

MEETING MINUTES

Oil and Gas Technical Advisory Board Meeting

March 20, 2025

TAB MEMBERS PRESENT

Voting Members: David Yoxtheimer, Ph.D., PG (Chair), Fred Baldassare, PG, Casey Saunders, PE, Amanda Veazey, Kimberly Kaal, CPG, PG

Non-voting Advisors: Susan Brantley, Ph.D., John Walliser, Esq.

DEP STAFF PRESENT

Kurt Klappowski, Kris Shiffer, Dan Counahan, Don Hegburg, Joe Kelly, Josh Neyhart, Todd Wallace, Nic Pistory, Jennifer Means, Tom Donohue

CALL TO ORDER

A hybrid meeting of the Oil and Gas Technical Advisory Board (TAB) was held in Room 105 at the Rachel Carson State Office Building, 400 Market Street, Harrisburg and also via Microsoft Teams. This meeting was open to the public.

Klappowski called the meeting to order at about 10:00 a.m. and Wallace conducted a roll call. All TAB members were present resulting in a quorum.

Klappowski informed individuals in the meeting room and on the Microsoft Teams call that this meeting is recorded in its entirety. He stated that in accordance with the state Wiretapping and Electronic Surveillance Control Act, 18 Pa. C.S. § 5703, individuals participating in this meeting convey their implied acceptance and consent to be recorded.

APPROVAL OF MEETING MINUTES

Yoxtheimer asked board members if there were any comments or suggested edits to the meeting minutes of the December 5, 2024 TAB meeting and called for a motion to approve the meeting minutes. Saunders moved to accept the minutes as presented and Baldassare seconded. The meeting minutes were approved unanimously.

PUBLIC COMMENT

Yoxtheimer asked the Pennsylvania Department of Environmental Protection (DEP) if any members of the public registered to provide comment. Wallace responded that Mr. Jeffrey Walentosky registered to comment.

Walentosky explained that he has concerns regarding consistency in the DEP's approach in getting feedback on the scientific evaluations and evidence being provided as part of gas migration cases. Walentosky referenced Section 78.89(h) which reads "For all stray natural gas migration incidents, a final written report documenting the results of the investigation shall be submitted to the Department for approval within 30 days of the close of the incident, or in a time frame otherwise approved by the Department." Walentosky stated that he would expect that "approval" implies the Department is obligated to affirm approval to the operator. Without acknowledgment from DEP, the operator has no knowledge of the finality of the investigation. Walentosky expressed concern that some, but not all regional offices have issued approval letters for final reports on methane migration incidents. Operators who consistently complete a Section 78.89 investigation should be afforded clear expectations and approvals when the Department agrees that the investigation is complete. This will ensure that a path forward can be clearly understood by all parties.

**UPDATE ON INFRASTRUCTURE INVESTMENT AND JOBS ACT (IIJA)
INITIAL GRANT, FORMULA GRANT, REGULATORY IMPROVEMENT
GRANT AND MATCHING GRANT AND METHANE EMISSION REDUCTION
PROGRAM (MERP)**

Shiffer provided a comprehensive update to the TAB members regarding the current status of the IIJA-related grants and the MERP. Significant headway has been accomplished on plugging wells under the Initial Grant and efforts have been ongoing to prepare for the implementation of the Formula Grant. Phase 1 of the Formula Grant will include not only the plugging of wells, but will also address locating undocumented wells, methane monitoring, remediation and the Orphan Well Plugging Grant Program. Two Request for Proposals (RFPs) are being developed including one for well plugging and another multiservice RFP to address services other than well plugging.

Shiffer stated that three contracts have been awarded under Phase 1 of IIJA that will result in the plugging of 49 wells and two additional contracts are under development to plug 26 wells. Also, a contract was awarded to Harrisburg University and the Indiana University of Pennsylvania to geo-reference oil and gas wells from DEP mine maps.

Veazey asked how many of the 149 wells to be plugged under the Orphan Well Plugging Grant Program are shallow versus deep wells. DEP has allocated about \$80,000 for each well to be plugged. Shiffer explained that all of the wells are shallow wells and are eligible to receive up to \$80,000 per well if technical difficulties are encountered by a certified well plugger. Shiffer explained that if technical difficulties are not encountered, a shallow well is eligible to receive \$40,000.

Veazey asked how DEP is managing and training its workforce to conduct inspection work associated with the 149 wells to be plugged under IIJA. Shiffer responded that 41 additional DEP employees were hired to administer the IIJA program.

Brantley asked how many wells have been plugged thus far in Pennsylvania. Klapkowski responded that DEP announced the plugging of 300 wells and this includes wells plugged under the first phase of IIJA and other wells plugged where additional funding was available.

Veazey asked if the federal funding eventually goes away, is DEP considering improvements to the current regulatory environment. Shiffer responded that DEP is continuously looking at possible improvements to its programs. Klapkowski said the long-term view involves reducing the burden of future well abandonment. Klapkowski is hopeful that the federal government will designate more funding for well plugging and related efforts and that states will also allocate additional funds for these efforts.

Brantley commented that current data suggests that more wells are being permitted than plugged each year (i.e., about 169 wells permitted versus 100-200 wells plugged annually). Hegburg responded that in addition to the wells plugged by DEP, industry organizations such as active coal operators plug about 600 wells each year. Saunders commented that for new wells that are drilled, operators are obligated to plug such wells. Klapkowski commented that the RFP that is under development and funded via IIJA will result in many more wells being plugged by DEP in the future.

Veazey asked if Survey 123 inspection data is available to the public on the DEP website. Shiffer responded that Survey 123 data is available on the IIJA Dashboard and could probably be made more prominent. Shiffer explained that the DEP Oil and Gas Program is currently working with the DEP's Bureau of Information Technology to develop a GIS map tool that will incorporate many lines of data including the Survey 123 data and this tool will be made available to the public.

STATUS OF THE GUIDANCE FOR MAINTAINING FREEBOARD AND DEWATERING OF WELL DEVELOPMENT IMPOUNDMENTS FOR UNCONVENTIONAL OIL AND GAS OPERATIONS

Kelly reminded TAB members that DEP presented this draft Technical Guidance Document (TGD) to TAB in September 2024. This TGD is intended to provide guidance to unconventional operators about what is necessary to prevent pollution to nearby streams from the land application of water when it is discharged to surface waters from the land application of fluids when discharged from well development impoundments. It is sometimes necessary to draw down fluid levels of well development impoundments which results in what is called "free board" or the distance from the top of the impoundment to the surface of the water contained in the impoundment.

This draft TGD was posted for comment on January 4, 2025 and the comment period closed on February 3, 2024. About 53 comments were submitted to DEP from 7 commentators. Kelly reported that DEP is currently reviewing the comments and is in the early stages of drafting the Comment/Response Document that will shape the form and content of the draft TGD. DEP will bring the revised TGD back to TAB for review and the target date for presenting it to TAB is sometime late in 2025.

TAB WELL PLUGGING SUBCOMMITTEE UPDATE

Hegburg provided an update to TAB regarding the actions taken by the Well Plugging Workgroup that was established by the board. The primary focus of the workgroup has been a review of the attainable bottom decision-making process used by DEP to determine when wells have been plugged to the DEP's satisfaction.

Sections 78.1 and 78a.1 of Pennsylvania's Oil and Gas Regulations define attainable bottom as the "depth, approved by the Department, which can be achieved after a reasonable effort is expended to clean out the well to total depth."

After initial attainable bottom discussion between industry and DEP workgroup members, industry stakeholders developed an attainable bottom concept for the DEP's consideration.

Hegburg reported that on May 7, 2024, an industry sub-workgroup developed a concept of "attainable bottom" and presented it to the Subcommittee in May. The industry proposal is summarized as when an operator has cleaned-out a well to at least 200 feet below the coal protective casing or surface casing, whichever is deeper, and an additional 100 feet of the wellbore cannot be cleaned-out within one, 8-hour shift, the DEP inspector will be notified that a *reasonable effort* has been made and the minimal attainable bottom depth will be considered reached.

A DEP Sub-workgroup considered this industry proposal. The DEP's determination of reasonable effort and approval of attainable bottom has always been challenging due to the age and legacy of Pennsylvania's oil and gas development. Individual oil and gas districts encounter plugging issues and challenges unique to the historical and current well construction and completion practices in their respective districts. Due to the aforementioned factors, the DEP recognizes that establishing consistency across all the districts will be challenging now and in the future. The concept proposed by the industry sub-workgroup will need to be expanded to address the case-by-case, well-specific conditions that are critical factors in the DEP's determination and approval of an attainable bottom.

At the December 4, 2024 Well Plugging Subcommittee meeting, DEP reported it cannot agree to a set timeline to define reasonable effort, but agreed to draft an administrative Attainable Bottom SOP.

DEP presented a draft Attainable Bottom SOP document to the Well Plugging Subcommittee on March 11, 2025. The SOP included a narrative section that defined certain terms and explained the review process and other options. A Decision Flow Chart is also included in the SOP along with an optional attainable bottom form and checklist. The DEP is awaiting comments from industry members and it is expected that edits and adjustments might be made to the proposed SOP.

Saunders thanked the Well Plugging Subcommittee for the efforts thus far and explained that industry is looking at the SOP and considering a response and next steps.

Saunders brought up another issue that was recently discussed by the members of the Well Plugging Subcommittee that is not as much a subsurface issue as it is a surface related issue. The issue pertains to the submittal of “Well Site Restoration Reports” and confusion by some members of industry as it relates to this report since the report appears to be required to be completed when drilling is initiated rather than after a well is plugged. Kelly responded that this matter has been brought to the attention of DEP and the DEP is currently looking into this issue. Kelly stated that Section 78a.65 provides clear direction as to what is required; however, Section 78.65 is not as clear.

TYPE 1L CEMENT WORKGROUP UPDATE

Hegburg reminded TAB that the issue of the use of Type 1L cement in well plugging and well construction surfaced about June to September of 2023 and DEP contacted colleagues at the Ohio EPA to determine how the use of Type 1L cement is regulated in Ohio. DEP reviewed the technical analysis that was developed by the Ohio EPA to reach a determination that Type 1L cement is suitable for well plugging, but not enough data supported the use in well construction. DEP was prepared to take a similar approach as the Ohio DEP, but TAB suggested this matter should be evaluated further. TAB established a Type 1L Cement Subcommittee to further evaluate the use of Type 1L cement and the subcommittee is chaired by Yoxheimer and includes several TAB members, DEP staff and other experts including individuals from the University of Pittsburgh and the National Energy Technology Lab (NETL).

The Type 1L subcommittee is currently evaluating whether Type 1L cement is comparable to other commonly used cement blends used in well plugging operations and is considering whether there should be improvements to the current regulations related to the use of cements.

CLASS VI UNDERGROUND INJECTION CONTROL (UIC) WELL DISCUSSION

Hegburg stated that the EPA regulates wells used for underground injection. Based on a 2022 inventory by EPA, all but 10 states, territories and tribes have some type of UIC primacy and Pennsylvania is one of the 10 and does not have primacy for any class of UIC well.

Class VI wells are used for geologic sequestration of carbon dioxide (CO₂) and currently North Dakota, Wyoming, Louisiana and West Virginia have achieved primacy. Hegburg reported there are four federal EPA-permitted Class VI wells in Illinois and Indiana, and at least 11 state-permitted Class VI wells in operation in the United States. According to EPA, 130 Class VI permits are currently pending review by the agency and additional permits are under review by three states with delegated authority for state Class VI UIC programs.

On August 27, 2024, DEP issued a permit to Archaea Energy to install a UIC Class VI test well in Lackawanna County. The well was drilled on February 11, 2025 to a depth of about 15,000 feet.

Hegburg stated that DEP met with EPA to discuss seeking primacy and is currently preparing to apply for Class VI primacy and is in the “Pre-application” phase working towards addressing the 8 main components of 40 CFR Part 146, Subpart H in addition to other requirements that may be suitable for Pennsylvania.

DEP’s Office of Oil and Gas Management intends to submit a request to pursue the development of a proposed rulemaking in conformance with Act 87 that was enacted on July 17, 2024 and authorizes carbon capture and underground storage projects in the commonwealth.

DEP submitted a grant application to EPA to pursue about \$2 million in federal funding to help pay the administrative costs of pursuing primacy. This grant application remains under review at EPA they have encouraged DEP to consider pursuing primacy of other classes of wells.

Baldassare asked if DEP is seeking TAB’s input or participation in the process of DEP pursuing Class VI Primacy. Hegburg responded in the affirmative and explained that will happen when DEP gets into the actual proposed rulemaking process. Klapkowski further clarified that injection wells are considered conventional wells so the PA Grade Crude Development Advisory Council will be brought into the process also. Klapkowski stated the process will be public and considers TAB to be a good resource.

Baldassare asked what the purpose is of the UIC Class VI test well that is located in Lackawanna County. Donohue responded that the well operator intends to use the well that it received a permit for as an observation well not an injection well. The well operator is not authorized to inject into the well until it receives a permit from EPA and DEP. To date, the operator has not applied for a permit to inject carbon dioxide into the formation.

Baldassare asked what the timeline is for DEP to proceed with the proposed Class VI rulemaking process and Klapkowski responded as soon as possible.

UPDATE ON METHANE MIGRATION IN PENNSYLVANIA

Means provided a verbal update about the status of stray gas investigations in Pennsylvania and provided some statistical information on methane migration in the three oil and gas districts.

Means reported on the impacts to water supplies that are commonly called “positive determinations” by DEP. In the calendar year 23-24 timeframe there were 26 positive determinations in the Eastern Oil and Gas District of which 19 were related to stray gas.

There were 6 positive determinations in the Northwest Oil and Gas District of which all 6 were related to stray gas migration and there was 1 positive determination in the Southwest Oil and Gas District which was not related to stray gas.

Means also reported on the total number of complaints that were received by DEP in the calendar year 23-24 timeframe and the number of those that were determined to be positive impacts. The Eastern Oil and Gas District received 298 water supply complaints of which 241 were resolved and 8 of the 241 were positive determinations. The Southwest Oil and Gas District received 201 complaints of which 99 were resolved and none of the 99 were positive determinations. The Northwest Oil and Gas District received 76 complaints of which 55 were resolved and 5 of the 55 were positive determinations.

Means explained it is sometimes difficult to determine if a complaint is related to stray gas since complainants often describe the impact to their water supply as something other than methane, such as odor or turbidity issues that could be caused by something other than stray gas.

Brantley asked what the average time is for DEP to review and make a determination on a stray gas complaint. Means responded that the timeframe varies and can typically take 2-3 years due to the complex nature of water supply investigations and Pennsylvania's subsurface geology.

Brantley asked if positive stray gas determinations are conducted more quickly than negative positive determinations. Means explained that if a gas well was drilled within a year and is less than 2,500 feet of a water supply that is impacted, then that well is presumed to be the cause of the impact. The operator that owns the well is allowed to attempt to rebut this presumption. When an operator chooses to not rebut the presumption, it is determined to be responsible for the impact; therefore, those are the situations where a determination occurs quickly.

Baldassare agreed with Means that the subsurface geology in the northeast region of Pennsylvania is very fractured and can allow gas to travel very long distances and possibly impact water supplies that are far from the responsible gas well.

Baldassare revisited the comments that were made by Mr. Walentosky regarding the word "approval" in Section 78a.89 that seems to imply that DEP is obligated to affirm approval to an operator if DEP agrees that the case is closed. Baldassare asked Means if she agrees that DEP is obligated to affirm approval. Means stated that at the close of stray gas investigations, DEP's Eastern District does issue approvals of final stray gas reports.

WELL DEVELOPMENT PIPELINES

Klapkowski asked Yoxtheimer if this topic can be placed on the agenda for the June TAB meeting to allow the DEP the opportunity to better prepare to discuss this topic. Yoxtheimer agreed.

NEW BUSINESS

Saunders stated that the only new business item he suggests is the topic that pertains to the submittal of “Well Site Restoration Reports” that he discussed during the Well Plugging Subcommittee Update section of today’s meeting.

ADJOURNMENT

Yoxtheimer asked for a motion to adjourn the meeting. Veazey made a motion and Baldassare seconded. The motion passed unanimously, and the meeting was adjourned.