



**Pennsylvania House Environmental Resources & Energy Committee
Public Hearing on the Plugging and Abandonment of Conventional Oil and Gas Wells
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Good morning, and thank you for the opportunity to speak today. My name is Melissa Ostroff, and I am the Pennsylvania Policy and Field Advocate with Earthworks. Earthworks' mission is to protect communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

In my role at Earthworks, I use my education in public health and training in optical gas imaging to shine a light on the impacts of invisible pollution from the oil and gas industry. This includes pollution from orphan and abandoned wells. It also includes active wells that are at risk of being improperly abandoned in the near future.

Many of Pennsylvania's orphan and abandoned wells are part of our commonwealth's legacy of oil and gas exploration. Some of them were orphaned 100 years ago – and some were abandoned yesterday. At-risk active wells – if unaddressed – may become our legacy to future generations.

Pennsylvania's history as the birthplace of the oil and gas industry can be seen in the hundreds of thousands of oil and gas wells abandoned in our state – some estimates suggest there may be over 700,000. These unplugged wells represent a threat to public health and to our climate. Researchers have found that abandoned wells not only vent methane – a potent greenhouse gas that heats our planet – but they also release carcinogenic pollutants including benzene and other volatile organic compounds into the air. This pollution not only contributes to cancer risk, but also is associated with asthma and poor birth outcomes, impacting the health of Pennsylvania's children who live with leaking abandoned wells in their backyards, schoolyards, and parks. Beyond impacting air quality, abandoned wells have also been known to contaminate water and have the potential to cause explosions.

In my fieldwork with Earthworks as a certified optical gas imaging thermographer, I have captured footage of orphan and abandoned wells polluting Pennsylvania's recreational public spaces and residential properties – places that should be unquestionably safe for families. In my first trip conducting fieldwork in Forest County, I filmed emissions from an orphan well that DEP had no record ever existed and I met a woman who had resorted to using home insulation in an attempt to "plug" a smelly abandoned well in her backyard. Over the past three years, I've aimed my camera at numerous other orphan and abandoned wells when Pennsylvania residents have reached out with concerns. Here are just three examples out of hundreds of thousands of wells that are part of Pennsylvania's orphan and abandoned well crisis and collectively impacting our health and climate [slides].

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Unfortunately, this is not just a legacy problem. Every month, DEP issues new notices of violation to operators who improperly abandon their wells, leaving them unplugged and leaking pollution into the air. In a December 2022 report issued by the Wolf Administration, DEP reported 3,000 newly-abandoned wells in a five-year period. Many of Pennsylvania's "active" wells are close to a tipping point – no longer profitable and falling apart, they are neglected and leaking pollution into our air already. The failure to maintain these wells is a threat to public health and climate, and represents a lack of accountability that is concerning. In days, months, or years, they may be added to the abandoned well list. Here are just a couple of examples of wells that could be at risk of abandonment [slides].

Well abandonment is a systemic problem within Pennsylvania's oil and gas industry and one that urgently needs attention. With hundreds of thousands of wells already on Pennsylvania's roster for cleanup with taxpayer dollars, we cannot afford for any new wells to be added to the list. Pennsylvania needs all hands on deck to tackle the problem of abandoned wells —both the legacy orphan wells and the wells that continue to be abandoned every month.

I am encouraged by the Governor's efforts to draw down all available federal funding for well plugging in the commonwealth, and have followed DEP's efforts closely. The prioritization of sites in Justice 40 locations is noteworthy and meaningful. However, I am concerned that, according to the Department's own metrics, the vast majority of wells plugged thus far do not have an environmental or human impact. Fewer than one in five wells plugged thus far were even leaking pollution prior to plugging according to the Department. With formula grant funding now available, DEP's top priority should be plugging wells that have a direct impact on public health – wells in backyards and playgrounds like those I've seen in my fieldwork – and those that have the highest methane emissions, playing an outsized role in heating our planet.


However, federal funding alone will not solve the problem of ongoing well abandonment in our commonwealth. Taxpayers cannot solve a problem created by industry. Pennsylvania must deploy solutions that get to the root of the problem and apply best practices from other states. We can start by increasing oil and gas bonding levels to reflect the true cost of a well's lifespan – from drilling to plugging. DEP can also issue new guidance on asset transfers requiring a rigorous review of the transferee's financial solvency prior to transfer approval. Staff responsible for transfer reviews must receive adequate training in order to conduct a thorough review of corporate financials. Additionally, DEP can take a closer look at wells with inactive status. Under current regulations, wells may only remain inactive for a period of five years unless a one year extension has been requested. The operator must also monitor the well's integrity at least annually. DEP should take all necessary steps to ensure that operators are properly adhering to these requirements and held accountable when they do not. DEP could also create stricter requirements for operators to obtain an inactive well status approval, including providing a detailed plan on when and how the well site will be brought back online.

Pennsylvania's legacy of oil and gas pollution does not have to dictate our future. We are at a critical moment, with the opportunity to create good union jobs, improve public health, and

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protect future generations from the worst impacts of climate change. But we won't get very far if we don't recognize that well abandonment is not just a thing of the past – it's still happening today. And solutions that address abandoned wells from a century ago are different from what is needed to address at-risk wells that are active today. Data and videos from the field make it clear that these are two distinct problems – and we need distinct solutions for both.

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