



page 2 Governor: state spending needs to match revenue; focus on promises

Oil Search releases early drilling results; Pantheon talks strategy, more North Slope wells planned

IN A FOURTH QUARTER REPORT for the period ending Dec. 31, Oil Search released positive preliminary results for this winter's drilling of the Pikka B well on Alaska's North Slope.

The Pikka B appraisal well (see related Oil Search story starting on page 1 of this issue) has penetrated the Nanushuk formation and successfully encountered hydrocarbons, in line with pre-drill expectations, the company said Jan. 22.

The well reached a depth of 3,934 feet on Jan. 10.

see INSIDER page 7



North Slope methane hydrate well has been successfully completed

The drilling of a new methane hydrate test well on the North Slope has been successfully completed, the U.S. Department of Energy announced Jan. 23. The well was drilled from a small, existing gravel pad, adjacent the North Slope Spine Road, about one mile north of Z pad, in the western part of the Prudhoe Bay unit. DOE says that its National Energy Technology Laboratory formed a partnership with Japan Oil, Gas and Metals National Corp., the U.S. Geological Survey and Petrotechnical Resources of Alaska for the drilling of the well. BP, operator of the Prudhoe Bay unit, oversaw the drilling.

The Alaska Department of Natural Resources has also been

see HYDRATE WELL page 12

BP energy transition strategy comes to Alaska, field efficiency is rising

BP's new corporate policy for addressing the global transition towards lower carbon emissions energy is starting to impact the company in Alaska. At the same time, the company continues to overhaul its Prudhoe Bay field operations to sustain the field's continuing viability in the coming decades, Janet Weiss, president of BP Exploration (Alaska) told the Alaska Support Industry Alliance's Meet Alaska conference on Jan. 18.



JANET WEISS

In terms of the energy transition, the company has been seek-

see ENERGY STRATEGY page 10

AOGCC wraps petition on issue of non-emergency venting, flaring

The Alaska Oil and Gas Conservation Commission has issued two documents stemming from an October petition by Kate Troll asking that the commission "prevent all non-emergency venting and flaring from Alaska oil and gas wells." The petition was signed by 46 people.

In November Troll requested a hearing, which was held Dec. 18. At that hearing, Troll submitted another petition with the names of nearly 300 individuals, urging AOGCC to "fully enforce and strengthen existing statutes requiring Alaska's oil and gas industry to stop all non-emergency venting and flaring from Alaska's oil and gas wells."

One of the two documents issued by the commission is a

see AOGCC PETITION page 10

EXPLORATION & PRODUCTION

In for long haul

Oil Search views Pikka as start of series of North Slope developments

By ALAN BAILEY
Petroleum News

With further oil potential in the Nanushuk formation to the north and south of its Pikka development, Oil Search Alaska sees Pikka as the first of a series of potential developments in a fairway between the Colville River and Kuparuk River units on the North Slope, Richard D'Ardenne, Oil Search Alaska senior vice president of development, told the Alaska Support Industry Alliance's Meet Alaska conference on Jan. 18.

The Nanushuk reservoir for Pikka actually



RICHARD D'ARDENNE

extends more than 100 kilometers north to south. And, while the company has not explored the more northerly end of that trend, there is much promising acreage to the south, in the area of the successful Horseshoe exploration wells, D'Ardenne said.

"We'll be doing further drilling there next season, next ice season," he said. "We have a lot of runway ahead."

The expectation for the Pikka development is an initial processing facility with capacity to handle 120,000 barrels per day of oil. The idea is to repeat that many times over the next 10

see OIL SEARCH page 9

NATURAL GAS

Stage-gate returns

State wants shared risk for AKLNG project and legislative involvement

By KRISTEN NELSON
Petroleum News

Gov. Mike Dunleavy appears to be looking at several changes in the Alaska LNG Project — in addition to personnel changes already made: a return to shared risk; a return to a stage-gate process; and a return to involving the Legislature.

Those were all mentioned by Commissioner of Revenue Bruce Tangeman, who offered some idea of what the governor was thinking about the project Jan. 18, when he presented an Alaska LNG update at the Alaska Support Industry Alliance's 36th Annual Meet Alaska conference.



BRUCE TANGEMAN

He said the audience might be wondering why the Revenue commissioner was talking about the Alaska Gasline Development Corp. and said he wouldn't be discussing any technical aspects.

Tangeman said the governor thought it would be an opportunity to share an executive view from the administration on the project following some recent changes at AGDC, specifically the return, as interim president, of Joe Dubler.

Dubler, who has been serving as executive vice president of finance and administration for Cook Inlet Housing Authority, held senior leadership positions at AGDC between 2010 and 2016,

see STAGE-GATE page 8

PIPELINES & DOWNSTREAM

New option for pipeline

Indigenous communities explore ownership stake in stalled Trans Mountain pipeline

By GARY PARK
For Petroleum News

The largely quiet majority of aboriginal communities in British Columbia and Alberta who support expansion of the Trans Mountain pipeline have made a dramatic entry into the dispute by disclosing they are working on plans to buy an ownership stake in the project.

Dozens of the 130 aboriginal communities who are members of the Indian Resource Council are exploring ways to raise billions of dollars in financing to become equity partners in the 890,000 barrels-per-day transportation system to carry oil sands bitumen from Alberta to a terminal in Vancouver for export to Asia.

"I believe it is time we have a louder voice, a collective voice, in this pipeline's impact. Ownership means empowerment, opportunity and shared responsibility."

—Delbert Wapass, a former chief of Saskatchewan's Thunderchild First Nation

How much would be needed to achieve that goal has not been disclosed, although analysts have put a preliminary price tag on the overall cost of the TMX undertaking at C\$14.5 billion — C\$4.5 billion to buy out the Canadian government's control of the existing 290,000 bpd pipeline

see PIPELINE OPTION page 11

• GOVERNMENT

Dunleavy: Spending needs to match revenue

Governor's state-of-state address focused on meeting campaign promises; budget will be centralized under OMB, due out in February

By KRISTEN NELSON
Petroleum News

Gov. Mike Dunleavy gave his first state-of-the-state address Jan. 23, with a focus on meeting promises made during his campaign last year. Five promises were to make the state safe, get spending in line with revenue, protect Permanent Fund dividends, grow the economy and restore public trust in government.

Oil and gas, which have been the state's main source of revenue, and continue to be through earnings from the Permanent Fund, got only passing mention in the governor's remarks.

As far as spending goes, he emphasized creating what he called "a real, honest budget," rather than what he called a "wish list." He emphasized that the state can no longer spend what it doesn't



GOV. MIKE DUNLEAVY

have in revenues.

He promised a budget that will be straightforward, with no more shuffling of numbers and said that to get a handle on the budget, one of his first administrative orders was to remove budgeting from departments and centralize it in the Office of Management and Budget.

Permanent fiscal plan

He said that to address fiscal issues the state needs a permanent fiscal plan and said he would introduce constitutional amendments as the basis of a permanent fiscal plan, including a spending limit and savings plan; no change to the PFD without a vote of the people; and no change in taxes without a vote of the people.

Those changes, Dunleavy said, would require both the people of the state and elected officials to work together. Without the support of the people, he said, any plan the Legislature puts in place will be in doubt.

Growing the economy

Growing jobs was another focus. Dunleavy said our

economy is struggling and said he would be "a relentless advocate" for turning the economy around and making Alaska "open for business."

He said years ago, Alaska had a more diversified economy — with fishing, mining, agriculture and a robust timber industry — than it has today. Since Prudhoe Bay, Alaska has been more "narrowly focused on oil," along with government programs, as the basis of the state's economy.

Other opportunities have been neglected.

Alaska has advantages, he said: its location on the globe; the third-busiest cargo hub in the world; proximity to Asia and Europe; and the state's quality of life.

"Alaska doesn't have to be just a resource state," Dunleavy said, adding that he wants to see new industries come to the state.

Safety of citizens

The governor said keeping citizens safe was the most

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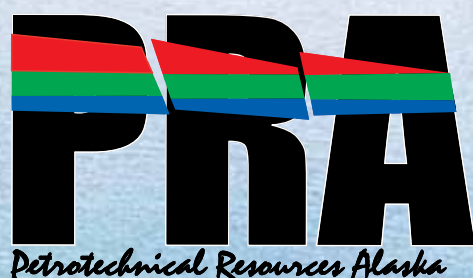
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The RCA is evaluating how to mandate use, maintenance of reliability standards for the Alaska Railbelt electrical system



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• UTILITIES

Regulating Railbelt electricity reliability

The RCA is evaluating how to mandate use, maintenance of reliability standards for the Alaska Railbelt electrical system

By ALAN BAILEY
Petroleum News

During a Jan. 23 meeting of the Regulatory Commission of Alaska the commission staff presented the results of developing a prototype manual for the reliability standards for the Alaska Railbelt electrical system. The idea is to figure out a practical means of commission regulation of the standards. The initiative comes as part of efforts by the commission to facilitate a more unified approach to the operation of the system.

Reliability standards are critically important in assuring the continuity of electricity supplies of an acceptable quality.

Unifying the standards

For many years the six Railbelt utilities operated under two different sets of standards, neither of which were mandated. The commission has been very concerned about this situation and has been steering the utilities towards unifying and enforcing the standards. In April 2018 the utilities did indeed file a unified set of standards. The commission is now figuring out how to enforce the standards through regulation.

In addition to enforcing the use of the standards, there needs to be a means of updating the standards. For example, the utilities are still working on the development of standards for cybersecurity, a topic not encompassed by the standards filed in 2018.

Regulatory options

During an RCA meeting on Dec. 12, commission staff had presented four possible options for standards regulation and enforcement: simply incorporate the reliability standards into the RCA regulations; develop and maintain a standards manual, enforced by reference through the regulations; have a regulated electricity reliability organization maintain and enforce the standards; or use a docket that would specifically apply to the Railbelt utilities, to order the maintenance and enforcement of the standards.

Commissioner Robert Pickett had expressed concern about incorporating the standards into regulation. He pointed out that this would have the effect of increasing the size of the RCA regulations document by about 50 percent, a very challenging exercise, especially given the need for legal

scrutiny of the new regulations and of any subsequent changes to the regulations. Staff also pointed out that the standards would need to be rewritten in the form of language used for regulations.

Regulation by reference

Enforcing the standards through regulatory reference to a standards manual enjoys the advantage of requiring minimal changes to RCA regulations while also enabling the standards to be documented in a similar format to that used by the utilities. And there is a precedent from the telecommunications industry for this method of standards enforcement. The method would, however, require the commission to open a regulatory docket, staff pointed out.

The formation of an electricity reliability organization would have the advantage of being similar to the established federal mechanism enforced by the Federal Energy Regulatory Commission. However, the disadvantage is that, as yet, there is no reliability organization for the Alaska Railbelt: The Railbelt utilities have proposed the formation of a Railbelt Reliability Council, but this proposal has yet to come to fruition.

Enforcing the standards through commission orders could become cumbersome and confusing, and would only apply to the utilities named in the docket for the orders, staff commented.

The prototype manual

The staff presentation during the Jan. 23 meeting demonstrated the results of an effort to test the development of a standards manual. Although a manual of this type could potentially be used for regulation by the RCA by reference, the idea is to develop a document layout that could be adaptable to a FERC style approach, involving an electricity reliability organization.

Staff explained that they had searched for some existing format of manual, structured in a manner that would accommodate the Railbelt electrical standards that the utilities had filed in 2018. Having done so, they pasted into the document format the various components of those standards. And staff incorporated language into the manual that would support a FERC style of approval process.

The resulting manual appears to work quite well, staff commented. ●

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DUNLEAVY ADDRESS

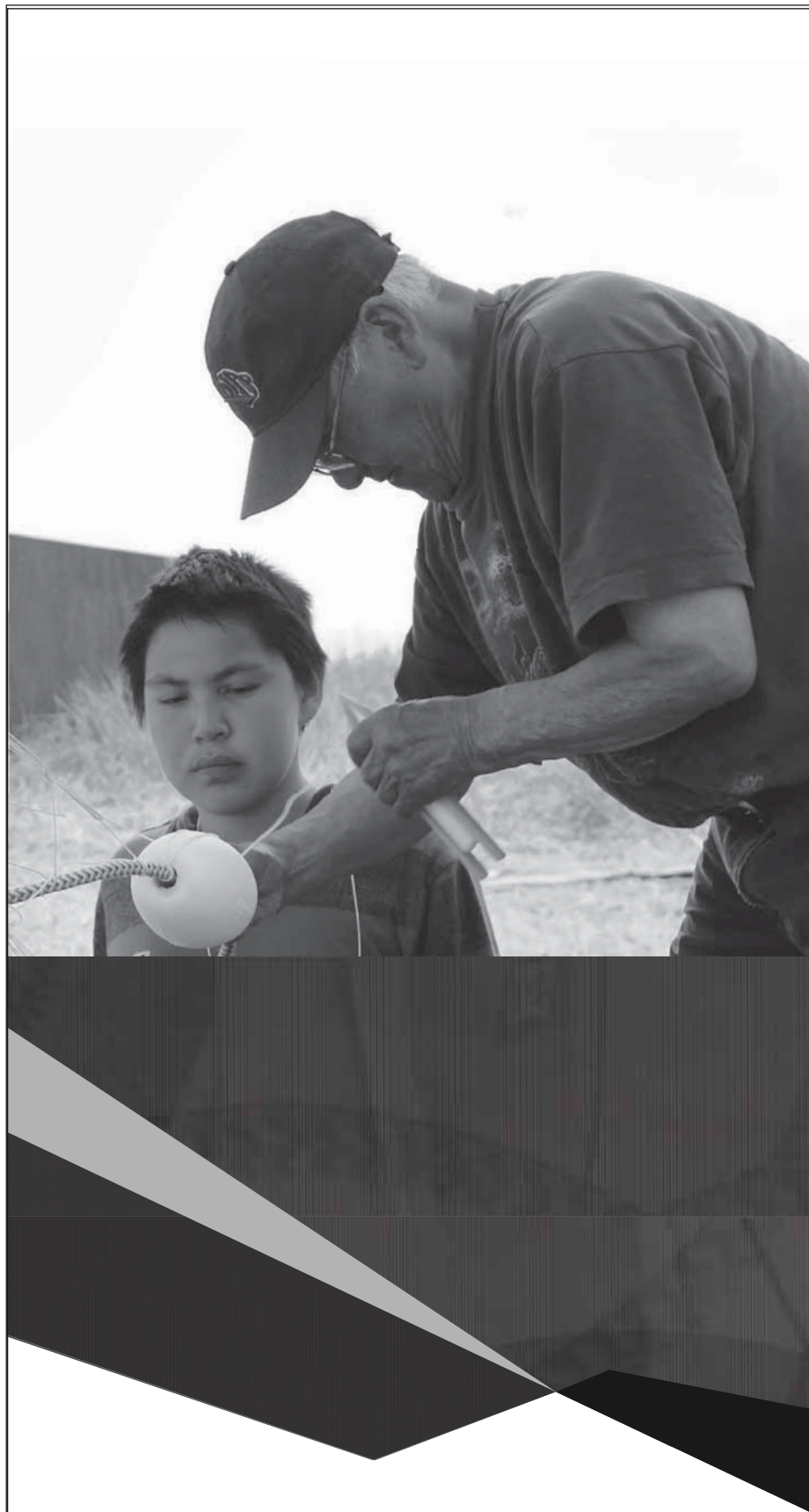
important role of government and said crime is out of control and the state has the highest sexual assault rate in the nation.

Resources will be spent for additional state troopers, he said, more local control

and more prosecutors, with courts open a full five days a week to hear cases.

Senate Bill 91 — the 2016 reform bill — will be repealed and replaced, he said, and asked legislators to make public safety a priority, something he said would be reflected in his budget. ●

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GOVERNMENT

DNR, DO&G brief Senate Finance Committee

Overview covers activity, with busiest season in 20 years expected, status of division permitting backlog, royalties to state

By KRISTEN NELSON
Petroleum News

Corri Feige, commissioner designee for the Alaska Department of Natural Resources, along with Deputy Commissioner Sara Longan and Division of Oil and Gas Director Chantal Walsh, briefed the Senate Finance Committee Jan. 17.

The briefing included an activity update and an overview of permitting.

Walsh walked the committee through the status of development and said 2019 is expected to be the busiest year in the last 20 for North Slope exploration and production drilling.

Asked by committee co-chair Sen. Bert Stedman, R-Sitka, why the activity level is so high, Feige said she thought part of the exploration uptick was being driven by the new Nanushuk-Brookian play types. The North Slope is now classified as a super basin, she noted, and 40 years after Prudhoe Bay came online the companies have found a new play type.

Co-Chair Sen. Natasha Von Imhof, R-Anchorage, asked why, with a lot of supply and opportunity worldwide, were compa-



CORRI FEIGE



CHANTAL WALSH

nies investing in Alaska?

Feige said it was her personal opinion that companies like a divergence of prospects in their portfolios, and also like investments in stable business climates where long-term investments can be made with some comfort of a return. There is, she said, a lot of sovereign risk elsewhere — the risk of investment being nationalized — and in Alaska there is political stability and also, for the last few years, stability on the tax side.

Sen. Bill Wielechowski, D-Anchorage, asked about rig counts, and Walsh said the rig count projection for the exploration season is upwards of 15. (That number would include rigs drilling production wells. The most recent Baker Hughes rig count, from

Jan. 18, shows Alaska with 10 rigs active, up one from the previous week, and up from five a year ago.)

Stedman asked for historic counts and comparison with rig counts in the Lower 48.

Great potential

Walsh said there are fields showing great potential, such as Pikka, and smaller fields like Mustang and Placer poised to come online, with enormous potential in the play type referred to as the Brookian play or Nanushuk and Torok formations.

And the North Slope's legacy fields, Prudhoe and Kuparuk, have exceeded expectations from both the companies and the state.

There are smaller companies — Caelus, BlueCrest and Armstrong — with exploration plans that will help with production into the future, Walsh said, while new players, like Oil Search, indicate industry acknowledgement of large, viable fields previously unknown.

She said the state is continuously working with North Slope communities, the national administration and the congressional delegation on Arctic energy policy and support for responsible development in the Coastal Plain of the Arctic National Wildlife Refuge, the federal Outer Continental Shelf and the National Petroleum Reserve-Alaska.

Permitting

Feige said DNR had been asked for an update on the current status of development permits.

Deputy Commissioner Sara Longan, formerly director of the Office of Project Management and Permitting, provided that update.

She said the Division of Oil and Gas has been focused on operating as efficiently as possible. She noted that in 2013 it took some 180 days for the division to issue permits — an average number of days was shown on a presentation graph as 185.5. That average has dropped to 90 days in 2018, she said, and can be as low as 30 days.

This change was achieved by modernizing some procedures, with automation allowing electronic applications, continu-

ous feedback loop with applicants and updated guidance documents available online.

A lot of time can be added to the process if applications are incomplete, she said, and the development of updated guidance documentation assisted applicants in filing complete applications.

There were also some structural improvements within DNR, such as moving the state pipeline coordinator's office into the division as the state pipeline section for better alignment and synergy.

The division currently does not have a permit backlog, Longan said.

Stedman asked for a comparison of permitting times between Alaska, Texas and North Dakota — noting that it looked as though Alaska had substantially closed the gap.

Wielechowski asked if DNR was seeing any impacts from the federal government shutdown. Longan said yes, DNR requires federal permits to do some of its work, such as gravel assessments — people aren't even answering their phones, she said.

Wielechowski asked for a short paper on the impact.

Royalty rates

The committee also got an overview of the different royalty rates the state receives or does not receive.

There are two sources of revenue to the state from production, Walsh said, royalties and taxes. Royalties come through the division, with 25 percent going to the Permanent Fund and the remainder to the general fund.

In four areas on the North Slope the state receives different percentages of royalties.

Offshore, within 3 miles of the coast, the state receives 100 percent of the royalty; from 3-6 miles out it receives 27 percent; at distances greater than 6 miles it receives no

see SENATE BRIEFING page 6



SARA LONGAN

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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. 24, No. 4 • Week of January 27, 2019
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.

GOVERNMENT

State releases Nenana 2-D seismic

The Alaska Department of Natural Resources Division of Geological and Geophysical Services said Jan. 18 that new tax credit seismic data has been made available — the Nenana basin 2-D seismic shot in 2005.

The data is available for order on the Geologic Materials Center-Seismic and Well Data website at: <http://dggs.alaska.gov/gmc> (go to seismic and well data).

Nenana Basin 2D 2005 (MLUP/AK 04-005-01) includes 197.2 line miles.

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INTERNATIONAL

Death toll reaches 85 in Mexico line fire

By MARK STEVENSON
Associated Press

People in the town where a gasoline explosion killed at least 85 people say the section of pipeline that gushed fuel has been a habitual gathering site for thieves, repeatedly damaged and patched like a trusty pair of jeans.

"It was the popular tap," said Enrique Cerron, 22, who lives near the field. "You could pass by at 11 or 12 in the morning and see people filling up here."

On Jan. 18, amid countrywide fuel shortages at gas stations as the government attempts to stem widespread fuel theft, this particular section of pipeline had come back into service after being offline for nearly four weeks when somebody punctured the line again. Word quickly spread through the community of 20,000 people that gas was flowing. Come one, come all.

Hundreds showed up at the spigot, carrying plastic jugs and covering their faces with bandanas. A few threw rocks and swung sticks at soldiers who tried to shoo them away. Some fuel collectors brought their children along.

Tlahuelilpan is a largely agrarian community located 90 minutes by car from the capital and just 8 miles from the state-run Tula oil refinery. It's surrounded by verdant alfalfa fields and power plant stacks and is reasonably affluent by rural Mexican standards. Hidalgo state data shows about half the community lives in moderate poverty, in line with the national average.

Leak first manageable

At first the gasoline leak was manageable, locals say, emitting a tame fountain of fuel that allowed for filling small buckets at a time. But as the crowd swelled to more than 600, people became impatient.

That's when a man rammed a piece of rebar into a patch, according to Irma Velasco, who lives near the alfalfa field where the explosion took place, and gasoline shot 20 feet into the air, like water from a geyser.

A carnival atmosphere took over. Giddy adults soaked in gasoline filled jugs and passed them to runners. Families and friends formed human chains and guard posts to stockpile containers with fuel.

For nearly two hours, more than a dozen soldiers stood guard on the outskirts of the field, warning civilians not to go near. Officials say the soldiers were

outnumbered and their instructions were to not intervene. Only a week earlier, people in a different town had beaten some soldiers who tried to stop them from gorging on state-owned fuel.

The lure of free fuel was irresistible for many: They came like moths to a flame, parking vehicles on a nearby road.

Smell grew stronger

The smell of gas grew stronger and stronger as thousands of barrels spewed. Those closest to the gusher apparently became delirious, intoxicated by fumes. Townspeople stumbled about. The night filled with an eerie mist, a mixture of cool mountain air and fine particles of gasoline.

Velasco said she rushed to aid a man she saw staggering along the road and away from the gusher. She removed his gas-drenched clothes to help alleviate the overwhelming stench of toxic fuel. Then she helped another young man, who described to her how the geyser had erupted.

Cerron was at the heart of the mayhem when he sensed mounting danger.

He pulled a 70-year-old man out of a ditch where gasoline was pooling; the man had passed out from the vapors. Then Cerron, a student, decided it was time to go home.

"They looked like zombies trying to get all that gasoline out," says Cerron.

Warnings

He passed soldiers warning would-be scavengers to stay away. It's going to explode, they said. And it did. Once home, Cerron turned for one last glance at the gusher. Instead he saw flames.

The fireball that engulfed those scooping up gasoline underscores the dangers of the epidemic of fuel theft that Mexico's new president has vowed to fight.

By the evening of Jan. 20, the death toll blaze had risen to 85, with 58 others hospitalized, federal Health Minister Jorge Alcocer said. Dozens more were listed as missing.

Soldiers formed a perimeter around an area the size of a soccer field where townspeople were incinerated by the fireball, reduced to clumps of ash and bones. Officials suggested Jan. 20 that fields like this, where people were clearly complicit with the crime of fuel theft, could be seized by the government.

But Attorney General Alejandro Gertz ruled out bringing charges against towns-

people who merely collected spilled fuel, and in particular those hospitalized for burns. "Look, we are not going to victimize the communities," he said. "We are going to search for those responsible for the acts that have generated this tragedy."

Offensive against fuel theft

The disaster came just three weeks after President Andres Manuel Lopez Obrador launched an offensive against fuel theft gangs that had drilled dangerous, illegal taps into pipelines an astounding 12,581 times in the first 10 months of 2018, an average of about 42 per day. The crackdown has led to fuel scarcity at gas stations throughout the country due to shifts in distribution, both licit and illicit.

Officials say pipeline in and around Tlahuelilpan has been perforated 10 times over the past three months.

Lopez Obrador vowed Jan. 20 to continue the fight against a practice that results in about \$3 billion per year in stolen fuel. Legally, that fuel belongs to the Mexican people, with state oil company Petroleos Mexicanos, or Pemex, acting as custodian.

But Pemex has long been plagued by corruption. Lopez Obrador described the company Jan. 20 as "at the service of people without scruples," saying Pemex had been kidnapped by "a gang of ruffians," referring to crooked government officials and executives within the company.

Uphill fight

Lopez Obrador faces an uphill fight against a practice that has become an eco-

nomie salve for poor rural areas where pipelines pass, covered by only a foot or two of dirt. Gangs recruit locals who then rally support from the community via gifts or threats of violence.

Storage sheds and warehouses dot the region, with landowners earning extra income from the rent or gifts of fuel.

The president plans a tour to several towns outside Mexico City where fuel theft has become entrenched in the local economy. He promises jobs and financial aid as an alternative for communities along pipelines that are somewhat dependent on income from fuel theft rings.

"Mexico needs to end corruption," Lopez Obrador said Jan. 20. "This is not negotiable."

Lopez Obrador launched the offensive against illegal taps soon after taking office Dec. 1, deploying 3,200 marines to guard pipelines and refineries. His administration also shut down pipelines to detect and deter illegal taps, relying more on delivering fuel by tanker truck.

Another pipeline burst into flames Jan. 18 in the neighboring state of Queretaro as a result of another illegal tap. But there were no reported casualties.

In December 2010, authorities blamed thieves for a pipeline explosion in the central Mexico state of Puebla, not far from the capital, that killed 28 people, including 13 children. ●

—Associated Press writer Amy Guthrie in Mexico City contributed to this report.



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EXPLORATION & PRODUCTION

US drilling rig count drops 25 to 1,050

The number of rigs drilling for oil and natural gas in the U.S. was down 25 the week ending Jan. 18 to 1,050.

At this time last year there were 936 active rigs.

Houston oilfield services company Baker Hughes reported that 852 rigs targeted oil (down 21 from the previous week) and 198 targeted natural gas (down four).

The company said 55 of the U.S. holes were directional, 929 were horizontal and 66 were vertical.

Among major oil and gas producing states, Alaska, New Mexico, North Dakota and Wyoming were each up by one rig.

Colorado and Pennsylvania were each down by one rig.

Louisiana was down two rigs and California was down three.

Oklahoma was down by 10 rigs and Texas was down 11.

Baker Hughes shows Alaska with 10 active rigs, up five from a year ago.

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

—PETROLEUM NEWS

PIPELINES & DOWNSTREAM

RCA grants final connection approvals

The Regulatory Commission of Alaska has issued orders granting connection permits and approving connection agreements between Oliktok Pipeline Co. and ConocoPhillips Alaska and BP Exploration (Alaska).

The orders, dated Jan. 17, grant applications filed by Oliktok Pipeline for a connection permit for the existing connection between the Oliktok Pipeline and the Kuparuk River unit, and for an existing connection between Oliktok and the Prudhoe Bay unit.

Oliktok filed the application for approval of an existing connection between the Oliktok Pipeline and the KRU and for approval of a related connection agreement between Oliktok and ConocoPhillips Alaska in July. The Oliktok Pipeline is a 16-inch line originating at Skid 50 in the Prudhoe Bay unit, near Pump Station No. 1 of the trans-Alaska oil pipeline and terminating at Central Processing Facility No. 1 in the KRU. The line has been in place since 1985, and transported natural gas from 1985 to 1988, natural gas liquids from 1995 to 2014 and natural gas from 2014 through 2016. There was no approved connection permit or connection agreement. Oliktok and ConocoPhillips signed a connection agreement in July.

The line is authorized to move either natural gas or NGLs and has been moving NGLs since late September.

Oliktok also filed in July for a connection permit for the existing connection between the Oliktok Pipeline and the PBU and for approval of the related connection agreement between Oliktok and BP. Oliktok and BP signed a connection agreement in May.

Both orders are the final decisions in the proceedings.

—PETROLEUM NEWS



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GOVERNMENT

Thayer becomes AEA executive director

The board of the Alaska Energy Authority has announced the appointment of Curtis Thayer as the authority's executive director. Thayer replaces Janet Reiser, who became AEA executive director in December 2017. Thayer was previously president and CEO of the Alaska Chamber of Commerce, a position he had held since 2015.

"We are pleased to appoint Curtis as AEA's new executive director," said AEA Board Chairman Dana Pruhs. "He has a track record of success in public administration and business development that will serve the state well. I look forward to working with him to grow AEA's impact and help take the organization into a new and even more effective direction."

Since 2009, prior to joining the Alaska Chamber, Thayer worked in the state administration, as deputy commissioner in the Department of Community, Commerce and Economic Development and, starting in November 2013, as commissioner of the Department of Administration.

Prior to 2009 Thayer was part of the management team of Enstar Natural Gas Co. He also has experience of working for Rep. Don Young, Sen. Ted Stevens and Sen. Lisa Murkowski.

—ALAN BAILEY

PIPELINES & DOWNSTREAM

Appeals court upholds CA climate measure

A U.S. appeals court has again rejected a challenge by the oil and gas industry to a key part of California's efforts to fight climate change.

A three-judge panel of the 9th U.S. Circuit Court of Appeals on Jan. 19 unanimously upheld the state's 2015 low carbon fuel standard requiring fuel producers to reduce greenhouse gas emissions.

State officials recently amended the standard to mandate a 20 percent reduction by 2030 in the carbon output of fuels used for transportation in California.

Fuel producers argued that the standard discriminates against some producers.

The 9th Circuit previously rejected a similar challenge. It said Jan. 19 that California had attempted to address a vitally important environmental issue.

A spokeswoman for the American Fuel and Petrochemical Manufacturers Association said lawyers were reviewing the decision.

—ASSOCIATED PRESS

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SENATE BRIEFING

royalty.

In the NPR-A, the royalty rate is either 12.5 percent or 16.67 percent. The state receives no royalty — 50 percent goes to the federal government and 50 percent to a mitigation impact fund benefitting the five affected communities in NPR-A.

On the ANWR Coastal Plain, the royalty rate is 16.67 percent, with the state's share 50 percent of that.

And on state lands, the royalty rate is 12.5 percent or 16.67 percent, with the state's royalty share ranging from 83 percent to 100 percent, based on whether Arctic Slope Regional Corp. lands are involved.

Asked about a potential change to the royalty split between the state and ASRC by Sen. Donny Olson, D-Golovin, Feige said there are a number of settlement agree-

ments governing joint lands and said there were no discussions to change the royalty distribution.

Royalty rates vary between projects in NPR-A, a chart in the presentation shows, with Greater Mooses Tooth 1 having a 16.67 percent royalty, an estimated 82 percent going to Alaska Native owned tracts, with the federal government taking 9 percent and 9 percent going to the mitigation impact fund.

In GMT-2, which also has a 16.67 percent royalty, an estimated 8 percent goes to Alaska Native owned tracts, 46 percent to the federal government and 46 percent to the mitigation impact fund.

Lands in the Willow field have either a 16.67 percent or a 12.5 percent royalty, with 50 percent going to the federal government and 50 percent to the mitigation impact fund. ●

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INSIDER

Peter Botten, Oil Search's managing director, was quoted as saying, "The early results from the Pikka B well are very encouraging. ... The top Nanushuk reservoir was encountered slightly high to expectations and a core has been successfully acquired over a 120 foot interval. Early interpretation of the core indicates a hydrocarbon-saturated, high porosity sand. The forward plan is to acquire an additional 330 feet of core prior to side-tracking the well at the end of January."

Botten said the Pikka B and C wells being drilled this winter "could confirm up to 250 million barrels of additional 2C resource and will help define the optimal well design for our multi-year drilling program for the Pikka unit development."

In its fourth quarter highlights, Oil Search said, "preparations to exercise the company's fixed price option with Armstrong ... progressed well during the quarter," referring to the company's option to acquire the other half of Armstrong and GMT's working interest for \$450 million, which would give Oil Search 51 percent. The option runs through June 30.

—KAY CASHMAN

Pantheon, Great Bear deal closes; unveils additional drilling plans

THE NORTH SLOPE OF ALASKA'S LATEST PLAYER, London-based Pantheon Resources Plc, said Jan. 21 that it closed on its acquisition of two wholly owned subsidiaries of Great Bear Petroleum Operating LLC — Great Bear Petroleum Ventures I and II. The 250,000-plus acres of state of Alaska leases, 1,000 square miles of 3-D seismic and two discovery wells that are part of the deal will be operated by the company's newly formed Alaska subsidiary, Pantheon Alaska Petroleum Operating LLC.

In a presentation at a general meeting in which the 51/49 percent merger was approved, Pantheon unveiled additional exploration plans for 2020-21 and beyond, and said its strategy in Alaska was "to prove up acreage ... and sell at a significant premium to a larger company."

Exploration includes Talitha

Market reports based on statements by Pantheon and broker Arden Partners Plc said this year's Alaska exploration includes a flow test of Great Bear's 2015 Alkaid well (75 percent working interest), plus participation in the Winx 1 exploration well (10 percent) to be spud in the first half of February (see initial Pantheon story in the Jan. 20 issue of Petroleum News).

Pantheon's general meeting presentation said 2020 drilling will include the Talitha well, a redrill of the 1986 ARCO Alaska discovery well, Pipeline State No. 1. Pantheon now holds a 90 percent

working interest in that lease.

The new well will appraise oil sands seen in the adjoining plugged and abandoned ARCO well and "test a topset exploration play analogous to recent major discoveries in the area."

Extraction techniques "now far surpass what was available in the 1980's," Pantheon noted, saying some 900 million barrels of oil in place had been discovered in three zones plus a 1.7 billion exploratory upside.

Theta, Megrez, Phecda, Tania, Alula exploration

In "2020/21+" Pantheon lists exploration wells it would like to drill on leases where it now has between 75 and 90 percent working interest, including Theta's Kuparuk and Brookian (Nanushuk) zones.

Also listed for this time period are the Megrez, Tania and Alula wells near the trans-Alaska oil pipeline corridor and the Dalton Highway, and Phecda, a possible extension of the Alkaid discovery.

Great Bear holds the "option to increase its working interest to 20 percent upon success, for 20 percent of the drilling costs," Pantheon said.

Founded in 2005, Pantheon Resources Plc currently has five employees and is listed on the AIM Stock Exchange, a sub-market of the London Stock Exchange that allows smaller, less-viable companies to float shares with a more flexible regulatory system than that of the main market.

—KAY CASHMAN

Winx 1 gets final permit

THE WINX 1 WELL GOT ITS FINAL major permit, Otto Energy LLC said Jan. 18.

While Great Bear is the operator of record with a 10 percent working interest in the exploratory well, the actual operator and lead working interest owner is Captivate Energy Alaska Inc., an 88 Energy Ltd. company.

The well is being funded by Captivate, Otto, Red Emperor Resources Ltd and Pantheon.

Otto also said the 11-mile ice road construction is progressing well with rig mobilization planned for early February and spudding set for mid-February.

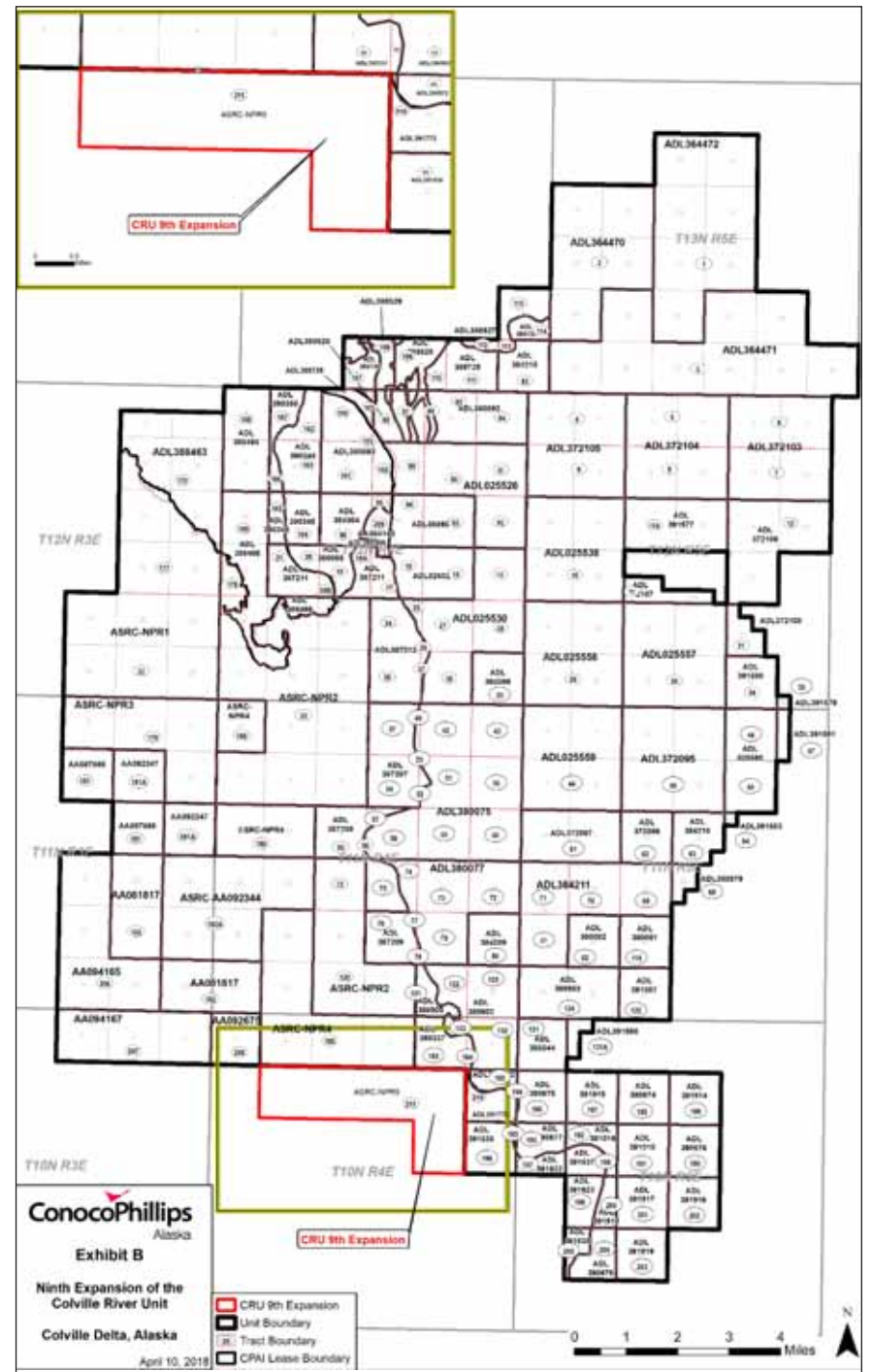
The permit to drill was approved by the Alaska Oil and Gas Conservation Commission.

Winx-1 is about four miles east of the Armstrong/Repsol Horseshoe 1/1A well (now operated by Oil Search) that significantly extended the highly successful Nanushuk play fairway to the south. Winx-1 will target gross best estimate prospective resource of 400 million barrels of oil across multiple stacked objectives, including the Nanushuk, the primary target.

—KAY CASHMAN

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LAND & LEASING



ConocoPhillips applies to expand CRU

ConocoPhillips Alaska has applied to expand the Colville River unit. The Department of Natural Resources, Division of Oil and Gas, said the expansion area is on the Colville River, adjacent to the village of Nuiqsut, and includes all or parts of sections 8 through 11 and 14 of township 10 north, range 4 east, Umia Meridian. The division is accepting comments on the application through March 4.

In its Dec. 21 application, to both DNR and the Arctic Slope Regional Corp., ConocoPhillips said this expansion, the ninth, will add some 3,200 acres to the unit, including an ASRC oil and gas lease. The expansion is on ASRC lands. The company said it is the only working interest owner of record in the expansion area.

The company said seismic data has been acquired over the expansion areas and several exploration wells have been drilled near the area. Results of those wells were submitted as a confidential attachment to the application.

ConocoPhillips said the expansion area is needed to accommodate 2019 development drilling plans targeting an extension of the Alpine reservoir in the expansion area "within reach of available rig resources and capabilities."

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STAGE-GATE

including vice president of commercial operations and chief financial officer.

Changes to date

The governor replaced two of the public members of the AGDC board early in January. Doug Smith and Dan Coffey, both of Anchorage, were named to replace Hugh Short of Girdwood and Joey Merrick of Eagle River. With the new administration the commissioner members on the board also changed: Those seats are now held by Department of Labor and Workforce Development Commissioner Dr. Tamika Ledbetter and Department of Environmental Conservation Commissioner Jason Brune.

At its Jan. 10 meeting the AGDC board elected a new slate of officers, with Smith as board chairman, Coffey as vice chair and Warren Christian, a continuing member of the board, as secretary and treasurer. Dave Cruz, formerly the board chair, and David Wight, along with Christian, remain on the board.

The board then relieved Keith Meyer of his duties as AGDC president and named Joe Dubler as interim president. Meyer, formerly with his own energy logistics company — LNG America — and prior to that a senior executive with Cheniere Energy, was named to head AGDC in June 2016. Under Meyer AGDC eventually came under state leadership and worked AKLNG as a tolling project, infrastructure paid for by shipping fees on the pipeline and processing fees at the liquefaction facility.

Transition

Under former Gov. Bill Walker the state took over the AKLNG project at the end of 2016 after its partners — ExxonMobil, BP and ConocoPhillips — indicated that due to economic issues they did not wish to proceed beyond the stage of pre-FEED, front-end engineering and design which was completed in 2016.

The transition to a new administration, Tangeman said, “is a great opportunity to pause and see exactly where we’re at in this process with the AKLNG Project specifically.”

He said this was a good chance to reach out to the state’s former partners for their views on the gas market and LNG market, and to get their expertise.

At the same time, Dubler and the new board members will be seeing where the project is in the Federal Energy Regulatory Commission process, he said. AGDC submitted a FERC application in

early 2017 and has been responding to FERC information requests; FERC’s schedule calls for a draft environmental impact statement to be issued this February and a final EIS in November.

AGDC has described this phase in recent documents as de-risk regulatory, to be followed by lump-sum turn key FEED, with a final investment decision in 2019 and first gas in 2024-25.

Tangeman said there has been a lot of work done on the marketing side and with customers. (AGDC and the state signed a preliminary joint development agreement in November 2017 with China Petrochemical Corp., CIC Capital Corp. and the Bank of China Ltd. to work on commercialization of Alaska North Slope natural gas with as much as 75 percent going to China as LNG.)

But most important of all, Tangeman said, this is a great opportunity to re-engage the Legislature in this process.

A little history

Gov. Dunleavy is very familiar with AKLNG and how the development of a successful mega project comes to fruition, Tangeman said. Dunleavy and other legislators were educated on the stage-gate approach, and there are a lot of knowledgeable legislators who’ve been around since the state began work on the process in 2011. Those legislators understand mega projects and they understand the stage-gate process, and it’s not because of the state, Tangeman said, but because of the partners the state used to have who have built these projects around the world.

It’s a great comfort that the state doesn’t have to be out there welding pipe, he said: We had partners who’ve done this around the world.

“We were going to jump on their back and ride them across the finish line to a successful and profitable project,” Tangeman said.

Dunleavy was in the Senate in 2013 when this was really starting to heat up with the AKLNG process — the three companies had been working the project and approached then-Gov. Sean Parnell about bringing the state in as a fourth partner. Tangeman said this was very appealing to the state, which knew its limitations, and gave the state an opportunity to participate side by side and share the risk. And in a stage-gate process the state wasn’t obligated to put \$10 billion on the table on day one. Because it was a stage-gate process, a decision was made at the end of each stage whether to move forward with the process — and with funding.

Early days

At the beginning it was a rather small

group of state officials involved: Department of Natural Resources Commissioner Dan Sullivan and Joe Balash, DNR deputy commissioner; Revenue Commissioner Brian Butcher and Tangeman, who was then deputy Revenue commissioner.

And the companies knew, Tangeman said, that they wouldn’t have DNR and Revenue in the room forever — those departments were negotiating memorandums of understanding, heads of agreement and then joint development agreements. Eventually DNR and DOR would fall back into their roles and AGDC would continue as the state entity. AGDC had been working on the Alaska Stand Alone Pipeline project, so was logical as the continuing state entity in the project.

“The late, great Dan Fauske” was at AGDC then, along with executive VP Joe Dubler, Tangeman said, and they knew they weren’t going to be out there welding pipe — but they brought tremendous financial background to the table and the state became comfortable with the stage-gate process. The state knew its partners had built projects like it around the world.

The goal, he said, was a profitable economic driven project, not a schedule driven project.

The Legislature had been well educated for more than a decade by groups like Wood Mackenzie on failures around schedule-driven projects, something the ExxonMobil project manager, Steve Butt, hammered home constantly, Tangeman said.

AGDC committed to engage the Legislature through the decision-making process: It was a very good relationship back then, he said. AGDC, DNR, DOR would come before the Legislature and legislators got all the information they would need.

He said those state agencies were in front of the Legislature asking them to appropriate money to continue work on the project, and legislators understood that at every stage-gate decision they would be brought back in and would have to approve money.

It’s been several years since there was a stage-gate process discussion, Tangeman said: The Legislature has really been set aside for the last several years.

AGDC has been moving the FERC process forward and marketing the project, Tangeman said, and Dubler will get up to speed on progress there and on the benefit of the work that has been done.

Moving forward

Tangeman said the administration looks forward to re-engaging with its partners on the North Slope. We under-

stand, he said, what took place with the price of oil and gas over the last couple of years and will be discussing the project with them to see if there is an appetite to reengage and move forward as a partnership again.

A stage-gate approach will be put in place “so we know — and Alaskans know — exactly how we are going to move the project forward.”

Tangeman said it’s been very quiet as to how we go from point A to point Z, so it will be critical to get those stage gates in place so we know exactly how this is going to work going forward.

Mega projects, he said, cannot be schedule driven and must stand on their own economics.

Most critically, the risk must be shared.

Under the previous administration 100 percent of the risk was brought inhouse to the state.

“Gov. Dunleavy is not comfortable with that,” Tangeman said: It is important to bring partners back in; if this is to move forward we need to share the risk.

And while some legislators have been around and understand the project, there are a lot of new legislators this year, about 25 percent of the Legislature is new, Tangeman said, and AGDC will have a busy session re-engaging with the Legislature and bringing them up to speed on what’s taken place and where the state is in the process.

He said confusing messages on the project had been going out over the last couple of years and that it was critical that Alaskans understand 100 percent where we’re at in the project and where we need to be.

A lot of hard work and money has gone into the project, Tangeman said, including the FERC project, which, he said, seems the most critical point right now.

All this hard work has gotten us to a 10-yard-line, he said, “but I think we still have a lot of work to do to get to the 10-year line.”

It’s important that Alaskans understand where the project stands, he said: There won’t be a final investment decision this year; that’s a long way away and many steps to figure out how the state can bring the project to fruition.

He said Gov. Dunleavy and the administration look forward to working closely with AGDC and the Legislature to analyze where we are in the stage-gate process and how we can progress the project as a unified team moving forward. ●

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OIL SEARCH

years, with more projects coming down behind the one that is underway, D'Ardenne said.

"So it will be an interesting ride," he said. "We're going to be in this for the long haul."

Horseshoe, for example, might turn out to be an expansion to the Pikka development. Or it could involve its own standalone production facility, D'Ardenne said.

Two rigs in operation

During the current winter off-road drilling season, Oil Search has two drilling rigs operating off two ice pads in the Pikka unit, with a plan to complete four well penetrations. The operation has involved the construction of 25 miles of ice roads, two ice drilling pads, and two ice pads for camps. There is also a good-sized ice bridge crossing the Colville River to the more northerly of the drilling pads, D'Ardenne said. The idea behind the drilling is to prove up existing finds and conduct oil pool delineations, rather than find more oil, he said. Oil Search also wants to conduct some testing of concepts for drilling and well strategies — the company currently sees a recoverable volume of at least 500 million barrels of oil from the Pikka development, and is optimistic about the upside to this estimate, D'Ardenne said.

The first of this winter's wells, the Pikka B well, is about 6 miles from the village of Nuiqsut, while the other well, Pikka C, is about 13 miles north of Pikka B. Drilling began at Pikka B on Dec. 31, while Oil Search expects drilling at Pikka C to start on Jan. 20. Doyon Drilling's Arctic Fox rig is drilling Pikka B, while the Nabors rig 105 is drilling Pikka C.

"We're a couple of days ahead on both programs," D'Ardenne said.

First oil in 2023

Oil Search has indicated an expectation for first oil from its Pikka development in 2023. The U.S. Army Corps of Engineers published the final environmental impact statement for the project in 2018. The company does not know what the impact of the government shutdown will be on the issue of a record of decision for the final EIS, but expects that decision at some time in the first quarter of this year.

Oil Search, based in Australia and with major operations in Papua New Guinea, took over operatorship of Pikka from Armstrong Energy in 2018, having closed on the first component of the acquisition of Armstrong's and GMT Exploration's interests in the unit. Oil Search anticipates closing on the remainder of the deal, to end up with a 51 percent interest in the unit, during the first half of this year. Repsol has a 49 percent interest in the unit.

"So we're on track with that and moving forward," D'Ardenne said.

Currently, with Repsol on board as a partner, the company is conducting pre-front end engineering and design work, moving towards early FEED or transitional activities.

"We'll be going through some pretty comprehensive reviews in the course of the first quarter and second quarter, as we prepare to make our long lead equipment orders here in the third quarter of this year," D'Ardenne said. And Oil Search may have three drilling rigs in operation next winter, he said.

Increasing employment

Having started out with nine people working in Armstrong's Anchorage office on Feb. 1, 2018, Oil Search has been steadily ramping up its workforce numbers, as the Pikka project moves underway. The compa-

ny now has 95 employees, with that number expected to increase to nearly 110 by the end of January. Most of those people will work in the company's Anchorage office, although a few people will be carrying out engineering work in southern California.

"We've got over 2,000 years of combined global oil and gas experience in our office," D'Ardenne said. "And of that we've got over 300 years of Alaska North Slope experience."

Once the Pikka development is underway, Oil Search anticipates work for well over 200 people, including people working on laying gravel on the Slope and people working in Anchorage.

Safety is top priority

And D'Ardenne emphasized that, both for its own staff and for the contractors that it uses, Oil Search places safety, with no injuries and no harm to the environment, at the top of its priority list.

"We want everybody to go home to their families or whatever they do after their work, safe and in the same condition that they came to work in the morning," D'Ardenne said, commenting that this principle forms a key focus for the pre-qualification of vendors.

The company will also be compliant with government regulations and with agreements with Native corporations, local governments, and landowners he said.

In addition, Oil Search tries to maximize the use of local suppliers and contractors, either through direct contracting or through sub-contracts, D'Ardenne commented.

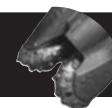
Another of Oil Search's core values is reliability, with a commitment to that first oil from Pikka by 2023.

"There's an expectation that we're going to achieve that," D'Ardenne said. ●

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Oil Patch Bits



Cook Inlet Tug & Barge acquiring assets on North Slope

Cook Inlet Tug & Barge, an independently managed subsidiary of Foss Maritime Co., announced Jan. 17 that it has entered into an asset purchase agreement with Crowley Vessel Sales Group and completed the purchase of all of Crowley's Prudhoe Bay, Alaska assets, including tugs, barges, heavy machinery and other vehicles and equipment.

"These assets are already positioned on the North Slope," said President and CEO of Foss John Parrott. "They are operationally ready to perform shallow draft tug and barge services and offer us the opportunity to expand our Alaska operations."

The vessels and marine assets have spent their entire operating years on the North Slope. "The shallow draft design of the vessels makes them ideal to service the North Slope and Western Alaska Markets," said CITB Sr. Business Development Director, Mike O'Shea. "In addition, the vessels are all in excellent condition."

Cook Inlet Tug & Barge plans to streamline its operation by focusing on marine equipment and partnering with established shore side service providers in Prudhoe Bay.

"CITB is excited about the addition of this fleet. We look forward to working with companies on the North Slope and providing leaner options to the oil and gas industry," Parrott added.

Companies involved in Alaska's oil and gas industry

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AOGCC PETITION

Jan. 18 order, signed by Commissioners Cathy Forester and Dan Seamount, which said that at the hearing Troll and other witnesses asked a number of questions about the commission's practices relating to enforcing its venting and flaring statutes and regulations.

"All witnesses were open about their root concern, the reason the hearing was requested, which is climate change," the order says. "They acknowledged, and the AOGCC reiterated at the hearing, that while the AOGCC regulates to prevent waste, it has no authority to act regarding that subject matter."

In the findings in that order the commissioners said that there was no specific example or claim of waste raised at the hearing.

"Both the testimony and the questions raised during the hearing appeared to stem from a general lack of familiarity with how the AOGCC addresses issues related to venting and flaring," the order said, and noted that the appropriate way to obtain information would be to schedule a meeting with AOGCC's technical staff, and said that if any of the hearing participants desired, "AOGCC staff is willing to meet the answer their questions."

Separate statement

The second document was a statement by Commissioner Hollis French, the commission's chair, who did not sign the commission's order. He said while his statement wasn't a quorum order of the commission (that would require agreement of two of the three commissioners) it did provide answers to questions submitted at the hearing.

French said that a review of available information on flaring shows "the Alaska oil and gas industry is, with the watchful eyes of AOGCC upon it, performing well or better than any other jurisdiction in the United States when it comes to conserving the state's valuable resources."

He also said there is room for improvement in how the agency handles venting and flaring information.

French also said, "it is perfectly appropriate for citizens to ask questions of their public servants, and it is not unreasonable for them to expect answers."

Questions answered

French provided answers to questions raised at the

hearing.

He said vented and flared gas is held to about 0.2 percent of the total gas produced in Alaska — for fiscal year 18 it was 0.23 percent, for FY 17, 0.2 percent — compared to Texas, which flared about 1 percent of its gas in 2016 and North Dakota, which flared 20 percent of its gas in October 2018.

In response to a query based on the assumption that more methane would be flared on the North Slope as temperatures rise, French said: "Daily temperature swings can create flaring events when the facilities' compressors 'bog down' in the higher temperatures and internal pressures rise. The vast majority of these temperature swings do not produce any flaring events, however, due to the alertness of the operators who can reduce the flow into the plant from high gas content wells."

He said the commission meets with operators "when their flaring practices warrant extra attention," but said AOGCC has not conducted a workshop with industry on the issue, "although the hearing held on this petition was an opportunity for industry to hear from concerned citizens."

French said the commission has devoted resources to enforcement, with efforts beginning in the 1970s "when AOGCC took action to end wasteful flaring practices in Cook Inlet." He said the agency's files contain "voluminous records" on venting and flaring enforcements.

"Recently, citizen complaints about flaring on the Kenai Peninsula resulted in a day long visit from one of the agency's field inspectors to a land-based production facility," he said.

Flared or vented gas is reported to AOGCC on Form 10-422, French said, accessible from the agency's website (<http://doa.alaska.gov/ogc/>) by selecting the data tab, and then data list from the drop-down menu. Then select data extract, which produces two files, a small one with a descriptive key, and a 25-megabyte file, with a list of tables on the left side. The table "tblFacDisp_Alt" is a link to monthly data extracted from Form 10-422 back to 1995, he said, adding that a recommended reform would be to make completed Form 10-422s available directly from the agency's website.

One question related to how the commission feeds data into the state calculation of greenhouse gas emissions.

"It does not appear that AOGCC has a responsibility to report emissions to the EPA under the greenhouse gas reporting rule," French said. Quoting the Environmental Protection Agency, he said emitters of emissions are

responsible.

Thirty-five flaring events were cited by petitioners who wanted to know if those emissions fell under authorized emergency and normal operations and asked what AOGCC was doing to analyze Form 10-422s and determine if there should be enforceable actions.

"Each Form 10-422 and any supporting documentation submitted along with it is reviewed by members of the agency's professional engineering staff and a commissioner to determine how to classify the flared or vented gas" under agency regulations, French said, and suggested that Form 10-422 be modified "to accommodate two commissioner signatures to ensure each determination of how to classify flaring events exceeding one hour is a quorum decision by the AOGCC."

Asked if AOGCC spot checks reports to see if claims for exemptions are legitimate, he said, each form is reviewed. "Staff gathers data, including the volumes of gas involved and an explanation from the facility regarding the cause of the flaring event."

Asked about enforcement actions for waste gas over the past 10 years, French cited two: An enforcement action against Cook Inlet Energy for failure to shut-in a well at Redoubt when the Kustatan Production Facility was undergoing a major overhaul in late 2013 and early 2014, with 24,668 mcf (thousand cubic feet) of natural gas flared.

The commission initially imposed a \$294,834 civil penalty on Cook Inlet Energy, but finally settled on requiring corrective actions so such flaring would not recur (see Other Order No. 100).

The other was an enforcement action involving BlueCrest Alaska Operating which was flaring as a result of starting up production processing equipment in 2016. After a "full-day visit to the facility from one of the agency's field inspectors," with the inspector conducting tests on the facility's measurement devices to make sure gas flowing to the flare was measured accurately, the commission notified BlueCrest that it would "not initiate enforcement proceedings for amounts flared in April and May 2016. However, two months is more than sufficient to conclude commissioning efforts."

Beyond the 10-year period, French said, there were enforcement actions for flared gas in 2004 and 2006, both resulting in the imposition of fines.

—KRISTEN NELSON

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ENERGY STRATEGY

ing ways of reducing emissions from its Prudhoe Bay operations. The company strongly supports the Alaska liquefied natural gas project, as a means of bringing clean natural gas into the global market. And the company is buying carbon offsets from Alaska Native corporations.

At the same time, the company is aggressively pursuing a strategy of improved efficiency at Prudhoe Bay, through new technology and innovation, with the aim of keeping the field in operation for a further 40 years.

Energy transition strategy

BP's corporate energy transition strategy involves reducing emissions from its operations, improving its products and creating low carbon and renewable energy businesses.

The Ahtna project agreement, finalized in 2018, is now the largest carbon credit event in North American history, she said.

"At BP we strongly support the transition to a lower carbon economy and we have tied it to our larger business strategy," Weiss said.

She said that BP has cut its carbon emissions from its Alaska operations by 2 percent while, at the same time, maintaining production from the Prudhoe Bay field relatively flat. This has been achieved through effective project execution and optimization Weiss said, citing as an example a recent compressor upgrade that resulted in a major reduction in carbon dioxide emissions.

The company is also seeking ideas from within its organization for emissions reductions. The concept is to line up the ideas, for execution in the near future.

Alaska LNG

BP also sees the export of liquefied natural gas, generated from North Slope gas, as a potential major factor in supporting global carbon emissions reductions.

"It could be a very big part of the global equation, when we think about emissions reductions," Weiss said. "BP is committed to the strategy through its continued support of Alaska LNG."

She characterized 2018 as a big year, albeit a year with challenges, for the Alaska LNG project. In 2018 BP signed a gas sales precedent agreement with the project and the company is continuing to work towards a long-term agreement to sell its share of the estimated 3 trillion cubic feet of gas that will be available from the Prudhoe Bay and Point Thomson fields, Weiss said.

"The state of Alaska is uniquely positioned to really help provide cleaner energy for the state and for the world through

this project," she said.

Native corporation carbon offsets

BP has also been actively pursuing opportunities for investing in carbon offset projects, as a means addressing the carbon emissions conundrum. The idea is that the company invests in activities that either reduce carbon dioxide emissions or that result in carbon dioxide absorption. In Alaska this is involving investments in forestry offsets available from Native corporations. The Native corporations commit to preserving forestry on their lands for at least 100 years, and then account for the carbon absorption impact of the forests. California has certified the resulting carbon credits, which can then be sold to entities such as BP that generate carbon emissions, to offset emissions in California. The result is a new revenue source for the Native corporations.

"For the past few years we've been working with multiple Alaska Native corporations in the carbon credit offset projects," Weiss said. "While some of these are in the approval process, we have recently completed two very large projects, one with Sealaska and one with Ahtna."

According to a protocol in the California cap-and-trade program, these forestry projects support multi-use access to forest lands and sustainable management of the lands, thus creating economic opportunities, Weiss said. The Ahtna project agreement, finalized in 2018, is now the largest carbon credit event in North American history, she said.

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PIPELINE OPTION

and C\$9 billion to pay for the 600,000 bpd expansion.

Approaches have reportedly been made to capital markets, banks and governments, as well as the petroleum industry, infrastructure players or institutional investors such as the federal government's massive Canada Pension Plan.

Opportunity

The Indian Resource Council, at a mid-January meeting in Calgary, represents First Nations who own oil and gas assets and has been eager to pursue the idea of purchasing a stake in Trans Mountain.

Delbert Wapass, a former chief of Saskatchewan's Thunderchild First Nation, said now that the Trans Mountain plan is at a tipping point indigenous people "have an incredible opportunity to create a new way of looking at this pipeline."

"I believe it is time we have a louder voice, a collective voice, in this pipeline's impact," he told the assembled chiefs. "Ownership means empowerment, opportunity and shared responsibility."

Richard Betsalel, a managing director for Toronto-based advisory firm Crosbie & Co., said that if indigenous communities are willing to accept cash flow greater than their debt costs they can make an investment work.

He told the Globe and Mail that such an objective can enable First Nations "to put the money into their communities for economic development and other projects."

Earlier participation

The strategy has already been successful for a number of First Nations who have participated in energy projects over

For all of their apparent shift towards a pro-industry stance, First Nations face a rift within their ranks, culminating earlier in January in a blockade that stopped work on the 400-mile Coastal GasLink pipeline which will deliver feedstock to the liquefaction plant at Kitimat for the C\$40 billion LNG Canada project.

the past decade, including the purchase of oil and gas infrastructure, notably by Alberta's Miskew Cree and the Fort McKay First Nation who acquired 49 percent of an oil sands storage facility from Suncor Energy for C\$503 million.

It was just the latest such deal by the Fort McKay community, which has led the way in linking up with the energy industry and, in the process, achieved an unemployment rate of nearly zero percent.

In Ontario, 129 First Nations, nearly all of Ontario's indigenous groups, currently own 2.4 percent of Hydro One, the province's electrical transmission company.

They hope to eventually use cash from their ownership stake to pay off the initial investment.

First Nations have previously become partners in the now-shelved Mackenzie Gas Project and are 100 percent owners of Eagle Spirit Energy, which is seeking financial help to launch a bitumen pipeline from northern Alberta to Prince Rupert and has total aboriginal backing along the route.

In addition, the risk rating for operating tankers out of Prince Rupert is very low, thus avoiding a major obstacle facing the TMX.

But Eagle Spirit President Calvin Helin

has threatened to move the export terminal to Alaska if the Canadian government implements its plan to ban tankers from loading on the northern British Columbia coast.

Eagle Spirit plans an initial export phase of 2 million bpd at a cost of C\$12 billion, then would add a second bitumen pipeline and two LNG lines for C\$4 billion.

Anti-pipeline activists

However, regardless of the optimism building around aboriginal participation in pipelines, the leading anti-pipeline activists led by Greenpeace, the Wilderness Committee, the David Suzuki Foundation and Stand.earth show no signs of backing down from their claims that no groups have suffered more from talk of resource ventures than First Nations.

Greenpeace said the Canadian government put itself on a "collision course" with indigenous rights last May when it bought the existing Trans Mountain pipeline from Kinder Morgan for C\$4.5 billion along with the expansion plans.

That view aside, the opponents of resource development have ignored the fact that there is more support for TMX than opposition among First Nations based on C\$40 million worth of mutual-benefit agreements signed by Kinder Morgan with aboriginal communities.

New poll results

They have also paid no heed to a new poll released on Jan. 16 by Angus Reid Institute that reflects an understanding of the economic imperative of building energy infrastructure in Canada.

The results capture a public opinion endorsing new oil pipelines, with the exception of Quebec, where resistance remains strong.

Institute executive director Shachi Kurl said the poll "shows an increased sense of urgency and anxiety" that extends beyond Alberta and Saskatchewan.

"There seems to be a greater sense among Canadians that this is no longer just an issue of environment versus oil companies or pro-oil workers. This is now an issue of Canada's economic interests," he said.

The online survey of 4,024 Canadians found almost 60 percent — including 87 percent in Alberta — believe the lack of new pipelines is a crisis. Even in British Columbia 53 percent consider the situation a crisis.

Rift in ranks

For all of their apparent shift towards a pro-industry stance, First Nations face a rift within their ranks, culminating earlier in January in a blockade that stopped work on the 400-mile Coastal GasLink pipeline which will deliver feedstock to the liquefaction plant at Kitimat for the C\$40 billion LNG Canada project.


Ignoring a court injunction, Wet'suwet'en First Nation hereditary chiefs cut off access to worksites on their claimed territorial land, resulting in a standoff with the Royal Canadian Mounted Police who ended up arresting 14 protesters.

The chiefs finally struck a deal with the RCMP, allowing TransCanada to resume survey work, while insisting that did not extend to permission for pipeline construction work to proceed.


It is far from clear how the uneasy truce will resolve itself, although the outcome will play a crucial role in the future of Canada's resource sector. ●

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HYDRATE WELL

facilitating methane hydrate research — in 2013 DNR signed a memorandum of understanding with DOE for collaboration over the research efforts.

Long-term testing

The objective of the new well is to conduct long-term testing of gas production from hydrates. DOE said that the well has confirmed the presence of hydrates in two reservoirs that are suitable for the testing — temperature and acoustic monitoring devices were fitted in the well as a precursor to future field experiments.

“The success of this test moves us closer to characterizing, evaluating, and confirming the potential for gas hydrates production on the North Slope,” said Steven Winberg, assistant secretary for fossil energy. “We look forward to continue working with our partners to con-

duct world-class gas hydrates research on the Alaska North Slope.”

Methane hydrate is a solid in which molecules of methane, the primary component of natural gas, are concentrated inside a lattice of water molecules. Huge quantities of the material, which remains stable within a certain range of relatively high pressures and low temperatures, are known to exist around the base of the permafrost under the North Slope. There are also extensive hydrate accumulations in other parts of the world, including in the seabed of the Gulf of Mexico and offshore Japan. The hydrates greatly concentrate the gas, relative to accumulations in conventional gas reservoirs.

Production possibilities

It is thought that natural gas could be produced through some combination of elevating the temperature or reducing the pressure in a hydrate reservoir. However, although short term gas production has been achieved from previous test wells, sustained production has yet to

be demonstrated. In addition to the technical feasibility of hydrate gas production, it will also be necessary to evaluate the economic viability of the production process.

The site of the new test well offers the benefit of year-round access via the North Slope road system — DOE has said that there is the potential to use the well for conducting experiments over many months. In contrast, this kind of long-term testing is impractical in offshore locations, or at undeveloped Arctic onshore sites, DOE said.

Methane hydrate has the potential to be a major source of natural gas from the North Slope region. In 2012 the U.S. Geological Survey estimated that there may be something in the range of 25 trillion to 157 trillion cubic feet of technically recoverable gas trapped in the form of hydrates under the Slope.

—ALAN BAILEY

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ENERGY STRATEGY

“This will bring a steady stream of revenue to the region, including community investment programs, most of which can be related to education and natural resources,” Weiss said.

Continuing oil and gas demand

At the same time, BP sees oil and gas remaining very significant components of the global energy mix for decades to come, as part of the dual challenge of satisfying growing global energy demand while at the same time reducing energy-related emissions.

At Prudhoe Bay, the company is trying to assure a 40-year future for the field, in support of continuing oil demand. Despite in 1977 being expected to have a 30-year life, the field still contributes more than half of the oil flowing down the trans-Alaska pipeline. Continuing with innovation at the field is the key to further extending field life, and foundational to the current renaissance in the Alaska oil industry, Weiss said.

“What got us here won’t get us there,” Weiss said. “We need modernizing, transforming every part of our business through technology and innovation.”

BP is currently conducting a 455-square-mile 3-D seismic survey in the Prudhoe Bay unit, identify opportunities for further oil development.

“That’s the largest that we’ve ever done at Prudhoe Bay and we’re using state-of-the-art technology. So we’ll have the best image that we’ve ever had,” Weiss said.

The company now has two drilling rigs up and running again at Prudhoe Bay.

“We’ve restarted those rigs, getting our well locations identified, so that we have many, many more years of drilling in Prudhoe,” Weiss said.

Efficiency improvements

And the company has been examining every aspect of its operations, to find ways of improving efficiency.

“Over the past 18 months we’ve really taken a look at our operations and we’re ushering in and using a lot more technology, whether it’s drones or big data or virtual reality and digitization of our facilities. We’re seeing costs come down through technology,” Weiss said.

BP’s operations support more than 8,300 Alaska jobs, including the company’s 1,500 Alaska employees. And last year the company spent more than \$855 million with Alaska businesses, while also investing millions of dollars in non-profit organizations across the state, Weiss said. ●

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