
Subsurface Disposal Area Progress

*Status Update to the Citizens Advisory Board
November 15, 2011*

*Douglas Pruitt
WAG 7 Manager*



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Subsurface Disposal Area at the Radioactive Waste Management Complex



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Subsurface Disposal Area (SDA) Activities

- Accelerated Retrieval Project (ARP) construction progress.
- Targeted buried waste retrieval status.
- Shipment of transuranic (TRU) waste to the Waste Isolation Pilot Plant (WIPP).
- Removal of organic compounds from the vadose zone (OCVZ).



EM *Environmental Management*

safety



performance



cleanup



closure

ARP Construction Progress

- Constructing ARP VII (over Pit 10W) completed.
 - Exhumations expected to begin in January 2012.
- Started constructing ARP VIII (over Pits 1 and 2).
 - Expect to complete construction by September 30, 2012.
- Designing ARP IX (over Pit 10E).
 - Last ARP will be constructed in FY 2013.



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

ARP VII Construction (3/24/11)



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

ARP VII - Construction



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

ARP VII - Air Lock



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

ARP VIII

- At ~122,000 ft² (1.72 acres), more than twice as large as the other ARP structures.
- Designed and constructed by CWI.
- Site preparation started in July 2012.
- Officially start construction (erection of steel) November 2011 upon CD-3 approval.



EM *Environmental Management*

safety



performance



cleanup



closure

ARP VIII Site Preparations



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

South East corner of ARP VIII - Re-route of Fire Water Lines



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Retrieval Status

Retrieve 7,485 m³ of Targeted Waste

Status through October 2011:

- Packaged 5,525 m³ (26,564 drums) or 74 %
- Shipped 5,198 m³ offsite (24,988 drums) or 69 %



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Retrieval Status (continued)

Exhume Targeted Waste from 5.69 acres in the SDA
Status through October 2011:

- ARP I (Pit 4) (0.50 acres) Completed March 2008
- ARP II (Pit 4/6) (0.34 acres) Completed June 2009
- ARP III (Pit 6) (0.43 acres) Completed 0.38 acres October 2009
 - 0.06 acres between ARP II and III will be exhumed in FY 2012
- ARP IV (Pit 5) (0.79 acres) Completed January 2011
- ARP V (Pit 9) (0.55 acres) Completed August 2011
- ARP VI (Pit 4W) (0.40 acres) Completed October 2011

Total exhumed: 2.96 acres (52 % of total requirement)



ARP V (Pit 9) Exhumations Complete end of August 2011



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

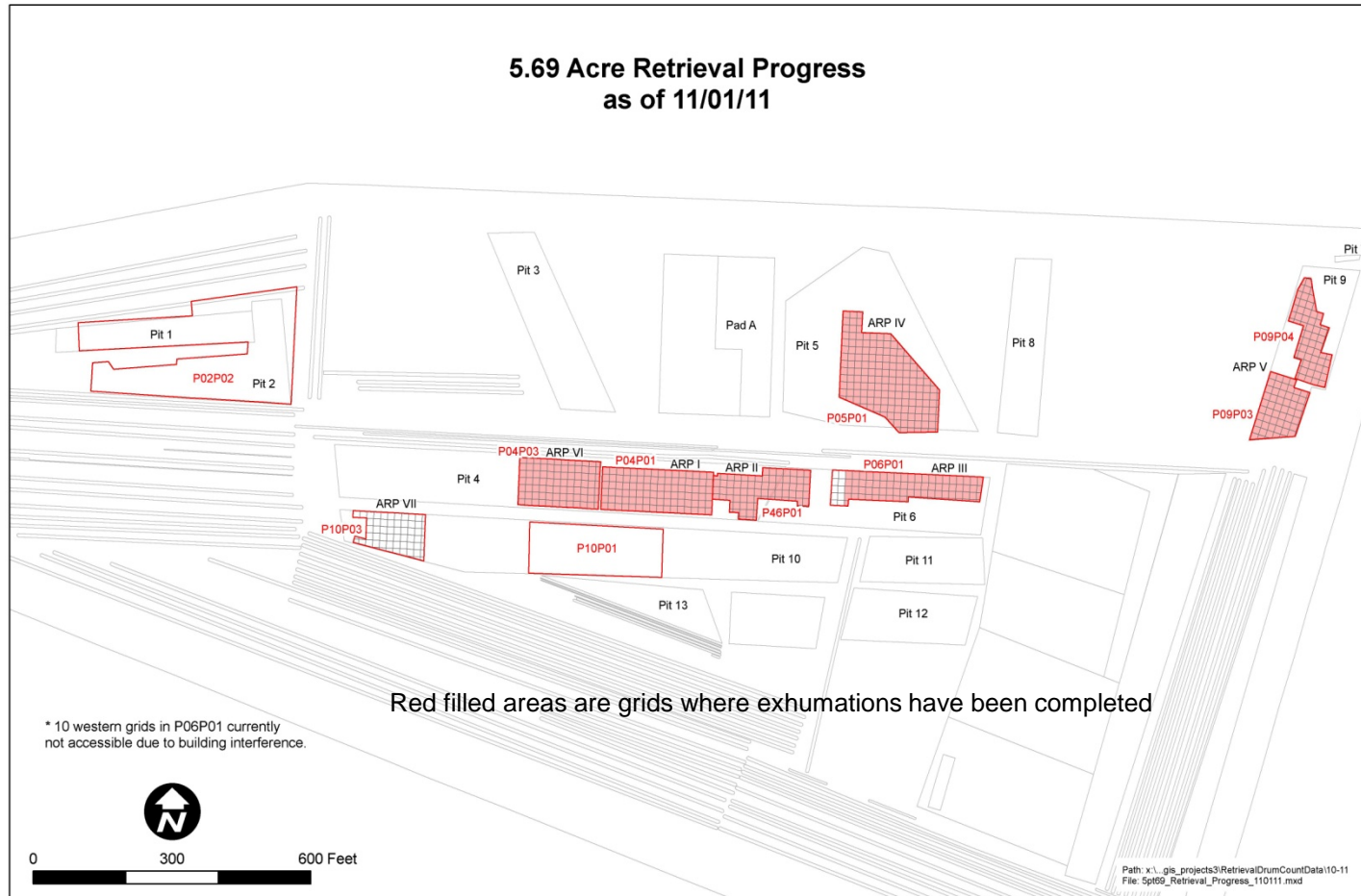
Excavation Equipment (Telehandler) Maintenance



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Retrieval Status Map through October 31, 2011



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Organic Contamination in the Vadose Zone (OCVZ) Status

January 1996 to October 2011:

- 3 OCVZ units have removed ~ 236,519 lbs. total volatile organic compounds from the vadose zone under the SDA.
- Of which, ~ 137,035 lbs. has been carbon tetrachloride.



EM *Environmental Management*

safety



performance



cleanup



closure

Plans for Future

FY 2012:

- Exhume targeted waste from ARP VII.
- Exhume remaining grids in ARP III.
- Construct ARP VIII (Pits 1&2).
- D&D ARPs I & VI.

FY 2013:

- Design and construct ARP IX (Pit 10E).

FY 2015:

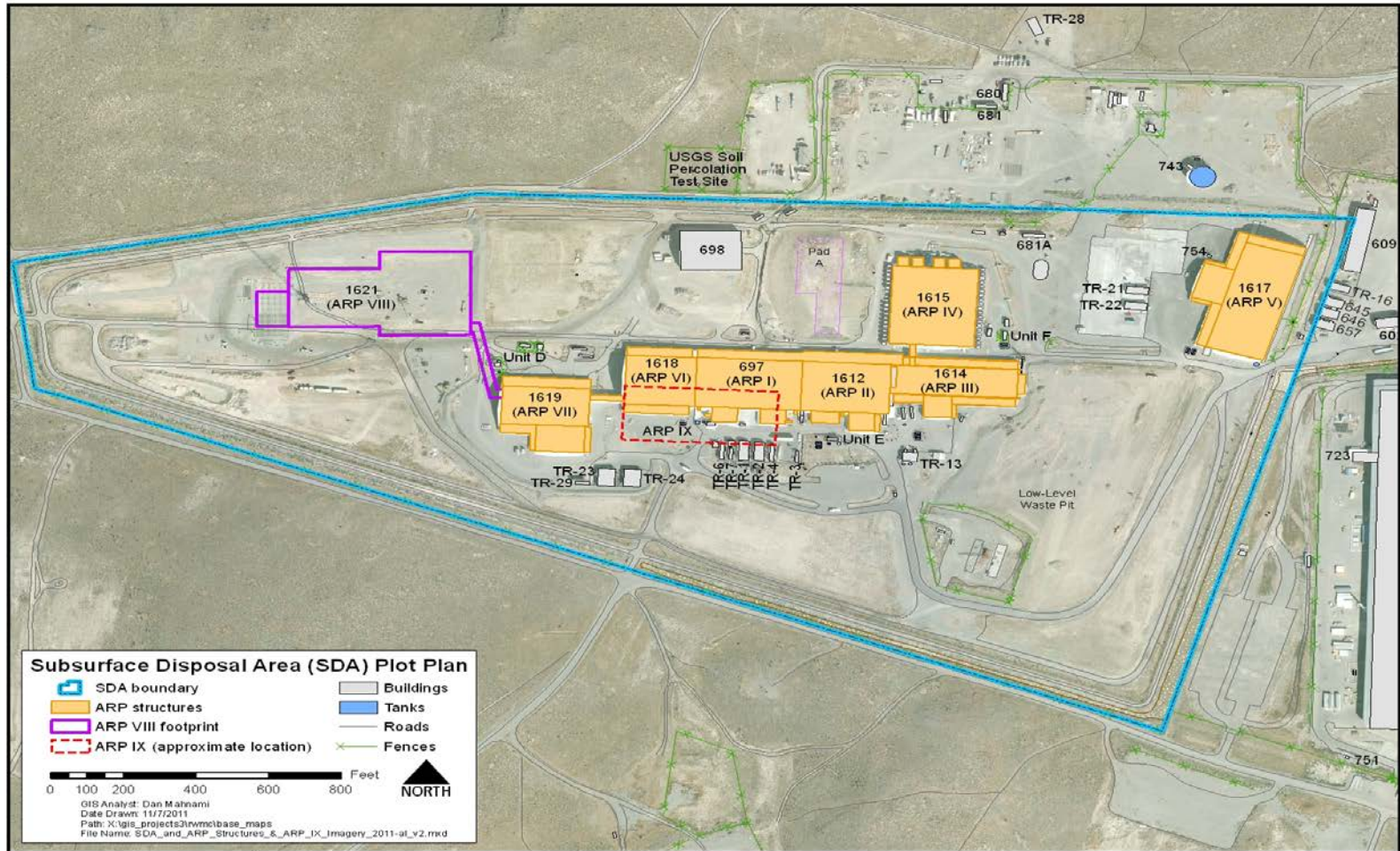
- Complete all exhumations and ship remaining waste offsite.



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Location of ARP VII, ARP VIII, and ARP IX



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

Back-up Slides



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

History of Subsurface Disposal Area (SDA)

- The SDA is the landfill area of the Radioactive Waste Management Complex (RWMC).
- It was established in 1952 and now occupies 97 acres within the fence boundary with waste occupying ~35 acres.
- The SDA received waste from all INL Site operations, the Rocky Flats Plant and other DOE sites.
- Disposal of transuranic waste was discontinued in 1970 in favor of retrievable storage.
- The Federal Facility Agreement and Consent Order was signed in 1991 – RWMC was designated Waste Area Group (WAG) 7.
- The Record of Decision (ROD) for Operable Unit (OU) 7-08, Organic Contamination of the Vadose Zone was signed in 1994.
- Idaho Settlement Agreement was signed 1995.



SDA History (continued)

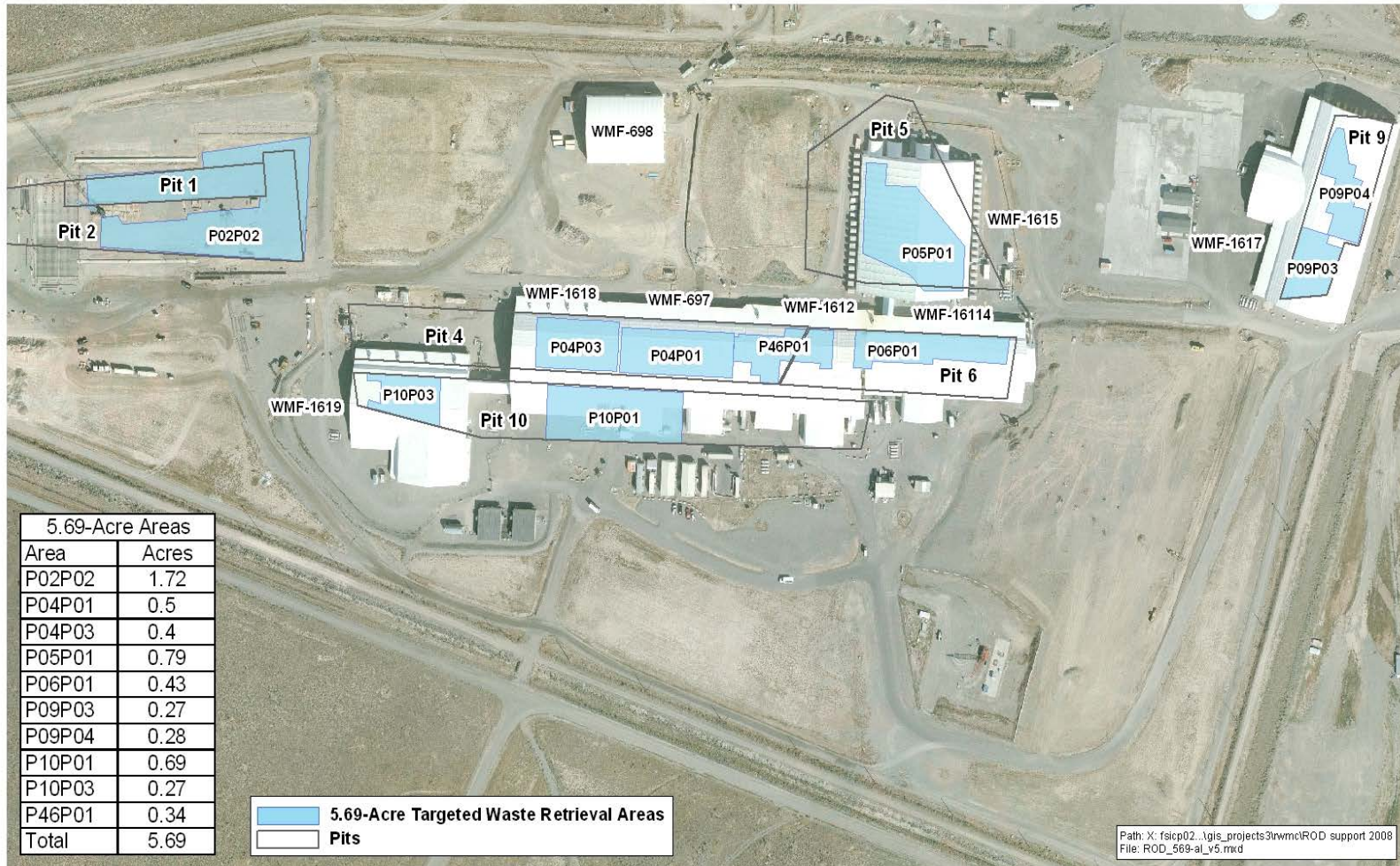
- DOE demonstrated waste retrieval in Pit 9 (GEM Project) in February 2004.
- The Advanced Mixed Waste Treatment Project began processing stored waste and shipping to Waste Isolation Pilot Plant (WIPP) in March 2005.
- DOE began waste exhumations in Accelerated Retrieval Project (ARP) I in January 2005 and completed in March 2008.
- The Agreement to Implement the 2006 U.S. District Court Order on Buried Waste was signed in July 2008.
- The Record of Decision (ROD) for OU 7/13/14, Radioactive Waste Management Complex, was signed in October 2008.



EM *Environmental Management*

safety ❖ performance ❖ cleanup ❖ closure

Targeted Waste Retrieval Areas – Aerial View



EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure