

"Safety as a Value"

October 3, 2020

State of Colorado Division of Reclamation, Mining & Safety 1313 Sherman St, Room 215 Denver, CO 80203 Attn: Janet Binns, Environmental Protection Specialist III

Re: King II Mine Pond Quarterly Inspection 3rd Quarter 2020

Ms. Binns:

Please find attached the 3rd quarter inspection report on the King II sedimentation pond performed by Ryan Griglak, P.E. on September 30, 2020.

Please call Tom Bird at (970) 769-1160 if you have any questions or comments.

Sincerely, Tom Bird

GCC Energy, LLC

Stoner Engineering & Surveying

Engineering, Testing & Surveying

Date: September 30, 2020

- To: Jordan McCourt Project Coordinator GCC Energy, LLC 6473 County Road 120 Hesperus, CO 81326 (970) 385-4528
- From: Ryan Griglak, P.E. Project Manager Stoner Engineering & Surveying

Re: King Coal II - Annual Water Quality Improvements Inspection

On September 28, 2020, Ryan Griglak, P.E. visited the GCC Energy, LLC King Coal II site to conduct the annual inspection of the water quality pond installed to prevent contaminated storm water runoff from escaping the site in events smaller than the 100-year storm event.

The water quality pond was mostly dry at the time of the inspection. The elevation at the bottom of the pond was determined to be at an elevation of 7227.2, approximately 13-inches below the concrete of the outlet structure. While the measurement at the pond outlet has only risen slightly in elevation over the 2019 inspection, there was more sediment at the sedimentation gage located in the approximate middle of the sedimentation pond. The sediment was approximately one (1) foot below the cleanout level during the 2018 inspection, eight (8) inches below the cleanout level during the 2019 inspection and currently measures four (4) inches below the cleanout level for the detention pond during the current inspection. This represents an elevation of 7228.9. The 60% cleanout level is at an elevation of 7229.25. The current sediment level in the detention pond is less than the allowable 1.57 [ac-ft] of sediment which is the 60% cleanout level as shown in the Sediment Pond Stage Discharge Curve prepared by EIS Environmental & Engineering Consulting dated 12/18/08. Looking at the current sediment level as well as the annual loading rate observed in the detention pond over the previous years, it should be anticipated that the excess sediment will have to be removed from the detention pond within the next 12 months. Sediment removal will be easier to accomplish during the drier period of the year which is more likely during the late summer or fall seasons.

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The vegetation both inside and out of the pond is well established to minimize the erosion impacts of storm runoff. The outlet structure shows no signs of damage and was functioning as designed at the time of the inspection (see Pic. 1). The water quality pond appears to be in generally good condition. There were no signs of weakness or distress to either the outlet structure or the embankment material though the vegetative cover made observation extremely difficult. The water quality pond has the storage capacity to function as designed.

The east clear water ditch, the lower west clear water ditch (east of the driveway access) and the main drainage ditch (combined clear water ditches) had recently been maintained and were found to be in generally good condition and clean of debris (see Pic. 2 & 3). All ditches should be inspected and repaired as necessary, especially after storm events.

The culvert pipes on the site were in generally good condition overall (see Pic. 4). The culvert pipes should be monitored after storm events and cleaned out in the event that sedimentation occurs or debris buildup at the culvert inlets or outlets is observed.

The drainage features for the King II site are functioning as designed and are being maintained in accordance with the approved plans.

Please let me know if you have any additional questions or concerns in regards to the issues discussed in this report.

Sincerely,

Ryan M. Griglak, P.E. Project Manager



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Pic. 1 – Detention Pond outlet in good condition.



Pic. 2 - West clear water ditch downstream from driveway access.

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Pic. 3 East clean water ditch.



Pic. 4 –Culvert below the scale house to detention pond.

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