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CONTENTS

The Explorers

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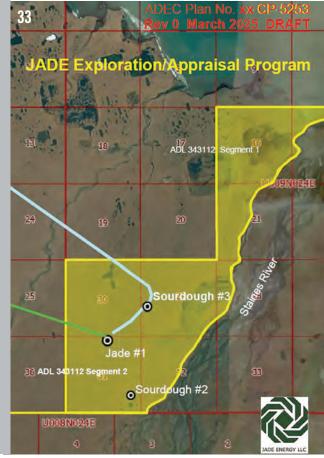
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On the cover: Doyon Rig #141 contracted to Lagniappe Alaska, LLC (an Armstrong Oil & Gas, Inc. company) during operations at the Sockeye-2 discovery well, Eastern North Slope

Photo by Judy Patrick, courtesy of Armstrong

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The Explorers

- **13** 88 Energy
- 16 Armstrong/Lagniappe
- **20** ConocoPhillips
- 25 Glacier/Savant
- **26** Great Bear Pantheon
- 29 Hilcorp
- **33** Jade Energy

Ad Index

37 Advertisers

Introduction

8 Welcome to The Explorers 2025

Feature

11 Exploration licensing continues to draw interest







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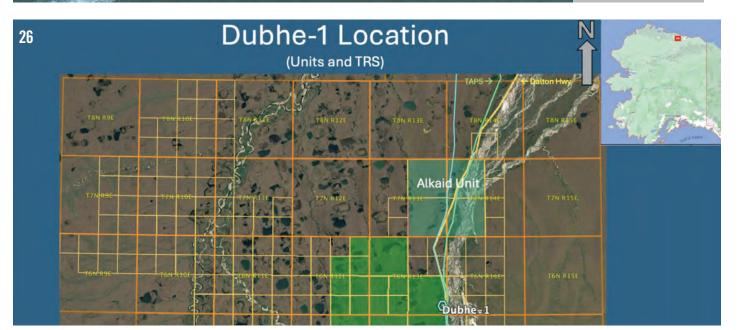
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INTRODUCTION**

Welcome to The Explorers 2025

Armstrong exploration drilling extends Brookian topset fairway 94 miles east



Petroleum News

publisher

Kudos to the explorers featured in this year's issue of The Explorers magazine: Armstrong's Lagniappe, ConocoPhillips Alaska, 88 Energy, Glacier's Savant, Great Bear Pantheon, Hilcorp and Jade Energy.

In 2013, Armstrong Oil & Gas Inc. and its partner Repsol kicked off the prolific Brookian topset play with the 2 billion barrel plus oil discovery in the Pikka field west of the central North Slope, the largest component being the Nanushuk reservoir.

Since that discovery, the oil industry on the North Slope has been on a tear, drilling and making large lookalike discoveries at Horseshoe, Putu, Mitquq, Stirrup, Willow and elsewhere.

With Armstrong's understanding of these new discoveries, the company identified multiple lookalike prospects on the eastern North Slope.

Lagniappe, an Armstrong affiliate (holding a 25% working interest ownership). drilled three of these eastern North Slope prospects during the 2023-2024 winter exploration season as operator on behalf of partners APA Alaska LLC (Apache 50% WIO), and Oil Search (Alaska) LLC (25% WIO), a Santos affiliate company.

In the 2024-2025 winter season operator Lagniappe continued to target large 3D-defined opportunities. Their Sockeye-2 discovery is very similar to the pay sands at Willow and Alpine, except the per-

meabilities at Sockeye appear to be substantially better — maybe 10-times better. The oil is medium gravity, low viscosity, sweet oil. The targeted objectives are slightly younger

than what Santos is developing at Pikka et al but with better reservoir qualities — porosity and permeability — even though they are somewhat deeper.

The Sockeye prospect is AVO supported across 30,000 acres, and confirms the partners' geologic and geophysical models, de-risking numerous additional prospects in the area.

ConocoPhillips Alaska

In the 24 years since ConocoPhillips was created through a merger, its Alaska subsidiary, ConocoPhillips Alaska, has pursued new oil in Alaska through wildcats, through infrastructure-led exploration, and through development within its units.

In the past five years, ConocoPhillips Alaska has increasingly favored growth at its existing units and infrastructure-led exploration over the thrill of far-flung exploration.

But should the Trump administration succeed in opening more of the National Petroleum Reserve-Alaska to oil and gas exploration

continued on page 10





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INTRODUCTION continued from page 8

and development, ConocoPhillips Alaska is in a good position to expand its exploration west of its Willow project in NPR-A.

Kirk Johnson, ConocoPhillips senior vice president, global operations, said in the company's fourth quarter earnings conference call on Feb. 6, 2025, that: "Fundamentally, we believe that continued exploration west of Willow, it's the right thing to do for energy. It's the right thing to do for the state of Alaska and its stakeholders. And clearly, we're in a really good position. We're putting ourselves in a position to continue exploring west of Willow, as that's enabled for us."

88 Energy

The successful flow test at the Hickory-1 well on Alaska's central North Slope was a key milestone for 88 Energy's Project Phoenix, validating the potential of multiple primary and secondary reservoirs. The company said it confirmed the presence of mobile hydrocarbons, achieving natural oil flow (no nitrogen lift) to surface, an indicator of commercial potential.

2024 also saw progress at 88 Energy's Leonis Project, where the completion of an independent certified resource estimate highlighted the potential of the Upper Schrader Bluff reservoir. This paved the way for the launch of a formal farm-out process aimed at accelerating exploration via a planned exploration well, the Tiri-1.

Approximately 10,000 acres of newly leased state of Alaska land grew Leonis to more than 35,000 contiguous acres with targeting based on additional prospectivity mapped within the deeper Canning formation reservoir interval, enhancing Leonis' position as a highly prospective, multi-zone opportunity, 88 Energy said.



Glacier

Glacier Oil & Gas has continued to vet-out recently identified drill targets in the Badami and Killian sands in and near the Savant Alaska-operated Badami unit on the eastern North Slope.

Glacier is planning another Badami exploration well in 2025 and its East Pad construction is on track to begin in the summer of 2026.

Great Bear Pantheon

Great Bear Pantheon spud the Megrez No. 1 well in November 2024. The exploration well targeted "three topset horizons which Pantheon estimates to contain an aggregate 2U prospective resource of 609 million barrels of ANS crude (oil, condensate and NGLs) and 3.3 trillion cubic feet of natural gas."

Megrez No. 1 was drilled at a 45-degree angle to penetrate multiple horizons and to guide the design of future long laterals with multi-stage completions in deeper horizons.

In an announcement in early March 2025, Pantheon Resources said that early results from Megrez No. 1 indicated "seven discrete interpreted pay zones, with flow testing of the shallowest six to commence before the end of March 2025" and last four months.

Those six zones, from deepest to shallowest, are the Upper Schrader Bluff Topset 1, the Prince Creek (lower), the Prince Creek (upper), the Lower Sagavanirktok 3, the Lower Sagavanirktok 2, and Lower Sagavanirktok 1. Testing of each interval was projected to last approximately two weeks with the full testing program lasting as long as four months.

Hilcorp

Hilcorp's focus, nationally and in Alaska, is on maximizing production from mature fields in established / developed areas, including the Cook Inlet basin and on the North Slope.

But in the summer of 2025 Hilcorp plans to drill two exploration wells in undeveloped acreage in Interior Alaska in partnership with Doyon Ltd., specifically in subsurface owned by Doyon in the Yukon Flats on surface land owned by Tihteet' Aii, the Native corporation for the village of Birch Creek.

Jade Energy

Erik Opstad's Jade Energy is gaining ground at its Sourdough prospect on the far eastern North Slope.

Sourdough holds BP's two 1990s oil discovery wells, Sourdough 2 and 3.

In 1997 BP estimated the prospect held 100 million barrels of recoverable oil.

But BP never pursued development because at the time there was no pipeline near the Sourdough prospect, which borders the 1002 Area of the Arctic National Wildlife Refuge.

One hundred million barrels of oil did not justify the cost of a pipeline and related facilities.

Since that time the Point Thomson project has been developed, with the field in production and a pipeline connecting the unit and the Badami unit to the west.

Jade has been advancing understanding of the high-pressure reservoir and requirements for development since the initial 3D seismic survey covering the Sourdough prospect (Yukon 3D data set), that was conducted by Jade stakeholders in 2018.

This issue of The Explorers also contains a chapter on the state of Alaska's exploration licensing program, including geothermal licensing. ●

Contact Kay Cashman at publisher@petroleumnews.com

Exploration licensing continues to draw interest

State expands program this year with new geothermal regulations

By ERIC LIDJI

For Petroleum News

The state of Alaska developed its exploration license program to create a pathway for companies to explore resource-rich corners of Alaska not offered through leasing.

To date, the program has generated more interest than energy. While licensing has not led to any significant production, it has al-

EXPLORATION LICENSING

lowed several smaller players to enter the oil patch. Under the program, the

state Division of Oil and Gas can make a preliminary determination that certain areas are suitable for exploration licensing. From there, it begins accepting proposals for exploration within these "determined" areas.

The state accepts proposals each April. Companies can request a license for an area between 10,000 and 500,000 acres, along with a proposed financial work commitment and a term limit. The state then provides opportunities for other companies to make competing bids for the same acreage, in an effort to get the best deal for the state.

In recent years, the state has been accepting proposals within

The Division of Oil and Gas received a gas-exploration proposal for the Susitna Valley during the 2024 cycle and issued a public notice in early August 2024 seeking competing proposals.

two regions.

The "Southcentral Region" is an L-shaped area including the coastline along Prince William Sound and extending north to include the southern edge of the Interior, including the cities of Cordova, Valdez, McCarthy, Glennallen, Talkeetna, Paxson and Tok.

The "Nenana Region" covers a smaller area immediately west of the Fairbanks North Star Borough and immediately west and north of the Interior city of Nenana.

The Division of Oil and Gas received a gas-exploration proposal for the Susitna Valley during the 2024 cycle and issued a public notice in early August 2024 seeking competing proposals. The area under consideration follows a line running south from Talkeetna past Willow nearly to Susitna and then extending west beyond the

continued on next page



EXPLORATION LICENSING continued from page 11

village of Skwentna.

Under the terms of the public notice, companies have 30 days to provide a notice of intent to submit a proposal and 60 days to submit a proposal — meaning early October.

The identity of the original applicants is held at this point in the process.

Alaska Natural Gas Corp. previously had two pending applications for an exploration program in the Susitna Valley covering 913,249 contiguous acres in the Susitna River basin within the Matanuska-Susitna valleys, immediately west of the Parks Highway. The privately held company submitted its proposal in late April 2017, asking for 10-year licenses, each with a \$500,000 work commitment. Based on economic and geologic considerations, the state imposed \$3 million and \$3.3 million work commitments. The proposals were subsequently removed from the state Division of Oil and Gas website.

Houston-Willow

The "exploration licensing program" page on the state Division of Oil and Gas website currently lists two active projects: the Houston-Willow Basin and the Gulf of Alaska.

The state issued the Houston-Willow Basin license to independent explorers Samuel Cade and Daniel Donkel. The license covers 18,698 acres in the Houston-Willow basin with a \$500,000 work commitment. The state awarded the six-year license on Dec. 1, 2018, which means that the license appears to have expired in December 2024.

The Alaska Railroad discovered coal in the area by 1917. Drilling since the early 1950s has included some 22 penetrations throughout the Houston-Willow basin, mostly to evaluate shallow gas and coalbed methane, according to the Division of Oil and Gas.

There was activity in the 1950s and early 1960s and a return in the late 1990s and early 2000s. Cade and Donkel submitted an application in April 2007 with local independent LAPP Resources Inc. and resubmitted after the death of principle Dave Lappi in 2011.

The state approved the exploration license with the hope that modern exploration techniques "would likely help to resolve details of the anticline's geometry and to clarify its conventional gas and CBM resource potential," according to the decision results.

Gulf of Alaska

A second proposed exploration license in the Katalla region of the Gulf of Alaska has been under appeal for several years by applicant Nikiski-based Cassandra Energy Corp.

Exploration in the Gulf of Alaska dates to oil seeps discovered in the mid-1890s. A small refinery built in the early 20th century burned down in 1933 after the region had produced some 154,000 barrels of oil. Exploration resumed in the 1950s and early 1960s.

Chugach Alaska Corp. secured an exclusive exploration contract from the early 1980s through the early 2000s. Cassandra Energy joined that venture in the early 2000s, but his project was thwarted by a combination of environmental and regulatory delays until the late 2010s, when the company submitted an exploration license application to the state.

The Division of Oil and Gas initially leaned toward granting the company a 10-year license over 65,773 acres with a \$1 million work commitment but ultimately denied the application in late 2020, saying it failed to serve the best interests of the state. In a decision at that time, then-Division of Oil and Gas Director Tom Stokes wrote, "the potential positive effects of the exploration license do not clearly outweigh or balance the potential negative effects to the other resources and habitat of the license area."

Geothermal

Additionally, recently passed House Bill 50 included provisions authorizing the Alaska Department of Natural Resources to issue exploration licenses and leases for geothermal prospecting. In early 2025, the DNR issued a public notice for proposed regulations around the program.

The new regulations would create a way for the state to convert existing two-year geothermal prospecting permits to five-year geothermal exploration licenses.

The new regulations would be most immediately relevant to GeoAlaska, an Anchorage-based independent company with a geothermal prospecting permit on ADL 394080 in the southern part of Augustine Island. Augustine Island is located in Kamishak Bay on the west side of Lower Cook Inlet, approximately 170 miles southsouthwest of Anchorage.

GeoAlaska claimed more than \$437,551 in expenditures for fieldwork completed in 2023 with expenses of \$188,000 planned for the 2024 field season. These figures exceed the \$50 per acre state requirement expected for a geothermal prospecting permit area.



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Key milestone for 88E's Project Phoenix

88 Energy advances Leonis with completion of independent certified resource estimate paving way for farm-out process

By KAY CASHMAN Petroleum News

Throughout 2024, Australia-based 88 Energy Limited's efforts centered on advancing key projects, optimizing its portfolio and positioning the company to unlock future value, the company said in its 2024 annual report released March 4, 2025.

The successful flow test at the Hickory-1 well on Alaska's

central North Slope marked a key moment for the company's Project Phoenix. This milestone, 88 Energy said, validated the potential of multiple primary and secondary reservoirs,

NORTH SLOPE

confirming the presence of mobile hydrocarbons and achieving rogen lift) to surface,

natural oil flow (no nitrogen lift) to surface, an indicator of commercial potential.

The company also monitored regional activity, including Pantheon Resources PLC's

Megrez-1 extended well test targeting the Ahpun Eastern Topset reservoir. The anticipated Q1 CY25 results could provide valuable insights into the area's broader commercialization potential.

2024 also saw progress at 88 Energy's Leonis Project, where the completion of an independent certified resource estimate highlighted the potential of the Upper Schrader Bluff reservoir. This paved the way for the launch of a formal farm-out process aimed at accelerating exploration via a planned exploration well, the Tiri-1.

In December 2024, 88 Energy was the successful bidder on four additional leases, covering approximately 10,203 acres. This acreage is west of the Dalton Highway south of Prudhoe. Once the leases are officially awarded by the state of Alaska, the additional acreage will grow the Leonis Project's footprint to more than 35,000 contiguous acres.

These leases were targeted based on additional prospectivity mapped within the deeper Canning formation reservoir interval, enhancing Leonis' position as a highly prospective, multi-zone opportunity, the company said.

Project Phoenix

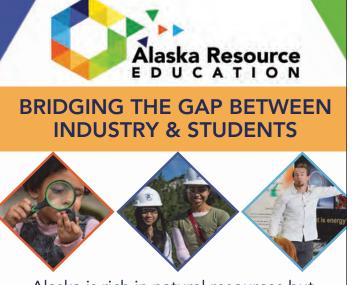
Project Phoenix is an oil-bearing conventional reservoir play identified during the drilling and logging of Icewine-1 and Hickory-1 and adjacent offset drilling and testing. Project Phoenix is strategically located on the Dalton Highway with the Trans-Alaska Pipeline System bisecting the acreage.

88 Energy advanced discussions with Phoenix joint venture partner Burgundy Xploration LLC during the year. In February 2025, the company and Burgundy entered into binding terms for a farm-out participation agreement in relation to Project

continued on next page

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88 ENERGY continued from page 13

Phoenix. Under the agreement, Burgundy will fully fund up to US\$39 million of Project Phoenix's total gross future work program costs in exchange for up to an additional 50% working interest in Project Phoenix from 88 Energy, through its wholly owned subsidiary, Accumulate Energy Alaska Inc. This provides a clear funding avenue to advance Project Phoenix towards a final development decision via a two-phase farm-in arrangement.

• Phase 1: Burgundy to fund US\$29 million for CY25/26 work program, including drilling of a horizontal well and production testing scheduled for H1 CY26

• Phase 2: Upon Phase 1 success, Burgundy to fund up to US\$10 million for an additional well or other CAPEX program.



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Project Leonis

In June 2024, 88 Energy reported a maiden internal net mean prospective resource estimate of 381 million barrels of recoverable oil at the Upper Schrader Bluff formation in Project Leonis.

This followed a review of an extensive data suite that included 3D and 2D seismic data, well logs from Hemi Springs Unit-3 and Hailstorm-1, as well as nearby wells adjacent to the Project Leonis acreage, along with extensive petrophysical analysis and mapping.

The Upper Schrader Bluff formation is the same proven producing zone as nearby Polaris, Orion and West Sak oil fields to the northwest.

Subsequent reprocessing and interpretation of 3D seismic data identified a high-energy Canning formation top-of-slope turbidite sequence, with analogues in the productive Tabasco field just 23 miles to the northwest.

Encouragingly, the Tabasco field outline bears a remarkable resemblance to the Canning at Leonis, said 88 Energy.

In January 2025, the company reported a new prospective resource for the Canning with a total estimated net mean prospective resource of 283 million barrels recoverable from the formation.

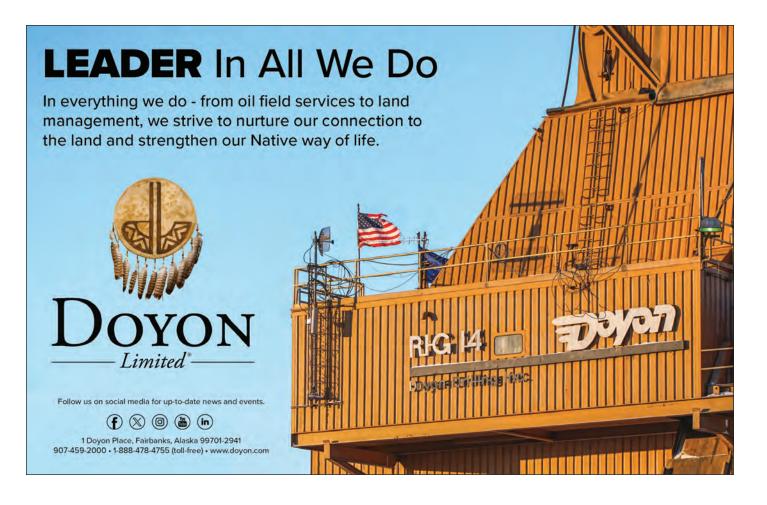
Project Leonis is now a multi-reservoir opportunity of scale with a combined internal gross mean prospective resource estimate across the Canning and Upper Schrader Bluff prospects of 798 million barrels, 88 Energy said. ●

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Key individuals on the exploration program: From left to right: Bill Armstrong, Liz Armstrong, Colby Vandenburg, Jessica Schmidt, Kevin Dorrington, Ed Teng, Nate Lowe.

Bill Armstrong doing it again!

He's repeating on the eastern North Slope what he did to the west at Pikka with the huge Brookian Nanushuk discoveries

By KAY CASHMAN

Petroleum News

agniappe is a Cajun word that loosely Itranslates into "a good unexpected surprise" - apropos for the Nanushuk play west of Prudhoe Bay on the North Slope, which Bill Armstrong and a partner first drilled and identified as a huge oil reservoir in 2013 (Qugruk 3 well).



The discovery led to the 2-plus billion-bar-

NORTH SLOPE

rel Pikka oil field, today operated and being developed by Santos.

Since that discovery, the oil industry on the North Slope has been on a tear, drilling at Horseshoe, Putu, Mitquq, Stirrup, Willow and elsewhere.

Now Armstrong is leading the charge to find Pikka-lookalikes east of Prudhoe Bay. All reports say the play concept in Armstrong's Lagniappe's acreage is very similar: Multiple zones, onshore, good gravity oil, reasonably close to infrastructure.

The targeted objectives are slightly younger than what Santos has at Pikka et al but with better reservoir qualities — porosity and permeability — even though they are somewhat deeper.

Discovery announced

On March 17 APA Corp. and its partners Lagniappe Alaska, a Bill Armstrong company and Oil Search (Alaska), a subsidiary of

NAME OF PARENT COMPANY: Armstrong Oil & Gas **COMPANY HEADQUARTERS:** 1421 Blake St., Denver, CO 80202 **TOP EXECUTIVE:** Bill Armstrong TELEPHONE: 303-623-1821



COMPANY WEBSITE: www.armstrongoilandgas.com

Santos Limited, announced preliminary results of the Sockeye-2 exploratory well on the eastern North Slope, in which Apache holds a 50% working interest and operator Lagniappe and partner Santos each hold 25%.

The Sockeye-2 well, approximately 8 miles southeast of Badami, was drilled to a depth of some 10,500 feet and successfully encountered a high-quality reservoir with approximately 25 feet of net oil pay in one blocky, Paleocene-aged sand with an average porosity of 20%. As compared to recent regional field analogues in the Brookian play, the porosity and permeability are both better than expected, with the permeability to be confirmed through an upcoming flow test, which will be done by the first of May 2025.

Additional zones of potential pay were also encountered in the shallower Staines Tongue formation.

In a March 18, 2025, interview with Petroleum News, Bill

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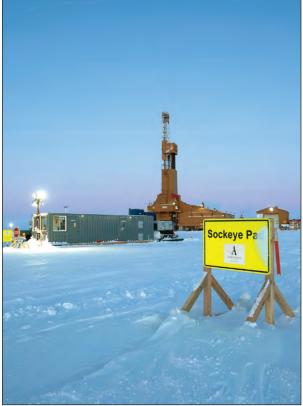
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Sockeye-2 pad on Lagniappe Alaska, LLC leasehold (an Armstrong Oil & Gas, Inc. company), some 7 miles south of Bullen Point, Eastern North Slope.

ARMSTRONG continued from page 16

Armstrong described the discovery as "Alaska-like" in that it appears to stretch under "some 30,000 acres of the 350,000 Lagniappe block but be relatively thin at 25 feet unlike big discoveries elsewhere in the world which can be hundreds of feet thick but be substantially smaller in aerial extent."

The Sockeye prospect is AVO supported across 30,000 acres, and confirms the partners' geologic and geophysical models, de-risking numerous additional prospects in the area.

Wireline logging is complete and additional data collection is underway.

"The Sockeye-2 test is the second successful exploratory well drilled by the partnership on the Lagniappe position on state lands. The first well, King Street-1, was a new field discovery with oil in two separate Brookian zones. The Sockeye-2 well further demonstrates the potential of the play, presenting an exciting opportunity in an active area of the North Slope with significant exist-

"This discovery extends the North Slope top-set play 94 miles east of our Pikka discovery. A big trend!" -Bill Armstrong

ing infrastructure," said Bill Armstrong, who is CEO of Armstrong Oil & Gas and owner and CEO of Lagniappe.

"We are very encouraged by the results at the Sockeye-2 well, which further proves our geologic and geophysical models and confirms a working hydrocarbon system. We look forward to the results of the flow test and sharing more information about the broader opportunity in Alaska," said John J. Christmann, APA Corp. CEO.

There have been very few wells drilled in and near Lagniappe's South Badami area — and most of those wells were drilled in the 1970s trying to find another Prudhoe Bay, but almost all the wells had good oil



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shows, Armstrong said.

Prior to finding all that oil in the Nanushuk formation west of Prudhoe Bay most people were saying Alaska's North Slope had very little remaining potential. The Nanushuk at Pikka changed all that.

Trap very similar

Armstrong said the Sockeye prospect was "based off of reprocessed 3D seismic. The trap is very similar to what we found at the Pikka field; a top-set stratigraphic trap. This discovery extends the North Slope top-set play 94 miles east of our Pikka discovery. A big trend!"

The ultimate size of the field still needs to be appraised, he said, "but as currently mapped it appears to be around 30,000 acres. The Sockeye field, if that's what we call it, is very Alaska-like. A good/very good oil saturated sand that covers a big area. Due to the North Slope's structural quiescence — a lack of faults, anticlines, etc. — fields can be and are commonly large in aerial extent such as

Pikka, Prudhoe Bay, Kuparuk River, Milne Point, Willow and Alpine."

The Sockeye pay, Armstrong said, "looks very similar to the pay sands at Willow and Alpine, except the permeabilities at Sockeye appear to be substantially better — maybe 10-times better. The oil is medium gravity, low viscosity, sweet oil." "We are very encouraged by the results at the Sockeye-2 well, which further proves our geologic and geophysical models and confirms a working hydrocarbon system." — John J. Christmann

Last year, Armstrong said in the March 18, 2025, interview, was a rough year for all the operators on the North Slope due to a late start to winter and then all the operational shutdowns due to high winds.

"We intended to drill three wells last year: King Street, Sockeye and Chinook (formerly known as Voodoo). Only the King Street well was drilled to TD. That well found oil in two zones.

"This year's Sockeye well replaced last year's well which didn't get through a difficult shallow drilling issue — an issue that we were able to solve this year with a few drilling adjustments.

"Our primary objective came in as mapped. We also have additional pay shallower in the well. Seismic indicates that there are multiple look-alike anomalies nearby to Sockeye. Again, very Alaska-like.

"Our biggest prospect on our Lagniappe block, Chinook, will be located and drilled once we have finalized our seismic processing," he said, referring to a new seismic shoot by SAE.

What else?

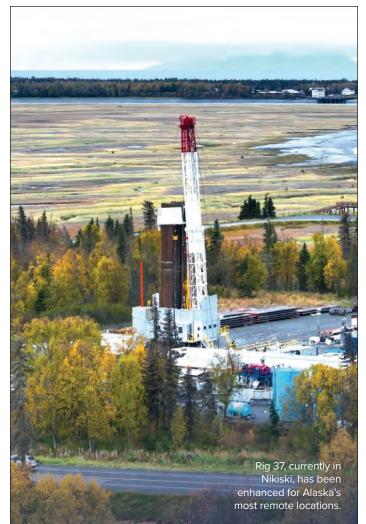
What else is Armstrong up to?

An Armstrong affiliate was recently awarded a 100% stake in a 3.5 million acre area for offshore exploration in Aruba, amidst the hot Latin America oil plays (Guyana, Suriname, Columbia).

"We are really enthusiastic about Aruba's opportunities. It is truly exciting," Armstrong said in a March 18, 2025, text to Petroleum News.

"We have two to three world class prospects that could hold super-giant reserves for oil and gas. We're finalizing the reprocessing of a 3,500 square kilometer 3D seismic shoot, and the data is showing very clear DHIs," he said. ●

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ConocoPhillips grows step by step

Once comfortable with wildcats, ConocoPhillips now stays close to home

By ERIC LIDJI For Petroleum News

In the 23 years since ConocoPhillips was created through a merger, it has pursued new oil in Alaska through wildcats, through

infrastructure-led exploration, and through

development within its units. Each of these



EREC ISAACSON

In the past five years, ConocoPhillips has increasingly favored growth at its existing

strategies presents different comfort with risk.

units over the thrill of far-flung exploration. The company drilled nine exploration wells in the 2018

NORTH SLOPE

and 2019 season (according to the definition of "exploratory" used by the Alaska

Oil and Gas Conservation Commission) and was planning a seven-well effort for the 2019-2020 season when the pandemic struck. Nothing has really been the same since.

Spooked by low oil prices and a ballot initiative to increase production taxes, the company planned no exploration for the 2020-2021 season — a rare occurrence. With the initiative defeated, the company announced in early 2021 that it was "hitting reset" by focusing on cost reduction, stakeholder engagement, and development drilling.

ConocoPhillips

COMPANY HEADOUARTERS:

Houston, Texas

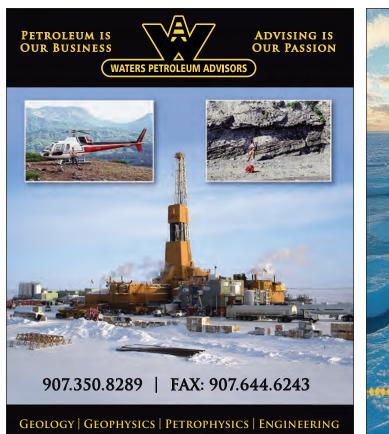


CEO: Ryan Lance ALASKA SUBSIDIARY: ConocoPhillips Alaska TOP ALASKA EXECUTIVE: Erec Isaacson, president ConocoPhillips Alaska ALASKA OFFICE: 700 G St., Ste. 1950, Anchorage, AK 99501 PHONE: 907-263-4115 COMPANY WEBSITE: www.conocophillipsalaska.com

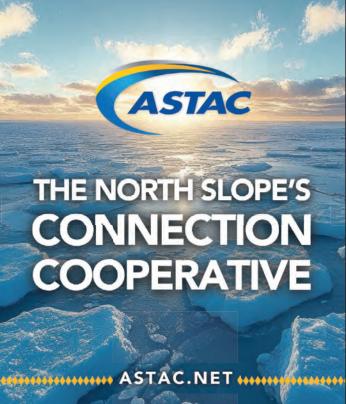
Between late 2021 and early 2023, ConocoPhillips permitted and drilled four exploration wells at the new Kuparuk River unit 3S drill site targeting the Nanushuk formation.

ConocoPhillips returned to exploration in early 2023 with the Bear No. 1 well. Given that Bear No. 1 was a Brookian topset play like Pikka, Horseshoe, Stirrup, Mitquq, and Willow, the company was expecting a "high chance of success." The well was a dry hole.

continued on page 23



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Nuna module at Drillsite 3T in the Kuparuk River Unit.

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CONOCOPHILLIPS continued from page 20

ConocoPhillips drilled the CD5-32X exploration well (also called the Fiord West Kuparuk Titan No. 1) at the Colville River unit in early 2024. The company said that the well would "evaluate subsurface data to support continued oil and gas development."

The Titan No. 1 well built upon an exploration campaign from the early 2000s that led to the Iapetus No. 1, Iapetus No. 2, and Char No. 1 wells drilled between 2005 and 2008.

Although the mid-2000s campaign was promising, development was hampered at the time by the lack of infrastructure in the area west of the Colville River. Those issues were greatly alleviated by the construction of the Nigliq Channel bridge and the CD5 drill site.

The company had yet to announce Titan No. 1 results by the first quarter of 2025.

Some of this change in strategy predates the pandemic. ConocoPhillips was promoting "infrastructure-led exploration" around its Alpine field as early as 2008, and yet the company was also taking great risks on a Chukchi Sea exploration campaign.

The Kuparuk West Sak 3D seismic survey in 2005 and especially the Western Kuparuk 3D seismic survey in 2011 also prompted ConocoPhillips to explore closer to existing developments. By late 2015, a combination of infield drilling and infrastructure-led exploration allowed the company to increase production while also reducing operational spending. It is notable that the company dropped its Chukchi Seas leases in 2016.

The shift away from traditional exploration activities doesn't mean ConocoPhillips isn't spending money or pursuing new resources. The company is responsible for four significant North Slope projects: Nuna, West Sak, Coyote, and Greater Mooses Tooth.

But given that ConocoPhillips has been the most active and consistent explorer on the North Slope in the 21st century, this continuing shift away from traditional exploration projects is a consequential moment for the entire oil patch. While it might take time to fully understand what is happening right now, everyone should be paying attention.

Kuparuk River Unit

At the Kuparuk River unit, ConocoPhillips recently commissioned the 3S and 3T drill sites to accommodate production from the Torok (Moraine) and Coyote (Nanushuk).

The construction of these drill sites prompted the company to apply for two new associated participating areas, which the state ultimately approved with some conditions.

According to information from the Alaska Oil and Gas Conservation Commission, the company had permitted 16 development and service wells at these two new drill sites and had completed 10 of these wells through the first quarter of 2025. Completed were the 3S-617, 3S-606, 3S-722, 3T-621, 3T-608, and 3T-312 injectors and the 3S-624, 3S-610, 3S-722, and 3T-603 producers. Permitted but as yet undrilled were the 3S-626, 3S-714, and 3T-730 injector wells and the 3S-602, 3T-616, and 3T-731 producer wells.

For the development year ending July 2025, the company planned to drill eight wells in the proposed Torok participating area and six in the proposed Coyote participate area.

Through the end of 2024, ConocoPhillips had produced 3.7 million barrels of oil from the Torok (Moraine) interval and 1.2 million barrels from the Coyote (Nanushuk).

continued on next page







Top: Nuna module offloaded at Oliktok dock in early August. The Oliktok dock is used for offloading sealift modules transported by barge to the North Slope. Above: The Nuna module leaves the Port of Alaska July 24, 2024.



CONOCOPHILLIPS continued from page 23

ConocoPhillips was also pursuing new viscous oil production from the West Sak and Ugnu using the existing drill sites 1C and 1H as well as two additional pads.

Colville River unit

Just as ConocoPhillips is pursuing new oil at the Kuparuk River unit by developing new drill sites, it has recently been pursuing expansion acreage at the Colville River unit.

ConocoPhillips called the prospect Titania in the early 2000s. Brooks Range Petroleum Corp. called it Tofkat in the mid-2000s. ConocoPhillips called the prospect Putu in the late 2010s and later announced a 100 million to

350 million barrel Nanushuk discovery at Narwhal. With that announcement, the state created work commitments for the company.

ConocoPhillips is currently at a transitional moment at the Narwhal participating area.

ConocoPhillips installed the CD4X3 pad expansion in 2022, allowing According to a timeline included in its most recent plan of development, ConocoPhillips could begin stakeholder work through an Environmental Impact Statement as early as this year with first production from Narwhal scheduled to begin no sooner than 2030.

for a five-well program in 2023 into the expansion acreage at the southern tip of the Colville River unit. The company plans to drill another four wells over the course of this year and next year.

The company completed the Narwhal 3D seismic survey in 2019 and 2020 and processed the data in 2021 and 2022. It subsequently acquired and processed a 2022 survey by SAExploration. It recently finished reprocessing those surveys through an integration effort called the "Narwhal Merge" and is now using that data for upcoming drilling.

The longer-term development plan calls for a new CD-8 pad in the expansion acreage.

According to a timeline included in its most recent plan of development, ConocoPhillips could begin stakeholder work through an Environmental Impact Statement as early as this year with first production from Narwhal scheduled to begin no sooner than 2030.

Greater Mooses Tooth unit

The Nigliq Channel bridge to CD-5 allowed ConocoPhillips to pursue more exploration and development of acreage within the National Petroleum Reserve-Alaska.

ConocoPhillips operates two units in the reserve: Greater Mooses Tooth and Bear Tooth.

The Greater Mooses Tooth unit produces from two reservoirs: Lookout and Rendezvous.

ConocoPhillips brought Lookout online from the GMT-1 pad in 2018 and Rendezvous online from the GMT-2 pad in 2021. GMT-2 averaged 14,000 barrels per day in 2024.

Following an exploration campaign, the company began pursuing the large Willow discovery at the Bear Tooth unit in 2018 and sanctioned the \$7.5 billion project in late 2023. The company is currently looking to develop some 600 million barrels of recoverable oil, estimated to start in 2029 and peak at around 180,000 barrels per day. ●

Contact Eric Lidji at ericlidji@mac.com

Glacier/Savant evaluating targets

Planning another Badami exploration well; East Pad construction on track to begin summer 2026

By KAY CASHMAN

Petroleum News

S avant Alaska, a Glacier Oil & Gas company, drilled the B1-33 Killian well from the Badami Main Pad during the 2023-2024 winter drilling season as part of the Kennicott exploration program.



DAVID PASCAL

The well also penetrated Badami sands and was the first exploration well in the eastern North Slope Badami unit since the B1-07 well in early 2018.

The latest Badami annual plan of development, the 22nd, which

NORTH SLOPE

runs from July 16, 2025, through July 15, 2026, was filed on March 27, 2025, by Savant as unit operator. It was signed by David Pascal

Chief Operating Officer David Pascal.

This POD builds on the momentum established during the previous year with the successful execution of the Kennicott exploration program and the resulting Steller prospect.

Glacier is evaluating targets for another Killian exploration well from the Badami Main Pad, intending to drill it during the 2025-2026 ice road season into a new Killian reservoir sand.

This well is expected to prove-up the extensive Killian play beyond the participating area, or PA, at Badami.

New drill targets

Glacier has continued to vet-out recently identified drill targets in the Badami and Killian sands which can be drilled from both the Badami Main Pad and the proposed Badami East Pad.

Additionally, the company has updated seismic inversion processing of seismic data to de-risk prospects and optimize well placement.

As of March 27, Glacier has three drill-ready objectives (Steller A, Steller B, and Tana) that are obtainable from the Badami Main Pad.

During the 22nd POD period Glacier will conduct pressure-temperature, or PT, surveys on B 1-33 and B 1-07 to determine fluid level, reservoir pressure, and reservoir mobility.

This data will guide strategies for optimizing production and well performance

East Pad

Glacier has determined that prospectivity beyond the existing PA is sufficient to merit development of the proposed Badami East Pad, which will be integral to full Killian development.

Construction of the new pad is anticipated to begin in the summer of 2026.

The Badami Main Pad houses the processing facilities, and the proposed Badami East Pad will serve as a satellite location and tie into the Badami Main Pad, gathering production from new wells drilled from the Badami East Pad.

Outside the PA

Glacier has continued to refine, characterize, and de-risk the prospects related to the Killian sands outside of the PA by incorpo-

Glacier Oil & Gas Corp.

ALASKA OFFICE: 188 W Northern Lights Blvd., Ste. 510, Anchorage, Alaska 99503 PHONE: 907-868-1258 CHIEF OPERATING OFFICER IN ALASKA: David Pascal WEBSITE: www.glacieroil.com

Badami Unit Production				
Date	Produced Oil (bbls)	Produced Gas (MCF)	Produced Water (Bbls	
Jan-23	15580	10886	1029	
Feb-23	14106	10305	434	
Mar-23	15653	13585	426	
Apr-23	15150	8675	384	
May-23	17974	10003	610	
Jun-23	31215	17107	718	
Jul-23	30483	17536	433	
Aug-23	29275	18359	297	
Sep-23	27091	16460	301	
Oct-23	29106	18452	456	
Nov-23	27528	15971	402	
Dec-23	27899	16661	1134	
2023 Total	281060	174000	6624	
Jan-24	26865	16202	249	
Feb-24	24959	15532	207	
Mar-24	26167	16930	145	
Apr-24	22551	10854	228	
May-24	26753	12392	281	
Jun-24	25190	11819	146	
Jul-24	25862	15665	224	
Aug-24	25346	17517	57	
Sep-24	77011	38404	37	
Oct-24	118085	54603	28	
Nov-24	97696	41027	27	
Dec-24	84558	50635	97	
2024 Total	581043	301580	1726	
Jan-25	72600	48193	86	

rating subsurface technical data from the Kennicott drilling program. This geological evaluation of reservoirs outside of the PA has led to the successful acquisition of 11,899 acres since 2021 which contain prospective exploration leads.

The company will continue geological and geophysical, or G&G, evaluation of the 11,899 acres, including the most recent acquisition of 2,512 acres in 2024.

This includes 1,280 acres to the south of the unit, 2,560 acres to the west, and 8,059 acres to the north.

Glacier conducted preliminary G&G evaluation of the newly acquired acreage by mapping key seismic horizons, tying into existing well logs, and identifying prospective targets.

The company continues to be engaged in well and facility maintenance, optimization, and looking at options to enhance production. This includes gas lift optimization and paraffin scraping as BI-33 came online.

Additionally, maintenance and repair on rotating equipment and upgrades to the emergency power generation equipment were performed. \bullet

Contact Kay Cashman at publisher@petroleumnews.com



Great Bear Pantheon stays the course

Joint venture has become a reliable presence on the North Slope in recent years

99501

By ERIC LIDJI For Petroleum News

There are no overnight successes in the Alaska oil industry. Even if an exploration well yields monster results, it only begins the long process of permitting, development, and delivery required to get the resources from underground reservoirs to the marketplace.

Alaska and especially its rugged and isolated North Slope has long favored and sometimes even rewarded — companies willing to endure this slog for season after season.

In that regard, Great Bear Pantheon has been paying its dues.

The company arrived in Alaska some 15 years ago with a radically ambitious plan



PAT GALVIN

NORTH SLOPE

to bring Lower 48 style source rock development to the massive North Slope petroleum systems. Setting aside any geological considerations, the project would have required major adjustments throughout the entire Alaska oil industry and its regulatory structure.

Great Bear

After a few years, the company pivoted. It would now use conventional oil production in the short term to de-risk and then to finance a larger unconventional project in the future.

Through a partnership with Pantheon Resources plc, the new Great Bear Pantheon joint venture has been pursuing that new strategy for the past decade, becoming a consistent presence on the North Slope exploration calendar in the late 2010s and early 2020s.

Megrez

Great Bear Pantheon LLC

COMPANY HEADQUARTERS:

TELEPHONE: 907-868-8070

310 K St., Ste. 200, Anchorage, AK

TOP ALASKA EXECUTIVE: Patrick Galvin,

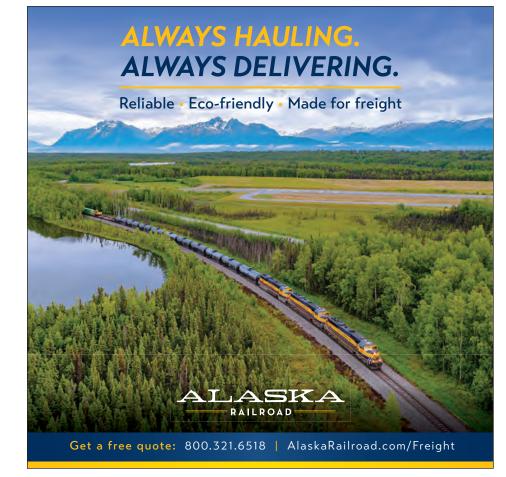
chief commercial officer & general counsel

Great Bear Pantheon spud the Megrez No. 1 well in November 2024 using Nabors 105AC rig. The exploration well targeted "three topset horizons which Pantheon estimates to contain an aggregate 2U prospective resource of 609 million barrels of ANS crude (oil, condensate and NGLs) and 3.3 trillion cubic feet of natural gas."

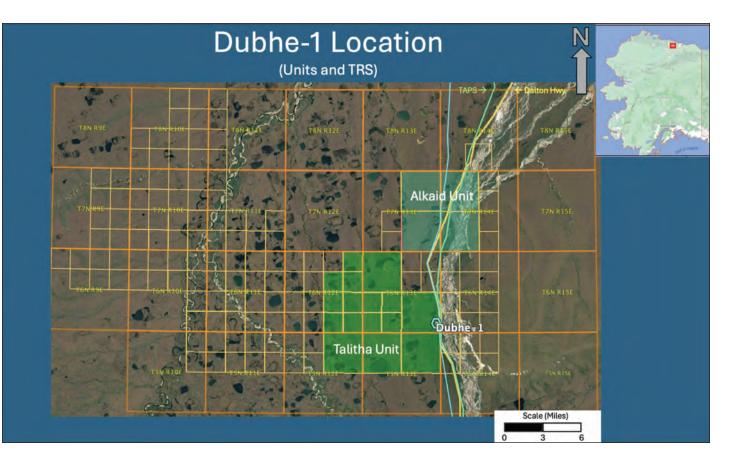
Megrez No. 1 was drilled at a 45-degree angle to penetrate multiple horizons and to guide the design of future long laterals with multi-stage completions in deeper horizons.

In an announcement in early March 2025, Pantheon Resources said that early results from Megrez No. 1 indicated "seven discrete interpreted pay zones, with flow testing of the shallowest six to commence before the end of March 2025" and last four months.

Those six zones, from deepest to shallowest, are the Upper Schrader Bluff Topset 1, the Prince Creek (lower), the Prince Creek (upper), the Lower Sagavanirktok 3,



26 The Explorers



the Lower Sagavanirktok 2, and Lower Sagavanirktok 1. Testing of each interval was projected to last approximately two weeks with the full testing program lasting as long as four months.

The three shallower Lower Sagavanirktok zones were not preliminary targets and were not included in the original resource estimate for the project but were added to the pending flow test program based upon promising results from logs and cuttings to date.

The company will not flow test the deepest and smallest horizon — the Upper Schrader Bluff Topset 3. "Full cores were taken over this horizon and flow testing from a single stage treatment in this wellbore would provide little additional data at this location."

The company expects to require hydraulic stimulation for the deeper zones and suggested that it could face delays based on securing pumping equipment on the North Slope, according to the company. The shallower horizons "are not expected to require the same degree of stimulation and are less susceptible to scheduling constraints."

The announcement did not provide flow rates but provided "potential" flow rates based on "analyses of analogous offsets." The company designed its flow test to "prioritize data quality rather than seeking to maximize initial flow rates in order to accentuate the understanding of the reservoirs to optimize future appraisal and development."

"Successful flow tests in the deeper zones would demonstrate their suitability to incorporate additional future 10,000-foot lateral completions of wells from the Megrez Pad into the overall Ahpun development plan, utilizing the same processing infrastructure to deliver higher economic returns," Pantheon Resources CEO Max Easley said in a statement in early March 2025. "Anticipated results from the shallower horizons would, if successful, support a truly conventional development, analogous to the Pikka and Willow fields (i.e. utilizing secondary and tertiary recovery techniques)." The flow test program would be financed through a \$35 million convertible bond issuance, led by Sun Hung Kai & Co. Ltd., expected to close before the end of March.

The company also said that it is moving toward a future U.S. stock listing.

Talitha and Theta West

Great Bear Pantheon drilled the Talitha A well in 2021, encountering oil in five oil horizons. The company proposed but never pursued an associated Talitha B well.

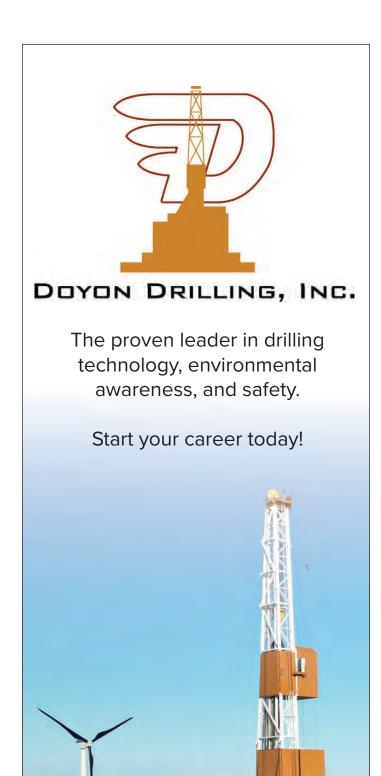
Instead, Great Bear Pantheon drilled the Theta West No. 1 well in late January 2022 as a step out from Talitha A to confirm details about the well and the associated reservoir.

Theta West was a top discovery worldwide in 2022, according to Wood Mackenzie. "In fact, it was the largest onshore discovery last year," then-Pantheon CEO Jay Cheatham said in June 2023. "It was

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GREAT BEAR PANTHEON continued from page 27

in the top five, but the largest onshore and the only one in a tax royalty regime; all the others are in deep water production sharing contracts offshore."

In early April 2025, the state Division of Oil and Gas issued a public notice for a proposed Dubhe No. 1 exploration well at the Talitha unit. Great Bear Pantheon would build a new gravel pad 1,500 feet west of the Dalton Highway, some 27 miles south of Deadhorse.

Gravel work would begin May 15, drilling between July and October 2025, and then flow testing. The company would "conduct sufficient production testing to determine the long-term production potential of the reservoir, including initial production rate and decline curve profile, expected to be 60-90 days, but may need to extend to up to 6-months."

In early April 2025, the state Division of Oil and Gas issued a public notice for a proposed Dubhe No. 1 exploration well at the Talitha unit. Great Bear Pantheon would build a new gravel pad 1,500 feet west of the Dalton Highway, some 27 miles south of Deadhorse.

History

Great Bear Petroleum LLC arrived in Alaska in 2010 with

a plan to develop the source rock underlying the massive North Slope petroleum system. A new strategy in 2015 called for using conventional production to finance future unconventional development.

A partnership with British independent Pantheon Resources plc created the joint venture Great Bear Pantheon. The joint venture has been pursuing three prospects: Greater Alkaid, Talitha and Theta West. As part of efforts to streamline administrative burden, these three prospects were later consolidated into the Kodiak and Ahpun fields.

These prospects are located in the central North Slope, south of Prudhoe Bay, near the Dalton Highway, providing year-round access that is unavailable to most explorers.

Great Bear Pantheon completed three exploration wells at the Talitha and Theta prospects in April 2022 and two more at the Alkaid prospect between August and October 2022.

Great Bear drilled the Alkaid No. 1 well in early 2015. Great Bear Pantheon re-entered the well in early 2019 to flow test it. The company subsequently combined Alkaid with the nearby Phecda prospect into a single project called the Greater Alkaid prospect.

The coronavirus pandemic and subsequent crash in global oil prices prevented Great Bear Pantheon from bringing the field online in summer 2020, as initially planned. The joint venture returned in summer 2022 with the Alkaid No. 2 well, a horizontal appraisal well. The well came online in December 2022. Great Bear Pantheon re-entered Alkaid No. 2 well in late 2023 to learn more about the down-hole characteristics of the well.

Great Bear Pantheon entered into a Gas Sales Precedent Agreement with the Alaska Gasline Development Corp. in June 2024. Under the agreement, Pantheon would provide up to 500 million cubic feet of gas to Southcentral Alaska as the sole supplier of a future natural gas pipeline "on terms that provide funding capacity to support all of Pantheon's expected development costs after Ahpun Field Final Investment Decision." ●

Contact Eric Lidji at ericlidji@mac.com

Hilcorp mixing areas of exploration

Looking for more gas on Kenai, with seismic planned; has plans to drill two Interior exploration wells in partnership with Doyon

By KRISTEN NELSON Petroleum News

Hilcorp's focus, nationally and in Alaska, is on maximizing production from mature fields.

In Cook Inlet, where the company began acquiring assets in 2011, this has meant expanding from existing production. The same is true on the North Slope, where the company began working in 2014 and became a major player in 2020.



LUKE SAUGIER

But this year the company plans to drill in an undeveloped area where it has been doing preparatory work — Yukon Flats in Interior Alaska.

History

Hilcorp came to Alaska in 2011, focused on existing mature oil and gas fields in Cook Inlet which it purchased from Chevron/Union Oil Company of California. It later acquired Cook Inlet assets from Marathon Oil and ConocoPhillips Alaska. In 2014 the company expanded to the North Slope, acquiring BP Exploration (Alaska)'s interests in Endicott and Northstar, and half of BP's

Hilcorp Energy Co.

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COOK INLET, INTERIOR

working interest in Milne Point. In 2020, Hilcorp acquired BP's remaining interests in Alaska, including BP's share of Prudhoe Bay, and became operator of the Prudhoe Bay field, and in the process the state's largest oil and gas producer.

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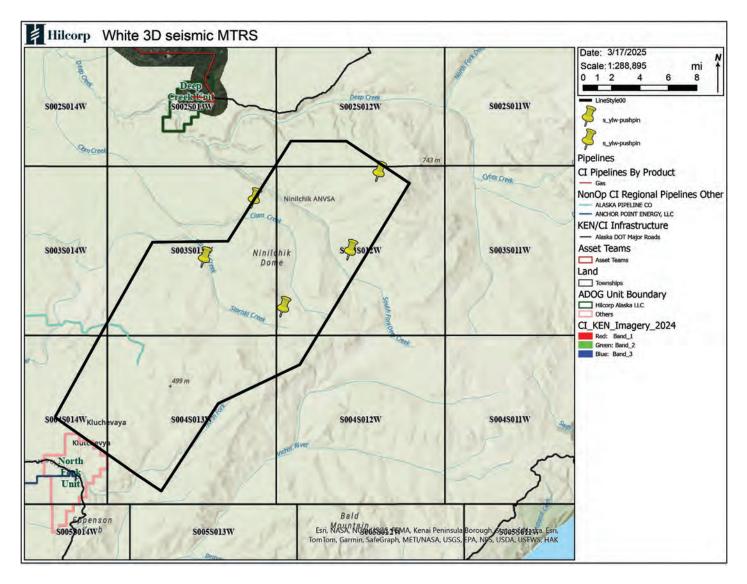
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HILCORP continued from page 29

Founded in 1989, Houston-based Hilcorp is currently "the largest privately owned oil and natural gas producer in the country," the company says on its website, employing almost 3,000 people in the nine states where it operates. Exploration is not Hilcorp's focus. Describing itself the company says it "acquires conventional oil and gas assets and optimizes them by leveraging our teams' operational expertise, modern technology, and innovation, along with an equal commitment to safety and environmental responsibility."



Hilcorp and Doyon

The Yukon Flats exploration wells Hilcorp plans to drill this summer are on subsurface owned by Doyon Ltd. from surface land owned by Tihteet' Aii, the Native corporation for the village of Birch Creek. Hilcorp has had an oil and gas exploration agreement with Doyon, the Native regional corporation in the area, since 2019, and conducted an aerial gravity survey of the entire Yukon Flats basin in 2019, identifying an area of interest in the Birch Creek area and drilling 13 shallow stratigraphic test wells in 2021, a number of those near the company's proposed exploration drilling area.

On its website Doyon notes that the corporation's "early leaders, in partnership with Beaver, Birch Creek, Chalkyitsik, Circle and Fort Yukon leaders, focused on allocating 400,000 acres of Doyon's land entitlement within the Yukon Flats region for oil and gas potential that had been identified in the 1970s."

The 2019 agreement with Hilcorp, Doyon

said, was for exploration on 1.6 million acres with roughly 3%, less than 60,000 acres, selected by Hilcorp for continued exploration in 2024.

The corporation said Hilcorp plans to confine future activity to an area focused on Birch Creek, currently less than 5 acres across two project sites and a staging area. Doyon said any further work by Hilcorp would require re-engagement between Doyon and Hilcorp.

The corporation said it "has worked with Hilcorp to ensure no limitations on subsistence activities near the project sites."

Yukon Flats

Yukon Flats is some 11.1 million acres of lowland around the Yukon River between the trans-Alaska oil pipeline and the Canadian border, much of it in the Yukon Flats National Wildlife Refuge, although Doyon owns some subsurface blocks and village Native corporations such as Tihteet' Aii own some surface land.

There are several fairly deep sub-basins with relatively high temperatures which could be conducive to oil and gas formation. A U.S. Geological Survey assessment done in 2004 suggested a range of zero to almost 600 million barrels of technically recoverable oil in the basin, with a mean of some 173 million barrels. The zero at the bottom of the range reflects that to date there has been no demonstration of recoverable oil in the basin. Natural gas resources could range from zero to almost 15 trillion cubic feet.

Petrotechnical Resources of Alaska did an assessment and said there could be an oil field on the scale of Alpine somewhere in the basin.

Doyon said in 2011 that seismic surveying indicated a sub-basin at Birch Creek with structures that could have trapped oil and gas.

Hilcorp did an aerial survey of the entire basin in 2020 and expressed an interest in the Birch Hill area, moving forward initially with stratigraphic test wells and now with planned exploration wells.

2025 plans

In its application to the Alaska Department of Environmental Conservation for an Oil Discharge Prevention and Contingency Plan for Yukon Flats Exploration, dated Sept. 20, 2024, Hilcorp said drilling operations were planned for sites 4A and 6A, both on private land owned by Doyon Ltd. and Tihteet'Aii some 30 miles southwest of Fort Yukon.

Access to sites will be by helicopter from the Birch Creek base camp or by barge or skiff, depending on conditions, with a smaller river barge from Birch Creek Village used if necessary to access the sites.

Birch Creek is some 10 miles from site 4A and some 15 miles from site 6A.

The company said sites 4A and 6A are cleared and leveled with helicopter landing zones in clearings near the sites. Rig mats will be used for stable working and transport surfaces, with spill conexes on-site and at staging areas during drilling operations.

Doyon said March 20 that a five-person crew was scheduled to depart from Circle via snow machines to Birch Creek before the end of the month to remove strainers and sweepers — fallen trees and debris obstructing the waterway — accessible from ice, to facilitate a smoother river breakup and improve waterway conditions.

The corporation said Hilcorp had overwintered a barge in Birch Creek in close proximity to the project sites, enabling operational efficiency in the spring and beyond when planned development of the two drill sites begins.

Cook Inlet

While the majority of Hilcorp's Alaska production is now from the North Slope, it is

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HILCORP continued from page 31

still the largest producer in Cook Inlet — of both oil and gas — with Cook Inlet oil sold to the Marathon Petroleum Kenai refinery and natural gas sold to utilities for both power production and heating in Southcentral Alaska.

Hilcorp has worked steadily to expand production from its Milne Point field on the North Slope, but its work in that field has been in line with the company's traditional focus on applying its expertise to existing fields.

In Cook Inlet, however, Hilcorp has worked to find new gas accumulations in the basin, shooting seismic and drilling stratigraphic test wells south along the coast from its existing Ninilchik unit to the Anchor Point area.

Seismic shot in 2024 included some 46 miles of 2D between Clam Gulch and Anchor Point and some 60.2 miles of 2D in what Hilcorp called the Southern Kenai transition zone seismic — offshore, onshore and tidal zones — from Ninilchik to Anchor Point.

Beginning in 2017, Hilcorp drilled stratigraphic test wells on the southern portion of the peninsula, five in that year, followed by four in 2019, eight in 2020, 16 in 2022 and 17 in 2024. None are so far scheduled for 2025.

An exploration well, Cottonfield 6, was drilled in early 2024 onshore west of the Cosmopolitan unit north of Anchor Point.

North Fork

The company applied to the Alaska Department of Natural Resources' Division of Oil and Gas in March to shoot 3D seismic on the Kenai Peninsula, described as the White 3D, covering some 69 square miles from the northeastern border of the North Fork unit, which Hilcorp is in the process of acquiring from Vision Resources, to east of Hilcorp's Deep Creek unit. A lease ownership map posted by the division in February shows a handful of leases in the survey area held by Hilcorp with a considerable portion of the area unleased.

The Hilcorp North Fork purchase includes the North Fork Pipeline which carries the unit's gas with purchase conditional on conversion of how the pipeline is authorized. An application to the Regulatory Commission of Alaska for that conversion requests an expedited decision. The sale is anticipated to close by May 1 and a commission decision is requested by April 15, the application says, allowing Hilcorp to explore at North Fork by year end.

West side of Cook Inlet

Hilcorp plans two wells on the west side of Cook Inlet described as exploration/delineation wells at an existing unit, Pretty Creek, north of the Beluga River unit in the vicinity of the Ivan River and Lewis River units. The company said the Sterling and Beluga formations are the main objectives with Tyonek a possible secondary objective and bottomhole locations potentially "outside of the existing unit boundary."

The wells require a new pad, the company said in its most recent plan of development for Pretty Creek, a small gas field which has produced intermittently from a single well in recent years.

The Diamond Pad will be in the northern part of the unit, northeast of the existing Pretty Creek Pad. Work on the new pad was scheduled to begin in April, with pipeline and operational facilities installation June through August, followed by mobilization of the drilling rig and drilling to begin in September. ●

> Contact Kristen Nelson at knelson@petroleumnews.com



Jade gaining ground at Sourdough

Opstad making progress at far eastern North Slope project which holds BP's two 1990s oil discovery wells, Sourdough 2 and 3

By KAY CASHMAN Petroleum News

Going back in history, Area F was created more than a decade ago as part of the Point Thomson unit settlement talks between the state of Alaska and the Point Thomson unit working interest owners. They brought together 7,647 acres of non-contiguous leases in the northeast and southeast corners of the Point Thomson unit. Jade Energy's Sour-



ERIK OPSTAD

dough project targets the southeastern leases, known as Tract 32, in which Jade has a 100% working interest.

NORTH SLOPE

Jade's acreage holds BP's two mid-1990s oil discovery wells, Sourdough 2 and 3. BP drilled the 12,562-foot Sour-

dough No. 2 well in March 1994 and the 12,475-foot Sourdough 3 well in March 1996.

In 1997 BP estimated the prospect held 100 million barrels of recoverable oil.

But BP never pursued development because at the time there was no pipeline near the Sourdough prospect, which borders the 1002 Area of the Arctic National Wildlife Refuge.

One hundred million barrels of oil did not justify the cost of a pipeline and related facilities.

The Point Thomson project had yet to be developed.

That has since changed, with the Point Thomson field in production and a pipeline connecting the PTU and the Badami unit to the west.

Advancing understanding

Erik Opstad's Jade Sourdough project has steadily been gaining ground since the initial 3D seismic survey covering the Sourdough prospect (Yukon 3D data set), that was conducted by Jade stakeholders in 2018.

Jade has demonstrated a continuous record of ongoing technical and field work to advance understanding of the high pressure reservoir and requirements for its potential development, spending approximately \$20 million through the end of 2023.

Everything changes

The Alaska Department of Natural Resources and its Division of Oil and Gas were clearly supportive of Opstad and Jade's efforts to drill an exploration/appraisal well into BP's Sourdough discovery until Dec. 21, 2022.

Then everything changed, putting the entire project in limbo and jeopardizing investment.

Jade filed its fifth plan of development for ADL 343112 Area F, Tract 32, in the eastern North Slope's Point Thomson unit with the Division of Oil and Gas on Nov. 1, 2022. The POD period ran from Jan. 1 through Dec. 31, 2023.

The conditions placed on Jade's fifth plan of development by the division were as follows (note the conditions did not identify ways to cure a default should circumstances justify a delay):

Jade Energy LLC

COMPANY HEADQUARTERS: P.O. Box 112212, Anchorage, Alaska 99511 TOP ALASKA EXECUTIVE: Erik Opstad TELEPHONE: 907-244-5210 EMAIL: Erik.Opstad@Gmail.com



 * On or before July 1, 2023, Jade had to provide evidence that it had funding for the well it intended to drill in Q1/Q2 of 2024.

* On or before Sept. 1, 2023, Jade also had to provide to the division a rig contract for that well.

Investors spooked

In its Nov. 1, 2022, fifth POD filing, Jade said that in the "last few weeks" investors who had suspended interest in Sourdough development due to things such as the Biden administration's opposition to oil and gas development, had once again expressed interest in the project.

continued on next page



JADE ENERGY continued from page 33

But the default conditions were seen by the investor community as the actions of a hostile agency.

For example. an attorney for a large Alaska Native corporation tasked with looking at the Sourdough project called the division's terms of the fifth POD approval "conditions of extortion."

When the DNR commissioner ruled against his request for reconsideration on the fifth POD, Opstad could have gone to court, but he elected not to, hoping that he could still work out things with the division.

He is currently waiting on a reconsideration for a similar decision on the sixth POD.

Most recently, per the division, on Sept. 30, 2024, it received the proposed 2025 Point Thomson unit Area F seventh POD from Jade.

The division notified Jade by email on Oct. 10, 2024, that the POD submittal was deemed complete, noting that "Jade provided a technical review" to the division on Nov. 20.

"Since, however, Jade is currently in default for failing to comply with the terms and conditions of the 5th POD, and the Commissioner's Office is reviewing Jade's request for reconsideration of the 2024 6th POD Decision, the proposed 2025 7th POD is held in abeyance pending resolution of the default and reconsideration request," wrote Derek Nottingham, division director.

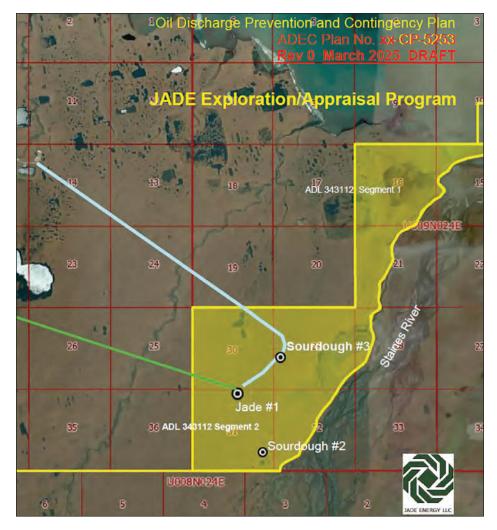
March 2025 update

In a March 30, 2025, interview with Petroleum News, Opstad said Jade "continues to work on various elements of the program that the owners hope will lead to development of the Sourdough reserves and other potential Brookian development opportunities in the Point Thomson unit."

Since its discovery Sourdough reserves have intrigued a generation of explorers. Area reserves have been confirmed by numerous seismic surveys, including the 2018 3D survey conducted by Jade and its partner and initially processed by ConocoPhillips using a proprietary methodology.

Given the positive reserve profile, Opstad said in his interview with Petroleum News that Jade selected an initial well location some 4 miles east of the Point Thomson unit airfield that "more-or-less splits the difference between the SD2 and SD3 discovery wells."

He said Jade 1 will test a deeper target



suggested by recent seismic data. This target was not previously penetrated by the original field discovery wells.

Following this appraisal work, Jade intends to plug back allowing the well to be completed in one of several primary reservoir sands as a lateral production well. Based on the BP well test results from SD3, Jade expects the well to produce at a rate better than 5,000 barrels of oil per day.

Re-enter SD3

To double the initial production impact, Jade will swing north to re-enter the currently suspended SD3 well. A production well completion like Jade 1 is planned in the previously tested SD3 reservoir, Opstad said.

Permits and operation plans are largely in hand. He said Jade has submitted a renewal plan for its 5-year Oil Discharge Prevention and Contingency Plan 19-CP-5253. "Equipment and expendables are under accumulation," Opstad said.

Not yet viable

Coordination with Jade stakeholders

plus state and federal agencies and the North Slope Borough is ongoing, but several material obstacles remain before operation can commence, Opstad said.

With its permitting and operational framework in place, plus the availability of nearby PTU infrastructure, including an export pipeline, it's hard to imagine how profitable development wouldn't be a slam-dunk!

Unfortunately, this is where historical events come into play.

Years ago, when the Sourdough area was posted for a state competitive lease sale there was a sense that oil prices were headed to the moon. Not wanting to miss participation in any such windfall, the state allowed operators to incentivize their bids by adding a Net Profit Share component to their bids.

In this case the bidder could add a share of its net profit to the already mandated tax and royalty burden.

However, the price of oil did not shoot to the moon, but rather, except for the odd transitory high or low spike, the price of Alaska North Slope crude has tracked along a middle of the road path in inflation adjusted terms.

As a practical matter what that means for Jade is that the Sourdough lease (ADL 343112) is saddled with a 40% take of project net profits by the state of Alaska, making Sourdough development uneconomic.

As recently pointed out by the Alaska Industrial Development and Export Authority, or AIDEA, this situation is further aggravated by the fact that there are four other Net Profit Share Leases that unreasonably burden any PTU Brookian development scenario.

"Sourdough economic models using a wide range of scenarios have been run dozens of times by Jade, Jade partners, independent third parties and even by the state of Alaska itself. None of these have produced a viable commercial plan when saddled with the NPSL burden," Opstad said.

Given current circumstances, Sourdough development is simply not viable. The "NPSL problem" is acknowledged by the state as a North Slope wide issue that has been partially addressed for specific properties at various times, by various administrations using a variative of tactics.

"Clearly it is in the interest of all stakeholders to land on an economically viable development scenario, particularly since full development of the PTU Brookian is expected to require an investment of more than \$1 billion," Opstad said.

Legislation

In that regard, the 32nd Legislature passed House Bill 81 sponsored by the House Rules Committee as requested by Alaska Gov. Mike Dunleavy. That Bill focused on allowing DNR to modify royalty or net profit share terms of an oil or gas lease to fit the unique commercial issues associated with each property. This was precisely what was needed to solve the NPSL problem, Opstad said.

Unfortunately, although passed by the House, the legislation got stuck in the Senate Finance Committee and never reached the governor's desk for signature.

In recent months Jade has discussed Sourdough development matters with DNR leadership on several occasions. These talks have been cordial and constructive but have not revealed a solution to the issues at hand.

Although DNR has been granted broad authority to address similar matters by a series of sitting legislative bodies, in this case, DNR feels that legislative action is required to adequately address the issues raised.

"The challenge is that the budget expenditures for next year are looking to exceed revenue, which is not the best time to be asking for what essentially is a tax break, even though the state hasn't made a penny of revenue from the property in more than three decades precisely because the prospect is overtaxed," Opstad said.

Path forward

For now, the path forward for Jade will focus on work to resubmit House Bill 81 or similar language to the next legislative session and educating stakeholders as to why the approval of such legislation would benefit all parties.

"There is always the possibility of a 'grand bargain' emerging that could deliver a commercial development scenario by some other convoluted path," Opstad said.

Perhaps the Trump administration will put together a deal? •

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5

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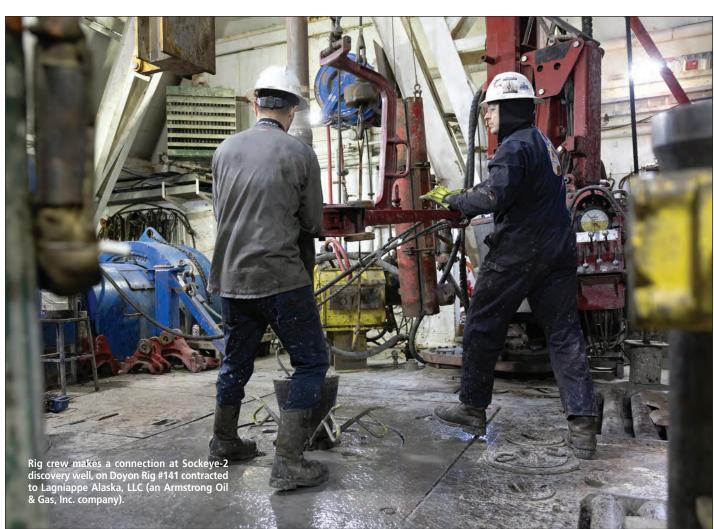
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G-M

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