

ENVIRONMENTAL MEMORANDUM

Red Chris Development Company Ltd.
200–580 Hornby Street, Vancouver, BC V6C 3B6

Date: August , 2015

Distribution: Red Chris Monitoring Committee

From: Jason Nole, Chantel Quock, Environmental Technicians; Cory Koenig, Environmental Advisor
Mike Polywkan, Environmental Scientist, Jack Love, Environmental Superintendent

Re: Red Chris Monitoring Committee Environmental Report August 11-August 24, 2015

Weather:

- Temperatures range from 1°C to 21°C. Most days were foggy in the morning, burning off by noon. August 20th had heavy precipitation throughout the day. There were many sunny days in the first week of the shift.

Construction Activities:

- TIA-Dam construction continues-
- South Dam area tree clearing completed
- New access roads being constructed for south dam access near old TIA rd.
- Blasting hard toes in East zone

Spills and Incidents:

- Minor spill reported from Dam construction contractors' loader, all spill contents was cleaned up and disposed of properly.
- August 15th- Fuel truck driver had left fuel hose running un-attended while fueling a light plant at the TNDC office for approximately 4 minutes, resulting in an assumed 400-500L diesel spill. The spill was dealt with in a timely fashion but human error was the cause of the spill. All contaminated soils around and under the TNDC office was eventually cleaned up. The office had to be moved to properly clean the spill underneath the office. Environmental Advisor contacted PEP and reported the spill August 17th. DGIR#151428
- Aug 20th-Minor battery spill occurred at General Waste area during loading of used batteries. Environmental and Safety department aided spill response clean up and it was determined that future storage of used batteries will not be piled more than 2 rows high on any pallet to ensure worker safety at all times.
- August 21st- Crusher rock breaker was down due to a hydraulic line failing. Environmental staff inspected the spill and the crusher crew had already had placed spill pads on the small area that was contaminated. All contaminated mud and spill pads were properly disposed of. See pics below.

Waste Management:

- Safety and Environmental departments met and discussed General Waste Guidelines, memo and sign off sheet for all new hires and existing employees. It was determined that a positive, direct message was send to all mine personnel from an experienced, respected senior RCDC manager to implement the importance of the current RCDC Waste Management Guidelines. Signing off on these guidelines will be an important factor in the forward moving objectives that the RCDC Environmental department has piloted to date.
These objectives will also make it understood that all employees on site will have the chance to read and utilize the current guidelines, but if not followed, that person(s) will be held accountable for the misplaced recyclables, disposables and wastes on site.
- GFL collected 15,000L of used oil from site, removed waste bins and plastics and delivered empty waste bins for future waste use.

- Quarterly and bi-monthly water samples were collected from the lagoon waste water system.
- Many improvement work orders were submitted for the Lagoon and area prior to the arrival of the winter months.

Water Management:

- Conducted monthly surface, drinking water samples(all samples included the addition of mercury analysis), as well as the addition of the Orica site. This months' drinking water samples included a full potability package for the Mill, Office, Truck shop, Camp and new Orica site.
- Collected bi-weekly water samples from W69(+DUPL), Weir 2+3, and the tailings impoundment pond for analysis.
- Collected full mercury samples for all the listed sites mentioned above.
- Collected water, benthics, chlorophyll a, zooplankton, phytoplankton, periphyton, lake sediment and fish tissue, liver, gonad and aging structures from Kluea and Ealue Lakes sampling program.

Air Quality, Soil and Snow:

- Dust canisters were collected from the 3 locations in Iskut and sent to ALS to be analyzed for total metals and particulates.
- Preparation for the new snow sample site was inspected for snowmobile access and site identification signs will be installed by next month.

Wildlife:

- Many waterfowl were identified at Kluea and Ealue Lakes including buffleheads, mallard ducks, swallows, sandpipers osprey and bald eagles.
- Chronomids and a brief Mayfly hatch on Kluea Lake brought high jumping rainbow trout activity during the lake survey on August 13th-15th.
Bear and wolf track were observed on the north beach of Kluea Lake.
A fox has been hanging around the 4km board on the TIA.
- Beavers were observed around the shoreline of Ealue lake



Bull Moose see east of Mill on August 13th

Upcoming Activities and Follow Up:

- Mercury analysis was added to monthly surface water and drinking water samples, inspect results.
- Ensure all accesses to water management sites are cleared of fallen trees prior to winter.
- Continue building aeration pipe system for Lagoon #2.

Photos:



East zone pit.



Main zone pit.



The Eckman grab was used to collect for all sediment and benthic sampling at both lakes.



One of the fine mornings atop the Todagin platuea.



Sediment sampling jar showing the different layers of silts, sands and organics.



Taking water samples at deep water stations with the Van Dorn sampler.



Sifting lake bottom sediments to find benthics for sampling at Kluea lake.



Bloodworms were a common benthic found in the bottom sediments of both lakes sampled. Chromonids and small clams also were in abundance.



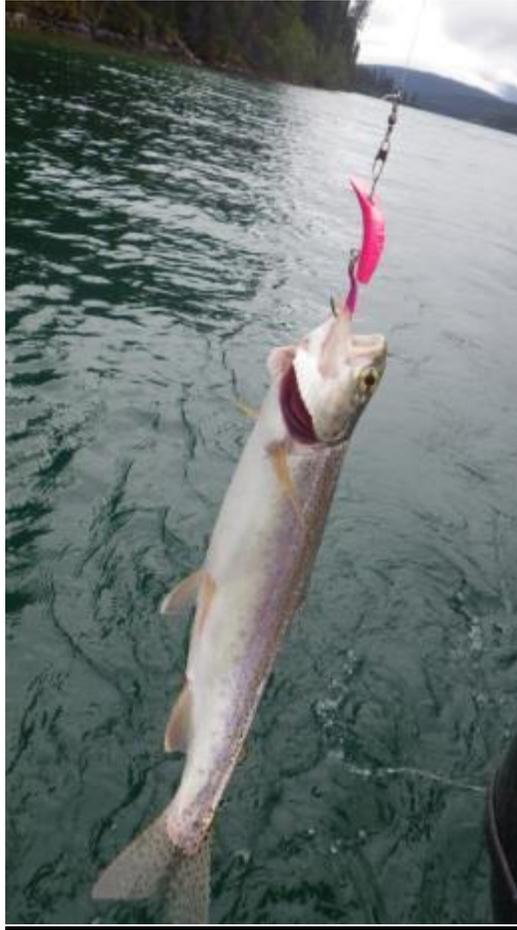
One of the largest Kluea lake rainbow trout sampled.



Ealue lake water sampling and lake profiling. Goats were present on the mountain tops of both Ealue and Kluea lakes.



Sifting lake bottom sediments collected with an eckman dredge to expose the benthic invertebrates.



One of the rainbow trout angled and sampled for many different types of analysis.



A biologist with an eager Ealue lake rainbow trout that was fooled by “the frog” spoon.



Ealve lake fish sampling-About to remove both otoliths from this rainbows' brain cavity for aging analysis.



Checking GPS coordinates on Kluea lake.



Lagoon#2 being pumped into lagoon#1 to fully treat all wastewater.



Pumping Lagoon #1 into Lagoon #2 has been cleaning the entire waste water system.