
Overview of the Second Quarter 2013 Surveillance and Maintenance Report for the LM Rocky Flats Site

April–June 2013

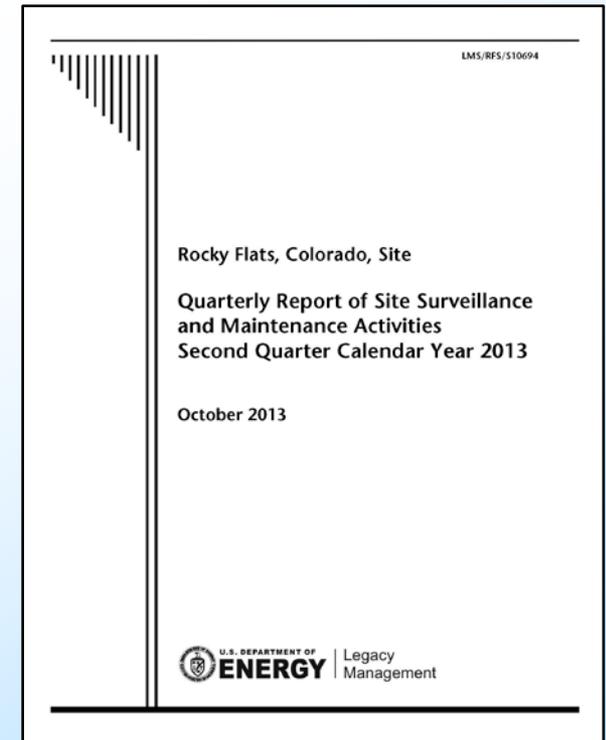


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Quarterly Monitoring and Reporting

- Quarterly reports are required under the Rocky Flats Legacy Management Agreement (RFLMA) to document that the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) remedy continues to be protective
 - Primary goal is protection of surface water
- Response action under the final remedy for Rocky Flats
 - Maintain two landfill covers
 - Maintain four groundwater treatment systems
 - Surface water and groundwater monitoring
 - Physical controls
 - Signage
 - Restricted access
 - Institutional controls
 - No building construction or occupation
 - Restrictions on excavation and soil disturbance
 - No consumption or agricultural use of surface water
 - No groundwater wells except for monitoring
 - Protection of landfill covers and engineered remedy components



Surface Water Monitoring

Second Quarter 2013



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Selected RFLMA SW Monitoring Locations



Performance Monitoring at OLF and PLF

- OLF
 - All sampling results met water quality standards during the quarter
- PLF
 - For the routine sample collected from the system effluent on April 24, 2013, selenium (Se) was measured at 8.6 ug/L (the standard is 4.6 ug/L)
 - The result prompted Se sampling to be done on a more frequent, monthly basis
 - Selenium was not detected in the first monthly sample, and sampling frequency returned to quarterly



Point of Evaluation Monitoring – GS10

- Reportable 12-month rolling average values for americium, plutonium, and uranium at GS10 were observed during the quarter
- Additional sampling is being conducted both upstream of and downstream of GS10



GS10 Investigation Monitoring

MSPTS



Questions?



Groundwater Monitoring and Operations

Second Quarter 2013



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RFLMA Monitoring

- Heavier quarter
 - Second quarter of an odd-numbered year
 - Sampled all but the Evaluation wells
 - Sentinel wells
 - AOC wells
 - RCRA wells at PLF and OLF
 - Treatment system locations



RFLMA Monitoring (continued)

- AOC wells
 - All standards met
 - Consistent with previous results
- Treatment systems
 - MSPTS effluent: vinyl chloride slightly higher than MCL
 - ETPTS effluent: improvements show effect of air stripper
 - ETPTS air stripper is generating scale (due to hard water being processed) and clogging repeatedly
 - SPPTS microcell, lagoon treatment evaluations are showing very good results
- More detail will be presented and data will be evaluated in the 2013 annual report

Non-RFLMA Monitoring

- Selected Evaluation wells
 - Normally scheduled for sampling on even-numbered years
 - Previous samples (second quarter of 2012) were taken during relatively dry conditions. Conditions in 2013 have been wetter.
 - Monitoring results will be included in the 2013 annual report
- Treatment systems
 - MSPTS: air stripper evaluations and optimization
 - ETPTS: air stripper evaluations and optimization
 - SPPTS: testing microcells and lagoons



Treatment System Activities

- Air stripper testing and optimization at MSPTS and ETPTS
 - MSPTS: little adjustment required
 - ETPTS: scale causing nozzles, pump, and lines to clog
 - Adjusted influent plumbing to increase exposure to air stripper
 - Tested different configurations of “medusa” nozzle assembly
 - Air stripper optimization will continue



Other Activities

- Continued testing at SPPTS
 - ZVI-containing microcells are used to treat uranium
 - Example: in the 2nd quarter microcells “O” through “T” were tested
 - Each is a variation of a theme: small volume of ZVI and short residence time
 - Working to optimize grain size and volume of ZVI required to treat ~1-1.5 gpm flow with ~75 ug/L uranium
 - Pilot-scale lagoons treat nitrate
 - Example: in the 2nd quarter, evaluating double the flow rate (half the residence time) that a full-scale lagoon occupying the entire “big box” would receive



Questions?



Site Operations

Second Quarter 2013



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Quarterly Sign Inspections

- RFLMA physical control
- All signs are in good condition



Site Operations – OLF

- Three monthly inspections performed
- Eight settlement monuments and seven inclinometers monitored



Site Operations – PLF

- One quarterly inspection performed
- Annual surveys of nine settlement monuments and six side-slope monitors are scheduled for the fourth quarter



Questions?

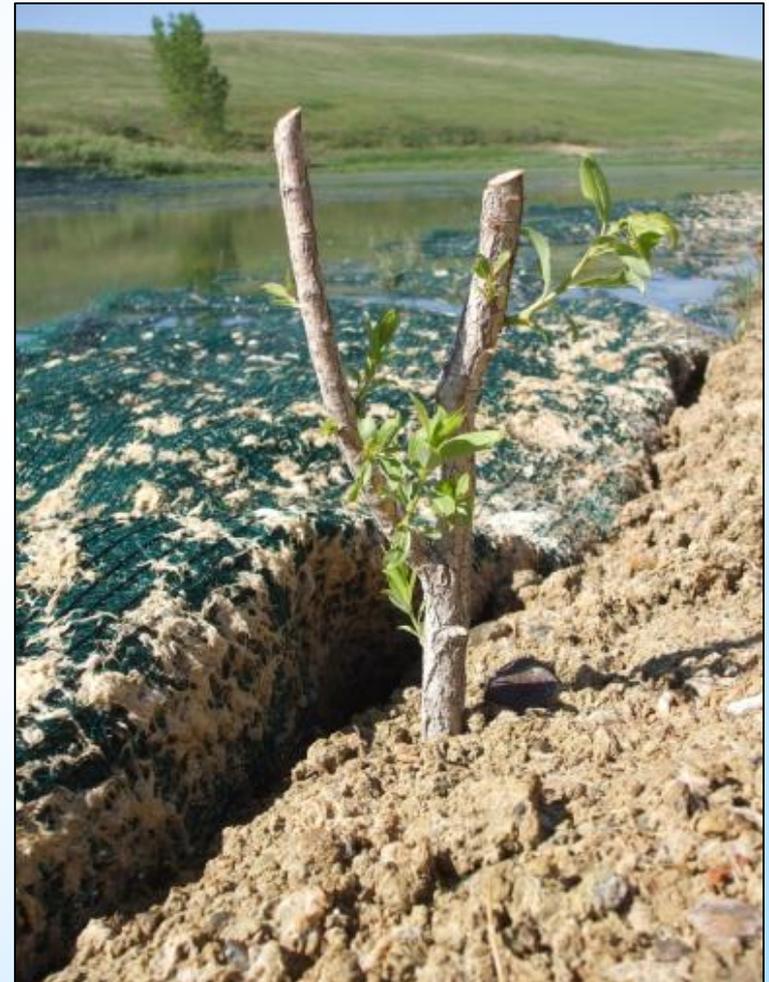


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Second Quarter 2013 Ecological Monitoring Summary

- Weed mapping
- Nest box surveys
- Prairie dog surveys
- Wetland water level
- Wetland weed surveys
- Preparations for revegetation monitoring, PMJM monitoring, and wetland monitoring
- Planted approximately 270 coyote willow stakes at wetland mitigation locations



Habitat Enhancement Project 2013

- To enhance wildlife habitat, 144 shrubs (buffalo berry and fourwing saltbush) were planted in the COU



2013 Revegetation Project

- Soil amendments (compost) were added to two small areas to increase vegetation cover. A subsidence area where soil had been added to restore the original grade was also revegetated.



Questions?



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