

MINERALS PROGRAM INSPECTION REPORT PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME:	MINE/PROSPECTING ID#:	MINERAL:	COUNTY:
Pueblo East Pit	M-1986-015	Sand and gravel	Pueblo
INSPECTION TYPE:	INSPECTOR(S):	INSP. DATE:	INSP. TIME:
Monitoring	Patrick Lennberg	October 17, 2019	10:30
OPERATOR:	OPERATOR REPRESENTATIVE:	TYPE OF OPERATION:	
Continental Materials Corporation	Bruce Humphries	112c - Construction Regular Operation	

REASON FOR INSPECTION:	BOND CALCULATIO	
Normal I&E Program	Complete Bond	\$2,288,004.00
DATE OF COMPLAINT:	POST INSP. CONTA	CTS: JOINT INSP. AGENCY:
NA	None	None
WEATHER:	INSPECTOR'S SIGNATURE:	SIGNATURE DATE:
Clear	Patrick Ly	November 27, 2019

The following inspection topics were identified as having Problems or Possible Violations. OPERATORS SHOULD READ THE FOLLOWING PAGES CAREFULLY IN ORDER TO ASSURE COMPLIANCE WITH THE TERMS OF THE PERMIT AND APPLICABLE RULES AND REGULATIONS. If a Possible Violation is indicated, you will be notified under separate cover as to when the Mined Land Reclamation Board will consider possible enforcement action.

INSPECTION TOPIC: Reclamation Success

PROBLEM: The Operator has failed to follow approved reclamation plans, the current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 (1). The operator must provide sufficient information to describe or identify how the operator intends to conduct reclamation and costs associated with reclamation.

CORRECTIVE ACTIONS: The operator shall submit a Technical Revision, with the required \$216 revision fee, to update and clarify the current approved reclamation plan to reflect existing and proposed activities by the corrective action date.

CORRECTIVE ACTION DUE DATE: 2/25/20

OBSERVATIONS

The Pueblo East Pit was inspected by Patrick Lennberg with the Division of Reclamation, Mining and Safety (Division/DRMS). The inspection was completed as part of the Division's routine monitoring inspection program. The site was previously inspected by the Division on May 13, 2014 during a citizen complaint inspection. Bruce Humphries, representing the Operator, accompanied me during the inspection. The weather was clear and warm.

The Pueblo East Pit is located approximately 7 miles east of Pueblo, CO. The access road is the intersection of US Hwy 50 and 26th Lane. Pueblo East Pit is a Construction Materials 112c Operation for 466.16 acres and is approved to affect 268 acres. The affected lands will be reclaimed to a combination of developed water resources, industrial, and wildlife habitat. A map from the 2019 Annual Report (Figure 1) is provided that shows the permit boundary and relevant features within the boundary.

The pit was not active at the time of inspection. Mining at the site has not occurred for about a year or so but it is not clear when mining activities stopped. There are stockpiles of material that are apparently being sold but even that is not certainty. Earlier this year the ownership of the pit changed from Continental Materials to Castle Aggregates. Castle Aggregates is in the process of reclaiming many of the pits of the previous owners including Pueblo East. There is an active batch plant that is located at the site entrance. The batch plant is operated by Transit-Mix and is no longer associated with the mine however it is within the permit boundary. The Operator should consider trying to release this area from the mine permit boundary.

Pueblo East is broken up into three phases where mining has occurred (Figure 2), Phases 1, 2 and 7.

Mining in Phase 1 dated back to 1985 under a previous operator. Mining involving active dewatering operations occurring from late 2001/early 2002 to January 2009. During that time the footprint of the dewatering and the mining area expanded. Dewatering operations continued after mining had stopped until the pumps were shut off in September 2018. The Phase 1 pit is not lined. There are two dewatering ponds that were used to settle out sediment before water was discharged to the Arkansas River. Also located within Phase 1 is a processing facility that was used to crush and screen material at the site. The facility, along with associated conveyor belts, will have to be demolished as part of reclamation activities.

Currently, Phase 1 has a few material stockpiles that are being sold. In 2017 Technical Revision 4 (TR-04) was approved and allowed for the importation of inert fill to be used as backfill. Currently cement truck cleanout material is being used as backfill. As shown in Figure 1 there is approximately 65 acres of exposed groundwater that requires backfilling. The actual depth of the exposed groundwater is not known at this time. According to the reclamation plan approved in Amendment 4 (AM-04) it is assumed that 26 feet of backfill material will be required to get approximately 2 to 3 feet above the groundwater elevation. The slopes of the pit will be graded to 3:1 or flatter. The floor of the basin will be graded to slope to the southeastern corner where an outfall structure will be located to discharge to the river. The post-mining land use for Phase 1 is to be wildlife habitat. Topsoil will be spread 6 to 12 inches on the side slopes. The floor will be left barren for a period of two years to allow for invasion of desired vegetation. If the desired vegetation fails to establish then cottonwood trees and willows will be planted. There are two sediment clean out ponds, totaling about 9 acres, will have to be backfilled above groundwater. At this time it does not appear that there is sufficient backfill and topsoil remaining onsite to complete reclamation, therefore material will have to be imported. The Operator is currently searching for potential sources of backfill.

Mining in Phase 2 occurred from late 2008/early 2009 to late 2012. The slurry wall was installed in January 2009 and the liner test on the slurry wall occurred between January and April 2010. Because the liner was in place during mining activities there were no groundwater impacts occurring in the alluvial aquifer outside of the slurry wall resulting from the Phase 2 mining activities. On January 9, 2012 the Division of Water Resources (DWR) stated the slurry wall met the design standards of the August 1999 State Engineers Guidelines. At the time of inspection the pond was containing water but did not appear to be at capacity.

Reclamation of Phase 2 is detailed in AM-03 approved in 2007. The side slopes away from the pond still need to be graded to a 3H:1V of flatter slope. These areas will then be covered by 6 to 12 inches of topsoil. Seeding varies according to location, those areas adjacent to the pond will be seeded with to grassland using the lakeshore seed mix. In the northeast corner of Phase 2 adjacent to Phase 1 there are topsoil and overburden stockpiles, Figure 1, this area is to be planted with cottonwood and willow trees. In the northern area of Phase 2 there is a 6.7 acre area where topsoil and overburden was stockpiled and subsequently graded and seeded. It is unclear if the Operator will use this material for backfilling and grading. Given the lack of material suitable for backfill at the site the Division recommends that this material be used for backfill. Amendment 3 allows for this area to have a final floor elevation equal to the high point of the pit edge to the south. The Operator should determine the volume of material available from this area for backfill.

Mining in Phase 7 started in December 2012 and extended through February 2015. Phase 7 is not lined. Dewatering in Phase 7 commenced in early 2012. Dewatering activities are still occurring at Phase 7 although the mining area has partially been filled in resulting in a decrease in the dewatering pumping rate.

Currently there is approximately 6.3 acres of exposed groundwater in Phase 7. The side slopes around the exposed groundwater ranges from 3H:1V to near vertical. The depth of the water is unknown but according to AM-04 the depth of water could reach 26 feet or more. There are a couple of topsoil and overburden stockpiles that are located north and northeast portions of the phase. It is unknown at this time the volume contained within these piles. The perimeter slopes along the northern boundary varies from 3H:1V to vertical in some areas. These slopes are to be graded to 3H:1V per AM-04. During the inspection the Operator's representative noted that the floor of the phase may show small areas of ponding during high groundwater levels. The approved reclamation plan calls for backfilling to be a minimum of 2 feet above groundwater. Native vegetation is volunteering across the southern areas near the river.

Along the northern boundary there is a culvert that drains an industrial area to the north. The culvert has blown out several times and created a large erosion rill. The rill is approximately 10 feet deep and varies in width from 8 to 15 feet wide. It is unclear who owns and is responsible for the culvert. However, this issue has to be addressed for the long term reclamation of the site.

At this the Division has determined that the Operator has not followed the approved reclamation plans for the site. The Operator has not reclaimed Phases 1 and 2 according to AM-03 and Phase 7 according to AM-04. Failure to follow the approved reclamation plans is being cited as a problem in this report. Failure to follow approved reclamation plan, or current reclamation plan needs to be updated and clarified pursuant to C.R.S. 34-32.5-116 (1). The operator shall submit a Technical Revision, with the required \$216 revision fee, to update the current approved reclamation plan to reflect existing and proposed activities by the corrective action date. The Operator shall provide detailed reclamation cost estimates for each phase, identify potential sources of backfill material on site, and any costs for importing material to the site.

Photographs taken during the inspection are attached.

Please contact Patrick Lennberg (303)866-3567 ext. 8114 or email at <u>patrick.lennberg@state.co.us</u> if you have any questions regarding this report.

Inspection Contact Address

Bruce Humphries RPM, Inc. 25049 E. Adler Drive Aurora, CO 80016

Jerald Schnabel Castle Aggregates 549 East Chucarras Street Colorado Springs, CO 80903

- Figures:Figure 1 Annual report Map 2019Figure 2 Monitoring Well Location Map provided during TR-05
- cc: Jared Ebert, DRMS

PHOTOGRAPHS



Photo 1: Mine sign at entrance mine site near batch plant



Photo 2: Topsoil stockpile located on the northern boundary of Phase 1



Photo 3: Product stockpiles still being sold, located within Phase 1



Photo 4: Inert fill material being dumped along the northern shores of the Phase 1 Pond



Photo 5: Looking east across the northern half of Phase 1 pond



Photo 6: Looking south along the western boundary of Phase 1 pond



Photo 7: Topsoil stockpile along the northern perimeter of the mining and processing area in Phase 2



Photo 8: Looking southeast across the Phase 2 lined pond



Photo 9: Looking southwest across the Phase 2 lined pond



Photo 10: Vegetation established on the 6 acre topsoil overburden stockpile area in Phase 2



Photo 11: Looking west across the southern edge of the Phase 2 pond



Photo 12: The western most sediment clean out pond



Photo 13: Vegetation conditions on the south side of haul road Phase 7



Photo 14: North end of exposed groundwater Phase 7



Photo 15: Looking southeast across exposed groundwater pond Phase 7



Photo 16: Drainage erosion from adjacent property coming onsite



Photo 17: South end of Phase 7, note near vertical pond banks



Photo 18: Looking north from near the south end of the Phase 7 pond

GENERAL INSPECTION TOPICS

The following list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each

(AR) RECORDS <u>Y</u>	(FN) FINANCIAL WARRANTY Y	(RD) ROADS <u>N</u>
(HB) HYDROLOGIC BALANCE <u>Y</u>	(BG) BACKFILL & GRADING <u>Y</u>	(EX) EXPLOSIVES <u>N</u>
(PW) PROCESSING WASTE/TAILING <u>N</u>	(SF) PROCESSING FACILITIES <u>N</u>	(TS) TOPSOIL <u>Y</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>Y</u>	(FW) FISH & WILDLIFE <u>N</u>	(RV) REVEGETATION Y
(SM) SIGNS AND MARKERS Y	(SP) STORM WATER MGT PLAN <u>N</u>	(RS) RECL PLAN/COMP PB
(ES) OVERBURDEN/DEV. WASTE <u>Y</u>	(SC) EROSION/SEDIMENTATION Y	(ST) STIPULATIONS <u>N</u>
(AT) ACID OR TOXIC MATERIALS <u>N</u>	(OD) OFF-SITE DAMAGE <u>N</u>	

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

FIGURES



Specialist: BMK

