

**Stratford Army Engine Plant
Restoration Advisory Board (RAB)
Meeting October 7, 1999**

The Stratford Army Engine Plant (SAEP) which is proceeding with closure action under provisions of the Base Realignment and Closure Act (BRAC) of 1995 will hold a Restoration Advisory Board (RAB) on October 7, 1999 at 7p.m. in Room 22, Stratford Army Engine Plant. The meeting is open to the public. Parking is in the West Lot and entry through the main guard station.

**Stratford Army Engine Plant
Restoration Advisory Board (RAB)
Meeting October 7, 1999**

AGENDA

1. Welcome, opening remarks, introductions, announcements, old business.
2. Presentation of Groundwater Model Information
3. Update on Ground Water Response Action by HLA
4. Update on Progress of RI/FS by URS Greiner Woodward Clyde
5. Open forum, next meeting, adjourn.

For additional information call the SAEP BRAC office (John Burleson) at 385-4316 or Margarita Hartley Moore, RAB Community Co-Chairperson at Redacted - Privacy Act.

RAB MEETING – OCTOBER 7, 1999

SIGN-IN SHEET

Redacted - Privacy Act

Redacted - Privacy Act

Ceil Mancini - URSOWC

Redacted - Privacy Act

John Burdison

Debbie Gills

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Nelson Walter - HLA

Phil Durgin USACE

Kenneth Feathers CTDEP

G.L. Gunther, ND. STATE SENATE

Michael McGill, URSOWC

Rod Pendleton, HLA

Todd Morrison URSOWC

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STRATFORD ARMY ENGINE PLANT
RESTORATION ADVISORY BOARD (RAB)

MEETING MINUTES

October 5, 1999

The SAEP Restoration Advisory Board conducted a Regular Meeting on Thursday, October 5, 1999 at 7:00 p.m. in Room 22 of the Stratford Army Engine Plant, 550 Main St., Stratford, pursuant to notice duly given.

Call to Order: The meeting was called to order at 7:13 p.m.

Presiding: John Burleson and Margarita Hartley-Moore, Community Co-Chairmen

In Attendance: Redacted - Privacy, Redacted - Privacy Act, Redacted - Privacy Act, Redacted - Privacy, Redacted - Privacy, Redacted - Privacy, Redacted - Privacy, K. Feathers, Redacted - Privacy, Redacted - Privacy, Redacted - Privacy A, R. Pendleton, N. Walter, M. McGill, P. Durgin, C. Mancini, T. Morrison, Redacted - Privacy A, G. Guenther

Members Absent: S. Silverstein, J. Carlucci, L. Perlmutter, J. Terceno, F. Gerarden, A. deMello

1. Welcome, Opening Remarks, Introductions, Announcements, Old Business: representatives of URSGWC, USACE, and guests introduced themselves to the meeting.
2. Update on Progress of RI/FS by URS Greiner Woodward Clyde (represented by Ceil Mancini and Mike McGill): Handout review and questions followed.
3. Update on Groundwater Response Action by HLA (represented by Nelson Walter) Handout review and questions followed.
4. Presentation of Groundwater Model Information: (presented by Phil Durgin of USACE): Handout review and questions followed.
5. Open Forum, Next Meeting, Adjournment: It was agreed that the December meeting will be cancelled, and the next meeting will be January 6, 2000. Also, N. Walter distributed copies of the Final Community Relations Plan for SAEP.

There being no further business, the meeting adjourned at 8:56 p.m.

Respectfully submitted,


Debbie Gallo, Recording Secretary

URS GREINER WOODWARD CLYDE
Update of On-going Activities
Remedial Investigation
Stratford Army Engine Plant
Stratford, Connecticut

Presented to
Base Realignment Closure Team
and Restoration Advisory Board
October 6, 1999

Discussion Items

- I. Ecological Study
- II. Tidal Study
- III. First Round Monitoring Well Sampling Results
- IV. Future Activities

Problem Formulation, Evaluation of Ecological Risk at SAEP



Objective

Are the data collected sufficient to evaluate potential ecological risk at the SAEP Site?

Key Components

- Site Characterization
- Ecological Chemicals of Concern (ECOC)
- Conceptual Site Model
 - Exposure Pathways and Receptors
 - Risk Questions

Ecological Areas of Investigation

- Intertidal Mudflats
- Marine Basin
- Outfall 008 Drainage
- Causeway
- Reference Area

Environmental Media

- Surface Water
- Sediment
- Soil
- Biota

Sediment Screening Criteria

- Detection in at least one sample above the method or instrument detection limit
- Presence in blank
- Frequency of detection and estimated values
- Exceedances of reference location concentrations (TAL Metals)

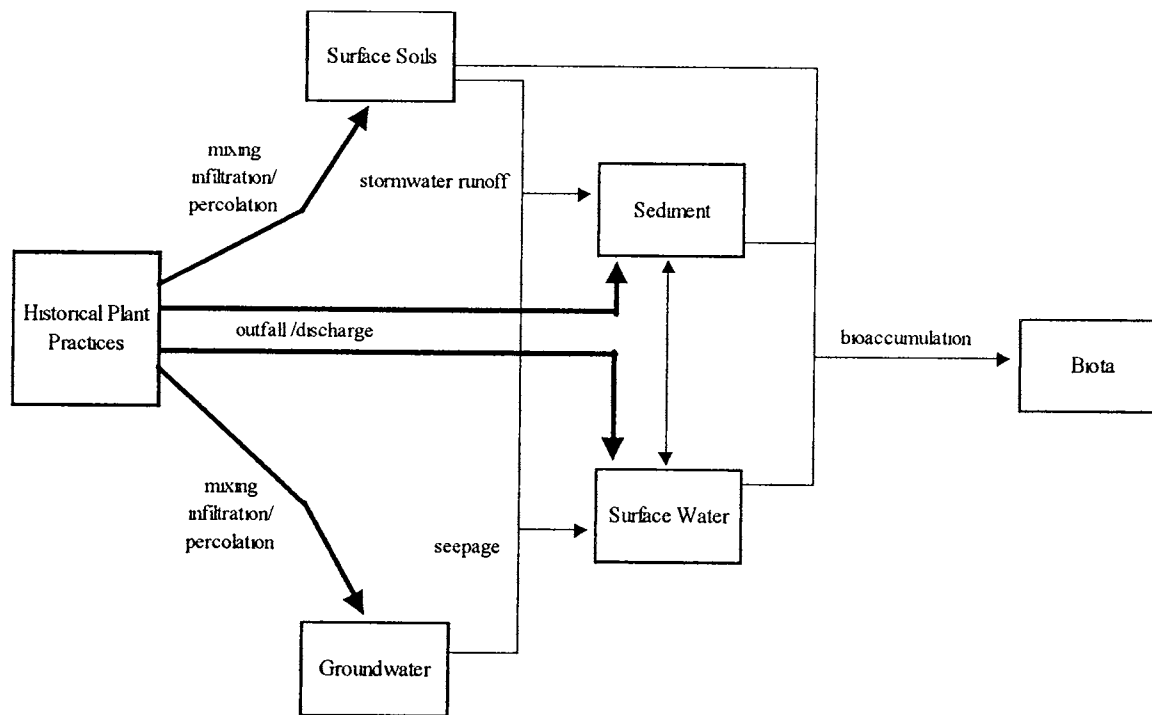
Sediment Screening Criteria

- Chemical persistence, bioaccumulation potential, and toxicity
- Exceedances of environmental screening values

ECOCs at SAEP

Analyte Group	Intertidal Mudflats	Marine Basin	Outfall 008 Drainage
Metals	Cadmium	Cadmium	Cadmium
	Chromium	Chromium	Chromium
	Copper	Copper	Copper
	Lead	Lead	Lead
	Mercury	Mercury	Mercury
	Nickel	Nickel	Nickel
	Silver	Zinc	Silver
	Zinc		Zinc
PCBs	Total PCBs	Total PCBs	Total PCBs
PAHs	Acenaphthylene	Acenaphthylene	Acenaphthylene
	Anthracene	Anthracene	Fluorene
	Benz(a)anthracene	Benz(a)anthracene	2-methylnaphthalene
	Benzo(a)pyrene	Benzo(a)pyrene	
	Chrysene	Chrysene	
	Dibenz(a,h)anthracene	Fluorene	
	Fluorene	Pyrene	
	2-methylnaphthalene		
	Naphthalene		
	Pyrene		

SAEP Site Pathways



Exposure Routes and Receptor Categories

Media Exposure Routes

Ecological Receptors

		Intertidal Mudflats						Marine Basin						Outfall 008 Drainage			Causeway		
		Benthic Macroinvertebrates	Forage Fish	Piscivorous Fish	Waterfowl	Shore Birds	Piscivorous Birds	Benthic Macroinvertebrates	Forage Fish	Piscivorous Fish	Waterfowl	Shore Birds	Piscivorous Birds	Semi-aquatic Mammals	Benthic Macroinvertebrates	Waterfowl	Shore Birds	Soil Invertebrates	Small Mammals - Omnivorous
Soil	Direct Contact/Absorption																		
	Direct Ingestion																	●	●
	Incidental Ingestion																	●	●
Sediment	Direct Contact/Absorption	●						●							●				
	Direct Ingestion	●	●		●			●	●		●				●	●	●		
	Incidental Ingestion					●					●		●						
Biota	Direct Ingestion	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Surface Water	Direct Contact/Absorption	●	●	●				●	●	●					●				
	Direct Ingestion																		
	Incidental Ingestion																		
Ground water	Direct Contact/Absorption	○													○				
	Direct Ingestion																		
	Incidental Ingestion																		

Receptor Species

Receptor Categories	Key Species
Invertebrate Receptors - Soil	Soil Invertebrates (collectively)
- Sediment	Benthic Macroinvertebrates (collectively)
	Ribbed Mussel
Fish Receptors - Forage	Mummichog
	Atlantic Silverside
- Piscivorous	Striped Bass
Avifauna Receptors - Waterfowl	Mute Swan
- Shore Bird	Sandpiper
- Piscivorous Bird	Great Blue Heron
Mammal Receptors - Terrestrial	White-footed Mouse
- Semi-aquatic	Raccoon

Aquatic Habitat-Risk Questions

- Are ECOCs in the sediments present in concentrations that may cause adverse effects on benthic macroinvertebrate community structure?
- Will uptake of ECOCs by key aquatic receptor species represent doses that may cause adverse effects in growth, survival and reproductive success?

Aquatic Habitat-Measures of Effects

- Compare concentrations of ECOCs in sediments to background levels and ecotoxicity screening values for the protection of aquatic receptors by using the weight of evidence approach
- Compare dose rates of Site-related chemicals ingested in sediment and prey species with toxicity threshold data (NOAELs) for key wildlife receptor species

Terrestrial Habitat-Risk Questions

- Are ECOCs in the surface soils present in concentrations that may cause adverse effects on invertebrate community structure?
- Will uptake of ECOCs by key terrestrial receptor species represent doses that may cause adverse effects in growth, survival and reproductive success?

Terrestrial Habitat-Measures of Effects

- Compare concentrations of ECOCs in soils to direct contact ecotoxicity screening values for the protection of receptors by using the weight of evidence approach
- Compare dose rates of Site-related chemicals ingested in soil and prey species with toxicity threshold data (NOAELs) for key wildlife receptor species

Conclusions

- Site areas of investigation lie within the Housatonic River estuary, a highly productive ecosystem
- Estuarine depositional zones are the primary pathways for energy transfer within this ecosystem
- Sediments serve as sinks for Site constituents, acting as the primary exposure medium

Conclusions

- In general, concentrations of ECOCs in surficial sediments are lower in 1999 compared to 1994
- Specific findings include:
 - Dissolved metals are being exported from the Outfall 008 Drainage during outgoing tides
 - Most PAH ECOCs in the Outfall 008 Drainage and Marine Basin sediments are probably not due to Site discharge
 - No ECOCs are recorded in fish or shellfish at levels higher or equivalent to sediment concentrations

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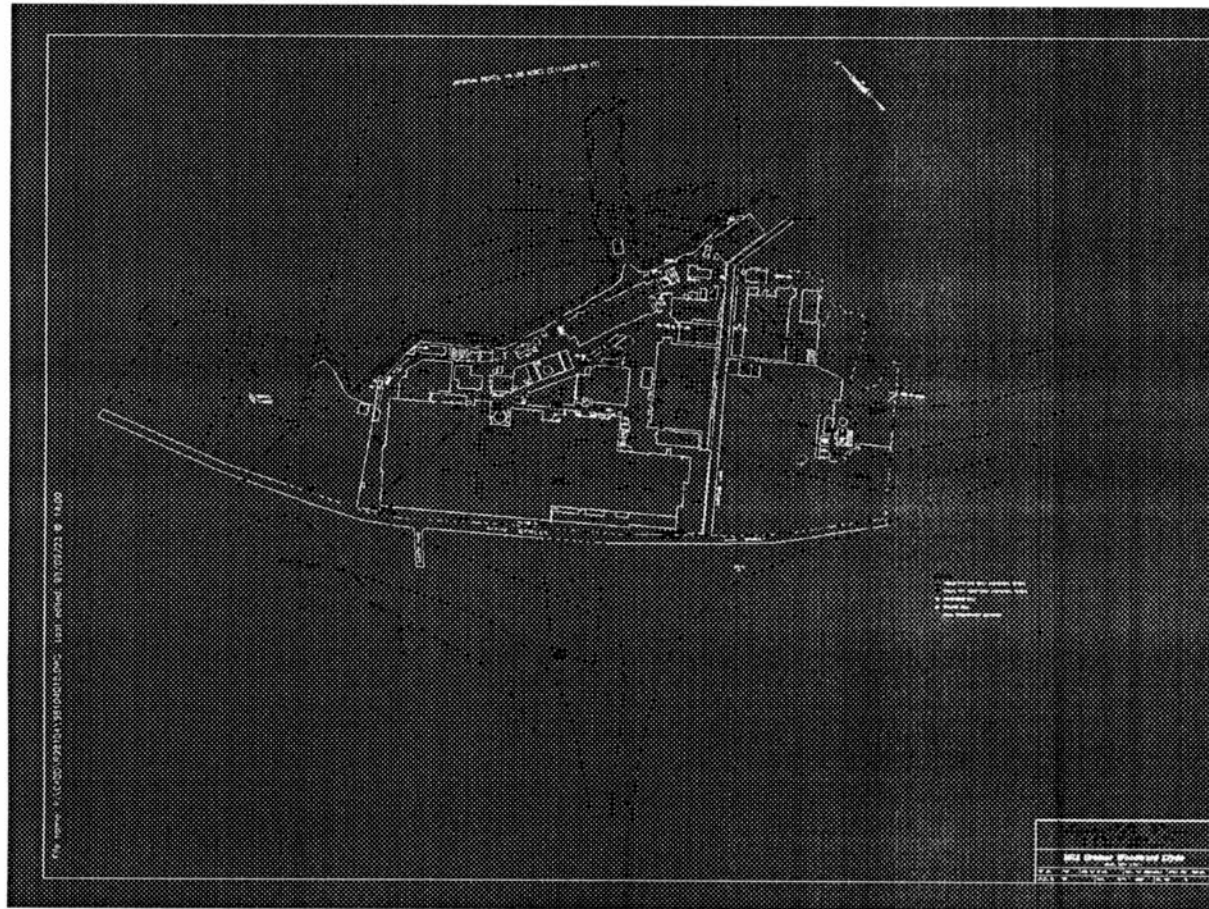
Conclusions

- High ECOC concentrations in surficial Site sediments are not ubiquitous and widespread but do occur at levels which may pose a threat to aquatic communities
- Collectively, data from these environmental media are comprehensive and should be sufficient to assess ecological risk at the Site

Summary of Tidal Study

- A total of 38 monitoring wells and 3 surface water stilling wells monitored during study
- Geostatistical filtering performed on two 72 hour time periods(7/20 through 7/23 and 7/24 through 7/26)
- Mean groundwater elevations from the two filtered time periods were used to construct groundwater elevation contour maps

July 20-July 23, 1999 Mean Groundwater Elevation Contour Map



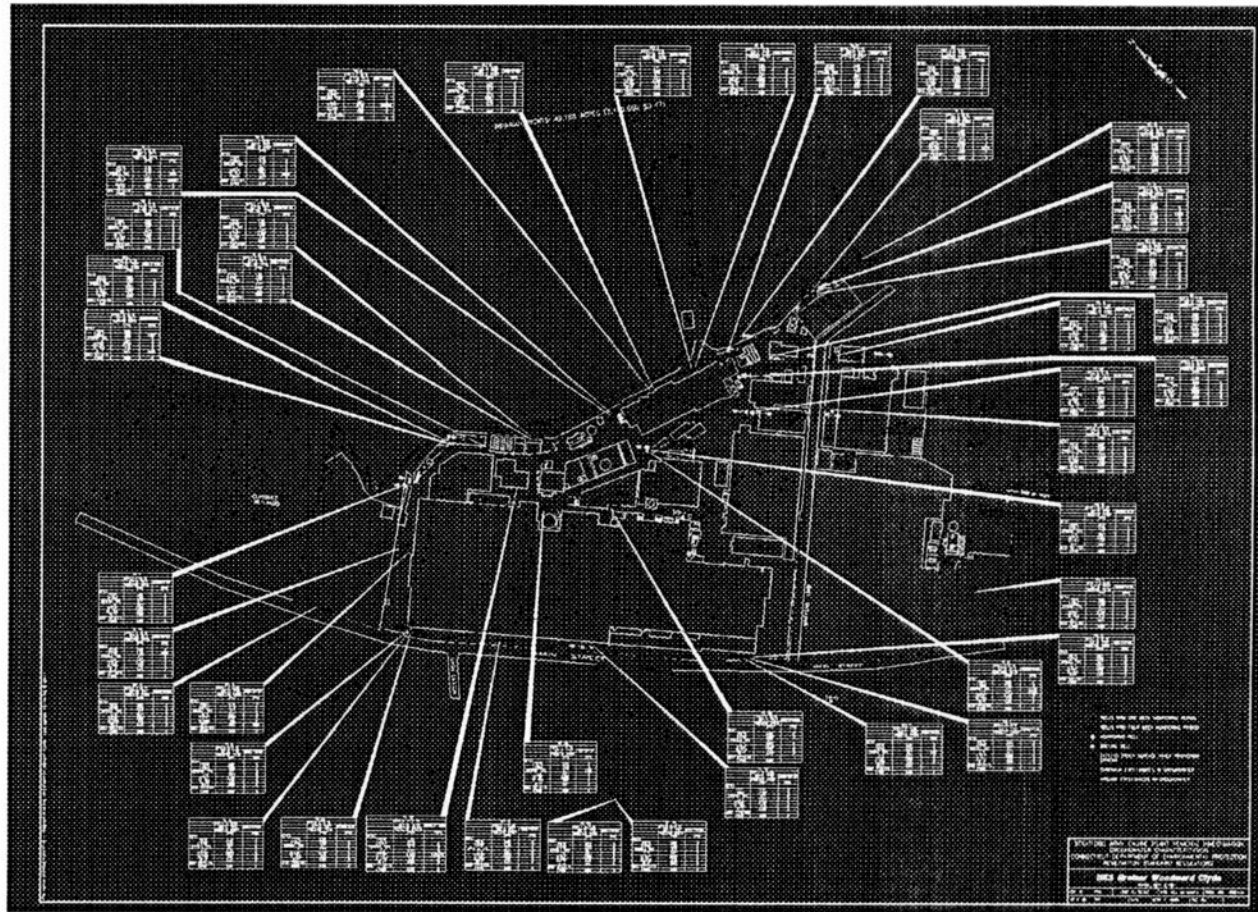
URS Greiner Woodward Clyde

Summary of First Round Monitoring Well Sample Results

METALS

- Arsenic present site-wide at concentrations similar to background for region
- Arsenic, Chromium, and Silver exceed RSR criteria
- Chromium detected in one well near Building 2

Monitoring Well Groundwater Sampling Results - METALS



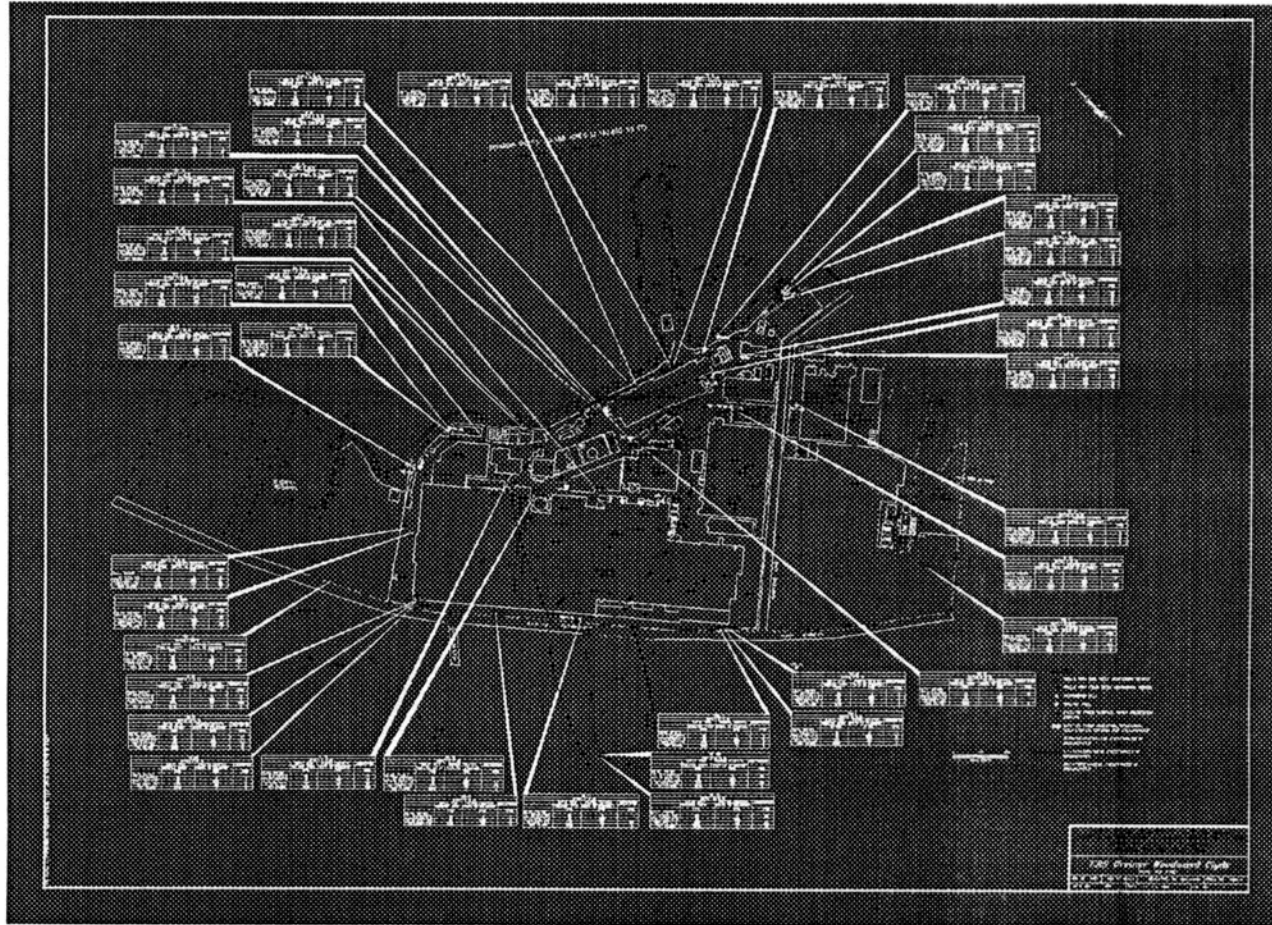
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Summary of First Round Monitoring Well Sample Results

VOLATILE ORGANICS

- Tetrachloroethene, Trichloroethene, and 1,1-Dichloroethene exceed RSR criteria
- Industrial Area - PCE, TCE, and 1,1-DCE
- West Parking Lot - PCE exceeds RSR criteria
- Building 19 - PCE, TCE, and 1,1-DCE exceed RSR criteria

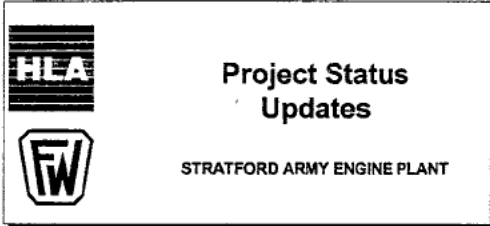
Monitoring Well Groundwater Sampling Results - VOC's



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Future Activities

- Additional Direct Push Groundwater Sampling at Off-Site Locations
- Monitoring Well Installations
- 2nd Round of Groundwater Sampling
- Aquifer Testing



Project Status Updates

STRATFORD ARMY ENGINE PLANT

Harding Lawson Associates
and Foster Wheeler
October 7 1999

HLA/Foster Wheeler Projects at SAEP

- Chromium Plating Facility Investigation
- OU 2 - Groundwater Non-Time Critical Removal Action
- Causeway and Dike Non-Time Critical Removal Action
- Community Relations Support
- Geographic Information System

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OU 2 - Groundwater NCRA

- The OU 2 - Groundwater Non-Time Critical Removal Action (NCRA) contract was issued to Foster Wheeler/Harding Lawson team in early June 1999
- The OU 2 NCRA is designed to continue investigations conducted under the AlliedSignal contract
- The objective of the OU 2 NCRA is to further characterize site conditions and provide a recommended removal action(s) to address VOCs and hexavalent chromium groundwater hotspots

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OU 2 - Groundwater NCRA (cont.)

- Components of the OU 2 NCRA include:
 - Work Plans (Final issued on 27 August 99)
 - Evaluation of Treatment Technologies and Bench-Scale Testing Memorandum (issued on 30 July 99)
 - Additional Field Investigations:
 - Soil Vapor Survey to evaluate potential impacts of VOCs in groundwater on indoor air quality
 - Soil Bonngs in areas of high VOC and hexavalent chromium contamination in Chromium Plating Facility

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OU 2 - Groundwater NCRA (cont.)

- Additional Field Investigations (cont.)
 - Bench-Scale Tests on contaminated soil/groundwater to evaluate potential soil/groundwater contaminant in-situ removal alternatives
 - Installation of extraction well and piezometers for Aquifer Tests
 - Aquifer Tests to assess hydraulic properties of the aquifer for proposed future Pilot Tests
 - Seismic Survey to assess bedrock depths and their potential impacts on VOC migration in groundwater

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OU 2 - Groundwater NCRA (cont.)

- Pre-Design Investigation Report
 - Draft scheduled to be issued in late October 1999
 - To include all data collected under AlliedSignal contract from August 1998 through May 1999
 - Aquifer Test results
 - Soil gas results
 - Seismic Survey results

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OU 2 - Groundwater NCRA (cont.)

- **EE/CA Treatability Work Plan Letter**
 - Documents the proposed process for pilot-scale testing at the former Chromium Plating Facility (issued as draft to regulatory agencies 27September99)

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OU 2 - Groundwater NCRA (cont.)

- **Pilot Testing of Removal Technologies to be conducted in late October/November 1999**
- **EE/CA Report and Action Memorandum to be prepared following Pilot Testing**
- **Design (Spring 2000)**
- **Construction (Summer/Fall 2000)**

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OU 2 - Groundwater Results

- **Soil gas results**
- **Indoor air monitoring results**
- **Aquifer test**
- **Bench-scale treatability tests**

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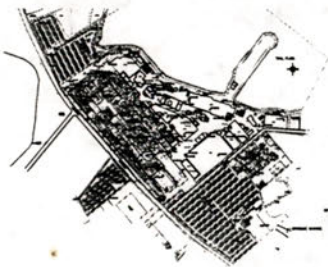
Soil Gas Results

- Soil gas sampling conducted during first two weeks in August 1999
- Soil gas exceedances of RSR criteria detected in 12 location generally in center of site

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Soil Gas Sampling Locations



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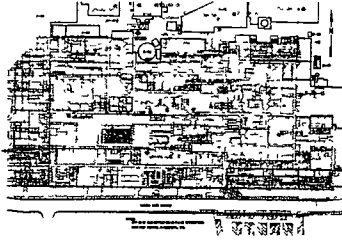
Indoor Air Monitoring Results

- Exceedance of RSR indoor air criteria detected in both indoor air and background results (collected outdoors)
- Exceedances detected for TCE, 1,1-DCE, vinyl chloride at levels of up to 50 times RSR criteria
- Second round of sampling conducted 22 September 99
- Waiting for results from second round

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Indoor Air



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Indoor Air Monitoring Results

Compound	11-99-01		11-99-02		11-99-03		11-99-04		11-99-05	
	ESIC	mpa	ESIC	mpa	ESIC	mpa	ESIC	mpa	ESIC	mpa
Vinyl chloride	0.019	0.016	0.025	0.039	0.021 U	0.039	0.022 U	0.022 U	0.039	0.039
1,1-Dichloroethane	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
1,1,1-Trichloroethane	0.26	0.25	1.0	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Tetrachloroethane	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Trichloroethene	1.61	0.25	0.31	0.31	0.31 U	0.31	1.10	1.10	0.46 U	0.46 U

Compound	11-99-01		11-99-02	
	ESIC	mpa	ESIC	mpa
Vinyl chloride	0.019	0.19 U	0.025	0.039
1,1-Dichloroethane	0.02	0.19 U	0.02	0.17 U
1,1,1-Trichloroethane	0.26	2.1 U	1.0	1.9 U
Tetrachloroethane	0.92	0.92	0.92	0.92
Trichloroethene	1.61	1.90 U	0.31	1.79 U

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Aquifer Test Results

- Aquifer test conducted on 30 August 99 to 2 September 99
- Extraction well pumped at 10 gpm for 48 hours
- Drawdown of 10 feet achieved in pumping well
- Drawdown of less than 0.1 foot in observation wells

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Aquifer Test Results (cont.)

- Preliminary estimates of hydraulic conductivity of pumped zone is between 10 and 100 ft/dy
- Vertical/horizontal anisotropy provides for limited contribution of shallow groundwater to deeper zones

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Bench-Scale Test Results

- Bench-Scale treatability tests conducted August 1999
- Tested ferrous sulfate as reducing agent for Cr VI
- Tested hydrogen peroxide and KMnO4 as oxidizing agent for VOCs
- Different dosages and pH levels tested

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Bench Scale test Results (cont.)

- Ferrous Sulfate effective at reducing Cr VI concentrations at dosage rate of two times stoichiometric ratio
- pH less than 3.0 yielded best results

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Chromium VI Bench-Scale Test Results

Test Area	Treatment Solution	Ferrous Sulfate Concentration - Multiple of Stoichiometric Dosage	Hexavalent Chromium (mg/L or mg/kg)
Hexavalent Chromium	Pre-test water ¹	NA	450
	Pre-test soil	NA	151
	Field test	0.3	290
	Field test	0.7	100
	Field test	1.3	100
	Field test	2.0	<0.1
	Field test	0.3	320
	Field test	0.3	350
	Field test	0.3	500
	Field test	1.3	80
	Field test	2.0	<0.1
	Field test	2.7	<0.1
	Post-test water	2.0	<0.1

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November 6, 2001

Bench-Scale Test Results (cont).

- Neither H₂O₂ nor KMnO₄ effective at oxidizing 1,1,1,-TCA
- H₂O₂ reduced concentration of TCE to below RSR Criteria at 7 times stoichiometric ratio
- KMnO₄ reduced concentration of TCE to below RSR Criteria at 1.5 times stoichiometric ratio

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November 6, 2001

TCE Bench-Scale Test Results

Test Area	Treatment Solution	Multiple of Stoichiometric Dosage	TCE (ug/L)
TCE Area	Pre-test water ¹	NA	130000
	Pre-test soil	NA	100000
	Potassium Perm.	0	120000
	Potassium Perm.	0.5	420
	Potassium Perm.	1.0	<5
	Potassium Perm.	1.5	<5
	Potassium Perm.	2.0	<3.1
	Potassium Perm.	4.0	0.39J
	Hydrogen Perox.	0	110000
	Hydrogen Perox.	1.0	22000
	Hydrogen Perox.	2.0	2800
	Hydrogen Perox.	4.0	2300
	Hydrogen Perox.	7.0	300
	Hydrogen Perox.	10.0	70

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November 6, 2001

1,1,1-TCA Bench-Scale Test Results

Test Area	Treatment Solution	Multiple of Stoichiometric Dosage	TCA (ug/L)
1, 1, 1-TCA Area	Pre-test water	NA	34000
	Pre-test soil	NA	<140
	Potassium Perm.	0	13000
	Potassium Perm.	1.0	12000
	Potassium Perm.	1.5	12000
	Potassium Perm.	2.0	13000
	Potassium Perm.	4.0	14000
	Potassium Perm.	8.0	12000
	Hydrogen Perox.	0	11000
	Hydrogen Perox.	1.0	11000
	Hydrogen Perox.	2.0	13000
	Hydrogen Perox.	4.0	12000
	Hydrogen Perox.	7.0	11000
	Hydrogen Perox.	10.0	9800

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Causeway and Dike NCRA

- The Causeway and Dike Non-Time Critical Removal Action (NCRA) contract was issued to Foster Wheeler (Boston, MA) and HLA in late June 1999
- The objectives of the Causeway and Dike NCRA are:
 - Perform field investigations to characterize physical and chemical subsurface conditions on the Causeway and Dike
 - Summarize the results of the field investigations in a Pre-Design Investigation Report
 - Document the decision process for selection of a potential removal process in an EE/CA and a Removal Action Memorandum (RAM)

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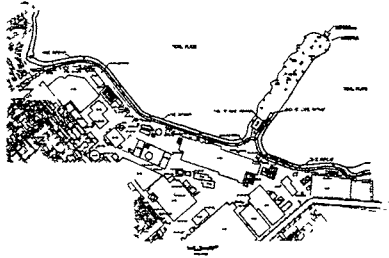
Causeway and Dike NCRA (cont.)

- Components of the Causeway and Dike NCRA include:
 - Work Plans (Final issued on 20 September 1999)
 - Field Investigations:
 - Geophysical Surveys to assist in characterizing subsurface conditions, and evaluate potential subsurface drilling obstructions
 - 22 soil borings/test pits on the Causeway to assess potential subsurface contamination; CTDEP on-site to collect subsurface soil samples for radiological analyses

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Causeway and Dike Sampling



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Causeway and Dike NCRA (cont.)

- **Field Investigations (cont.):**
 - 18 soil borings and 9 hand auger borings on the Dike to assess potential subsurface soil contamination

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Causeway and Dike NCRA (cont.)

- **Pre-Design investigation Report (Fall 1999)**
- **EE/CA Report and Action Memorandum (Winter 1999)**
- **Design (Winter/Spring 2000)**
- **Construction (Summer/Fall 2000)**

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Causeway and Dike Results

- Radiological contamination detected in two small areas near end of Causeway
- Some petroleum odors observed in Causeway sample locations
- Solvent and petroleum odors observed in some Dike sample locations
- Chemical results from sampling due in October 1999

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Community Relations Support

- Final Community Relations Plan completed
- On-Site Community Relations Support being provided by Dottie Bossio in Community Outreach Office
- Next newsletter planned for issue in November 1999

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10/27/99

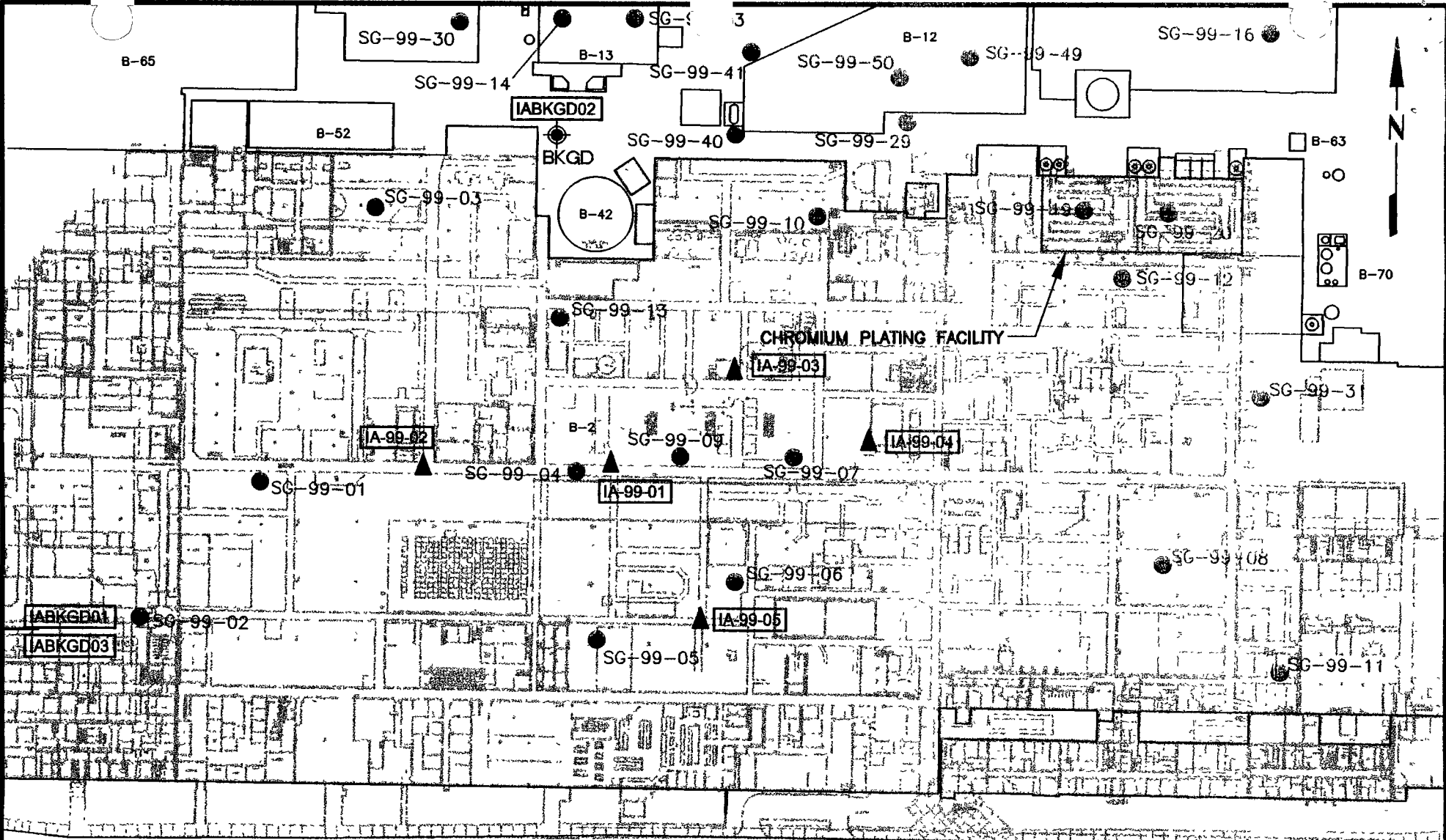
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GIS System

- Placement of chemical and physical information in GIS database,
- Maintenance of database
- Contract award for update of system in September 1999

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
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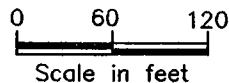


SOUTH MAIN STREET

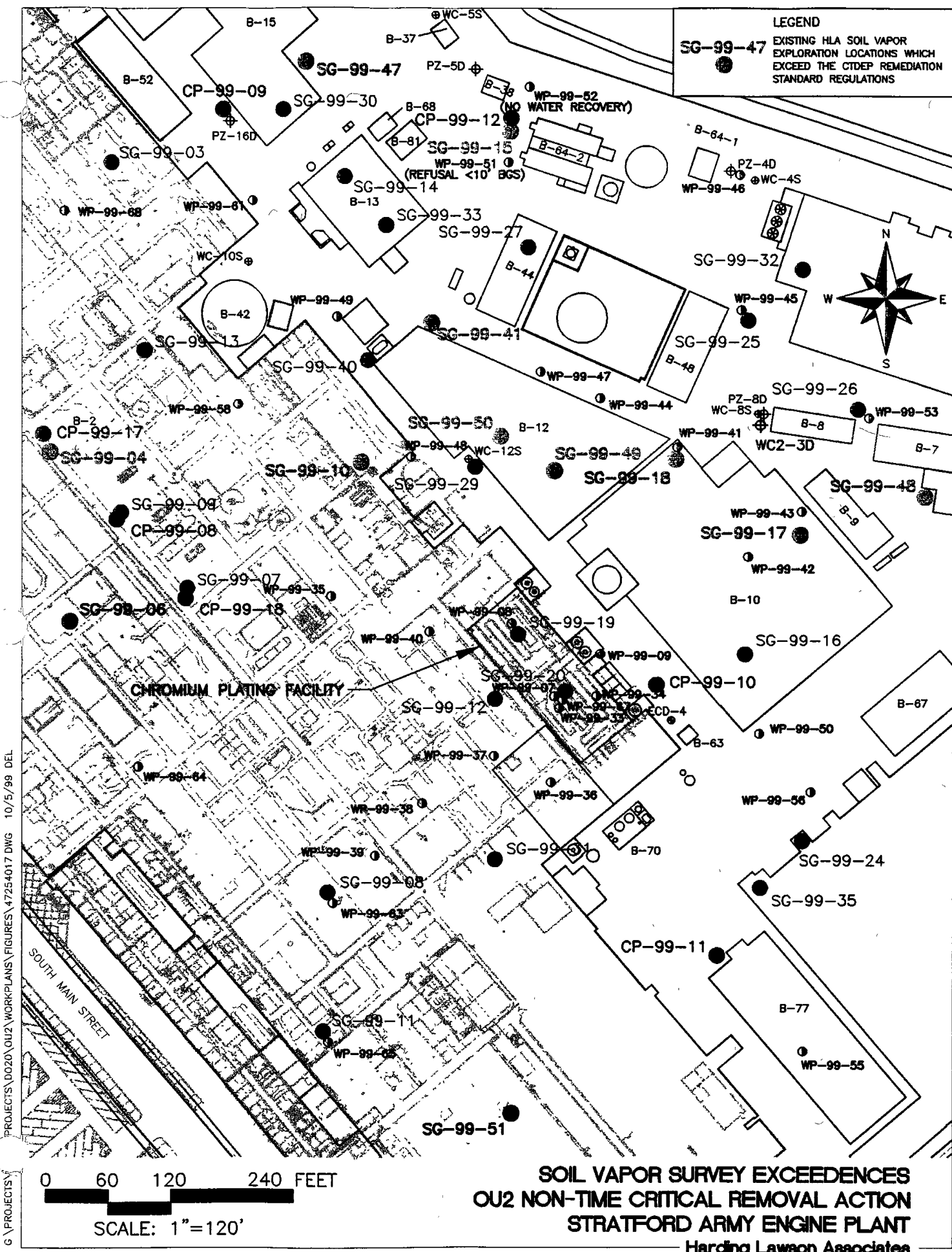
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1. MAP IS IN CONNECTICUT STATE PLANE COORDINATES.
 2. BASE MAP SOURCE, ALLIEDSIGNAL, INC.

LEGEND

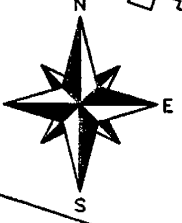
-  PROPOSED INDOOR AIR QUALITY SAMPLING LOCATION
-  PROPOSED BACKGROUND AIR QUALITY SAMPLING LOCATION
-  EXISTING HLA SOIL VAPOR EXPLORATION LOCATIONS
-  BUILDING DESIGNATIONS



**INDOOR AIR QUALITY SAMPLING LOCATIONS
BUILDING B-2
STRATFORD ARMY ENGINE PLANT
STRATFORD, CONNECTICUT
Harding Lawson Associates**



LEGEND
 ● SG-99-47 EXISTING HLA SOIL VAPOR EXPLORATION LOCATIONS WHICH EXCEED THE CTDEP REMEDIATION STANDARD REGULATIONS



CHROMIUM PLATING FACILITY

0 60 120 240 FEET
 SCALE: 1"=120'

SOIL VAPOR SURVEY EXCEEDENCES
O2 NON-TIME CRITICAL REMOVAL ACTION
STRATFORD ARMY ENGINE PLANT
 Harding Lawson Associates

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STRATFORD ARMY ENGINE PLANT
GROUNDWATER MODEL

STRATFORD, CONNECTICUT



US Army Corps of Engineers
New England District



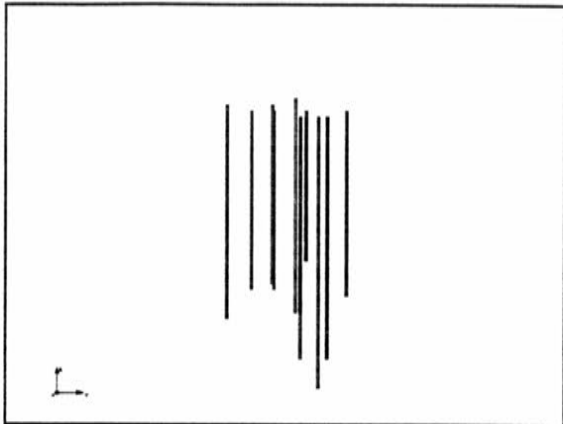
Presentation By *Phil Durgin & Kevin Anderson*

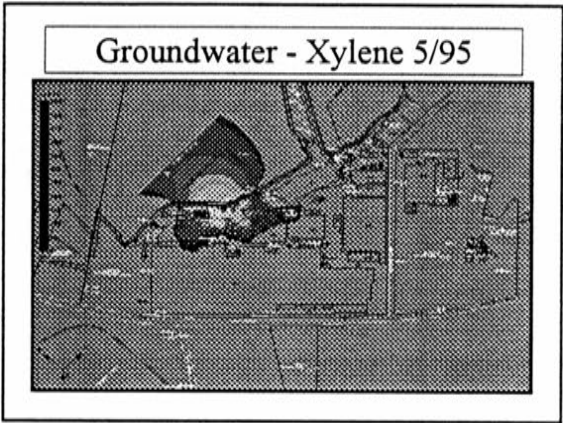
Types of Groundwater Models

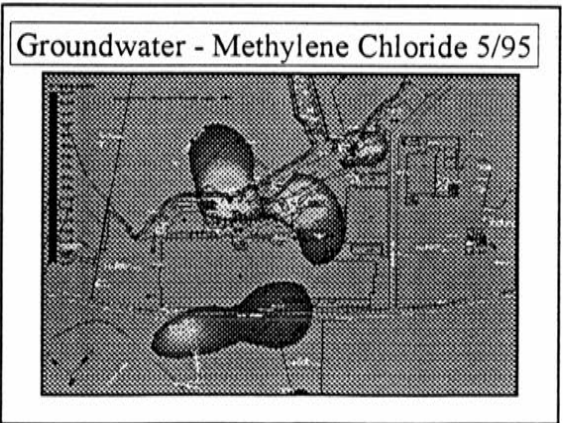
- DESCRIPTIVE
 - 2D Model (plan view/cross section)
 - 3D Model
- PREDICTIVE
 - MODFLOW - groundwater flow
 - MODPATH - particle tracking
 - MT3D - contaminant transport
 - RT3D - biodegradation of contaminants

About GMS

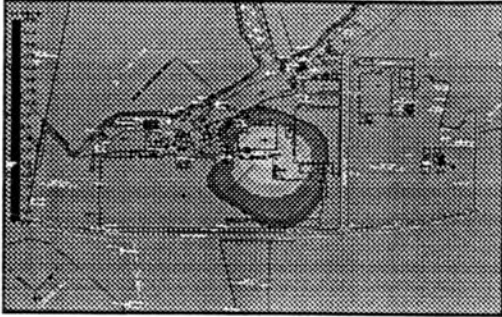
- Development funded by DOD, DOE, EPA
- Free to government agencies and their on-site contractors
- Supports several modeling programs (MODFLOW, FEMWATER, Modpath, MT3D, RT3D, Seep2D) and ancillary modules (map, scatter point, tn) on one platform, enabling user to move between modules with ease



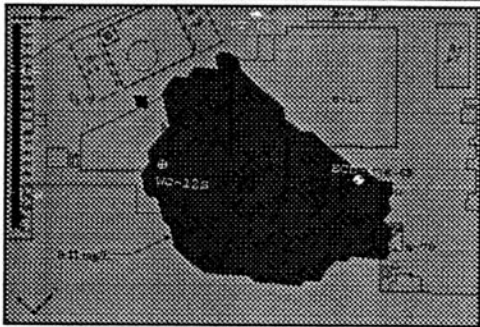




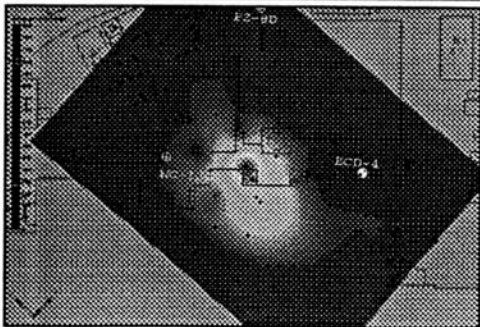
Groundwater - Chromium* 5/95



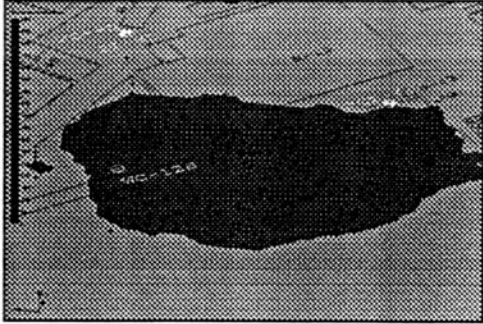
Groundwater - Cr (VI)



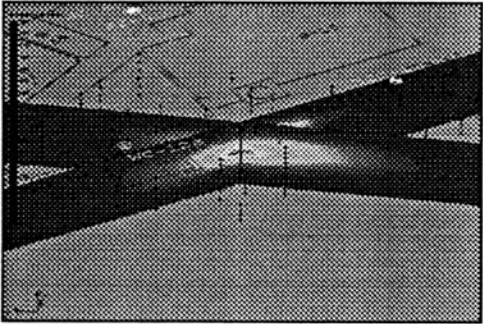
Groundwater - Cr (VI)



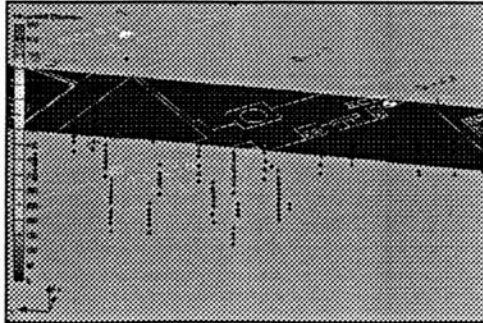
Groundwater - Cr (VI)



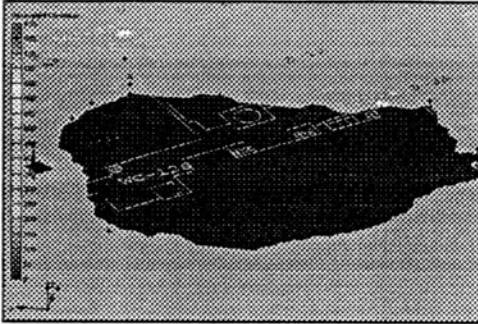
Groundwater - Cr (VI)



Groundwater - Cr (VI)



Groundwater - Cr (VI)

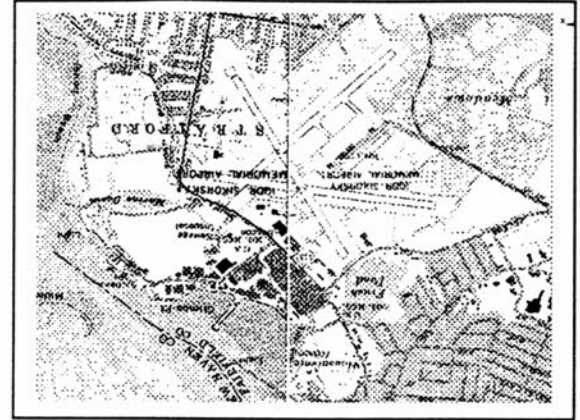


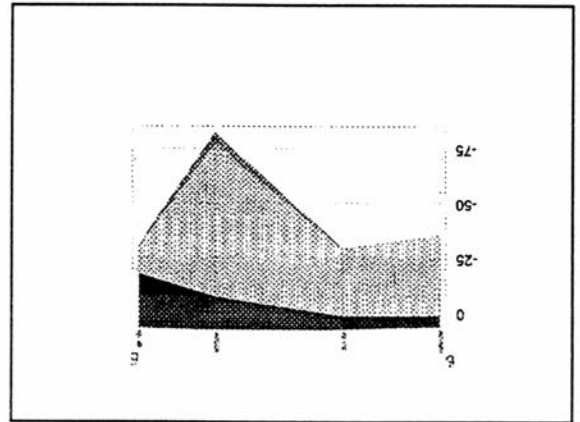
MODFLOW

- Finite Difference
- Grid
- Models only the saturated zone.
- Ground surface elevation doesn't matter; keys into elevation of bottom of layer 1.

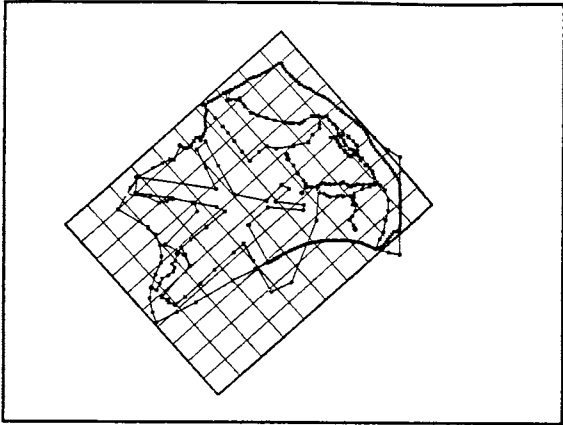
OMYJX174 NEEDS

DESCRIPTION	INFORMATION		
	APR 1994	SEP 1994	NOV 1994
Geography	X	X	X
Boundary	X	X	X
Initial			
Material			
Units			
Time			
Flowing	X	X	X
Grid	X	X	X
Original	X	X	X
Boundary	X	X	X
Analysis			
Boundary	X	X	X
Flow	X	X	X
Concentration	X	X	X
Time	X	X	X
Concentration	X	X	X










US Army Corps of Engineers
 New England District
 Stratford Army Engine Plant
 Groundwater Model

T-100	Transmittal letter to Stratford Army Engine Plant	November	Approved
A-100	Final Report	December	Completed
B-100	Final Report	December	Completed
C-100	Final Report	December	Completed
D-100	Final Report	December	Completed
E-100	Final Report	December	Completed
F-100	Final Report	December	Completed
G-100	Final Report	December	Completed
H-100	Final Report	December	Completed
I-100	Final Report	December	Completed
J-100	Final Report	December	Completed
K-100	Final Report	December	Completed
L-100	Final Report	December	Completed
M-100	Final Report	December	Completed
N-100	Final Report	December	Completed
O-100	Final Report	December	Completed
P-100	Final Report	December	Completed
Q-100	Final Report	December	Completed
R-100	Final Report	December	Completed
S-100	Final Report	December	Completed
T-100	Final Report	December	Completed



US Army Corps of Engineers
 New England District

The End

STRATFORD ARMY ENGINE PLANT
 Groundwater Model
 7 October 1999
 Phil Durgin & Kevin Andersen
