



Pit 29 M-1980-183 Problem Cited and Corrective Action Required

Brad Hagen <brad@civilresources.com>

Tue, Jan 23, 2024 at 11:12 AM

To: "Gagnon - DNR, Nikie" <nikie.gagnon@state.co.us>, Fred Marvel <fmarvel@brannan1.com>, Emily Schallenkamp <eSchallenkamp@brannan1.com>, Amy Eschberger - DNR <amy.eschberger@state.co.us>, "Lennberg - DNR, Patrick" <patrick.lennberg@state.co.us>

Cc: Alex Schatz <aschatz@brannan1.com>, Steve Kelton <skelton@brannan1.com>

Good morning Nikie. I had drafted this letter in Response to your previous letter but was awaiting Client review/approval before sending it when I received this latest email. I hope you will consider the information included in the attached letter and maybe we could have a zoom call or something to discuss if something is not clear. The letter, back & forth can be lead to conflicting positions but I think we can figure out a good plan to move forward with. I did correct a statement about historic water levels, which we don't seem to have since the slurry wall was installed in the 2004-2005 timeframe according to Fred (Brannan) and Drew with United (storage facility owner).

Emily with Brannan is working on the data table and graph you asked for and will forward that soon.

Brad

C: 303.913.5333

From: Gagnon - DNR, Nikie <nikie.gagnon@state.co.us>

Sent: Thursday, January 18, 2024 11:21 AM

To: Fred Marvel <fmarvel@brannan1.com>; Brad Hagen <brad@civilresources.com>; Emily Schallenkamp <eSchallenkamp@brannan1.com>; Amy Eschberger - DNR <amy.eschberger@state.co.us>; Lennberg - DNR, Patrick <patrick.lennberg@state.co.us>

Subject: Pit 29 M-1980-183 Problem Cited and Corrective Action Required

Hello.

Please see the attached letter citing a problem for disturbances to the prevailing hydrologic balance at Pit 29.

A hard copy will not be mailed unless specifically requested. Please reach out to me if you have any questions regarding this matter.

Respectfully,

Nikie Gagnon

Environmental Protection Specialist

[Redacted signature]

[Quoted text hidden]



ltr-Pit29GWeastJan2024.pdf
157K

January 18, 2023

Colorado Division of Reclamation, Mining & Safety
Ms. Nikie Gagnon
1313 Sherman Street, Room 215
Denver, CO 80203

RE: Response to January 16, 2024 DRMS Letter (GW Mounding East of Pit 29, M-1980-183)

Dear Ms. Gagnon:

Civil Resources has reviewed the most recent DRMS letter dated January 16, 2024 and offers further explanation of the basis for our recommendations. Civil Resources mistakenly indicated that historic data (pre-mining) was available and indicated that the current water levels were lower than historic in the previous letter, however, this does not change the conclusions of the prior letter. Please consider the following information:

1. *Groundwater Levels East of Pit 29:* Civil Resources previously proffered that the increasing water level is indicative of the repaired slurry wall (2018) creating an effective hydraulic barrier and that this time of year is traditionally associated with seasonally high groundwater levels and with above average precipitation received in 2023 the groundwater levels would be expected to be even higher than normal. Please consider the following information:
 - a. The incompetent slurry wall and excavated pit provided a large drain for the local groundwater levels and therefore the prior ten years of monitoring of groundwater levels (2005-6, 2010-18) do not reflect natural groundwater levels. The observed levels are artificially lowered by the drain estimated to have been inflowing at 2 to 3 cfs and therefore this data cannot be used as a baseline comparison of "historic vs. current" levels.
 - b. The analysis should be based on a comparison of maximum groundwater levels and demonstrable or at least probable negative impacts and damage to property resulting from the demonstrable rise above natural groundwater levels.
 - c. Other Impacts: Sandy Acres is upgradient of Pit 29 and has recently completed backfill activities that should be considered as a potential cause of increase groundwater levels in the area. Previous correspondence indicates that an underdrain is proposed to alleviate the groundwater rise caused by their activities. Please provide a copy of E470's groundwater model report and calculations demonstrating that their activities did not result negatively impact the local groundwater level.
 - d. Historic Regional Well (within 0.5 miles) Statement: The comparison of average groundwater levels based on depth below ground surface is not reliable technical data. Lack of information on the location of each referenced well and actual elevations (ground and groundwater) being referenced creates a low level of confidence already but even more so in quoting old reports based on well logs. Well logs typically report estimated water depth at time of drilling which is not reliable data and has large variability compared to actual groundwater levels. Further, historic photos of mining at Sandy Acres and Pit 29 (prior to slurry lining) show relatively high groundwater levels as previously present by Josh Oliver correspondence sent to the DRMS.

2. Emily Schallenkamp with Brannan Sand & Gravel will provide the updated groundwater data and reporting in the requested format under separate submittal.

Conclusion

The most recent three months (Sep-Nov 2023) groundwater level data is 14.45', 14.7', and 15.0' feet below ground surface indicating a downward trend as is seasonally common after the Fall high level. These depths to groundwater are similar to the levels (approximately 15 feet b.g.s) observed in the Fall of the last three years (2020 through 2022) indicating that this is likely an equilibrated level for the hydrologic balance.

We appreciate your review. Should you have any questions, please contact us.

Sincerely,
CIVIL RESOURCES, LLC.



Cc:
Fred Marvel
Alex Schatz
Emily Schallenkamp

Attachments: