

OU #09-126

**Phoenix-Goodyear Airport (PGA) Area/Western Avenue Plume
Community Advisory Group (CAG) Meeting**

**Thursday, May 7, 2009 at 6:30 p.m.
Avondale City Hall, Mojave Room
11465 W. Civic Center Drive, Avondale, AZ 85323**

FINAL MINUTES

CAG Members in Attendance:

Susan Kagan
Diane Krone
Robert (Bob) Smith
Thomas H. Jones
David Foltz
Brenda Holland
Frank Scott

ADEQ Staff in Attendance:

André Chiaradia, Western Avenue Project Manager
Felicia Calderon, Community Involvement Coordinator
Julie Riemenschneider, Remedial Projects Section
Manager
Jennifer Edwards Thies, Remedial Projects Unit
Manager
Harry Hendler, Federal Projects Unit Manager
Bob Peeples, Hydrologist

EPA Staff in Attendance:

Mary Aycock, PGA-North Project Manager
Viola Cooper, Community Involvement Coordinator

Others in Attendance:

Kirk Craig, AMEC Geomatrix
Ron Clark, Goodyear Tire & Rubber Co.
David Iwanski, City of Goodyear
Nancy Nesky, ITSI
Larry Friend, ITSI
Lisa Amos, Maricopa Flood Control District
Chad Baker, Squire Sanders & Dempsey L.L.P
Mary Moore, London Park Neighborhood
Association
Rebecca Godley, City of Phoenix
Tom Suriano, Clear Creek Associates
Phil Whitmore, CH2MHIL

1. Call to Order / Introductions – Diane Krone

Ms. Krone, CAG Co-chair, facilitated the meeting. CAG members and all meeting attendees introduced themselves.

2. Update of PGA North activities – C. Kirk Craig, P.E. Senior Engineer, AMEC Geomatrix

Mr. Craig initiated his presentation to the CAG with a remediation review of the PGA North Site. Mr. Craig continued his presentation with details of the PGA North Site that included updates on the groundwater plume and investigation, existing treatment systems, data on an innovative in-situ groundwater treatment for nano-scale zero valent iron (NZVI), and ongoing building demolition activities.

See slide presentation below

Ms. Krone questioned the location of the new monitoring wells to be installed. In response Mr. Craig stated that the new monitoring wells would be installed in the northeast and southern portion of the plume, but the primary focus for installs would be in the northeast region.

Mr. Smith inquired what the plume contaminant measurements were for trichloroethene (TCE) before remediation and currently. Mr. Craig responded that towards the source of the plume TCE measured in parts per billion (ppb) were still in the thousands, but that containment levels have dropped significantly since remediation began.

Mr. Krone asked if the plume was contained. Mr. Craig responded that immediate efforts were being made to install extraction wells to prevent further contamination from spreading to the east. Ms. Aycock added that the plume is now going east instead of northeast as previously speculated. Ms. Holland expressed concern over an installation timeline of the extraction wells due to the approaching summer and elevated water demands from areas such as the City of Avondale.

3. Update of PGA South activities – Ron Clark, Goodyear Tire & Rubber Company

Mr. Clark greeted the CAG and announced that he would no longer be the Goodyear Project Manager for PGA South and that Mr. Jeffery A. Sussman would be his replacement. Mr. Clark proceeded to review current, ongoing and projected remedial activities for PGA South.

See slide presentation below

Ms. Aycock expressed her gratitude for Mr. Clark's time and service on the PGA South project.

4. Update on Western Avenue (WA) WQARF Site activities– André Chiaradia, ADEQ Project Manager

Mr. Chiaradia reported on and distributed to the CAG the finalized Remedial Investigation (RI) Report. Mr. Chiaradia also advised all attendees instructions on how to obtain a copy of the final RI Report. In addition Mr. Chiaradia highlighted particular components and studies compiled in the RI Report and the next WQARF remediation steps after the Report.

See slide presentation below

Ms. Krone inquired on future activities planned for the site. In regards to future activities of the site, Mr. Chiaradia stated that currently the State was still trying to interpret recent and ongoing ADEQ budget cuts, but that continued well monitoring would be necessary, especially with regards to City of Goodyear (COG #1) well.

Ms. Kagan inquired of the availability of emergency funds for the site in lieu of the current State budget shortfalls. Mr. Chiaradia added that particular public and environmental health obligations would not be negated and that funding would be available to respond to critical situations.

Mr. Chiaradia discussed with Ms. Krone the low possibility of well conduits bringing contaminates to a deeper aquifer.

5. Brownsfields Redevelopment Project Presentation-Jeff Littell, Brown and Caldwell

Mr. Littell presented an overview on the Goodyear Brownsfields Supplemental Environmental Project.

See slide presentation below

Ms. Holland confirmed with Mr. Littell that out of 300 locations identified as possible Brownsfields Supplemental Environmental Project locations only approximately 150 sites were

eligible in the City of Goodyear. Mr. Littell named The Phoenix Trotting Track in Goodyear as a possible future Brownsfields Supplemental Environmental Project.

Ms. Krone questioned the current Goodyear Brownfields Redevelopment Project and its required timeline for activity. Mr. Iwanski replied that additional negotiations of terms were required for the Brownsfields Supplemental Environmental Project, which partly contributed to the almost twelve month delay of activities, but that these setbacks should not jeopardize any desired outcomes. Mr. Iwanski added that Brownfields Citizens Committee's next meeting was scheduled for May 28, 2009.

6. City of Goodyear report – David Iwanski, COG Water Department

Mr. Iwanski reported that the City continues to work with all the stakeholders and agencies on the PGA North, PGA South and the Western Avenue WQARF sites. Mr. Iwanski also reported that staff at the Public Works and Resources Building is working on preparing a reclaim ordinance in order to take full advantage of reclaimed remediated groundwater from the their Superfund sites for non-potable beneficial reuse. Mr. Iwanski also expressed his anticipation of the revegetation and redevelopment at the building demolition project site being conducted at PGA North.

Ms. Aycock presented to the CAG, and intended specifically for Mr. Smith, a framed directory sign. This sign was recovered from Mr. Smith's former place of occupation at one of the buildings set to be demolished as part of the building demolition project at PGA North.

7. *Call to the Public

Ms. Moore inquired of Mr. Chiaradia what statistical program he uses to define the groundwater contaminant concentration trends in his reports. In response Mr. Chiaradia stated he uses groundwater graphs. In addition Mr. Chiaradia stated the difficulty of monitoring these wells in the areas where large quantities of groundwater is being pulled out as a result of the treatment systems.

Ms. Aycock discussed some aspects of the vapor intrusion study performed at PGA South with Ms. Moore.

The CAG took a 10-minute break.

8. Discussion and vote of CAG appreciation letter to ARCADIS-Susan Kagan, Co-Chair

Ms. Kagan distributed to the CAG for review a draft letter of appreciation on behalf of the CAG for Rob Mongrain and Harry Brenton from ARCADIS. Mr. Smith requested the line in the letter "and hope that you will forward our comments to them" to be omitted. Ms. Aycock also noted to add an "e" at the end of Mr. Mongrain(e)'s last name in the letter. Ms. Kagan requested a motion to accept the letter as final with the specified corrections made. Mr. Jones made a motion and Ms. Krone seconded. The motion was passed unanimously by the CAG.

9. Acceptance and/or changes to minutes of August 7, 2008, November 6, 2008, and February 5, 2009.

Ms. Holland made a motion to accept the minutes from all three CAB meetings as written. It was seconded by Ms. Kagan. The minutes were approved unanimously by the Board.

10. CAG membership discussion and voting

Ms. Calderon distributed to the CAG a handout titled “Community Outreach Tips and Event Ideas” for the CAG to review as potential CAG recruitment ideas. In addition Ms. Calderon presented an example index-sized flier, completed by another Community Advisory Board (CAB), as a template for CAG recruitment. Ms. Calderon urged the CAG to consider these CAG recruitment ideas for possible future actions to be implemented by the CAG.

Mr. Jones requested a motion to retain the current co-chairs, Susan Kagan and Diane Krone. Ms. Holland made the motion, and Mr. Foltz seconded. The motion then passed unanimously by the CAB.

11. Future meeting and agenda items discussion

The next meeting was scheduled for Thursday, August 6, 2009 at the Goodyear City Hall, room 117, 190 N. Litchfield, Goodyear, AZ. Suggested agenda topics for the next CAG meeting included: updates on PGA North, PGA South, and Western Avenue activities; Brownfields Redevelopment Project update; and construction and review of letter of appreciation to Cathy O’Connell at ADEQ.

13. Adjournment

Ms. Krone adjourned the meeting.

Phoenix-Goodyear Airport-North (PGA-North) Superfund Site

Kirk Craig, P.E.

AMEC Geomatrix, Inc., Scottsdale, AZ



Update for PGA-North



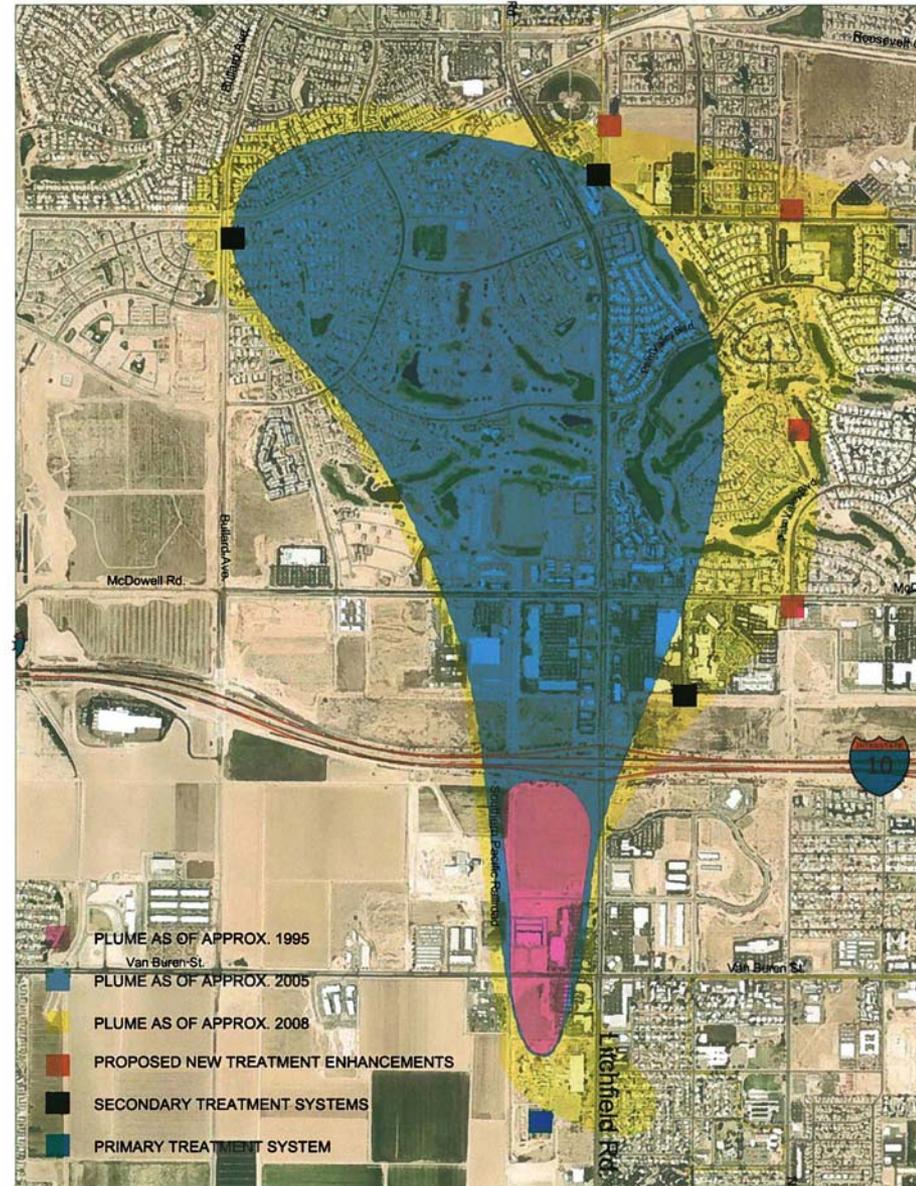
- The Groundwater Plume
- Groundwater Investigation
- Existing Treatment Systems
- Innovative Groundwater Treatment
- Building Demolition



The Groundwater Plume

- Pink** – Approx. Plume in 1995.
- Blue** – Approx. Plume in 2005.
- Yellow** – Approx. Plume in 2008.

What Happened?



Groundwater Investigation



- 15 Monitor Wells installed in Year One of the Groundwater Investigation (Feb. 2006 – Oct. 2007)

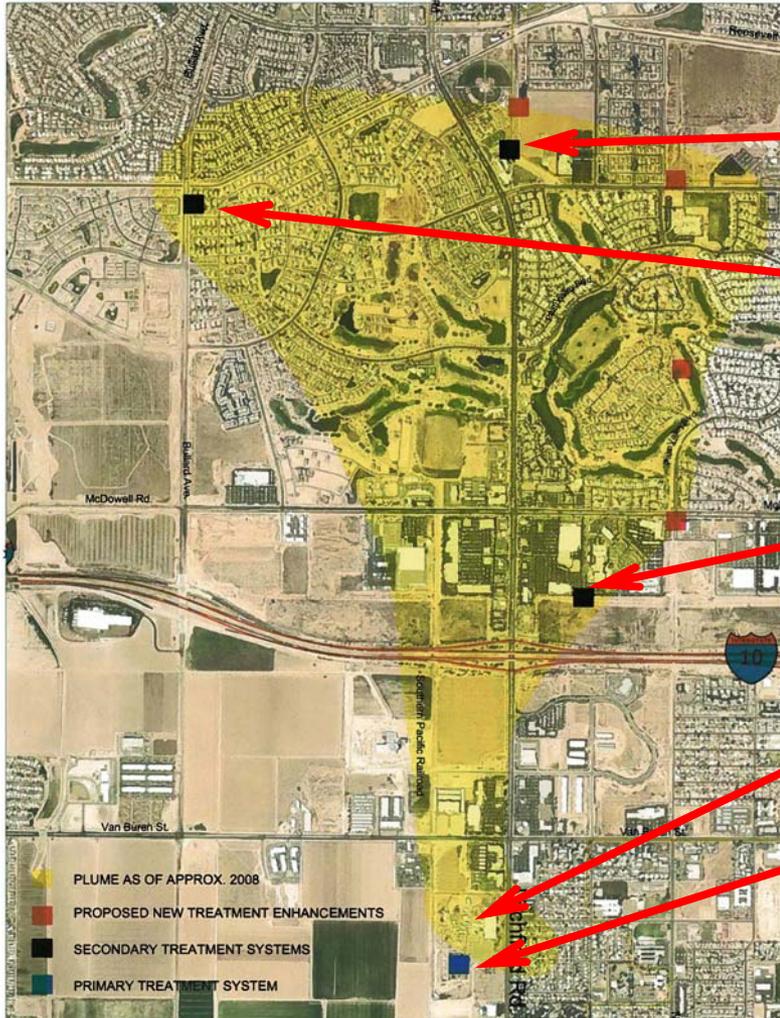
- Eleven Monitor Wells installed in Year Two of the Groundwater Investigation (Oct. 2007 - April 2009)

- Eleven Monitor Wells Anticipated for Year Three of the Groundwater Investigation

- Groundwater Monitoring
 - 62 monitoring wells
 - 14 production wells
 - 10 remediation extraction wells
 - 1 golf course lake and waterfall



Existing Treatment Systems



EA-06 Groundwater Treatment System

33A Groundwater Treatment System

EA-05 Groundwater Treatment System

Soil Vapor Extraction System

Main Groundwater Treatment System

Groundwater Treatment Systems



MTS



Main Treatment System

- Built in 1994
- 7 Ext. Wells, 6 Inj. Wells
- 600 GPM
- Volume of Water Treated
 - > 6.25 billion gallons
- Mass Contaminant removed
 - ~ 28,500 pounds

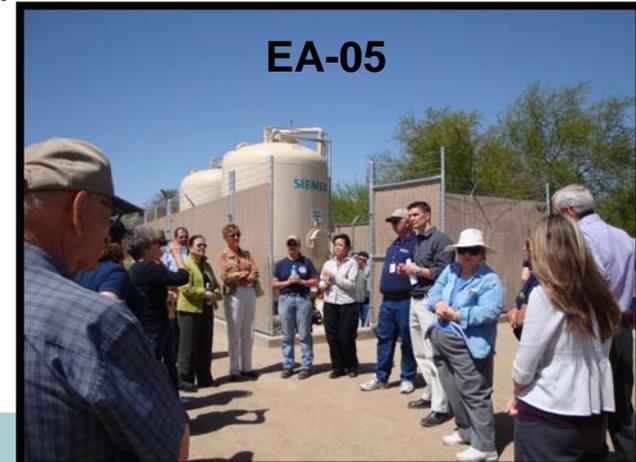
33A



EA-06



EA-05



Groundwater Treatment Systems



MTS



33A

- Operating Since 1997
- 1 Ext Well, clean water to RID Canal
- 750 GPM
- Volume of Water Treated
 - >4.3 Billion Gallons
- Mass Contaminant removed
 - ~ 7,720 pounds

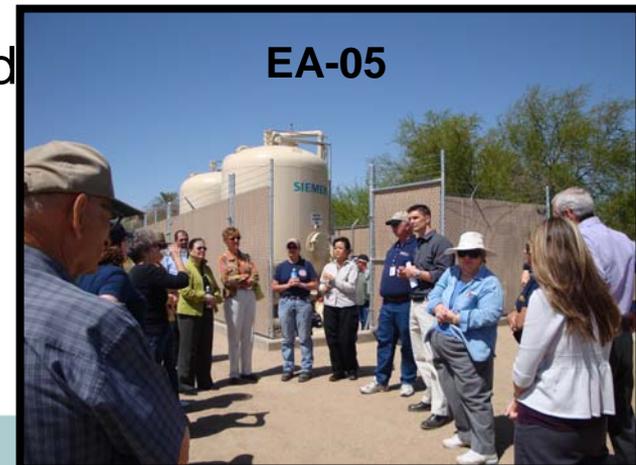
33A



EA-06



EA-05



Groundwater Treatment Systems



MTS



EA-05

- Operating Since March 2008
- 1 Ext. Well, 1 Inj. Well
- 500 GPM
- Volume of Water Treated
 - 200 million gallons
- Mass Contaminant removed
 - ~ 70 pounds

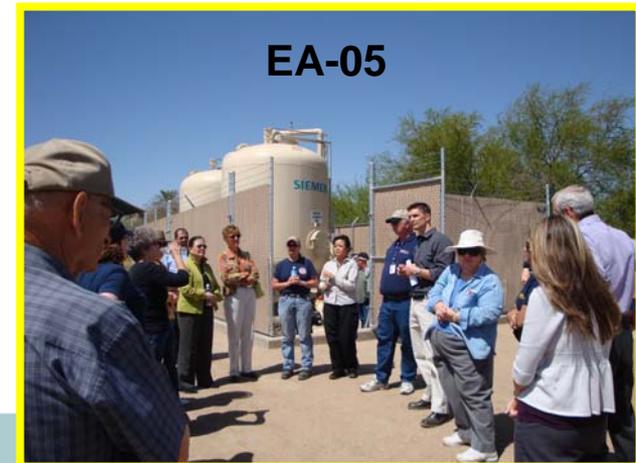
33A



EA-06



EA-05



Groundwater Treatment Systems



MTS



EA-06

- Operating Since Jan. 2008
- 1 Ext Well, clean water to RID Canal
- 550 GPM
- Volume of Water Treated
 - ~ 220 Million Gallons
- Mass Contaminant removed
 - ~ 168 pounds

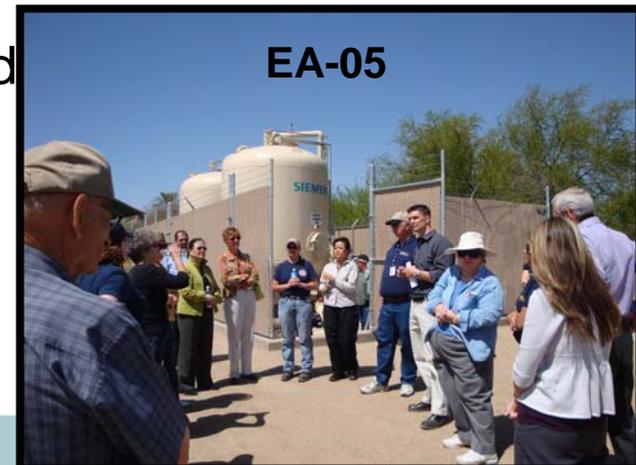
33A



EA-06



EA-05



Soil Vapor Extraction



- Extraction and treatment of volatile organic compounds from the on-site soils
- Originally installed in 1996 Restarted in 2004
- Results of upcoming Soil Gas Investigation
- May result in modifications to increase capacity

- Carbon filters for vapor treatment
- 9 - Vapor Extraction wells
- 15 - Vapor Monitor wells
- >12,000 lbs of contaminants removed



Innovative In-Situ Groundwater Treatment



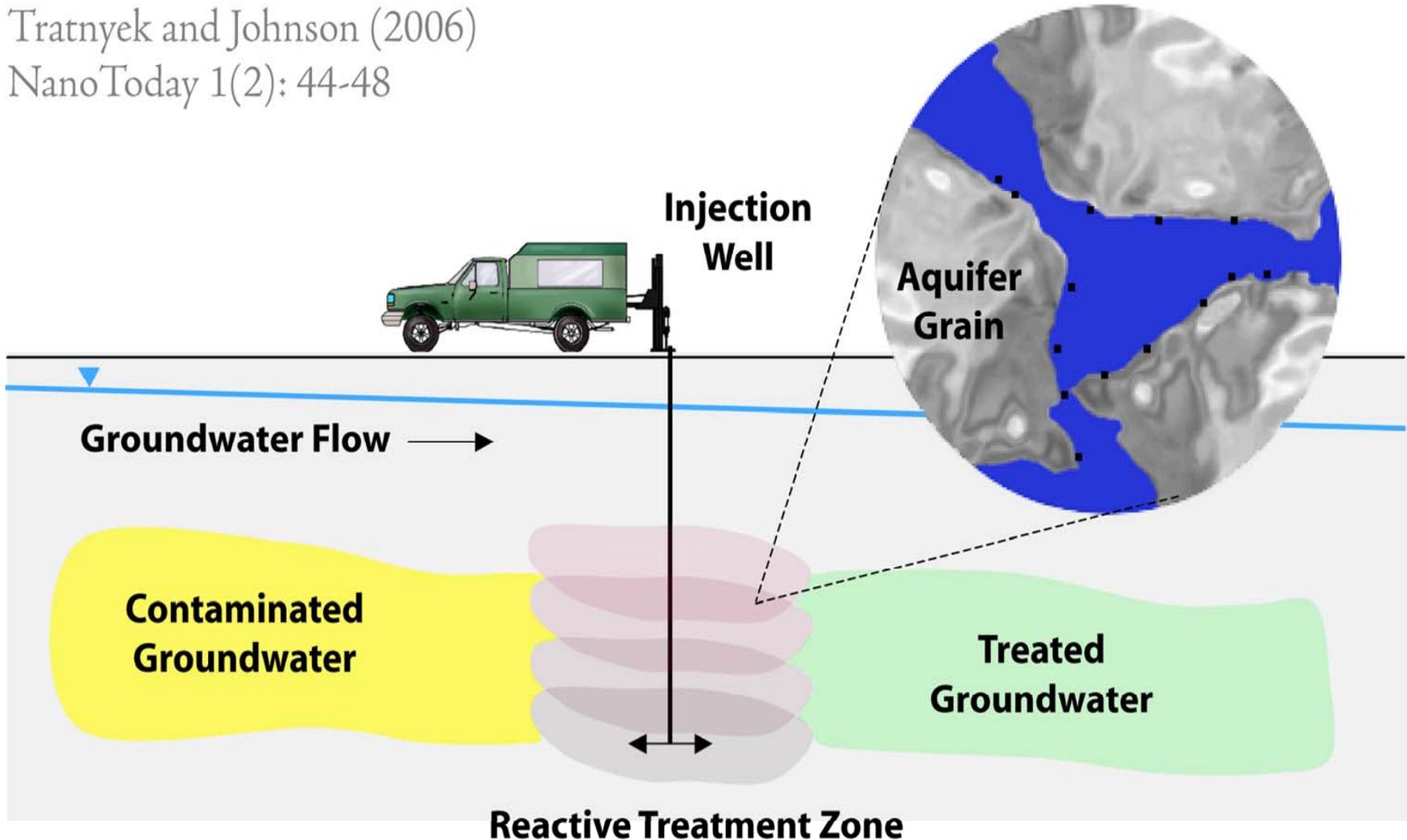
- Crane Co. continues to evaluate treatment of groundwater using nano-scale zero valent iron (nZVI)



Innovative In-Situ Groundwater Treatment



Tratnyek and Johnson (2006)
NanoToday 1(2): 44-48



Demolition Asbestos Abatement



Abatement in progress under negative pressure.

Indoor air released to the atmosphere after treating using HEPA filter.

Viewing window is provided to observed on-going activities.

Protective gear includes hard hat, steel toe boots, respirator, and safety harness if working on the roof



Demolition Asbestos Abatement



Before Abatement



After Abatement

Demolition – Universal Waste



Ballast containing
Mercury



Ballast potentially
containing PCBs



Lamps containing
Mercury

Demolition – Waste Handling



Potential Hazardous and Universal Waste Storage Area

Demolition – Dust Control



On-going Demolition with Dust Control Measures In Place

Anticipated Site Restoration



Short-Term Hydroseeding



Long-Term
Irrigation/Revegetation

Questions?



Phoenix-Goodyear Airport-South Project Site Status Report

Community Advisory Group
Meeting May 7, 2009



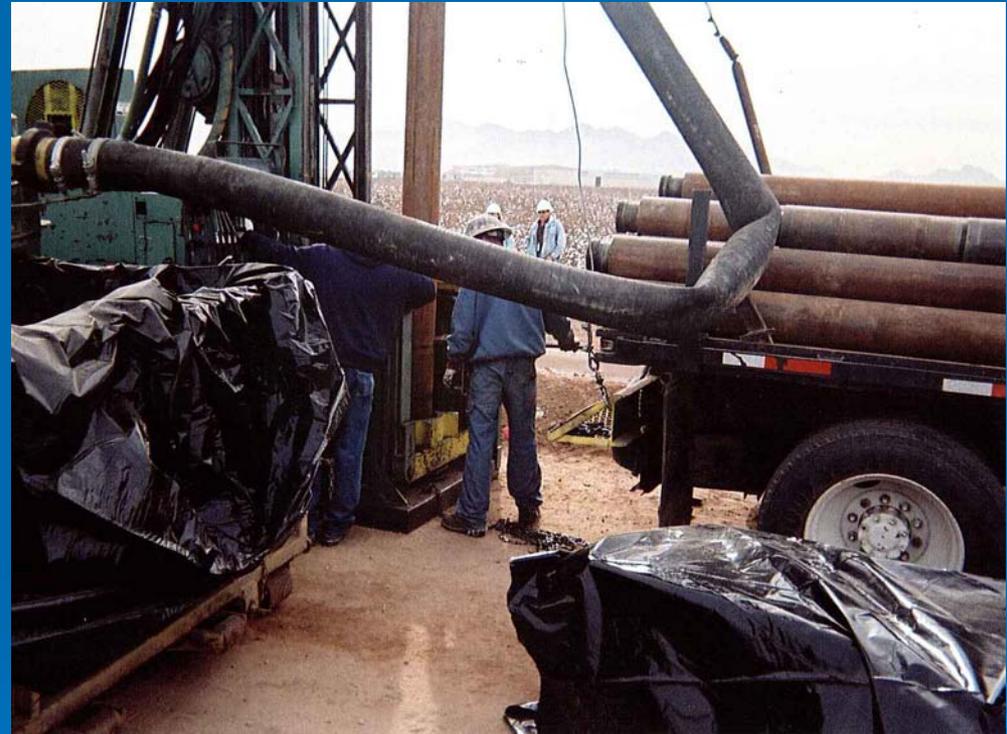
Agenda

- Review current activities
- Update status of ongoing cleanup
- Upcoming activities

Review of Current Activities

- Installed Northern Subunit C plume delineation wells
- Vapor Intrusion Study Findings
- GAC – 04 Report
- Focused Feasibility Study
- Conducted annual groundwater sampling event (February)

GMW-20 Installation Photos



**Morning of Dec. 4, 2008
Setup on GMW-20LC**

GMW-20 Installation Photos



Steel Drive Pipes

PVC Screen
(10 Slot)

Drive Point (Connects
to Bottom of Screen)

Hydropunch Photos

GMW-20 Installation Photos

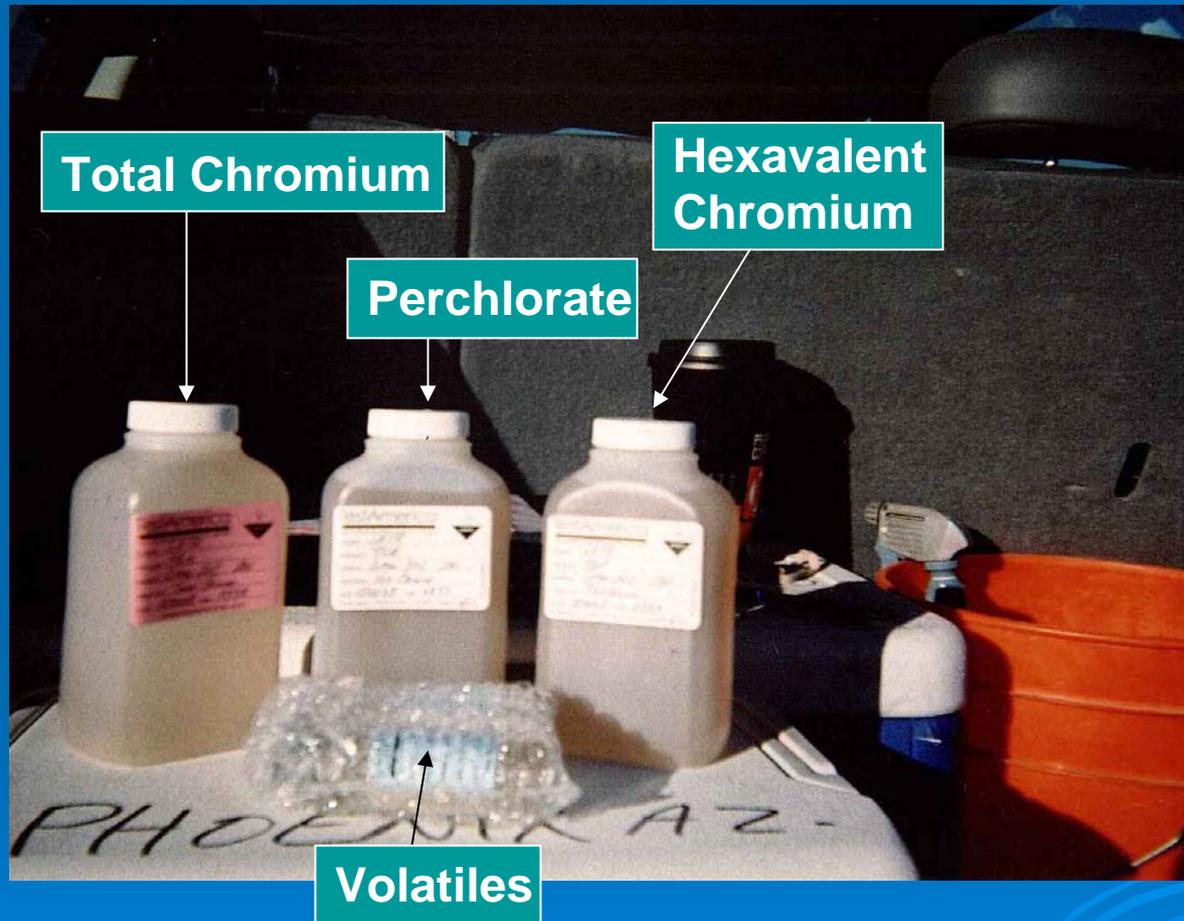


Afternoon of Dec. 4, 2008. Final setup on GMW-20LC



Contained drill cuttings and produced water

GMW-20 Installation Photos

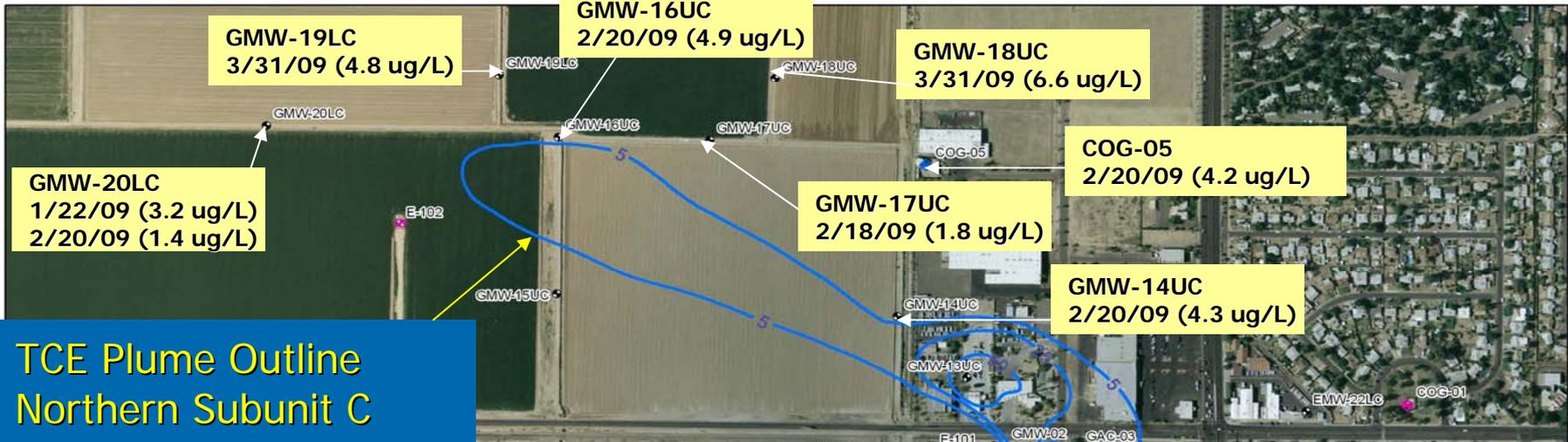


Groundwater Samples Photo

GMW-20 Installation Photos



Finished Well



Vapor Intrusion Study

- All samples ND for 1,2 - DCE and Vinyl Chloride
- 18 of 22 samples ND for TCE
- Maximum concentration of 4.1 ug/m³ Below EPA PRG
- Source may be other than soil
 - Solvent usage in building
 - 1,2 - DCE non detect

Vapor Intrusion Sampling Photos



**Between Buildings 53
and 54, Sample OA-01**



**RR Crossing at Goodyear
Pkwy, Sample BS-01**

Vapor Intrusion Sampling Photos



**Building 1/2,
Galaxy Main Office
Sample 03 and
Duplicate**



**Building 53 Day Room,
Sample 53-02 and Duplicate**



**Building 1/2,
Caged Area
Sample 04**

Vapor Sampling Photos – Building Ventilation



Building 1/2 Ventilation



Building 86 Ventilation

GAC-04 Update



**GAC-04 Well Head
with Motor above**



Exterior PLC Door



**New
Controls**

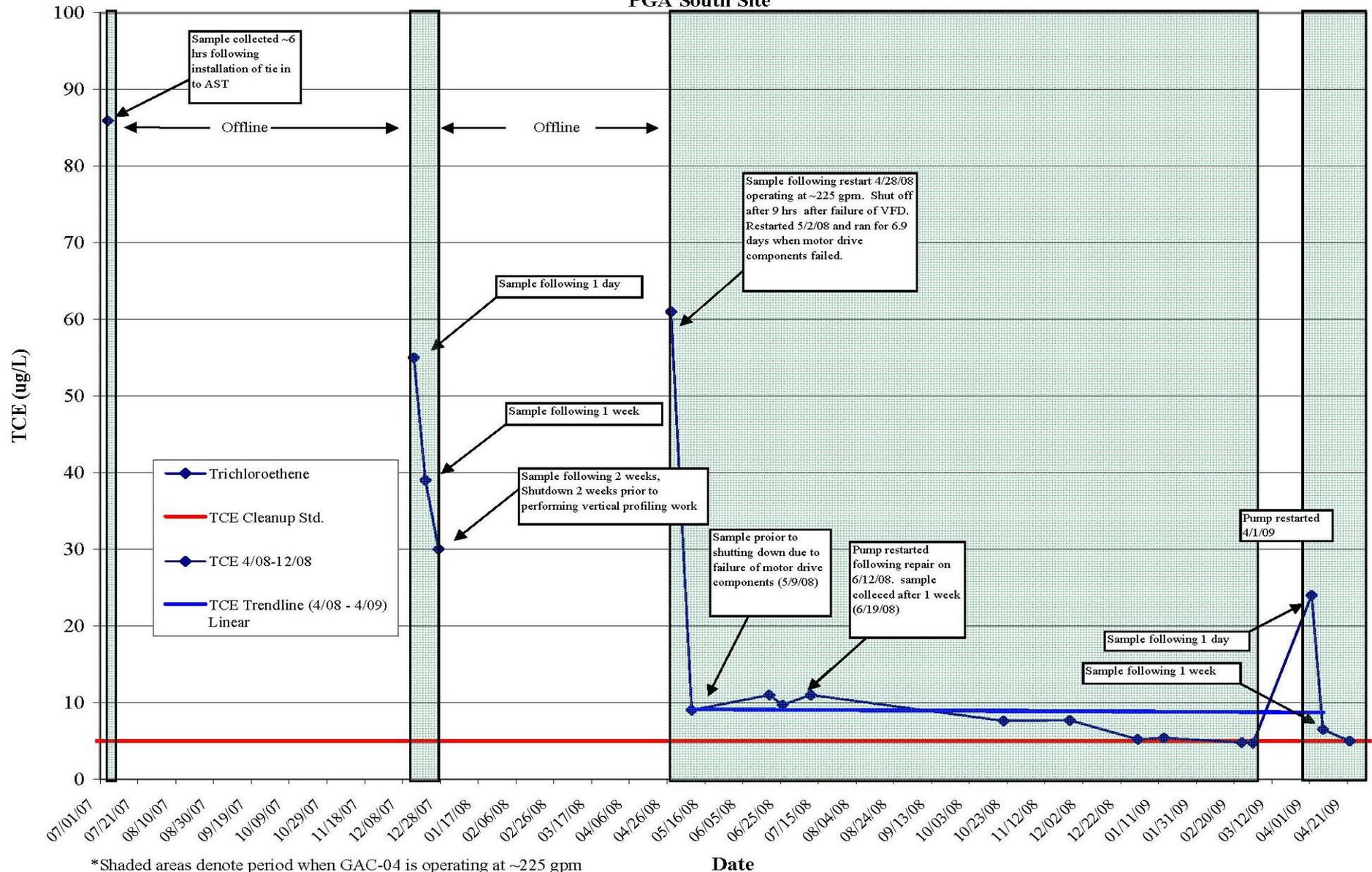
GAC-04 Update



Figure 6 - GAC-04 TCE vs Time

July 2007 - April 2009

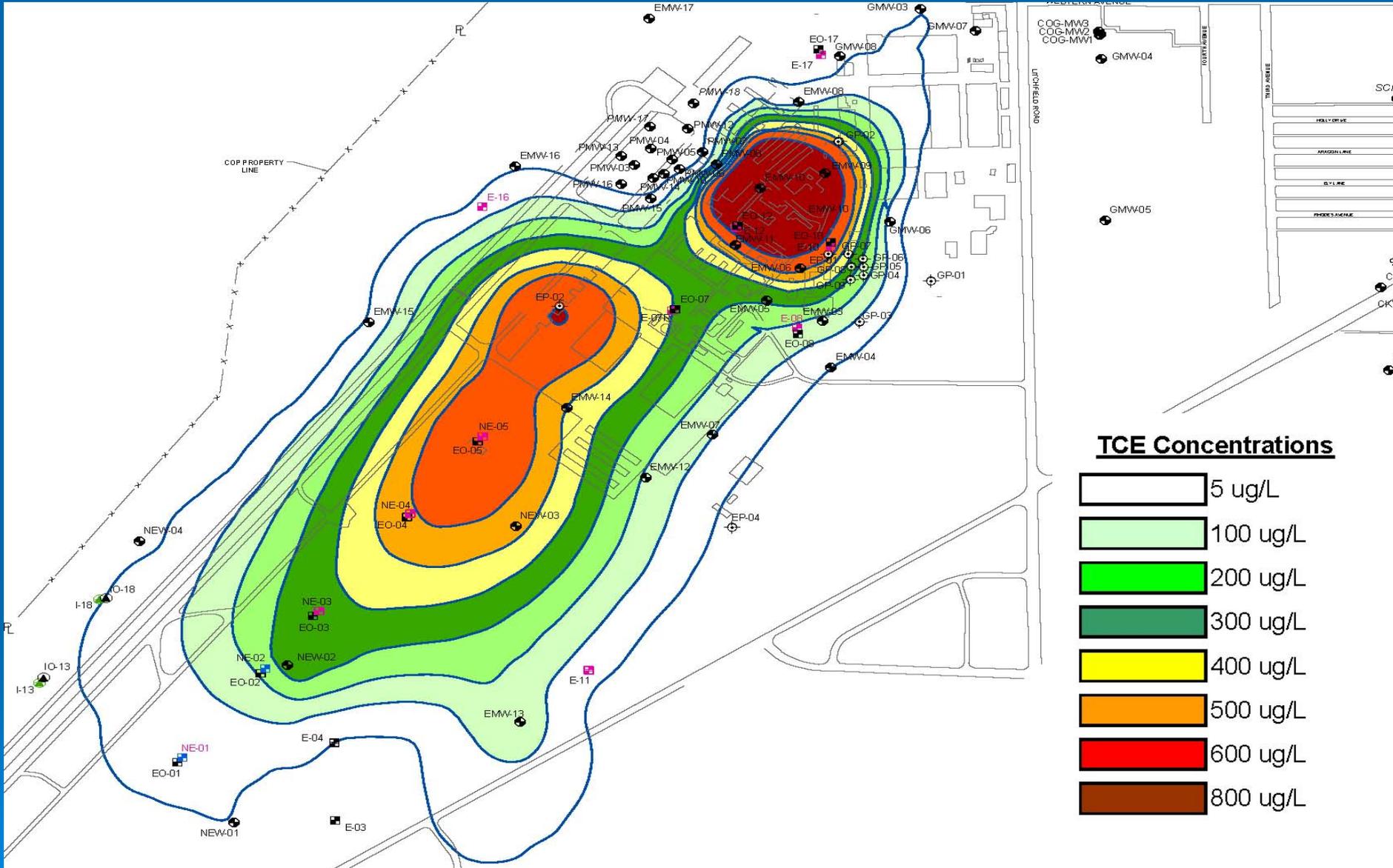
PGA South Site



Status of Cleanup

- Currently all monitoring wells in the Southern Subunit C plume are <5 ug/L
- Peak TCE concentrations in Subunit A monitoring wells have declined from 2,600 ug/l in 1990 to 130 ug/l in most recent sampling event (02/09)

Subunit A TCE Map June 1990



Copyright © 2009
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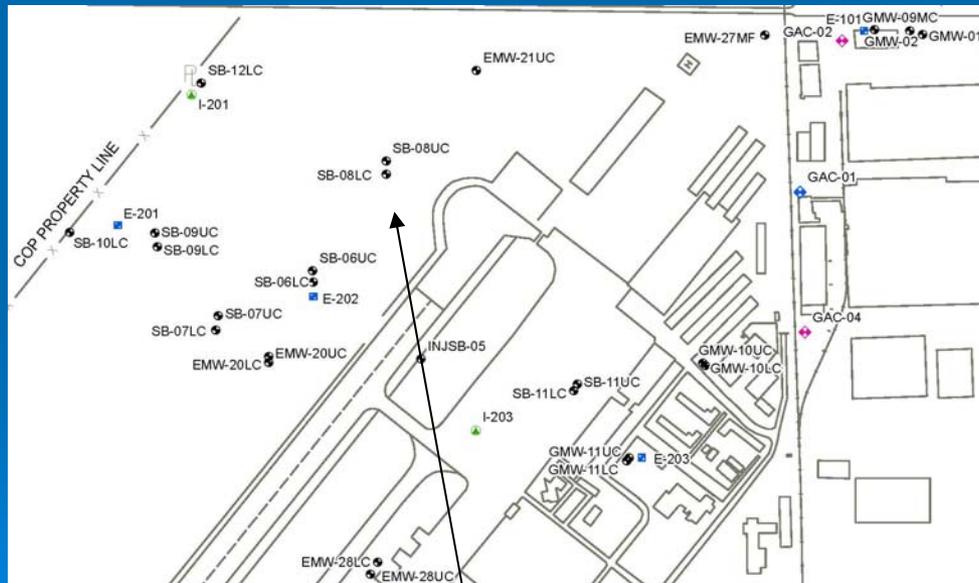
Confidential and/or proprietary information. May not be copied or disseminated without the express consent of The Goodyear Tire and Rubber Company

1994 TCE



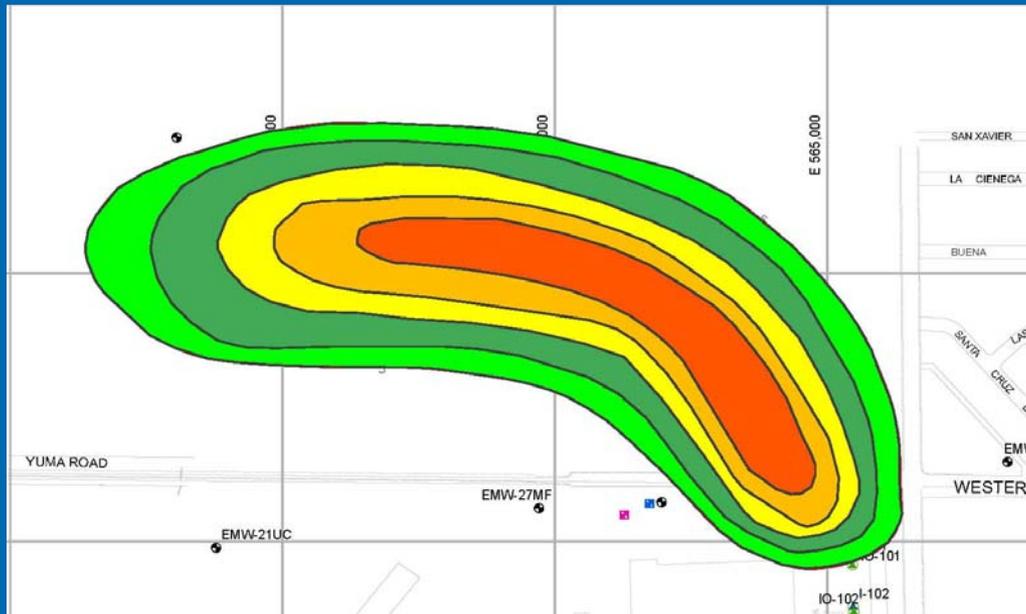
SOUTHERN PLUME

2009 TCE



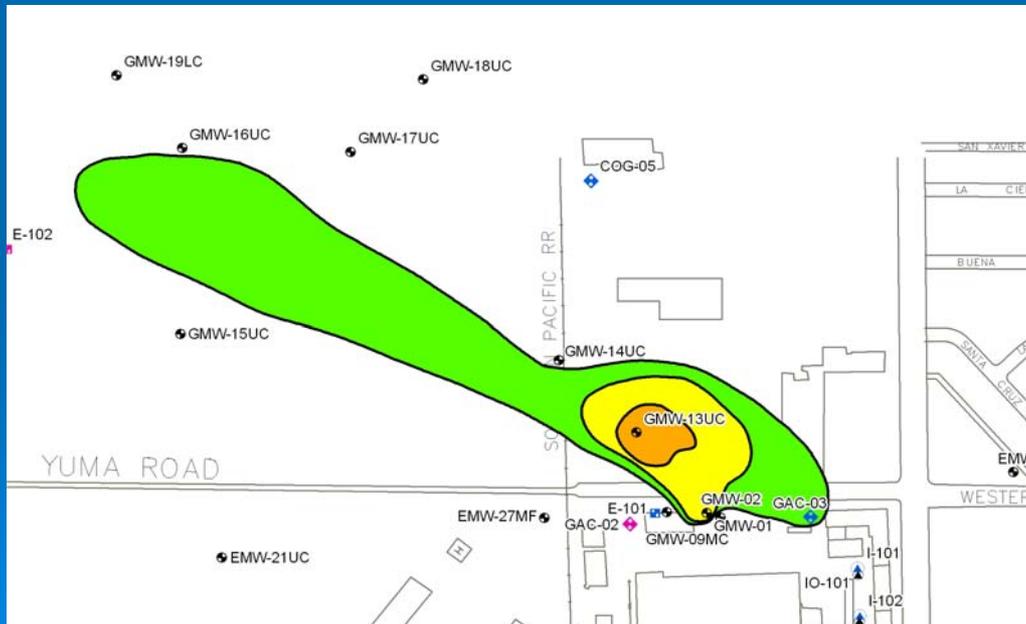
Well SB-08UC contained TCE at 4.3 ug/L 2/09

1999 TCE



NORTHERN PLUME

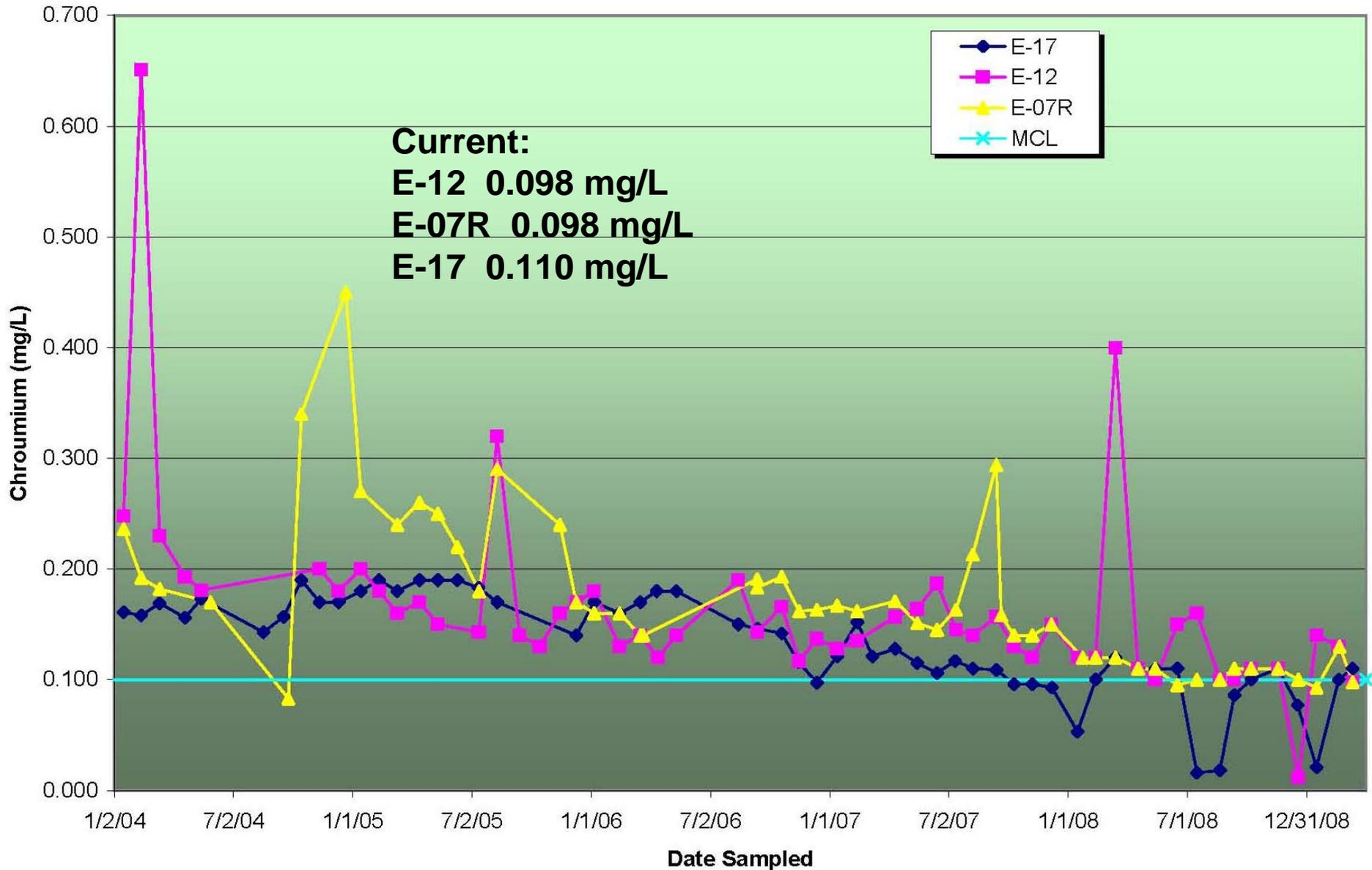
2009 TCE



TCE Concentrations

Subunit	Max TCE ($\mu\text{g/L}$) 1990	Max TCE ($\mu\text{g/L}$) 02/09
Subunit A	2600	130 (E-12)
Southern Subunit C	150	4.3 (SB-08UC)
Northern Subunit C	180	60 (GMW-13UC)

Chromium Trends Vs. Time Through March 2009



Upcoming Activities

- Sampling COG-11 and COG-20
- Proposal for pulsed pumping of Southern Subunit C plume
- Discuss Feasibility Study with EPA/ADEQ
 - Evaluate Chromium Treatment Technologies

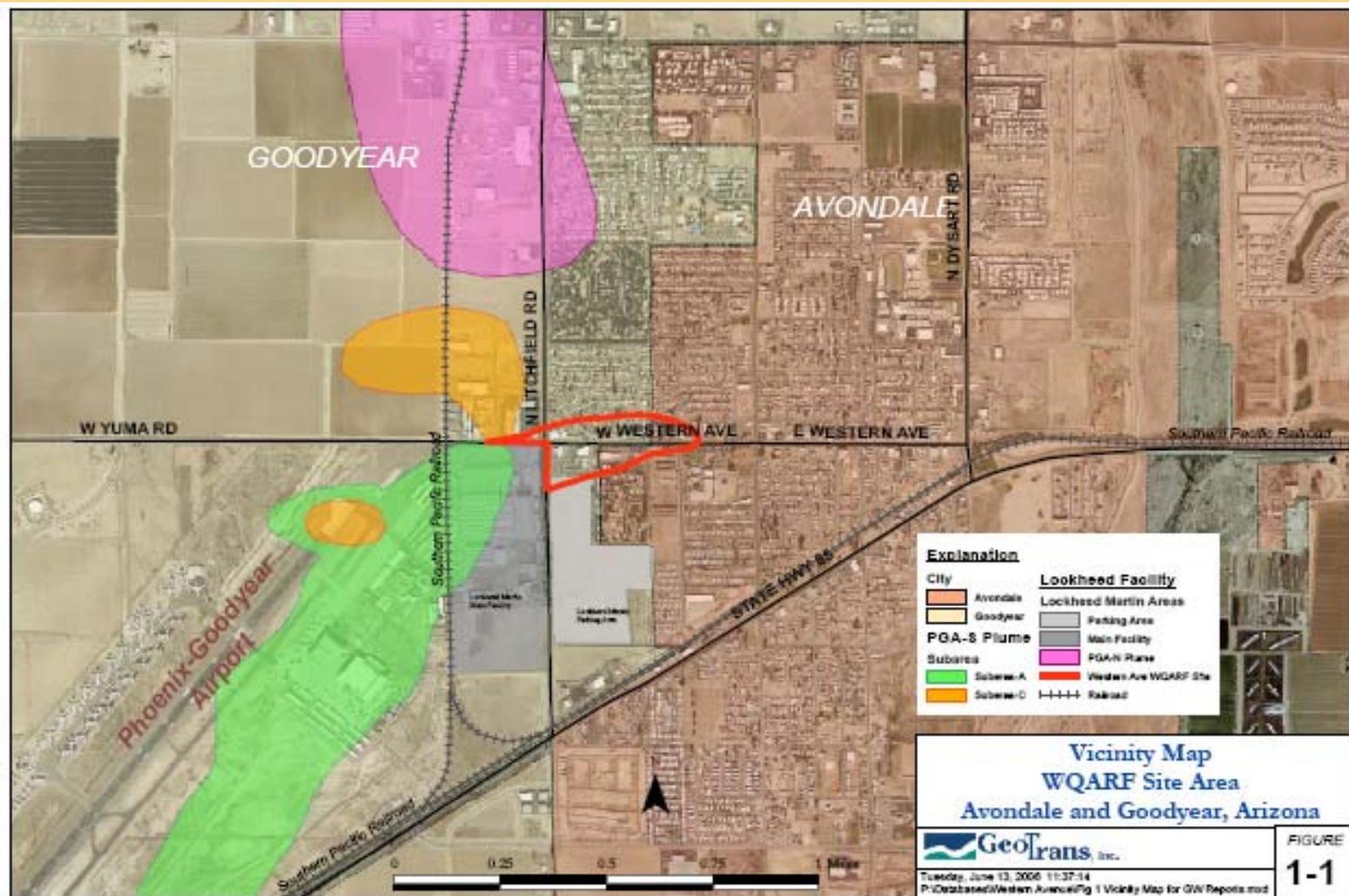
Western Avenue Plume Community Advisory Group Meeting

WQARF SITE UPDATE

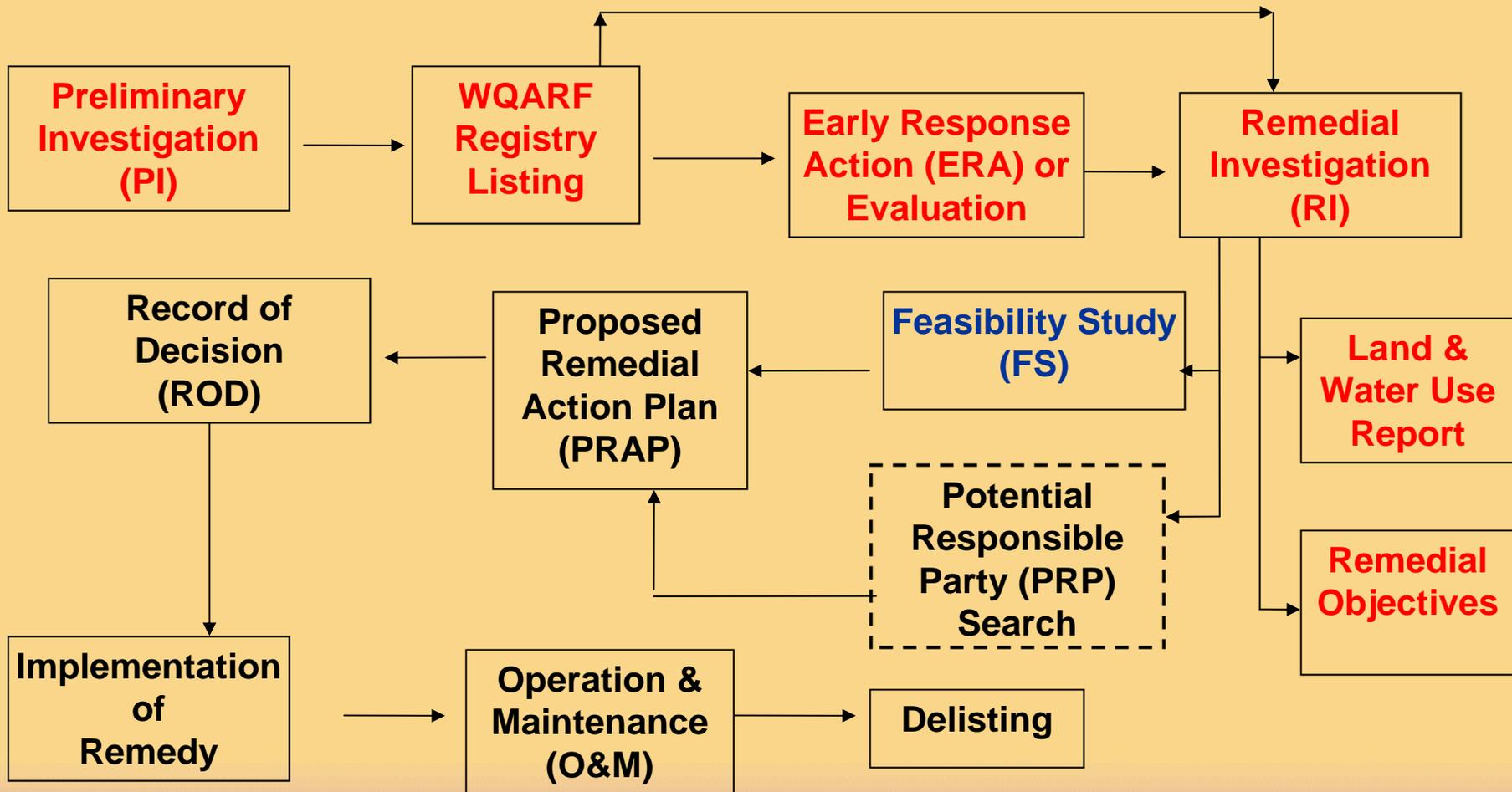


*André Chiaradia, Project Manager
May 2009*

Plume Map

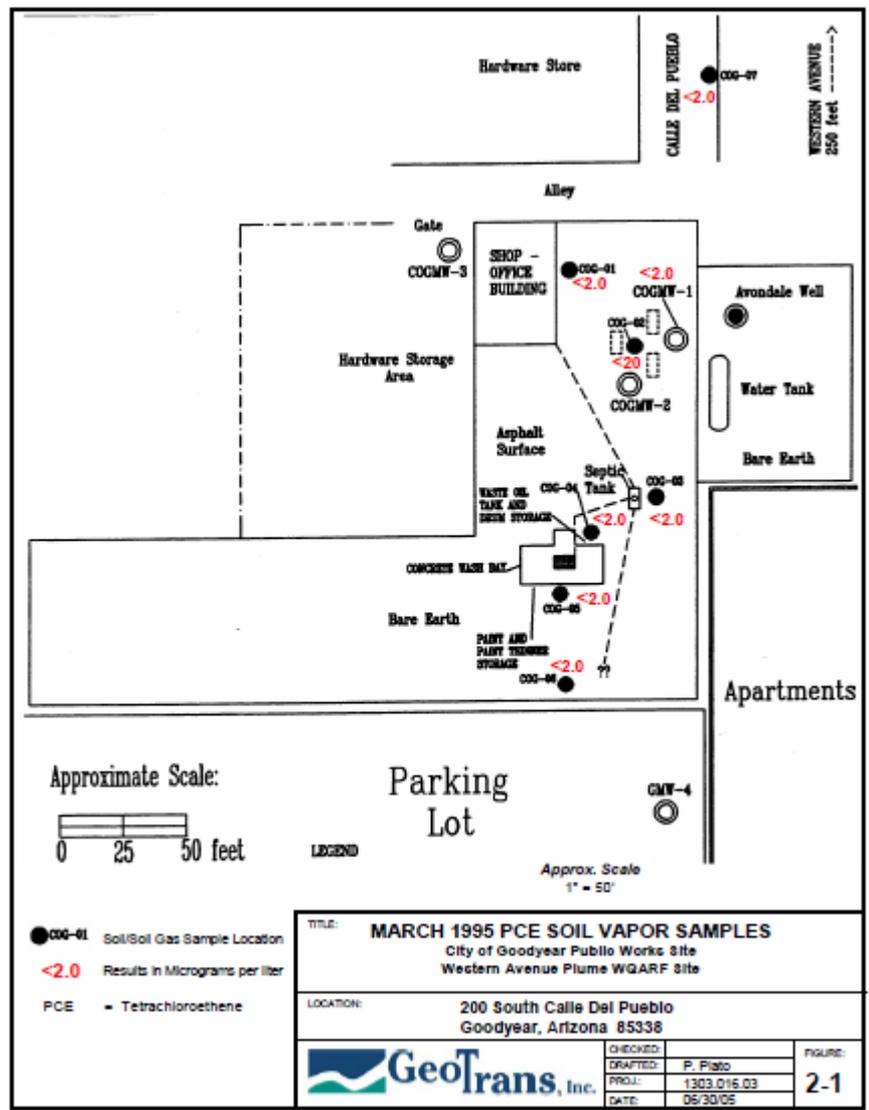


WQARF Phases



Preliminary Investigations

- **1993:** PCE was detected upgradient of the National Priority List (NPL) PGA-South Site
- **1995** ADEQ conducted an investigation at the City of Goodyear Public Works (COGPW) facility located on the south east corner of Western Avenue and Litchfield Road. PCE and/or other target compounds were not present in soil above the method detection limit (MDL)



Remedial Investigation

- **1998:** The Site was placed on the WQARF Registry in December
- **2000:** ADEQ installed five monitoring wells as part of an early response action (ERA) evaluation

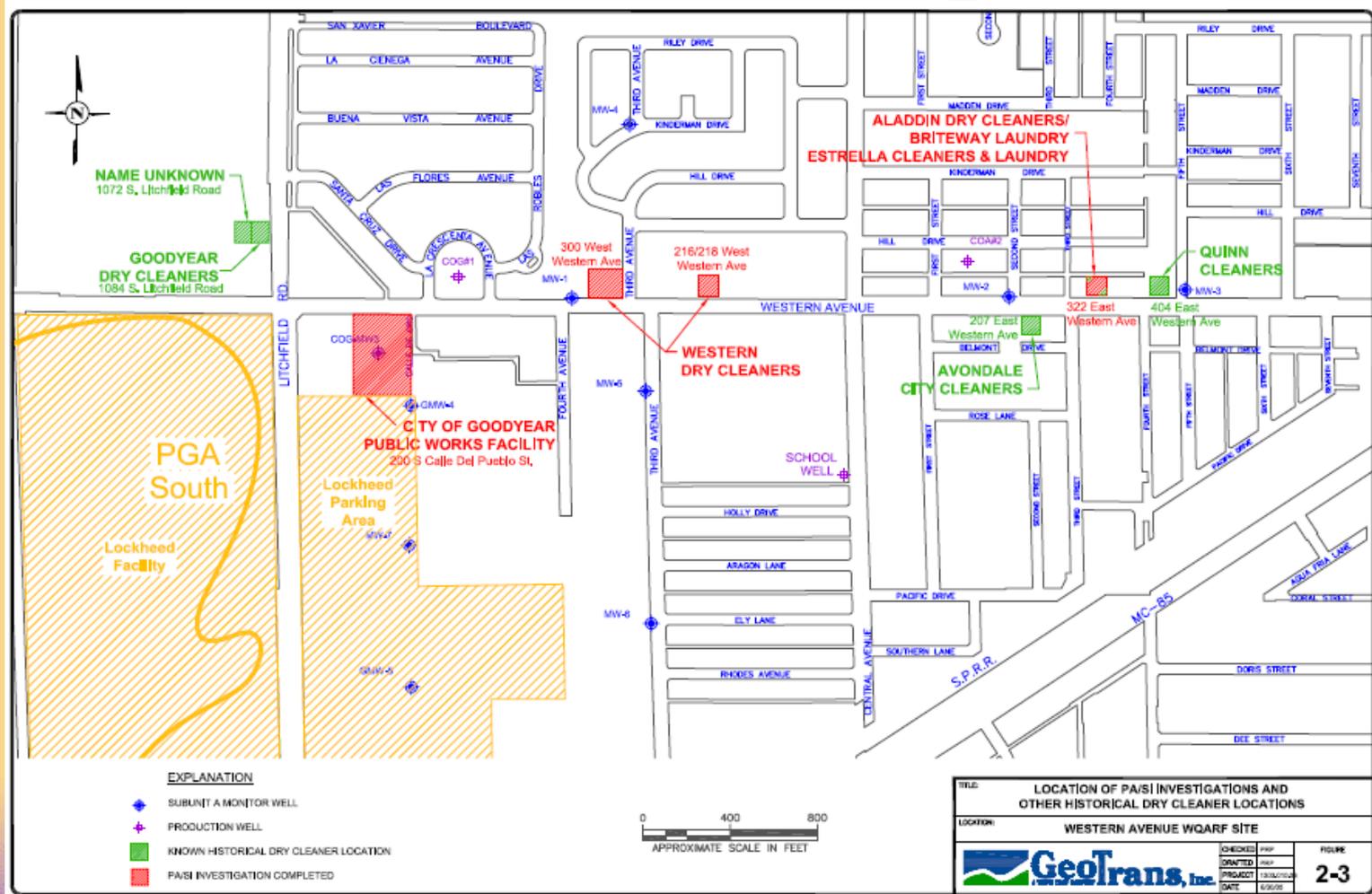
Remedial Investigation



Remedial Investigation

- **2001:** ADEQ conducted a site industrial survey in the vicinity of the Western Avenue site. Based on data collected six dry cleaning facilities were identified:
 - Western Dry Cleaner
 - Aladdin Cleaners
 - Avondale City Cleaners
 - Quinn Cleaners
 - Goodyear Dry Cleaners
 - An unknown facility operated at 1072 S Litchfield Road

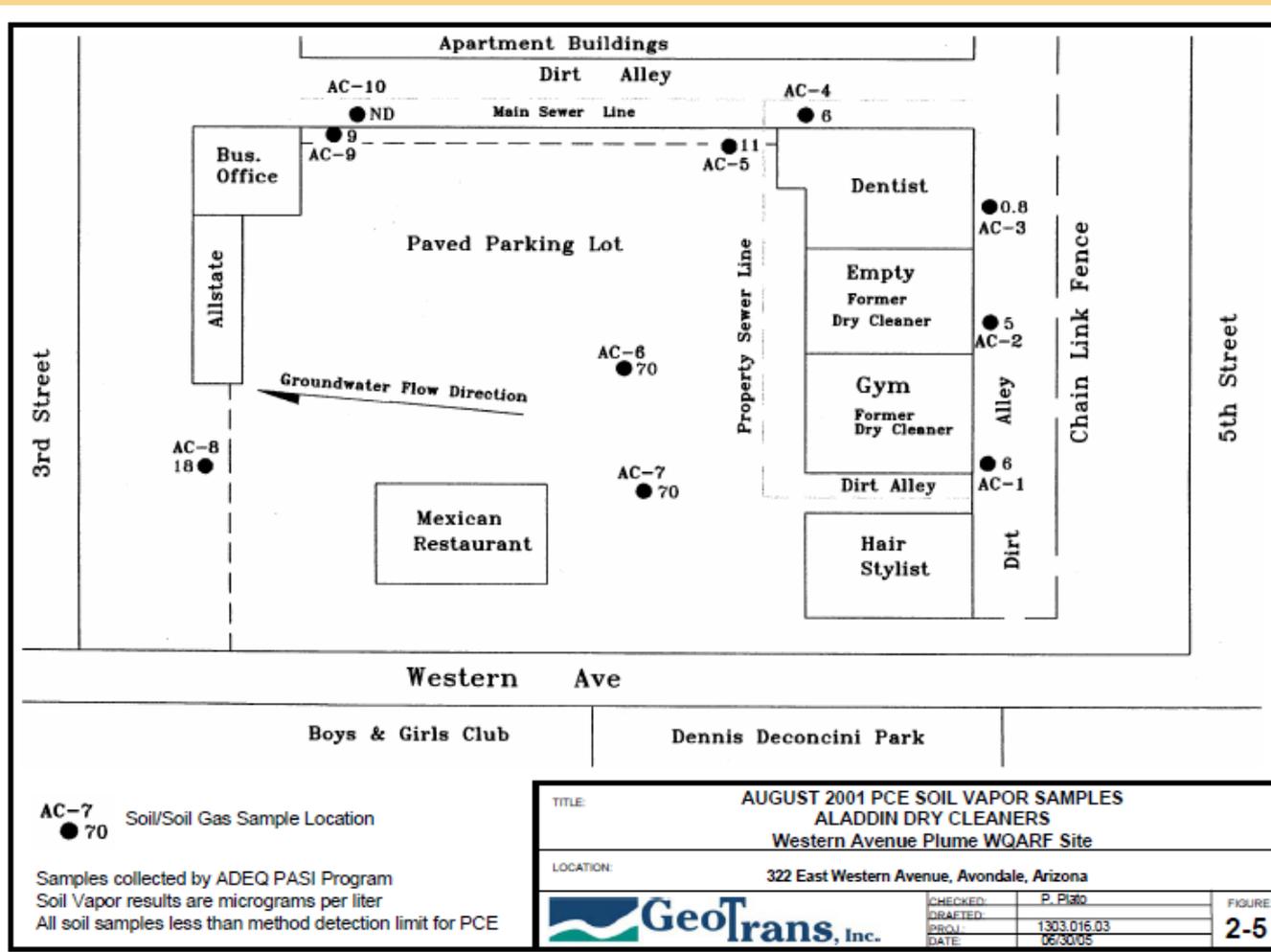
Remedial Investigation



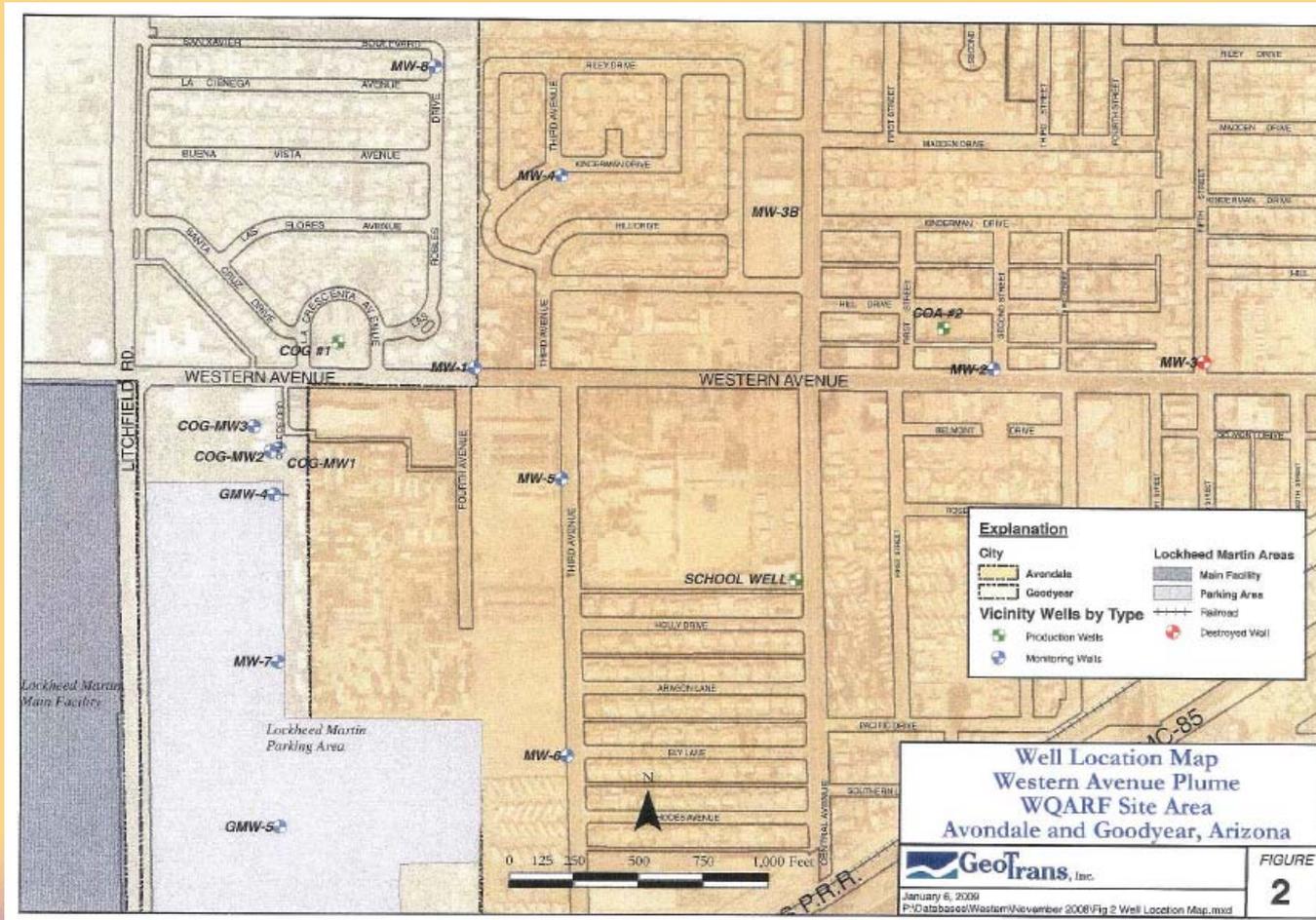
Remedial Investigation

- 2001: ADEQ conducted a soil gas survey at the former Aladdin Dry Cleaners, results only indicated minor concentrations of PCE

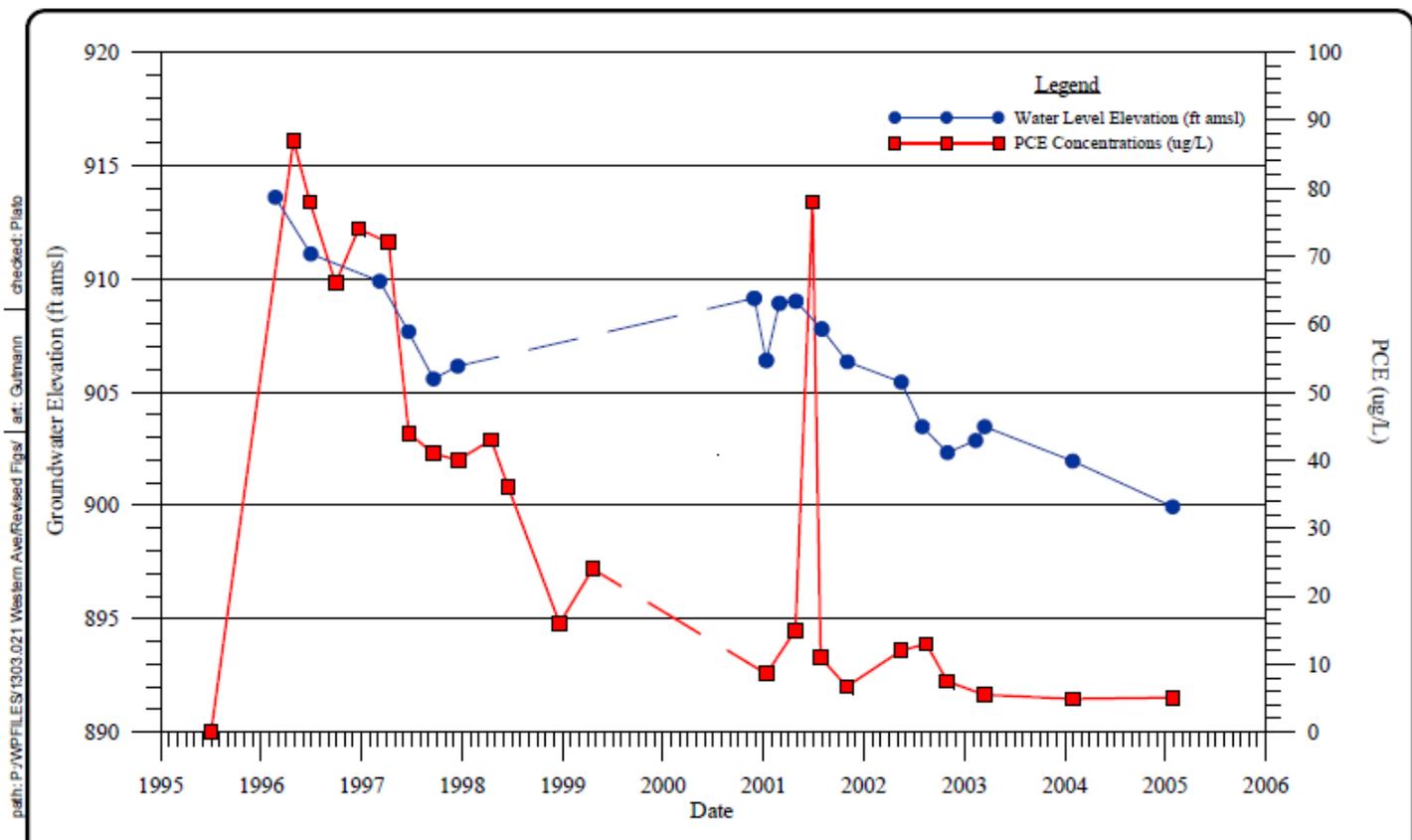
Remedial Investigation



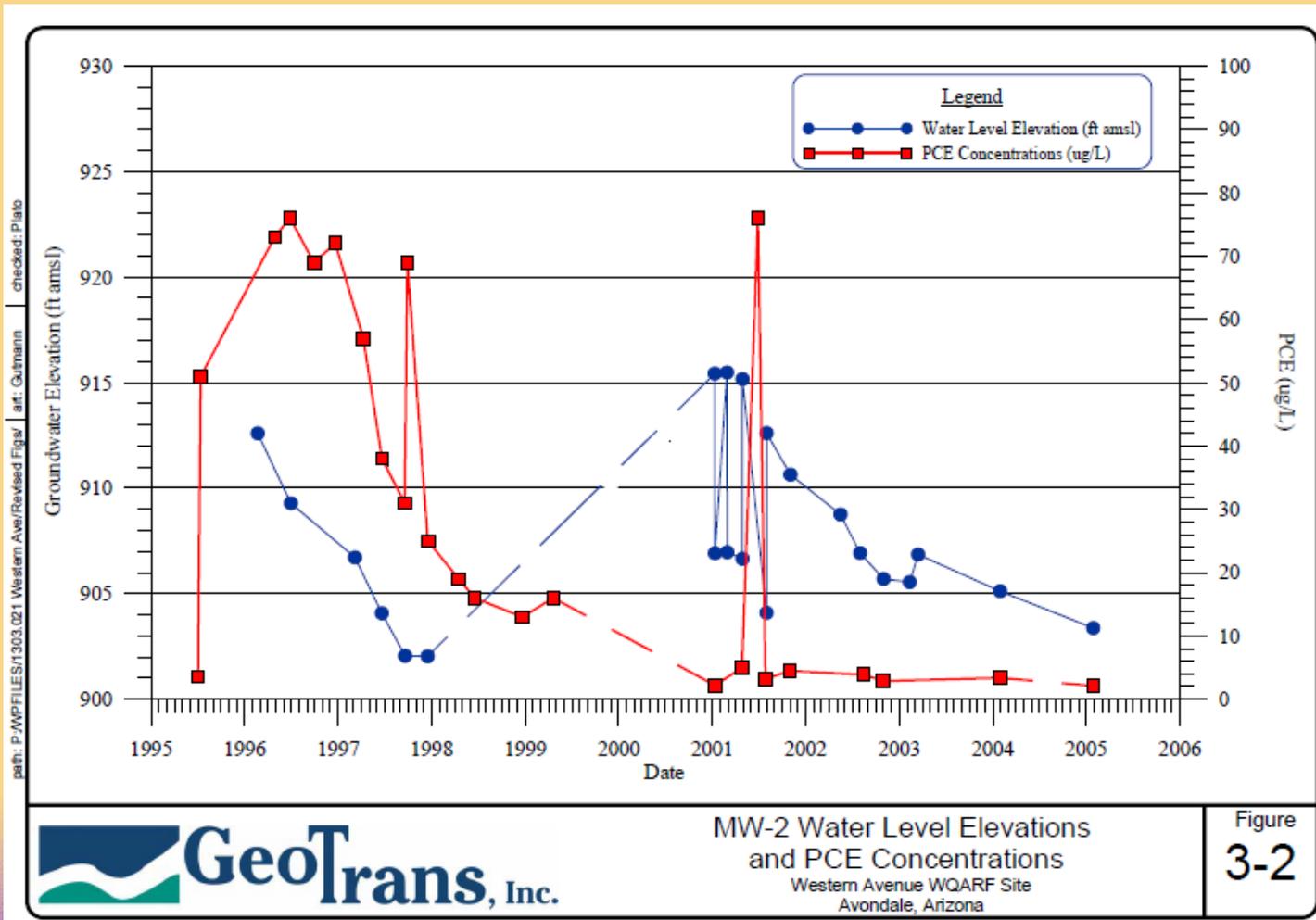
Remedial Investigation



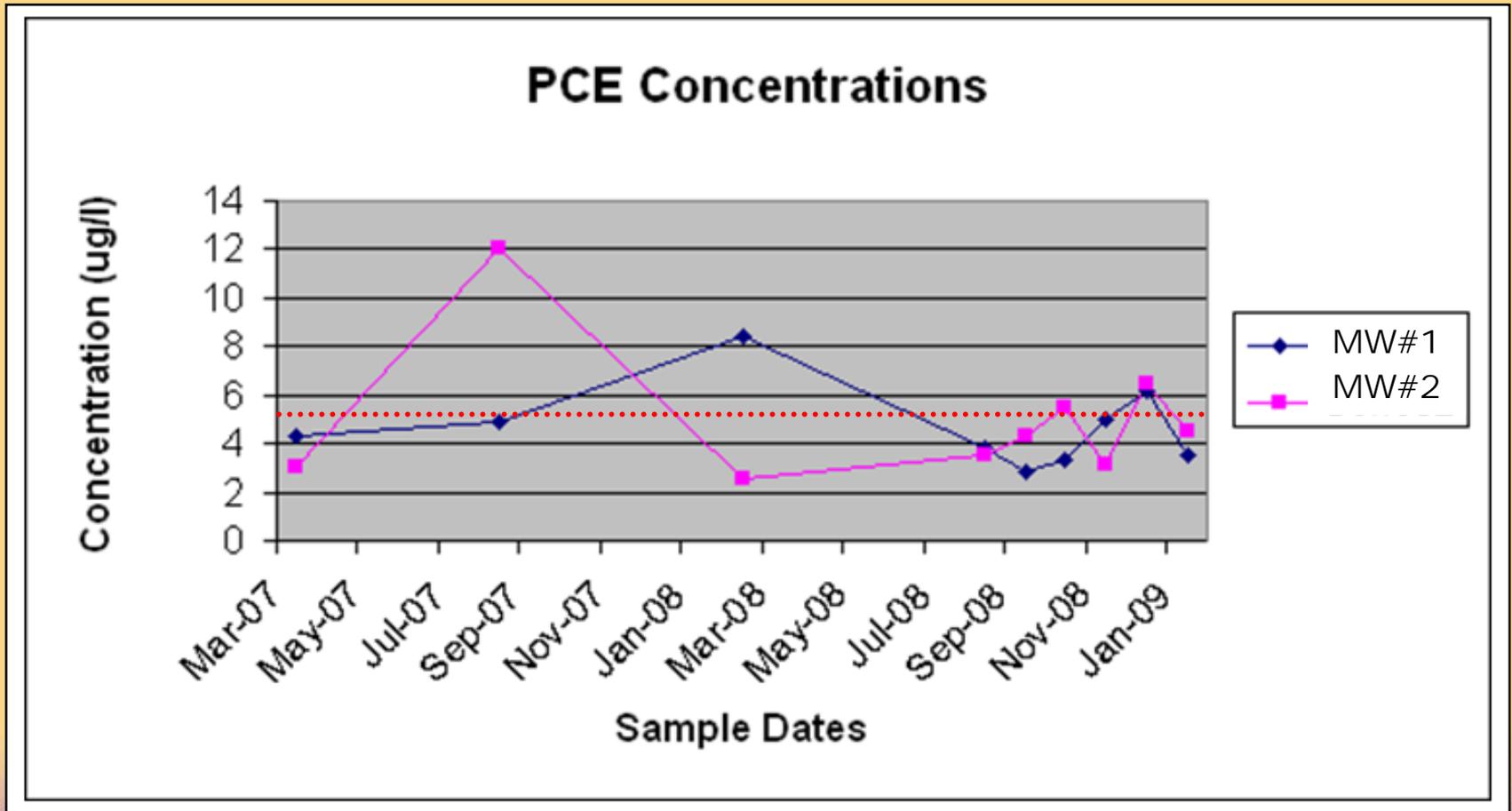
Remedial Investigation



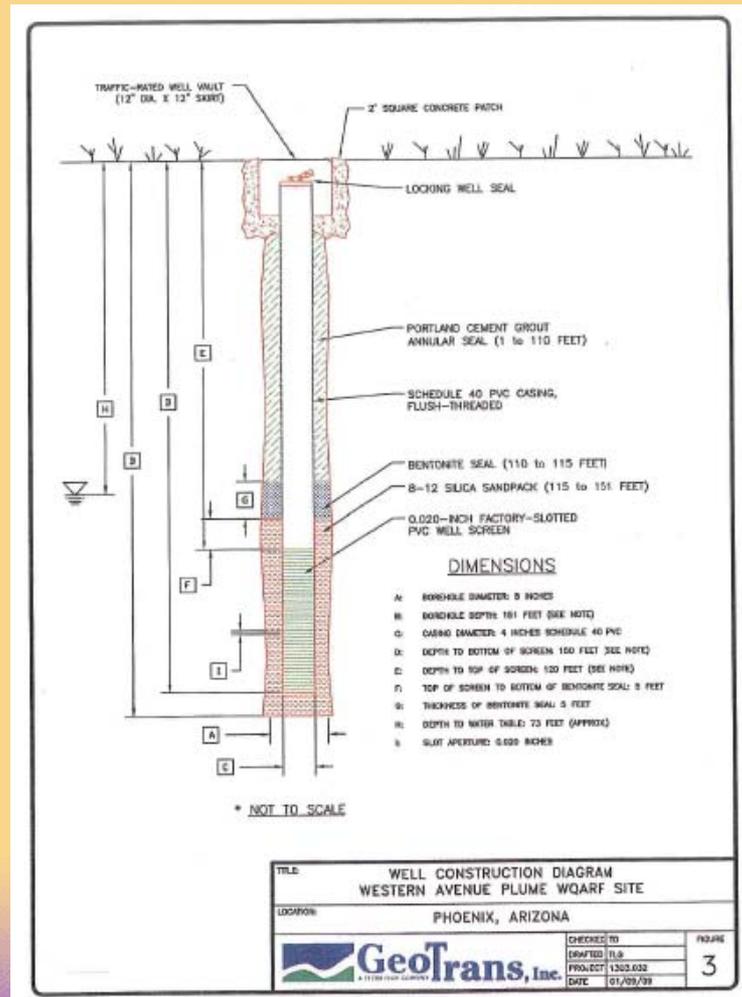
Remedial Investigation



Remedial Investigation



Monitoring Well #8



Remedial Investigation

- **1998:** The Site was placed on the WQARF Registry in December
- **2002:** In October, a Draft Industrial Survey Report
- **2006:** The Draft RI Report, including the Land and Water Use Report was issued
- **2008:** The Remedial Objectives Report (RO) is issued, Final RI Report is completed

?? QUESTIONS ??



Goodyear Brownfields Supplemental Environmental Project

PGA NPL/Western Avenue Plume WQARF Sites
Community Advisory Group Meeting

Presented by Brown and Caldwell
May 7, 2009



B R O W N A N D
C A L D W E L L

Goodyear Brownfields SEP Program Overview

- Distressed Property* Inventory
- Phase I ESAs
- Phase II ESAs
- Remedial Actions

* - Any real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant.

Goodyear Brownfields SEP Distressed Property Requirements

- Benefits to Community

- Examples

- additional tax revenues
 - job creation
 - cleanup of a blighted area



Goodyear Brownfields SEP Distressed Property Requirements

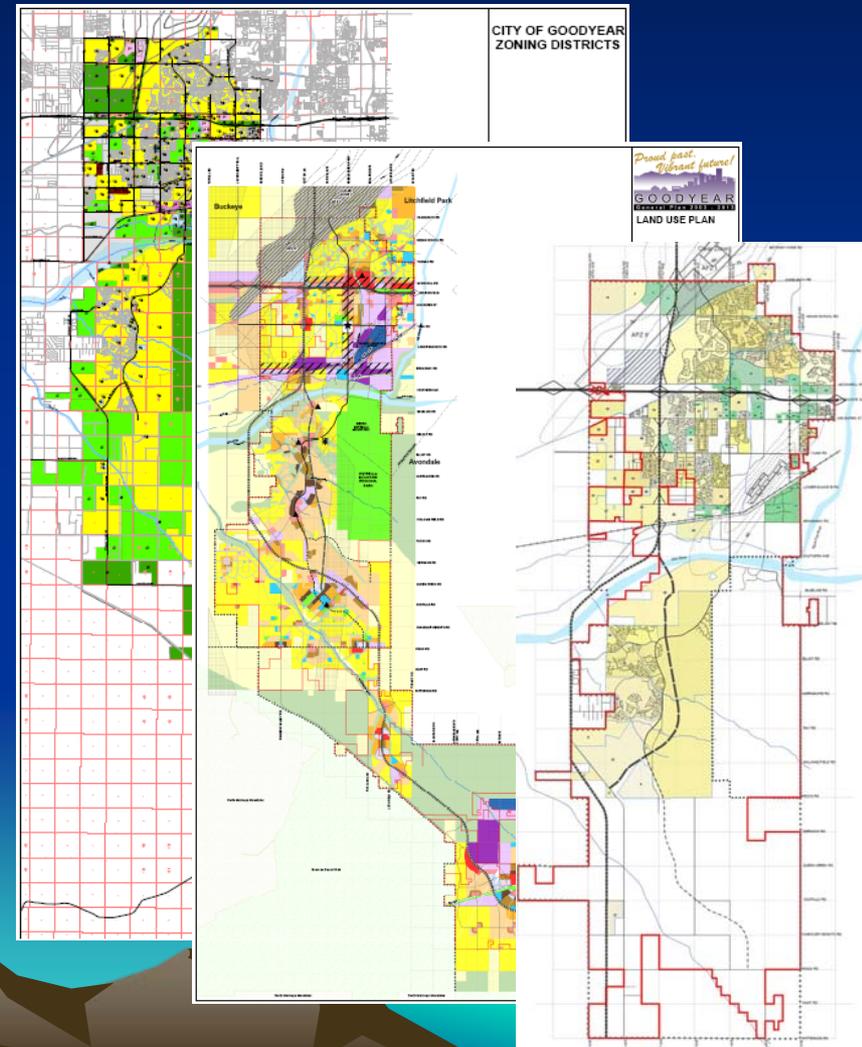
- Excluded Properties
 - currently subject to an environmental permit, administrative order or consent decree
 - subject to a current or formerly implemented federal or state environmental corrective action or closure plan
 - owned by the United States or Crane Co.



Goodyear Brownfields SEP

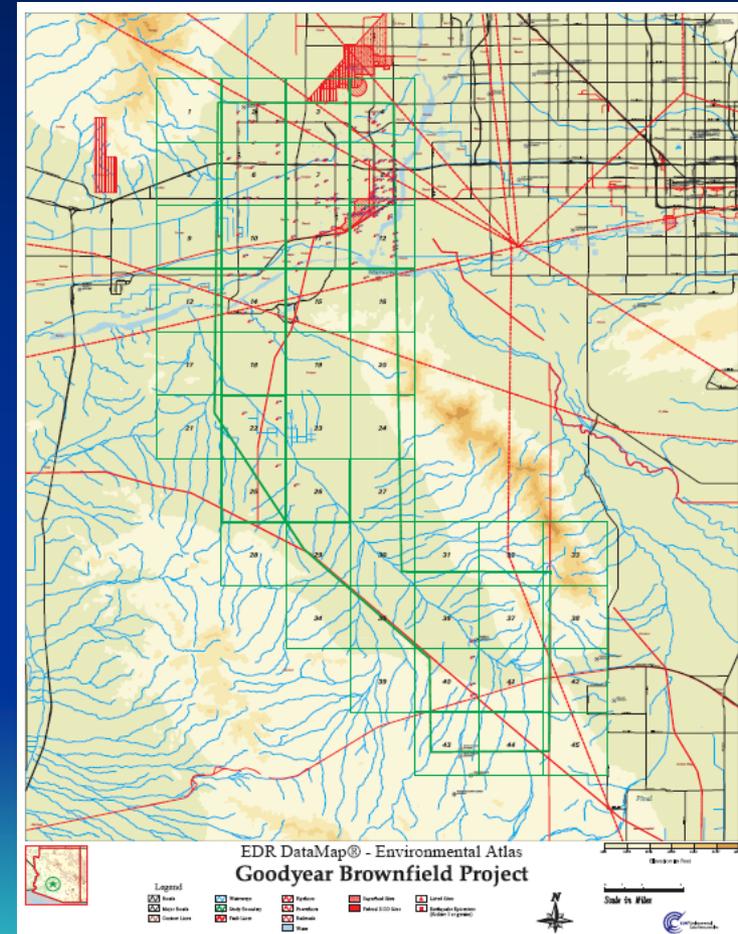
What's Been Completed?

- Developed Inventory & Ranking Criteria
- Compiled Inventory of Potential Distressed Properties
- Completed Screening of Potential Distressed Properties



Goodyear Brownfields SEP Inventory Compilation Resources

- Area-wide EDR report
- Sanborn fire insurance maps
- Toxic Release Inventory
- RCRIS
- CERCLIS
- Spill reporting data maintained by USCGNRC
- Downloaded aerial imagery and Maricopa County Assessor's Office GIS interactive maps
- Interviewing City personnel
- Offsite drive-by visits



Goodyear Brownfields SEP Inventory Screening

**Goodyear Brownfields Project
SEP Agreement Inventory Screening Criteria Sheet**

Parcel No. : _____
Address(es): _____

Location Criteria Questions	Yes	No ¹
Is the Distressed Property located, in whole or in part, within the City?		
Is the Distressed Property located outside the boundaries of the PGA Superfund site (North or South portion)? ²		
Is the Distressed Property located close enough to existing infrastructure (i.e., roads, utilities, water supplies) to make redevelopment economically feasible, OR does it have other desirable characteristics (e.g., potential wildlife habitat or recreational areas) that are consistent with the City's long term goals and/or General Plan? ³		

¹ - Except for the second question (see ² below), if any question is answered "no", the Distressed Property is not eligible under the SEP Agreement and should not be further evaluated or placed on the Final Distressed Property Inventory.
² - Distressed Properties located above the contaminated groundwater plume emanating from the Superfund site may be considered on a parcel-specific basis. If "no" is checked, Project Manager will discuss with City whether to continue screening Distressed Property.
³ - City to answer this question.

Benefits to Community Question	Yes	No ⁴
Will Redevelopment of the Distressed Property provide a direct or indirect benefit to the citizens of the City (e.g., additional tax revenues, job creation, cleanup of a blighted area)? ⁵		

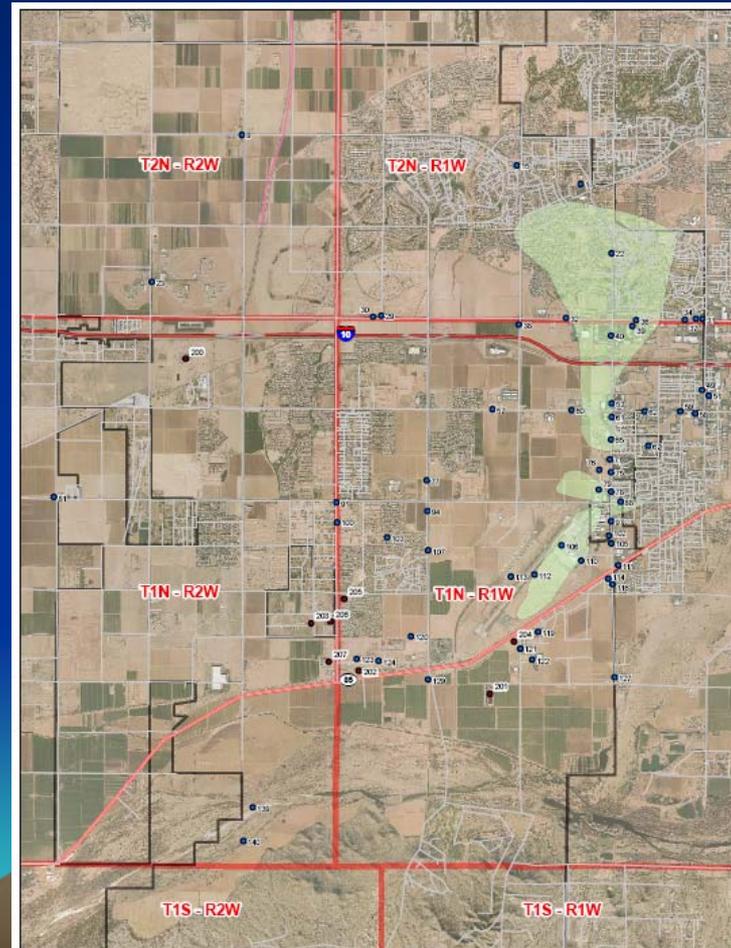
⁴ - If question is answered "no", the Distressed Property is not eligible under the SEP Agreement and should not be further evaluated or placed on the Final Distressed Property Inventory.
⁵ - City to answer this question.

Excluded Properties Questions	Yes ⁶	No
Is the Distressed Property currently subject to a federal or state environmental permit, administrative order or consent decree?		
Is the Distressed Property subject to a current or formerly implemented federal or state environmental corrective action or closure plan?		
Is the Distressed Property owned by the United States, in fee title, or owned by Crane Co. or one of its subsidiaries or affiliates?		

⁶ - If any question is answered "yes", the Distressed Property is not eligible under the SEP Agreement and should not be further evaluated or placed on the Final Distressed Property Inventory.

Goodyear Brownfields SEP

Potential Distressed Properties Near NPL Site



Goodyear Brownfields SEP

What's Next?

- Discussions with Property Owners
- Ranking of Distressed Properties

Goodyear Brownfields Project Distressed Property Ranking Sheet	
Parcel No(s): _____	
Address(es): _____	
Map ID No.: _____	
Category 1: Perceived Contamination	
1 Point – Low Uncertainty	Score
3 Points – Moderate Uncertainty	
5 Points – High Uncertainty	
Category 2: Previous Assessments	
1 Point – Site investigative activities (e.g., a Phase I or other assessments) have already been completed at the Distressed Property and environmental issues have not been identified.	Score
3 Points – There is sufficient information available regarding a source of identified release(s) at the Distressed Property but there is limited knowledge regarding other potential sources; having historical information could assist in developing a conceptual site model. OR, conducting additional investigative activities may be necessary.	
5 Points – There is limited or no known records of previous investigative activities conducted at the Distressed Property; OR, there is a potential need to evaluate cleanup options.	
Category 3: Plans for Reuse	
1 Point – The Distressed Property is located in an economically viable area; there is not a need or plan for redevelopment of the Distressed Property; there is a potential for strong community opposition; OR, reuse of the Distressed Property is not economically feasible.	Score
3 Points – The Distressed Property is located in a redevelopment area but is in an early phase of planning; there are limited funds to support the reuse of the Distressed Property; OR, the Distressed Property is a limited redevelopment initiated site.	
5 Points – The Distressed Property is project ready with strong community and financial support; the redevelopment of the Distressed Property has potential to impact surrounding properties; the Distressed Property is located in close enough to existing infrastructure (i.e., roads, utilities, water supplies) to make redevelopment economically feasible; OR, the Distressed Property has other desirable characteristics (e.g., potential wildlife habitat or recreational areas) that are consistent with the City's long term goals and/or General Plan.	
Category 4: Preference of Property Location	
1 Point – The Distressed Properties is located outside the historic district of the City and not identified in the El Rio Watercourse Master Plan.	Score
5 Points – The Distressed Properties is located within the historic district of the City; OR, the Distressed Property is identified in the El Rio Watercourse Master Plan.	
Category 5: Property Size	
1 Point – The Distressed Property is one acre or smaller in size.	Score
3 Points – The Distressed Property is greater than one acre in size but less than 10 acres.	
5 Points – The Distressed Property is 10 acres or larger in size.	
Category 6: Property Ownership's Willingness to Participate	
1 Point – Property owner(s) is unlikely willing to participate in the Goodyear Brownfields project.	Score
3 Points – Property owner(s) willingness to participate in the Goodyear Brownfields project is unknown.	
5 Points – Property owner(s) is likely willing to participate in the Goodyear Brownfields project.	

Questions or Comments?



B R O W N A N D
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