

From: [Lujan, Carlos](#)
To: [Scott Carmichael](#)
Subject: RE: Drilling Pit Closure - Form 27 (4)
Date: Thursday, February 24, 2011 10:46:00 AM

Scott,

Thanks for the clarifications.

In order to expedite the process, I will attach this email with your clarifications to the Form 27s as they get uploaded to the database, instead of asking you to re-submit updated reports.

Please take into account this discussion for future Form 27 submittals. Adding comments like the one you included in this email will be great, so that there is a record of what the operator plans to do to close the pits and reclaim the area (and to remediate if necessary).

Thanks again,

Give me a couple of days to process your form 27s. I'll send you an email acknowledging the approval.

Carlos

Carlos A. Luján, Ph.D.
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Cell: (720) 272-2306

From: Scott Carmichael [mailto:scott@thewaltergroup.com]
Sent: Wednesday, February 23, 2011 5:05 PM
To: Lujan, Carlos
Subject: RE: Drilling Pit Closure - Form 27 (4)

Carlos,

Please see my comments (in black font) below. Let me know if the answers below will suffice. I can update the letter if required.

Thanks,
Scott

From: Lujan, Carlos [mailto:Carlos.Lujan@state.co.us]
Sent: Friday, February 11, 2011 1:36 PM
To: Scott Carmichael
Cc: Canfield, Chris
Subject: RE: Drilling Pit Closure - Form 27 (4)

Scott,

I am reviewing the Form 27s that you submitted to Chris Canfield on Feb 08, 2011. I read the first two (Harold Anderson 6-16, and LAKE 6-22) and before I continue with the other ones I would like to ask a question and make the following comments about the first one – (same for the others):

- The report refer to a drilling pit and talk about the cuttings, etc. The pit was permitted originally as a 300x100x10 feet lined Production Pit (Form 15 Doc #2606871, Sept 2008). Was the pit constructed with the lining? It seems like PetroHunter changed the use of the pit. If it was used as a drilling pit COGCC Rules do not require a lining (with some exceptions), and is probably what happened. Would you please confirm?

The large pit (300x100x10) was used to store fresh water. This pit is unrelated to the drilling pit.

- This comment is related to the first point. If there is a lining, the report should mention how the lining will be removed and where it will be disposed. Sampling would be done after lining removal.

The drilling pit is unlined.

- If there is no lining, the sampling procedure described in the report is OK.
- I am not sure if I mislead you during your conversation a couple of weeks ago, but the report seem to be missing few of the questions asked in the Form 27 (“See attached” was written in all the form 27 fields). **Form 27s submitted for pit closure** should include:
 - The sampling plan (which was included in the report);
 - A remediation plan in case analytical results indicate that there is impact in the cuttings and/or at the bottom of the pit;

In the event impacted soil is discovered, the impacted material will be over excavated and transported for disposal at a permitted disposal facility. Confirmatory soil samples will be collected from the bottom of the excavation to document that the full extent of impacted soil has been removed.

- The pit closure process;

The pit closure process will follow COGCC 1000 rules. Specifically 1003. d. (1) and (3).

- Indication that reclamation (backfilling, contouring, re-seeding, etc) will be conducted per COGCC 1000 rules.

Reclamation will be conducted in accordance with 1003. e. (1).

- When sampling, remediation, backfilling, reclamation are completed, the operator typically submits a **Notice of Completion report** to notify that the pit has been reclaimed per COGCC’s Rules. The NOC report should include confirmation sampling that demonstrate that no impact has been left in place, that is that bottom of the pit and backfill material have concentrations below Table 910-1, and that reclamation was completed as indicated in COGCC’s 1000 Rule.

Give me a call or send me an email at your convenience,
Regards,
Carlos

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From: Canfield, Chris
Sent: Wednesday, February 09, 2011 3:54 PM
To: 'Scott Carmichael'
Cc: Lujan, Carlos
Subject: FW: Drilling Pit Closure - Form 27 (4)

Thanks Scott,

In the interest of expediency, I'm asking a colleague (Carlos Lujan) to review your submittals. We will get back to you with any questions that emerge during our review.

Chris

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From: Scott Carmichael [mailto:scott@thewaltergroup.com]
Sent: Tuesday, February 08, 2011 1:21 PM
To: Canfield, Chris
Subject: Drilling Pit Closure - Form 27 (4)

Chris,

Attached are four Form 27s for the closure of four drilling pits associated with PetroHunter wells Anderson 6-16, Anderson 13-10, Lake 16-21, and Lake 6-22. With your approval and depending on weather conditions, PetroHunter would like to begin the pit closure activities as soon as possible.

Let me know if you have any questions or require additional information.

Best Regards,
Scott