

OU #11-045

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

**Thursday, February 10, 2011 at 6:00 p.m. to 8:30 p.m.
Goodyear City Hall, Room 117
190 N. Litchfield Rd., Goodyear, AZ 85338**

FINAL MINUTES

CAG Members in Attendance:

Diane Krone-Co-Chair
Brenda Holland-Co-Chair
Susan Kagan
Lisa Amos
Jeff Raible
Thomas Jones
David Ellis
Frank Scott
Michael Barbetta

ADEQ Staff in Attendance:

Harry Hendler, Federal Projects Unit Manager
Nicole Coronado, PGA-North Project Manager
André Chiaradia, PGA-South and Western Avenue
Project Manager
Wayne Miller, Hydrologist
Delfina C. Olivarez, Project Manager
Felicia Calderon, Community Involvement Coordinator (CIC)

EPA Staff in Attendance:

Catherine Brown, PGA-North Remedial Project Manager
Viola Cooper, CIC

Others in Attendance:

Marie Lopez Rogers, City of Avondale Mayor; Sheri Lauritano, Goodyear City Counsel; Gary Gelzer, Goodyear City Counsel; Dr. Anthony Pantaleoni, Vice-President, Environment, Health & Safety, Crane Co.; David Iwanski, City of Goodyear; Nadine Johnson, Environmental Community Outreach (ECO) Association; William Schuyler; Ron Rinaldi; Mary Moore; Wayne Janis, City of Avondale; Jennie Conger, Tierra Dynamic Co.; Robin Stinnett, City of Avondale; John Creedon, City of Litchfield Park; David Madrid, Arizona Republic; Tom Suriano, Clear Creek Associates; Nancy Nesky, ITSI; Keith Woodburn, TRC; Ailiang Gu, ITSI; Jeff Sussman, Goodyear Tire & Rubber Co.; Harry Brenton, Matrix New World Engineering; Paul Jeffers, AMEC Geomatrix Inc.; Stephanie Lyn Koehne, AMEC Geomatrix Inc.; David R. Bartholomew; and Matt Fesko.

1. Call to Order / Introductions – Brenda Holland, CAG Co-Chair

Ms. Holland, CAG Co-Chair, facilitated the meeting. Agenda items PGA-North update by AMEC and CAG discussion with a Crane Co. representative were moved up to number five and six on the schedule.

2. Acceptance and/or changes to minutes of November 4, and December 30, 2010-Brenda Holland, CAG Co-Chair

Ms. Krone requested that on page three of the Nov. 4, minutes under agenda item three the name and date of the event ADEQ attended be changed. Ms. Krone also requested that under agenda item number two, first paragraph a statement from Mr. Iwanski be clarified with an “and or.” Ms. Amos also requested a change to these minutes. She commented that an “s” be removed from a word located on page five, last paragraph under agenda item nine. Ms. Kagan moved to have the meeting minutes from Nov. 4, approved with the requested changes and Mr. Raible seconded. The Nov. 4, minutes were approved unanimously by the CAG.

Mr. Raible requested to accept the minutes of Dec. 30, as written and Ms. Krone seconded. The Dec. 30, minutes were approved unanimously by the CAG.

3. New CAG member discussion and vote-Brenda Holland, Co-Chair

Mr. Barbetta discussed with the CAG his professional background and expressed his interests in serving on the CAG. Ms. Krone motioned to vote Mr. Barbetta onto the CAG and Mr. Jones seconded. Mr. Barbetta was voted unanimously by the CAG onto the Group.

4. Discussion of community involvement activities-Nadine Johnson, Environmental Community Outreach Association (ECO)

Ms. Johnson reviewed with the CAG, ECO’s role and future outreach activities. Ms. Johnson expressed her desire for continuous collaboration with the CAG.

See slide presentation below

Ms. Holland communicated her support for ECO’s outreach efforts and hopes this will also highlight the CAG’s historic advocacy for the cleanup of the Site. Mr. Jones inquired of the duration of the Technical Assistance Grant (TAG). Ms. Johnson stated that this grant is a three year contract that can be extended. Ms. Amos inquired on the Technical Assistant (TA) that Ms. Johnson is seeking to hire in the next month. Ms. Johnson stated that the TA will be selected by the ECO board, which includes Ms. Krone. Ms. Johnson stated that she is still working on the CAG presentation with Ms. Krone and that it might be ready to present at the next CAG meeting on May 5, 2011.

The CAG took a 5-minute break.

After the break, Ms. Holland called for introductions of all meeting attendees and highlighted the changes in the agenda.

5. Update of PGA-North activities –Stephanie Lyn Koehne, AMEC Geomatrix, Inc., Project Manager

Ms. Koehne’s presentation to the CAG discussed the following topics: current groundwater conditions; groundwater investigation and monitoring; phased regional approach to northeast subunit A plume; O&M of groundwater treatment systems; extraction well EA-08 update, and site plans for 2011.

See slide presentation below

Mr. Raible requested Ms. Koehne define the subunits referenced in her presentation. Mr. Ellis discussed with Ms. Koehne well sampling procedures. Ms. Krone inquired if the well contaminants from IR-26A crossed over into the Roosevelt Irrigation District (RID). Mr. Brenton replied that there was a detection hit, in November 2010 of about 6 parts per billion (ppb), but since then samples have decreased.

Mr. Ellis inquired if the contaminant levels in the northeast part of the plume were rising. Mr. Brenton responded that most of the wells in this area have been consistently non detectable. Mr. Brenton added that they have been shrinking the plume in this area since injection began in August 2010.

Ms. Krone inquired if the concentrations were rising in the sentinel wells, or boundary wells close to City of Goodyear (COG) well #3. Mr. Brenton advised that these sentinel wells have been relatively stable in their concentrations. Mr. Brenton did add that in subunit A one monitoring well, EPA 10-A had seen increases in concentrations.

Mr. Ellis inquired if additional extraction wells would be necessary in the future. Mr. Brenton replied yes, and described where additional extractions wells would be installed.

Mr. Brenton commented to Ms. Krone that subunit C wells were all non-detect for contamination. Mr. Brenton confirmed for Ms. Krone that the plume has expanded in the northwest area.

Mr. Brenton began his presentation on the groundwater investigation accomplishments

See slide presentation below

Mr. Scott discussed with Crane Co., EPA's 2010 FYR results that were competing against Crane's report of plume containment. Mr. Brenton stated that plume containment is not that far out in the future for PGA-North.

Ms. Koehne showed Mr. Raible on a map where injection wells IA-14 and IA 15 were installed as of January 3, 2011.

Mr. Ellis expressed his frustration on the small maps supplied for PGA-North presenters. Mr. Ellis also requested the PGA-North maps be broken down into specific areas when they are discussed, e.g. southwest, and northeast etc. Mr. Raible requested that diagrams be included that represent the different subunits besides A, and their well locations. Ms. Krone restated her request for identification of drinking water wells on all maps. Mr. Ellis also requested maps that depict trends of concentrations over time be presented at future CAG meetings.

Paul Jeffers, Hydrologist with AMEC Geomatrix assisted Mr. Brenton in identifying plume characteristics, specifically its movement. Ms. Holland offered to aid AMEC Geomatrix in contacting the affected HOA of a proposed well installation site.

6. CAG discussion with Mr. Pantaleoni, Vice-President, Environment, Health & Safety Crane Co.

Mr. Pantaleoni held a conversation with the CAG members and presented a PowerPoint presentation of highlights for PGA-North.

See slide presentation below

Mr. Pantaleoni offered to host a technical meeting for the CAG to become better informed with the technical logistics and activities of Crane Co. for PGA-North. Mr. Pantaleoni defined site

characteristics that differed between PGA-North and PGA-South plumes. Ms. Holland clarified the CAG's awareness of the differences of the two plumes, and suggested that their plume comparison was done to highlight the remediation results produced at PGA-South and the lack of at PGA-North. Mr. Pantaleoni stated that Crane Co. has not done a good job at communicating with the CAG, their remediation activities. Mr. Ellis stated that the history and perception is that Crane Co. does only what it's forced to do. Mr. Ellis and Ms. Krone stated they wanted Crane Co. to step up and be more proactive. Ms. Kagan stated her desire to see a bigger commitment from Crane Co. with regards to monies used towards the site. Ms. Kagan added that Crane Co. certainly has the extra monetary means to spend to control and remedy the plume at PGA-North. Mr. Pantaleoni provided details of remediation activities and their respective costs conducted for this site in the last three years. Ms. Holland stated that Crane Co.'s historic reluctant attitude to be proactive in cleaning up the site, casts doubts for the CAG, on their future commitment to clean up the site. Mr. Scott requested of Mr. Pantaleoni that the plume be stopped and contaminants removed. Mr. Ellis commented that he was impressed that Mr. Fast has asked for a weekly report on PGA-North. Mr. Pantaleoni stated that there are other remediation technologies that Crane Co. is reviewing to use at the site. Mr. Raible expressed the importance of water for Arizona's expanding cities to Mr. Pantaleoni.

Ms. Brown reiterated that the drinking water supply for all cities involved was safe. Ms. Brown clarified when the data for the 2010 FYR report was collected. Ms. Brown added that there is a lot of work going on for PGA-North and that Crane Co. has a strong team in place.

7. Update of PGA-South activities- Jeff Sussman, Goodyear Tire & Rubber Company

Mr. Sussman updated the CAG on PGA-South plume locations, current and upcoming activities related to the site.

See slide presentation below

Mr. Suussman discussed contaminant levels for the Subunit A aquifer with Mr. Ellis.

8. ADEQ update of PGA-South and Western Avenue WQARF site activities-André Chiaradia, ADEQ Project Manager

Mr. Chiaradia presented site histories and remediation milestones for PGA-South and Western Avenue.

See slide presentation below

Mr. Chiaradia discussed locations of monitoring wells at Western Avenue with Ms. Krone.

9. U.S. EPA update for PGA-North activities – Catherine Brown, U.S. EPA Remedial Project Manager

Ms. Brown expressed her appreciation for the CAG's letter to Crane Co., which she feels partly attributed to Crane Co.'s recent offer to the team's hydrologists concerning northeast containment of the plume. Ms. Brown commented that the dispute with data and five of injection wells required in the northeast had been resolved with Crane Co. Ms. Brown reminded the CAG that the data captured in the September 2010 FYR was collected up to December 2009. Ms. Brown added that all the drinking water wells in relation to the site are safe. Ms. Brown presented her hopes to complete the groundwater investigation and accelerate source area treatment this year.

Mr. Raible questioned the validity of the Crane Co. data that is being reported to the CAG. Ms. Brown stated that QA controls under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and consent decree (CD) ensure the data's accuracy. Ms. Brown added that the interpretation of that data over time is where the differences of opinions arise. Ms. Brown stated that it is her job to figure out which is the right direction when interpretation

variances arise among the experts on the team. Ms. Brown added that one single technology to clean up the site has not been determined.

Mr. Raible and Ms. Brown briefly discussed the future of the Superfund program nationwide.

10. City of Goodyear (COG) report and Brownsfields Supplemental Environmental Project update – David Iwanski, COG Water Department

Mr. Iwanski commented that any City permitting request, Superfund related gets the highest priority. Mr. Iwanski stated his support for the release of the Site quarterly agendas to the CAG that are produced for the Site technical meetings with the Agencies, Cities and contractors. Mr. Iwanski stated the disappointment the CAG has with Crane Co., is not related to communication issues, this can always be improved, but the bottom line is performance deliverables, expectations met as to clean up. Mr. Iwanski stated one of the City’s highest priorities is to protect the COG-3 well. In regards to Brownsfields, Mr. Iwanski stated that approval to do stage three remediations was received on January 24, for the four City properties. Mr. Iwanski reiterated that all the funding for this Brownsfields project was received in the settlement with the City and Crane Co. Mr. Iwanski announced to the CAG his resignation to the Public Works director. Mr. Iwanski added that his last day is scheduled for May 6, 2011. Mr. Iwanski offered his appreciation to work on behalf of the CAG. Ms. Krone expressed her appreciation for Mr. Iwanski’s effort on the project.

11.*Call to the Public

Ms. Moore discussed with Mr. Sussman trichloroethylene (TCE) concentrations that were detected in PGA-South.

12. Future meeting and agenda items discussion

The next CAG meeting was scheduled for Thursday, May 5, 2011 at the Goodyear City Hall, 190 N. Litchfield Rd., Goodyear, AZ. Suggested agenda topics for the next CAG meeting included: updates on PGA-North, PGA-South, Western Avenue activities, Community Involvement Activities, and a draft CAG presentation to CAG members.

13. Adjournment

Ms. Holland adjourned the meeting.

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



Stephanie Koehne

AMEC Geomatrix, Inc., Scottsdale, AZ

Harry Brenton

Matrix New World Engineering, Goodyear, AZ



Update for PGA-North



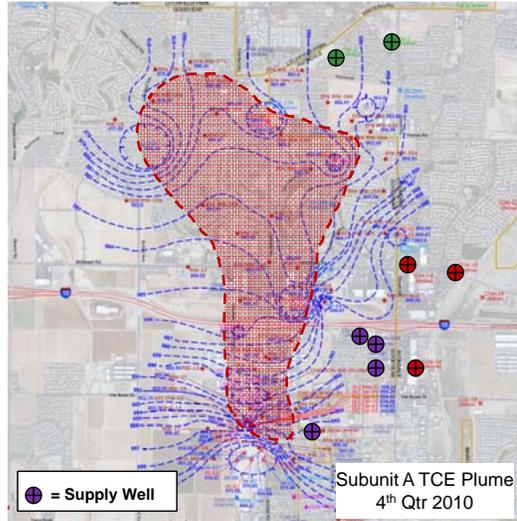
- Current Groundwater Conditions
- Groundwater Investigation
- Groundwater Monitoring
- Phased Regional Approach to Northeast Subunit A Plume
- O&M of Groundwater Treatment Systems
- Extraction Well EA-08 Update
- Site Plan for 2011

Groundwater Conditions- Subunit A



- PGA-N Subunit A TCE plume as of 4th Quarter 2010 (November 2010).

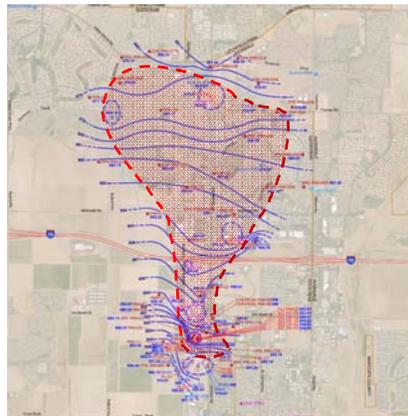
- Groundwater contours as of November 2010.



Subunit A Groundwater Contours



Since mid 2009, the Subunit A TCE plume in the northeast area has remained stable and is not expanding



December 2009

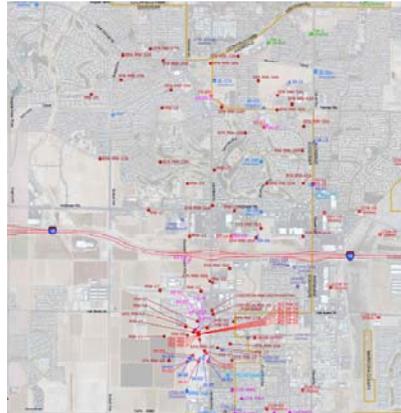


December 2010

Accomplishments – Groundwater Investigation



- Worked with agencies and stakeholders to develop strategy for 4 groundwater investigation Work Plans.
- Installed 49 monitor wells since 2006.
 - 31 wells in Subunit A
 - 18 wells in Subunit C and MAU
- Every well location and design is determined by consensus from agencies and stakeholders.



Accomplishments – Groundwater Investigation



- Represents over two vertical miles of well drilling
- Once wells are drilled they are entered into the groundwater monitoring program.



Accomplishments – Groundwater Monitoring



Monthly

- # of wells sampled on a monthly basis – 46
- # of samples collected on a monthly basis – 55

Quarterly

- # of monitor wells sampled on a quarterly basis – 96
- # of samples collected on a quarterly basis – 108

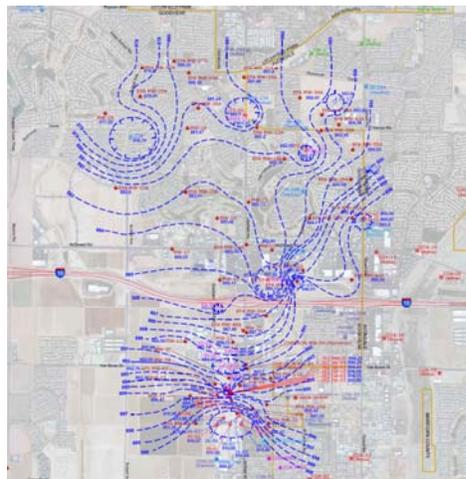


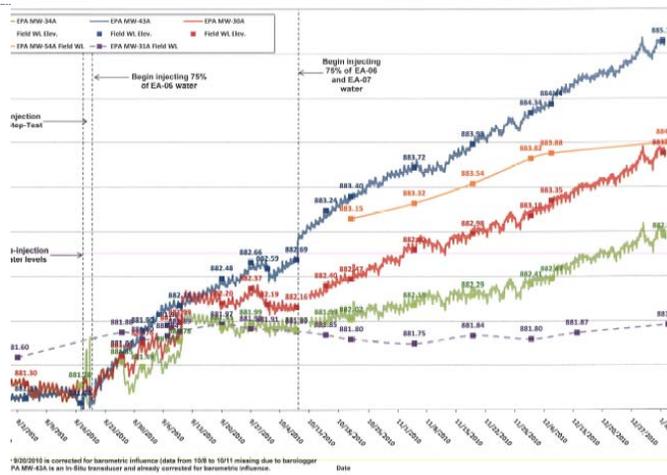
Accomplishments – Groundwater Monitoring



Data

- Data is reviewed on a daily basis and provided to the team on a weekly basis
- Groundwater flow maps are prepared on a monthly basis
- Data is assimilated to agencies and stakeholders on a weekly, monthly, and quarterly basis.





Accomplishments – Groundwater Monitoring



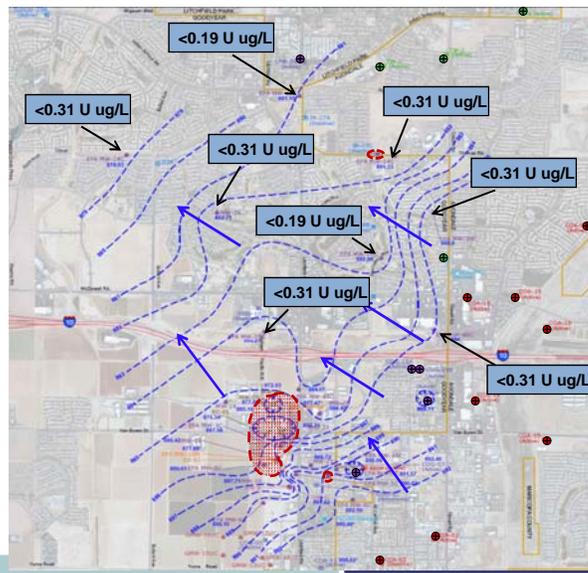
Subunit C Monitoring Well Network

- All monitoring wells in Subunit C north of I-10 remain below cleanup standards for TCE and perchlorate. Thus, the main source of drinking water in that area remains below cleanup standards.
- Additional sentinel wells located in Subunit C and portions of the plume south of I-10 demonstrate the drinking water supplies are protected.

Subunit C Groundwater Conditions – North of I-10



- Most water supply wells in the area withdraw water from the Subunit C and MAU aquifers.
- All monitor wells North of I-10 remain below the site specific clean up standard (MCLs) for TCE and perchlorate.
- Where TCE is present the mass is isolated and stable.
- Groundwater flow is toward the Northwest away from water supply wells.
- The main source of drinking water in the area is protected and remains below the clean up standards.



Subunit C Groundwater Conditions – South of I-10 COG -03 Area



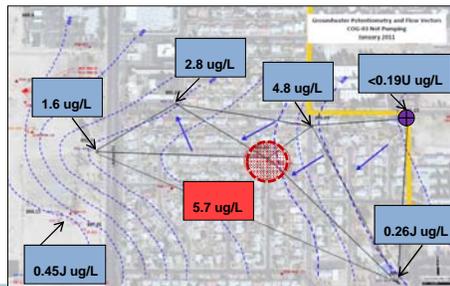
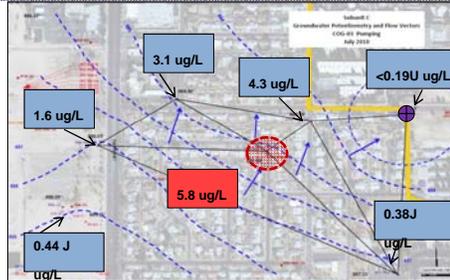
- Most Subunit C monitor wells in the COG-03 area indicate TCE below the site specific clean up levels (MCLs).

- Where TCE is present above MCLs, it is isolated and has been stable since 2006

- COG-03 pumps episodically based on water demands.

- Due to the episodic operational schedule of COG-03, contamination is not moving toward the well.

- MTS expansion and optimization activities in 2010 will provide further protection of COG-03



Phased Regional Approach to Northeast Subunit A Plume



Phased Regional Approach to Northeast Subunit A Plume



Discussion Overview:

- Review of Completed Work
- IA-13 / IA-14 / IA-15 Installation



Injection Well IA-13 Location Map



Injection Well IA-14 Location Map



Injection Well IA-15 Location Map



Phased Regional Approach to Northeast Subunit A Plume



Activities Completed for IA-13, IA-14, and IA-15

- Obtained well and vault construction permits
- Obtained traffic control permits
- Drilled and constructed IA-13 in November 2010
- Installed IA-13 well vault and tied into distribution line in December 2010
- Started manual injection of water into IA-13 on January 5, 2011



Phased Regional Approach to Northeast Subunit A Plume



Activities Completed for IA-13, IA-14, and IA-15

- Drilled and constructed IA-14 and IA-15 January 3 – 13, 2011
- Installed IA-14 and IA-15 well vaults/valves January 14 – 24, 2011
- Tied IA-15 into distribution line on January 21, 2011
- Tied IA-14 into distribution line on January 28, 2011

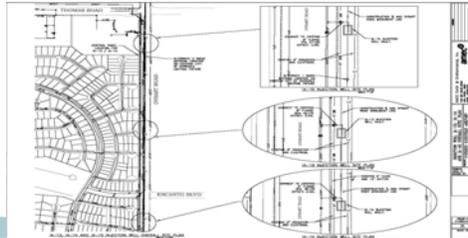


Phased Regional Approach to Northeast Subunit A Plume



Remaining Activities for IA-13, IA-14, & IA-15

- Electrical Permits
 - Anticipated issuance of COG permit week of February 7, 2011
 - Anticipated issuance of COA permit week of February 14, 2011
- Electrical Installation for New Injection Wells
 - Extend power north from IA-12 to IA-14 location
 - Run new power supply line from transformer to IA-13 & IA-15 control box
 - Extend power from control box to IA-13 & IA-15
 - New control panel for IA-13 & IA-15 currently being constructed
 - Modify PLC programming



Phased Regional Approach to Northeast Subunit A Plume



O&M of Groundwater Treatment Systems



2010 Accomplishments



- 2010 Groundwater Volume Treated
 - 1,123,900,000 gallons
- 2010 Mass Removal
 - 1,154 Pounds TCE
- 2010 Treatment Aggregate System Uptime
 - 33,903 Hours Operational
 - 35,184 Hours Available
 - 96.4 % Uptime

2010 Accomplishments



- In the last four years, Crane Co. has nearly quadrupled the amount of extracted and treated water from 290 million gallons in 2006 to 1.13 billion gallons in 2010.
- The number is expected to increase substantially again in 2011 with the installation of an additional extraction well and will exceed 1.4 billion gallons.

Green Remediation



- MTS Pumping System Assessment
 - Removed Redundant Transfer Pump
 - Expected Reduction – 22,800 kWhr/year
 - 16.4 Metric Tons CO2 Equivalent
- Beneficial Reuse of Treated Water – 4th Q 2010
 - MTS – 5.9 MM gallons (irrigation)
 - 33A – 11.3 MM gallons (golf course)
 - EA-05 – 75,000 gallons (dust control)

MTS System Upgrades



- Safety/Security Additions
 - Sun Shade for IX Pad – 1st Q 2011
 - Additional Lighting for IX Pad
 - Additional Steps/Hand Rails
- Replacement of Pipeline to Injection Wells
 - Replacement of Old, Small Diameter Pipes
 - New 6" and 8" Diameter HDPE Trunk-line
 - New HDPE Laterals
 - New Well Head Completion & Flow Meters

Step/Grating Upgrades



New Trunkline Installation



Tie New Pipeline into MTS



New Injection Well Completion



New Flowmeter



Extraction Well EA-08 Update

Work Plan Status



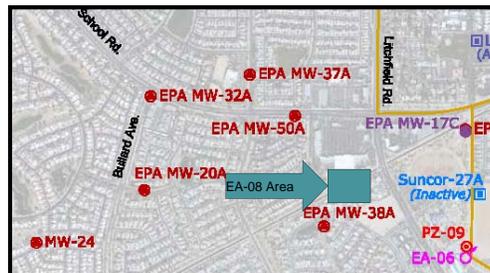
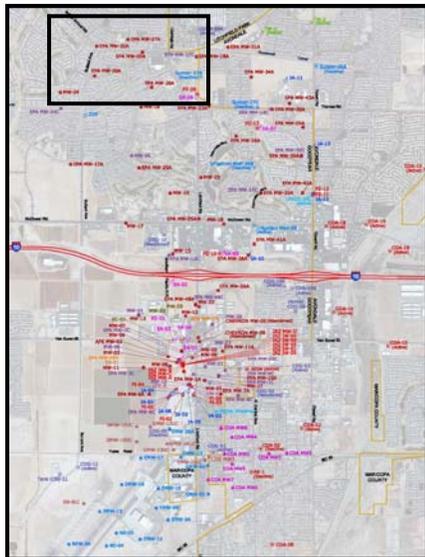
- EA-08 Work Plan – Submitted November 23, 2010
- Comments Issued – December 9, 2010
- Response to Comments – January 10, 2011
 - Key Item – Optimize Well Location and Model Sensitivity Analysis
- Modeling Conference Call – January 21, 2011
- EPA Directed Finalization – January 26, 2011

Why EA-08 ?



- EPA MW-38A – Installed March 2010
 - Elevated Levels of TCE as Anticipated
- EPA MW-50A – Installed August 2010
 - Data Shows TCE Above MCL
- Crane Co. is Committed to Plume Containment

EA-08 Area



Key Monitoring Data



- EPA MW-38A – Remains Stable
- EPA MW-50A – Remains Stable/Declining
 - Oct 2010 – 19 ug/L
 - Nov 2010 – 15 ug/L
 - Dec 2010 – 14 ug/L
 - Jan 2011 – 14 ug/L
- Additional Sentinel Wells Remain ND
 - EPA MW-32A/EPA MW-37A
 - Includes Vertical Profile Sampling – EPA MW-37A

What is EA-08 ?



- Subunit A Extraction Well – EA-08
 - North of RID Canal on COG Right of Way Property
- Temporary LPGAC Treatment System
- Treated Groundwater Discharge to RID Canal
- Mission – Rapid Implementation

EA-08 Location



Schedule Summary



- Work Plan to be Finalized – February 28, 2011
- System Design/Engineering – Completed
- Submittal to COG – Completed
- Submittal to RID - Pending
- COG Access Agreement – Awaiting from COG
- Procure Equipment – Underway
- Well Installation/Development – March/April 2011
- Piping and System Installation – May/June 2011
- Complete Electrical Service – June/July 2011
- Start-up/Shakedown – July 2011

Site Plans for 2011



- Install an additional 12 to 15 monitor wells
- Install an additional Subunit A groundwater extraction well and treatment system in the northern part of the plume (EA-08)
- Increase the amount of groundwater treated by 15 - 20%
- Expand the interim site vegetation and beautification project to nearly 12 acres of Bermuda grass ground cover and 2 acres of native plant species. Increase beneficial reuse of remediated groundwater by an order of magnitude
- Expand the on-site soil vapor extraction and treatment system to remove more TCE mass
- Provide treated groundwater for golf course irrigation

Questions?



PGA-North Superfund Site

HIGHLIGHTS

Dr. Anthony Pantaleoni,
Vice-President, Environment, Health & Safety
Crane Co.

Accomplishments Since Executing Consent Decree with EPA in 2006

- Installed 49 monitor wells
- Installed 5 new groundwater extraction wells/systems
- Quadrupled the amount of groundwater treated from 2006 to 2010 and increased TCE mass removal by 100%
- Demolished and removed over 20 Site buildings and structures
- Defined and contained the Subunit A plume in the North and Northeast areas.

Additional Activities Planned for 2011

- Installation of an additional 12 to 15 monitor wells.
- Installation a new groundwater extraction well/system.
- Increase the amount of groundwater treated by an additional 15 to 20%.
- Expand the on-Site soil treatment system to remove additional TCE

Important Groundwater Conditions

- Since mid-2009, the Subunit A plume in the Northeast area has remained stable = not expanding.
- Monitoring wells in Subunit C north of I-10 remain below cleanup standards.
- Groundwater flow is now away from City of Avondale and Liberty Water supply wells in the northeastern area.
- This is a direct result of Crane Co.'s expansion work in 2010.
- Sentinel wells demonstrate that City of Goodyear, City of Avondale, Litchfield Park, and Liberty Water drinking water supplies are protected.
- The PGA-North contamination poses no current to threat to human health.

Comparison of PGA North and South Sites

- According to the EPA, 50,000+ pounds of TCE has been removed from the PGA-North.
 - Six times the amount removed at PGA-South.
- Before the problems were identified the PGA-North, the plume was already an order of magnitude larger than the PGA-South plume.
- Regional pumping caused more stress around the PGA-North plume, causing greater plume change



pgg SUPERFUND
PHOENIX-GOODYEAR AIRPORT SUPERFUND SITE
COMMUNITY EDUCATION & OUTREACH

Community Outreach Update

Presented By:



environmental
community outreach

ECO's Role

- ECO will collaborate with all involved entities (ADEQ, EPA, CAG, PRP's) and will direct the scope of the Technical Advisor. ECO will provide the affected community with access to centralized site history information as well as ongoing remediation efforts.
- ECO does not replace the CAG as established by ADEQ. We are an independent organization representing the community.



TASC

- **June 2010:** Technical Assistance Services for Communities (TASC) provides independent educational and technical assistance to communities.
 - Conduct Community Needs Assessment
 - Develop Initial Communication Material
 - Attend Goodyear In Action Day & EPA Open House events
 - Review and provide feedback on Technical Assistance Grant (TAG)
 - Provide website design support
 - Provide information and support in searching for Technical Advisor



Needs Assessment

- **June-November 2010:** The purpose of the Needs Assessment was to better understand the technical assistance needs of the community surrounding the PGA Superfund Site and the Western Avenue Plume Water Quality Assurance Revolving Fund (WQARF) Site.
 - Why hasn't PGA North been cleaned up as quickly as PGA South and what can be done to expedite cleanup?
 - How does the new conduit well and plume expansion affect the community?
 - What will happen if a well supplying public drinking water needs to be closed? Water is scarce in the West.
 - What is the quality of our drinking water?
 - How does the site affect health of residents? Why is there a new cancer center in area?
 - How is the site impacting wildlife?
 - How will the site be reused?
 - What are the effects on our real estate?



TAG

- **December 2010:** Environmental Community Outreach Association (ECO), submitted Technical Assistance Grant (TAG) application. TAG will provide resources for an independent Technical Advisor who will review site related documents and perform technical duties to interpret information that will respond to the community's needs.



Upcoming Outreach Activities

- **January-February 2011:** ECO to develop a PGA website that will centralize outreach information
- **January-February 2011:** ECO to begin searching for Technical Advisor and conducting interviews
- **March 26, 2011:** EcoAvenues community event @ Estrella Mountain Community College. EPA, ADEQ & ECO to have booths in the 'Education Row' to provide information and resources to attendees. Expected Participation: 1000+
- **March-April 2011:** ECO to partner with GateWay Community College for internship opportunities for Water Resources Students
- **March-April 2011:** ECO to receive TAG grant and hire technical advisor



Community Outreach Contacts

Environmental Community Outreach Association (ECO)

Facebook: PGA Superfund

Twitter: @ pga_superfund

Email: eco@cox.net

Phone: 602.615.5447



Phoenix Goodyear Airport-South Project Site Status Report

Community Advisory Group Meeting
February 10, 2011

Jeffery Sussman
Remediation Manager
The Goodyear Tire & Rubber Company

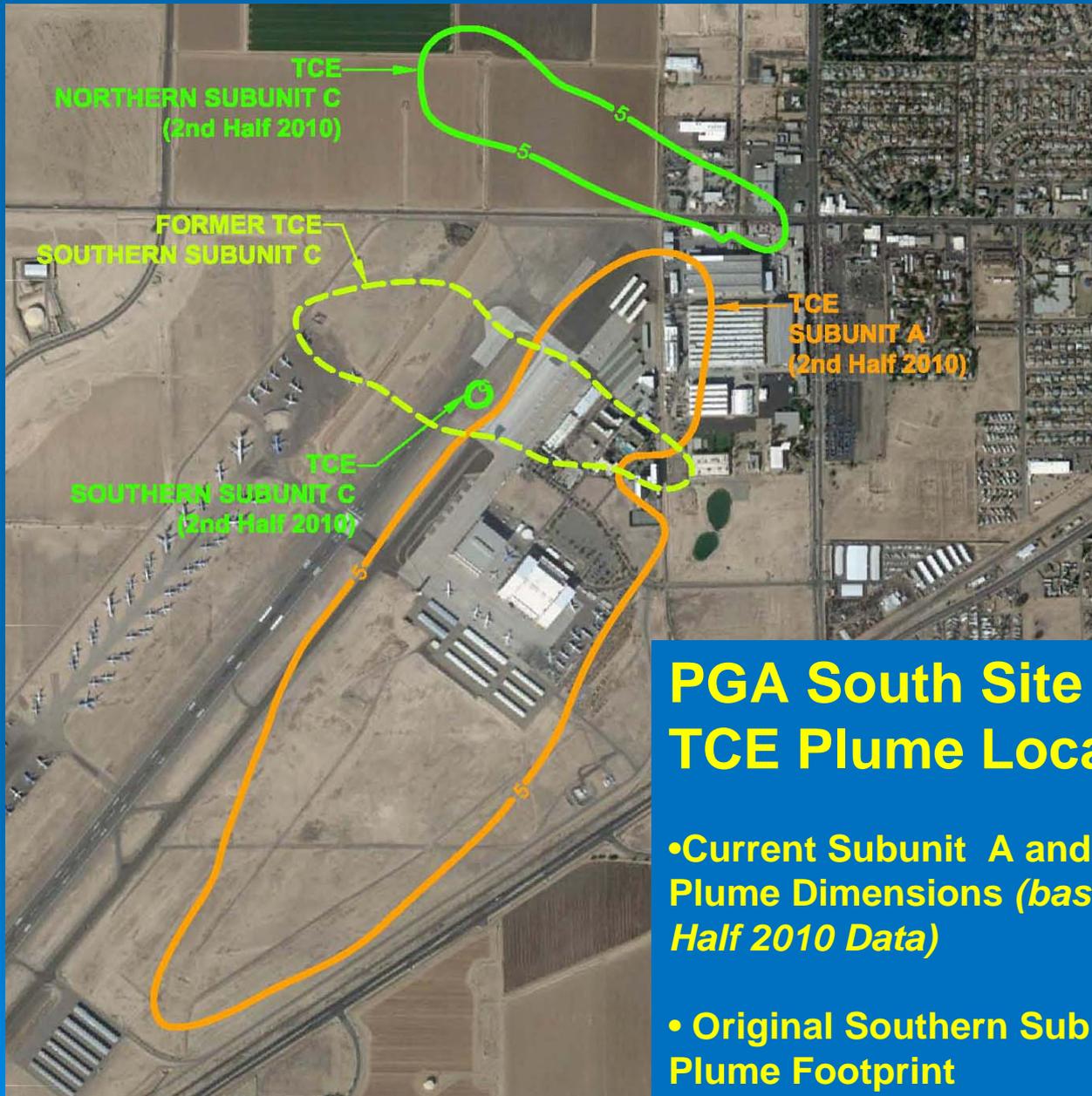
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GOODYEAR

TRC

Agenda

- **PGA South Site – Plume Locations**
- **Update Status of Ongoing Cleanup**
- **Review Current Activities**
- **Upcoming Activities**



PGA South Site TCE Plume Locations

- Current Subunit A and Subunit C Plume Dimensions (*based on 2nd Half 2010 Data*)
- Original Southern Subunit C Plume Footprint



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PGA South

Review of Current Activities

- Status of Clean-Up
- Monitoring of Southern Subunit C Plume (no active remediation)
- GAC – 04 Evaluation and Sampling Results
- Continued active remediation of Subunit A and Northern Subunit C plumes

Status of Ongoing Cleanup

Subunit A Aquifer

- Peak TCE concentrations in monitoring wells have declined from 2,600 µg/L in 1990 to 56 µg/L in November/December 2010
- Treatment System Uptime during Q4 2010 was 99%

Subunit C Aquifer

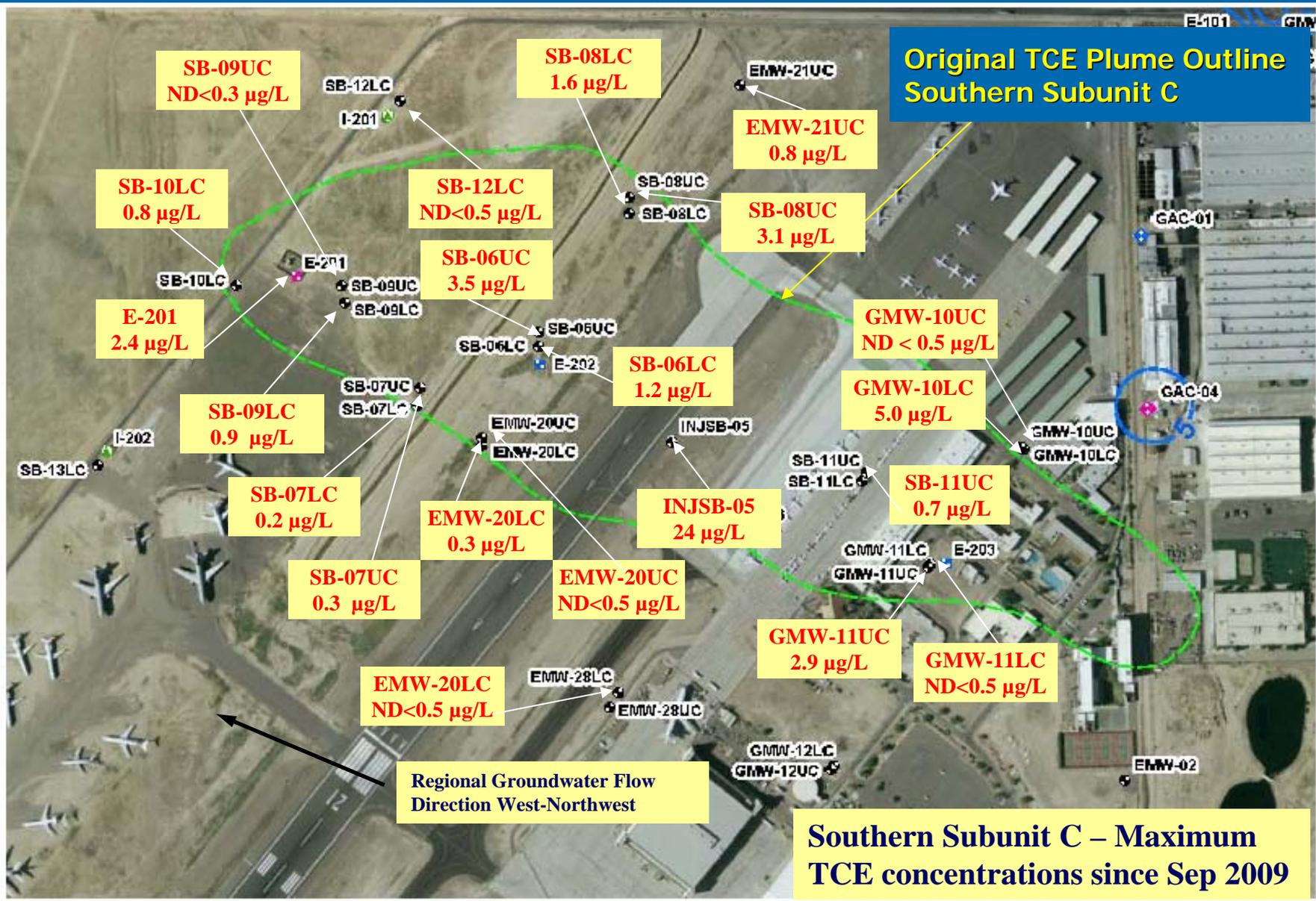
- Peak TCE concentrations in Northern Subunit C monitoring wells have declined from 180 µg/L in 1990 to 76 µg/L in November/December 2010
- Routine carbon replacement in Southern Subunit C Treatment System in November 2010
- Treatment System Uptime during Q4 2010 was 99%

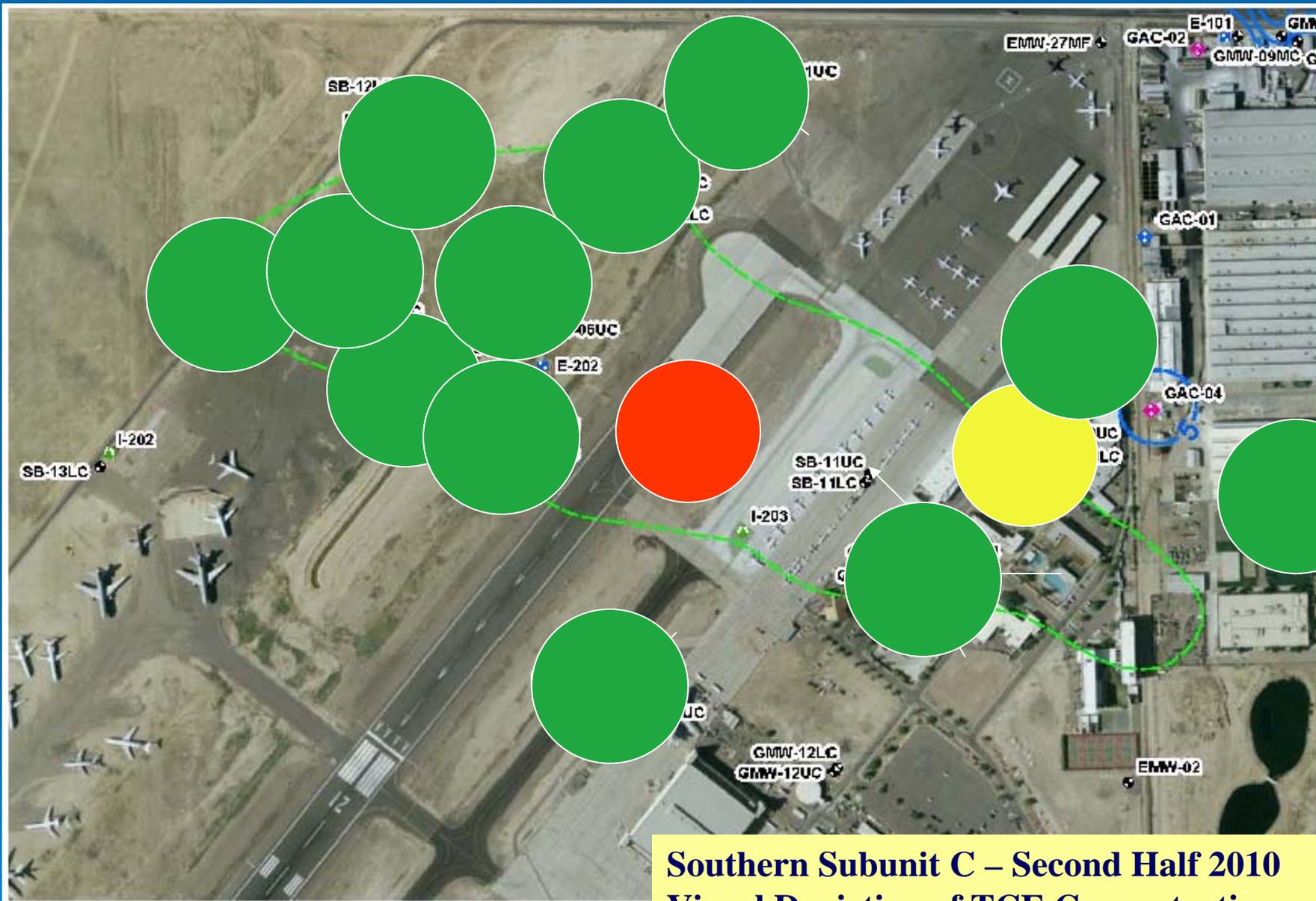
Groundwater TCE Cleanup Progress

Subunit	Max TCE (µg/L) 1990	Max TCE (µg/L) Nov 2010	Cumulative Volume Pumped (Mgal)	Cumulative TCE Removed (Lbs)
Subunit A	2,600	56 (E-04)	5,361	5,478
Southern Subunit C	150	24 (INJSB-05)	1,826	172
Northern Subunit C	180	76 (GMW-13UC)	2,179	61
		TOTAL	9,366	5,711

Southern Subunit C Monitoring Update

- Since Sept 2009, monitoring wells sampled quarterly to evaluate potential rebound in TCE concentrations
- Additional Southern Subunit C wells sampled during November/December 2010 monitoring event (the “snapshot” event)
- All southern Subunit C wells remain at or below 5 µg/l (with exception of one well)





**Southern Subunit C – Second Half 2010
Visual Depiction of TCE Concentrations**

- TCE < 3.5 ug/L
- TCE > 5.0 ug/L & < 7.5 ug/l
- TCE > 7.5 ug/L & < 25 ug/l

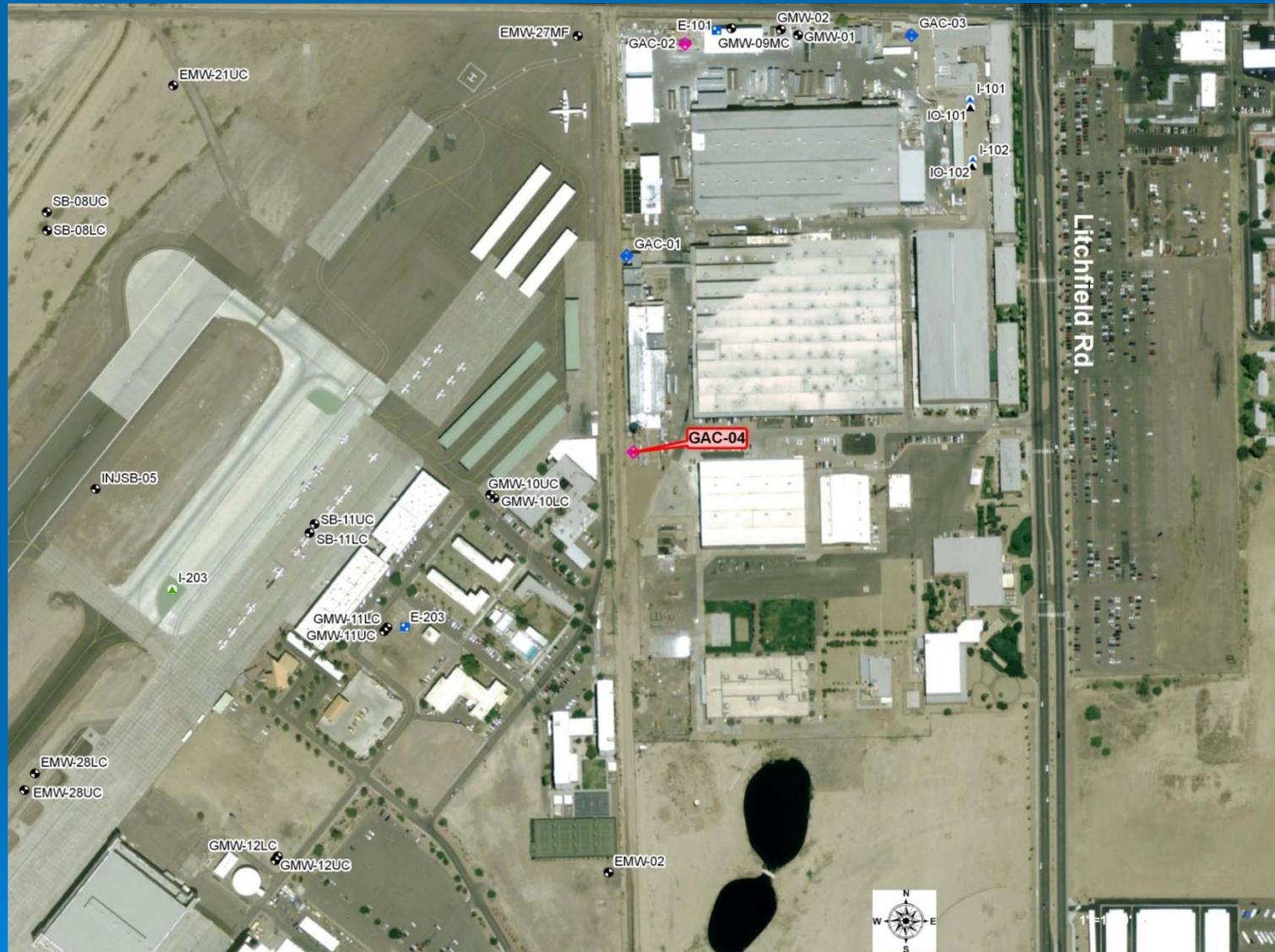
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Southern Subunit Monitoring Path Forward

- Continued monitoring of Southern Subunit C with modifications (wells and frequency)
- No re-start of Southern Subunit C groundwater extraction wells unless data indicates necessity
- Southern Subunit C groundwater injection will continue using treated Northern Subunit C water

GAC-04 Investigation Update

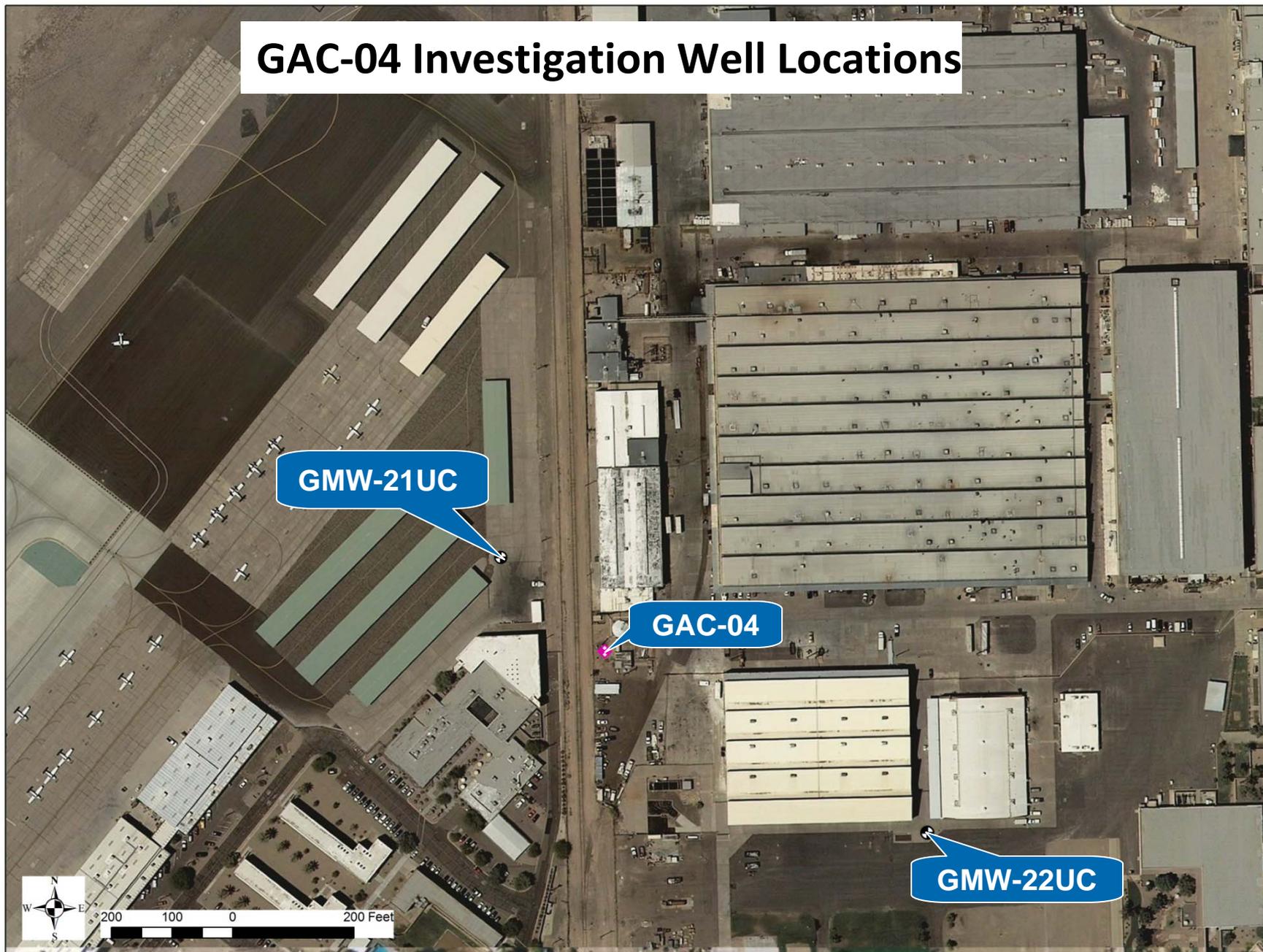


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GOODYEAR

TRC

GAC-04 Investigation Well Locations



GMW-21UC

GAC-04

GMW-22UC



200 100 0 200 Feet

GAC-04 Investigation and Sampling Update

- Continued operation of GAC-04 and monthly sampling
- TCE results from last 6 months < 6.6 µg/L (Most recent Dec 2010 result 3.2 µg/L)
- Additional GAC-04 rebound test conducted in Dec-Jan 2011
- Monitoring wells GMW-21UC and GMW-22UC incorporated into quarterly sampling schedule

GAC-04 / GMW-21UC / GMW-22UC TCE Results

Sample Date	GAC-04	GMW-21UC	GMW-22UC
June '10	5.2	140*	<0.48
July '10	7.2	4.5	<0.5
Aug '10	6.1	0.6	<0.5
Sept '10	6.6	0.5	<0.5
Oct '10	4.8	0.8	<0.5
Nov '10	3.2	NS	NS
Dec '10	3.1	0.8	<0.5

Notes:

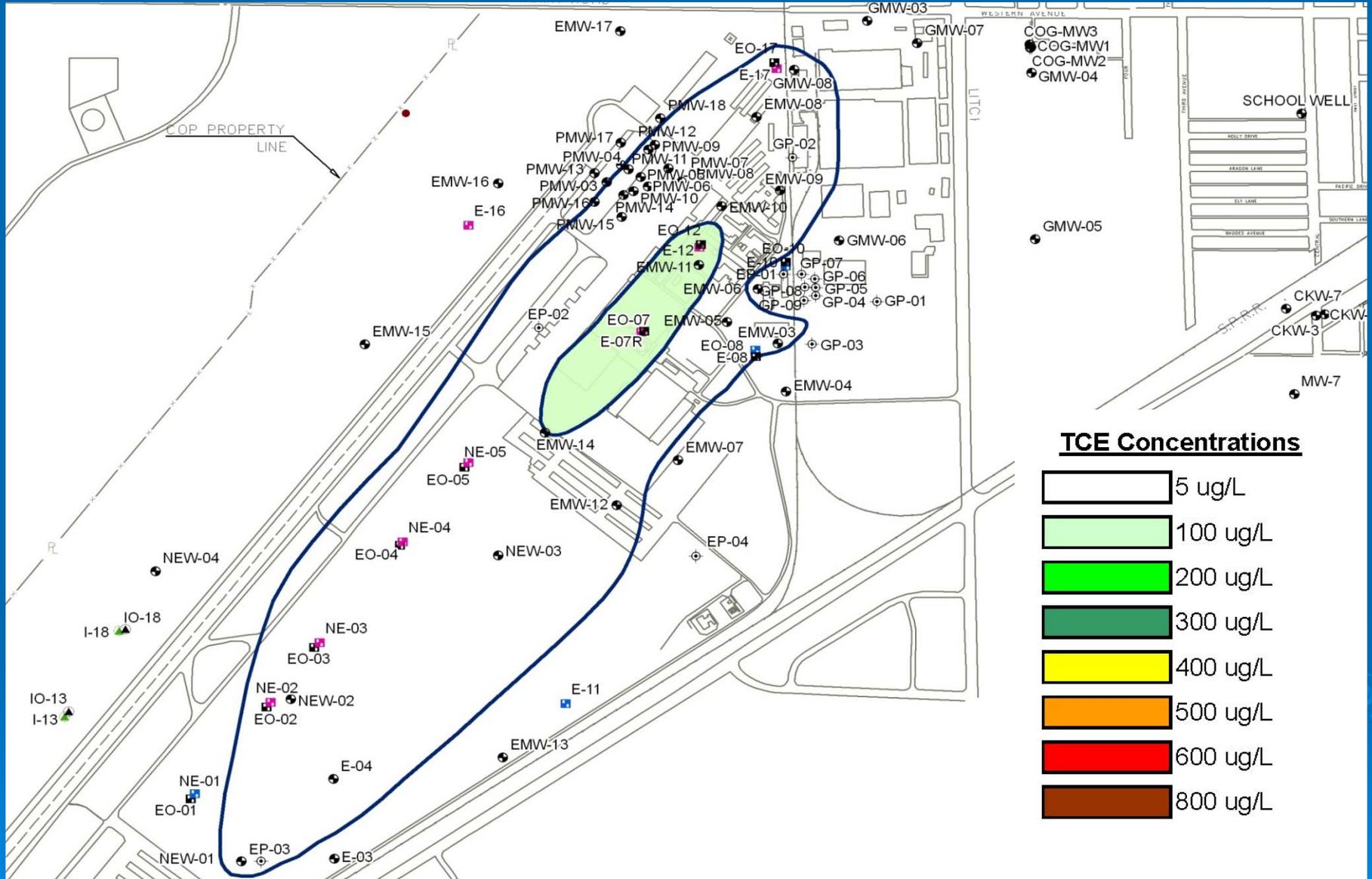
All concentrations in micrograms per liter ($\mu\text{g/L}$)

TCE = Trichloroethene

NS = Not Sampled

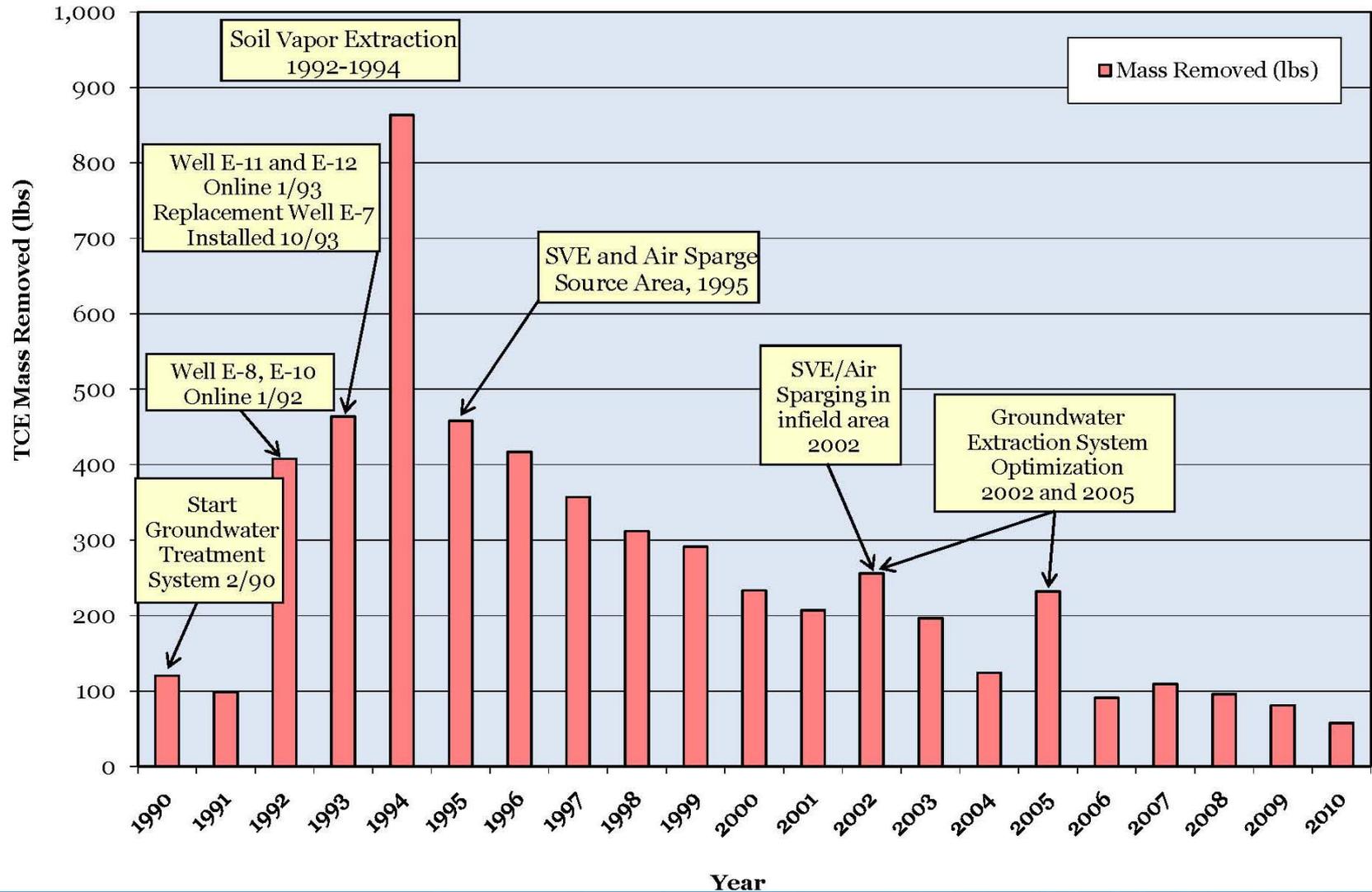
* = Invalid Data

Subunit A TCE Map Feb 2009



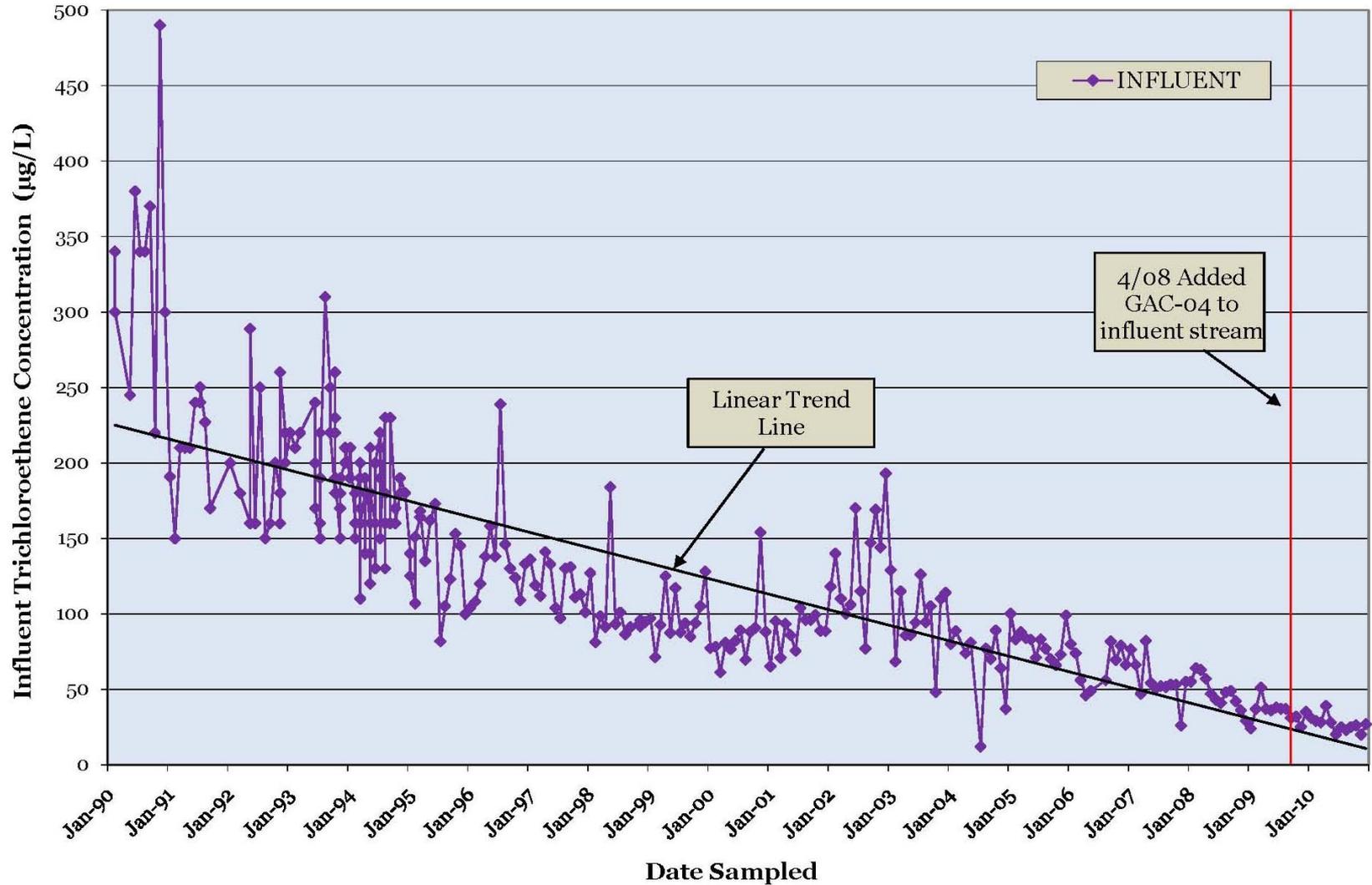
Subunit A TCE Mass Removal vs. Time

Subunit A - TCE Mass Removal Over Time Including History of Significant Removal Efforts



Subunit A - Air Stripper Influent Concentrations

Subunit A - Influent Trichloroethene Concentrations Over Time



Upcoming Activities

- Annual (First Quarter 2011) Groundwater (coordinated) Sampling Event – Began on February 1, 2011
- Continued Evaluation of GAC-04, GMW-21UC and GMW-22UC
- Continued Monthly Technical Conference Calls with ADEQ/USEPA
- Working with ADEQ/USEPA on Open Five Year Review Items



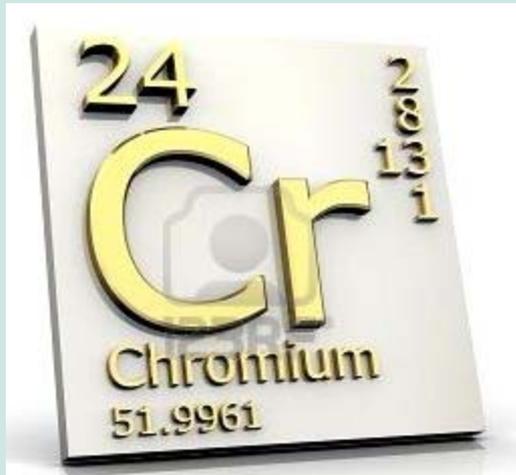
PGA South

Goodyear Aerospace Corporation (later Goodyear Aircraft Corporation and the Goodyear Tire and Rubber Company [GTRC]), Arizona Division, began operations. 1942



The United States Navy established the Litchfield Naval Air Facility in Goodyear, Arizona 1943

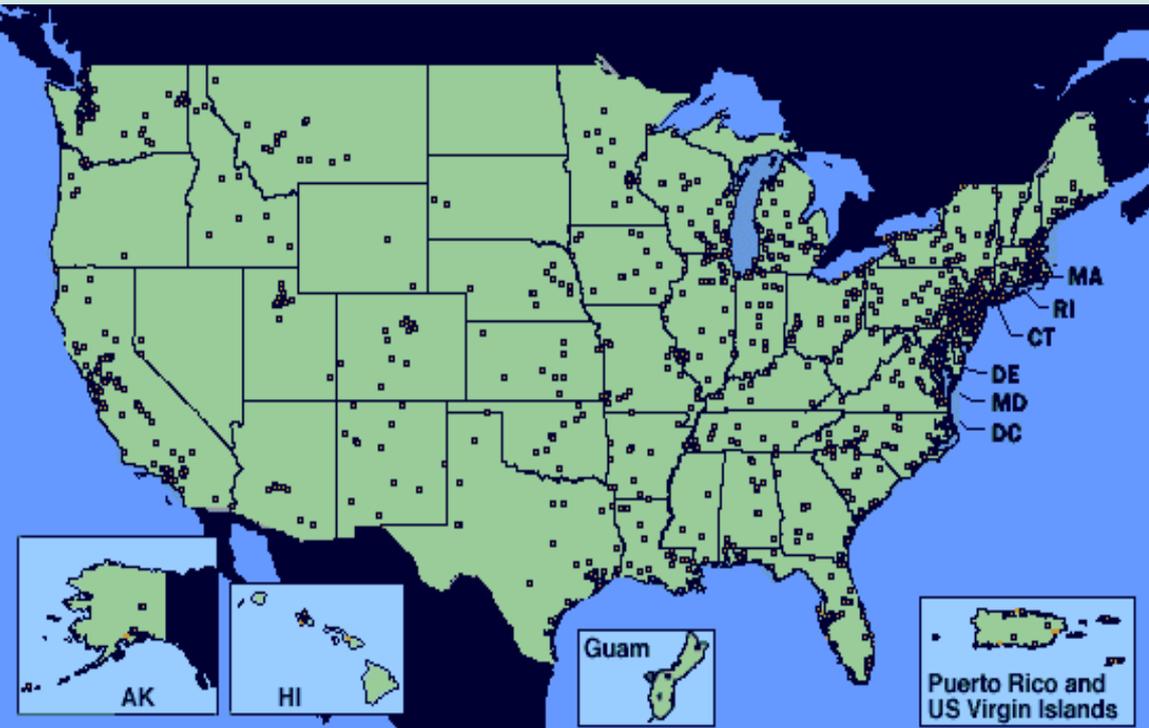




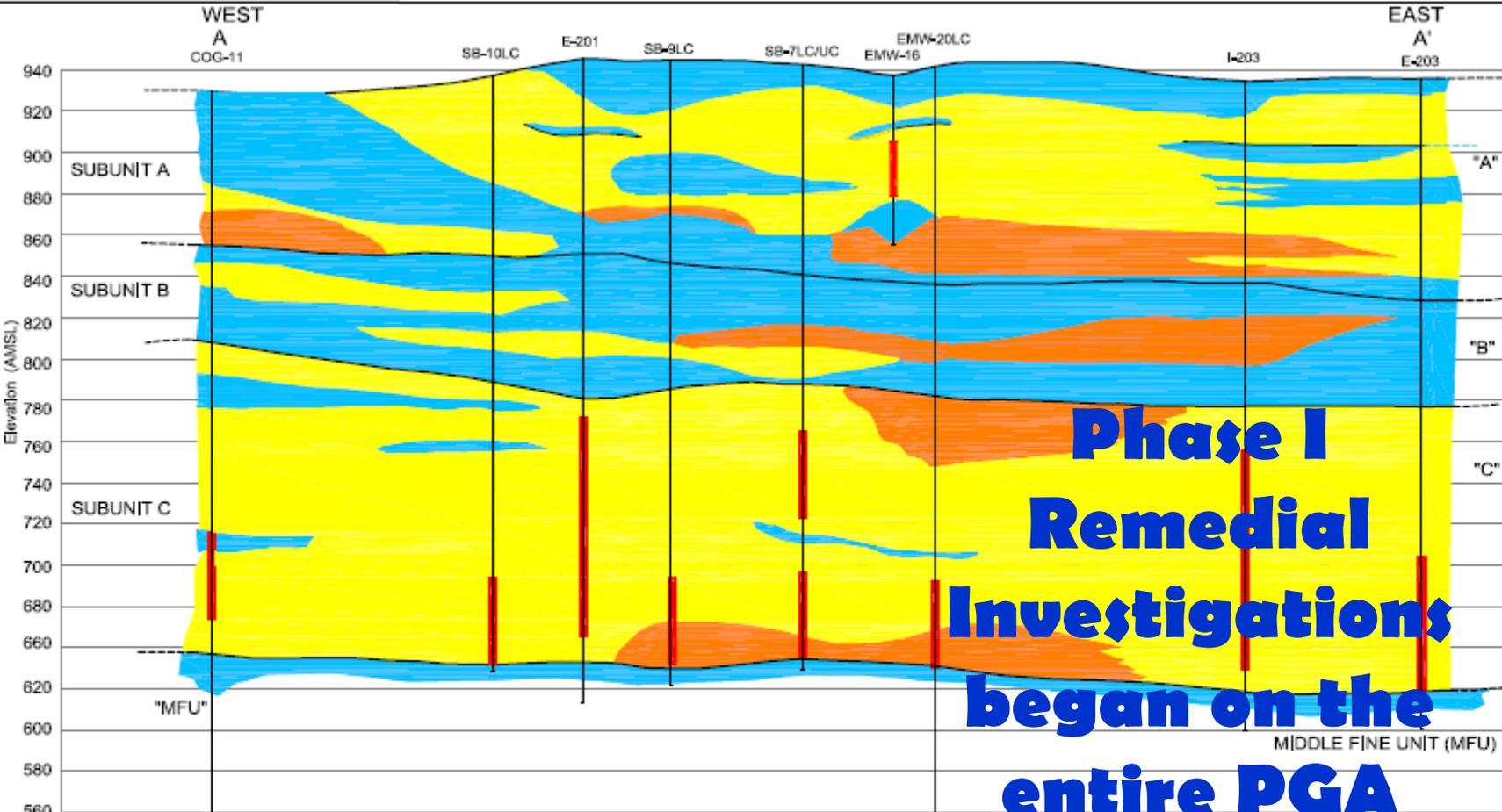
Oily and chrome-colored contamination detected in drainage ditch on airport. 1951 Wastewater treatment plant upgraded to reduce the emissions, 1951, 1952



Ownership of the airport property transferred to the City of Phoenix. 1968
ADHS discovered that groundwater in the Goodyear area was contaminated with solvents and chromium.
1981



EPA added the PGA Site (originally listed as the “Litchfield Airport Area Superfund Site”) to the NPL. September 1983



Legend - Major Lithologies

- Sand and/or Sand and Gravel (clean)
- Silty Sand, Sandy Clay, Clay and Gravel
- Silt, Clay, and/or cemented sediments (light)
- Screened Completion Interval

**Phase I
Remedial
Investigations
began on the
entire PGA
area. October
1984**

Original Figure Scale:
Horizontal Scale: 1" = 20'
Vertical Scale: 1" = 200'
Note: Present Scale Distorted by Size Reduction

PHOENIX GOODYEAR
AIRPORT SITE
GOODYEAR, ARIZONA

FIGURE
2-3
PGA South
Cross Section
A-A'

DATE: 01/02/09
PROJECT NUMBER: 1089



Record Of Decision
(ROD) issued for Subunit
A groundwater
September 1987

REM IV

Remedial Planning Activities
at Selected Uncontrolled
Hazardous Waste Sites - Zone II

88004716

SFUND RECORDS CTR
0217-00048



Environmental Protection Agency
Hazardous Site Control Division

Contract No. 68-01-7251

RECORD OF DECISION SUMMARY
FOR
SECTION 16 OPERABLE UNIT
PHOENIX-GOODYEAR AIRPORT
SUPERFUND SITE
GOODYEAR, ARIZONA

W.A. NO. 030-9L19.0
September 25, 1987

Consent Decree (CD) with GTRC to begin treating contaminated groundwater in Subunit A. 1988

Groundwater extraction and treatment system for Subunit A Groundwater implemented by GTRC.

1990





**ROD issued for Subunit B/C
groundwater and soil
(except for the sludge
drying beds). September
1989**

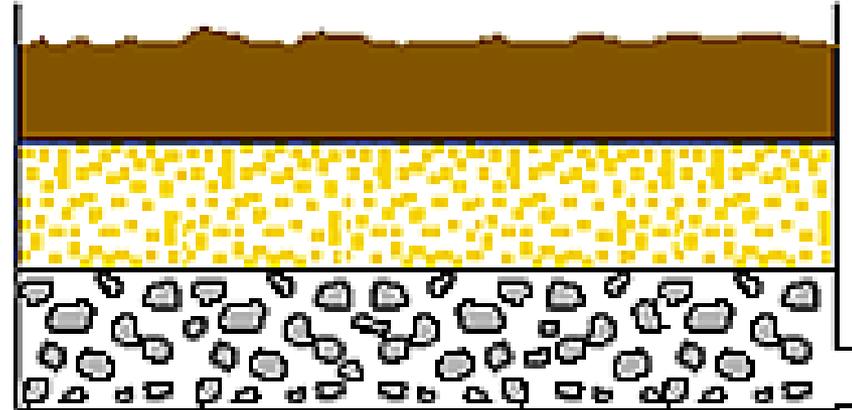
**EPA enters CD with GTRC
and Loral Defense to
construct a

treatment system to
hydraulically contain the
contaminants in Subunits B
and C and

to construct an SVE system**

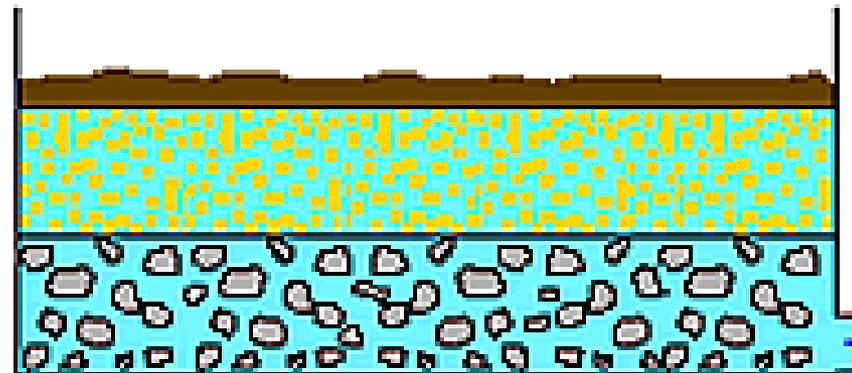
Consent Order
with GTRC to
excavate and
stabilize sludge
drying beds.
January 1992

Raw sludge
is applied.



Removal of sludge
drying beds and
stabilization of
contaminated soil.
June 1992 -Jan 1993

Water filters
out leaving
dried sludge.



**New North Subunit C
extraction well E-102
installed north of Yuma
Road and
connected to treatment
system.
2004**



Response Action Contract **IX**



FIVE-YEAR REVIEW REPORT

**FOR
PHOENIX-GOODYEAR AIRPORT (SOUTH)
SUPERFUND SITE
GOODYEAR, ARIZONA**

September 2005



U.S. Environmental Protection Agency
Contract No. 68-W-98-225

**First Five-Year
Review Report
completed.
September 2005**



PGA South

Final

**Five-Year Review Report
for**

**Phoenix-Goodyear Airport (North and South Areas)
Superfund Site
Goodyear, Arizona**

September 2010

**Second Five-Year
Review Report
completed.
September 2010**



Western Avenue PCE





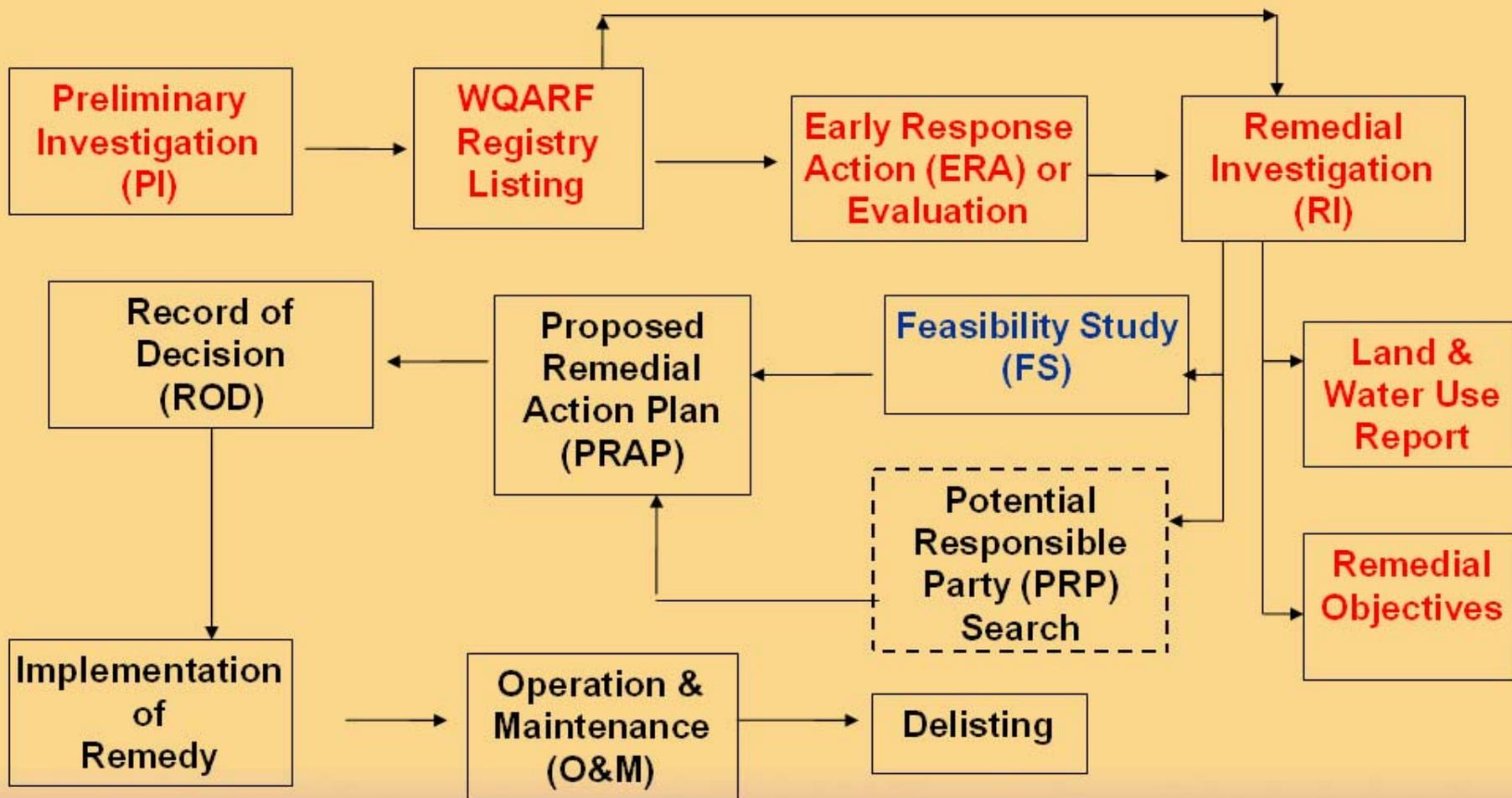
Western Avenue PCE

1993: PCE was detected upgradient of the National Priority List (NPL) PGA-South Site

1995: ADEQ conducted an investigation at City of Goodyear Public Works Dept and local Dry Cleaners. PCE and/or other target compounds were not present in soil above the method detection limit (MDL)

2001: ADEQ conducted a soil gas survey at the former Aladdin Dry Cleaners

PCE and/or other target compounds were not present in soil above the method detection limit (MDL)



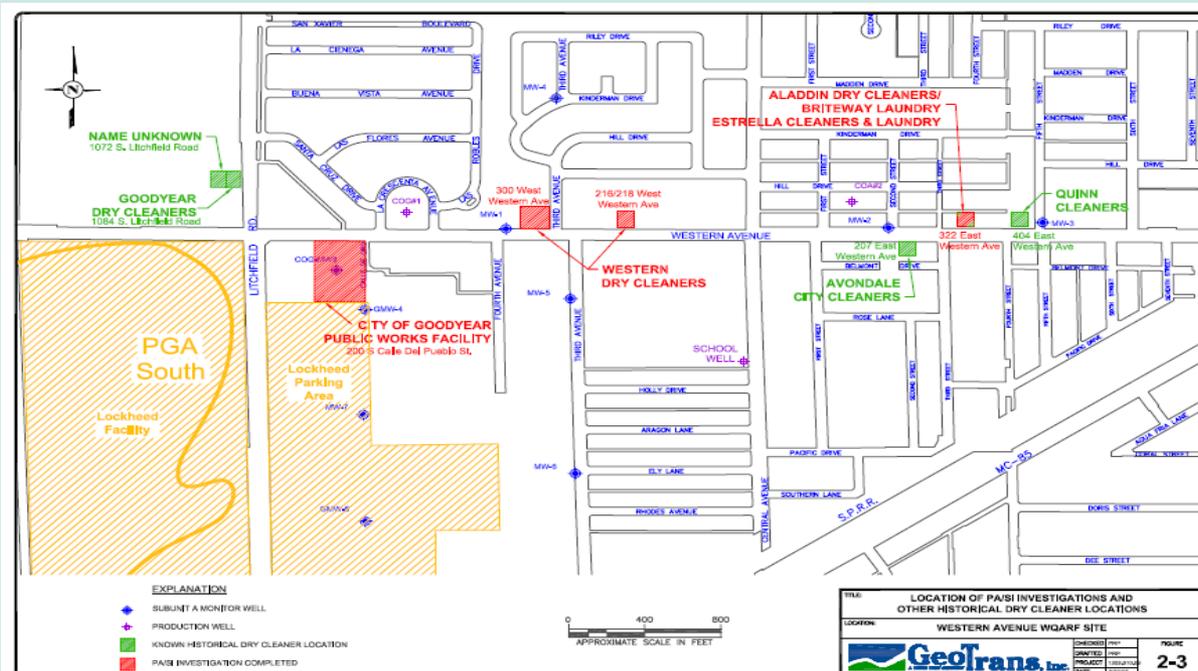
Western Avenue PCE

2006

The Draft RI Report, including the Land and Water Use Report was issued

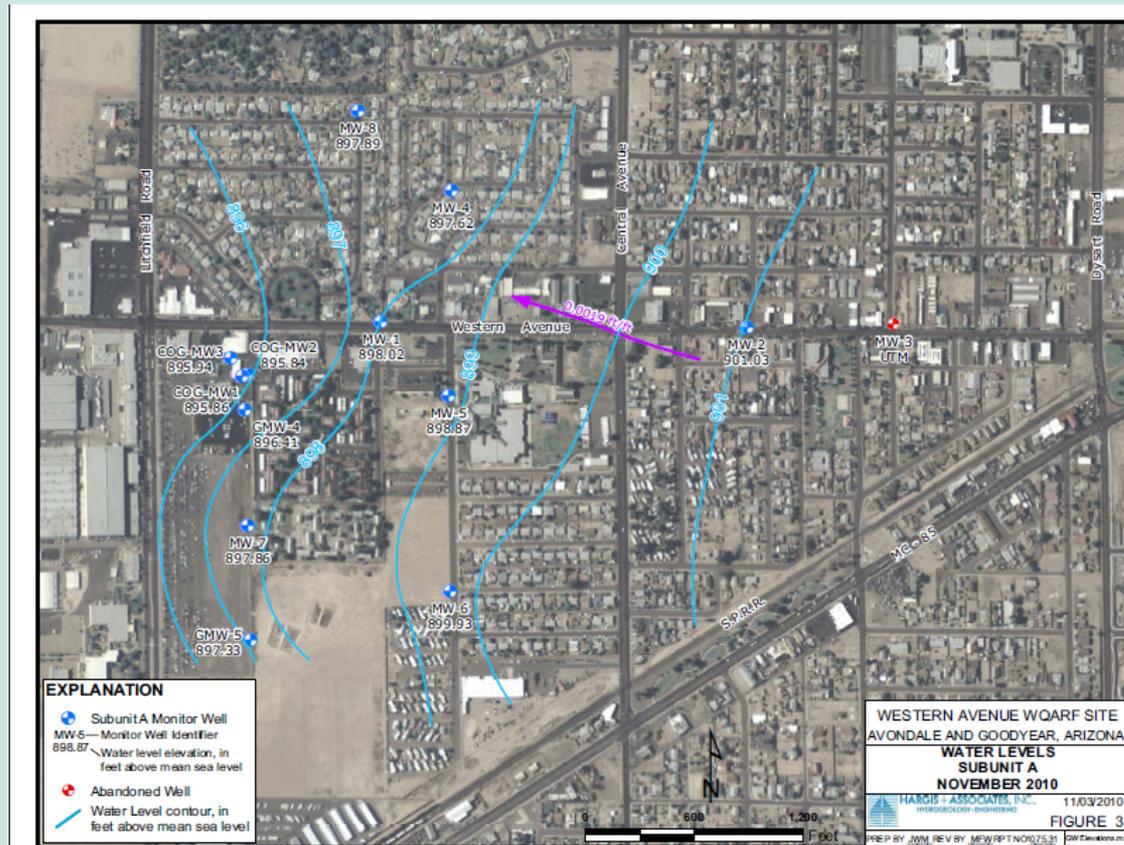
2008

The Remedial Objectives Report (RO) is issued, Final RI Report is completed



Western Avenue PCE

The FS will evaluate specific remedial measures and strategies required to meet the ROs and propose a reference remedy and at least two alternative remedies.



Western Avenue PCE





¿Questions?

