Response to follow-up questions from the EMR hearing on Sept. 19, 2023

Dr. Barbara Vasquez for Western Organization of Resource Councils

- **How do unused oil and gas leases on public lands influence the management of those lands for other uses - e.g., clean-energy deployment, recreation, or wildlife?**

Over the last five years, 2,965 APDs were approved, however, only 1,753 wells were actually drilled[1]. This shows that oil and gas companies are sitting on their leases, often for speculative purposes, rather than releasing them for other uses that are in the public interest. Thousands of leases are active and yet development has yet to start, tying up public resources for private gain and denying taxpayers and the federal government the royalties generated from oil and gas production. If unused oil and gas leases were retired, the land could then be managed for other purposes such as recreation, wildlife habitat and connectivity, or clean energy projects, helping to fulfill BLM's multiple use mandate.

Oil and gas leases have a term of ten years and if not developed, the lease is supposed to be returned to the BLM for potential future lease sale, or made available for other uses. However, lease terms can easily be extended, sometimes for decades, even if there is no production on that parcel by suspending the lease.[2] In addition, if leases are combined into a unit, all the leases can be held 'in production' with development only on one or a limited number of the lease parcels in the unit. With this structure, a given lease may be held 'in production' and locked up for decades, preventing the BLM from managing these acreages for other uses.

A recent study found that wilderness-quality lands are three times less likely to be managed to protect those characteristics if they overlap with oil and gas leases, even if those leases are purely speculative.[3] This shows a direct correlation between oil and gas leasing and negative impacts on BLM's active management of not only the lands under lease but adjacent lands, even when leases are not developed.

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[1] Chart compiled from "Oil and Gas Statistics," Bureau of Land Management, US Department of the Interior, https://www.blm.gov/programs-energy-and-minerals-oil-and-gas-oil-and-gas-statistics

[2] https://www.gao.gov/products/gao-18-411

[3] https://storymaps.arcgis.com/stories/baa3a7b6346047d3a1d46ef9ea1ca4fd

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- **How will the updated bonding requirements under the proposed rule speed up the reclamation of idled wells?**

The history of oil and gas development is played out time and time again across the country – when prices are high, drilling increases, and when prices are low, wells are left idle and abandoned or sold so current operators can offload liabilities. Those assets are usually sold to a buyer who is less financially viable than the seller. The Government Accountability Office has identified 5,100 wells that have been idle for seven or more years, including 2,313 wells which have been idle for more than 25 years.[4]

The updated bonding requirements proposed by BLM will ensure that, moving forward, operators have financial incentives to clean up and reclaim the land that they disturbed through the drilling, completion and production processes. A security deposit on an apartment causes a tenant to treat the space they inhabit with respect and consult their wallet before they leave a mess behind. The same concept can be applied to the updated bonding requirements for the operators. Operators will be providing the financial assurance to guarantee that the funds needed to pay for clean-up will be available at the end of the useful life of the well even before drilling commences. In this way, if they do end up walking away from their responsibilities, the money is present and accounted for. With the funds from the bonds available, BLM field offices, state agencies, and communities will not need to search for the operator or track down prior lessees or operators and force them to take action, but will instead be able to begin the process of plugging the wells and reclaiming the land in a timely and efficient manner without relying on taxpayer dollars to cover the costs. **That speed of execution is critical to minimize the impacts of unplugged inactive wells.**

Another important element of the proposed rules is the requirement for operators of existing wells to bring their bonds into compliance. Operators will be required to meet or exceed the new minimum bond amount within one year of the effective date of the final rule, or within two years for statewide bonds. Nationwide bonds will be eliminated and must be converted to statewide bonds within three years. Within three years all existing operators should be compliant with the new bonding requirements.

[4] https://www.gao.gov/products/gao-11-292

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A key change that will speed up the reclamation process is a provision included in the Inflation Reduction Act and later included in BLM's oil and gas rule, which reduces the duration of inactive status from seven years to four years before a well can be designated as idle. This will shorten the current process for reclaiming inactive wells by three years. The updates to the idle well review process will also ensure that these wells are closed in an efficient manner. Dormant wells are not only a waste to taxpayers, they are also dangerous to our public lands and the health of local communities. The increased bond requirements paired with dedicated oversight will finally provide the BLM the tools to bring the orphaned and idle well crisis under control. While four years is better than seven, even a four-year inactive period means wells remain unplugged and surface un-reclaimed for far too long, exposing the land, water, wildlife, and communities to greater risk. We look forward to a future reduction in this threshold.

Colorado had approximately 7,400 wells on federal minerals as of 2020 according to the BLM. Colorado has experienced operators declaring bankruptcy without resulting in a purchase of the assets by another company, as Ms. Sgamma claimed to be the usual outcome during her testimony. Some operators have a business model based on abandonment by bankruptcy. Below are two examples of this business model where the wells and infrastructure were ultimately left for taxpayers to cover the costs of plugging and reclamation. Petroshare Corporation went bankrupt in the fall of 2019 with 89 wells on federal minerals. Although the owners of the loans took possession of some of the assets, 53 of the 89 wells were abandoned. FRAM Americas, a Norwegian company operating in western Colorado, declared bankruptcy and abandoned 108 wells on federal minerals.

> *Fram claimed it had no money to plug the wells and Fram's bankruptcy attorney Kenneth Buechler explained the company's position.*
>
> *"I assume that the government authorities will plug the wells since the companies are no longer in business," Buechler said.*[5]

[5] https://www.desmog.com/2020/10/15/bankruptcies-oil-gas-multi-billion-cleanup-bill-public/

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- **What are the impacts of idled wells on federal land?**

The true extent of the idled and orphaned oil well crisis is unknown. Thousands of orphaned wells cannot be located by regulators because they predate modern record-keeping, and BLM's recordkeeping system for modern wells has been repeatedly criticized by GAO and others for incomplete records and lack of public access and transparency. However, we do know that idle wells are not just an eye-sore — they directly disturb the land, water and communities that surround them. Surface disturbances associated with idle wells destroy and fragment wildlife habitat, and contamination threatens wildlife and livestock. The disturbances include not only the well pads themselves, which are often poisoned with herbicide to prevent plant growth, but all the roads developed to access the sites. In addition, in Greater Sage Grouse habitat, the power lines and tanks provide perching opportunities for raptors and corvids which prey on the birds. For that reason, Greater Sage Grouse will avoid using the habitat surrounding such vertical structures.

Unplugged wells can release methane, a potent greenhouse gas. Unplugged wells often leak pollutants that impact water and air quality, posing risks to public health and safety. According to the EPA, each year unplugged wells in the United States emit as much greenhouse gases as 2.1 million passenger cars - an estimated 7 MMT of carbon dioxide and 281 kg of methane in 2018.[6] A more recent study pinned the emissions from unplugged wells in the U.S. at 20% higher and estimated that abandoned oil and gas wells are responsible for up to 10% of the total methane emissions from the oil and gas sector.[7] Research also shows that methane emissions from abandoned wells persist over many years and likely decades. Unplugged gas wells and certain gas wells that must be vented after they are plugged appear to be high emitters.[8] Studies in California[9] and Pennsylvania[10] reached the same conclusion: that abandoned wells continue to leak methane and cause environmental and public health damage. Another study found that of the 121 unplugged idle wells analyzed, 64% were

[6] EPA, Inventory of US GHG Emissions and Sinks, 1990-2018

[7] Environmental Science & Technology, Correction to Methane Emissions from Abandoned Oil and Gas Wells in Canada and the United States

[8] Proceedings of the National Academy of Sciences, Identification and characterization of high methane-emitting abandoned oil and gas wells

[9] Environmental Science & Technology, Methane Emissions from Abandoned Oil and Gas Wells in California. Abandoned wells are defined as plugged, unplugged and idle wells

[10] National Energy Technology Laboratory, Methane Emissions from Abandoned Oil and Gas Wells: A Case Study in Oil Creek State Park, Pennsylvania.

emitting contaminants into the air. Researchers have found that average plugging costs are justified by the avoided social cost of methane emissions, and that reducing methane emissions from abandoned wells is a cost-effective strategy for addressing climate change.[11]

General safety is a serious concern when it comes to idle and orphaned wells. These wells have not been plugged properly yet, which means that they cryptically emit methane and other organic pollutants into the air. There have been many cases of explosions and other community disasters caused by idle and orphaned wells. A Wyoming school shut down for more than a year after students and teachers complained of headaches for weeks. Air quality tests revealed high levels of benzene and carbon dioxide, most likely caused by the nearby abandoned oil well.[12] Another example comes from Firestone, Colorado, where a home exploded adjacent to an oil and gas field when the petroleum corporation restarted a well that had been dormant for a year, a damaged flowline filled the basement with gas and ignited it into a fireball.[13]

There has been much less research on the impacts of idle wells on water sources. However, they are known to increase the risk of nearby groundwater contamination and consequently impact the communities and ecosystems within the surrounding area. A recent study done on orphaned wells found that more than 4.6 million people in the United States live within 1 kilometer of an orphaned well; however, only 8% of the 81,857 documented orphaned wells analyzed have groundwater quality data within a 1 kilometer radius, and most of that available data (70%) was gathered before 2000.[14] BLM must conduct a significant amount of research to determine the true impacts that idle and orphaned wells have on groundwater quality, but we know the impacts aren't minor. WORC has members who have seen their cattle die due to water contamination from nearby fossil fuel development and communities that have needed to outsource water delivery due to groundwater contamination. Idle wells may look harmless, but they are a danger to our federal lands, thriving ecosystems, and local communities.

[11] Energy Policy, Reducing methane emissions from abandoned oil and gas wells: Strategies and costs
[12] https://www.wyomingpublicmedia.org/open-spaces/2016-11-07/what-happened-in-midwest-the-mysterious-gas-leak-that-shuttered-a-school
[13] https://www.cpr.org/2019/10/29/ntsb-firestone-house-explosion-report/
[14] https://iopscience.iop.org/article/10.1088/1748-9326/acdae7