



Douglas A. Ducey
Governor

State of Arizona
Oil and Gas Conservation Commission

1110 W. Washington Street, Phoenix, AZ 85007

602-771-4501

www.azogcc.az.gov

Dennis L. Turner, Oil and Gas Administrator

Commissioners:
Frank Thorwald, Chair
Vice Chair, vacant
Stephen R. Cooper
William C. Feyerabend
J. Dale Nations, Ph.D.

June 29, 2018

IN THE MATTER OF APPLICATION TO:
MULTIPLE ZONE COMPLETION, FILED BY:

RANGER DEVELOPMENT LLC.

NOTICE OF HEARING

ON SECTION 33, TOWNSHIP 20 NORTH
RANGE 27 EAST, G&SRM

FOR THE PROPOSED WELL RANGER 33-1 NS

RANGER DEVELOPMENT LLC., having filed application and notice of intention to drill a new well on Section 33, Township 20 North, Range 27 East, Gila and Salt River Base and Meridian, the location being in Apache County, Arizona, and having requested that an exception be made to Arizona Administrative Code R12-7-116(C) relative to the multiple zone completions of gas wells, and having received a protest to the multiple zone completion,

IT IS HEREBY ORDERED, under the provisions of Arizona Administrative Code R12-7-116(C)(3) that a public hearing be held at the office of the Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix Arizona on the 13th July 2018, Room 145 at the hour of 10:00 a.m. at which time and place any and all interested parties may produce evidence as to why said application for a multiple zone completion in the Coconino Sandstone and the Shinarump Conglomerate of the Chinle Formation should or should not be granted.

GIVEN under my hand and the seal of seal of the State of Arizona this 29th day of June, 2017.

Frank Thorwald /S/

Frank Thorwald
Chairman, Oil Gas Conservation Commission

AGENDA FOR PUBLIC HEARING FOR RANGER DEVELOPMENT LLC.

July 13, 2018

10:00 a.m., Room 145

Arizona Department of Environmental Quality

- The parties that brought forth the protest shall present to the Commission and discuss their reasons for objecting to a multiple zone completion in the Coconino Sandstone and the Shinarump Conglomerate of the Chinle Formation in the Ranger 33-1 NS.
- The Commission shall discuss with the protesting parties, consider their reasons and vote to grant or deny the multiple zone completion for the proposed Ranger 33-1 NS.

NOTE: THIS HEARING IS THE FIRST OF TWO. THE SECOND HEARING WILL IMMEDIATELY FOLLOW THE CONCLUSION OF THE AEP HEARING.

IMMEDIATELY FOLLOWING THE CONCLUSION OF THE SECOND HEARING, THE COMMISSION WILL RECONVENE FOR A REGULAR PUBLIC MEETING. SEE SEPARATE AGENDA.



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Public Hearing of the Arizona Oil & Gas Conservation Commission

Ranger Development Multi-Zone Completion of the Ranger 33-1 NS

10:00 a.m., July 13, 2018, ADEQ Conference Room 145, Phoenix, Arizona

Name / Organization – please print	email	phone
FRANK THORWALD		
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DR. DALE NATIONS	via phone	

Board of Arizona Oil and Gas Conservation Commission,

IN THE MATTER OF APPLICATION TO: MULTIPLE ZONE COMPLETION, FILED BY: PUBLIC NOTICE OF A 15 DAY HOLDING PERIOD RANGER DEVELOPMENT LLC. ON SECTION 33, TOWNSHIP 20 NORTH RANGE 27 EAST, G&SRM FOR THE PROPOSED WELL RANGER 33-1 NS

According to the Arizona State Land Department Documentation Guidelines and Requirements Mineral operations on State Trust Lands, Section 1, under Report Structure it says, "The (mandatory) Mineral Development Report (MDR) consists of five major sections: 1) Geologic Assessment, 2) Economic Viability, 3) Environmental Assessment, 4) Mine Operating Plan, and 5) Reclamation Plan."

We understand that all of our questions cannot be answered today, but we expect to be informed about their answers before moving forward with production plans, and we anticipate further discussions about our concerns. Fracking will be the term used throughout this speech to refer to artificial stimulation, injection methods, and hydraulic fracturing.

1) Geologic Assessment

Are you planning on drilling through the Coconino aquifer?

What are the seismic risks in this proposed area?

Are there fault lines in this area, what is their location and how will they be affected by fracking fluids?

How will the pressure caused by pumping fracking fluids affect these fault lines?

What do the studies show about fracking in this proximity to dormant volcanoes and what are all of the risks involved?

2) Economic Viability

Do the oil companies plan on maintaining the roads they use or are they leaving that up to the counties and cities they transport through?

How many jobs have you hired out to people from Arizona?

How many people have you hired from places other than Arizona to run your business locally?

How much have you spent in damages caused by wells that have become compromised or accidents that have happened because of drilling, fracking, artificial stimulation or injection methods in the past?

What has happened to property values in the areas you were fracking before, during and after the fact?

3) Environmental Assessment

Would a cracked casing leak contaminants into the aquifer?

What is the potential for contamination of fracking fluids getting into our drinking water and private wells?

How do you justify using this water during a drought?

Can we afford to remove millions of gallons of water from our natural water cycle, permanently? Who and what could be negatively affected by this?

What impact will the drilling have on migration patterns of wildlife?

The Navajo Nation is already struggling to get sufficient water supplies to the people. How do you justify taking water on this scale when sources are limited for native communities?

What is a proven safe distance for a helium well from a home?

Have helium wells ever caught fire or exploded?

What chemicals are off gassed into the environment?

Can any of these chemicals that are off gassed harm humans, animals, plants, the soil or cause greenhouse gasses to warm up our region?

Will the wells be allowed to vent carcinogenic gasses into the air? What are the limits on this, if any?

Will these chemicals build up over time and how long do these chemicals take to become inert once they have been evacuated into the air?

How are we going to address the climate issue if we keep taking fossil fuels out of the ground and combusting them into the atmosphere?

What are the risks of escaping gasses from closed wells and what does that do to global climate change?

What ingredients are in your fracking fluids?

Assessing Effects at Different Scales

We want to point out that we want research done on many levels. We are concerned about effects on the soil/microbial mat, the water for contamination, the air for particulate matter. We want those levels kept below the line of what is considered unsafe. We want to know how the amphibians, fish, mammals, insects, birds and all migrating creatures that travel through this land are affected by contamination from fracking and we want to make sure that none of these populations will be affected in any way by the process. We want all endangered species to be protected as well. What are the risks to the basic survival of the food chain and endangered plants and animals?

On the next level, we want to make sure that you are studying the effects of bioaccumulation due to contaminants released from fracking. We want to know what species are hit the hardest, because we have birds of prey that travel through our region and they have been known to be negatively affected by eating contaminated food sources. What are the risks to the native animals in our region and the migrating animals?

We want to know how local communities will be affected. For instance, the road traffic and cost to the taxpayers for road repairs. We want to study how the local communities can be affected by this. We want to know if your workers have background checks. What are the risks to our local communities?

Next, we want to know how this can affect us on a state level. We need to look at the drought, fire risk, as well as financial responsibility. What are the risks to our state?

After that, we want to look at the effects on the southwestern states that are near us. Will roads into New Mexico or Utah be overburdened with damage from increased industrial traffic? What are the risks on a regional level?

Are there any risks on a national level? If we focus on helium or natural gas will this affect our ability/desire to begin using more sustainable methods of procuring energy, and more?

What are the risks on a global level? We need to be responsible citizens on this planet with limited resources and we need to treat our planet with care. If we don't we are borrowing from the future of our children and dooming them to a life of survival instead of thriving. How are we affecting the global climate?

Other Concerns and Requests

The Phoenix Resource Management plan, which is the RMP for the region, is from 1989 and we believe this is outdated. There are new endangered species, newer technologies for artificial stimulation, and newer/different chemicals being used for fracking. We want Environmental Impact Studies done on climate, drought, water availability and how this could effect the future viability of our great state. We want an Environmental Impact Study done on all of the chemicals used throughout the entire artificial stimulation process and how it is going to affect the air, water, soil and animals.

We need comprehensive panel of water tests before any type of artificial stimulation occurs. We want to know the levels of each of these chemicals in the water within a mile radius to get a baseline of the condition of the local water supplies. We would want these tests done quarterly so that we can get a proper reading of contaminants, if any.

1. Ethylene Glycol
2. Formaldehyde
3. Arsenic
4. Strontium
5. Iron

6. Magnesium
7. Radionuclides
8. Radon
9. Radium 226
10. Radium 228
11. Methanol
12. Acrylamide
13. Methane
14. Propane
15. Ethane

There is so much that is unknown that we feel it is the duty of the Oil and Gas Commission to require an extensive environmental analysis before allowing multi-zone drilling of any sort to commence. The risks need to be assessed with all available technologies so that we are not allowing the future viability of the region to be compromised for generations to come.

Other items of concern are:

- All local tribes were not consulted.
- Existing laws and policies were not followed.
- There is not enough research done nor has that information been presented to the public about places that deserve historic preservation.
- We are requesting comprehensive baseline air, land and water quality tests.

Under the Geologic Assessment, the Economic Viability Assessment, the Environmental Assessment, Mine Operating Plan and the Reclamation Plan we need more research done in order to move forward with this permit. Relevant and recent studies and assessments need to be done.

Considering that the drought of NM was enough to increase the risks of this type of operation to a point that the leases were turned down, I think we should consider our drought as a major factor in making a decision as to whether or not acid fracking will be a safe practice in our region.

Corporations have already taken a lot of water, and we don't feel like it is a good idea to take any more. We are also sucking down the aquifer and pumping water from Coconino to Flagstaff. We can not afford to take more water from our aquifer for this. In fact, the water table in the Navajo Nation is being sucked down and this is removing their surface water. It is impacting all the wildlife including endangered species. This is an obvious case of "social injustice" and should not be allowed on any level. We need to stop sacrificing the limited and scarce resources the Navajo have for everyone else. And, we feel that to utilize the water of the Navajo further in this manner, even if they consent, and to rape their water supply further is an abuse of power under color of law.

According to a geologist we spoke to, he said, "plainly and simply fracking is dangerous environmentally and assaults the crust of the earth in a way that can't be reversed and it is also economically one sided. Although there are natural occurrences that affect the earth's crust negatively, we shouldn't be heaping more damage onto the natural earth crusts in a shotgun method. What they do now could have an effect on the planet for the next million years or more."

We owe it to our children, to their children, to all future generations to leave this place better than we found it. We have to stop taking everything we can at unsustainable rates. We are risking the our own lives and lives of those who will follow us. We are doing irreparable damage to the entire biosphere and in some ways it will never be able to recover. Fracking is spreading like a cancer and leaves in its wake the same kind of effects that would be caused by weapons of mass destruction. We can do better than this. We must do better than this. There is a better way.

Thank you.

Carlin Caldwell

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