

RCRA Corrective Action Program Update

Former DuPont Waynesboro Plant
October 12, 2011



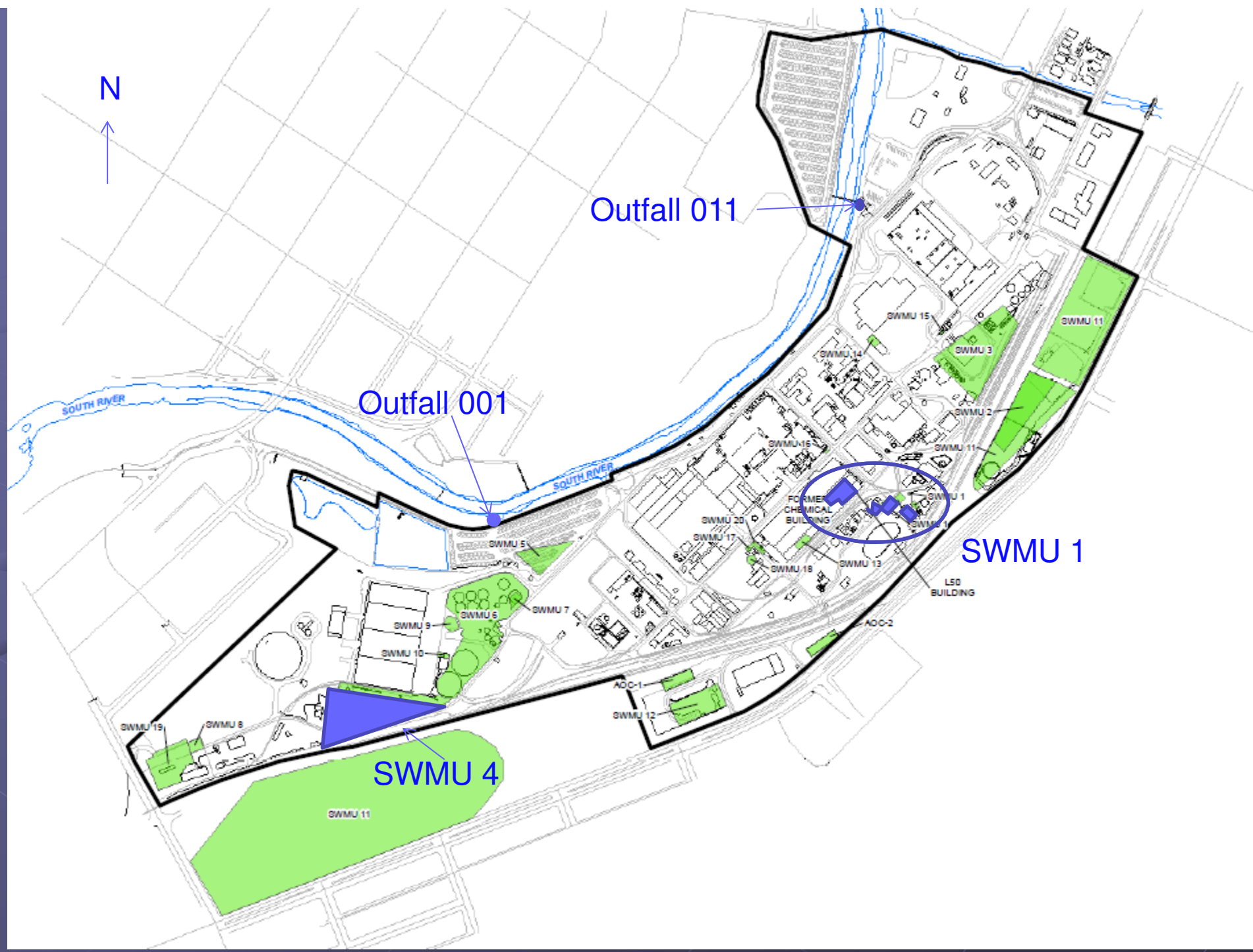
Background

- Plant Operations began in 1929 with manufacturing of acetate flake and yarn
- Mercury used from 1929 to 1950
- Orlon, Permasep, Lycra and BCF Nylon



Background (cont.)

- RCRA Corrective Action Permit issued in 1998
- Assets sold to Koch Industries (Invista) in 2003
- Land will transfer to Invista upon completion of Corrective Actions



RCRA Corrective Action Programs

- Plant RCRA Facility Investigation (RFI)
- Corrective Measures Study (CMS)
- Groundwater Monitoring Program
- Stormwater (Outfall) Monitoring
- Sewer Investigation
- Hg Inspection and Abatement Program

Recent Activities

● Interim Measures

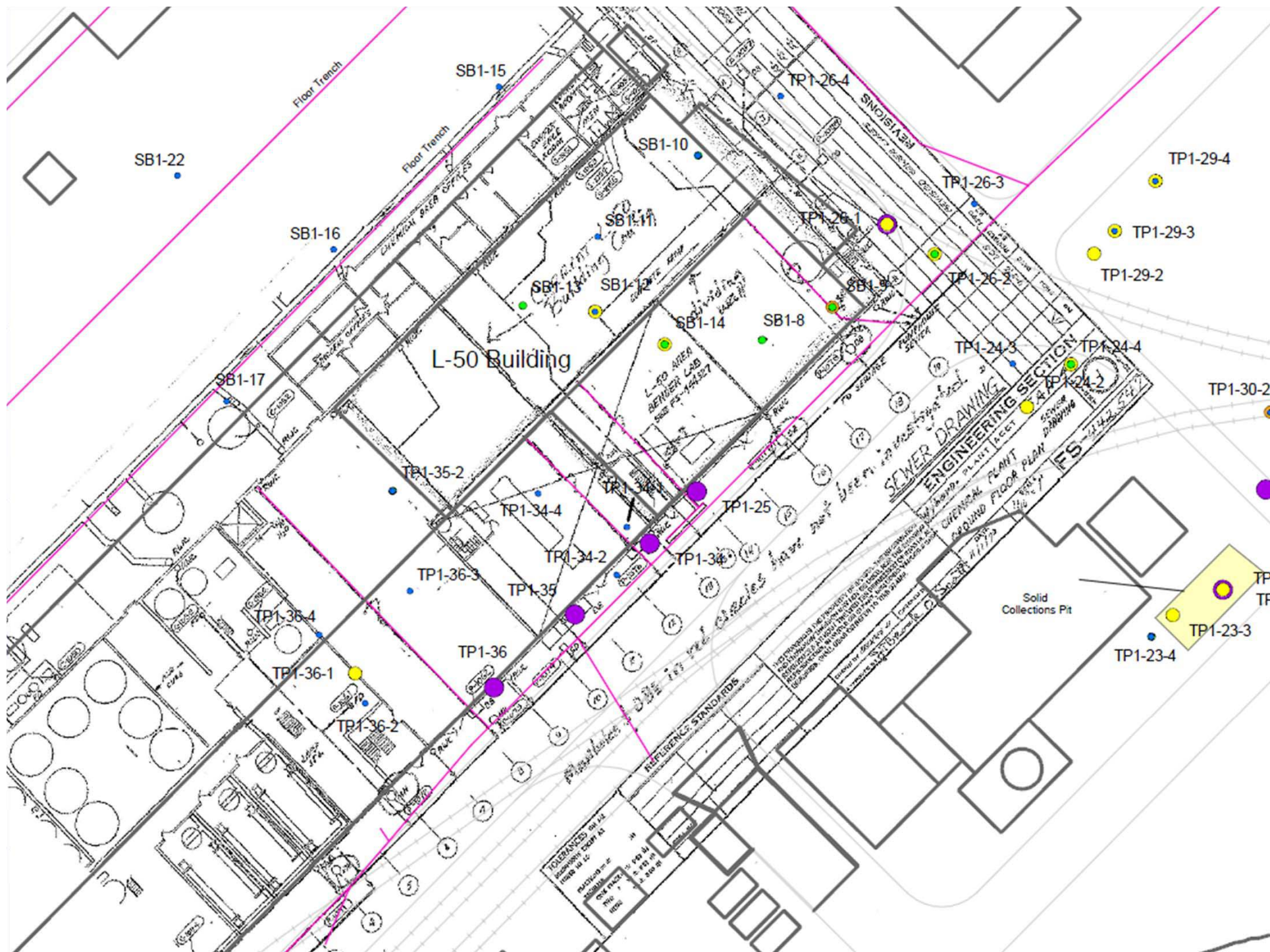
- Completed in Oct-Nov 2010 to cut off sources of Hg from sewers in former Hg operational area

● Phase III Sewer Investigation

- Conducted from Sep-Dec 2010
- Cleanout and video inspection

Interim Measures

- Sources of free mercury identified in RFI
- Objective:
 - To expedite the cleanup of mercury sources and eliminate the potential for mercury migration to the sewer



Interim Measures - Scope

- Re-route roof drains to prevent flushing of source area
- Excavate and remove impacted steam trap that was connected to the sewer
- Vacuum out and abandon impacted solids pit that also was connected to sewer
- Clean out Pumphouse Sewer along Railroad Avenue

Interim Measures -Results

- Steam Trap Removed, connection to sewer sealed
- Roof drains re-directed to sewer along Middle Avenue via overhead structure
- Solids pits vacuumed, sealed and abandoned
- Pumphouse Sewer cleaned in conjunction with Phase III Sewer Investigation



11/02/2010 12:40





11/02/2010 14:28





11/03/2010 15:02



04/27/2010 09:17



10/15/2010 16:15





11/11/2010 10:40



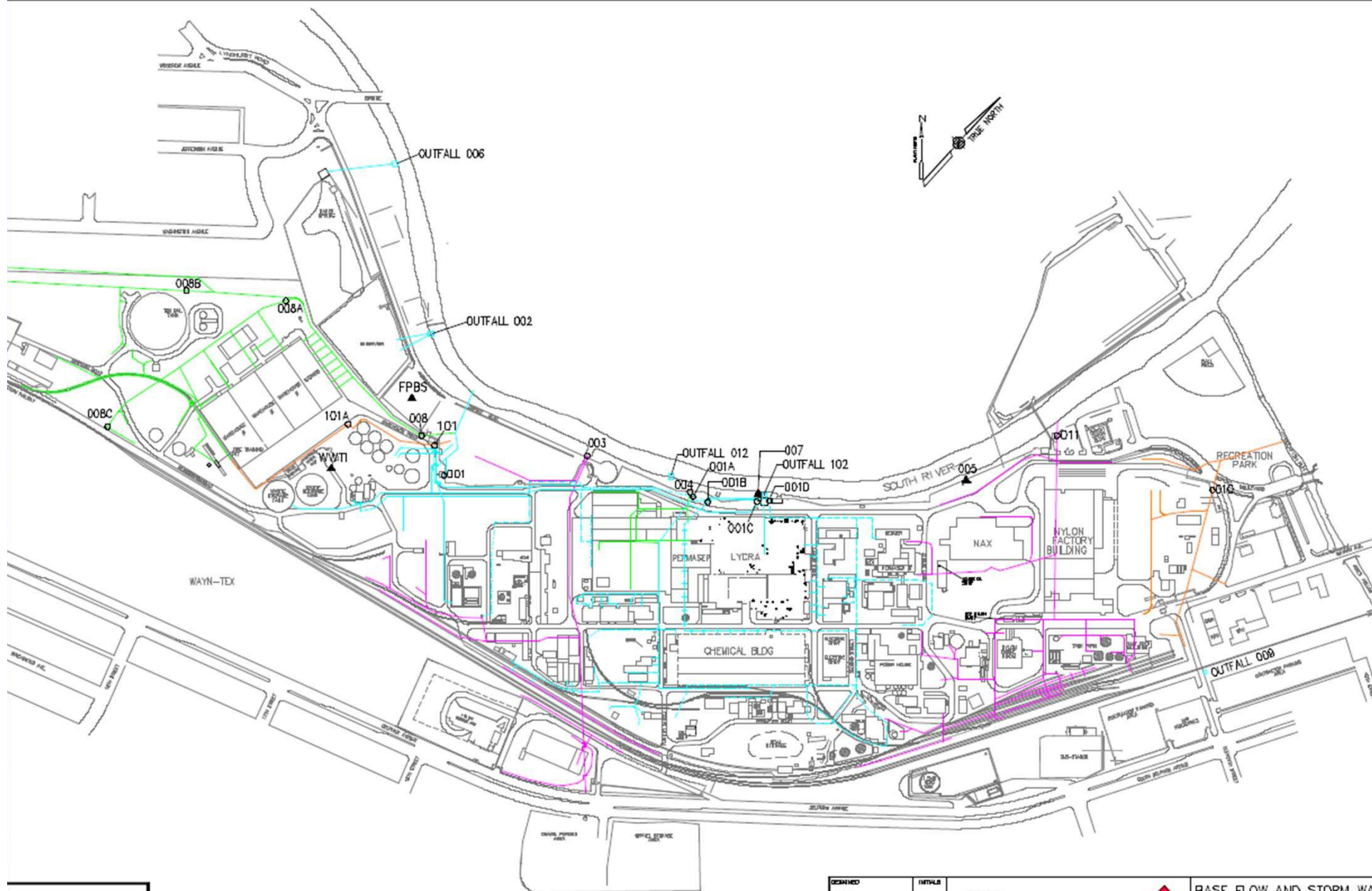


11/03/2010 12:56



Phase III Sewer Investigation

- Culmination of three phases of work in former mercury area (SWMU 1)
- Objectives:
 - Remove sediment and debris from sewers impacted by mercury
 - Characterize the sewers in mercury area via video inspection
 - Characterize other sewer systems where mercury has been detected



USE FLOW SAMPLING STATION
IF/IE STATION
IF/IE OUTFALLS NOT BEING SAMPLED
AL FOR STORMWATER CONTAMINATION

SCALE



DATE	DETAILS
1/15/03	
DESIGNED	
CHECKED	
INSP	
APPROVED (OWNER)	
APPROVED (CONSULTANT)	



Corporate Remediation Group

An Alliance between
DuPont and URS | Diamond

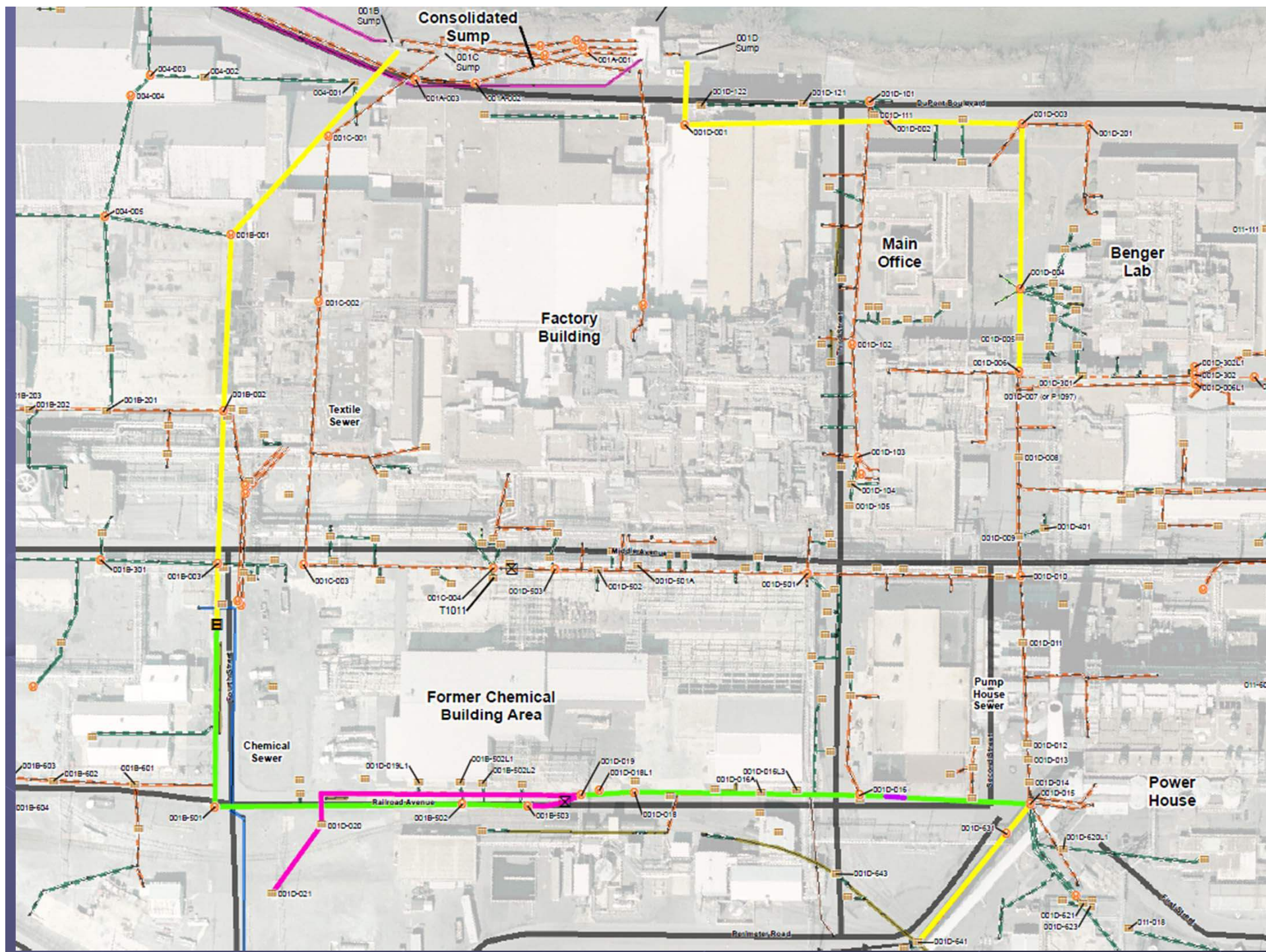
Barley Mill Plaza, Building 27
Wilmington, Delaware 19805

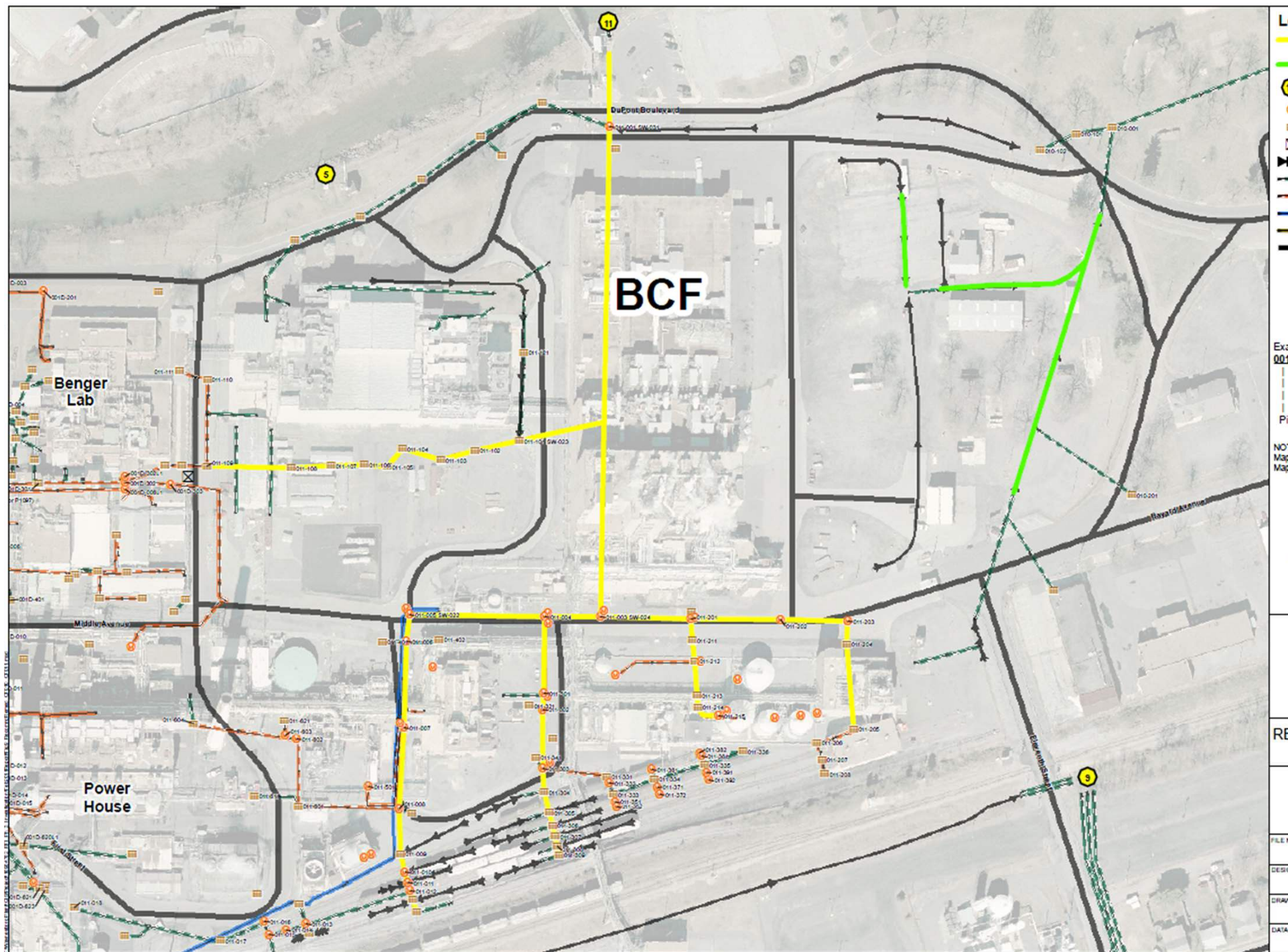


BASE FLOW AND STORM WA
SAMPLING LOCATIONS

DTI Waynesboro Plant
Waynesboro, Virginia

DATE	REV	BY	CHK	APP	DATE
12/1/02		URS	URS	URS	1





Ph III Sewer Investigation - Scope

- Collect sewer water and sediment samples from drainage basins for Outfalls 003, 010 and 011
- Clean sections of Pump House Sewer (PHS) and Chemical Sewers along RR Ave
- Inspect sewers with CCTV

Ph II Sewer Investigation- Results

- Collected 85 samples from 003, 010 and 011 basins
- Water concentrations up to 286 ug/l
- Sediment concentrations up to 156 mg/kg
- PHS and 011 sumps impacted by Hg
- Free mercury observed in debris jetted out of PHS and Chemical Sewer along Railroad Avenue

Ph IIISewer Investigation- Results (cont.)

- Removed significant mass of Hg from system
- Jetted out approx. 27 cy of sediment and debris
- Post cleaning monitoring shows improvement in Chemical Sewer, temporary increase in PHS which has decreased



11/03/2010 15:07



11/03/2010 10:47



11/03/2010 09:24



Conclusions

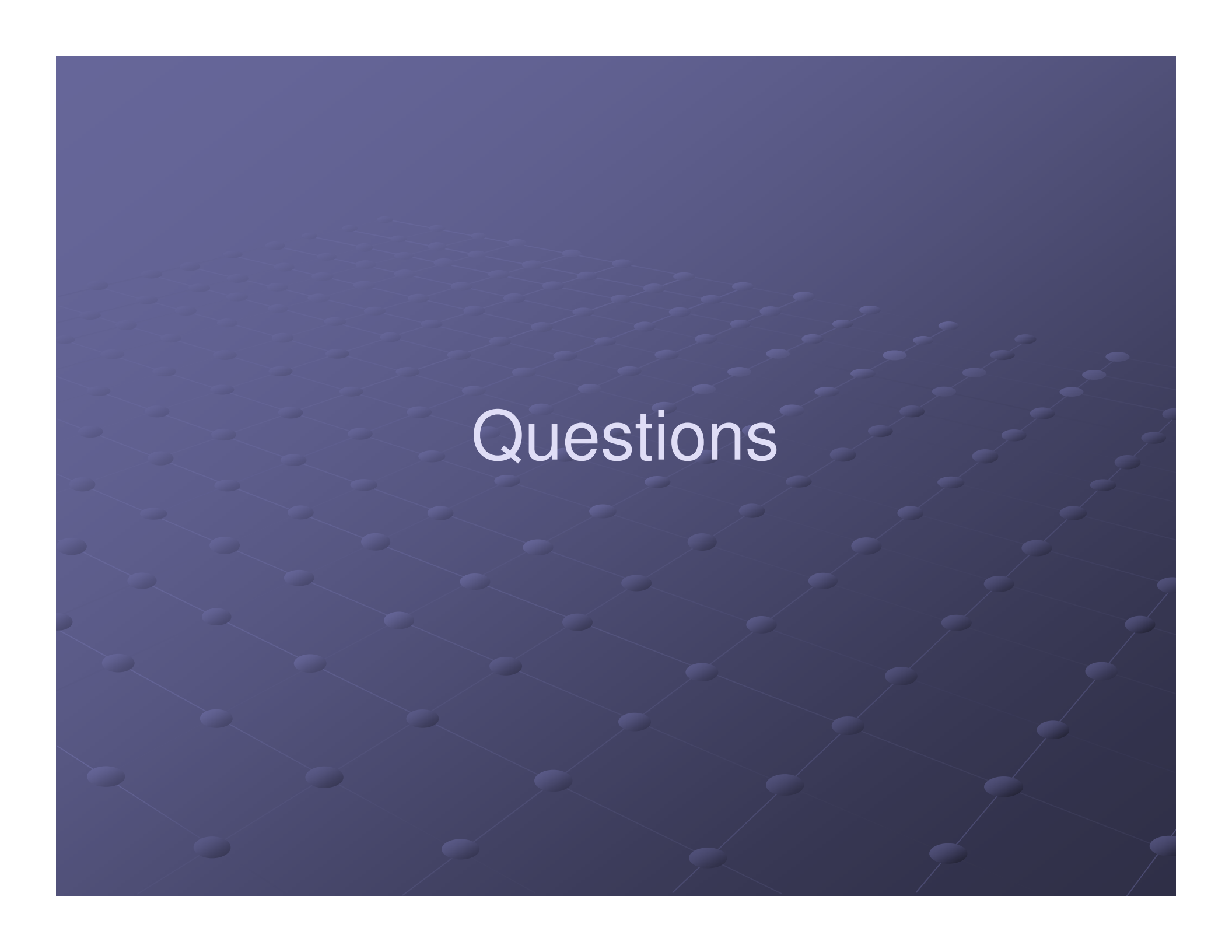
- IM and Sewer Work represent first major remediation effort at the plant
 - IM successful in eliminating specific sources of Hg from impacting the sewer
 - Sewer cleaning removed significant Hg mass from system
- No significant sediment sources of Hg were found in upstream reaches of 003, 010 and 011 basins

Conclusions (cont.)

- PHS and Chemical Sewer most impacted
- Sections of PHS show cracking and deformation
- Numerous unused connections to PHS

Future Activities

- Recommendations from Sewer Investigation to be incorporated in overall site corrective action program
- Corrective Measures Study (CMS)
- NE Area well drilling
- Continue routine groundwater and outfall monitoring



Questions