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**West Van Buren (WVB) Water Quality Assurance Revolving Fund (WQARF) Site  
Community Advisory Board (CAB) Meeting**

Thursday, December 6, 2012  
6:00 p.m.-8:00 p.m.  
ADEQ Building, Room 250  
1110 W. Washington St., Phoenix, AZ

**DRAFT MINUTES**

**CAB Members in Attendance:**

Peggy Eastburn  
John Saccoman  
Jeff Littell  
Charlotte Reyes  
Phil Lagas

**ADEQ Staff in Attendance:**

Kevin Snyder, Project Manager  
Wendy Flood, Community Involvement  
Coordinator  
Tina LePage, Manager, Remedial Projects  
Section  
Andre Chiaradia, Manager, Remedial  
Projects Unit

**Others in Attendance:**

Karen Gaylord  
David Kimbal  
Matt Bingham  
Paul Hendricks  
Scott Ames  
Bruce Travers, Geosyntec Consultants

Martin Minter, Holguin, Fahan &  
Associates, Inc.  
A. Gordon, Terranext  
David Kirchner, Basin and Range  
Joe Drazek, Quarles & Brady LLP  
Mary Moore  
Dennis Shirley, Synergy Environmental  
Lawrence Moore, Lawrence Moore &  
Assoc.  
Judy Heywood, APS  
Joel Peterson, Synergy Environmental  
Stuart Kimball, Gallagher & Kennedy  
Chris Colyer  
Rob Mongrain  
Gail Clement  
Jerry Worsham  
Phil Schneider  
David Fitzgerald  
Wayne Pudney  
Wendy Abrego  
Eva Olivas  
Donna Smith  
Phil McNeely, City Of Phoenix  
Eric Pigati

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Ref: RPU #13-220

The following matters were discussed at the meeting:

**1. Call to Order/Introductions**

Ms. Wendy Flood introduced herself as the Community Involvement Coordinator and proceeded with introductions. Ms. Peggy Eastburn, Co-chair facilitated the remainder of the meeting.

## **2. Acceptance and/or changes to June 30, 2011 Minutes-**

Mr. Littell moved to accept the minutes, it was seconded; motion passed

## **3. CAB Member discussion – Wendy Flood, Community Involvement Coordinator**

Ms. Flood explained the membership drive to help add more CAB members. Mr. Saccoman asked the criteria for new CAB members. Ms. Flood read from the charter regarding membership. CAB applications were available at the meeting. Ms. Flood proposed to the CAB a letter to HOA presidents to reach out and join the CAB.

CAB members recommend approaching groups and offered the Capitol Mall Association, Capitol Weed and Seed Coalition, School Boards for the districts in the plume, Phoenix Revitalization Corporation and the City of Phoenix neighborhood services as groups and people to contact.

Mr. Phil Lagas discussed his membership and concerns about his affiliation in response to some conflicts of interest concerns. He stated he disclosed who he represents from the beginning and offered his original application for review. He also commented that if the CAB discuss or cover a subject that relates to who he represents, he would exclude himself from the discussion. Ms. Eastburn stated she appreciated Mr. Lagas input and help on the CAB especially with some of the complicated documents.

## **4. Final Remedial Investigation Report Discussion - Kevin Snyder, Project Manager**

**Included in Presentation Below**

## **5. Site Update and Discussion to include Third Quarter 2011 and First and Third Quarter 2012 Sampling and Data and Feasibility Study Update - Kevin Snyder, Project Manager**

Mr. Kevin Snyder presented his presentation to the CAB. He covered the status of the project in the WQARF process, some of the comments that were received during the Remedial Investigation public comment phases, Groundwater contours and water levels, possible reasons for water level decline, recent plume contours, concentrations over time, and future activities

**See Presentation Below**

A question was asked if the health assessment was in the files. Mr. Snyder stated it was in the files and ADEQ could look at getting it posted on the web site.

Another question was asked regarding the pilot tests submittal and if they were available. Mr Snyder responded that the test was done by Synergy Environmental; they can be connected to obtain a copy. An audience member inquired about funding being available and how the community can help to make sure funding are available for the testing and research to continue.

An audience member inquired about the status of the Modified Early Response Action (ERA) submitted by RID. Mr. Snyder responded that it is currently under review by ADEQ and it is unclear the actions management will take.

## **6. Proposed Draft Feasibility Study Work Plan Presentation – Haley & Aldrich**

Mr. Scott ??? and Mr. Eric Pigati's introduced themselves. They covered the process of the project in the WQARF process and the technical approach that will guide the Feasibility Study.

**See Presentation Below**

A question was asked regarding the statute reference used. Mr. Pigati responded there was an oversight on the slide that left out a reference. Another question was asked regarding the contingency reference for water use and if they were redefining the reasonable and foreseeable use. It was responded that they were not.

## **7. Roosevelt Irrigation District Early Response Action Status Report**

Mr. Joel Peterson introduced himself and covered the work that the Roosevelt Irrigation District (RID) has accomplished. A summary of ERA activities was handed out. He covered the work RID has accomplished, the modified ERA work plan and the Draft Feasibility Study work plan.

### **See Presentation Below**

The presentation is available on the West Valley Coalition web site as well as the health assessment and other site documents.

Mr. Phil McNelley, City of Phoenix, stated that the City of Phoenix submitted comments on the Modified ERA submitted by the RID, copies were available at the meeting. The city had numerous issues with the ERA approach.

An audience member asked if there was oversight regarding all the submittals from RID, it sounded as if there wasn't. Mr. Peterson stated RID has asked and has been open to oversight. The audience member wanted to know why it wasn't being done (oversight) and doesn't understand how it all works together. Mr. Snyder stated upper management made the decision how to handle the work. This work has been viewed as outside of the agreed upon working agreement; additional work, as his understanding. Discussion ensued from the audience regarding this topic and the meaning of conditional approval vs. approval with conditions.

Mr. Saccoman inquired if there was any vaporizing going on at some of the water distribution boxes and is there a public health issue. Mr. Peterson responded Yes, contaminants want to live in the air so they are volatilizing. It is the belief that the concentrations at these locations do not pose a health risk. Those water distribution boxes that showed higher concentrations were covered. The highest concentration was found in the head space of the pipes and RID have completed measures to keep the public and workers safe. Mr. Saccoman asked if ADEQ approved the mitigation measures and how are they tested to make sure it is doing what is needed. Mr. Peterson explained how confirmation is determined. Mr. Saccoman also asked if there any places where the public could come into contact with high concentrations. Mr. Peterson stated the locations where this might happen have measures in place, like a fence, that would make it difficult for any public contact. There was also a discussion on what is considered relatively low concentrations according to the standards.

An audience member asked about accessibility of documents and Mr. Lawrence Moore, representing RID, stated that documents submitted are placed on the RID website. The audience also asked about the data used and availability of that data. Mr. Peterson responded that both ADEQ web site and RID web site have the information. Mr. Snyder informed the CAB that a majority of the documents are on ADEQ website and those that are not are available through the records center.

An audience member asked if the proposal that was described has been submitted, is it currently under review by ADEQ and if it is, and determined that it is not complete, would the process start over. Her concern is to not have the proposal and the work get stuck in the process. Mr. David Kimball let the audience know how the proposal was submitted. It was submitted as a modification of the existing ERA. If not approved then the previously submitted ERA will move forward. Ms. LePage clarified that there are two FS work plan currently under review.

### **8. Call top the Public**

Mr. Dave Kimball read a statement, and submitted a hard copy, on Behalf of the Roosevelt Irrigation District to comment on the Draft Feasibility Study work plan September 2011 submitted by the West Van Buren Working Group.

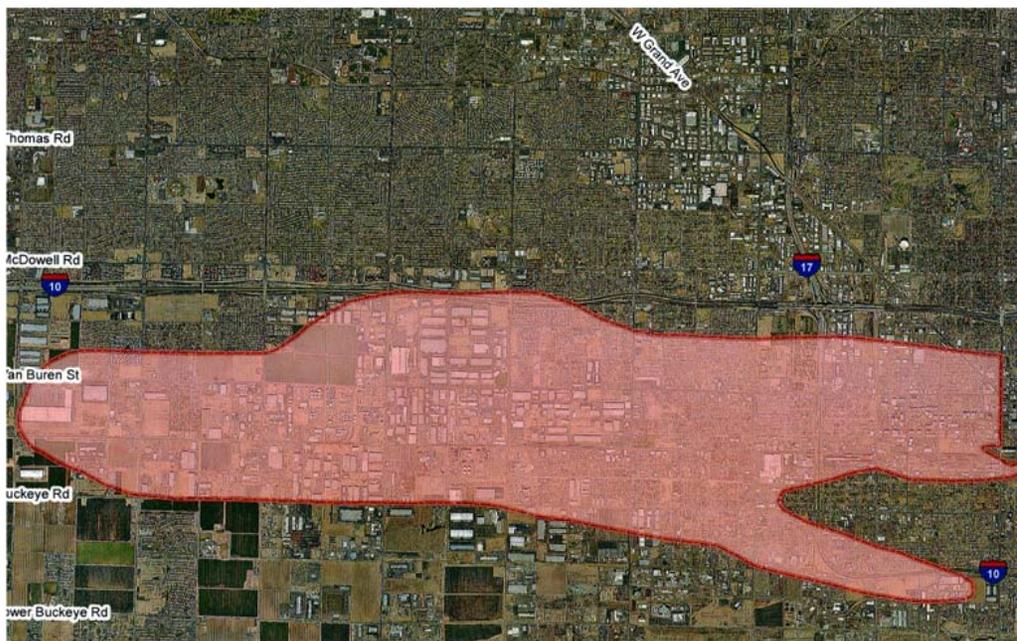
### **7. Future meeting and agenda items discussion**

The CAB decided that work on the site would dictate the next meeting. Ms. Reyes stated she would like an update on the membership drive to obtain CAB members. Agenda topics will also include discussion regarding the repository and Co-chair voting.

### **8. Adjournment**

Mr. Littell moved to adjourn.

## West Van Buren Area WQARF Site



Andre Chiaradia, Unit Manager  
Wendy Flood, Community Involvement Manager  
Kevin Snyder, Project Manager

December 6, 2012



## Events since the June 2011 CAB meeting

- Completed three rounds of semi-annual groundwater monitoring and sampling.
- Conducted two rounds of canal water sampling at Roosevelt Irrigation District (RID) canals.
- Finalized Remedial Investigation (RI) report and Remedial Objectives (ROs) report.
- Received and reviewing draft Feasibility Study (FS) work plans from RID and Stakeholders Group.

## Events since the June 2011 CAB meeting

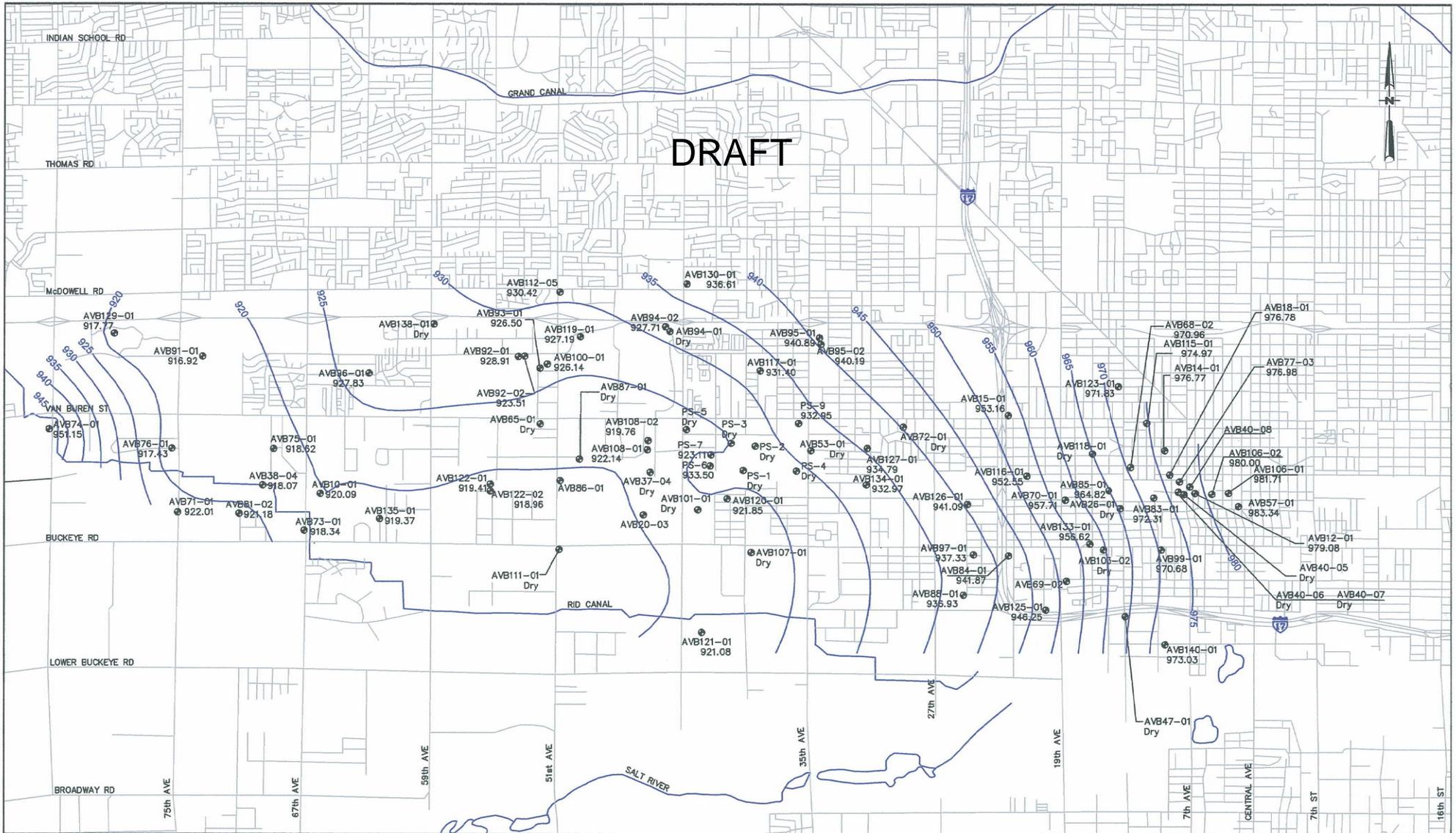
- ADEQ continues to post documents on the WVBA Regional Remedy Evaluation website on the Waste Programs Division home page at:

<http://www.azdeq.gov/environ/waste/index.html>.

- The most sought after documents are found on this page and are available for downloading.

# Final RI Report

- RI report updated to reflect the comments received.
- Updates included adjustments to format, clarification of information and corrections to data.
- Contains final RO Report and Land & Water Use Report.



LEGEND	
	- APPROXIMATE WELL LOCATION
AVB76-01	- WELL IDENTIFICATION NUMBER
929.64	- GROUNDWATER ELEVATION
	- GROUNDWATER ELEVATION CONTOURS
NM	- NOT MEASURED

**NOTE**  
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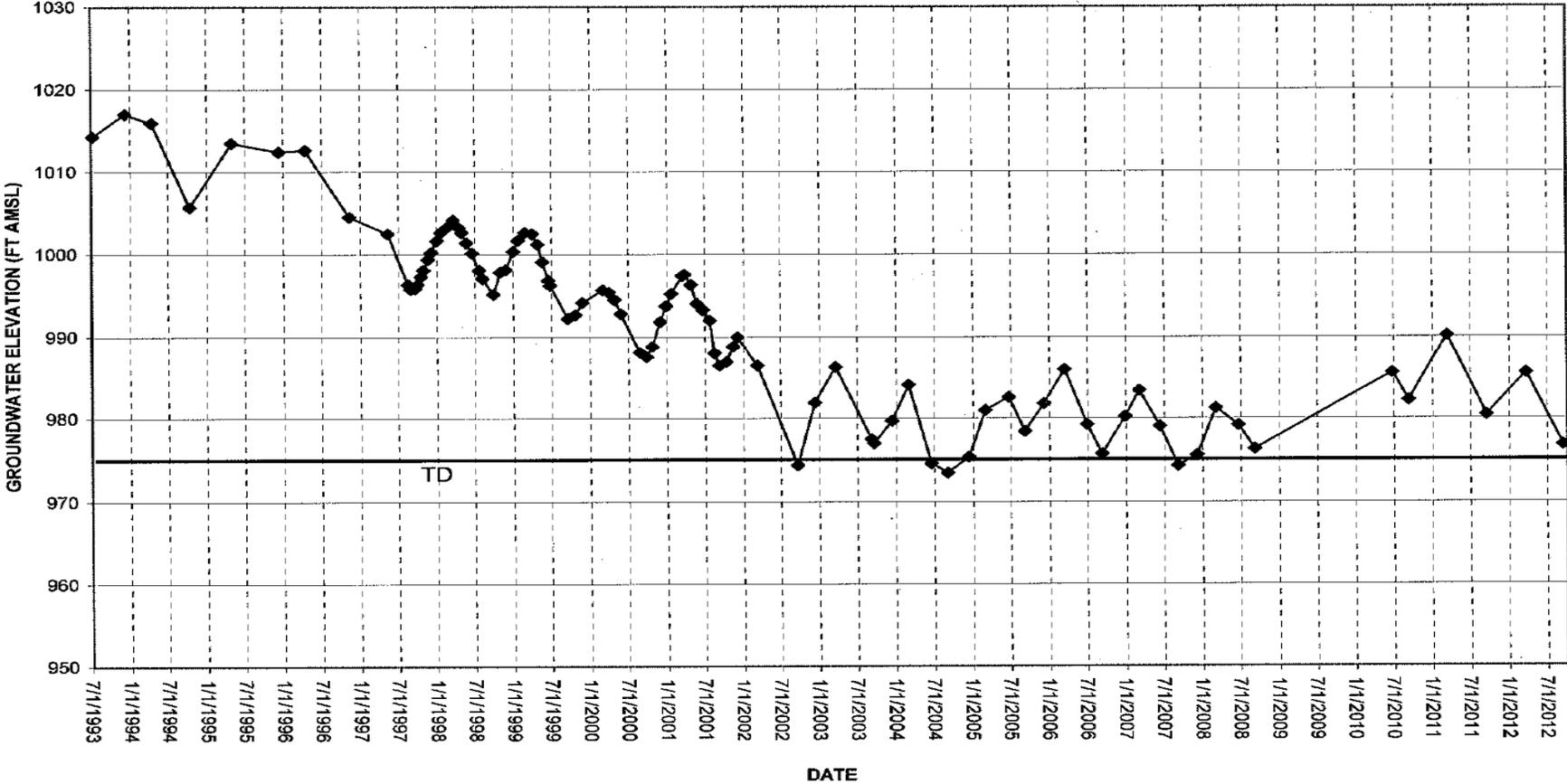
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APPROVED BY:	AJG		



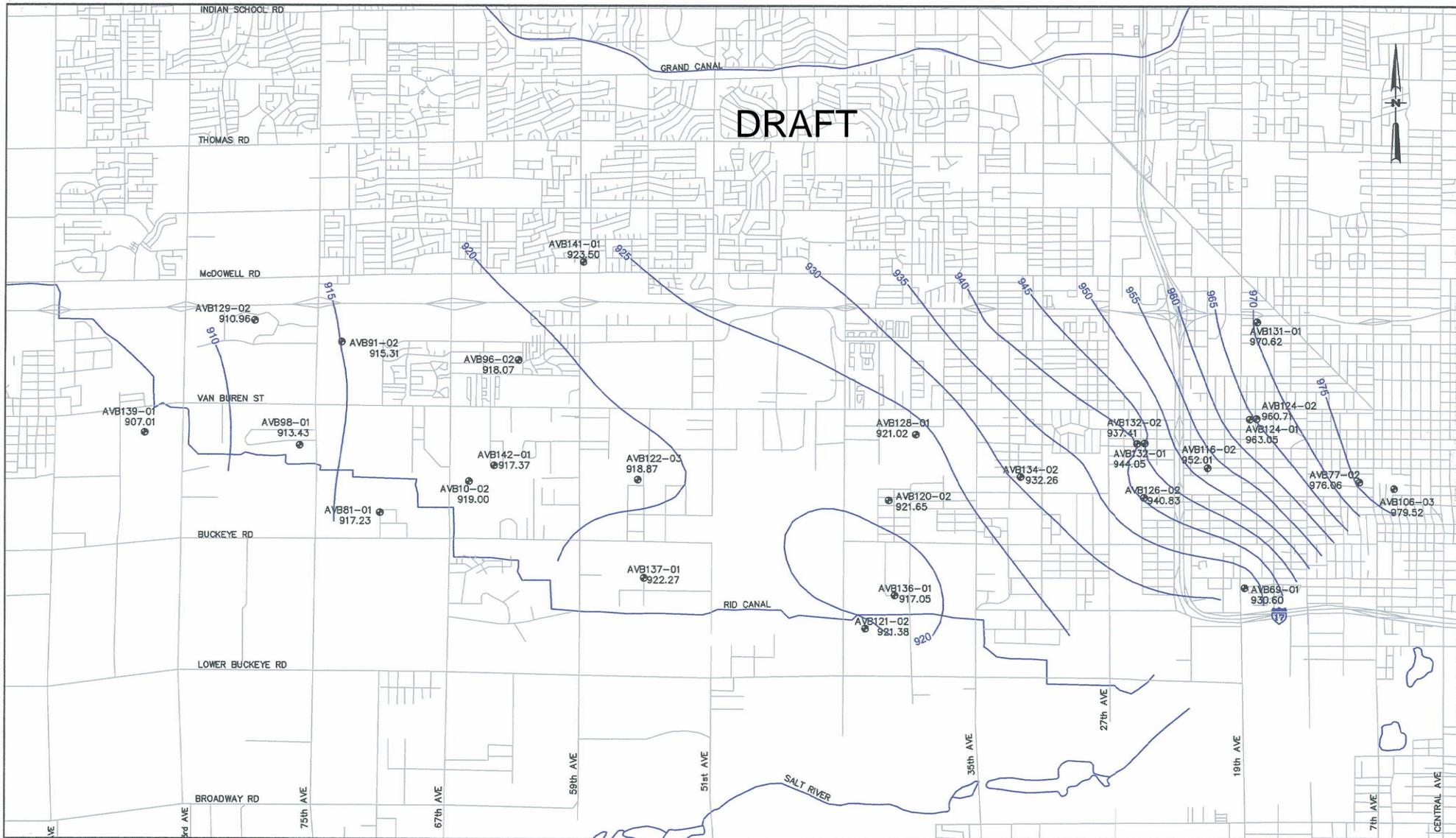
**FIGURE 2.1**  
 UAU 1 GROUNDWATER ELEVATION CONTOURS  
 THIRD QUARTER 2012  
 WEST VAN BUREN AREA WQARF SITE  
 PHOENIX, ARIZONA

# UAU1 Monitor Well Eastern Portion WVBA

WVBA GROUNDWATER ELEVATIONS  
AVB14-01 (55-531086)



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LEGEND	
	- APPROXIMATE WELL LOCATION
AVB76-01	- WELL IDENTIFICATION NUMBER
929.73	- GROUNDWATER ELEVATION
	- GROUNDWATER ELEVATION CONTOURS
NM	- NOT MEASURED

**NOTE**  
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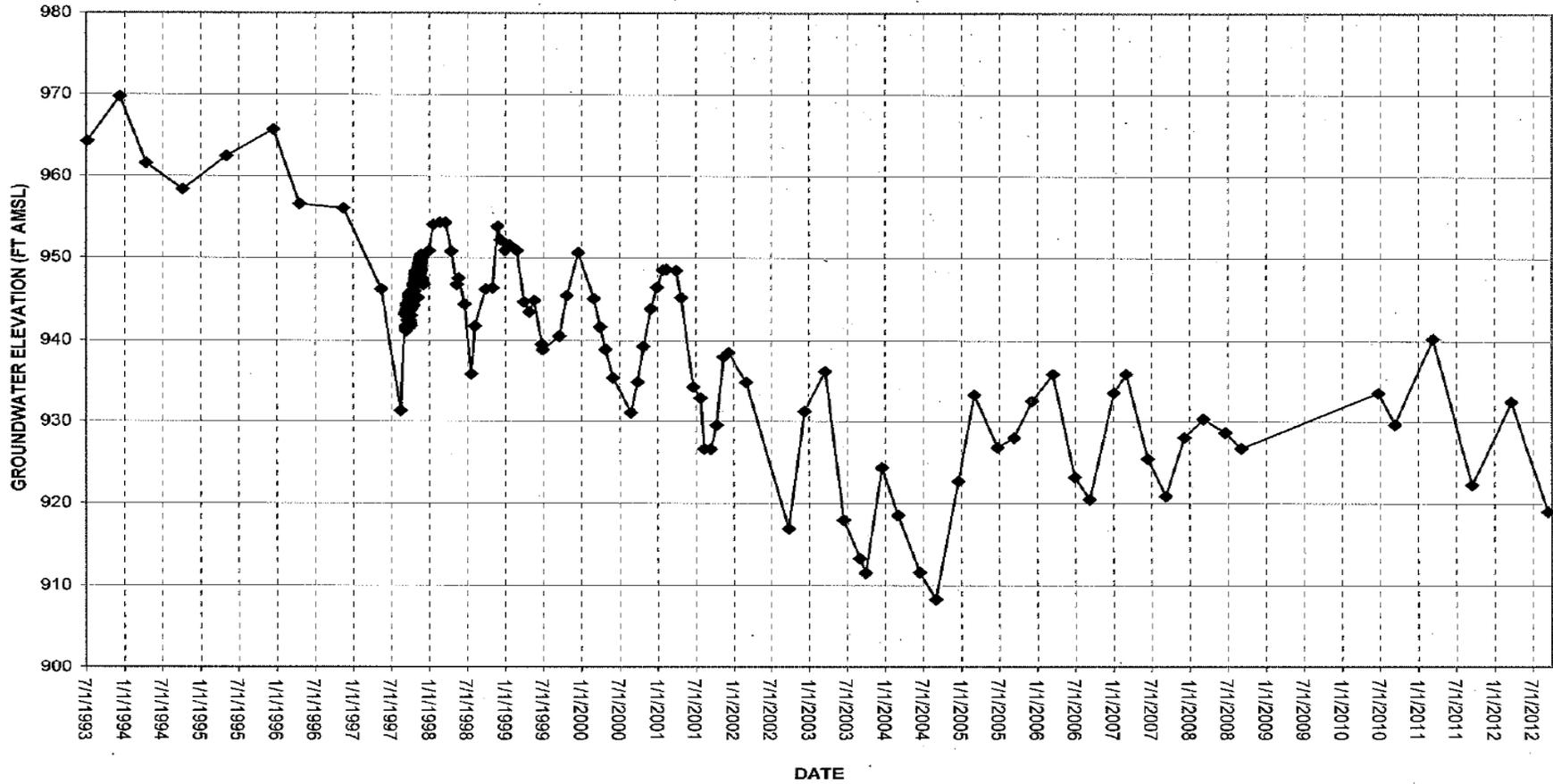
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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 2.2**  
**UAU 2 GROUNDWATER ELEVATION CONTOURS**  
**THIRD QUARTER 2012**  
**WEST VAN BUREN AREA WQRF SITE**  
**PHOENIX, ARIZONA**

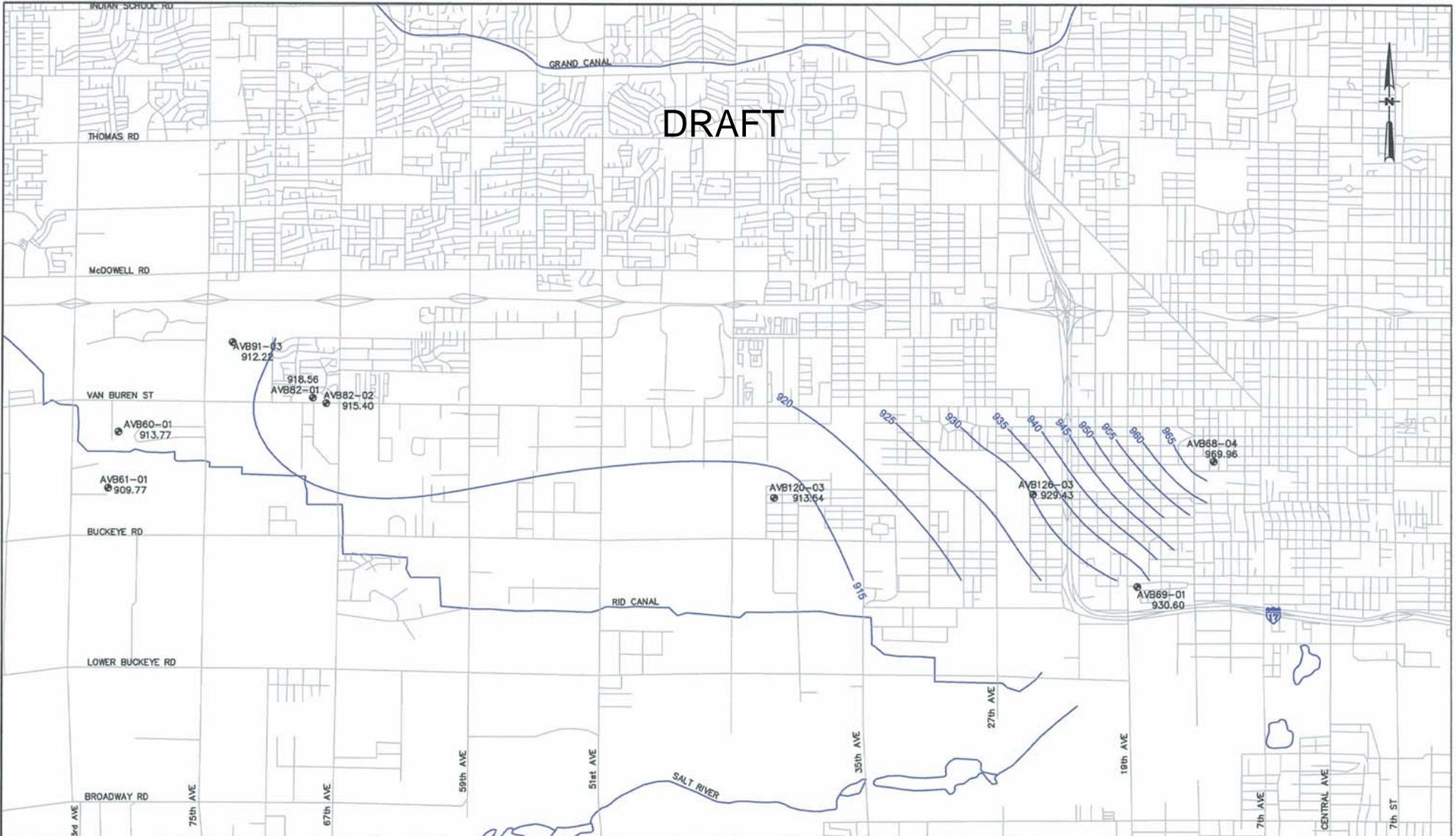
# UAU2 Monitor Well Western Portion of WVBA

WVBA GROUNDWATER ELEVATIONS  
AVB10-02 (55-532042)



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**LEGEND**

- APPROXIMATE WELL LOCATION
- WELL IDENTIFICATION NUMBER
- GROUNDWATER ELEVATION
- GROUNDWATER CONTOUR

**NOTE**

SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

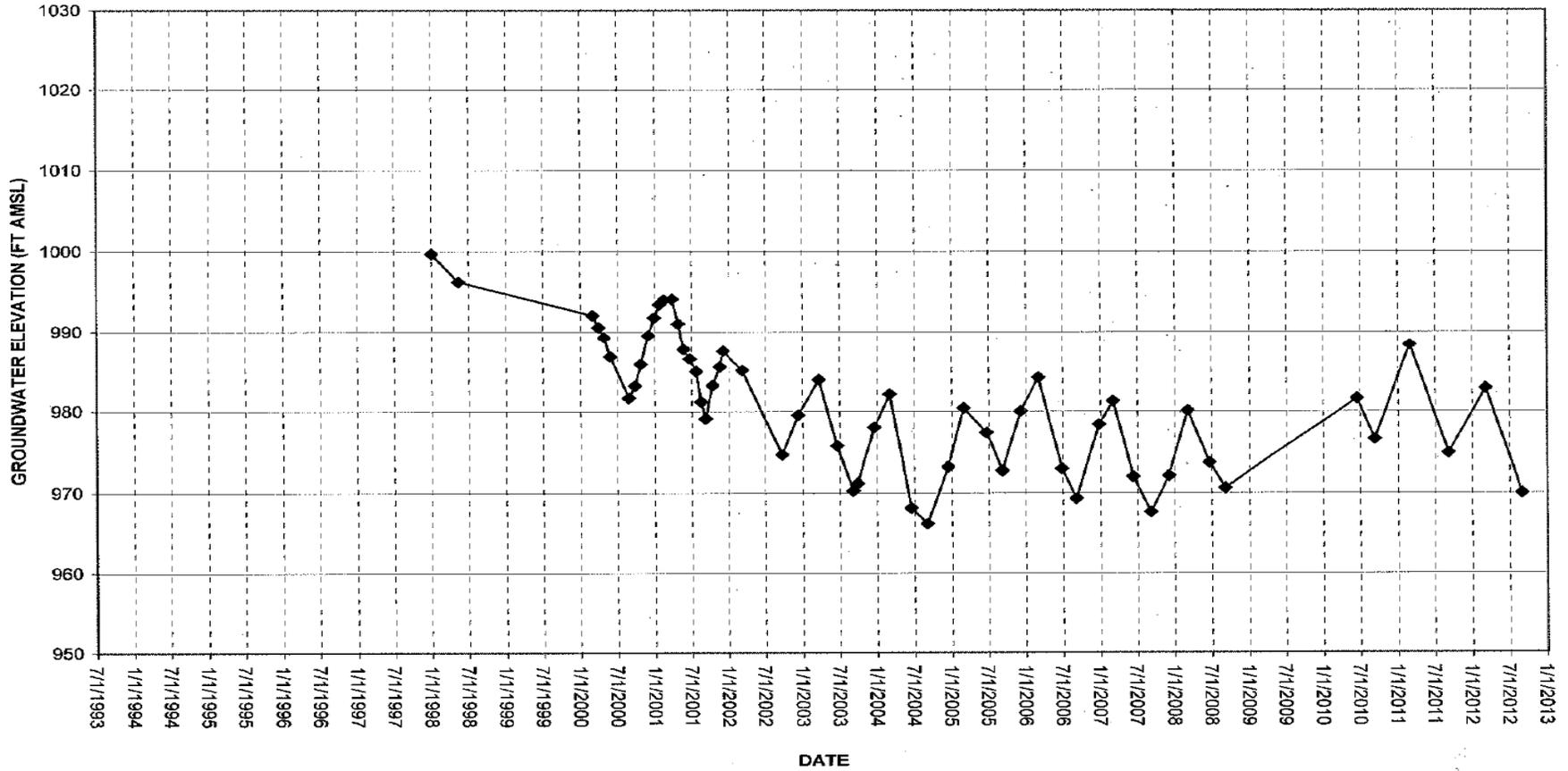
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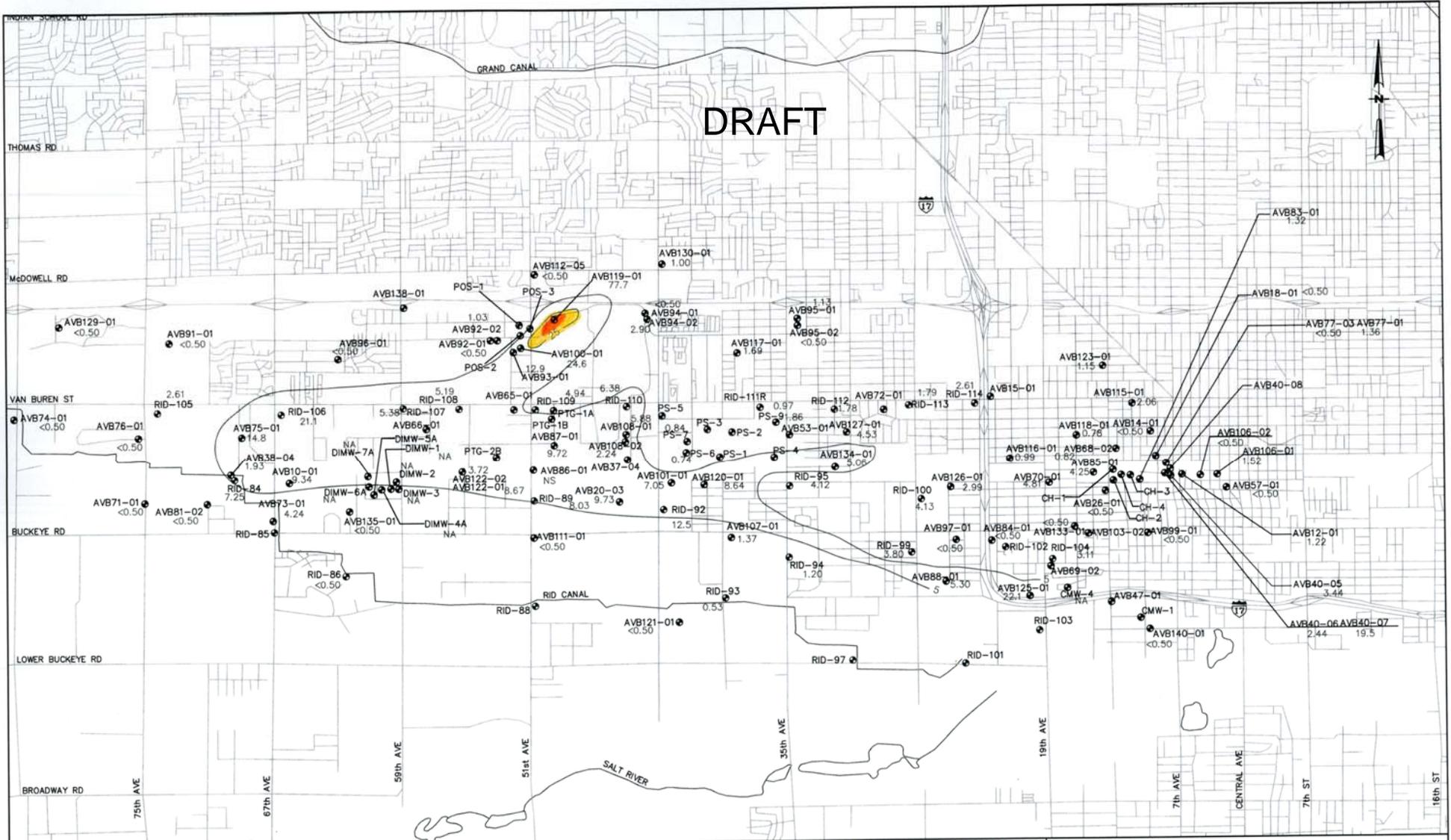
**FIGURE 2.3**  
**MAU GROUNDWATER ELEVATION CONTOURS**  
**THIRD QUARTER 2012**  
**WEST VAN BUREN AREA WQRF SITE**  
**PHOENIX, ARIZONA**

# MAU Monitor Well Eastern Portion WVBA

WVBA GROUNDWATER ELEVATIONS  
AVB68-04 (55-561940)



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**LEGEND**

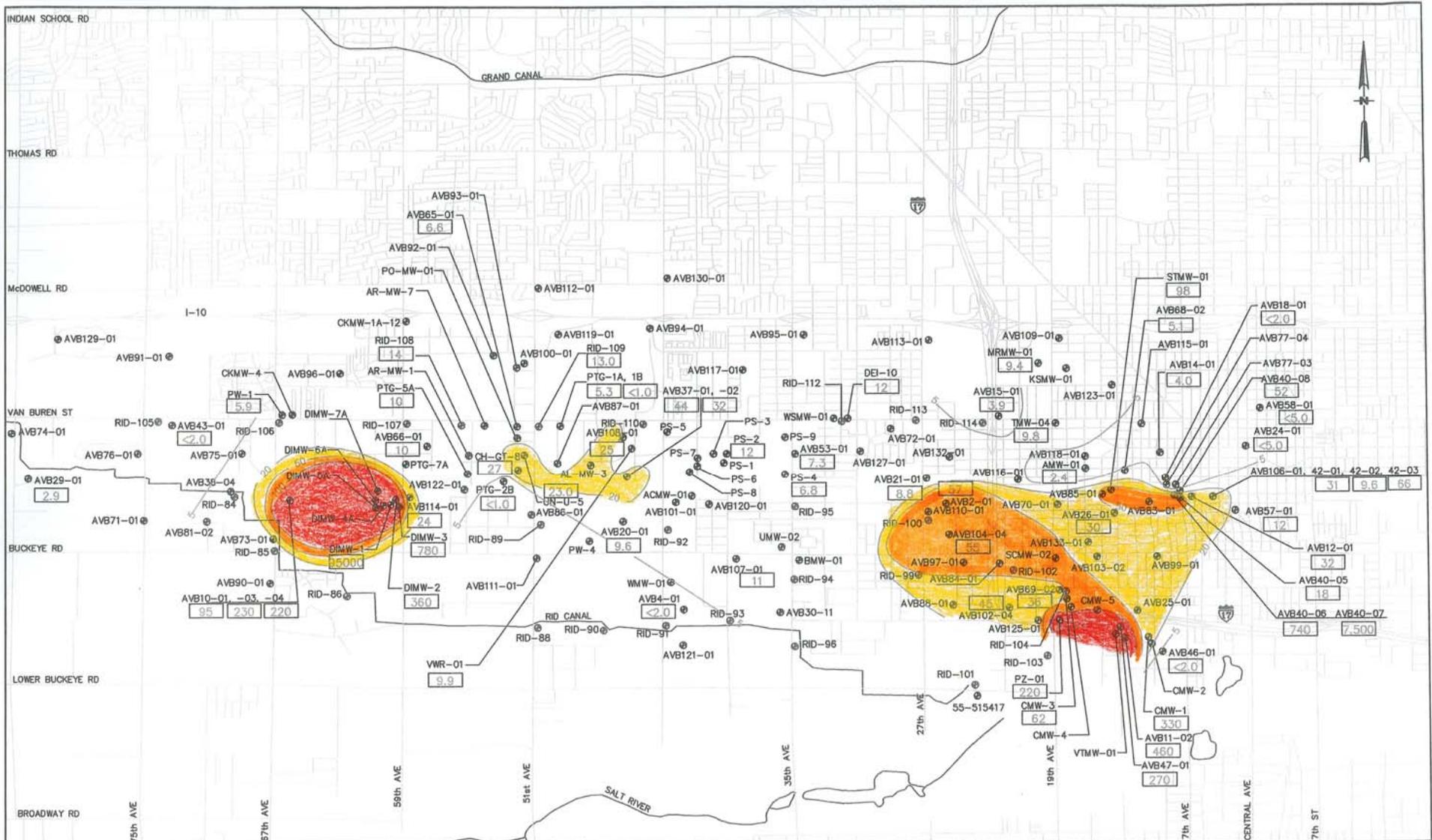
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—	PCE CONCENTRATION CONTOUR (ug/l)
NS	NOT SAMPLED
●	APPROXIMATE WELL LOCATION
NA	NOT AVAILABLE

**NOTE**  
SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 3.1**  
UAU 1 PCE CONCENTRATIONS  
THIRD QUARTER 2012  
WEST VAN BUREN AREA WQRF SITE  
PHOENIX, ARIZONA



LEGEND	
	- APPROXIMATE WELL LOCATION
AVB76-01	- WELL IDENTIFICATION NUMBER
	- PCE CONCENTRATION (ug/l)
	- PCE CONCENTRATION CONTOUR (ug/l)

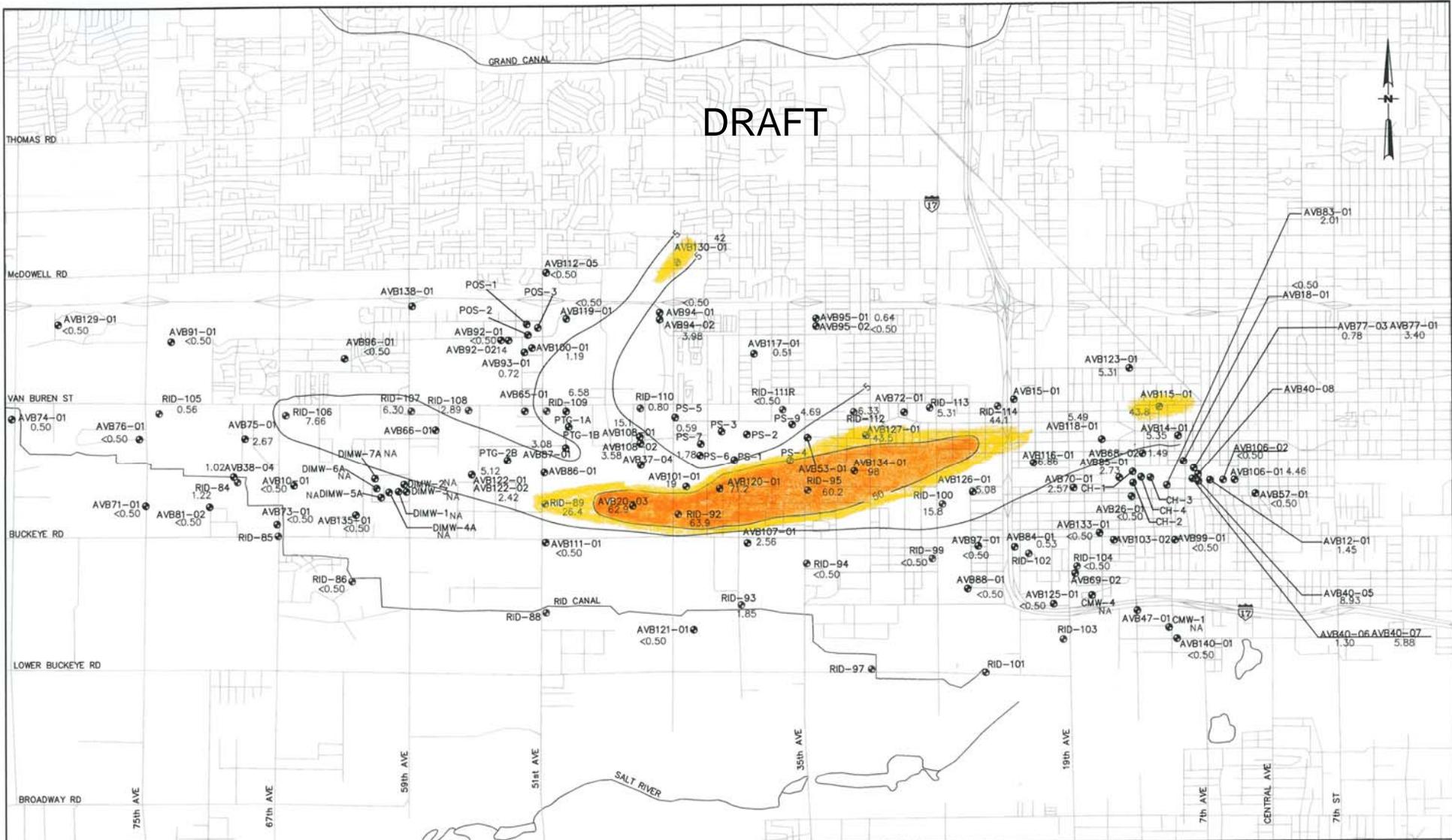
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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 4-3**  
UAU 1 PCE CONCENTRATIONS-1998  
WEST VAN BUREN WQRF SITE  
PHOENIX, ARIZONA

# DRAFT



**LEGEND**

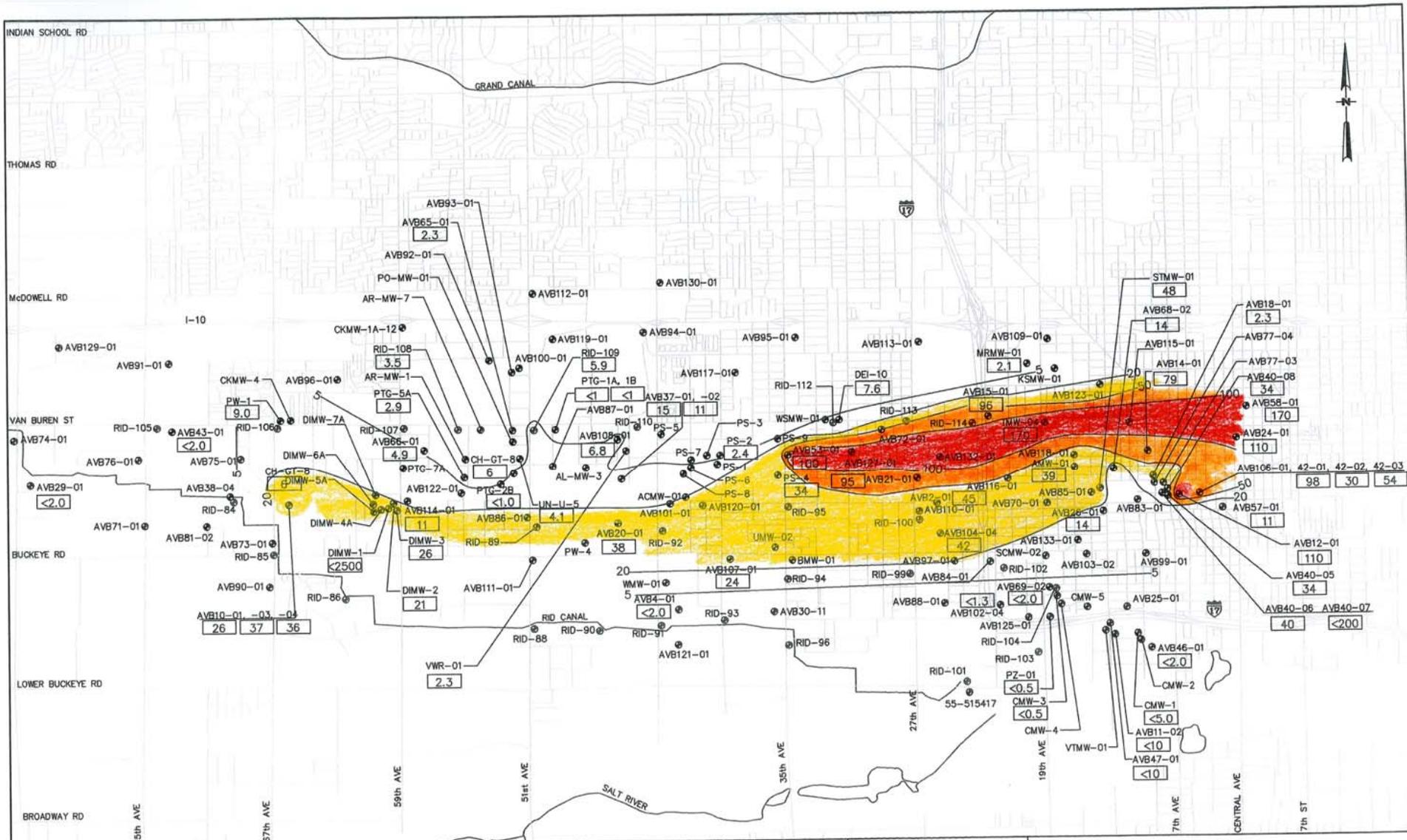
- AVB71-01 - WELL IDENTIFICATION NUMBER
- 11 - TRICHLOROETHENE (ug/l)
- TCE CONCENTRATION CONTOUR (ug/l)
- NS - NOT SAMPLED
- ⊙ - APPROXIMATE WELL LOCATION
- NA - NOT AVAILABLE

**NOTE**  
SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 3.2**  
**UAU 1 TCE CONCENTRATIONS**  
**THIRD QUARTER 2012**  
**WEST VAN BUREN AREA WQRF SITE**  
**PHOENIX, ARIZONA**



**LEGEND**

- ⊕ - APPROXIMATE WELL LOCATION
- AVB76-01 - WELL IDENTIFICATION NUMBER
- TCE CONCENTRATION (ug/l)
- 5 - TCE CONCENTRATION CONTOUR (ug/l)

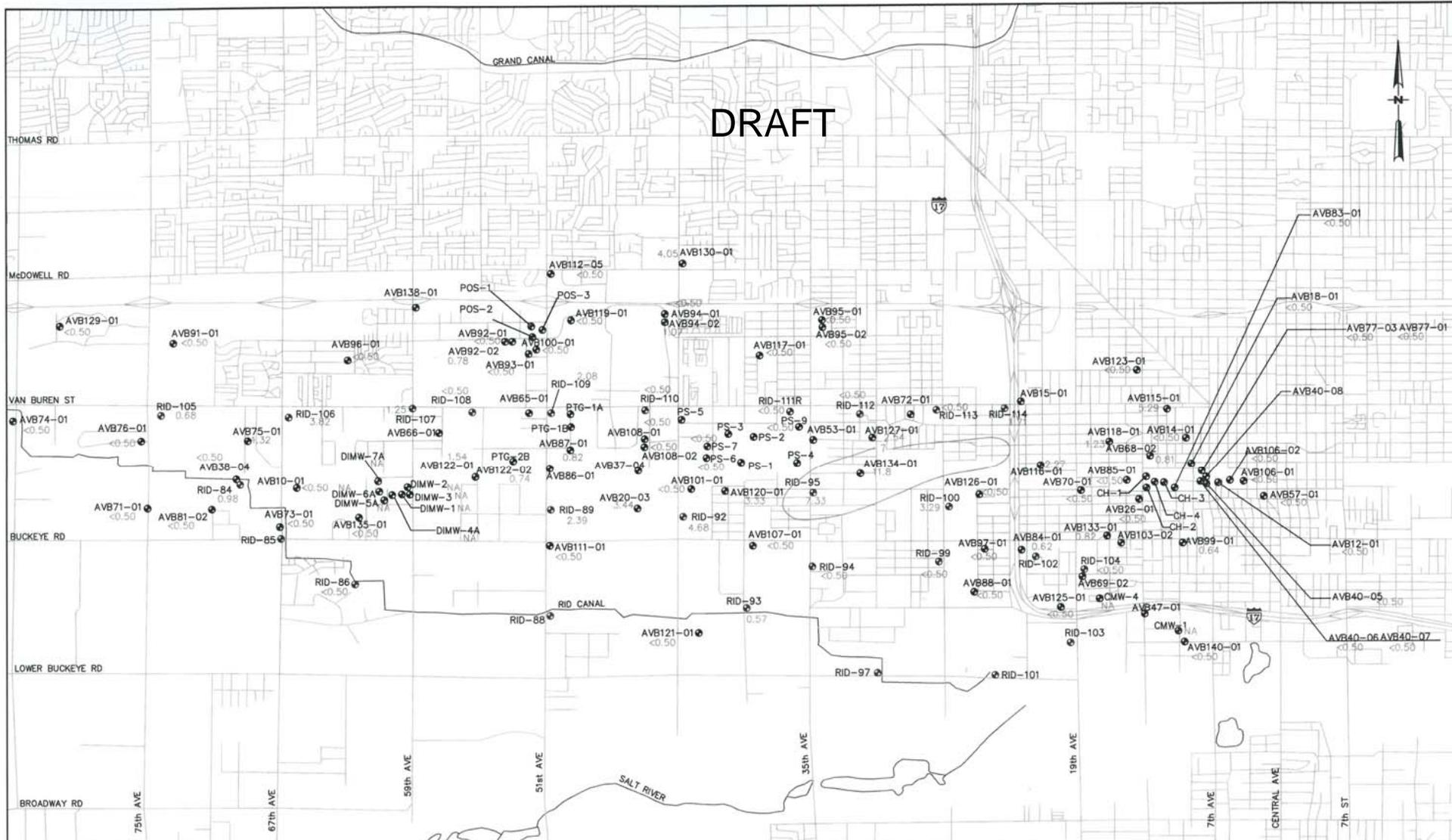
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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 4-8**  
UAU 1 TCE CONCENTRATIONS-1998  
WEST VAN BUREN WQARF SITE  
PHOENIX, ARIZONA

# DRAFT



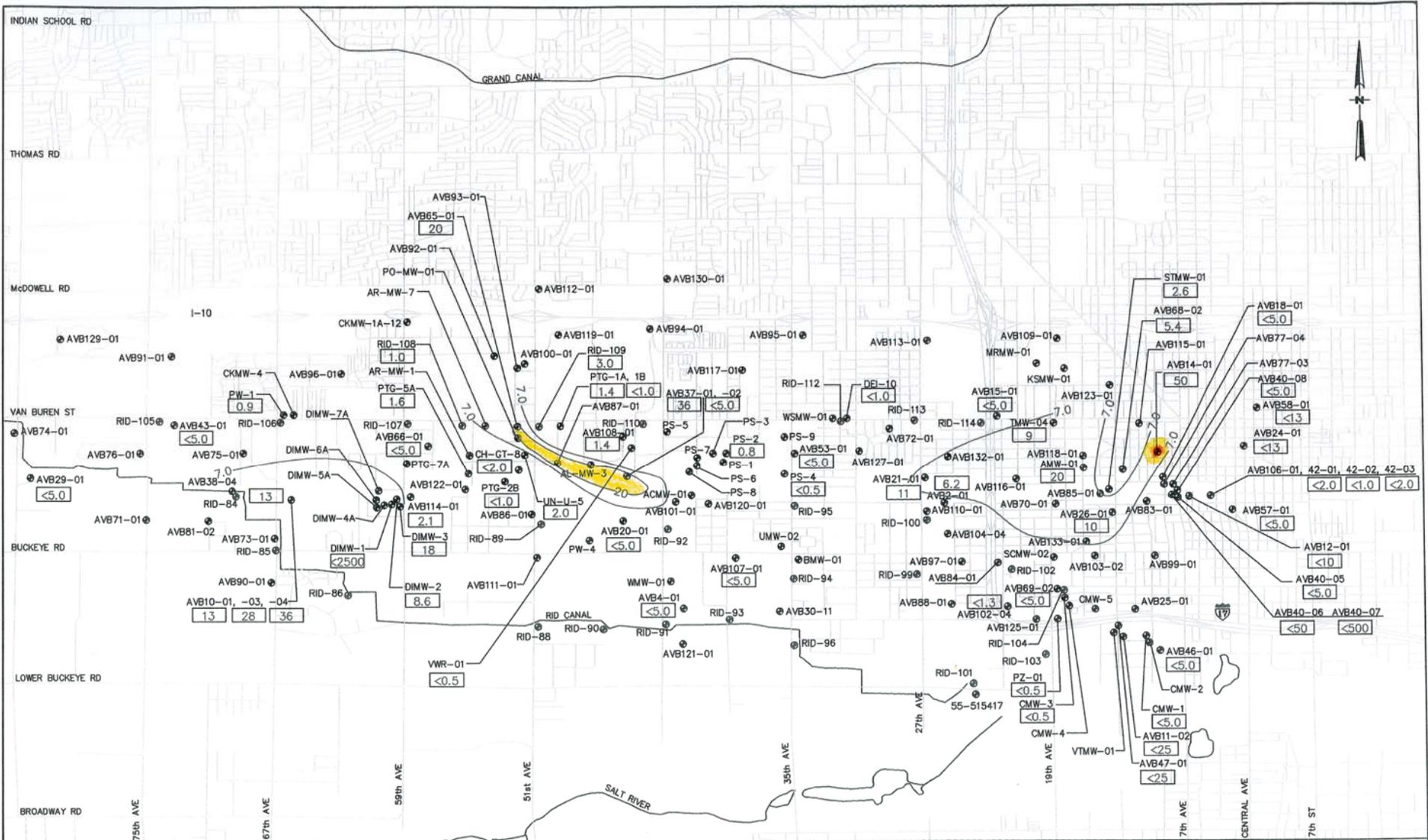
LEGEND	
AVB71-01	WELL IDENTIFICATION NUMBER
11	1,1 - DICHLORETHENE (ug/l)
---	1,1 - DCE CONCENTRATION CONTOUR (ug/l)
NS	NOT SAMPLED
⊙	APPROXIMATE WELL LOCATION
NA	NOT AVAILABLE

NOTE  
SOURCE DATA FOR BASEMAP FROM  
THE ARIZONA DEPARTMENT OF  
TRANSPORTATION DIGITAL ROAD MAP.

PROJ. #:	03103154-23	DATE:	11/15/12
DRAWN BY:	DAG	SCALE:	1"=3600'
DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 3.3**  
**UAU1 1,1 - DCE CONCENTRATIONS**  
**THIRD QUARTER 2012**  
**WEST VAN BUREN AREA WQRF SITE**  
**PHOENIX, ARIZONA**



**LEGEND**

- ⊕ - APPROXIMATE WELL LOCATION
- AVB76-01 - WELL IDENTIFICATION NUMBER
- <0.5 - 1,1-DCE CONCENTRATION (ug/l)
- 7.0 - 1,1-DCE CONCENTRATION CONTOUR (ug/l)

**NOTE**  
 SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

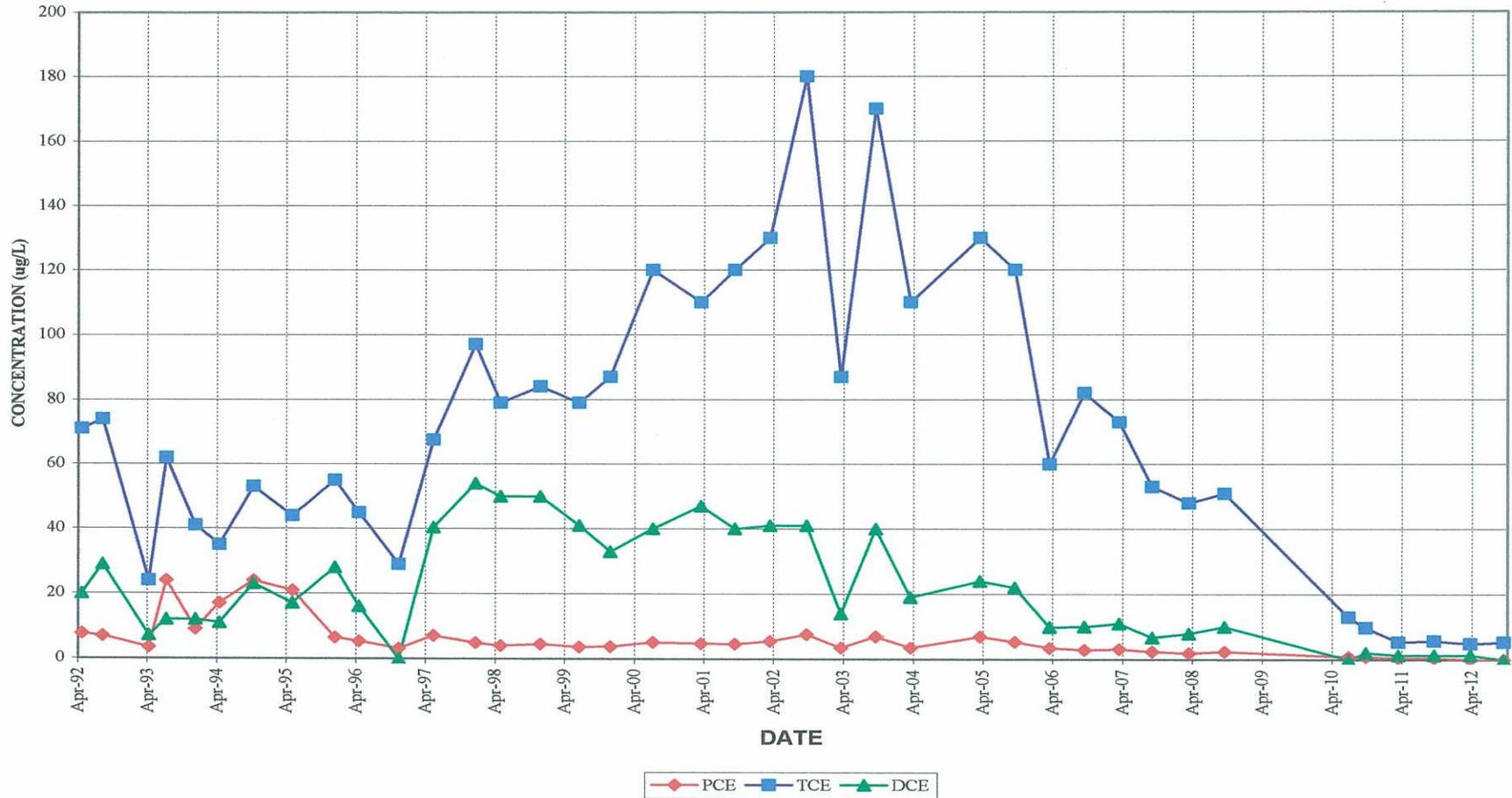
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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 4-11**  
 UAU 1,1-DCE CONCENTRATIONS-1998  
 WEST VAN BUREN WQARF SITE  
 PHOENIX, ARIZONA

# UAU1 Monitor Well Eastern Portion WVBA

WVB VOC CONCENTRATIONS  
AVB14-01 (55-531086)

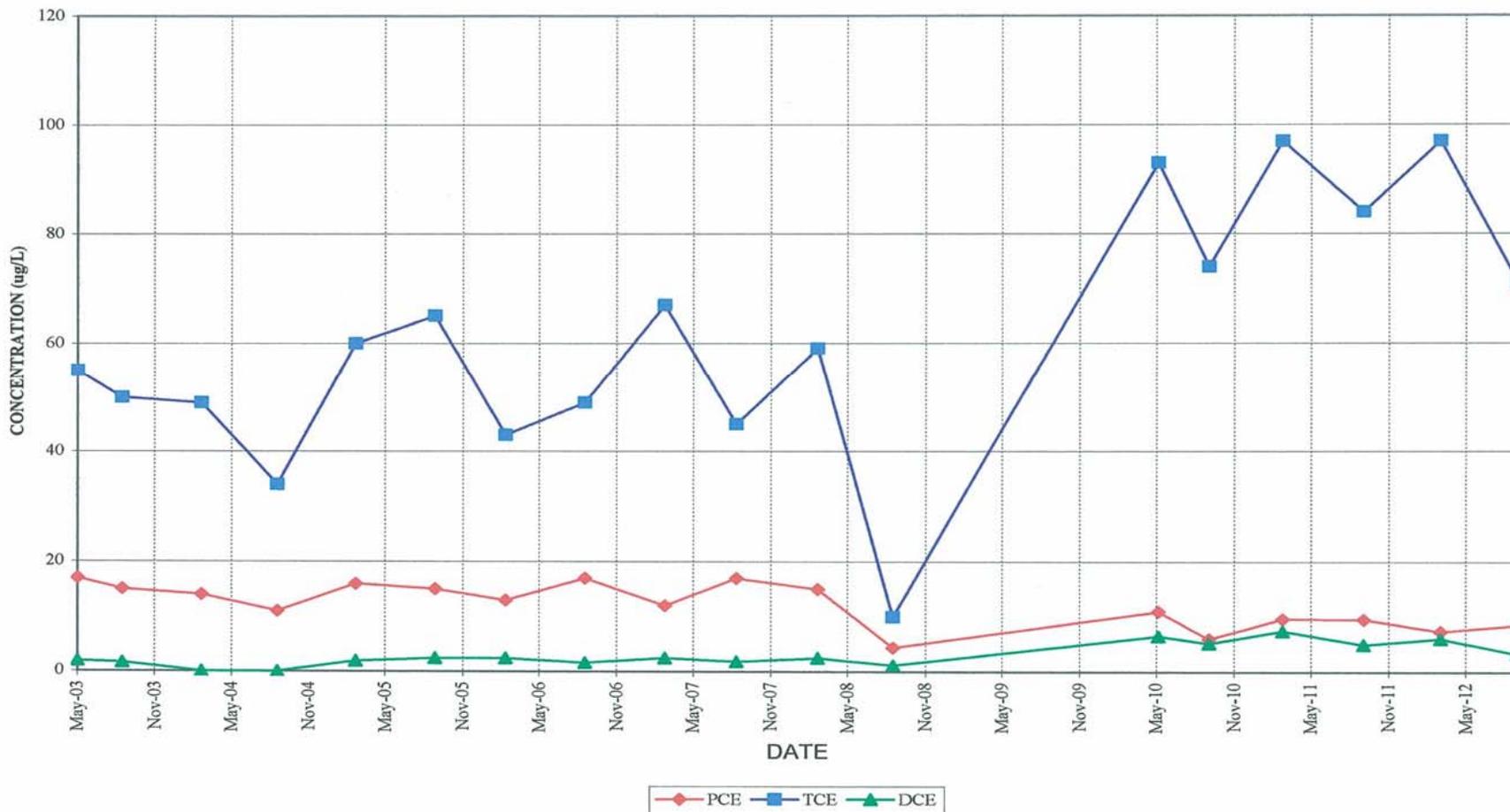


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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# UAU1 Monitor Well Central Portion WVBA

WVB VOC CONCENTRATIONS  
AVB120-01 (55-596919)

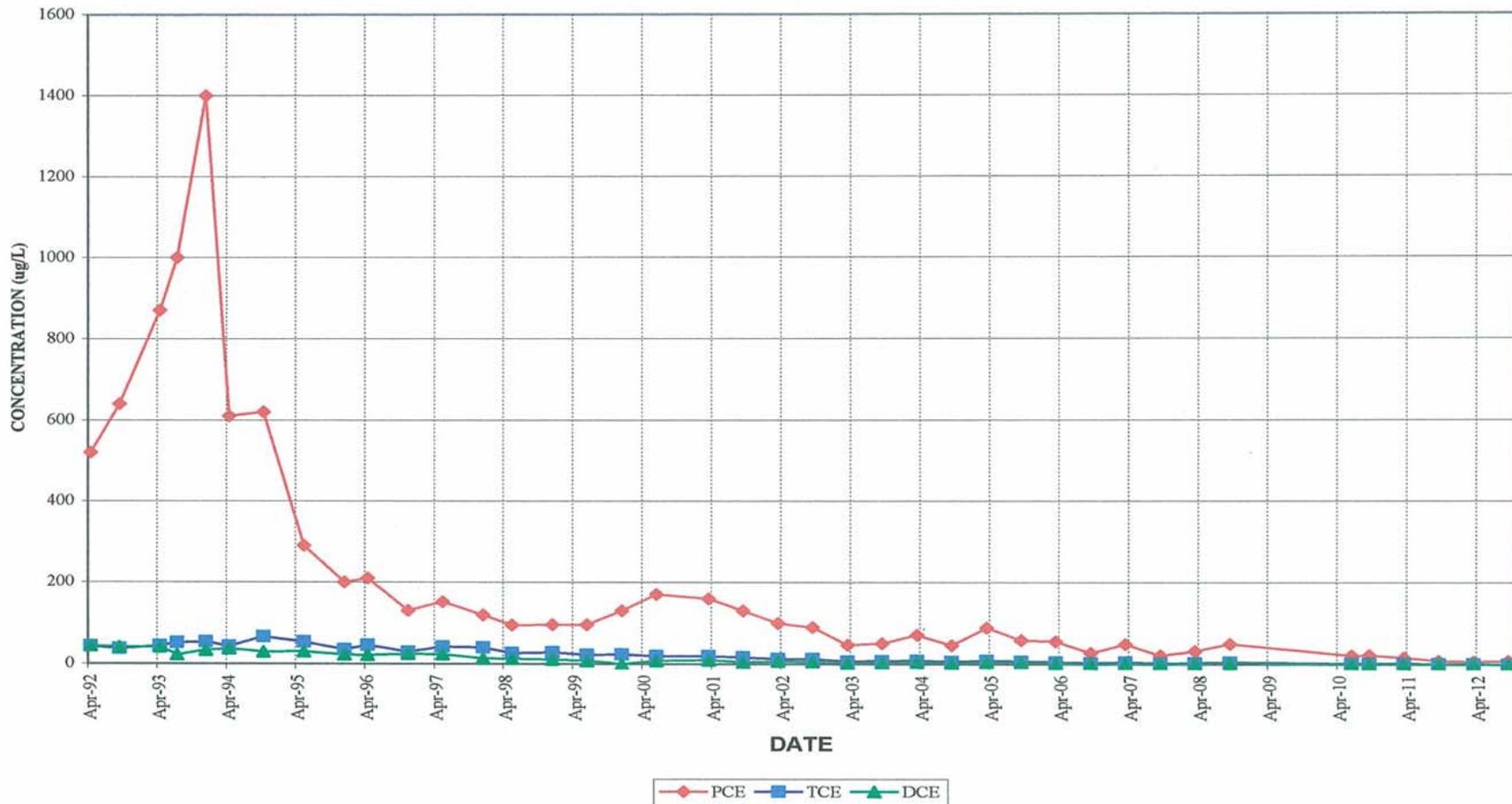


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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# UAU1 Monitor Well Western Portion WVBA

WVB VOC CONCENTRATIONS  
AVB10-01 (55-532041)

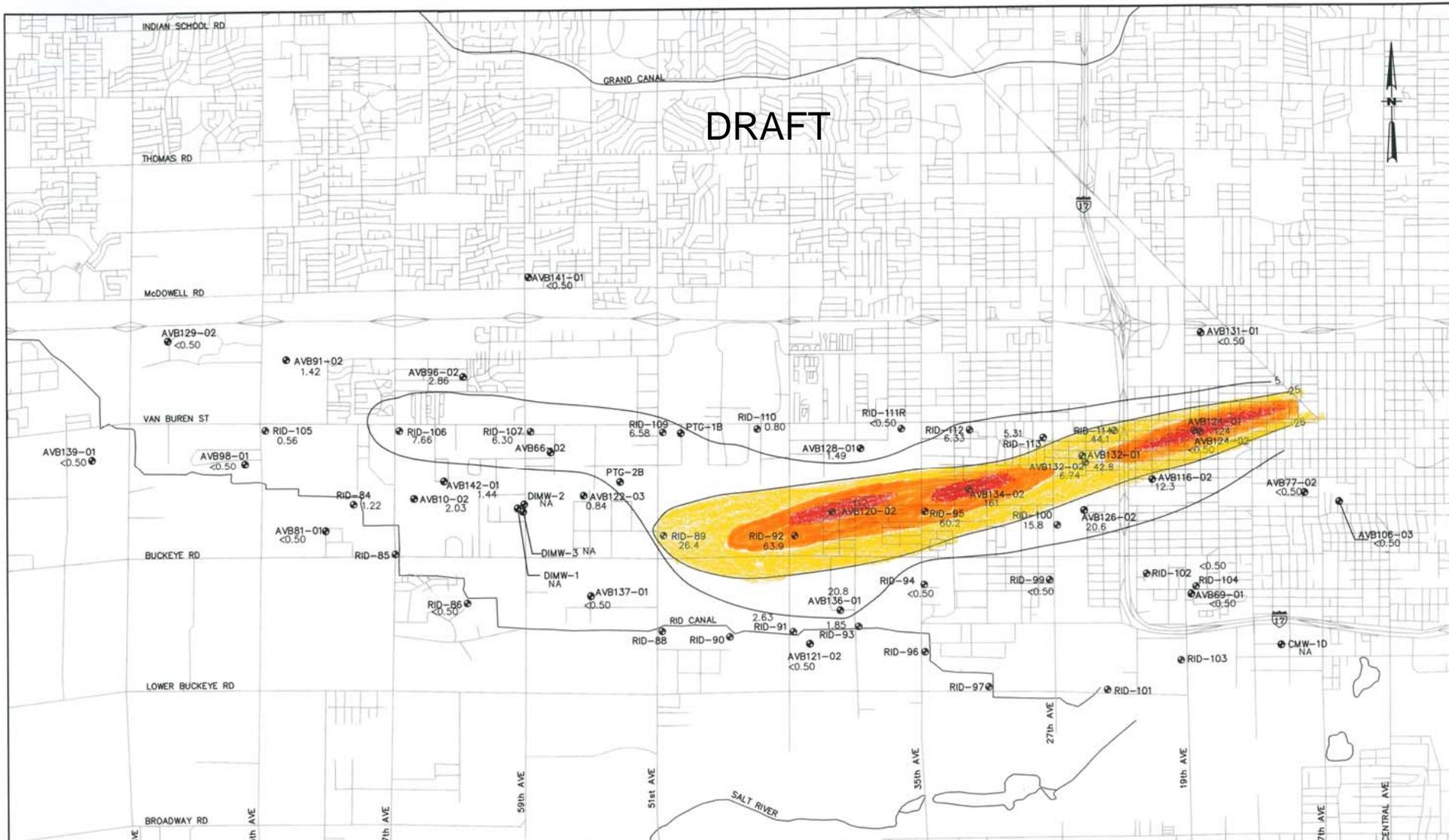


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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- LEGEND**
- AVB98-01 - WELL IDENTIFICATION NUMBER
  - 11 - TRICHLOROETHENE (ug/l)
  - TCE CONCENTRATION CONTOUR (ug/l)
  - NA - NOT AVAILABLE
  - ⊙ - APPROXIMATE WELL LOCATION

**NOTE**  
SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

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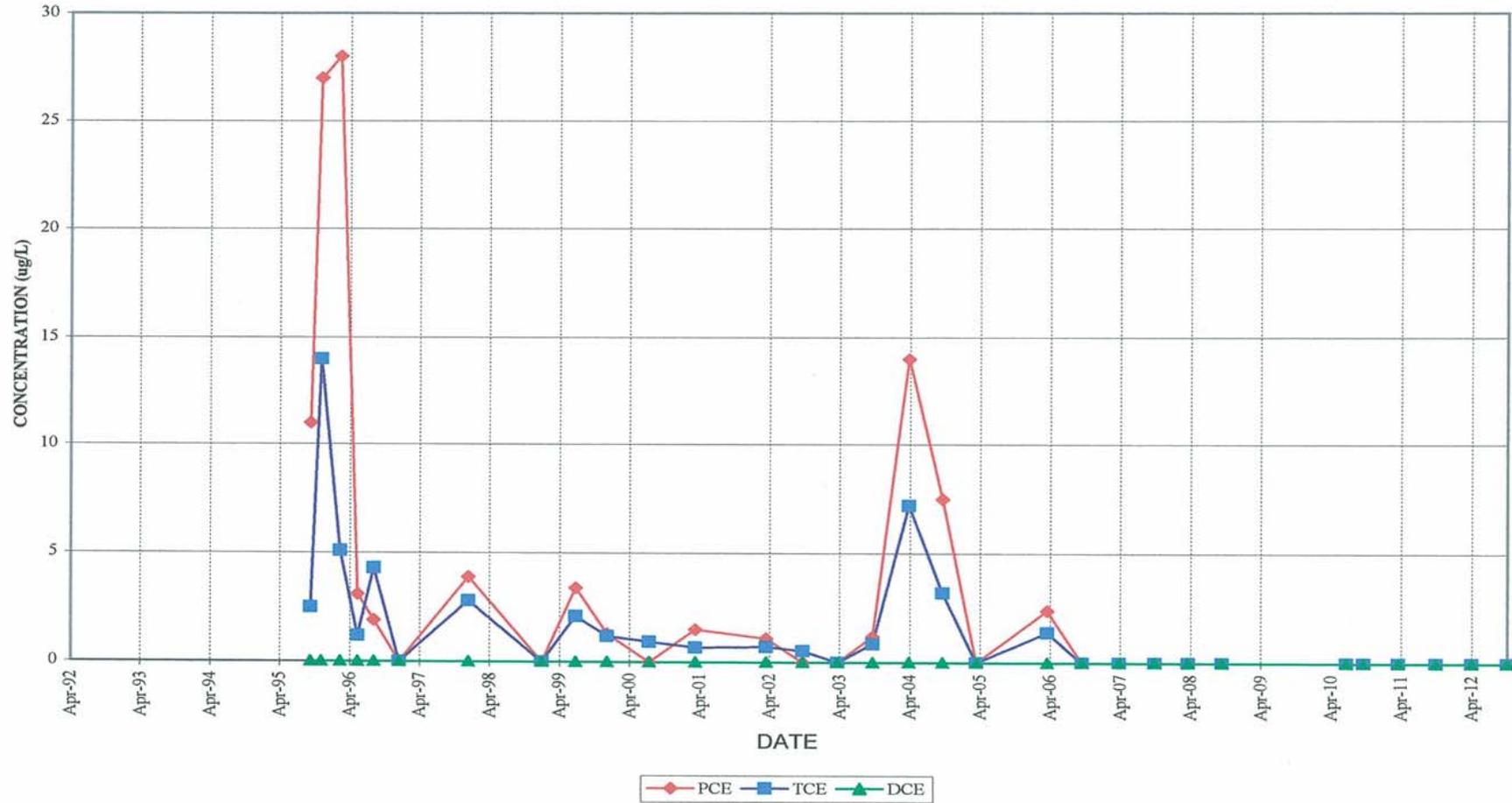


**FIGURE 3.5**  
UAU 2 TCE CONCENTRATIONS  
THIRD QUARTER 2012  
WEST VAN BUREN AREA WQARF SITE  
PHOENIX, ARIZONA



# UAU2 monitor Well Eastern Portion WVBA

WVB VOC CONCENTRATIONS  
AVB106-03 (55-549233)

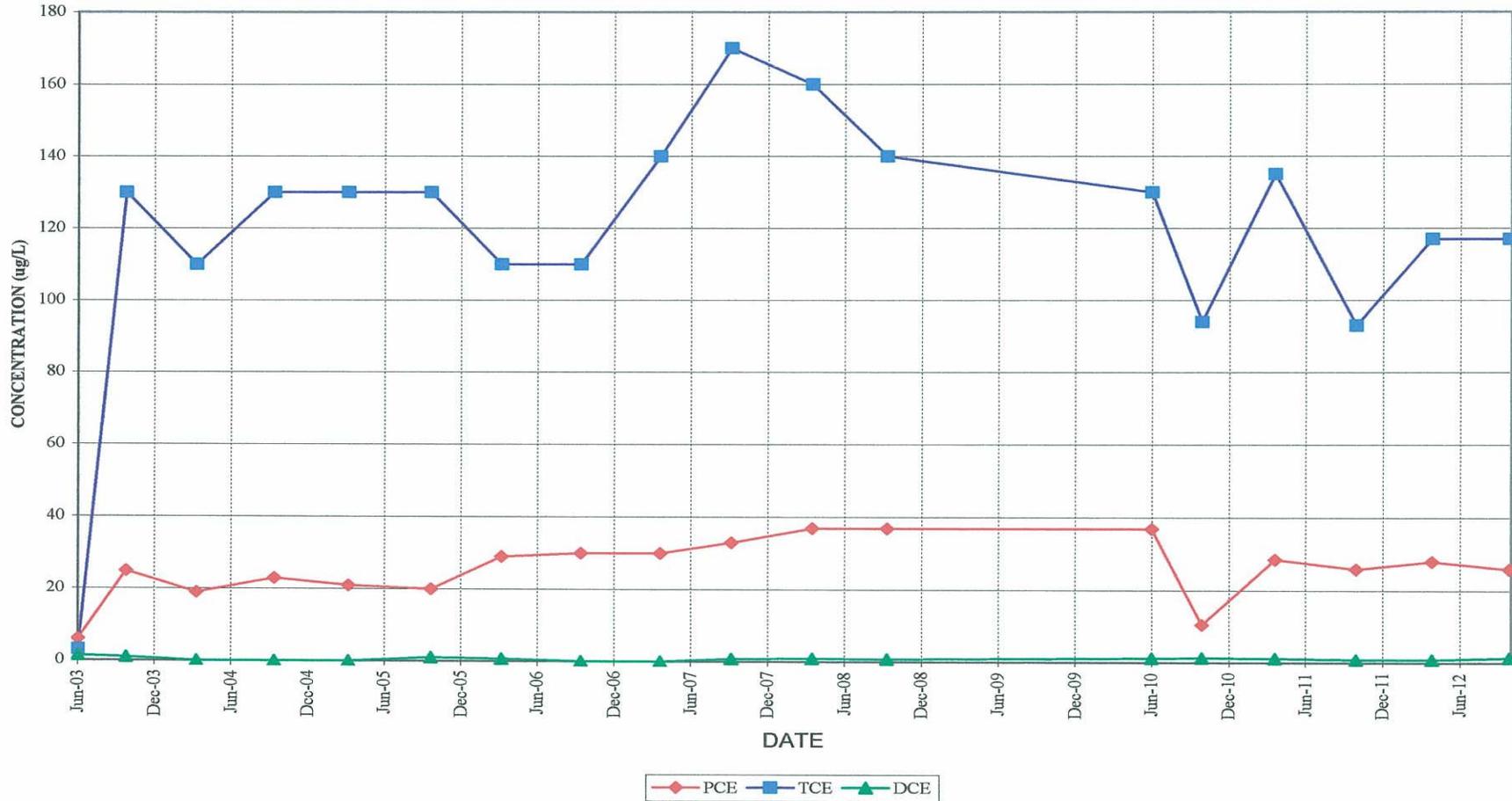


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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# UAU2 Monitor Well Central Portion WVBA

WVB VOC CONCENTRATIONS  
AVB120-02 (55-596922)

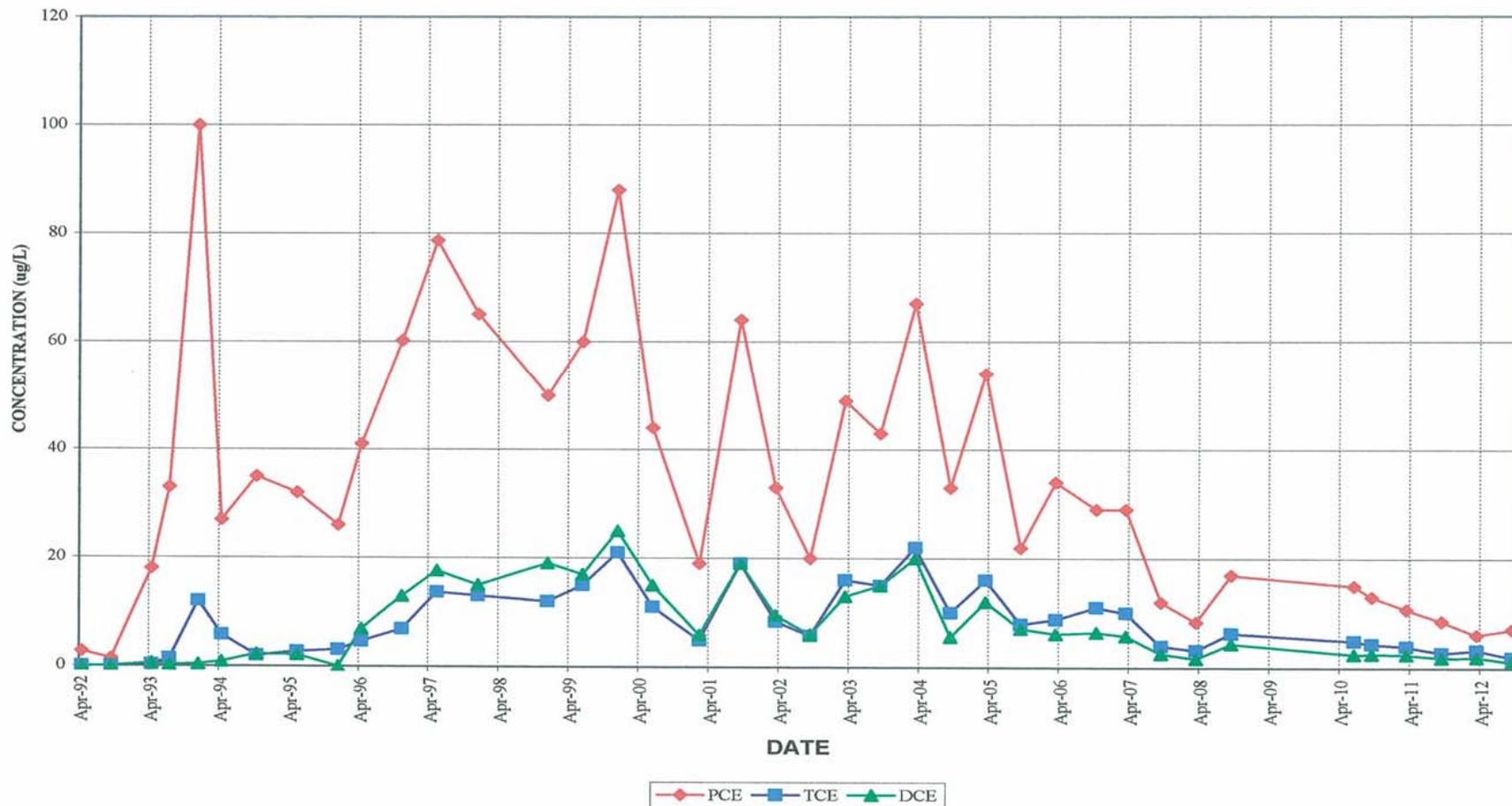


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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# UAU2 Monitor Well Western Portion WVBA

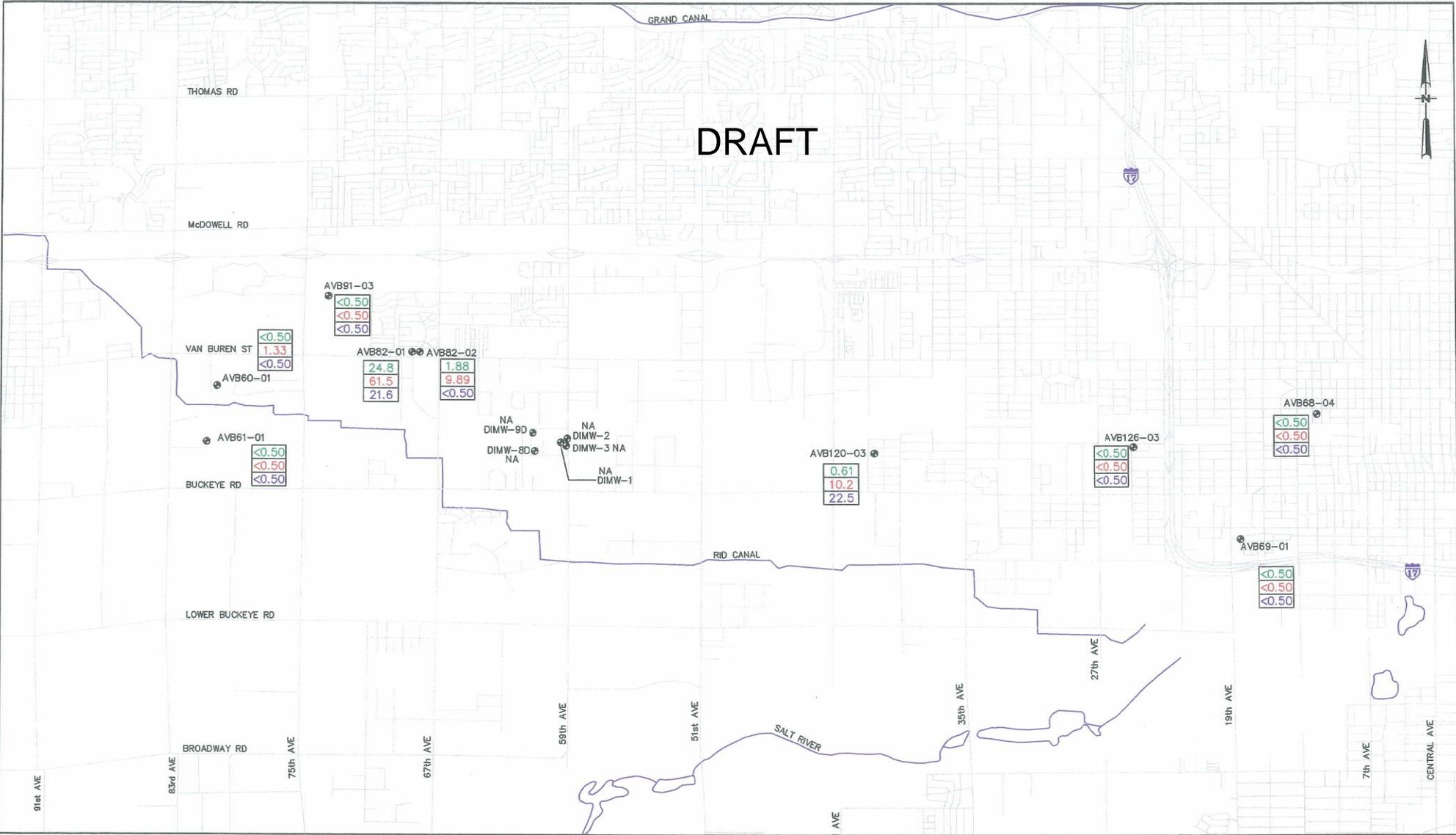
WVB VOC CONCENTRATIONS  
AVB10-02 (55-532042)



NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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**LEGEND**

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 DCE - 1,1 - DICHLOROETHENE (ug/l)  
 PCE - TETRACHLOROETHENE (ug/l)  
 TCE - TRICHLOROETHENE (ug/l)

NA - NOT AVAILABLE  
 ⊕ - APPROXIMATE WELL LOCATION  
 NS - NOT SAMPLED

NOTE  
 SOURCE DATA FOR BASEMAP FROM  
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 TRANSPORTATION DIGITAL ROAD MAP.

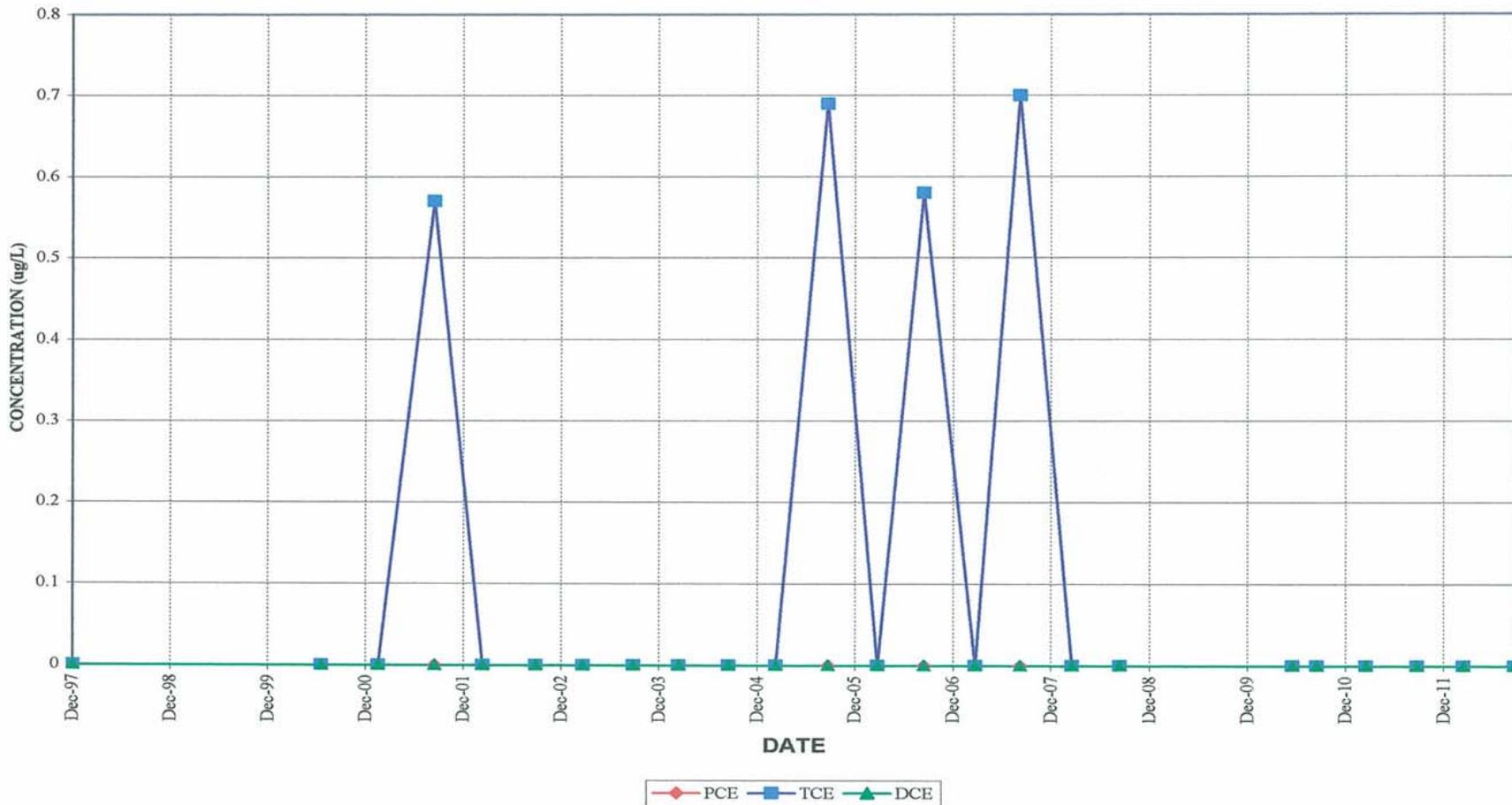
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DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 3.7**  
 MAU CONTAMINANT CONCENTRATIONS  
 THIRD QUARTER 2012  
 WEST VAN BUREN AREA WQARF SITE  
 PHOENIX, ARIZONA

# MAU Monitor Well Eastern Portion WVBA

WVB VOC CONCENTRATIONS  
AVB68-04 (55-561940)

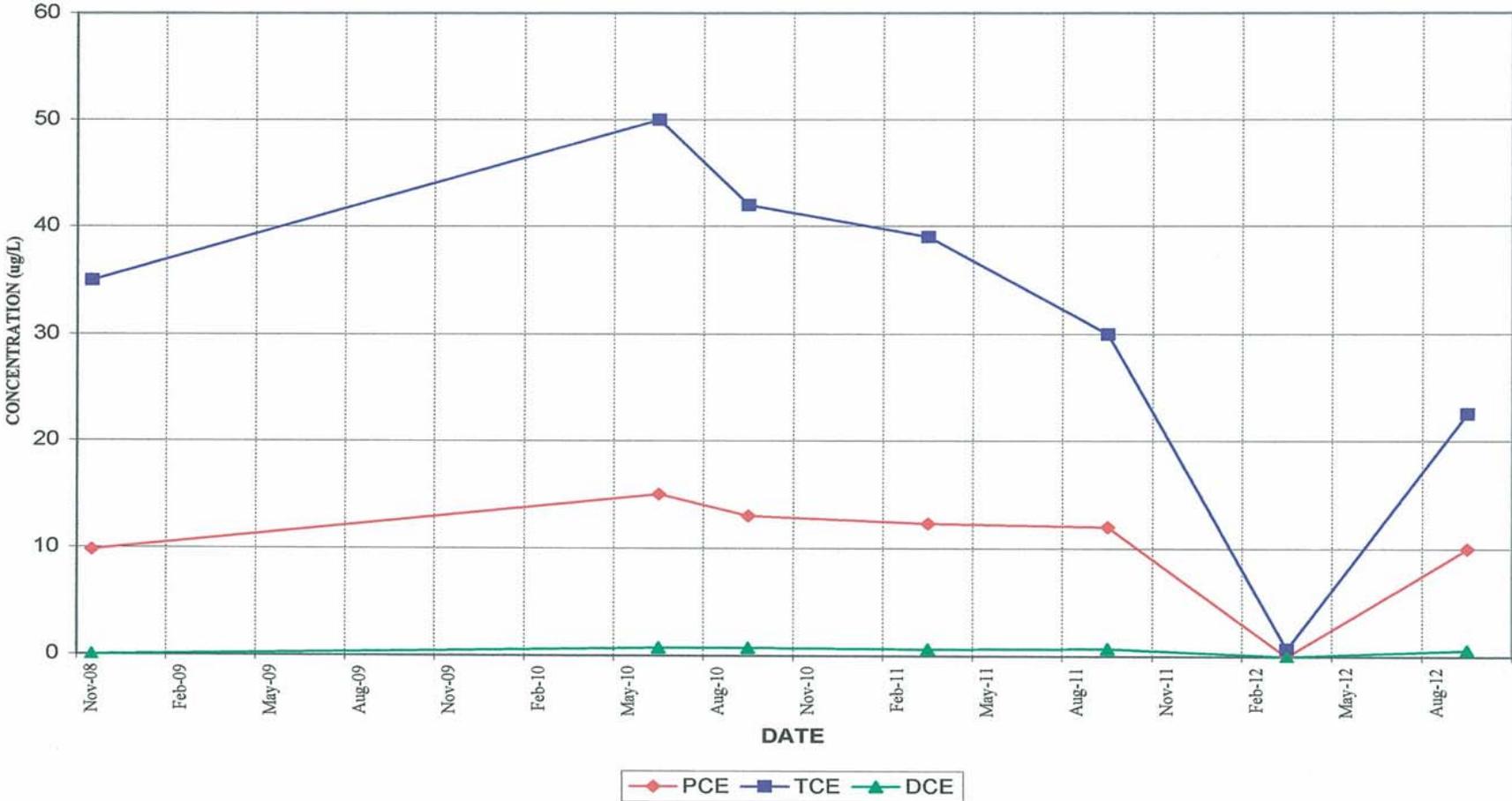


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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# MAU Monitor Well Central Portion WVBA

WVB VOC CONCENTRATIONS  
AVB120-03 (55-217205)

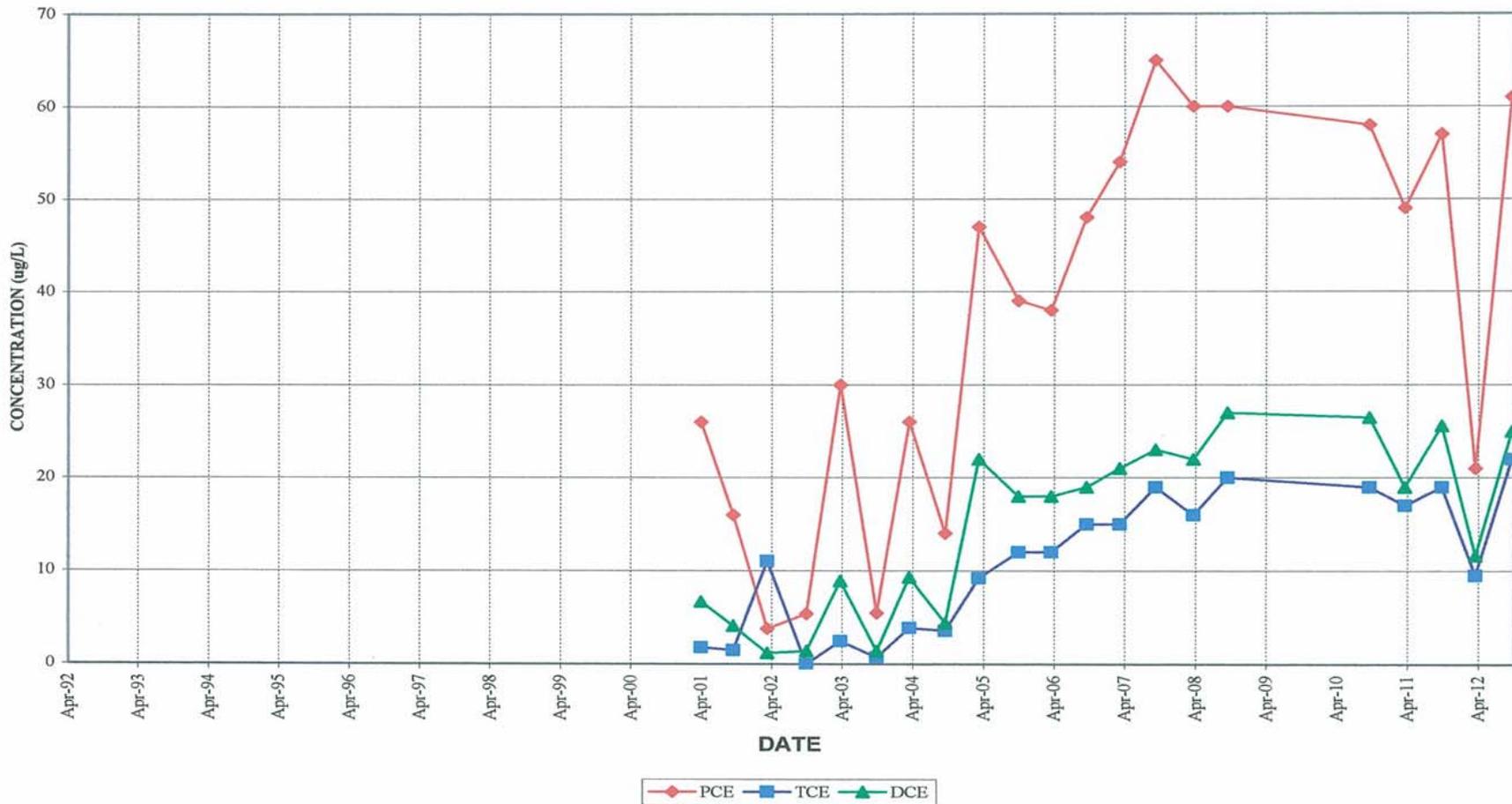


NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH

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# MAU Monitor Well Western Portion WVBA

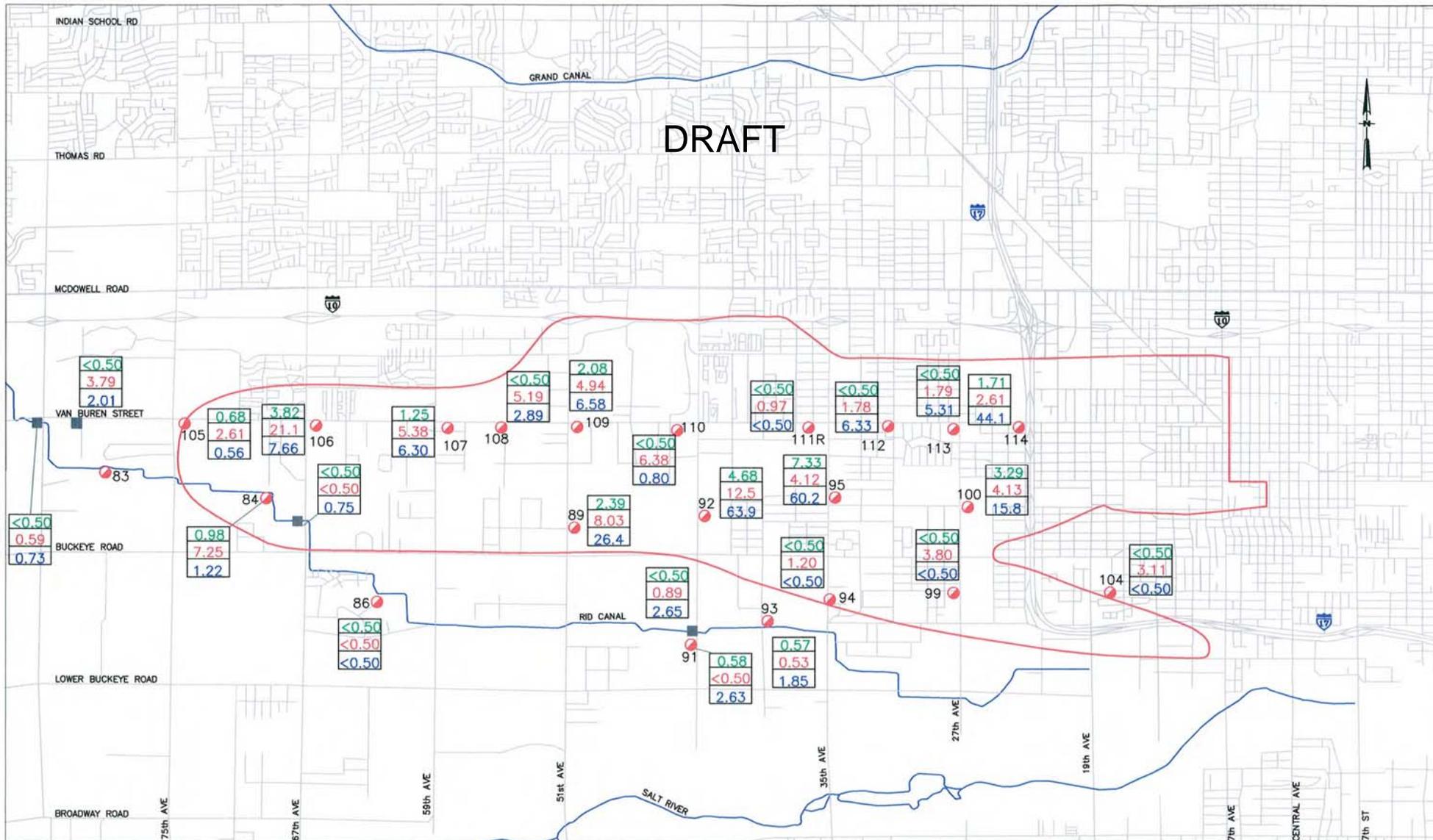
WVB VOC CONCENTRATIONS  
AVB82-01 (55-584504)



NOTES: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH.

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- LEGEND**
- - RID WELL LOCATION
  - - ESTIMATED WEST VAN BUREN BOUNDARY
  - - RID SURFACE WATER SAMPLE LOCATION (APPROX)

DCF 1,1-Dichloroethene (ug/l)  
PCE Tetrachloroethene (ug/l)  
TCE Trichloroethene (ug/l)

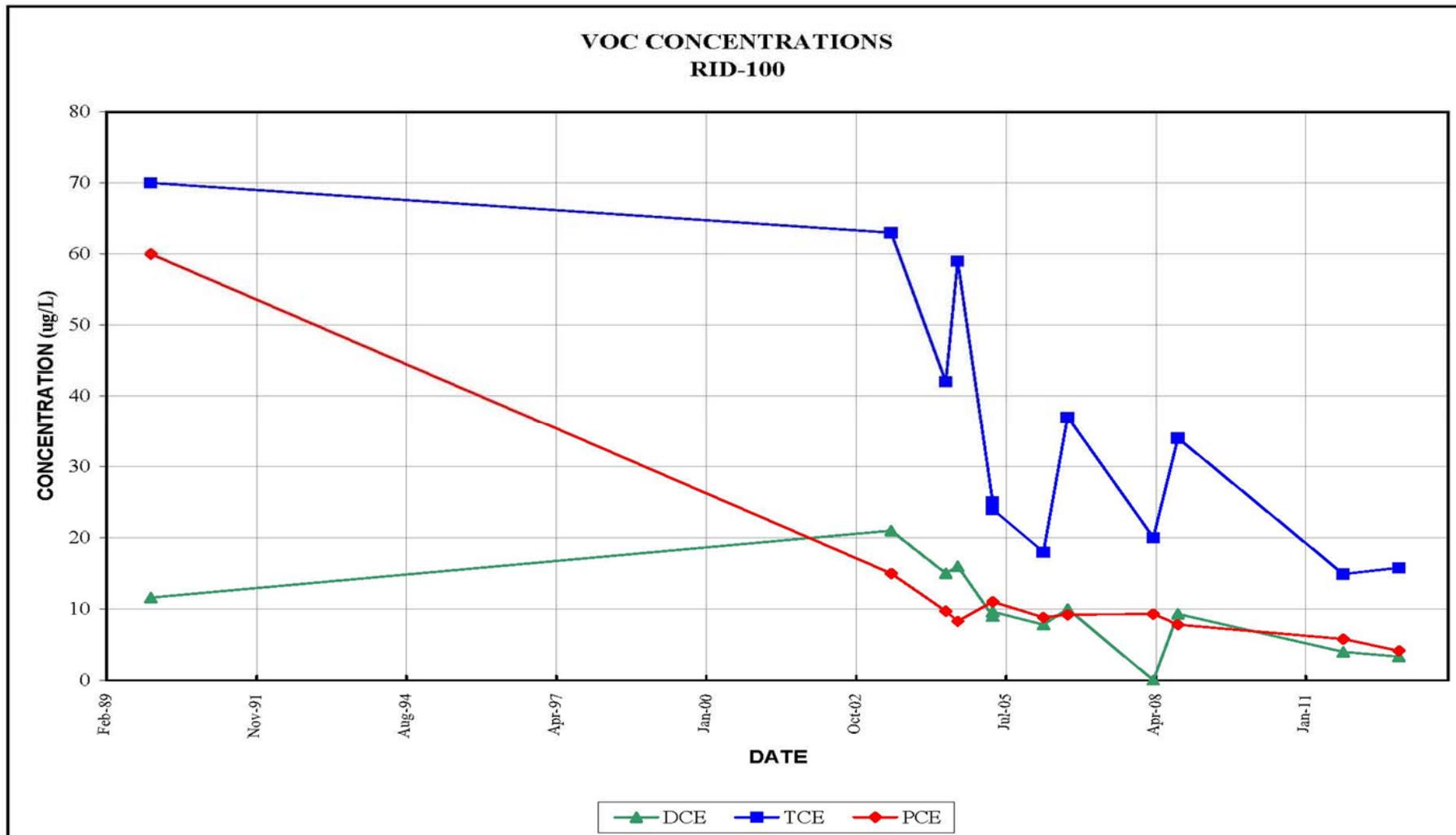
**NOTE**  
SOURCE DATA FOR BASEMAP FROM THE ARIZONA DEPARTMENT OF TRANSPORTATION DIGITAL ROAD MAP.

PROJ. #:	03103154	DATE:	10/24/12
DRAWN BY:	DAG	SCALE:	1"=3600'
DESIGNED BY:	AJG		
APPROVED BY:	AJG		



**FIGURE 3.1**  
 RID WELL/SURFACE WATER CONCENTRATIONS SEPTEMBER 2012  
 WEST VAN BUREN AREA (WVBA) WATER QUALITY ASSURANCE  
 REVOLVING FUND (WQARF) REGISTRY SITE  
 PHOENIX, ARIZONA

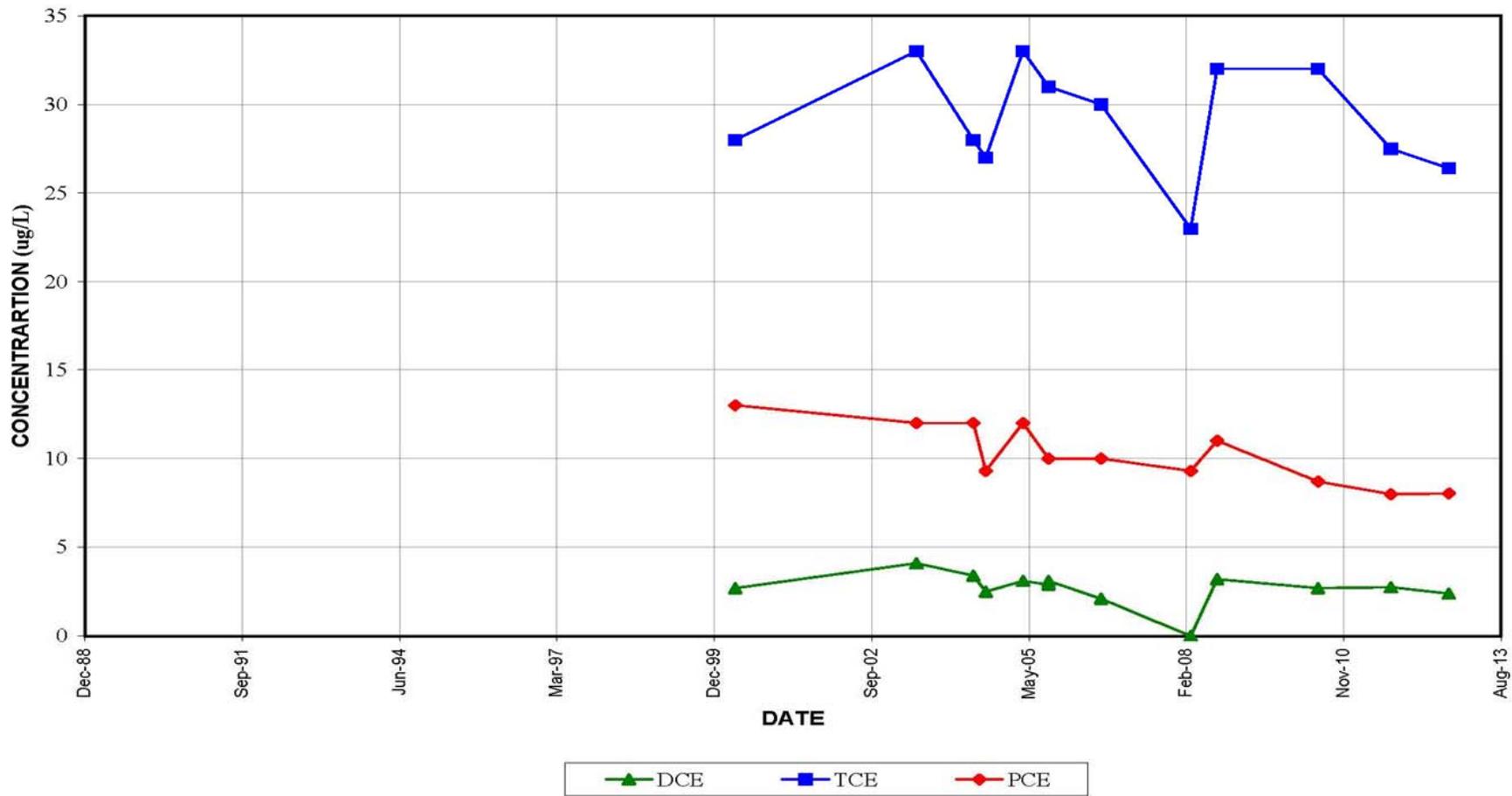
# RID Extraction Well Eastern Portion WVBA



NOTE: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH

# RID Extraction Well Central Portion WVBA

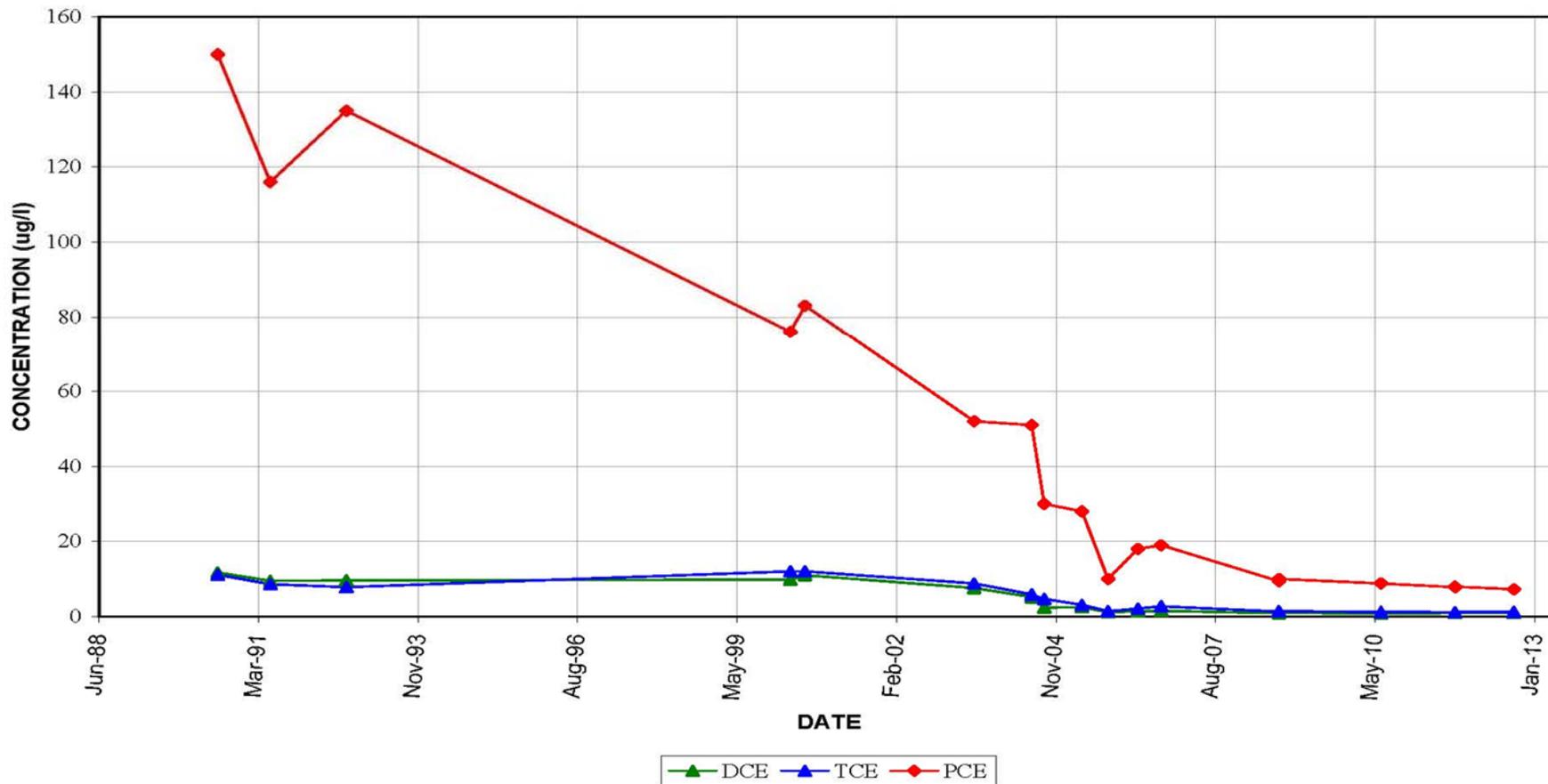
## VOC CONCENTRATIONS RID-89



NOTE: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH

# RID Extraction Well Western Portion WVBA

## VOC CONCENTRATIONS RID-84



NOTE: LABORATORY RESULTS OF NON-DETECT ARE DISPLAYED AS "0" ON GRAPH

## Investigations being conducted by Air Liquide America Specialty Gases LLC

- Air Liquide America Specialty Gases LLC is currently measuring water levels on a quarterly basis and collecting groundwater samples on a semi annual basis.
- Conducted first phase of soil vapor extraction pilot test for possible soil remediation activities.

# Investigations being conducted by Air Liquide America Specialty Gases LLC

- COCs exceeding the AWQS include: PCE, TCE and 1,1-DCE.

PHOTO SOURCE: MARICOPA COUNTY, 2007



Approximate Scale: 1 inch = 120 feet

### LEGEND

 MW-05 Approximate location and identification code of monitor well.

Report Date: February 27, 2009; SECOND QUARTER REPORT; groundwater samples collected on June 26, 2008; Amended Report Dates: July 20, 2009, and September 18, 2009

Air Liquide Fill Plant  
301 S. 45th Avenue  
Phoenix, Az

**BASIN & RANGE**

SITE PHOTOGRAPH

EXHIBIT NO:

4

# Investigations being conducted by Prudential Overall Supply

- Prudential Overall Supply is currently measuring water levels on a quarterly basis and collecting groundwater samples on a semi annual basis.
- Installed an additional groundwater monitor well onsite.
- Recently installed soil vapor extraction system.

# Investigations being conducted by Prudential Overall Supply

- COCs exceeding the AWQS include: PCE and TCE.

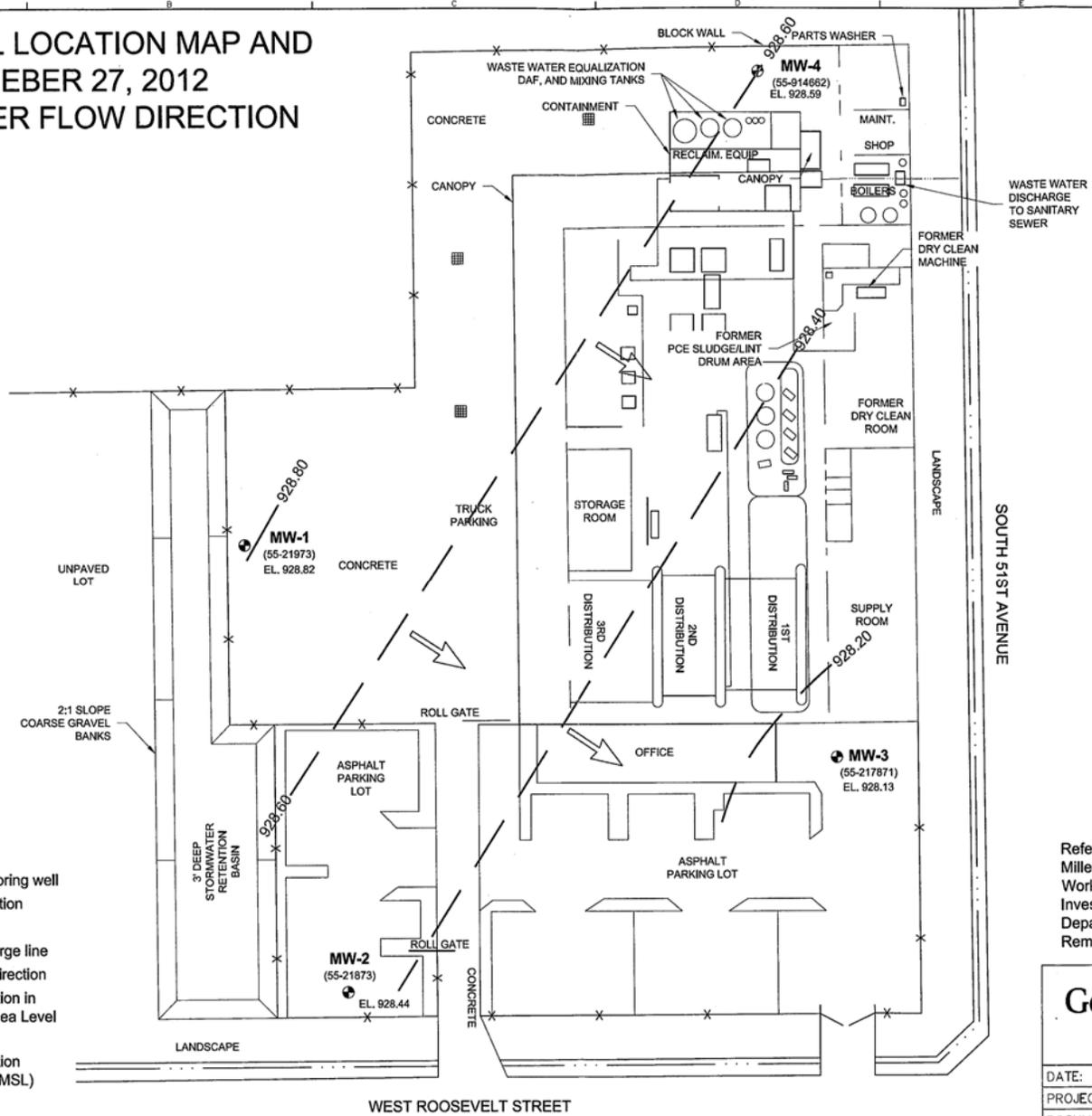
# MONITOR WELL LOCATION MAP AND SEPTEMBER 27, 2012 GROUNDWATER FLOW DIRECTION

N: \GEO\SYNTEC\PRUDENTIAL\QUARTERLY GW MONITORING\PRUDENTIAL SEPT 2012 GW MONITORING FIG

NOTE:  
THE FORMER DRYWELLS ARE NOW  
PIPED TO THE RETENTION BASIN.

### EXPLANATION

- MW-1  Groundwater monitoring well
-  Former drywell location
-  Fence / wall
-  Waste water discharge line
-  Groundwater flow direction
-  Groundwater Elevation in Feet Above Mean Sea Level (AMSL)
- EL. 938.48
-  Groundwater Elevation Contours in Feet (AMSL)



Reference:  
Miller Brooks Environmental, Inc., 2006.  
Work Plan for Soil and Groundwater  
Investigation. Submitted to: Arizona  
Department of Environmental Quality,  
Remedial Projects Section, August 3.



<b>Geosyntec</b> consultants		<b>FIGURE 2</b>	
DATE:	27 SEPT. 2012	SCALE:	1" = 50'
PROJECT NO.	SP0105	FILE NO.	
DOCUMENT NO.		SHEET	of 1

# Investigations being conducted by Roosevelt Irrigation District (RID)

- ADEQ has a signed work agreement with RID to conduct an Early Response Action (ERA) with conditions to conduct 4 tasks.
- Task 1 public health threat assessment completed.

## Investigations being conducted by Roosevelt Irrigation District (RID)

- Other 3 Tasks including well investigations, groundwater modeling, and system design still in progress.
- Conducted well investigation activities at RID well 95 and submitted report.

## Investigations being conducted by Roosevelt Irrigation District (RID)

- RID has installed a replacement well at RID well 111 location.
- Well investigation activities were conducted at this well and well RID-92. ADEQ waiting for submittal of reports.

## Investigations being conducted by Roosevelt Irrigation District (RID)

- Conducted pilot test at wells RID-89, RID-92, RID-95 and RID-114 to determine effectiveness of liquid granular activated carbon (LGAC) .
- Has submitted a modified ERA work plan based on results of the pilot tests.
- Has submitted a draft FS work plan.

## Future Planned Work

- Complete FS work plan review and approval
- Review and approve FS report.
- Prepare draft and final PRAP.
- Conduct semiannual groundwater monitoring and sampling.
- Install groundwater monitor wells in areas where wells have gone dry or been abandoned.



**Community Advisory Board  
West Van Buren WQARF Site  
WVBA Working Group -  
Proposed Draft Feasibility Study Work Plan**

December 6, 2012

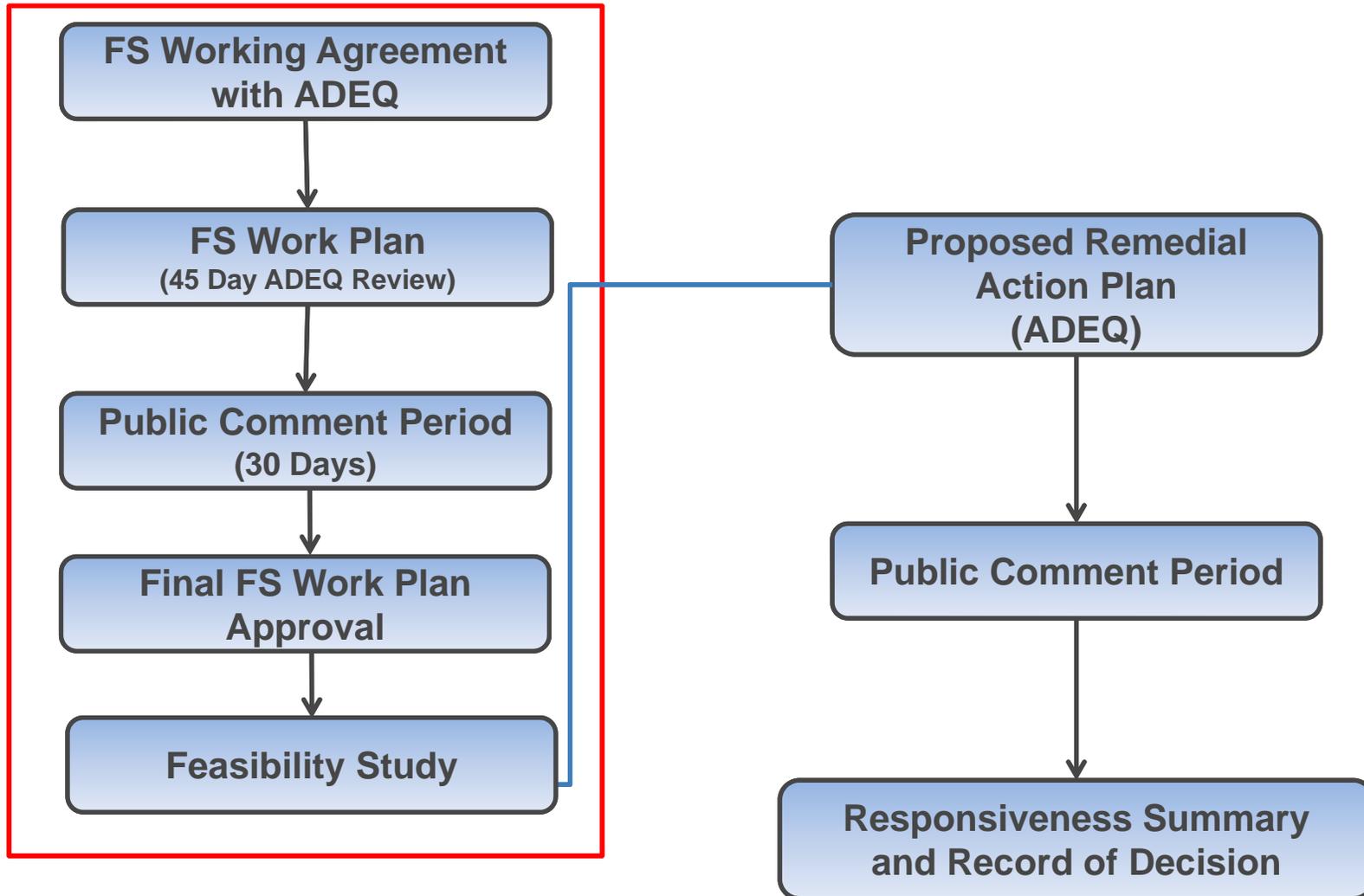
# TOPICS

1. West Van Buren WQARF Site Working Group
2. Post-Remedial Investigation WQARF Process
3. Feasibility Study Objectives
4. Feasibility Study Process
5. Feasibility Study Technical Approach
6. Draft Feasibility Study Status

# WVB WQARF SITE WORKING GROUP

- Unincorporated association of parties that are key regional stakeholders;
  - Air Liquide Specialty Gases, LP;
  - Arizona Public Service Company;
  - City of Phoenix;
  - Dolphin, Inc.;
  - Freescale Semiconductor, Inc.;
  - HTM Sport GmbH/HEAD USA/HEAD Penn Racquet Sports;
  - Holsum Bakery, Inc.;
  - Honeywell International, Inc.;
  - ITT Corporation;
  - Laundry and Cleaners Supply, Inc.;
  - Maricopa Land and Cattle Company;
  - Milum Textile Services Co.;
  - Prudential Overall Supply, Inc.;
  - Salt River Project Agricultural Improvement and Power District;
  - Shuff Steel Company;
  - Univar USA Inc.

# POST-RI WQARF PROCESS

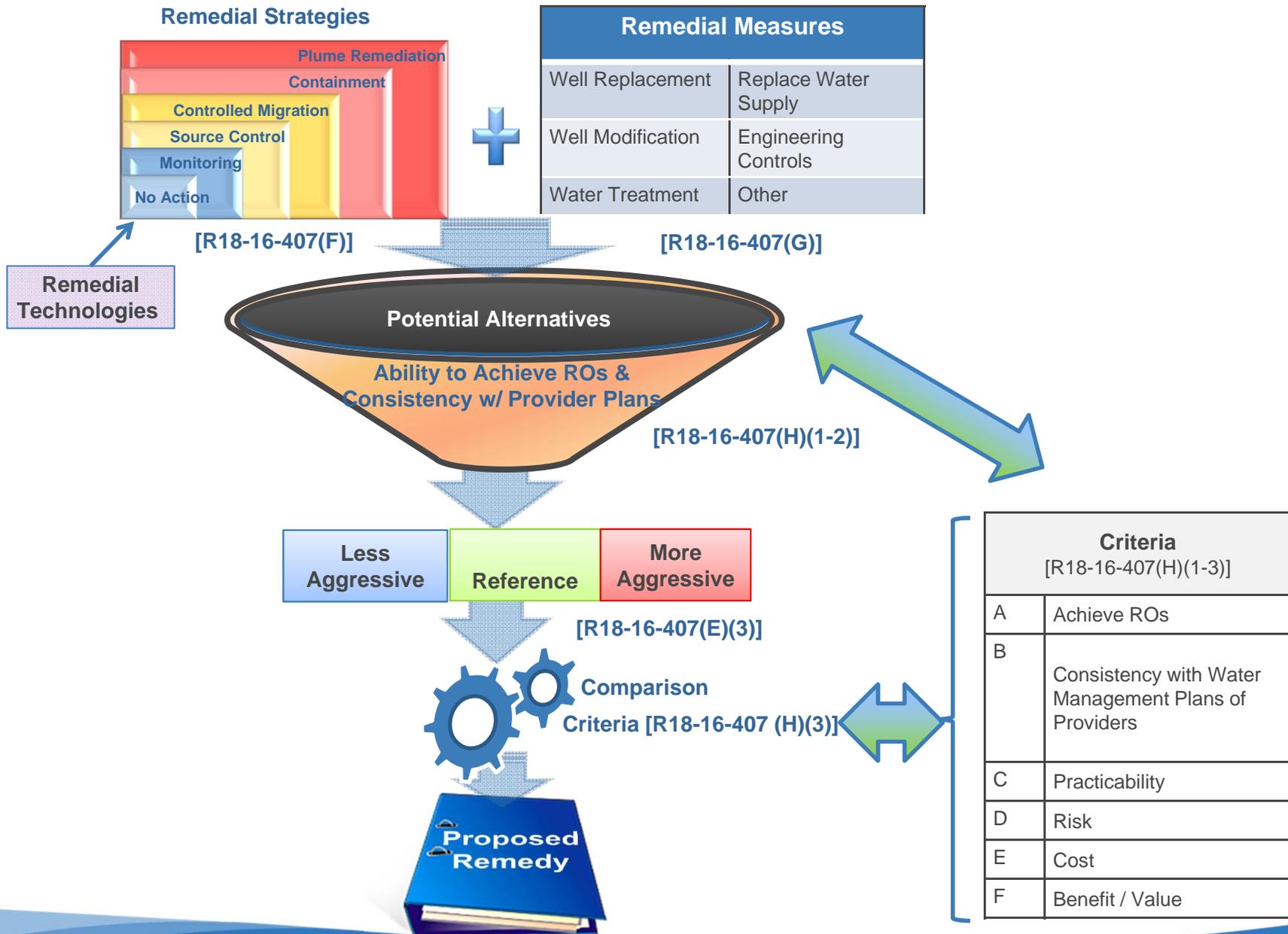


# FS OBJECTIVES

Identify a Reference Remedy, and a Less Aggressive and More Aggressive Remedy that:

- Appear to be capable of achieving the Remedial Objectives;
- Comply with 49-282.06:
  - Assure the protection of public health, welfare, and the environment;
  - To the extent practicable, provide for the control, management, or cleanup of hazardous substances to allow for the maximum beneficial use of the waters of the state;
  - Are reasonable, necessary, cost-effective, and technically feasible; and
  - Consider the needs of well owners and water providers based on current or reasonably foreseeable uses of groundwater (R-18-16-407).

# FS PROCESS

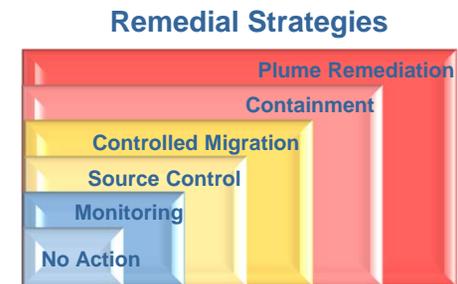


# FS TECHNICAL APPROACH

- Use Remedial Investigation (RI) data and information to prepare a Site Conceptual Model;
- Evaluate the influence of historical site-specific remedial actions on groundwater concentrations;
- Evaluate constituents of concern concentration trends in regional groundwater;
- Evaluate completed and ongoing source area work by sites identified in the RI;
  - Most sites identified in RI have completed or are in process of completing source area work under ADEQ oversight;

# FS TECHNICAL APPROACH (CONT.)

- Prepare a groundwater flow model of the WVBA;
- Evaluate the efficacy of FS pumping scenarios, and the influence of current groundwater pumping within WVBA;
- Evaluate remedial measures to address needs of well owners and water providers within WVBA based on current & reasonably foreseeable uses of groundwater; and
- Design contingent remedial strategies and measures to address reasonably foreseeable uses of groundwater with uncertain time frames.



Remedial Measures	
Well Replacement	Replace Water Supply
Well Modification	Engineering Controls
Water Treatment	Other

# DRAFT FS STATUS

- Draft FS Work Plan – submitted to ADEQ in September 2011;
- FS Working Agreement with ADEQ – completed, pending signatures;
- FS Work Plan Review – 45 days from Agreement date;
- FS Work Plan Public Comment Period – 30 days;
- Draft FS Report Completion – anticipated 2013.

Questions?

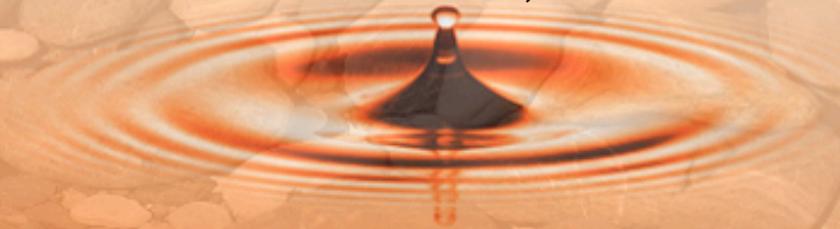
The logo for the West Valley Groundwater Cleanup Coalition. It features the words "WEST VALLEY" in a dark grey, sans-serif font at the top. Below this, the word "Groundwater" is written in a white, sans-serif font inside a dark brown, rounded rectangular box with a blue outline. Underneath the box, the words "CLEANUP COALITION" are written in a dark grey, sans-serif font. A stylized blue water droplet is positioned above the "Groundwater" box, containing a small landscape with green cacti and brown ground.

WEST VALLEY  
Groundwater  
CLEANUP COALITION

ROOSEVELT IRRIGATION DISTRICT

RID Early Response Action Technical Briefing  
To The  
West Van Buren Community Advisory Board

Arizona Department of Environmental Quality  
December 6, 2012



✦ **OUTLINE OF BRIEFING**

✦ **SUMMARY OF ERA ACTIVITIES (HAND-OUT)**

✦ **PROJECT ACCOMPLISHMENTS**

✦ **ERA WORK PLAN**

✦ **APPROVAL TASKS**

✦ **TASK 1 – PUBLIC HEALTH EXPOSURE ASSESSMENT**

✦ **TASK 2 – WELL INVESTIGATIONS**

✦ **TASK 3 – GROUNDWATER MODELING**

✦ **TASK 4 – ENGINEERING DESIGN STUDY**

✦ **MODIFIED ERA WORK PLAN**

✦ **DRAFT FEASIBILITY STUDY WORK PLAN**



✦ **ERA WORK PLAN**

✦ **SUBMITTED ON FEBRUARY 5, 2010**

**ENTAILS:** TREATMENT OF 10 HIGHEST CONTAMINATED WELLS (~22K GPM)  
CENTRALIZED TREATMENT FACILITY @ RID MAINTENANCE YARD  
7 NEW LATERAL PIPELINES, ~ 5 MILES TOTAL LENGTH

**COSTS:** ESTIMATED \$34MM CAPITAL, \$3MM - \$4MM ANNUAL O&M

✦ **ADEQ APPROVED THE ERA WORK PLAN ON JUNE 24, 2010  
WITH THE FOLLOWING CONDITIONAL TASKS:**

- ✦ **TASK 1 – PUBLIC HEALTH EXPOSURE ASSESSMENT**
- ✦ **TASK 2 – WELL INVESTIGATIONS**
- ✦ **TASK 3 – GROUNDWATER MODELING**
- ✦ **TASK 4 – ENGINEERING DESIGN STUDY**



## ✦ TASK 1 – PUBLIC HEALTH EXPOSURE ASSESSMENT

*... RID SHALL SUBMIT A WORK PLAN TO DOCUMENT THE POTENTIAL FOR EXPOSURE AND HOW AND WHEN THE ERA WILL MITIGATE THIS EXPOSURE ...*

✦ **DRAFT PUBLIC HEALTH EXPOSURE AND MITIGATION WORK PLAN SUBMITTED TO ADEQ ON 5/27/2011, RESUBMITTED ON 6/17/2011 AND ADEQ APPROVED THE WORK PLAN ON 6/23/2011**

✦ **FIELD SAMPLING OF BOTH AIR AND WATER WAS CONDUCTED DURING 6/27-29/2011**

✦ **SUMMARY REPORT SUBMITTED TO ADEQ ON 9/19/2011**



# RID ERA TECHNICAL BRIEFING

12/6/12



## **★ TASK 1 – PUBLIC HEALTH EXPOSURE ASSESSMENT**

### **✧ PURPOSE:**

- ✧ **ASSESS POTENTIAL FOR PUBLIC EXPOSURE TO UNACCEPTABLE LEVELS OF CONTAMINATION**
- ✧ **COMPARE SAMPLING RESULTS TO HEALTH-BASED GUIDANCE LEVELS**
- ✧ **DEVELOP DETAILED DESIGNS FOR ENGINEERING CONTROLS AS MITIGATION MEASURES TO REDUCE EMISSIONS**

### **✧ RESULTS:**

- ✧ **HIGH CONCENTRATIONS OF VOCs DETECTED IN AIR SAMPLES AT A NUMBER OF LOCATIONS IN THE RID WATER SYSTEMS IN THE WVBA**
- ✧ **LOW POTENTIAL FOR PUBLIC EXPOSURE DUE TO LIMITED AND CONTROLLED/RESTRICTED ACCESS – NO ACUTE EXPOSURES**
- ✧ **LONG-TERM EXPOSURE AND POTENTIAL PUBLIC HEALTH EFFECTS UNCERTAIN AND NOT ADDRESSED IN THIS ASSESSMENT**
- ✧ **RESULTS CONFIRM WATER QUALITY EXCEEDS MCLs IN MANY PLACES**

## ✦ TASK 2 – WELL INVESTIGATIONS

*... RID SHALL CONDUCT WELL TESTING [AND MODELING] TO INSURE THAT CHANGES IN PUMPING WILL NOT ADVERSELY AFFECT GROUNDWATER QUALITY AND LEVELS ...*

✦ **WELL INVESTIGATIONS WORK PLAN SUBMITTED TO ADEQ ON 8/9/2010, RESUBMITTED ON 11/24/2010 AND ADEQ APPROVED THE WORK PLAN ON 12/16/2010**

✦ **RID-95 (DEEP WELL, UAU/MAU/LAU COMPLETION)  
INVESTIGATIONS COMPLETE, REPORT SUBMITTED 7/25/2011**

✦ **RID-92 AND RID-111R (UAU COMPLETION ONLY)  
INVESTIGATIONS COMPLETE, REPORTS PENDING SUBMITTAL**

## ✦ TASK 2 – WELL INVESTIGATIONS

### ✦ PURPOSE:

- ✦ TO DETERMINE IF ADDITIONAL WELL INVESTIGATIONS ARE NEEDED
- ✦ TO ASSESS STRUCTURAL INTEGRITY AND DETERMINE IF ANY WELL MODIFICATIONS ARE NEEDED
- ✦ TO PROVIDE INFORMATION FOR TASK 3 GROUNDWATER MODELING

### ✦ RESULTS:

- ✦ RESULTS ARE CONSISTENT WITH THE CURRENT MODEL (ALTHOUGH SHORT-DURATION AQUIFER TEST CANNOT QUANTIFY AQUIFER PARAMETERS)
- ✦ EXISTING ADEQ CENTRAL PHOENIX PLUME MODEL IS ADEQUATE FOR ADDITIONAL MODELING
- ✦ DEEP WELL SHOWED UPWARD WATER FLOW DURING NON-PUMPING CONDITIONS MAKING CONDUIT FLOW UNLIKELY, NO NECESSITY FOR MODIFYING WELL RID-95 TO SEAL OFF LAU OR MAU

## ✦ TASK 3 – GROUNDWATER MODELING

*... RID SHALL CONDUCT GROUNDWATER MODELING TO ESTIMATE THE EFFECTS OF CHANGES IN RID WELL PUMPING ... AND HOW THIS MIGHT AFFECT OTHER CONTAMINANT GROUNDWATER PLUMES ...*

✦ **GROUNDWATER MODELING WORK PLAN SUBMITTED TO ADEQ ON 9/27/2011 AND WAS SUBSEQUENTLY WITHDRAWN PENDING REFINEMENT OF THE ERA AND INITIATION OF FS WORK**

### ✦ **PURPOSE:**

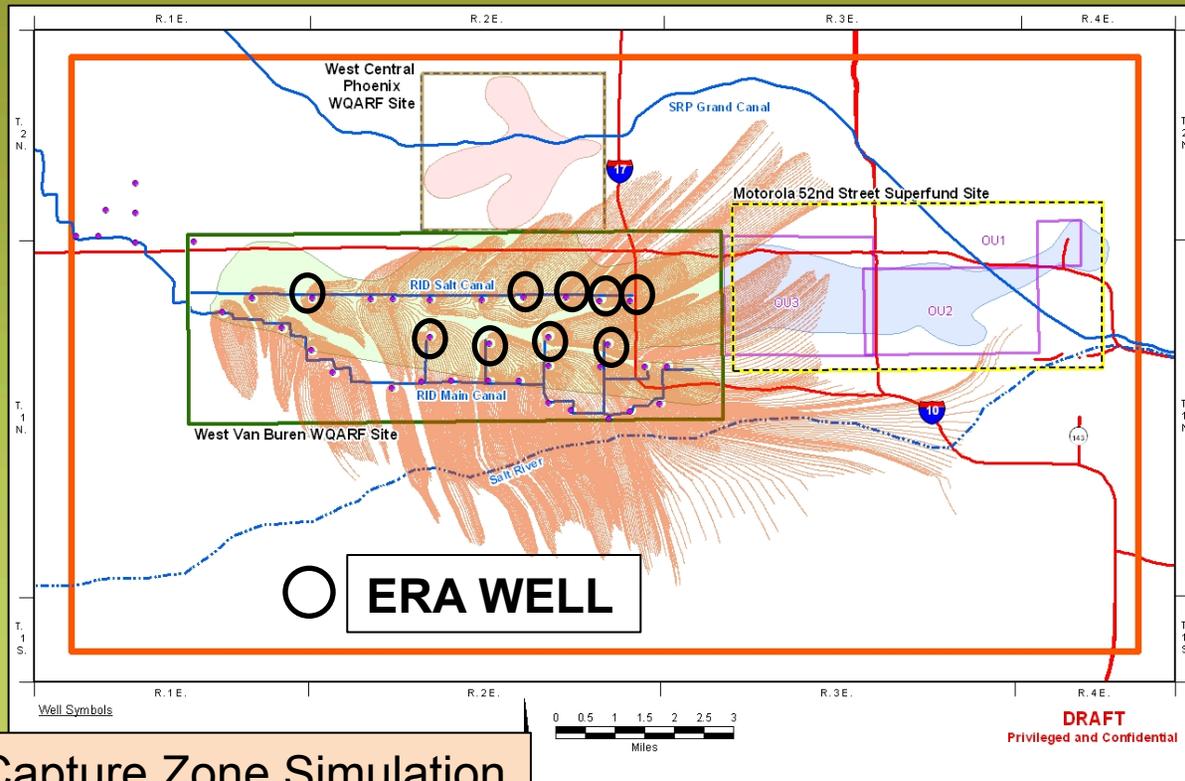
- ✦ **TO ESTIMATE THE EFFECTS OF THE ERA PUMPING REGIMEN ON GROUNDWATER LEVELS AND CAPTURE ZONES**
- ✦ **TO EVALUATE HOW CHANGES IN RID WELL PUMPING WILL AFFECT OTHER CONTAMINANT PLUMES**



# ★ TASK 3 – GROUNDWATER MODELING

## Preliminary Results:

- model sufficient to use in ERA modeling
- ERA pumping scheme not expected to adversely impact groundwater levels, water quality or other plumes near the WVBA



Capture Zone Simulation

## ✦ TASK 4 – ENGINEERING DESIGN STUDY

*... RID MUST COMPLETE AN ENGINEERING DESIGN STUDY TO DESCRIBE ALL TECHNICAL REQUIREMENTS FOR A PUMP AND TREAT REMEDIATION SYSTEM, INCLUDING AN OPERATION AND MAINTENANCE PLAN ...*

✦ **RID-95 WELLHEAD PILOT TREATMENT SYSTEMS PROPOSAL SUBMITTED TO ADEQ ON 8/18/2011, ADEQ AGREED TO IMPLEMENTATION ACTIONS DESCRIBED THEREIN ON 9/2/2011**

✦ **DESIGN AND CONSTRUCTION OF THE 4 WELLHEAD TREATMENT SYSTEMS WAS SUBSTANTIALLY COMPLETED BY 12/31/2011**

✦ **THE O&M PLAN HAS BEEN MADE AVAILABLE TO ADEQ AS WELL AS THE 1-MONTH TECHNOLOGY/DESIGN DEMONSTRATION REPORT AND MONTHLY PROGRESS REPORTS**

✦ **WELLHEAD PILOT TREATMENT SYSTEMS INITIATIVE**

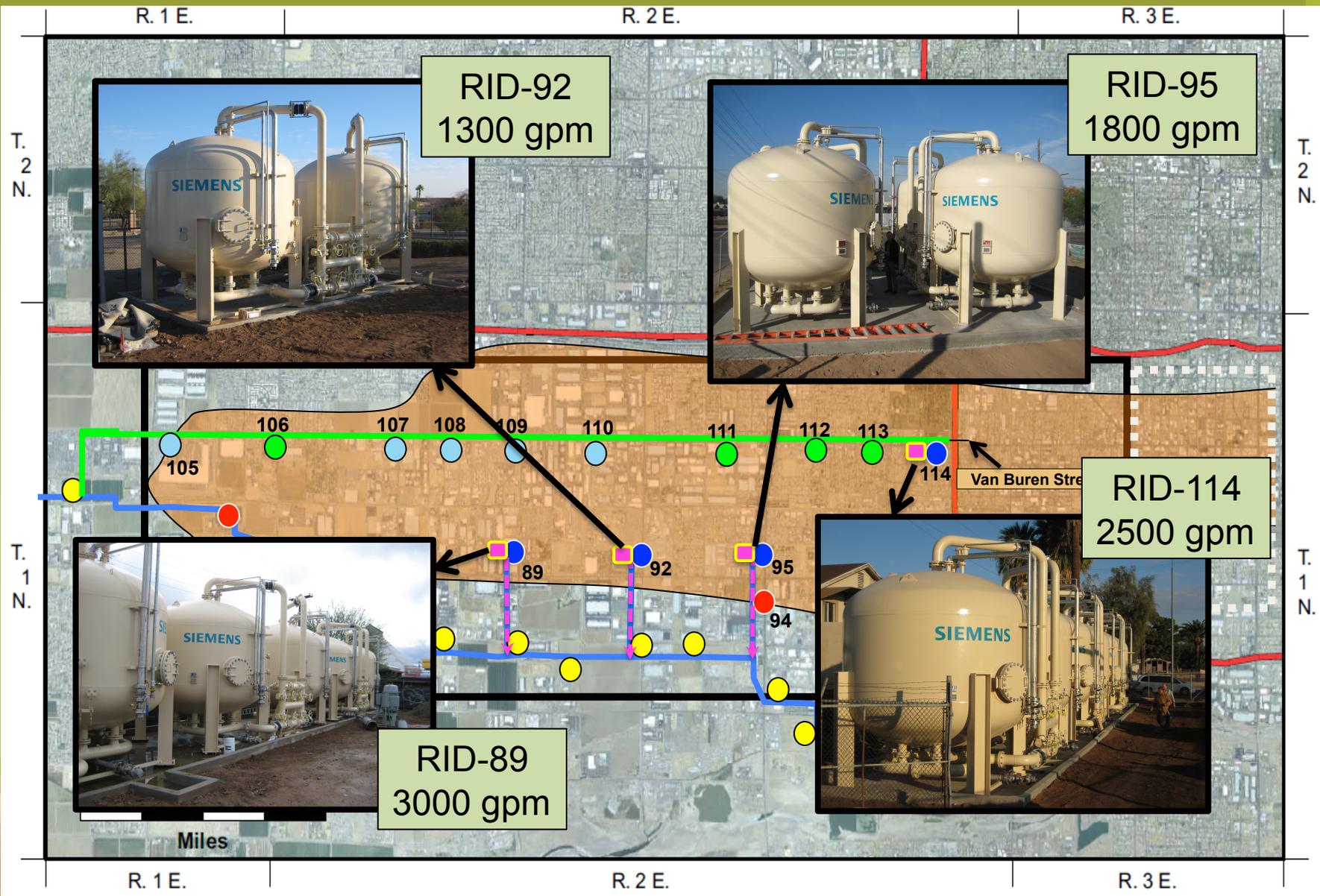
- ☑ LIQUID-PHASE GRANULAR ACTIVATED CARBON (GAC)
- ☑ STANDARD EQUIPMENT SET FROM SIEMENS CORP.
- ☑ LEAD-LAG, FULL REDUNDANCY, MAX. RELIABILITY
- ☑ COMPARES COCONUT SHELL VS. COAL BASED GAC

- ✦ PROVIDES ONGOING REMOVAL AND CAPTURE OF VOCs
- ✦ COST-EFFECTIVE SOLUTION TO RESTORE SOME IMPACTED RID WELLS
- ✦ SUPPORTS TASK 4 – ENGINEERING DESIGN STUDY AND FACILITATED RECENT MODIFICATIONS TO THE ERA WORK PLAN
- ✦ PROVIDES OPERATIONAL DATA FOR WELLS WITH DIFFERING VOC MIXTURES



# RID ERA TECHNICAL BRIEFING

12/6/12



✦ WELLHEAD PILOT TREATMENT SYSTEMS INITIATIVE

✦ RID-95 TREATMENT SYSTEM STARTED UP 2/6/2012

-- TECHNOLOGY/DESIGN DEMONSTRATION PERIOD --

✦ RID-89 TREATMENT SYSTEM STARTED UP 5/24/2012

✦ RID-92 TREATMENT SYSTEM STARTED UP 5/23/2012

✦ RID-114 TREATMENT SYSTEM STARTED UP 5/22/2012

ALL TREATMENT SYSTEMS TURNED OFF 10/31/2012 AND WILL BE  
RESTARTED IN THE SPRING WHEN RID WATER DEMAND INCREASES

~ 2 BILLION GALLONS OF CONTAMINATED GROUNDWATER TREATED  
APPROXIMATELY 1000 POUNDS OF VOCs CAPTURED / DESTROYED

✦ **WELLHEAD PILOT TREATMENT SYSTEMS INITIATIVE**

**NOMINAL 9,000 GPM OF INSTALLED TREATMENT CAPACITY**

**IMPLEMENTED THROUGH PUBLIC-PRIVATE PARTNERSHIP WITH SPINNAKER HOLDINGS**

**APPROXIMATELY \$9MM INVESTED IN EQUIPMENT PROCUREMENT, SYSTEM DESIGN, INSTALLATION, OPERATION & MAINTENANCE AND SUPPORT SERVICES**

✦ **LONG-TERM OPERATIONAL ASSESSMENT REPORT BEING DRAFTED FOR SUBMITTAL TO ADEQ, WILL PROVIDE DETAILS ON:**

- ✦ **PERFORMANCE COMPARISON – COAL VS. COCONUT GAC MEDIA**
- ✦ **CAPITAL AND O&M COST DATA AND OPERATING PROJECTIONS**
- ✦ **SUMMARY OF OPERATIONAL ISSUES**
- ✦ **RECOMMENDATIONS FOR IMPROVEMENTS IN OPERATIONS**

## ✦ MODIFIED ERA WORK PLAN

### ✦ BASED ON THE SUCCESS OF THE PILOT SYSTEMS, ERA WORK PLAN MODIFIED TO DISTRIBUTED TREATMENT APPROACH

TREAT THE HIGHEST VOC-IMPACTED WELLS AT OR NEAR THE WELLHEAD

UTILIZE BLENDING OF TREATED AND UNTREATED (LOWER VOC) WELLS TO ACHIEVE MCLs AT POINTS OF DISCHARGE TO MAIN CANAL

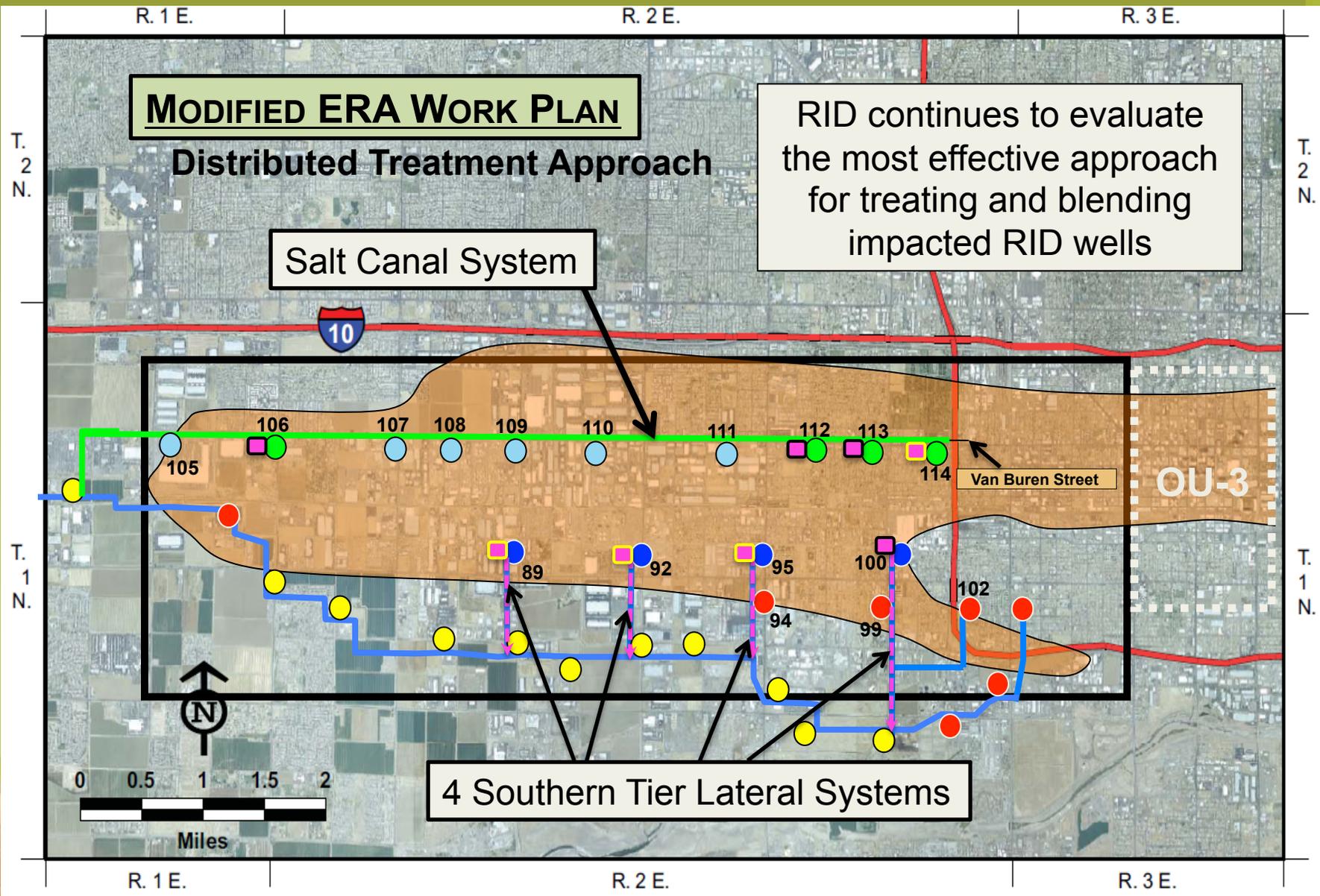
RESTORES MORE IMPACTED RID WELLS THROUGH BLENDING AND COORDINATED PUMPING WHILE STILL ONLY TREATING THE HIGHEST VOC-IMPACTED WELLS

ELIMINATES THE 7 NEW LATERAL PIPELINES, RESULTING IN ~ \$ 7MM CAPITAL COST SAVINGS AND 2 – 3 YEARS OF DELAY IN CONSTRUCTING OF PIPELINES

REDUCES COMPLEXITY AND COST OF ASSOCIATED TREATMENT SYSTEMS

- REDUCES CAPITAL COSTS FROM APPROX. \$34MM TO APPROX. \$18MM
- REDUCES O&M COSTS FROM APPROX. \$3-\$4MM TO APPROX. \$1.5-2MM





## **✦ FEASIBILITY STUDY WORK PLAN**

**✦ AS REQUIRED BY THE AGREEMENT TO CONDUCT WORK ENTERED INTO BETWEEN RID AND ADEQ ON 10/8/2009, RID SUBMITTED THE DRAFT FEASIBILITY STUDY WORK PLAN ON 10/29/2012**

**✦ FS WORK PLAN IS COMPLIANT WITH ALL APPLICABLE FS REQUIREMENTS**

**✦ FS WORK PLAN ADDRESSES THE FINAL REMEDIAL OBJECTIVES ESTABLISHED BY ADEQ IN THE FINAL REMEDIAL INVESTIGATION REPORT**

**✦ SUBMITTED AS DRAFT TO INCLUDE ADEQ AND PRP INVOLVEMENT IN FINALIZING THE SCOPE OF WORK**

**✦ RID IS COMMITTED TO IMPLEMENTING THE SELECTED REMEDY**

**QUESTIONS?**



ON BEHALF OF THE ROOSEVELT IRRIGATION DISTRICT

STATEMENT OF

**David P. Kimball, III**

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Before the  
West Van Buren Area Community Advisory Board

**David P. Kimball, III**  
**12/6/2012**

My name is David Kimball, and I am here on behalf of the Roosevelt Irrigation District to comment on the draft Feasibility Study (“FS”) Work Plan, dated September 6, 2011, which is available on the ADEQ website. This draft FS Work Plan was submitted to ADEQ on behalf of various companies <sup>Some of</sup> which have been identified by RID as  “potentially responsible parties” (“PRPs”) under the federal Superfund Program for releases and/or threatened releases of hazardous substances to soil and groundwater in the West Van Buren Area (“WVBA”) Water Quality Assurance Revolving Fund (“WQARF”) Site.

RID has submitted written comments to ADEQ regarding the PRPs’ FS Work Plan, dated August 11, 2011, September 29, 2011 and October 1, 2012. RID’s comments describe how the PRPs’ FS Work Plan fails to meet applicable statutory, regulatory and technical FS requirements. In fact, based on these statutory, regulatory and technical requirements, the PRPs’ FS Work Plan cannot be approved by ADEQ as a matter of law. On Tuesday, December 4, 2012, RID submitted a formal request to ADEQ to issue a written decision denying the PRPs’ FS Work Plan for failure to comply with applicable statutory, regulatory and technical FS requirements.

For the sake of time, I will only identify a few of the deficiencies and will attach RID's prior correspondence to ADEQ to be included in the administrative record.

The PRPs' FS Work Plan does not address the statutory, regulatory and technical FS requirements that ensure that the quantity of RID's water supply is not reduced and that the quality of RID's water supply will meet its reasonable foreseeable end uses, which are identified in the remedial objectives for the WVBA WQARF Site and must be achieved by any FS Work Plan for the WVBA WQARF Site. The PRPs have failed to enter into a written agreement with ADEQ to perform the FS and have failed to provide the names and addresses of the PRPs responsible for the contamination, which are required for ADEQ approval of any FS Work Plan under state law. Finally, the PRPs' FS Work Plan will not result in any cleanup of the WVBA WQARF Site. The PPRs have refused to fund the implementation of any remedy selected after completion of their FS Work Plan, which will simply extend the more than two decade delay in addressing the WVBA contamination.

Contrary to the decades of delay by the PRPs, RID has voluntarily begun addressing the contamination that has impacted its wells. Pursuant to RID's written agreement with ADEQ, RID is implementing

its ERA and will perform the FS to enable ADEQ to determine a final regional remedy for the WVBA WQARF Site. After operating half of the time this past year, RID's pilot wellhead treatment systems already have treated nearly 2 billion gallons of contaminated groundwater and have removed nearly 1000 pounds of VOC contamination. Under RID's Modified ERA proposal, an estimated 8 billion gallons of contaminated groundwater will be treated and an estimated 2,200 pounds of VOC contaminants will be removed annually.

RID's proposed FS Work Plan will analyze various remedial action alternatives to enable ADEQ to select the most cost-effective final remedy to address a problem that has gone unaddressed far too long.

**GALLAGHER & KENNEDY**

P.A.

ATTORNEYS AT LAW

DAVID P. KIMBALL, III  
DIRECT DIAL: (602) 530-8221  
E-MAIL: DPK@GKNET.COM

2575 EAST CAMELBACK ROAD  
PHOENIX, ARIZONA 85016-9225  
PHONE: (602) 530-8000  
FAX: (602) 530-8500  
WWW.GKNET.COM

August 11, 2011

**VIA ELECTRONIC AND REGULAR MAIL**

Mr. Henry Darwin  
*Director*  
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1110 West Washington Street  
Phoenix, Arizona 85007

Re: **PRPs' Offer to Perform Feasibility Study for WVBA WOARF Site**

Dear Mr. Darwin:

We write this letter on behalf of the Roosevelt Irrigation District ("RID"), and acknowledge that we obtained a copy of the letter, dated July 1, 2011, to the Arizona Department of Environmental Quality ("ADEQ") that reaffirms an "offer" to conduct a Feasibility Study ("FS") for the West Van Buren Area ("WVBA") Water Quality Assurance Revolving Fund ("WQARF") Site by members of a regional stakeholder group, all of which are identified in public documents as potentially responsible parties ("PRPs") for the extensive contamination in the WVBA WQARF Site. We also obtained a copy of ADEQ's July 20, 2011 response thereto.

As stated to ADEQ on numerous occasions, RID is always willing to meet with all stakeholders, including the PRPs, as part of RID's on-going community outreach and stakeholder process in implementing its ERA and conducting the FS for the WVBA WQARF Site. However the PRPs simply are not qualified to conduct the FS.

Pursuant to ADEQ's regulations, the FS is "a process to identify a reference remedy and alternative remedies that appear to be capable of achieving remedial objectives and to evaluate them based on the comparison criteria to select a remedy that complies with A.R.S. § 49-282.06." A.A.C. R18-16-407.A. For the numerous reasons discussed in this letter, the PRPs' "offer" must be rejected.

First, based on ADEQ's applicable regulations, it is premature for anyone to perform a FS for the WVBA WQARF Site since the remedial objectives for the Site have not yet been finalized. On this basis alone, ADEQ must reject the PRPs' "offer". Furthermore, ADEQ's draft

Mr. Henry Darwin  
August 11, 2011  
Page 2

Proposed Remedial Objectives Report fails to comply with applicable WQARF statutory and regulatory requirements. The specific deficiencies are identified in RID's comments to the Proposed Remedial Objectives Report that RID submitted to ADEQ on June 30, 2011.

However, even when the remedial objectives for the WVBA WQARF Site have been finalized and it is appropriate to begin the FS process, the PRP's "offer" must still be rejected. The FS is a process that requires the submittal of an application for FS approval pursuant to A.A.C. R18-16-413<sup>1</sup>. As required by law, the application for approval will require the PRPs to submit "the nature of the relationship of the person [or applicant] to the site", to "include a list of the names and addresses of persons whom the applicant believes to be responsible parties under A.R.S. § 49-283 and a summary of the basis for that belief," and a work plan that demonstrates that the work performed would "satisfy the requirements of A.R.S. § 49-282.06(B)(4)(b)" that clearly states:

The selected remedial action shall address, at a minimum, any well that at the time of selection of the remedial action either supplies water for municipal, domestic, industrial, irrigation or agricultural uses or is part of a public water system if the well would now or in the reasonably foreseeable future produce water that would not be fit for its current or reasonably foreseeable end uses without treatment due to the release of hazardous substances. The specific measures to address any such well shall not reduce the supply of water available to the owner of the well.

See A.A.C. R18-16-413 and R18-16-407.

In short, ADEQ must reject the PRPs "offer" as substantively and procedurally inadequate. If the PRPs want to conduct the FS, the PRPs need to submit an application and work plan that fully complies with all applicable statutory and regulatory requirements of the WQARF program, including the acknowledgement of their PRP status and a work plan that addresses RID's statutory right as a well owner and operator to have the current and reasonably foreseeable end uses of its water supply restored and protected, without any reduction in the supply of water available to RID from its wells within the WBVA WQARF Site. To date, the PRPs have been unwilling to make such required acknowledgements.

More importantly and pursuant to the Agreement to Conduct Work, signed and dated October 8, 2009, RID already has entered into a written agreement with ADEQ, pursuant to A.R.S. § 49-282.05, to have "RID conduct the ERA [Early Response Action] and the FS." RID has been operating collaboratively under the October 8, 2009 agreement with ADEQ for more than a year and a half and has expended substantial time and resources in reliance thereon. Accordingly, ADEQ is contractually obligated to work with RID, not the PRPs, in connection with the ERA and FS. Consistent with RID's actions, its written Agreement to Conduct Work with ADEQ, and its ADEQ-approved ERA, and contrary to the PRPs' unsubstantiated

<sup>1</sup> The FS qualifies as "remedial action" which is defined to include "such actions as may be necessary to investigate, monitor, assess and evaluate."

accusations in their July 1, letter, RID's FS must and will meet all statutory and regulatory requirements set forth in law.

In addition to the legal objections above, the PRPs' "offer" suffers other legal, technical and factual fatal flaws and inaccuracies. Contrary to the PRPs' letter, the PRPs are not credible parties to perform a "comprehensive FS in full compliance with the WQARF statute and rules." The PRPs' professed desire to comply with all the statutory and regulatory FS requirements directly contradicts their continuing efforts to have ADEQ and the courts require less than the statutory and regulatory requirements in RID's ERA. Any FS proposed by the PRPs is fatally flawed because no referenced remedy or alternative remedy evaluated under the PRPs' proposed FS will comply with the required remedial action criteria of A.R.S. § 49-282.06. The PRPs have no authority to include RID's wells in their FS evaluation, which are indispensable to any reasonable, necessary, and cost-effective comprehensive remedy as required in A.R.S. § 49-282.06. As acknowledged by ADEQ, the RID wells are currently effective in impeding further downgradient movement of the plume toward the City of Tolleson wells. Pursuant to A.A.C. R18-16-413, any agreement between the PRPs and ADEQ to perform the FS would require the PRPs "to grant access to the Department as necessary to evaluate the request for [FS] approval." However, the PRPs have neither the legal right to grant ADEQ access to RID's properties and wells nor the authority to commit RID wells to any proposed remedy.

The PRPs' letter also contains several misrepresentations.

The PRPs assert that the RID ERA is an "... *abbreviated, mini-FS proposed by (RID) ...*" and that RID "... *has proposed a perfunctory alternative analysis that would be limited to minor variations of its (ERA).*" These statements, and others contained in the PRP letter, are simply calculated distortions of fact. To clarify:

- The ERA proposed in RID's February 3, 2010 Work Plan is RID's rightful initiative to restore the quality of its water supply that has been impacted by PRP contamination. A.A.C. R18-16-405. It is not a "regional groundwater remedy" which is the explicit focus of the FS process.
- The ERA and subsequent FS are not an "either-or" matter. The ERA was initiated prior to selection of a remedy in order to protect and restore RID's supply of water as expressly authorized by state law. While RID believes the ERA will likely become an integral part of the final groundwater remedy, the FS must be conducted regardless and must address all impacted and threatened RID wells, not just those included in the ERA.
- The RID ERA has been approved by ADEQ and, therefore, is no longer a "*proposed*" action. RID has been working diligently and in good faith with ADEQ under the October 8, 2009 agreement and has

accomplished substantial portions of the task work specified by ADEQ.

- The PRPs are legally obligated to pay the costs of conducting the FS, as well as the costs of implementing the resulting remedial action plan. Their magnanimous "offer" to fund FS activities only is, to say the least, disingenuous.
- RID has voluntarily agreed to take action to minimize the uncontrolled release of PRP contamination into the local environment, in part due to the long history of total inaction of the PRPs to address their regional groundwater contamination.

In addition to its commitment to conduct a formal and comprehensive FS, RID has made a commitment to ADEQ to implement the remedy selected in the FS process. Once again, the PRPs' actions, both recently and in the past, raise questions whether the PRPs will commit to fully fund and implement the final remedy selected in the FS process. First, the PRPs' letter does not mention a commitment by the PRPs to fund or implement the selected remedy. Second, the PRPs were unable to provide a legally acceptable alternative to RID's ERA (which the PRPs would agree to implement) during the four months that ADEQ negotiated with the PRPs. Third, this same PRP group, in a March 22, 2010 meeting with RID and ADEQ and in direct response to ADEQ's question, clearly stated that it would be ADEQ's responsibility to fund and implement the remedy that would be selected after the PRP-funded FS. As RID noted during that meeting and in subsequent written comments submitted to ADEQ, the PRPs' previous offer to perform the FS, like their current "offer" now, would require ADEQ, with its limited funds, to assume the cost of implementing the remedy, resulting in the taxpayers of Arizona having to pay for the millions of dollars associated with the "orphan" shares that ADEQ would be unable to recover from the PRPs under Arizona law. This financial reality, coupled with ADEQ's budget restrictions for the foreseeable future, would likely result in many years or decades passing before a remedy could be implemented to address one of the largest groundwater contamination plumes in the United States.

Many of the PRPs in this regional PRP stakeholder group also are the same PRPs who in the early 1990s established a similar PRP stakeholder group to fund a FS for the WVBA WQARF Site. Like in the 1990s, when the PRP stakeholders failed to develop a FS or implement a remedy, this new PRP stakeholder group has failed to commit to fund or implement the remedy selected as part of a PRP-funded FS. Accordingly, RID encourages ADEQ, under the authority granted in A.A.C. R18-16-407.G, to "require financial mechanisms to provide for the cost of implementation of the remedial measures" from the PRPs before ADEQ would consider any future application from the PRPs to perform any portion of the FS or any other "remedial action" within the WVBA WQARF Site. RID would further expect, particularly in light of the PRPs' refusal to date to address RID's needs, that any future application by the PRPs to perform any "remedial action" within the WVBA WQARF Site would, as required by A.A.C.

Mr. Henry Darwin  
August 11, 2011  
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R18-16-407.G, address "the needs of the well owners and the water providers and their customers, including the quantity and quality of water."

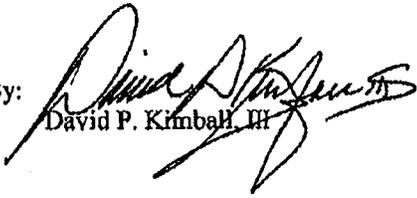
RID looks forward to ADEQ's final Remedial Objectives Report that will comply with all applicable statutory and regulatory obligations as referenced in RID's June 30, 2011 letter and also to ADEQ's final Remedial Investigation Report. Furthermore, RID looks forward to continuing to work with ADEQ, the PRPs and the interested public in performing the FS, pursuant to its October 8, 2009 written agreement with ADEQ, to analyze and evaluate the remedies consistent with the statutory and regulatory requirements so that one of the largest groundwater contamination plumes in the United States can be addressed and restored without financially burdening the Arizona taxpayer in these tough economic times. RID also continues to stand by its commitment to perform the final remedy selected by ADEQ based upon the complete FS that will be conducted by RID.

Thank you for your consideration of RID's comments to the PRPs' July 1, 2011 letter. Please contact me if you have any questions.

Very truly yours,

GALLAGHER & KENNEDY, P.A.

By:

  
David P. Kimball, III

DPK:plm

cc: Amanda Stone, ADEQ  
Julie Riemenschneider, ADEQ  
Kevin Snyder, ADEQ  
Stan Ashby, RID  
Donovan Neese, RID  
Sheryl Sweeney, Ryley Carlock & Applewhite  
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September 29, 2011

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**VIA ELECTRONIC AND REGULAR MAIL**

Mr. Henry Darwin  
Director  
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY  
1110 West Washington Street  
Phoenix, AZ 85007

**Re: *Feasibility Study of the West Van Buren Area  
Water Quality Assurance Revolving Fund Site  
Phoenix, Arizona***

Dear Mr. Darwin:

The Roosevelt Irrigation District ("RID") obtained a copy of a *Feasibility Study Work Plan for the West Van Buren WQARF Site ("FS Work Plan")*, dated September 6, 2011, that was prepared by Haley & Aldrich on behalf of what is referred to as the West Van Buren WQARF Site Working Group. For the record it needs to be clear that this "Working Group" represents Potentially Responsible Parties ("PRPs") that the Arizona Department of Environmental Quality ("ADEQ") and the United States Environmental Protection Agency records have identified as responsible for groundwater contamination of the West Van Buren Area ("WVBA") Site. I am responding to this submittal on behalf of RID.

RID considers the September 6, 2011 *FS Work Plan* to be substantively and procedurally inadequate for the reasons that were stated in RID's recent letter to you, dated August 11, 2011, which was submitted in response to the PRPs' "offer" to perform a FS for the WVBA WQARF Site. As noted in RID's August 11, 2011 letter, and has now been borne out by the distorted discussion of Remedial Objectives in the *FS Work Plan*, it is premature for the FS to proceed until ADEQ establishes Final Remedial Objectives in the Final Remedial Investigation ("RI") Report. Furthermore, given the biased and dismissive nature of the PRPs' discussion of RID water uses in the *FS Work Plan*, it is clear the PRPs are unable or unwilling to objectively consider the needs of RID and its customers and evaluate remedial actions necessary to protect and restore RID wells and water supplies as required by A.R.S. § 49-282.06(B)(4)(b). Given RID's critical role as the major injured water provider, we cannot accept and will not allow the PRPs to usurp the FS process and

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determine how to address the contamination for which they are legally responsible at the numerous impacted and threatened RID wells.

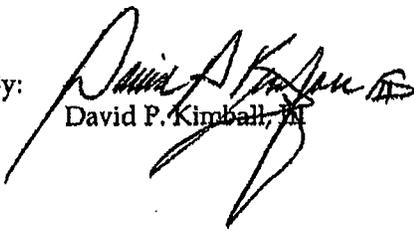
The *FS Work Plan* correctly notes that RID is the only major water provider having production wells in the WVBA. From this perspective, it makes much more sense for RID to evaluate the approach for the regional groundwater remedy. As pointed out to the PRPs in your letter dated July 20, 2011, ADEQ entered into a working agreement almost two years ago with RID to conduct a FS for the WVBA WQARF Site. RID remains firmly committed to ADEQ to conduct and complete the FS and will perform the work in accordance with rules adopted under A.R.S. § 49-282.06. As required, RID will submit a Work Plan detailing the work to be conducted in the FS, which will be provided to ADEQ for review and approval within 30 days following ADEQ's issuance of the Final RI Report.

RID stands with ADEQ in your expressed interest in working collaboratively with all stakeholders to initiate and expedite a comprehensive, cost-effective, and technically sound FS that achieves the Final Remedial Objectives. We believe there are many areas of potential collaboration that will facilitate these goals. To this end, I will restate the closing of our recent letter to you dated August 11, 2011. RID looks forward to continuing to work with ADEQ, the PRPs and the interested public in performing the FS, pursuant to its October 8, 2009 written agreement with ADEQ, to analyze and evaluate the remedies consistent with the statutory and regulatory requirements so that one of the largest groundwater contamination plumes in the United States can be addressed and restored without financially burdening the Arizona taxpayer in these tough economic times. RID also continues to stand by its commitment to perform the final remedy selected by ADEQ based upon the complete FS that will be conducted by RID.

Very truly yours,

GALLAGHER & KENNEDY, P.A.

By:

  
David P. Kimball, III

cc: Amanda Stone, ADEQ  
Stan Ashby, RID  
Donovan Neese, RID  
Sheryl Sweeney, Ryley Carlock & Applewhite  
Dennis Shirley, Synergy Environmental

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October 1, 2012

**VIA HAND DELIVERY**

Mr. Henry Darwin  
Director  
Arizona Department of Environmental Quality  
1110 West Washington  
Phoenix, Arizona 85007

**Re: PRPs' Proposed Feasibility Study Work Plan**

Dear Henry:

I wanted to provide you some additional legal support for why the PRPs' proposed Feasibility Study ("FS") Work Plan, dated September 6, 2011, or any future PRP-proposed FS Work Plan, should not and cannot be approved by ADEQ. Pursuant to A.A.C. R18-16-407(B), the PRPs' proposed FS Work Plan cannot be approved because a party is unable to perform all or any portion of a FS without first entering into a written agreement with the Department. A written agreement now is required of any person to perform the FS because ADEQ issued a notice under A.R.S. § 49-287.03 on March 9-12, 1998 in the Arizona Republic. (See WVBA Community Involvement Plan, page 14). Even if the PRPs entered into a written agreement, any future PRP-proposed FS Work Plan addressing the groundwater contamination should not be approved because ADEQ already has entered into a written agreement with RID, dated October 8, 2009, to perform the FS addressing the groundwater contamination for the West Van Buren Area ("WVBA") WQARF Site.

The PRPs may argue that their proposed FS Work Plan, or any future PRP-proposed FS Work Plan, should be approved pursuant to A.A.C. R18-16-407(J). However, the proposed FS Work Plan fails to meet the requirements in R18-16-407(J) requiring compliance with all of the provisions in A.A.C. R18-16-413. (See prior letters explaining how the PRPs' proposed FS Work Plan is not compliant with R18-16-413, such as the failure to identify PRPs for the WVBA WQARF Site). Pursuant to A.A.C. R18-16-407(J), the PRPs' proposed FS Work Plan cannot be approved, because it fails to "comply with this section." A.A.C. R18-16-407 requires that the "work plan shall demonstrate that the work performed will meet the requirements of this Section" which includes requirements that all remedies "shall be capable of achieving all of the remedial objectives" and that the "needs of the well owners and water providers and their customers, including the quantity and quality of water ... shall be considered." A.A.C. R18-16-407(B)(1), (E)(1) and (G). Given the PRPs' public opposition to the applicable remedial

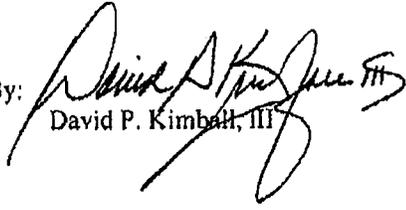
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objectives for the WVBA WQARF Site and to RID's water quantity and quality needs, RID expects that any future PRP-proposed FS Work Plan also would fail to meet these applicable requirements of A.A.C. R18-16-407 and, therefore, the FS Work Plan could not be approved under A.A.C. R18-16-407(J).

Very truly yours,

GALLAGHER & KENNEDY, P.A.

By:

  
David P. Kimball, III

DPK:plm

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