



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

March 3, 2025

Johan Van Huyssteen
Cripple Creek & Victor Gold Mining Company
P.O. Box 191
Victor, CO 80860

**Re: Preliminary Adequacy Review, Amendment Application AM14
Hardrock 112d(3) Designated Mining Operation, Cresson Project, Permit No. M-1980-244**

Dear Mr. Van Huyssteen,

The Division of Reclamation, Mining and Safety (Division) has completed its preliminary adequacy review of your Cresson Project 112d-3 Reclamation Permit Amendment Application (AM14). The application was received on April 25, 2024. After receiving responses to the Division's July 22, 2024 Notice of Filing Deficiencies 2, the Division determined that the permit amendment application was "filed". The public comment period ended November 26, 2024 and the Division has not received any comments, timely or otherwise. On December 27, 2025, the Division sent you a notice stating the Application was determined to be complex.

The Decision Date deadline is set for **March 28, 2025**. Please be advised that if you are unable to satisfactorily address any concerns identified in this review before the decision date deadline, **it will be your responsibility to request an extension of the review period**. If there are outstanding issues that have not been adequately addressed prior to the end of the review period, and no extension has been requested, the Division will deny this application.

The review consisted of comparing the application content with specific requirements of the Hard Rock Act, 34-32-101 et seq., C.R.S. (the Act) and the Minerals Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard rock, Metal and Designated Mining Operations (Rules). The Division is formally requesting the Applicant provide a cover letter titled "Preliminary Adequacy Review Response AM14, M-1980-244" responding to each adequacy item as well as providing appropriate replacement pages/sections/exhibits/etc. for each response. This will allow the Applicant and the Division to work towards having a "living document" with the goal being the ability to use these adequacy revisions as a baseline for future amendments.

General – Map Revisions

1. AM14 maps contain a Revision Number and a Certification which contains a revision description field. Multiple maps were resubmitted between the two filing deficiencies responses without modifying the Maps' revision number nor revision description. As map revisions will be made when responding to this adequacy review, please note the appropriate revision number and revision descriptions on each resubmitted map to ensure an accurate tracking of the map versions.

Exhibit C – Pre-mining and Mining Plan Map(s) of Affected Lands (Rule 6.4.3):

2. The following items need to be addressed for the Drawing C-2: Existing and Approved Facilities:
 - a. VLF2 Booster Station appears to be incorrectly located.
 - b. A long rectangular blue building outline is located near the Ironclad facilities appears to be an error. Please review the feature that is located between the "Warehouse" and "Small Vehicle Shop" labels and revise the C-2 Map as well as other Exhibit C maps which show the same feature.



- c. A contour interval is not identified on the map nor are there any contour elevation labels.
3. The following items need to be addressed for the Drawing C-2b: Existing Utilities:
- a. A phone line and power line are shown across the Globe Hill and Schist Island Pits need to be removed or relocated to their correct alignments.
 - b. The Division is aware of overhead powerlines on VLF2 which are not shown and the one utility line that is depicted appears to be in error. Please identify the location of the utility lines between ADR2 and the Phase 3 PSSA pumps as well as the utility lines associated with the Booster Station and correct the utility line currently depicted across VLF2.
4. The following items need to be addressed for the Drawing C-3: Proposed Facilities - Buildings and Utilities:
- a. Please identify the location and extent of the Elkton, South Cresson, and Globe Hill expansions as proposed in the AM14 overview narrative. Additional, where necessary, please update the appropriate Exhibit F Maps where these expansions will modify the post-mining topography.
 - b. Labels, contour lines, utility lines, etc. should reflect the final buildout for the AM14 expansion areas rather than depicting existing features.

Exhibit D – Mining Plan (Rule 6.4.4):

5. Within Section 1.1, the 3rd bullet point describes that solution from the VLF2 expansion area will be intercepted by High Volume Collection Pipes and routed directly to the ADR2 or Phase I/II PSSA by way of an infiltration gallery. As this is a deviation from previous expansions, please use this section to discuss why solution will be handled this way instead of using gravity flow to get solution down the dual liner system toward the Phase I/II PSSA.
6. Within Section 1.1, the 4th bullet point states the expansion includes a sixth PSSA to the VLF1 facility. Although this is Phase 6, it is the fifth PSSA of the facility. Please update the text accordingly.
7. Exhibit D was not revised during the July 8, 2024 Response to Filing Deficiencies submittal, it pre-dates the details of the employee parking area along County Road 821. Please revise Section 2.1 to describe this expansion area of the affected lands.
8. Within Section 3, Paragraph 4, it is stated that higher-grade ore will be placed in one of four storage areas in the vicinity of the Main Cresson Mine area as shown on Drawing C-4. Drawing C-4 does not identify these four storage areas.
9. Within Section 3, Paragraph 4, it is stated that higher grade ore ultimately will be placed in the High-Grade Mill (HGM) feed area or crusher feed area to be processed through the HGM. Additionally, it is presented that the VLF2 expansion and the operation of the HGM is an “either-or” scenario. It is understood that the HGM is not currently in an Operational status as it has been shut down since the beginning of 2022. Please provide more information regarding the status of the HGM. Also, based on the evaluation of the mill, please provide more information regarding what measures are required to bring the mill into an operational status. The Division understands that reserving the option of use of the HGM allows for operational flexibility, however a separate revision may be required to address the recommissioning of the mill system. Lastly, in the event the AM14 VLF2 expansion does not occur and the HGM is recommissioned, the Operator will need to address Division’s March 17, 2023 Outstanding Compliance Problem letter regarding modifications to the HGM liner.

10. Section 5.2 briefly mentions the demolition of the mill and infrastructure to allow for the expansion of the VLF's. Please provide more details regarding the demolition and removal of the mill, subgrade, liner system, wells etc, to allow for the construction of the VLF2 expansion.
11. Section 7.2 discusses the Power Supply and backup generators on-site in case of a power outage. It is understood that preventive measures have been taken in response to the March 2024 storm event to shore up the backup power supply systems. It is also understood that a more thorough and comprehensive revision will be submitted following the conclusion of the on-going Rule 7.4.3 Independent Reviewer Evaluation of the storm event and VLFs. At this time, please update Section 7.2 to provide information regarding the existing and now additional preventive measures, including maintenance and testing schedules, additional structures or any other mitigation measures that have been or will be put into effect to ensure the reliability of the backup power systems for the site.
12. Within Section 7.2, Paragraph 2, it is stated that a 12-hour drain down period was used in the design of the PSSA. In accordance with the calculations presented in TR127, please discuss why a 24-hour drain down is not utilized.

Exhibit E – Reclamation Plan (Rule 6.4.5):

13. Within Section 2.2, Paragraph 2, it is stated that 3.4 million cubic yards of growth medium are available from the existing and future development areas for the completion of reclamation which requires an approximate 3.3 million cubic yards. Within Exhibit D, it is noted that all areas except a small portion of Joe Dandy Hill within the AM14 expansion areas is already disturbed. Table D-4: Growth Medium Storage Areas shows there is currently 2.8 million cubic yards are currently stockpiled. Please discuss this half a million cubic yard discrepancy and provide evidence and thorough documentation that there is sufficient growth medium to accomplish the reclamation at the site.
14. Section 2.7.1, Surface Mine Backfill Areas, does not include information regarding the South Cresson mine area backfill approved in TR142. Please update this section accordingly and ensure Exhibit C and F maps reflect this revision.
15. Within Section 2.7.1, Surface Mine Backfill Areas, Paragraphs 7 and 8 contain conflicting statements regarding the backfilled East Cresson WHEX. One states the backfill will promote free drainage of stormwater to the surrounding surface whereas the other paragraph states that per TR96 the backfill will result in stormwater flowing back into the pit. Please revise the Paragraph 7 text.
16. Due to the constructed outside slopes of VLF1, the reclamation plan and cost estimate has major tasks (please refer to CIRCES Tasks A2000 to A2011) of moving material to achieve the approved post-mining slope grade. Please demonstrate that once VLF1 Phase 6 is fully built out there is still available space within the original crusher pocket area to place the approximate 25 million cubic yards of cut material.

Exhibit F – Reclamation Plan Map (Rule 6.4.6):

17. As Reclamation Plan Maps F-2 through F-8 provide increased detail, the Division request either Map F-1 be revised or a Map F-1a be provided with the shading and cross hatching removed to allow for clear review of the proposed post mining contour lines.

18. The following items need to be addressed on one or more of the Exhibit F Reclamation Plan Maps:
- Please review and correct various contour lines errors (e.g. intersecting and termination of lines in the North Cresson Mine area).
 - Contour elevation labels are missing on most of the Exhibit F Maps. Please revise the maps to show clear and abundant elevation labels.
 - An Undisturbed Area (dark green shaded polygon) near the Mill Area is depicted, however AM14 expansion will incorporate some of this area. Please modify this Undisturbed Area accordingly.
 - It appears the posting-mining topography depicted pre-dates the AM14 VLF expansions. Please update the topography showing what the final reclaimed VLF1 and VLF2 surfaces will look like.
 - The South Cresson mine area backfill and accessible areas where growth media can be placed per TR142 are not depicted correctly. Additionally, on F-6, the cross-hatching shows the South Cresson Pit as inaccessible while F-1 correctly identifies accessible areas for growth media placement at least prior to TR142.
 - The southern portion of the Main Cresson Mine shows a 47-acre cross-hatched area where trees will be planted. Please confirm the topography of this area as it appears this would be a partially backfilled highwall area with a north-facing slope which would receive the tree plantings, however the contour lines depict a highwall that has not been backfilled.
 - Maps F-4 and F-7 show a VLF2 slope arrow which is parallel to the contour lines and not perpendicular. Please review and revise Exhibit F Map slope arrows.
 - With modifications to the post-mining topography from the VLF expansions, please review the shape and size of the proposed tree planting areas. Please also review the site's topography and the reclamation plan criteria for tree planting to determine if new areas have been created which could now be planted with trees.
 - The Carlton Tunnel area and the AM14 Grassy Valley monitoring well access road are not shown on any of the Exhibit F maps.

Exhibit G – Water Information (Rule 6.4.6):

19. Within Section 2.2, Paragraphs 2 and 3, the volcanic diatreme is discussed. It is stated Figure G-1 shows no significant groundwater usage occurs in the area of the diatreme. Please add in the diatreme boundary to the Figure G-1 and Figure G-2 plate series.
20. Please revise Table G-2 Surface Water Monitoring Parameters and Table G-5 Groundwater Monitoring Parameters to include the applicable standards each analyte is compared to. Please note, the Operator may include for certain drainages/analytes a footnote that acknowledges they are working with CDPHE on potential surface and groundwater site-specific classification issues to address the potential impacts the site may have on these systems.
21. Please include the Carlton Tunnel, the affected lands boundary which surrounds it, and applicable features within 2 miles on the Figure G-1 and Figure G-2 plate series.
22. On the Figure G-1 plate series, please identify monitoring wells which are the official Point of Compliance locations by using a separate symbology compared to other monitoring locations.

Exhibit L – Reclamation Costs (Rule 6.4.12):

23. Exhibit L was revised during the July 8, 2024 Response to Filing Deficiencies submittal, to include reclamation costs associated with the employee parking area along County Road 821. Please revise Table 1: AM14 -

External Parking Area Reclamation to include appropriate ripping, regrading/contouring, and any other reclamation task costs that are not present in the table already.

24. Exhibit L consists of the site-wide estimate. This estimate is similarly formatted and structured to the AM13 Exhibit L estimate and the November 30, 2022 Annual Financial Warranty Update. Both were utilized by the Division to build out the CIRCES site-wide cost estimate which led to Surety Increase SI7 on December 21, 2023. In accordance with Rule 6.4.12, the Division requests that tasks that are specific to the proposed AM14 expansions are clearly identified either throughout Exhibit L or as a separate and concise submittal to incorporate AM14 changes into the CIRCES estimate.

EXHIBIT R – Proof of Filing with County Clerk (Rule 6.4.18):

25. In accordance with Rule 1.6.2(2), please submit proof that the revisions associated with this letter have been placed for public review with the original application at the local County Clerk and Recorder.

EXHIBIT S – Permanent Man-made Structures (Rule 6.4.19):

26. Exhibit S, Section 1, Paragraph 1 and 3, need to be updated to reflect the expansion of the affected lands associated with the employee parking area along County Road 821 and the Grassy Valley monitoring well access road.
27. Please identify all permanent man-made structures within 200 feet of the affected lands associated with these two areas of AM14 proposed affected land expansion. Please verify if any structures within 200 feet of these areas are already accounted for in the existing AM11/AM13 Exhibit S or demonstrate compliance with Rule 6.4.19 for any new structures. Please note, for new structures, the Operator must first attempt and demonstrate compliance with Rule 6.4.19(a) prior to evaluating the structure as a part of Rule 6.4.19(b).

Exhibit U – Designated Mining Operation Environmental Protection Plan (Rule 6.4.21):

28. Within Section 2, it states that information related to the High-Grade Mill (HGM) facilities, including chemical use and storage, is included in this Exhibit to describe the environmental protection protocols used until and through decommissioning. In conjunction with previous items in this review, it is understood that HGM is not currently in use. Please clarify if the HGM is intended to be used again until the commencement of construction of VLF2 Phase 4 expansion. If the mill is intended to be used, a recertification of the Mill including its liner system as an EPF will be required.
29. Please identify any changes to Table U-1: Designated Chemicals and Table U-2: Environmental Protection Facilities from the approved AM13 (including adequacy review revisions) tables and the AM14 submittal.
30. Within Section 6 it states that the additions of VLF 1 Phase 6 and VLF 2 Phase 4 are considered expansions to the existing approved VLF1 and VLF2 EPF, respectively. While that may be true, a Facilities Evaluation of the expansions must be provided. Please provide a revised Section 6 of Exhibit U addressing items a through f of Rule 6.4.21(7) for both the VLF1 Phase 6 and VLF2 Phase 4 Expansions. The revised section should also include more details regarding construction including area preparation, installation etc.

31. As required by Rule 6.4.21(7)(d), please provide a map of all underdrains, Leak Detection Sumps (LDS), High Volume Solution Collection Systems (HVSCS), Low Volume Solution Collection Systems (LVSCS), and PSSA pond level piezometers. Please distinguish between current and proposed monitoring systems of the VLFs.
32. While all the information regarding the technical specifications and construction details of the two VLF expansions are included in the Newfields Design Report, Appendix 1, please include a detailed summary of the VLF expansions in the revised Section 6, Facilities Evaluation. The summary should include, but is not limited to, details of the subgrade preparation, leak detection systems, liner systems as well as the QA/QC program to be implemented during the construction of each Phase.
33. Section 11, Paragraph 4, states that the Operator and their consultant believe that the results of the Phase I and Phase II testing are sufficient to characterize the overall behavior of waste rock. Please revise Section 11 to include what is the overall behavior of the site's waste rock.
34. Within Section 13, it states that the Operator will receive the Division's acceptance of the QA/QC data prior to leaching ore placed on any portion of the expanded facilities. Due to the acid-generating nature of the site's ore, placing this material on a facility yet to be certified to receive the material is not authorized per Rule 7.3.1.(5). Additionally, in the instance construction issues are identified in the QA/QC documentation could result in ore removal for recertification, if ore has already been placed but not yet leached. Please revise Section 13 to reflect the commit to providing the Division with all QA/QC documentation and receiving Division acceptance of the certification prior to ore placement on any of the expanded facilities. Please note, similar to previous instances, requests to place material on constructed but not certified liner will be handled by the Division on a case-by-case basis.
35. Please ensure Section 17.1 Events Requiring Reporting has been updated to reflect TR127.
36. Section 17.1 includes the required Rule 8 Emergency Response Plan. Please update the Emergency Response Plan to include the requirements outlined in Rules 8.2.1 and 8.3.2.

Appendix 1 – Valley Leach Facility Expansion Design Report

37. Within Section 3, the report summarizes geotechnical investigations which include AM13 VLF2 Phase 3 expansion boreholes (2020) paired with AM14 VLF1 Phase 6 and VLF2 Phase 4 test pits (2023) and geophysical surveys (2023). Please discuss how the results from the AM14 test pits and geophysical surveys correlate to the data from the AM13 boreholes and why a borehole investigation is not warranted for the AM14 areas.
38. Section 4.1 discusses that except for Joe Dandy Hill, the VLF1 and VLF2 expansions' footprint predominately sits within previously disturbed land and how the underground workings have been removed or already remediated. Please provide all known data on the location and how these features have been addressed. A review of historical imagery and records may be needed to determine the location of surface features in the area. Please also provide a plan for how these features will be investigated during the construction of the VLF expansions to ensure compliance with the technical specifications and design of the facility.
39. At the end of Section 4.1 is a comment noting that any mine placed pit backfill material prior to the construction of the VLF composite liner system is outside of the scope of the project nor a feature of the EPF. This is a similar comment the Division was concerned about regarding the Schist Island backfill in AM13 permitting.

Please provide appropriate details of how mine placed pit backfill will be handled. Please refer to Adequacy Review Item 73 throughout the review of AM13.

40. Within Section 4.3.3, the design states VLF1 Phase 6 PSSA utilizes the existing VLF1 Phase 4 and VLF1 Phase 5 as its northern and southern boundaries, respectively, and will require geomembrane to be installed on the re-sloped sides of these facilities. This is depicted on Drawing A024. Please provide details how re-sloped spent ore will achieve the subgrade specifications required for the facility. Please also provide examples where spent ore has previously been used as structure fill on-site as a part of VLF construction.
41. Section 4.4.1 discusses the construction of the VLF1 Phase 6 PSSA Embankment. The embankment will be 120 feet high, 1,275 feet long with a minimum crest width of 25 feet. It also states that the Structural Fill for the Embankment will be placed and compacted in accordance with the Technical Specifications included in the Exhibits of the Report however no Technical Specifications specifically addressing the PSSA Embankment were included. Please provide the Technical Specifications to be used in the construction of the PSSA Embankment. The specifications should include but are not limited to, materials selection, materials source, lift thickness, compaction requirements, field testing as well as QA/QC testing and reporting requirements.
42. Section 4.4.2 states VLF1 Phase 6 PSSA is sized to hold maximum storage required as determined from the water balance discussed in Section 6. Section 6 discusses further information on the water balance can be found in Appendix F of the Report. Appendix F provides a recommendation that the facility's storage capacity be at least 27 million gallons. Figure 5 - PSSA Filing Curve shows the Top of PSSA (9840') holds 145,689,971 gallons. As this appears to be the only mention of the total capacity of the proposed VLF1 Phase 6 PSSA facility, please update the Section 4.4.2 narrative with these details.
43. Please update Section 4.4.3. High-Volume Solution Collection Recovery System to discuss the installation of a PSSA pond level piezometer which will be placed away from the HVSCS for monitoring the 80% capacity compliance limit without being affected by the draw down from the pumps.
44. Section 4.6.2 discusses the VLF2 Phase 4 Infiltration Gallery. Please address the following items:
 - a. Please provide details on how this system will function during freezing conditions.
 - b. What is the minimum distance from the crest of the 9550-foot lift that the first row of wells can be placed to be within the limits of the modeling and design.
 - c. How is the system designed to either prevent siltation or plugging of the screen intervals or discuss how the facility will be maintained and wells replaced as necessary.
45. Within Section 5.1.1, it states that cross sections to be analyzed were chosen based upon the maximum differences between stacked ore and base grade. Please provide additional documentation confirming that the cases presented are the most conservative possible cases. This may be provided in the form of additional cases or other documentation confirming the conservatism of the provided cases. As presented in Appendix E, Cross Section D passes over what appears to be the access into the Elkton Pit in a southwest to northeast direction showing a maximum backfilled depth of approximately 175'; the Division requests at least one additional cross section analysis is provided which shows the main area mined of the Elkton Pit with the greatest extent of backfill in a west to east direction.
46. Within Section 5.1.1, the subsurface conditions beneath the VLF Expansion were discussed in Section 0. This appears to be a typo, please resubmit this with the correct reference.

47. Within Section 5.1.1, it states that the “Phreatic conditions within the facility were modeled at approximately 0.5 feet above the LLDPE liner, representing a fully drained VLF with minor accumulation of solution along the base geomembrane.” The resulting Factors of Safety presented in Table 5.2 range from 1.2 to 2.2. Also based on the details included in Appendix E which contain the material properties used in the geotechnical evaluation, a consistent unit weight was used for the calculations. The Division interprets the evaluation and material properties to mean that the evaluation was performed to understand the closure or near closure scenario. Please provide a geotechnical evaluation of the VLF Expansion areas taking into consideration the increased slope angle as well as the active application of solution, whereby resulting in an increased unit weight to ensure the slopes achieve the Division’s required Factors of Safety during active leaching Operations.
48. Figure 2 contains a scale bar with “Ore Depth” noted however this appears to be a typo as the Ore surface is depicted. Please update Figure 2.
49. Cross Section C on Figure 4 shows a large flat area, approximately 2.2% over 700 feet of liner near the backside of VLF2 Phase 4B. Please discuss measures that will be taken to ensure solution drains from of this area without pooling. As there is a maximum slope grade identified for the facility in the designs, please provide details on if there is a minimum slope specification for the facility. Additionally, please verify the slope arrow and 4.3% grade label listed on Drawing A013 is correct.
50. Figure 2 and Figure 4 depict Cross Section D which passes through VLF1 Phase 6 Stage A and B fully built out and stacked. The sight indicator arrows of Cross Section D on Figure 2 and the depicted Cross Section D on Figure 4 do not match. Please correct orientation/direction of the sight indicator arrows of Cross Section D or how Cross Section D is drawn.
51. The lack of historical features located within AM14 expansion areas, especially within the VLF1 Phase 6 area, is concerning. Based on older aerial imagery and the Division’s understanding of the mining district, there appears to be incomplete data provided on Drawing A003 Historical Underground Workings. Upon a review of the A004-A006 Table of Historical Underground Workings, the Date Observed Visually for all features falls between 2006 and 2007, perhaps long before AM14 was envisioned which may have limited the scope of those previous surveys. Please discuss if a new survey of underground workings will be conducted. The use of older imagery and on-the-ground observation may be needed.
52. Please call attention to (highlight, bold row border, create separate column, etc.) the Surface Disturbances located within the scope of AM14 on Drawings A004-A006 Table of Historical Underground Workings.
53. Drawing A011 Ore Stacking Plan depicts the proposed final stacked ore topography of VLF1 and VLF2. The 10,100’ contour line located south of VLF2 Phase 4 contains an error. Please correct this and resubmit A011. Please also make this revision to Figure 2 of the report.
54. Drawing A012 VLF2 Phase 4 Stage A Grading Plan shows a proposed leak detection trench and manhole which appears to be completely new. Please revise the drawing to include the existing location of SG LDS 3 and provide the plan for how SG LDS 3 will be extended to the edge of the expanded facility to continue functioning and be inspectable. Please make the same change to Drawing A013 VLF2 Phase 4 Stage B Grading Plan for SG LDS 4 and Drawing A014 VLF1 Phase 6 Stage A Grading Plan for LDS 12 and 13.
55. Drawing A015 depicts a spillway feature on the northern portion of the crest of the PSSS embankment. AM14 contains no details regarding this spillway. It appears that this spillway will allow solution to drain to unlined

areas if the PSSA capacity is exceeded, however, based on previous VLF designs, internal PSSAs have always drained to lined areas and into another PSSA in an exceedance scenario. Please explain why a spillway into VLF1 Phase 4 and VLF1 Phase 5 was not considered. Please also provide details in Section 4.4.1 of the report on the flow path of a 100% capacity exceedance of the VLF1 Phase 6 PSSA.

56. Please identify the location of the backfilled extents of the Elkton Pit on A016. Please also provide a demonstration the Leak Detection Trenches which pass over the backfill will maintain positive drainage towards the manhole(s) after maximum project settlement, otherwise, please discuss how the LDS will be constructed at a steeper grade in this area to account for the settlement.
57. Please remove the demolished facilities within the footprint of the VLF 1 and 2 expansions on Drawing A017.
58. Drawing A011 Ore Stacking Plan and Drawing A018 VLF Cross Section Profiles depict Cross Section M which passes through VLF2 fully built out and stacked. The sight indicator arrows of Cross Section M on A011 and the depicted Cross Section M on Drawing A018 do not match. Please correct orientation/direction of the sight indicator arrows of Cross Section M or how Cross Section M is drawn. Additionally, please correct the vertical existing ground feature near station 39+00 of Cross Section N on Drawing A018
59. Cross Sections P and Q on Drawing A011 Ore Stacking Plan and Drawing A019 VLF Cross Section Profiles have been switched. Please correct Cross Sections P and Q.
60. Drawing A020 Leak Detection Details contains a Detail D – Typical Solid HDPE to Perforated CPe Pipe Connection with a drawing reference of Drawing A008. There is no call out for D / A020 on Drawing A008. Potentially this is meant for Drawing A012, however no D callout is on this drawing either. Please correct this accordingly.
61. Drawing A028 Infiltration Gallery Plan shows a solid line for a 12” pipe located in VLF 2 Phase 4 Stage A area. The legend shows the 12” pipe as a dash-dot line instead of solid. Please explain if the 12” pipe in VLF 2 Phase 4 Stage A is perforated and if so, update the Drawing, otherwise the legend may need to be revised to reflect this different pipe type.
62. Please revise detail X / A029 on Drawing A029 Infiltration Gallery Sections & Details to include the distance or range of distances from the bottom of the 125’ well to the PSSA geomembrane.
63. Appendix B Laboratory Testing contains Table B.1 which shows lab data for 16 of the 19 test pits. Please add a note to the table to explain why Test Pits 3, 12, and 13 were not sampled.
64. Appendix C.4 Hydrogeological Evaluation of VLF Leachate Injection System into VLF2 , Section 4, describes solution will express, pool, and then run down the crest of the 9550 ft bench beyond 24 hours or depending on the starting level in the PSSA. At the end of this section, it states that if the starting level is 55’, the solution mound will reach the surface within 24 hours of infiltration. The Operator will need to thoroughly expanded this section or the designs to include, but not limited to, providing more details on the controls in place to prevent surface expression, commitments from the Operator for how long the infiltration gallery can run while ADR2 does not receive VLF2 Phase 4 solution, commitments from the Operator to notify the Division regarding exceedances of timeframes or surface expression, how solution will be safely conveyed down to the ADR2 platform if solution pools and crests the 9550 ft bench, a time graph which shows when surface expression will

occur based on different starting PSSA pool elevations, demonstration to assure the normal operating conditions and an overflowing injection system does not compromise the geotechnical stability of the VLF2 facility, etc.

65. Please confirm and demonstrate that injected solution will not “daylight” out the slope between the 9450’ ADR2 pad and the 9550’ bench. Please also discuss and demonstrate if the injection wells will impact the nearby PSSA pond level compliance piezometer.
66. Please inform the Division how the results of the testing program and any necessary revisions to the design discussed in Section 6 and 7 of Appendix C.4 Hydrogeological Evaluation of VLF Leachate Injection System will be provided to the Division prior to construction of the full injection system.
67. Within Appendix C.5, Drawing 810-30-01 Rich Solution Plan & Profile, a 28” pipeline is drawn along the same alignment as the four VLF2 Phase 4 solution pipes, but bypasses the collection tank and continues along the toe of the 9650 ft bench’s slope. Please provide additional details of this line.
68. Within Appendix C.5, Drawing 810-60-01 Collection Tank Layout, there are four 24” inlet flanges to receive solution from the four VLF2 Phase 4 solution pipes, however based on details provided within Appendix 1- Valley Leach Facility Expansion Design Report only two of these pipes are 24” in size with the other two being 28”. Please explain this discrepancy.
69. In Appendix E, the cases described through the geotechnical analysis assume a case where little to no solution is present within the ore except for residual solution near the liner. Please provide additional information regarding the choice to rely on this set of conditions, as well as an additional case that better represents conditions closer to those present during active leaching operations.
70. Within Appendix F Water Balance, Section 2.6, it states VLF1 Phase IV will receive solution from, and return water to, SGADR2. Please confirm this statement is correct as Phase IV is has been associated with ADR1 since its construction.
71. Please revise Figure 3: VLF1 and VLF2 Current and Planned Phases within Appendix F Water Balance, Section 2.6, to label VLF1 Phase II as Phase II/III as named elsewhere throughout the permit file.
72. Within Appendix F Water Balance, Section 2.7.2, states if the holding capacity of a VLF2 PSSA is exceeded, it spills to the environment. Please revise this statement to describe how PSSA 3 flows to PSSA 1 if it is exceeded and only an exceedance of PSSA 1 will flow off-liner. Please also revise Figure 4 in the same section or provide a separate flow schematic to depict this interconnectedness with the VLF2 PSSAs. A similar discussion and figure should be added to Appendix F for VLF1 PSSAs.
73. Within Appendix F Water Balance, it is concluded in Section 5 that the greatest potential for water excess occurs immediately after 2036 when the VLFs are at their largest extent and a large amount of solution is circulating. Please describe what measure will be taken leading up to this time period and provide details on what the trigger point will be to initiate these preparations. Please provide a plan to notify the Division when the lead-up to this time period begins to ensure measures are taken to prevent water balance issues at the time of greatest potential excess.


Appendix 7 – Water Quality Monitoring Plan and Quality Assurance Project Plan (QAPP)

74. The date on Appendix 7 is Feb 26, 2024. The QAPP was updated through TR139 which was approved on January 31, 2024. What are the differences between the QAPP version that was provided in response to TR139 Adequacy Review Response #2 with the date January 16, 2024 and the QAPP that comprises Appendix 7?

This concludes the Division's Preliminary Adequacy Review of the Amendment AM14 Application on the Cresson Project (M-1980-244). As discussed, the Division is continuing its review of Exhibit N, Exhibit O, and Proof of Public Noticing (Rule 1.6.2) and will provide you a supplemental adequacy review shortly. The current decision date deadline is set for **March 28, 2025**. This letter shall not be interpreted to mean that there are no other deficiency or adequacy requirements in your application. The Division will review your application to determine whether it is adequate to meet the requirements of the Act and Rules after submittal of all required items.

If you have any questions, please contact me at 303-903-4456 or elliott.russell@state.co.us.

Sincerely,



Elliott R. Russell
Environmental Protection Specialist

Cc: Katie Blake, CC&V
Johnna Gonzalez, CC&V
Zach Trujillo, DRMS
Patrick Lennberg, DRMS
Hunter Ridley, DRMS
Lucas West, DRMS
Ben Hammer, DRMS