

STATE OF  
COLORADO

Cazier - DNR, Tim &lt;tim.cazier@state.co.us&gt;

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## Corrective Action follow-up

1 message

**Florquist, Brigitte** <BFlorquist@anglogoldashanti.com>

Mon, Jul 6, 2015 at 11:08 AM

To: "Cazier - DNR, Tim" &lt;tim.cazier@state.co.us&gt;

Cc: "Hanks, Chris" &lt;CHanks@anglogoldashanti.com&gt;, "Gorman, Jonathan" &lt;JGorman@anglogoldashanti.com&gt;

Good Morning Mr. Cazier,

Please find attached; The CC&V response on ponding of barren solution on the Phase 5 Road as a corrective action follow-up of the June 17, 2015 DRMS inspection.

A hard copy will be sent Via USPS today.

Regards,

Getta

*Brigitte Florquist*

Administrator

Environmental Resources



Tel: 719-689-4029

Fax: 719-689-3254

Email: bflorquist@anglogoldashanti.com

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**Response on Ponding of Barren Solution.pdf**

1575K





## Cripple Creek & Victor Gold Mining

A Joint Venture · ANGLOGOLD ASHANTI (COLORADO) CORP., Manager

### Operations Office

P.O. Box 191 · 100 North 3<sup>rd</sup> Street  
Victor, Colorado 80860  
(719) 689-2977 – Fax (719) 689-3254



SENT CERTIFIED, RETURN RECEIPT REQUESTED  
7014-2870-0001-3417-6029

6 July 2015

Mr. Timothy Cazier, P.E.  
Environmental Protection Specialist  
Colorado Department of Natural Resources  
Division of Reclamation, Mining and Safety  
Office of Mined Land Reclamation  
1313 Sherman Street, Room 215  
Denver, Colorado 80203

Re: Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company ("CC&V");  
Cresson Project; – Response on ponding of barren solution on Phase 5 road as a corrective  
action follow up on the 17 June 2015 DRMS inspection

Dear Mr. Cazier:

CC&V is writing to you with regard to the following finding from the 17 June 2015 DRMS inspection report issued on 24 June 2015:

**INSPECTION TOPIC:** *Gen. Compliance with Mine Plan*

**PROBLEM/POSSIBLE VIOLATION:** *Problem: Ponded solution was observed on the Arequa Gulch Valley Leach Facility.*

**CORRECTIVE ACTIONS:** *The Operator shall mitigate the cause of the ponded solution and submit photographs as proof that the solution has percolated into the pad.*

**CORRECTIVE ACTION DUE DATE:** *7/09/15*

CC&V has addressed the ponding of barren solution on the road to the Phase 5 pumps on the Arequa Valley Leach Facility listed in the findings of Elliott Russell's inspection report.

Upon examination, the root causes were determined to be drip lines that were too long and came to the edge of the road. The knotted end of several drip pipes had broken so that solution could simply flow out the end. Finally, the road was a compact surface that had settled which facilitated ponding.

No solution went off liner. To remedy ponding along the Phase 5 pump road, which is on liner, the following steps have been taken: the lines have been shortened so that the solution has an opportunity to be absorbed into the slope of the leach pad above the road. This will retard pooling on the more compacted road. The level of the road was raised and graded to promote drainage off the road. And staff repaired lines with broken ends which forces the solution to weep from the lines further up slope. Please find attached photographs taken by CC&V as the Phase 5 road appeared after mitigation (photograph 1, 2 and 3).

Management of ponding solution is governed by best management practices that are defined in the EMS.

Potential ponding on the VLF is managed under the *Cresson VLF Guidelines* (August 2013). The plan resides in the Environmental Management System (EMS) under Standard Environmental Procedures (SEP) / Process. According to that plan:

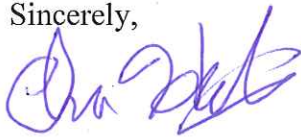
The VLF shall be inspected daily for operational issues – blown drip lines, leaking headers, puddling of solution, and inspection of the edge of liner and edge of liner signage etc. Any area of standing process solution with a surface area larger than 3' X 3' should be corrected as soon as reasonably possible.

*The Wildlife Protection Plan*, which is also part of the EMS contains the same processes for managing ponding.

During pad construction the process of cross ripping the pad surface, described in the *Cresson VLF Guidelines*, prevents ponding during normal circumstances by keeping the surface porous. In this instance, the solution ponded on a compacted road surface that could not be ripped as the road provides access along a narrow bench to the Phase 5 pumps. CC&V therefore implemented the procedures described above to keep solution from ponding on the road.

Please contact me at (719)-689-4048 should you have questions or wish to discuss this request for a technical revision.

Sincerely,



Chris Hanks  
Chief Environmental Coordinator

cc: Jonathan Gorman

Enclosures





Photograph 1 – A berm was grade against the toe in this location to prevent ponding on the road.





Photograph 2 – Driplines were shortened.





Photograph 3 – Elevated grade and a new stormwater sump used as part of the solution to ponding on the road.