



Dugway Proving Ground Restoration Advisory Board Meeting

November 13, 2006
Dugway Proving Ground
Dugway, Utah

PROJECT UPDATES

Keller Davis - Shaw Environmental, Inc.

- Groundwater Monitoring
- Performance Based Contract



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Groundwater Monitoring



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Post Closure Monitoring

- Sites closed with waste-in-place (e.g. landfills) require groundwater management
- Specific monitoring and reporting requirements are contained in Dugway's RCRA Part B permit (Module VII)
- 2006 requirements include sampling at HWMUs 2, 43, and 128



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Post Closure Monitoring

HWMU 2

- Landfill cover constructed in 2003
- Post Closure groundwater sampling biennially
- First event was in 2004
- Second event November 7, 2006
- Analyze for metals, sulfate, TOX

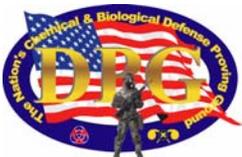


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Post Closure Monitoring

HWMU 43

- 70 acre site in English Village
- Landfill cover constructed in 2004
- Erosion repairs occurred in 2005
- Post Closure groundwater monitoring biennially
- First event scheduled for December 2006
- Analyze for VOCs, TOX, TOC, metals, nitrate/nitrites, arsenic speciation



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Post Closure Monitoring

HWMU 128

- Former pesticide mixing and storage facility
- Risk Based Closure in 2004
- Land use must remain industrial
- One round of groundwater sampling required
- Sampling occurred November 9, 2006
- Analyze for VOCs, SVOCs, PAHs, pest, herb, metals

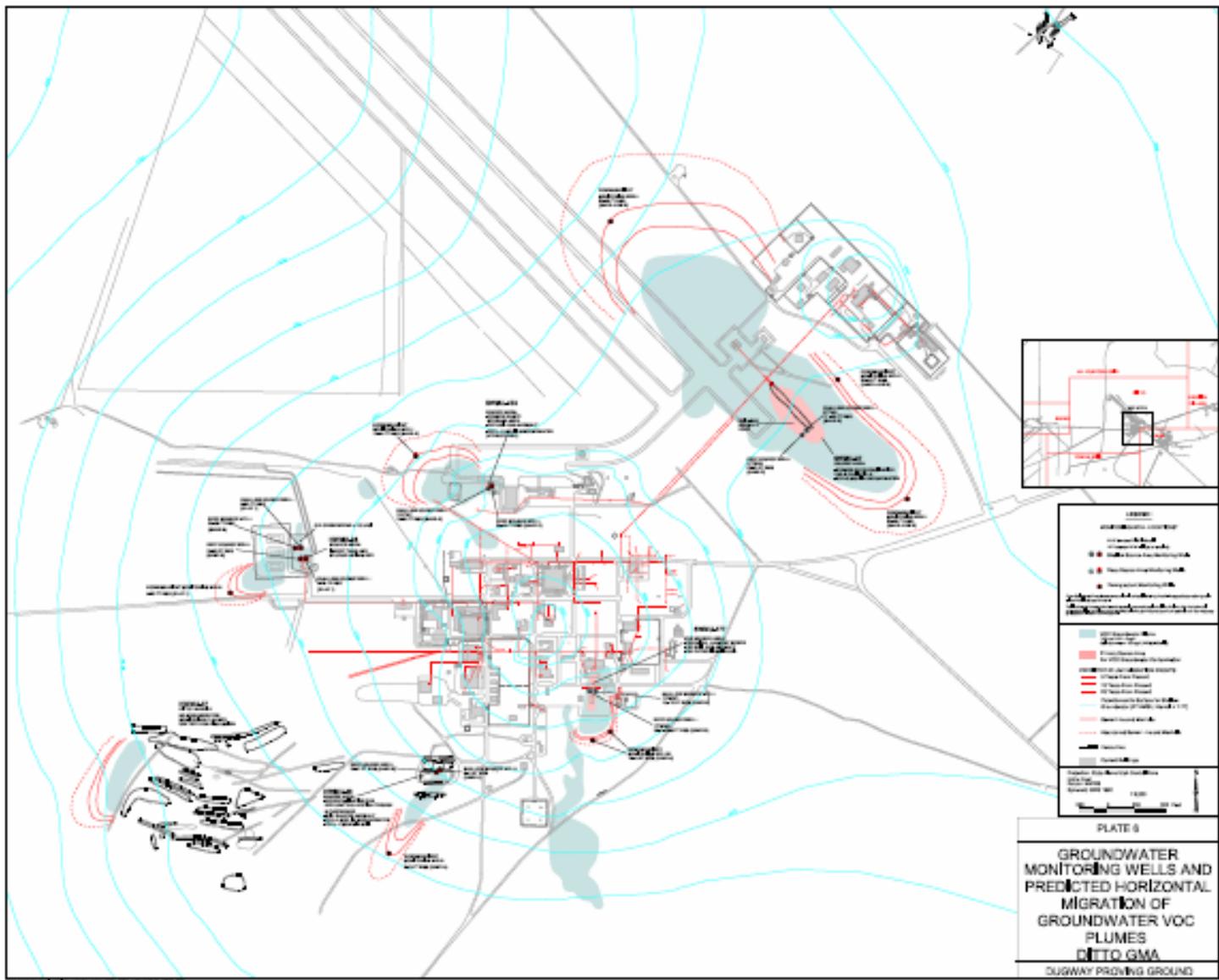


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High Frequency Water Levels

- Prescribed in Ditto Groundwater Management Area (GMA) Plan
- Collecting water levels in 5 wells spread across 3 sites every 15 minutes for one year
- Objectives:
 - Monitoring seasonal changes in the groundwater mound in Ditto
 - Gain better understanding of communication between shallow and deep groundwater

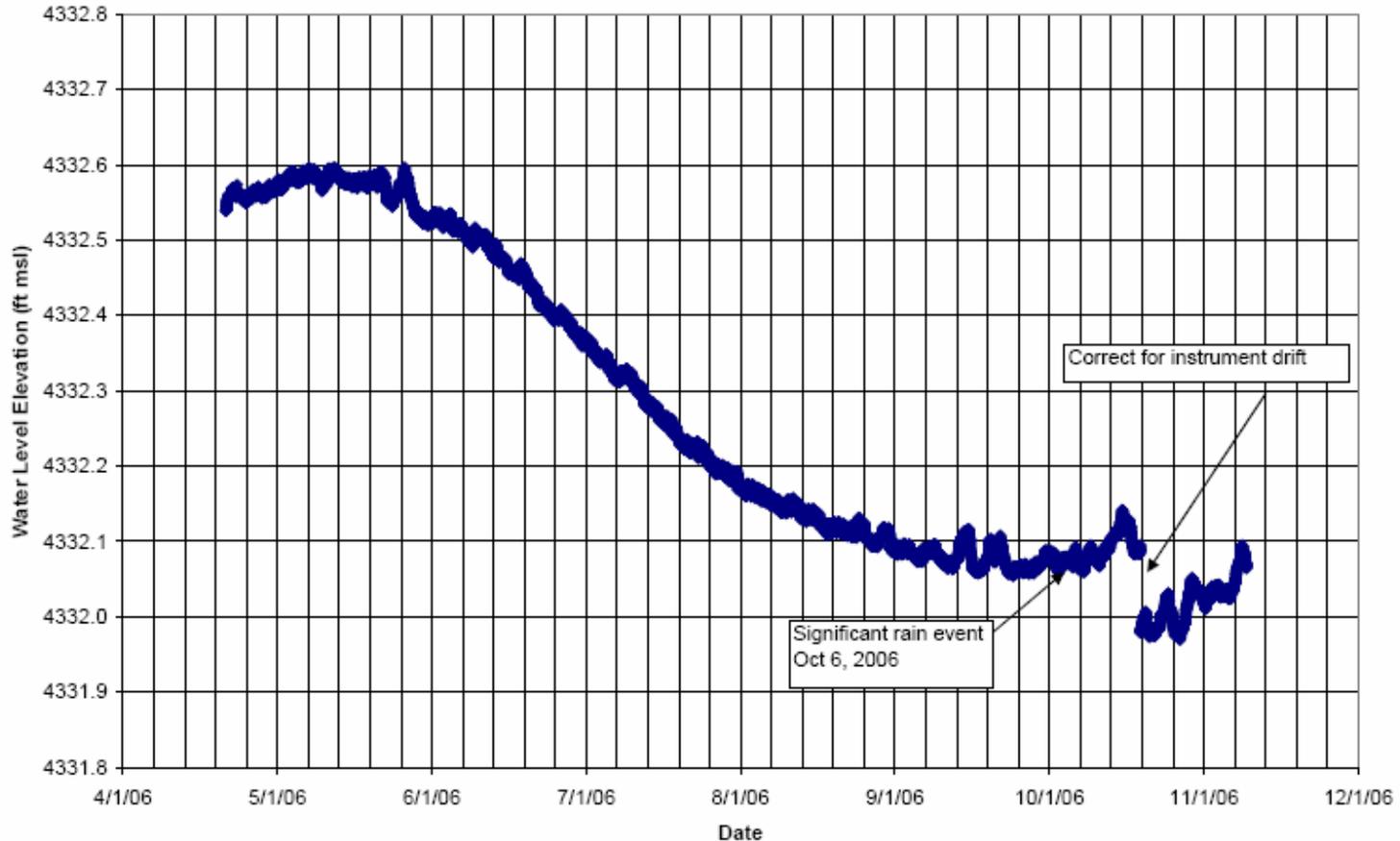




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High Frequency Water Levels

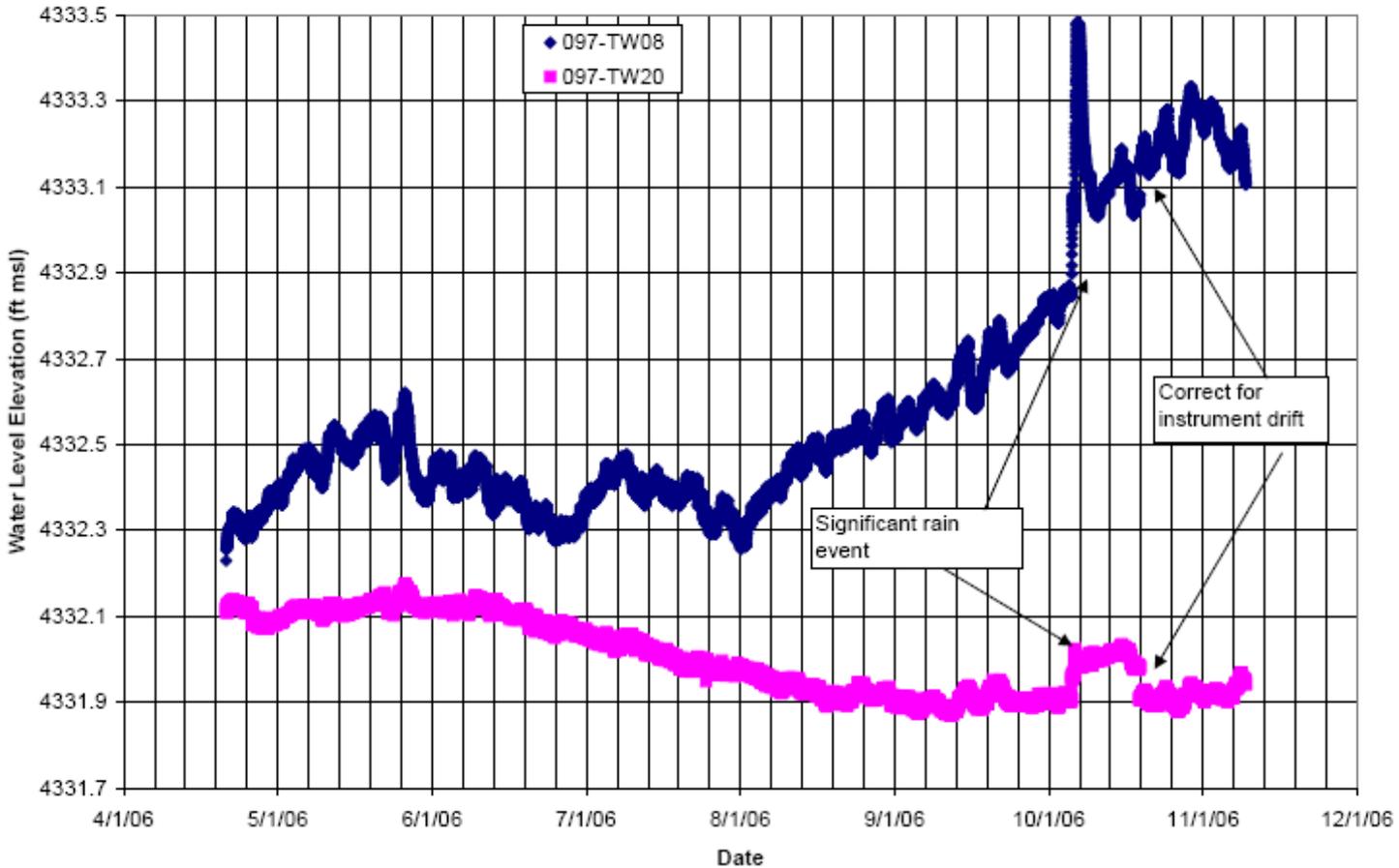
HWMU 39



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High Frequency Water Levels

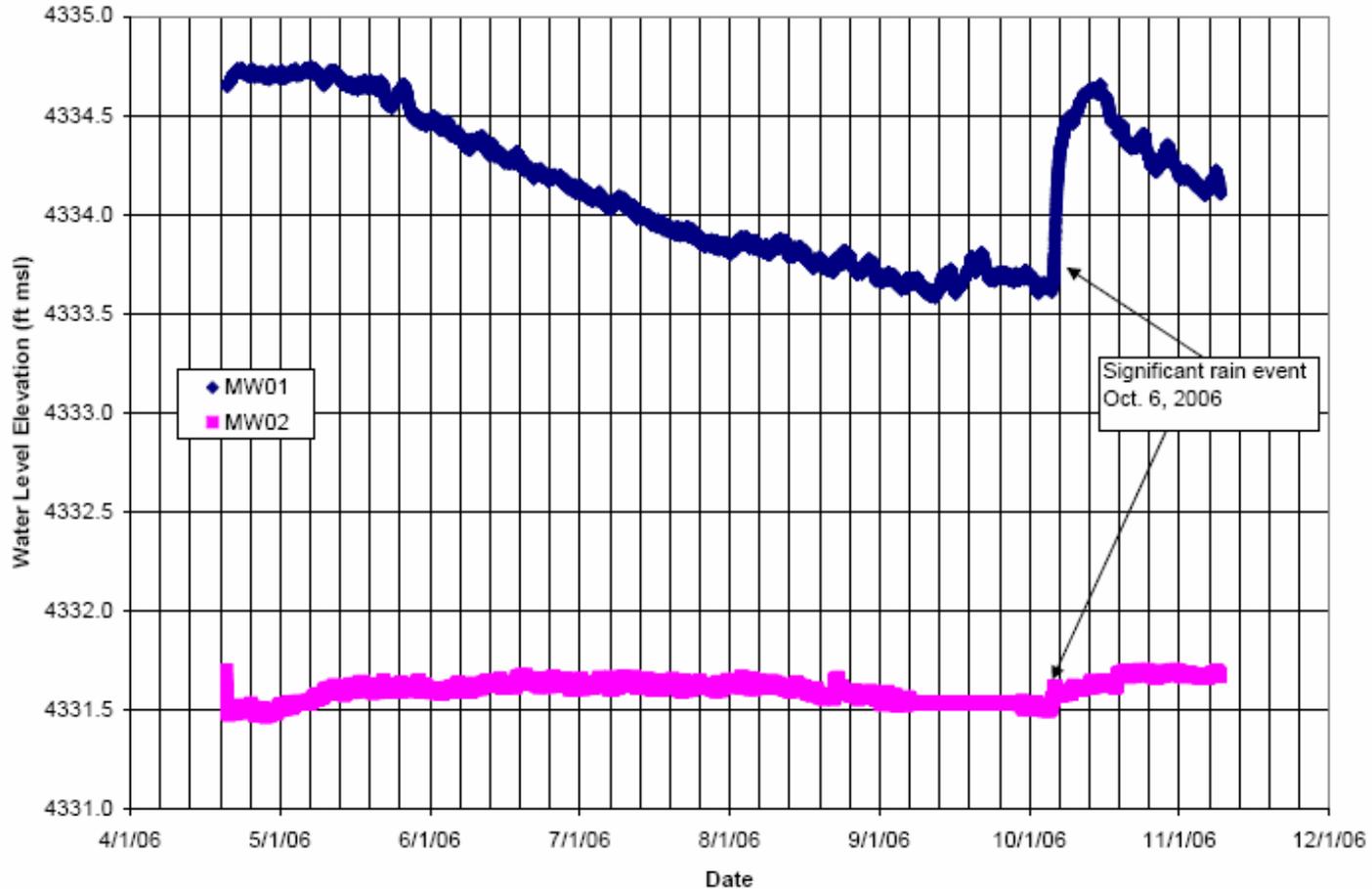
SWMU 97



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High Frequency Water Levels

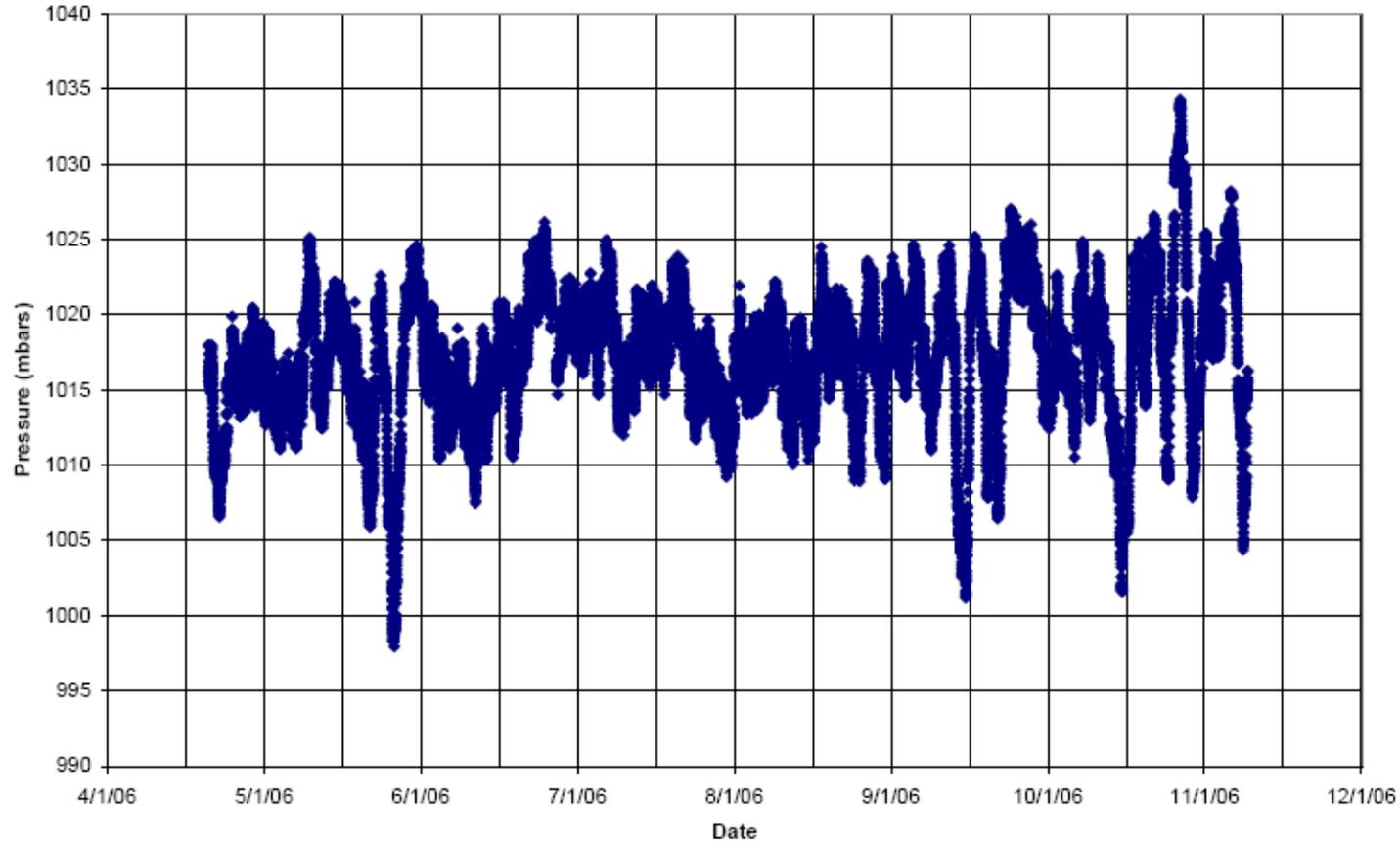
SWMU 177



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High Frequency Water Levels

Barometric Pressure SWMU 177



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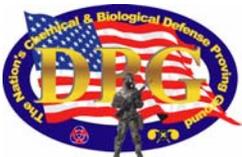
Performance Based Contracts



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Performance Based Contracts (PBC)

- **ACSIM-ID/IQ** - Army Chief of Staff for Installation Management-Indefinite Delivery/Indefinite Quantity
- **Task Order 002** - Achieve site closure on 22 previously investigated sites
- **Task Order 004** - Achieve site closure on 5 previously investigated sites



Task Order 002 = PBC I

22 sites

- 20 SWMUs
- 2 HWMUs
- Site types include waste piles, landfills, buildings, and test structures
- Sites divided into 2 groups:
 - Closure-in-place landfills (13 sites)
 - Removal actions (9 sites)



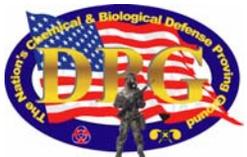
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PBC I 2006 Execution Strategy

- Focus on closure-in-place landfills
- Assess data needs to design/construct remedy (February 2006)
- Collect data: Geophysics and topographical surveys to refine material quantities (April 2006)
- Finalize designs and acquire regulator approval (September 2006)
- Construct remedies (November 2006)
- Closure reports and post-closure plans (ongoing)



PBC I Landfill Cover Construction



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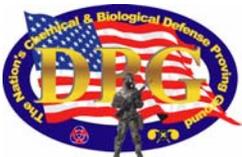


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PBC I 2007 Execution Strategy

Removal sites

- Site feature defined during investigation
- Safety assessments show waste is safe to excavate and remove
- Sample waste to determine disposal options
- Excavate and dispose of waste
- Confirmation sampling in footprint of excavation
- Sample results used to demonstrate adequate removal



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Task Order 004 = PBC II

5 sites

- 3 SWMUs (180, 197, and 199)
- 2 HWMUs (55 and 58)
- Site types include landfills, buildings, surface impoundment, and Open Burn/Open Detonation (OB/OD) field
- Complete remedy construction in 2007



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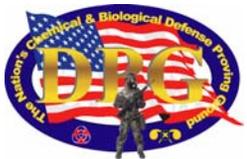
PBC II 2007 Execution Strategy

- 2 Closure-in-place landfills to be covered with GCL
- 1 surface impoundment will be decommissioned and filled
- 1 building foundation complex to remove and characterize underlying soils
- 1 OB/OD field with surface debris (metal scrap and explosives)



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Questions?



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