



**PERMIT INFORMATION**

<b>Permit Number:</b> C-1981-035 <b>Mine Name:</b> King Coal Mine <b>Operator:</b> GCC Energy, LLC <b>Operator Address:</b> Mr. Tom Bird 6473 County Road 120 Hesperus, CO 81326	<b>County:</b> La Plata <b>Operation Type:</b> Underground <b>Permit Status:</b> Active <b>Ownership:</b> Federal
	<b>Operator Representative Present:</b>  Tom Bird
<b>Operator Representative Signature: (Field Issuance Only)</b>	

**INSPECTION INFORMATION**

<b>Inspection Start Date:</b> March 12, 2018 <b>Inspection Start Time:</b> 13:15 <b>Inspection End Date:</b> March 13, 2018 <b>Inspection End Time:</b> 16:00	<b>Inspection Type:</b> Coal Complete Inspection <b>Inspection Reason:</b> Normal I&E Program <b>Weather:</b> Cloudy
<b>Joint Inspection Agency:</b>  None	<b>Joint Inspection Contacts:</b>
<b>Post Inspection Agency:</b>  None	<b>Post Inspection Contacts:</b>
<b>Inspector(s):</b>  Robert D. Zuber, P.E.  Jason D. Musick	<b>Inspector's Signature:</b>  <i>Robert D. Zuber</i>  <b>Signature Date:</b>  3/19/2018

**Inspection Topic Summary**

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

Y - Air Resource Protection	R - Roads
Y - Availability of Records	Y - Reclamation Success
Y - Backfill & Grading	R - Revegetation
R - Excess Spoil and Dev. Waste	Y - Subsidence
NA - Explosives	Y - Slides and Other Damage
Y - Fish & Wildlife	R - Support Facilities On-site
R - Hydrologic Balance	R - Signs and Markers
Y - Gen. Compliance With Mine Plan	NA - Support Facilities Not On-site
R - Other	NA - Special Categories Of Mining
NA - Processing Waste	R - Topsoil

**COMMENTS**

A complete inspection was conducted by Jason Musick and Rob Zuber of DRMS on March 12 and 13, 2018. An office records check was conducted on March 12. Tom Bird of GCC accompanied Jason and Rob in the field. Also, Sarah Vance and Wade Wymore of GCC were present for a portion of the inspection. The weather was somewhat cloudy and the ground was mostly dry.

**EXCESS SPOIL and DEVELOPMENT WASTE – Rule 4.09**

Placement; Drainage Control; Surface Stabilization:

The un-reclaimed portion of the Refuse Pile (upper portion) had no piles of waste rock, and was in good condition except for minor rills. No puddles were seen on the surface of the Refuse Pile.

No staining (which would indicate mineral deposition) was seen below the rock underdrain of the Refuse Pile. The channel below this underdrain has positive grade to move water from the pile.

The material on the lower portion of the Refuse Pile appears to be well compacted. It appears to be waste from King II and not roadway material.

**HYDROLOGIC BALANCE - Rule 4.05**

Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:

At the King I entrance, the berm to direct runoff to a silt fence sump needs to be repaired. No issues were seen with the sumps and silt fence at the entrance area.

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Some of the sediment control wattles near the King I ponds need to be trenched in where they are currently just resting on the ground.

At the King I Mine, the West and East Ponds were dry. No problems were seen with the ponds' structures (e.g., no rills on the embankment, no obstruction of the spillways).

No problems were identified with ditches or culverts at King I; the inspection included the portion of Reach 5 that has recently been improved.

The King II pond was mostly dry and not discharging. GCC staff had placed equipment on site to dry out ice in the lower portion of the primary spillway, with the intent of locating a possible leak in the spillway. This structure should continually be monitored to determine if a leak exists, and if it is a problem. One theory expressed by Wade Wymore is that there is a leak within the pipe (perhaps at a seam) very close to the lower end, and water is entering the seam after infiltrating through a few inches of soil (the cover over the pipe is very small at the lower end). No problems were seen with the embankment of the King II pond.

The BMPs at the King II entrance appear to be functioning well. No problems were seen in the clear water ditches at King II. Culvert C18 was inspected and no problems were seen.

#### OTHER (SPECIFY):

During an office discussion, it was revealed that there are six exploration holes that will likely require an NOI: GCC-18-6, GCC-18-7, GCC-18-8, GCC-18-9, GCC-18-10, and GCC-18-12. Three additional holes may also need an NOI (GCC-18-3, GCC-18-4, and GCC-18-5) depending on their exact location. GCC agreed to look into this matter.

#### ROADS – Rule 4.03

Construction 4.03.1(3)/4.03.2(3)

Drainage 4.03.1(4)/4.03.2(4)

Surfacing and Maintenance 4.03.1(5) and (6)/4.03.2(5) and (6)

Reclamation 4.03.1(7)/4.03.2(7):

No issues were seen with any roads. The silt fence between the King II entrance road and the pond is functioning well.

#### REVEGETATION – Rule 4.15

Vegetative Cover; Timing:

No issues were seen with the reference area near Stack Tube #2.

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**SUPPORT FACILITIES - Rule 4.04:**

No erosion or other problems were seen around the facilities areas. Particular areas of inspection are discussed below.

The primary cut slopes at the mine appear to be stable. This includes the King I facilities area (where portals were located) and the King II portal areas.

In past DRMS inspection reports, potential problems were identified with erosion and sediment loading onto the hill below the newly constructed fan. In particular, there was a small rill below the culvert that is below the conveyor. Riprap has been added to this area to address this problem.

Standing water was seen next to the scale. Regrading of this area is needed to provide positive drainage.

The coal at Stack Tube #2 was well contained, and no coal was spilling onto the undisturbed area.

**SIGNS AND MARKERS – Rule 4.02:**

North of the shop (northwest corner of site), a Disturbed Area marker was in place.

**TOPSOIL – Rule 4.06**

Removal 4.06.2; Substitute Materials 4.06.4(4); Storage and Protection 4.06.3; Redistribution 4.06.4:

Vegetation cover is good on the topsoil stockpiles at King II, and no erosion was seen.

At King I, no problems were identified with the Plant Growth Medium Storage Areas.

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**ENFORCEMENT ACTIONS/COMPLIANCE**

No enforcement actions were initiated as a result of this inspection, nor are any pending.

**PHOTOGRAPHS**



**Retaining wall at old fan site**

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**Material from road construction placed on King I facility area**



**Rock from road construction (on left) and King II mine waste (on right) placed on King I facility area**

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**Heating equipment at King II Pond**



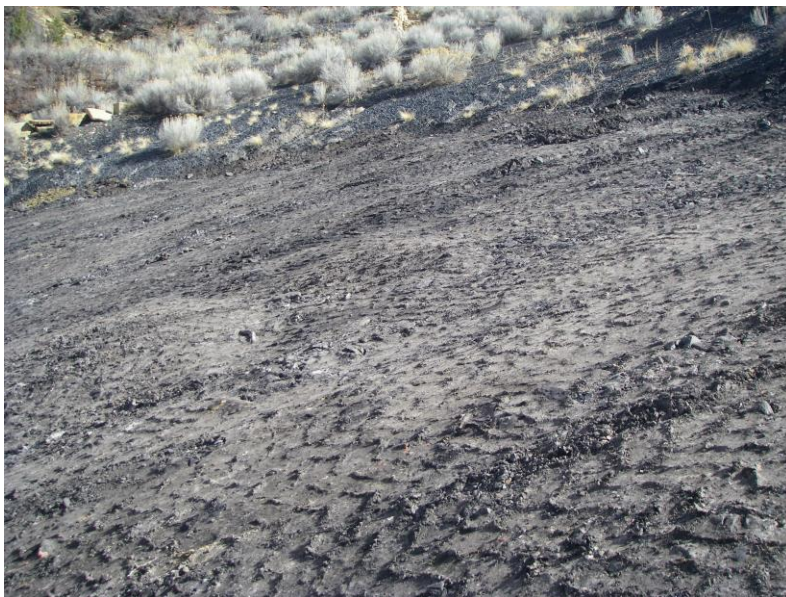
**Sump at King II entrance**

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**Upper portion of King I Refuse Pile**



**Lower portion of King I Refuse Pile where material has been recently added**

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**AVAILABILITY OF RECORDS**

**PERMIT RECORDS**

DRMS Permit	Exp. Aug. 2022
Permit Application w/Revisions Findings Document	Yes, Thru MR-47 RN07 (Nov 2017)
Insurance Certificate	Exp. Sept. 2018
Bond Document	<b>*Comment 1</b>
Phased Bond Release Documents/Findings	NA
Air Emission Permits	Yes (Sept. 2013)
County Special Use Permits	<b>*Comment 2</b>
UG Mining Landowner Notification	Yes
Subsidence Monitoring Reports	2017 Q4
Subsidence Monitoring Data	NA
Rill & Gully Survey	NA
Vegetation Monitoring Data	NA
Specific Variance Approvals	NA
Annual Reclamation Reports	2017
Midterm Review Documents	MT-07
DRMS/OSM Inspection Reports	Thru Feb. 2018
Enforcement Actions	CV-2015-01
Transfers/Succession of Operator	Yes (2007/2008)
Temporary Cessation Notification	NA
Reclamation Cost Estimate (Appendix 12)	MR47(Feb. 2018) RN7 (July 2017)
<b>CERTIFICATIONS</b>	
Pond Certifications	<b>*Comment 3</b>
Annual Certifications for Impoundments	2017 Q3
Fill Certifications for Excess Spoil or Underground Development Waste	Yes
• Quarterly Inspections	2017 Q4
• Compaction Testing	May/June 2017
• Final Certification	NA
Coal Processing Waste Banks	NA
Haul Road Certifications	Yes 2009
Access Road Certifications	Yes 2012

**HYDROLOGIC RECORDS**

NPDES Permit	Exp. June 2013 (Admin extensn.)
NPDES Records	2017 Q4
Stormwater Management Plan	Sept 2017
SPCC Plan	Revised April 2016
MSHA Pond Inspections	NA
State Engineer's Pond Inspection	NA
Quarterly Pond Inspections	2018 Q1
Annual Hydrology Reports	2017
• Ground Water Monitoring	2017 Q3
• Surface Water Monitoring	2017 Q3
• Spring & Seep Monitoring	Outside permit boundary
• Mine Water Discharge Monitoring	NA
• Mine Inflow Study	NA
• Water Consumption Records	Thru Feb. 2018
Well Permits	Yes

**BLASTING RECORDS**

Blasting Publication	NA
Blasting Records (3 years)	NA
ATFE Explosives Permit	NA
Blasting Variances	NA
Pre-Blast Surveys	NA

**ADDITIONAL RECORDS (specify)**


**COMMENTS:**

- \*1 Total bond of \$908,672.76 (includes \$908,107 with Travelers and two small cash bonds).**
- \*2 Appendix 2(1) of PAP.**
- \*3 King I ponds in 1998. King II ponds in 2009.**

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