

# FERNALD CLEANUP PROGRESS BRIEFING

## JUNE 11, 2002

6:30 p.m. Opening Remarks Gary Stegner

6:35 p.m. Project Updates

Silos

Nina Akgunduz

Waste Pits

Dave Lojek

Decontamination & Demolition

John Trygier

Soil & Disposal Facility

Rob Janke

Aquifer/Wastewater

Rob Janke

Waste Management

Vic Taylor

Nuclear Materials Disposition

Vic Taylor

Question and Answer Session

8:30 p.m. Adjourn

# PROJECT NEWS

## ACCELERATED WASTE RETRIEVAL

- Completed Remedial Design Package and submitted to EPA
- Drafted system operability test and standard startup review plans for Radon Control System (RCS)
- Beginning cold loop test in July
- Complete balance of plant design in December
- Managing integrated construction, readiness and operations schedules for RCS startup in November

# SILOS AREA

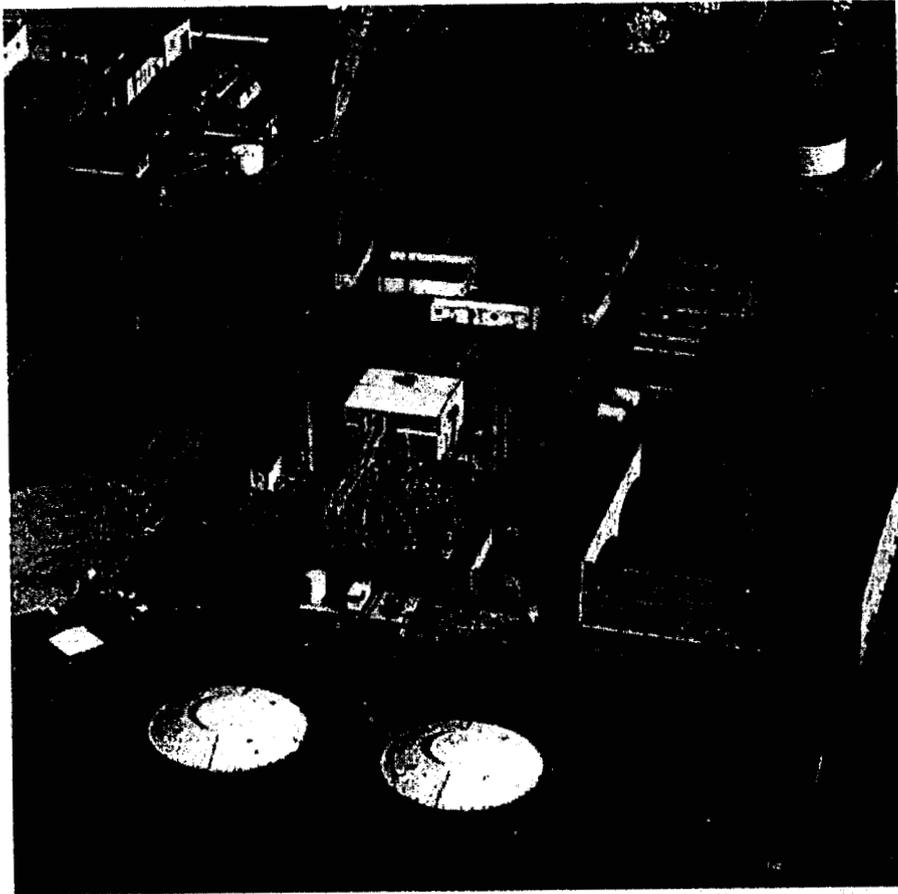


Photo taken December 2001

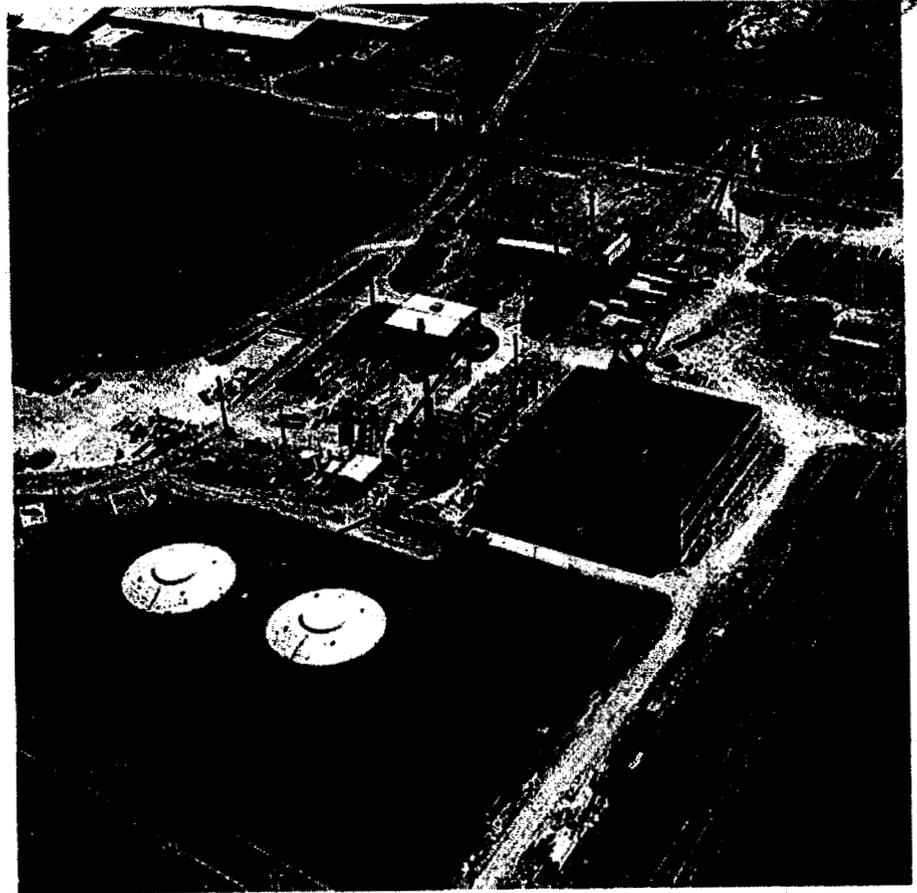


Photo taken May 2002

Graphics # 7606. 4SI 6/02 Photo # 7718-87 and # 7792-147

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# PROJECT NEWS

## SILOS 1 & 2

- Completed preliminary design; preparing final design of work packages
- Early procurements underway
- Preparing subcontract construction packages
- Discussing schedule for submittal of proposed Explanation of Significant Differences (ESD) to EPA
- Developing backup waste transportation options
- Evaluating alternate disposal scenarios; Envirocare 11(e)2 and license revision in process

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# PROJECT NEWS

## SILO 3

- Submitted Remedial Design Package to EPA; expect final design in June
- Evaluating \$324 million funding decision that will impact Silo 3 cleanup and accelerate Silos 1 and 2 critical path
- Readyng Silo 3 design and procurement packages for possible alternate funding
- Submitted proposed Record of Decision Amendment schedule to EPA
- Envirocare 11(e)2 and license revision in process
- Evaluating dispersability risk reduction

# PROJECT NEWS

## WASTE PITS

- Rail transportation
- Waste pit excavation
- Dryer operations

# MOUND RAILCARS



Graphics # 7606.2WP 6/02 Photo # 7792-332

Photo taken May 2002

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# PIT 3



Graphics # 7606.3WP 6/02 Photo # 6944D-2075

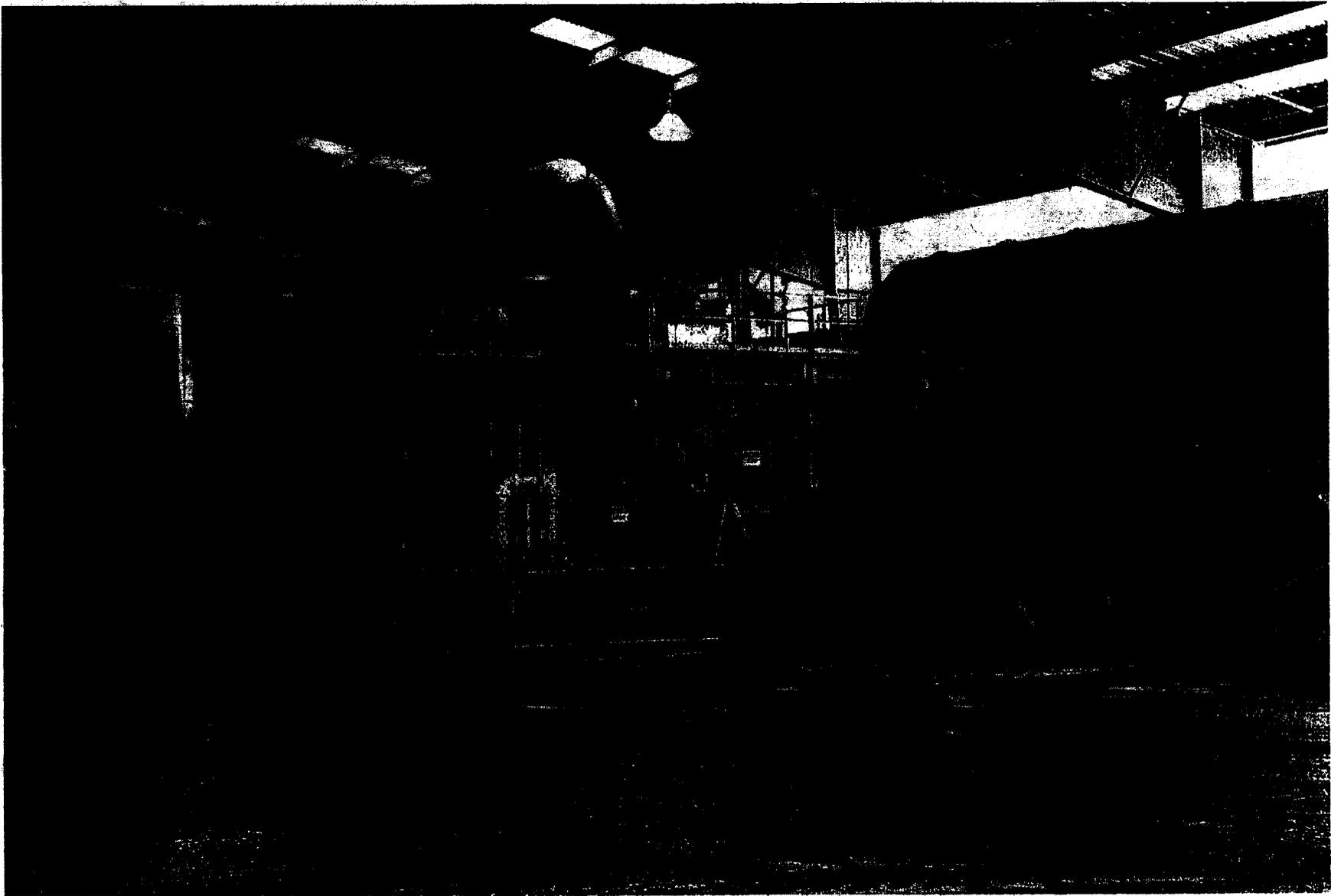
Photo taken May 2002

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# PUGMILL VENTILATION SYSTEM



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Graphics # 7606.4WP 6/02 Photo # 6944D-2108

Photo taken May 2002

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# PUGMILL VENTILATION SYSTEM



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Graphics # 7606.5WP 6/02 Photo # 6944D-2111

Photo taken May 2002

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# PIT 3



Graphics # 7606.6WP 6/02 Photo # 6944D-2055

Photo taken May 2002

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# PROJECT NEWS

## DECONTAMINATION & DEMOLITION

- **Plant 6**
  - Completed field work; demobilizing project
- **Multi Complex – Plant 2, Plant 3, Plant 8 and General Sump**
  - Completed structural demolition of Rotary Kiln/Drum Reconditioning Building
  - Continued asbestos abatement, equipment and transite removal, washdown, size reducing and placing debris in roll-off boxes
- **Miscellaneous D&D Activities**
  - Completed asbestos abatement and initiated structural demolition on Safety & Health Building
  - Mobilizing in Old Plant 5 Warehouse and started demolition of Thorium Warehouse
  - Completed structural demolition of High Nitrate Storage Tank and RTS Building

# BUILDING 64/65

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Graphics # 7606. 2D&D 6/02 Photo # 7735D-48

Photo taken May 2002

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# SAFETY & HEALTH BUILDING



Graphics # 7606. 3D&D 6/02 Photo # 7565D-85

Photo taken June 2002

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# HIGH NITRATE TANK



Photo taken May 2002

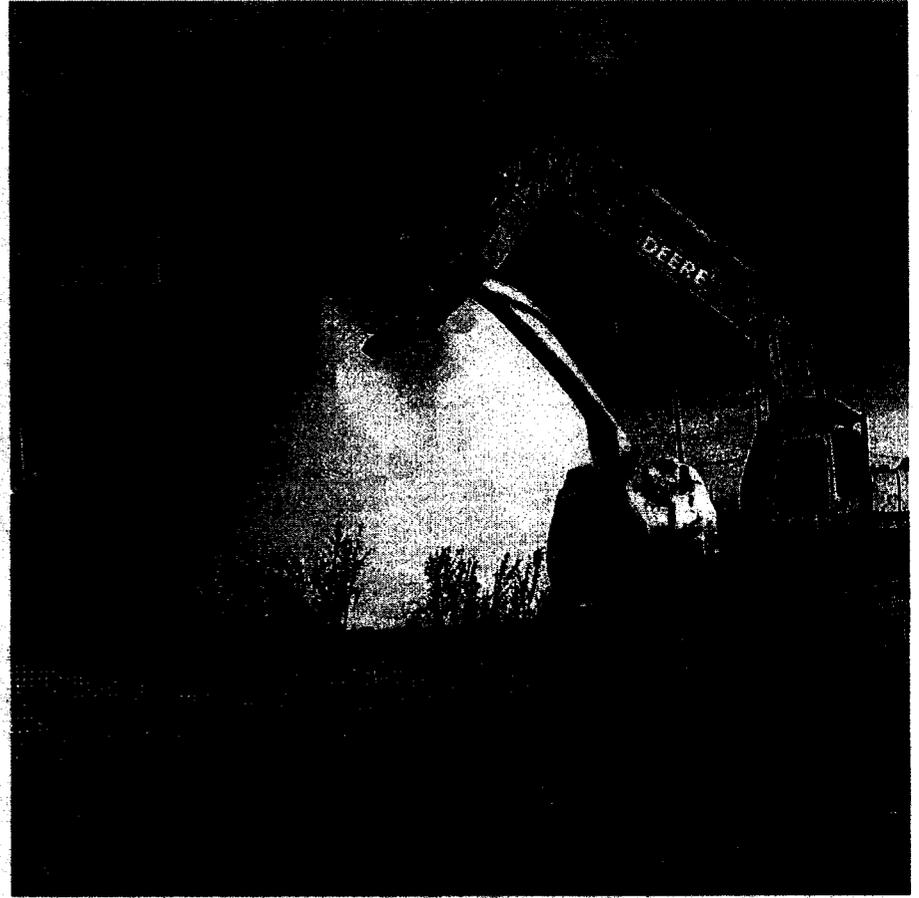


Photo taken May 2002

Graphics # 7606. 4D&D 6/02 Photo # 7773D-30 and 7771D-27

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# ROTARY KILN



16.  
Graphics # 7606.5D&D 6/02 Photo # 6681D-415

Photo taken April 2002

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# PROJECT NEWS

## SOIL & DISPOSAL FACILITY

- Began self-performing construction work
- Continued operation of the Bulk Debris Transfer Expansion Area; emptied over 1300 roll-off boxes
- Started construction of OSDF Cells 4 and 5 liners
- Continued breaking concrete floors and foundations in production area
- Continued excavation of RCRA, above-WAC and arsenic contaminated soils
- Opened new Emergency Access Road and closed North Access Road to through traffic

# EMERGENCY ACCESS ROAD



Graphics # 7606.2S&D 6/02 Photo # 7752D-7

Photo taken March 2002

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# CELL 2



Photo taken April 2002

Graphics # 7606.3S&D 6/02 Photo # 6319D-3504

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# CELL 2

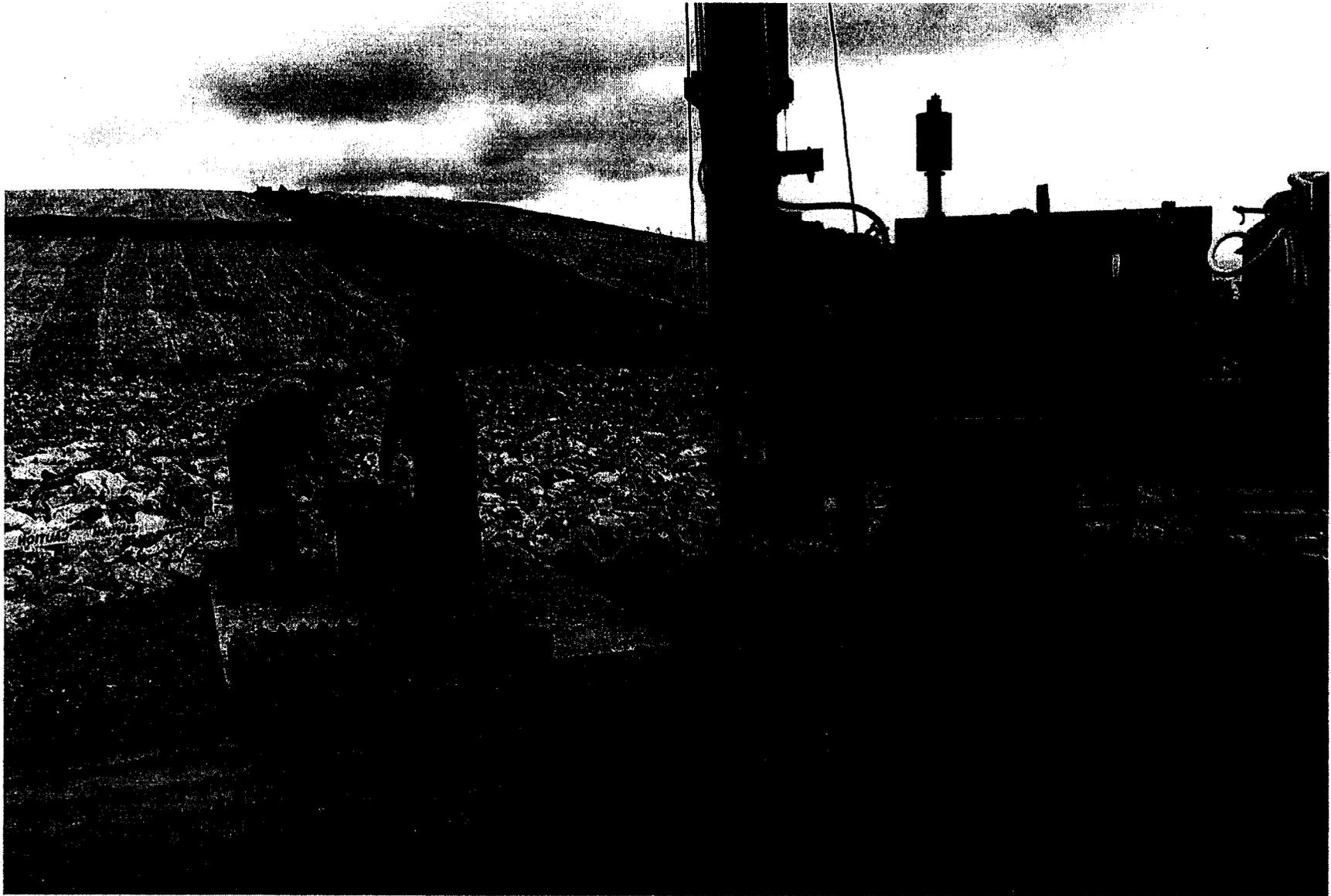


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Graphics # 7606.4S&D 6/02 Photo # 6319D-3503

Photo taken April 2002

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# Cell 1



21.  
Graphics # 7606.5S&D 6/02 Photo # 6319D-3455

Photo taken April 2002

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# PROJECT NEWS

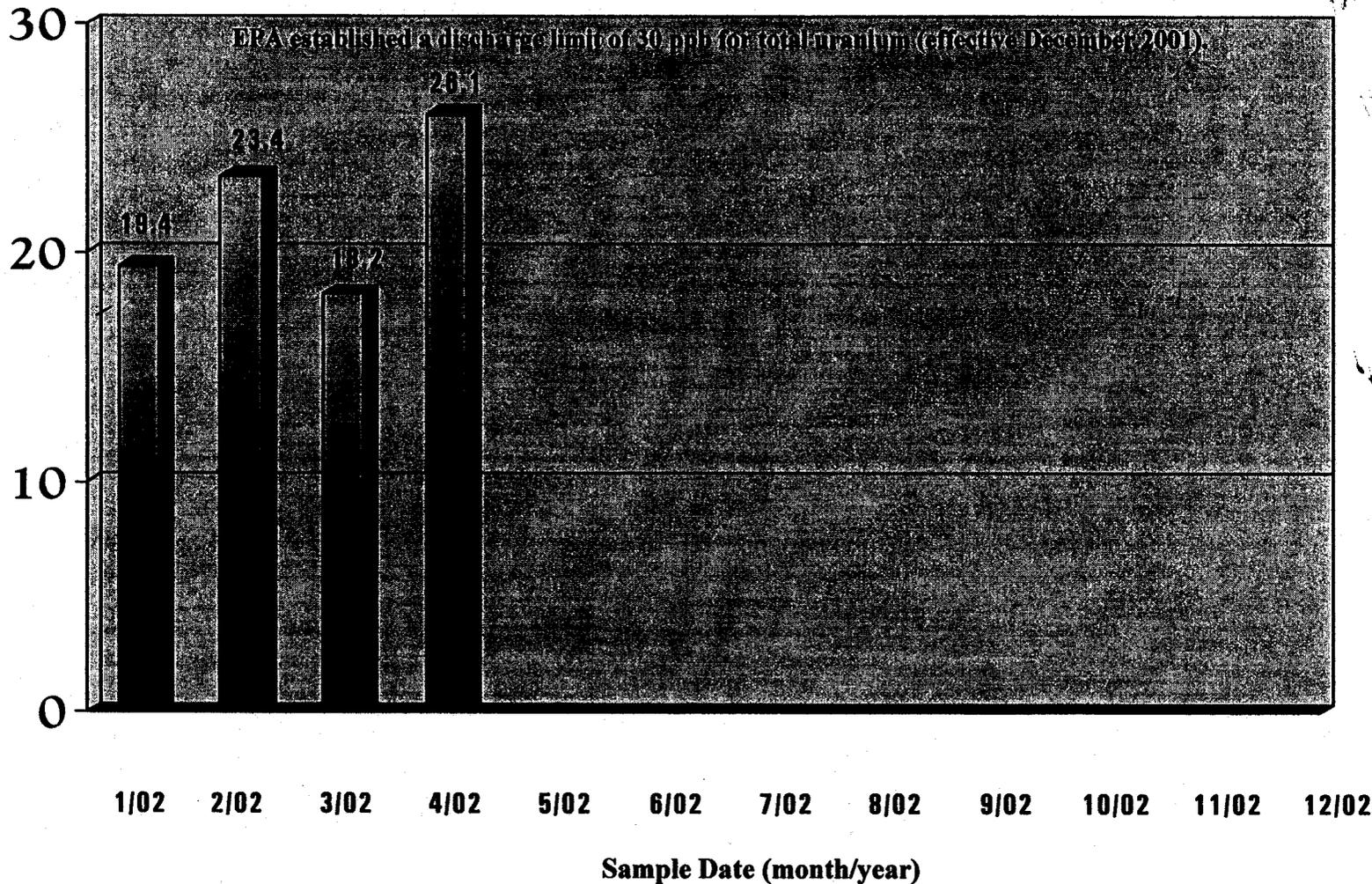
## AQUIFER /WASTEWATER

- Initiated operation of three Waste Storage Area Extraction wells and South Field supplemental well
- Issued *Design for Remediation of the Great Miami Aquifer South Field Phase II Module* (construction package 60 percent complete)
- Continued geoprobing in off property portion of South Plume of Great Miami Aquifer
- Began drilling for replacement of re-injection wells
- Preparing for handling of on-site laboratory services when existing lab is shutdown

# AVERAGE MONTHLY TOTAL URANIUM CONCENTRATION DISCHARGED TO THE GREAT MIAMI RIVER IN 2002

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Concentration (ppb)

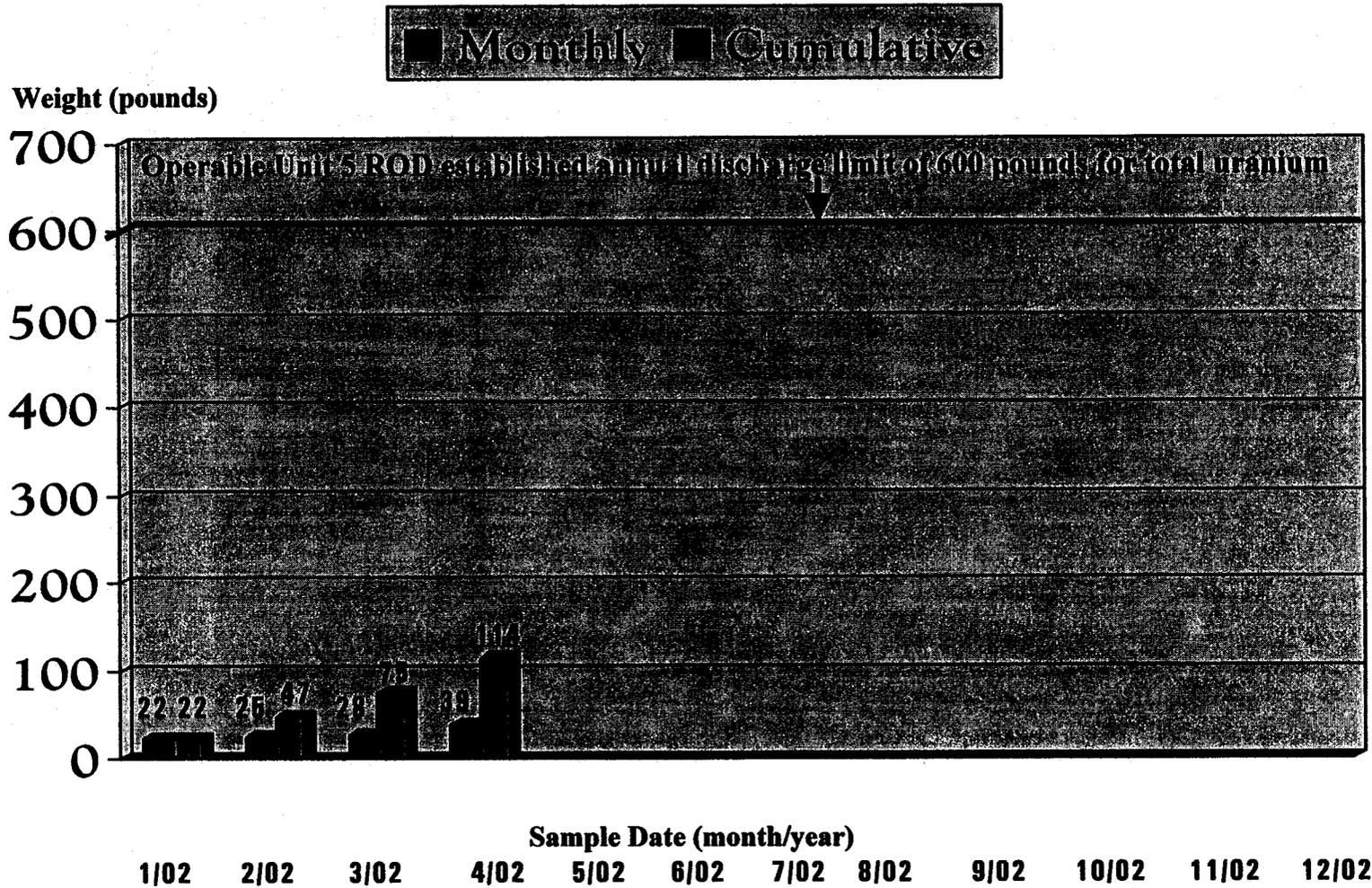


Graphics # 7606.2AQ 6/02

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# POUNDS OF URANIUM DISCHARGED TO THE GREAT MIAMI RIVER IN 2002

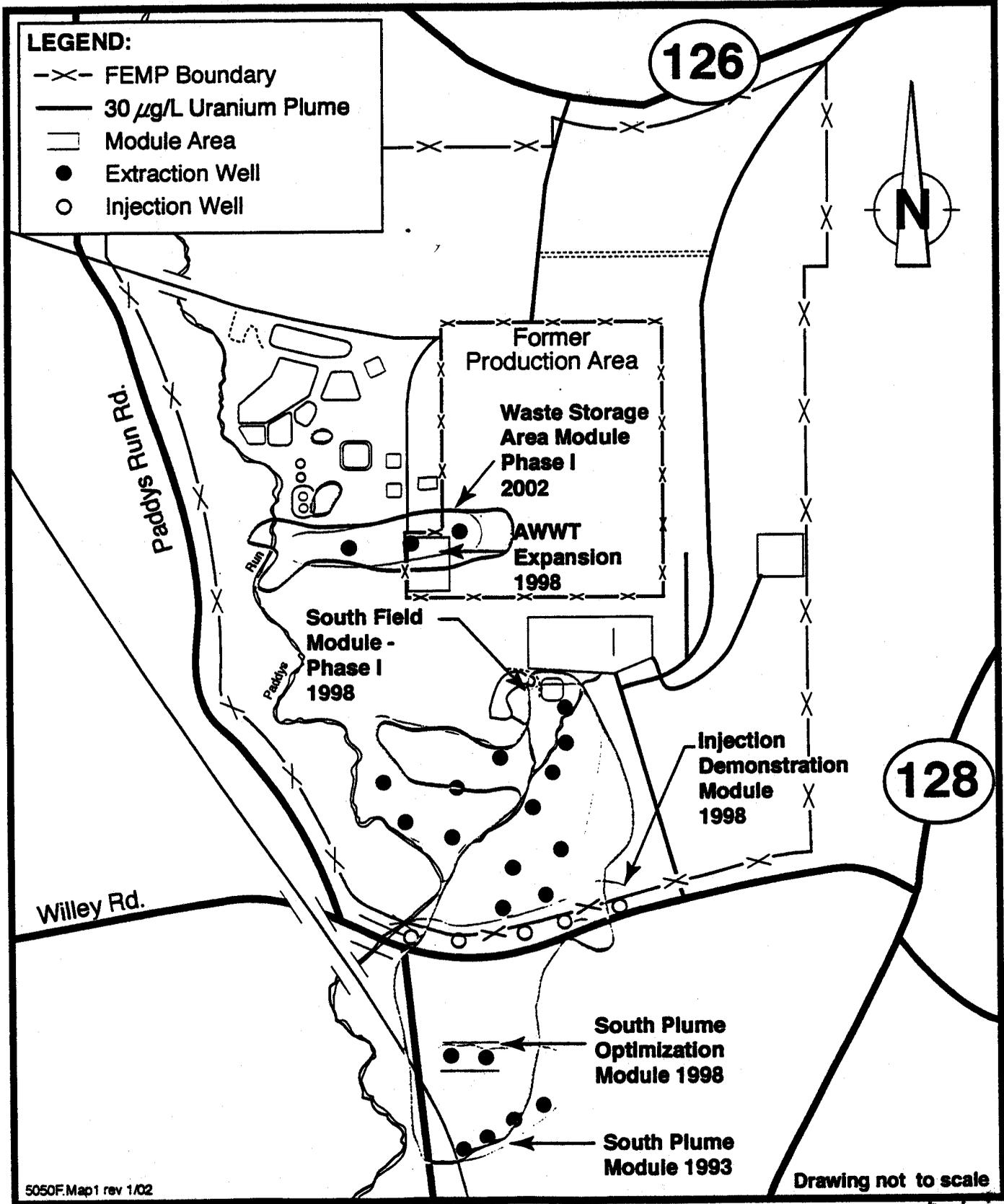


**NOTE: Sum of monthly discharges may not always agree with cumulative total because of rounding differences.**

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# CURRENT AQUIFER RESTORATION MODULES & WELL LOCATIONS



# PROJECT NEWS

## WASTE MANAGEMENT

- Shipped Batch 11 liquid mixed waste to the Toxic Substance Control Act Incinerator in Tennessee
- Completed venting and decanting operations and movement of the thorium legacy waste inventory
- Initiated construction of the Mixed Waste Processing Enclosure for processing and packaging Inorganic Treatment Project waste

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# OVERPACKED DRUMS LOADED INTO SEALAND



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Graphics # 7606. 2WM 6/02 Photo # 7048D-168

Photo taken January 2002

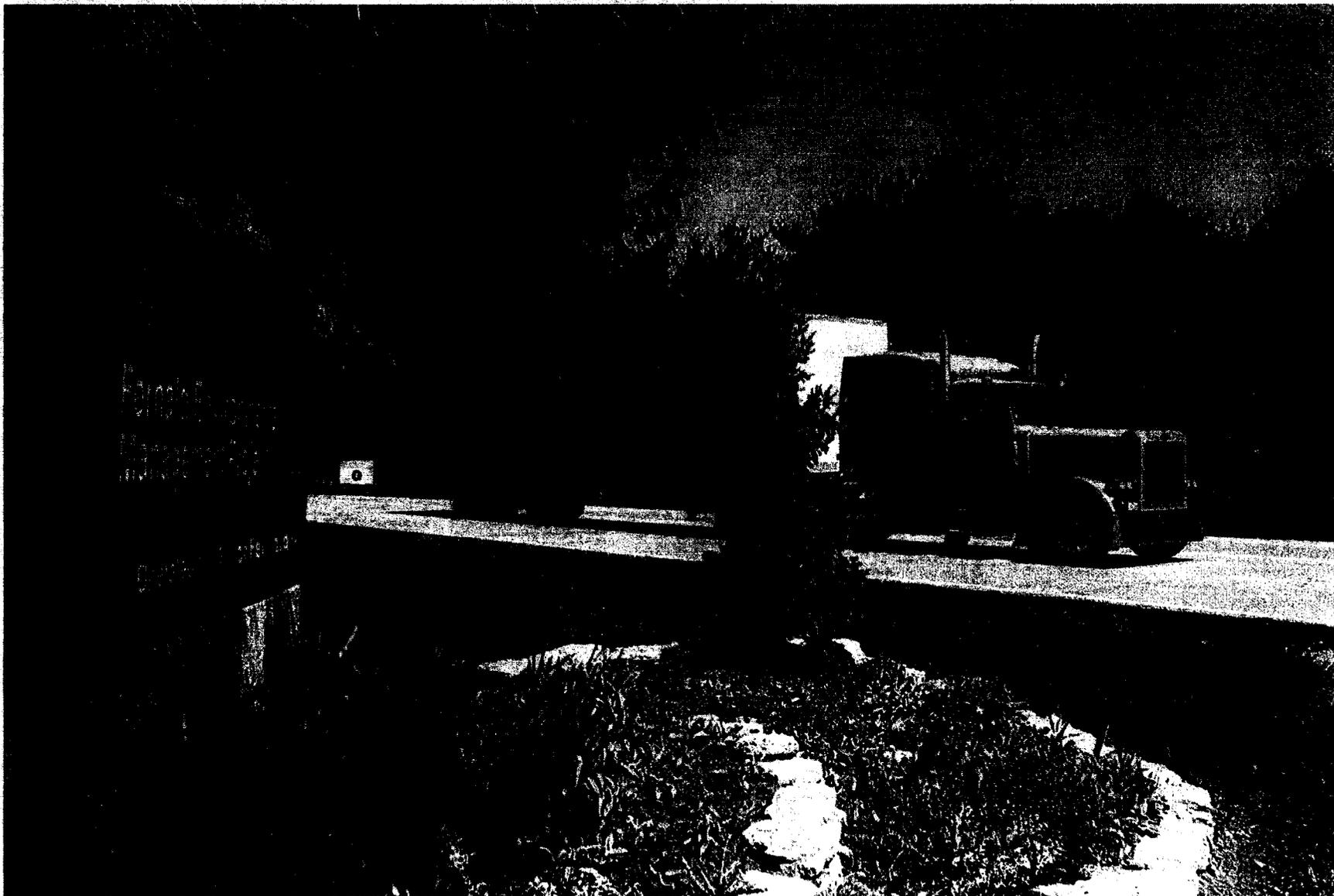
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# PROJECT NEWS

## NUCLEAR MATERIALS DISPOSITION

- Completed all nuclear product shipments to Portsmouth, Ohio (9.1 million pounds shipped since June 1999)
- Completed packaging materials for private sector sale (76 MTU)
- Continued characterizing, visually inspecting and packaging materials for shipment to the Nevada Test Site

# LAST NUCLEAR MATERIALS SHIPMENT



Graphics # 7606. 2NMD 6/02 Photo # 7368D-479

Photo taken May 2002

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# LAST NUCLEAR MATERIALS SHIPMENT



Photo taken May 2002

Graphics # 7606. 3NMD 6/02 Photo # 7368D-510

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## FERNALD ENVIRONMENTAL MANAGEMENT PROJECT SILOS PROJECT SNAPSHOT

	SILOS 1 & 2	SILO 3
<b>HAZARDS</b>	Radon gas, radium, gamma dose	Dry, fine particles containing high concentrations of Thorium-230 (an alpha emitter)
<b>RETRIEVAL</b>	Sluice material to Accelerated Waste Retrieval Transfer Tanks	Vacuum loose dry material from top portholes and excavate compacted material via penetration through sidewall
<b>TRANSFER</b>	To treatment facility	Directly load into soft-sided packages
<b>TREAT</b>	Chemically treat to reduce leachable heavy metals	No on-site treatment
<b>STABILIZE</b>	Free moisture	No moisture requiring stabilization. Examining addition of water or agent to reduce material dispersability
<b>DURATION OF OPERATIONS</b>	February 2005 – February 2006	January 2005 – July 2005
<b>PACKAGE</b>	Sealed cylindrical metal canisters	Sealed plastic liner inside soft-sided package inside cargo container
<b>SHIP</b>	Seven canisters to each shielded gondola car; dispatch as unit trains	Four cargo containers to one flatbed railcar; three cars attached to each Waste Pit unit train; total of 38 cars
<b>CURRENT MANDATES</b>	Record of Decision (ROD) calls for chemical stabilization and disposal at Nevada Test Site (NTS)	ESD calls for chemical stabilization or encapsulation to meet RCRA limits and disposal facility Waste Acceptance Criteria (WAC). Disposal at either NTS or permitted off-site facility
<b>ESD OR ROD AMENDMENTS</b>	Proposed Explanation of Significant Differences (ESD) would allow disposal at either NTS or an alternate permitted off-site disposal facility (Envirocare)	Proposed Record of Decision (ROD) amendment would eliminate treatment as required component of remedy to meet permitted off-site disposal facility WAC