

Remediation of the
Sonoma Developmental Center
Upper Disposal Area
in the
Jack London State Park
Sonoma County

*A Project Funded and Managed by the
California Integrated Waste Management Board
through the Board's
Solid Waste Cleanup Program*



BACKGROUND

- Until 1964, the Sonoma Developmental Center (SDC) disposed food containers, household and hospital debris, and other solid wastes in the Upper Disposal Area (UDA)
- In 2002 SDC property transferred to the Department of Parks and Recreation (DPR), and became part of Jack London State Park. The transfer included provisions for SDC and DPR to work jointly with the CIWMB to remediate the UDA
- CIWMB assistance requested to remediate the disposal area using the Solid Waste Cleanup Program (SWCP)
- In May 2003, CIWMB approved a Board managed project

CONDITIONS PRIOR TO CLEANUP

- Canyon slopes too steep for normal access
- Most waste located 60 to 270 feet downhill
- Hazardous waste/contaminated soil commingled with nonhazardous waste and infested with rattlesnakes
- Road in disrepair and not built to carry heavy equipment
- Road used daily by SDC employees, park rangers, park visitors and for emergency access by fire department

VIEW OF CONDITIONS ALONG UPPER SLOPES ILLUSTRATING STEEPNESS



VIEW OF CONDITIONS

PORTION OF WASTE PILE ON LOWER SLOPES



PROJECT GOALS

- Remove and properly dispose of UDA waste
- Eliminate hazards from the waste pile and reduce lead concentrations to acceptable levels
- Minimize damage to the environment and existing facilities during project activities
- Install erosion control geomat on slopes and hydroseed all disturbed areas
- Repair Orchard Road and install a 2-inch asphaltic concrete wearing surface
- Keep Orchard Road open during the project

TASK 1 CONSTRUCT WORK PLATFORM



TASK 2

REMOVE WASTE FROM UPPER SLOPES





TASK 3 REMOVE WASTE FROM LOWER SLOPES





21 8:31AM



Tether line

20 3:47 AM



25 11:53AM





CAT

CATERPILLAR

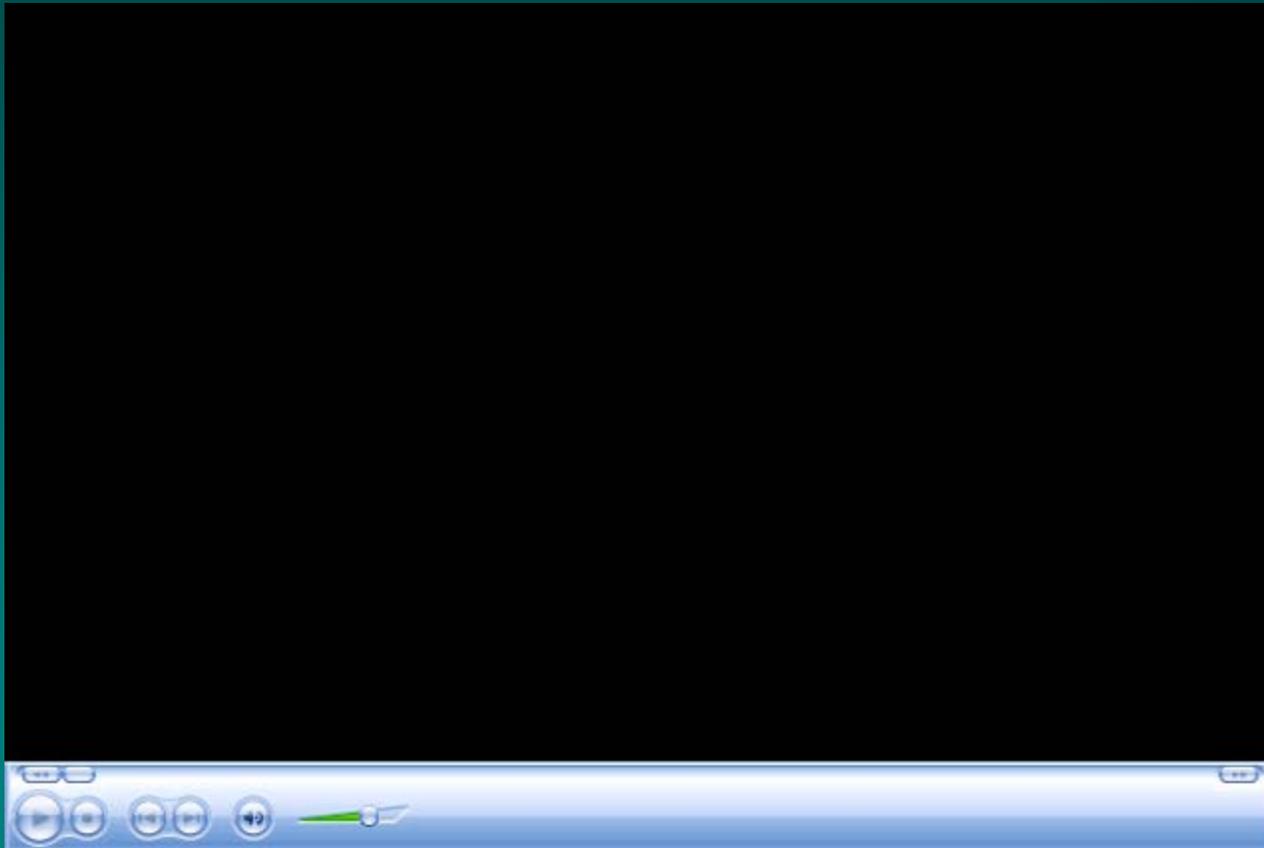
GOULD

330B L

CAT

17 7:56 AM

Rail Sled in Action



TASK 4 CONFIRMATION SAMPLING

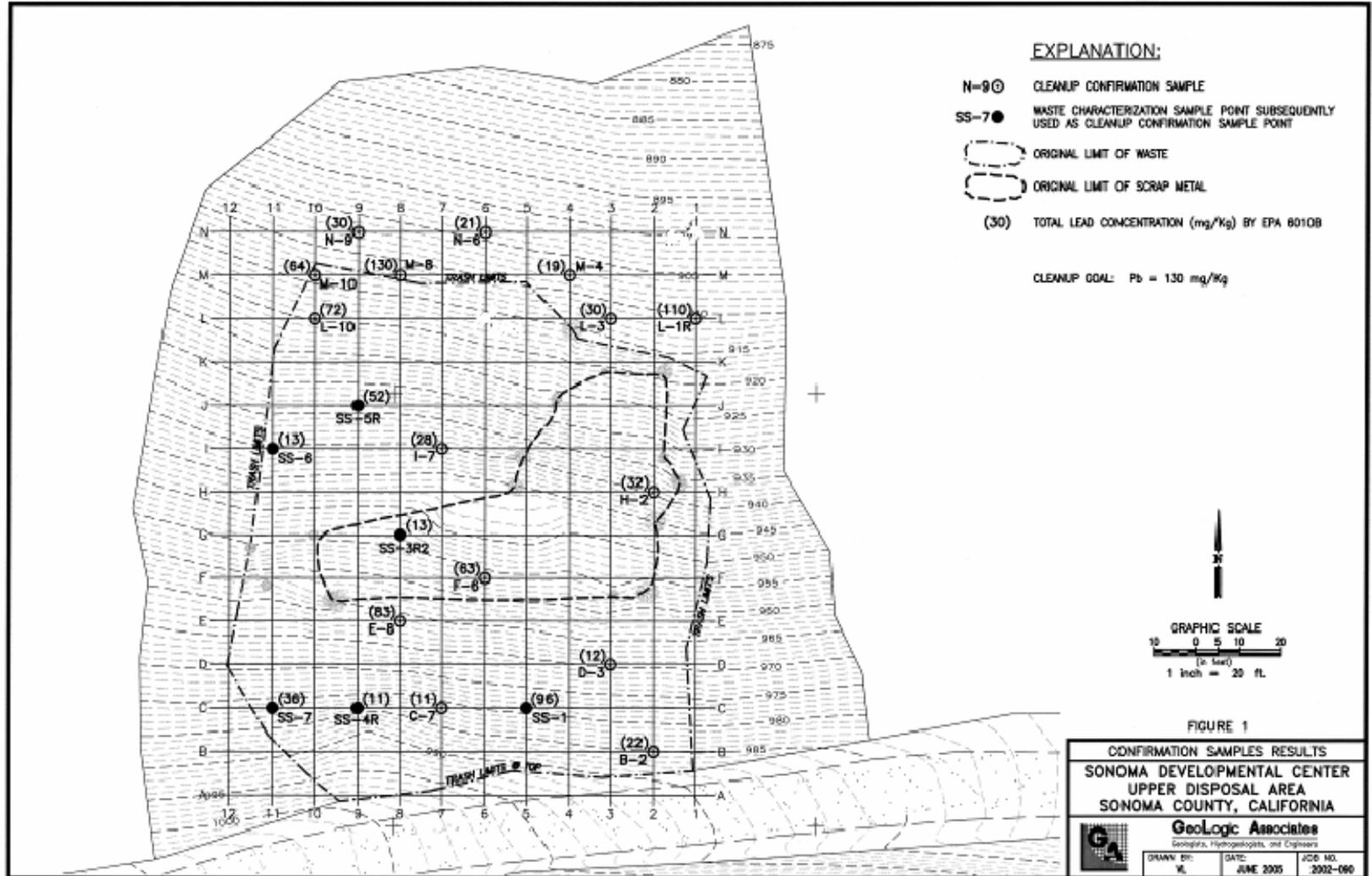


MAY 23 2005



CLEANUP GOALS ARE MET!

Cleanup Goal for Total Lead = 130 mg/kg
 Average Lead Concentration of 21 Samples = 45 mg/kg



TASK 5

STOCKPILE AND SEGREGATE WASTE



MAY 3 2005



PLANT
REMOVAL
EVALUATION AND
RESTORATION
PROJECT
NO ENTRY
BEYOND THIS POINT
UNLESS
AUTHORIZED



MAY 2 2005



MAY 2 200

TASK 7

INSTALL EROSION CONTROL MAT ON SLOPES





08/01/2005



TASK 8 RECONSTRUCT ROAD SECTION





JUN 6 2005

TASK 8 (CONTINUED)

REPAIR FAILED SUBGRADE AND DITCHWORK





06/10/2005

TASK 8 (CONTINUED) PULVERIZE AND RECOMPACT OLD SURFACE



06/13/2005



06/13/2005



06/15/2005

TASK 8 (CONTINUED)

CONSTRUCT ASPHALT CONCRETE SURFACE





06/20/2005



06/21/2005



06/22/2005

TASK 9

HYDROSEED DISTURBED AREAS



OCT 20 2005



OCT 20 20



PROJECT SUMMARY

- Work started 4/5/05; completed 10/25/05
- 605 tons of waste removed
- 4,500 sq. yds. of erosion mat installed
- 15,300 sq. yds. of Orchard Road repaired and repaved
- 3 acres of slopes and support areas hydroseeded
- Total project cost: \$987,400