M1085/0002
cc: Leslie

RioTinto

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Kelly L. Payne, P.G.
Manager – Environment

RECEIVED E-Mail
SEP 06 2011
Div. of Oil, Gas & Mining

2 September 2011

VIA EMAIL AND US MAIL

Ms. Kim Shelley
Utah Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
195 North 1950 West
Salt Lake City, UT 84114-4870

Mr. Dan Hall
Utah Department of Environmental Quality
Division of Water Quality
P.O. Box 144870
195 North 1950 West
Salt Lake City, UT 84114-4870

Subject: UPDES Permit UT000051
Groundwater Discharge Permit UGW350017
Notification of tailings slurry release to surface on 30 August 2011

Dear Ms. Shelley and Mr. Hall:

Pursuant to Part II.I.3 of UPDES Permit UT000051and Part II.I.2 of Groundwater Discharge Permit UGW35001, this letter provides information regarding the release of tailings slurry along the tailings pipeline that occurred on 30 August 2011. At approximately 10:00 am on 30 August, Scott Wheeler, Advisor - Environmental, spoke with each of you to verbally report the release as required by other parts of the permits. Additionally, KUC made notification to the National Response Center (Case Number 987867) at approximately 6:00 pm.

The release occurred at a point designated Drop Box A.25, which is located approximately miles 1800 feet north of Barneys Canyon creek. A contractor employee doing work near the release site observed the release begin at approximately 7:30 am and made immediate notification to KUC operations. Based on the contractor's observations, the release lasted approximately 24 minutes.

Prior to the release occurring, the Copperton Concentrator experienced a short failure of tailings thickener overflow pumping capability and Concentrator personnel responded immediately to restart pumps. When overflow pumping capacity was lost, thickener overflow water reported to the tailings line and overwhelmed the tailings pipelines causing tailings to discharge from the drop box. The circumstances leading to the failure of overflow pumping capacity and other causal factors are under detailed review by Kennecott and will lead to corrective actions.

KUC calculates that approximately 200,000 gallons of slurry were released containing approximately 252 tons of tailings solids. Calculations for the release were based on

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estimating the area covered by tailings slurry and the depth of deposited solids; water volume was calculated using an assumed percent solids of the released slurry.

The tailings release impacted several areas, as shown on the attached figure, including:

- South of Drop Box A.25 approximately 600 feet; water was confined between the tailings 60-inch and 48-inch pipelines. The water was tested in the field for pH which was approximately 6.0.
- North of Drop Box approximately 0.7 miles, the material was confined to the road located on the left side of the 60-inch pipeline (looking north). The average depth the material (solid) was approximately 0.5 to 4 inches.
- East of the tailings line the slurry flowed the tailings line road and onto natural vegetation where the majority of the coarser material settled out before finding an ephemeral wash where it was confined, and finally stopped approximately 0.3 miles from the source of the release.

The tailings released remained entirely on Kennecott property. The ephemeral wash that was impacted would be a tributary to Barneys Canyon creek. However, this wash is interrupted downgradient by a gravel operation, dryland farming, and residential development.

Much of the water portion of the slurry infiltrated or evaporated soon after the release. Kennecott installed a portable pump into a pool of water just south of drop box A.25 approximately seven hours after the release began and recovered approximately 15,000 gallons of water. KUC will remove tailings from roadway and pipeline corridor areas as soon as they are workable. KUC does not intend to remove the thin veneer of tailings from the natural areas or the ephemeral wash because removal will create a much greater impact than leaving the benign tailings in place.

Kennecott collected and analyzed samples of water and tailings solids from the released slurry. Preliminary analytical results are attached. Our calculations indicate that a Reportable Quantities (CERCLA 103) of arsenic was exceeded, predominantly due to the small concentration of arsenic in the tailings solids.

If you have any questions regarding this event, please feel free to contact me or Scott Wheeler at (801) 569-7817.

Regards,

Kelly Payne

Kelly L. Payne, P.G.
Manager - Environment

Enclosure

cc: Douglas Bacon, DEQ-DERR, via email
Leslie Helper, DNR-DOGM, via email

Tailings A.25 Release Extent

Payne, Kelly (KUCC)

From: Olsen, Melissa (KUCC)
Sent: Wednesday, August 31, 2011 2:21 PM
To: Payne, Kelly (KUCC)
Cc: Wheeler, Scott (KUCC)
Subject: Preliminary water data

Results in ppb

Lab ID	Description	As	Ba	Cd	Cr	Pb	Se	Ag
AT12742	Upper Between Pipes	27	350	<10	<10	<50	64	27
AT12744	Lower Pond	24	330	<10	<10	<50	68	15

Melissa Olsen

Superintendent, Environmental Laboratory

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Kennecott Environmental Laboratory

CERTIFICATE OF ANALYSIS

Sample Type: EPA Method 3050 B TOTAL METALS

Date: 31-Aug-11

To: KELLY PAYNE

Sample Preparation: SWA 846 Method 3050 B

Submission Date: 8/30/2011

Metals Analysis: SWA846 Methods 6010B and 7471

QC Reference Sample:

Lab No.	*Sample Description*	*Collection Date*	*Analysis Date*	*Analyte*	*Result*	*Reporting Limits*	*Units*
AT12741	PIPELINE SPILL	8/30/2011	8/23/2011	Moisture %H20	31.17		%
			8/31/2011	Arsenic	Below PQL	4	mg/kg
			8/31/2011	Barium	130	2	mg/kg
			8/31/2011	Cadmium	Below PQL	1	mg/kg
			8/31/2011	Chromium	46	2	mg/kg
			8/31/2011	Lead	13	3	mg/kg
			8/31/2011	Mercury	Below PQL	0.10	mg/kg
			8/31/2011	Selenium	Below PQL	5	mg/kg
			8/31/2011	Silver	Below PQL	5	mg/kg

Approved by

Melissa R. Olsen

Approved by: Melissa R. Olsen
KEL Laboratory Director