

**ALASKA STATE LEGISLATURE
SENATE RESOURCES STANDING COMMITTEE**

February 4, 2009

3:34 p.m.

MEMBERS PRESENT

Senator Lesil McGuire, Co-Chair
Senator Bill Wielechowski, Co-Chair
Senator Charlie Huggins, Vice Chair
Senator Bert Stedman
Senator Gary Stevens
Senator Hollis French

MEMBERS ABSENT

Senator Thomas Wagoner

OTHER LEGISLATORS PRESENT

Senator Joe Thomas
Senator Gene Therriault

COMMITTEE CALENDAR

Anadarko Overview by Mark Hanley

PREVIOUS COMMITTEE ACTION

No previous action to consider

WITNESS REGISTER

MARK HANLEY, Public Affairs Manager
Anadarko Petroleum Alaska
Anchorage, AK

POSITION STATEMENT: Presented update of Anadarko's exploration program.

ACTION NARRATIVE

[3:34:33 PM](#)

CO-CHAIR LESIL MCGUIRE called the Senate Resources Standing Committee meeting to order at 3:34. Present at the call to order were Senators Huggins, Stevens, Stedman, Wielechowski.

Anadarko Update

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MARK HANLEY, Public Affairs Manager, Anadarko Petroleum Alaska, said he would give an update of their exploration program [aided by a power point presentation].

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MR. HANLEY said that Anadarko is a large independent and operates world-wide. Being an independent means they explore for and produce oil and gas; they are not a refiner, they don't have gas stations - typically they don't have the down stream stuff. They are pretty significant in the US Deep Water Gulf of Mexico, along with other operations all over the world. In Alaska, they have 4.9 million gross acres of exploration and 1.7 million net. The differences are because they have partners in all of their prospects so they typically don't have 100 percent of the acres.

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Anadarko's Foothills exploration program is a gas prone area. People started looking for oil there before they found Prudhoe Bay. Most of the time when they drilled wells they found gas and not oil. Gubik and Wolf Creek, where Anadarko is drilling this winter, are already discovered gas fields, but Anadarko is trying to identify how big they are and how easy they will be to deliver and how much it will cost to get it out. They always thought it would take three exploration seasons and a lot of wells to really have a feel for what they have; and they are now in drill season two. Last season they drilled one and half wells and they are back this year with two rigs instead of one - if that is any indication.

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Slide 5 showed the Gubik complex. BG Alaska and Petro Canada are Anadarko's partners there.

SENATOR WIELECHOWSKI asked if Anadarko is drilling on state land now.

MR. HANLEY answered that Anadarko is drilling one well on Arctic Slope Regional Corporation (ASRC) land and one on federal National Petroleum Reserve Alaska (NPRA) land.

SENATOR WIELECHOWSKI asked if ASRC land is subject to all of the state production royalties and taxes.

MR. HANLEY replied that it is subject to the ACES tax system, but there is a special setup for taxes on private land. The royalties belong to ASRC.

SENATOR WIELECHOWSKI asked what the state would get from the NPRA.

MR. HANLEY replied the state would get all the severance tax just like it would on state land and half the royalties (50/50 sharing with the federal government).

SENATOR WIELECHOWSKI asked how the state tax rate compared with the federal tax rate.

MR. HANLEY answered that there is no federal severance tax; federal land gets only royalties.

SENATOR WIELECHOWSKI asked if the royalty was 12.5 percent on the federal side.

MR. HANLEY replied that he wasn't sure, but he would find out.

SENATOR WIELECHOWSKI said he was just trying to clarify how much the state gets on the NPRA.

MR. HANLEY replied the state gets all the severance tax because that is under the state ACES tax regime; there is no federal severance tax. But there are federal royalties which the state gets half of on federal leases.

SENATOR WIELECHOWSKI asked him to explain why the state doesn't get a production tax on ANWR, but gets one on the NPRA.

MR. HANLEY said he is not the expert and ANWR is not open, but assuming it was, his understanding is that the state would have a production tax (ACES) and the state/federal split, which for ANWR is 90/10(although changing it has been suggested).

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SENATOR FRENCH joined the committee.

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MR. HANLEY recapped that for the first season in the Gubik field Anadarko set out to do two wells with one rig; the first which is called the Gubik 3 well is shallower at around 4,000 feet. As soon as they finished drilling that, they moved the rig over to the much deeper (10,800 ft.) Chandler 1 prospect and got to

2,000 feet before having to get off the tundra. Knowing that was a possibility, they insulated the ice pad before putting the rig on it and actually left the rig out there.

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In season two the goal is to finish drilling Chandler 1 and they are drilling as he speaks, and evaluate that, then move the rig over to Gubik 4. Both wells need to be evaluated to see how they flow and to understand how many wells it will take to drain the field.

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SENATOR WIELECHOWSKI asked if they find gas, had they thought about a gas treatment plant.

MR. HANLEY replied yes; but the Gubik field is fairly dry gas. Not much treatment is needed to get to pipeline quality.

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CHAIR MCGUIRE asked how many people are employed at a treatment facility.

MR. HANLEY replied that he didn't know. He continued that Gubik 4 is a shallower test well so that might get down this season. The second rig is now drilling at Wolf Creek 4 in the NPRA, about 35 air miles north of Umiat. They are hoping it will help them understand some of the characteristics of the area.

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Slide 11 pictured the insulated ice pad on the tundra at Chandler 1 in the summer of 2008. He explained that their program for the 1.25 wells was \$90 million; half of that was moving things in and out. It took a lot of time to move the drill in and leaving it up, while it cost a lot of money, gave them enough time to drill two wells. They have two challenges: dealing with tundra closures and operating in the limited winter season.

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SENATOR HUGGINS asked him to describe the process for waivers.

MR. HANLEY replied there is a permit process. The Chandler well is on ASRC land and has its own permitting process. Anadarko has to do engineering and follow up studies on the tundra to make sure there is no damage. He said that insulated ice pads have been relatively successful in the past.

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CHAIR MCGUIRE asked if the insulated pad technology is proprietary.

MR. HANLEY replied no; it's available to everybody. He knew of a total of five insulated ice pads on the North Slope.

He said when they are done with Chandler 1, the drill rig will be moved to Gubik 4 that already has four wells. They are trying to understand this particular field - how big it is and how well it will flow and they will have a relatively good idea after this season.

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Wolf Creek 4 in the NPRA was on slide 13; they have the same partners and are using the second rig there. Because it has a runway, they were able to fly some of the equipment to Umiat with a Herc aircraft.

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Slide 14 showed a map of their 80-plus miles of ice road and 80-plus miles of packed snow road. He explained that Anadarko was able to get site specific clearance for tundra travel because they installed monitors along the proposed route early in the season that could monitor temperatures at certain depths and let them know when a certain temperature was hit. Traveling across the tundra has many challenges like heavy snow insulating the tundra so it won't freeze. In that case they have to pack it down and drive the cold down.

He explained that a lot of their equipment was brought in by truck across gravel, then to the end of the ice road, then on to the Rollagons where it had to be moved across multiple rivers that had to be adequately frozen. Now that everything is staged out there, they are finishing building the ice road. This will allow them to truck everything out so they can stay on the tundra longer. Rollagons go very slow and can handle a lot more load versus a truck on an ice road, but he said "Days are critical."

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CHAIR MCGUIRE asked how many people are working there now.

MR. HANLEY replied hundreds.

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Slide 15 showed the Foothills that, for instance, has less water; so it has to be hauled further. This is considered summer field work.

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Slide 16 showed the Foothills snow road for the winter 2007/08.

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MR. HANLEY said Anadarko needs multiple fields in the Gubik area to make it work. They know gas is there, but they don't know how much and how deliverable it will be. It's likely that multiple fields will have to be tied together to reach the necessary volumes. He emphasized that the earliest time they could see gas is 2016 if things work well. Someone talked about a road, and Mr. Hanley said that could help expedite development and improve economics in that area. After a couple of years, if they think they have enough to go forward, a road-type process requires two years of EIS permitting before construction can even start. So they have talked about starting the permitting process with the state now; it would cost approximately \$2 million, relatively little. A road could expedite the development of the gas and improve the economics if gas were found.

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SENATOR WIELECHOWSKI said Enstar wanted gas flowing within five years and asked if that was possible.

MR. HANLEY replied Anadarko's desire is to get the gas when it's needed, but it appears there is a little disconnect in expectations. Anadarko needs 500 mmcf/day for 20 years to make the economics work. At 250 mmcf/day, the tariff could be \$5-\$7 and that would kill the project and that is the main reason they don't want to start with a small amount of gas. If people need gas sooner, help with the tariff would be important.

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SENATOR WIELECHOWSKI asked if he anticipated what the cost to the consumers in Southcentral would be if a bullet line brought gas down from Gubik to Anchorage or Fairbanks.

MR. HANLEY answered he is working with Enstar on their numbers, which is a range of \$2-\$2.25 at 500 mmcf/day for a 3.8 billion or 4 billion bcf/day pipeline. His personal thought was \$2-\$3, assuming Enstar's cost estimates are correct.

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SENATOR WIELECHOWSKI said Enstar thought they could do a total cost of Henry Hub - including the tariff of \$10 or \$12. He asked, "Are you seeing Henry Hub plus your tariff, Henry Hub minus your tariff or Henry Hub? I mean, do you have an idea?"

MR. HANLEY replied:

I can tell you, at \$4[gas price] with a \$2 or \$3 tariff, we can't make the project go.... It's not so much what the price is today; it's what the price is eight years from now till 28 years from now; and that's something we have to estimate and run our own economics and, of course, we don't share what we think.

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SENATOR WIELECHOWSKI asked what their estimated reserves are; he heard 600 bcf/day.

MR. HANLEY answered they haven't disclosed their reserves. The USGS put 600 bcf on the Gubik field, but Anadarko needs a couple of tcf.

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SENATOR STEDMAN said he was having trouble connecting the dots between Enstar's and Anadarko's concept of the bullet line and its relationship with the bigger line. Enstar said 3.5 tcf would work. Where did they get that number?

MR. HANLEY said he didn't know where Enstar got that number, but Anadarko's figures show that 500mmcf/day results in 3.6 tcf over 20 years and that could be where it came from. But there are all kinds of questions; will it be financed over 30 years; do they have to make commitments over 30 years? The big pipeline doesn't have 25 years of gas identified at 4 bcf/day. So they are talking about taking some risk that they are going to find the gas if they are going to commit it. Once a company like Anadarko finds 2.8 tcf, they might be willing to make a commitment without actually having found it yet.

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SENATOR STEDMAN asked him to elaborate on the first gas scenario in 2016. What's the outside number?

MR. HANLEY replied the outside number is they don't find enough gas to even have a project. After three seasons, if they feel comfortable they have something out there, and it looks like

there's a pipe going, they might invest \$3-\$5 billion. A lot of things could be converging in the third season in 2010 when an open season is supposed to happen. If the bullet line makes economic sense, a spur line off the big line is going to be more economic. Those decisions will be made at the end of two years.

SENATOR STEDMAN said he thought Enstar was trying to get to an open season next year.

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MR. HANLEY repeated that Anadarko will see what they've got in two years. It could become a policy call if the big line isn't going yet.

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SENATOR STEDMAN asked if Anadarko was financing the Enstar proposal with its firm transportation commitments and how do they deal with that knowing they have to also bid in an open season with Denali or TransCanada. "Do have to wait till that's done to deal with this little line so you don't go for the little one and the big fish gets away?"

MR. HANLEY replied Anadarko wouldn't be ready in 2010 for an open season commitment. But if someone is putting a pipeline in and showing terms Anadarko's economics can make, they will make a commitment. If they both happen at the same time, he will look at the one that makes the most sense economically.

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SENATOR STEDMAN said he is having trouble with all the proposals colliding together. The legislature is being asked to give concessions and he didn't know what Enstar would request from the treasury. From his perspective, it's kind of dicey dealing with a small 24 inch line if it's going to have an open season in 2010 along with two other open seasons. He didn't want to end up committing state resources, meaning the treasury, into a pipe dream when actually what they want is the pipe line. He said it's challenging for him when he hears these presentations.

Maybe you can elaborate a little bit more on how many wells you guys need to put down and how much is it going to cost to put your infield development in - we've had estimates on the gas treatment plant on the North Slope and we've had arguments over the credit - include it, don't include it - you know and all that other stuff, but I have no idea what kind of infrastructure you guys are faced with you know to try

to make a judgment - you know is it the pipe dream or the pipe line.

MR. HANLEY replied that a lot of things are conceptual and in the next two seasons they are going to try to answer those questions - like how many wells are they going to have to put down. The investment is in \$3-\$5 billion range including a treatment facility to develop the area. At this point, they are not asking for state support on anything other than talking to the state about this preliminary work on a road in case they are successful.

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CHAIR MCGUIRE said the instate lines get favorable tariff treatment and that might weigh in his decision.

MR. HANLEY said that would help and would definitely weigh in their decisions. The rate goes through 2023.

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SENATOR STEDMAN asked if they would prefer to have a Henry Hub price structure versus a fixed rate like Cook Inlet has.

MR. HANLEY replied he didn't know what prices they would need for a big pipeline. Anadarko calculates its figures differently and has a higher risk profile.

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SENATOR FRENCH asked how cash flow on a 500 standard cf/day pipeline line (bullet line) is calculated. For instance, is each dollar of tariff worth about \$500,000? Because Mr. Hanley is saying that a dollar or two of profit per mcf is not enough to make the project economic. "It's easy with oil. You just multiply the barrels times the price and you know what the gross is. It's just trickier with gas because you've got to switch between standard cubic feet that you measure measurement in and thousand cubic feet that they charge you for at the pump."

MR. HANLEY said he would take his word for it, but Anadarko doesn't consider anything over the tariff as profit. Generally speaking, Prudhoe Bay gas will be more economic than Anadarko's gas because it has already been discovered and it's a large volume. It has no discovery risk. Anadarko will need to find more gas and get a better price for it because they still have to pay for finding it and its development will cost more per unit as well.

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CO-CHAIR MCGUIRE thanked him for his comments and asked him to continue communicating Anadarko's position with this committee.

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SENATOR STEDMAN asked what Anadarko thinks is coming in the future in terms of a slow down in development and price shocks.

MR. HANLEY said he wished he knew the future. All the companies are facing changes. Cash flow will be way down this year although they hedged a lot of their natural gas.

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SENATOR STEDMAN asked when Anadarko will announce its capital spend for the coming two-year cycle.

MR. HANLEY said that is up in the air, but he would get him that information.

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SENATOR HUGGINS said Pioneer owns 30 rigs and only two are now employed. He also disagreed with Senator Stedman about the bullet line and he didn't often disagree with him. About one year ago Enstar came to the legislature and said a bullet line would cost \$3.3 billion and that they didn't need any help from the state. But last July, he saw a news cast with the government right in the middle of it; Enstar was sitting on one side and ANGDA on the other. Suddenly the government is here to help. He thought the government would help simply because Fairbanks doesn't have gas. The surety of supply from Cook Inlet is a question mark. He thought they would do a bullet line under some circumstances that would work for the people of Alaska. In any event, he asked, in their present activities, minus permitting, is there anything the government can do to facilitate their success.

MR. HANLEY answered the tax treatment is sitting out there as a question for non-instate gas. There seems to be an expectation that will be addressed again and that should happen before a 2010 open season. Not addressing it creates a risk factor.

SENATOR HUGGINS agreed that it's time to get on with that process. He asked what sort of variables are on his economic improvement list.

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MR. HANLEY replied if the tariff could stay at \$2.25 that would help and if they could start with 250 tcf/day for 20 years instead of 500 that would cut down on the number of wells they would have to drill to feel comfortable with what they have to develop it. But it wouldn't move the project back two years.

SENATOR HUGGINS said this committee is anticipating legislation from the administration on instate gas. He asked if Anadarko or surrogates of Anadarko were coordinating with the administration about delivery of instate gas.

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MR. HANLEY replied that he had talked to the administration as recently as today on legislation regarding the statutes on instate pipelines and had said some clarification would be helpful.

CHAIR MCGUIRE asked him to explain the difference between a common carrier and a contract carrier.

MR. HANLEY said he is not an expert, but that typically most oil pipelines are regulated on a common carrier basis. So if a company builds a pipeline and fills it with oil and someone else finds oil and wants to put some of it into the already full pipeline, it allows the new oil in and everybody gets prorated 10 percent (or whatever percentage of the volume the new oil takes). A contract carrier contracts for space on a pipeline through the open season process. So, if a company gets .5 bcf/day on the pipe during the open season, it is committed to pay that for 20 years whether or not it ships any gas. This is how the pipeline is financed in the first place. The difference is if that pipeline gets full, the company doesn't get prorated. So, from Anadarko's perspective when you go to contract carriers the expansion language is critical.

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CHAIR MCGUIRE asked him to speculate on how much sooner their project could come to fruition if the road were built.

MR. HANLEY replied it depends on how soon the road got built; sooner would clearly help a long-term development project. The assumption is that the pipeline will follow the corridor along with the road. If the road were built soon enough to do a fair amount of the development versus trying to do it during the winter season, which is typical, they could work over 10 or 12 months instead of four. Some of that is figured into the 2016

scenario. It's hard to get better than that - unless the amount of gas needed is reduced and everything else works well.

SENATOR MCGUIRE asked when the road would be completed in Anadarko's perfect world and what can the committee do to facilitate it.

MR. HANLEY replied that the DOT people know the answer to the road question. The two years required for permitting takes them out to 2011. He guessed building the road might be a three-year process; so that would take them out to 2014. If a road is going in and it looks like Anadarko isn't ready, they might just slow it down to take advantage of the road. He repeated that this is part of the problem they have in trying to figure out what a potential development is; they don't understand exactly what they have yet and a wide range of things are sitting out there as options. The permitting process they are starting with the state is worthwhile because it will save two years if enough gas is found. The tax issue is important for everybody.

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CHAIR MCGUIRE asked him to review what kind of projects Anadarko has in the rest of the world.

MR. HANLEY responded Anadarko has multiple offshore oil discoveries in Ghana and two more deep-water discoveries in the Gulf of Mexico. They currently operate the Independence Hub, a hub of fields in the Gulf of Mexico that is producing about 1 bcf/day that comes into the US. None of the individual fields on their own would be economic and it's not just their gas, but other companies that are coming in. It could be analogous to the Gubik area. Domestically, they are in the Barnett Shale, they are doing some drilling in Pennsylvania, and they have a lot of presence in the shale gas play in the Colorado Rockies.

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SENATOR HUGGINS asked him to comment on the value of railroads, particularly when it comes to pipeline support, going up to the North Slope. He asked where that would rest on Anadarko's Richter scale - minus the big pipeline and if there was open water to the north.

MR. HANLEY answered he hadn't thought about it; but anything that would help the economics of any of these projects would be good.

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CO-CHAIR MCGUIRE thanked him for his comments and adjourned the meeting at 4:53 p.m.