

Table 2 – Analytical Results for Composite Samples Collected at SW027 Used in the 30-Day Average Calculations (Validated through 4/26/2005 Sample).

Composite Sample Start Date	Average Analytical Result (G/L)	Publication Analytical Result (G/L)
10/6/2004	0.019	0.075
10/13/2004	0.026	0.116
4/12/2005	0.005	0.055
4/12/2005	0.043	0.293
4/13/2005	0.035	0.236
4/26/2005	0.006	0.073
5/2/2005	-0.005	0.023

RFCA Reporting Protocol

To meet the RFCA commitment, DOE must transmit more comprehensive information to the Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE) within the 15-day reporting period, which ends June 17, 2005. In addition, RFCA also requires that the DOE, within 30 days of gaining knowledge of the reportable results, submit to EPA and CDPHE a source evaluation plan addressing this reportable period. This letter serves as a preliminary source evaluation, based on consideration for other evaluative work already performed in this drainage. An updated source evaluation letter will be completed within 30 days of this notification.

The RFPO gained knowledge of the reportable value on June 2, 2004. The RFPO subsequently notified CDPHE and EPA of the reportable value via email on June 3, 2004. In addition, other Site stakeholders, including the Rocky Flats Coalition of Local Governments, the Rocky Flats Citizens Advisory Board (RFCAB), and the Cities of Westminster and Broomfield, and Congressional staffs, were also notified via email on June 3, 2004. Additionally, stakeholders were briefed on this event during the RFCAB Board meeting held on June 2, 2005.

Downstream Water Quality Monitoring

Water flowing through SW027 also passes through Pond C-2 and Woman Creek before leaving the Site. RFCA Point of Compliance (POC) GS31 (Pond C-2 outlet) and POC GS01 (Woman Cr. at Indiana St.) again monitor this water. All water monitored at

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SW027 during the reportable period is currently being retained in Pond C-2. There are no immediate plans to discharge from Pond C-2.

Preliminary Review of Upstream Monitoring Data

When these elevated actinide concentrations were observed, K-H initiated a loading analysis for selected sub-drainages upstream of SW027. In general, the relative loadings estimated at sampling stations upstream of SW027 suggest the elevated concentrations are the result of increased total suspended solids coming from the 903 Pad and Lip area. A map, indicating the approximate areas served by each sub-drainage gaging station, and two bar charts summarizing the loading observations for both Pu and Am are attached to this report.

Referring to the attached map and chart for water year (WY) 05, the areas monitored by GS51 and GS52 (903 Pad and Lip area) show the greatest total contribution to the Pu load observed at SW027. In the past (prior to WY04), the area directly tributary to SW027 (upstream areas with no monitoring prior to SW027) was the primary contributor of Pu load to SW027. However, recent loads (WY04-05) from the GS51 and GS52 drainage areas have increased, and GS51 is currently the primary contributor. It should be noted that the WY05 loads are an order of magnitude less than loads for WY04. These data suggest that stabilization and revegetation of the 903 Pad/Lip have resulted in decreased Pu load.

Many areas at the Site have been experiencing significant soil disturbances and increased traffic loads due to the extensive closure activities in those areas. While additional work will be done to better understand the details of this preliminary loading analysis, the general trend suggests that the aggressive erosion control measures the Site has implemented are resulting in water quality improvement.

Recommendation

The findings and conclusions of prior SW027 source evaluations suggest that one or more low-level distributed actinide source areas exist within the SW027 subdrainage. These past source evaluations concluded that ongoing RFETS activities (i.e., Decontamination and Decommissioning and ER projects, excavations, or other routine operations) did not contribute to increased contamination and reportable values. However, recent and significant Site closure activities upstream of SW027, especially the 903 Pad/Lip project, have contributed to the recent reportable values through the increased transport of legacy contamination.

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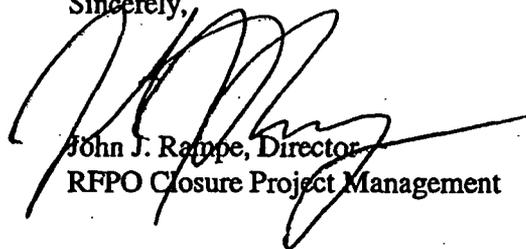
In consideration of past source evaluation findings and conclusions, the short term of this reportable period, and the similar characteristics of this event compared to previous solids-transport related reportable values, RFPO does not believe a more comprehensive source evaluation is warranted. Based on the abbreviated data evaluation included herein, increased solids transport in association with Site closure is the probable cause of the reportable Pu values at SW027. The RFPO proposes the following in response to these reportable values at SW027:

- (1) Continued routine monitoring and data evaluation as required by RFCA and the Site Integrated Monitoring Plan. An updated source evaluation letter will be completed by mid-July 2005. Should review of subsequent data raise issues not currently being considered, additional evaluation would be necessary.
- (2) Continued application and maintenance of comprehensive erosion controls and revegetation measures within the areas tributary to SW027 and other drainages as an integral part of Site closure.

In consultation with your staff, we will strive to augment or modify these proposed and possible actions to align them with the Site's closure plan. Site management is already taking steps to further enhance erosion management practices across all projects, based on surface water observations in other drainages; these observations have been reported prior to this notification.

If you have any questions on this transmittal, please contact me at 303-966-6246.

Sincerely,



John J. Rappe, Director
RFPO Closure Project Management

Enclosures

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cc w/Enc:

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C. Johnson, City of Arvada
V. Lucero, City of Thornton
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