

May 12, 2011

James A Martin, Chief Office of Oil and Gas West Virginia Department of Environmental Protection 601 57th Street, SE Charleston, WV 25304-2345

Re: Permits

API well number 47-6101622 for owner well number MIP 4H API well number 47-6101624 for owner well number MIP 6H Morgantown Utility Board Comments Public Water Supply

Dear Mr. Martin,

This letter is a follow up to my previous letter to you dated May 10, 2011.

In my previous letter, I described MUB's intention to provide to you our comments following a detailed review of the plans for these wells. We have completed our review and it indicates that additional safeguards, beyond those already being required by the permits, are necessary to protect our public water supply.

We find the following additional safeguards to be needed:

• Spill Containment:

- O We request that redundant containment structures (primary and secondary) be provided and sized to capture the entire combined maximum volume of drilling fluids, tailings/mud, and fracking fluids present on site at any time. Site plans indicate an appropriate primary structure (a 2.5 ft berm completely surrounding the 300 ft x 600 ft well pad). If the combined volume of all fluids exceeds 2.5 million gallons, the primary containment area will need to be enlarged proportionally.
- We request that a similar secondary structure be provided as a backup for the primary one. The secondary structure should be located sufficiently beyond and apart from the primary structure so that its volume exceeds that of the primary structure, and so that a failure of the primary structure will not threaten the integrity of the secondary structure.

• We note also that the primary containment around the well pad appears to be breached where the access road enters the well pad. We request that an appropriate "speed bump" type berm will be provided so that the circumference and function of the berm is not compromised by the access road.

Spill Prevention

o Ideally, the secondary spill containment structure would be located at a sufficient distance from the well pad that it encompasses the full area potentially covered by the spray pattern of a failure of any equipment / facilities used during the fracking process. Given the close proximity of other development within the Industrial Park, this goal is not practically implementable. For this reason, we request that a second blow out preventer be provided for redundancy. Similar redundancy should be provided for any other equipment needed to contain / control fracking fluids.

Well Integrity

- o In order to ensure that fracking fluids are not leaked into the subsurface, the full length of each of the three shorter casing pipes (conductor pipe, conductor casing, surface casing) should be individually hydrostatically tested at the proposed fracking pressure. Similarly, the production casing should be tested at the proposed fracking pressure for its vertical length (approx depth 7000 ft). All such hydrostatic testing should be conducted prior to the fracking process, and results thereof recorded and submitted for DEP approval. DEP approval should be required before fracking is allowed to begin.
- O Special casing pipe, appropriate for such conditions, should be used where the casing pipe passes through voids (e.g., abandoned mine workings).

Waste Disposal:

- We note that the Permits allow for onsite land application of stabilized drilling residuals. We request that ALL drilling residuals and fracking fluids be removed from the site for permanent disposal at an appropriate landfill or injection well.
- o In addition, we request that all waste disposal processes include manifest procedures to document the complete chain of custody from the retrieval at the well site to the ultimate disposal location, for all volumes/units of waste generated and removed from the site.

Miscellaneous

o It is our understanding that the fracturing process used will be a closed loop system, with the fracking fluids being recirculated / reused as much as possible. The Construction and Reclamation Plan And Site Registration Application Form states that anticipated use of the Pit Waste will be for "Cuttings from drilling, top hole water, flow back fluid post frac". The site plans show only one pit. Does this plan imply re-use and mixing of the Pit Waste with the fracking fluids? We suggest that drill cuttings / mud should not be mixed with fracking fluid.

o In order to minimize the potential for pollution, drilling mud should be water based; oil based drilling mud should not be used.

We respectfully request that the additional requirements discussed above be included in the subject Permits by way of an addendum to the Permits.

We request that drilling not commence until the spill containment measures discussed above have been fully implemented. Similarly, no other phase of work should begin until related measures discussed above have been fully implemented.

Because we have learned that drilling of the first of these wells is scheduled to begin on/about Monday, May 16, 2011, prompt action upon this request is urgently needed.

We do not seek to have the subject permits revoked. We simply want to ensure that the safety of our raw water supply is protected, and that the permits adequately address this need.

Thank you for your attention to this critically important matter. We look forward to working with you to resolve our concerns.

Respectfully,

MORGANTOWN UTILITY BOARD

Timothy L. Ball General Manager

cc: Randy Huffman – Secretary WV DEP
Scott Mandirola – Chief, Water and Waste Section, WV DEP
Barbara Taylor – Director, Envir. Health Services, WV Bureau of Public Health
Morgantown City Council
Morgantown Utility Board
Mike John – Northeast Natural Energy
Glenn Adrian - ENROUT