

Good afternoon. My name is Cathy Foerster and I am the chair and engineering commissioner of the Alaska Oil and Gas Conservation, or AOGCC.

Thank you for the opportunity to share with you the mission of and pressing issues before the AOGCC.

The AOGCC is an independent quasi-judicial body located in downtown Anchorage.

Although located within the executive branch, by statute the AOGCC is independent. This means that we do not report to any department within the executive branch but certainly we're held to the same administrative requirements of any other state department. Why? So that, when the DNR comes before us, they are held in no higher standing than any other applicant.

By statute, we have three commissioners. One must be a petroleum geologist. Currently that is Dan Seamant. One must be a petroleum engineer. That is me, and I am currently the Chair. And one is a public member who must have training and experience relevant to the oil and gas industry. That position is currently vacant.

On staff we have positions for 2 geologists, 6 engineers, 7 field inspectors, and several IT, data management, and administrative support staff. I said "have positions for" because we currently have 1 engineer and we are currently trying to add 1 additional field inspector position.

If you want to know our issues, here's a big one. We draw our staff from the same talent pool as industry and it's very difficult for us to compete with them on compensation. The last two engineers that left our agency went to industry, where each got a signing bonus, about a 20 percent raise, and an all-expense-paid move to Texas, which took them closer to family. We can't compete with that; so we have pretty much a constant struggle to keep positions filled.

AOGCC Mission

- Prevent hydrocarbon waste
- Protect correlative rights
- Promote greater ultimate recovery
- Protect underground fresh water
- Protect human safety

The AOGCC mission is to prevent hydrocarbon waste, to protect correlative rights, to promote greater ultimate recovery, to protect underground fresh water, and to protect human safety.

The AOGCC exercises the police powers of the State of Alaska and has jurisdiction throughout the State of Alaska including offshore state waters for conventional oil and gas, coalbed methane, shale gas, shale oil, and geothermal resource exploration and development.

Also, if a well is being drilled for other purposes but we have reason to suspect that it will encounter unanticipated hydrocarbons or other hazardous substances, our statutes give us the authority to assert jurisdiction. In fact we did that in 2012 for a CIRI underground coal gasification project.

Our authority covers resource management and conservation, drilling and well work operations, well integrity and well safety systems, custody transfer metering, and eventually well abandonment.

Typical AOGCC Approvals

- Drilling
- Sundry Wellwork
- Underground Injection
- Conservation Orders
- Other

All wells drilled in the State of Alaska for oil, gas, or geothermal resource exploration and development must receive a drilling permit from our agency.

Also, remedial or recompletion wellwork on an existing well requires a permit from us for.

The AOGCC has primacy for administering the EPA's Class II underground injection control program in Alaska, and we do our own independent review, approval, and monitoring of injection into Class I wells.

We have statewide rules covering all of our requirements, but whenever an operator wants pool-specific rules, they submit a request to us and those rules are addressed in conservation orders.

And there is a wide variety of other approvals we address, such as granting exceptions and variances from existing rules.

We stay very busy. In the new millennium we have approved over 2900 drilling permits, over 5900 sundry well work permits, over 1200 injection orders, conservation orders and other decisions and orders.

Major Issues before the AOGCC

- Increased Cook Inlet activity
- Increased North Slope activity
- Hydraulic fracturing regulation
- Suspended, orphaned, and BLM legacy well clean-up
- North Slope gas sales

We try to stay a quiet little agency, but there are several important issues before us. This is a list of the major issues currently before us. I will discuss each in some detail.

Cook Inlet Activity

- Offshore exploration
- Hilcorp and CIE
- Increased inspections, incidents and investigations
- Disputes among operators and land owners

Offshore drilling in the post-Macondo world is clearly one of the hottest topics before us. Thanks in no small way to the good work of the Legislature, new operators are coming to the Inlet. Furie (previously called Escopeta) and Buccaneer have brought jack-up rigs to the Inlet and have been exploring for the past few seasons.

On the downside, both of these companies have required much more than normal regulatory oversight. But on the upside, both are making meaningful discoveries.

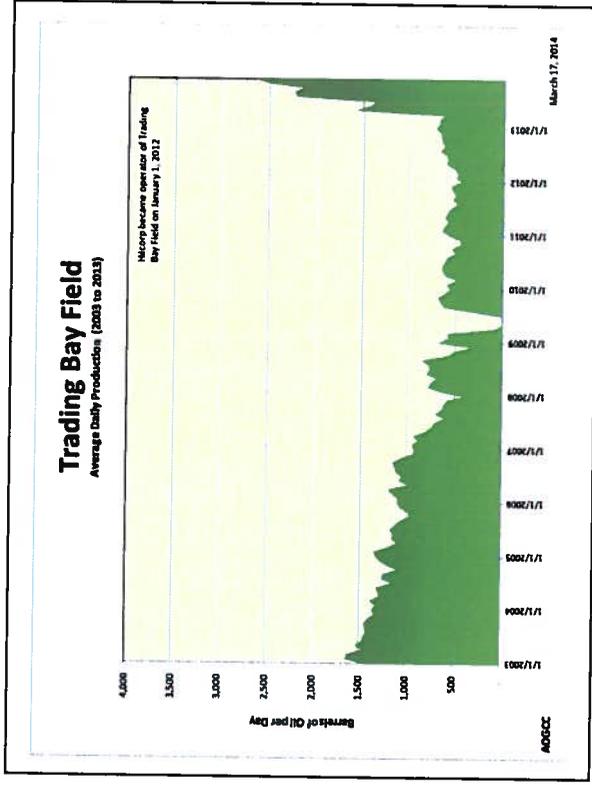
Hilcorp purchased Unocal and Marathon's interests and is very aggressively investing in restoring production in these fields.

And Cook Inlet Energy is also actively drilling exploratory and development wells in the Inlet

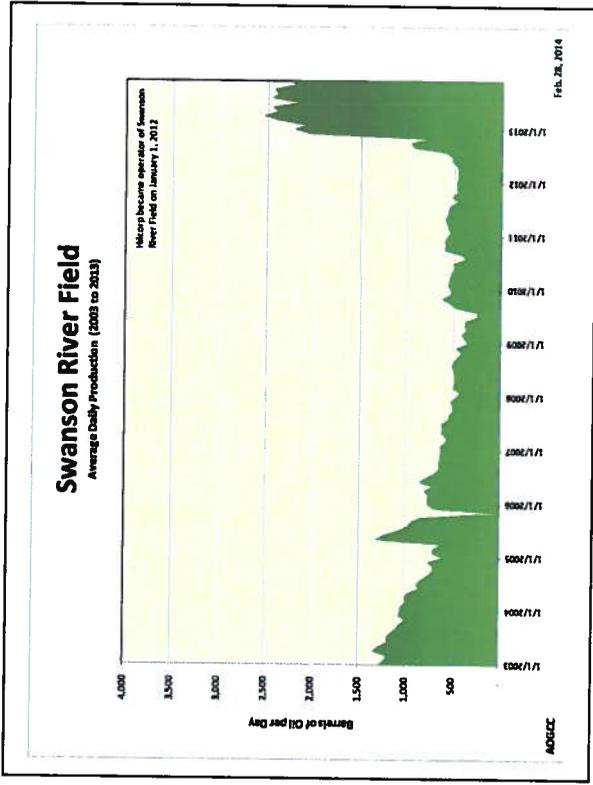
This increased activity level in the Inlet has kept us very busy. We are reviewing an unusually high number of custody transfer metering applications. Our field inspectors are conducting more inspections and safety system tests. The new operators are having difficulty complying with our regulations; so inspections and incident investigations are also up. And we are currently involved in adjudicating some very heated disputes among operators and land owners.

As Senator Micciche hears from his constituents, our modest inspection staff is being stretched thin. The result is that we have to choose between waiving witness on critical safety systems testing or causing delays for the operators. We are working hard to strike an appropriate balance but the long-term solution clearly involves identifying, recruiting, hiring, and retaining more qualified field inspectors.

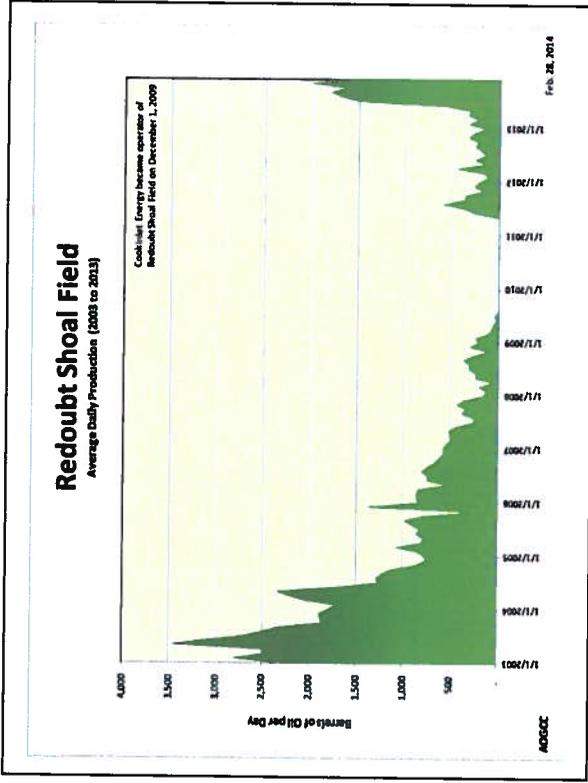
In the big picture, the increased activity is all very positive, as the increased production on the next three slides shows.



The uptick in production is due to Hilcorp's aggressive wellwork and drilling program.



Again, the uptick in production is due to Hilcorp's aggressive wellwork and drilling program.



And this increase is due to the work of Cook Inlet Energy.

North Slope Activity

- Winter exploration drilling
- Increased work in old fields
- Viscous oil
- CD-5
- Pt Thomson
- Great Bear

Also in no small part due to the work of the Legislature, North Slope activity is also up.

We're into the winter exploration season. Conoco is drilling one exploratory well and Repsol is drilling 5 this season. As with new operators in the Inlet, Repsol is putting a regulatory strain on our field inspectors as well as our engineers and geologists in the office.

Activity in the legacy fields is also up. For example, over the past year Prudhoe Bay has experienced a 35 % increase in well work activity and Kuparuk has experienced an 18 % increase. Drilling activity is also up in both fields but I was not able to extract those numbers in time for this presentation. Perhaps the best news is that Prudhoe Bay and Kuparuk annual decline appear to be slowing. The last time I looked at the rolling 12-month decline numbers, Prudhoe was at 2% and Kuparuk was at 4%, compared to their usual decline of 6%.

Both Conoco and BP continue to work at unlocking the enormous potential of viscous oil on the Slope.

And Conoco is working toward development of CD-5, an expansion of its Colville development.

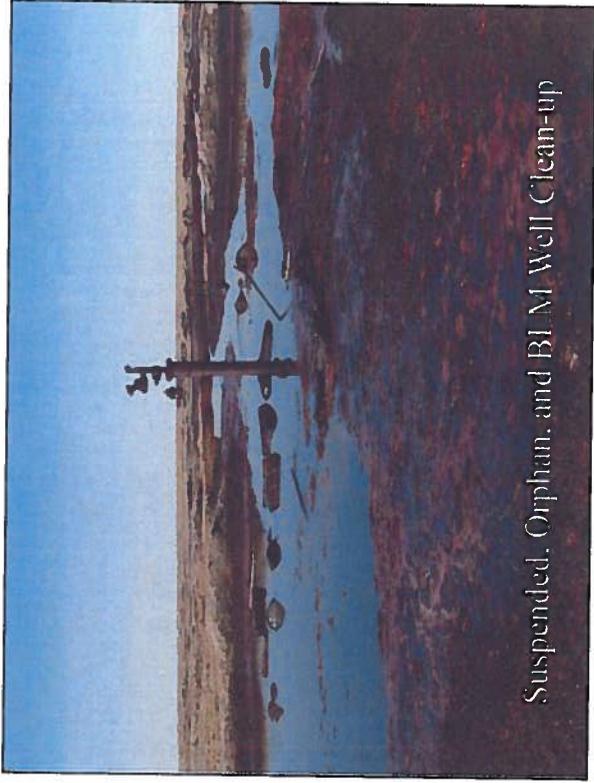
We're expecting renewed well work activity, possibly next year, from Exxon as it moves toward start-up of its Pt Thomson gas cycling pilot.

And we're hopeful that, as Great Bear completes its evaluation of the exploratory data it gathered, they will be back with positive results and a plan to bring Alaska into the shale business.

Hydraulic Fracturing

- Increased public interest
- Fracturing not new to Alaska
- Regulations in place, recently updated

Hydraulic fracturing has recently become a topic of interest. We've been hydraulically fracturing wells in Alaska for over 40 years. About one quarter of Alaska's wells have been hydraulically fractured. And the AOGCC has been regulating these operations since they began. The AOGCC just completed a multi-year effort to modify its regulations, first to keep up with technology advances, second to address fracturing fluids disclosure and water quality monitoring, and third to gather all of our regulatory requirements into a section titled hydraulic fracturing to make it easier for the public to see THAT we are and HOW we are regulating hydraulic fracturing. Hydraulic fracturing is a commonly used and well understood oilfield production enhancement practice, but one that carries a lot of mystique around it. Let me just offer to do my best to answer any questions that you or your constituents might have about it.



States like Texas and Oklahoma have thousands of orphaned wells; Alaska has only a handful. But we don't want to let down our guard and let this become a problem for our state; so we have a constant effort to hold operators accountable for properly plugging and abandoning wells that have no further utility. The only operator we have a major problem with is the Federal Government – I think you're all familiar with the BLM legacy travesty wells.

The bad news is that they're still a problem, and one that generally doesn't get better with time.

The good news is that, thanks to you guys and Senator Murkowski, Congress has given the BLM \$50 million to apply to their clean-up. The even better news is that they are working closely and cooperatively with AOGCC and ADEC to ensure that the clean-up meets state standards, which are significantly higher than their own.

North Slope Gas Sales

- Prevent hydrocarbon waste
- Ensure greater ultimate recovery of total hydrocarbons

And, of course, the AOGCC has a small but important role in the seemingly-never-ending question of North Slope Gas Sales.

Remembering that early slide outlining our mission, the AOGCC is charged by statute to prevent hydrocarbon losses and ensure greater ultimate recovery of total hydrocarbons.

Those two charges have enormous implications for North Slope gas sales. In the world of petroleum engineering it is a simple truism that taking gas from an oil field puts ultimate oil recovery at risk. Prudhoe Bay is an oil field with about 2 billion barrels left to produce and Pt Thomson is also an oil field by technical definition and by the legal definition of the state of Alaska.

So the AOGCC is responsible for determining when and how much gas can be taken from those oil fields so that waste does not occur and greater ultimate recovery is achieved.

North Slope Gas Sales

- Prevent hydrocarbon waste
- Ensure greater ultimate recovery of total hydrocarbons

AOGCC developed white papers describing our role in gas offtake determination, the concerns we have with Prudhoe Bay, and the concerns we have with Pt Thomson. They're kind of long (and probably a bit boring) so I won't go through them here but all three are included for your use, perhaps as a sedative.

In addition to the field-specific issues discussed in those papers, there are a few other issues to mention. First, it is possible that the best use of the Pt Thomson gas will be to inject it into the Prudhoe Bay gas cap to get an added half billion barrels (approximate guess) out of the Prudhoe Bay reservoir. Second, as Conoco and BP work to find ways to unlock the huge potential viscous oil resource, it is highly likely that gas will be part of the solution. Third, if we build it, they will come. I.e., the USGS estimates roughly 150TCF of undiscovered gas on the North Slope. If there is the reality of a market for that gas, then the exploration work needed to realize those discoveries will likely result.

The last thought I want to leave you with is that the monkey is on the operator's back to demonstrate to the AOGCC that selling the gas from Prudhoe Bay and Pt Thomson is the best answer for preventing waste and ensuring greater ultimate recovery. So, we are looking to BP, Conoco, and Exxon to do that. And I doubt they'd spend the big bucks to build a line if they didn't think they could.