



page 3 This month in history: Northstar has strong production from early wells

88 Energy's latest; Benjy Johnson AOGA panelist, Barnes wins award

88 ENERGY HAS RAISED approximately A\$15 million for its planned Alaska North Slope "Icewine East well long lead, pre-planning and permitting activities, including planning for a flow test program, contingencies, new ventures portfolio expansion opportunities, and working capital."

The latest "forward plan" released by the company for its Icewine East project is acquiring 3D seismic and drilling a well.

See related story and map on page 1 of the July 24 issue of Petroleum News.



AOGA agenda released

THE ALASKA OIL AND GAS Association's agenda for its 2022 conference on Aug. 31 and Sept. 1 was released Aug. 16 online at <https://www.aogaconference.org/agenda/>.

One of the best industry conferences in Alaska for the oil and gas industry, this year it is a little light on speakers, but long on opportunities to network with oil company execs,

see **INSIDER** page 10

Repsol sanctions Pikka; touts low emissions, capital flexibility

On Aug. 16 Repsol said its board of directors has approved the final investment decision for Phase 1 of the Pikka development on Alaska's North Slope, advancing one of the company's "key upstream projects." (See related Pikka story about Santos in this issue.)

Repsol said Phase 1's gross investment is \$2.6 billion "until plateau capacity is reached, while full development contemplates an investment volume of over \$3 billion gross."

Pikka production is expected to start in 2026, reaching gross production of 80,000 barrels of oil a day, "which will bring additional supply to markets under strain due to lower investments in exploration and development on a global level in recent years," Repsol said.

see **REPSOL SANCTION** page 9

Pantheon reaches MD at Alkaid #2; long term production test planned

Pantheon Resources said Aug. 18 that it has reached a total measured depth of 14,300 feet at its Alkaid No. 2 well on the North Slope, including a lateral length of 5,300 feet, with a 5-1/2 inch liner run, set, cemented and tested for integrity.

Drilling began in early July at Alkaid 2, which is planned as the first production well for the company.

Pantheon said drilling operations using Nabors Rig 105 have concluded. That rig will be demobilized and a smaller completion rig moved in for perforating and stimulating the horizontal section, with perforations planned for approximately every 165 feet, requiring some 30 separate perforation and stimulation stages.

A long-term production test is planned after the completion work. That test will use a modular production kit which will separate oil, gas or water from the production stream. Oil will then be trucked to a nearby production unit for sale, the company said.

see **ALKAID WELL** page 10

EXPLORATION & PRODUCTION

Time for Pikka

Santos' Gallagher talks low emissions, 19% IRR, sell-down not critical

By **KAY CASHMAN**
Petroleum News

On Aug. 16, Santos Ltd. and its joint venture partner Repsol took a final investment decision to proceed with the US\$2.6 billion Phase 1 of their Pikka development project on Alaska's North Slope. First oil is expected in 2026 with a daily gross of 80,000 barrels a day.

Santos, an oil and gas producer based in Adelaide, South Australia, said Phase 1 has 2P recoverable reserves of 397 million barrels gross. A recent Wood Mackenzie report on the entire Pikka unit puts that number at 768 million barrels.

Santos anticipates an IRR from Pikka Phase 1 of



KEVIN GALLAGHER

about 19% at less than \$60 long-term oil price, and a life cycle breakeven oil price of around \$40 per barrel, including carbon pricing.

In a parallel press release on Aug. 16, Repsol said full development of Phase 1 "will consist of 45 wells to be drilled from a single well pad, using industry-leading technology to reduce the environmental footprint, with associated midstream facilities including a production facility, operating center, seawater treatment plant, and pipelines."

The Pikka unit is onshore, near existing infrastructure, and on state, not federal leases.

see **PIKKA DECISION** page 8

FINANCE & ECONOMY

ANS fetches premium

North Slope spread over Brent hits \$6-plus as US draws down reserves

By **STEVE SUTHERLIN**
Petroleum News

Oil prices edged higher Aug. 17 as plummeting U.S. reserves offset China demand worries that had carried prices lower in the preceding three sessions.

ANS rose 98 cents on the day to close at \$99.72, as West Texas Intermediate jumped \$1.58 to close at \$88.11 and Brent rose \$1.31 to close at \$93.65.

ANS sold at a whopping \$6.07 premium to Brent, reflecting its importance to busy West Coast refiners in the absence of Russian crude, which is banned in the United States.

U.S. commercial crude oil inventories for the week ending Aug. 12 — excluding the Strategic

Petroleum Reserve — plunged by 7.1 million barrels from the previous week, according to U.S. Energy Information Administration data released Aug. 17. At 425.0 million barrels, U.S. inventories stood 6% below the five-year average for the time of year. Analysts had expected a decline of 1.7 million barrels, according to a poll conducted by S&P Global Commodity Insights.

The SPR fell by 3.4 million barrels over the week, to 461.2 million barrels.

Total motor gasoline inventories decreased as well — by 4.6 million barrels — and are 8% below the five-year average for the time of year, the EIA said.

see **OIL PRICES** page 11

LAND & LEASING

Congress mandates sales

Inflation Reduction Act addresses O&G lease sales, including Cook Inlet sale

By **KRISTEN NELSON**
Petroleum News

The 700-plus page Inflation Reduction Act, signed into law by President Joe Biden on Aug. 16, focuses on big ticket items — reduction of health care costs, growth of renewable energy and increased corporate taxes — but also includes a few pages addressing federal oil and gas lease sales.

It reinstates Outer Continental Shelf Lease Sale 257 in the Gulf of Mexico, for which bids were received in November 2021, and requires three other OCS lease sales, including Lease Sale 258 in Cook Inlet, to be held, with the Cook Inlet sale to be held by Dec. 31, 2022.

The most recent Cook Inlet sale to draw bids was Sale 244, held in 2017.

The Cook Inlet sale was included in the the 2017-2022 Outer Continental Shelf Oil and Gas Leasing Program, but the Bureau of Ocean Energy Management said in May that it would not move forward with the Cook Inlet sale because of the lack of industry interest.

Following the May 2004 Cook Inlet Lease Sale 191, in which BOEM received no bids, the Department of the Interior said the secretary "decided to include the Cook Inlet Planning Area

see **LEASE SALES** page 7

• EXPLORATION & PRODUCTION

AOGCC OKs Pearl wells spacing exceptions

By **KRISTEN NELSON**

Petroleum News

In an Aug. 10 order, the Alaska Oil and Gas Conservation Commission has approved Hilcorp Alaska's application for spacing exceptions for the Pearl 8 and Pearl 9 exploration wells at Ninilchik.

The commission said the wells will be drilled, completed, tested and produced in the Pearl Undefined Gas Pool and the Ninilchik Beluga/Tyonek Gas Pool.

Ninilchik is one of Cook Inlet's most prolific gas fields. In June, the most recent month for which AOGCC production data is available, the field averaged 33.8 million cubic feet of natural gas per day, 15.7% of inlet production which averaged 215.8 million cubic feet per day. In January 2012, when Hilcorp took over as Ninilchik operator, production from the field averaged 33.3 million cubic feet per day, 10% of Cook Inlet production which averaged 328 million cubic feet per day that month.

Hilcorp received approval from the Alaska Division of Oil and Gas July 29 for operations amendments covering work to bring the Pearl wells online, which is planned for later this year. The work includes adding a pipeline and gas production facilities to the Pearl Pad.

The commission said an exception to regulatory well spacing provisions is necessary to allow drilling, testing, completion and production of "the Pearl Undefined Gas Pool and Ninilchik Beluga/Tyonek Gas Pool in the Pearl 8 and 9 exploration gas wells, in order to maximize ultimate resource recovery."

Hilcorp needed spacing exceptions from AOGCC because drilling objectives for the wells are "unproven reserves in the Beluga and Tyonek formations within the Pearl Undefined Gas Pool (outside the unit) and within the Ninilchik Beluga/Tyonek Pool," the commission said in its order. "These drilling objectives cannot be reached by conforming to applicable statewide spacing regulations because of the narrow, discontinuous, and lenticular nature of the reservoir sands and their most prospective locations on the subsurface structure."

The commission said an exception to regulatory well spacing provisions is necessary to allow drilling, testing, completion and production of "the Pearl Undefined Gas Pool and Ninilchik Beluga/Tyonek Gas Pool in the Pearl

8 and 9 exploration gas wells, in order to maximize ultimate resource recovery."

AOGCC approval of allocation is required before production can begin.

The surface holes for the wells are outside the area covered by Conservation Order 701C. The bottomhole locations for both wells are within the CO 701C area and within the Ninilchik unit.

The commission said that prior to completion of the wells and prior to bringing the wells online, Hilcorp plans to apply to the Division of Oil and Gas to adjust the Ninilchik unit and the corresponding participating area to include lands "reasonably estimated to be productive," or apply to form a separate unit and PA.

The Pearl Pad is some 4 miles northeast of Ninilchik on privately owned surface and subsurface. Hilcorp built the pad in 2017 to support a delineation program targeting an area south of the existing Susan Dionne-Paxton PA and drilled seven Pearl stratigraphic tests, two of which are being used as water supply wells, with the other five plugged and abandoned. ●

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Pad currently accounts for 39% of Ninilchik unit natural gas production; expansion will provide space to drill more wells

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JUDY PATRICK

BP drilled a few wells at Northstar in 2001, Fritz Gunkel said, and then took a break while the production facilities were put in place. During that break BP evaluated the drilling on the initial wells and found a way to make the wells easier — and faster — and cheaper to drill.

• THIS MONTH IN HISTORY

Coming on strong

Northstar reservoir performance excellent; BP brought field on slowly to allow pipeline to warm up; production intermittently reduced by facility startup issues

Editor's note: The following is a reprint from the Aug. 4, 2002, issue of Petroleum News Alaska

By KRISTEN NELSON
Petroleum News



The wells at Northstar are coming on at high rates of production, which is just what BP expected, says Fritz Gunkel, BP Exploration (Alaska) Inc.'s Northstar delivery manager.

"We've had wells come on at 24,000 barrels a day," he said, and Northstar has had wells among BP's top 10 producers worldwide.

Northstar produces from the Ivishak reservoir, the same reservoir produced at Prudhoe Bay, "and so these wells produce very strongly. They've really done just what we expected them to do," Gunkel said.

Production began Nov. 1 with two wells and BP will continue to drill with 15 producers, six injectors and a solid waste disposal well planned by the time drilling ends in 2004.

BP drilled a few wells in 2001, Gunkel said, and then took a break while the production facilities were put in place. During that break BP evaluated the drilling on the initial wells.

And found a way to make the wells easier — and faster — and cheaper — to drill.

One more casing string

"What we've basically done is we've run one more string of casing than we used to," Gunkel said: "Just drilled the hole in a little bit smaller sections at a time."

The initial wells had surface casing set and then were drilled in a single hole all the way down to the top of the producing Ivishak formation; once the Ivishak was drilled a liner was run.

The additional casing, called a drilling liner, "is something that we don't run anywhere else on the slope," Gunkel said. The drive in Alaska has been for "fewer casing strings and smaller casing strings," he said. Steel is costly, and "when you add a casing string you run more steel and it takes a while to install each casing string."

Either well design provides absolute control at the surface, Gunkel said, and once the drilling liner is in place the producing interval can be drilled without the risk of shales falling apart in the upper part of the hole and the drill getting stuck.

It takes about four additional days to get the drilling liner into place but BP recovers "way more than that with the pace" of drilling the drilling liner allows, he said.

Faster drilling with liner

The common measure for drilling see HISTORY page 4

LAND & LEASING

ConocoPhillips, Oil Search give up leases

The Alaska Division of Oil and Gas said recently that ConocoPhillips Alaska has surrendered five state oil and gas leases and Oil Search (Alaska) and Repsol E&P USA have surrendered 14 leases.

The division said in a July 29 surrender of lease that ConocoPhillips Alaska surrendered two leases, ADL 393669 and ADL 393672, adjacent leases south of the boundary of the ConocoPhillips-operated Kuparuk River unit. Both leases had effective dates of July 1, 2018. ConocoPhillips submitted a written surrender on June 30, the division said.

In an Aug. 5 notice the division said ConocoPhillips surrendered three leases, ADL 392683, ADL 392685 and ADL 392686. The three lie south and southeast of Liberty in state waters of the Beaufort Sea. The leases had effective issue dates of Aug. 1, 2015, the division said. ConocoPhillips submitted a written surrender of the leases July 28.

Oil Search (Alaska) LLC and Repsol E&P USA LLC surrendered 14 leases, the division said in an Aug. 5 surrender of lease notice.

Eight of the leases (ADL 392538, ADL 392705, ADL 392706, ADL 392707, ADL 392708, ADL 392709, ADL 392710 and ADL 393580) are in a group in state waters of the Beaufort Sea north of Eni's Oooguruk unit. Four (ADL 392711, ADL 392712, ADL 393743 and ADL 393744) are in another group west of Oooguruk. The remaining two (ADL 393745 and ADL 393746) are adjacent to each other farther west.

One of the leases had an effective date of Jan. 1, 2014; eight had effective dates of Aug. 1, 2015; one had an effective date of April 1, 2018; and four had effective dates of May 1, 2019.

In an Aug. 12 notice, the division said two leases held by Brooks Range Petroleum Corp. automatically terminated due to failure to pay rental. The two leases, ADL 391284 and ADL 391285, are in the Beaufort Sea, one adjacent to the Badami unit and the other adjacent to the first on the east. The division's current notification lessee map shows BRPC retaining three leases immediately south of those terminated.

—PETROLEUM NEWS

EXPLORATION & PRODUCTION

State approves Hilcorp Milne F Pad work

The Alaska Department of Natural Resources; Division of Oil and Gas has approved an application from Hilcorp Alaska for a Milne Point unit plan of operations amendment. The Aug. 10 approval is for installation of a separator vessel, modules, tanks and header connections to provide water separation capability at F Pad in the Milne Point unit.

"The purpose of this project is to allow for F Pad to have on-pad water injection capability which will facilitate an increase in production," the division said.

F Pad at Milne averaged 4,856 barrels per day in June, the most recent month for which Alaska Oil and Gas Conservation Commission production data is available, accounting for 13% of Milne's average 37,620 bpd production in that month.

Hilcorp has been working to increase production at Milne Point since it acquired a 50% working interest ownership from BP Exploration (Alaska) in 2014 and took over as operator at the unit. (In 2019 Hilcorp acquired ownership of all of BPXA's Alaska assets, including the remaining 50% of Milne Point WIO, a deal which closed in mid-2020.)

Milne production averaged 19,391 bpd in 2014 and increasing production from the field has been a stated Hilcorp goal. In 2014, F Pad averaged 4,708 bpd, 24% of the field's production.

The division said major components of the approved work include installation of 66 pilings and placement of a 28,174 gallon separator with secondary containment. Project work is scheduled to begin in August and to be complete by July 2023. The division said equipment will be stored and refueled on existing roads and pads.

The division said plan activities include:

- Installation of pilings and containment for separator and associated infrastructure.
- Installation of separator vessel.
- Installation of electrical module platform.
- Installation of pipe rack.
- Installation of water injection pump module.
- Installation of electric switch gear module.
- Installation of skid mounted sand jet tank.
- Installation of associated instruments, pumps, valves, connection piping and source water and produced water header connections.

A map accompanying the decision shows the location of F Pad, which is at the northernmost onshore point of Milne Point.

—KRISTEN NELSON

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BOEM National Outer Continental Shelf Oil & Gas Leasing Proposed Program

Virtual Open House Meeting Notice

The Bureau of Ocean Energy Management (BOEM) is seeking public comment on the Proposed Program for the 2023-2028 National Outer Continental Shelf Oil and Gas Leasing Program (National OCS Program) and the Draft Programmatic Environmental Impact Statement for the 2023-2028 Program (Draft PEIS). The Proposed Program includes no more than ten potential lease sales in the Gulf of Mexico (GOM) and an option for one potential lease sale in the northern portion of the Cook Inlet of Alaska. No lease sales are proposed for the other Alaska planning areas, the Atlantic, or Pacific planning areas during the five-year period.

BOEM is hosting four virtual open house meetings, which are open to the public and free to attend. These meetings are open-house style where you can speak live with BOEM subject matter experts to get your questions answered and help inform your comments.

Dates and times in Alaska Daylight Time (AKDT) include:

- Tuesday, August 23, 2022, from 12pm-3pm ADT
- Thursday, August 25, 2022, from 1pm-4pm ADT
- Monday, August 29, 2022, from 3pm-6pm ADT
- Wednesday, August 31, from 4pm-7pm ADT

Public comments and stakeholder input on the Proposed Program are encouraged to inform BOEM's subsequent analyses: the Proposed Final Program and its accompanying Final PEIS analyses. The public comment period closes on Thursday, October 6, 2022.

To learn more about how to submit comments on the Proposed Program or Draft Programmatic EIS, please visit the "How to Comment" page on the National OCS Program website: <https://www.boem.gov/oil-gas-energy/national-program/national-ocs-oil-and-gas-leasing-program-2023-2028#tabs-3831>.

In addition to the virtual open house meetings listed above, BOEM will host one virtual oral public comment meeting where participants can provide oral comments to BOEM staff on the record with a court reporter. This meeting will be held on Monday, September 12, from 1-4pm AKDT.

To learn more about the process, attend a virtual meeting, or request special assistance or interpretation services, visit <https://www.boem.gov/oil-gas-energy/national-program/national-ocs-oil-and-gas-leasing-program-2023-2028>

Drilling a team sport, says Fritz Gunkel

Nabors Alaska Drilling is drilling the Northstar wells for BP Exploration (Alaska) Inc., and Fritz Gunkel, BP's Northstar delivery manager, told PNA "a drilling operation is just like a baseball team.

"I mean let's put BP as the pitcher: if you don't have a catcher, first base, second base, third base and the outfield — you don't have a baseball team," he said.

"And the baseball team out at Northstar is playing world-class baseball."

The team concept at Northstar capitalizes on a quality program called technical limits, he said, a program that's being used pretty broadly across the North Slope.

The focus is on "improving the operation to make it safer, more efficient — without anybody doing anything faster."

Throwing a ball faster doesn't necessarily get you anywhere, Gunkel said: "but if you throw it in the right place, you get a double play.

"And so what happens is the floor hands and the derrick men and the drillers and the mud men and the directional drillers look at our wells section by section and look at how they're going to do them and then how they improve them."

The process is a collaboration, he said, and there are more meetings than there used to be.

Technical limit coaches "on the rig that actually coordinate all these ideas, pour them together, make sure they get applied to the next well. All that goes back into well design."

The casing design is important to Northstar's improved drilling.

"But if you had to put your finger on one other thing, besides the casing design, I would say it's the quality of how that team is working together out there," Gunkel said.

Although BP brought technical limits to the slope, "our contractors really jumped on it and made it better than we ever thought it would be — or at least as good as we hoped it would be."

BP has the program going around the world.

And, Gunkel said, "BP rated Northstar as the best running team — and that includes engineering and implementation — of any team in North America and one of the two or three best in the world."



Fritz Gunkel

JUDY PATRICK

continued from page 3

HISTORY

speed is days per 10,000 feet.

"And we're drilling wells at 16 days per 10,000 feet right now. When we were starting out we were drilling wells at more like 24 days per 10,000 feet," he said.

"So it really pays for itself."

Gunkel said the change in drilling took "some really good engineering and some courage on the part of people like Floyd Hernandez, who stepped forward and said, hey, we've got a problem: I've got a solution. It's a counter-intuitive solution, but it's the right solution. And then made it stick."

And the end result of that faster drilling is reduced drilling costs: a savings of about a million dollars per well.

Fiber optics, extra tubing

The Northstar wells are also being completed with new technology: a fiber optic cable down the side "that monitors the bottom hole pressure and temperature while we produce," Gunkel said. While fiber optics are used in all kinds of applications, this is one of the first five applications of this particular technology in the world, and "appears to be working very well."

"So not only do you see surface performance, but you also see what the reservoir is doing. It's actually a reservoir engineer's dream, to be able to monitor this all the time," he said.

Warming the pipe slowly

Production was planned to begin slowly, Gunkel said, to allow the temperature of the subsea pipeline, the first in the Beaufort Sea, to rise gradually from 40 degrees Fahrenheit at the beginning to a planned operating temperature in the low 90s.

"It was very carefully laid and buried and very carefully surveyed at its initial installation," Gunkel said. "And then we've gone back and resurveyed it using what's called a geo-pig, a navigational pig, to verify its movement as we heated up the line."

The key thing that impacted Northstar production was the need "to very gradually heat up our pipeline operating temperature... to gradually thaw the subsea sediments around that line and also gradually heat that line so it lays nice and straight in the trench while it's heating up," he said.

The crude oil comes out of the ground at more than 100 degrees F and was initially cooled to 40 degrees F in the plant before going into the pipeline.

Gunkel said "the primary cooling process is just an overgrown version of a car radiator with a set of piping that has cold air blown past it to cool the line." This is similar to cooling systems in many plants, he said, "the thing that's unusual about our requirements is we had to cool it off so much and we have to be so rigorous about the temperature that we move the oil through the line."

The warm up period took some six months, Gunkel said, from November to June.

Up and down production

The biggest challenges at Northstar have been at the production facility, "but it's really a combination of the plant's startup behavior and how we've chosen to manage the air emissions from the island," Gunkel said.

"We were permitted to do a tremendous amount of production flaring," he said, something which is standard at startups not just in Alaska but all over the United States.

"But what we've chosen to do is limit our production flaring to just the amount required to keep that subsea pipeline warm. So when we experience an interruption in our gas compression system that doesn't allow us to re-inject gas, what we've done is curtailed production dramatically."

With normal production and injection, the only flare that's burning at Northstar is just the pilot, Gunkel said.

"If we went to flare with full production at Northstar, we'd be flaring 150 million standard cubic feet a day.

"What we've chosen to do, rather than

see HISTORY page 6

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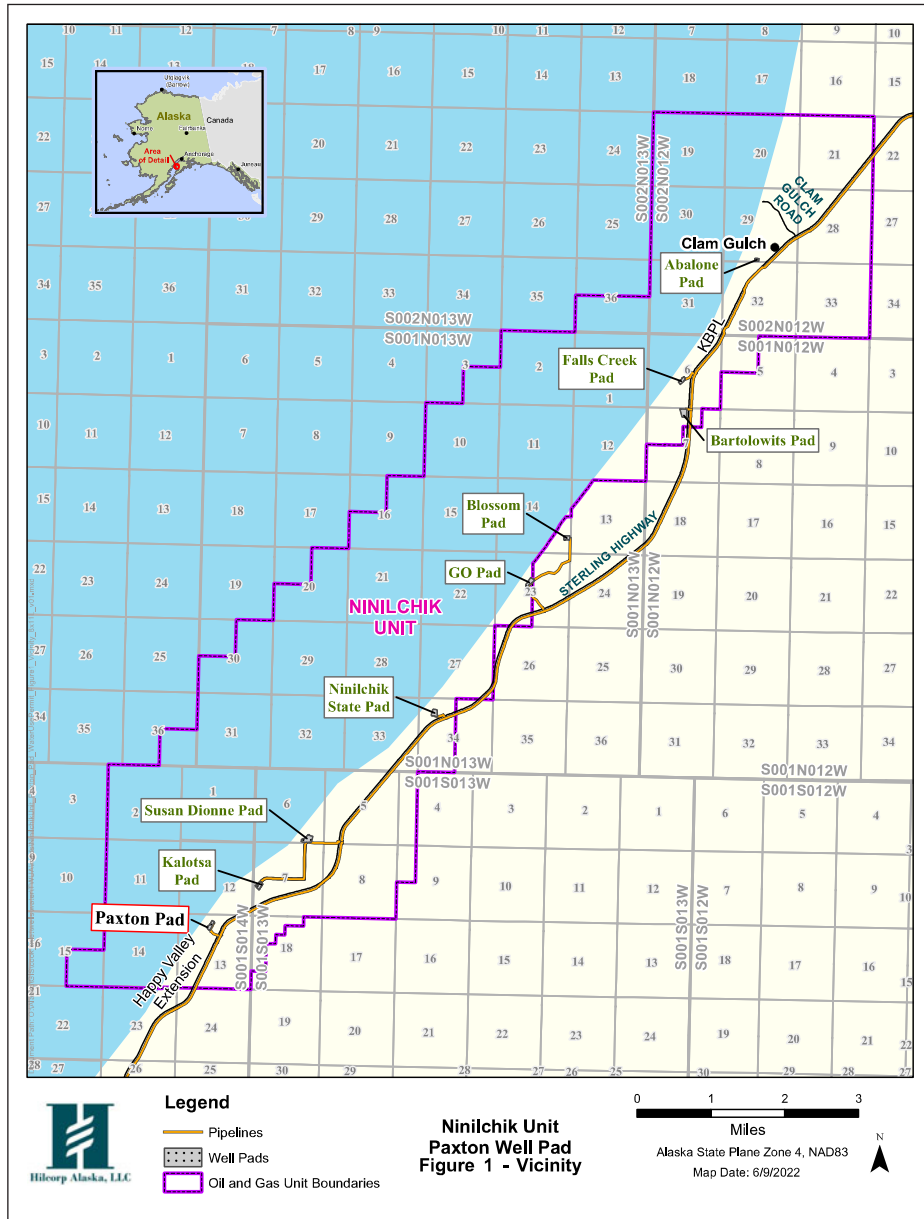


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EXPLORATION & PRODUCTION

US rotary drilling rig count down 1 at 763

The Baker Hughes' U.S. rotary drilling rig count was 763 on Aug. 12, down by one from the previous week and up by 262 from 501 a year ago.

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

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

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

The Aug. 12 count includes 601 rigs targeting oil, up by three from the previous week and up 203 from 398 a year ago, with 160 rigs targeting natural gas, down by one from the previous week and up 58 from 102 a year ago, and two miscellaneous rigs, down by three from the previous week and up by one from a year ago.

Thirty-nine of the rigs reported Aug. 12 were drilling directional wells, 693 were drilling horizontal wells and 31 were drilling vertical wells.

Alaska rig count down by one

The Louisiana rig count (64) was up by two from the previous week.

Oklahoma (65) and West Virginia (13) were each up by one rig.

Pennsylvania (23) was down by two rigs week over week.

Alaska (9) and Texas (372) were each down by a single rig.

Rig counts in other states were unchanged week over week: California (7), Colorado (21), New Mexico (104), North Dakota (37), Ohio (11), Utah (12) and Wyoming (20).

Baker Hughes shows Alaska with nine rotary rigs active Aug. 12, down by one from the previous week and up by five from a year ago, when the state's rig count stood at four. Eight of the rigs in Alaska were onshore, one was offshore — with the offshore count down by one from the previous week.

The rig count in the Permian, the most active basin in the country, was down by one from the previous week at 346 and up by 100 from 246 a year ago.

—KRISTEN NELSON

EXPLORATION & PRODUCTION

State OKs expansion of Paxton Pad

Pad currently accounts for 39% of Ninilchik unit natural gas production; expansion will provide space to drill more wells

By KRISTEN NELSON

Petroleum News

The Alaska Division of Oil and Gas has approved a request from Hilcorp Alaska to expand the existing Paxton Pad in the company's Ninilchik unit on the Kenai Peninsula.

And the division and Hilcorp have responded to concerns from property owners in the vicinity of the pad.

In an Aug. 16 decision the division said the pad expansion will cover approximately 3.11 acres, providing space for a drilling rig to drill new wells. The new wells are not within the scope of the decision, the division said.

The pad is some 4 miles northeast of Ninilchik near milepost 131 of the Sterling Highway.

In its application Hilcorp said the expansion would allow for drilling of additional wells planned for 2022-23. The company said the pad expansion would be primarily in upland areas adjacent to the existing pad within already disturbed areas. There were nine gas wells in production on the pad in June, the latest month for which Alaska Oil and Gas Conservation Commission data is available, with production from the pad averaging 13.3 million cubic feet per day, 39% of Ninilchik's average production of 33.8 million cubic feet per day. In June Ninilchik was the most productive Cook Inlet gas field, accounting for 15.7% of gas production from the Cook Inlet basin.

Public comments

The division received negative com-

"It is not practicable to operate the drilling rig on a schedule other than around the clock; however, steps will be taken to minimize visual and sound impacts during operation,"
Hilcorp said.

ments on the pad expansion from local property owners and said it appreciated the comments.

The division said it evaluated the plan of operations application under relevant regulations "and criteria within the 2018 Cook Inlet Areawide Final Finding and Mitigation Measures and said it "determined that Hilcorp has met all statutory and regulatory requirements to conduct the proposed activities." The approval was limited to gravel placement and did not authorize any additional drilling. "Construction activities will be conducted during daytime hours and impacts associated with construction will be temporary," the division said.

Both comments were lengthy, and are included with the decision, along with responses from Hilcorp.

Noise was a big issue and Hilcorp echoed the division's statement that drilling was not part of this amendment to its plan of operations.

It said the pad expansion "does not include additional permanent infrastructure that would increase noise levels at the pad," with construction impacts temporary, not

see PAXTON PAD page 6

continued from page 4

HISTORY

continue producing, when we'd be liberating all this gas, is curtail our production down to about 10,000 barrels a day or less — that keeps our subsea pipeline warm..."

Compression problems temporarily slow production

The general production trend at Northstar has increased as wells have been drilled and added to production. But there have been downward dips in production, and the big dips "are associated with gas handling problems, mostly compression problems."

Northstar has had problems with both high-pressure and low-pressure compressors.

Production reached 76,000 barrels a day for the first half of July and then was curtailed July 16 due to a gas compression problem, Gunkel said.

The original design at Northstar was for 65,000 bpd, "BP invested a few million more dollars to debottleneck it to 72,000 a day before we started up," Gunkel said. The 76,000 bpd average for the first half of July he credits "to the cumulative effect of all the problems we've solved in the past plus some terrific operations by our people in the field."

Production is generally on the incline, he said. "We've been learning and we're getting longer and longer runs of uninterrupted production."

"We are solving our compression problems and it's taken some really fundamental problem solving, but we are solving them."

Production for this year is expected to average some 60,000 barrels a day.

Four modes of transportation at Northstar

Getting people and drilling supplies out to the island is a challenge. "At Northstar we go through four major modes of transportation each year," BP's Fritz Gunkel told PNA. BP is just getting ready to go into crew boat and barge operation, which will run from the end of July to October.

The boats and barges, Gunkel said, are "an efficient way to get to and from the island."

When ice starts to develop bearing capacity in the fall, the company starts using a Hagglund, tracked vehicle that "looks like an armored personnel carrier without the armor," Gunkel said. The Hagglund is used both to carry people — the capacity is 11 — or freight. Between the boats and the Hagglands are helicopters, two Bell 212s.

Northstar is the only helicopter operation on the North Slope moving people to work over water, so that means survival suits for the 10-minute flight to the island. "Takes you longer to get in and out of your survival suit than it does to fly," Gunkel said.

From February to June Northstar is reached by ice road. "And that's when Northstar looks most like the rest of the North Slope operations," he said, is when the seven-mile ice road is in place.

The two major periods of resupply are in summer by barge and in winter by ice road. And then there is storage. Northstar is "the busiest five acres on the North Slope," Gunkel said, and storage is at a premium, with drilling supplies laid out in front of the rig.

"This rig is like a big Pac-Man," he said: "It kind of has to gobble supplies up ahead of it so it can move down the well row."

Base development 22 wells

There is room on the pad for more than 30 wells, but Gunkel said the plan is to drill 22: 15 producers, six injectors and a solid-waste injection well.

"Our base plan is that we will be done drilling in 2004," Gunkel said. "Now if we accumulate this better performance (from the addition of the drilling liner), we may beat that, we may get done before that."

Northstar continues to add wells to its production capacity until June, "when we stop drilling into the reservoir... And then starting in November we'll go back in,

finish the production hole section in these wells and put them on production."

Drilling between June and November is the top three-quarters of the wells, "and the last quarter we're saving until we get out of the seasonal drilling restrictions."

What's next?

Production is generally on the incline as more wells are drilled and compression problems are solved.

There are seven wells in production and BP plans to complete the rest in 2004. Things will change at Northstar once drilling is finished.

"Northstar is at its very busiest time

right now," Gunkel said. "We're doing troubleshooting in the plant. We're drilling wells. We're still doing some construction activities out there."

The key issues have been identified in the production facility, Gunkel said, and because the project team planned for backup equipment for the isolated location, those problems have been easier to resolve.

"We had a failure in a major piece of equipment that most operations wouldn't have had a spare — we had it. We did something in a few weeks that would have taken months without the spare."

"And that all comes down to Pete Flones and his team that came ahead of us having the shares in place."

The other think that has helped, he said, is that many of the operators at the field worked on the plant on the Kenai during the assembly phase, "so they know this plant from the perspective somebody that helped build it."

"And that's been a huge help to us."

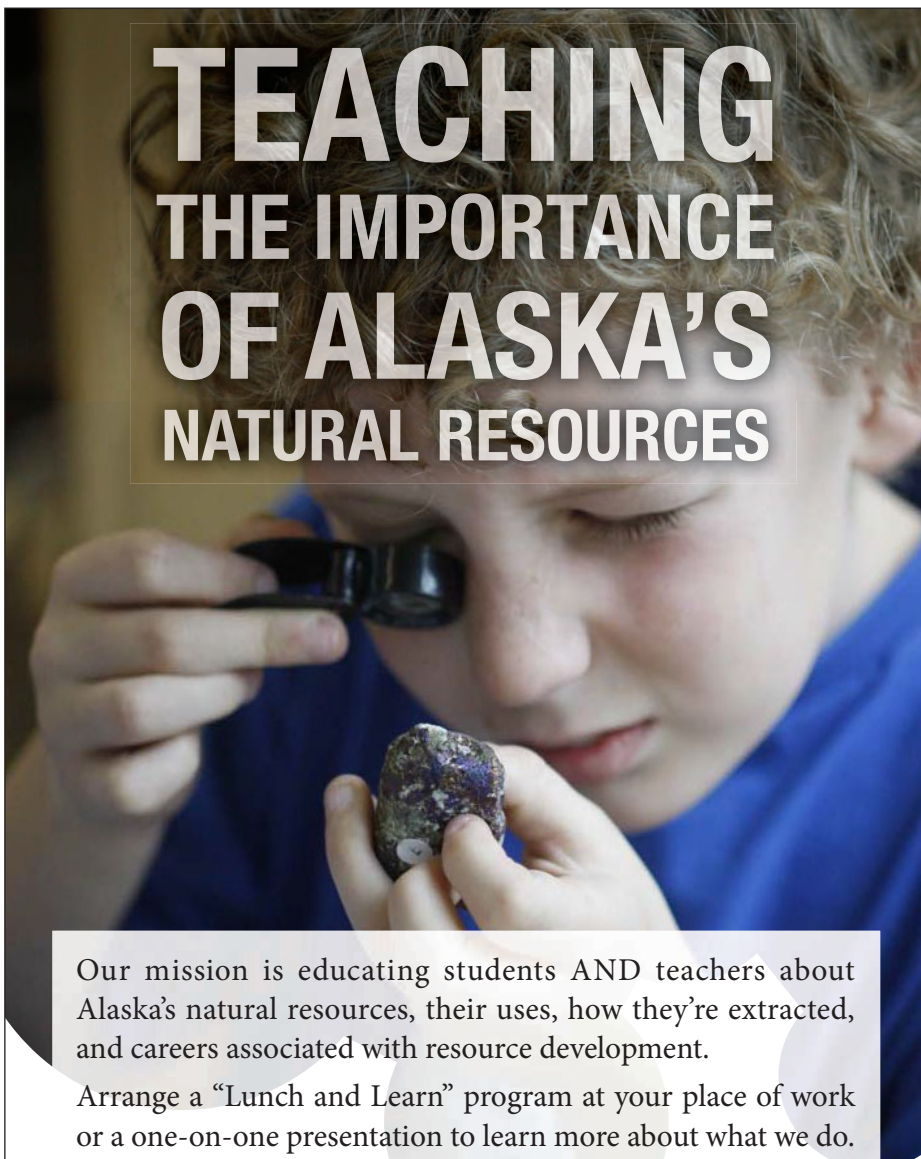
Gunkel said BP is looking very carefully at what else could be done from the island.

BP went into the project "with a pretty clear picture of what we were going to be developing, because there were eight delineation wells drilled around this area before we built the island."

One thing that is of interest, he said, is the Kuparuk zone above the producing Ivishak reservoir. The Kuparuk is gas-filled at Northstar, Gunkel said.

Right now Northstar is importing gas from Prudhoe Bay "to make up for the voidage we create with our production."

The Kuparuk formation "could be developed," Gunkel said, "and also you could blow down the reservoir, remove the gas that we're using for pressure support right now." ●



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PAXTON PAD

expected to exceed 90 days and limited to a daytime 12-hour shift, generally 7 a.m. to 7 p.m.

"It is not practicable to operate the drilling rig on a schedule other than around the clock; however, steps will be taken to minimize visual and sound impacts during operation," Hilcorp said. "Except where safety concerns dictate otherwise, lights on the drill rig and mobile light plants will be pointed down toward activities occurring on the pad. The typical use of loudspeakers to communicate during drilling will be replaced by the use of handheld radios. Additionally, drilling vehicles and heavy equipment will use broadband 'white noise' backup alarms, instead of the typical louder and more annoying single-tine backup alarms."

There was objection to alarms coming from the pad.

"Audible alarms and natural gas venting during process upsets at the facility are

required under state regulations," the company said.

In response to concern about the impact on property values, Hilcorp said the proposed activity is "at an existing oil and gas facility and has been designed to minimize the footprint as much as practicable to maintain safe operation and production. Vegetative clearing around the perimeter will be minimized where possible to reduce visual impacts to neighboring properties."

The company also addressed concerns about drinking water impacts, noting that AOGCC regulates drilling and water usage is regulation by the Alaska Department of Natural Resources' Division of Mining Land and Water.

On the availability of natural gas to neighboring properties, Hilcorp said it supplies natural gas to utilities and does not interface directly with customers. "Natural gas service for local residents can be coordinated and managed by local utilities," the company said. ●

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LEASE SALES

on the schedule as a ‘special interest sale.’ If industry interest reflected in comments on a call for information did not support consideration of a sale, the sale would be postponed,” the agency said, with a request for nominations and comments issued the next year.

A record of decision for the sale was issued in January 2017, and the act says Lease Sale 258 will be held in accordance with that ROD.

Sale 257 reinstated

The act also requires acceptance of bids received for Lease Sale 257 in the Gulf of Mexico, which was held but the leases never issued. The act requires that not later than 30 days after enactment of the act, the Secretary of the Interior is to “accept the highest valid bid for each tract or bidding unit of Lease Sale 257 for which a valid bid was received on November 17, 2021.”

Once executed lease forms, required payments and any required bonds or sureties are received, the secretary “shall promptly issue to the high bidder a fully executive lease,” in accordance with regulations in effect at the time of the same and terms and conditions in the final notice of sale.

Other Gulf of Mexico sales

In addition to the Cook Inlet sale, two other sales required in the act to be held are previously cancelled sales 259 and 261, both Gulf of Mexico sales.

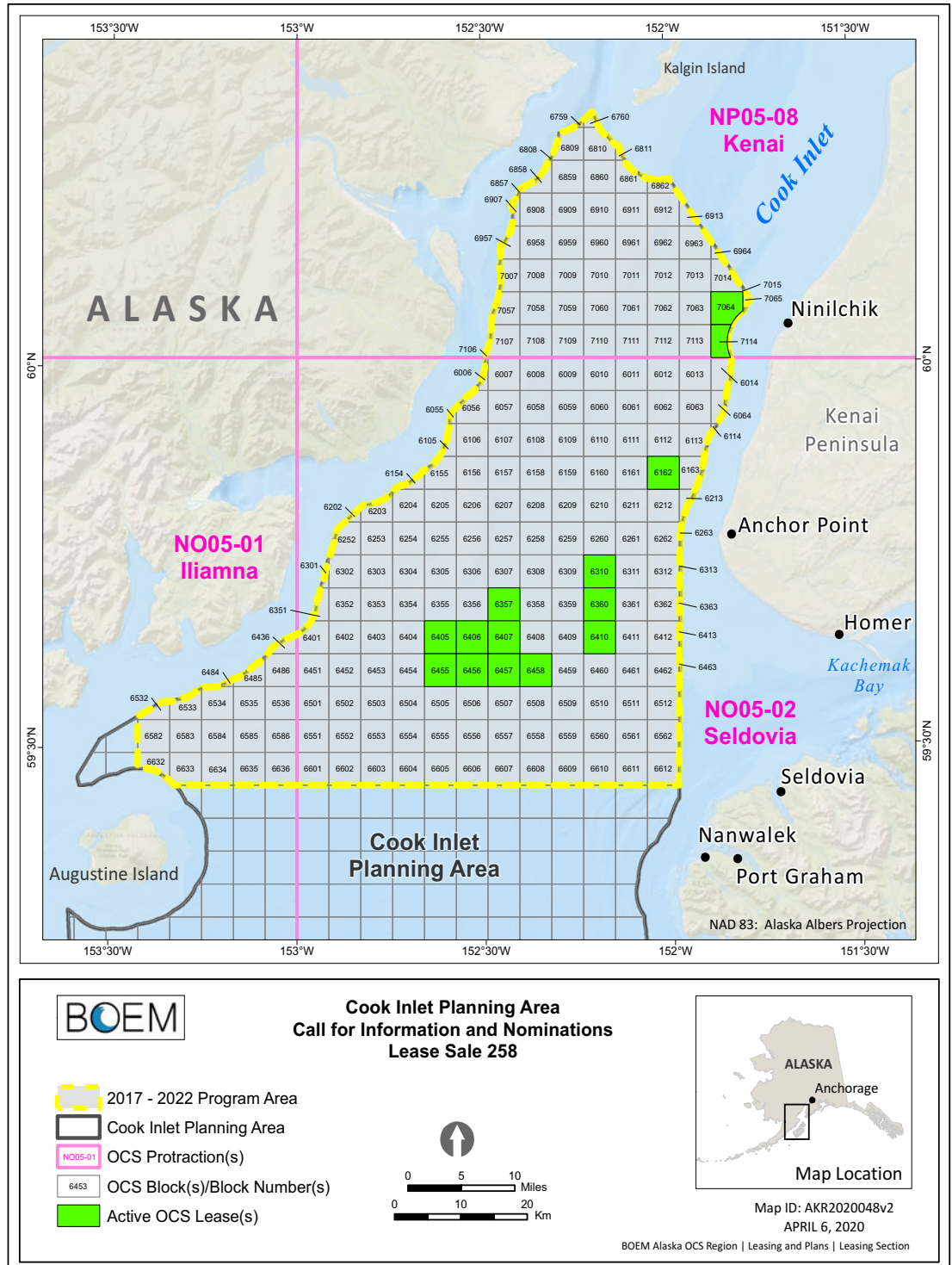
“Notwithstanding the expiration of the 2017-2022 leasing program,” the act says, “not later than March 31, 2023, the Secretary shall conduct Lease Sale 259 in accordance with the Record of Decision approved by the Secretary on January 17, 2017, described in the notice of availability entitled ‘Record of Decision for the 2017-2022 Outer Continental Shelf Oil and Gas Leasing Program Final Programmatic Environmental Impact Statement.’”

The other sale, Lease Sale 261, is required to be held no later than Sept. 30, 2023.

Cook Inlet sales history

The most recent federal OCS Cook Inlet sale to draw bids was Sale 244, held in 2017. That sale saw 14 leases awarded to Hilcorp: two offshore Hilcorp’s Ninilchik unit; one offshore BlueCrest’s Cosmopolitan unit; and two groups of leases, three and eight respectively, in mid Cook Inlet between Iniskin Bay and Kachemak Bay.

see LEASE SALES page 9



Charles Gilbert “Gil” Mull Field Camp Scholarship

In memory of Gil Mull (1935-2021), family and friends are raising funds for the **Charles Gilbert Mull Field Camp Scholarship** intended for geology students at the University of Alaska Fairbanks (UAF). The scholarship will allow students to attend a geology field course of their choice.

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Here's to remembering a giant of Alaska geology!



● LAND & LEASING

AOGCC confirms \$200,000 bond for Amaroq

By KRISTEN NELSON

Petroleum News

On July 25, following decisions by the Alaska Oil and Gas Conservation Commission and appeals by Amaroq Resources, the Alaska Superior Court reversed an AOGCC decision on the bonding required for wells at Nicolai Creek (see story in July 31, 2022, issue of Petroleum News).

In an Aug. 15 order, the commission said:

“On remand from the superior court and consistent with its order, AOGCC’s Other Order 176 is amended. Amaroq’s bonding requirement for the six NCU wells is \$200,000. Amaroq has already posted a \$200,000 bond for the six NCU wells, therefore no additional bond is required to be posted for the six NCU wells.”

The court’s reversal of the commission’s Other Order 176 “was solely based on its finding that the 2017 settlement agreement between AOGCC and Amaroq” prohibited the commission from modifying the bonding it accepted under the settlement for the six wells at Nicolai Creek, AOGCC said. That settlement grew out of bonding issues when Amaroq took over as Nicolai Creek operator.

The superior court remanded the matter back to the

commission for proceedings consistent with its order, and the commission has now ordered that the \$200,000 bond in place was all that was required for the six Nicolai Creek unit well.

Decision based on contract

In a July 25 decision, Alaska Superior Court Judge Dani Crosby reversed a commission decision setting Amaroq’s Nicolai Creek bonding at \$900,000, remanding the decision to the commission.

While Amaroq raised several issues in its appeal to superior court, the first was that Other Order 176, setting the new bonding requirement, violated the 2017 settlement agreement between the commission and Amaroq.

“The threshold issue,” Crosby said, “is whether AOGCC’s decision to modify Amaroq’s bonding amount violates the existing settlement between the parties. If so, the court need not address other issues Amaroq raises.”

She said Amaroq interprets the settlement agreement as resolving the bonding amount for Nicolai Creek while the commission interpreted it to mean it can modify the bonding amount in the future.

“The court concludes that the plain language of the settlement agreement prevents AOGCC from modifying

Amaroq’s bonding amount with respect to the NCU wells under future regulations. The court also concludes that the agreement may not be interpreted to give later enacted bonding regulations retroactive effect,” Cosby said.

Settlement agreements are interpreted by courts as contracts, the judge said.

Other issues Amaroq raised — not considered because the court ruled the modified bonding violates the existing settlement agreement — include that the revised bonding was applied in an impermissible retroactive manner; that Amaroq is not subject to the bonding regulation under the language of the regulation; that AOGCC’s application of the revised bonding constituted a regulatory taking; that the commission’s decision deprives Amaroq of equal protection of the law; that Other Order 176 is duplicative of Amaroq’s bonding obligations to the Alaska Department of Natural Resources.

In a prehearing brief, in addition to arguing violation of the 2017 settlement agreement, Amaroq said the bonding requirement was unreasonable, was a mandatory taking and that the 2019 bonding regulation disproportionately affected small scale producers. ●

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PIKKA DECISION

Six months ago Santos was talking about selling a 15% stake in the Pikka project.

On May 22, The Australian Business Review’s DataRoom column reported that major North America oil and gas producers were “believed to be lining up in the sale process for a stake” in Pikka.

DataRoom editor Bridget Carter wrote: “In the process of the Moelis-advised competition are understood to be major US energy heavyweights” such as ConocoPhillips, ExxonMobil and Chevron.

Nearing the development stage in 2019, Oil Search Ltd., prior to its December 2021 sale to Santos, said it was interested in selling a 15% stake in Pikka and surrounding acreage to a third party. It is common practice on the North Slope to have at least three partners on large oil and gas projects.

At that time Repsol had not expressed interest in selling any of its interest, but it had an agreement with Oil Search to leave the Australian company in control of operating Pikka, regardless of ownership percentages. Later, Repsol said it would be open to a 15% sale of its stake in Pikka, which is west of the central North Slope.

But in Repsol’s recent press release it didn’t mention anything about selling any of its interest; a follow-up call to a company media representative yielded no information on the subject.

As it turned out Santos CEO Kevin Gallagher told participants in a half-year earnings conference call on Aug. 16 that although it had been “unable to agree on an equity sell down to date, with strong supply contracts and the project in an excellent state of readiness, we feel now is the time to monetize this exciting opportunity and are happy to move it forward.”

Similar to what the company had done with its Barossa gas project, “we may yet sell down before first production. We do not need to wait and delay our investment decision and risk a loss in value for Santos shareholders,” Gallagher said.

Later in the Q&A portion of the conference call when he was asked to “clarify Santos’ sell-down aspirations” going forward and whether the process has “now concluded for the time being,” Gallagher said Santos wasn’t waiting.

“We don’t think we have to wait to develop this project for other folks that have been interested in the project — and good interest in the project. But as I said in my speech, we’ve been unable to get anything agreed in the time frame to date. And we do know that others see value in Pikka, but we think it is a project that will become more valuable over time. And we think now is the time to develop it. We talked a lot about how the world has changed over the last six months. And as I said, we don’t need to wait and sell down before we can move it forward. But we’re still open to sell down during the development phase, just like we did on the Barossa project, where we sold down to JERA after FID.”

In regard to how the world has changed in the last six months since a previous Santos conference call, Gallagher

said energy security is now a major issue due to the invasion of Ukraine.

Gallagher upbeat on ConocoPhillips

When asked about the potential of working with ConocoPhillips on Pikka development “now that Willow looks like it’s ... moving forward with the environmental aspects of that project potentially getting approved,” Gallagher said “absolutely.”

“I think Conoco is an excellent operator. I have worked with them over many years, I always made the point that they have a strong safety culture, a strong operational culture. We will want to work with Conoco ... hopefully, that can be beneficial for both parties. And indeed, they will benefit from our oil in that pipeline, as you know, is that will lower the tariff for everybody as it’s volume based.

“We’re looking forward to working with Conoco and the other operators in the region. I was up there recently, and you’re right, if Willow goes ahead, there’s going to be a lot of activity and the most activity that has been there in quite some time,” Gallagher said.

Praises Alaska employees

Operator Oil Search (Alaska), a Santos company, holds a 51% working interest in the Pikka unit; Repsol has a 49% interest (see related Repsol story in this issue of Petroleum News).

Santos is focused on local procurement and local employment as part of the project, with 98% of current employees living in Alaska. Phase 1 of the project is expected to create more than 500 jobs and construction of the project will deliver approximately 2,600 jobs.

In addressing the work Santos has undertaken since taking over Oil Search’s Alaska assets, including the Pikka unit and the Alaska office in Anchorage, Gallagher said the “in country” team in Alaska has led the work with oversight from Santos in Australia.

“Capex has come down a little bit. But I would say that the main work we’ve done over the last sort of a year or so or six months ... has really been in contracting and getting the right contracts ... getting ready to do the project and de-risking the project. I think a lot of the work was excellent.

“But again, it’s the team in country that has led most of that work. ... I spent a bit of time over there with some of our team recently, met all the local stakeholders, the indigenous stakeholders, governor, senators, federal senators and we’ve got a lot of support for the project.”

Gallagher described the Oil Search (Alaska) team as “world class. ... I’ve been very impressed by the team that Bruce (Dingeman) has assembled in country with very ... Alaska experienced individuals making up that team. And I’m sure they’re very happy today with this announcement, as I know they’ve been anxious for some time now, but a great team in country, a great asset, low-risk asset — as I say, it’s mainly a drilling project. Now the majority of the civil works is done.”

Gallagher also noted that “we’ve spent six months assuring and linking them to the corporate center so that we’ve got that governance across the operations and building the connection between the team in country with the corporate

body back here in Australia.”

Low emissions project

“Pikka Phase 1 represents one of the lowest-cost and lowest unabated emissions intensity new oil projects in the region,” Santos said in its Aug. 16 press release.

Taking FID on Pikka Phase 1 is “consistent with Santos’ goal of achieving net-zero (scope 1 and 2, equity share) by 2040.” The company said it is committed to delivering a net-zero project (scope 1 and 2, equity share) and has entered into memorandums of understanding with Alaska Native corporations to deliver carbon offset projects, including a strategic alliance with ASRC Energy Services, a wholly owned subsidiary of Arctic Slope Regional Corp., or ASRC, on leading technology development for carbon solutions in the Arctic.

Santos also noted in its press release that Pikka development is also supported by other key stakeholders, including the state of Alaska, the North Slope Borough and the landowner company Kuukpik Corp.

One of those supporters is U.S. Sen. Dan Sullivan, R-Alaska, who issued the following statement welcoming Santos’ Pikka announcement: “It’s exciting to see this project, which has been in the works since I was serving as Alaska’s Department of Natural Resources Commissioner, finally come to fruition,” he said Aug. 16. “Today’s announcement is great news for energy security, national security, and for economic and community development, including thousands of jobs for Alaskans, in our state where we have the highest environmental standards in the world.”

Finally, when asked about the contracting strategy and risk for Alaska, Gallagher said: “One of the things I would say is that on all our projects I conducted a review a few months back of our contracting strategies, looking at which countries a lot of our contracts were with, and that was really in response to the invasion of Ukraine. I was trying to understand what risks we had in terms of anything being manufactured or fabricated in Ukraine — you’d be surprised how much comes from that part of the world or nearby countries where gas might be cut off to those countries and our supply chain be impacted.

“So we’ve reviewed that. We’ve looked at China and the Chinese exposure for contracting and other parts of Asia. One of the things that makes me feel very comfortable about Alaska is that 89% of the spend ... is within North America. ... There’s very little contracting outside of the U.S. ... There is no Russian content.

“Around about 55% or so of the cost on this project would be fixed rate. And the remaining 45% or so is mostly labor costs. ... So I think we include close to 10% contingency on this project.

“It’s a relatively low-risk project because we don’t have any of those huge plants, like an LNG plant or offshore vessel components to the project. It’s now really ... a drilling project with some processing kit, which makes it a relatively low-risk project. So it’s more about the days it takes to drill wells as opposed to the rates,” Gallagher said. ●

Contact Kay Cashman at publisher@petroleumnews.com

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LEASE SALES

The leases expire Sept. 30, 2027.

Following the 2004 Cook Inlet Sale 191, in which BOEM received no bids, Sale 211 was deferred a year in 2008 and subsequently cancelled with a new sale scheduled. That sale, Sale 219, was cancelled in 2011 due to

lack of industry interest, the same fate which befell Sale 258, originally scheduled to be held in 2011.

Recent Cook Inlet work

Last summer, BOEM approved an application from Hilcorp to conduct geohazard surveying over the company's federal leases in Cook Inlet, encompassing four lease blocks. The agency's records show a 3D marine geohazard permit was issued to Hilcorp for Cook Inlet

work on Aug. 11, 2021, with valid permit dates through Oct. 31, 2021. That work is shown as completed, as is another 3D marine geohazard survey in the summer of 2019. The company received a permit for work in the summer of 2020, but BOEM records show no activity on that permit, presumably due to the pandemic. ●

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REPSOL SANCTION

Repsol has a 49% working interest in the Pikka unit; its partner and project operator Santos/Oil Search has a 51% interest.

With a phased development approach, Pikka has been designed to provide capital flexibility while also delivering top-quartile emissions performance.

"The project has a carbon intensity index that is among the lowest in the company's global upstream portfolio, reinforcing Repsol's commitment to focus on lower-emissions projects," the company said.

To further reduce emissions, Pikka "will implement reduction schemes included in the World Bank's Zero Routine Flaring Initiative, such as the replacement of diesel with cleaner-burning natural gas to fuel the operations or the installation of heat recovery technologies in the power generation turbines."

Repsol said it was the first company in its sector to set the goal of achieving zero net emissions by 2050, and it has set an objective of reducing the carbon intensity of all its upstream activities by 75% by 2025.

The Pikka unit has an "advantaged position" as an onshore development in an established basin such as the North Slope, minimizing its footprint by utilizing extensive existing infrastructure in an area with decades of hydrocarbon exploration and production activity.



Substructure of Nabors Rig 9ES stopped Feb. 1, 2012, on 2M Pad on its way to Repsol's K-1 drill site at 51 degrees below zero (ambient temp). Rig got underway Feb. 2 when weather warmed up to a balmy minus 22 Fahrenheit. Repsol and other explorers were hindered by one of the coldest winters of record for Alaska's North Slope.

Forty-five wells

Full development of Phase 1 "will consist of 45 wells to be drilled from a single well pad, using industry-leading technology to reduce the environmental footprint, with associated midstream facilities including a production facility, operating center, seawater treatment plant, and pipelines," Repsol said.

The company noted that the project is

supported by local communities on the North Slope and "continues to deliver shared value from community development projects, social investment programs, economic activity, and local jobs."

This milestone, Repsol said, "materializes more than a decade of activity by Repsol in Alaska. With its renowned exploration expertise and the use of state-of-the-art technology, the company has led the drilling of 16 exploration and

COURTESY REPSOL

appraisal wells since 2011, resulting in the discovery of more than one billion barrels (gross) of oil resources." (See art with this story in the pdf or print versions of this issue of Petroleum News.)

The Horseshoe-1 and 1A wells drilled during the 2016-2017 winter campaign confirmed the Nanushuk play as one of the largest onshore conventional hydrocarbon discoveries in the United States in 30 years.

Repsol (and Santos') North Slope "assets now include the Qugruk discovery wells that anchor the Pikka unit, the neighboring Horseshoe unit (Horseshoe and Stirrup wells) and the Quokka unit (Mitquq well), as well as several additional exploratory blocks, with a total of 467,761 gross acres."

Repsol first entered Alaska in 2007 when it joined Shell and Eni in a block of 64 federal leases in the Beaufort Sea, followed in 2008 by successful bidding in the federal waters of the Chukchi Sea.

The Spanish energy company lost interest in the federal offshore and didn't become active again until 2011 when it acquired a 70% interest in, and operatorship of, 494,211 acres from Bill Armstrong's 70 & 148 LLC, which included Pikka-area state of Alaska leases.

Antonio Brufau Niubó has been Repsol's chairman since 2004, leading its venture into Alaska.

—KAY CASHMAN

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Brooks Range Supply		Judy Patrick Photography		Surepoint Technologies Group US	
C&R Pipe & Steel, Inc.	3	Little Red Services, Inc. (LRS)		Tanks-A-Lot	
Calista Corp.		Lounsbury & Associates		TorcSill	
ChampionX		Lynden Air Cargo		Udelhoven Oilfield System Services Inc.	
Coffman Engineers		Lynden Inc.		US Ecology Alaska	
Colville Inc.		Lynden Logistics		Weston Solutions	
		Lynden Oilfield Services			
		Lynden Transport			
		Maritime Helicopters			

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

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INSIDER

the primary members of AOGA.

Some of the speakers/panelists include Benjy Johnson, president of BlueCrest Energy; Brad Crabtree, assistant secretary, U.S. Department of Energy; Frank Richards, president, Alaska Gasline Development Corp.; Haley Paine, deputy director, Division of Oil and Gas, Alaska Department of Natural Resources; Ben Loeffler, manager, Pacific Marine Energy Center, University of Alaska Fairbanks; and William Su, co-director of research for the US Income & Value Team, BlackRock.

AOGA names 2022 Industry Award winners

ON AUG. 10, the Alaska Oil and Gas Association released its 2022 Industry Award winners, recognizing oil and gas industry service, safety and environmental stewardship

AOGA will honor individuals and companies for their achievements working in the oil and gas industry at its annual conference on Aug. 31-Sept. 1 at the Dena'ina Center in Anchorage.

The 2022 AOGA Industry Awards winners are:

CONTRACTOR OF THE YEAR AWARD FOR SAFETY PERFORMANCE, sponsored by the Alaska Support

Industry Alliance: NMS

The Contractor of the Year Award for Safety recognizes an oil and gas support company that has demonstrated exemplary commitment to safety.

Every year brings new challenges that NMS strives to anticipate and overcome. In 2021, COVID was again a significant factor in how safety was addressed, and NMS went above and beyond in seeking out proactive solutions. The nomination form is not long enough to capture the extent of their efforts to maintain a safe working environment.

One 2021 highlight: NMS implemented a company-wide "Good Catch and Near Miss Reporting" contest that has been so successful they are continuing the program into 2022. Every time employees report a good catch or near miss safety incident in the company's safety database, they are actively making their workplace a safer place.

In recognition of the commitment NMS employees dedicate to one of the company's core values, "Safety Guides Our Behavior," NMS rewards them by conducting drawings from eligible entries and giving monthly and annual prizes.

With 3,835,159 hours worked in 2021, NMS' incident rate for total recordable cases was 0.36. In comparison, the national rate for 2021 was 3.2.

THE RISING STAR AWARD: Tara McGrogan, Alyeska Pipeline Service Co.

The Rising Star Award honors a young professional oil and gas industry employee under the age of 35 who has made an immediate and definitive impact on the industry in Alaska.

Tara McGrogan is a lifelong Alaskan, a champion for the Interior and an employee of Alyeska.

She joined Alyeska's Corporate Communications team as an intern in May 2016. At the time, she had earned her bachelor's degree in Business Administration with a marketing concentration from the University of Alaska Fairbanks. She completed a Master of Business Administration in 2017 and returned to Alyeska.

As part of Alyeska's communications team, Tara learned the ropes of the pipeline, Alaska's oil and gas industry, and public relations work by delving into creative storytelling mediums, such as writing, graphic design, photography and videography. Her role at Alyeska developed and changed, and she was promoted to corporate communications coordinator.

Additionally, she began working in a central role with the Alaska Native Program, a program built around monitoring and maintaining Alyeska's commitment to Alaska Native employees, communities, and partners, and building and sustaining those relationships.

ALASKA OIL & GAS PROJECT OF THE YEAR FOR ENVIRONMENTAL STEWARDSHIP AND INNOVATION, sponsored by Stoel Rives: Sag River Remediation Project, Alyeska Pipeline Service Co.

The Alaska Oil and Gas Project of the Year for Environmental Stewardship and Innovation honors a project that demonstrates superior environmental stewardship in its area of design, construction, or operation and/or an innovative approach that sets a new standard for industry design, construction, or operation in Alaska.

Work performed by Alyeska's Rivers and Floodplains Team which addressed threats from 2021 spring flooding along the Sagavanirktok (Sag) River corridor was recognized.

Each spring, the powerful Sag River swells, surges, and snakes across the landscape as its ice-and-aufeis build-up melts or bursts, creating a fast-flowing, havoc-causing web of changing waterways. In

recent years, the Sag River's dramatics have wiped out sections of the Dalton Highway and stopped critical traffic to and from Deadhorse for days. It also erodes areas of the Trans Alaska Pipeline System right of way.

And each year, Alyeska, TAPS contractors and many diverse partners team up to improve mitigations and minimize the annual threat, and follow-up any damage with earthmoving repairs.

Annual improvements provide the necessary maintenance of spur dikes, reconstruction of rock vanes, upgrades and construction of additional flood control structures and placement of buried sills to protect the belowground mainline pipeline. In 2021, that essential work was completed with zero accidents, injuries, spills, COVID cases, permit violations or cost overruns.

The planning and implementation of 2021 flood repairs was a team effort between several departments at Alyeska and contractor partners Ahtna Inc., Brice Inc. and Merrick. Solutions were delivered on time and on budget.

Alyeska's Environmental team worked closely with project managers to ensure all applicable local, state and federal permits were on hand and followed, resulting in a positive field audit by the State of Alaska Environmental Auditor.

MARILYN CROCKETT LIFETIME ACHIEVEMENT AWARD, sponsored by Chevron: John A. Barnes, Hilcorp Alaska.

The Marilyn Crockett Lifetime Achievement Award is named in honor of the former AOGA executive director who dedicated her 41-year career to, as she stated, "growing Alaska's economy through a vibrant oil and gas sector in the state." This award honors the dedication Marilyn displayed during her career: exceptional devotion of time, effort, thought and action consistently shown in his/her work for the betterment of the oil and gas industry in Alaska.

John A. Barnes has over 40 years in the upstream oil and gas business, with the majority of his experience in Alaska.

After graduating from Colorado School of Mines, John began his industry career in 1981 as a staff engineer with Marathon Oil in Anchorage. His other work experience includes assignments in West Texas, the North Sea and Houston as well as responsibility for CH2MHILL's operations and maintenance businesses in Alaska and Russia.

In 2011, John joined Hilcorp Alaska as the first Alaska senior vice president. He led Hilcorp through two major Cook Inlet basin acquisitions, as well as the transition of British Petroleum's (BP) Milne, Endicott and Northstar assets to Hilcorp.

Then in 2019, when Hilcorp announced its purchase of BP's interest in Prudhoe Bay, he was again called on for the transition.

Boosting oil production, morale and reserves on the North Slope, he was thrilled to be given the opportunity to take on his current role as Prudhoe Bay East's Asset Team leader.

Over the years John has given back to this industry and community in countless ways serving on AOGA's board, the RDC board, State Chamber of Commerce Board and Grace Christian School's board, to name a few. John was proud to raise his two children in Alaska with his wife Gina.

He will be retiring the end of September and looks forward to more time with them and his grandchildren, fishing the Kenai and enjoying the great outdoors right here at home.

—Oil Patch Insider
is compiled by Kay Cashman

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UTILITIES

CEA wants to increase Beluga gas price

Anchorage-based Chugach Electric Association has filed a request with the Regulatory Commission of Alaska for approval of an increase in the price of the fuel gas that the utility obtains from the Beluga gas field. Chugach Electric wants to increase the price of the gas from \$3.64 to \$4.50 per Mcf. As majority owner of the Beluga field, the utility can obtain relatively cheap gas from the field for its power generation. The utility passes the cost of the gas through to its customers as a component of the price of its electricity.

Hilcorp Alaska, the other field owner, operates the field.

Chugach Electric's Beluga gas price is determined using what is referred to as the gas transfer price, or GTP. The components of the GTP include the utility's share of the cost of operating the gas field, a margin for the investment in the field, interest expenses, and the recovery of costs assigned to the future anticipated field dismantlement, removal and restoration.

The result of the requested GTP increase would be a 1.7% increase in the residential electricity bills in Chugach Electric's South District, and a 1.9% increase in the North District. The price impact for retail customers in the City of Seward would be consistent with the impact to the utility's retail customers in Anchorage, Chugach Electric told the commission.

In its RCA filing the utility said that it needs to increase the GTP in part because a recent study has projected lower remaining gas reserves in the Beluga field and, hence, a shorter economic field life. In addition, the estimated costs of future field dismantlement, removal and restoration have increased, while a loss during 2022 in the investment fund holding the savings to cover these costs has also impacted the needed level of contributions to this fund.

On the other hand, anticipated increases in Beluga field operating costs will be offset by higher field production levels, Chugach Electric told the commission.

In May the RCA approved on an interim basis a GTP increase to \$3.64 per Mcf to cover the cost of the forward funding of Beluga field capital improvement projects.

—ALAN BAILEY

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ALKALID WELL

Conservative approach

Pantheon said in its release that it plans lateral lengths of some 8,000 feet for future production wells but since this is the company's first horizontal well on the North Slope it adopted a conservative approach and used a shorter lateral "to minimize operational risk and still deliver the production data needed to optimize development of the resource."

Analysis of logging while drilling and gas chromatograph readings indicate that improved reservoir parameters found in the vertical pilot hole "have continued or improved in the horizontal well bore. This data further confirms the accuracy of Pantheon's geological models and provides the Company with greater confidence to predict reservoir tops and bottoms," Pantheon said. "As previously announced, initial analysis indicates significant improvements in reservoir quality which has the potential to lead to upgrades of the current reservoir estimates for all targeted horizons."

First development well

The company said in July that Alkaid 2 was planned to access three "impactful objectives" over multiple formations.

"The first development well in any new area can sometimes yield unexpected surprises as we never really know what wellbore conditions to expect over such a long distance, and hence I am delighted we reached 5,300 ft without incident, an important milestone for me because it exceeded my personal goal of one mile," Bob Rosenthal, Pantheon's technical director, said Aug. 18. "This latest operation appears to reinforce the accuracy of our geological modelling, giving me great confidence in our modelling of the other, even larger, projects in our 100% owned portfolio."

Pantheon CEO Jay Cheatham said the company has "achieved another important milestone in demonstrating our ability to successfully drill a long lateral well."

"Each milestone that Pantheon achieves translates into a reduction in risk and increased confidence in the potential of the large resource discovered to date," he said.

Pantheon has 100% working interest in 153,000 acres on the North Slope. Its Alaska acreage is operated by affiliate Great Bear Pantheon, with two units, Alkaid and Talitha, adjacent to each other and to the trans Alaska oil pipeline.

—KRISTEN NELSON

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OIL PRICES

ANS fell \$2.07 Aug. 16 to close at \$98.74, while WTI slid \$2.88 to close at \$86.53, and Brent slid \$2.76 to close at \$92.34.

ANS dropped \$2.93 Aug. 15 to close at \$100.81, as WTI dropped \$2.68 to close at \$89.41 and Brent plunged \$3.05 to close at \$95.10.

On Aug. 12 ANS fell \$1.62 to close at \$103.74, WTI fell \$2.25 to close at \$92.09, and Brent fell \$1.45 to close at \$98.15.

Price rose Aug. 11. ANS was up \$2.26 to close at \$105.36, WTI was up \$2.41 to close at \$94.34 and Brent lifted \$2.20 to close at \$99.60.

From Wednesday to Wednesday, ANS fell; its Aug. 17 close of \$99.72 was \$3.38 below its close of \$103.10 on Aug. 10.

Banner year for high-impact wells

On a positive note for global hydrocarbon supply, discovered volumes in 2022 from high-impact wells have exceeded 1.7 billion barrels of oil equivalent — four times the tally in 2021 — with more than four months to go in the year, Rystad Energy said in an Aug. 17 release.

“These critical wells have found hydrocarbons 47% of the time so far this year, up from a measly 28% for 2021,” Rystad said.

A total of 33 high-impact wells are planned for 2022, the largest annual number since Rystad started tracking the sector in 2015, it said. In 2021, 29 high-impact wells yielded only 450 million boe due to the low success rate.

Rystad said it classifies high-impact wells via a combination of factors, including the size of the prospect, potential to unlock new hydrocarbon resources in frontier areas or emerging basins, and significance to the operator.

Discovered liquids accounted for 1.2 billion boe — some 70% of volumes this year, while gas discoveries were 550 million boe, Rystad said, adding that in previous years, gas discoveries vastly outnumbered liquids volumes.

The reversal in 2022 is mainly due to two significant oil offshore discoveries in Namibia — TotalEnergies’ Venus and Shell’s Graff, the consultancy said.

“Last year was disappointing for discovering gas and liquid volumes from high-impact wells, but 2022 is on track to make up for that slump,” said Taiyab Zain Shariff, Rystad senior analyst. “If the success rate seen in the first half of 2022 holds for the full year, we could be in for one of the most productive annual volumes total on record.”

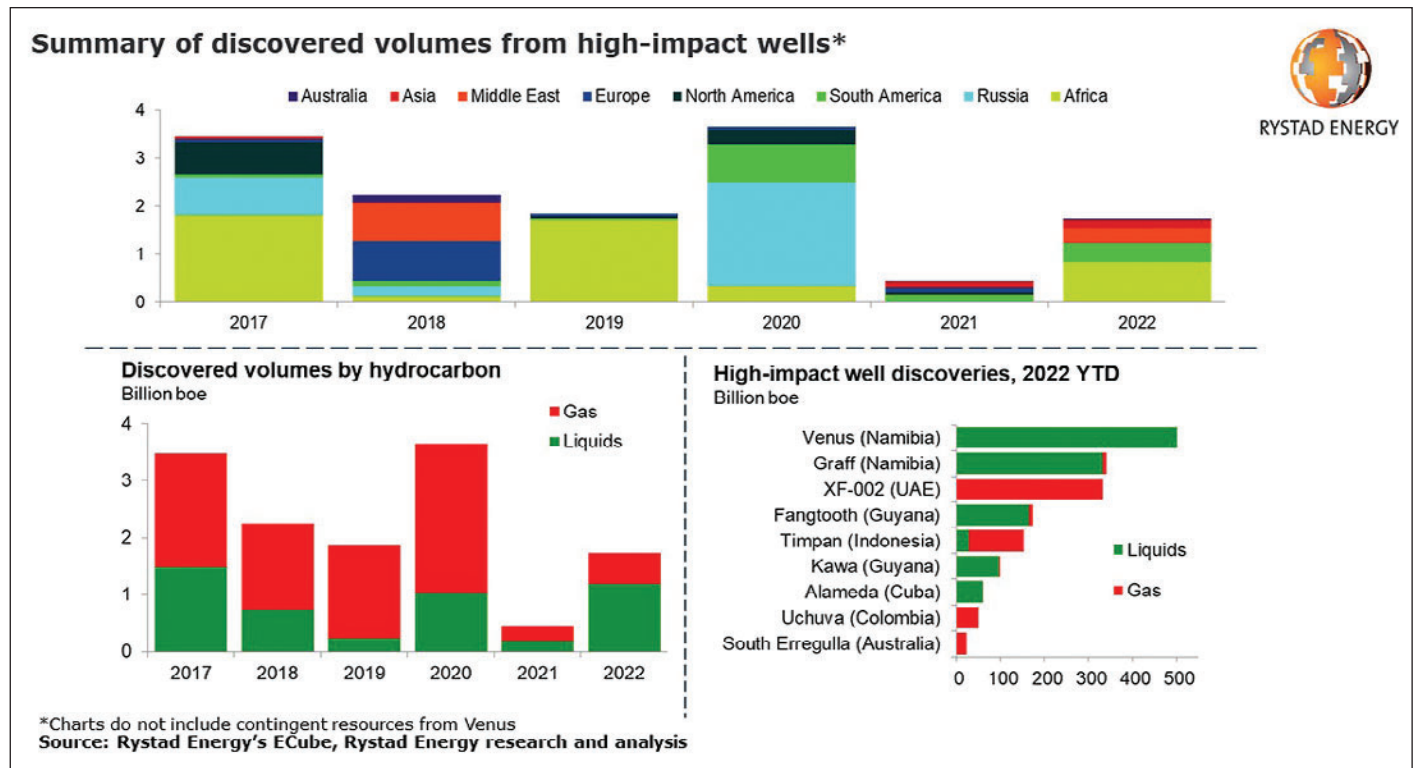
Global majors have drilled eight high-impact wells, with four commercial discoveries, including the Namibia discoveries, ExxonMobil’s Fangtooth oil find in Guyana and Eni’s XG-002 gas discovery in the UAE.

“More than 45% of wells completed so far in 2022 are in South America and Africa, followed by Australia and Europe with 16% each of completed wells,” Rystad said, adding that Australia had three wells, while Guyana and Namibia had two wells each.

Of 19 high-impact wells completed this year, one is awaiting results, 47% struck a commercial discovery, and the rest were either dry or uncommercial, Rystad said. One find was a pure oil discovery, while the rest were either gas or liquids with associated gas.

Rystad expects 14 high-impact wells to be completed or spudded for the rest of the year, six of them by majors.

Eni operates two high-impact wells currently being drilled, the Cronos-1 well off Cyprus at a water depth of 2,350 meters



targeting a Cretaceous play, and the Dan Tranh-1X well off Indonesia targeting a newly identified Miocene play in the Song Hong Basin, Rystad said. The other two in-progress wells are the play-opening Rencong well operated by Repsol in the

Andaman-III block off Indonesia, and Shell’s Jaca-1 well in Block 6 in the frontier Rio Muni basin of Sao Tome & Principe.

“The rest of the wells planned for this year are distributed throughout Africa and

the Americas, with some exciting wildcats to watch in Southeast Asia as well,” Rystad said. ●

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