the purchase, Chugach Electric acquired ML&P's ownership interests in the Beluga River gas field. With Chugach Electric now having two-thirds ownership of the field, the utility has increased its access to a relatively cheap source of gas to fuel its gas-fired power generators.

—ALAN BAILEY

continued from page 2

ANS OUTPUT

Month-over-month declines

The ConocoPhillips-operated Kuparuk River averaged 83,920 bpd in November, down 4.2%, 3,631 bpd, from an October average of 87,552 bpd and down 14.2% from a November 2020 average of 97,752 bpd.

In addition to the main Kuparuk pool, Kuparuk produces from satellites at Meltwater, Tabasco and Tarn, and from West Sak.

Eni's Nikaitchuq averaged 17,671 bpd in November, down 5.2%, 977 bpd, from an October average of 18,648 bpd and up 15.7% from a November 2020 average of 15,275 bpd.

The ExxonMobil Production-operated Point Thomson field, with Hilcorp Alaska scheduled to take over as operator early next year, averaged 8,540 bpd in November, down 5.6%, 509 bpd, from an October average of 9,048 bpd and up 1.2% from a November 2020 average of 8,646 bpd.

Eni's Oooguruk averaged 5,569 bpd in November, down 2.9%, 167 bpd, from an October average of 5,736 bpd and down 22.3% from a November 2020 average of 7,166 bpd.

Badami, operated by Savant Alaska, a Glacier Oil & Gas company, averaged 1,058 bpd in November, down 0.3%, 3 bpd, from an October average of 1,061 bpd and down 41.8% from a November 2020 average of 1,817 bpd.

Cook Inlet up month-over-month

Liquids production from Cook Inlet averaged 9,654 bpd in November, up 4.7%, 433 bpd, from an October average of 9,221 bpd and down 11.8% from a November 2020 average of 10,940 bpd.

A small volume of NGLs is produced at Swanson River, 68 bpd in November, but 99.3% of Cook Inlet liquids production in November was crude oil.

Cook Inlet largest field, Hilcorp's McArthur River, averaged 2,672 bpd in November, up 6.9%, 172 bpd, from an October average of 2,500 bpd and down 30.5% from a November 2020 average of 3,843 bpd.

Hilcorp's Granite Point averaged 2,539 bpd in November, down 1.9%, 49 bpd, from an October average of 2,587 bpd and down 14.2% from a November 2020 average of 2,958 bpd.

Redoubt, a Cook Inlet Energy field, averaged 1,051 bpd in November, up 26.8%, 222 bpd, from an October average of 829 bpd; the field was not in operation in November 2020. CIE is a Glacier Oil & Gas company.

Hilcorp's Trading Bay averaged 884 bpd in November, up 0.2%, 1 bpd, from an October average of 883 bpd and down 16.4% from a November 2020 average of 1,057 bpd.

BlueCrest's Hansen field averaged 851 bpd in November, down 2.3%, 20 bpd, from an October average of 871 bpd and down 7.3% from a November 2020 average of 917 bpd.

Hilcorp's Swanson River averaged 750 bpd, down 3.3%, 26 bpd, from an October average of 776 bpd and down 5% from a November 2020 average of 789 bpd.

CIE's West McArthur River averaged 309 bpd in November, up 205%, 208 bpd, from an October average of 101 bpd (the field was returned to production that month and only had partial month production); the field was not in operation in November 2020.

ANS crude oil production peaked in 1988 at 2.1 million bpd; Cook Inlet crude oil production peaked in 1970 at more than 227,000 bpd.●

Contact Kristen Nelson
at knelson@petroleumnews.com

Cook Inlet natural gas up 1.6%

Natural gas production from Cook Inlet averaged 205,988 thousand cubic feet per day in November, up 3,141 mcf per day, 1.6%, from an October average of 202,847 mcf per day and down 9.3% from a November 2020 average of 227,036 mcf per day.

This data is from the Alaska Oil and Gas Conservation Commission, which reports production on a month-delay basis. For natural gas AOGCC reports measurements in thousands of cubic feet, mcf.

Cook Inlet's larger fields, each representing 5% or more of production, represented 79.1% of gas production in November, an average of 162,864 mcf per day.

Hilcorp's North Cook Inlet averaged 31,576 mcf per day in November, 15.3% of inlet production, up 59.2%, 11,744 mcf per day, from an October average of 19,832 mcf per day and up 78.8% from a November 2020 average of 17,661 mcf per day.

Hilcorp's Ninilchik averaged 30,221 mcf per day in November, 14.7% of inlet production, down 10.4%, 3,511 mcf per day, from an October average of 33,732 mcf per day and up 1.4% from a November 2020 average of 29,791 mcf per day.

Hilcorp's Kenai field averaged 29,195 mcf per day in November, 14.2% of inlet production, down 7%, 2,183 mcf per day, from an October average of 31,378 mcf per day and down 36.5% from a November 2020 average of 45,937 mcf per day.

Beluga River, operated by Hilcorp, averaged 26,527 mcf per day in November, 12.9% of inlet production, up 858 mcf per day, 3.3%, from an October average of 25,670 mcf per day and up 9.7% from a November 2020 average of 24,188 mcf per day.

Hilcorp's McArthur River averaged 21,797 mcf per day, 10.6% of inlet production, down 1.3%, 285 mcf per day, from an October average of 22,082 mcf per day and down 30.4% from a November 2020 average of 31,293 mcf per day.

Hilcorp's Swanson River averaged 12,355 mcf per day in November, 6% of inlet production, down 15.5%, 2,263 mcf per day, from an October average of 14,618 mcf per day and down 38.4% from a November 2020 average of 20,053 mcf per day.

Furie's Kitchen Lights averaged 11,194 mcf per day in November, 5.4% of inlet production, up 1,619 mcf per day, 16.9%, from an October average of 9,575 mcf per day and down 15.8% from a November 2020 average of 13,280 mcf per day.

Smaller fields

Smaller inlet fields collectively accounted for 20.9% of inlet production in November.

Hilcorp's Ivan River averaged 9,713 mcf per day in November, down 7.7%, 813 mcf per day, from an October average of 10,526 mcf per day, and up 163.8% from a November 2020 average of 3,682 mcf per day.

Hilcorp's Beaver Creek averaged 8,992 mcf per day in November, down 604 mcf per day, 6.3%, from an October average of 9,595 mcf per day and down 34.9% from a November 2020 average of 13,809 mcf per day.

AIX's Kenai Loop averaged 4,288 mcf per day in November, down 0.5%, 21 mcf, from an October average of 4,309 mcf per day and down 15.8% from a November 2020 average of 5,094 mcf per day.

Hilcorp's Cannery Loop averaged 4,171 mcf per day in November, down 14.2%, 692 mcf per day, from an October average of 4,862 mcf per day and down 16.3% from a November 2020 average of 4,981 mcf per day.

Hilcorp's Granite Point averaged 3,509 mcf per day in November, down 1.7%, 59 mcf per day, from an October average of 3,568 mcf per day and down 6.6% from a November 2020 average of 3,758 mcf per day.

Hilcorp's Deep Creek averaged 3,469 mcf per day in November, down 496 mcf per day, 12.5%, from an October average of 3,965 mcf per day and down 4.4% from a November 2020 average of 3,629 mcf per day.

Vision Operating's North Fork averaged 2,987 mcf per day in November, up 364 mcf per day, 13.9%, from an October average of 2,622 mcf per day, and down 6.2% from a November 2020 average of 3,184 mcf per day.

BlueCrest's Hansen averaged 2,120 mcf per day in November, down 267 mcf per day, 11.2%, from an October average of 2,386 mcf per day, and down 25.5% from a November 2020 average of 2,846 mcf per day.

Hilcorp's Trading Bay averaged 1,611 mcf per day in November, up 18 mcf per day, 1.1%, from an October average of 1,593 mcf per day and down 17.2% from a November 2020 average of 1,945 mcf per day.

Amaroq's Nicolai Creek averaged 415 mcf per day in November, down 24 mcf per day, 5.5%, from an October average of 439 mcf per day and up 32.7% from a November 2020 average of 313 mcf per day.

Hilcorp's Nikolaevsk averaged 305 mcf per day in November, down 7 mcf per day, 2.2%, from an October average of 312 mcf per day and down 11.7% from a November 2020 average of 345 mcf per day.

Hilcorp's Seaview averaged 219 mcf per day in November, down 49.4%, 214 mcf per day, from an October average of 433 mcf per day. The field was not yet in production in November 2020.

Cook Inlet Energy's, CIE's, Redoubt averaged 213 mcf per day in November, up 48 mcf, 28.9%, from an October average of 166 mcf per day; the field was not in operation in November 2020. CIE is a Glacier Oil & Gas company.

CIE's West McArthur River averaged 53 mcf per day in November, up 37 mcf per day, 230%, from an October average of 16 mcf per day; the field was not in operation in November 2020.

Cook Inlet natural gas production peaked in the mid-1990s at more than 850,000 mcf per day.

—KRISTEN NELSON

EEIS CONSULTING ENGINEERS, INC.

Functional, Climate Appropriate Architecture and Engineering for Alaska Projects

- Industrial Facilities for North Slope
- Health Care Facilities
- Hospitality Facilities
- Commercial Buildings

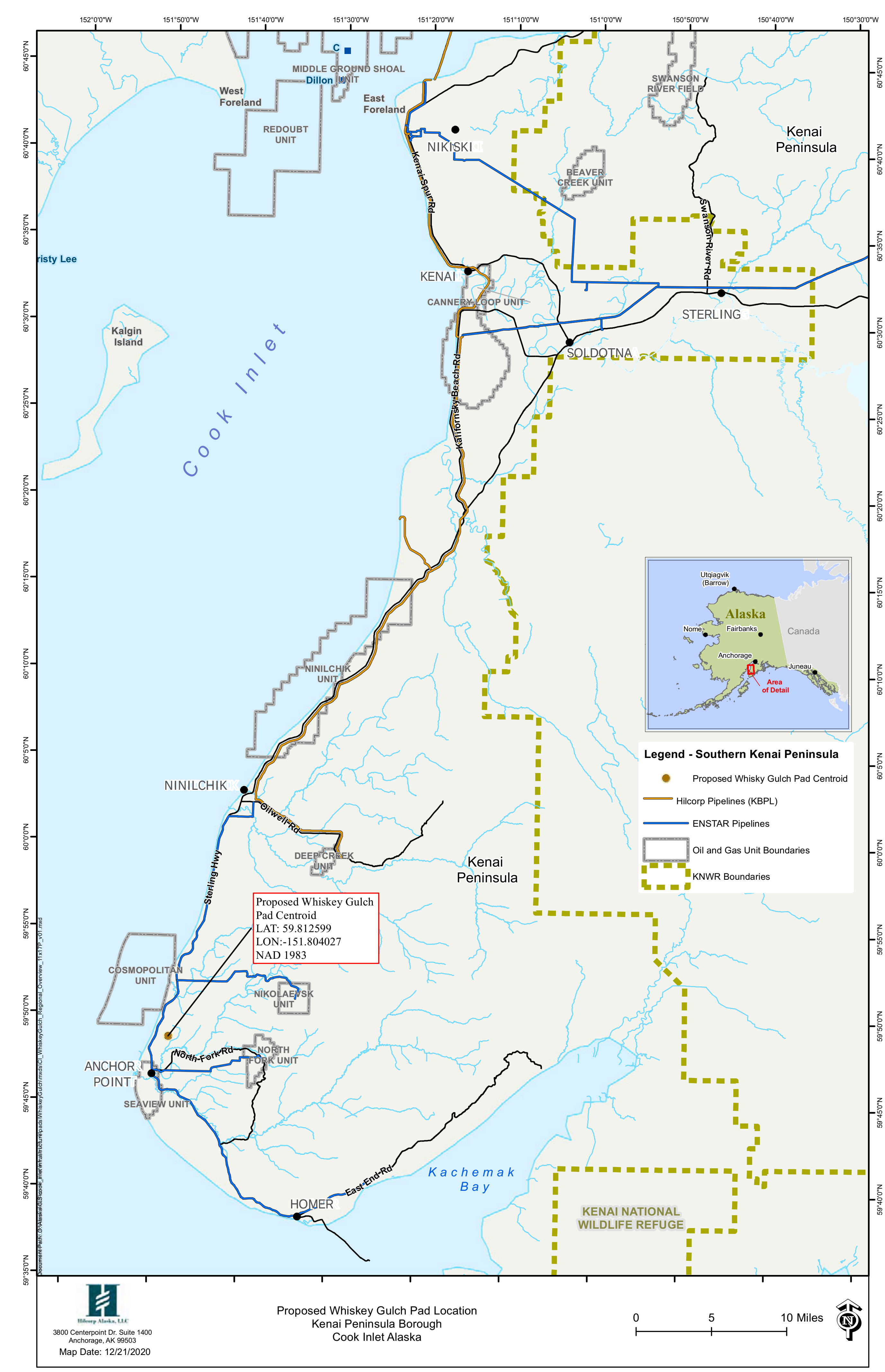
ARCHITECTURE | CIVIL | STRUCTURAL | MECHANICAL PROCESS ENGINEERING

Office: 624 W International Airport Rd., Suite 104, Anchorage, Alaska 99518
Mailing: P.O. Box 92169, Anchorage, Alaska 99509-2169
Phone: 907.258.3231 | Fax: 907.272.1288 | Website: eeis.net

● EXPLORATION & PRODUCTION

AOGCC approves Whiskey Gulch No. 14

Hilcorp needed spacing exception from commission; Division of Oil and Gas needs to approve a participating area before production



By KRISTEN NELSON

Petroleum News

The Alaska Oil and Gas Conservation Commission has approved an application from Hilcorp Alaska for a spacing exception for the Whiskey Gulch No. 14 exploration well.

The spacing exception application, filed Nov. 12, would allow Hilcorp to drill the Whiskey Gulch No. 14 in the Whiskey Gulch undefined gas pool "within 1,500 feet of a property line where the owners and landowners are not the same on both sides of the line, and where more than one well will be drilled to and completed in the same pool in the same governmental section, and where a well will be drilled or completed closer than 3,000 feet to any well drilling to or capable of producing from the same pool," the company said.

Hilcorp said WG 1, completed in July 2021, was the first exploration well drilled at Whiskey Gulch, and said in its Nov. 12 application that the WG 1 well was "currently being tested in hopes to discover commercial quantities of oil and/or gas."

Whiskey Gulch 14 would be the second exploration well at the prospect north of Anchor River, and north of the company's producing Seaview field, on the southern Kenai Peninsula.

WG 14 will target unproven reserves in the Sterling, Beluga and Tyonek formations.

The commission public noticed the application and tentatively scheduled a hearing. No comments or objections were received and the commission vacated the hearing.

In discussing spacing exceptions, the commission said applications for exceptions to the default well spacing requirements are not unusual, but said it carefully evaluates applications, "and typically grants them only when actual geologic conditions demonstrate that the proposed subsurface location of a well is necessary to reach otherwise unreachable oil or gas and that both the rights of adjacent landowners and underground drinking water can be protected."

AOGCC said the WG 14 is planned to be drilled in late 2021 to a measured depth of 8,491 feet, equivalent to 7,721 feet true vertical depth.

Because pool rules for Whiskey Gulch have not been established, statewide spacing rules apply.

The commission approved the well Dec. 21.

Participating area required

WG 14 is targeting unproven reserves in the Sterling, Beluga and Tyonek formations within the Whiskey Gulch undefined gas pool.

The commission said that following successful completion of the WG 14, Hilcorp intends to apply to the Alaska Division of Oil and Gas for formation of a participating area.

There is complex land ownership in the Whiskey Gulch field, and AOGCC said it is obligated to protect correlative rights. No production will be allowed prior to a state-approved PA, the commission said, adding that production cannot occur until AOGCC reviews the PA.

The commission said Hilcorp proposes to allocate royalties to all leased owners/landowners based on "tract allocation percentages, mineral ownership, and lease royalty shown on the approved PA allocation schedule."

Closest production Seaview 8

In its application Hilcorp told the commission the closest producing gas well is Seaview No. 8, south of WG 14.

The company said it expects that productive sands in the WG 14 "are discontinuous channel sands" in the Sterling, Beluga and Tyonek formations "that cannot be produced by wells conforming to applicable spacing restrictions."

Hilcorp said geologic analysis of WG 1 drilling data "along with data from surrounding fields suggests that the Whiskey Gulch Undefined Gas Pool consists of a series of thin, discontinuous, stacked channel sands with a low net-to-gross ratio." Those channel belts, Hilcorp said, are too narrow for efficient drainage based on current gas well spacing.

Hilcorp said WG 1, completed in July 2021, was the first exploration well drilled at Whiskey Gulch, and said in its Nov. 12 application that the WG 1 well was "currently being tested in hopes to discover commercial quantities of oil and/or gas."

In 2019 and 2020, Hilcorp drilled a dozen Whiskey Gulch 600-foot stratigraphic tests.

Whiskey Gulch is the company's second prospect on the southern end of the Kenai Peninsula. It brought the Seaview gas field south of Whiskey Gulch online last summer. ●

Contact Kristen Nelson at knelson@petroleumnews.com

● EXPLORATION & PRODUCTION

Hilcorp adds 4 V pad wells at Prudhoe

PETROLEUM NEWS

The Alaska Division of Oil and Gas has approved an amendment to Hilcorp North Slope's unit plan of operations for Prudhoe Bay, adding four wells at V pad.

The division said in its Dec. 28 approval that Hilcorp requested authorization to drill up to four wells and install associated infrastructure "to facilitate production activities" at V pad in the Prudhoe Bay unit.

The wells will be within the existing well row and will be drilled by Doyon 14 or the Hilcorp Innovation rig, with personnel housed onside in a mobile camp or in existing Prudhoe camps.

Drilling and associated activities will take place within the existing gravel footprint, the division said.

Work is expected to begin Feb. 15 with drilling to be completed by April 30 and remaining associated activities completed shortly thereafter.

Activities include:

•Prepare for drilling, mobilizing "equipment including drill rig and pipe, boilers, mud tanks/mud pumps, rig generator, work trailers, light plants, excavator, mini excavator, super sucker, zoom boom, weld truck, and ground thaw unit."

•Install 20-inch conductors and headers.

•Drill four development wells.

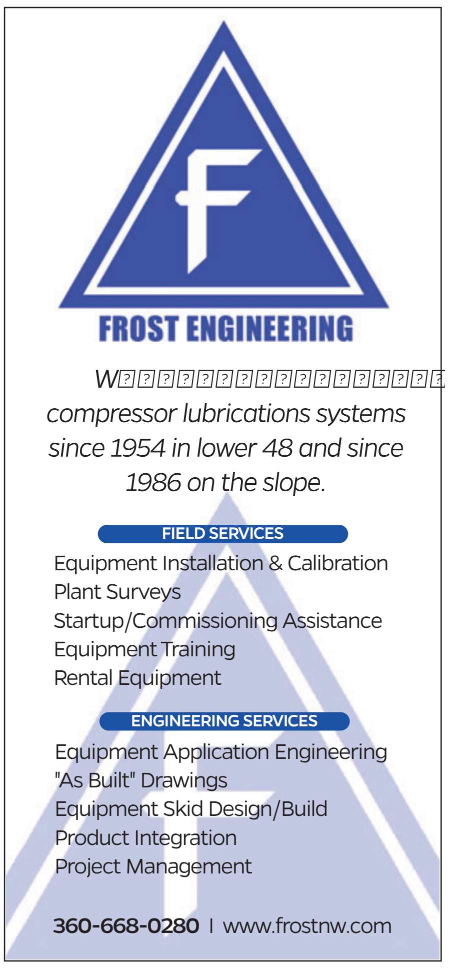
•Install some 1,320 feet of facility piping, electrical lines and instrumentation lines to tie wells into production infrastructure.

•Place wellhouses.

•Install heat trace, power and instrumentation cable.

•Install up to 10 thermosiphons.

•Tie in wells to existing infrastructure.●



EXPLORATION & PRODUCTION

Baker Hughes US rig count up by 7 to 586

Baker Hughes' U.S. rotary drilling rig count for the week ending Dec. 23 — the week prior to Christmas — continued its upward climb, adding seven rigs from the previous week for a total of 586, up 238 from a count of 348 a year ago.

When the count dropped to 244 in mid-August 2020 it was the lowest the domestic rotary rig count has been since the Houston based oilfield services company began issuing weekly U.S. numbers in 1944.

Prior to 2020, the low was 404 rigs in May 2016. The count peaked at 4,530 in 1981.

The count was in the low 790s at the beginning of 2020, where it remained through mid-March, when it began to fall, dropping below what had been the historic low in early May with a count of 374 and continuing to drop through the third week of August 2020 when it gained back 10 rigs.

The Dec. 23 count includes 480 rigs targeting oil, up by five from the previous week and up 216 from 264 a year ago, with 106 rigs targeting gas, up by two from the previous week and up 23 from 83 a year ago, and no miscellaneous rigs, unchanged from the previous week and down by one from a year ago.

Thirty-one of the rigs reported Dec. 23 were drilling directional wells, 528 were drilling horizontal wells and 31 were drilling vertical wells.

New Mexico (93) and Texas (279) were each up by four rigs from the previous week.

Louisiana (48) was done by a single rig.

Rig counts in all other states were unchanged week over week: Alaska (5), California (8), Colorado (12), North Dakota (27), Ohio (11), Oklahoma (48), Pennsylvania (19), Utah (10), West Virginia (10) and Wyoming (15).

Baker Hughes shows Alaska with five rigs active Dec. 23, unchanged from the previous week and up by three from a year ago, when the state's rig count stood at two.

The rig count in the Permian, the most active basin in the country, was up by six from the previous week at 294 and up by 121 from 173 a year ago.

—KRISTEN NELSON

continued from page 1

POOL RULES

approvals.

Since the pool rules were approved, "drilling and completion practices have significantly advanced. Strict adherence to a rigid well spacing requirement can prevent smaller targets from being targeted and does not provide for wells to be placed for optimal development of the AOP (Aurora oil pool)."

The amended well spacing requirements retain the requirement that "no well shall be opened to production within 500 feet of a property line where ownership and landownership are not the same on both sides of the property line."

The commission said rigid well spacing requirements were once common for oil pools in Alaska, "but over the years the spacing has been revised to eliminate the inter-well spacing requirements while retaining the standoff restrictions from property lines to allow for optimal development of the pool while protecting the correlative rights of nearby landowners." The amended well spacing requirements retain the requirement that "no well shall be opened to production within 500 feet of a property line where ownership and landownership are not the same on both sides of the property line."

Schrader Bluff

In September the commission approved amendment of pool rules for the Schrader Bluff oil pool at Prudhoe to eliminate the 10-acre spacing requirement for that oil pool.

In its Schrader Bluff approval the commission noted that the 10-acre spacing requirement was issued in 2004 and since that time, "horizontal wells and multi-lateral wells have become a much more common development method for the Schrader Bluff formation developments across the North Slope."

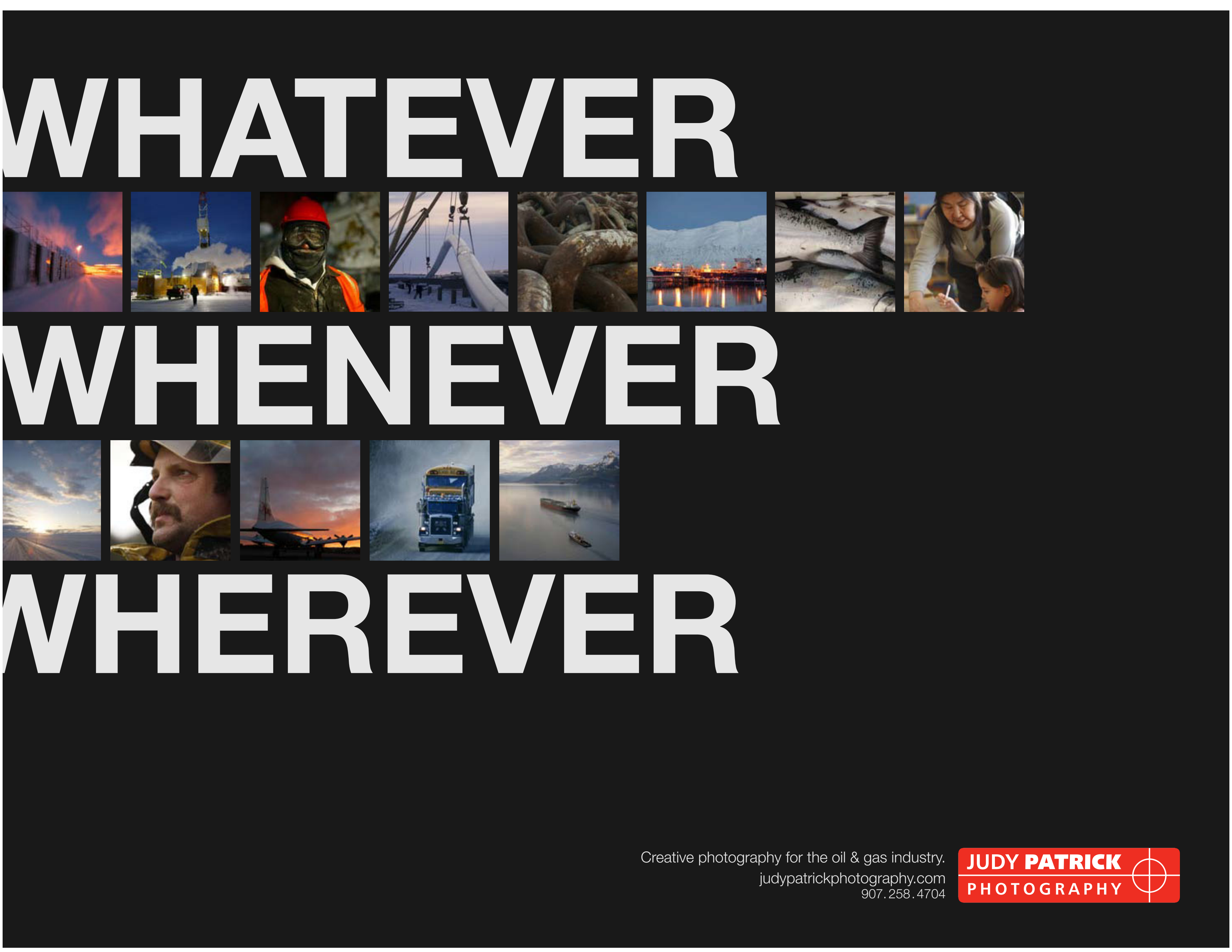
The commission said the old, per-acre requirements "do not work well for horizontal wells since they do not pass through the target formation on vertical or near vertical trajectories but instead travel for thousands of feet horizontally or near horizontally through the target formation."

Horizontal and multi-lateral wells are not exclusive to the Schrader Bluff formation, the commission said, but have "been used extensively through the state, and as such, the AOGCC has eliminated acre-based and interwell spacing requirements for many pools across the state to allow for more efficient development of the oil and gas resources."

However, the commission noted, when it has eliminated acre-based or interwell spacing requirements, "it has always imposed property line offset requirements in order to protect correlative rights along property lines where ownership is not the same on both sides of the property line."

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com



continued from page 1

OIL PRICES

ANS gained $3.76 over its Dec. 22 closing price of $77.06 — a four-week high.

ANS also notched another week of trading at a premium to Brent. The spread that ANS of recent enjoys over Brent supports the idea that Pacific cargoes of oil are currently a desirous commodity, and it supports the notion that cargoes that otherwise would have landed on the West Coat to compete with ANS are instead routing to Asia.

Expanding prices on the Pacific hint that someone in Asia is buying oil.

The spread has maintained as oil prices move higher across the board as the global market tunes to the reality that due to CAPEX underinvestment and regulatory roadblocks, the pace of new discoveries going to development is likely to remain moribund. Meanwhile, demand for oil is growing as pandemic restrictions fall away.

ANS also notched another week of trading at a premium to Brent. The spread that ANS of recent enjoys over Brent supports the idea that Pacific cargoes of oil are currently a desirous commodity, and it supports the notion that cargoes that otherwise would have landed on the West Coat to compete with ANS are instead routing to Asia.

The relationship between Alaska producers and buyers on the West Coast does not exist in a vacuum. Asian buying, or lack of same, factors into the returns from North Slope oil sold on the West Coast, and Asian buyers are making deals to buy oil.

The word from Chinese sources is that Chinese purchasing officials have been directed to obtain energy to supply a post pandemic recovery — at any cost. China will burn more oil and more coal to meet its needs.

As prices rise, more oil will flow to Asia until the shortage eases. China does not openly share its crude buying plans or activities with the west. The buying could slow at any time.

Considering the current ANS over Brent spread of $1.59, and the fact that Brent frequently sells at a premium to ANS, the price of Pacific cargoes relative to Brent could shift three or more dollars per barrel if the pendulum swings the other way.

US demand drives prices higher

ANS pricing has been bolstered by strong gasoline demand on the West Coast. While record snows have disrupted air travel over the holidays, motor fuel demand will be driven by the need to dig out from storms that have buried towns and roads as far south as the Sierras.

Recent weeks have also seen robust demand throughout the United States.

U.S. commercial crude oil inventories for the week ending Dec. 24 — excluding the Strategic Petroleum Reserve — fell by 3.6 million barrels from the previous week. At 420.0 million barrels, inventories are 7% below the five-year average for the time of year, the U.S. Energy information Administration reported Dec. 29.

Total motor gasoline inventories decreased by 1.5 million barrels, 6% below the five-year average for the time of year, while distillate fuel inventories decreased by 1.7 million barrels and are 14% below the five-year average for the time of year, the EIA said. Total commercial petroleum inventories decreased by 18.9 million barrels.

Total products supplied over the last four-week period averaged 21.4 million barrels a day, up by 12.4% from the same period last year, the EIA said. Over the past four weeks, motor gasoline product supplied averaged 9.3 million bpd, up by 17.1% from the period last year.

Jet fuel product supplied was up 20.6% compared with the same four-week period last year, the EIA said.

U.S. commercial crude oil inventories for the week ending Dec. 24 — excluding the Strategic Petroleum Reserve — fell by 3.6 million barrels from the previous week. At 420.0 million barrels, inventories are 7% below the five-year average for the time of year, the U.S. Energy information Administration reported Dec. 29.

Russia projects demand growth

Russia expects oil demand to grow in 2022 by about 4 million barrels per day, Russian Deputy Prime Minister Alexander Novak told RBC in a Dec. 29 interview.

"We are seeing that even the spread of new strains of coronavirus delta and omicron does not so much affect the reduction in population mobility," Novak said. "Despite the ongoing pandemic, oil consumption is still growing, this suggests that the economy continues to recover."

Novak said OPEC+ approaches its supply decisions based on careful consideration of demand, and it won't be swayed to alter its course by requests from consuming nations.

"The United States, for some reason does not urge their companies to increase production of shale oil, which has significantly decreased over the past two years," he said. "It seems to me that there is a contradiction in their actions."

Novak also discounted the impact of crude releases from strategic reserves.

"The world consumes about 36 billion barrels a year," he said. "The appearance of an additional 50-60 million barrels in the market — this is not the level that can seriously affect the balance of supply and demand." ●

Contact Steve Sutherlin at ssutherlin@petroleumnews.com

Petroleum news

Advertiser Index

Companies involved in Alaska's oil and gas industry

ADVERTISER — PAGE AD APPEARS

A

ABR, Inc.
Acuren 4
Ahtna, Inc.
Airgas, an Air Liquide Company
Airport Equipment Rentals
Alaska Dreams
Alaska Frontier Constructors (AFC)
Alaska Fuel Services 12
Alaska Marine Lines
Alaska Materials
Alaska Railroad
Alaska Rubber Group 7
Alaska Steel Co.
Alaska Textiles
Alaska West Express
Arctic Controls 4
ARCTOS Alaska, Division of NORTECH
Armstrong 3
ASTAC (Arctic Slope Telephone Assn. Coop, Inc)
AT&T
Avalon Development

B-F

Bombay Deluxe
Brooks Range Supply
Calista Corp.
ChampionX
Coffman Engineers
Colville Inc.
Computing Alternatives
CONAM Construction
Construction Machinery Industrial (CMI)
Cook Inlet Tug & Barge
Cruz Construction
Denali Universal Services (DUS) 8
Doyon Anvil
Doyon Associated
Doyon Drilling
Doyon, Limited
EEIS Consulting Engineers, Inc. 5
EXP Energy Services 10
F. R. Bell & Associates, Inc.
Flowline Alaska
Frost Engineering Service Co. – NW 7

G-M

GCI
GeoLog
GMW Fire Protection
Greer Tank & Welding
Guess & Rudd, PC
HDR Engineering, Inc.
Inlet Energy
Inspirations 10
Judy Patrick Photography 8
Little Red Services, Inc. (LRS)
Lynden Air Cargo
Lynden Air Freight
Lynden Inc.
Lynden International
Lynden Logistics
Lynden Transport
Maritime Helicopters 2
Matson

N-P

Nabors Alaska Drilling
NANA Worley
Nature Conservancy, The
NEI Fluid Technology
Nordic Calista 11
North Slope Borough
North Slope Telecom
Northern Air Cargo
Northern Solutions
Oil Search
Owl Ridge Natural Resource Consultants
PND Engineers, Inc.
PRA (Petrotechnical Resources of Alaska)
Price Gregory International

Q-Z

Resource Development Council
SALA Remote Medics
SeaTac Marine Services
Sourdough Express
Strategic Action Associates
Tanks-A-Lot
US Ecology Alaska
Weston Solutions
Wolfpack Land Co.
Yukon Fire Protection

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

Trusted upstream coverage

To advertise
call Susan at 907.250.9769

Petroleum news
petroleumnews.com

continued from page 1

ERO REGS

123, if an application for an ERO certificate is not filed within 90 days of the order, the RCA will itself move forward with the formation of a Railbelt ERO. The Railbelt electric utilities are in the process of forming the Railbelt Reliability Council as an ERO for the Railbelt.

The commissioners have also scheduled a technical conference on Jan. 10 for discussions on the implementation of the new ERO regulations.

The regulations address three major areas of ERO responsibilities. The first area spells out the requirements for ensuring that an ERO governance board provides appropriately balanced oversight of the electrical system, taking into account the interests of all stakeholders in the system. The second area deals with integrated resource planning for the electrical system, and commission pre-approval of major new developments such as new power stations or major additions to the transmission network. The third area addresses the filing of electricity system reliability standards and the rules for ERO operation.

—ALAN BAILEY

Contact Alan Bailey at abailey@petroleumnews.com

continued from page 1

MODULAR REACTORS

The cooperative released a feasibility study last April which found SMRs could help Canada improve its domestic energy security and give a lift to company pledges to reducing greenhouse gas emissions.

Duane Bratt, a political scientist and nuclear expert at Mount Royal University in Calgary, said there is no way to achieve net-zero emissions in the oil and gas sector by 2050 without enlisting the aid of nuclear power.

"Given the importance of the oil sands in reducing greenhouse gas emissions, this may be the opportunity," he said.

Bratt said he could not recall oil and gas companies being "so bullish" on the use of nuclear power, which he views as clear proof of enthusiasm for SMRs because the idea is "led by industry and not government."

However, he said that cooperation among the provincial and federal governments is essential because nuclear development falls under federal jurisdiction.

Traditional nuclear reactors in Canada typically generate about 800 megawatts of electricity, the equivalent of powering 600,000 homes.

SMRs are units that produce less than 300 megawatts of electric power, making them cheaper to develop because of their simpler engineering.

Savage's spokeswoman said Alberta Energy, the Alberta Utilities Commission and the Alberta Energy Regulator have been working on the development of an SMR supply chain, while identifying areas of overlap, uncertainty and duplication between federal and provincial regulatory regimes.

No SMRs have been built in Canada, but Ontario (which relies heavily on large-scale reactors) said it is on track to have two in operation by 2028, while Saskatchewan expects to enter the SMR age by 2032.

No SMRs have been built in Canada, but Ontario (which relies heavily on large-scale reactors) said it is on track to have two in operation by 2028, while Saskatchewan expects to enter the SMR age by 2032.

An intergovernmental committee and industry stakeholders have cautioned that cost and regulatory hurdles could be serious roadblocks. Critics have also argued that disposing of radioactive waste could be an insurmountable barrier.

Savage, who attended the World Petroleum Congress in Houston in early December, was buoyed by talks she attended on accelerated movements to lower GHG emissions.

A former executive with the pipeline company Enbridge, she said the discussions on achieving net-zero emissions would have been unthinkable five years ago.

"But it certainly was top of mind in every presentation by every company." Savage said.

Regardless of the global transition to cleaner fuels, she said Alberta is on "solid ground with oil and gas, with both price and production. We've got egress. We've got pipeline capacity (to markets with Enbridge's Line 3 now operation and the Trans Mountain expansion to the Pacific Coast expected to come online in 2023). So I think we're in a really good place with solid fundamentals."

Savage said she expects plans in 2022 for hydrogen projects and carbon capture facilities and a growing interest in geothermal energy and helium, as companies diversify, pursue opportunities in emerging energy sectors and double down on their efforts to lower emissions.

—GARY PARK

Contact Gary Park through publisher@petroleumnews.com

understand | innovate | partner | deliver

exp • com

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

Environmental • Regulatory • Engineering • Geomatics

TMI?


Petroleum news
This week's Mining News
Shell plan approved
Notley rattles industry
Thumbs down to LNG offer; First Nations has salmon concerns
BP challenging Oliktok rates; issue over expected gas volumes
MEA moves to new plant

MOST LIKELY.

To subscribe: Call 281-978-2771
or visit petroleumnews.com

INSPIRATIONS
Hair & Nail Salon

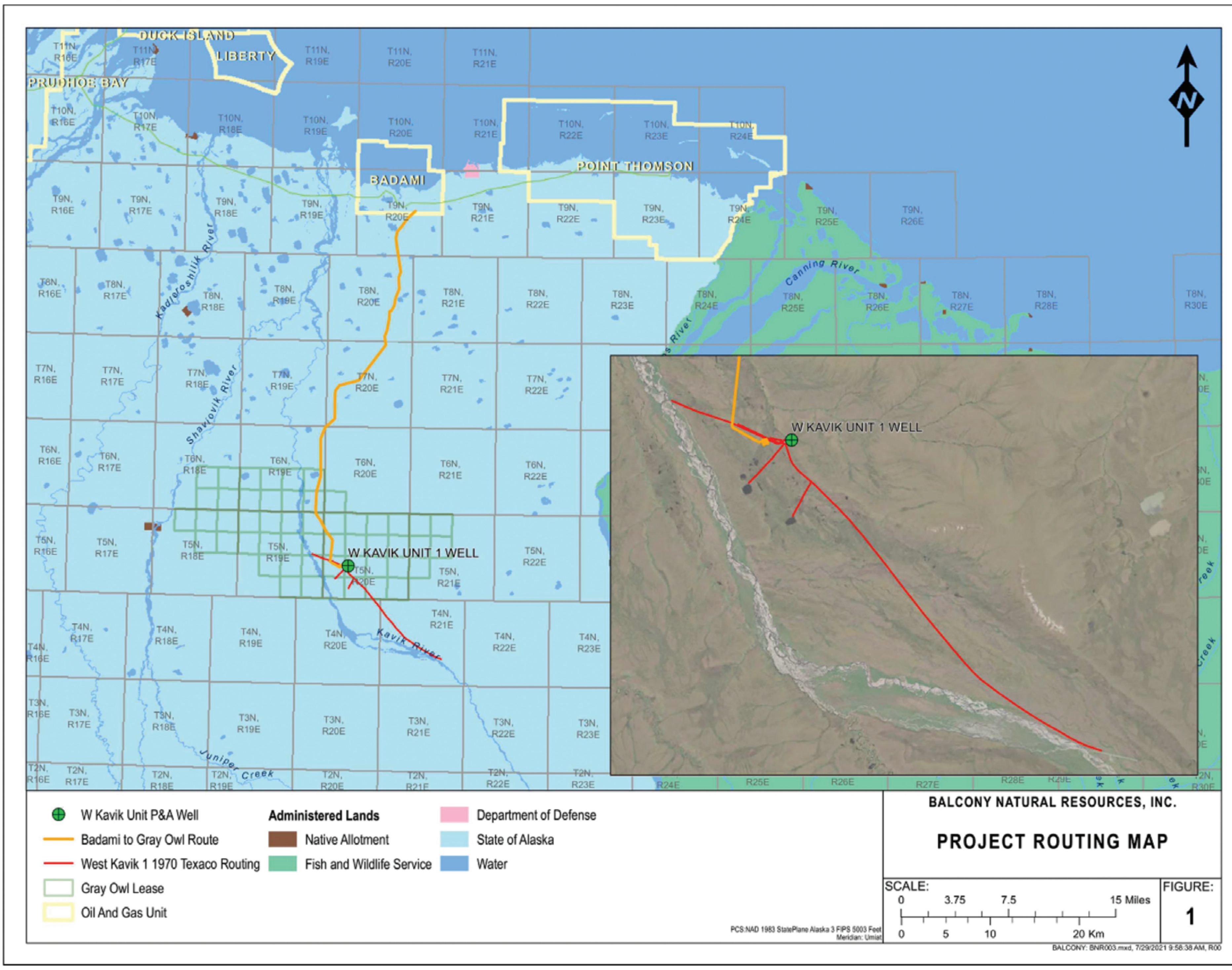
We offer personalized service, catering to the busy professional.

• *11am — 7pm (Late night appointments by pre-arrangement only)*

Mention this ad and receive a 10% discount on hair services!

4011 W. Arctic Blvd., Suite 101 • Anchorage, Alaska

• Call for appointments • 229-6000



BOREALIS NATURAL RESOURCES INC.

Balcony Natural Resources plans to drill the Grey Owl exploration well near the site of the West Kavik well, in the eastern North Slope south of the Badami oil field.

continued from page 1

GREY OWL PROSPECT

promising results from the reprocessing of seismic data for the leased area.

The 10-year leases originally became effective on March 1, 2014, with annual rentals of $10 per acre for the first seven years and $250 per acre in the remaining three years. Per the terms of the leases, the division could reduce the rental rate for those last three years to $10 per acre if the leaseholder had exercised reasonable diligence in exploring and developing the leases. The division said that Balcony had shown reasonable diligence by reprocessing 2D seismic data for the leases and conducting additional studies and mapping.

Promising results

In a Dec. 23 email to Petroleum News David Pfeiffer, Balcony chief financial officer, expressed his optimism about the Grey Owl prospect.

"We are very excited about the results from the technical work that has been done to date," Pfeiffer wrote. "We are eager to move forward."

Pfeiffer said that his company is exploring funding strategies for drilling an exploration well and anticipates seeking a strategic partner for the project.

The Grey Owl well that the company wants to drill would be near the site of the West Kavik well that was completed in 1970, Richard Garrard, technical advisor for Balcony, has told Petroleum News. The target is light oil in Brookian sands, somewhat analogous to the major Nanushuk discoveries in the western North Slope.

The Brookian sediments were deposited in an ancient marine basin that progressively filled from the west. Because of this filling mechanism the sediments tend to become progressively younger towards the east, although they were all deposited in a somewhat similar geologic setting. The primary target at Grey Owl is in the Canning formation, a Brookian rock formation that is younger than the Nanushuk. The West Kavik well found multiple light oil shows in the Canning, Garrard said.

Seismic reprocessing

Garrard said that recent seismic reprocessing that Balcony commissioned from WesternGeco had revealed some exciting new evidence regarding the Grey Owl prospect. For the first time the reprocessed seismic has been able to image the light oil bearing reservoirs discovered by the West Kavik well, with some further processing revealing a previously unidentified prospect in the base of the Sagavanirktok formation, immediately above the Canning.

The seismic data analysis has indicated the presence of sands encased in shale, thus showing the presence of viable hydrocarbon traps in a situation analogous to the Nanushuk to the west, Garrard said.

It appears that the Canning sands were deposited deeper down the side of the ancient marine basin than the Nanushuk sands, which were deposited across the edge of the basin margin. But mapping the Canning sands using the seismic data indicates that the sands are on the side slope of the basin, rather than the basin floor, Garrard said. The Sagavanirktok prospect appears to be in sands deposited in a basin edge situation closely resembling the Nanushuk. And further studies by Agile Seismic of the seismic amplitude variations with seismic recorder offsets indicates that the Sagavanirktok prospect may be associated with porous sandstones holding stratigraphically trapped light hydrocarbons.

The recovery of light oil from the West Kavik well indicates oil saturated sands over an interval of about 6,000 feet, Garrard said.

Field studies

Summer field studies conducted this year investigated potential drilling sites, evaluating factors such as water availability and determining that there are no cultural resources that would be impacted by a drilling project. The field studies also included a drone survey of the West Kavik gravel pad and airstrip, as a potential source of gravel for future development drilling.

Balcony also commissioned a study into the logistics and costs of drilling an exploration well to a depth of about 11,500 feet, to evaluate the light oil bearing Canning reservoirs.

Previous studies included an initial interpretation and mapping of the prospect, a study of cuttings from the West Kavik well, and well test modeling.

A development option for Grey Owl could presumably involve connection to the existing oil field infrastructure and pipeline system at the Badami field to the north. ●

Contact Alan Bailey at abailey@petroleumnews.com

Designed to Shine

Drilling, Workover, Coiled Tubing, Mobile Camps

www.nordic-calista.com
(907) 561-7458
For Your Rig and Mobile Camp Needs
NORDIC CALISTA

continued from page 1

NARWHAL PA

ConocoPhillips said in its PA application that Narwhal is a Brookian Nanushuk sand.

The company said prior exploration activities in the area include the Putu 2 and Putu 2A, drilled in the first quarter of 2018. Putu 2 reached total depth in the Narwhal. "A total of 751 gross feet of Narwhal was drilled," the company said.

Putu 2 and Putu 2A met the initial well commitments required for the fifth expansion area at the Colville River unit.

Putu 2A was fracture stimulated and had a test peak of 2,900 barrels of oil per day.

ConocoPhillips said Putu 2 and Putu 2A were the first wells drilled in the unit "to find significant Narwhal thickness and reservoir quality."

The company announced the Narwhal discovery based on the Putu wells, estimating between 100 million and 350 million barrels of oil equivalent.

Willow (in the National Petroleum Reserve-Alaska) and Narwhal are different sediment deposits within the Nanushuk formation, with Willow being older.

PA approval

In its PA approval the division said the Narwhal sands "are broadly age equivalent to the Late Cretaceous Nanushuk Group." ConocoPhillips proposed defining the Narwhal reservoir as the accumulation that correlates with that found in the Qugruk 3 well from 4,192 to 5,152 feet measured depth.

"The Narwhal sands extend for approximately 30 miles long by 3 miles wide," the division said.

The Narwhal PA proposed by ConocoPhillips "is supported by the technical data submitted by the operator." The division said data submitted by the company allowed it to "reasonably establish the potential for successful sustained production of the Narwhal reservoir in the requested NPA acreage."

Plan of development

In its PA application ConocoPhillips said initial drilling and completion will be done from the CD4 pad some 4 miles southwest of the Alpine Central Processing Facility.

CD4, a satellite pad, was constructed in 2005 for Alpine, Nanuq and Kuparuk development.

The pad will be expanded beginning in the 2021-22 winter construction season for additional Narwhal well slots.

The CD4-595 and CD4-594, drilled in 2018 and 2019, were Narwhal appraisal wells, ConocoPhillips said, drilled "to better understand the reservoir and to test the technical feasibility of extended reach drilling at shallow depth."

The company said there was initial test production from CD4-595 and CD4-594 in 2019 and 2020.

Sustained unit production was expected to begin from CD4-595, ConocoPhillips said.

The company said initial development plans call for 12 Narwhal wells from CD4, in addition to CD4-595 and CD4-594.

"Opportunity targets which could be completed within two years of the December 2021 commencement of Sustained Unit Production include two Narwhal horizontal producers and two Narwhal horizontal injectors, any of which may be moved into the 2022-2023 rig schedule as rig optimization/utilization dictates," ConocoPhillips said.

Enhanced oil recovery

Narwhal will be developed using an enriched water alternating gas process, the company said, with implementation of this enhanced oil recovery process "integral and necessary to the expected production."

Initial peak production from CD4-595 is estimated to be between 1,000 and 5,000 barrels of oil per day immediately after production starts.

The CD4 pad is connected to the Alpine gravel road, pipeline and power system, with oil, gas and water produced from Narwhal to be carried via the existing CD4 pipeline to the Alpine Central Facility, with sales quality oil to be transported via the Alpine Oil Pipeline and the Kuparuk Pipeline to the trans-Alaska oil pipeline.

Future pad

Narwhal development will be from CD4 and from a future pad which is referred to as CD8. The new pad will target the Narwhal reservoir in the fifth expansion area of the CRU. The current design concept for CD8 includes a new gravel pad connected by road to CD4, "with associated production and injection piping connected back to the ACF," ConocoPhillips said. The current concept calls for 20 to 40 wells at CD8 to fully develop the area, "dependent upon ongoing reservoir studies" and learnings from CD4 2020-22 Narwhal production.

"Pending completion of design work, stakeholder alignment, permitting, and funding approval, Sustained Unit Production from CD8 could commence as early as 2028," the company said.

—KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 1

SITTING TIGHT

a year earlier and CAOEC expects 2022 will see another 7,280 jobs (a 26% increase year-over-year) added to payrolls, recapturing some of the thousands who were cut in the wake of the coronavirus pandemic by companies ranging from BP and Shell to smaller exploration firms.

"With more workers gravitating towards the renewables sector, it's likely that the industry will continue to see an exit from those in traditional sectors," said a report by Oilandgasjobsearch.com and the recruitment firm Brunel, which showed 43% of workers want to leave the energy industry altogether within the next five years.

The report said that the "higher salaries offered by the renewables and mining sectors are making roles in those areas more appealing, which adds to the pressures faced by recruiters in the oil and gas sector."

Scholz said many of the Western Canadian companies are starting to again reach out to jurisdictions such as the Maritimes, Quebec and Ontario, where it traditionally looked for workers.

He said the average wages on the drilling and well-service areas have already climbed about 10% in an effort to plug a gap in the labor market but acknowledged that the industry needs to do more to attract younger workers who expect a better work-life balance than is typically available to rig crews.

CAOEC said the number of operating days (which acts as the main barometer of the health of Canada's upstream activities) are already back to pre-pandemic levels.

"It's been a grueling, difficult period for both contractors and producers," Scholz told the Globe and Mail.

"I think our ability to demonstrate to the market that we have not only reduced our costs, but we can provide great returns from an investment perspective, has attracted greater relative levels of capital to Canada versus the United States."

Whitecap Resources

One of the upbeat views from the established Alberta oil and gas industry came from Whitecap Resources, whose blueprint for 2022 includes a 38% monthly dividend increase, paying down debt and modest production growth.

The company's capital spending is C$480 million — C$50 million above its 2021 revised budget, but C$90 million below preliminary expectations.

Whitecap said it expects to fully pay for its 2022 capital spending from fund flows even if benchmark oil prices slip back to US$40 a barrel.

Whitecap's Chief Executive Officer Grant Fagerheim told the Calgary Herald that the "energy crunch" the world is now grappling with is the culmination of underinvestment in production over the past five years, suggesting that trend will not be easy to reverse.

Analyst, company views

Patrick O'Rourke, an analyst with ATB Capital Markets, doubts there will be material spending increases because companies "need to be cautious of protecting their balance sheets because there's not a lot of capital available — whether it be debt or equity — and if there is a pullback in commodity prices, companies want to be prepared."

A recent survey of Canadian oilpatch executives by Raymond James found their average price outlook for oil a year from now is US$76.50 a barrel, with two-thirds of respondents anticipating greater efforts to reduce debt and 53% expecting to raise their dividends, with 57% predicting a "slightly higher" spending program.

Surge Energy Chief Executive Officer Paul Colborne said much of Canada's upstream sector will show restraint when it comes to spending additional money to boost output.

Surge, which closed two acquisitions in the past year, expects capital spending of C$120 million in 2022 to hold the line on production.

"In Surge's case, we would look for more sustained oil prices at high levels before we would change much," Colborne said.

Laura Lau, chief investment officer with Brompton Group, said the market wants to see producers stick to higher dividends and greater share buybacks, rather than introducing double-digit spending increases. ●

Contact Gary Park through publisher@petroleumnews.com