

SENATE FINANCE COMMITTEE
January 24, 2019
9:01 a.m.

[9:01:35 AM](#)

CALL TO ORDER

Co-Chair Stedman called the Senate Finance Committee meeting to order at 9:01 a.m.

MEMBERS PRESENT

Senator Natasha von Imhof, Co-Chair
Senator Bert Stedman, Co-Chair
Senator Click Bishop
Senator Lyman Hoffman
Senator Peter Micciche
Senator Donny Olson
Senator Mike Shower
Senator Bill Wielechowski
Senator David Wilson

MEMBERS ABSENT

None

ALSO PRESENT

Senator Cathy Giessel; Daniel T. Seamount, Jr., Commissioner, Alaska Oil and Gas Conservation Commission, Department of Administration; Cathy Foerster, Engineering Commissioner, Alaska Oil and Gas Conservation Commission, Department of Administration.

SUMMARY

PRESENTATION: ALASKA OIL and GAS CONSERVATION COMMISSION

Co-Chair Stedman noted that Senate President Cathy Giessel was in attendance.

^PRESENTATION: ALASKA OIL and GAS CONSERVATION COMMISSION

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Co-Chair Stedman expressed that the subject of the presentation would be a broad reaching information hearing. He intended to focus on the subject matter in front of the committee. He thought the presentation would provide background for work being done by oil and gas consultants in the state. He emphasized to those presenting the importance of defining concepts and avoiding acronyms for greater understanding for the listening public.

Co-Chair Stedman commented on the common topic of inquiry regarding a state gas line. He stressed that the public understanding of oil and gas issues was important.

[9:05:18 AM](#)

DANIEL T. SEAMOUNT, JR., COMMISSIONER, ALASKA OIL AND GAS CONSERVATION COMMISSION, DEPARTMENT OF ADMINISTRATION, showed the presentation "Alaska Oil and Gas Conservation Commission (AOGCC)," (copy on file). He discussed the role of AOGCC as well as its duties pertaining to North Slope gas sales. He furthered that he wanted to provide statistics regarding production, development, exploration and potential new discoveries.

Commissioner Seamount directed attention to hydraulic fracturing in Alaska, the role of AOGCC in North Slope gas sales, and allowable gas offtake for Prudhoe Bay and Point Thomson field. He highlighted two orders the agency made on gas offtake on Prudhoe Bay and Point Thomson. He invited members to read through the information and contact AOGCC with any questions.

Commissioner Seamount showed the first page of the presentation, which showed a photo of the AOGCC office location. He talked about the Southeast Alaska communities he visited in the recent past.

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Commissioner Seamount explained that AOGCC was an independent quasi-judicial body that held hearings and made rules related to spacing and other exceptions. Granting permits for drilling wells and performing sundry well workovers were additional responsibilities of AOGCC. Associated statutes were found in Title 31, chapter 5 of Alaska Statutes; and regulations were located in Title 20, chapter 25 of the Alaska Administrative Code. He continued

that AOGCC had three commissioners: Commissioner Seamount was the geology commissioner, Cathy Foerster was the engineering commissioner, and there was a public member.

Commissioner Seamount made note of a recent statute change demanding that the public member have training and experience relative to the oil and gas industry. He noted that AOGCC had 34 people on its staff, including two geologists, six engineers, nine field inspectors and several administrative support staff.

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Commissioner Seamount displayed slide 2. He made note of two offices including one in North Slope staffed with inspectors. He added that there were inspectors working from home on the Kenai Peninsula.

Commissioner Seamount turned to slide 3, "Quasi-judicial State regulatory agency - Mainly Sub-surface":

To protect the public interest in exploration and development of Alaska's valuable oil, gas, and geothermal resources through the application of conservation practices designed to ensure greater ultimate recovery and the protection of health, safety, fresh ground waters and the rights of all owners to recover their share of the resource.

Exception to sub-surface oversight is the proving of metering so allocation of production is fairly distributed

Funded by Industry receipts \$7,468,600 (FY19).

Small amount from EPA for managing UIC program \$119,000 (FY19)

Extremely Technical - Arbitrary interpretation of law regarding AOGCC decisions difficult.

Statute (title 31), regulations, and science very tight

Jurisdiction over private and public lands
Adjudicate disputes between resource owners

32 Total Staff includes positions for 3 commissioners, 2 geologists, 6 engineers, 9 field inspectors, 2 statisticians, 2 IT, 8 administrative

Commissioner Seamount commented that Alaska was the best area in the world for gas flaring. He specified that none of AOGCC's funding came from the General Fund (GF). Rather, AOGCC was funded by industry receipts charged based on production and injection of fluids and gas. He estimated that the commission's budget for FY 19 was almost \$7.5 million.

CATHY FOERSTER, ENGINEERING COMMISSIONER, ALASKA OIL AND GAS CONSERVATION COMMISSION, DEPARTMENT OF ADMINISTRATION, introduced herself and explained her role at AOGCC. She relayed that the Underground Injection Control (UIC) Program protected fresh groundwater from contamination from oilfield activities.

Commissioner Seamount estimated that one-third of the commission's budget was spent on the UIC program.

Commissioner Seamount continued discussing slide 3, emphasizing that AOGCC was an extremely technical organization. He thought arbitrary interpretation of the law regarding the commission's decisions was difficult. The commission tried to stay by the letter of the law. He explained that that commission was an independent agency and its dispute adjudication had included the state.

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Commissioner Seamount discussed slide 4, "Quasi-judicial State regulatory agency - Mainly Sub-surface":

- Protect human safety
- Protect fresh water (down to ¼ mile)
 - Manage Class II UIC program
- Prevent physical waste of energy
Resources (1/2 to 5.5 miles drilled depth, 3 miles vertical depth deep)
- Promote greater ultimate recovery - (1/2 to 5.5 miles drilled depth, 3 miles vertical depth deep)
- Protect correlative rights

- Intense Inspection and Enforcement

Commissioner Seamount recalled that AOGCC had only witnessed approximately 20 violations in the previous 19 years and thought that industry was careful. He reiterated that only .2 percent of gas was flared in the state. He reported that here had never been a reported case of contamination of fresh water due to oilfield operations in the 60-year history of production in the state.

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Commissioner Seamount showed slide 5, "AOGCC PRIMARY SERVICES":

Regulate, monitor and inspect all subsurface activities directly related to oil and gas exploration and production including the design and integrity of wells, well control procedures and equipment, reservoir management plans and proposed underground injection programs.

- Hold Hearings
- Issue pool rules and other conservation orders.
- Approve and monitor plans for reservoir development and enhanced oil recovery.
- Approve permits for initial drilling, re-drill, sidetrack, and remedial well operations. This includes the evaluation and approval of proposed designs for drilling fluids, well control, casing, cementing and well completion operations.
- Inspect drill rigs and wells to ensure compliance with AOGCC regulations.
- Witness safety valve, mechanical integrity, and blowout preventer tests.
- Witness meter-proving, calibration, and oil quality tests.
- Enforce well spacing rules
- Monitor production rates, injection well pattern, gas/oil/water ratios, and pressure maintenance efforts.
- Monitor and evaluate gas flaring.
- Collect and maintain all oil and gas production records.
- Collect and maintain all well history files and well log records.

- Administer Alaska's Underground Injection Control (UIC) program and the annular waste disposal program (protection of drinking water).

Commissioner Seamount encouraged members to contact him with any questions pertaining to the AOGCC primary services as listed slide 5.

Commissioner Seamount showed slide 6, "AOGCC Permits and Decisions / Orders 2009 - 2018":

- Permits to Drill - 1,605
- Drilling Completed - 1,658 wells / branches
- Well Work Activity Reports - 8,401
- Orders and Decisions - 717
Aquifer Exemption, Area Injection, Disposal, Enhanced Recovery, Metering, Pool Rules, Production, and Other Topics
 - Major Orders - 59
 - Amendments - 539
 - Well Spacing Exceptions - 119
- Special Development Considerations - many

Commissioner Seamount detailed that most special development considerations were approved after a great deal of communication with operators.

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Senator Shower asked if there were any requirements relating to the use of federal funds for the UIC.

Commissioner Foerster noted that the requirements from the Environmental Protection Agency (EPA) were primarily related to reporting. State standards for almost all of the commission's activities were generally more stringent than federal standards. There was no EPA requirement that AOGCC add regulation to the industry. She commented on the commission's good relationship with the EPA.

Senator Olson asked about the approximately 20 violations that had occurred over the previous years.

Commissioner Seamount relayed that the most important function of AOGCC's response to violations was to prevent reoccurrence. The commission required the submission of a plan, and violations had historically been small.

Commissioner Foerster referenced BP's pipeline fail due to corrosion. The commission had considered the incident to be "waste" and was the biggest violation she could recall. There had been other instances in which operators had flared or vented gas that should not have been flared.

Senator Olson expressed concern about groundwater and noted that it was a significant concern of his district on the North Slope. He asked what kind of assurances he could give his constituents that the groundwater would not become contaminated by the oil and gas activity.

Commissioner Foerster stated that there were very stringent requirements on well construction to ensure that injected oil and gas never contacted groundwater. There was a required minimum of two competent barriers to flow; preventing oil, gas, and saltwater resources from contacting fresh water. She discussed well construction and stated that in order for contaminants to reach groundwater, it would have to find its way through three layers of pipe. There were further requirements for operators to test for and demonstrate mechanical integrity. If a well could not demonstrate that it could not maintain integrity, it would be immediately shut down.

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Senator Olson asked about the number of times had an integrity of a well been breached from production activities.

Commissioner Foerster did not have an available number and offered to provide the information at a later time.

Senator Olson wondered how many occasions there had been a lack of mechanical integrity.

Commissioner Foerster noted that sometimes there was a reduction down to one barrier, and the commission did not consider the situation to be a mechanical loss of integrity. She agreed to provide the information requested by Senator Olson at a later time.

[9:26:57 AM](#)

Ms. Foerster reviewed slide 7, "Major Issues of 2018":

- Growing inventory of old and idle wells
 - Ensuring mechanical integrity
 - Plugging wells with no future utility
- Operator bankruptcies --> orphan wells
- Well bonding adequacy
- BLM Legacy (aka Travesty) wells
- New operators

Commissioner Foerster recounted that the growing inventory of old and idle wells was one of the biggest issues facing the commission. She detailed that annually AOGCC required every operator to demonstrate mechanical integrity of old and idle wells and provide a plan for the future. She commented on the bankruptcy of companies, after which the well plugging liability was left to landowners. After a company went bankrupt, it no longer had the funds or the legal requirement to follow AOGCC regulations and plug the wells. The orphan wells presented problems for the future and regulations were designed to mitigate future problems. When an operator was not capable of plugging a well, most often the state was the landowner and retained the responsibility.

Commissioner Foerster continued discussing slide 7. She discussed the transition to smaller operators with less financial capabilities and the potential for major cost liabilities. The previous year the AOGCC passed regulation changes increasing bonding requirements. She noted that Prudhoe Bay was bonded for \$200,000; which would not even pay for an engineering study, much less get started on plugging a well. She noted that as smaller companies took on more land ownership (from BP, ExxonMobil, and Conoco) the liability of the state increased.

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Commissioner Foerster continued addressing bonding and noted that the change in regulation was awaiting signature by the lieutenant governor. She explained there were a few states in the country that had adopted legislation to protect the landowner from the liability. She had urged the administration and legislature to pass similar legislation

that would transfer liability to the original landowner if subsequent landowners could not cover the costs of abandoned well mitigation.

Commissioner Foerster thought it was important for the state to protect itself from future liability for plugging wells at Prudhoe Bay. She commented on the collaborative work with the Bureau of Land Management (BLM) on legacy wells. The worst of the wells had been secured, and AOGGCC and BLM continued working to clean up the entire slate of bad wells. She discussed new operators, which created more work for the agency. She discussed the education and collaboration with new operators, which was in aid of understanding regulation.

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Co-Chair von Imhof asked if Commissioner Foerster could provide the committee with a map of abandoned wells and an estimate of the state's potential financial recourse.

Commissioner Foerster agreed to provide the information. She commented on the high number of abandoned wells. She considered if Prudhoe Bay ceased to produce without an operator capable of plugging the wells and estimated a cost in the hundreds of millions to plug over 1,000 wells. She estimated that an average cost for plugging a well was \$250,000; and there could potentially be 1,500 wells. She reminded that there were idle wells in virtually every field across the North Slope.

Co-Chair Stedman anticipated that there would be further discussion on the subject of reclamation on the North Slope.

Commissioner Foerster discussed slide 8, "Likely Issues of 2019":

- All the 2018 issues
- Aggressive exploration season
 - 12 Conoco wells
 - 1 ENI extended reach well
 - 1 Great Bear well
 - 4 Oil Search wells

- Conoco development work at Willow and Greater Moose's Tooth
- Unanticipated crises and challenges

Senator Bishop asked if the Great Bear well was a conventional well.

Commissioner Foerster stated that exploration wells were confidential and that only the location could be divulged.

Commissioner Seamount recalled that Great Bear had announced some information through the press and had both conventional and shale wells. He believed Great Bear was selling out.

[9:39:32 AM](#)

Commissioner Foerster showed slide 9, "Offtake Allowables for North Slope - Major Gas Sales":

[SECRETARY'S NOTE: the title of the projected slide - "AOGCC Concerns with North Slope Major Gas Sales" - was different than on the print copy but the slide had the same content.]

- PBU offtake: 3.6 BCF/D (including fuel usage)
 - CO2 utilization study
 - Oil acceleration study
- Pt Thomson offtake: 1.1 BCF/D (including fuel usage)
 - 5 years of pilot performance demonstrating full scale cycling not viable
- Both offtakes were granted assuming a defined window of opportunity for MGS
- Oil losses will occur. Later is better. Less is better.

Commissioner Foerster explained that if gas was found associated with oil, it was AOGCC's job to give permission for the gas to be removed. The two big sources of gas on the North Slope were at Prudhoe Bay and Point Thomson, both of which had gas associated with oil. There had been a series of hearings a year and a half previously that resulted in offtake allowables for both fields. She

discussed the potential sale of offtake gas. She discussed methods of utilizing CO2.

Commissioner Foerster noted that EOR signified 'enhanced oil recovery,' which was meant to increase the production of oil through injection of fluid or other means.

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Commissioner Foerster continued discussing slide 9, noting that Point Thomson was known as a gas condensate reservoir. She defined the cycling process, which stripped condensates from gas, which was later reinjected. She noted that Exxon's modelling indicated that gas cycling was not economically viable. She commented that models could not be perfectly accurate, and every model was enhanced with additional data. She continued that AOGCC had required Exxon to demonstrate five years of cycling performance to show that a full-scale cycling project was not viable.

Commissioner Foerster noted that both of the offtake allowables had been granted. She reiterated that once gas production started, oil began to be lost. If oil could continue to produce while gas was deferred, more oil would come out of the ground. The less gas was produced, the slower the losses would occur.

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Co-Chair Stedman asked for an explanation of field rules as they might pertain to Point Thomson.

Commissioner Foerster explained that there were statewide rules and standard regulations that every operator was required to comply with to protect fresh groundwater, human safety, and protect rights. She noted that fields always had special circumstances. She used the example of Prudhoe Bay, where it was heavily faulted and complicated. The rules pertaining to how far wells must be would result in oil left in the ground. Operators requested exemptions from statewide field rules and provided technical reasons for the exception.

Commissioner Foerster continued to address Co-Chair Stedman's question. For every new field, the operator (and sometimes the commission) would identify areas where special field

rules were needed. Usually the operator did a good job demonstrating rationale for an exception.

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Co-Chair Stedman asked about the timing of the 5-year program that Point Thomson was participating in, and how it related to gas offtake.

Commissioner Foerster noted that the wells at Point Thomson were oil wells based on the gas to oil ratio. There had been enough condensate in the gas at Point Thomson that the wells qualified as oil wells, which meant the gas needed to be reinjected. Thereby AOGCC had required five years of cycling to demonstrate that greater ultimate recovery would not be achieved by a cycling project. Exxon had experienced great technical difficulty establishing the cycling volumes that were required. She was concerned whether Exxon would have five years of performance to show by 2025.

Co-Chair Stedman asked if the timing was in calendar years.

Commissioner Foerster stated that the demonstration required five years of performance.

Co-Chair Stedman asked how to take gas off the field and get around the ruling.

Commissioner Foerster stated that if Exxon could not provide five years of performance data to AOGCC by 2025, to get the gas it would have to reapply for a new set of rules that excluded the requirement.

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Co-Chair Stedman understood that there was a fairly precise target date of 2025 for natural gas production. He mentioned attending presentations on the Liquid Natural Gas (LNG) marketplace, and thought it was clear that the marketplace would be expanding. He pondered that the projects that would not be built would sit on the sidelines until there was another space within the marketplace to renegotiate. He asked if the state was facing a window considering a potential gas line. He wondered about the feasibility of AKLNG and the offtake decision by AOGCC. He wondered if the state should reconsider its analysis to

make sure it was maximizing the monetary value of the basin.

Commissioner Foerster did not feel qualified to address the question, and LNG sales was not her area of expertise. She referenced an earlier slide that indicated that oil loss was inevitable. She thought it was important to continue to produce oil and use gas to get oil out of the ground. She affirmed that there would be those at the AOGCC that would take a second look at the issue.

Co-Chair Stedman asked if AOGCC would take a second look at the AKLNG project.

Commissioner Foerster pondered that orders might have to be modified.

Co-Chair Stedman explained that the economics of the gas line appeared to be marginal, which did not leave a great deal of room for error.

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Senator Wielechowski asked about a Point Thomson offtake well. He asked if the gas was being stripped of condensate, reinjected, or shipped to Prudhoe Bay. He wondered if the state was getting royalties or production taxes from the 1.1 BCF/D mentioned on the slide.

Commissioner Foerster stated that the 1.1 BCF/D shown on slide 9 signified the total gas offtake from Point Thomson that would be allowed starting in 2025. At that point, assuming that Exxon had demonstrated that cycling was not viable, whatever condensate came out with the gas would likely be stripped off and sold down an oil line and the rest of the gas would go to a gas sales line. The 1.1 BCF/D would be whatever went down the sales line, plus whatever was needed to fuel the field.

Senator Wielechowski asked about the current offtake of Pt. Thomson.

Commissioner Foerster stated that the offtake did not go into effect until 2025, assuming that Exxon had completed the five years of pilot performance. If after five years of cycling the economics and technical aspects were proven, all the gas from Point Thomson would be used either for

reinjection or fuel to keep the field running. If prior to 2025 the data proved cycling would not work, the gas would be sold.

Senator Bishop referenced the conclusions on page 8 of the document "AOGCC Conservation Order no. 719 Corrected" (copy on file), and asked about what pool was being discussed when talking about stripping liquids off the gas.

Commissioner Foerster emphasized that the Point Thomson field was very complicated. The gas cap was rich in condensate, with a base of a thin oil rim that was highly viscous and reluctant to flow. The cost, technology, and risks to extract the oil were prohibitive.

Senator Bishop asked about the CO2 level at Point Thomson.

Commissioner Foerster agreed to provide the information at a later time.

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Senator Shower asked for an explanation of the commission's administrative appeals process. He asked about general solvency stipulations for smaller companies and mentioned environmental issues and liability for wells left in West Texas. He wondered if there were any stipulations other than bonding that were required for companies.

Commissioner Foerster explained the appeal request process for a hearing to consider a proposed change in field rules. She noted that a hearing required a 30-day notice period. Operators would present technical data for consideration, after which the AOGCC would generally meet a self-imposed requirement of submitting a ruling within an additional 30 days. Usually within 3 to 4 months after a request, a final ruling was issued. She estimated that the requests came approximately every 1.5 months.

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Senator Shower asked if there were other stipulations besides bonding for the bill Commissioner Foerster mentioned earlier in the meeting.

Commissioner Foerster reiterated that AOGCC met with every operator annually to do a well by well review of idle

wells. The agency encouraged operators to plug and abandon certain wells each year. She could not think of other regulations that were in place. If an operator wanted to suspend a well, AOGCC questioned the future utility of the well and could grant the suspension for future use. She gave an example of a well that could be suspended for future use.

Commissioner Foerster continued to address Senator Shower's question. She explained that if idle Prudhoe Bay wells had been plugged 15 to 20 years previously, operators that developed additional drilling capability would not have been able to implement the new technologies to get greater oil recovery from the fields. She stressed the importance of making judgement calls.

[10:06:30 AM](#)

Commissioner Seamount showed slide 10, "Alaska Oil Activity and Production." He noted that subsequent slides would show the decline in Alaska oil production, permitting, as well as development and potential discoveries. He noted that development and discoveries added to the workload of AOGCC. He thought it would be better to talk with the Division of Oil and Gas or the operators with regard to development and discoveries.

Commissioner Seamount reviewed slide 11, "Alaska's Average Daily Oil and NGL Production Rate: 1960 - 2018," which showed a line graph depicting historic oil production in Alaska. He noted a peak in the graph in 1970 that indicated Cook Inlet oil discoveries that increased production. He mentioned the five discoveries in 1965 in Cook Inlet. Swanson River had been discovered in 1957. He pointed out the drop off in exploration in Cook Inlet that coincided with a dramatic increase in Prudhoe Bay. He noted exploration had went up to 2.2 million barrels per day around 1990 and had declined by approximately 6 percent since that time. He highlighted discoveries in Colville River and Alpine. He thought the production decline had flattened out. The previous year the decline 3 percent, and the two previous years there had been an incline in production.

Commissioner Seamount continued discussing slide 10, and thought if press releases were to be believed, it was possible to go up to one million barrels per day by 2024,

which he thought was an aggressive prediction. He stated that a later slide would show that the average time between discovery and development was nine years.

[10:09:53 AM](#)

Commissioner Seamont turned to slide 12, "Alaska's Statistics":

Permits to Drill since 1901: 9,302
Wells with Completion Dates: 8,614
Hydraulically Fractured Wells: 2,026
Hydraulically Fractured Wells: 23.5%

Oil Production for Nov 2018 (bbls): 14,918,869
NGL Production for Nov 2018 (bbls): 1,691,188

Oil Production for Nov 2018 (bbls/d): 497,296
NGL Production for Nov 2018 (bbls/d): 56,374
Total (bbls/d): 553,670

Commissioner Seamont commented on the contentious subject of fracking, which had been going on since the 1960s.

Commissioner Seamont reviewed slide 13, "Alaska's Statistics - Alaska Oil and NGL Production - November 2016 to November 2018," which showed a bar graph. The dashed line showed a rolling average that began in November 2016 and ended in November 2018. He was optimistic that the flat average line would start to incline in the future.

Commissioner Foerster noted that the dips of production were in the summer and explained that production facilities operated best when cold. She added that planned maintenance was often done in the summer.

Senator Micciche referenced slide 12 and asked about the nearly 15 million barrels listed as "Oil production for Nov 2018."

Commissioner Foerster affirmed that the slide was misleading and should actually show that the cumulative oil production as of November 2018 was 14,918,869.

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RECONVENED

Co-Chair Stedman noted that slide 12 had numerics that were appearing in millions, while actual production was in billions.

Commissioner Seamount affirmed he would edit the information on slide 12, and that the cumulative oil production as of November 2018 was near 15 billion rather than 15 million.

Commissioner Seamount showed slide 14, "Alaska 2018: Permits to Drill Approved by AOGCC," which showed a pie chart depicting Alaska statewide - all well types. The chart broke down the types of wells drilled. It was observable that by far the most wells drilled were producers of oil on the Arctic Slope. He looked at figures showing exploratory wells in Cook Inlet and on the North Slope. He pointed out service wells on the Arctic Slope. There were 15 exploration permits outstanding for the remainder of the winter. The winter of 2019 had a lot of exploration activity.

Commissioner Seamount turned to slide 15, "EXPLORATORY (WILDCAT / DELINEATION) WELLS AND WELL BRANCHES - Statewide, Oil and Gas: Completed, Suspended or Abandoned (2004 - 2018*)," which showed a bar graph depicting statewide conventional oil and gas only. He commented that oil price was shown in light green, which showed a great deal of fluctuation. Various colors depicted various operators that had drilled exploration wells. The winter of 2018-2019 would show an extra 15 exploratory wells drilled.

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Commissioner Seamount displayed slide 16, "DEVELOPMENT AND SERVICE WELLS AND WELL BRANCHES - Statewide, Oil and Gas: Completed, Suspended or Abandoned (2003 - 2017)," which showed a bar graph depicting statewide conventional oil and gas only. By far BP and ConocoPhillips had the most activity.

Commissioner Foerster referenced an earlier question by Senator Shower pertaining to abandoned wells and noted that the same rigs that did well work and drilling would also do the abandonment work. She asserted that there was a balance

of how much of rig resource was wanted to devote to work that did not generate production.

Commissioner Seamount moved to slide 17, "Workover Activities (2003 - 2017) Statewide: Conventional Oil and Gas Only," which showed a bar graph. He noted that the purpose of workovers was to make repairs or enhance production. In 2017 there were close to 1,000 workover activities. Industry was spending a lot of money keeping the wells in good shape.

Commissioner Seamount turned to slide 18, "Alaska Oil and Gas Activity - AOGCC Oversight (1958-2018*)," which showed a line graph. The blue line showed the number of permits that AOGCC had processed. He discussed peak periods, which had levelled out to between 150 to 200 permits per year. The number of wells over which AOGCC had oversight had steadily risen to between 5,000 and 6,000 wells that inspectors and staff were watching closely. The number of pools was shown by the fuchsia line and had risen to almost 150.

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Commissioner Seamount showed slide 19, "Announced Alaska North Slope "Discoveries," which showed a map of Northern Alaska. He reiterated that AOGCC did not have expertise in the recent discoveries, although the activity would increase the agency's workload. He mentioned development at Moose's Tooth, Willow, and the Pica and Smith Bay Discoveries. He thought the Division of Oil and Gas as well as the operators could provide more expertise on the subject. He thought if the announcement in the news were true, the new wells could add another 500,000 barrels of oil to the pipeline. There had been mention of plans for development in 2024, which he thought was very aggressive.

Commissioner Seamount displayed slide 20, "Major Recent Brookian Discoveries," which showed a table. He thought the slide was put together by Paul Decker from the Division of Oil and Gas. The slide showed what the expected production would be from the discoveries and developments. He pointed out estimated production levels in Willow and Smith Bay.

Co-Chair Stedman asked about the timeline and if AOGCC was to expect development in 2025.

Commissioner Seamount answered in the affirmative. He was skeptical but hoped that the operators were correct.

Senator Shower asked about the average time for development of wells.

Commissioner Seamount turned to slide 21, "Development Timeline for North Slope Oil Fields," which showed a bar chart. He directed attention to the discoveries and developments, which took an average of nine years from discovery to regular production.

Commissioner Foerster noted that the advantage of many of the major recent discoveries was the proximity to existing infrastructure, which would have a positive impact on the time to production.

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Commissioner Seamount showed slide 22, "Cook Inlet Exploration":

Exploration Immaturity

- Cook Inlet is similar in size to lower 48 basins
- 14,000 square mile area is same as San Juan Basin
- <400 exploratory wells & <1400 total wells vs 28,000+ wells in San Juan Basin

Cook Inlet Basin: No 1980s Drilling Boom

Commissioner Seamount emphasized that the Cook Inlet was under-explored. The United States Geological Survey had estimated that only 2 percent to 4 percent of the oil generated in Cook Inlet had been identified. There had only been 52 penetrations of the Jurassic, which most of the oil came from. He considered that the state and the industry had been remiss in not going deeper to look for additional oil.

Commissioner Foerster wanted to ensure she had a list of information requested by the committee.

Co-Chair Stedman affirmed that the committee would provide a list of questions in letter format.

Commissioner Foerster thanked the legislature for its respect and interest in AOGCC's work.

Co-Chair Stedman asked for a reminder of the role of AOGCC in allowing offtake and controlling the balance between oil and gas.

Commissioner Foerster explained that it was the statutory obligation of AOGCC was to prevent hydrocarbon waste, and also to encourage greater ultimate recovery of hydrocarbon. In granting offtake allowables of gas from oil fields, AOGCC considered its statutory obligations. She pointed out that it was a law of physics that if gas was taken from an oilfield before all the oil was produced, there would be oil losses. When an operator requested to take gas from an oil field, AOGCC had to ensure that by taking the gas, greater ultimate recovery of oil and gas would be achieved. The decision was not economic, convenience, or politically based; but rather in order to ensure greater recovery of hydrocarbons.

Commissioner Seamount referenced the distance between wells in the state. He discussed the close proximity of wells in the San Juan Basin, where in some fields well spacing was down to one acre. There were 53 pads in Prudhoe Bay, and with the latest technology it could be possible to develop the bay with only five pads, which had implications on the opening of Alaska National Wildlife Refuge (ANWR). He could not believe how wide open and clean Prudhoe Bay was.

[10:30:40 AM](#)

Senator Wilson asked for a discussion of spills and recovery efforts in Prudhoe Bay.

Commissioner Foerster noted that spills and spill prevention were not within the purview of AOGCC but were within the jurisdiction of the Department of Environmental Conservation (DEC).

Senator Wilson asked about the number of capped wells in the state.

Commissioner Foerster agreed to provide the information at a later time.

Senator Shower asked where most of the remaining oil Commissioner Seamount had mentioned in Cook Inlet was located.

Commissioner Seamount thought there was potential throughout Cook Inlet. He mentioned Swanson River, North Cook Inlet, and other areas. There had been interesting tests showing permeability. He stated that south of Homer there had been oil saturated cores pulled from the ground. He thought the area was under-explored and that there was a lack of information.

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Senator Bishop asked if Commissioner Foerster had jurisdiction over some aspects of the drilling rigs.

Commissioner Foerster stated AOGCC had a lot of jurisdiction over drilling operations.

Senator Bishop asked if rig safety jurisdiction helped prevent spills.

Commissioner Foerster clarified that spills were not reported to the commission, nor did it regulate clean ups. She stated that preventing spills was part of the purview of AOGCC but monitoring and regulating was not.

Commissioner Seamount thought that Senator Bishop was referencing blowouts, which were releases during drilling. There had been less than 15 blowouts in the history of the state, 14 of which were shallow gas blowouts. One had contained a bit of oil. One of the primary duties of AOGCC was to prevent well blowouts. He added that corrosion and leakage were under the purview of DEC.

Co-Chair Stedman thanked the testifiers. He thanked Commissioner Foerster for her work in providing information to the legislature. He thanked her on behalf of the state and lauded the safety record in the oil basin. He congratulated her on her retirement.

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ADJOURNMENT

[10:36:44 AM](#)

The meeting was adjourned at 10:36 a.m.