

## Technical Memorandum (Canon City Milling Facility)

**To: Jim Cain, Environmental Coordinator/Radiation Safety Officer,  
Cotter Corporation**

**From: Errol P. Lawrence, HydroSolutions**

**Date: September 23, 2011**

**Subject: Review of the 2nd quarter, 2011 water quality analytical results for the  
Cotter Corporation Canon City Milling Facility**

A review of the water quality analytical results from the second quarter sampling round of 2011 was performed. The data included radionuclides, trace metals, major ions, TDS, pH, alkalinity and conductivity results. Isotopic analysis of uranium was also performed for a select group of wells. The analytical results for the second quarter sampling round were compared with historical results/trends to identify potential values that might be of concern with respect to changes in water quality and laboratory accuracy/validity.

Locations 015B, 035, 049, 144, 347, 360, 379, 381, 701, 710C, and 711A were not sampled during the second quarter because they were either dry or had insufficient flow. Sampling location 231 was not sampled because it was winterized.

Three monitor wells (048, 051 and 052) were sampled three times in the second quarter. Sampling was attempted at one monitor well (049) three times in the second quarter but the well was either dry or had low water during each event. These wells were installed and sampled as part of the investigation of groundwater quality between the SCS Dam and the Dewese Dye Ditch, north of the facility. That investigation is ongoing.

Changes between the second quarter and first quarter of 2011 sampling events that are notable are indicated in the table below.

Review of 2nd Quarter, 2011 Water Quality Analytical Results, Canon City Mill Site

Location ID	Parameter	Description
135	U	The uranium level was higher than previous measurements at that location and above the CGWQS for U
344	NO3	Value is highest recorded at that site and nearly an order of magnitude higher than recent measurements