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FEB 04 2014

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Division of Waste Management
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PPPO-02-2030532-14

Ms. Jennifer Tufts
Federal Facility Agreement Manager
U.S. Environmental Protection Agency, Region 4
61 Forsyth Street
Atlanta, Georgia 30303

Dear Mr. Mullins and Ms. Tufts:

**TRANSMITTAL OF THE DOCUMENT CONCERNING TRICHLOROETHENE AND
TECHNETIUM-99 GROUNDWATER CONTAMINATION IN THE REGIONAL
GRAVEL AQUIFER FOR CALENDAR YEAR 2012 AT THE PADUCAH GASEOUS
DIFFUSION PLANT PADUCAH, KENTUCKY (PAD-ENR-0136)**

Please find enclosed for your information the subject document, *Trichloroethene and Technetium-99 Groundwater Contamination in the Regional Gravel Aquifer for Calendar Year 2012 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, PAD-ENR-0136. This report describes the methodology used to develop the groundwater plume maps and the changes to the maps since the last published maps in 2010. The groundwater plume footprint of 2012 is similar to that of 2010, with these notable differences: within the Northwest Plume, the leading edge of the 100 µg/L TCE contour has retracted southward, and areas inside the 1,000 µg/L and 10,000 µg/L contours in the vicinity of the extraction wells have been reduced. These changes indicate progress in long-term site cleanup from continued, active groundwater remedial actions.

If you have any questions or require additional information, please contact David Dollins at (270) 441-6819.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Woodard".

Jennifer Woodard
Federal Facility Agreement Manager
Portsmouth/Paducah Project Office

Enclosure:


Trichloroethene and Technetium-99 Groundwater Contamination in the Regional Gravel Aquifer
for Calendar Year 2012

e-copy w/enclosure:

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**Trichloroethene and Technetium-99 Groundwater
Contamination in the Regional Gravel Aquifer for
Calendar Year 2012 at the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

This document is approved for public release per review by:


LATA Kentucky Classification Support

1-23-2014
Date

**Trichloroethene and Technetium-99 Groundwater
Contamination in the Regional Gravel Aquifer for
Calendar Year 2012 at the
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky**

Date Issued—January 2014

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
LATA Environmental Services of Kentucky, LLC
managing the
Environmental Remediation Activities at the
Paducah Gaseous Diffusion Plant
under contract DE-AC30-10CC40020

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ACRONYMS

GIS	Geographic Information Service
LATA Kentucky	LATA Environmental Services of Kentucky, LLC
MCL	maximum contaminant level
MW	monitoring well
OREIS	Oak Ridge Environmental Information System
PEMS	Project Environmental Measurements System
PGDP	Paducah Gaseous Diffusion Plant
RGA	Regional Gravel Aquifer
Tc-99	technetium-99
TCE	trichloroethene

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1. INTRODUCTION

LATA Environmental Services of Kentucky, LLC, (LATA Kentucky) has evaluated groundwater analytical data in the Paducah Oak Ridge Environmental Information System (OREIS) data system as of the end of calendar year 2012 to produce groundwater plume maps for both trichloroethene (TCE) and technetium-99 (Tc-99) within the Regional Gravel Aquifer (RGA), associated with the U.S. Department of Energy's Paducah Gaseous Diffusion Plant (PGDP) in Paducah, Kentucky. The two primary groundwater plume constituents are TCE and Tc-99. This report presents the analytical data sets, methods used to develop these maps, and changes to the contaminant plumes over time. These plume maps are intended to show the most recent sample result from each location as of the end of calendar year 2012. For wells that were not sampled in 2012, the most recent data from 2011 has been used.

The plume maps depict the general footprint of the TCE and Tc-99 contamination in the RGA and convey the general magnitude and distribution of contamination within the plumes. The PGDP groundwater plume maps are revised every two years to provide a basis for timely incorporation of routine groundwater monitoring and characterization data, demonstrate the progress of groundwater cleanup to date, and facilitate planning to optimize the site groundwater cleanup. The plume maps also compliment reporting of results of environmental monitoring programs and activities in the PGDP Annual Site Environmental Report. These plume maps are used, along with additional information, to further evaluate specific areas of groundwater contamination at PGDP in more detail for decision-making purposes based on individual project needs. For example, the Southwest Plume Groundwater Sources Remediation project will consider routine groundwater data, in addition to detailed investigation results, to generate more specific remediation plans and designs. More specific project evaluations are discussed in applicable documents, which are available through the U.S. Department of Energy's Environmental Information Center (www.paducaheic.com). The maps, Geographic Information System (GIS) layers to generate the maps, and data tables to generate maps referenced in this document are included in Appendix A, on CD.

Appendix B contains the most recent 2012 and 2011 values used to develop the plume maps and all TCE and Tc-99 analytical results from PGDP RGA monitoring wells for 2012. These plume maps are based on the most recent values for 2012 or 2011 and thus may not reflect the maximum or minimum value observed during the reporting period for all locations. Appendix B also contains a table of all sampling results collected for each location in 2012, which would include the minimum and the maximum value observed during the year. The isoconcentration contours of contaminant levels that appear on the maps have been depicted based on the most recently observed distribution of contaminant concentrations and knowledge of the site conceptual model. The magnitude and distribution of contamination within the plumes will vary slightly from year to year based on contaminant trends and variations in hydrologic influences.

2. BASIS OF ANALYSIS

All data used in these maps were extracted from the Paducah OREIS and Project Environmental Measurements System (PEMS) database. PEMS is the data management system that supports the project's sampling and measurement collection activities. The system is used to import laboratory-generated data; update field and laboratory data based on data verification, data validation if applicable, and data assessment; and transfer data to OREIS. OREIS is the centralized, standardized, quality assured, and configuration-controlled data management system that is the long-term repository of environmental data (measurements and geographic) for Paducah projects. (See Tables B.1–B.4 in Appendix B for the 2012 TCE

and Tc-99 results in RGA wells and the data used to create the 2012 TCE and Tc-99 plume maps.) The maps for calendar year 2012 are based on analytical results from the most recent sampling event (primarily January–December 2012). Where co-located monitoring wells (i.e., clustered wells or multiport wells) provide analytical results for the calendar year from screened intervals at multiple elevations within the RGA (e.g., upper, middle, and/or lower RGA), the maps use the value from the interval that has the highest concentration. Data from sampling in 2011 have been used, as necessary, to supplement the 2012 information and aid in plume delineation.

Mapping involved first plotting the selected data on GIS-generated maps and then comparing those data to the contouring performed for the 2010 TCE and Tc-99 plume maps. Plume contours were adjusted to accommodate more recent data. Dashed lines represent approximate contour locations for areas where spatially limited TCE and Tc-99 data were available. On the figures in the main text, dashed lines also indicate the contour lines from the 2010 plume maps for comparison. For TCE, the Safe Drinking Water Act maximum contaminant level (MCL) of 5 µg/L is the isoconcentration contour that defines the limit of the plume. Subsequent isoconcentration contours of 100 µg/L, 1,000 µg/L, 10,000 µg/L, and 100,000 µg/L are provided based on concentration data for the period. For Tc-99, the derived MCL of 900 pCi/L defines the plume limit.¹

3. 2012 PLUME MAPS

Figure C.1 of Appendix C is a map of PGDP’s entire well network for the RGA. According to the “Well Program Inventory” in the Environmental Monitoring Plan, there are 265 active monitoring wells (MWs), including piezometers and extraction wells, and 7 residential wells that can be used to monitor the RGA (LATA Kentucky 2012). These wells are segregated further into upper, middle, and lower RGA based on the elevation of the mid-point of the well screen as listed in Table B.5. Generally, upper, middle, and lower RGA intervals are defined as elevations 320 to 305 ft, 305 to 295 ft, and 295 to 250 ft above mean sea level, respectively. Residential wells of the water policy area that are included in this report are assumed to monitor the upper RGA. The PGDP environmental remediation prime contractor monitored a subset of this well network in 2012, as discussed below, in accordance with the environmental monitoring program.

3.1 TCE

During 2012, 194 RGA MWs and residential wells were monitored for TCE. The sample collection was based on the Environmental Monitoring Program, which plans and schedules the compliance sampling and sampling by other regulatory programs being conducted at the site (LATA Kentucky 2011a; LATA Kentucky 2012).

Figure C.2 of Appendix C provides the interpretation of the 2012 TCE isoconcentration map (plume map). The plume interpretation is based on the following:

- A total of 694 groundwater samples was collected and analyzed for TCE from 194 wells in 2012.
- The data for 2012, along with the date sampled, are posted adjacent to the well label. The basis for data posting is as follows:

¹ 900 pCi/L is the value derived by EPA from the 4 mrem/yr MCL for Tc-99, a beta emitter (EPA 2002).

- If the well was sampled only once in 2012, the resulting analysis is posted.
 - If the well was sampled multiple times, the most recent result was posted. If the most recent data are from duplicate samples, the higher concentration value of the two was posted.
 - For well clusters with completions screened in the upper, middle, and lower RGA, each value is posted where feasible; however, the contour interval honors the highest value to produce an interpretation that uses the highest value to reduce the potential for underestimating the extent of the plume.
- Groundwater extraction well locations are labeled on the map, but the concentrations from the wells are neither posted nor used in contouring.
 - Posted data are rounded to the nearest whole number for presentation purposes.
 - For some wells that were not sampled in 2012, but sampled in 2011, the most recent result was posted following the basis described above.
 - The contour intervals selected were 5 µg/L, 100 µg/L, 1,000 µg/L, 10,000 µg/L, and 100,000 µg/L. This order of magnitude interval approach for contour interval selection is consistent with the contour interval selection used in the prior mapping for the site.
 - Contouring was produced by hand, using interpolation between observed concentrations. The contouring also incorporated historical source information and plume interpretations in the process.

3.2 TC-99

During 2012, 153 RGA MWs and residential wells were monitored for Tc-99. The sample collection was based on the Environmental Monitoring Program, which plans and schedules the compliance sampling and sampling by other regulatory programs being conducted at the site (LATA Kentucky 2011a; LATA Kentucky 2012).

Figure C.3 of Appendix C provides the interpretation of the extent of the Tc-99 plume in 2012.

- A total of 472 groundwater samples was collected and analyzed for Tc-99, from 153 wells in 2012.
- The observed data for 2012, along with the date sampled, are posted adjacent to the well. The logic for data posting was the same as described for TCE in Section 3.1.
- The posted data are rounded to the nearest whole number for presentation purposes.
- The contour intervals selected were 900 pCi/L and 3,790² pCi/L. The interval selection is based on the

² 3,790 pCi/L is used as a contour value for consistency with historical plume maps. 3,790 pCi/L was derived as the equivalent of 4 mrem/yr by EPA and once was proposed as the MCL for Tc-99 (56 Fed. Reg. 33121).

In 2011, DOE published the “DOE Standard: Derived Concentration Technical Standard (DOE-STD-1196-2011,” which provides concentration standards for public consumption of drinking water that equate to an effective dose of 100 mrem/yr. The 2011 standards are based on guidance found in International Committee on Radiation Protection Publication 72 (ICRP 1995), Publication 89 (ICRP 2002), and Publication 107 (ICRP 2008). The published derived concentration standard for Tc-99 in drinking water is 44,000 pCi/L, at an effective dose of 100 mrem/yr from the ingestion of drinking water. The value to yield an effective dose of 4 mrem/yr is 1,760 pCi/L.

derived MCL of 900 pCi/L; the higher interval represents a risk-based alternative criterion. In prior years, maps constructed with additional contour intervals below the derived MCL of 900 pCi/L were used. While contours of the distribution of Tc-99 below the MCL may provide technical information of interest, contours have not been developed for presentation because they are below the MCL.

4. CHANGES FROM 2010 PLUME MAPS

The last plume maps were published in 2010 (LATA Kentucky 2011b). In an effort to understand the efficacy of groundwater cleanup at PGDP, LATA Kentucky compared the 2012 maps with the 2010 plume maps for both TCE and Tc-99. For discussion purposes, the plumes have been divided into Northwest, Northeast, and Central portions. Figures in this section show the 2012 TCE plume overlaid with the 2010 plume isoconcentration lines. A comparison of isoconcentration contours for the 2010 and 2012 plumes indicates that the footprints for each plume are similar with some notable differences. Similarly, the last figure in this section shows the 2012 Tc-99 plume overlaid with the 900 pCi/L and 3,790 pCi/L contours from the 2010 plume map. The Tc-99 plume, as defined by the 900 pCi/L activity level, is limited to the central part of the site and is discussed in that subsection.

4.1 NORTHWEST PLUME

Figure 1 provides an enlargement of the north portion of the Northwest Plume. Three areas are described in this subsection: (A) the northern distal margin, (B) the area in the vicinity of southern extraction wells of the Northwest Plume Pump-and-Treat System and (C) the vicinity of the C-746-S&T Landfills. In addition, Figure 1 includes temporal TCE concentration plots for selected wells illustrating the observations made in this subsection.

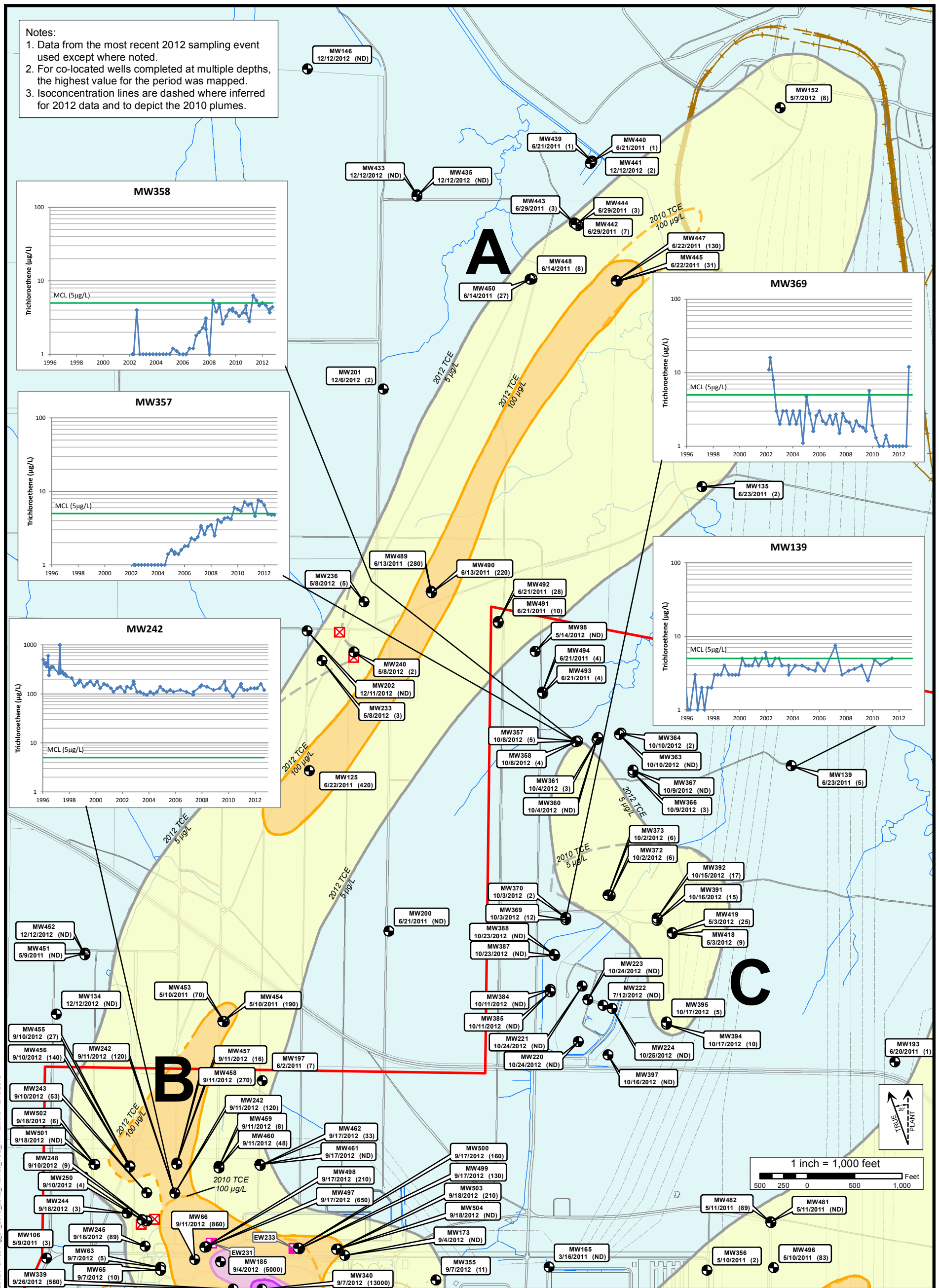
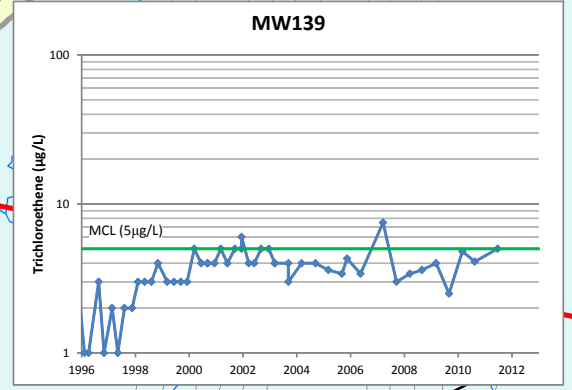
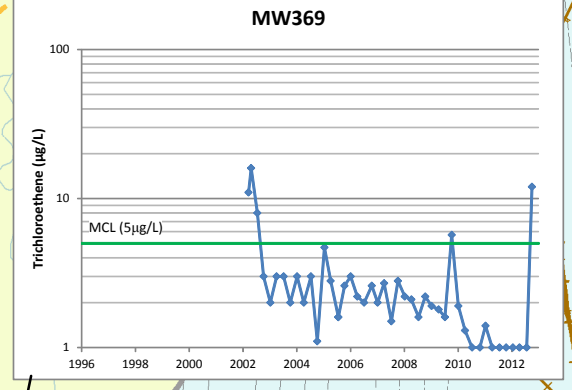
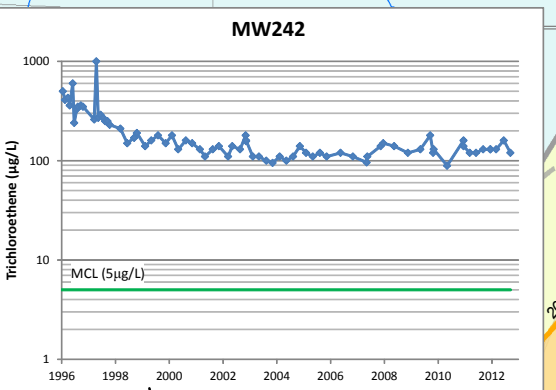
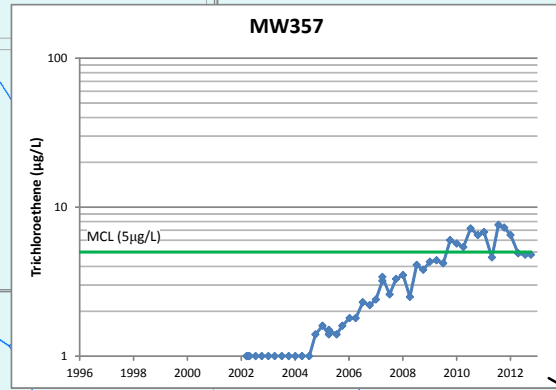
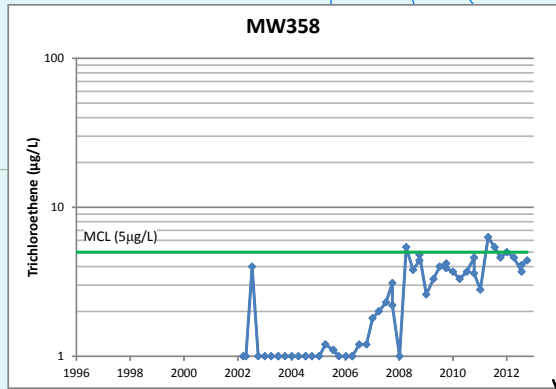
Area A

- The northern extent of the 2010 5 µg/L TCE isoconcentration contour was defined by MW433, MW435, MW439, MW440, and MW441, which were installed and sampled in 2009 and 2010; consistent with the dataset used for the prior mapping in 2010, TCE was not detected above 5 µg/L in these wells.
- On the northeastern edge of the plume, MW135 dropped to below 5 µg/L in 2011. Since five of the last six sampling events showed TCE above 5 µg/L, the previously interpreted boundary was not revised in this area.
- The leading edge of the 100 µg/L TCE contour extends beyond MW447; however, MW447 has shown a decreasing trend. Thus, the leading edge of the 100 µg/L TCE contour has been drawn somewhat closer to MW447.

The western boundary of the Northwest Plume was adjusted in the vicinity of the northern extraction well field pump-and-treat system based on sub-MCL results for MW233, MW236, and MW240. MW125 previously has been used to help define the southern extent of the 100 µg/L TCE isoconcentration, but was not sampled in 2012. TCE last was detected in MW125 at 420 µg/L on June 22, 2011.

Notes:

1. Data from the most recent 2012 sampling event used except where noted.
2. For co-located wells completed at multiple depths, the highest value for the period was mapped.
3. Isoconcentration lines are dashed where inferred for 2012 data and to depict the 2010 plumes.



LEGEND

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| <ul style="list-style-type: none"> 2012 TCE Plume Concentration Fields 5 - 100 µg/L 100 - 1,000 µg/L 1,000 - 10,000 µg/L 10,000 - 100,000 µg/L ≥ 100,000 µg/L | <ul style="list-style-type: none"> 2010 TCE Plume Isoconcentration Lines 5 - 100 µg/L 100 - 1,000 µg/L | <ul style="list-style-type: none"> - Water Policy Area - Areas of Investigation during 2011-2012 - Parcel Lines - Monitoring Well Identification, Date of Sample & Sample Value - RGA Well - Extraction Well | <ul style="list-style-type: none"> - DOE Property Boundary - Roadways - Streams - Railroad - TVA Powerlines |
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LATA Environmental Services of Kentucky, LLC

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Figure 1. 2012 Northwest Portion of the TCE Plume Regional Gravel Aquifer

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Area B

Area B coincides with recent extraction system optimization for the south wellfield. In August 2010, extraction wells EW230 and EW231 were shut down and new extraction wells EW232 and EW233 began operations. Because the EW232 and EW233 are located slightly upgradient and crossgradient from EW230 and EW231, some TCE plume mass within the near field capture zone (tens to hundreds of ft away) of EW230 and EW231 was outside of the capture zones established by the new extraction wells. Consequently, changes in TCE concentrations at some downgradient locations reflect trends associated with the change in pumping stress in this area. Observations related to changes in dissolved-phase TCE distribution within the plume and plume configuration for this area are as follows:

- MW455 through MW462, MW501, and MW502 were installed and sampling began in 2009. These wells form a transect perpendicular to the longitudinal axis of the plume (the direction of flow), downgradient of the current extraction well field for the Northwest Plume Pump-and-Treat System, and provide a monitoring network to evaluate the efficacy of the pump-and-treat system. TCE was detected at concentrations varying from 0.45 to 470 µg/L. TCE was detected above 100 µg/L in wells MW456 and MW458 from this network, resulting from changes in plume trajectory due to extraction at EW232 and EW233.
- Additionally, MW454 (located approximately 2,400 ft downgradient of EW232) and MW242 (located approximately 1,400 ft downgradient of EW232) also detected TCE above 100 µg/L. These concentrations likely reflect temporary increases in dissolved-phase TCE because of changes in extraction location due to optimization.
- TCE concentrations in MW503 were above 100 µg/L immediately upon startup of the new well field in October 2010 and continued to be above 100 µg/L through 2012. TCE concentrations currently appear to be declining from a previous high of 670 µg/L in September 2011. TCE concentrations at MW503 likely reflect plume mass within the capture zone of EW233.

Area C

Area C is located in the vicinity of the C-746-S&T and C-746-U Landfills. These locations are monitored frequently to support the permit.

- The 2012 TCE footprint is greater than that interpreted in 2010. Based on continued trends at MW357 and MW358, TCE concentrations are observed to approximate the MCL with some values slightly over or slightly lower than the MCL (Figure 1). Consequently, the 5 µg/L contour was extended in this area to include these wells.
- The most recent value reported for MW369 is 12 µg/L; however, this recent value appears to be anomalous, as illustrated in the temporal TCE concentration plot shown in Figure 1. Also, the concentration in MW370, a well at the same location as MW369, has a TCE concentration of 2 µg/L. The 5 µg/L contour was not extended to include this well for the 2012 plume map; however, the next map will revisit this determination.
- TCE levels at MW139 have fluctuated near the 5 µg/L level (see Figure 1). Since 2008, analytical results for TCE for this location have exceeded the MCL only 1 out of 7 times. Because TCE is variable at this location and does not consistently exceed the MCL, this location is not included in the depiction of the plume footprint. Due to the potential for TCE to exceed the MCL at this location, monitoring will continue and the results will be reviewed in the future to determine how to best portray the plume extent in this area.

4.2 NORTHEAST PLUME

Figure 2 provides an enlargement of the northeast portion of the plume. Three areas are described in this subsection: (D) the northern distal margin; (E) the area in the vicinity of the Northeast Plume Pump-and-Treat extraction wells; and (F) the vicinity of the industrial site. Figure 2 also includes temporal TCE concentration plots for selected wells to illustrate the observations made in this subsection.

Area D

- No changes were made to the extent of the 5 µg/L TCE isoconcentration contour from 2010. Wells MW463 through MW476 provide definition of the plume. The interpreted distal extent is between well clusters MW463 through MW468 and clusters MW473 through MW476. Additionally, well clusters MW469/MW470 and MW471/MW472, with groundwater TCE concentrations below the laboratory detection limit, define the eastern edge of the plume.
- The western extent of the plume is marked as inferred based on the absence of monitoring locations that define the western extent. For the 2010 map, the western 5 µg/L contour was placed based on known and inferred information, but was not represented as an inferred boundary. Aside from the change from known to inferred, the location of the 2012 plume boundary is similar to the 2010 depiction.

Area E

- The TCE footprint in the central part of the Northeast Plume is similar in 2010 and 2012, with a few exceptions. The 100 µg/L TCE contour did not extend as far north as MW253 on the 2010 map. Analyses for 2012, however, show the TCE concentration at MW253 to be 100 µg/L. The TCE contour is now coincidental with MW253.

Area F

- The overall footprint in this area is similar to the 2010 interpretation. TCE concentrations in MW479 and MW480 were nondetect and 50 µg/L, respectively, in 2012. MW256, MW258, MW478, and MW292 all indicate TCE greater than 100 µg/L. These data along with TCE analyses of samples collected from MW145 and MW206 provided delineation for the 100 µg/L contour in 2010. This contour was reproduced for 2012.

4.3 CENTRAL SITE AREA INCLUDING SOUTHWEST PLUME

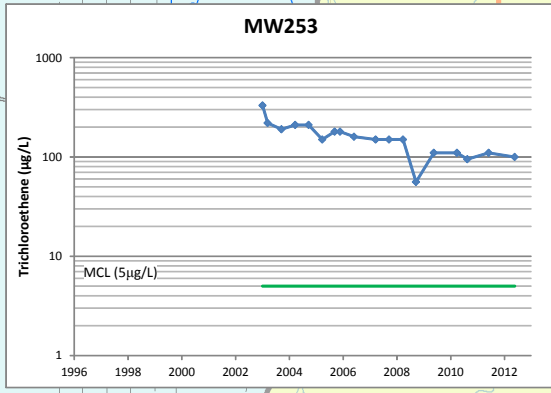
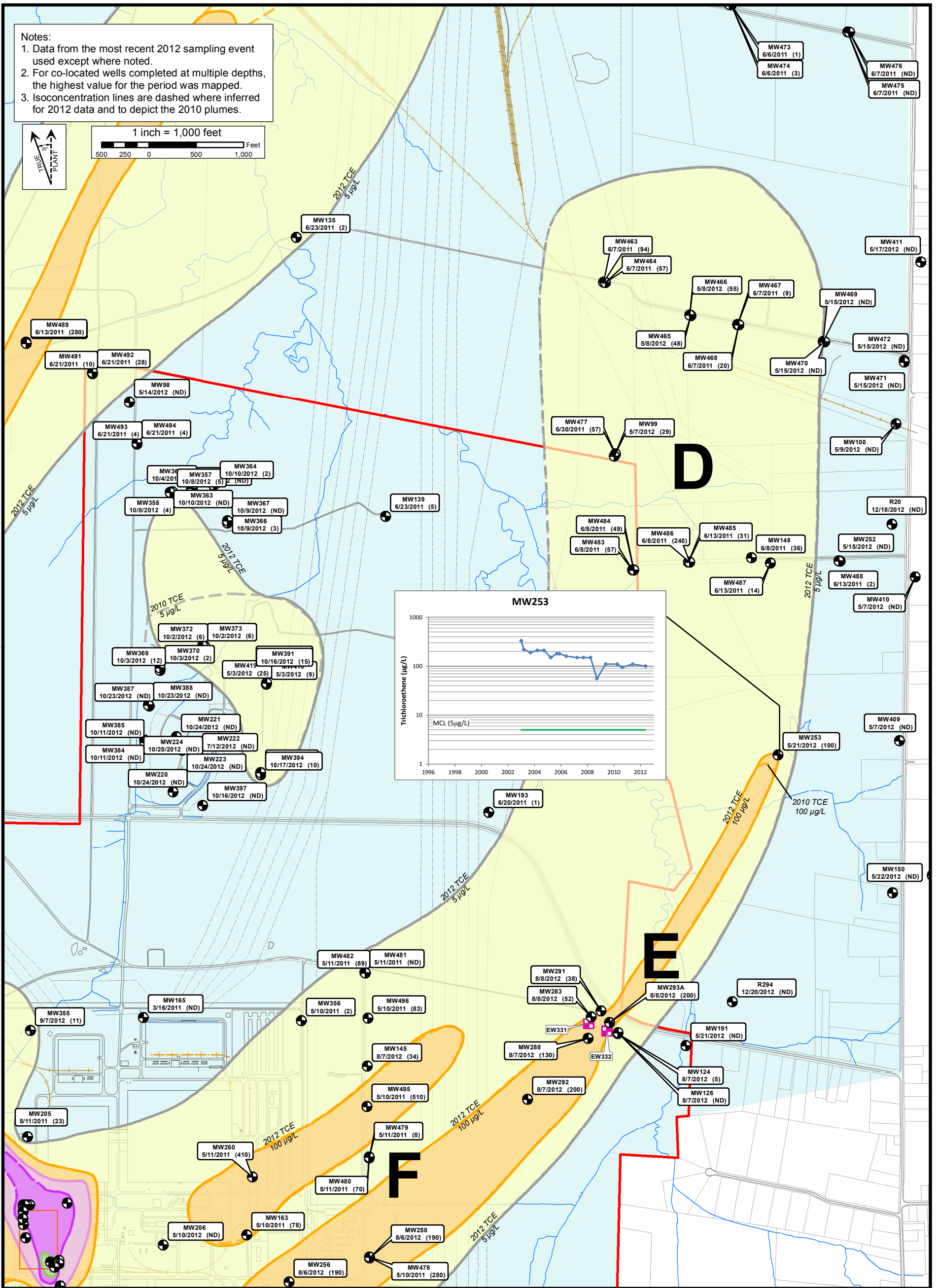
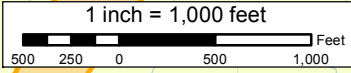
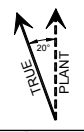
TCE

The TCE plume in the approximately 650-acre industrialized section of the PGDP site is presented in Figure 3. The overall footprint in 2012 is similar to previous years, with two exceptions: (1) one of the sources to the Southwest Plume area (designated as G on Figure 3) and (2) the northern margin of the industrial footprint (designated as H on Figure 3). In addition, Figure 3 includes temporal TCE concentration plots for selected wells illustrating the observations made in this subsection.

- The western part of the area commonly referred to as the Southwest Plume is similar to the extent mapped in 2010. The extent of the source area to the Southwest Plume north of SWMU 4 is expanded. The 1,000 µg/L contour now includes MW86.

Notes:

1. Data from the most recent 2012 sampling event used except where noted.
2. For co-located wells completed at multiple depths, the highest value for the period was mapped.
3. Isoconcentration lines are dashed where inferred for 2012 data and to depict the 2010 plumes.



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| <p>2012 TCE Plume Concentration Fields</p> <ul style="list-style-type: none"> 5 - 100 µg/L 100 - 1,000 µg/L 1,000 - 10,000 µg/L 10,000 - 100,000 µg/L ≥ 100,000 µg/L | <p>2010 TCE Plume Isoconcentration Lines</p> <ul style="list-style-type: none"> 5 - 100 µg/L 100 - 1,000 µg/L | <ul style="list-style-type: none"> - Water Policy Area - Areas of Investigation during 2011-2012 - Parcel Lines - Monitoring Well Identification, Date of Sample & Sample Value - RGA Well - Extraction Well | <ul style="list-style-type: none"> - DOE Property Boundary - Roadways - Streams - Railroad - TVA Powerlines |
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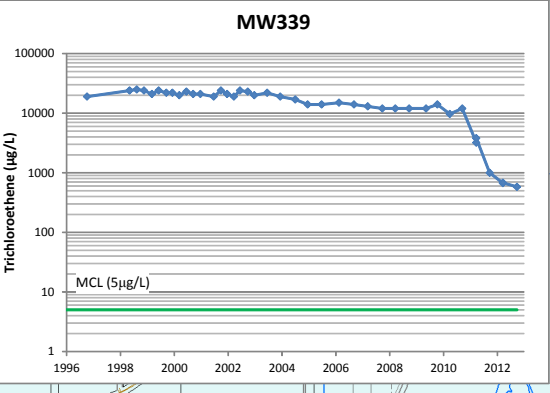
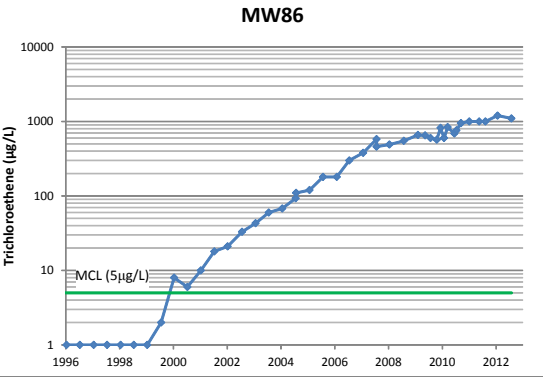
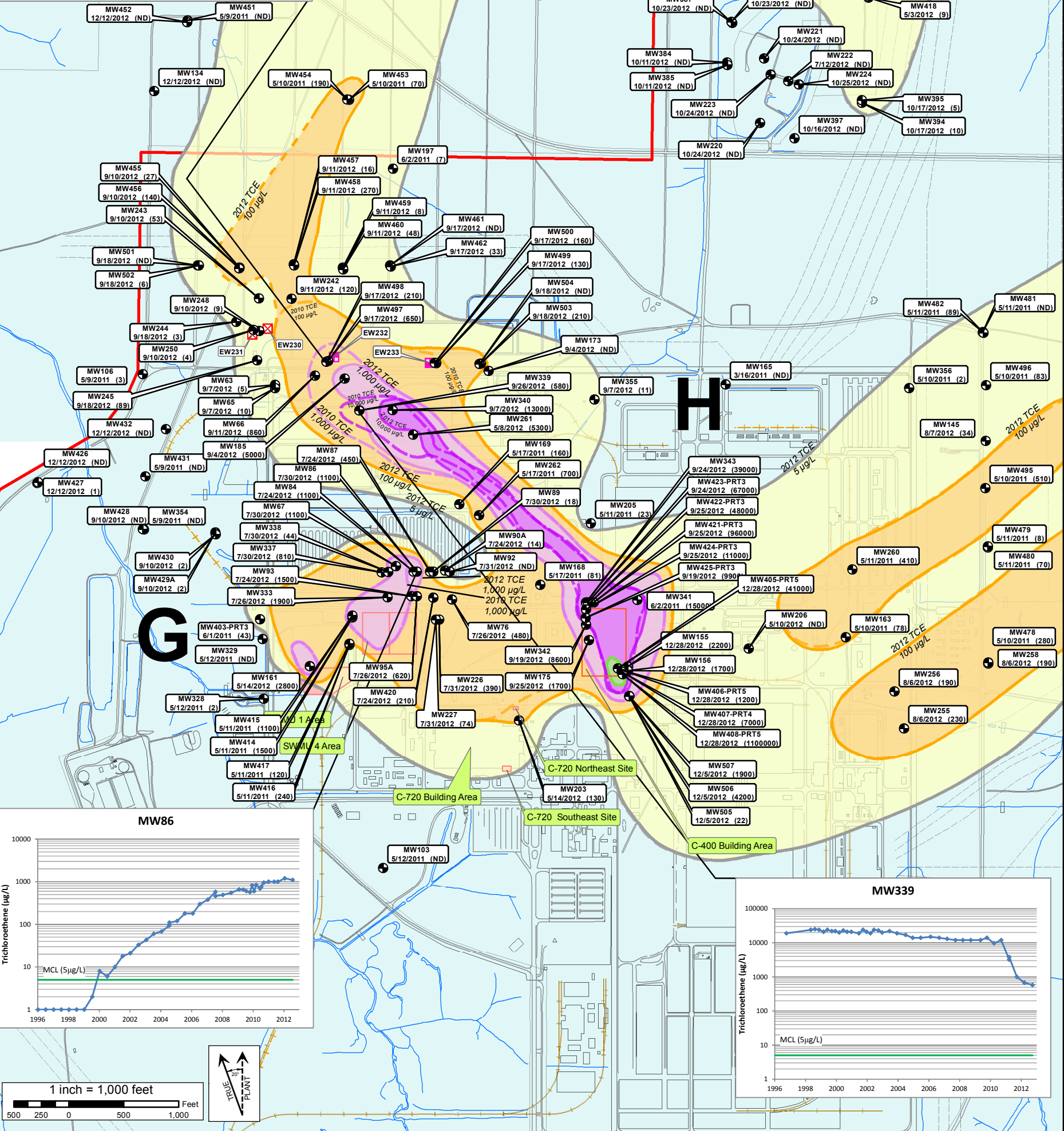
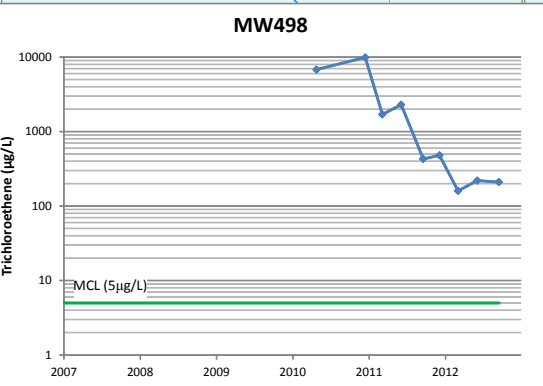
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Figure 2. 2012 Northeast Portion of the TCE Plume Regional Gravel Aquifer

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Notes:
 1. Data from the most recent 2012 sampling event used except where noted.
 2. For co-located wells completed at multiple depths, the highest value for the period was mapped.
 3. Isoconcentration lines are dashed where inferred for 2012 data and to depict the 2010 plumes.



2012 TCE Plume Concentration Fields		2010 TCE Plume Isoconcentration Lines		Other Features	
Yellow	5 - 100 µg/L	Dashed Yellow	5 - 100 µg/L	Light Blue	- Water Policy Area
Orange	100 - 1,000 µg/L	Dashed Orange	100 - 1,000 µg/L	Red	- Areas of Investigation during 2011-2012
Purple	1,000 - 10,000 µg/L	Dashed Purple	1,000 - 10,000 µg/L	Black	- Parcel Lines
Red	10,000 - 100,000 µg/L	Dashed Red	10,000 - 100,000 µg/L	Black with ID	- Monitoring Well Identification, Date of Sample & Sample Value
Dark Red	≥ 100,000 µg/L	Dashed Dark Red	≥ 100,000 µg/L	Black with RGA	- RGA Well
		Black with EW		Black with EW	- Extraction Well
		Red		Red	- DOE Property Boundary
		Black		Black	- Roadways
		Blue		Blue	- Streams
		Black		Black	- Railroad
		Black		Black	- TVA Powerlines

LATA Environmental Services
of Kentucky, LLC

U.S. DEPARTMENT OF ENERGY
PORTSMOUTH / PADUCAH PROJECT OFFICE
PADUCAH GASEOUS DIFFUSION PLANT

Figure 3. 2012 Central Portion of the TCE Plume Regional Gravel Aquifer

FILE NAME: Fig_03_2010_2012_Plumes_TCE_CentralR	PROJECT #: EM	SCALE: AS NOTED	DATE: 12/13/2013
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- The second area (designated as H on Figure 3) is on the northern margin of the industrial footprint. MW205 is used to delineate the northern extent of the plume footprint in this area. TCE typically is not detected in MW205. The well was not sampled in 2012, but in 2011, contained a concentration of 23 µg/L. This TCE sampling result may be anomalous, because the maximum detection since 2008 has been 2 µg/L. No changes were made to the overall 2010 footprint; however, the areas inside the 1,000 µg/L and 10,000 µg/L contours have been reduced somewhat, likely in response to pumping for the Northwest Plume optimization.

The highest concentrations of TCE extend from C-400 Building toward the Northwest Plume groundwater extraction wells. This is a similar interpretation for both 2010 and 2012, with a minor reduction in extent by removing MW339 and MW261 from within the 10,000 µg/L isoconcentration and MW498 and MW66 from within the 1,000 µg/L isoconcentration.

Tc-99

There were 525 analyses for Tc-99 in RGA groundwater at PGDP in 2012, with only 23 results above 900 pCi/L (derived MCL). Figure 4 presents the results of Tc-99 analyses near the central area of the plant, where the groundwater samples collected in 2012 contained Tc-99 at activities greater than 900 pCi/L and temporal concentration plots for selected wells illustrating the observations made in this subsection. The area exceeding the derived MCL is similar to the high-concentration TCE footprint with a few exceptions. The highest level of Tc-99 occurs in the area of MW422 through MW425. This is consistent with the location of the former Tc-99 storage tank, located near the northwestern portion of C-400 Building.

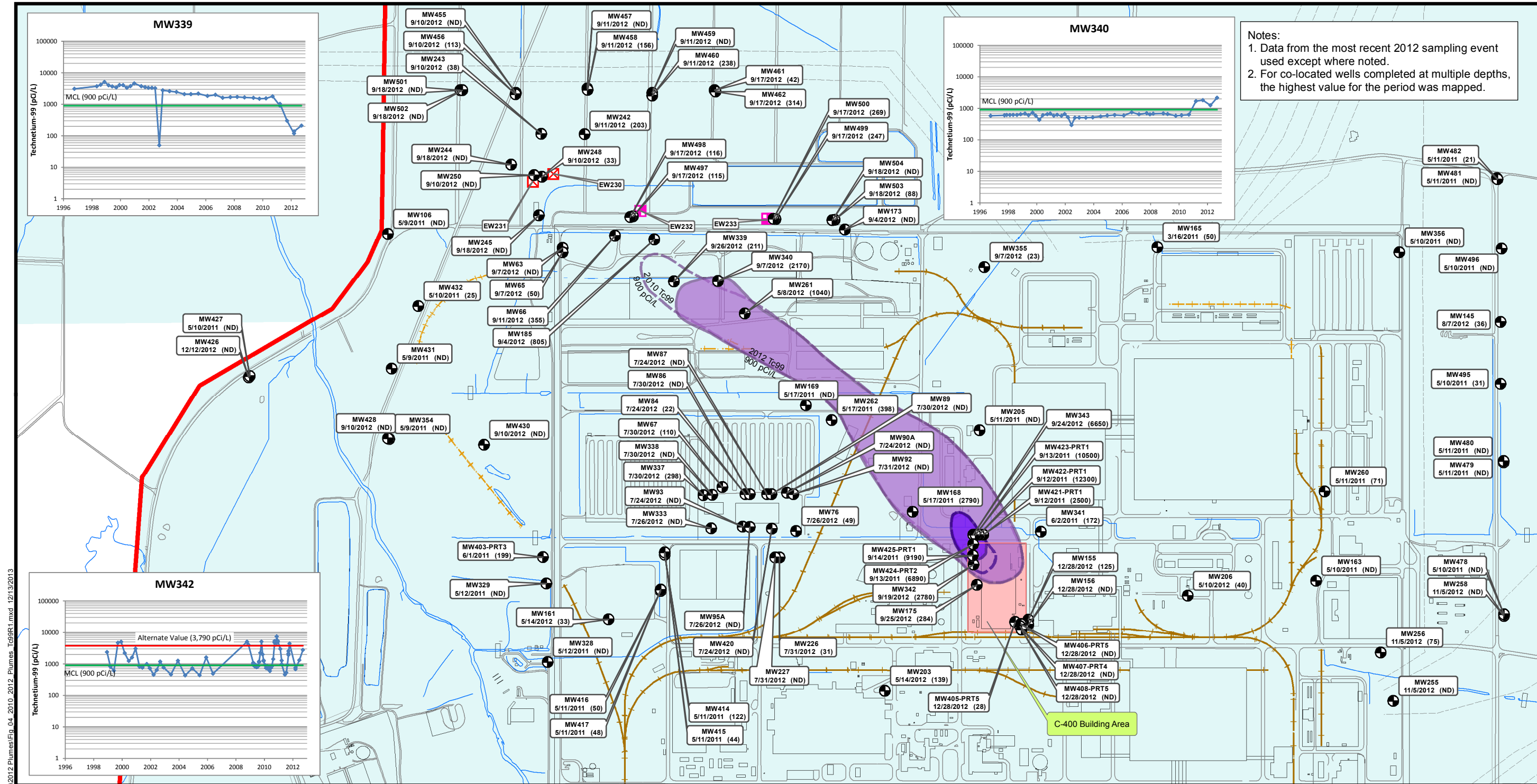
The footprint for Tc-99 in 2012 has been reduced along the longitudinal axis based on reduced Tc-99 activities in MW339. The 900 pCi/L isoconcentration area was adjusted in 2012 to include MW340, where the most recent Tc-99 activity was 2,170 pCi/L. The inclusion of MW340 in this isoconcentration area was expected as a response to extraction at EW233 for the Northwest Plume optimization. Additionally, near the source area, MW342 no longer shows activities above 3,790 pCi/L (activities in 2012 ranged from 678 to 2,780 pCi/L—2,780 being the most recent). The 3,790 pCi/L isoconcentration contour was reduced due to the lower activities in MW342. Although MW421-PRT3, MW422-PRT3, and MW423-PRT3 were less than 3,790 pCi/L, the contour was not adjusted in this source area because the lower ports in these wells were not sampled in 2012. Previously the lower ports had shown higher activities than the upper ports monitored in 2012.

5. INTERNAL REVIEW PROCESS

Several steps were used during preparation of these maps to ensure quality. The steps followed are described below:

- The data sets were compared to the Environmental Monitoring Plan for Fiscal Year 2012 and the Environmental Monitoring Plan for Fiscal Year 2013 to ensure completeness of the data set for calendar year 2012 in the query of OREIS and PEMS (LATA Kentucky 2011a; LATA Kentucky 2012).
- The resulting data set then was further reduced by the selection criteria described in Sections 3.1 and 3.2.
- The data sets then were posted to the maps, using ArcGIS.

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Notes:
 1. Data from the most recent 2012 sampling event used except where noted.
 2. For co-located wells completed at multiple depths, the highest value for the period was mapped.

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LEGEND

<p>2012 Tc-99 Plume Concentration Fields</p> <ul style="list-style-type: none"> 900 - 3,790 pCi/L ≥ 3,790 pCi/L 	<p>2010 Tc-99 Plume Isoconcentration Lines</p> <ul style="list-style-type: none"> 900 - 3,790 pCi/L ≥ 3,790 pCi/L 	<ul style="list-style-type: none"> - Water Policy Area - Areas Investigation during 2011-2012 - Parcel Lines - Monitoring Well Identification, Date of Sample & Sample Value ND - Result Less than MDA - RGA Well - Extraction Well - Inactive Extraction Well 	<ul style="list-style-type: none"> - DOE Property Boundary - Roadways - Streams - Railroad - TVA Powerlines
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1 inch = 700 feet

Scale: 0 175 350 700 Feet

Figure 4. 2012 Tc-99 Plume - Regional Gravel Aquifer

FILE NAME	PROJECT #	SCALE	DATE
Fig_04_2010_2012_Plumes_Tc99R1	EM	AS NOTED	12/13/2013

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The map contours generated for 2010 were adjusted from the posted data (LATA Kentucky 2011b). An independent review of the constructed maps then was conducted by hydrogeologists familiar with the site.

6. REFERENCES

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- LATA Kentucky 2011b. *Trichloroethene and Technetium-99 Groundwater Contamination in the Regional Gravel Aquifer for Calendar Year 2010 at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, PAD/ENR/0130, August.
- LATA Kentucky 2012. *Environmental Monitoring Plan Fiscal Year 2013 Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, PAD-ENM-0055/R2, December.

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APPENDIX A
ELECTRONIC COPIES OF MAPS, TABLES,
AND ARCGIS FILES

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APPENDIX A
ELECTRONIC COPIES OF MAPS, TABLES,
AND ARCGIS FILES

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APPENDIX B
TABLES OF DATA USED TO PREPARE
THE 2012 PLUME MAPS

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Table B.1. 2012 TCE Data Used to Create Plume Map

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION
MW100	5/9/2012	4817	7167	LRGA	1	1	ND	U	
MW103	5/12/2011	-6252.14	-3500.84	MRGA	1	1	ND	U	X
MW106	5/9/2011	-8438.9	990.93	MRGA	2.6	1	OK		X
MW124	8/7/2012	1879.15	726.38	LRGA	5.4	1	OK	J	
MW125	6/22/2011	-5662.81	6139.28	LRGA	420	5	OK	D	X
MW126	8/7/2012	1881.49	736.67	MRGA	1	1	ND	UJ	
MW134	12/12/2012	-8335.002	3568.93	LRGA	1	1	ND	U	
MW135	6/23/2011	-1520.05	9137.28	LRGA	1.5	1	OK		X
MW139	6/23/2011	-576.59	6189.67	MRGA	5	1	OK		X
MW145	8/7/2012	-768.84	383.32	LRGA	34	1	OK	J	
MW146	12/12/2012	-5684.18	13549.15	LRGA	1	1	ND	U	
MW148	6/8/2011	3289.83	5755.06	MRGA	36	1	OK		X
MW150	5/22/2012	4782.26	2215	LRGA	1	1	ND	U	
MW152	5/7/2012	-692.64	13136.67	LRGA	8.2	1	OK		
MW155	12/28/2012	-4025	-1669.4	LRGA	2200	20	OK	D	
MW156	12/28/2012	-4025.7	-1703.7	URGA	1700	500	OK	D	
MW161	5/14/2012	-6916.9	-1666.7	LRGA	2800	20	OK	DX	
MW163	5/10/2011	-2041	-1400.8	LRGA	78	1	OK		X
MW165	3/16/2011	-3135.7	898.3	URGA	1	1	ND	U	X
MW168	5/17/2011	-4822.5	-924.8	URGA	81	1	OK		X
MW169	5/17/2011	-5558	-191.4	MRGA	160	1	OK		X
MW173	9/4/2012	-5290	1020.3	URGA	1	1	ND	UJY	
MW175	9/25/2012	-4379.1	-1428.3	MRGA	1700	20	OK	D	
MW185	9/4/2012	-6601.9	952.9	MRGA	5000	50	OK	DJY	
MW191	5/21/2012	2597.4	600.3	MRGA	1	1	ND	U	
MW193	6/20/2011	515.8	3064.9	URGA	1	1	OK		X
MW194	12/12/2012	-10177.5	1865.6	MRGA	1	1	ND	U	
MW197	6/2/2011	-6162.5	2863.1	URGA	7	1	OK	X	X
MW199	12/17/2012	-10076.6	10090.1	LRGA	1	1	ND	U	
MW200	6/21/2011	-4823.9	4443.3	MRGA	1	1	ND	U	X
MW201	12/6/2012	-4884	10167.4	MRGA	2.2	1	OK		
MW202	12/11/2012	-5688	7613.2	LRGA	1	1	ND	U	
MW203	5/14/2012	-5014.8	-2159.2	MRGA	130	1	OK		
MW205	5/11/2011	-4360.3	-364.1	URGA	23	1	OK	J	X
MW206	5/10/2012	-2924.5	-1504.8	URGA	1	1	ND	U	
MW220	10/24/2012	-2822.84	3279.19	URGA	1	1	ND	U	=
MW221	10/24/2012	-2784.92	3863.68	URGA	1	1	ND	U	=
MW222	7/12/2012	-2563.11	3659.61	URGA	1	1	ND	U	=
MW223	10/24/2012	-2725.63	3719.99	URGA	1	1	ND	U	=
MW224	10/25/2012	-2467.33	3627.71	URGA	1	1	ND	U	=
MW226	7/31/2012	-5740.41	-1241.06	LRGA	390	5	OK	DY	X
MW227	7/31/2012	-5769.88	-1240.6	URGA	74	1	OK	Y	X

Table B.1. 2012 TCE Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION
MW233	5/8/2012	-5530.149	7300.335	MRGA	3.4	1	OK		
MW236	5/8/2012	-5087.791	7919.9943	LRGA	5.2	1	OK		
MW240	5/8/2012	-5195.783	7390.5997	MRGA	2.2	1	OK		
MW242	9/11/2012	-7083.279	1678.9796	MRGA	120	1	OK	J	
MW243	9/10/2012	-7382.027	1681.4026	MRGA	53	1	OK	JY	
MW244	9/18/2012	-7589.079	1467.5042	MRGA	2.8	1	OK	XJ	
MW245	9/18/2012	-7397.554	1119.219	MRGA	89	1	OK	XJ	
MW248	9/10/2012	-7376.716	1385.4221	MRGA	9.4	1	OK	JY	
MW250	9/10/2012	-7431.785	1396.3409	MRGA	4	1	OK	JY	
MW252	5/15/2012	4228.3966	5717.8935	LRGA	1	1	ND	U	
MW253	5/21/2012	3572.2245	3669.879	LRGA	100	1	OK		
MW255	8/6/2012	-1510.278	-2230.289	LRGA	230	5	OK	DXJ	
MW256	8/6/2012	-1596.766	-1896.409	LRGA	190	5	OK	DJ	
MW258	8/6/2012	-745.654	-1643.248	LRGA	190	2	OK	DXJ	
MW260	5/11/2011	-1982.183	-786.0092	LRGA	410	5	OK	DJ	X
MW261	5/8/2012	-5979.201	442.1934	LRGA	5300	250	OK	D	
MW262	5/17/2011	-5379.8	-292.32	LRGA	700	10	OK	D	X
MW283	8/8/2012	1599.2737	903.2568	LRGA	52	1	OK	XJ	
MW288	8/7/2012	1564.9368	679.0144	LRGA	130	2	OK	DJX	
MW291	8/8/2012	1699.8141	968.887	LRGA	38	1	OK	XJ	
MW292	8/7/2012	924.0336	33.1863	LRGA	200	2	OK	DXJ	
MW293A	8/8/2012	1789.75	843.01	MRGA	200	2	OK	DJ	
MW328	5/12/2011	-7337.476	-1962.308	MRGA	1.9	1	OK		X
MW329	5/12/2011	-7347.443	-1419.371	URGA	1	1	ND	U	X
MW333	7/26/2012	-6210	-1040	MRGA	1900	50	OK	DY	X
MW337	7/30/2012	-6264.771	-811.238	MRGA	810	10	OK	DJY	X
MW338	7/30/2012	-6204.913	-809.45	MRGA	44	2	OK	DJY	X
MW339	9/26/2012	-6468.5	663.2	LRGA	580	10	OK	D	
MW340	9/7/2012	-6165.4	665.5	LRGA	13000	100	OK	JY	
MW341	6/2/2011	-3939.16	-1062.27	MRGA	15000	200	OK	DX	X
MW342	9/19/2012	-4403.56	-1289.51	MRGA	8600	100	OK	D	
MW343	9/24/2012	-4404.16	-1083.87	LRGA	39000	500	OK	D	
MW354	5/9/2011	-8428.96	-423.07	MRGA	1	1	ND	U	X
MW355	9/7/2012	-4327.94	761.55	LRGA	11	1	OK	JY	
MW356	5/10/2011	-1466.38	863.45	LRGA	1.8	1	OK		X
MW357	10/8/2012	-2829.58	6451.8	URGA	4.8	1	OK		=
MW358	10/8/2012	-2851.93	6444.38	LRGA	4.4	1	OK		=
MW360	10/4/2012	-2627.14	6467.64	URGA	1	1	ND	U	=
MW361	10/4/2012	-2617.48	6487.36	MRGA	3.2	1	OK		=
MW363	10/10/2012	-2392.05	6521.42	URGA	1	1	ND	U	=
MW364	10/10/2012	-2373.54	6535.89	LRGA	2.2	1	OK		=
MW366	10/9/2012	-2246.1	6121.18	URGA	2.6	1	OK		=

Table B.1. 2012 TCE Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION
MW367	10/9/2012	-2247.09	6145.28	LRGA	1	1	ND	U	=
MW369	10/3/2012	-2957.51	4564.73	URGA	12	1	OK	J	J
MW370	10/3/2012	-2957.4	4589.2	MRGA	1.5	1	OK	J	J
MW372	10/2/2012	-2486.89	4817.24	URGA	5.8	1	OK	J	J
MW373	10/2/2012	-2509.92	4823.14	LRGA	6.4	1	OK	J	J
MW384	10/11/2012	-3121.2	3828.36	URGA	1	1	ND	U	=
MW385	10/11/2012	-3119.46	3804.81	LRGA	1	1	ND	U	UJ
MW387	10/23/2012	-3073.18	4188.73	URGA	1	1	ND	U	=
MW388	10/23/2012	-3080.77	4197.35	MRGA	1	1	ND	U	=
MW391	10/16/2012	-1993.3	4557.92	MRGA	15	1	OK		=
MW392	10/15/2012	-1994.3	4582.37	LRGA	17	1	OK		=
MW394	10/17/2012	-1895.64	3460.44	URGA	9.9	1	OK		=
MW395	10/17/2012	-1894.71	3484.23	MRGA	4.8	1	OK		=
MW397	10/16/2012	-2509.48	3138.15	LRGA	1	1	ND	U	=
MW403-PRT3	6/1/2011	-7370	-1237.4	RGA	43	1	OK		X
MW405-PRT5	12/28/2012	-4116.32	-1686.57	RGA	41000	1000	OK	D	
MW406-PRT5	12/28/2012	-4076.55	-1700.83	RGA	1200	10	OK	D	
MW407-PRT4	12/28/2012	-4081.78	-1716.1	RGA	7000	50	OK	D	
MW408-PRT5	12/28/2012	-4071.66	-1737.92	RGA	1100000	10000	OK	D	
MW409	5/7/2012	4855.28	3821.11	LRGA	1	1	ND	U	
MW410	5/7/2012	5021.19	5549.3	LRGA	1	1	ND	U	
MW411	5/17/2012	5081.82	8876.15	MRGA	1	1	ND	U	
MW414	5/11/2011	-6531.28	-1220.85	MRGA	1500	20	OK	D	X
MW415	5/11/2011	-6530.8	-1206.59	LRGA	1100	10	OK	D	X
MW416	5/11/2011	-6559.06	-1470.47	MRGA	240	5	OK	DXJ	X
MW417	5/11/2011	-6559.24	-1461.4	LRGA	120	1	OK	J	X
MW418	5/3/2012	-1833.99	4418.94	MRGA	8.6	1	OK	Y	
MW419	5/3/2012	-1833.77	4429.38	LRGA	25	1	OK	Y	
MW420	7/24/2012	-5793.53	-1041.57	MRGA	210	2	OK	D	=
MW421-PRT3	9/25/2012	-4335.43	-1084.18	RGA	96000	1000	OK	DX	
MW422-PRT3	9/25/2012	-4365.74	-1083.8	RGA	48000	1000	OK	D	
MW423-PRT3	9/24/2012	-4389.45	-1084	RGA	67000	1000	OK	D	
MW424-PRT3	9/25/2012	-4405.68	-1148.44	RGA	11000	200	OK	DX	
MW425-PRT3	9/19/2012	-4407.35	-1226.18	RGA	9900	100	OK	D	
MW426	12/12/2012	-9398.38	1.91	URGA	1	1	ND	U	
MW427	12/12/2012	-9390.18	9.54	LRGA	1.3	1	OK		
MW428	9/10/2012	-8438.4	-419.3	LRGA	1	1	ND	UJY	
MW429A	9/10/2012	-7778.16	-449.45	URGA	1.6	1	OK	JY	
MW430	9/10/2012	-7776.05	-464.51	LRGA	2.1	1	OK	JY	
MW431	5/9/2011	-8413.94	61.49	LRGA	1	1	ND	U	X
MW432	12/12/2012	-8229.44	492.4	MRGA	1	1	ND	U	
MW433	12/12/2012	-4526.72	12219.07	MRGA	1	1	ND	U	

Table B.1. 2012 TCE Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION
MW435	12/12/2012	-4526.73	12205.13	LRGA	1	1	ND	U	
MW439	6/21/2011	-2679.36	12575.82	MRGA	1.1	1	OK		X
MW440	6/21/2011	-2688.23	12564.9	LRGA	1.3	1	OK		X
MW441	12/12/2012	-2696.03	12552.96	LRGA	1.7	1	OK		
MW442	6/29/2011	-2827.07	11896.27	LRGA	7.1	1	OK		X
MW443	6/29/2011	-2868.41	11921.6	LRGA	3.4	1	OK		X
MW444	6/29/2011	-2847.69	11909.14	LRGA	2.8	1	OK		X
MW445	6/22/2011	-2412.85	11307.21	MRGA	31	1	OK		X
MW447	6/22/2011	-2424.29	11310.49	LRGA	130	2	OK	D	X
MW448	6/14/2011	-3315.15	11330.17	MRGA	8.3	1	OK		X
MW450	6/14/2011	-3334.95	11329.56	LRGA	27	1	OK		X
MW451	5/9/2011	-8031.61	4211.87	URGA	1	1	ND	U	X
MW452	12/12/2012	-8033.79	4194.86	LRGA	1	1	ND	U	
MW453	5/10/2011	-6562.15	3487.73	URGA	70	1	OK		X
MW454	5/10/2011	-6578.07	3491.61	LRGA	190	1	OK		X
MW455	9/10/2012	-7557.43	1963.2	MRGA	27	1	OK	JY	
MW456	9/10/2012	-7560.77	1953.78	LRGA	140	1	OK	JY	
MW457	9/11/2012	-7063.95	1992.86	URGA	16	1	OK	J	
MW458	9/11/2012	-7063.14	1983.08	LRGA	270	5	OK	DJ	
MW459	9/11/2012	-6617.46	1962.32	URGA	7.5	1	OK	J	
MW460	9/11/2012	-6616.28	1944.07	LRGA	48	1	OK	J	
MW461	9/17/2012	-6187.89	1981.77	URGA	1	1	ND	UXJ	
MW462	9/17/2012	-6180.48	1972.47	LRGA	33	1	OK	J	
MW463	6/7/2011	1727.63	8665.23	MRGA	94	1	OK	Y	X
MW464	6/7/2011	1748.61	8659.52	LRGA	57	1	OK	Y	X
MW465	5/8/2012	2652.88	8312.1	MRGA	48	1	OK		
MW466	5/8/2012	2638.93	8317.04	MRGA	55	1	OK		
MW467	6/7/2011	3143.53	8217.52	URGA	9.3	1	OK	Y	X
MW468	6/7/2011	3157	8214.03	MRGA	20	1	OK	Y	X
MW469	5/15/2012	4049.53	8037.38	MRGA	1	1	ND	U	
MW470	5/15/2012	4066.18	8033.74	LRGA	1	1	ND	U	
MW471	5/15/2012	4903.22	7837.61	MRGA	1	1	ND	U	
MW472	5/15/2012	4904.89	7822.45	LRGA	1	1	ND	U	
MW473	6/6/2011	3077.36	11594	LRGA	1.2	1	OK	X	X
MW474	6/6/2011	3057.85	11598.16	LRGA	3.4	1	OK	Y	X
MW475	6/7/2011	4309.45	11308.83	MRGA	1	1	ND	UY	X
MW476	6/7/2011	4329.12	11304.72	LRGA	1	1	ND	UY	X
MW477	6/30/2011	1856.14	6850.24	LRGA	57	1	OK		X
MW478	5/10/2011	-746.11	-1631.86	MRGA	280	5	OK	DX	X
MW479	5/11/2011	-748.19	-585.94	URGA	8.1	1	OK	XJ	X
MW480	5/11/2011	-747.77	-575.59	LRGA	70	1	OK	J	X
MW481	5/11/2011	-795.7	1375.11	MRGA	1	1	ND	UJ	X

Table B.1. 2012 TCE Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION
MW482	5/11/2011	-789.59	1367.38	LRGA	89	1	OK	XJ	X
MW483	6/8/2011	2036.1	5624.61	RGGA	57	1	OK		X
MW484	6/8/2011	2046.53	5625.14	MRGA	49	1	OK		X
MW485	6/13/2011	2623	5707.61	LRGA	31	1	OK		X
MW486	6/8/2011	2638.26	5708.28	MRGA	240	2	OK	D	X
MW487	6/13/2011	3492.78	5697.04	LRGA	14	1	OK		X
MW488	6/13/2011	4216.33	5720.88	LRGA	1.6	1	OK		X
MW489	6/13/2011	-4376.27	8031.9	MRGA	280	2	OK	D	X
MW490	6/13/2011	-4373.41	8016.44	MRGA	220	5	OK	D	X
MW491	6/21/2011	-3672.08	7696.3	URGA	10	1	OK		X
MW492	6/21/2011	-3671.45	7712.25	LRGA	28	1	OK		X
MW493	6/21/2011	-3201.85	6953.41	URGA	3.7	1	OK		X
MW494	6/21/2011	-3202.89	6968.73	MRGA	4.2	1	OK		X
MW495	5/10/2011	-770.57	-43.86	LRGA	510	5	OK	D	X
MW496	5/10/2011	-763.61	890.19	LRGA	83	1	OK		X
MW497	9/17/2012	-6750.84	1111.65	MRGA	650	10	OK	D	
MW498	9/17/2012	-6767.51	1106.62	LRGA	210	2	OK	DJ	
MW499	9/17/2012	-5768.16	1092.02	MRGA	130	1	OK	XJ	
MW500	9/17/2012	-5781.61	1096.35	LRGA	160	2	OK	DJ	
MW501	9/18/2012	-7938.89	1980.87	MRGA	1	1	ND	UY	
MW502	9/18/2012	-7927.08	1981	LRGA	6	1	OK	Y	
MW503	9/18/2012	-5360.36	1089.24	LRGA	210	5	OK	DY	
MW504	9/18/2012	-5376.36	1085.57	URGA	1	1	ND	UY	
MW505	12/5/2012	-4012.89	-1939.66	URGA	22	1	OK		
MW506	12/5/2012	-4013.04	-1939.93	MRGA	4200	50	OK	D	
MW507	12/5/2012	-4013	-1939.89	LRGA	1900	20	OK	D	
MW63	9/7/2012	-7235.74	895.26	URGA	5	1	OK	JY	
MW65	9/7/2012	-7234.91	865.12	LRGA	10	1	OK	JY	
MW66	9/11/2012	-6872.62	978.57	URGA	860	10	OK	DJY	
MW67	7/30/2012	-6134.48	-755.36	MRGA	1100	20	OK	DJY	X
MW76	7/26/2012	-5625.4	-1059.38	MRGA	480	5	OK	DY	X
MW84	7/24/2012	-5975.23	-804.2	MRGA	1100	10	OK	D	=
MW86	7/30/2012	-5945.24	-804.9	LRGA	1100	10	OK	DJY	X
MW87	7/24/2012	-5825.09	-804.98	MRGA	450	5	OK	D	=
MW89	7/30/2012	-5795.14	-804.13	LRGA	18	1	OK	JY	X
MW90A	7/24/2012	-5688.64	-793.68	URGA	14	1	OK		=
MW92	7/31/2012	-5645	-805.26	LRGA	1	1	ND	UY	X
MW93	7/24/2012	-5994.81	-1028.57	MRGA	1500	10	OK	D	=
MW95A	7/26/2012	-5944.19	-1029.96	LRGA	620	5	OK	DY	X
MW98	5/14/2012	-3281.31	7397.46	MRGA	1	1	ND	U	
MW99	5/7/2012	1842.46	6826.71	MRGA	29	1	OK		
R20	12/18/2012	4775.28	6106.22	URGA	1	1	ND	U	

Table B.1. 2012 TCE Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (µg/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALIDATION
R294	12/20/2012	3087.6	1064.4	URGA	1	1	ND	U	
R302	12/20/2012	5200	2400	URGA	1	1	ND	U	
R384	12/19/2012	7068	3946	URGA	1	1	ND	U	
R387	12/19/2012	6787	3652	URGA	1	1	ND	U	
R392	12/19/2012	6191	3611	URGA	1	1	ND	U	
R424-PRT1	8/23/2012	10879	7175	URGA	8.5	1	OK	JY	X
R424-PRT2	8/23/2012	10879	7175	URGA	1	1	ND	UJY	X
R424-PRT3	8/23/2012	10879	7175	URGA	1	1	ND	UJY	X

X, Y is shown in the PGDP coordinate system.

Code Definitions shown in Table B.1:

STA_NAME	MW...	Monitoring well
	R...	Residential well
	...PRT	Port
HORIZON	RGA	Regional Gravel Aquifer
	LRGA	Lower RGA
	MRGA	Middle RGA
	URGA	Upper RGA
DETECT	ND	nondetect
	OK	detect
RSLTQUAL	D	Identified in an analysis at a secondary dilution
	J	Estimated
	U	Not detected
	X	Used when more than five qualifiers are required for a result
	Y	Chemical yield exceeds acceptance limits
VALIDATION	=	Validated result, which is detected and unqualified.
	J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
	U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
	X	Not validated; Refer to the RSLTQUAL field for more information.

Table B.2. 2012 Tc-99 Data Used to Create Plume Map

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW100	5/9/2012	4817	7167	LRGA	5.46	15.7	ND	U	X	11.2	11.2
MW106	5/9/2011	-8438.9	990.93	MRGA	10.5	16.2	ND	U	X	11.5	11.5
MW124	8/7/2012	1879.15	726.38	LRGA	6.07	15.5	ND	U		11.2	
MW125	6/22/2011	-5662.81	6139.28	LRGA	189	14.3	OK		X	19.8	20.4
MW126	8/7/2012	1881.49	736.67	MRGA	14.2	15.5	ND	U		12	
MW134	5/9/2011	-8335.0023	3568.93	LRGA	5.57	16.2	ND	U	X	11.4	11.4
MW135	6/23/2011	-1520.05	9137.28	LRGA	-4.16	17.5	ND	U	X	12	12
MW139	6/23/2011	-576.59	6189.67	MRGA	-6.24	17.5	ND	U	X	12	12
MW146	12/12/2012	-5684.18	13549.15	LRGA	2.18	16.1	ND	U	X	10.5	10.5
MW148	6/8/2011	3289.83	5755.06	MRGA	-7.14	16.9	ND	U	X	11.5	11.5
MW150	5/22/2012	4782.26	2215	LRGA	7.58	14.7	ND	U	X	10.7	10.7
MW155	12/28/2012	-4025	-1669.4	LRGA	125	15.8	OK			14.4	
MW155	12/28/2012	-4025	-1669.4	LRGA	125	15.8	OK		X	14.4	14.7
MW156	12/28/2012	-4025.7	-1703.7	URGA	-0.798	15.3	ND	U		10.4	
MW156	12/28/2012	-4025.7	-1703.7	URGA	-0.798	15.3	ND	U	X	10.4	10.4
MW163	5/10/2011	-2041	-1400.8	LRGA	6.14	18.6	ND	U	X	13	13
MW168	5/17/2011	-4822.5	-924.8	URGA	2790	17.1	OK		X	49.9	85.2
MW169	5/17/2011	-5558	-191.4	MRGA	-7.3	19	ND	U	X	12.8	12.8
MW173	9/4/2012	-5290	1020.3	URGA	4.43	16.5	ND	U		11.6	
MW175	9/25/2012	-4379.1	-1428.3	MRGA	284	18.2	OK			19.7	
MW185	9/4/2012	-6601.9	952.9	MRGA	805	16.5	OK			46.3	
MW191	5/21/2012	2597.4	600.3	MRGA	8.2	14.7	ND	U	X	10.7	10.7
MW193	6/20/2011	515.8	3064.9	URGA	2.21	16.7	ND	U	X	11.6	11.6
MW194	5/10/2011	-10177.5	1865.6	MRGA	12.4	16.2	ND	U	X	11.6	11.6
MW197	6/2/2011	-6162.5	2863.1	URGA	-7.65	16.5	ND	U	X	10.7	10.7
MW199	6/20/2011	-10076.6	10090.1	LRGA	7.18	15.8	ND	U	X	11.3	11.4
MW201	12/6/2012	-4884	10167.4	MRGA	-1.22	15.2	ND	U	X	10.2	10.2
MW202	12/11/2012	-5688	7613.2	LRGA	2.38	16.1	ND	U	X	10.7	10.7
MW203	5/14/2012	-5014.8	-2159.2	MRGA	139	15.8	OK		X	15.5	15.9
MW205	5/11/2011	-4360.3	-364.1	URGA	-11.9	18.7	ND	U	X	12.5	12.5

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW220	10/24/2012	-2822.84	3279.19	URGA	4.03	19.8	ND	U	=	13.9	13.9
MW221	10/24/2012	-2784.92	3863.68	URGA	-4.87	19.8	ND	U	=	13.2	13.2
MW222	7/12/2012	-2563.11	3659.61	URGA	-8.38	18.6	ND	U	=	11.7	11.7
MW223	10/24/2012	-2725.63	3719.99	URGA	-7.61	19.8	ND	U	=	12.8	12.8
MW224	10/25/2012	-2467.33	3627.71	URGA	-16.1	19.8	ND	U	=	11.9	12
MW227	7/31/2012	-5769.88	-1240.6	URGA	5.99	13.3	ND	U	X	9.76	9.76
MW236	5/8/2012	-5087.7913	7919.9943	LRGA	11.1	15.7	ND	U	X	11.5	11.5
MW240	5/8/2012	-5195.7829	7390.5997	MRGA	3.78	15.7	ND	U	X	11.3	11.3
MW242	9/11/2012	-7083.2794	1678.9796	MRGA	203	15.7	OK			25.3	
MW242	9/11/2012	-7083.2794	1678.9796	MRGA	203	15.7	OK		X	25.3	25.8
MW244	9/18/2012	-7589.0791	1467.5042	MRGA	6.08	16.5	ND	U	X	11.9	11.9
MW244	9/18/2012	-7589.0791	1467.5042	MRGA	6.08	16.5	ND	U		11.9	
MW245	9/18/2012	-7397.5537	1119.219	MRGA	-7.17	18	ND	U		11.9	
MW245	9/18/2012	-7397.5537	1119.219	MRGA	-7.17	18	ND	U	X	11.9	11.9
MW250	9/10/2012	-7431.7846	1396.3409	MRGA	8.44	15.7	ND	U		11.6	
MW250	9/10/2012	-7431.7846	1396.3409	MRGA	8.44	15.7	ND	U	X	11.6	11.6
MW253	5/21/2012	3572.2245	3669.879	LRGA	14.5	14.7	ND	U	X	10.9	10.9
MW255	11/5/2012	-1510.2777	-2230.289	LRGA	-1.24	17	ND	U		11.5	
MW258	11/5/2012	-745.654	-1643.2484	LRGA	-2.04	17	ND	U		11.5	
MW261	5/8/2012	-5979.2011	442.1934	LRGA	1040	15.7	OK		X	31.4	40.6
MW262	5/17/2011	-5379.8	-292.32	LRGA	398	19	OK		X	22.7	24.8
MW291	8/8/2012	1699.8141	968.887	LRGA	2.47	15.5	ND	U		10.8	
MW292	11/5/2012	924.0336	33.1863	LRGA	28	17	OK			14.2	
MW293A	8/8/2012	1789.75	843.01	MRGA	4.03	15.5	ND	U		11	
MW328	5/12/2011	-7337.476	-1962.3084	MRGA	-2.7	18.7	ND	U	X	12.9	12.9
MW329	5/12/2011	-7347.443	-1419.371	URGA	-18.4	18.7	ND	U	X	12.2	12.2
MW333	7/26/2012	-6210	-1040	MRGA	17.2	18.5	ND	U	X	13.1	13.1
MW337	7/30/2012	-6264.771	-811.238	MRGA	298	18.5	OK		X	20	21.4
MW338	7/30/2012	-6204.913	-809.45	MRGA	2.01	18.5	ND	U	X	12.5	12.5
MW339	9/26/2012	-6468.5	663.2	LRGA	211	18.2	OK			18.1	

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW340	9/7/2012	-6165.4	665.5	LRGA	2170	16.5	OK			74.8	
MW341	6/2/2011	-3939.16	-1062.27	MRGA	172	16.5	OK		X	20.1	20.5
MW341	6/2/2011	-3939.16	-1062.27	MRGA	172	16.5	OK		X	20	20.5
MW342	9/19/2012	-4403.56	-1289.51	MRGA	2780	16.5	OK			83	
MW343	9/24/2012	-4404.16	-1083.87	LRGA	6650	18.2	OK			75.8	
MW354	5/9/2011	-8428.96	-423.07	MRGA	5.45	17.2	ND	U	X	12	12
MW356	5/10/2011	-1466.38	863.45	LRGA	-12.8	18.6	ND	U	X	12.3	12.3
MW360	10/4/2012	-2627.14	6467.64	URGA	7.54	14.7	ND	U	=	10.8	10.8
MW363	10/10/2012	-2392.05	6521.42	URGA	15	14.7	OK		=	11.6	11.6
MW367	10/9/2012	-2247.09	6145.28	LRGA	9.81	14.7	ND	U	=	11	11
MW370	10/3/2012	-2957.4	4589.2	MRGA	28	14.7	OK		=	12.9	12.9
MW372	10/2/2012	-2486.89	4817.24	URGA	105	14.7	OK		=	18.7	18.9
MW384	10/11/2012	-3121.2	3828.36	URGA	255	19.8	OK		=	28.8	29.4
MW385	10/11/2012	-3119.46	3804.81	LRGA	131	19.8	OK		=	22.7	22.9
MW387	10/23/2012	-3073.18	4188.73	URGA	128	19.8	OK		=	22.6	22.8
MW391	10/16/2012	-1993.3	4557.92	MRGA	-9.57	19.8	ND	U	=	12.5	12.5
MW392	10/15/2012	-1994.3	4582.37	LRGA	-11.6	19.8	ND	U	=	12.3	12.3
MW394	10/17/2012	-1895.64	3460.44	URGA	-10.8	19.8	ND	U	=	12.4	12.4
MW395	10/17/2012	-1894.71	3484.23	MRGA	-4.87	19.8	ND	U	=	13	13
MW397	10/16/2012	-2509.48	3138.15	LRGA	2.8	19.8	ND	U	=	13.7	13.7
MW403-PRT3	6/1/2011	-7370	-1237.4	RGA	199	16.5	OK		X	21.1	21.6
MW405	6/23/2011	-4116.32	-1686.57	RGA	16.1	17.5	ND	U	X	12.7	12.7
MW406-PRT5	12/28/2012	-4076.55	-1700.83	RGA	4.01	15.8	ND	U	X	10.5	10.5
MW406-PRT5	12/28/2012	-4076.55	-1700.83	RGA	4.01	15.8	ND	U		10.5	
MW407	6/23/2011	-4081.78	-1716.1	RGA	-3.49	17.5	ND	U	X	12.1	12.1
MW407-PRT4	12/28/2012	-4081.78	-1716.1	RGA	0.433	15.8	ND	U	X	10.3	10.3
MW407-PRT4	12/28/2012	-4081.78	-1716.1	RGA	0.433	15.8	ND	U		10.3	
MW408	6/23/2011	-4071.66	-1737.92	RGA	14.5	17.5	ND	U	X	12.7	12.7
MW408-PRT5	12/28/2012	-4071.66	-1737.92	RGA	4.33	15.8	ND	U	X	10.6	10.6
MW408-PRT5	12/28/2012	-4071.66	-1737.92	RGA	4.33	15.8	ND	U		10.6	

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW409	5/7/2012	4855.28	3821.11	LRGA	-0.38	16.3	ND	U	X	11.5	11.5
MW410	5/7/2012	5021.19	5549.3	LRGA	0.0543	16.3	ND	U	X	9.32	9.32
MW411	5/17/2012	5081.82	8876.15	MRGA	6.8	15.8	ND	U	X	11.4	11.4
MW414	5/11/2011	-6531.28	-1220.85	MRGA	122	18.6	OK		X	16.4	16.7
MW418	5/3/2012	-1833.99	4418.94	MRGA	-2.65	15.2	ND	U	X	10.6	10.6
MW419	5/3/2012	-1833.77	4429.38	LRGA	16.3	16.3	ND	U	X	12.1	12.1
MW420	7/24/2012	-5793.53	-1041.57	MRGA	9.73	18.5	ND	U	=	12.8	12.8
MW421-PRT1	9/12/2011	-4335.43	-1084.18	RGA	2500	14.4	OK		X	65	89.8
MW422-PRT1	9/12/2011	-4365.74	-1083.8	RGA	12300	14.4	OK		X	142	336
MW423-PRT1	9/13/2011	-4389.45	-1084	RGA	10500	14.4	OK		X	132	292
MW424-PRT2	9/13/2011	-4405.68	-1148.44	RGA	6890	14.4	OK		X	107	202
MW425-PRT1	9/14/2011	-4407.35	-1226.18	RGA	9190	17.6	OK		X	89.1	245
MW426	12/12/2012	-9398.38	1.91	URGA	-0.104	16.1	ND	U	X	9.75	9.75
MW427	5/10/2011	-9390.18	9.54	LRGA	3.67	16.2	ND	U	X	11.4	11.4
MW428	9/10/2012	-8438.4	-419.3	LRGA	3.99	16.5	ND	U		11.6	
MW430	9/10/2012	-7776.05	-464.51	LRGA	3.19	15.7	ND	U		11.1	
MW431	5/9/2011	-8413.94	61.49	LRGA	8.32	16.2	ND	U	X	11.4	11.4
MW433	6/14/2011	-4526.72	12219.07	MRGA	4.23	16.2	ND	U	X	11.3	11.3
MW435	6/14/2011	-4526.73	12205.13	LRGA	4.61	16.2	ND	U	X	11.3	11.3
MW439	6/21/2011	-2679.36	12575.82	MRGA	-2.14	14.3	ND	U	X	9.61	9.61
MW440	6/21/2011	-2688.23	12564.9	LRGA	-2.25	14.3	ND	U	X	9.54	9.54
MW441	6/21/2011	-2696.03	12552.96	LRGA	-4.28	14.3	ND	U	X	9.3	9.3
MW442	6/29/2011	-2827.07	11896.27	LRGA	-3.64	16.1	ND	U	X	10.6	10.6
MW443	6/29/2011	-2868.41	11921.6	LRGA	-7.67	16.1	ND	U	X	10.4	10.4
MW444	6/29/2011	-2847.69	11909.14	LRGA	-9.03	16.1	ND	U	X	10.8	10.8
MW448	6/14/2011	-3315.15	11330.17	MRGA	10.3	16.2	ND	U	X	11.6	11.6
MW451	5/9/2011	-8031.61	4211.87	URGA	4.49	16.2	ND	U	X	11.3	11.3
MW452	5/9/2011	-8033.79	4194.86	LRGA	5.24	16.2	ND	U	X	11.3	11.3
MW455	9/10/2012	-7557.43	1963.2	MRGA	5.53	15.7	ND	U	X	11.3	11.3
MW455	9/10/2012	-7557.43	1963.2	MRGA	5.53	15.7	ND	U		11.3	

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW456	9/10/2012	-7560.77	1953.78	LRGA	113	15.7	OK		X	20.2	20.4
MW456	9/10/2012	-7560.77	1953.78	LRGA	113	15.7	OK			20.2	
MW457	9/11/2012	-7063.95	1992.86	URGA	9.75	15.7	ND	U	X	11.7	11.7
MW457	9/11/2012	-7063.95	1992.86	URGA	9.75	15.7	ND	U		11.7	
MW458	9/11/2012	-7063.14	1983.08	LRGA	156	15.7	OK			22.7	
MW458	9/11/2012	-7063.14	1983.08	LRGA	156	15.7	OK		X	22.7	23
MW459	9/11/2012	-6617.46	1962.32	URGA	8.9	15.7	ND	U	X	11.6	11.6
MW459	9/11/2012	-6617.46	1962.32	URGA	8.9	15.7	ND	U		11.6	
MW460	9/11/2012	-6616.28	1944.07	LRGA	238	15.7	OK			27	
MW460	9/11/2012	-6616.28	1944.07	LRGA	238	15.7	OK		X	27	27.7
MW462	9/17/2012	-6180.48	1972.47	LRGA	314	18	OK			20	
MW462	9/17/2012	-6180.48	1972.47	LRGA	314	18	OK		X	20	21.4
MW463	6/7/2011	1727.63	8665.23	MRGA	9.62	16	ND	U	X	11.4	11.4
MW464	6/7/2011	1748.61	8659.52	LRGA	10.3	16	ND	U	X	11.4	11.4
MW465	5/8/2012	2652.88	8312.1	MRGA	9.4	15.7	ND	U	X	11.4	11.4
MW466	5/8/2012	2638.93	8317.04	MRGA	7.46	15.7	ND	U	X	11.3	11.3
MW467	6/7/2011	3143.53	8217.52	URGA	9.84	16	ND	U	X	11.4	11.4
MW468	6/7/2011	3157	8214.03	MRGA	13.2	16	ND	U	X	11.6	11.6
MW469	5/15/2012	4049.53	8037.38	MRGA	15	15.8	ND	U	X	11.7	11.7
MW470	5/15/2012	4066.18	8033.74	LRGA	3.61	15.8	ND	U	X	11.3	11.3
MW471	5/15/2012	4903.22	7837.61	MRGA	5.77	15.8	ND	U	X	11.4	11.4
MW472	5/15/2012	4904.89	7822.45	LRGA	6.1	15.8	ND	U	X	11.4	11.4
MW473	6/6/2011	3077.36	11594	LRGA	-0.472	15.3	ND	U	X	10.3	10.3
MW474	6/6/2011	3057.85	11598.16	LRGA	-6.92	15.3	ND	U	X	9.93	9.93
MW475	6/7/2011	4309.45	11308.83	MRGA	-12.1	15.3	ND	U	X	9.46	9.46
MW476	6/7/2011	4329.12	11304.72	LRGA	8.7	15.3	ND	U	X	11.1	11.1
MW477	6/30/2011	1856.14	6850.24	LRGA	-0.272	16.1	ND	U	X	9.71	9.71
MW478	5/10/2011	-746.11	-1631.86	MRGA	10.5	16.2	ND	U	X	11.5	11.5
MW479	5/11/2011	-748.19	-585.94	URGA	-8.28	18.6	ND	U	X	12.5	12.5
MW480	5/11/2011	-747.77	-575.59	LRGA	10.4	18.6	ND	U	X	13.2	13.2

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW481	5/11/2011	-795.7	1375.11	MRGA	-12	18.6	ND	U	X	12.3	12.3
MW483	6/8/2011	2036.1	5624.61	MRGA	-3.54	16.9	ND	U	X	11.6	11.6
MW484	6/8/2011	2046.53	5625.14	LRGA	10.3	16.9	ND	U	X	12	12
MW485	6/13/2011	2623	5707.61	MRGA	3.93	16.9	ND	U	X	11.9	11.9
MW486	6/8/2011	2638.26	5708.28	LRGA	-2.56	16.9	ND	U	X	11.7	11.7
MW487	6/13/2011	3492.78	5697.04	LRGA	4.03	16.9	ND	U	X	11.9	11.9
MW488	6/13/2011	4216.33	5720.88	MRGA	1.93	16.2	ND	U	X	11.2	11.2
MW489	6/13/2011	-4376.27	8031.9	MRGA	111	16.2	OK		X	14.7	14.9
MW491	6/21/2011	-3672.08	7696.3	URGA	82	15.8	OK		X	16.1	16.2
MW492	6/21/2011	-3671.45	7712.25	LRGA	109	15.8	OK		X	17.5	17.7
MW493	6/21/2011	-3201.85	6953.41	URGA	30	15.8	OK		X	12.9	13
MW496	5/10/2011	-763.61	890.19	LRGA	9.02	16.2	ND	U	X	11.5	11.5
MW497	9/17/2012	-6750.84	1111.65	MRGA	115	18	OK		X	15.4	15.7
MW497	9/17/2012	-6750.84	1111.65	MRGA	115	18	OK			15.4	
MW498	9/17/2012	-6767.51	1106.62	LRGA	116	18	OK		X	15.5	15.7
MW498	9/17/2012	-6767.51	1106.62	LRGA	116	18	OK			15.5	
MW499	9/17/2012	-5768.16	1092.02	MRGA	247	18	OK		X	18.6	19.5
MW499	9/17/2012	-5768.16	1092.02	MRGA	247	18	OK			18.6	
MW500	9/17/2012	-5781.61	1096.35	LRGA	269	16.5	OK		X	27.9	28.7
MW500	9/17/2012	-5781.61	1096.35	LRGA	269	16.5	OK			27.9	
MW501	9/18/2012	-7938.89	1980.87	MRGA	-0.746	16.5	ND	U	X	11.4	11.4
MW501	9/18/2012	-7938.89	1980.87	MRGA	-0.746	16.5	ND	U		11.4	
MW502	9/18/2012	-7927.08	1981	LRGA	5.22	16.5	ND	U	X	11.7	11.7
MW502	9/18/2012	-7927.08	1981	LRGA	5.22	16.5	ND	U		11.7	
MW503	9/18/2012	-5360.36	1089.24	LRGA	88	16.5	OK			18.5	
MW503	9/18/2012	-5360.36	1089.24	LRGA	88	16.5	OK		X	18.5	18.6
MW504	9/18/2012	-5376.36	1085.57	URGA	-5.17	16.5	ND	U	X	10.6	10.6
MW504	9/18/2012	-5376.36	1085.57	URGA	-5.17	16.5	ND	U		10.6	
MW63	9/7/2012	-7235.74	895.26	URGA	1.49	16.5	ND	U		11.3	
MW65	9/7/2012	-7234.91	865.12	LRGA	50	16.5	OK			15.8	

Table B.2. 2012 Tc-99 Data Used to Create Plume Map (Continued)

STA_NAME	DATE COLLECTED	X	Y	HORIZON	RESULTS (pCi/L)	DETECTION LIMIT	DETECT	RSLT QUAL	VALID ATION	RAD_ERR	TPU
MW66	9/11/2012	-6872.62	978.57	URGA	355	18	OK			20.8	
MW67	7/30/2012	-6134.48	-755.36	MRGA	110	13.3	OK		X	18.3	18.5
MW86	7/30/2012	-5945.24	-804.9	LRGA	1.86	13.3	ND	U	X	9.19	9.19
MW87	7/24/2012	-5825.09	-804.98	MRGA	3.75	18.5	ND	U	=	12.7	12.7
MW89	7/30/2012	-5795.14	-804.13	LRGA	6.83	18.5	ND	U	X	12.7	12.7
MW90A	7/24/2012	-5688.64	-793.68	URGA	9.17	18.5	ND	U	=	12.8	12.8
MW92	7/31/2012	-5645	-805.26	LRGA	5.28	13.3	ND	U	X	9.65	9.65
MW93	7/24/2012	-5994.81	-1028.57	MRGA	1.12	18.5	ND	U	=	12.8	12.8
MW95A	7/26/2012	-5944.19	-1029.96	LRGA	-2.63	18.5	ND	U	X	12.5	12.5
MW99	5/7/2012	1842.46	6826.71	MRGA	-11.5	16.3	ND	U	X	11	11
R20	12/6/2011	4775.28	6106.22	URGA	1.92	15.5	ND	U	X	10.5	10.5
R294	9/4/2012	3087.6	1064.4	URGA	-1.38	16.5	ND	U	X	11	11
R302	9/4/2012	5200	2400	URGA	-1.16	16.5	ND	U	X	10.7	10.7
R384	12/22/2011	7068	3946	URGA	-1.26	16.6	ND	U	X	11.5	11.5
R387	12/6/2011	6787	3652	URGA	0.32	15.5	ND	U	X	9.96	9.96
R392	12/22/2011	6191	3611	URGA	-1.63	16.6	ND	U	X	12	12
R424-PRT1	8/23/2012	10879	7175		-0.748	15.2	ND	U	X	9.63	9.63
R424-PRT2	8/23/2012	10879	7175		10.7	12.9	ND	U	X	9.98	9.98
R424-PRT3	8/23/2012	10879	7175		7.08	12.9	ND	U	X	9.57	9.57

X, Y is shown in the PGDP coordinate system.

Code Definitions shown in Table B.2:

STA_NAME	MW...	Monitoring well	RSLTQUAL	U	Value reported is < Detection Limit and/or TPU
	R...	Residential well	VALIDATION	=	Validated result, which is detected and unqualified.
	...PRT	Port		X	Not validated; Refer to the RSLTQUAL field for more information.
HORIZON	RGA	Regional Gravel Aquifer	TPU		Total Propagated Uncertainty
	LRGA	Lower RGA			
	MRGA	Middle RGA			
	URGA	Upper RGA			
DETECT	ND	nondetect			
	OK	detect			

Table B.3. 2012 TCE Results in RGA Wells

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW100	LRGA	5/9/2012	1	1	U	MW100A1-12	PEMS
MW124	LRGA	2/2/2012	12	1		MW124SA1-12	OREIS
MW124	LRGA	8/7/2012	5.4	1	J	MW124SA8-12	PEMS
MW126	MRGA	2/2/2012	1	1	U	MW126SA1-12	OREIS
MW126	MRGA	8/7/2012	1	1	UJ	MW126DSA8-12	PEMS
MW126	MRGA	8/7/2012	1	1	UXJ	MW126SA8-12	PEMS
MW134	LRGA	12/12/2012	1	1	U	MW134WPBQ1-13	PEMS
MW145	LRGA	2/1/2012	51	1		MW145SA1-12	OREIS
MW145	LRGA	8/7/2012	34	1	J	MW145SA8-12	PEMS
MW146	LRGA	12/12/2012	1	1	U	MW146WPBQ1-13	PEMS
MW150	LRGA	5/22/2012	1	1	U	MW150A1-12	PEMS
MW152	LRGA	5/7/2012	8.2	1		MW152A1-12	PEMS
MW155	LRGA	3/13/2012	2400	50	D	MW155C4002-12	OREIS
MW155	LRGA	6/19/2012	1900	50	D	MW155C4003-12	OREIS
MW155	LRGA	9/19/2012	2300	20	D	MW155C4004-12	PEMS
MW155	LRGA	12/28/2012	2200	20	D	MW155C4001-13	PEMS
MW155	LRGA	12/28/2012	2200	20	D	MW155DC4001-13	PEMS
MW156	URGA	3/13/2012	62000	2000	D	MW156C4002-12	OREIS
MW156	URGA	6/19/2012	64000	1000	D	MW156C4003-12	OREIS
MW156	URGA	9/19/2012	23000	500	D	MW156C4004-12	PEMS
MW156	URGA	12/28/2012	1700	500	D	MW156C4001-13	PEMS
MW161	LRGA	5/14/2012	2800	20	DX	MW161A1-12	PEMS
MW173	URGA	3/13/2012	1	1	UJ	MW173SA1-12	PEMS
MW173	URGA	9/4/2012	1	1	UJY	MW173SA2-12	PEMS
MW175	MRGA	3/12/2012	3700	50	DX	MW175C4002-12	OREIS
MW175	MRGA	9/25/2012	1700	20	D	MW175C4004-12	PEMS
MW175	MRGA	9/25/2012	1700	20	DX	MW175DC4004-12	PEMS
MW185	MRGA	3/20/2012	7500	50	D	MW185SA1-12	PEMS
MW185	MRGA	9/4/2012	5000	50	DJY	MW185SA2-12	PEMS
MW191	MRGA	5/21/2012	1	1	U	MW191A1-12	PEMS
MW191	MRGA	5/21/2012	1	1	U	MW191DA1-12	PEMS
MW194	MRGA	12/12/2012	1	1	U	MW194WPBQ1-13	PEMS
MW199	LRGA	12/17/2012	1	1	U	MW199WPBQ1-13	PEMS
MW201	MRGA	12/6/2012	2.2	1		MW201WPBQ1-13	PEMS
MW202	LRGA	12/11/2012	1	1	U	MW202WPBQ1-13	PEMS
MW203	MRGA	5/14/2012	130	1		MW203A1-12	PEMS
MW206	URGA	5/10/2012	1	1	U	MW206A1-12	PEMS
MW220	URGA	1/5/2012	1	1	U	MW220SG2-12	OREIS
MW220	URGA	4/3/2012	1	1	UX	MW220SG3-12	OREIS
MW220	URGA	7/10/2012	1	1	U	MW220SG4-12	OREIS
MW220	URGA	10/24/2012	1	1	U	MW220SG1-13	OREIS
MW221	URGA	1/3/2012	1	1	UJY	MW221SG2-12	OREIS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW221	URGA	4/2/2012	1	1	U	MW221SG3-12	OREIS
MW221	URGA	7/12/2012	1	1	U	MW221SG4-12	OREIS
MW221	URGA	10/24/2012	1	1	U	MW221SG1-13	OREIS
MW222	URGA	1/3/2012	1	1	UYJ	MW222SG2-12	OREIS
MW222	URGA	4/4/2012	1	1	U	MW222DSG3-12	OREIS
MW222	URGA	4/4/2012	1	1	UJ	MW222SG3-12	OREIS
MW222	URGA	7/12/2012	1	1	U	MW222SG4-12	OREIS
MW223	URGA	1/5/2012	1	1	U	MW223SG2-12	OREIS
MW223	URGA	4/2/2012	1	1	UJ	MW223SG3-12	OREIS
MW223	URGA	7/12/2012	1	1	U	MW223SG4-12	OREIS
MW223	URGA	10/24/2012	1	1	U	MW223SG1-13	OREIS
MW224	URGA	1/4/2012	1	1	U	MW224SG2-12	OREIS
MW224	URGA	4/3/2012	1	1	UJ	MW224SG3-12	OREIS
MW224	URGA	7/11/2012	1	1	U	MW224DSG4-12	OREIS
MW224	URGA	7/11/2012	1	1	U	MW224SG4-12	OREIS
MW224	URGA	10/25/2012	1	1	U	MW224SG1-13	OREIS
MW226	LRGA	1/20/2012	680	5	D	MW226C4041-12	OREIS
MW226	LRGA	7/31/2012	390	5	DY	MW226C4042-12	OREIS
MW227	URGA	1/20/2012	150	1		MW227C4041-12	OREIS
MW227	URGA	7/31/2012	74	1	Y	MW227C4042-12	OREIS
MW233	MRGA	5/8/2012	3.4	1		MW233A1-12	PEMS
MW236	LRGA	5/8/2012	5.2	1		MW236A1-12	PEMS
MW240	MRGA	5/8/2012	2.2	1		MW240A1-12	PEMS
MW242	MRGA	3/1/2012	130	1		MW242Q2-12	PEMS
MW242	MRGA	6/13/2012	160	1		MW242Q3-12	PEMS
MW242	MRGA	9/11/2012	120	1	J	MW242Q4-12	PEMS
MW243	MRGA	3/7/2012	30	1	J	MW243Q2-12	PEMS
MW243	MRGA	6/13/2012	53	1		MW243Q3-12	PEMS
MW243	MRGA	9/10/2012	53	1	JY	MW243Q4-12	PEMS
MW244	MRGA	3/7/2012	7.1	1	X	MW244Q2-12	PEMS
MW244	MRGA	6/13/2012	9.5	1		MW244Q3-12	PEMS
MW244	MRGA	9/18/2012	2.8	1	XJ	MW244Q4-12	PEMS
MW244	MRGA	9/18/2012	2.8	1	XJ	MW244DQ4-12	PEMS
MW245	MRGA	3/7/2012	110	1	J	MW245DQ2-12	PEMS
MW245	MRGA	3/7/2012	100	1		MW245Q2-12	PEMS
MW245	MRGA	6/13/2012	130	1		MW245Q3-12	PEMS
MW245	MRGA	9/18/2012	89	1	XJ	MW245Q4-12	PEMS
MW248	MRGA	3/7/2012	28	1	J	MW248Q2-12	PEMS
MW248	MRGA	6/11/2012	23	1		MW248Q3-12	PEMS
MW248	MRGA	9/10/2012	9.4	1	JY	MW248Q4-12	PEMS
MW250	MRGA	3/7/2012	9.6	1	J	MW250Q2-12	PEMS
MW250	MRGA	6/11/2012	21	1		MW250Q3-12	PEMS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW250	MRGA	9/10/2012	4	1	JY	MW250Q4-12	PEMS
MW252	LRGA	5/15/2012	1	1	U	MW252A1-12	PEMS
MW253	LRGA	5/21/2012	100	1		MW253A1-12	PEMS
MW255	LRGA	2/1/2012	320	5	D	MW255SA1-12	OREIS
MW255	LRGA	8/6/2012	230	5	DXJ	MW255SA8-12	PEMS
MW256	LRGA	2/1/2012	250	5	D	MW256DSA1-12	OREIS
MW256	LRGA	2/1/2012	220	5	D	MW256SA1-12	OREIS
MW256	LRGA	8/6/2012	190	5	DJ	MW256SA8-12	PEMS
MW258	LRGA	2/1/2012	220	2	D	MW258SA1-12	OREIS
MW258	LRGA	8/6/2012	190	2	DXJ	MW258SA8-12	PEMS
MW261	LRGA	5/8/2012	5300	250	D	MW261A1-12	PEMS
MW283	LRGA	2/1/2012	65	1		MW283SA1-12	OREIS
MW283	LRGA	8/8/2012	52	1	XJ	MW283SA8-12	PEMS
MW288	LRGA	2/2/2012	210	2	D	MW288SA1-12	OREIS
MW288	LRGA	8/7/2012	130	2	DJX	MW288SA8-12	PEMS
MW291	LRGA	2/1/2012	59	1		MW291SA1-12	OREIS
MW291	LRGA	8/8/2012	38	1	XJ	MW291SA8-12	PEMS
MW292	LRGA	2/2/2012	280	2	D	MW292SA1-12	OREIS
MW292	LRGA	8/7/2012	200	2	DXJ	MW292SA8-12	PEMS
MW293A	MRGA	2/1/2012	230	2	D	MW293ASA1-12	OREIS
MW293A	MRGA	8/8/2012	200	2	DJ	MW293ASA8-12	PEMS
MW333	MRGA	1/20/2012	6300	50	D	MW333C4041-12	OREIS
MW333	MRGA	7/26/2012	1900	50	DY	MW333C4042-12	OREIS
MW337	MRGA	1/23/2012	1300	20	D	MW337C4041-12	OREIS
MW337	MRGA	7/30/2012	800	10	DJY	MW337C4042-12	OREIS
MW337	MRGA	7/30/2012	810	10	DJY	MW337DC4042-12	OREIS
MW338	MRGA	1/23/2012	170	2	D	MW338C4041-12	OREIS
MW338	MRGA	7/30/2012	44	2	DJY	MW338C4042-12	OREIS
MW339	LRGA	3/19/2012	680	20	DJ	MW339SA1-12	PEMS
MW339	LRGA	3/19/2012	670	20	DJ	MW339DSA1-12	PEMS
MW339	LRGA	9/26/2012	580	10	D	MW339SA2-12	PEMS
MW340	LRGA	3/19/2012	6800	200	D	MW340SA1-12	PEMS
MW340	LRGA	9/7/2012	13000	100	JY	MW340SA2-12	PEMS
MW342	MRGA	3/12/2012	7500	100	DX	MW342C4002-12	OREIS
MW342	MRGA	9/19/2012	8600	100	D	MW342C4004-12	PEMS
MW343	LRGA	3/12/2012	29000	400	DX	MW343DC4002-12	OREIS
MW343	LRGA	3/12/2012	28000	400	DX	MW343C4002-12	OREIS
MW343	LRGA	9/24/2012	39000	500	D	MW343C4004-12	PEMS
MW355	LRGA	3/13/2012	8.6	1	J	MW355SA1-12	PEMS
MW355	LRGA	9/7/2012	11	1	JY	MW355SA2-12	PEMS
MW357	URGA	1/6/2012	6.5	1		MW357UG2-12	OREIS
MW357	URGA	4/18/2012	4.9	1	J	MW357UG3-12	OREIS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW357	URGA	7/23/2012	4.8	1	Y	MW357UG4-12	OREIS
MW357	URGA	10/8/2012	4.8	1		MW357UG1-13	OREIS
MW358	LRGA	1/6/2012	5	1		MW358UG2-12	OREIS
MW358	LRGA	4/12/2012	4.6	1	J	MW358UG3-12	OREIS
MW358	LRGA	7/25/2012	3.7	1	Y	MW358UG4-12	OREIS
MW358	LRGA	7/25/2012	4.1	1	Y	MW358DUG4-12	OREIS
MW358	LRGA	10/8/2012	4.4	1		MW358UG1-13	OREIS
MW360	URGA	1/6/2012	1	1	U	MW360UG2-12	OREIS
MW360	URGA	1/6/2012	1	1	U	MW360DUG2-12	OREIS
MW360	URGA	4/18/2012	1	1	UJ	MW360UG3-12	OREIS
MW360	URGA	7/19/2012	1	1	UY	MW360UG4-12	OREIS
MW360	URGA	10/4/2012	1	1	U	MW360UG1-13	OREIS
MW361	MRGA	1/18/2012	5.2	1	J	MW361UG2-12	OREIS
MW361	MRGA	4/11/2012	3.7	1		MW361UG3-12	OREIS
MW361	MRGA	7/16/2012	2.7	1		MW361UG4-12	OREIS
MW361	MRGA	10/4/2012	3.2	1		MW361UG1-13	OREIS
MW363	URGA	1/18/2012	1	1	U	MW363UG2-12	OREIS
MW363	URGA	4/11/2012	1	1	U	MW363UG3-12	OREIS
MW363	URGA	7/19/2012	1	1	UY	MW363UG4-12	OREIS
MW363	URGA	10/10/2012	1	1	U	MW363UG1-13	OREIS
MW364	LRGA	1/19/2012	2.6	1		MW364UG2-12	OREIS
MW364	LRGA	4/11/2012	2.4	1		MW364UG3-12	OREIS
MW364	LRGA	7/19/2012	2	1	Y	MW364UG4-12	OREIS
MW364	LRGA	10/10/2012	2.2	1		MW364UG1-13	OREIS
MW366	URGA	1/18/2012	2.7	1		MW366UG2-12	OREIS
MW366	URGA	4/11/2012	2.9	1		MW366UG3-12	OREIS
MW366	URGA	7/19/2012	2.2	1	Y	MW366UG4-12	OREIS
MW366	URGA	10/9/2012	2.4	1		MW366UG1-13	OREIS
MW366	URGA	10/9/2012	2.6	1		MW366DUG1-13	OREIS
MW367	LRGA	1/19/2012	1.9	1		MW367UG2-12	OREIS
MW367	LRGA	4/12/2012	1.2	1	X	MW367UG3-12	OREIS
MW367	LRGA	7/19/2012	1	1	UY	MW367UG4-12	OREIS
MW367	LRGA	10/9/2012	1	1	U	MW367UG1-13	OREIS
MW369	URGA	1/18/2012	1	1	U	MW369UG2-12	OREIS
MW369	URGA	4/16/2012	1	1	UX	MW369UG3-12	OREIS
MW369	URGA	7/23/2012	1	1	UY	MW369UG4-12	OREIS
MW369	URGA	10/3/2012	12	1	J	MW369UG1-13	OREIS
MW370	MRGA	1/18/2012	2.3	1		MW370UG2-12	OREIS
MW370	MRGA	4/18/2012	1.4	1	J	MW370UG3-12	OREIS
MW370	MRGA	7/25/2012	1.5	1		MW370UG4-12	OREIS
MW370	MRGA	10/3/2012	1.5	1	J	MW370UG1-13	OREIS
MW372	URGA	1/19/2012	9.6	1		MW372UG2-12	OREIS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW372	URGA	4/10/2012	6.9	1	J	MW372UG3-12	OREIS
MW372	URGA	7/19/2012	5.3	1	Y	MW372UG4-12	OREIS
MW372	URGA	10/2/2012	5.8	1	J	MW372UG1-13	OREIS
MW373	LRGA	1/19/2012	8	1		MW373UG2-12	OREIS
MW373	LRGA	4/11/2012	6.5	1		MW373UG3-12	OREIS
MW373	LRGA	7/23/2012	5.5	1	Y	MW373UG4-12	OREIS
MW373	LRGA	10/2/2012	6.4	1	J	MW373UG1-13	OREIS
MW384	URGA	1/5/2012	1	1	U	MW384SG2-12	OREIS
MW384	URGA	4/2/2012	1	1	U	MW384SG3-12	OREIS
MW384	URGA	7/9/2012	1	1	U	MW384SG4-12	OREIS
MW384	URGA	10/11/2012	1	1	U	MW384SG1-13	OREIS
MW385	LRGA	1/5/2012	1	1	U	MW385SG2-12	OREIS
MW385	LRGA	4/2/2012	1	1	UJ	MW385SG3-12	OREIS
MW385	LRGA	7/10/2012	1	1	U	MW385SG4-12	OREIS
MW385	LRGA	10/11/2012	1	1	U	MW385SG1-13	OREIS
MW387	URGA	1/5/2012	1	1	U	MW387SG2-12	OREIS
MW387	URGA	4/2/2012	1	1	U	MW387SG3-12	OREIS
MW387	URGA	7/9/2012	1	1	U	MW387SG4-12	OREIS
MW387	URGA	10/23/2012	1	1	U	MW387SG1-13	OREIS
MW387	URGA	10/23/2012	1	1	U	MW387DSG1-13	OREIS
MW388	MRGA	1/5/2012	1	1	U	MW388SG2-12	OREIS
MW388	MRGA	4/2/2012	1	1	U	MW388SG3-12	OREIS
MW388	MRGA	7/9/2012	1	1	U	MW388SG4-12	OREIS
MW388	MRGA	10/23/2012	1	1	U	MW388SG1-13	OREIS
MW391	MRGA	1/4/2012	13	1		MW391SG2-12	OREIS
MW391	MRGA	1/4/2012	12	1		MW391DSG2-12	OREIS
MW391	MRGA	4/3/2012	13	1	J	MW391SG3-12	OREIS
MW391	MRGA	7/11/2012	12	1		MW391SG4-12	OREIS
MW391	MRGA	10/16/2012	15	1		MW391SG1-13	OREIS
MW392	LRGA	1/11/2012	19	1		MW392SG2-12	OREIS
MW392	LRGA	4/3/2012	15	1	J	MW392SG3-12	OREIS
MW392	LRGA	7/11/2012	14	1		MW392SG4-12	OREIS
MW392	LRGA	10/15/2012	17	1		MW392SG1-13	OREIS
MW394	URGA	1/17/2012	5.5	1	J	MW394SG2-12	OREIS
MW394	URGA	4/3/2012	4.1	1	J	MW394SG3-12	OREIS
MW394	URGA	7/12/2012	4.7	1		MW394SG4-12	OREIS
MW394	URGA	10/17/2012	9.9	1		MW394SG1-13	OREIS
MW395	MRGA	1/17/2012	5.2	1	J	MW395SG2-12	OREIS
MW395	MRGA	4/3/2012	4	1	X	MW395SG3-12	OREIS
MW395	MRGA	7/12/2012	3.6	1		MW395SG4-12	OREIS
MW395	MRGA	10/17/2012	4.8	1		MW395SG1-13	OREIS
MW397	LRGA	1/5/2012	1	1	U	MW397SG2-12	OREIS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW397	LRGA	4/3/2012	1	1	U	MW397SG3-12	OREIS
MW397	LRGA	7/10/2012	1	1	U	MW397SG4-12	OREIS
MW397	LRGA	10/16/2012	1	1	U	MW397SG1-13	OREIS
MW405-PRT5	RGA	6/20/2012	97000	1000	D	MW405P5C4003-12	OREIS
MW405-PRT5	RGA	9/20/2012	90000	1000	D	MW405P6C4004-12	PEMS
MW405-PRT5	RGA	12/28/2012	41000	1000	D	MW405P5C4001-13	PEMS
MW405-PRT6	RGA	3/15/2012	110000	1000	D	MW405P6C4002-12	OREIS
MW406-PRT5	RGA	3/15/2012	10000	100	D	MW406P5C4002-12	OREIS
MW406-PRT5	RGA	6/20/2012	5100	100	D	MW406P5C4003-12	OREIS
MW406-PRT5	RGA	9/20/2012	4800	100	D	MW406P5C4004-12	PEMS
MW406-PRT5	RGA	12/28/2012	1200	10	D	MW406P5C4001-13	PEMS
MW407-PRT4	RGA	3/14/2012	14000	100	DX	MW407P4C4002-12	OREIS
MW407-PRT4	RGA	6/20/2012	13000	100	D	MW407P4C4003-12	OREIS
MW407-PRT4	RGA	9/20/2012	13000	100	D	MW407P4C4004-12	PEMS
MW407-PRT4	RGA	12/28/2012	7000	50	D	MW407P4C4001-13	PEMS
MW408-PRT5	RGA	6/20/2012	390000	4000	D	MW408P5C4003-12	OREIS
MW408-PRT5	RGA	9/20/2012	1400000	20000	D	MW408P6C4004-12	PEMS
MW408-PRT5	RGA	12/28/2012	1100000	10000	D	MW408P5C4001-13	PEMS
MW408-PRT6	RGA	3/14/2012	360000	4000	D	MW408P6C4002-12	OREIS
MW409	LRGA	2/7/2012	1	1	U	MW409SA1-12	OREIS
MW409	LRGA	5/7/2012	1	1	U	MW409A1-12	PEMS
MW409	LRGA	5/7/2012	1	1	U	MW409SA3-12	PEMS
MW410	LRGA	2/6/2012	1	1	U	MW410DSA1-12	OREIS
MW410	LRGA	2/6/2012	1	1	U	MW410SA1-12	OREIS
MW410	LRGA	5/7/2012	1	1	U	MW410A1-12	PEMS
MW410	LRGA	5/7/2012	1	1	U	MW410SA3-12	PEMS
MW411	MRGA	2/6/2012	1	1	U	MW411SA1-12	OREIS
MW411	MRGA	5/17/2012	1	1	U	MW411A1-12	PEMS
MW411	MRGA	5/17/2012	1	1	U	MW411SA3-12	PEMS
MW418	MRGA	5/3/2012	8.6	1	Y	MW418A1-12	PEMS
MW419	LRGA	5/3/2012	25	1	Y	MW419A1-12	PEMS
MW420	MRGA	1/25/2012	270	2	DJ	MW420DC4041-12	OREIS
MW420	MRGA	1/25/2012	280	2	DJ	MW420C4041-12	OREIS
MW420	MRGA	7/24/2012	210	2	D	MW420C4042-12	OREIS
MW421-PRT3		3/12/2012	73000	500	DJ	MW421P3C4002-12	OREIS
MW421-PRT3		9/25/2012	96000	1000	DX	MW421P3C4004-12	PEMS
MW422-PRT3		3/12/2012	69000	500	DJ	MW422P3C4002-12	OREIS
MW422-PRT3		9/25/2012	48000	1000	D	MW422P3C4004-12	PEMS
MW423-PRT3		3/12/2012	37000	500	DJ	MW423P3C4002-12	OREIS
MW423-PRT3		9/24/2012	67000	1000	D	MW423P3C4004-12	PEMS
MW424-PRT3		3/12/2012	12000	200	DJ	MW424P3C4002-12	OREIS
MW424-PRT3		9/25/2012	11000	200	DX	MW424P3C4004-12	PEMS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW425-PRT3		3/12/2012	8000	100	DJ	MW425P3C4002-12	OREIS
MW425-PRT3		9/19/2012	9900	100	D	MW425P3C4004-12	PEMS
MW426	URGA	12/12/2012	1	1	U	MW426WPBQ1-13	PEMS
MW427	LRGA	12/12/2012	1.3	1		MW427WPBQ1-13	PEMS
MW428	LRGA	3/15/2012	1	1	U	MW428SA1-12	PEMS
MW428	LRGA	9/10/2012	1	1	UJY	MW428SA2-12	PEMS
MW429A	URGA	3/14/2012	1	1	UJ	MW429ASA1-12	PEMS
MW429A	URGA	9/10/2012	1.6	1	JY	MW429ASA2-12	PEMS
MW430	LRGA	3/14/2012	2.1	1	J	MW430SA1-12	PEMS
MW430	LRGA	9/10/2012	2.1	1	JY	MW430SA2-12	PEMS
MW432	MRGA	12/12/2012	1	1	U	MW432WPBQ1-13	PEMS
MW433	MRGA	12/12/2012	1	1	U	MW433WPBQ1-13	PEMS
MW435	LRGA	12/12/2012	1	1	U	MW435WPBQ1-13	PEMS
MW441	LRGA	12/12/2012	1.7	1		MW441WPBQ1-13	PEMS
MW452	LRGA	12/12/2012	1	1	U	MW452WPBQ1-13	PEMS
MW455	MRGA	3/1/2012	55	1		MW455Q2-12	PEMS
MW455	MRGA	6/6/2012	46	1		MW455Q3-12	PEMS
MW455	MRGA	9/10/2012	27	1	JY	MW455Q4-12	PEMS
MW456	LRGA	3/1/2012	36	1		MW456Q2-12	PEMS
MW456	LRGA	6/6/2012	130	1		MW456Q3-12	PEMS
MW456	LRGA	9/10/2012	140	1	JY	MW456Q4-12	PEMS
MW457	URGA	3/1/2012	27	1		MW457Q2-12	PEMS
MW457	URGA	6/6/2012	27	1		MW457Q3-12	PEMS
MW457	URGA	9/11/2012	16	1	J	MW457Q4-12	PEMS
MW458	LRGA	3/1/2012	470	5	D	MW458Q2-12	PEMS
MW458	LRGA	6/6/2012	430	5	D	MW458Q3-12	PEMS
MW458	LRGA	9/11/2012	270	5	DJ	MW458Q4-12	PEMS
MW459	URGA	3/1/2012	34	1		MW459Q2-12	PEMS
MW459	URGA	6/7/2012	17	1		MW459Q3-12	PEMS
MW459	URGA	6/7/2012	18	1		MW459DQ3-12	PEMS
MW459	URGA	9/11/2012	7.5	1	J	MW459Q4-12	PEMS
MW460	LRGA	3/1/2012	39	1		MW460Q2-12	PEMS
MW460	LRGA	6/7/2012	51	1		MW460Q3-12	PEMS
MW460	LRGA	9/11/2012	48	1	J	MW460Q4-12	PEMS
MW461	URGA	3/5/2012	1.4	1		MW461Q2-12	PEMS
MW461	URGA	6/7/2012	1	1	U	MW461Q3-12	PEMS
MW461	URGA	9/17/2012	1	1	UXJ	MW461Q4-12	PEMS
MW462	LRGA	3/5/2012	33	1		MW462Q2-12	PEMS
MW462	LRGA	6/7/2012	33	1		MW462Q3-12	PEMS
MW462	LRGA	9/17/2012	33	1	J	MW462Q4-12	PEMS
MW465	MRGA	5/8/2012	48	1		MW465A1-12	PEMS
MW466	MRGA	5/8/2012	55	1		MW466A1-12	PEMS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW469	MRGA	5/15/2012	1	1	U	MW469A1-12	PEMS
MW470	LRGA	5/15/2012	1	1	U	MW470A1-12	PEMS
MW471	MRGA	5/15/2012	1	1	U	MW471A1-12	PEMS
MW472	LRGA	5/15/2012	1	1	U	MW472A1-12	PEMS
MW497	MRGA	3/5/2012	330	2	D	MW497Q2-12	PEMS
MW497	MRGA	6/5/2012	260	2	D	MW497Q3-12	PEMS
MW497	MRGA	9/17/2012	650	10	D	MW497Q4-12	PEMS
MW498	LRGA	3/5/2012	160	5	D	MW498Q2-12	PEMS
MW498	LRGA	6/5/2012	220	2	D	MW498Q3-12	PEMS
MW498	LRGA	9/17/2012	210	2	DJ	MW498Q4-12	PEMS
MW499	MRGA	3/5/2012	150	1		MW499Q2-12	PEMS
MW499	MRGA	6/5/2012	170	1		MW499Q3-12	PEMS
MW499	MRGA	9/17/2012	130	1	XJ	MW499Q4-12	PEMS
MW500	LRGA	3/5/2012	180	1		MW500Q2-12	PEMS
MW500	LRGA	6/5/2012	210	2	D	MW500Q3-12	PEMS
MW500	LRGA	9/17/2012	160	2	DJ	MW500Q4-12	PEMS
MW501	MRGA	3/7/2012	1	1	U	MW501Q2-12	PEMS
MW501	MRGA	6/6/2012	1	1	U	MW501Q3-12	PEMS
MW501	MRGA	9/18/2012	1	1	UY	MW501Q4-12	PEMS
MW502	LRGA	3/7/2012	5.7	1		MW502Q2-12	PEMS
MW502	LRGA	6/6/2012	7.1	1		MW502Q3-12	PEMS
MW502	LRGA	9/18/2012	6	1	Y	MW502Q4-12	PEMS
MW503	LRGA	3/5/2012	300	5	D	MW503Q2-12	PEMS
MW503	LRGA	6/5/2012	350	5	D	MW503Q3-12	PEMS
MW503	LRGA	9/18/2012	210	5	DY	MW503Q4-12	PEMS
MW504	URGA	3/5/2012	2	1		MW504Q2-12	PEMS
MW504	URGA	6/5/2012	1	1	U	MW504Q3-12	PEMS
MW504	URGA	9/18/2012	1	1	UY	MW504Q4-12	PEMS
MW505	URGA	3/13/2012	160	5	DJ	MW505C4002-12	OREIS
MW505	URGA	6/18/2012	18	1		MW505C4003-12	OREIS
MW505	URGA	9/19/2012	22	1	Y	MW505C4004-12	PEMS
MW505	URGA	12/5/2012	22	1		MW505C4001-13	PEMS
MW506	MRGA	3/13/2012	4300	50	DX	MW506C4002-12	OREIS
MW506	MRGA	6/18/2012	4100	50	D	MW506C4003-12	OREIS
MW506	MRGA	9/19/2012	3700	50	DY	MW506C4004-12	PEMS
MW506	MRGA	12/5/2012	4200	50	D	MW506C4001-13	PEMS
MW507	LRGA	3/13/2012	1200	10	DJ	MW507C4002-12	OREIS
MW507	LRGA	6/18/2012	1200	20	D	MW507C4003-12	OREIS
MW507	LRGA	9/19/2012	1800	20	D	MW507C4004-12	PEMS
MW507	LRGA	12/5/2012	1900	20	D	MW507C4001-13	PEMS
MW63	URGA	3/13/2012	9.3	1	J	MW63SA1-12	PEMS
MW63	URGA	9/7/2012	5	1	JY	MW63SA2-12	PEMS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
MW65	LRGA	3/13/2012	14	1	J	MW65SA1-12	PEMS
MW65	LRGA	9/7/2012	10	1	JY	MW65SA2-12	PEMS
MW66	URGA	3/20/2012	1200	20	D	MW66SA1-12	PEMS
MW66	URGA	9/11/2012	800	10	DJY	MW66DSA2-12	PEMS
MW66	URGA	9/11/2012	860	10	DJY	MW66SA2-12	PEMS
MW67	MRGA	1/23/2012	1500	20	D	MW67C4041-12	OREIS
MW67	MRGA	7/30/2012	1100	20	DJY	MW67C4042-12	OREIS
MW76	MRGA	1/20/2012	550	5	D	MW76C4041-12	OREIS
MW76	MRGA	7/26/2012	480	5	DY	MW76C4042-12	OREIS
MW84	MRGA	1/24/2012	1300	10	D	MW84C4041-12	OREIS
MW84	MRGA	7/24/2012	1100	10	D	MW84C4042-12	OREIS
MW86	LRGA	1/23/2012	1200	10	D	MW86C4041-12	OREIS
MW86	LRGA	7/30/2012	1100	10	DJY	MW86C4042-12	OREIS
MW87	MRGA	1/24/2012	540	5	D	MW87C4041-12	OREIS
MW87	MRGA	7/24/2012	450	5	D	MW87C4042-12	OREIS
MW89	LRGA	1/23/2012	16	1		MW89C4041-12	OREIS
MW89	LRGA	7/30/2012	18	1	JY	MW89C4042-12	OREIS
MW90A	URGA	1/24/2012	24	1		MW90AC4041-12	OREIS
MW90A	URGA	7/24/2012	14	1		MW90AC4042-12	OREIS
MW92	LRGA	1/23/2012	2.3	1		MW92DC4041-12	OREIS
MW92	LRGA	1/23/2012	3.2	1		MW92C4041-12	OREIS
MW92	LRGA	7/31/2012	1	1	UY	MW92C4042-12	OREIS
MW93	MRGA	1/24/2012	1200	10	DX	MW93C4041-12	OREIS
MW93	MRGA	7/24/2012	1500	10	D	MW93C4042-12	OREIS
MW95A	LRGA	1/20/2012	810	5	D	MW95AC4041-12	OREIS
MW95A	LRGA	7/26/2012	620	5	DY	MW95AC4042-12	OREIS
MW98	MRGA	5/14/2012	1	1	U	MW98A1-12	PEMS
MW99	MRGA	5/7/2012	29	1		MW99AS1-12	PEMS
R20	URGA	12/18/2012	1	1	U	R20WPBA1-13	PEMS
R294	URGA	1/3/2012	1	1	U	R294RES1-12	OREIS
R294	URGA	2/6/2012	1	1	U	R294RES2-12	OREIS
R294	URGA	3/1/2012	1	1	U	R294RES3-12	OREIS
R294	URGA	4/5/2012	1	1	U	R294RES4-12	OREIS
R294	URGA	5/17/2012	1	1	U	R294RES5-12R	OREIS
R294	URGA	6/4/2012	1	1	U	R294RES6-12	OREIS
R294	URGA	7/2/2012	1	1	U	R294RES7-12	OREIS
R294	URGA	8/1/2012	1	1	UJY	R294RES8-12	OREIS
R294	URGA	9/4/2012	1	1	UJY	R294RES9-12	OREIS
R294	URGA	12/20/2012	1	1	U	R294WPBA1-13	PEMS
R302	URGA	1/3/2012	1	1	U	R302RES1-12	OREIS
R302	URGA	2/6/2012	1	1	U	R302RES2-12	OREIS
R302	URGA	3/1/2012	1	1	U	R302RES3-12	OREIS

Table B.3. 2012 TCE Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (µg/L)	DETECT LIMIT	RSLT QUAL	PROJ_SAMPLE_ID	SOURCE
R302	URGA	4/5/2012	1	1	UJ	R302RES4-12	OREIS
R302	URGA	5/17/2012	1	1	U	R302RES5-12R	OREIS
R302	URGA	6/4/2012	1	1	U	R302RES6-12	OREIS
R302	URGA	7/2/2012	1	1	U	R302RES7-12	OREIS
R302	URGA	8/1/2012	1	1	UJY	R302RES8-12	OREIS
R302	URGA	9/4/2012	1	1	UJY	R302RES9-12	OREIS
R302	URGA	12/20/2012	1	1	U	R302WPBA1-13	PEMS
R302	URGA	12/20/2012	1	1	U	R302DWPBA1-13	PEMS
R384	URGA	12/19/2012	1	1	U	R384WPBA1-13	PEMS
R387	URGA	12/19/2012	1	1	U	R387WPBA1-13	PEMS
R392	URGA	12/19/2012	1	1	U	R392WPBA1-13	PEMS
R424-PRT1	URGA	2/9/2012	11	1		R424P1B2-12	OREIS
R424-PRT1	URGA	2/16/2012	8.5	1	X	R424P1A2-12	OREIS
R424-PRT1	URGA	8/16/2012	8.5	1	JY	R424P1B8-12	OREIS
R424-PRT1	URGA	8/23/2012	8.5	1	JY	R424P1A8-12	OREIS
R424-PRT2	URGA	2/9/2012	1	1	U	R424P2B2-12	OREIS
R424-PRT2	URGA	2/16/2012	1	1	U	R424P2A2-12	OREIS
R424-PRT2	URGA	8/16/2012	1	1	UJY	R424P2B8-12	OREIS
R424-PRT2	URGA	8/23/2012	1	1	UJY	R424P2A8-12	OREIS
R424-PRT3	URGA	2/9/2012	1	1	U	R424P3B2-12	OREIS
R424-PRT3	URGA	2/16/2012	1	1	UX	R424P3A2-12	OREIS
R424-PRT3	URGA	8/16/2012	1	1	UJY	R424P3B8-12	OREIS
R424-PRT3	URGA	8/23/2012	1	1	UJY	R424P3A8-12	OREIS

Code Definitions shown in Table B.3:

STA_NAME	MW...	Monitoring well
	R...	Residential well
	...PRT	Port
HORIZON	RGA	Regional Gravel Aquifer
	LRGA	Lower RGA
	MRGA	Middle RGA
	URGA	Upper RGA
RSLTQUAL	D	Identified in an analysis at a secondary dilution
	J	Estimated
	U	Not detected
	X	Used when more than five qualifiers are required for a result
	Y	Chemical yield exceeds acceptance limits

Table B.4. 2012 Tc-99 Results in RGA Wells

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW100	LRGA	5/9/2012	5.46	15.7	U	11.2	11.2	MW100A1-12	OREIS
MW124	LRGA	2/2/2012	0.804	16.4	U	11.6	11.6	MW124SA1-12	OREIS
MW124	LRGA	8/7/2012	6.07	15.5	U	11.2		MW124SA8-12	PEMS
MW126	MRGA	2/2/2012	2.31	16.4	U	11.8	11.8	MW126SA1-12	OREIS
MW126	MRGA	8/7/2012	6.34	15.5	U	11.2		MW126DSA8-12	PEMS
MW126	MRGA	8/7/2012	14.2	15.5	U	12		MW126SA8-12	PEMS
MW145	LRGA	2/1/2012	32.5	17.3		13.3	13.3	MW145SA1-12	OREIS
MW145	LRGA	8/7/2012	36.3	15.5		14.1		MW145SA8-12	PEMS
MW146	LRGA	12/12/2012	2.18	16.1	U	10.5	10.5	MW146WPBQ1-13	OREIS
MW150	LRGA	5/22/2012	7.58	14.7	U	10.7	10.7	MW150A1-12	OREIS
MW152	LRGA	5/7/2012	92.7	16.3		14.5	14.7	MW152A1-12	OREIS
MW155	LRGA	3/13/2012	137	16.6		16	16.3	MW155C4002-12	OREIS
MW155	LRGA	6/19/2012	110	18.9		20.8	20.9	MW155C4003-12	OREIS
MW155	LRGA	9/19/2012	136	16.5		21.3		MW155C4004-12	PEMS
MW155	LRGA	12/28/2012	125	15.8		14.4	14.7	MW155C4001-13	OREIS
MW155	LRGA	12/28/2012	120	15.8		14.2	14.5	MW155DC4001-13	OREIS
MW156	URGA	3/13/2012	6.21	16.6	U	12	12	MW156C4002-12	OREIS
MW156	URGA	6/19/2012	9.77	16.6	U	12.2	12.2	MW156C4003-12	OREIS
MW156	URGA	9/19/2012	5.12	16.5	U	11.8		MW156C4004-12	PEMS
MW156	URGA	12/28/2012	-0.798	15.3	U	10.4	10.4	MW156C4001-13	OREIS
MW161	LRGA	5/14/2012	32.9	15.8		12.3	12.3	MW161A1-12	OREIS
MW173	URGA	3/13/2012	1.66	16.6	U	11.7	11.7	MW173SA1-12	OREIS
MW173	URGA	9/4/2012	4.43	16.5	U	11.6		MW173SA2-12	PEMS
MW175	MRGA	3/12/2012	279	16.6		19.4	20.6	MW175C4002-12	OREIS
MW175	MRGA	9/25/2012	284	18.2		19.7		MW175DC4004-12	PEMS
MW175	MRGA	9/25/2012	282	18.2		19.6		MW175C4004-12	PEMS
MW185	MRGA	3/20/2012	698	16.4		26.6	31.7	MW185SA1-12	OREIS
MW185	MRGA	9/4/2012	805	16.5		46.3		MW185SA2-12	PEMS
MW191	MRGA	5/21/2012	3.15	14.7	U	10.5	10.5	MW191DA1-12	OREIS
MW191	MRGA	5/21/2012	8.2	14.7	U	10.7	10.7	MW191A1-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW201	MRGA	12/6/2012	-1.22	15.2	U	10.2	10.2	MW201WPBQ1-13	OREIS
MW202	LRGA	12/11/2012	2.38	16.1	U	10.7	10.7	MW202WPBQ1-13	OREIS
MW203	MRGA	5/14/2012	139	15.8		15.5	15.9	MW203A1-12	OREIS
MW206	URGA	5/10/2012	39.7	15.7		12.5	12.5	MW206A1-12	OREIS
MW220	URGA	1/5/2012	9.05	16.5	U	12	12	MW220SG2-12	OREIS
MW220	URGA	4/3/2012	15.9	15.5		11.5	11.5	MW220SG3-12	OREIS
MW220	URGA	7/10/2012	13.5	18.5	U	13.8	13.8	MW220SG4-12	OREIS
MW220	URGA	10/24/2012	4.03	19.8	U	13.9	13.9	MW220SG1-13	OREIS
MW221	URGA	1/3/2012	5.37	16.5	U	11.8	11.8	MW221SG2-12	OREIS
MW221	URGA	4/2/2012	-4.23	16.1	U	11.2	11.2	MW221SG3-12	OREIS
MW221	URGA	7/12/2012	-2.77	18.6	U	12.1	12.1	MW221SG4-12	OREIS
MW221	URGA	10/24/2012	-4.87	19.8	U	13.2	13.2	MW221SG1-13	OREIS
MW222	URGA	1/3/2012	-9.77	16.5	U	11.3	11.3	MW222SG2-12	OREIS
MW222	URGA	4/4/2012	-0.862	15.5	U	11.4	11.4	MW222DSG3-12	OREIS
MW222	URGA	4/4/2012	2.33	15.5	U	11	11	MW222SG3-12	OREIS
MW222	URGA	7/12/2012	-8.38	18.6	U	11.7	11.7	MW222SG4-12	OREIS
MW223	URGA	1/5/2012	5.88	16.5	U	11.9	11.9	MW223SG2-12	OREIS
MW223	URGA	4/2/2012	0.104	16.1	U	10.6	10.6	MW223SG3-12	OREIS
MW223	URGA	7/12/2012	-8	18.6	U	11.8	11.8	MW223SG4-12	OREIS
MW223	URGA	10/24/2012	-7.61	19.8	U	12.8	12.8	MW223SG1-13	OREIS
MW224	URGA	1/4/2012	-11	16.5	U	11.3	11.3	MW224SG2-12	OREIS
MW224	URGA	4/3/2012	-1.93	15.5	U	10.8	10.8	MW224SG3-12	OREIS
MW224	URGA	7/11/2012	-2.13	18.6	U	12.2	12.2	MW224DSG4-12	OREIS
MW224	URGA	7/11/2012	0.213	18.6	U	13.5	13.5	MW224SG4-12	OREIS
MW224	URGA	10/25/2012	-16.1	19.8	U	11.9	12	MW224SG1-13	OREIS
MW226	LRGA	1/20/2012	74.7	15.9		13.7	13.8	MW226C4041-12	OREIS
MW226	LRGA	7/31/2012	30.5	13.3		12.3	12.3	MW226C4042-12	OREIS
MW227	URGA	1/20/2012	17.9	15.9		11.8	11.8	MW227C4041-12	OREIS
MW227	URGA	7/31/2012	5.99	13.3	U	9.76	9.76	MW227C4042-12	OREIS
MW233	MRGA	5/8/2012	16.6	15.7		11.7	11.7	MW233A1-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW236	LRGA	5/8/2012	11.1	15.7	U	11.5	11.5	MW236A1-12	OREIS
MW240	MRGA	5/8/2012	3.78	15.7	U	11.3	11.3	MW240A1-12	OREIS
MW242	MRGA	3/1/2012	197	16.2		17	17.7	MW242Q2-12	OREIS
MW242	MRGA	6/13/2012	218	16.1		25.6		MW242Q3-12	PEMS
MW242	MRGA	9/11/2012	203	15.7		25.3	25.8	MW242Q4-12	OREIS
MW243	MRGA	3/7/2012	13.3	16.2	U	11.9	11.9	MW243Q2-12	OREIS
MW243	MRGA	6/13/2012	20.8	16.1		13		MW243Q3-12	PEMS
MW243	MRGA	9/10/2012	38.4	15.7		14.6	14.6	MW243Q4-12	OREIS
MW244	MRGA	3/7/2012	-1.01	16.2	U	11.5	11.5	MW244Q2-12	OREIS
MW244	MRGA	6/13/2012	6.08	16.1	U	11.5		MW244Q3-12	PEMS
MW244	MRGA	9/18/2012	6.08	16.5	U	11.9	11.9	MW244DQ4-12	OREIS
MW244	MRGA	9/18/2012	3.09	16.5	U	11.5	11.5	MW244Q4-12	OREIS
MW245	MRGA	3/7/2012	-7.39	16.2	U	11.1	11.1	MW245DQ2-12	OREIS
MW245	MRGA	3/7/2012	-0.0506	16.2	U	9.8	9.8	MW245Q2-12	OREIS
MW245	MRGA	6/13/2012	14.6	16.1	U	12.4		MW245Q3-12	PEMS
MW245	MRGA	9/18/2012	-7.17	18	U	11.9	11.9	MW245Q4-12	OREIS
MW248	MRGA	3/7/2012	15.6	16.2	U	11.9	11.9	MW248Q2-12	OREIS
MW248	MRGA	6/11/2012	12.7	16.1	U	12.2		MW248Q3-12	PEMS
MW248	MRGA	9/10/2012	33.4	15.7		14.1	14.1	MW248Q4-12	OREIS
MW250	MRGA	3/7/2012	1.97	16.2	U	11.6	11.6	MW250Q2-12	OREIS
MW250	MRGA	6/11/2012	-0.0548	16.1	U	9.6		MW250Q3-12	PEMS
MW250	MRGA	9/10/2012	8.44	15.7	U	11.6	11.6	MW250Q4-12	OREIS
MW252	LRGA	5/15/2012	17.1	15.8		11.8	11.8	MW252A1-12	OREIS
MW253	LRGA	5/21/2012	14.5	14.7	U	10.9	10.9	MW253A1-12	OREIS
MW255	LRGA	2/1/2012	-2.11	17.3	U	12	12	MW255SA1-12	OREIS
MW255	LRGA	5/2/2012	5.97	15.2	U	10.9	10.9	MW255Q3-12	OREIS
MW255	LRGA	8/6/2012	3.42	13.3	U	9.49		MW255SA8-12	PEMS
MW255	LRGA	11/5/2012	-1.24	17	U	11.5		MW255Q1-13	PEMS
MW256	LRGA	2/1/2012	69.4	17.3		14.4	14.5	MW256SA1-12	OREIS
MW256	LRGA	2/1/2012	65.6	17.3		14.3	14.4	MW256DSA1-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW256	LRGA	5/2/2012	60.9	15.2		12.8	12.9	MW256Q3-12	OREIS
MW256	LRGA	5/2/2012	64.5	15.2		12.9	13	MW256DQ3-12	OREIS
MW256	LRGA	8/6/2012	66	13.3		15.3		MW256SA8-12	PEMS
MW256	LRGA	11/5/2012	75.2	17		17.8		MW256Q1-13	PEMS
MW258	LRGA	2/1/2012	-0.166	17.3	U	10.5	10.5	MW258SA1-12	OREIS
MW258	LRGA	5/2/2012	5.36	15.2	U	10.9	10.9	MW258Q3-12	OREIS
MW258	LRGA	8/6/2012	12.2	13.3	U	10.5		MW258SA8-12	PEMS
MW258	LRGA	11/5/2012	-2.04	17	U	11.5		MW258Q1-13	PEMS
MW261	LRGA	5/8/2012	1040	15.7		31.4	40.6	MW261A1-12	OREIS
MW283	LRGA	2/1/2012	19	16.4		12.2	12.2	MW283SA1-12	OREIS
MW283	LRGA	8/8/2012	18.2	15.5		12.5		MW283SA8-12	PEMS
MW288	LRGA	2/2/2012	48	16.4		13.2	13.2	MW288SA1-12	OREIS
MW288	LRGA	5/3/2012	32.5	15.2		11.8	11.9	MW288Q3-12	OREIS
MW288	LRGA	8/7/2012	35.3	15.5		14		MW288SA8-12	PEMS
MW288	LRGA	11/5/2012	28.7	17.9	B	14.7		MW288Q1-13	PEMS
MW288	LRGA	11/5/2012	21.5	17.9	B	14.1		MW288DQ1-13	PEMS
MW291	LRGA	2/1/2012	1.75	15.8	U	11.3	11.3	MW291SA1-12	OREIS
MW291	LRGA	8/8/2012	2.47	15.5	U	10.8		MW291SA8-12	PEMS
MW292	LRGA	2/2/2012	78.2	16.4		14.1	14.2	MW292SA1-12	OREIS
MW292	LRGA	5/3/2012	43.4	15.2		12.2	12.2	MW292Q3-12	OREIS
MW292	LRGA	8/7/2012	56	15.5		15.7		MW292SA8-12	PEMS
MW292	LRGA	11/5/2012	28	17		14.2		MW292Q1-13	PEMS
MW293A	MRGA	2/1/2012	-0.483	16.4	U	11.2	11.2	MW293ASA1-12	OREIS
MW293A	MRGA	8/8/2012	4.03	15.5	U	11		MW293ASA8-12	PEMS
MW300		10/29/2012	-2.74	17	U	11.5		MW300KG1-13	PEMS
MW300		10/29/2012	-4.68	17	U	11.1		MW300DKG1-13	PEMS
MW301		10/29/2012	1.99	17	U	11.7		MW301KG1-13	PEMS
MW302		10/29/2012	-6.18	17	U	10.9		MW302KG1-13	PEMS
MW333	MRGA	1/20/2012	33.7	15.9		12.4	12.4	MW333C4041-12	OREIS
MW333	MRGA	7/26/2012	17.2	18.5	U	13.1	13.1	MW333C4042-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW337	MRGA	1/23/2012	324	17.3		20.7	22.2	MW337C4041-12	OREIS
MW337	MRGA	7/30/2012	294	18.5		20	21.3	MW337DC4042-12	OREIS
MW337	MRGA	7/30/2012	298	18.5		20	21.4	MW337C4042-12	OREIS
MW338	MRGA	1/23/2012	18	17.3		12.8	12.8	MW338C4041-12	OREIS
MW338	MRGA	7/30/2012	2.01	18.5	U	12.5	12.5	MW338C4042-12	OREIS
MW339	LRGA	3/19/2012	138	16.4		15.7	16.1	MW339DSA1-12	OREIS
MW339	LRGA	3/19/2012	118	16.4		15.2	15.5	MW339SA1-12	OREIS
MW339	LRGA	9/26/2012	211	18.2		18.1		MW339SA2-12	PEMS
MW340	LRGA	3/19/2012	1250	16.4		34	45.9	MW340SA1-12	OREIS
MW340	LRGA	9/7/2012	2170	16.5		74.8		MW340SA2-12	PEMS
MW342	MRGA	3/12/2012	678	16.6		26.8	31.6	MW342C4002-12	OREIS
MW342	MRGA	9/19/2012	2780	16.5		83		MW342C4004-12	PEMS
MW343	LRGA	3/12/2012	7030	16.6		78.7	191	MW343DC4002-12	OREIS
MW343	LRGA	3/12/2012	8320	16.6		84.8	223	MW343C4002-12	OREIS
MW343	LRGA	9/24/2012	6650	18.2		75.8		MW343C4004-12	PEMS
MW355	LRGA	3/13/2012	20.1	15.8		11.9	11.9	MW355SA1-12	OREIS
MW355	LRGA	9/7/2012	23.1	16.5		13.5		MW355SA2-12	PEMS
MW357	URGA	1/6/2012	46.7	16.4		13.1	13.2	MW357UG2-12	OREIS
MW357	URGA	4/18/2012	28.9	21		16.5	16.5	MW357UG3-12	OREIS
MW357	URGA	7/23/2012	30.2	14.8		13.1	13.1	MW357UG4-12	OREIS
MW357	URGA	10/8/2012	36.7	14.7		13.6	13.6	MW357UG1-13	OREIS
MW358	LRGA	1/6/2012	42.3	16.4		13	13	MW358UG2-12	OREIS
MW358	LRGA	4/12/2012	24.3	21		16.1	16.1	MW358UG3-12	OREIS
MW358	LRGA	7/25/2012	40.1	16.2		12.2	12.3	MW358DUG4-12	OREIS
MW358	LRGA	7/25/2012	25.6	16.2		11.8	11.8	MW358UG4-12	OREIS
MW358	LRGA	10/8/2012	34.4	14.7		13.4	13.5	MW358UG1-13	OREIS
MW360	URGA	1/6/2012	11.5	16.4	U	12	12	MW360DUG2-12	OREIS
MW360	URGA	1/6/2012	6.12	16.4	U	11.8	11.8	MW360UG2-12	OREIS
MW360	URGA	4/18/2012	-9.73	21	U	13.3	13.3	MW360UG3-12	OREIS
MW360	URGA	7/19/2012	2.61	14.8	U	10.3	10.3	MW360UG4-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW360	URGA	10/4/2012	7.54	14.7	U	10.8	10.8	MW360UG1-13	OREIS
MW361	MRGA	1/18/2012	50.3	16.4		13.3	13.3	MW361UG2-12	OREIS
MW361	MRGA	4/11/2012	41.5	18.7		16.3	16.3	MW361UG3-12	OREIS
MW361	MRGA	7/16/2012	46.3	14.8		14.4	14.4	MW361UG4-12	OREIS
MW361	MRGA	10/4/2012	46.2	14.7		14.4	14.5	MW361UG1-13	OREIS
MW363	URGA	1/18/2012	10.8	16.4	U	11.9	11.9	MW363UG2-12	OREIS
MW363	URGA	4/11/2012	7.98	18.7	U	13.3	13.3	MW363UG3-12	OREIS
MW363	URGA	7/19/2012	16.6	14.8		11.8	11.8	MW363UG4-12	OREIS
MW363	URGA	10/10/2012	15	14.7		11.6	11.6	MW363UG1-13	OREIS
MW364	LRGA	1/19/2012	54.1	16.4		13.4	13.4	MW364UG2-12	OREIS
MW364	LRGA	4/11/2012	65.7	18.7		18.1	18.2	MW364UG3-12	OREIS
MW364	LRGA	7/19/2012	51	14.8		14.8	14.8	MW364UG4-12	OREIS
MW364	LRGA	10/10/2012	59.7	14.7		15.5	15.6	MW364UG1-13	OREIS
MW366	URGA	1/18/2012	55	16.4		13.4	13.5	MW366UG2-12	OREIS
MW366	URGA	4/11/2012	53.5	18.7		17.2	17.3	MW366UG3-12	OREIS
MW366	URGA	7/19/2012	66	14.8		15.9	16	MW366UG4-12	OREIS
MW366	URGA	10/9/2012	58.9	14.7		15.5	15.5	MW366UG1-13	OREIS
MW366	URGA	10/9/2012	66.3	14.7		16	16.1	MW366DUG1-13	OREIS
MW367	LRGA	1/19/2012	40.8	16.4		13	13	MW367UG2-12	OREIS
MW367	LRGA	4/12/2012	1.58	21	U	14.2	14.2	MW367UG3-12	OREIS
MW367	LRGA	7/19/2012	3.43	14.8	U	10.5	10.5	MW367UG4-12	OREIS
MW367	LRGA	10/9/2012	9.81	14.7	U	11	11	MW367UG1-13	OREIS
MW369	URGA	1/18/2012	0.798	16.4	U	11.3	11.3	MW369UG2-12	OREIS
MW369	URGA	4/16/2012	32.4	21		16.8	16.8	MW369UG3-12	OREIS
MW369	URGA	7/23/2012	12.9	16.2	U	11.3	11.3	MW369UG4-12	OREIS
MW369	URGA	10/3/2012	26.9	14.7		12.7	12.7	MW369UG1-13	OREIS
MW370	MRGA	1/18/2012	19.5	16.4		12.3	12.3	MW370UG2-12	OREIS
MW370	MRGA	4/18/2012	1.86	21	U	14.4	14.4	MW370UG3-12	OREIS
MW370	MRGA	7/25/2012	3.29	16.2	U	10.9	10.9	MW370UG4-12	OREIS
MW370	MRGA	10/3/2012	28	14.7		12.9	12.9	MW370UG1-13	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW372	URGA	1/19/2012	21.2	16.4		12.3	12.3	MW372UG2-12	OREIS
MW372	URGA	4/10/2012	0.81	18.7	U	12.4	12.4	MW372UG3-12	OREIS
MW372	URGA	7/19/2012	59.4	14.8		15.4	15.5	MW372UG4-12	OREIS
MW372	URGA	10/2/2012	105	14.7		18.7	18.9	MW372UG1-13	OREIS
MW373	LRGA	1/19/2012	27.8	16.4		12.5	12.6	MW373UG2-12	OREIS
MW373	LRGA	4/11/2012	42.9	18.7		16.4	16.4	MW373UG3-12	OREIS
MW373	LRGA	7/23/2012	30.7	14.8		13.1	13.1	MW373UG4-12	OREIS
MW373	LRGA	10/2/2012	62.6	14.7		15.8	15.8	MW373UG1-13	OREIS
MW384	URGA	1/5/2012	90.3	16.5		14.4	14.6	MW384SG2-12	OREIS
MW384	URGA	4/2/2012	252	16.1		18.2	19.3	MW384SG3-12	OREIS
MW384	URGA	7/9/2012	288	18.5		29.7	30.5	MW384SG4-12	OREIS
MW384	URGA	10/11/2012	255	19.8		28.8	29.4	MW384SG1-13	OREIS
MW385	LRGA	1/5/2012	129	16.5		15.4	15.7	MW385SG2-12	OREIS
MW385	LRGA	4/2/2012	152	16.1		15.9	16.3	MW385SG3-12	OREIS
MW385	LRGA	7/10/2012	125	18.5		21.8	22	MW385SG4-12	OREIS
MW385	LRGA	10/11/2012	131	19.8		22.7	22.9	MW385SG1-13	OREIS
MW387	URGA	1/5/2012	145	16.5		15.8	16.2	MW387SG2-12	OREIS
MW387	URGA	4/2/2012	192	16.1		16.8	17.5	MW387SG3-12	OREIS
MW387	URGA	7/9/2012	180	18.5		24.7	25.1	MW387SG4-12	OREIS
MW387	URGA	10/23/2012	127	19.8		22.5	22.7	MW387DSG1-13	OREIS
MW387	URGA	10/23/2012	128	19.8		22.6	22.8	MW387SG1-13	OREIS
MW388	MRGA	1/5/2012	40.3	16.5		12.9	13	MW388SG2-12	OREIS
MW388	MRGA	4/2/2012	94.6	16.1		14.3	14.5	MW388SG3-12	OREIS
MW388	MRGA	7/9/2012	23.8	18.5		14.7	14.7	MW388SG4-12	OREIS
MW388	MRGA	10/23/2012	58.3	19.8		18.2	18.2	MW388SG1-13	OREIS
MW391	MRGA	1/4/2012	-4.81	16.5	U	11.5	11.5	MW391SG2-12	OREIS
MW391	MRGA	1/4/2012	-8.03	16.5	U	11.3	11.3	MW391DSG2-12	OREIS
MW391	MRGA	4/3/2012	-7.46	15.5	U	10.6	10.7	MW391SG3-12	OREIS
MW391	MRGA	7/11/2012	-3.9	18.5	U	12.1	12.1	MW391SG4-12	OREIS
MW391	MRGA	10/16/2012	-9.57	19.8	U	12.5	12.5	MW391SG1-13	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW392	LRGA	1/11/2012	-6.09	16.5	U	11.5	11.5	MW392SG2-12	OREIS
MW392	LRGA	4/3/2012	-0.913	15.5	U	10.6	10.6	MW392SG3-12	OREIS
MW392	LRGA	7/11/2012	-3.51	18.5	U	12.3	12.3	MW392SG4-12	OREIS
MW392	LRGA	10/15/2012	-11.6	19.8	U	12.3	12.3	MW392SG1-13	OREIS
MW394	URGA	1/17/2012	-0.158	16.8	U	10.2	10.2	MW394SG2-12	OREIS
MW394	URGA	4/3/2012	-0.887	16.1	U	11.8	11.8	MW394SG3-12	OREIS
MW394	URGA	7/12/2012	-5.65	18.6	U	12	12	MW394SG4-12	OREIS
MW394	URGA	10/17/2012	-10.8	19.8	U	12.4	12.4	MW394SG1-13	OREIS
MW395	MRGA	1/17/2012	0.0525	16.8	U	13.2	13.2	MW395SG2-12	OREIS
MW395	MRGA	4/3/2012	3.2	15.5	U	11.1	11.1	MW395SG3-12	OREIS
MW395	MRGA	7/12/2012	1.07	18.6	U	12.6	12.6	MW395SG4-12	OREIS
MW395	MRGA	10/17/2012	-4.87	19.8	U	13	13	MW395SG1-13	OREIS
MW397	LRGA	1/5/2012	9.97	16.5	U	12	12	MW397SG2-12	OREIS
MW397	LRGA	4/3/2012	3.55	15.5	U	11.1	11.1	MW397SG3-12	OREIS
MW397	LRGA	7/10/2012	8.54	18.6	U	13.4	13.4	MW397SG4-12	OREIS
MW397	LRGA	10/16/2012	2.8	19.8	U	13.7	13.7	MW397SG1-13	OREIS
MW405-PRT5	RGA	6/20/2012	-4.94	18.9	U	12.3	12.3	MW405P5C4003-12	OREIS
MW405-PRT5	RGA	9/20/2012	17.9	18.2	U	12.8		MW405P6C4004-12	PEMS
MW405-PRT5	RGA	12/28/2012	27.7	15.8		11.4	11.4	MW405P5C4001-13	OREIS
MW406-PRT5	RGA	3/15/2012	48.6	16.4		13.2	13.2	MW406P5C4002-12	OREIS
MW406-PRT5	RGA	6/20/2012	17.5	18.9	U	14.3	14.3	MW406P5C4003-12	OREIS
MW406-PRT5	RGA	9/20/2012	23.5	18.2		13		MW406P5C4004-12	PEMS
MW406-PRT5	RGA	12/28/2012	4.01	15.8	U	10.5	10.5	MW406P5C4001-13	OREIS
MW407-PRT4	RGA	3/14/2012	-5.15	16.4	U	11.3	11.3	MW407P4C4002-12	OREIS
MW407-PRT4	RGA	6/20/2012	8.61	16.6	U	12.1	12.1	MW407P4C4003-12	OREIS
MW407-PRT4	RGA	9/20/2012	-10.2	18.2	U	11.9		MW407P4C4004-12	PEMS
MW407-PRT4	RGA	12/28/2012	0.433	15.8	U	10.3	10.3	MW407P4C4001-13	OREIS
MW408-PRT5	RGA	6/20/2012	1.58	18.9	U	12.8	12.8	MW408P5C4003-12	OREIS
MW408-PRT5	RGA	9/20/2012	-1.7	18.2	U	12.2		MW408P6C4004-12	PEMS
MW408-PRT5	RGA	12/28/2012	4.33	15.8	U	10.6	10.6	MW408P5C4001-13	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW409	LRGA	5/7/2012	-0.38	16.3	U	11.5	11.5	MW409A1-12	OREIS
MW410	LRGA	5/7/2012	0.0543	16.3	U	9.32	9.32	MW410A1-12	OREIS
MW411	MRGA	5/17/2012	6.8	15.8	U	11.4	11.4	MW411A1-12	OREIS
MW418	MRGA	5/3/2012	-2.65	15.2	U	10.6	10.6	MW418A1-12	OREIS
MW419	LRGA	5/3/2012	16.3	16.3	U	12.1	12.1	MW419A1-12	OREIS
MW420	MRGA	1/25/2012	32.6	15.8		12.3	12.3	MW420C4041-12	OREIS
MW420	MRGA	1/25/2012	13.1	15.8	U	11.6	11.6	MW420DC4041-12	OREIS
MW420	MRGA	7/24/2012	9.73	18.5	U	12.8	12.8	MW420C4042-12	OREIS
MW421-PRT3	RGA	3/12/2012	283	16.3		19	20.3	MW421P3C4002-12	OREIS
MW421-PRT3	RGA	9/25/2012	211	18.2		18.1		MW421P3C4004-12	PEMS
MW422-PRT3	RGA	3/12/2012	774	16.3		27.6	33.6	MW422P3C4002-12	OREIS
MW422-PRT3	RGA	9/25/2012	631	18.2		26		MW422P3C4004-12	PEMS
MW423-PRT3	RGA	3/12/2012	2350	16.3		45.2	73.8	MW423P3C4002-12	OREIS
MW423-PRT3	RGA	9/24/2012	1820	18.2		40.9		MW423P3C4004-12	PEMS
MW424-PRT3	RGA	3/12/2012	3500	16.3		54.7	103	MW424P3C4002-12	OREIS
MW424-PRT3	RGA	9/25/2012	3600	18.2		56.2		MW424P3C4004-12	PEMS
MW425-PRT3	RGA	3/12/2012	5410	16.6		69.3	151	MW425P3C4002-12	OREIS
MW425-PRT3	RGA	9/19/2012	5320	16.5		114		MW425P3C4004-12	PEMS
MW426	URGA	12/12/2012	-0.104	16.1	U	9.75	9.75	MW426WPBQ1-13	OREIS
MW428	LRGA	3/15/2012	-11.1	16.4	U	11.1	11.1	MW428SA1-12	OREIS
MW428	LRGA	9/10/2012	3.99	16.5	U	11.6		MW428SA2-12	PEMS
MW429A	URGA	3/14/2012	-5.57	16.4	U	11.3		MW429ASA1-12	PEMS
MW429A	URGA	9/10/2012	10.4	15.7	U	11.8		MW429ASA2-12	PEMS
MW430	LRGA	3/14/2012	11	16.4	U	11.9	11.9	MW430SA1-12	OREIS
MW430	LRGA	9/10/2012	3.19	15.7	U	11.1		MW430SA2-12	PEMS
MW455	MRGA	3/1/2012	20.2	16.2		12.1	12.1	MW455Q2-12	OREIS
MW455	MRGA	6/6/2012	6.66	17.4	U	12.4		MW455Q3-12	PEMS
MW455	MRGA	9/10/2012	5.53	15.7	U	11.3	11.3	MW455Q4-12	OREIS
MW456	LRGA	3/1/2012	15.1	16.2	U	11.9	12	MW456Q2-12	OREIS
MW456	LRGA	6/6/2012	51.3	17.4		16.1		MW456Q3-12	PEMS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW456	LRGA	9/10/2012	113	15.7		20.2	20.4	MW456Q4-12	OREIS
MW457	URGA	3/1/2012	13	16.2	U	11.9	11.9	MW457Q2-12	OREIS
MW457	URGA	6/6/2012	-0.752	17.4	U	11.2		MW457Q3-12	PEMS
MW457	URGA	9/11/2012	9.75	15.7	U	11.7	11.7	MW457Q4-12	OREIS
MW458	LRGA	3/1/2012	159	16.2		16.1	16.5	MW458Q2-12	OREIS
MW458	LRGA	6/6/2012	154	16.1		22.3		MW458Q3-12	PEMS
MW458	LRGA	9/11/2012	156	15.7		22.7	23	MW458Q4-12	OREIS
MW459	URGA	3/1/2012	128	16.2		15.2	15.6	MW459Q2-12	OREIS
MW459	URGA	6/7/2012	13.8	17.4	U	13		MW459DQ3-12	PEMS
MW459	URGA	6/7/2012	12.6	17.4	U	12.9		MW459Q3-12	PEMS
MW459	URGA	9/11/2012	8.9	15.7	U	11.6	11.6	MW459Q4-12	OREIS
MW460	LRGA	3/1/2012	241	16.2		18	18.9	MW460Q2-12	OREIS
MW460	LRGA	6/7/2012	244	16.1		26.8		MW460Q3-12	PEMS
MW460	LRGA	9/11/2012	238	15.7		27	27.7	MW460Q4-12	OREIS
MW461	URGA	3/5/2012	30.1	16.2		12.4	12.5	MW461Q2-12	OREIS
MW461	URGA	6/7/2012	60.9	16.1		16.3		MW461Q3-12	PEMS
MW461	URGA	9/17/2012	41.6	18		13.4	13.4	MW461Q4-12	OREIS
MW462	LRGA	3/5/2012	340	16.2		20.1	21.8	MW462Q2-12	OREIS
MW462	LRGA	6/7/2012	343	16.1		31		MW462Q3-12	PEMS
MW462	LRGA	9/17/2012	314	18		20	21.4	MW462Q4-12	OREIS
MW465	MRGA	5/8/2012	9.4	15.7	U	11.4	11.4	MW465A1-12	OREIS
MW466	MRGA	5/8/2012	7.46	15.7	U	11.3	11.3	MW466A1-12	OREIS
MW469	MRGA	5/15/2012	15	15.8	U	11.7	11.7	MW469A1-12	OREIS
MW470	LRGA	5/15/2012	3.61	15.8	U	11.3	11.3	MW470A1-12	OREIS
MW471	MRGA	5/15/2012	5.77	15.8	U	11.4	11.4	MW471A1-12	OREIS
MW472	LRGA	5/15/2012	6.1	15.8	U	11.4	11.4	MW472A1-12	OREIS
MW497	MRGA	3/5/2012	56.9	16.2		13.3	13.4	MW497Q2-12	OREIS
MW497	MRGA	6/5/2012	103	14.7		13.8		MW497Q3-12	PEMS
MW497	MRGA	9/17/2012	115	18		15.4	15.7	MW497Q4-12	OREIS
MW498	LRGA	3/5/2012	30.6	16.2		12.4	12.4	MW498Q2-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW498	LRGA	6/5/2012	51.2	17.4		16.1		MW498Q3-12	PEMS
MW498	LRGA	9/17/2012	116	18		15.5	15.7	MW498Q4-12	OREIS
MW499	MRGA	3/5/2012	338	16.3		20.2	21.8	MW499Q2-12	OREIS
MW499	MRGA	6/5/2012	292	17.4		29		MW499Q3-12	PEMS
MW499	MRGA	9/17/2012	247	18		18.6	19.5	MW499Q4-12	OREIS
MW500	LRGA	3/5/2012	301	16.2		19.1	20.5	MW500Q2-12	OREIS
MW500	LRGA	6/5/2012	314	16.1		29.9		MW500Q3-12	PEMS
MW500	LRGA	9/17/2012	269	16.5		27.9	28.7	MW500Q4-12	OREIS
MW501	MRGA	3/7/2012	3.24	16.2	U	11.5	11.5	MW501Q2-12	OREIS
MW501	MRGA	6/6/2012	7.57	17.4	U	12.4		MW501Q3-12	PEMS
MW501	MRGA	9/18/2012	-0.746	16.5	U	11.4	11.4	MW501Q4-12	OREIS
MW502	LRGA	3/7/2012	-3.85	16.2	U	11.3	11.3	MW502Q2-12	OREIS
MW502	LRGA	6/6/2012	18.4	17.4		13.4		MW502Q3-12	PEMS
MW502	LRGA	9/18/2012	5.22	16.5	U	11.7	11.7	MW502Q4-12	OREIS
MW503	LRGA	3/5/2012	15.8	16.2	U	11.9	11.9	MW503Q2-12	OREIS
MW503	LRGA	6/5/2012	217	17.4		25.7		MW503Q3-12	PEMS
MW503	LRGA	9/18/2012	88	16.5		18.5	18.6	MW503Q4-12	OREIS
MW504	URGA	3/5/2012	-1.42	16.2	U	11.4	11.4	MW504Q2-12	OREIS
MW504	URGA	6/5/2012	-4.03	17.4	U	11.3		MW504Q3-12	PEMS
MW504	URGA	9/18/2012	-5.17	16.5	U	10.6	10.6	MW504Q4-12	OREIS
MW505	URGA	9/19/2012	61.8	16.5		16.6		MW505C4004-12	PEMS
MW505	URGA	12/5/2012	56.2	16.5		12.9		MW505C4001-13	PEMS
MW506	MRGA	9/19/2012	59	16.5		16.4		MW506C4004-12	PEMS
MW506	MRGA	12/5/2012	42.8	16.5		12.5		MW506C4001-13	PEMS
MW507	LRGA	9/19/2012	30.7	16.5		14.1		MW507C4004-12	PEMS
MW507	LRGA	12/5/2012	42.9	16.5		12.5		MW507C4001-13	PEMS
MW63	URGA	3/13/2012	12.6	15.8	U	11.6	11.6	MW63SA1-12	OREIS
MW63	URGA	9/7/2012	1.49	16.5	U	11.3		MW63SA2-12	PEMS
MW65	LRGA	3/13/2012	54.2	15.8		13	13	MW65SA1-12	OREIS
MW65	LRGA	9/7/2012	50	16.5		15.8		MW65SA2-12	PEMS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
MW66	URGA	3/20/2012	296	16.4		19.4	20.8	MW66SA1-12	OREIS
MW66	URGA	9/11/2012	314	18		20		MW66DSA2-12	PEMS
MW66	URGA	9/11/2012	355	18		20.8		MW66SA2-12	PEMS
MW67	MRGA	1/23/2012	106	15.9		14.6	14.8	MW67C4041-12	OREIS
MW67	MRGA	7/30/2012	110	13.3		18.3	18.5	MW67C4042-12	OREIS
MW76	MRGA	1/20/2012	82.8	15.9		13.9	14.1	MW76C4041-12	OREIS
MW76	MRGA	7/26/2012	49.1	18.5		14	14.1	MW76C4042-12	OREIS
MW84	MRGA	1/24/2012	1.75	15.8	U	11.2	11.2	MW84C4041-12	OREIS
MW84	MRGA	7/24/2012	22.3	18.5		13.2	13.2	MW84C4042-12	OREIS
MW86	LRGA	1/23/2012	-6.43	17.3	U	12	12	MW86C4041-12	OREIS
MW86	LRGA	7/30/2012	1.86	13.3	U	9.19	9.19	MW86C4042-12	OREIS
MW87	MRGA	1/24/2012	-7.72	15.8	U	10.9	10.9	MW87C4041-12	OREIS
MW87	MRGA	7/24/2012	3.75	18.5	U	12.7	12.7	MW87C4042-12	OREIS
MW89	LRGA	1/23/2012	3.55	17.3	U	12.4	12.4	MW89C4041-12	OREIS
MW89	LRGA	7/30/2012	6.83	18.5	U	12.7	12.7	MW89C4042-12	OREIS
MW90A	URGA	1/24/2012	15.1	15.8	U	11.7	11.7	MW90AC4041-12	OREIS
MW90A	URGA	7/24/2012	9.17	18.5	U	12.8	12.8	MW90AC4042-12	OREIS
MW92	LRGA	1/23/2012	-4.21	17.3	U	12	12	MW92DC4041-12	OREIS
MW92	LRGA	1/23/2012	-2.22	17.3	U	12.3	12.3	MW92C4041-12	OREIS
MW92	LRGA	7/31/2012	5.28	13.3	U	9.65	9.65	MW92C4042-12	OREIS
MW93	MRGA	1/24/2012	7.15	15.8	U	11.4	11.4	MW93C4041-12	OREIS
MW93	MRGA	7/24/2012	1.12	18.5	U	12.8	12.8	MW93C4042-12	OREIS
MW95A	LRGA	1/20/2012	10.8	15.9	U	11.5	11.5	MW95AC4041-12	OREIS
MW95A	LRGA	7/26/2012	-2.63	18.5	U	12.5	12.5	MW95AC4042-12	OREIS
MW98	MRGA	5/14/2012	43.8	15.8		12.7	12.7	MW98A1-12	OREIS
MW99	MRGA	5/7/2012	-11.5	16.3	U	11	11	MW99AS1-12	OREIS
R294	URGA	1/3/2012	3.37	16.6	U	11.8	11.8	R294RES1-12	OREIS
R294	URGA	2/6/2012	2.31	16.4	U	11.6	11.6	R294RES2-12	OREIS
R294	URGA	3/1/2012	4.51	16.2	U	11.6	11.6	R294RES3-12	OREIS
R294	URGA	4/5/2012	-1.63	12.7	U	8.3	8.3	R294RES4-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

STA_NAME	HORIZON	DATE COLLECTED	RESULTS (pCi/L)	DETECT LIMIT	RSLT QUAL	RAD_ERR	TPU	PROJ_SAMPLE_ID	SOURCE
R294	URGA	5/2/2012	6.23	15.2	U	10.9	10.9	R294RES5-12	OREIS
R294	URGA	6/4/2012	7.68	14.7	U	10.6	10.6	R294RES6-12	OREIS
R294	URGA	7/2/2012	3.59	18.9	U	13.1	13.1	R294RES7-12	OREIS
R294	URGA	8/1/2012	-6.11	16.2	U	10.6	10.6	R294RES8-12	OREIS
R294	URGA	9/4/2012	-1.38	16.5	U	11	11	R294RES9-12	OREIS
R302	URGA	1/3/2012	8.79	16.6	U	12	12	R302RES1-12	OREIS
R302	URGA	2/6/2012	1.9	15.8	U	11.1	11.1	R302RES2-12	OREIS
R302	URGA	3/1/2012	0	16.2	U	0	0	R302RES3-12	OREIS
R302	URGA	4/5/2012	7.22	12.7	U	9.22	9.23	R302RES4-12	OREIS
R302	URGA	5/2/2012	-12.1	21	U	13.1	13.1	R302RES5-12	OREIS
R302	URGA	6/4/2012	2.01	14.7	U	10.5	10.5	R302RES6-12	OREIS
R302	URGA	7/2/2012	-11.4	18.9	U	11.6	11.6	R302RES7-12	OREIS
R302	URGA	8/1/2012	-8.04	16.2	U	10.5	10.5	R302RES8-12	OREIS
R302	URGA	9/4/2012	-1.16	16.5	U	10.7	10.7	R302RES9-12	OREIS
R424-PRT1	URGA	2/9/2012	-8.56	17.6	U	12	12	R424P1B2-12	OREIS
R424-PRT1	URGA	2/16/2012	-8.23	17.6	U	12.1	12.1	R424P1A2-12	OREIS
R424-PRT1	URGA	8/16/2012	-0.295	14.5	U	8.52	8.52	R424P1B8-12	OREIS
R424-PRT1	URGA	8/23/2012	-0.748	15.2	U	9.63	9.63	R424P1A8-12	OREIS
R424-PRT2	URGA	2/9/2012	-0.927	17.6	U	12.1	12.1	R424P2B2-12	OREIS
R424-PRT2	URGA	2/16/2012	1.58	17.6	U	12.5	12.5	R424P2A2-12	OREIS
R424-PRT2	URGA	8/16/2012	0.0984	14.5	U	9.84E-08	0.0023	R424P2B8-12	OREIS
R424-PRT2	URGA	8/23/2012	10.7	12.9	U	9.98	9.98	R424P2A8-12	OREIS
R424-PRT3	URGA	2/9/2012	-5.94	17.6	U	12.2	12.2	R424P3B2-12	OREIS
R424-PRT3	URGA	2/16/2012	-0.927	17.6	U	12.1	12.1	R424P3A2-12	OREIS
R424-PRT3	URGA	8/16/2012	5.36	14.5	U	9.66	9.66	R424P3B8-12	OREIS
R424-PRT3	URGA	8/23/2012	7.08	12.9	U	9.57	9.57	R424P3A8-12	OREIS

Table B.4. 2012 Tc-99 Results in RGA Wells (Continued)

Code Definitions shown in Table B.4:

STA_NAME	MW...	Monitoring well
	R...	Residential well
	...PRT	Port
HORIZON	RGA	Regional Gravel Aquifer
	LRGA	Lower RGA
	MRGA	Middle RGA
	URGA	Upper RGA
RSLTQUAL	U	Value reported is < Detection Limit and/or TPU
TPU		Total Propagated Uncertainty

Table B.5. RGA Well Inventory

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW1	AB 94	-5928	-218	309.13	AB-RGA
MW8	AB 94	-7200	-797	318	AB-RGA
MW9	AB 94	-7400	-150	312.1	AB-RGA
MW10	AB				not plotted
MW12	AB 94	-8473	-67	313.4	AB-RGA
MW15	AB 94	-7826	-1049	320.44	AB-RGA
MW17	AB 94	-2812	4149	325	AB-RGA
MW19	AB 94	-2964	4470	323.4	AB-RGA
MW20	Current	-6553	4890		URGA
MW21	AB 94	-4897	1750	317.8	AB-RGA
MW22	AB 94	-6220	1525	316.7	AB-RGA
MW38	AB 94	-2946	3732	316.53	AB-RGA
MW39	AB 94	-2947	3948	312.56	AB-RGA
MW40	AB 94	-2940	3961	283.96	AB-RGA
MW41	AB 94	-2871	4088	310.72	AB-RGA
MW42	AB 94	-2392	4539	316.42	AB-RGA
MW43	AB 94	-1872	4200	303.89	AB-RGA
MW44	AB 94	-2259	3848	309.23	AB-RGA
MW45	AB 87	-5624	945	303.4	AB-RGA
MW46	AB 94	-5882	-1069	303.82	AB-RGA
MW48	AB 94	-6197	-1061	304.75	AB-RGA
MW50	AB 94	-6322	-974	307.45	AB-RGA
MW51	AB 94	-6326	-883	307.85	AB-RGA
MW52	AB 94	-6692	-68	308.81	AB-RGA
MW53	AB 94	-6502	240	308.25	AB-RGA
MW54	AB 94	-6927	239	305.1	AB-RGA
MW55	AB 87	-5827	-814	301.8	AB-RGA
MW59	AB				not plotted
MW61	AB				not plotted
MW62	AB				not plotted
MW63	Current	-7236	895	308.9	URGA
MW65	Current	-7235	865	281.92	LRGA
MW66	Current	-6873	979	310.67	URGA
MW67	Current	-6134	-755	304.4	MRGA
MW68	Current	-4358	-2074	276.94	LRGA
MW70	AB 94	-4328	-2075	309.71	AB-RGA
MW71	Current	-4373	-2074	307.36	URGA
MW72	Current	-5881	-737	297.7	MRGA
MW73	Current	-5501	-734	298.37	MRGA
MW76	Current	-5625	-1059	299.72	MRGA
MW77	Current	-5826	-1298	297.08	MRGA
MW78	Current	-5400	-846	295.92	MRGA
MW79	Current	-5500	-846	298.96	MRGA
MW80	Current	-5500	-856	302.24	MRGA
MW81	Current	-5500	-881	300.63	MRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW84	Current	-5975	-804	301.5	MRGA
MW86	Current	-5945	-805	292.33	LRGA
MW87	Current	-5825	-805	303.62	MRGA
MW89	Current	-5795	-804	289.75	LRGA
MW90	AB 2001	-5675	-803	302.39	AB-RGA
MW90A	Current	-5689	-794	305.34	URGA
MW92	Current	-5645	-805	287.55	LRGA
MW93	Current	-5995	-1029	299.99	MRGA
MW95	AB 2001	-5964	-1029	291.78	AB-RGA
MW95A	Current	-5944	-1030	292.51	LRGA
MW97	AB 97	-8418	3516	307.42	AB-RGA
MW98	Current	-3281	7397	298	MRGA
MW99	Current	1842	6827	299.51	MRGA
MW100	Current	4817	7167		LRGA
MW103	Current	-6252	-3501	297.92	MRGA
MW105	AB				not plotted
MW106	Current	-8439	991	299.29	MRGA
PZ107	Current	-3682	-3571	315.67	URGA
W108	Current	-3699	-3133	301.25	MRGA
PZ109	Current	-3666	-3143	302.12	MRGA
PZ110	Current	-3741	-3168	304.59	MRGA
PZ113	Current	-3699	-3168	320.75	URGA
PZ116	Current	-3760	-3083	321.25	URGA
PZ117	Current	-3759	-3082	303.35	MRGA
PZ118	Current	-3699	-3284	302.15	MRGA
MW119	AB				not plotted
MW123	Current	-5661	6126	304.74	MRGA
MW124	Current	1879	726	274.65	LRGA
MW125	Current	-5663	6139	289.67	LRGA
MW126	Current	1881	737	302.57	MRGA
MW132	Current	-560	6192	280.61	LRGA
MW134	Current	-8335	3569	275.96	LRGA
MW135	Current	-1520	9137	287.5	LRGA
MW137	Current	-1727	9151	296.7	MRGA
MW139	Current	-577	6190	298.97	MRGA
MW141	AB 98	-12173	6545	269.51	AB-RGA
MW142	AB 98	-12163	6530	295.72	AB-RGA
MW144	Current	-770	370	268.01	LRGA
MW145	Current	-769	383	288.06	LRGA
MW146	Current	-5684	13549	288.35	LRGA
MW147	Current	-5669	13549	301.08	MRGA
MW148	Current	3290	5755	296.08	MRGA
MW150	Current	4782	2215	294.44	LRGA
MW152	Current	-693	13137	291.61	LRGA
MW155	Current	-4025	-1669	289.63	LRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW156	Current	-4026	-1704	313.05	URGA
MW158	AB 99	-6957	-991	266.51	AB-RGA
MW159	AB 99	-6937	-990	306.46	AB-RGA
MW161	Current	-6917	-1667	291.16	LRGA
MW163	Current	-2041	-1401	287.27	LRGA
MW165	Current	-3136	898	312.72	URGA
MW168	Current	-4822	-925	309.4	URGA
MW169	Current	-5558	-191	302.89	MRGA
MW173	Current	-5290	1020	315.93	URGA
MW175	Current	-4379	-1428	301.1	MRGA
MW178	Current	-4074	-1216	311.81	URGA
MW179	AB 2003	-2516	4628	302.29	AB-RGA
MW181	AB 2000	-3043	3107	314.26	AB-RGA
MW185	Current	-6602	953	301.28	MRGA
MW188	Current	-7009	-2057	299.19	MRGA
MW191	Current	2597	600	299.62	MRGA
MW193	Current	516	3065	305.74	URGA
MW194	Current	-10178	1866	304.36	MRGA
MW197	Current	-6162	2863	306.04	URGA
MW199	Current	-10077	10090	294.37	LRGA
MW200	Current	-4824	4443	300.61	MRGA
MW201	Current	-4884	10167	299.51	MRGA
MW202	Current	-5688	7613	290.53	LRGA
MW203	Current	-5015	-2159	301.45	MRGA
MW205	Current	-4360	-364	309.72	URGA
MW206	Current	-2924	-1505	310.36	URGA
MW220	Current	-2823	3279	315.1	URGA
MW221	Current	-2785	3864	309.26	URGA
MW222	Current	-2563	3660	318.97	URGA
MW223	Current	-2726	3720	313.97	URGA
MW224	Current	-2467	3628	315.41	URGA
MW225	Current	-2634	3323	310.14	URGA
MW226	Current	-5740	-1241	291.57	LRGA
MW227	Current	-5770	-1241	306.03	URGA
EW228	Current	-5347	7600	293.56	RGA
EW229	Current	-5197	7337	301.36	RGA
EW230	Current	-7301	1406	292.91	RGA
EW231	Current	-7440	1352	293.63	RGA
EW232	Current	-6698	1149		RGA
EW233	Current	-5825	1095		RGA
MW233	Current	-5530	7300	295.99	MRGA
MW234	AB 2002	-5188	7206	294.25	AB-RGA
MW235	AB 2002	-4891	7746	296.89	AB-RGA
MW236	Current	-5088	7920	294.78	LRGA
MW238	Current	-5197	7506	295.74	MRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW240	Current	-5196	7391	295.54	MRGA
MW241	AB 2003	-5204	7347	298.16	AB-RGA
MW241A	Current	7346	-5206	299.49	MRGA
MW242	Current	-7083	1679	299.51	MRGA
MW243	Current	-7382	1681	298.01	MRGA
MW244	Current	-7589	1468	296.93	MRGA
MW245	Current	-7398	1119	299.62	MRGA
MW248	Current	-7377	1385	297.7	MRGA
MW249	Current	-7432	1358	296.57	MRGA
MW250	Current	-7432	1396	299	MRGA
MW252	Current	4228	5718	285.44	LRGA
MW253	Current	3572	3670	270.75	LRGA
MW255	Current	-1510	-2230	287.61	LRGA
MW256	Current	-1597	-1896	279.51	LRGA
MW257	Current	-5972	442	296.73	MRGA
MW258	Current	-746	-1643	289.6	LRGA
MW260	Current	-1982	-786	285.45	LRGA
MW261	Current	-5979	442	277.96	LRGA
MW262	Current	-5380	-292	278.85	LRGA
MW263	AB 2003	-2761	4552	303.48	AB-RGA
MW264	AB 2003	-2240	4640	312.62	AB-RGA
MW265	AB 2000	-1889	4410	300.77	AB-RGA
MW266	AB 2003	-2260	4640	291.27	AB-RGA
MW267	AB 2003	-2820	3265	298.49	AB-RGA
MW268	AB 2002	-3103	6472	306.42	AB-RGA
MW269	AB 2002	-3113	6473	294.27	AB-RGA
MW270	AB 2000	-2713	6514	306.3	AB-RGA
MW271	AB 2002	-2703	6515	300.73	AB-RGA
MW272	AB 2002	-2254	6598	304.83	AB-RGA
MW273	AB 2002	-2245	6598	292.16	AB-RGA
MW274	AB 2002	-2206	6170	305.85	AB-RGA
MW275	AB 2002	-2196	6171	289.69	AB-RGA
MW276	AB 2002	-3107	4471	305.92	AB-RGA
MW277	AB 2000	-3117	4470	293.73	AB-RGA
MW283	Current	1599	903	293.04	LRGA
MW284	Current	1590	913	280.86	LRGA
PZ287	Current	1489	608	281	LRGA
MW288	Current	1565	679	285.1	LRGA
PZ289	Current	1630	610	283.66	LRGA
PZ290	Current	1507	850	285.08	LRGA
MW291	Current	1700	969	292.59	LRGA
MW292	Current	924	33	281.1	LRGA
MW293	AB 2003	1802	839	294.48	AB-RGA
MW293A	Current	1790	843	299.69	MRGA
MW294	AB 2003	1790	843	277.98	AB-RGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW294A	Current	1802	839	283.39	LRGA
MW325	Current	-6100	-2091	291.75	LRGA
MW326	Current	-6185	-2430	287.32	LRGA
MW327	Current	-7101	-2560	286.18	LRGA
MW328	Current	-7337	-1962	302.48	MRGA
MW329	Current	-7347	-1419	305.25	URGA
MW330	Current	-6636	-2207	299.45	MRGA
EW331	Current	1571	834	292.53	RGA
EW332	Current	1765	754	286.74	RGA
MW333	Current	-6210	-1040	300.825	MRGA
MW337	Current	-6265	-811	302.515	MRGA
MW338	Current	-6205	-809	303.165	MRGA
MW339	Current	-6468	663	281.6	LRGA
MW340	Current	-6165	666	281.535	LRGA
MW341	Current	-3939	-1062	297	MRGA
MW342	Current	-4404	-1290	296.75	MRGA
MW343	Current	-4404	-1084	294.25	LRGA
PZ349	Current	-4739	1578	320.38	URGA
PZ351	Current	-6439	1117	318.54	URGA
MW352	AB 2002	-531	-1190	281.12	AB-RGA
MW353	Current	-3312	2599	301.97	MRGA
MW354	Current	-8429	-423	303.35	MRGA
MW355	Current	-4328	762	287.9	LRGA
MW356	Current	-1466	863	259.36	LRGA
MW357	Current	-2830	6452	309.16	URGA
MW358	Current	-2852	6444	290.12	LRGA
MW360	Current	-2627	6468	315.03	URGA
MW361	Current	-2617	6487	299.46	MRGA
MW363	Current	-2392	6521	306.25	URGA
MW364	Current	-2374	6536	287.95	LRGA
MW366	Current	-2246	6121	308.87	URGA
MW367	Current	-2247	6145	289.37	LRGA
MW369	Current	-2958	4565	315.52	URGA
MW370	Current	-2957	4589	296.95	MRGA
MW372	Current	-2487	4817	305.83	URGA
MW373	Current	-2510	4823	292.72	LRGA
MW376	Current	-2403	5816	336.22	URGA
MW380	Current	-5190	7205	293.75	LRGA
MW381	Current	-4893	7746	299	MRGA
MW384	Current	-3121	3828	308.07	URGA
MW385	Current	-3119	3805	291.98	LRGA
MW387	Current	-3073	4189	309.06	URGA
MW388	Current	-3081	4197	295.78	MRGA
MW391	Current	-1993	4558	302.19	MRGA
MW392	Current	-1994	4582	277.53	LRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW394	Current	-1896	3460	306.57	URGA
MW395	Current	-1895	3484	299.5	MRGA
MW397	Current	-2509	3138	295	LRGA
MW401	Current	-7330	-1237		nested screens
MW402	Current	-7370	-1212		nested screens
MW403	Current	-7370	-1237		nested screens
MW404	Current	-7370	-1267		nested screens
MW405	Current	-4116	-1687		nested screens
MW406	Current	-4077	-1701		nested screens
MW407	Current	-4082	-1716		nested screens
MW408	Current	-4072	-1738		nested screens
MW409	Current	4855	3821	285.25	LRGA
MW410	Current	5021	5549	282.85	LRGA
MW411	Current	5082	8876	298.54	MRGA
MW414	Current	-6531	-1221	302.1	MRGA
MW415	Current	-6531	-1207	277.99	LRGA
MW416	Current	-6559	-1470	304.69	MRGA
MW417	Current	-6559	-1461	277.21	LRGA
MW418	Current	-1834	4419	300.85	MRGA
MW419	Current	-1834	4429	285.81	LRGA
MW420	Current	-5794	-1042	303.52	MRGA
MW421	Current	-4335	-1084		nested screens
MW422	Current	-4366	-1084		nested screens
MW423	Current	-4389	-1084		nested screens
MW424	Current	-4406	-1148		nested screens
MW425	Current	-4407	-1226		nested screens
MW426	Current	-9398	2	308.7	URGA
MW427	Current	-9390	10	278.22	LRGA
MW428	Current	-8438	-419	282.27	LRGA
MW429	AB 2009				not plotted
MW429A	Current	-7778	-449	305.43	URGA
MW430	Current	-7776	-465	285.84	LRGA
MW431	Current	-8414	61	289.49	LRGA
MW432	Current	-8229	492	296.47	MRGA
MW433	Current	-4527	12219	303.46	MRGA
MW435	Current	-4527	12205	278.39	LRGA
MW439	Current	-2679	12576	296.05	MRGA
MW440	Current	-2688	12565	288.56	LRGA
MW441	Current	-2696	12553	278.11	LRGA
MW442	Current	-2827	11896	289.34	LRGA
MW443	Current	-2868	11922	275.36	LRGA
MW444	Current	-2848	11909	261.59	LRGA
MW445	Current	-2413	11307	298.58	MRGA
MW447	Current	-2424	11310	263.06	LRGA
MW448	Current	-3315	11330	303.99	MRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW450	Current	-3335	11330	281.4	LRGA
MW451	Current	-8032	4212	309.19	URGA
MW452	Current	-8034	4195	284.97	LRGA
MW453	Current	-6562	3488	310.66	URGA
MW454	Current	-6578	3492	288.64	LRGA
MW455	Current	-7557	1963	304.69	MRGA
MW456	Current	-7561	1954	283.2	LRGA
MW457	Current	-7064	1993	310.36	URGA
MW458	Current	-7063	1983	286.54	LRGA
MW459	Current	-6617	1962	310.74	URGA
MW460	Current	-6616	1944	284.48	LRGA
MW461	Current	-6188	1982	312.36	URGA
MW462	Current	-6180	1972	292.24	LRGA
MW463	Current	1728	8665	302.86	MRGA
MW464	Current	1749	8660	290.26	LRGA
MW465	Current	2653	8312	304.38	MRGA
MW466	Current	2639	8317	297.23	MRGA
MW467	Current	3144	8218	305.19	URGA
MW468	Current	3157	8214	296.74	MRGA
MW469	Current	4050	8037	301.99	MRGA
MW470	Current	4066	8034	293.97	LRGA
MW471	Current	4903	7838	297	MRGA
MW472	Current	4905	7822	288.19	LRGA
MW473	Current	3077	11594	294.3	LRGA
MW474	Current	3058	11598	280.34	LRGA
MW475	Current	4309	11309	298.13	MRGA
MW476	Current	4329	11305	271.96	LRGA
MW477	Current	1856	6850	286.99	LRGA
MW478	Current	-746	-1632	299.61	MRGA
MW479	Current	-748	-586	305.98	URGA
MW480	Current	-748	-576	288.83	LRGA
MW481	Current	-796	1375	302.79	MRGA
MW482	Current	-790	1367	273.86	LRGA
MW483	Current	2036	5625	299.4	MRGA
MW484	Current	2047	5625	282.56	LRGA
MW485	Current	2623	5708	300.33	MRGA
MW486	Current	2638	5708	271.05	LRGA
MW487	Current	3493	5697	286.73	LRGA
MW488	Current	4216	5721	304.02	MRGA
MW489	Current	-4376	8032	304.5	MRGA
MW490	Current	-4373	8016	294.58	LRGA
MW491	Current	-3672	7696	305.71	URGA
MW492	Current	-3671	7712	290.92	LRGA
MW493	Current	-3202	6953	306.77	URGA
MW494	Current	-3203	6969	295.05	MRGA

Table B.5. RGA Well Inventory (Continued)

Well Number	Status	X	Y	Screen Midpoint (ft amsl)	Horizon
MW495	Current	-771	-44	272.79	LRGA
MW496	Current	-764	890	271.63	LRGA
MW497	Current	-6751	1112	304.87	MRGA
MW498	Current	-6768	1107	280.6	LRGA
MW499	Current	-5768	1092	301.87	MRGA
MW500	Current	-5782	1096	282.82	LRGA
MW501	Current	-7939	1981	303.63	MRGA
MW502	Current	-7927	1981	286.93	LRGA
MW503	Current	-5360	1089	284.38	LRGA
MW504	Current	-5376	1086	317.29	URGA
MW505	Current	-4013	-1940	314.05	URGA
MW506	Current	-4013	-1940	302	MRGA
MW507	Current	-4013	-1940	289.08	LRGA
R20	Current	4775	6106		URGA*
R294	Current	3088	1064		URGA*
R302	Current	5200	2400		URGA*
R384	Current	7068	3946		URGA*
R387	Current	6787	3652		URGA*
R392	Current	6191	3611		URGA*
R424	Current	10879	7175		URGA*

X, Y is shown in the PGDP coordinate system.

Well Number	EW...	Extraction well
	MW...	Monitoring well
	PZ...	Piezometer
	R...	Residential well
Status	AB	Abandoned
Horizon	RGA	Regional Gravel Aquifer
	LRGA	Lower RGA
	MRGA	Middle RGA
	URGA	Upper RGA
	*	Assumed

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APPENDIX C

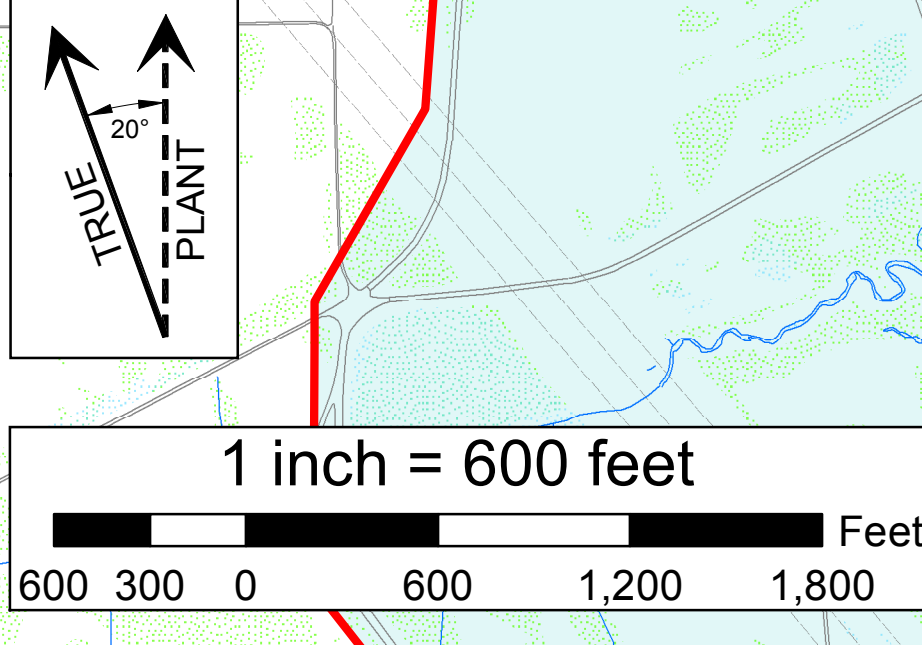
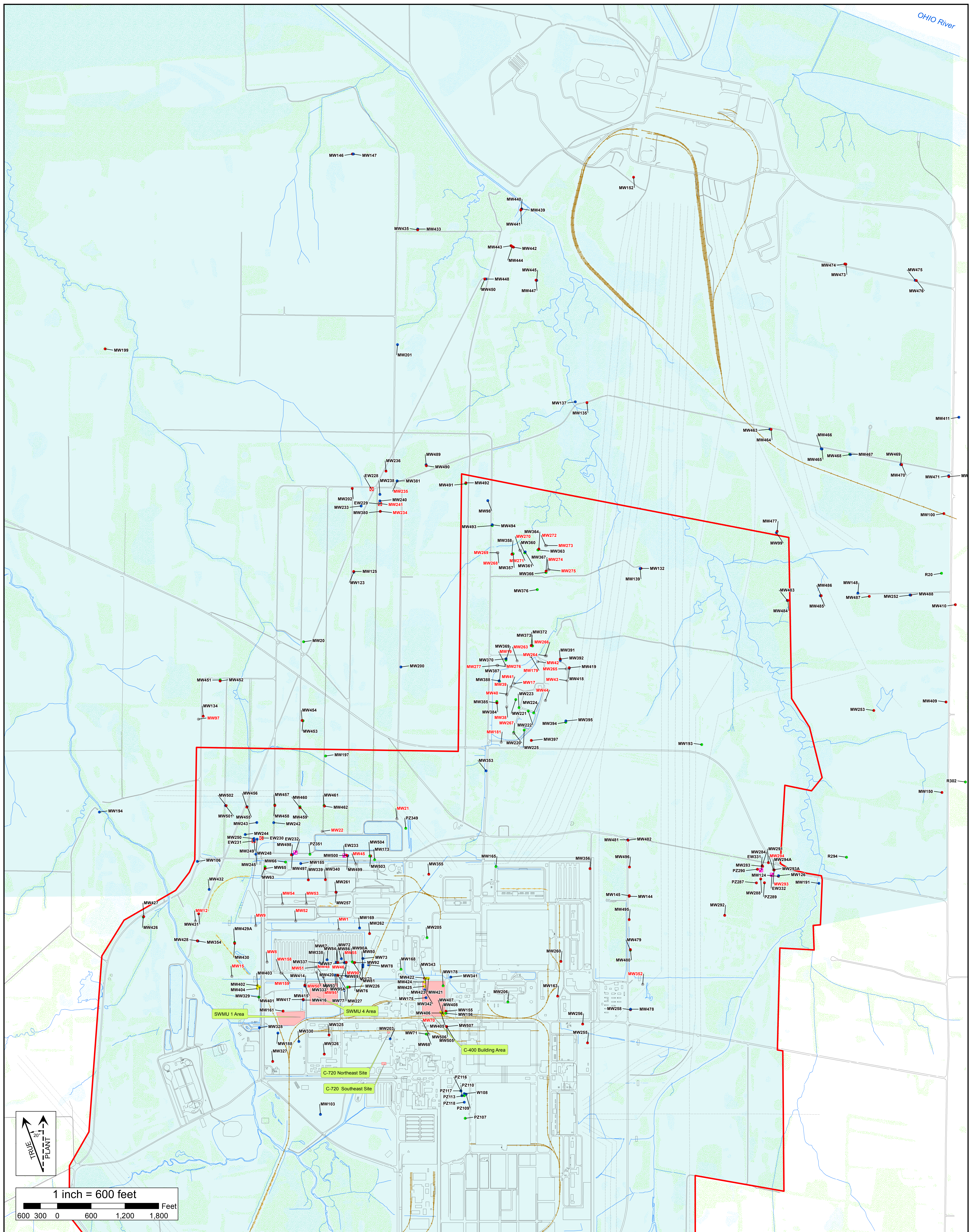
**PGDP WELL NETWORK (REGIONAL GRAVEL
AQUIFER AND 2012 PLUME MAPS)**

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Monitoring Well Information

Screened Horizons -

- Regional Gravel Aquifer (multi-screened)
- Upper Regional Gravel Aquifer¹
- Middle Regional Gravel Aquifer
- Lower Regional Gravel Aquifer
- Abandoned RGA Well

- - Water Policy Area
- - Areas of Investigation during 2011-2012
- MW103 - Active Monitoring Well
- MW294 - Abandoned Monitoring Well
- R20 - Residential Well
- - Extraction Well
- - Inactive Extraction Well

- - DOE Property Boundary
- - Roadways
- - Streams
- - Railroad
- - TVA Powerlines
- - Wetlands
- - Trees & Flora



LATA Environmental Services
of Kentucky, LLC

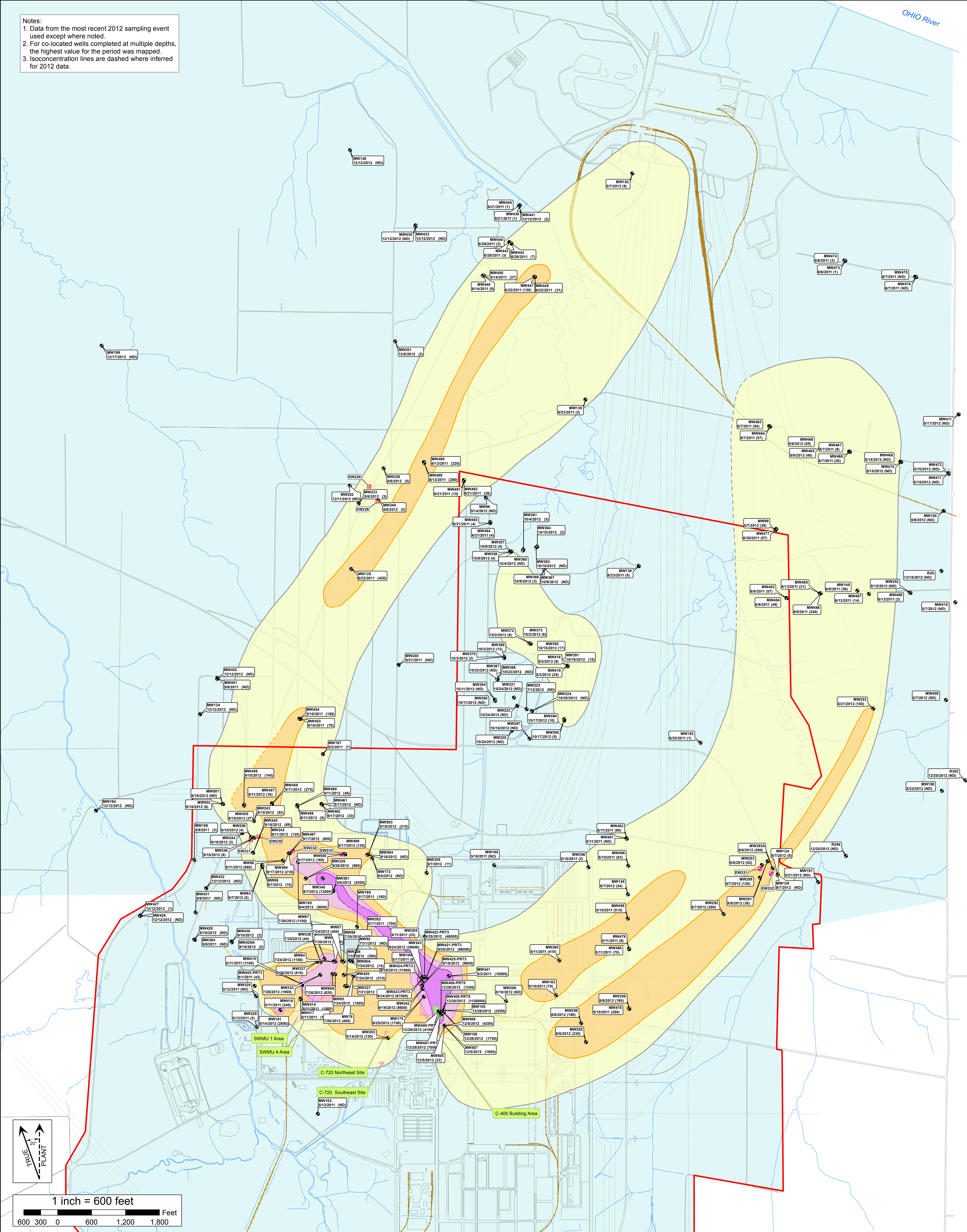
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PADUCAH GASEOUS DIFFUSION PLANT

Figure C.1. Locations of Regional Gravel Aquifer Monitoring Wells at Paducah Gaseous Diffusion Plant

FILE NAME: Fig_C01_2012_PlumesR1	PROJECT #: EM	SCALE: AS NOTED	DATE: 6/27/2013
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¹(Residential wells are assumed to be completed in the Upper Regional Gravel Aquifer)

Notes:
 1. Data from the most recent 2012 sampling event used except where noted.
 2. For co-located wells completed at multiple depths, the highest value for the period was mapped.
 3. Isoconcentration lines are dashed where inferred for 2012 data.



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| <p>2012 TCE Plume Concentration Fields</p> <ul style="list-style-type: none"> 5 - 100 µg/L 100 - 1,000 µg/L 1,000 - 10,000 µg/L 10,000 - 100,000 µg/L ≥ 100,000 µg/L | <ul style="list-style-type: none"> - Water Policy Area - Areas of Investigation during 2011-2012 - Monitoring Well Identification, Date of Sample, and Sample Value R20 - Residential Well - RGA Well - Extraction Well - Inactive Extraction Well | <ul style="list-style-type: none"> - DOE Property Boundary - Roadways - Streams - Railroad - TVA Powerlines |
|---|---|--|

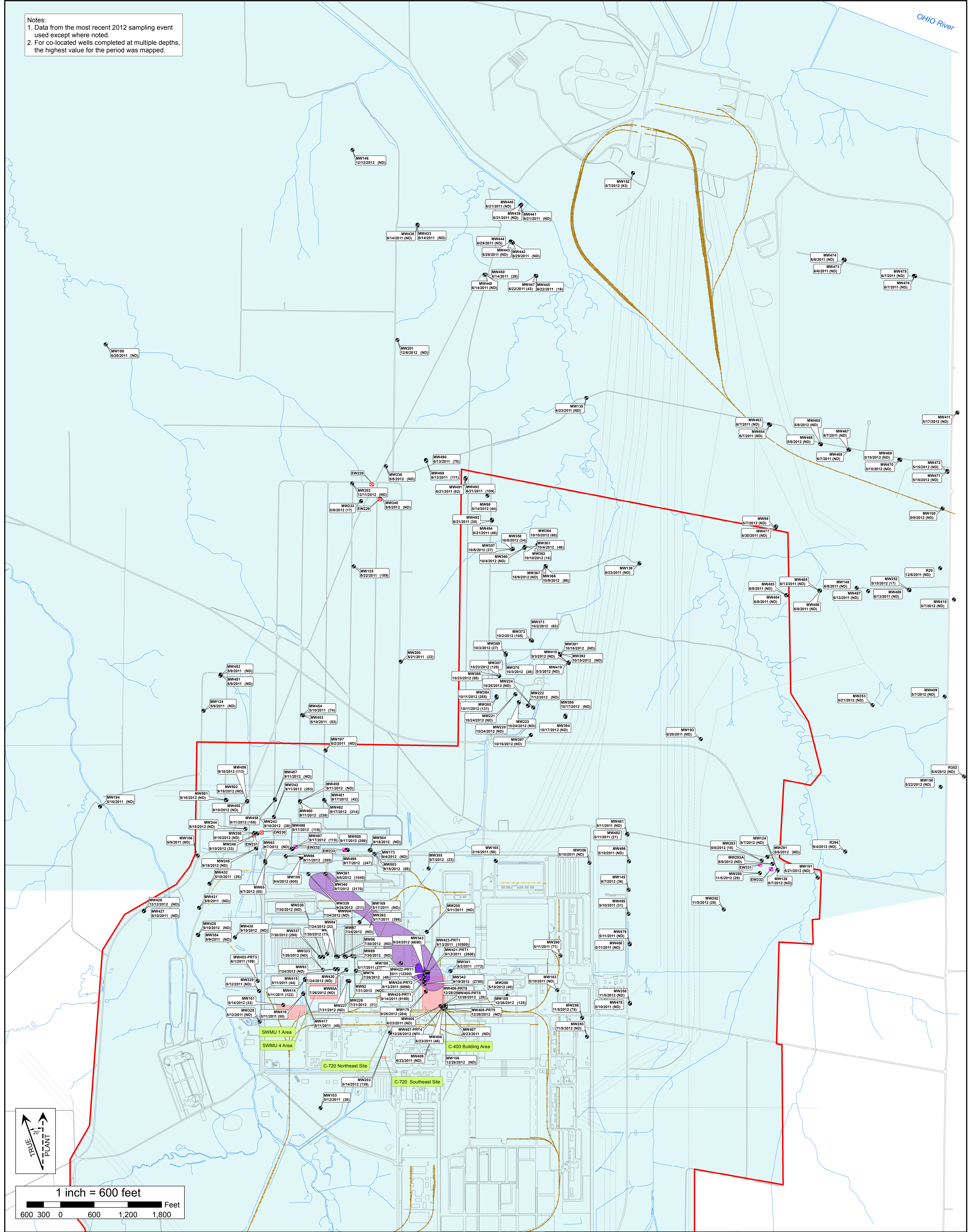


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Figure C.2. 2012 TCE Plume—Regional Gravel Aquifer

FILE NAME: Fig_C02_2012_TCE_PlumeR3	PROJECT #: EM	SCALE: AS NOTED	DATE: 12/13/2013
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Notes:
 1. Data from the most recent 2012 sampling event used except where noted.
 2. For co-located wells completed at multiple depths, the highest value for the period was mapped.



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| <p>2012 Tc-99 Plume Concentration Fields</p> <ul style="list-style-type: none"> 900 - 3,790 pCi/L ≥ 3,790 pCi/L | <ul style="list-style-type: none"> - Water Policy Area - Areas of Investigation during 2011-2012 - Monitoring Well Identification, Date of Sample, and Sample Value
ND - Result Less than MDA - Residential Well - RGA Well - Extraction Well - Inactive Extraction Well | <ul style="list-style-type: none"> - DOE Property Boundary - Roadways - Streams - Railroad - TVA Powerlines |
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Figure C.3. 2012 Tc-99 Plume—Regional Gravel Aquifer