

**Cooper and Commerce Water Quality Assurance Revolving Fund (WQARF) Site  
Community Advisory Board (CAB) Meeting**

**Thursday, March 22, 2012 at 6 p.m.  
McQueen Park Activity Center  
510 N. Horne St., Gilbert, Arizona**

**FINAL MINUTES**

OU #12-041

CAB members present: Pacer Udall, Nyanganya (Joe) Maniga, Carrie Lewis, Mike Evans, and Bruce Friedrich

CAB Members absent: None

ADEQ Staff in attendance: Scott Goodwin, Project Manager; and Felicia Calderon, Community Involvement Coordinator

Members of the public present: Patricia Jordan, Town of Gilbert

---

The following matters were discussed, considered, or decided at the meeting:

**1. Welcome and introductions**

Ms. Calderon greeted all attendees and introductions were conducted. The meeting was then turned over to the Co-chair, Mr. Evans.

**2. Acceptance and/or changes to June 23, 2011 and October 27, 2011 Minutes-Mike Evans, Co-chair**

Mr. Evans moved to accept the June 23, minutes and Mr. Udall seconded. The Board unanimously accepted the June 23, 2011 minutes. Mr. Evans moved to accept the October 27, minutes and Mr. Friedrich seconded. The Board unanimously accepted the October 27, 2011 minutes.

**3. CAB business to include: discussion and vote regarding CAB presentation to the Town of Gilbert Environmental and Energy Conservation Advisory Board (EECAB) (Felicia Calderon, Community Involvement Coordinator); CAB membership discussion and vote (Felicia Calderon, CIC); and discussion and vote on CAB engagement approaches with State Legislature -CAB Co-chair**

Ms. Calderon recapped that at a CAB meeting last year it was suggested by the Board that a CAB member present to the Town of Gilbert Environmental and Energy Conservation Advisory Board (EECAB) to update the EECAB on Site activities. Ms. Calderon stated that she would

reach out to the EECAB to check availability to speak on one of their future agendas. Mr. Evans volunteered to speak to the EECAB once Ms. Calderon set a date. Ms. Calderon stated that she would also ask Ms. Lewis if she would be interested in speaking with Mr. Evans to the EECAB.

Mr. Goodwin stated that as far as he was aware there would still be WQARF funding allocated to continue to operate existing remediation systems, which would include the remediation systems at Cooper and Commerce WQARF Site. Mr. Evans motioned to send an email to State Legislator, Steve Urie to encourage a legislative check-in with ADEQ to ensure funding for the Cooper and Commerce WQARF Site and Mr. Friedrich seconded the motion. The CAB unanimously approved this motion.

Ms. Calderon stated that she made several attempts to contact Ms. Buchli to confirm CAB membership and or interest to continue to serve on the Board. Ms. Calderon stated that to date she had not received any response from Ms. Buchli. Ms. Lewis made a motion to officially remove Ms. Buchli from the Board due to lack of attendance and Mr. Udall seconded the motion. The CAB unanimously approved the motion.

**4. Discussion of current status and activities at the Cooper and Commerce WQARF Site to include: contaminant recovery and groundwater sampling results from 2011 4th quarter; review of CAB presentation from November 27, 2011 regarding groundwater concentrations and soil gas data collected during the installation of monitor wells MW-108 and MW-109- Scott Goodwin, Project Manager**

Mr. Goodwin initiated his presentation to the CAB with a discussion on current and future activities for the Cooper and Commerce Site.

**See presentation below**

Ms. Lewis inquired of Mr. Goodwin if he would consider shutting down the soil vapor extraction (SVE) system more often than the two week timeline, if rebound results proved significant. In response Mr. Goodwin stated that he would consider its shutdown more frequently, but that he had to consider the air sparge (AS) component to the soil vapor system. Mr. Goodwin added that if he didn't run the soil vapor extraction system there would be no way to pull the vapors out of the water. Mr. Goodwin emphasized that the soil vapor and AS component are two components that ideally work together as a system and not one or the other.

Mr. Evans inquired of the significance of the trend that was on Mr. Goodwin's PCE (tetrachloroethene)/TCE (trichloroethylene) AS/SVE daily recovery graph. Mr. Goodwin responded that the initial high recovery rates were attributed to the abundant mass present and recovery of contamination from the porous areas of the subsurface. Mr. Goodwin added that the stable but low recovery rates currently seen on the graph may now reflect the slow removal of contamination from fine grain material.

Mr. Goodwin discussed with Mr. Friedrich water circulation enhancements to the pump and treat vessels. Mr. Goodwin stated that this is an old system that was previously used at one of properties in the West Van Buren WQARF Site.

Mr. Evans verified with Mr. Goodwin that 4.1 million gallons of water was pumped through the treatment system and that only 1.4 pounds of PCE was removed. Mr. Goodwin responded in the

affirmative and added that pounds of VOC recovered results do not appear to be impressive because concentrations in the groundwater are measured as parts per billion (ppb). Mr. Goodwin added that originally when the system was started that concentrations of PCE in the extraction well were about 80 ppb, and current concentrations are near 30 ppb. Mr. Goodwin added that recovery results still signify that this system is doing what it is suppose to do.

Mr. Friedrich inquired if the plume was still moving westward and Mr. Goodwin responded yes.

Mr. Goodwin and Ms. Jordan discussed possibly adding an extraction system to the Town of Gilbert well G-10.

## **5. Call to the Public-None**

## **6. Future Meeting and Agenda Discussion**

The next CAB meeting will be held at the McQueen Park Activity Center, 510 N. Horne St., Gilbert, Arizona, on Thursday, July 26, 2012 beginning at 6 p.m. Agenda items for the next meeting to include contaminant recovery results, site budget update, upcoming site activities and Co-chair vote.

## **7. Adjournment**

Ms. Calderon adjourned the meeting.



# Cooper and Commerce Water Quality Assurance Revolving Fund (WQARF) Site

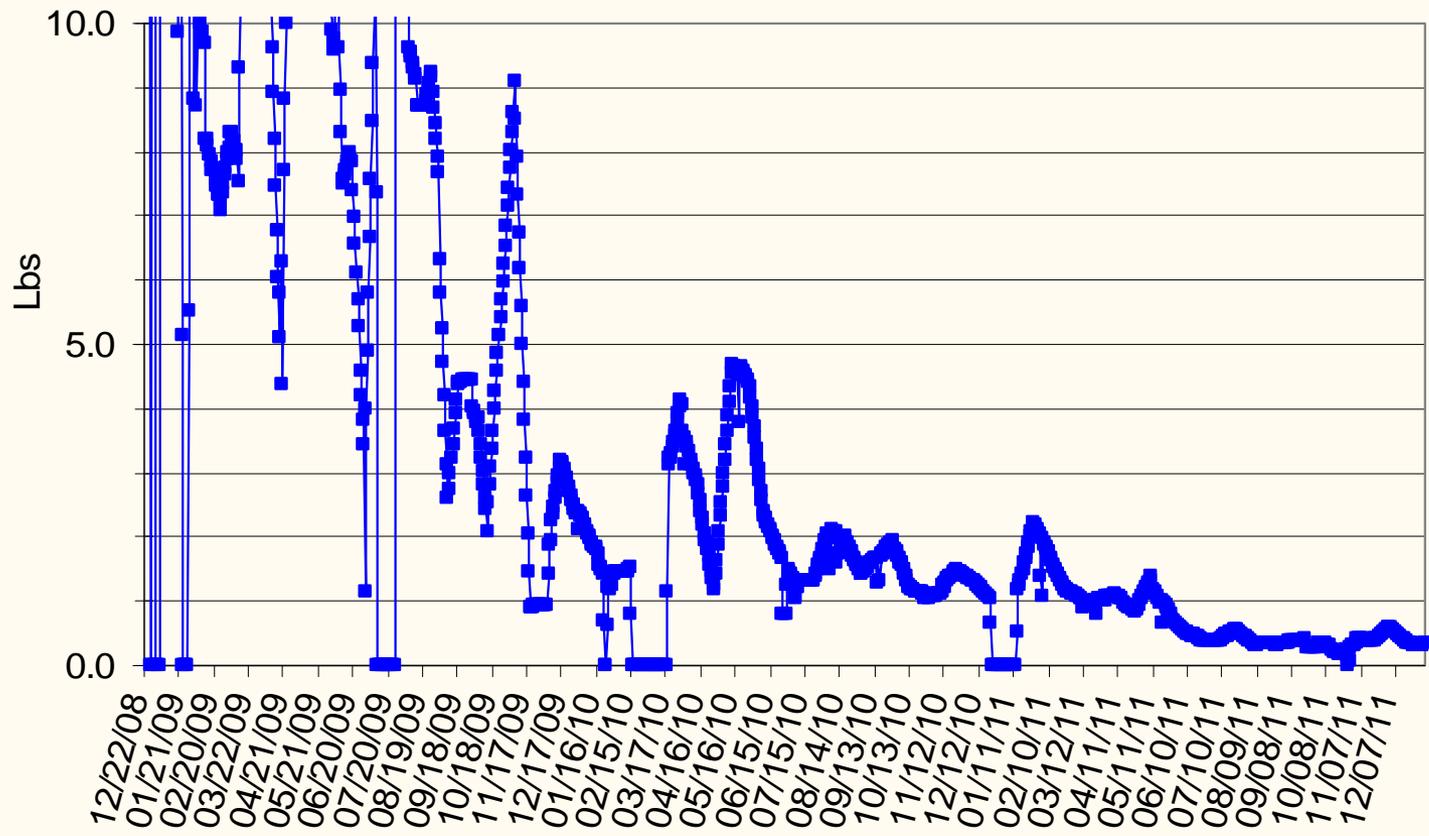
## CAB Meeting

March 22, 2012

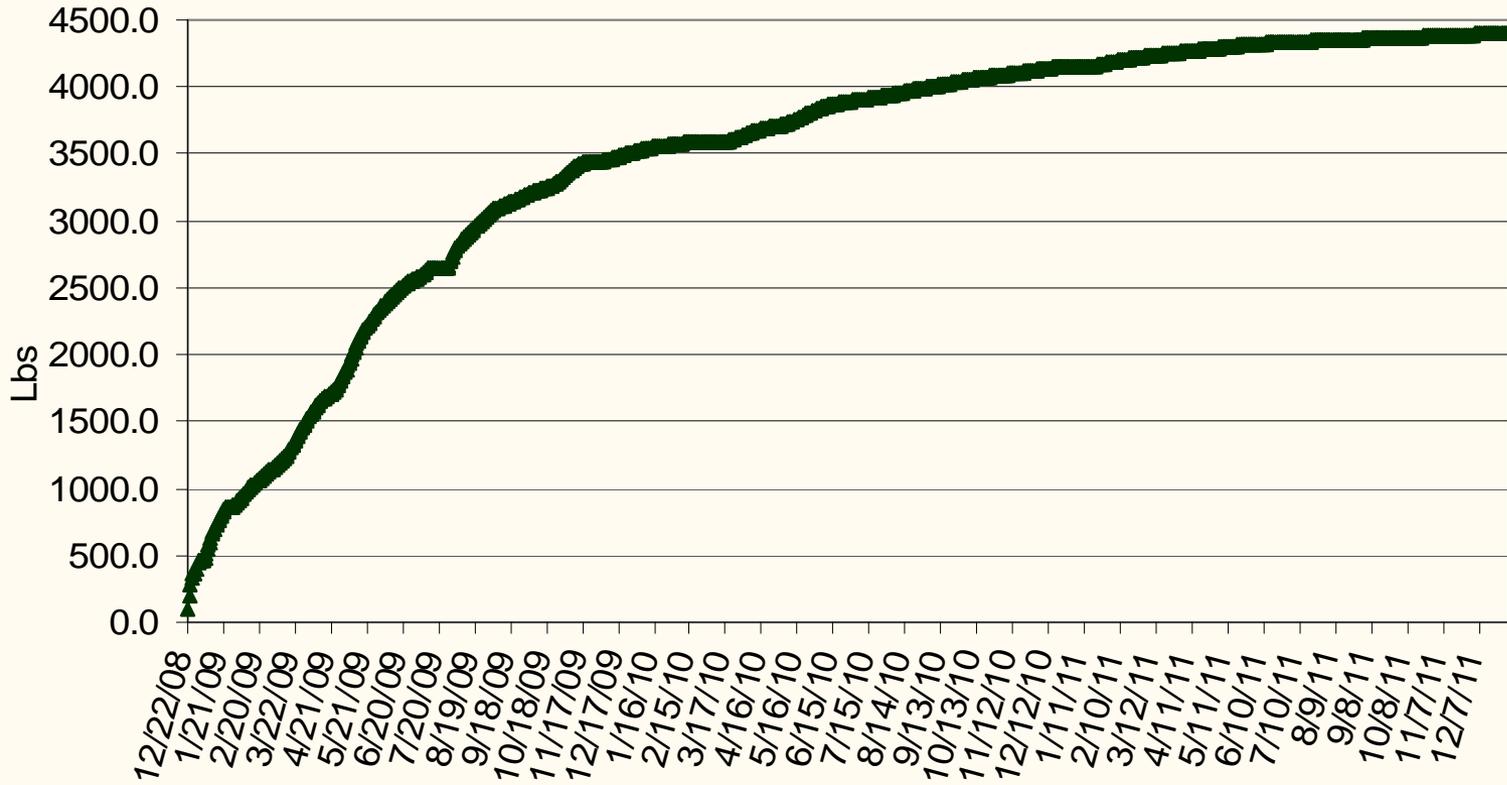
## Soil vapor extraction/ air sparge system

- The soil vapor extraction, air sparge (SVE/AS) system continues to operate normally at the site.
- During the fourth quarter of 2011, the system removed an average of 0.36 pounds of tetrachloroethene (PCE) per day. Including the fourth quarter of 2011, the system has removed approximately 4,403 pounds of PCE or approximately 326 gallons since operations began in December 2008.
- IN an effort to increase the efficiency of the SVE/AS system, during the first quarter of 2012, ADEQ's contractor began to cycle the SVE/AS system. The cycle will consists of a two week on period followed by a two week off period.

**Cooper and Commerce AS/SVE System  
 Daily PCE/TCE Recovery (lbs/day)**



**Cooper and Commerce AS/SVE System  
 Cumulative PCE/TCE Recovery (lbs)**



## Pump and treat system

- During the fourth quarter of 2011, the groundwater pump and treat system operated at a rate of approximately 91 gallons per minute (gpm) and pumped and treated 4,146,053 gallons during the quarter. PCE influent concentrations from the extraction well averaged 32 parts per billion (ppb) over the quarter. The Aquifer Water Quality Standard (AWQS) for PCE is 5 ppb.
- Based on these numbers, the pump and treat system recovered approximately 1.4 pounds of PCE during the fourth quarter of 2011. Since operations began in August 2010, the pump and treat system has recovered approximately 30 pounds of PCE. The system was shut down November 1<sup>st</sup> for a carbon change-out and maintenance to the system. The system remained shut down for the remainder of the quarter.
- ADEQ and their contractor were concerned about the efficiency of the carbon recovery. The first vessel recovered 15 pounds of PCE before requiring a change-out. The second vessel recovered 9.7 pounds of PCE before requiring a change-out. The third vessel required a carbon change-out after recovering only 5.6 pounds of PCE.

## Pump and treat system

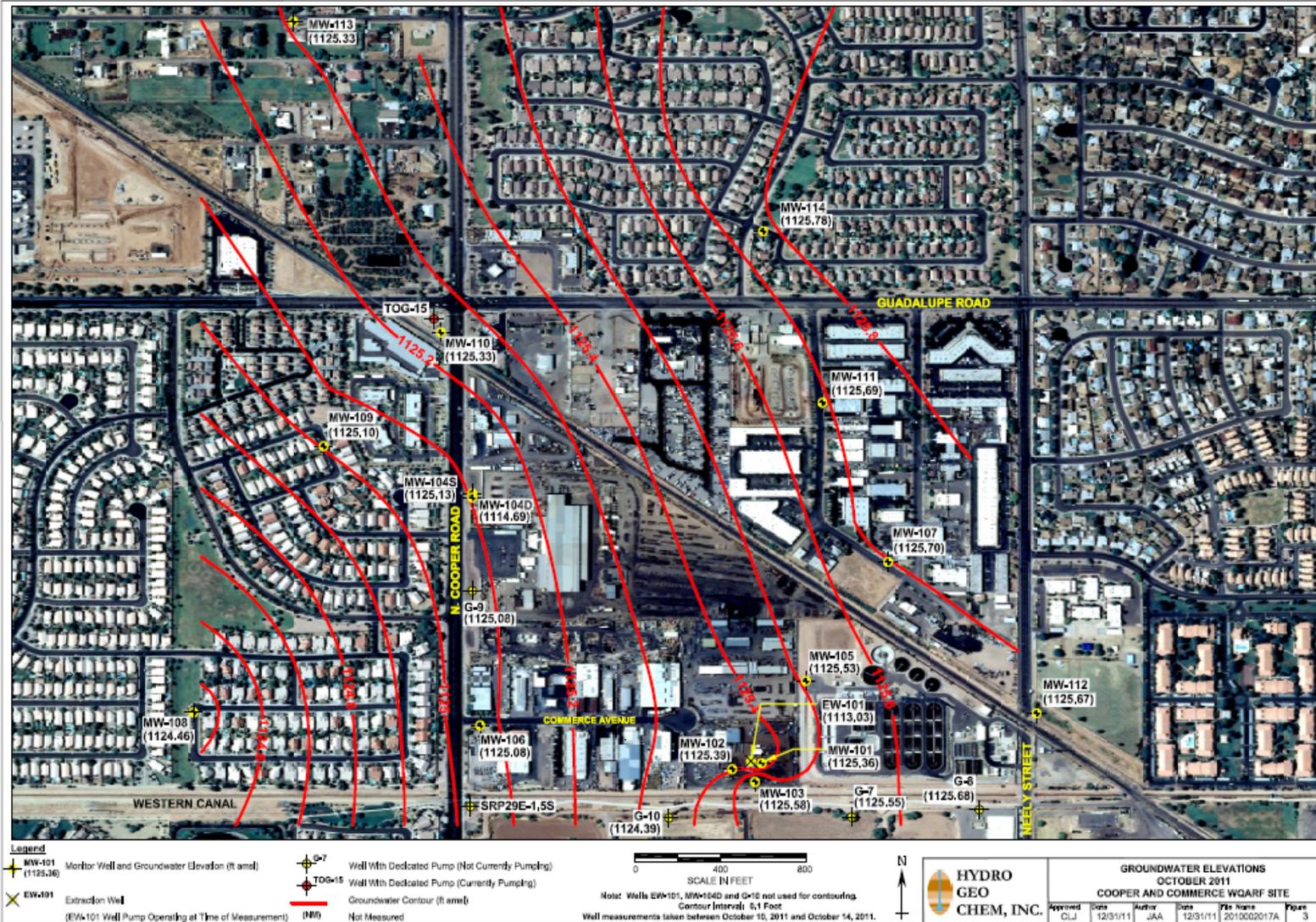
- These carbon recoveries were only one fourth as good as ADEQ other pump and treat systems. This system is an older system that circulates the water from the bottom to the top of the vessels. Most systems currently in use, circulate water through the vessels from top to bottom. ADEQ and their contractor decided to overhaul the system and re-route the water from the top to the bottom of the vessels. The distribution lines within the vessel also indicated sign of hard water fouling and were also replaced.



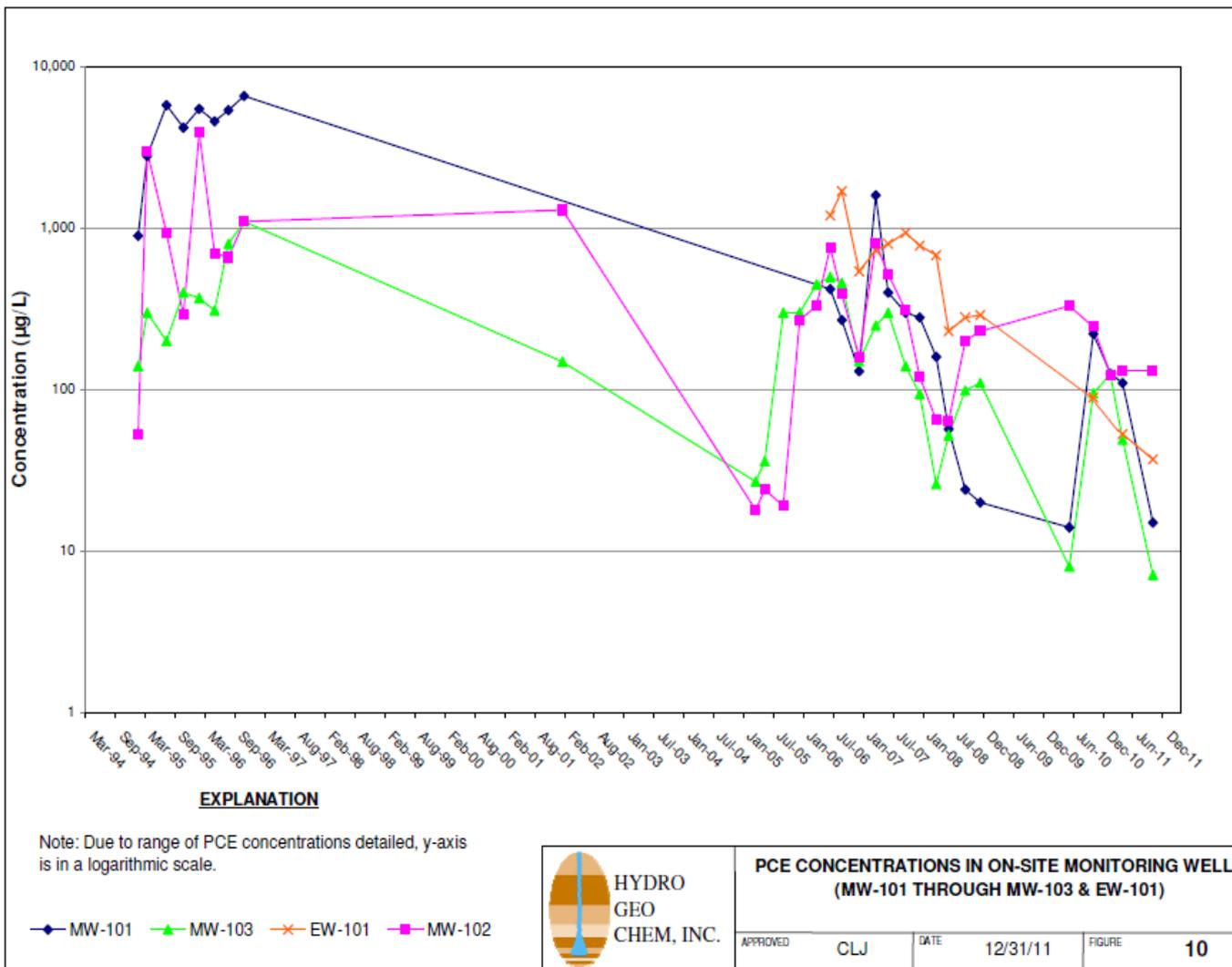
## Pump and treat system

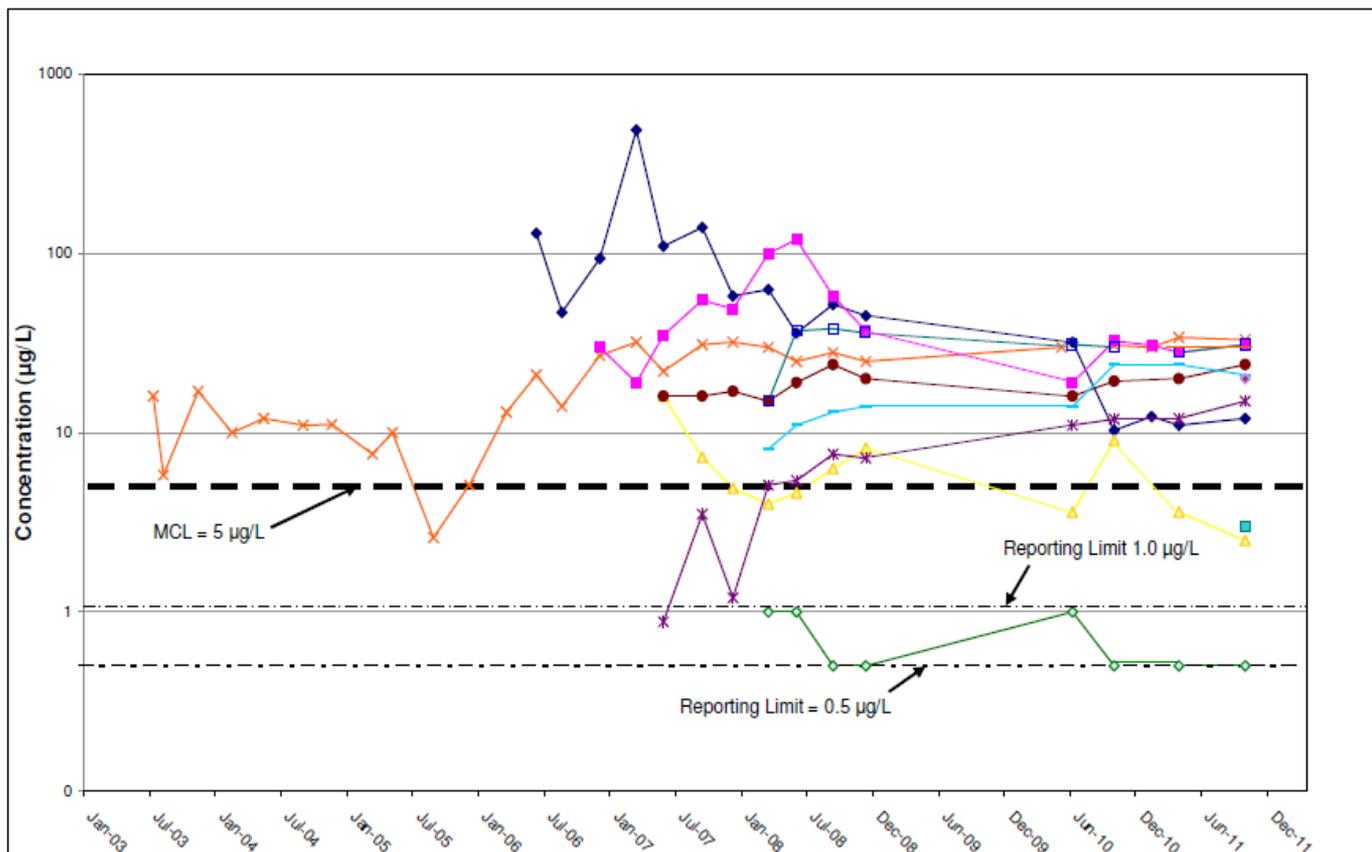


- During November 2011, ADEQ conducted a round of groundwater sampling from the entire monitoring well network.
- With the exception of MW-102, PCE concentrations in the on-site wells declined dramatically compared to second quarter 2011 concentrations. PCE concentrations in MW-102 remained near 130 ppb.
- The PCE concentration in well G-10 also remained relatively stable compared to the second quarter of 2011. The concentration of PCE in G-10 during the fourth quarter of 2011 was 150 ppb. PCE concentrations in most other wells also remained stable.





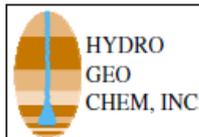




**EXPLANATION**

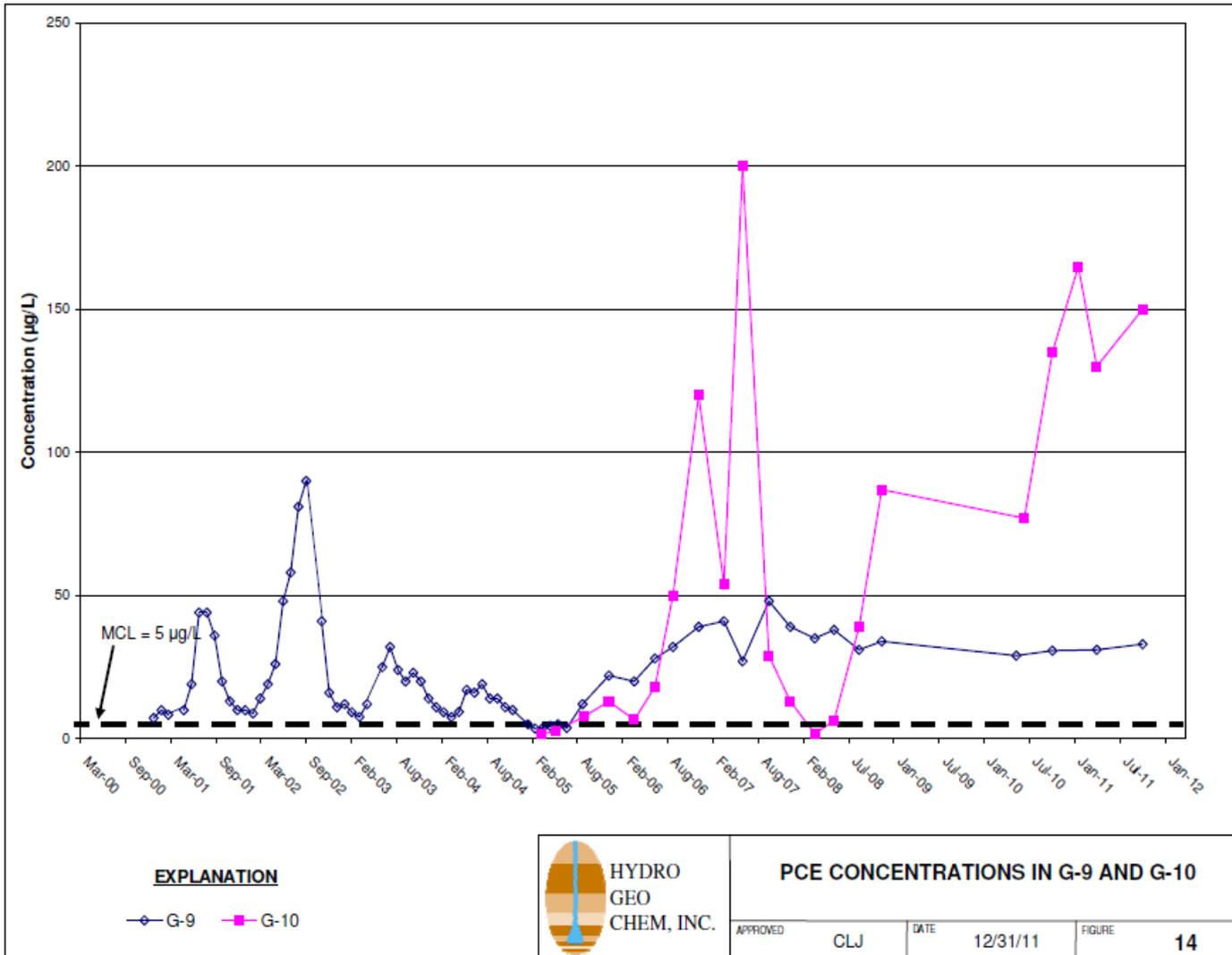
Note: PCE concentrations are presented on the y-axis in a logarithmic scale.

- MW-104S (orange line with 'x' markers)
- MW-105 (blue line with diamond markers)
- MW-106 (magenta line with square markers)
- MW-107 (yellow line with triangle markers)
- MW-108 (purple line with asterisk markers)
- MW-109 (brown line with circle markers)
- MW-110 (cyan line with square markers)
- MW-111 (light blue line with circle markers)
- MW-112 (green line with diamond markers)
- MW-113 (teal line with square markers)
- MW-114 (pink line with asterisk markers)



**PCE CONCENTRATIONS IN OFF-SITE MONITORING WELLS (MW-104S THROUGH MW-114)**

APPROVED	CLJ	DATE	12/31/11	FIGURE	11
----------	-----	------	----------	--------	----



Questions?

# Contact Information

Scott Goodwin, Project Manager  
Remedial Projects Section

[sdg@azdeq.gov](mailto:sdg@azdeq.gov)

(602) 771-4452, 1800-234-5677 ext 771-4452