	<b>APDES INSPECTION REPORT</b> Alaska Department of Environmental Conservation Division of Water 410 Willoughby Ave, Juneau, AK 99811	DEC APDES Inspection Form Last updated (4/08)
		Phone:(907) 465-5257 Fax: (907) 465-5274

## Section A: General Data

Inspection Date	Permit #	Borough	Receiving Waters	Weather	Facility Type
January 27, 2011	AKR05CA54 AK0050571	Juneau	Slate Creek	Current Conditions:	Mine
Discharges to: Surface Water <input checked="" type="checkbox"/> Ground Water <input type="checkbox"/>				<b>ANNOUNCED</b> Inspection	

## Section B: Facility Data

<b>Name and Location of Site/ Facility Inspected</b>		<b>Entry Time</b>	<b>Authorization Effective Date</b>												
Kensington Gold Mine	<b>Loc:</b> Lat: 58°50'30" N	09:35 01/27/2011	MSGP: 05/17/2009 APDES: 09/01/2005												
Juneau, AK	Long: 135°02'45"W	<b>Exit Time</b>	<b>Permit Expiration Date</b>												
	<b>Source:</b> NOI	13:00 hours 01/27/2010	MSGP: 9/29/2013 APDES: 8/31/2010 ADMINISTRATIVELY EXTENDED												
<b>On-Site Representative</b>		<b>Additional Participants:</b>													
Kevin Eppers / Environmental Superintendent/ Coeur Alaska		Chad Hood / USFS													
<b>Responsible Official(s):</b>															
Tom Henderson/ Vice President and General Manager Coeur Alaska 3031 Clinton Drive, Suite 202 Juneau, AK. 99801 Phone: (907) 523-3300		<table border="0"> <tr> <td></td> <td>Yes</td> <td>No</td> </tr> <tr> <td>Samples Taken?</td> <td></td> <td>X</td> </tr> <tr> <td>Photos Taken?</td> <td>X</td> <td></td> </tr> <tr> <td>Analytical Results?</td> <td></td> <td>X</td> </tr> </table>			Yes	No	Samples Taken?		X	Photos Taken?	X		Analytical Results?		X
	Yes	No													
Samples Taken?		X													
Photos Taken?	X														
Analytical Results?		X													

## Section C: Findings/Comments

**BACKGROUND**

Coeur d'Alene Mines Corporation is the parent company of Coeur Alaska (Coeur) which operates the Kensington Gold Mine (KGM). KGM is located approximately 40 miles north of Juneau, Alaska. Coeur entered into production at KGM in June, 2010. Coeur Alaska estimates an average of approximately 125,000 ounces of gold annually over the mine's 12.5 year anticipated initial life according to Coeur's website. Construction of the mine and mill facilities was completed in 2007; the "Tailings Treatment Facility" (TTF)/ Lower Slate Lake (LSL), was completed in 2010.

**REGULATORY STATUS/ COMPLIANCE HISTORY**

National Pollutant Discharge Elimination System (NPDES) permit AK0050571 authorizes and regulates the discharge of pollutants resulting from facility processes, waste streams, and operations into Sherman Creek, East Slate Fork Creek, and Lynn Canal. AK0050571 is currently administratively extended.

Permit authorization AKR05CA54 allows the Kensington Gold Mine (KGM) to discharge storm water associated with industrial activities under the Multi Sector General Permit (MSGP), AKR05000. Alaska Department of Environmental Conservation (DEC) has assumed primacy over discharges of pollutants to waters of the state in a phased approach. On November 1, 2010, DEC assumed primacy for industrial wastewater discharges from the mining sector. Prior to DEC assuming primacy, the Environmental Protection Agency (EPA) issued two enforcement actions against the KGM, resulting in \$188,334 in (total) fines. Coeur received Notice Of Violation (NOV) from DEC on August 26, 2008 to resolve issues with seeps and discharges from the acid rock drainage (ARD) material to LSL.

EPA led a joint inspection with DEC at KGM on May 24, 2010. DEC personnel inspected KGM most recently on December 15, 2010.

**FIELD INSPECTION**

This inspector (H. Carpenter Kiser) and Chad Hood/ United States Forest Service (USFS) departed Ward Air in Juneau, Alaska at approximately 09:00 hours on January 27, 2011. Upon arrival at the Kensington Gold Mine at approximately 09:35 hours, we announced ourselves to Kevin Eppers, KGM's Environmental Superintendent. Both inspectors are current in terms of site specific safety training, and at approximately 10:00 hours, the group departed the Dry to enter the Jualin Portal to travel through the mine to the Comet Beach side of the site.

Pond 1 appears very close to storage capacity. Sediment appears to continue to accumulate in Pond 1 (Photo 1). An unknown substance is flowing into Pond 1, through one of approximately nine orange collapsible hoses (Photo 2). Available

freeboard is limited (Photo 3) in Pond 1. Refuse and sediment is visible in some areas at perimeter of Pond 1 (Photos 4 and 5). Water level in Pond 1 appears close to cresting spillway (Photos 6 and 7). The truck that pumps sediment from Pond 1 was onsite (Photo 8) and operational during inspection. KGM personnel were pumping from Pond 1 during inspection (Photo 9). Orange collapsible hoses similar to those referenced above appear to enter Pond 2 and rest at perimeter of Pond 1 (Photos 9 and 10). **The purpose and function of these collapsible orange hoses is unknown.**

As we walked toward the Comet Water Treatment Plant (CWTP), Mr. Eppers explained that a Connex trailer has been modified to provide secondary containment for totes of chemicals stored onsite. During inspection, totes located on a gravel pad above the CWTP were observed (Photo 11). Mr. Eppers explained that the totes were being moved to the Connex in accordance with KGM's Best Management Practices (BMPs).

We observed the effluent line conveying treated effluent to the composite sampler (Photo 12). Mr. Eppers explained that the sampler is in the middle of the pipe, and low flows required KGM to close the valve to get enough flow to collect a sample. KGM believes a recent iron exceedance may have been the result of iron/ sediment build-up from repeatedly opening and closing the valve. We discussed a recent manganese exceedance and Mr. Eppers stated KGM must study treatability, and a compliance schedule would likely be a component of KGM's re-issued APDES permit. Pond 2's overflow connects to a corrugated pipe that also conveys stormwater from a ditch along the Comet development rock stockpile.

We discussed recently developed BMPs to limit water use underground. Mr. Eppers stated that KGM has installed restrictors, or regulators on drills to generate less water while drilling, and KGM has changed the explosives used on site to decrease levels of ammonia/ nitrates requiring treatment.

We went to LSL and observed the outfall's approximate location (indicated by an orange buoy). Mr. Eppers pointed out the not-yet-completed installation of a tremmie line (discharge hose) that KGM could tie into if necessary.

Mr. Eppers explained that the pump-back line in the spillway recently froze, which KGM discovered via piezometer readings. KGM installed a secondary line to address the frozen line.

We discussed the fact that KGM has not yet characterized seeps that are collected and pumped to LSL. Mr. Eppers stated he believed characterization of seeps will be a component of KGM's next Waste Management Permit.

#### SUMMARY

Due to snow cover, analysis of effectiveness of stormwater Best Management Practices (BMPs) was not possible

Sediment in Pond 1 appears to be accumulating more quickly than it is being removed.

#### AREAS OF CONCERN

- High volume of visible solids in Pond 1 continues to be an area of concern. If this accumulation of sediment continues and Pond 1's capacity is effectively diminished, then equalization capacity (the Pond's stated use), will not exist. Additionally, if Pond 1 becomes filled to capacity with sediment, the high sediment load would then be deposited in Pond 2. If influent volumes are such that Pond 2 cannot accommodate flow (especially if it begins to accumulate sediment in effluent formerly received by Pond 1), then bypass may result. **In this case, bypass would likely not be construed as unanticipated.** Part IV.F.3 of AK0050571 states:

##### **“Prohibition of Bypass**

- a. **Bypass is prohibited, and the Director may take enforcement action against the permittee for a bypass unless:**

- i. **The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;**
- ii. **There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass**

- The function of the orange collapsible hoses (Photos 1, 2, 3, 4, 9, and 10) is unknown. The hose in Photo 2 appears to be discharging into Pond 1 (Photo 2). DEC is unsure how the volume and quality of influent are measured since it appears the discharge may circumvent influent monitoring.
- Some hoses, for example the hose pictured to the left of the hose in Photo 2 (visible in Photos 1, 3, and 4), appear to be full, rather than collapsed. It is unclear whether hoses are discharging **from** Pond 1.
- The function of the collapsible orange hose in Photos 9 and 10 is unclear.



**POTENTIAL ADMINISTRATIVE VIOLATIONS**

1. No administrative violations were noted during inspection

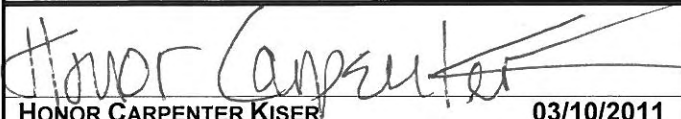
**POTENTIAL WATER QUALITY VIOLATIONS**

1. Unknown

**CORRECTIVE ACTIONS**

Submit a clear, up to date process flow diagram for existing mine water treatment plant. In addition to the diagram, please provide an explanation of the function of the orange collapsible hoses, and list any "part time" discharges to or from Ponds 1 and 2. Please direct correspondence to:

**Honor Carpenter**  
**Alaska Department of Environmental Conservation**  
**Compliance & Enforcement Program**  
**410 Willoughby Avenue, Suite 303**  
**P. O. Box 111800**  
**Juneau, AK 99811-1800**

 <b>HONOR CARPENTER KISER</b> Inspector Division of Water/Water Quality Compliance	<b>03/10/2011</b> Date	Company (if applicable): Signature only acknowledges receipt of this report.	Date
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**PHOTO ADDENDUM – KENSINGTON MINE**



PHOTO 1: ACCUMULATED SEDIMENT IS VISIBLE ON SURFACE OF POND 1



PHOTO 2: UNKNOWN SUBSTANCE FLOWS INTO POND 1. CLOSE-UP OF PHOTO 1



PHOTO 3: POND 1 APPEARS TO HAVE EXTREMELY LIMITED FREEBOARD AVAILABLE



PHOTO 4: WASTE ACCUMULATES AROUND PERIMETER OF POND 1 IN SOME AREAS



PHOTO 5: PHOTO 4, ENLARGED

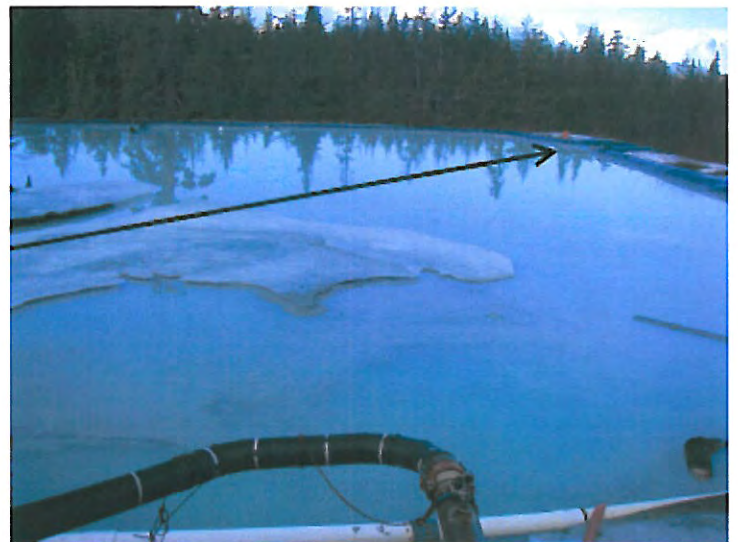


PHOTO 6: POND 1 LEVEL APPEARS CLOSE TO CRESTING SPILLWAY TO POND 2



**PHOTO ADDENDUM – KENSINGTON MINE**



PHOTO 7: CLOSER VIEW OF SPILLWAY FROM POND 1 TO POND 2



PHOTO 8: "PUMPER TRUCK" USED TO REMOVE SEDIMENT FROM POND 1



PHOTO 9: PERSONNEL USE EQUIPMENT TO PUMP SEDIMENT FROM POND 1. SEE HOSE HIGHLIGHTED BY ARROW



PHOTO 10: HOSE APPEARS TO GO FROM POND 2 TO POND 1



PHOTO 11: TOTES TO BE STORED IN CONNEX (NEW) WITH SECONDARY CONTAINMENT



PHOTO 12: ARROW POINTS TO POND 2 OVERFLOW. BLACK PIPE CONVEYS EFFLUENT TO COMPOSITE SAMPLER