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page AIDEA's Weitzner criticizes federalresource efforts as anti-development

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Hilcorp: commingling for more Prudhoe production, well restarts

Prudhoe Bay is Alaska's largest oil field and it is mature, long past its peak production. Making the most of the remaining resource is a continuing challenge, and one that Hilcorp North Slope took up in mid-2020 when it took over from BP Exploration (Alaska) as the field's operator.

One approach Hilcorp is continuing is commingling injection between the various oil pools at Prudhoe.

In a recent application the company made to the Alaska Oil and Gas Conservation Commission it requested permission to commingle injection fluids on a pool wide basis for the Prudhoe oil pool, Polaris oil pool, Orion oil pool and Aurora oil pool.

Aurora, Orion and Polaris, along with Borealis, are satellite fields on the western side of Prudhoe.

see **PRUDHOE PRODUCTION** page 9

Fried: Alaska economy slow to recover from COVID pandemic

There has been talk that the national economy will recover from the pandemic recession in 2022, Neal Fried, senior economist with the Alaska Department of Labor and Workforce Development, told the Resource Development Council's 2021 annual conference Nov. 17.



While the national economy may not fully recovery in 2022, it will get pretty close to it, but that's not going to happen in Alaska, Fried said.

Looking at the last three years in Alaska, 2019 was the first

see ALASKA ECONOMY page 10

Whitmer, Enbridge battle on; Trudeau raises issue at summit

Faced with losing her legal fight to effectively drive Calgarybased Enbridge out of Michigan, state Gov. Gretchen Whitmer is turning her efforts to crippling the pipeline company by seeking alternative domestic propane supplies to serve a large portion of her state.

Whitmer's spearheading of a battle to end the 68-year life of Line 5, which delivers 90% of the propane consumed in a wide region of Michigan, as well as providing vital feedstock to refineries in Ontario and Quebec, was dealt another setback in mid-November when a U.S. District Court judge dismissed Whitmer's effort to send the future of Line 5 to state court.

EXPLORATION & PRODUCTION

GMT2 being tested

ConocoPhillips says early results from first well are very encouraging

By ALAN BAILEY

For Petroleum News

ConocoPhillips has initiated a production test Oon its first production well in its Greater Mooses Tooth 2 development in the National Petroleum Reserve-Alaska, Vincent Lelarge, North Slope development manager, ConocoPhillips Alaska, told the Resource Development Council's annual resources conference on Nov. 17. The company is confident that first oil will be produced from the development later this year, he said.

"We have initiated a production test on our first producer three days ago and early results are really, really encouraging," Lelarge said. "The subsurface, the geology, the reservoir properties are at or better than expectations."

The GMT2 development is ConocoPhillips' second major development within the Greater Mooses Tooth unit and has involved three seasons of construction to build gravel roads, a 14-acre pad and nearly 15-miles of pipeline, together with the installation of production facilities. The development was completed ahead of schedule and involved more than 600,000 construction manhours with an excellent safety performance, Lelarge said.

"We're really, really proud of the teams, the service companies, the employees that have contributed to this success," he said.

see GMT2 TESTING page 8

EXPLORATION & PRODUCTION

A successful 10 years

Hilcorp explains how it has improved field performance since coming to Alaska

By ALAN BAILEY

For Petroleum News

During a talk to the Resource Development Council's annual conference on Nov. 17 Jill Fisk, Hilcorp Alaska senior asset team leader for Prudhoe Bay west, recounted her company's success in safely re-invigorating oil and gas fields in the Cook Inlet region and on the North Slope since the company arrived in Alaska in 2011.

"Hilcorp is proud of our achievements during our first 10 years in Alaska and looks forward to many more decades to come," Fisk said. "Future success across all of our operations will be achieved through our Hilcorp culture and values, and our strong relationships with our many partners in the vendor and contractor community in Alaska."

After initially entering the oil and gas industry in the Cook Inlet, the company acquired interests on the North Slope and now operates several major fields on the Slope, including the huge Prudhoe Bay field. The company is in the process of taking over operatorship from ExxonMobil of the Point Thomson field in the eastern North Slope — the transition in operatorship is scheduled for around Jan. 1.

With about 1,500 employees, 75% of them Alaska residents, Hilcorp is now the largest field operator in Alaska, based on operated oil and gas

Judge Janet Neff ruled that the case is "properly in Federal Court," closing off one avenue for Whitmer to continue her

see LINE 5 BATTLE page 10

Changing channel: Calgary wants clean energy investment, net zero

The economic outlook for Calgary, the city that for decades reveled in its role as the home base for Canada's petroleum industry, along with far-flung global operations, has been dominated in the last six years by a ballooning vacancy rate in its forest of downtown skyscrapers.

By the latest count, the empty space totals 15 million square feet or 34%.

That has been accompanied by signs of an exodus by those under the age of 30, disillusioned with their job prospects in the oil and gas sector, which has shrunk the industry's Canadian payroll by an estimated 100,000-plus since 2015 as companies have slashed capital budgets and been pummeled by a federal government that seems bent on destroying the oil sands sector.

see CALGARY OUTLOOK page 7

A drop in the bucket

Oil prices jump after White House announces drawdown on strategic reserves

By STEVE SUTHERLIN

Petroleum News

The Alaska North Slope crude price jumped Nov. 23, gaining \$2.11 to close at \$82.52 per barrel. West Texas Intermediate gained \$1.75 to close at \$78.50 and Brent gained \$2.61 to close at \$82.31.

The increase was the largest in two weeks, coming as the Biden Administration announced a 50 million barrel drawdown of the Strategic Petroleum Reserve in an attempt to lower oil prices. Analysts suggested that the market had been pricing in the possibility of a larger draw on the reserve. If China steps up its purchases on the spot market, ANS crude prices would likely be supported as the Asian nation snaps up Pacific crude cargoes that may have otherwise competed with ANS on West Coast markets.

The release of reserves will be taken in parallel with other major energy consuming nations, including China, India, Japan, Republic of Korea and the United Kingdom, the White House said in

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GOVERNMENT

AIDEA questions fed resource policies

Weitzner says that discouraging Alaska development encroaches on state rights and opens door for imported oil and critical minerals

By ALAN BAILEY

For Petroleum News

lan Weitzner, executive director of the Alaska AIndustrial Development and Export Authority, told the Resource Development Council's annual resources conference on Nov. 17 that he is concerned about federal government actions that limit possibilities for developing natural resources, in particular oil, gas and critical minerals, in the state.

"We're seeing encroachment on those rights for Alaska's access to its resources and development of those resources," Weitzner said, commenting that Alaska was established as a resource state.



ALAN WEITZNER the eventual aim of assuring economic

value for the state while earning returns from its investments. The agency bought leases in last January's Arctic National Wildlife Refuge oil and gas lease sale but has been prohibited by the Bureau of Land Management from conducting any work to progress exploration on the leases. And the BLM is slowing the federal approval of a planned access road to the Ambler mining district east of Kotzebue, Weitzner said. The mining district is known to hold critical

minerals that are used in renewable energy technologies and other new technologies, he said.

Weitzner said that the United States seems to be intent on outsourcing supplies of oil, gas and critical minerals to other countries, while Alaska presents a safe and secure domestic source.

"We don't understand why those policies are actually put in place," Weitzner. said, commenting that resource extraction also provides good paying jobs in Alaska.

The Alaska Native Claims Settlement Act transferred resource rights to Alaska Native corporations. And the Alaska National Interest Lands Conservation Act moved 100 million acres of federal land into conservation areas in exchange for allowing access for resource development on remaining federal lands, Weitzner said. ANILCA also established the 1002 coastal plain area of ANWR, with the potential for future oil and gas development there. Legislation passed by Congress in 2017 required two oil and gas lease sales to be held in the 1002 area — hence the January sale.

Under an executive order for a review of the ANWR lease sale program, all lease related activities have been placed on hold. Weitzner said that AIDEA does not believe that the suspension has any validity.

"So we have 10-year leases that have been signed by the BLM, certified by the Department of the Interior, that have exclusive rights of development on 365,775 acres in the non-wilderness area," Weitzner said.

On Nov. 4 AIDEA filed a legal complaint in federal

District Court in Alaska against President Joe Biden and officials in the Department of the Interior over the ANWR lease constraints. DOI had not responded to a question regarding what statutes or regulations the agency is relying on for its action, Weitzner said.

"We believe they have violated several areas of the statehood compact," he said.

Weitzner said that the AIDEA board will be reviewing the 1002 area leasing situation during its Dec. 1 meeting and would welcome public comments.

The Ambler Access Project involves the potential construction of a 211-mile road, west from the Dalton Highway to the Ambler mining district. The road is in the final field feasibility stage, but BLM is re-opening some of the assessments in the record of decision for the project, Weitzner said.

"We're very confused why this would be directed, particularly given the fact that there's been federal policy that's been announced about really generating new sources for critical and strategic minerals," he said.

Weitzner also said that AIDEA is taking a leadership position in supporting proposed state legislation from Gov. Mike Dunleavy to establish an Alaska Energy Independence Fund, to help with the funding of sustainable energy projects in the state.

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• EXPLORATION & PRODUCTION Division OKs POE, PODs, POD amendment

By KRISTEN NELSON

Petroleum News

The Alaska Department of Natural Resources' Division of Oil and Gas has approved two unit plans of development, an amendment for a third POD and a plan of exploration.

Milne Point unit

On Nov. 17 the division approved Hilcorp Alaska's 2022 POD for the Milne Point unit on the North Slope, covering Jan. 13, 2022, through Jan. 12, 2023.

The Milne Point unit was formed in 1979, the division said, and includes some 50,000 acres. It has been operated by Hilcorp since 2014. In 2020 Hilcorp acquired BP Exploration (Alaska)'s working interest and is now the sole working interest owner.

From September 2020 through August 2021, some 6,931 million cubic feet of natural gas and 12,895,000 barrels of oil were produced, an average of 35,329 bpd compared to 31,592 bpd for September 2019 through August 2020, an increase of 3,737 bpd, 12%, the division said.

Hilcorp proposed to drill as many as 17 wells and workover up to 20 wells during the 2021 POD, a plan amended in February 2021 to add five wells, 11 workovers and a coil tubing drilling program of seven wells.

"At present," the division said, "Hilcorp has drilled 12 wells in the Schrader Bluff formation. Additional wells were deferred because of equipment availability and desire to observe production results."

The division said 12 workovers have been completed and five coil tubing wells have been drilled. "Significant facility improvements were made to increase and maintain production."

For the 2022 POD, the division said Hilcorp's plans include drilling as many as 17 new wells in the Schrader Bluff formation and six coil tubing sidetracks, with workovers to be done as need to maintain production and significant facility improvements planned.

Pikka unit

On Nov. 17 the division also approved Oil Search (Alaska)'s 2022 POD for its Pikka unit.

The Pikka unit was formed in 2015 and expanded in November 2016 to include a total of 77,744 acres on both state of Alaska leases and leases jointly owned by the Arctic Slope Regional Corp. and the state.

The DNR commissioner approved an extension of the Pikka unit term until June 1, 2025, in 2020. "OSA and previous operators have drilled a number of exploration and delineation wells within and around the unit area as well as constructed roads, pads, and bridges to enable future unit development," the division said.

During the 2021 POD period, Oil Search continued to work toward future development with minor civil work, and front-end engineering and design was conducted.

The division said a final investment decision was planned for late 2021 or 2022 but had not been made when the 2022 POD was submitted.

During the 2022 POD Oil Search expects to make a final investment decision and will continued engineering and permitting for an expected 2023 drilling and construction season.

Kuparuk POD amendment

The division approved an amendment to the Kuparuk River unit POD on Nov. 17.

The 2021-22 KRU POD was approved in July for Aug. 1, 2021, through July 31, 2022.

In submitting the amendment in September, ConocoPhillips said it is to satisfy requirements of the 12th expansion of the KRU in 2019. The amendment updates the company's "understanding of the Torok (Moraine) formation and 2022 proposed drilling plans for the Nuna Expansion Area lands."

In its amendment approval the division said the 2019 expansion was done "to include the tested but undeveloped resource within the Torok (Moraine) Formation."

ConocoPhillips said during the plan of exploration peri-

od for the Torok (Moraine) it monitored two existing horizontal producer/injector pairs at DS-3S "to understand long-term deliverability and waterflood performance of the reservoir." The wells have performed "at or above expectations for total liquid rate and have continued to demonstrate pressure support from water injection operations."

Based on the performance of the existing pair, a new well pair is planned to spud in April 2022, the company said.

It said seismic data obtained in connection with its acquisition of the Nuna Expansion Area lands are in the final stages of reprocessing. "As part of this project these data have been merged and reprocessed with legacy datasets to provide a high quality, full coverage dataset over the Nuna lands and surrounding area."

The Torok (Moraine) reservoir development plan will be included in the annual POD for Kuparuk going forward, the company said.

It also noted submission to the division of a confidential area update for the Coyote reservoir, which according to a map the company used in a presentation earlier in the year lies immediately east of Nuna on the western side of Kuparuk.

West Harrison Bay approval

On Nov. 18 the division approved a 2021 plan of exploration amendment/second plan of exploration for the West Harrison Bay unit.

The unit operator is Shell Offshore Inc., and the application for an extension of the POE through December 2022 said the purpose of the extension was "to finalize commercial arrangements with other prospective project participants and designate a new Unit Operator."

The proposed second POE would allow the new operator until the end of the 2023-24 winter drilling season to complete the first of two proposed wells required under the August 2020 unit agreement, with a new unit operator focusing on the Nanushuk formation as the primary target

see UNIT PLANS page 7

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a Nov. 23 statement.

"This culminates weeks of consultations with countries around the world, and we are already seeing the effect of this work on oil prices," the White House said. "Over the last several weeks as reports of this work became public, oil prices are down nearly 10%."

Republican lawmakers said the SPR should not be tapped to offset bad policy.

"This is reckless; we must ensure the reserve is fully stocked and ready for true emergencies," Rep. Don Young R-Alaska said in a Nov. 23 statement.

"Very frankly, we did not need to get to this point, and we are only here because the Administration has stifled American resource exploration and hamstrung our hardworking energy labor force at every turn," Young said. "This is not a crisis necessitating a dip into our strategic oil reserves; rather, this is an emergency created purely by political malfeasance and broken promises."

What will OPEC+ do?

On Nov. 22, oil prices began a rally on the possibility that the Organization of the Petroleum Exporting Countries and its allied producing nations might decide at its Dec. 2 meeting to respond to reserve releases by trimming the size of a 400,000 barrel per day production increase planned for December.

ANS rose 87 cents Nov. 22 to close at \$80.41, WTI rose 65 cents to close at \$76.75, and Brent rose 81 cents to close at \$79.70.

OPEC has not commented publicly on the inventory draws, but remarks by OPEC Secretary General, HE Mohammad Sanusi Barkindo at the Nov. 23 meeting of the OPEC Economic Commission Board indicated that the OPEC+ group would be proactive in response to new developments in the market.

"At the last Meeting on 4 November, (Declaration of Cooperation) partners reaffirmed their ongoing commitment to ensuring a stable and balanced oil market in the interests of producers and consumers, and in support of the ongoing global economic recovery," Barkindo said, "They furthermore vowed to stay flexible, vigilant, proactive and transparent in addressing the large uncertainties and adapting nimbly to the current complex and ever-evolving market environment."

Even if OPEC+ does not react, the power of strategic reserve draws to moderate prices is limited, and temporary. The U.S. release of 50 million barrels is enough to satisfy about one half of one day's global oil demand. The entire U.S. SPR contains some 600 million barrels, enough to satisfy one month of domestic demand.

China may benefit most

China has not yet announced the size of its corresponding withdrawal from its strategic reserves.

The country does not regularly publish the size of its crude reserves, but the National Bureau of Statistics said in 2017 that the national reserve, including some corporate stocks, stood at 280.7 million barrels by mid-2017. China is widely believed to have stockpiled a significant amount of crude oil when prices plunged in March and April 2020.

Wang Yongzhong, senior energy researcher with the Chinese Academy of Social Sciences, estimated that China's crude reserve is equivalent to around 40-50 days of its imports, still far below the 90-day criteria set by the International Energy Administration, according to a Nov. 23 report in the South China Morning Post.

China bought 4.06 billion barrels of oil in 2020, a year-on-year increase of 7.3%. In 2020, it imported 73% of the oil it consumed.

So far during the pandemic, China appears to have stepped up its crude purchases when prices have fallen. If it remains true to form, the country may step up its crude buying if any significant price reductions are achieved from drawdowns of strategic reserves, making it rather than U.S. consumers the chief beneficiary of the exercise.

Alaska stands to benefit if China swoops in to take advantage of bargains that the extra crude on the market may bring.

If China steps up its purchases on the spot market, ANS crude prices would likely be supported as the Asian nation snaps up Pacific crude cargoes that may have otherwise competed with ANS on West Coast markets.

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volumes, Fisk said. The company operates more than 1,700 producing wells in the state, with gross production of about 345,000 barrels of oil per day and about 150 million cubic feet per day of gas, she said.

Hilcorp manages and operates its various Alaska assets using a team structure, with one team dealing with its Southcentral assets while other teams deal with groups of fields on the North Slope.

Core values

Fisk attributed her company's success to its corporate core values, with its policy of empowering employees while underpinning everything with high levels of safety.

"At the heart of these values is the belief that, by empowering our employees and fostering an entrepreneurial mindset, even the most ambitious goals can be met or exceeded. And we firmly believe that our success with a wide variety of assets in Alaska is living proof of these core values at work," she said.

Fisk commented that the COVID pandemic has presented a unique safety challenge for the company's workforce.

"Throughout the pandemic Hilcorp has maintained focus on both delivering our business goals and working with our employees, to adjust to the everchanging COVID situation, doing what was needed to keep our workforce both safe and productive throughout the pandemic," she said.

Cook Inlet region

Hilcorp's Southcentral team, while operating some oil fields, is particularly focused on developing and producing Cook Inlet natural gas supplies. This year the company brought its new Seaview gas field in the southern Kenai Peninsula online. And the company plans to drill soon at its nearby Whiskey Gulch gas development.

Much activity in the Cook Inlet region continues to revolve around the repair, recompletion and servicing of wells, both offshore and onshore — Hilcorp operates one rig full time for onshore drilling and one offshore rig, together with multiple workover rigs and a coiled tubing unit, Fisk said. The company also has to handle the challenge of maintaining the integrity of a very large amount of infrastructure in a difficult operating environment. For example, the Southcentral team is forming a plan for replacing a pipeline for the Middle Ground Shoal field, to return that field to service, Fisk commented.

North Slope

Hilcorp feels particularly proud of its achievements in the Milne Point and Prudhoe Bay fields on the North Slope.

At Milne Point the successful implementation of polymer injection, to improve the production of the relatively viscous oil in the Schrader Bluff formation, has proven to be a particular highlight. While the pilot project for polymer injection was supported by the Department of Energy, success with this project has motivated Hilcorp to extend the use of the technique.

"The Department of Energy polymer trial at Milne Point is now over three years old and delivering world class results," Fisk said. "Hilcorp has taken these learnings from the pilot and now has three additional polymer projects being implemented at Milne Point. ... Hilcorp was the first company to bring this technology to the very challenging operating environment of the North Slope and is on track to deliver one of the best polymer floods in the world, as far as current results go."

The pilot project economically produced 630,000 barrels of oil more than what normal waterflood would have produced, she said.

In addition to the use of polymer injection, Hilcorp has drilled dozens of horizontal wells with lateral extents of more than 10,000 feet to further develop the Schrader Bluff reservoir at Milne Point, Fisk said. The result has been production rates from the field not seen for decades, she added.

At Milne Point Hilcorp has also been constructing on-pad oil and water separation facilities that can reduce the load on the field's central processing facility. That, in turn, allows increases in production rates. The company has also seen significant cost savings from the use of jet pumps in wells for artificial lift and plans to expand the use of this technique over the next few years, Fisk said.

see HILCORP PERFORMANCE page 6

EXPLORATION & PRODUCTION

Baker Hughes US rig count up by 7 to 563

For the week ending Nov. 19, the Baker Hughes U.S. rotary drilling rig count was 563, up by seven rigs from the preceding week and an increase of 253 from 310 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.

Baker Hughes shows Alaska with six rigs active Nov. 19, unchanged from the previous week and up by three from a year ago, when the state's rig count stood at three.

The Nov. 19 count includes 461 rigs targeting oil, up seven from the previous week and up 230 from 231 a year ago, with 102 rigs targeting gas, unchanged from the previous week and up 26 from 76 a year ago, and no miscellaneous rigs, unchanged from one the previous week and down by three from a year ago.

Thirty-six of the rigs reported Nov. 19 were drilling directional wells, 506 were drilling horizontal wells and 22 were drilling vertical wells.

Alaska rig count unchanged

Texas (271) was up seven rigs from the previous week.

New Mexico (83) was up by two rigs and West Virginia (11) was up by a single rig.

Ohio (10) was down two rigs from the previous week.

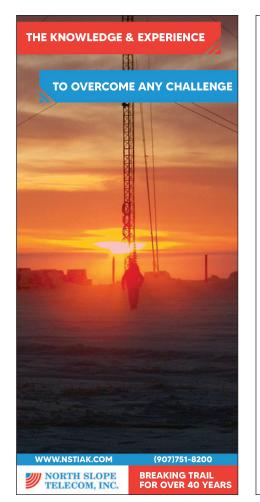
Rig counts in all other states were unchanged week over week: Alaska (6), California (10), Colorado (12), Louisiana (49), North Dakota (23), Oklahoma (44), Pennsylvania (18), Utah (9) and Wyoming (15).

Baker Hughes shows Alaska with six rigs active Nov. 19, unchanged from the previous week and up by three from a year ago, when the state's rig count stood at three.

The rig count in the Permian, the most active basin in the country, was up by six from the previous week at 278 and up by 122 from 156 a year ago.

-KRISTEN NELSON







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Prudhoe Bay

Since taking over as operator of Prudhoe Bay in July 2020, Hilcorp has halted what had been a 4% per year decline in the field's production capacity, Fisk said, adding that this has been achieved without drilling new wells or executing any major projects.

"This achievement is due to hundreds of projects executed all across the field by hundreds of people all working towards the same goal," Fisk said.

Hilcorp has three focus areas at Prudhoe: increasing well rates; improving the efficiency and reliability of the facilities; and reducing costs through improved efficiency.

Improving well rates has involved bringing more of the existing wells online, through well repairs and other actions. Major facility repairs have returned a Lisburne well pad to production, while the debottlenecking of a pad brought multiple wells drilled from that pad back online. There is now a record number of operational wells in the western Prudhoe satellites, Fisk said.

Oil production at Prudhoe is also constrained by the ability of the field facilities to handle the water and gas that is cycled around from production to injection wells. By increasing daily average water rates by 200,000 barrels per day, Hilcorp has been able to add 10,000 barrels of oil to daily production, Fisk said. Similarly, an increase in gas rates of 500 million cubic feet per day has added another 5,000 barrels per day of oil production, she said.

Reservoir pressure is also critical to production rates. Fisk said that, to push up the reservoir pressure at Prudhoe, Hilcorp has increased the gas cap water injection, so that sustained reservoir pressure has added 1,000 barrels of oil to daily production, with the possibility of

EXPLORATION & PRODUCTION

Division OKs Cook Inlet Energy restarts

The Alaska Department of Natural Resources' Division of Oil and Gas has approved, effective retroactively, plan of operation amendments by Cook Inlet Energy, a Glacier Oil and Gas company, to restart production at its two Cook Inlet fields, Redoubt and West McArthur River.

The division said CIE began preparations to restart production at the units in July.

At the Redoubt unit, production was resumed in September, at the West McArthur River unit in November.

Requests to resume oil and gas production activities at the two units were approved by the division in July.

Prior to resuming operations, the company did inspections and safety testing, the division said, "including wireline work, mechanical integrity testing on wells and pipelines, and extensive testing of both downhole equipment and surface infrastructure." CIE also obtained approvals from the Alaska Department of Environmental Conservation, the Alaska Oil and Gas Conservation Commission and the U.S. Environmental Protection Agency.

Production at the fields was suspended in May 2020 due to unfavorable economic conditions, David Pascal, chief operating officer at Glacier, told the division in the company's July notification of restart for Redoubt.

Redoubt and West McArthur River were in warm standby from May to October 2020 and then went into cold standby status in October 2020.

The division said that prior to resuming production, "CIE inspected all necessary pipelines, facilities, modules, camps, and transitioned them from cold stack back to normal operations," with power provided by diesel generators prior to gas turbines being available.

Redoubt produces from the Osprey Platform in Cook Inlet, West McArthur River from onshore on the west side.

GEOLOG

-KRISTEN NELSON

further pressure and production increases in the future.

Returning equipment into service

In terms of facility efficiency and reliability, Hilcorp has improved the facility up-time rate from 85% to 94%, a performance improvement that equates to additional oil production of about 6 million barrels for this year, Fisk said. Much of the improvements have resulted from returning to service out-of-service equipment, some of which has not seen use for a decade or more, she said. In particular, bringing more equipment into use adds redundancy to a plant, preventing interruptions when equipment has to go down while also adding to the capacity of the plant to handle more gas and water. For example, bringing all of the cooling fans into operation in several plants has improved gas handling capacity, Fisk commented.

In addition to maintenance and repair activities, Hilcorp's integrity program has been focusing on the effective monitoring of equipment and pipelines. For example, the company is implementing external and internal crawler equipment that can inspect every inch of a pipeline, rather than doing spot checks, Fisk said. Another major focus is the upgrade of the high voltage power distribution system, to prevent power outages and the resulting equipment down time, she said.

Reducing costs through improved efficiency involves seeking efficiency opportunities, while also introducing new vendors, with competition for vendor services.

"However, we do recognize that reducing costs alone is not a path to success," Fisk said. "The purpose of diligent cost control is to generate free cash flow at Prudhoe Bay that can then be reinvested back into the field for the types of maintenance, repairs and growth projects that I've been highlighting. ... We're here to grow for decades to come, investing in safe and reliable operations at Prudhoe Bay."

Schrader Bluff

Fisk also commented that in September Hilcorp began a new drilling program in the Schrader Bluff formation in the western satellites of the Prudhoe Bay unit. The company had already increased Schrader Bluff production as a result of the increased injection of water and miscible injectant, in conjunction

-

with well workovers, recompletions and repairs. However, this first new well into the Schrader Bluff has also resulted in a production increase.

"We expect to hit a record Schrader Bluff oil rate and well count by year end, with much growth to come in the coming years," Fisk said.

Fisk also commented that, having previous conducted a polymer injection test in the Schrader Bluff at Prudhoe, Hilcorp is planning a pilot project to evaluate the use of polymer flooding, following success with the technique at Milne Point. The Schrader Bluff reservoir at Prudhoe is the same as the reservoir where polymer flood is being used at Milne Point, she said.

Hilcorp's Prudhoe Bay drilling plan for 2022 involves the use of a rotary rig, initially focused on Schrader Bluff development before moving to other opportunities in the unit. Hilcorp also plans to run a coiled tubing unit through most of 2022, to execute sidetrack drilling opportunities, Fisk said.

Hilcorp has also seen success from the use of well work and facility optimization projects to reduce production decline rates in the Northstar and Endicott fields.

"Hilcorp's safe, economic and environmentally responsible operation of Northstar and Endicott have added millions of barrels of reserves, and added decades of life to these fields," Fisk said.

Commitment to communities

Fisk also commented on Hilcorp's commitment to Alaska communities through its charitable giving program. In line with its philosophy of empowering its employees, the company administers the program and donates matching funds while having employees make individual decisions over which charities to donate to through the program.

"Our belief is that nobody knows better how those dollars can best be put to work than the employees themselves that live and work in those communities," Fisk said.

And Fisk expressed Hilcorp's pride in its track record in Alaska.

"Alaska has clearly been a big win for Hilcorp, but we also believe our success in Alaska is a big win for Alaska and the people that live here," she said. \bullet

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continued from page 1 CALGARY OUTLOOK

But all that has changed — though no one in authority will predict for how long with a stunning rebound in oil and natural gas prices, accompanied by the first glimmerings of hope for a fast-growing hightech sector that has attracted pledges in the past month of C\$7 billion in upfront investment.

Plans for city

Mayor Jyoti Gondek has wasted no time rolling out plans in the month since she was elected to rescue Calgary from its economic funk.

While warning that the city should not expect an "easy road out" of its difficulties, she has won her council's approval by a vote of 13-2 to declare a "climate emergency" for Calgary — a variation of similar versions adopted by scores of North American cities.

The declaration gives bureaucracies in municipal governments the go ahead to develop plans for tackling climate change, while drafting budgets to achieve net-zero carbon emissions by 2050.

Gondek and her allies on council view the declaration as proof that Calgary is ready to step forward with a strong environmental policy to solidify its position as an energy and climate leader that can overcome its image as a fossil fuel town and attract the investment needed to spur a transition to cleaner energy forms.

"Future (energy) investment is trending towards energy transition, not reinvestment in existing technology," said the majority of council.

"As civic leaders, we are acting to align our goals with energy leaders who are set on embracing our economic and environmental prosperity."

Other key players

The initiative has been spurred on by most key players in the petroleum industry and other opinion-shapers, such as Deborah Yedlin, who took the reins as president and CEO of the Calgary Chamber of Commerce in July.

"We have to change the channel on Calgary," Yedlin said on taking office. "We need to invest in the economy of tomorrow and make sure we have access to markets and make sure our businesses are competitive."

She said Calgary has an opportunity to draw on its wealth of talent to become "the Silicon Valley for energy transition technologies," adding "there is a lot of money on the sidelines looking to invest in the energy transformation."

Prior to the debate on the "climate emer-

gency," Gondek met with the bulk of energy leaders from companies such as Suncor Energy, Shell, Enbridge, Imperial Oil, TC Energy and Canada's Oil Sands Innovation Alliance.

Industry commitment

Explorers and Producers Association of Canada President Tristen Goodman said the bulk of oil and gas companies have long since made commitments to pursue net-zero goals.

"We know we have an emissions problem and we have to show to Canadians, along with our own investors, that we do treat this issue seriously," he said.

Avatar Innovations CEO Kevin Krausert welcomed moves by Gondek to strengthen ties between municipal leaders and the energy sector.

"Calgary stands at an important crossroads," he said. "The energy transition is the single greatest economic opportunity facing Calgary. We're literally talking about rewiring and repowering the world."

Cost C\$2 trillion

The cost of transitioning Canada to netzero has been pegged at C\$2 trillion over the next 30 years by the Royal Bank of Canada, RBC, the country's largest financial institution.

John Stackhouse, a bank senior vice president, said that "daunting number" is manageable when it's broken down to C\$60 billion to C\$80 billion a year, much less than Canada's spending on health care or what is planned for childcare.

A report by the RBC said the oil sands sector is expected to remain the industry's key emissions driver even if it achieves targets to lower carbon dioxide output from 70 million metric tons in 2020 to 46 million mt in 2030 and possibly 30 million mt "with extensive carbon abatement."

The bank said the cost of emissions reductions in the oil sands is projected to be C\$5.5 billion a year, noting that it has committed C\$500 billion to sustainable financing. The Canadian Institute for Climate Choices said "the transition is coming irrespective of decisions" by the federal and provincial governments and will be driven by factors outside of Canada's control with more than 880,000 Canadian jobs at risk unless "we prepare ourselves for a shift that is making its way to our shores no matter what."

Worker transitions

The TD Bank warned early this year that up to 450,000 of 600,000 Canadians employed directly or indirectly in oil and gas could lose their jobs as governments pursue aggressive climate targets.

The bank warned that plans must be developed for worker transitions, otherwise society could face displacement similar to that of the U.S. and Canadian manufacturing sectors in the 1990s and early 2000s when automation and technology changes led to a decline in manual work.

Francis Fong, a TD senior economist, said it's dangerous to assume that displaced oil and gas workers will find new jobs in the clean-energy sector, given the skills needed for those jobs and the fact that energy derived from renewables won't be tied to the location of natural deposits of fossil fuels.

A symbol of the changes that are needed is taking place in a building that once housed the headquarters of Suncor and is now being revamped into a new Energy Transition Center that will include offices for an accelerator program where startup companies try to figure out how to decarbonize the world, underscoring the city's efforts to diversify from fossil fuel production.

Yedlin called the project a "profound shift" in the energy sector that "is going to evolve with the need to decarbonize. I don't think anybody should underestimate how important this is. Major players are at the table and that's absolutely critical to be successful."

Gondek shares the view of the latest annual survey of citizen satisfaction in Calgary that found 76% of citizens believe Calgary is on the right track to being a better place to live 10 years from now.

"While recovery is clearly going to be slow and steady, it also gives us opportunities to plan and imagine and perform with more foresight than some of the boom and bust cycles that we've become accustomed to. We must take action to ensure that Calgary is in a position to succeed."

-GARY PARK

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continued from page 3 **UNIT PLANS**

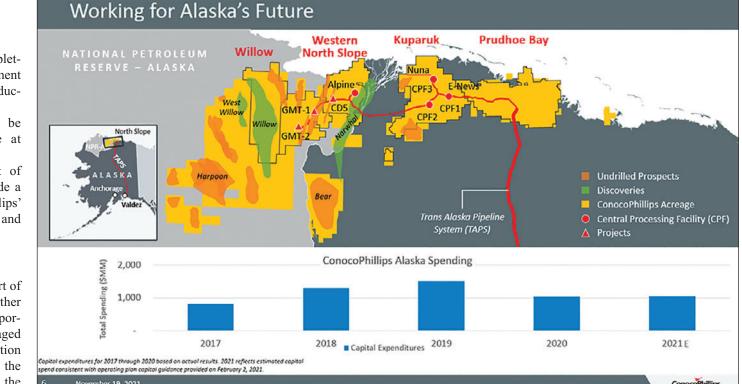
rather than the Torok formation as previously required, and also eliminate a requirement in the unit agreement that the unit operator acquire additional seismic over the "flex wave" area by the end of September 2022.

Upon evaluation of drilling completed in the 2023-24 and 2024-25 drilling seasons, the new operator would submit either a further POE for the West Harrison Bay unit or a POD by no later than the end of the year 2025.

The division said the approval was only for a general plan of exploration with specific field operations requiring separate approvals. ●

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CONOCOPHILLIPS ALASKA



ConocoPhillips has an extensive array of core assets, development projects and exploration opportunities on Alaska's North Slope. The company has been investing around \$1 billion per year in the state.

"The portfolio of development opportunities is really deep ... and ... probably deeper than it's ever been on the North Slope," Lelarge said. At the same time, with crude oil prices rebounding after the doldrums of the onset of the COVID pandemic, ConocoPhillips oil production in Alaska

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is on track for meeting production targets, with year-to-date production of nearly 200,000 barrels per day. That has resulted in the payment of nearly \$1 billion in taxes and royalties to the state and federal governments. And the company is also on track for capital investments amounting to about \$1 billion in Alaska this year, Lelarge said.

The company's safety incident rate remains very low, although it did increase a little relative to 2020, given the uptick in activity on the Slope in 2021

"Safety is the number one priority for ConocoPhillips," Lelarge said.

The Alpine hub

The GMT2 production will be fed into processing facilities at ConocoPhillips' Alpine field in the Colville River delta area. Alpine, which went into production in 2000, was originally built as a standalone development with just two drill sites and an expected recovery of about 400 million barrels of oil. Since then the field has become a hub for further development, with the addition of more drill sites and the expansion of development into NPR-A. ConocoPhillips has now produced 600 million barrels of oil through the Alpine facilities and estimates another 600 million barrels of additional production in the future, Lelarge said.

For example, the company has brought in a massive extended reach drilling rig, to drill from the Alpine CD2 pad, targeting the Fiord West oil field, northwest of Alpine. The rig is currently drilling a well with a maximum length of 36,000 feet and the expectation is to have wells in this development program over 40,000 feet in length.

continued from page 1 GMT2 TESTING

ConocoPhillips is currently completing the fourth well for the development — that will become the second production well out of a 36-well program.

"So clearly we'll continue to be drilling for many years to come at GMT2," Lelarge said.

GMT2 comes at an investment of more than \$1 billion that will provide a significant component of ConocoPhillips' North Slope oil production in 2022 and beyond, he said.

A broad portfolio

The GMT2 development forms part of a broad portfolio of oil fields, together with exploration and development opportunities, that ConocoPhillips is engaged with on Alaska's North Slope. In addition to the company's core assets such as the Kuparuk River and Alpine fields, the company is actively seeking and pursuing new opportunities. Some opportunities are in a drilling execution phase, others are being appraised and others are being matured before final investment decisions, Lelarge said.



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"We're making good progress and we're expecting to reach first oil ... some time in 2022," Lelarge said.

Another project connecting to Alpine is the Narwhal development in the Nanushuk formation — ConocoPhillips anticipates first Narwhal production this year at drill site CD4, with a new drill site, CD8, to be added later this decade.

And drilling from CD5 over the years has been a particular success at Alpine, demonstrating excellent collaboration between ConocoPhillips and vendors to implement new technology: This drill site holds most of the records in Alaska and a couple of North American records for the longest lateral wells or the longest total drill length, Lelarge said.

The history of Alpine demonstrates the power of large oil fields on the North

see GMT2 TESTING page 11

continued from page 1 PRUDHOE PRODUCTION

In a notice of the filing the commission said Hilcorp requested amendment of existing area injection orders and a conservation order "to allow the commingling of injected water and miscible injectant between the Prudhoe and Polaris Oil Pools, Prudhoe and Orion Oil Pools, and the Polaris and Aurora Oil Pools."

The commission said it isn't uncommon for a well to encounter multiple pools and what typically happens is that the operator will produce from or inject into the deepest pool until the oil has been depleted or the injection has swept the available oil, then plug off that pool and move up in the well, repeating until all pools are depleted or swept.

But if one or more of the pools doesn't warrant production or injection on its own or there are other reasons to allow commingling, the operator can apply to the commission for an order approving downhole commingling. The commission then reviews the application "to assure waste will not occur and all owners receive their share of the production."

Commingling for injection isn't a new approach at Prudhoe. The commission said injection commingling is already authorized between the Prudhoe oil pool and the Aurora and Borealis oil pools.

In its application Hilcorp said the commingling "will not promote waste, cause damage, or jeopardize correlative rights."

The volumes injected can be properly allocated, the company said, and said the proposed changes are based on "sound engineering and geoscience principles, and will not result in fluid movement outside of the authorized injection zones."

Hilcorp provided examples of proposed commingling.

For the Polaris and Aurora pools, Hilcorp said wells drilled for the Aurora oil pool frequently penetrate the Polaris pool in an ideal location for water alternating gas, WAG, injection. "To accelerate oil production and reduce waste, many AOP wells should be converted into commingled AOP and POP WAG injectors.'

The company said the Polaris oil pool is a very immature WAG flood, relying on water displacement and miscible injectant enhanced oil recovery to produce oil "due to low system compressibility." Additional water injection in Polaris is "extremely valuable," Hilcorp said.

The Aurora oil pool is also "an immature WAG flood and retains significant value for continued WAG injection."

Hilcorp said the S-104 well exemplifies the value of commingled WAG injection.

The well is an Aurora injector that penetrates the Polaris oil pool "in an ideal location to support S-202," and is evenly spaced with offset Polaris pool injectors S-210 and S-201A.

"WAG injection in POP could sweep up to 1 million barrels of ... additional oil to S-202," the company said.

S-104 supports production of some 200 barrels per day from S-122 and 178 bpd from S-103, with WAG causing those Aurora pool wells "to have extremely low decline rates that support baseline production in Prudhoe."

Commingling WAG injection between the Aurora and Polaris pools will increase the value of existing injectors and bring online long-term shut-in wells.

S pad sits on top of the Aurora and Polaris pools and has many long-term shutin wells that penetrate the pools, but workovers on these S pad long-term shut-in wells "are often uneconomic because oil in place in either AOP or POP WAG patterns is too small to justify capital expenditures," while the two pools together have enough oil in place to justify the capital to bring long-term shut-in wells on as commingled injectors.

Hilcorp said while the Prudhoe oil pool is a more mature WAG flood than the Aurora or Polaris pools, continued injection into the Prudhoe oil pool "is extremely valuable due to the vast original oil in place and low oil decline rates."

The company said the W-01 well is an example of the value of commingling Prudhoe and Polaris WAG injection. It is a long-term shut-in Prudhoe producer that penetrates the Polaris oil pool in "an ideal location to support W-205 and W-203" and in the Polaris pool W-01 is "evenly spaced out up dip of W-205 and W-203 outside the existing WAG pattern."

Hilcorp said WAG injection into W-01 could sweep an additional 1.5 million barrels to W-205 and W-203. Injection from W-01 into the Prudhoe pool would also be "extremely valuable" as in the Prudhoe pool it supports W-8, producing 215 bpd and U-16, producing 195 bpd, and WAG from W-01 will cause those Prudhoe pool wells "to have extremely low decline rates that support baseline production in Prudhoe." Because of W-01's ideal injection location for both the Prudhoe and Polaris oil pools, it is "most valuable as a commingled (Prudhoe) and (Polaris) WAG injector." Hilcorp said capital to bring the long-term shut-in W-01 online with a rig workover is justified by commingled injection into the two pools.

-KRISTEN NELSON

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Petroleum

BJ Murdock, Vice President – Alaska region

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BJ MURDOCK

BJ Murdock is a U.S. Marine Corps veteran who served 12 years on active duty. In 2014 he joined Airgas as a technician operating the air separation plant in Anchorage. In 2017 he transitioned to a management role leading the ASU plant, bulk distribution and field service teams. In 2021 he replaced Brian Benson as the Alaska area vice president. Murdock enjoys leading teams through challenges and bringing them together to accomplish goals.



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continued from page 1 ALASKA ECONOMY

year of economic recovery after three years of recession which began in 2016. Terrible things happened to the state's economy in 2020, he said, with 2021 a year of recovery, seeing employment growing in most sectors — but with a way yet to go.

Preliminary figures for 2021 show employment gains of 2.7%, 6,300 jobs across all industries in the state, Fried said.

But the oil industry is not moving in a positive direction, with preliminary January to September figures showing a loss in the oil industry of 1,678 jobs between 2020 and 2021, he said.

State recessions

In 2016 the state lost 5,500 jobs, a 1.6%

drop, followed by a loss of 4,300 jobs in 2017, 1.3%, and 1,200 jobs, 0.5%, in 2018. 2019 saw employment turn around, with a gain of 1,600 jobs.

That was followed by a 2020 loss of 27,400 jobs, a drop of 8.4%.

While preliminary 2021 job numbers are up, the state has slipped back to the employment numbers it had around 2003, Fried said.

National data show that states which are dependent on tourism or oil are having a hard time, with more jobs lost and a slower recovery from those losses. Alaska is one of five states which have recovered less than 50% of those losses, Fried said. Louisiana, New Mexico and Wyoming are oil producing states. Hawaii is tourism dependent.

And Alaska experienced a double whammy, Fried said, because it has both large oil and large tourism industries.

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While this is the first time the state of Alaska has shared a recession with the rest of the country, and now a recovery, Alaska got hit harder than most other states, he said.

Oil industry

Numbers are grim for the oil industry Fried said, which has gone from a peak of 15,300 jobs in 2014 to 6,800 this year equivalent to employment numbers for the industry in 2005.

Oil is one of the few industries that has seen no recovery yet. There has been a little growth in recent months, but very, very little, he said.

On a positive note, Fried said oil prices are better and that is very, very important for recovery in the industry to occur.

But generally oil patch recovery in Alaska takes longer than elsewhere because the state is so project oriented.

Fried said he thinks we will probably see more positive numbers in 2022.

Overall numbers

Of the 2020-21 preliminary employment

continued from page 1 LINE 5 BATTLE

campaign to shut Line 5, arguing that it is a threat to the Great Lakes because it presents an environmental hazard where it crosses through the Straits of Mackinac, where Lake Michigan and Lake Huron connect.

Enbridge has refused to comply with the governor's attempt to impose an order, arguing she is exceeding her authority and that federal jurisdiction applies.

The company said it is seeking to make the pipeline safer by building a tunnel under the waterway to house the line that carries 540,000 barrels per day of crude oil and refined products from Western Canada.

1977 treaty invoked

The Canadian government, which intervened in October in support of Enbridge, invoked a 1977 pipeline treaty with the United States to trigger negotiations between the two countries over the pipeline's fate. Enbridge said it was pleased Neff's decision agreed with its consistent assertion that the dispute properly belongs in federal court.

Whitmer "has remained committed to ensuring the state's energy needs are met when Enbridge oil pipelines shut down" by pursuing alternative supplies of propane "while protecting consumers and their pocketbooks," said a spokeswoman for the governor.

Although President Joe Biden is a strong ally of Whitmer, the White House has

change numbers, totaling plus 6,300, the largest gain was in leisure and hospitality, which, Fried noted, had the largest losses. That sector was up by 3,022. Other major sectors include transportation, up by 1,222, retail by 1,167 and health care by 989.

The oil industry loss of 1,678 was the largest, with a few other sectors (financial, information and federal government) showing losses from a handful to a few hundred.

The state has seen modest population declines since 2016 and Fried said he doesn't expect the 2021 data to change that.

But it's not because more people are leaving Alaska — it's because fewer are moving to the state, something Fried said happens when Alaska's economy underperforms the national economy. And prior to COVID, the national economy was red hot, he said.

Alaska ranks last in national migration rates, Fried said, and recently has been losing population in every age group.

—KRISTEN NELSON

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remained tight-lipped on the issue, saying it will await a full environmental review of the tunnel proposal before making a decision.

That includes withholding any reaction to Enbridge's planned tunnel.

On Nov. 7, a spokeswoman for the White House said "we expect the U.S. and Canada to engage constructively" on Line 5.

"I don't have anything else to share about that," she said.

The stance was echoed on Nov. 18 at a summit of the leaders of Canada, the U.S. and Mexico to deal with issues, especially a tax credit Biden has planned for manufacturers of electric motor vehicles, that Canada and Mexico argue contravenes the tri-lateral free trade pact.

Canada's Prime Minister Justin Trudeau said he used the opportunity to press Biden to use his authority to protect Line 5 but offered no further details.

Separately, Mike Stivala, chief executive officer of New Jersey-based Suburban Propane Partners, said that if Whitmer succeeds in her campaign that would impose a significant constraint on U.S. energy supplies.

"It's a very misguided thought that we can do without the amount of propane and oil that comes from Canada to serve some of the critical needs, particularly in the upper Midwest," he said in a Bloomberg TV interview.

-GARY PARK

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continued from page 8 GMT2 TESTING

Slope: big fields tend to become bigger over time, Lelarge said.

"Through continuous investments in exploration, continuous investments in technologies and investments in our base facilities we are able to maintain production and significantly extend the initial expectation for those large fields," he said.

Willow

ConocoPhillips hopes that the Willow field in northeastern NPR-A will become its next major hub field. Currently the Willow project is being impacted by an Alaska District Court order, upholding a legal challenge to the environmental impact statement for the project.

The company remains committed to the project and is continuing with engineering work, to refine the project cost and schedule, with a view to making a final investment decision sometime next year. With an estimated 600 million barrels of oil resources, peak production could exceed 160,000 barrels per day, Lelarge said. Field development could involve around 9 million construction manhours, he said.

At the same time the company is working through the issues identified in the District Court decision and is engaged with the Bureau of Land Management in this process. The gravel work in the NPR-A that had been planned for 2021 has been deferred into 2022 as a consequence of a court decision, but the overall timeline for the project has not been impacted, Lelarge said. Lelarge expressed his company's gratitude for the support from many entities, including trade associations, Native organizations and the North Slope Borough, for the company's NPR-A investments, including Willow.

Core assets

In its core assets ConocoPhillips is putting much effort into maturing, planning and optimizing wells, while also pushing the boundaries of its drilling operations, Lelarge said. These efforts help unlock increasingly challenging resources. As a part owner of the Prudhoe Bay field, ConocoPhillips is also benefiting from the results of Hilcorp Alaska's development and maintenance work in Lelarge said that, in addition to new investments such as Willow, ConocoPhillips is planning total investments in excess of \$10 billion in core North Slope assets during the coming decade, in the Colville River unit, the Greater Mooses Tooth unit, Kuparuk River unit and the Hilcorp operated Prudhoe Bay unit.

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that field.

However, it is critically important to continue improvements to drilling performance, to ensure that the North Slope remains competitive with oil development and production in the Lower 48, Lelarge said. As an example, Lelarge cited the use of coiled tubing drilling (coiled tubing enables the drilling of long lateral wells from existing well bores). ConocoPhillips has been drilling coiled tubing wells since 1998 at Kuparuk, Lelarge said. The company has drilled more than 200 of these wells, while continuously improving the technology, with improvements to the well designs and the well performance. A coiled tubing well at West Sak now holds a length record of more than 8,000 feet, exceeding the previous record by 3,000 feet, Lelarge said.

The extended reach drilling at CD5 and for the Fiord West development also provide excellent examples of drilling innovation.

Lelarge said that, in addition to new investments such as Willow, ConocoPhillips is planning total investments in excess of \$10 billion in core North Slope assets during the coming decade, in the Colville River unit, the Greater Mooses Tooth unit, Kuparuk River unit and the Hilcorp operated Prudhoe Bay unit. This should enable total gross oil production from these units to reach a peak of 450,000 barrels per day, compared with current levels of around 400,000 barrels per day, Lelarge said.

In the Kuparuk River field development projects include the Nuna, Coyote and Northeast West Sak projects. Hilcorp is conducting projects in the Prudhoe Bay unit. At Alpine, projects slated for investment include work associated with the Narwhal project, and the CD2 extended reach drilling project. There is also the continuing coiled tubing drilling program.

Costs and risks

But there are costs and risk premiums associated with

projects on the North Slope, Lelarge cautioned. Lifting and transportation costs on the Slope are roughly double the costs anywhere else in the world, he said.

"It really takes great rock and great projects in Alaska to be able to offset these kinds of costs and to remain competitive in the global portfolio," Lelarge said. And then the added risk of regulatory and fiscal instability creates another obstacle to Alaska projects competing globally, he added.

ConocoPhillips focuses on lowering the costs for its base North Slope assets.

"This is key for the assets remaining competitive in the company's global portfolio, but also to remain competitive through the ups and downs of the price cycles," Lelarge said. A competitive and stable cost structure is needed for the company's Alaska assets, he added. We will continue to engage with all stakeholders in Alaska to ensure a business environment and climate that allows Alaska to compete for investments in the company's overall portfolio.

In fact, in recent years ConocoPhillips' annual North Slope investments have been fairly constant, hovering around \$1 billion per year, despite high levels of market volatility.

But while development opportunities are typically contingent on various factors such as exploration success or technology progression, all are impacted by fiscal instability.

"All of them are contingent on fiscal stability and predictability. It's really critical to be able to progress these projects," Lelarge said.

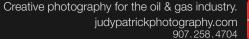
And so the formula for success on the North Slope involves lowering the cost of the base assets; continuing to invest through the exploration and development cycle; continuing to make the case for the importance of oil and gas in Alaska; advocating for a stable fiscal regime; and pushing the boundaries of innovation, he said.

Much has changed during ConocoPhillips' long history in Alaska, Lelarge said. But some things have remained constant: the company's focus on safety, its care for the environment, its desire to be constantly innovating, its focus on maintaining good relationships across all stakeholders, and its continued investment in the North Slope. This all supports keeping Alaskans working, he said. ●

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