## **CANBERRA**

# MCS Support for Clearance of Rocky Flats Environmental Technology Site (RFETS), USA

### Scope:

The site closure project involved a range of projects such as:

- "Trench One" project
   The trench contained an unknown number of drums containing uranium wastes of different enrichment with some Am/Pu contamination, also some mixed debris.
- "Am Pad zone" project
   Drums containing waste
   solvents and coolants,
   contaminated with U and Pu/
   Am, resulted in a land area
   of approximately 33 acres
   (13 hectares) which required
   monitoring.
- Analysis of packages
   containing mixed isotopic
   samples for transport
   purposes with a non
   destructive method to
   determine the class, type
   and category of radioactive
   material shipments.
- characterization of structures to meet criteria for unrestricted release under the Multi-Agency Radiological Site Survey Investigations Manual (MARSSIM).

#### **Key Drivers:**

The goal of this project was mainly to support the accelerated closure of Rocky Flats Environmental Technology Site (RFETS) and reduce the overall cost.

"Trench One"
Excavations and MCLS operations









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**Case Study** 

### **Instruments & Techniques Used:**

- (1) ISOCS™ In situ gamma object spectroscopy system
- Mobile "trailer mounted" laboratory gamma spectroscopy systems





#### **CANBERRA™** Solution:

- Fast response: a team was mobilized within three weeks of the contract award, and deployed a CANBERRA trailer with a full set of analytical equipment, provided procedures for approved operations, training and certifications.
- Collaboration was formed with Kaiser Hill, LLC Analytical Services and CANBERRA Mobile Characterization Services (MCS), with 24 hour turn-around services for over 350 samples.

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### **ACHIEVEMENTS**

- Significant **cost savings of ~\$600,000** were realized for the 1100 measurements avoiding the need for any costly analytical assays.
- Reduced use of strong, tight boxes for asbestos shipment resulted in savings of between \$1,000,000 and \$2,000,000 per building.
- Contribution to the accelerated site closure.
- Minimizing planned labor, time, disposal and procurement costs.
- Decommissioning project completed ahead of schedule.

