To: rjurado@pgei.com[rjurado@pgei.com]
From: Wang, Gary
Sent: Mon 3/30/2015 3:18:23 PM
Subject: FW: Petroglyph Tribal Ute #29-19 perforation plans

Rodrigo,

I tried sending this last Wednesday before leaving the office for the rest of the week. In my haste, it looks like I mis-spelled your email address. See email below, and let me know if you have any questions. I can also give you a call later this afternoon.

Gary Wang
Underground Injection Control Enforcement

U.S. Environmental Protection Agency
1595 Wynkoop St.
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EMAIL: wang.gary@epa.gov

From: Wang, Gary
Sent: Wednesday, March 25, 2015 5:36 PM
To: 'rjuarado@pgei.com'
Cc: Pardue-Welch, Kimberly; Breffle, Don; Suchomel, Bruce
Subject: Petroglyph Tribal Ute #29-19 perforation plans

Hi Rodrigo,

I wanted to write an email to discuss the process for the work over plans you have for Petroglyph's Ute Tribal 29-12 well. Since the workover plan has not yet been received by EPA, I'm prefacing this discussion by saying that these comments are preliminary and not official. Based on the conversation we've had on the phone, it sounds like the plan for Ute Tribal #29-12 is to perforate the wells at a shallower depth at approximately 470 feet above your current highest perforations, and Petroglyph wants to know if any additional approvals is needed from

EPA.

I checked the permit for the well, and confirmed that the new perforations will be within the permitted injection zone. The permit also indicated that work over plans need to be submitted to EPA 30 days in advance but does not require any action by EPA for Petroglyph to conduct the work over. The permit does require that work over records be submitted to EPA and that the well demonstrates mechanical integrity afterwards. So we anticipate work over record and MIT test submittals. This was the extent of our conversation yesterday.

After deliberating with some colleagues today, I was reminded that since the well is from an older permit, I also need to look at the MAIP pressure, to see whether the MAIP was calculated based on the top of perforation or the top of the injection interval. If the MAIP was calculated based on the top of perforation, then it would need to be re-evaluated. As it turns out, the permit information indicated that the MAIP was calculated from neither, but from information based on another well, Tribal Ute #4-7 (formerly named: Tribal Ute #2-4). Currently, EPA would still allow the use this other well's information if it was in close proximity (approximately ½ mile) to the Tribal Ute #29-12 well. Unfortunately, I checked the distance, and the wells are approximately 4.5 miles away from each other.

Because Petroglyph plans to perforate at a much shallower level for Tribal Ute #29-12, EPA will have to look at well specific information to re-evaluate its MAIP. Petroglyph will have to conduct a step rate test on the well to determine the fracture gradient for the shallower perforations, which could then be used to calculate the well's new MAIP.

Because a new MAIP will be calculated, I had some initial questions on major permit modification is required, which involves a 30 day public comment period. I consulted additional colleagues in the UIC program and we took another look at the permit language again. So after another visit, it looks like we can update the MAIP without a major permit modification after all, which is good news for you guys.

Long story short, in terms of process, after EPA receives and review you work over plan, we will send a letter out to you requesting a step rate test be conducted after the well has been perforated so we can determine a new MAIP for the well. Additionally, we would want an MIT test to make sure the well has mechanical integrity before we re-authorized injection. I can also discuss this in more detail if you have any questions.

Gary Wang
Underground Injection Control Enforcement

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