Walsh, Beckham to stay with Oil & Gas; Algeria minister says OPEC will cut output again if necessary

By GARY PARK
For Petroleum News

P ressure on the government of Canadian Prime Minister Justin Trudeau to either help fund expanded rail capacity or clear the way for new pipelines has come from the national energy regulator's estimate that Western Canada's oil supply is 365,000 barrels per day above the volume flowing in existing pipelines.

In a new report to the government, the National Energy Board reiterated the industry's view that the "primary factor" in a recent sharp decline in the value of oil sands crude is that production is outstripping export pipeline capacity.

The NEB compiled the data in response to a request from Natural Resources Minister Amarjeet Sohi who asked the regulator for advice on how to optimize available pipeline and rail transport.

He has come under increasing fire for dithering over an in-service date for expansion of the Trans Mountain pipeline system which is now owned by the Canadian government.

"BLM Alaska understands it is a priority to Governor Dunleavy to see the state obtain title to its remaining entitlement, and BLM stands ready to convey lands at the state's request."— Ted Murphy, BLM

While the state of Alaska includes the disputed acreage in its arcwide lease sales, leaseholders are warned that parts of their leases are in a disputed area.

State still owed 5 million acres

“The land conveyance in Goodnews Bay was

Supply outpaces shipping

NEB fingers lack of rail, pipelines as ‘primary factor’ in oils sands price crash

By GARY PARK
For Petroleum News

The NEB noted that about 1 million bpd of nameplate Canadian pipeline capacity was added in the 2013-16 period, but there has been no new capacity since then.

Sohi who asked the regulator for advice on how to optimize available pipeline and rail transport.

He has come under increasing fire for dithering over an in-service date for expansion of the Trans Mountain pipeline system which is now owned by the Canadian government.

NEB online forum

In response, the NEB said it had started an

Enbridge plan to replace Line 3 faces multi-pronged US opposition

By KRISTEN NELSON
Petroleum News

Enbridge has Canadian oil sands crude to get trapped in a growing regulatory, political and legal bag as it strives to gain final approval for the replacement of its aging Line 3 in Canada and the northern U.S.

And the struggle appears far from over as Minnesota prepares to inaugurate a new governor on Jan. 7 — from Mark Dayton to Tim Walz — while keeping the office in the hands of Democrats.

The 34-inch Line 3, which has shipped crude oil from Alberta to Superior, Wisconsin, for 50 years, is scheduled to be replaced by a 36-inch line in 2019.

The little-known system has gained increasing attention in line 3 page 10

AGDC agreements for Alaska LNG project still a work in progress

In November 2017 the state of Alaska and the Alaska Gasline Development Corp. signed a joint development agreement with three Chinese entities — China Petrochemical Corp. (Sinopec), CIC Capital Corp. and the Bank of China Ltd.

The goal was Chinese participation in an Alaska liquified natural gas project, with investment from China in exchange for LNG from the project.

The JDA said the parties would work together on a scope of work defined in the agreement, including the opportunity for delivering 75 percent of the LNG produced from Alaska to China "at a cost-based and stable price utilizing the benefits of

see ALASKA LNG page 10

ANWR transfer priority

If BLM agrees, land conveyance to state could go through quickly

By KAY CASHMAN
Petroleum News

W ith the state of Alaska still owed 5 million acres by the U.S. Bureau of Land Management under the 1959 Alaska Statehood Act, the recent conveyance of 39,995 acres in the Goodnews Bay area casts hope on the state’s efforts to secure 19,322 acres in disputed acreage along the boundary of the Arctic National Wildlife Refuge.

According to state officials, the disputed eastern North Slope acreage arose from the U.S. Fish and Wildlife Service depicting ANWR’s western boundary as the Staines River, despite legal descriptions that identified the Canning River further west as the boundary (see map).

Eastern North Slope field averaged 9,949 bpd in November, highest production yet

By KRISTEN NELSON
Petroleum News

No vember production data from the Alaska Oil and Gas Conservation Commission is available and shows that the Point Thomson field produced close to its rated 10,000 barrels per day, averaging 9,949 bpd, up 94 percent from an October average of 5,129 bpd and the highest level since the field, which came online in April 2016, averaged 9,575 bpd in November 2017.

ExxonMobil Production Co., the Point Thomson operator, has had technical challenges at the high-pressure field, and production has bounced around considerably, with the monthly average this year as low as 5,124 bpd, and the field

see ANWR TRANSFER page 11

see INSIDER page 9

see ENI OPERATORSHIP page 12

see SHIPING WOES page 10
Commission confirms its $50,000 CIE fine

Alaska Oil and Gas Conservation Commission rules on reconsideration for failure to report pressure communication at RU 3A well

By KRISTEN NELSON
Petroleum News

The Alaska Oil and Gas Conservation Commission ruled Dec. 26, on reconsideration, that a $50,000 fine imposed on Cook Inlet Energy earlier in the year, along with specific corrective actions, was appropriate based on the company’s failure to comply with the commission’s rules and the area injection order for the Redoubt Unit 3A well.

The commission issued a notice of proposed enforcement action to CIE in March for failure to report a pressure communication at the Redoubt Unit 3A well and failure to complete the required mechanical integrity test at the well.

The commission said CIE requested an informal review, which was held in April. On June 25 the commission issued a decision and order on the matter, with corrective actions and the $50,000 civil penalty, citing two violations: failure to notify the commission and submit a plan of corrective action “when pressure communication, leakage or lack of injection zone isolation” was indicated, as required by relevant regulations and provisions of the area injection order for the Redoubt Shoal field; and violation of the AOGA requirement that a mechanical integrity test witnessed by AOGCC be performed once the well began injection for the first time.

The civil penalty of $50,000 was $25,000 for each initial violation.

The commission said the penalty considered mitigating circumstances, including that no injury to the public occurred, the absence of known sources of freshwater in the Redoubt unit, and that, “once notified of the violations, CIE demonstrated urgency in completion of the required MIT and in the installation and testing of the required automatic well shut-in equipment prerequisite to continued injection in the well.”

CIE requested reconsideration and oral argument on the June order and a hearing was held Oct. 24.

Company’s view

At the October hearing the commission heard from Philip Elliott, president of Glacier Oil and Gas, the parent company of Cook Inlet Energy, the operator at Redoubt, and David Pascal, vice president of operations for Glacier. Elliott told the commission that over the past three years...
Commission holds venting/flaring hearing

Conservation groups look to AOGCC to prevent all venting, flaring. AOGA supports commission's existing regulations, citing safety

By KRISTEN NELSON
Petroleum News

The Alaska Oil and Gas Conservation held a different kind of hearing Dec. 18 — a hearing in response to a petition asking the commission to do more to prevent unnecessary releases of natural gas.

The petition for a hearing on preventing all non-emergency venting and flaring came from Kate Troll, originally with 48 signatures; a supplement brought the number to some 300.

Troll told the commission that while climate change was the concern, they were not asking the commission to expand its mission but asking that it enforce statute 31.05.095 prohibiting waste of oil and gas and the commission’s regulations defining waste.

That section of Alaska statute says simply: “The waste of oil and gas in the state is prohibited.”

The commission regulates gas disposition under 20 AC 25.235, which specifies reporting by specific categories and limits releases of gas except for “de minimis” venting — with a report required if the incident exceeds one hour. Reporting under 20 AAC 25.205 for uncontrolled releases is not required for gas releases of less than 1,000 mcfc (thousand standard cubic feet).

Kate Troll

According to a transcript of the hearing, Troll cited various industry statements and told the commissioners that at least some of the state’s oil producers “are fully on-board with your mission to reduce methane emissions.”

She said, “there is reason to doubt that rigorous compliance is occurring” and asked if the commission had met with industry to discuss the reduction of emissions or “devoted resources to enforcement of its waste gas regulations and will it do so in the future?”

Alaska Climate Action Network

Ceal Smith, on behalf of the Alaska Climate Action Network, said those signing the petition were appealing to the commission to do everything in its power “to fully enforce and strengthen the rules to reduce Alaska’s greenhouse gas emissions.”

Smith said they looked at data from the commission obtained by Lois Epstein of The Wilderness Society, and said it wasn’t obvious where industry was reporting venting of gas.

She asked several questions, including how the commission tracks methane releases.

Commissioner Cathy Forester said she was hearing a lot of questions and suggested perhaps a hearing wasn’t the appropriate format, since commissioners do not answer questions from the bench.

Forester said it was very important that the public understand what AOGCC does and that it acts in a transparent manner. She suggested some concerns could be addressed by a meeting with the commission’s technical staff, who could answer questions and explain what the commission does.

Smith said the petitioners were specifically asking the commission “to enforce existing waste rules and strengthen those rules.”

She said they question whether “the waste rules are being enforced to the fullest extent based on the data” she presented.

The Wilderness Society

Lois Epstein, an Alaska licensed engineer with The Wilderness Society, said “the public would like to know what AOGCC is doing to analyze form 10-422, flaring and venting reports, to determine if there should be enforcement actions against certain operators for wasted gas resources,” and also asked if the commission had verified any of the reports to see if claims made by the operators were legitimate. She asked if there been any enforcement actions over the past 10 years for wasting of gas.

Epstein asked that the commission “upgrade the state’s regulatory standards addressing waste gas” and “consider pursuing one or more high profile enforcement actions against operators who are not meeting the state’s existing regulatory requirements.”

Forester said that some of what Epstein said sounded like information requests and said the hearing wasn’t the forum for a public records request, “so if you really want that data, make a public records request for it.”

Alaska Oil and Gas Association

Kara McArthur, president and CEO of the Alaska Oil and Gas Association, said AOGA opposes the petition and supports the commission’s current venting and flaring regulations.

The petition, McArthur said, “seeks to prevent all non-emergency venting and flaring” which AOGA believes would be both impractical, “but more importantly it’s unsafe.”

She said “since 2005 there has been a 17 percent reduction in greenhouse gas emissions by industry in Alaska,” citing the most recent report from the Alaska Department of Environmental Conservation.

McArthur said operators use all reasonable precautions to prevent the waste of oil and gas resources. However, the venting or flaring of some natural gas is practically an unavoidable consequence of oil and gas development.

She also said the commission is not the only agency regulating flaring, venting and fugitive emissions — DEC, the Environmental Protection Agency and the Bureau of Land Management, on federal land, also regulate flaring and venting.

Chair Hollis French said the commission would take the matter under advisement and if anything about the hearing causes two of the three commissioners to agree “we can go forward.”

He suggested that one thing the commission could do is try to make its website more accessible.

Commissioner Dan Seamount asked that Epstein compare the questions she had with those of Smith and let the commission know if there were extra questions.

Contact: Kristen Nelson at knelson@petroleumnews.com

PETROLEUM NEWS • WEEK OF JANUARY 6, 2019

CIE FINE

they had been working to fix the company and have tried to do the right things, including plugging and abandoning six wells, 40 percent of the company’s non-producing wells, and addressing the antiquated production facilities at West McArthur River by consolidating production at the Kustatan facility — about a million spent on the P&A effort and $4 million on the production issue.

Redoubt was previously part of the assets of Miller Energy Resources, a publicly traded company, which became the privately owned Glacier Oil and Gas when it emerged from bankruptcy protection in 2016.

Elliott has been with the company since 2015 and became president of Glacier in November; he was previously chief financial officer and executive vice president.

He said prior to bankruptcy there were regulatory compliance issues but said since the bankruptcy the company brought on staff to work on those compliance issues.

Pascal reviewed in detail actions CIE had taken and said it had acted in good faith and that the violation did not pose a threat to the public.

Commission’s view

In its December final order, the commission said, “CIE has presented nothing which would warrant changing the findings or penalties in the order,” and said the company had violated its regulations and rules.

Changes which affect future actions did not change the violations the company committed, the commission said.

CIE’s commitment to an increased level of oversight as well as review of established training and process protocols for employees governing injection operations is satisfactory to help prevent further occurrence of these violations. However, the violations committed by CIE were neither trivial nor technical. Neither violation can be characterized as an unintended consequence of good faith attempt at compliance with AOGGC’s orders and regulations. AOGGC’s assessment as to the appropriate civil penalties is unchanged.”

In addition to the fine, the commission said CIE needs to provide a detailed description of its underground injection control regulatory compliance program; provide details of its tracking system for determining when mechanical integrity tests are required; provide a detailed description of its AOGGC regulatory compliance program; provide a root cause analysis addressing failure to provide notification of a pressure communication to the commission within the next business day; and provide a root cause analysis addressing failure to complete an AOGGC-witnessed MIT test as required.

The order may be appealed to the superior court.

Contact: Kristen Nelson at knelson@petroleumnews.com
New North Slope storage pad in works

Afoognak Leasing LLC has applied to the U.S. Army Corps of Engineers to build a storage pad for oil and gas operators on the North Slope.

The Corps said the proposal is for a 21.88-acre pad, the Cama’i’s gravel pad, which would “support operational and logistical needs of various North Slope oil and gas operators in an area that mini- mizes the distance operators have to travel to get their supplies.”

The Cama’i pad would be used to store moveable buildings, camps, oilfield sup- port equipment, supplies and modules, and “could be used for vehicle and equipment storage and as a laydown yard with adequate space for moving equipment around the modules and facilities con- tained on the pad.”

The project would be built in three phases on an as-needed basis, with material for the project to come from Mine Site C unless an alternative source of comparable quality and cost becomes available.

The current proposal is for Phase I, which would consist of the placement of some 92,500 cubic yards of fill material on 11.2 acres of wetlands, offset 30 feet from the Spine Road near Mustang Pad and DS-2S. This portion of the project is slated for development in the winter and summer of 2019.

Phase II would consist of some 45,600 cubic yards of fill in a 5.42-acre area con- tiguous to the southern end of Phase I and is tentatively slated for development in the summer of 2021 based on industry needs.

Phase III, the final phase, would place some 43,900 cubic yards of fill into 5.26 acres immediately northwest of Phase II. If there is need for this phase, it would be constructed in the summer of 2023.

The Corps is taking comments on the project through Jan. 28.

— PETROLEUM NEWS

GOVERNMENT

Prudhoe well integrity hearing scheduled

The Alaska Oil and Gas Conservation Commission has scheduled a hearing to assess the mechanical integrity of Prudhoe Bay wells.

The Dec. 28 notice of public hearing provided no information other than the date and time: Feb. 7 at 7 a.m. at the commission’s Anchorage offices. Written comments on the subject may be submitted no later than 4:30 p.m. on conclusion of the Feb. 7 hearing.

There were more than 750 wells producing oil at the field in November, and production began there in the 1970s.

A docket for the hearing was being prepared when this issue of Petroleum News went to press so was not yet available.

— KRISTEN NELSON

EXPLORATION & PRODUCTION

National drilling rig gains 3 to 1,083

The number of rigs drilling for oil and natural gas in the U.S. was up by three this week ending Dec. 28 to 1,083.

At this time last year there were 929 active rigs.

Houston oilfield services company Baker Hughes reported that 885 rigs targeted oil (up two from the previous week) and 198 targeted natural gas (up one).

The company said 70 of the U.S. holes were directional, 945 were horizontal and 68 were vertical.

Among major oil and gas producing states, Alaska was up two rigs and Louisiana and Texas were each up one.

California, Colorado, New Mexico, North Dakota and Pennsylvania were unchanged.

Oklahoma and Wyoming were each down by one rig.

Baker Hughes shows Alaska with seven active rigs, up two 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

BlueCrest amends Hansen discharge plan

BlueCrest Alaska Operating has applied to the Alaska Department of Environmental Conservation to amend its oil discharge prevention and contingency plan for its Hansen field, the Cosmopolitan project, on the Kenai Peninsula.

DEC said in a notice of the application that the current plan addresses spill preven- tion and response measures to support a maximum of 1,500 barrels per day of oil at the wellhead for a total discharge volume of 22,500 barrels over 15 days and a 300-barrel response planning standard for oil storage tanks. Based on information available on expected reservoir pressures when the plan was approved in 2015, DEC said there was no expected aerial blowout plume from a loss of well control event and oil from a blowout was expected to be contained within pad boundaries. No water response plans were included, and land recovery included only removal of oil from the existing pad.

“Following recent well workover operations the well pressures have increased sub- stantially,” DEC said. An update blowout plume model was developed, which indicates potential for a significant aerial plume that could carry some 15,000 feet from the well- head, with the potential for off-pad migration and deposition to the shoreline and waters of Cook Inlet.

However, based on current and expected production rates the response planning standard has been reduced from 1,500 bpd to 1,000 bpd for a total discharge volume of 15,000 barrels over 15 days.

In its application BlueCrest told DEC that in addition to addressing a reduction in the response planning standard, the amendment also reflects a change in the gas-to-oil ratio from 300 standard cubic feet of gas per barrel of oil to 10,000 standard cubic feet of gas per barrel. The company said that while it was reducing the response planning standard, “the increase in gas capacity results in a different plume size along with the associated potential environmental impacts, response strategies and tactics than previ- ously modeled.”

— KRISTEN NELSON
Strategic fuel reserves for the Navy. The discoveries were small, but the plain of frozen tundra sloping down from the Brooks Range to the Colville River delta and Arctic Ocean clearly contained several big geological structures of the kind BP was familiar with in the Middle East.

The first step for BP and Sinclair was to conduct geological surveys on the North Slope.

In 1959 BP opened its first office in Alaska, in downtown Anchorage, and the following year the first team of geologists arrived.

Roger Herrera was a member of the first team.

“There were very few maps available in 1960 for those parts of Alaska,” said Herrera. “Those that were available were of poor quality, so we relied heavily on aerial photographs.”

Herrera said that their assignment was to define the geologic structures more exactly, and to identify more promising reservoir rocks and develop a picture of the regional geologic trends.

Living in tents, the survey team moved by helicopter or float plane from site to site, often landing in the numerous small lakes that dotted the North Slope.

“We’d go out in the morning to get rock samples, and since we had many miles to go, we only carried essentials — a map, compass, and field notebooks. In the evening, we set up camp and worked through the night,” Herrera said.

The cat train crew arrived in Fairbanks on Feb. 26, 1964, and encountered 70 below temperatures. The weather stayed brutal for the entire 40-day expedition.

Just 18 days were spent traveling, the rest were used for preparation and unforeseen setbacks.

By Feb. 29, the crew was consumed for four days with trying to free a dozer that broke through the ice of a swamp into 6 feet of water. Towing, melting with fire and dynamic blasting ensued before the dozer came free of the ice.

Mechanical delays, a Yukon River crossing on creaking ice, and some close calls kept the going interesting at speeds averaging 3 miles per hour.

The open cabs of the tractors were only partially screened, leaving the upper bodies of the crew exposed.

On Feb. 28, 1964, in a remarkable feat, Miller crossed the South Barrow Swing Basin, which separates the North Slope and the coastal plain, using a dozer. Miller would haul the camp and supplies from Fairbanks to Sagwon, the North Slope airstrip and supply station.

The cat train made Sagwon in mid-April, proving both the difficulty and the feasibility of overland transport to the North Slope.

**Cat train catskinner**

The only means to get to the North Slope was by air or sea. Oil companies built airstrips and aircraft such as the Lockheed Hercules C-130 cargo plane were used to haul people, equipment and supplies north, the sea option only available for a few weeks a year due to ice.

But one man thought Caterpillar tractors pulling heavily-loaded trailers could be driven to the North Slope from Fairbanks. In 1964, John C. “Tennessee” Miller, founder of the Frontier Companies of Alaska, today part of Lynden, wanted to test the feasibility of using a “cat train” for overland transport to the Arctic.

Cat trains had been used in the 1950s to build the Distant Early Warning Line. A veteran catskinner, Miller found an oil man to back his experiment: Charlie Selman, then division geophysicist for Richfield Oil, predecessor to ARCO, wanted to add a second geophysical crew on the North Slope. The crew would need a cook shack, bunkhouse and three D-7 Caterpillar tractors to plow snow and haul supplies on logging sleds.

Miller would haul the camp and supplies from Fairbanks to Sagwon, the North Slope airstrip and supply station.

The cat train crew arrived in Fairbanks on Feb. 26, 1964, and encountered 70 below temperatures. The weather stayed brutal for the entire 40-day expedition. Just 18 days were spent traveling, the rest were used for preparation and unforeseen setbacks.

By Feb. 29, the crew was consumed for four days with trying to free a dozer that broke through the ice of a swamp into 6 feet of water. Towing, melting with fire and dynamic blasting ensued before the dozer came free of the ice.

Mechanical delays, a Yukon River crossing on creaking ice, and some close calls kept the going interesting at speeds averaging 3 miles per hour. The open cabs of the tractors were only partially screened, leaving the upper bodies of the operators exposed.

The cat train made Sagwon in mid-April, proving both the difficulty and the feasibility of overland transport to the North Slope.

**Cat trains had been used in the 1950s to build the Distant Early Warning Line.**

The cat train crew arrived in Fairbanks on Feb. 26, 1964, and encountered 70 below temperatures. The weather stayed brutal for the entire 40-day expedition. Just 18 days were spent traveling, the rest were used for preparation and unforeseen setbacks.

By Feb. 29, the crew was consumed for four days with trying to free a dozer that broke through the ice of a swamp into 6 feet of water. Towing, melting with fire and dynamic blasting ensued before the dozer came free of the ice.

Mechanical delays, a Yukon River crossing on creaking ice, and some close calls kept the going interesting at speeds averaging 3 miles per hour. The open cabs of the tractors were only partially screened, leaving the upper bodies of the operators exposed.

The cat train made Sagwon in mid-April, proving both the difficulty and the feasibility of overland transport to the North Slope.
Alaska wins statehood

Swanson River field on Alaska’s Kenai Peninsula convinced Congress the oil industry could provide economic basis for statehood

**HISTORY**

Alaska’s fight for self-determination is nothing new; in fact, even the quest for statehood set the stage for a better fight in Congress. The threat of filibuster hung over Senate debate on the issue.

“When we got statehood, we went around the rules of the House. We went right to the floor; we had a bill considered and voted on without going through the rules committee. When we went to the Senate, we had to get the Senate to vote on that bill without amendment,” said former U.S. Sen. Ted Stevens, R-Alaska, who served for six decades in the American public sector, beginning with his service in World War II.

In 1952, Stevens’ law career took him to Fairbanks, Alaska, where he was appointed U.S. Attorney the following year.

In 1956, he returned to Washington, D.C., to work in the Eisenhower Interior Department, where he played an important role in bringing about statehood for Alaska.

Alaska statehood had vociferous opponents; just as ANWR’s 1002 area drilling does today.

“People like Strom Thurmond held us up for days upon days with amendments, delaying us, but we finally got people to vote them down,” Stevens said.

In effect, senators were challenged to not filibuster the bill, he said.

The statehood strategy took three years to work out.

The Swanson River field on southern Alaska’s Kenai Peninsula convinced Congress that the oil industry could provide the economic basis for statehood and Alaska became the 49th state in 1959.

“The Swanson River discovery provided the econom-

cic justification for statehood for Alaska,” said Bill Egan, Alaska’s first elected governor.

In 1968, state petroleum revenues had doubled in six years to $52 million.

In 1976, a Constitutional Amendment passed by Alaskans established the Alaska Permanent Fund to receive at least 25 percent of petroleum royalties.

In 1977, Prudhoe Bay production began with the completion of the trans-Alaska oil pipeline and soon reached 1.5 million barrels per day.

In 1977, the Alaska Permanent Fund received its first deposit of dedicated oil revenues: $734,000.

In 1979, the state of Alaska received $821 million in petroleum revenues, the state’s annual budget exceeding $1 billion.

In 1983, the Alaska Permanent Fund made its first investment in the stock market, and later that year, in directly held real estate.

Today, more than four decades after the Fund was established, the value has topped $60 billion.

**BP bids around the edges**

Cash-strapped, can’t compete for costly leases in center; gambles on Prudhoe structure’s similarity to prolific Iranian discovery

COMPiled BY KAY CASHMAN
Petroleum News

In 1964 the first state land at Prudhoe Bay was put up for auction. Disheartened by the failures in the Brooks Range and Colville River delta, Sinclair opted out of the sale, which proved to be a poor decision.

“They got faint of heart,” said Richfield Oil and later Humble Oil North Slope geologist Gil Mull. “Sinclair bailed at exactly the wrong time; basically, as a result of that decision, Sinclair ceased to exist.”

ARCO ended up swallowing Sinclair, a company that could have been a very large part of things at Prudhoe Bay, he said.

Short of dollars, British Petroleum, or BP, decided it could not compete with American companies for expensive leases in the center of the structure.

Instead, BP gambled on the striking similarity of the Prudhoe Bay structure to its discovery in Iran — where the oil-bearing rocks had proved to be thicker and more prolific around the flanks of the field.

In some instances, BP did bid on what were considered prime tracts at the crest of the Prudhoe structure, but was outbid by Richfield.

When the bidding closed, BP had acquired 90,000 acres around the rim at an average price of just over $16 an acre compared with the $93 an acre Richfield paid for leases in the central area.

The Trumpet of 1966 saw little drilling activity by BP.

Some were surprised when the company bid on Sag Delta tracts in a 1967 state lease sale. BP acquired six offshore tracts northeast of Prudhoe Bay, in the vicinity of today’s Niaakuk and Endicott fields.

But cash-strapped and discouraged by nine successive dry holes further west, the company decided to sit tight and watch what its new neighbors, operator ARCO and partner, Exxon subsidiary Humble, were doing.

ARCO’s 1968 strike at Prudhoe Bay State No. 1 — at the center of the structure — was the largest ever found in North America.

Three months later ARCO drilled a second well — Sag River State 1 — seven miles southeast of Prudhoe Bay State 1, which confirmed that discovery.
 While ARCO reaps the glory of discovering Prudhoe Bay, BP claims a bigger prize with 60 percent of the oil under its leases

**HISTORY**

**BP confirms discovery**

**COMPILED BY KAY CASHMAN**

Petroleum News

After British Petroleum, or BP, turned down an offer from ARCO in 1968 to purchase all its Prudhoe Bay area leases, the company quickly decided to resume drilling.

With 48 hours’ notice, a barge and drilling rig with 4,500 tons ancillary equipment was headed from the southern part of the state to the Bering Sea and onto Prudhoe Bay before encroaching ice made the Beaufort Sea impassable.

The BP airlift comprised five chartered C-130s, each costing about $250,000 a month, plus three Super Constellation aircraft.

John Matryt, then general manager and vice president of BP Alaska and veteran of Kuwait, New Guinea, Trinidad and Libya oil fields, described the difficulty of these early logistics efforts: “I can recall those great Hercules thundering through the winter night and the great flurries of snow whirling up along the lights burning at the side of the ice runway. It was the most difficult operation I’ve ever been associated with.”

In a 1970 interview with BP’s corporate magazine BP Shield, truck driver Burn Roper vividly described the weather conditions as ground-based crews scrambled to deliver BP’s critically needed drilling equipment overland.

“We needed almost as much fuel to keep warm as to run the rigs,” noted Roper. “The temperatures were something fierce, running down to minus 65 degrees Fahrenheit. At this temperature steel was as brittle as candy; human flesh froze in 30 seconds. Engines had to be kept running round the clock — from fall to spring they never stopped.”

Roper drove a 20-ton transport truck in a convoy that in 1968 made the 11-day, 600-mile trip up the winter ice road from Fairbanks over the Brooks Range to the North Slope.

“We had a tractor with us to pull us over the ice ledges we made along the way,” Roper said. “These ice steps were more than 2 feet high. We had radios in our cabs, and we met along the way,” Roper said. “These ice steps were more than 2 feet high. We had radios in our cabs, and we met along the way.”

Larmanie noted that on one occasion messages were exchanged by two Welsh-speaking geologists, one on the rig and the other at Anchorage. “As drilling continued throughout the winter, communications security was a problem. People at the well had to communicate with company officials, but without others listening in.”

“Everyone was sharing these terrible radio frequencies. We had a very good radio man in London who knew the international system … frequencies, the VHF and rural problems, but we didn’t have FCC authority to use the frequencies. So, as we were getting closer to the target at Put River No. 1, we were sending information out in sealed bags — airlifted, hand carried stuff.”

“BP wanted to determine the thickness of the Prudhoe column at Put River and to then use this information to evaluate its seismic data,” Larmanie said.

“As drilling continued throughout the winter, communications security was a problem. People at the well had to communicate with company officials, but without others listening in.”

Everyone was sharing these terrible radio frequencies. We had a very good radio man in London who knew the international system … frequencies, the VHF and rural problems, but we didn’t have FCC authority to use the frequencies. So, as we were getting closer to the target at Put River No. 1, we were sending information out in sealed bags — airlifted, hand carried stuff.”

Larmanie noted that on one occasion messages were exchanged by two Welsh-speaking geologists, one on the rig and the other at Anchorage. “Welshmen Harvey Jones and Ron Walters conducted a conversation in their native language, transferring all the Put River information from the rig to Anchorage,” he said.

Finally, on March 13, 1969, BP made brief announcements in London and New York. “Oil had been discovered in porous sandstone below 8,000 feet,” with an oil column thickness greater than that at Prudhoe Bay. It was a major extension of the Prudhoe Bay discovery, like the Sag River State No. 1 well.

Just prior to making a major announcement about the results of all its Prudhoe confirmation drilling, British Petroleum, or BP, bid on more North Slope acreage in the Sept. 10, 1969, state lease sale.

The size of the Prudhoe Bay field attracted worldwide attention, and this translated to an enormous level of interest. By the time the sale rolled around, the Anchorage air-port was home to at least a dozen corporate aircraft and the city’s hotels were bustling.

Companies went to extraordinary lengths to maintain secrecy. All of the major U.S. companies were, if not participating, at least represented along with many independents.

The lease sale — by auction — was carried out in public with the companies’ sealed bids opened before an audience of oilmen, bankers and journalists.

Charles Towill, one of BP’s first public affairs representatives in the United States, recalls employing a resourceful communications method to relay sale information to BP management.

“At the time of the September 1969 Prudhoe Bay lease sale, Anchorage was a community of 125,000, almost half of the state’s total population,” said Towill. “There was no satellite link, no TV programs, including news, were sent...
Geologist Tom Marshall came to Alaska from Wyoming in 1958 to homestead on federal lands. He was eager to get in on the ground floor of the Cook Inlet oil exploration boom touched off by the Swanson River discovery in 1957.

“I also wanted to see if Alaska was the magnificent place that my grandfather Marshall said it was,” he told members of the Alaska Geological Society in April 2008. The elder Marshall had traveled to Alaska decades earlier as a member of the Royal Canadian Mounted Police.

Tom Marshall took a position as an assistant lands selection officer with the young state of Alaska government to support himself while he planned to homestead. He was eager to get in on the ground floor of the Cook Inlet oil exploration boom touched off by the Swanson River discovery in 1957.

Marshall was tasked with evaluating a federal opening for land selection on the North Slope. He said his primary source of information was professional papers published by the U.S. Geological Survey, which were crammed with lots of information about the Navy’s exploration program, which were published by the U.S. Geological Survey, which were crammed with lots of information about the Navy’s exploration program, which were crammed with lots of information about the Navy’s exploration program, which were crammed with lots of information about the Navy’s exploration program, which were crammed with lots of information about the Navy’s exploration program.

The state Division of Lands polled seven companies and none of them recommended selecting the Prudhoe Bay area for lease, preferring the Colville basin west of Prudhoe Bay versus the Arctic coast.

Marshall recalled that he might have gotten “a little overdramatic” when he told Alaska Natural Resources Commissioner Phil Holdsworth and state lands director Roscoe Bell that “there could be a big banana up there on the coast.” Luckily for Alaska, Holdsworth and Bell had faith in Marshall’s judgment.

Lands selection officer, geologist convinced Alaska leaders to gain control of North Slope acreage before Prudhoe Bay field discovered

Compiled by Kay Cashman
Petroleum News

Marshall changes history

How Prudhoe Bay was named

The first mention of the name “Prudhoe Bay” was a brief entry in a journal of British explorer Sir John Franklin, dated Aug. 16, 1826. Franklin saw the bay during an expedition by boat down the Mackenzie River in Canada (the river flows from south to north) and then west along the Arctic coast. The name honors a fellow naval officer and explorer-scientist, Captain Algernon Percy, Baron of Prudhoe.

Saxon term meaning “proud height,” and a Prudhoe castle was built in the 12th century on a hill overlooking the river Tyne in Northumberland, England. In a matter of months, “Marshall’s folly” had changed the course of history, becoming the single-most important source of revenue for the state of Alaska.

Marshall: ‘I was dead wrong’

Marshall, who retired from the state as chief petroleum geologist for the Division of Oil and Gas in 1978, said “I don’t want to sound too smart about the discovery, because frankly, I was dead wrong.” He had read reports about the Sadlerochit sandstone and the Ivishak formation. They were described as being primarily quartzite, which has to be zero porosity. He couldn’t see outcrops of these Ivishak sands in the information I had about the region across the broad Slope, and it didn’t seem to impress the USGS geologists who studied them in the Foothills area,” he explained. “But as we know, the Prudhoe Bay discovery was primarily in the Ivishak sands of the Sadlerochit formation, which I did not even consider. I thought it was going to be the Lisburne. Fortunately, it’s in both of them. But the Lisburne is a far distant third or fourth largest reservoir on the North Slope,” he said in 2008.

Marshall’s modesty notwithstanding, the significance of his contributions cannot be underestimated. Doing his job as a state employee, “Tom Marshall deserves a monument for his contributions. He was so modest, it was not well understood,” said John Sweet, Alaska district explorationist for ARCO at the time of the 1968 discovery.

Go to Petroleum News at petroleumnews.com
BP HEADS NORTH

pass, rock hammer, good hiking boots, plenty of mosquito repellent and, in the event of bad weather, patience,” Herrera remembered.

“I recall many nights spent out on the tundra because the weather was too poor for pilots to fly. Sometimes when the airplanes couldn’t make it in, we ate fish that we caught in nearby streams and lakes.”

Geoff Lamamie, exploration manager then based in Anchorage, also ventured into the field with survey crews. “It could get pretty rough, especially in the mountains,” he recalled.

“There’d be dirt, our heads in the sky, our backsides in the snow for days on end. Living check by check with people under these cramped conditions could result in certain psycho-

DISCOVERY CONFIRMED

up in cassette form from Seattle — making everything a day late. I was running public

knowledge of the North Slope. This new partnership acquired six blocks at a cost of $87.7 million covering a promising area in the Colville River delta, some 20 miles to the west of Prudhoe Bay, in the general area of the Prudhoe Bay

field. However, many of BP and Gulf’s bids were topped by other groups, including

Chantal Walsh

continued from page 5

BP HEADS NORTH

Chantal Walsh

continued from page 7

DISCOVERY CONFIRMED

James Beckman

College of Engineering and Mines’ Advisory and Development Council.

Beckham, Coast Guard roots

Beckham, who is known for his organizational skills, attention to detail, hard work, willingness to be a team player and sense of humor, is a graduate of the U.S. Coast Guard Academy with a Bachelor of Science degree in Marine Science.

His Coast Guard career included postings in drug interdiction, search and rescue, communications and aids to navigation in the Pacific Northwest and Alaska, with a special assignment to the Middle East during Operation Desert Storm.

Beckham served aboard four buoy tenders, closing with a commanding officer assignment in Cordova. For nearly a decade thereafter, he served as harbormaster for the city of Seward.

Beckham left public service to become vice president of operations for Harbor Enterprises, which was founded by North Slope oil and gas independent Winster co-owner and co-founder Dale Lindsley. Harbor is one of the largest privately owned fuel distribution companies in Alaska.

Beckham was responsible for Harbor’s shore facilities, marine operations and regulatory compliance from Ketchikan to Kodiak and in the Yukon Territory. He served in that capacity for more than 10 years. Later, he managed planning and support services for the startup of the non-profit Alaska Maritime Prevention & Response Network headquartered in Anchorage. He has served on the Prince William Sound Regional Citizens’ Advisory Council’s Port Operations & Vessel Traffic Systems committee, as vice chair of the planning commission in Cordova and as president of the Alaska Fuel Storage and Handlers Alliance.

Beckham currently serves on the University of Alaska Fairbanks Petroleum Engineering Department’s Industry Advisory Board. He and his wife Cheryl have one daughter, born and raised in Alaska and currently an engineering major in college.

Speaking at a Dec. 30 press conference in the capital city Algiers, Algerian Energy Minister Mustapha Guitouni said producers will wait until the end of the first quarter 2019 to take action in order to observe the effect of the production that was agreed on earlier in December by both OPEC members and heavyweight Russia.

Algeria: OPEC will cut oil output again if necessary

According to a Dec. 31 report in the Middle East Monitor, OPEC and non-OPEC producers will reduce oil production again if necessary to stabilize market prices.

Speaking at a Dec. 30 press conference in the capital city Algiers, Algerian Energy Minister Mustapha Guitouni said producers will wait until the end of the first quarter 2019 to take action in order to observe the effect of the production that was agreed on earlier in December by both OPEC members and heavyweight Russia.

That agreement called for a 1.3 million barrels cut. “We will hold a meeting in April, during which we will study the situation of the market and prices. We will reduce production again if necessary,” Guitouni said.

The Algerian export oil in first quarter 2019 will rise to stabilize between $65 and $70 a barrel.

As part of the current OPEC agreement, Algeria will reduce production by 3 percent — 36,000 barrels per day — Guitouni said.

Algeria produces about 1.2 million crude oil barrels per day.

— Kay Cashman

Contact Kay Cashman
at publisher@petroleumnews.com

continued from page 1

INSIDER

are happy to stay and continue serving the people of Alaska.

A life-long Alaskan, Walsh joined the division as director on Nov. 28, 2016.

She has more than 32 years of private-sector experience in Alaska’s petroleum industry on strategic planning, commercial analysis, operations, production optimization, completions, and drilling design and coordination, on oil and gas projects on the North Slope and in the Cook Inlet basin.

Prior to joining the division, Walsh was a consulting engineer at Pettiettechnical Resources of Alaska, or PRA, a consulting firm she co-

founded in 1997.

Her oil and gas career began in 1985 at Standard Alaska Production Co., which discovered the North Slope Endicott oil field. She worked on Prudhoe Bay projects with Standard and then later with BP and ARCO Alaska, where she held a variety of positions in commercial analysis, reservoir management, litigation and field operations.

Feige, Walsh play musical chairs

In 2016, Walsh replaced Feige, who had resigned from the Walker administration, preceded that same year by DNR commissioner and deputy commissioner, Mark Myers and Marty Rutherford, respectively.

Walsh has a Bachelor of Science degree in petroleum engineering from the University of Alaska Fairbanks and is a licensed professional engineer in Alaska.

She is vice chair of the University of Alaska Fairbanks:

— Kay Cashman

Speaking at a Dec. 30 press conference in the capital city Algiers, Algerian Energy Minister Mustapha Guitouni said producers will wait until the end of the first quarter 2019 to take action in order to observe the effect of the production that was agreed on earlier in December by both OPEC members and heavyweight Russia.

Algeria: OPEC will cut oil output again if necessary

According to a Dec. 31 report in the Middle East Monitor, OPEC and non-OPEC producers will reduce oil production again if necessary to stabilize market prices.

Speaking at a Dec. 30 press conference in the capital city Algiers, Algerian Energy Minister Mustapha Guitouni said producers will wait until the end of the first quarter 2019 to take action in order to observe the effect of the production that was agreed on earlier in December by both OPEC members and heavyweight Russia.

That agreement called for a 1.3 million barrels cut. “We will hold a meeting in April, during which we will study the situation of the market and prices. We will reduce production again if necessary,” Guitouni said.

The Algerian export oil in first quarter 2019 will rise to stabilize between $65 and $70 a barrel.

As part of the current OPEC agreement, Algeria will reduce production by 3 percent — 36,000 barrels per day — Guitouni said.

Algeria produces about 1.2 million crude oil barrels per day.

— Kay Cashman

Contact Kay Cashman
at publisher@petroleumnews.com
continued from page 1

SHIPPING WOES

online forum to gather public input and will meet with the pipeline companies, producers, shippers, government officials to develop recommendations for Sohi in February.

The report along with the follow-up public consultation is the first sign that the Trudeau government is reacting to a wave of demonstrations in Alberta communities that are reeling from oil price woes and inadequate shipping facilities.

The NEB noted that about 1 million bpd of nameplate Canadian pipeline capacity was added in the 2013-16 period, but there has been no new capacity since then.

“The NEB estimates that available pipeline takeaway capacity from Western Canada was 3.95 million bpd in September, with gas available for export were 4.15 million bpd.

Crude-by-rail exports hit record highs in 2018, reaching 327,000 bpd in October, 2.4 times greater than a year earlier.

Price discounts narrow

Price discounts narrowed in early December after the Alberta government announced its plan to curtail production by 325,000 bpd starting Jan. 1, a measure designed to reduce crude storage in Canada and regain normal market prices.

Enbridge, which moves 2.8 million bpd out of Western Canada, said before Christmas that it will boost capacity by 100,000 bpd by mid-2019.

Company Chief Executive Officer Al Monaco said the pipeline system “given its scale and reach, can be a very big part of the solution.”

Enbridge said it hopes to switch its main oil pipeline network that currently operates as the spot market to one that is underpinned by long-term contracts beginning in 2021 in a move that would benefit large and small producers.

Guy Jarvis, president of the company’s liquids pipeline division, said there is broad support for a contracted system from a combination of Canadian producers—many refiners, who dislike the current apportionment of pipeline capacity.

The shipping and price problems have prompted energy companies to cut capital spending to C$395 million-C$410 million in 2019 from a scheduled C$140 million in 2018, while Canadian Natural Resources slashed C$1 billion from its budget, which was expected to reach C$6.4 billion in 2018, while leaving the door open for an increase if crude prices improve and stabilize.

Contact Gary Par through

petroleumnews@petroleumnews.com

continued from page 1

ALASKA LNG

strategic financing and investment,” strategic financing opportunities and a transparent investment model.

The agreement included timelines, the first of which was May 31, 2018, by when the parties hoped to be able to determine the Chinese disposition of 75 percent of the LNG, develop “the general framework and indicative pricing for potential and customary strategic financing and international project financing for Alaska LNG,” and explore feasibility for the parties to invest in the project.

The second timeline was the end of 2018 for signing of definitive agreements. The end of 2018 was also when the agreement expired unless the parties agreed to extend it.

Delays

Both timelines have now slipped.

Jesse Carlstrom, AGDC communicators manager, told Petroleum News in a Dec. 31 email that “large energy infrastructure” projects such as Alaska LNG have long-term contracts which “take time to develop.”

“Based on the progress achieved in 2018, the parties are seeking to continue negotiations into 2019 in order to reach definitive agreements,” Carlstrom said.

He added that while all the interested parties want to conclude agreements, “it’s typical to extend the negotiation period. The volume of paperwork alone is enormous and typically takes more than a year to complete.”

“AGDC and the Joint Development Agreement parties, Sinopac, CIC Capital, and Bank of China are actively engaged on all aspects of Alaska LNG, including project financing, construction, and afo online.”

All of the parties agreed an extension is desired to keep working toward definitive commercial agreements. The parties in China want to conclude a deal with Alaska,” he said.

Regulatory work

In addition to issues around the JDA, AGDC has been working on regulatory issues.

The Federal Energy Regulatory Commission has said it anticipates issuance of a final order for the Alaska LNG Project in early February 2020. AGDC filed an application for a permit under Section 3 of the Natural Gas Act and Part 151 of FERC regulations in April 2017, covering siting, construction and operation of a new LNG export terminal and associated facilities and construction of the natural gas pipeline and associated facilities.

AGDC had initially hoped to have its environmental impact statement in hand by the end of 2018 and begin construction in 2019. The notice of availability for the final EIS is now set for early November of this year, followed by a 90-day federal authorization decision deadline in early February 2020.

— KRISTEN NELSON

Contact Kristen Nelson at knelson@petroleumnews.com

continued from page 1

LINE 3

more recent years as corrosion and cracking has caused a series of spills, forcing Enbridge to lower capacity by half to 375,000 barrels per day.

Replacement planned

Enbridge refused to heed urgings from politicians, environmentalists and Indian tribes that it phase out the line, opting instead to replace most of the 1,000-mile line at a cost of C$3.5 billion in Canada and US$2.9 billion in the United States to regain capacity of 760,000 bpd and add another 40,000 bpd.

Armed with final regulatory approvals in Saskatchewan, North Dakota and Wisconsin, Enbridge started construction work in those jurisdictions 15 months ago, while watching its hopes of achieving an in-service target of early 2019 extend to late 2019 as opposition in Minnesota has gathered momentum.

The latest setback for the project occurred after mid-November when the independent Minnesota Public Utilities Commission rejected demands that it order a fresh round of hearings, prompting the state’s Department of Commerce to launch an immediate appeal, arguing that the PUC, in granting a certificate of need and approving the pipeline route, failed in its job because Enbridge did not introduce and the PUC panel did not properly evaluate the PUC of long-term oil demand forecast required by state law.

Outgoing governor endorsed appeal

Dayton said he strongly endorsed the appeal, arguing that crude oil on Line 3 would flow through his state and supply other states and countries, while providing on limited benefits to Minnesota refineries.

Enbridge said Dayton’s stance was “very disappointing and erroneous” and insisted the Commerce Department’s claims were “not supported by evidence or Minnesota law.”

The company said Enbridge provided multiple, detailed forecasts showing there was a demand for restoring Line 3’s capacity for years to come.

It is not yet clear where Walz will stand on the issue, although he has endorsed the current regulatory process but he has pledged to work on reducing greenhouse gas emissions and wants trib al concerns about Line 3 to be heard and addressed.

Minnesota EIS

A Minnesota environmental impact statement has estimated that Line 3 would generate US$287 billion in climate damage over its projected operating life. It said the pipeline would contribute to deforestation and increase the risk of pollution in Minnesota’s water ecosystems and wild rice beds.

As well, opponents have noted that Line 3, despite estimates that it has safely transported 99.999 percent of its crude, was responsible for the largest inland oil spill in the United States when 40,000 barrels of oil escaped from a rupture near Grand Rapids in 1991.

On a separate Enbridge pipeline, 20,000 barrels of diluted bitumen spilled into the Kalamazoo River in Michigan in 2010 — a spill that is still being cleaned up, with the state estimating expenditures of more than US$1 billion.

Adam Scott, a senior adviser at Oil Change International, told The Narwhal, which noted on energy and environmental issues, that the notion of spill cleanup “is almost overstated. It’s not technically possible in a lot of cases. You’ll end up with toxic bitumen getting into aquifers.

Exploration & Production

State approves six new wells at Qannik

The Alaska Department of Natural Resources, Division of Oil and Gas, has approved a request from ConocoPhillips Alaska to amend its plan of operation for the Colville River unit to drill up to six new Qannik wells and install facilities as needed at the Colville Delta No. 2 pad.

In its 2018 POD for the Colville River unit the company said it planned to drill one rotary well at Qannik in the current development year but said it might drill other undefined rotary wells or coiled tubing sidetracks as appropriate.

The amended plan activities include drilling up to six new wells, installing nine new vertical support members and installation of associated infrastructure.

As of last March, ConocoPhillips was developing Qannik, an Alpine field satellite, from nine wells — six producers and three injectors. 2017 production from the Qannik participating area was 1,500 barrels per day, with 6.5 million barrels produced through 2017.

— KRISTEN NELSON

Exploration & Production

State approves six new wells at Qannik

The Alaska Department of Natural Resources, Division of Oil and Gas, has approved a request from ConocoPhillips Alaska to amend its plan of operation for the Colville River unit to drill up to six new Qannik wells and install facilities as needed at the Colville Delta No. 2 pad.

In its 2018 POD for the Colville River unit the company said it planned to drill one rotary well at Qannik in the current development year but said it might drill other undefined rotary wells or coiled tubing sidetracks as appropriate.

The amended plan activities include drilling up to six new wells, installing nine new vertical support members and installation of associated infrastructure.

As of last March, ConocoPhillips was developing Qannik, an Alpine field satellite, from nine wells — six producers and three injectors. 2017 production from the Qannik participating area was 1,500 barrels per day, with 6.5 million barrels produced through 2017.

— KRISTEN NELSON
accomplished through a collaborative effort between the state and the BLM. A process was identified where BLM could lift a Public Land Order previously complicating the state’s ability to receive title. The lifting of the PLO allowed BLM to convey those lands to the state,” Marty Parsons, deputy director of the state Division of Mining, Land & Water and the man who has been spearheading the state’s effort to obtain the remaining 5 million federal acres, told Petroleum News Jan. 2.

“The state continues to work with the BLM to find additional high priority areas where PLOS should be lifted and the state receive more of its remaining land entitlement,” he said.

The wedge of uplands between the Canning and Staines rivers continues to be listed as a high priority area by the state: “The difference is that no PLO needs to be lifted before the state could receive title,” Parsons said, meaning the conveyance could go through more quickly.

The state of Alaska has roughly 5 million acres of a 104 million-acre entitlement remaining and has previously identified other d-1 withdrawals and lands in the trans-Alaska pipeline corridor as priorities.

BLM agrees with Parson
In a Dec. 21, BLM press release following the Goodnews Bay land transfer, Ted Murphy, acting BLM Alaska state director, was quoted as saying, “This conveyance is just one of many we anticipate in the near future. BLM Alaska understands it is a priority to Governor Dunleavy to see the state obtain title to its remaining entitlement, and BLM stands ready to convey lands at the state’s request.”

This conveyance, BLM explained, is a result of a full revocation of Alaska Native Claims Settlement Act-related withdrawals known as “d-1s” (referring to Section 17(d)(1) in ANCSA). Over the past four years, BLM has been working on a statewide strategy to initiate large-acreage d-1 revocation recommendations for the secretary of Interior. Part of that strategy included working with the state of Alaska to identify areas important to the state and currently unavailable due to a d-1 withdrawal and that could be made available once the withdrawal is revoked.

“This conveyance was a direct result of the collaboration between the Alaska Department of Natural Resources (Division of Mining, Land & Water is part of DNR) and the BLM Alaska,” explained BLM Alaska Deputy State Director for Lands and Cadastral Survey Erika Reed in the Dec. 21 press release “Through the 17(d)(1) Public Land Order Revocation Strategy Working Group, Alaska DNR staff identified the Goodnews Bay area as a priority for conveyance.”

The state of Alaska has roughly 5 million acres of a 104 million-acre entitlement remaining and has previously identified other d-1 withdrawals and lands in the trans-Alaska pipeline corridor as priority.

There are approximately 50 million acres of BLM managed public lands in Alaska encumbered by d-1 withdrawals, approximately the land area of Utah.

Engineering, drilling operations and remote camp services—together, our companies blend expertise and technological muscle in support of smooth, safe, and successful operations in the North Slope oil fields.
first,” designed to handle reservoir pressures upwards of 10,000 pounds per square inch. The AOGCC provides production volumes by well on a month-delay basis.

**ANS up 3 percent**

Alaska North Slope production averaged 538,130 bpd in November (481,936 bpd of crude and 56,194 bpd of natural gas liquids), up 3.1 percent from an October average of 521,782, but down 1.4 percent from a November 2017 average of 545,474 bpd.

The BP Exploration (Alaska)-operated Prudhoe Bay field, the Slope’s largest, averaged 227,000 bpd.

**River, Raven and Schrader Bluff.**

2017 average of 289,959 bpd. and down 0.4 percent from a November total of 268,623 bpd of NGLs, a total of 288,769 bpd, up 7.5 percent from an October average of 7,931 bpd.

Northstar, also operated by Hilcorp, averaged 12,062 bpd in November (8,953 bpd of oil and 3,110 bpd of NGLs), up 8.6 percent from an October average of 11,103 and up 10 percent from a November 2017 average of 10,962 bpd.

**Smaller fields**

Mile Point, operated by Hilcorp Alaska, averaged 21,930 bpd in November, up 3.9 percent from an October average of 21,099 bpd and up 22.5 percent from a November 2017 average of 17,907 bpd.

The ConocoPhillips’ new National Petroleum Reserve-Alaska field, Greater Mooses Tooth, averaged 4,873 in November, up 9.3 percent from an October average of 7,754 (first production from the field occurred on Oct. 5).

**Cook Inlet**

Cook Inlet production averaged 15,359 bpd in November, up 7,541 bpd in November, down 0.4 percent from a November 2017 average of 13,017 bpd.

The Hilcorp-operated Endicott field averaged 7,541 bpd in November (6,666 bpd of oil and 875 bpd of NGLs), up 4.8 percent from an October average of 7,198 bpd, but down 4.9 percent from a November average of 7,931 bpd.

**Safer. Smarter. Better.**

Our CDR2-AC rig reflects the latest innovations in Arctic drilling to provide our customers with incident free performance and operational and technical excellence.

CDR2-AC is the first Arctic rig designed and built by Nabors specifically for Coil Tubing Drilling operations. The rig was built to optimize CTD managed pressure drilling to provide precise control of wellbore pressures for improved safety, decreased costs, and increased wellbore lengths.

Combining safety and environmental excellence with greater efficiency means CDR2-AC can deliver the high value results customers have come to expect from Alaska’s premier drilling contractor.

Learn more about Nabors’ new drilling technologies at Nabors.com.

**LINE 3**

Continued from page 10

—KAY CASHMAN

**ENI OPERATORSHIP**

has plans for increased investment.

The agreement is subject to the approval of the regulatory authorities and to unnamed closing conditions.

Eni, which holds 228 leases in Alaska, bought 124 eastern North Slope exploration leases (350,000 acres) in August from Caelus.

Both Oooguruk and Nikaitchuq were originally identified and pur- chased by Eni’s former partner, Armstrong, with Oooguruk coming online in 2008 and Nikaitchuq in 2011.

—KAY CASHMAN