Municipal Setting Designation
Application Instructions

Pre-Application Meeting: While a pre-application meeting is not mandatory, it is strongly encouraged to discuss the specific details of the site. Please note: the City of Houston will not support a Municipal Settings Designation (MSD) application unless a Professional Geologist (P.G.) or Professional Engineer (P.E.) has certified that the groundwater plume is stable or decreasing, fully delineated, the source has been removed, and there is no contact of the contaminated groundwater to surface water. This statement should be supported with historical groundwater monitoring data showing the plume as stable or declining, and fully delineated.

Please contact Jedediah Greenfield at (832) 394-9005, Jedediah.Greenfield@houstontx.gov to schedule a pre-application meeting. Meetings will be held at 1002 Washington, Houston, TX 77002

Application Form: For the application to be complete please submit the following:

1) Two (2) hard copies of the application (the well logs are not necessary for the hard copies but should be included in the electronic copy). Please separate the application appendices with divider sheets that are tabbed.
2) An electronic portable digital file (pdf) of the application including all supporting material
3) An electronic Excel file with mailing addresses for water well owners and property owners. (Templates can be found on the MSD website, www.houstonmsd.org)

The MSD application process is governed by Chapter 47, Article XIII of the City of Houston's Code of Ordinances (ordinance number 2007-959, and amended by ordinance number 2010-556). Failure to use this application form may result in denial of the application.

The application should be clear, complete, concise, correct, contain only relevant information and be organized to facilitate analysis. Supporting documentation should be submitted as a separate appendix to the application, as noted (Label "Appendix__ ") for each numbered item.

Maps: All maps must be accurate and should be drawn to scale. The supporting information can be consolidated on fewer maps than are listed, provided the information is legible.

A professional surveyor currently registered with the Texas Board of Professional Land Surveying must certify that all property descriptions with metes and bounds are accurate.

Submittal: Submit the application form and all supporting information, along with an application fee of $3,400.00 (payable to City of Houston) to the address below. The applicant must also pay the cost of producing and mailing notices, (approximately $6.50 per certified mail and $1.50 per first-class mail), and any applicable venue costs (costs vary by location). Mailings are done through the U.S. Post Office's Click2Mail system. At the time of the mail outs, staff will require a credit card number to pay for processing and mailing the notices.

Jedediah Greenfield
City of Houston MSD Program
1002 Washington, 3rd Floor
Houston, Texas 77002

CITY OF HOUSTON

PUBLIC WORKS AND ENGINEERING
PLANNING & DEVELOPMENT DIVISION

Application for Approval of Municipal Setting Designation

APPLICANT INFORMATION

Applicant's Name: GUIC Industries, Inc.

☐Individual ☒Private Entity ☐Public Entity ☐Non-Profit Entity ☐Other _____

Address: 2801 Post Oak Blvd Suite 400 Houston, TX 77056
(Street) (City) (State) (Zip)

Phone No.: 713-627-2039 Fax No.: _____

Email: tkeng@tanglewoodproperty.com

Contact Information

Name of Contact: Tai-Li Keng

Title: Vice President

Address: 2801 Post Oak Blvd Suite 400 Houston, TX 77056
(Street) (City) (State) (Zip)

Phone No.: 713-627-2039 Fax No.: _____

Email: tkeng@tanglewoodproperty.com

SITE INFORMATION

Site HCAD No(s): 0431490000061

Site Name: GUIC Industries, Inc

Site Size: 18.29-acres

Site Address: 17011 Old Beaumont Highway Houston TX
(Street) (City) (State) (Zip)
(List all owners – additional sheet is attached, if needed)

Owner: GUIC Industries, Inc

Owner Address: 2801 Post Oak Blvd Suite 400 Houston, TX 77056
(Street) (City) (State) (Zip)

Name of Contact: Tai-Li Keng

Title: Vice President

Organization: GUIC Industries, Inc.

Phone No.: 713-627-2039 Fax No.: _____

Email: tkeng@tanglewoodproperty.com

Additional Owner List

(Cont'd from pg. 2)

Owner: UTLX Manufacturing LLC

Owner Address: 16923 Old Beaumont Hwy 90 Houston TX 77049

(Street) (City) (State) (Zip)

Name of Contact: Kim Rowlan

Title: Manager, Human Resources & Environmental

Organization: UTLX

Phone No.: 281-847-8212 Fax No.: 281-456-0519

Email: rowlan@ultx.com

Owner: _____

Owner Address: _____

(Street) (City) (State) (Zip)

Name of Contact: _____

Title: _____

Organization: _____

Phone No.: _____ Fax No.: _____

Email: _____

Owner: _____

Owner Address: _____

(Street) (City) (State) (Zip)

Name of Contact: _____

Title: _____

Organization: _____

Phone No.: _____ Fax No.: _____

Email: _____

Owner: _____

Owner Address: _____

(Street) (City) (State) (Zip)

Name of Contact: _____

Title: _____

Organization: _____

Phone No.: _____ Fax No.: _____

Email: _____

ITEM	COH Use
**Executive Summary	
1. Provide a legal description of the boundaries of the designated property, including metes and bounds, and a copy of the deed for the property. A professional surveyor currently registered with the Texas Board of Professional Surveying must certify that all property descriptions with metes and bounds are accurate. ***Label "Appendix A"***	
2. A description of the current use, and, to the extent know, the anticipated use(s), of the designated property and properties within 500 feet of the boundary of the designated property. ***Label "Appendix B"***	
3. A site map showing. a. The location of the designated property. b. The topography of the designated property as indicated on publicly available sources, which must note the watershed including the nearest surface water body and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code of Ordinances. c. The detected area of groundwater contamination. d. The location of all soil sampling locations and all groundwater monitoring wells. e. Groundwater gradients, to the extent known, and direction of groundwater flow. f. The ingestion protective concentration level exceedence zone for each contaminate of concern, to the extent known. ***Label "Appendix C"***	
4. For each contaminant of concern within the ingestion protective concentration level exceedence zone provide the following: a. A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface. b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units. c. Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water). ***Label "Appendix D"***	
5. Provide for each contaminant of concern within the designated groundwater: a. A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface. b. The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units. c. Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water). ***Label "Appendix E"***	

ITEM	COH Use Only
6. A table displaying the following information for each contaminant of concern, to the extent known: a. The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units. b. The critical protective concentration level without the municipal setting designation, highlighting any exceedences. ***Label "Appendix F"***	
7. A statement as to whether the plume of contamination is stable (i.e. no change), or contracting, and delineated, **with the basis for that statement**. Please include historical sampling data. ***Label "Appendix G"***	
8. A statement as to whether contamination on and off the designated property without a Municipal Setting Designation will exceed a residential assessment level as defined in the Texas Risk Reduction Program or analogous residential level set by EPA, if known, and the basis for that statement. ***Label "Appendix H"***	
9. A statement as to whether contamination on and off the designated property with a Municipal Setting Designation will exceed a residential assessment level as defined in the Texas Risk Reduction Program or analogous residential level set by EPA, if known, and the basis for that statement. ***Label "Appendix I"***	
10. Identification of the points of origin of the contamination and the **person(s) responsible** for the contamination, to the extent known. ***Label "Appendix J"***	
11. Environmental regulatory actions, litigation, and plume identification. a. A description of any environmental regulatory actions that have been taken within the past five years in connection with the designated property, to the extent known. b. A description of any litigation that has taken place within the past five years in connection with the designated property, to the extent known. c. A statement as to whether there are any other remediation activities by the applicant, or any other party or agency, which are not listed in the application. *d.* A statement as to which contamination plume and groundwater zone the applicant is including in the MSD. ***Label "Appendix K"***	
12. A listing of all existing state or EPA registrations, permits, and identification numbers that applies to the designated property. ***Label "Appendix L"***	

ITEM	COH Use Only
13. A statement as to whether the designated property has been admitted to the Texas Voluntary Cleanup Program (section 361.601 of the Texas Health & Safety Code, as may be amended from time to time) or similar state or federal programs, and a description of the status of the designated property in the program. Also, include the state or federal cleanup project manager's name. ***Label "Appendix M"***	
14. A summary of any environmental site assessment reports filed with TCEQ regarding any site investigations or response actions that are planned, ongoing or completed related to the designated property. ***Label "Appendix N"***	
15. A statement as to whether any public drinking water supply system exists that satisfies the requirements of Chapter 341 of the Texas Health and Safety Code and that supplies or is capable of supplying drinking water to the designated property and property within one-half mile of the designated property and the identity of each supply system. ***Label "Appendix O"***	
16. The name and address of each owner or operator of a water well registered or permitted by the state or the Houston-Galveston Subsidence District that is located within five miles of the boundary of the designated property, along with a map showing the location of each well and, to the extent known, a notation of whether each well is used for potable water. Well logs must be included in the electronic copy of the application, but should not be included in the hard copies. (An accompanying electronic excel file with mailing information should be included with your application.) ***Label "Appendix P"***	
17. The name and address of each retail public utility, as defined in section 13.002 of the Texas Water Code that owns or operates a groundwater supply well within five miles of the boundary of the designated property. ***Label "Appendix Q"***	
18. A listing of each municipality, other than the city of Houston, with a corporate limit within one-half mile of the boundary of the designated property. ***Label "Appendix R"***	
19. A listing of each municipality, other than the city of Houston, that owns or operates a groundwater supply well within five miles of the boundary of the designated property. ***Label "Appendix S"***	
20. A listing of owners of real property within 2,500 ft. of the boundary of the designated property as indicated by the most recent appraisal district records. Please Note: Depending on the location of your site, this requirement may include real property outside the City of Houston. Be sure to include **ALL** properties in the 2,500 ft. boundary. (An accompanying electronic excel file with mailing information should be included with your application.) ***Label "Appendix T"***	

ITEM	COH Use Only
21. Form U-2012-01 **signed and sealed** by a licensed professional engineer or licensed professional geoscientist authorized to practice in the State of Texas with expertise in environmental remediation. (Form U-2012-01 is attached to the end of this application and can also be found at www.houstonmsd.org under the "Forms" section on the homepage.) ***Label "Appendix U"***	
22. If the licensed professional engineer or licensed professional geoscientist determines that contaminants of concern from sources on the designated property are migrating from or through the designated property more likely than not do exceed a non-ingestion protective concentration level on property beyond the boundary of the designated property, then the applicant must: a. Specify the name and address of the owner of each property. b. Send a copy of the application to the owner of the property with the notice of the public meeting. c. Provide documentation that the designated property has been included in a state or federal program that requires that the entire non-ingestion protective concentration level exceedence zone be addressed to the satisfaction of the agency administering the program, along with documentation of the estimated time period in which it is to be addressed. An example of such a program is the Texas Voluntary Cleanup Program (section 361.501 of the Texas Health and Safety Code, as may be amended from time to time). d. Provide documentation upon completion of the state or federal program showing that the non-ingestion protective concentration level exceedences have been addressed to the satisfaction of the agency administering the program. ***Label "Appendix V"***	
23. Form W-2012-01 **certified/signed** by the applicant and any authorized representatives of the applicant(s) listed in the application. (Form W-2012-01 is attached to the end of this application and can also be found at www.houstonmsd.org under the "Forms" section on the homepage.) ***Label "Appendix W"***	
24. Form X-2012-01 **signed** by the property owner or authorized agent (if an authorized agent, you must provide the legal authorization instrument). (Form W-2012-01 is attached to the end of this application and can also be found at www.houstonmsd.org under the "Forms" section on the homepage.) ***Label "Appendix X"***	
25. If the plume extends beyond the limits of property owners listed in this application, list the owners of the additional property beneath which the plume(s) extend(s), and a summary of interactions with those property owners about the plume(s) and this MSD application. *Please Note: You are not required under this item to notify affected property owners, only to provide a summary or who affected property owners are, and if there have been any communications. No contact can be an acceptable answer.* ***Label "Appendix Y"***	
26. A CD (or other devise) containing the pdf file of the application, Excel spreadsheet of water well owners and property owners for mailing notices. ***Label "Appendix Z"***	

Appendix A

Provide a legal description of the boundaries of the designated property, including metes and bounds, and a copy of the deed for the property.

A legal description of the properties and a copy of the deeds are presented as an attachment to this section.

METES AND BOUNDS
15.2855 ACRES

Being a tract of land containing 15.2855 acres (665,836 square feet) of land, more or less, out of a 221.6791 acre tract described as Parcel 1 in a deed dated November 25, 1987 from Richmond Tank Car Company to CTC Investments, Inc. filed under Harris County Clerk File Number L443465, and being in the John Jones Survey, Abstract 483, Harris County, Texas, and being described more particularly by metes and bounds as follows:

COMMENCING at a 3/4 inch iron pipe found marking the southwesterly corner of a 206.3936 acre tract conveyed to UTLX Manufacturing, Inc. in deed dated January 21, 2005 and recorded under Harris County Clerk File Number Y209014, said point also being on the northerly line of the T. & N. O. Railroad right-of-way (100 feet wide);

THENCE N 63 degrees 53 minutes 00 seconds E a distance of 3617.24 feet along the southerly line of said 206.3936 acre tract to a 1/2 inch iron rod set marking the southwest corner and POINT OF BEGINNING of the herein described 15.2855 acre tract, from said point a 5/8 inch iron rod with cap was found bearing N 30 degrees 03 minutes 14 seconds W at 1.45 feet;

THENCE N 26 degrees 07 minutes 00 seconds W a distance of 244.74 feet to a 5/8 inch iron found for corner;

THENCE along an arc to the right having a central angle of 51 degrees 57 minutes 59 seconds, a radius of 638.00 feet, an arc length of 578.66 feet, a chord bearing of N 64 degrees 15 minutes 44 seconds E, and a chord distance of 559.03 feet to a 5/8 inch iron rod found for corner;

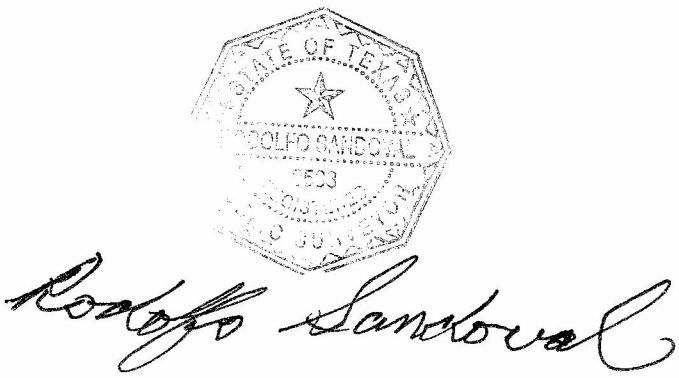
THENCE S 89 degrees 45 minutes 17 seconds E a distance of 379.44 feet to a 1/2 inch iron rod set for corner;

THENCE N 00 degrees 04 minutes 56 seconds E a distance of 46.80 feet to a 5/8 inch iron rod found for corner;

THENCE S 89 degrees 55 minutes 04 seconds E a distance of 938.98 feet to a 1/2 inch iron set for corner on the northerly line of the T. & N. O. Railroad right-of-way;

THENCE S 63 degrees 53 minutes 00 seconds W a distance of 1762.17 feet along the northerly line of the T. & N. O. Railroad right-of-way to the POINT OF BEGINNING of the herein described tract containing 15.2855 acres (665,836 square feet) of land, more or less.

NOTE:
A drawing dated February 13, 2013 was prepared in conjunction with this metes and bounds description.



METES AND BOUNDS
3.0140 ACRES

Being a tract of land containing 3.0140 acres (131,288 square feet) of land, more or less, out of a 206.3936 acre tract conveyed to UTLX Manufacturing, Inc. in deed dated January 21, 2005 and recorded under Harris County Clerk File Number Y209014, and being in the John Jones Survey, Abstract 483, Harris County, Texas, and being described more particularly by metes and bounds as follows:

COMMENCING at a 3/4 inch iron pipe found marking the southwesterly corner of said 206.3936 acre tract, said point being on the northerly line of the T. & N. O. Railroad right-of-way (100 feet wide);

THENCE N 63 degrees 53 minutes 00 seconds E a distance of 3236.69 feet along the southerly line of said 206.3936 acre tract to a 1/2 inch iron rod set marking the southwest corner and POINT OF BEGINNING of the herein described 3.0140 acre tract;

THENCE N 26 degrees 07 minutes 00 seconds W a distance of 345.00 feet to a 1/2 inch iron rod set for corner;

THENCE N 63 degrees 53 minutes 00 seconds E a distance of 380.55 feet to a 1/2 inch iron rod set for corner on the westerly line of a 15.2855 acre tract which is out of a 221.6791 acre tract described as Parcel 1 in a deed dated November 25, 1987 from Richmond Tank Car Company to CTC Investments, Inc. filed under Harris County Clerk File Number L443465;

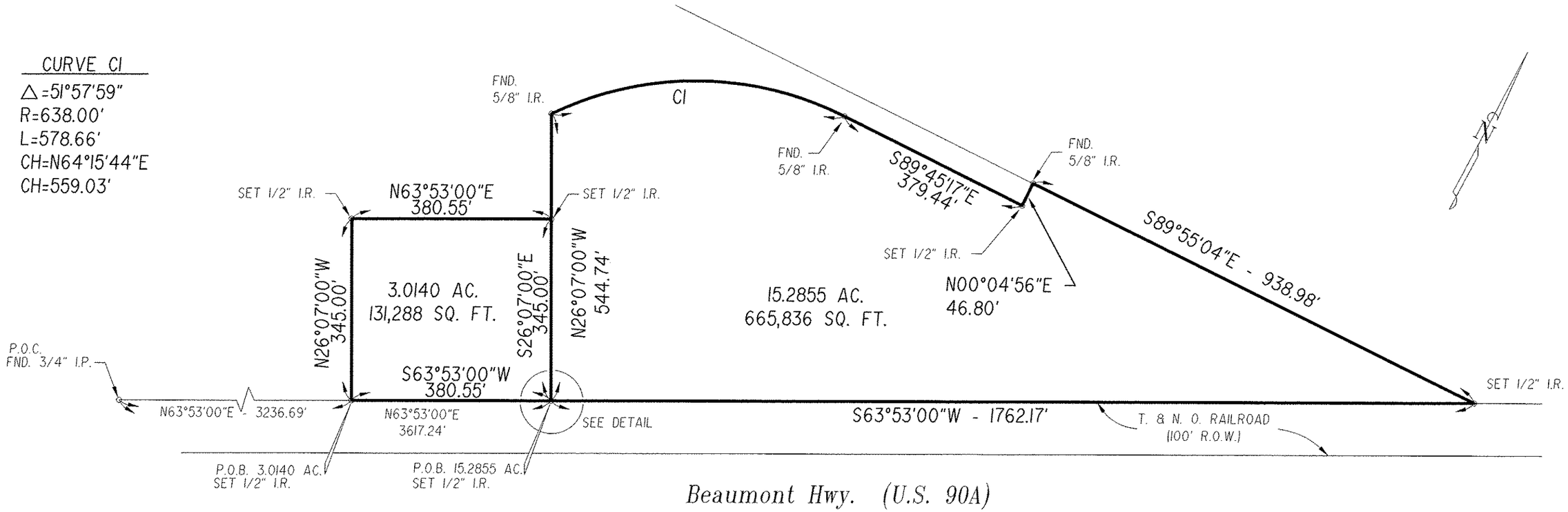
THENCE S 26 degrees 07 minutes 00 seconds E a distance of 345.00 feet along the westerly line of said 15.2855 acre tract to a 1/2 inch iron rod set for corner on the northerly line of the T. & N. O. Railroad right-of-way, from said point a 5/8 inch iron rod with cap was found bearing N 30 degrees 03 minutes 14 seconds W at 1.45 feet;

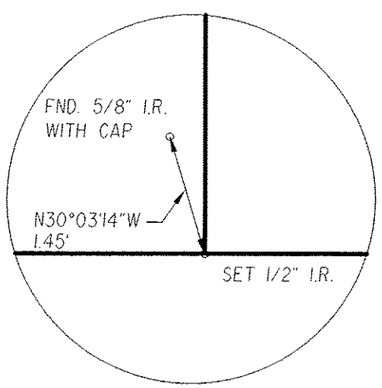
THENCE 63 degrees 53 minutes 00 seconds W a distance of 380.55 feet along the northerly line of the T. & N. O. Railroad right-of-way to the POINT OF BEGINNING of the herein described tract containing 3.0140 acres (131,288 square feet) of land, more or less.

NOTE:
A drawing dated February 13, 2013 was prepared in conjunction with this metes and bounds description.

STATE OF TEXAS
RODOLFO SANDOVAL
5508
REGISTERED
PROFESSIONAL SURVEYOR

Rodolfo Sandoval





DETAIL
N.T.S.

GENERAL NOTES:

1. The orientation of this survey is based on the recorded bearings of the 15.2855 acre tract recorded under Harris County Film Code Number 198-52-06047.

2. This survey drawing is accompanied by a metes and bounds description for the 15.2855 acre tract and the 3.0140 acre tract.

SURVEYOR'S CERTIFICATE:

I, Rodolfo Sandoval, a registered professional land surveyor in the State of Texas, do hereby certify that this survey was this day made on the ground on the property shown hereon.

Dated this the 13th. day of February, 2013.

Rodolfo Sandoval

RODOLFO SANDOVAL
Registered Professional Land Surveyor No. 3538

STATE OF TEXAS
RODOLFO SANDOVAL
3538
REGISTERED
PUBLIC SURVEYOR

Sandoval Engineers & Surveyors, Inc.
1802 Tattenhall
Houston, Texas 77008
(713) 862-6702

Boundary Survey of 15.2855 Acres as recorded in Harris County Film Code No.198-52-0604 and 3.0140 Acres Out of a 206.3936 Acres Tract Recorded Under Harris County Film Code No. Y209014, in the John Jones Survey, A-483, Harris County, Texas

SCALE: 1" = 200'	DATE: 2/13/13
DRAWN: R.S. JR.	FILE NAME: P:\projectsa\weston\quic-90a\quic.dwg

Appendix B

A description of the current use, and, to the extent known, the anticipated use(s), of the designated property and properties within 500 feet of the boundary of the designated property.

The Gulf United Investments Corporation (GUIC Industries) property, formerly Westlake Industries, has historically been used as a railcar maintenance and repair facility (Westlake Metal Fabrication Corp). Since the property was developed in the 1950s, industries occupying the site have been involved in the construction, cleaning, maintenance, and repair of railroad rolling stock. The initial operator is identified on County records as Richmond Tank Car Company. Operations were subsequently acquired and operated as Gulf Railcar, Inc., and then as Westlake Metal Fabrication Corp. In 2005, Westlake Industries was sold and operated as GUIC Industries. Railcar manufacturing operations were discontinued in 1990. In 2005, the majority of the facility (264 acres) was sold to Union Tank Car which continues to perform railcar maintenance activities on the site. A 15.28-acre parcel was retained by GUIC Industries during the divestiture due to environmental considerations. This portion of the property has largely been decommissioned and idle since the 2005 divestiture.

The immediate area surrounding the subject facility is primarily industrial with some small commercial enterprises, as well as major industrial tenants. Old Beaumont Highway (Hwy 90) and the Union Pacific Railroad form the southern boundary of the subject property. These adjacent Rights of Way extend approximately 200 feet south from the GUIC Industries property boundary. Along the south side of Hwy 90 are the Sheldon Early Children's Academy and a small grocery store. Southeast of the property (south of Hwy 90) is Federal Steel Supply company, supplier of pipe and tubular products. North of the GUIC Industries facility is Triad Transfer, an industrial trucking facility, and to the west is the current Union Tank Car. A 3.01-acre parcel of the Union Tank Car property is included in this MSD application. The whole property to be included for this MSD is 18.29-acres in size.

Appendix C

A site map showing:

a. *The location of the designated property.*

b. *The topography of the designated property as indicated on publicly available sources, which must note the watershed <u>including the nearest surface water body</u> and whether the designated property is located in a floodplain or floodway, as those terms are defined in Chapter 19 of the Code of Ordinances.*

c. *The detected area of groundwater contamination.*

d. *The location of all soil sampling locations and all groundwater monitoring wells.*

e. *Groundwater gradients, to the extent known, and direction of groundwater flow.*

f. *The ingestion protective concentration level exceedence zone for each contaminate of concern, to the extent known.*

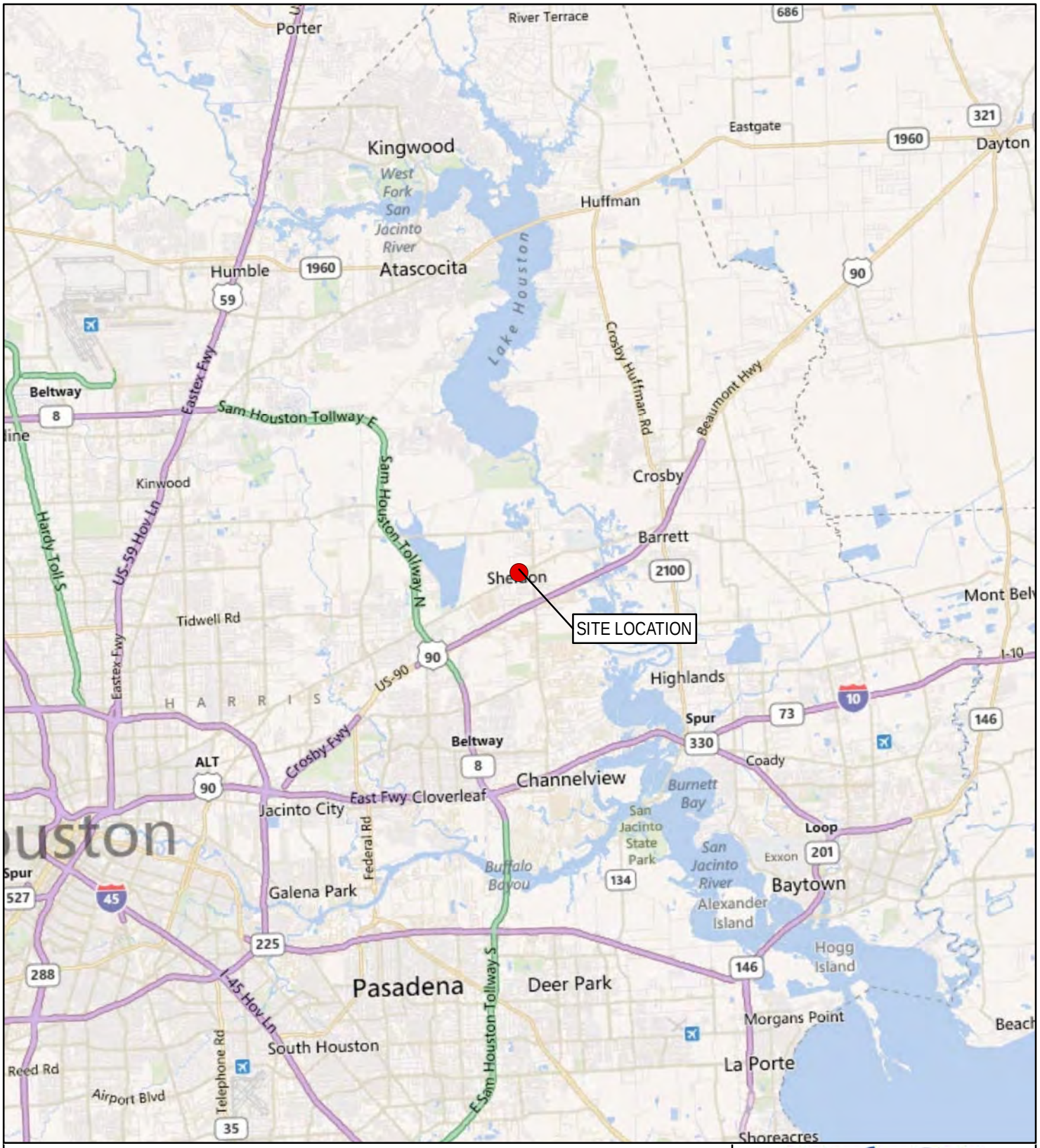
<u>Attached Figures:</u>

Figure 1-1	Site Location Map
Figure 1-2	Property Map
Figure 2	Topographic Map
Figure 3	Monitor Well Location Map
Figure 4	Groundwater Quality Map
Figure 5-1	Shallow Zone Potentiometric Map
Figure 5-2	Intermediate Zone Potentiometric Map
Figure 5-3	Deep Zone Potentiometric Map
Figure 6	Shallow Zone COC Concentration Map
Figure 7	Intermediate Zone COC Concentration Map
Figure 8	Deep Zone COC Concentration Map

Historic Figures Courtesy RSA

Figure 3	Shallow Zone (Unit III) Potentiometric Surface Map December 2003
Figure 4	Intermediate Zone (Units V & Va) Potentiometric Surface Map December 2003
Figure 5	Deep Zone (VI) Potentiometric Surface Map December 2003

Figure 3	Shallow Zone (Unit III) Potentiometric Surface Map February 2004
Figure 4	Intermediate Zone (Units V & Va) Potentiometric Surface Map February 2004
Figure 5	Deep Zone (VI) Potentiometric Surface Map February 2004

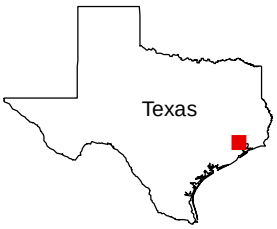


0 4 8

Miles

LEGEND

SITE LOCATION



N

SOURCE: (c) 2010 Microsoft Corporation and its data suppliers

WESTON SOLUTIONS

FIGURE 1-1
SITE LOCATION MAP
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
AUGUST, 2012	14895.001.001.0030	AS SHOWN

FILE: L:\14895 GUIC GAP\GIS\FIGURE_1-1_SITE_LOCATION_MAP.mxd 9:08:34 AM 8/31/2012 bondp

0 350 700

Feet

LEGEND

PROPERTY BOUNDARY

N

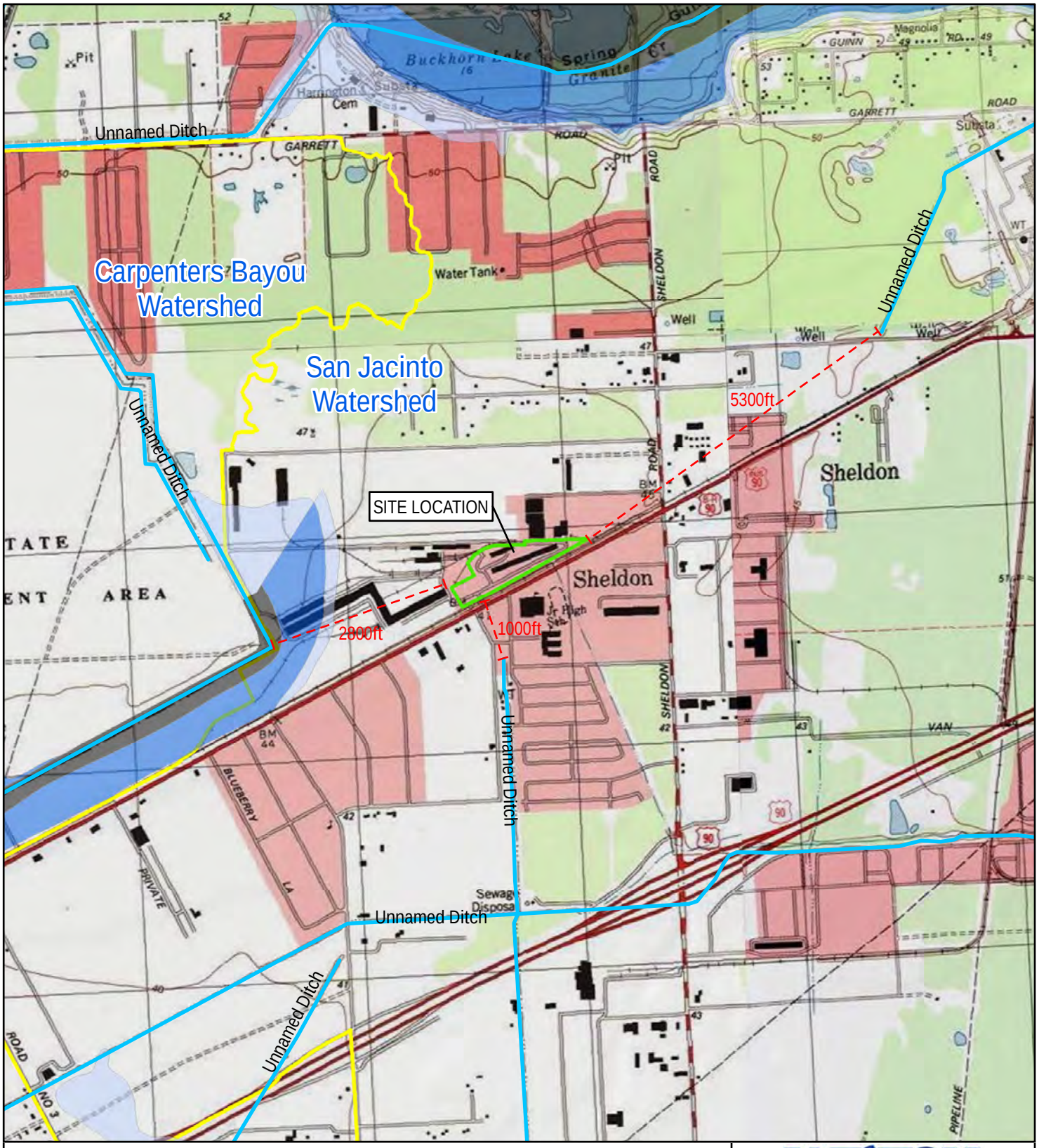
SOURCE: (c) 2010 Microsoft Corporation and its data suppliers

WESTON SOLUTIONS

FIGURE 1-2
PROPERTY MAP
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
AUGUST, 2012	14895.001.001.0030	AS SHOWN

FILE: L:\14895 GUIC GAP\GIS\FIGURE_1-2_PROPERTY_MAP.mxd 8:46:01 AM 8/31/2012 bondp



0 2,000 4,000

Feet

LEGEND

PROPERTY BOUNDARY

WATERSHED BOUNDARY

HYDROLOGY

FLOOD ZONE

FLOODWAY

100 YEAR FLOOD ZONE

500 YEAR FLOOD ZONE

N

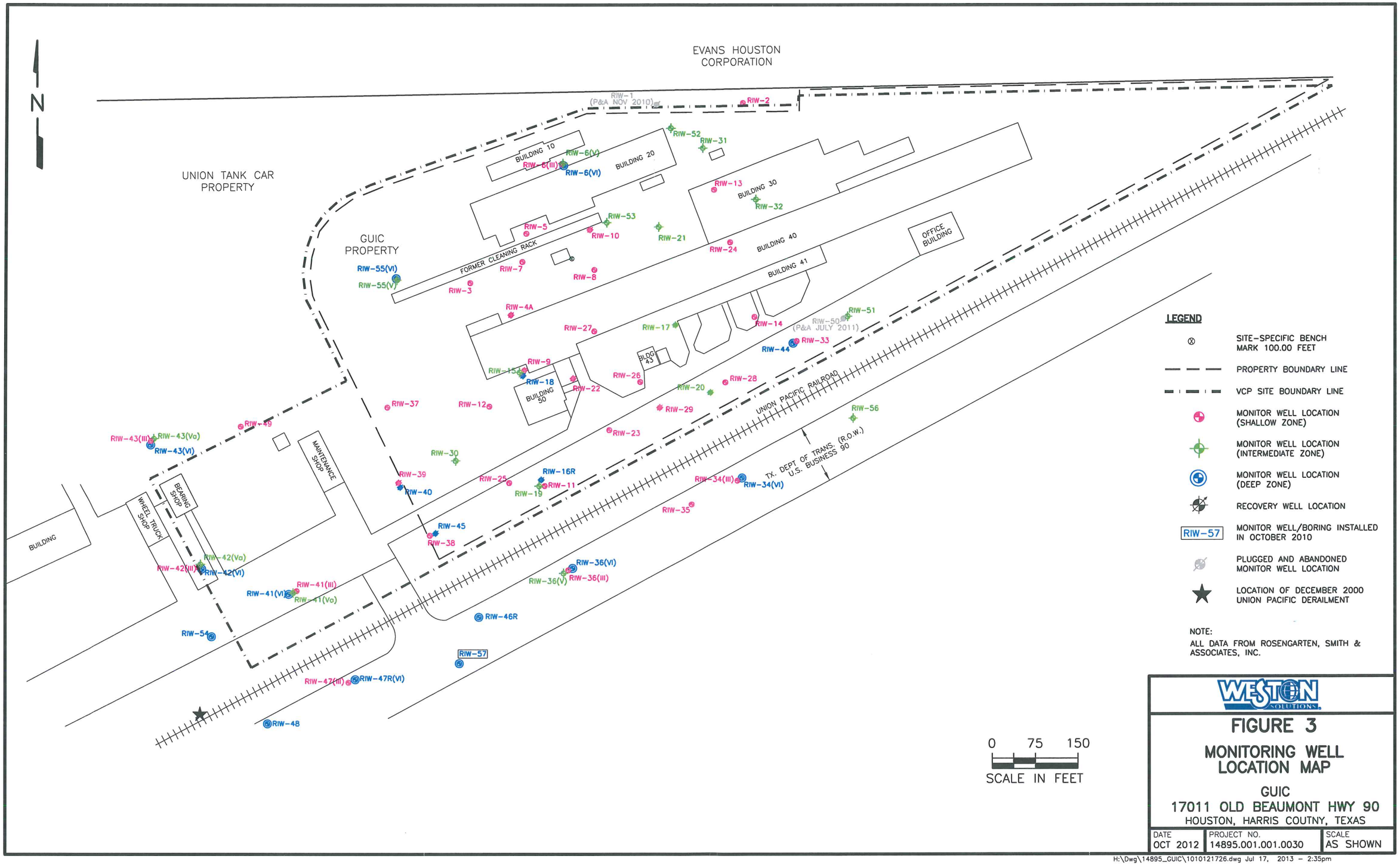
SOURCE: © 2011 National Geographic Society, i-cubed

WESTON SOLUTIONS

FIGURE 2
TOPOGRAPHIC MAP
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
AUGUST, 2013	14895.001.001.0030	AS SHOWN

FILE: L:\14895 GUIC GAP\GIS\FIGURE_2_TOPOGRAPHIC_MAP.mxd 1:51:41 PM 8/12/2013 bondp



WESTON SOLUTIONS

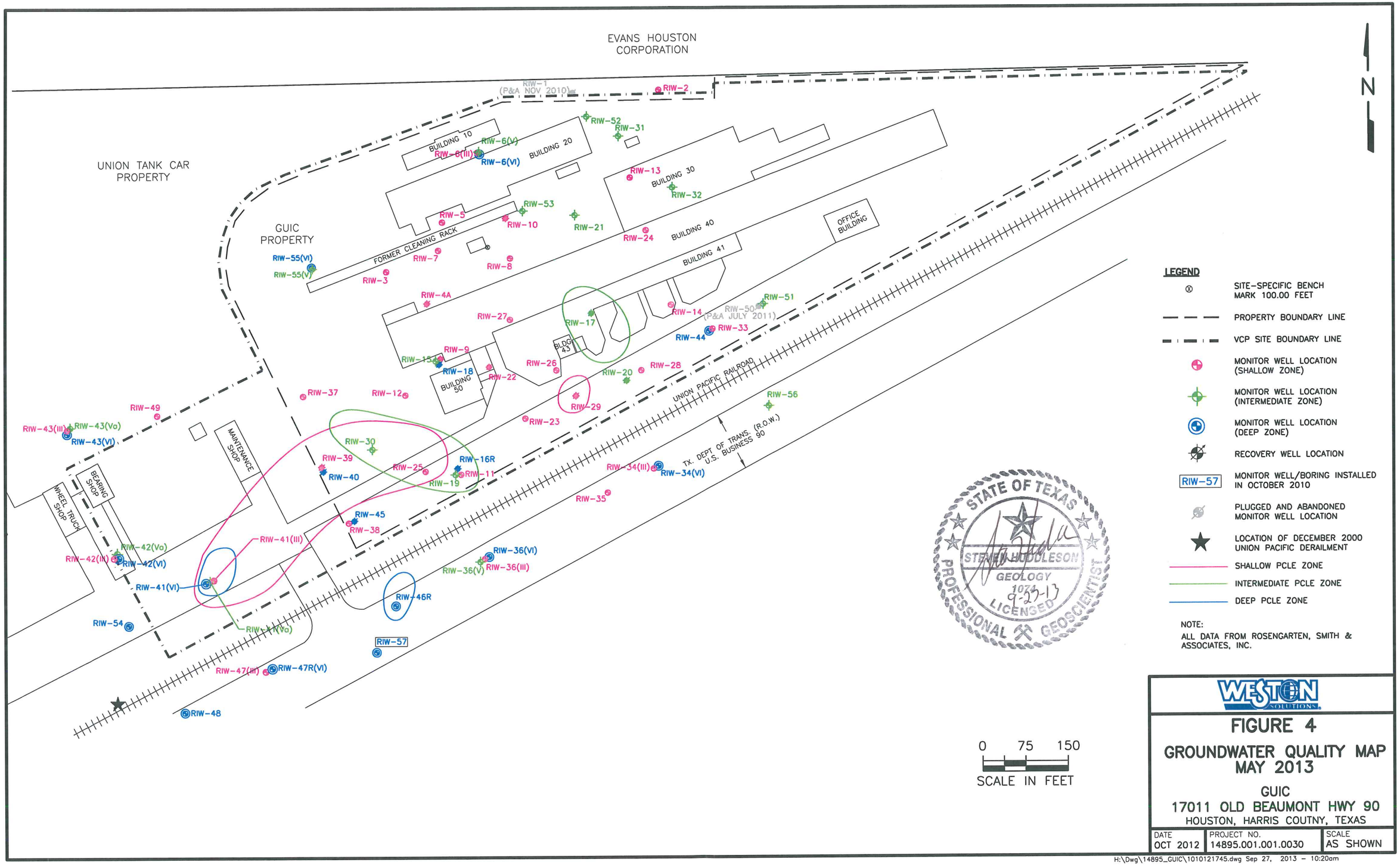
FIGURE 3

MONITORING WELL LOCATION MAP

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
OCT 2012	14895.001.001.0030	AS SHOWN

H:\Dwg\14895_GUIC\1010121726.dwg Jul 17, 2013 - 2:35pm



WESTON SOLUTIONS

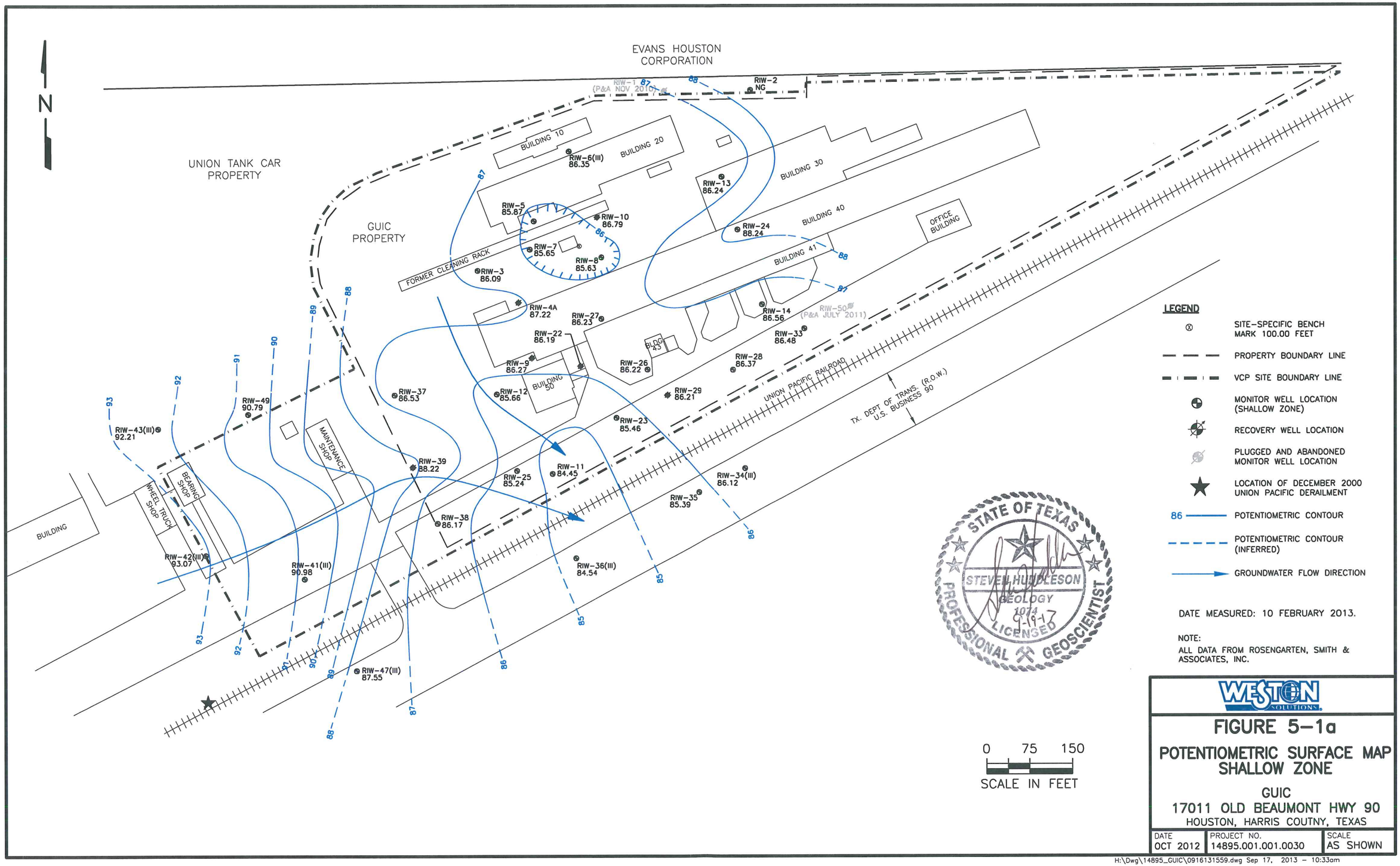
FIGURE 4

GROUNDWATER QUALITY MAP MAY 2013

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
OCT 2012	14895.001.001.0030	AS SHOWN

H:\Dwg\14895_GUIC\1010121745.dwg Sep 27, 2013 - 10:20am


N
EVANS HOUSTON CORPORATION
UNION TANK CAR PROPERTY
GUIC PROPERTY
RIW-1 (P&A NOV 2010)
RIW-2 NG
BUILDING 10
BUILDING 20
BUILDING 30
BUILDING 40
BUILDING 41
OFFICE BUILDING
FORMER CLEANING RACK
RIW-6(III) 86.35
RIW-13 86.24
RIW-5 85.87
RIW-10 86.79
RIW-24 88.24
RIW-7 85.65
RIW-8 85.63
RIW-3 86.09
RIW-4A 87.22
RIW-27 86.23
RIW-14 86.56
RIW-50 (P&A JULY 2011)
RIW-22 86.19
RIW-33 86.48
BLDG 43
RIW-9 86.27
RIW-26 86.22
RIW-28 86.37
BUILDING 50
RIW-12 85.66
RIW-29 86.21
UNION PACIFIC RAILROAD
TX. DEPT OF TRANS. (R.O.W.) U.S. BUSINESS 90
RIW-37 86.53
RIW-49 90.79
RIW-23 85.46
RIW-43(III) 92.21
MAINTENANCE SHOP
RIW-39 88.22
RIW-11 84.45
RIW-25 85.24
RIW-34(III) 86.12
BEARING SHOP
WHEEL TRUCK SHOP
RIW-35 85.39
RIW-38 86.17
BUILDING
RIW-42(III) 93.07
RIW-41(III) 90.98
RIW-36(III) 84.54
RIW-47(III) 87.55
93
92
91
90
89
88
87
86
85
LEGEND
SITE-SPECIFIC BENCH MARK 100.00 FEET
PROPERTY BOUNDARY LINE
VCP SITE BOUNDARY LINE
MONITOR WELL LOCATION (SHALLOW ZONE)
RECOVERY WELL LOCATION
PLUGGED AND ABANDONED MONITOR WELL LOCATION
LOCATION OF DECEMBER 2000 UNION PACIFIC DERAILMENT
86 POTENTIOMETRIC CONTOUR
POTENTIOMETRIC CONTOUR (INFERRED)
GROUNDWATER FLOW DIRECTION
DATE MEASURED: 10 FEBRUARY 2013.
NOTE:
ALL DATA FROM ROSENGARTEN, SMITH & ASSOCIATES, INC.
STATE OF TEXAS
STEVEN HUDDLESON
GEOLOGY
1074
9-19-13
LICENSED
PROFESSIONAL GEOSCIENTIST
0 75 150
SCALE IN FEET
WESTON SOLUTIONS
FIGURE 5-1a
POTENTIOMETRIC SURFACE MAP SHALLOW ZONE
GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS
DATE OCT 2012
PROJECT NO. 14895.001.001.0030
SCALE AS SHOWN
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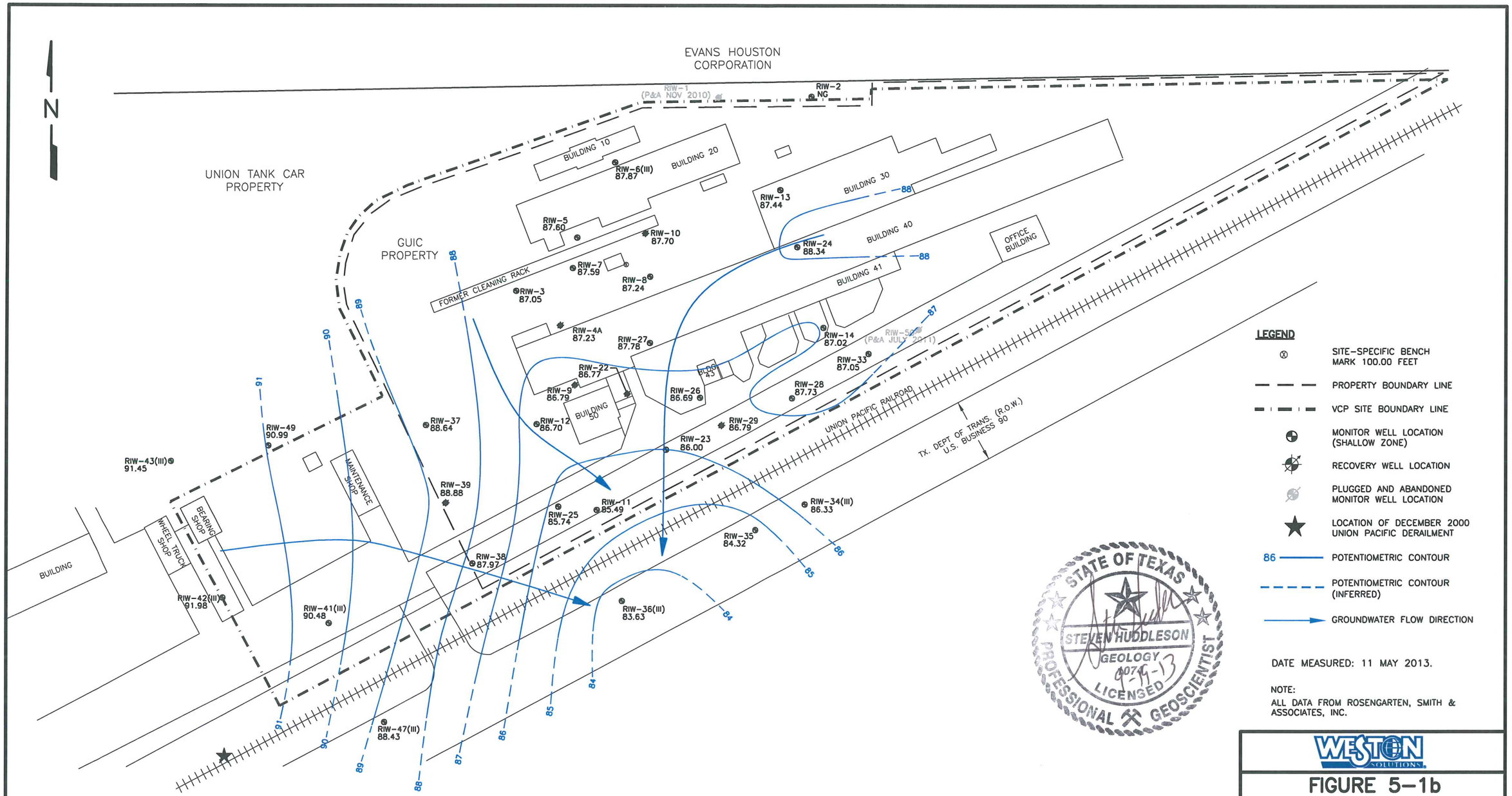

LEGEND

- SITE-SPECIFIC BENCH MARK 100.00 FEET
- PROPERTY BOUNDARY LINE
- VCP SITE BOUNDARY LINE
- MONITOR WELL LOCATION (SHALLOW ZONE)
- RECOVERY WELL LOCATION
- PLUGGED AND ABANDONED MONITOR WELL LOCATION
- LOCATION OF DECEMBER 2000 UNION PACIFIC DERAILMENT
- 86 POTENTIOMETRIC CONTOUR
- POTENTIOMETRIC CONTOUR (INFERRED)
- GROUNDWATER FLOW DIRECTION

DATE MEASURED: 11 MAY 2013.

NOTE:
ALL DATA FROM ROSENGARTEN, SMITH & ASSOCIATES, INC.

STATE OF TEXAS
STEVEN HUDDLESON
GEOLOGY
9-19-13
LICENSED
PROFESSIONAL GEOSCIENTIST

0 75 150
SCALE IN FEET

WESTON SOLUTIONS

FIGURE 5-1b

POTENTIOMETRIC SURFACE MAP SHALLOW ZONE

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
OCT 2012	14895.001.001.0030	AS SHOWN

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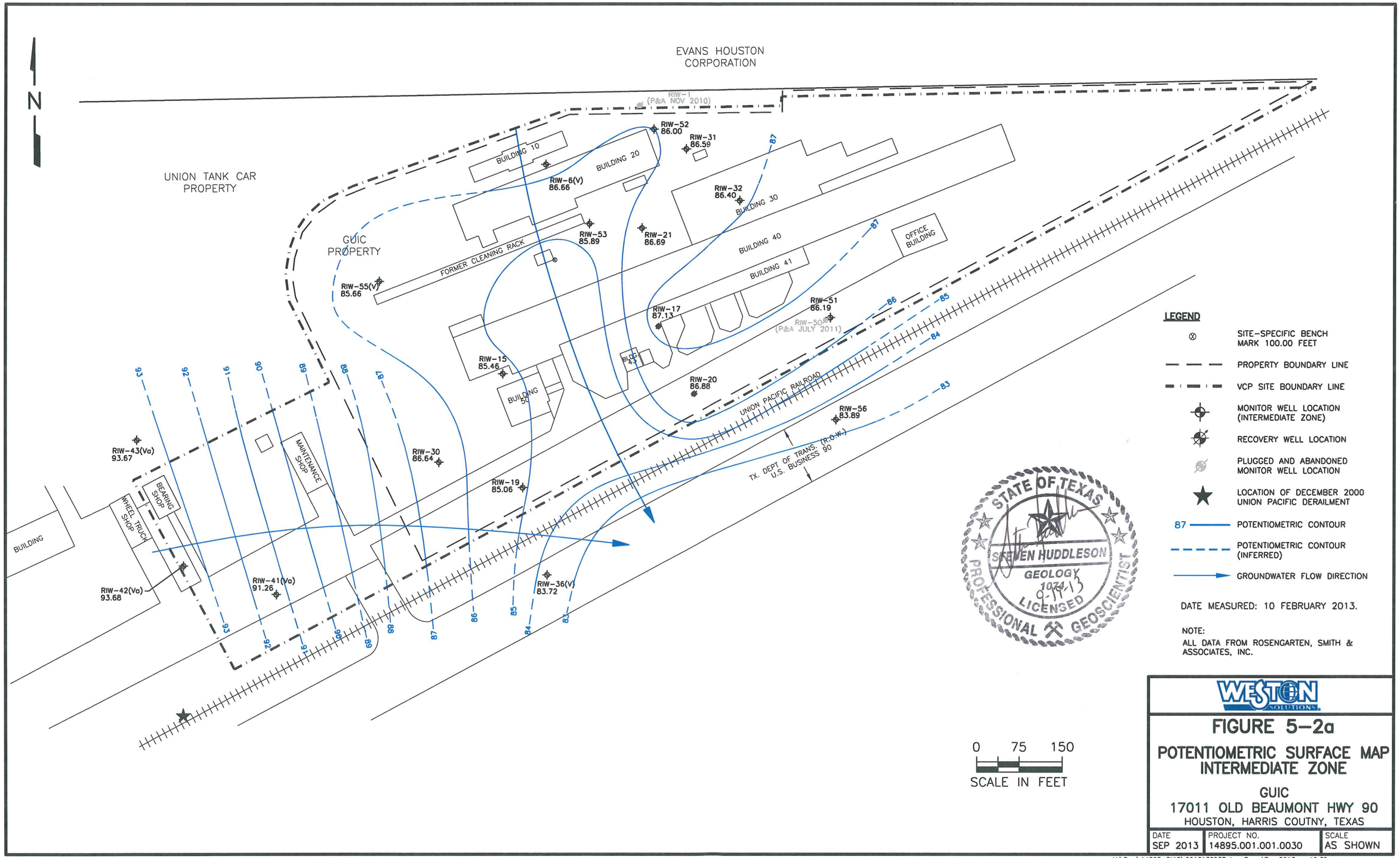


WESTON SOLUTIONS

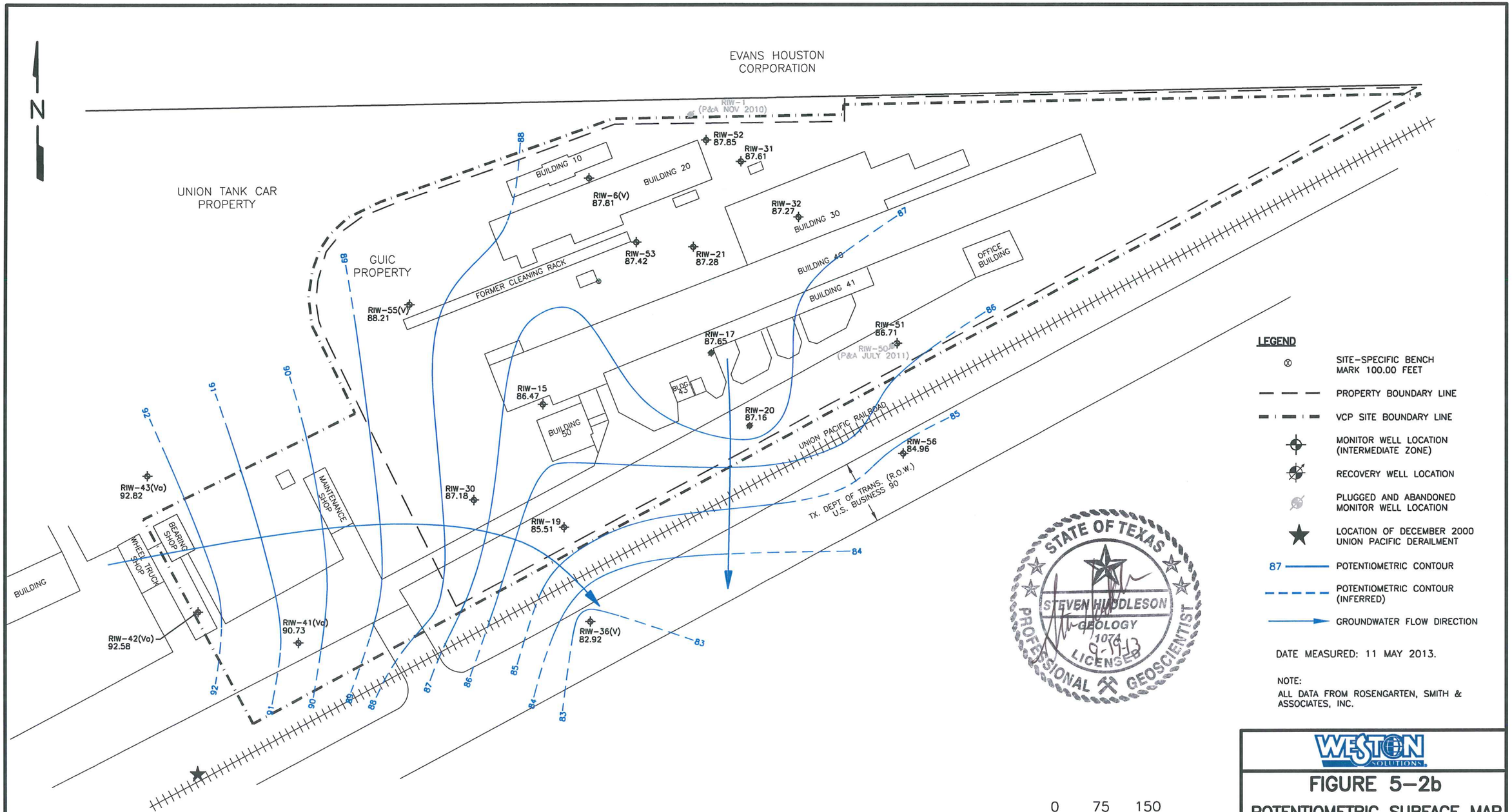
FIGURE 5–2a

POTENTIOMETRIC SURFACE MAP INTERMEDIATE ZONE

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
SEP 2013	14895.001.001.0030	AS SHOWN

H:\Dwg\14895_GUIC\0916130937.dwg Sep 17, 2013 – 10:35am



WESTON SOLUTIONS

FIGURE 5-2b

POTENTIOMETRIC SURFACE MAP INTERMEDIATE ZONE

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
SEP 2013	14895.001.001.0030	AS SHOWN

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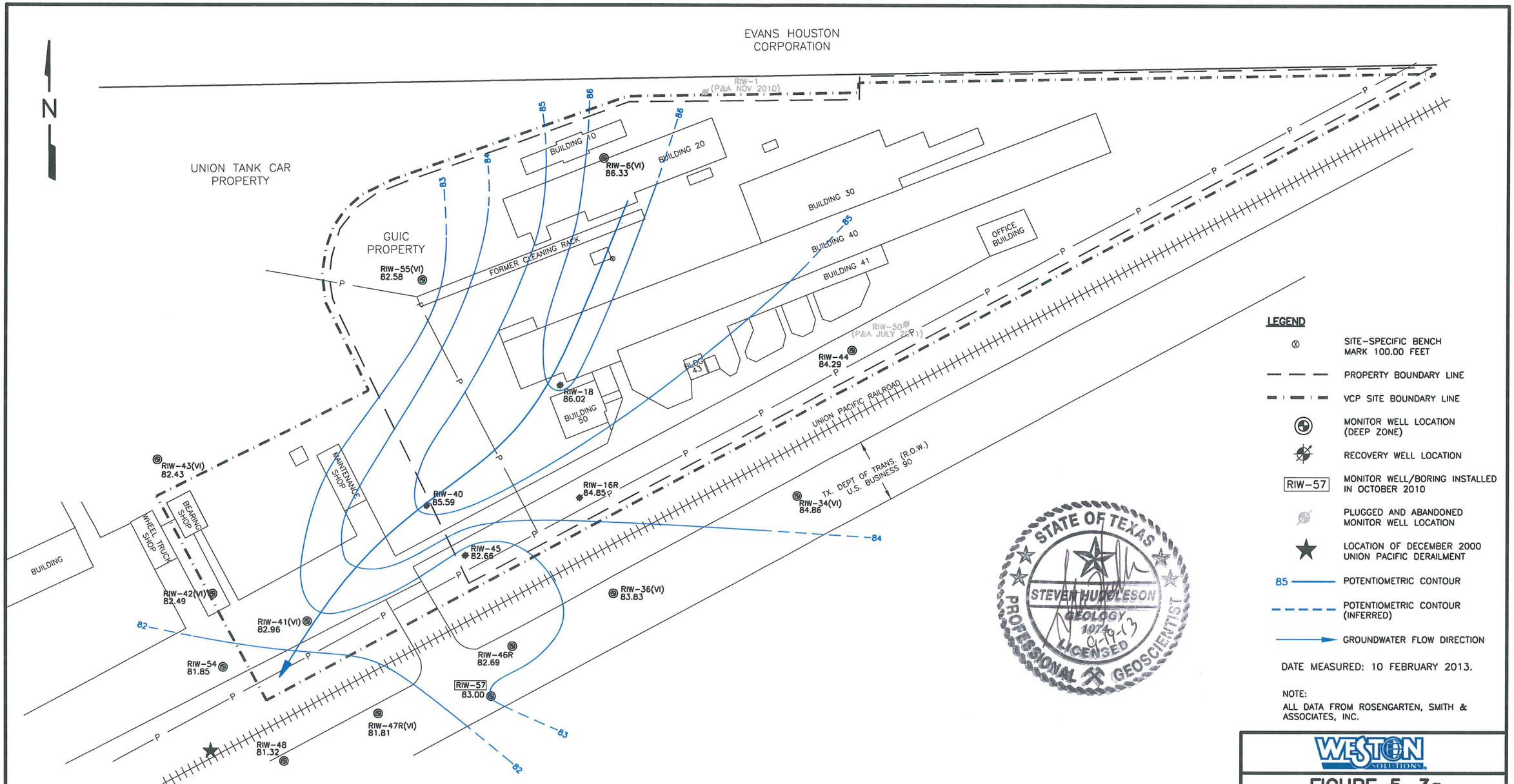

WESTON SOLUTIONS

FIGURE 5-3a

POTENTIOMETRIC SURFACE MAP DEEP ZONE

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
SEP 2013	14895.001.001.0030	AS SHOWN

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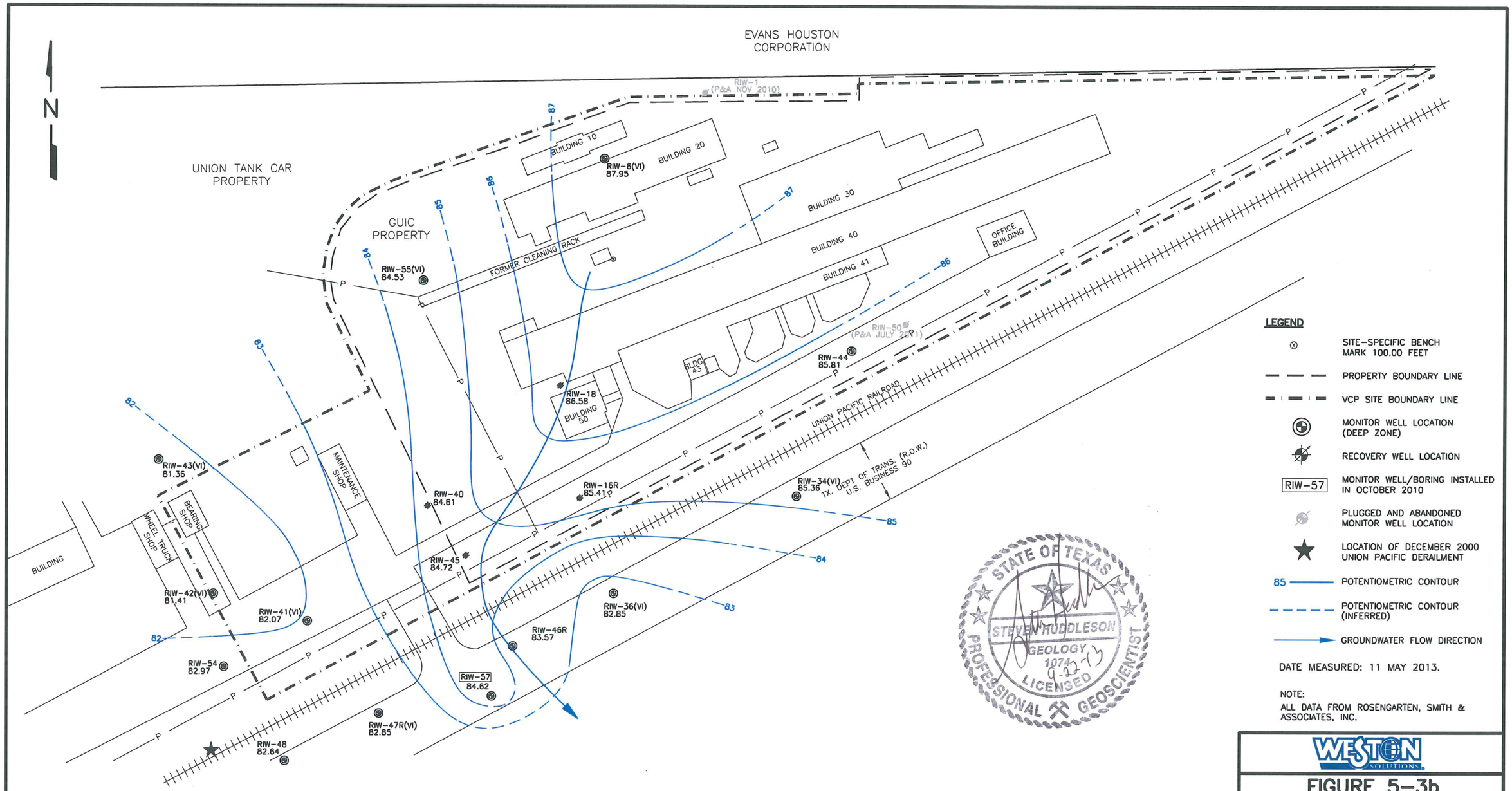

WESTON SOLUTIONS

FIGURE 5-3b

POTENTIOMETRIC SURFACE MAP DEEP ZONE

GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
SEP 2013	14895.001.001.0030	AS SHOWN

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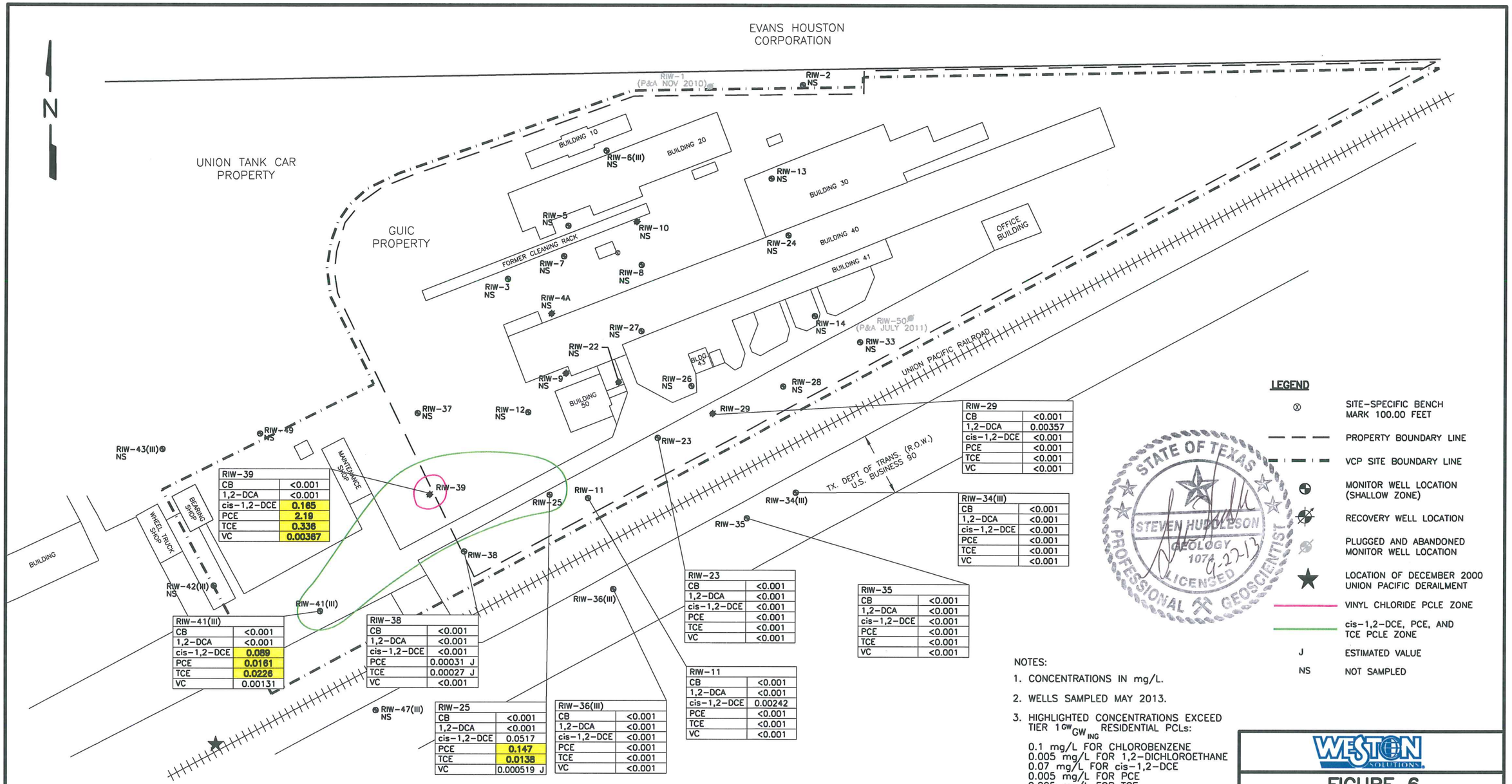

RIW-39	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.165
PCE	2.19
TCE	0.336
VC	0.00367

RIW-29	
CB	<0.001
1,2-DCA	0.00357
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-34(III)	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-23	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-35	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-41(III)	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.089
PCE	0.0161
TCE	0.0226
VC	0.00131

RIW-38	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	0.00031 J
TCE	0.00027 J
VC	<0.001

RIW-11	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.00242
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-25	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.0517
PCE	0.147
TCE	0.0138
VC	0.000519 J

RIW-36(III)	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

LEGEND

- ⊗ SITE-SPECIFIC BENCH MARK 100.00 FEET
- PROPERTY BOUNDARY LINE
- VCP SITE BOUNDARY LINE
- MONITOR WELL LOCATION (SHALLOW ZONE)
- RECOVERY WELL LOCATION
- PLUGGED AND ABANDONED MONITOR WELL LOCATION
- ★ LOCATION OF DECEMBER 2000 UNION PACIFIC DERAILMENT
- VINYL CHLORIDE PCLE ZONE
- cis-1,2-DCE, PCE, AND TCE PCLE ZONE
- J ESTIMATED VALUE
- NS NOT SAMPLED

STATE OF TEXAS
STEVEN HUDDLESON
GEOLOGY
1074
9-22-13
LICENSED
PROFESSIONAL GEOSCIENTIST

NOTES:

1. CONCENTRATIONS IN mg/L.
2. WELLS SAMPLED MAY 2013.
3. HIGHLIGHTED CONCENTRATIONS EXCEED TIER 1 $^{GW}GW_{ING}$ RESIDENTIAL PCLs:
   - 0.1 mg/L FOR CHLOROBENZENE
   - 0.005 mg/L FOR 1,2-DICHLOROETHANE
   - 0.07 mg/L FOR cis-1,2-DCE
   - 0.005 mg/L FOR PCE
   - 0.005 mg/L FOR TCE
   - 0.002 mg/L FOR VC
4. ALL DATA FROM ROSENGARTEN, SMITH & ASSOCIATES, INC.

CB = CHLOROBENZENE
1,2-DCA = cis-1,2-DICHLOROETHANE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE

WESTON SOLUTIONS

FIGURE 6
COC CONCENTRATION MAP SHALLOW ZONE MAY 2013
GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
AUG 2013	14895.001.001.0030	AS SHOWN

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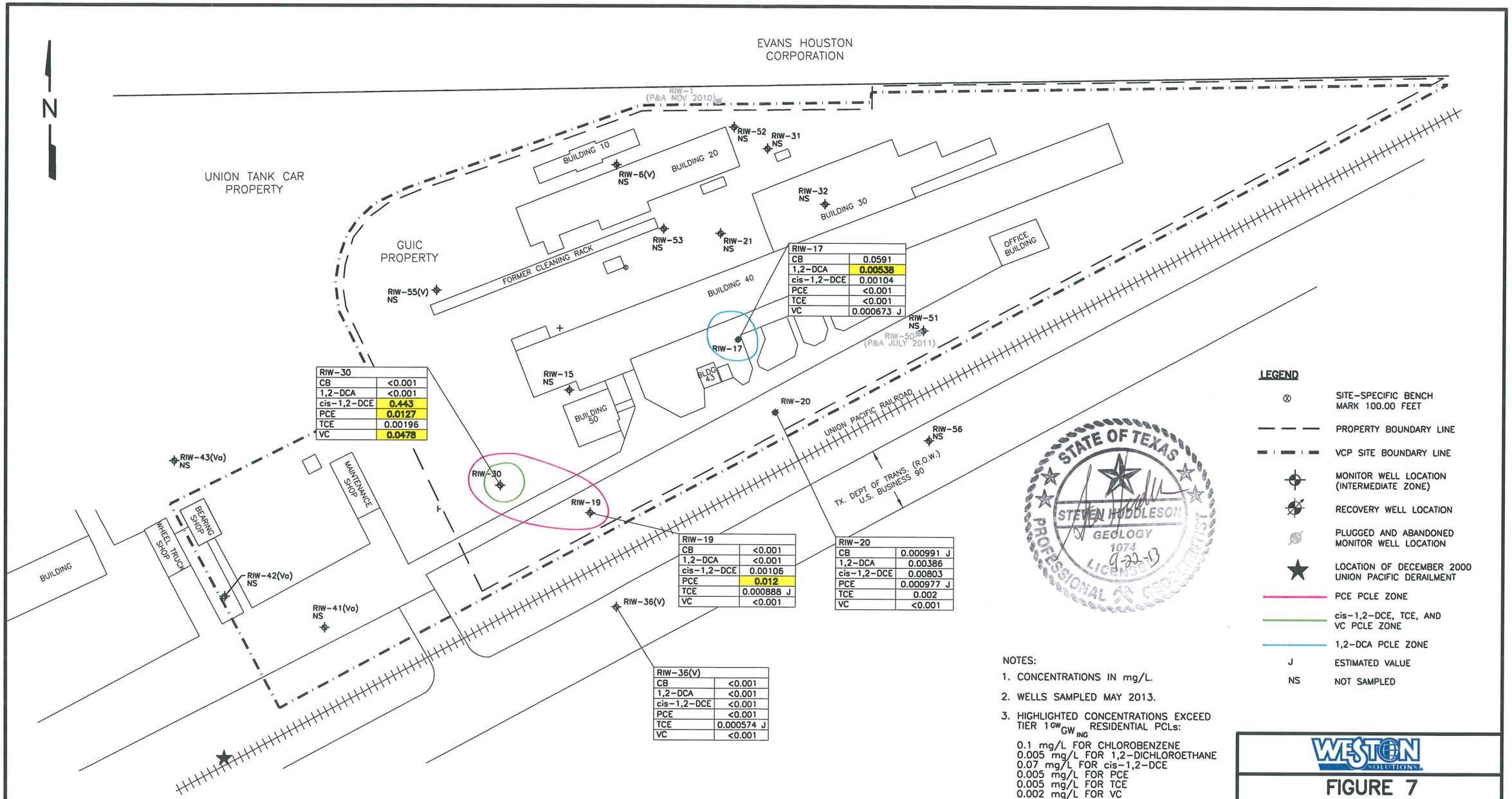

RIW-17	
CB	0.0591
1,2-DCA	0.00538
cis-1,2-DCE	0.00104
PCE	<0.001
TCE	<0.001
VC	0.000673 J

RIW-30	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.443
PCE	0.0127
TCE	0.00196
VC	0.0478

RIW-19	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.00106
PCE	0.012
TCE	0.000888 J
VC	<0.001

RIW-20	
CB	0.000991 J
1,2-DCA	0.00386
cis-1,2-DCE	0.00803
PCE	0.000977 J
TCE	0.002
VC	<0.001

RIW-36(V)	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	0.000574 J
VC	<0.001

LEGEND

- ⊗ SITE-SPECIFIC BENCH MARK 100.00 FEET
- PROPERTY BOUNDARY LINE
- VCP SITE BOUNDARY LINE
- MONITOR WELL LOCATION (INTERMEDIATE ZONE)
- RECOVERY WELL LOCATION
- PLUGGED AND ABANDONED MONITOR WELL LOCATION
- ★ LOCATION OF DECEMBER 2000 UNION PACIFIC DERAILMENT
- PCE PCLE ZONE
- cis-1,2-DCE, TCE, AND VC PCLE ZONE
- 1,2-DCA PCLE ZONE
- J ESTIMATED VALUE
- NS NOT SAMPLED

NOTES:

1. CONCENTRATIONS IN mg/L.
2. WELLS SAMPLED MAY 2013.
3. HIGHLIGHTED CONCENTRATIONS EXCEED TIER 1 $^{GW}GW_{ING}$ RESIDENTIAL PCLs:
   0.1 mg/L FOR CHLOROBENZENE
   0.005 mg/L FOR 1,2-DICHLOROETHANE
   0.07 mg/L FOR cis-1,2-DCE
   0.005 mg/L FOR PCE
   0.005 mg/L FOR TCE
   0.002 mg/L FOR VC
4. ALL DATA FROM ROSENGARTEN, SMITH & ASSOCIATES, INC.

CB = CHLOROBENZENE
1,2-DCA = cis-1,2-DICHLOROETHANE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE

WESTON SOLUTIONS

FIGURE 7
COC CONCENTRATION MAP INTERMEDIATE ZONE MAY 2013
GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
AUG 2013	14895.001.001.0030	AS SHOWN

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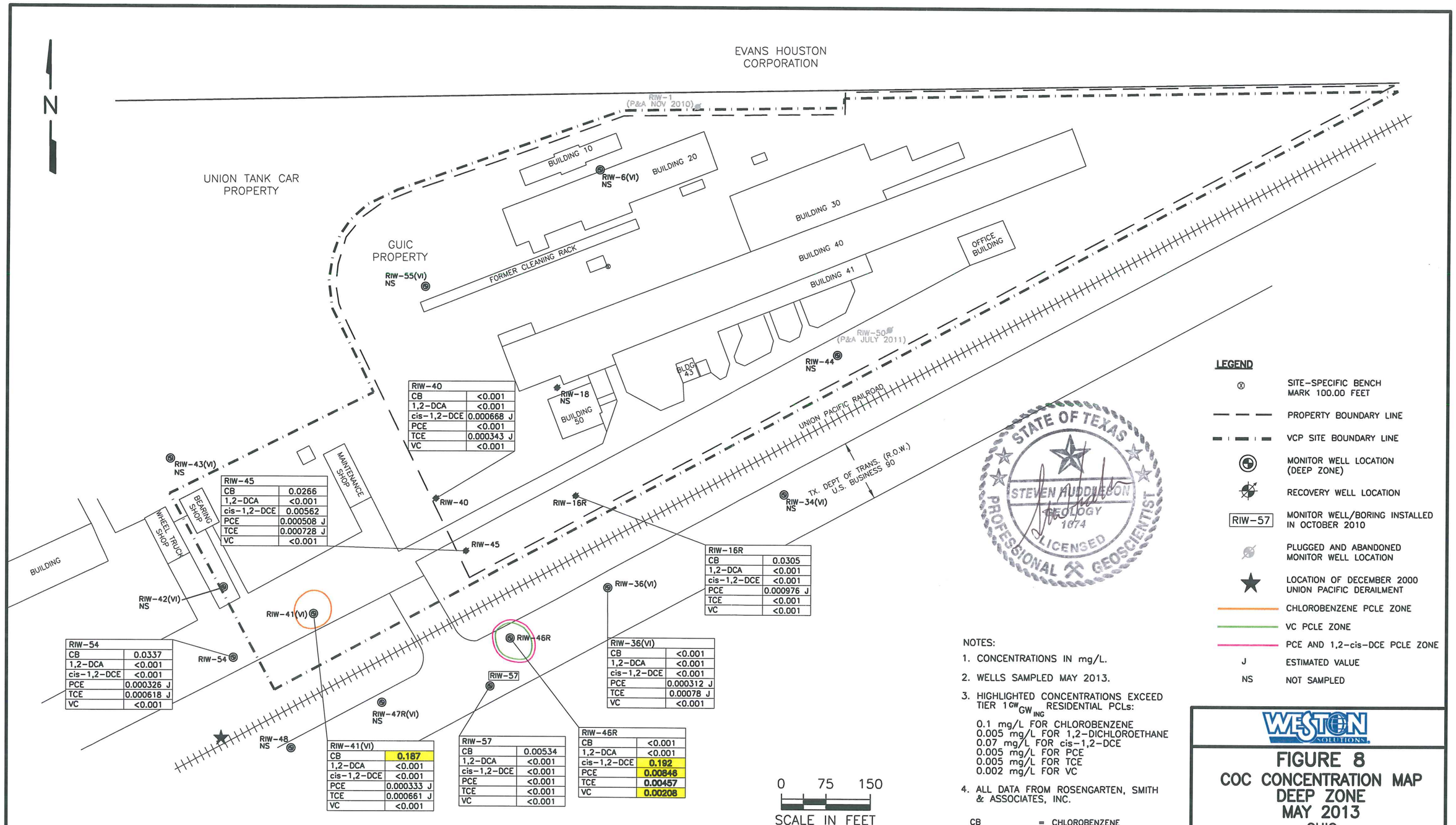

RIW-40	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	0.000668 J
PCE	<0.001
TCE	0.000343 J
VC	<0.001

RIW-45	
CB	0.0266
1,2-DCA	<0.001
cis-1,2-DCE	0.00562
PCE	0.000508 J
TCE	0.000728 J
VC	<0.001

RIW-16R	
CB	0.0305
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	0.000976 J
TCE	<0.001
VC	<0.001

RIW-54	
CB	0.0337
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	0.000326 J
TCE	0.000618 J
VC	<0.001

RIW-36(VI)	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	0.000312 J
TCE	0.00078 J
VC	<0.001

RIW-41(VI)	
CB	**0.187**
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	0.000333 J
TCE	0.000661 J
VC	<0.001

RIW-57	
CB	0.00534
1,2-DCA	<0.001
cis-1,2-DCE	<0.001
PCE	<0.001
TCE	<0.001
VC	<0.001

RIW-46R	
CB	<0.001
1,2-DCA	<0.001
cis-1,2-DCE	**0.192**
PCE	**0.00846**
TCE	**0.00457**
VC	**0.00208**

NOTES:

1. CONCENTRATIONS IN mg/L.
2. WELLS SAMPLED MAY 2013.
3. HIGHLIGHTED CONCENTRATIONS EXCEED TIER 1 GW ING RESIDENTIAL PCLs:
   0.1 mg/L FOR CHLOROBENZENE
   0.005 mg/L FOR 1,2-DICHLOROETHANE
   0.07 mg/L FOR cis-1,2-DCE
   0.005 mg/L FOR PCE
   0.005 mg/L FOR TCE
   0.002 mg/L FOR VC
4. ALL DATA FROM ROSENGARTEN, SMITH & ASSOCIATES, INC.

CB = CHLOROBENZENE
1,2-DCA = cis-1,2-DICHLOROETHANE
cis-1,2-DCE = cis-1,2-DICHLOROETHENE
PCE = TETRACHLOROETHENE
TCE = TRICHLOROETHENE
VC = VINYL CHLORIDE

WESTON SOLUTIONS

FIGURE 8
COC CONCENTRATION MAP DEEP ZONE MAY 2013
GUIC
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUTNY, TEXAS

DATE	PROJECT NO.	SCALE
AUG 2013	14895.001.001.0030	AS SHOWN

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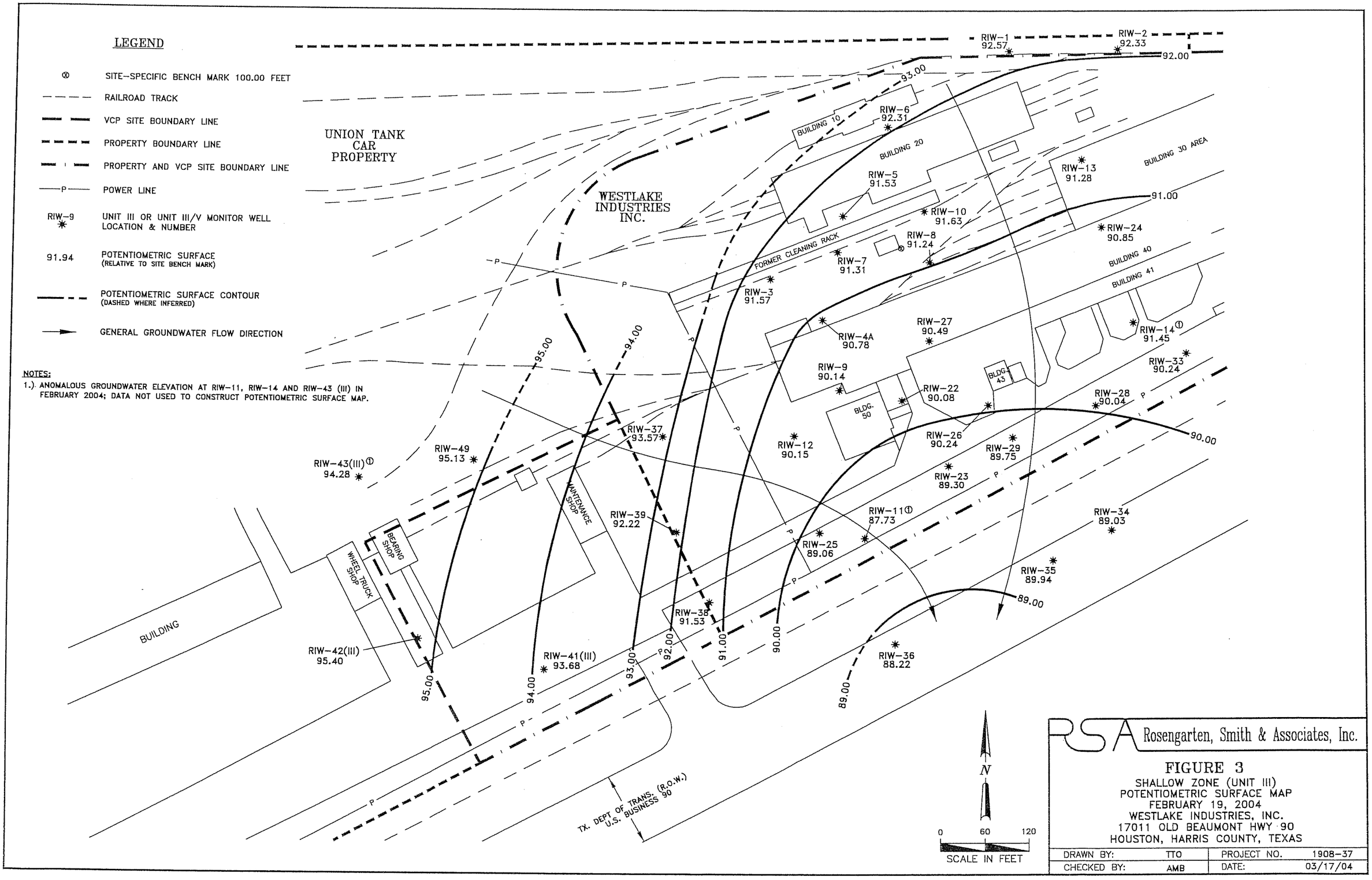
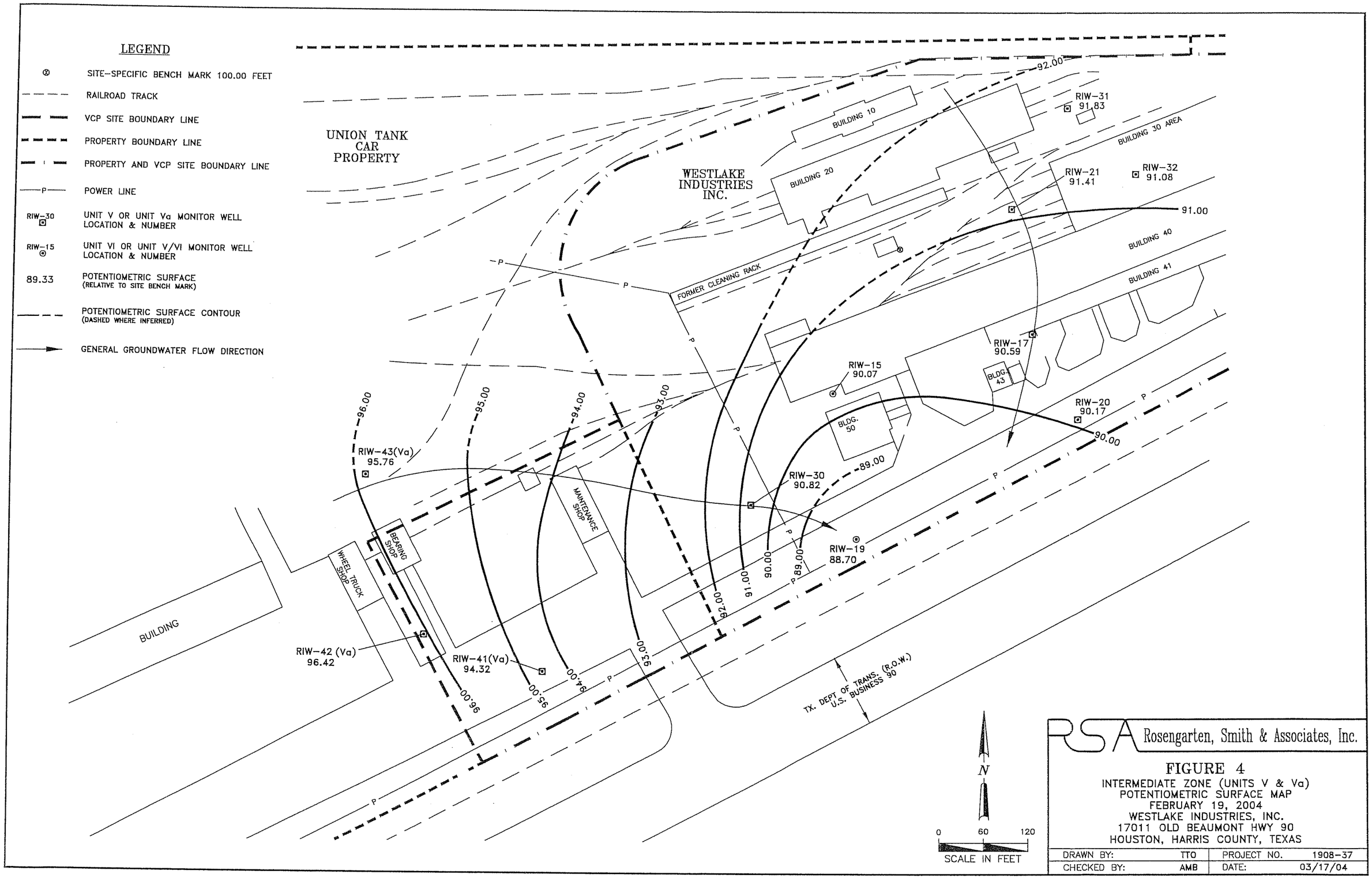

LEGEND
SITE-SPECIFIC BENCH MARK 100.00 FEET
RAILROAD TRACK
VCP SITE BOUNDARY LINE
PROPERTY BOUNDARY LINE
PROPERTY AND VCP SITE BOUNDARY LINE
POWER LINE
RIW-9
UNIT III OR UNIT III/V MONITOR WELL LOCATION & NUMBER
91.94
POTENTIOMETRIC SURFACE (RELATIVE TO SITE BENCH MARK)
POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
GENERAL GROUNDWATER FLOW DIRECTION
NOTES:
1.) ANOMALOUS GROUNDWATER ELEVATION AT RIW-11, RIW-14 AND RIW-43 (III) IN FEBRUARY 2004; DATA NOT USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.
UNION TANK CAR PROPERTY
WESTLAKE INDUSTRIES INC.
BUILDING 10
BUILDING 20
BUILDING 30 AREA
BUILDING 40
BUILDING 41
FORMER CLEANING RACK
BLDG. 43
BLDG. 50
MAINTENANCE SHOP
BEARING SHOP
WHEEL TRUCK SHOP
BUILDING
TX. DEPT OF TRANS. (R.O.W.) U.S. BUSINESS 90
RIW-1 92.57
RIW-2 92.33
RIW-6 92.31
RIW-5 91.53
RIW-13 91.28
RIW-10 91.63
RIW-8 91.24
RIW-24 90.85
RIW-7 91.31
RIW-3 91.57
RIW-4A 90.78
RIW-27 90.49
RIW-14 91.45
RIW-9 90.14
RIW-33 90.24
RIW-22 90.08
RIW-28 90.04
RIW-26 90.24
RIW-29 89.75
RIW-12 90.15
RIW-23 89.30
RIW-37 93.57
RIW-49 95.13
RIW-43(III) 94.28
RIW-39 92.22
RIW-11 87.73
RIW-34 89.03
RIW-25 89.06
RIW-35 89.94
RIW-38 91.53
RIW-42(III) 95.40
RIW-41(III) 93.68
RIW-36 88.22
92.00
93.00
91.00
90.00
89.00
95.00
94.00
92.00
93.00
91.00
90.00
89.00
N
0 60 120
SCALE IN FEET
RSA Rosengarten, Smith & Associates, Inc.
FIGURE 3
SHALLOW ZONE (UNIT III)
POTENTIOMETRIC SURFACE MAP
FEBRUARY 19, 2004
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS
DRAWN BY: TTO
PROJECT NO. 1908-37
CHECKED BY: AMB
DATE: 03/17/04



Rosengarten, Smith & Associates, Inc.

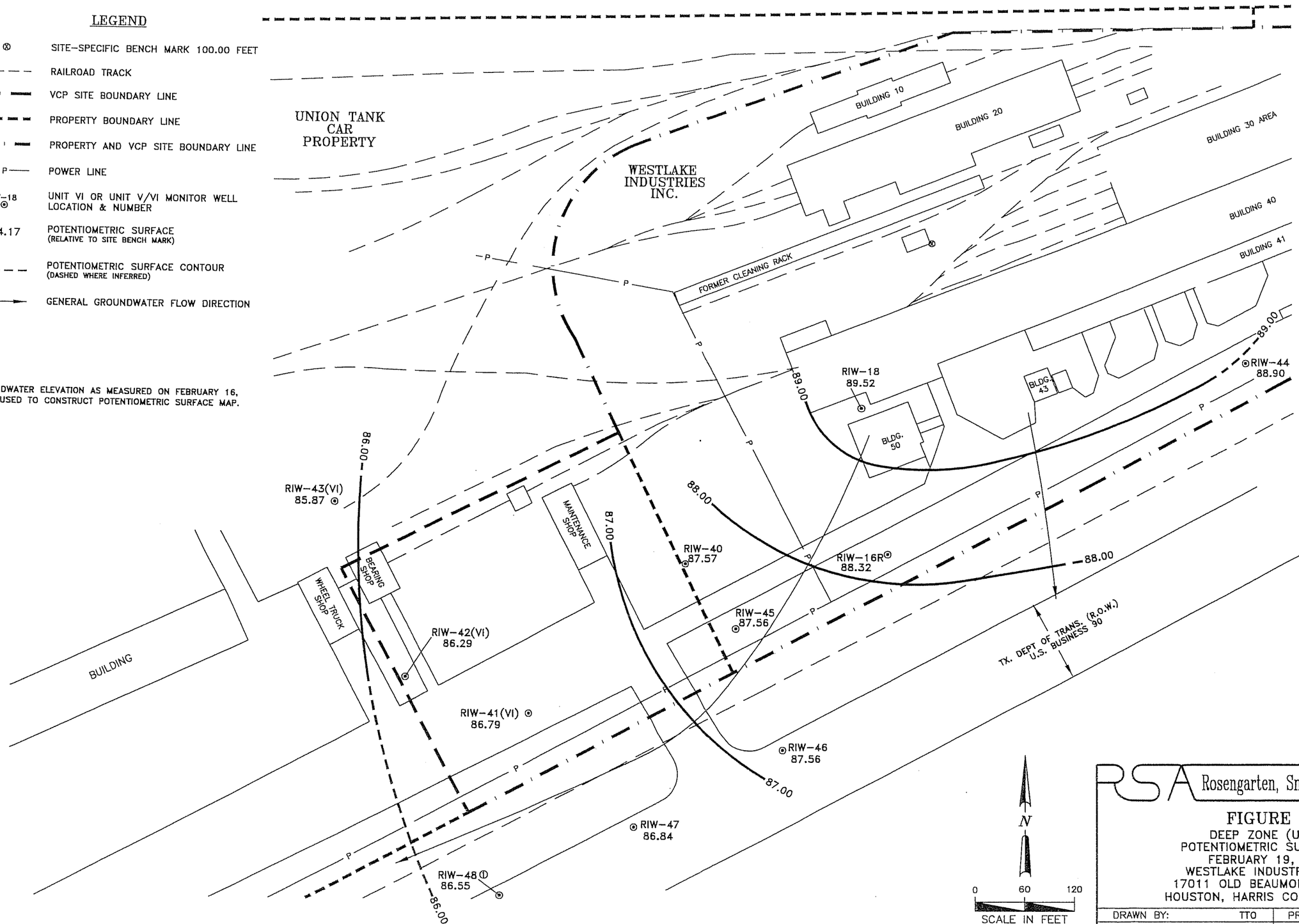
FIGURE 4
INTERMEDIATE ZONE (UNITS V & Va)
POTENTIOMETRIC SURFACE MAP
FEBRUARY 19, 2004
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DRAWN BY:	TTO	PROJECT NO.	1908-37
CHECKED BY:	AMB	DATE:	03/17/04

LEGEND

- ⊗ SITE-SPECIFIC BENCH MARK 100.00 FEET
- RAILROAD TRACK
- VCP SITE BOUNDARY LINE
- PROPERTY BOUNDARY LINE
- PROPERTY AND VCP SITE BOUNDARY LINE
- —P— POWER LINE
- RIW-18 ⊙ UNIT VI OR UNIT V/VI MONITOR WELL LOCATION & NUMBER
- 74.17 POTENTIOMETRIC SURFACE (RELATIVE TO SITE BENCH MARK)
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GENERAL GROUNDWATER FLOW DIRECTION

NOTES:
1.) GROUNDWATER ELEVATION AS MEASURED ON FEBRUARY 16, 2004 USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.

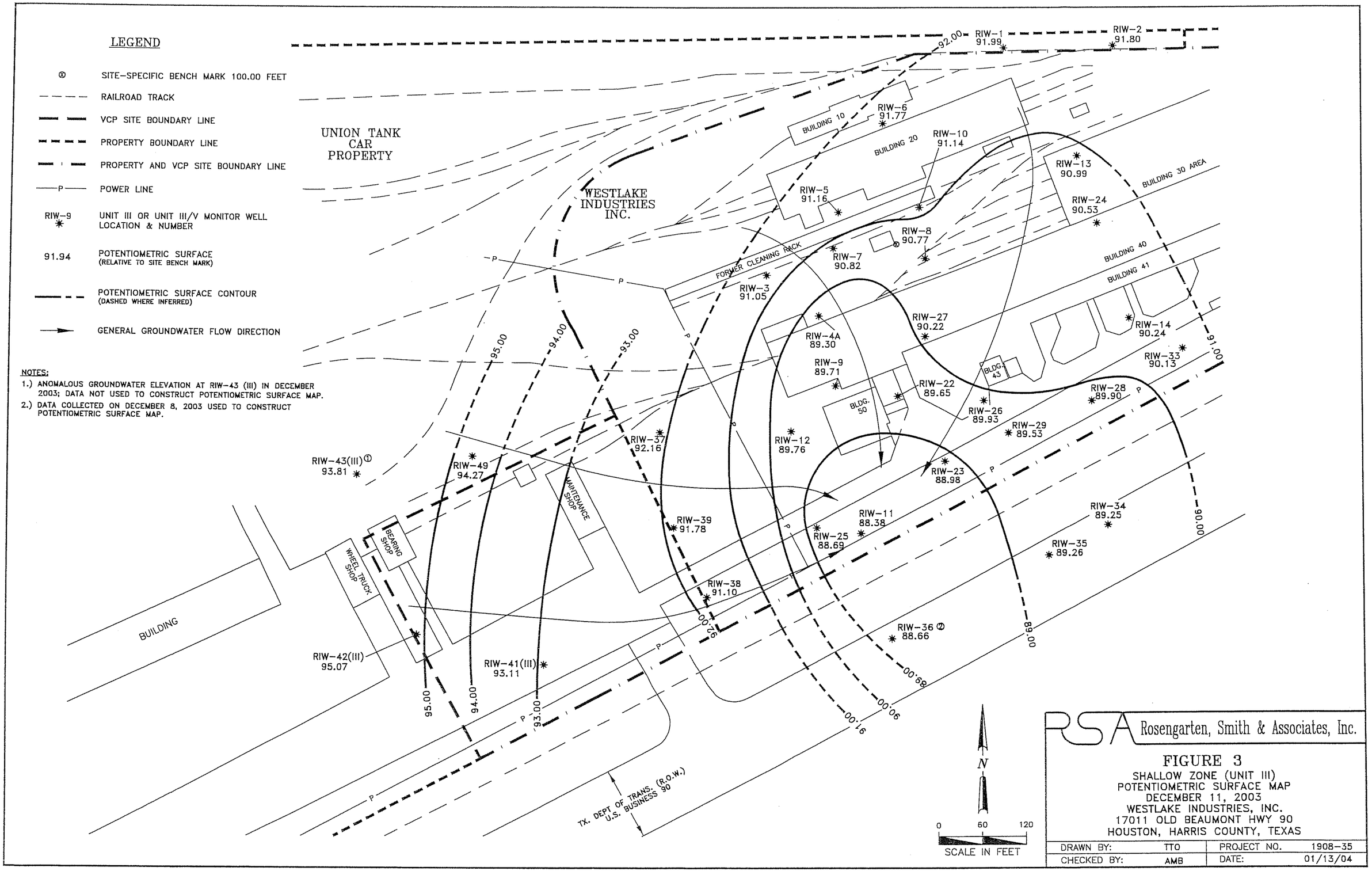


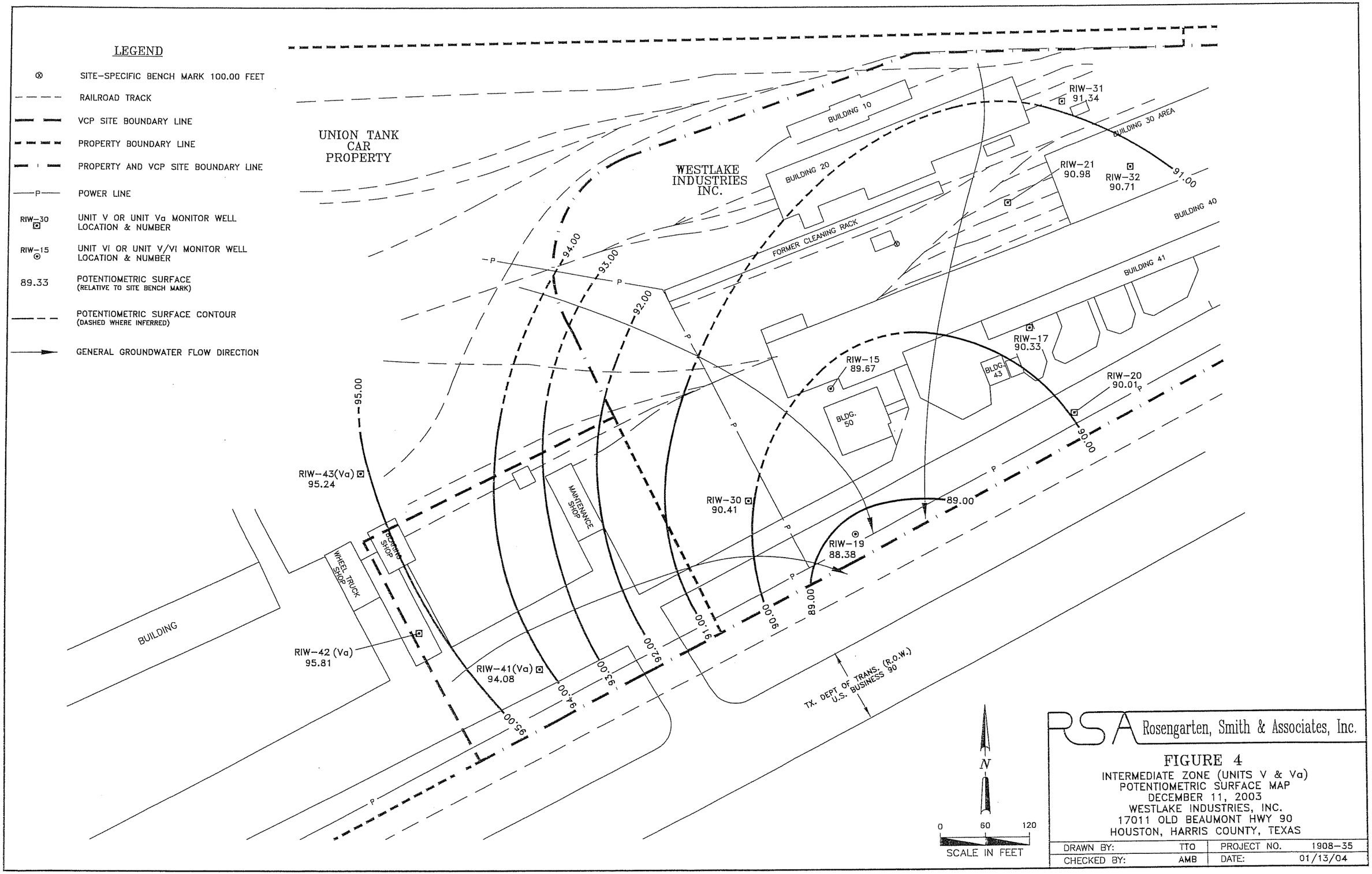
Rosengarten, Smith & Associates, Inc.

FIGURE 5

DEEP ZONE (UNIT VI)
POTENTIOMETRIC SURFACE MAP
FEBRUARY 19, 2004
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DRAWN BY:	TTO	PROJECT NO.	1908-37
CHECKED BY:	AMB	DATE:	03/17/04


LEGEND
SITE-SPECIFIC BENCH MARK 100.00 FEET
RAILROAD TRACK
VCP SITE BOUNDARY LINE
PROPERTY BOUNDARY LINE
PROPERTY AND VCP SITE BOUNDARY LINE
POWER LINE
RIW-9
UNIT III OR UNIT III/V MONITOR WELL LOCATION & NUMBER
91.94
POTENTIOMETRIC SURFACE (RELATIVE TO SITE BENCH MARK)
POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
GENERAL GROUNDWATER FLOW DIRECTION
NOTES:
1.) ANOMALOUS GROUNDWATER ELEVATION AT RIW-43 (III) IN DECEMBER 2003; DATA NOT USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.
2.) DATA COLLECTED ON DECEMBER 8, 2003 USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.
UNION TANK CAR PROPERTY
WESTLAKE INDUSTRIES INC.
BUILDING 10
BUILDING 20
BUILDING 30 AREA
BUILDING 40
BUILDING 41
FORMER CLEANING RACK
BLDG. 43
BLDG. 50
MAINTENANCE SHOP
BEARING SHOP
WHEEL TRUCK SHOP
BUILDING
TX. DEPT OF TRANS. (R.O.W.) U.S. BUSINESS 90
RIW-1 91.99
RIW-2 91.80
RIW-6 91.77
RIW-10 91.14
RIW-13 90.99
RIW-5 91.16
RIW-24 90.53
RIW-8 90.77
RIW-7 90.82
RIW-3 91.05
RIW-27 90.22
RIW-4A 89.30
RIW-14 90.24
RIW-9 89.71
RIW-33 90.13
RIW-22 89.65
RIW-28 89.90
RIW-26 89.93
RIW-29 89.53
RIW-12 89.76
RIW-37 92.16
RIW-43(III) 93.81
RIW-49 94.27
RIW-23 88.98
RIW-39 91.78
RIW-11 88.38
RIW-34 89.25
RIW-25 88.69
RIW-35 89.26
RIW-38 91.10
RIW-36 88.66
RIW-42(III) 95.07
RIW-41(III) 93.11
92.00
91.00
90.00
89.00
88.00
95.00
94.00
93.00
N
0 60 120
SCALE IN FEET
Rosengarten, Smith & Associates, Inc.
FIGURE 3
SHALLOW ZONE (UNIT III)
POTENTIOMETRIC SURFACE MAP
DECEMBER 11, 2003
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS
DRAWN BY: TTO
PROJECT NO. 1908-35
CHECKED BY: AMB
DATE: 01/13/04


LEGEND
SITE-SPECIFIC BENCH MARK 100.00 FEET
RAILROAD TRACK
VCP SITE BOUNDARY LINE
PROPERTY BOUNDARY LINE
PROPERTY AND VCP SITE BOUNDARY LINE
POWER LINE
RIW-30 UNIT V OR UNIT Va MONITOR WELL LOCATION & NUMBER
RIW-15 UNIT VI OR UNIT V/VI MONITOR WELL LOCATION & NUMBER
89.33 POTENTIOMETRIC SURFACE (RELATIVE TO SITE BENCH MARK)
POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
GENERAL GROUNDWATER FLOW DIRECTION
UNION TANK CAR PROPERTY
WESTLAKE INDUSTRIES INC.
BUILDING 10
BUILDING 20
BUILDING 30 AREA
BUILDING 40
BUILDING 41
FORMER CLEANING RACK
RIW-31 91.34
RIW-21 90.98
RIW-32 90.71
RIW-17 90.33
RIW-15 89.67
RIW-20 90.01
RIW-30 90.41
RIW-19 88.38
RIW-43(Va) 95.24
RIW-42 (Va) 95.81
RIW-41(Va) 94.08
BLDG. 43
BLDG. 50
MAINTENANCE SHOP
WHEEL TRUCK SHOP
BUILDING
91.00
90.00
89.00
92.00
93.00
94.00
95.00
TX. DEPT OF TRANS. (R.O.W.) U.S. BUSINESS 90
N
0 60 120
SCALE IN FEET
Rosengarten, Smith & Associates, Inc.
FIGURE 4
INTERMEDIATE ZONE (UNITS V & Va)
POTENTIOMETRIC SURFACE MAP
DECEMBER 11, 2003
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS
DRAWN BY: TTO
PROJECT NO. 1908-35
CHECKED BY: AMB
DATE: 01/13/04

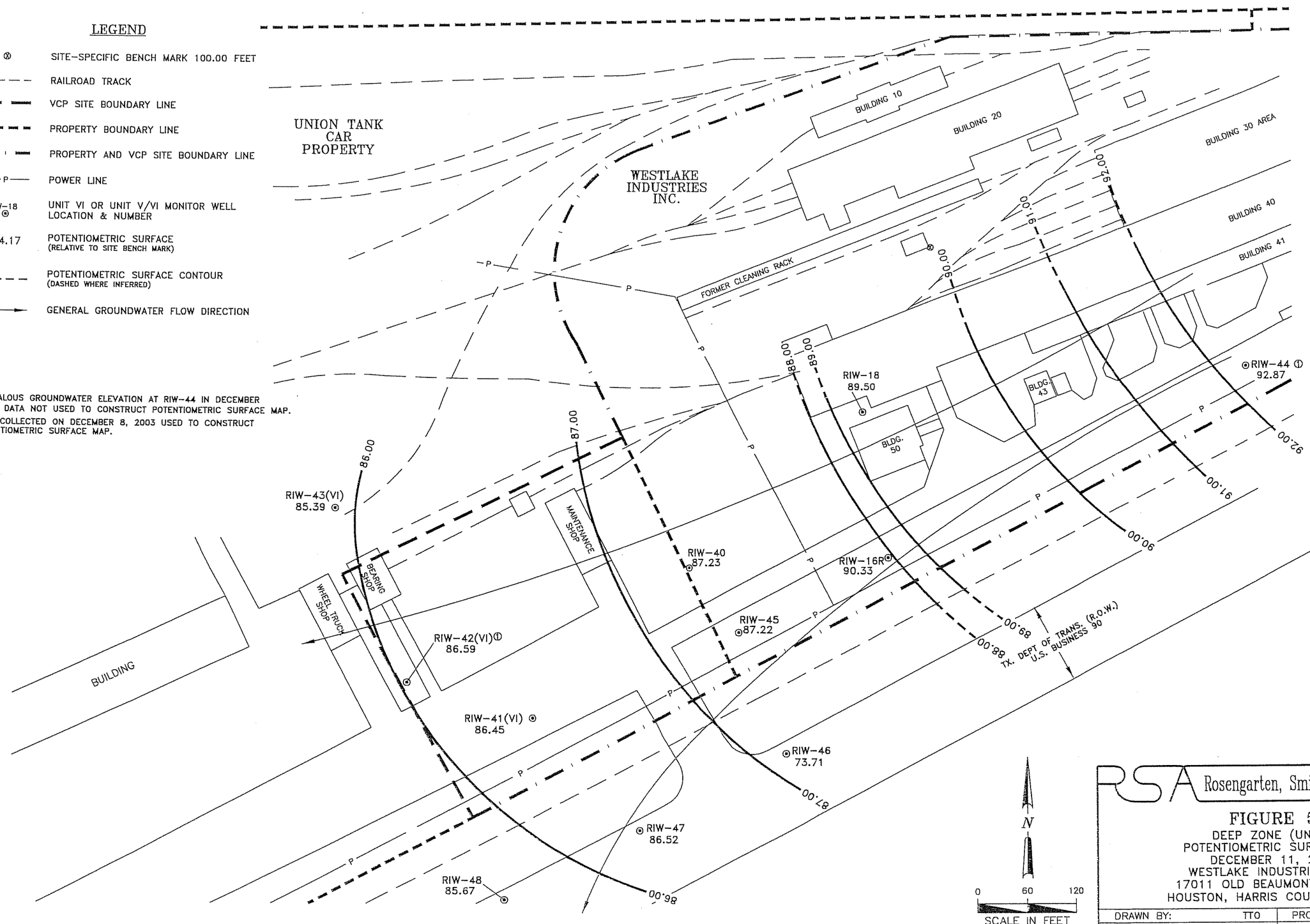
LEGEND

- ⊗ SITE-SPECIFIC BENCH MARK 100.00 FEET
- RAILROAD TRACK
- VCP SITE BOUNDARY LINE
- PROPERTY BOUNDARY LINE
- PROPERTY AND VCP SITE BOUNDARY LINE
- —P— POWER LINE
- RIW-18 ⊙ UNIT VI OR UNIT V/VI MONITOR WELL LOCATION & NUMBER
- 74.17 POTENTIOMETRIC SURFACE (RELATIVE TO SITE BENCH MARK)
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GENERAL GROUNDWATER FLOW DIRECTION

NOTES:

1.) ANOMALOUS GROUNDWATER ELEVATION AT RIW-44 IN DECEMBER 2003; DATA NOT USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.

2.) DATA COLLECTED ON DECEMBER 8, 2003 USED TO CONSTRUCT POTENTIOMETRIC SURFACE MAP.



Rosengarten, Smith & Associates, Inc.

FIGURE 5
DEEP ZONE (UNIT VI)
POTENTIOMETRIC SURFACE MAP
DECEMBER 11, 2003
WESTLAKE INDUSTRIES, INC.
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DRAWN BY:	TTO	PROJECT NO.	1908-35
CHECKED BY:	AMB	DATE:	01/13/04

Appendix D

For each contaminate of concern within the ingestion protective concentration level exceedence zone provide the following:

a. *A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.*

b. *The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*

c. *Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats, or is soluble in water).*

The shallow zone ranges from a depth of 21 – 37 ft bgs, the intermediate zone ranges between 32 – 42 ft bgs, the deep zone ranges between 58 – 77 ft bgs.

COC: Chlorobenzene	
Maximum Concentration	0.187 milligrams per liter (mg/L) from RIW-41(VI) on 5/8/13
Ingestion-Based PCL (Residential ${}^{GW}GW_{ing}$)	0.01 mg/L
Ingestion-Based PCLE Zone	Intermediate Zone – 5,268.62 ft^2 Deep Zone – 3,117.74 ft^2
Non-Ingestion-Based PCL (${}^{Air}GW_{Inh\text{-}V}$)	1,200 mg/L
Non-Ingestion-Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	112.56
Specific Gravity	1.107
Solubility in Water	low
Groundwater Migration	variable
COC: 1,2-Dichloroethane	
Maximum Concentration	0.0822 mg/L from RIW-29 on 2/12/13
Ingestion-Based PCL (Residential ${}^{GW}GW_{ing}$)	0.005 mg/L
Ingestion-Based PCLE Zone	Shallow Zone – 2,285.16 ft^2 Intermediate Zone – 19,210.79 ft^2
Non-Ingestion-Based PCL (${}^{Air}GW_{Inh\text{-}V}$)	33 mg/L
Non-Ingestion-Based PCLE Zone	None

Geochemical/Physical Properties	
Molecular Weight	98.96
Specific Gravity	1.253
Solubility in Water	0.87 grams(g)/100 milliliters (mL)
Groundwater Migration	variable
COC: Tetrachloroethene (PCE)	
Maximum Concentration	2.19 mg/L from RWI-39 on 5/8/2013
Ingestion-Based PCL (Residential $^{GW}GW_{ing}$)	0.005 mg/L
Ingestion-Based PCLE Zone	Intermediate Zone – 19,584.98 ft^2 Deep Zone – 21,611.30 ft^2
Non-Ingestion-Based PCL ($^{Air}GW_{Inh-V}$)	330 mg/L
Non-Ingestion-Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	165.8
Specific Gravity	1.62
Solubility in Water	Low solubility (0.02%)
Groundwater Migration	variable
COC: Trichloroethene (TCE)	
Maximum Concentration	0.503 mg/L from RIW-39 on 2/13/2013
Ingestion-Based PCL (Residential $^{GW}GW_{ing}$)	0.005 mg/L
Ingestion-Based PCLE Zone	Shallow Zone – 25,980 ft^2 Intermediate Zone – 3,270.89 ft^2 Deep Zone – 4,006.08 ft^2
Non-Ingestion-Based PCL ($^{Air}GW_{Inh-V}$)	160 mg/L
Non-Ingestion-Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	131.4
Specific Gravity	1.46
Solubility in Water	Moderate (0.1%)
Groundwater Migration	variable

COC: Cis-1,2-Dichloroethene (cis-1,2-DCE)	
Maximum Concentration	0.443 mg/L RWI-30 on 5/8/2013
Ingestion-Based PCL (Residential $^{GW}GW_{ing}$)	0.007 mg/L
Ingestion-Based PCLE Zone	Shallow Zone – 53,980 ft^2 Intermediate Zone – 3,270.89 ft^2
Non-Ingestion-Based PCL ($^{Air}GW_{Inh-V}$)	16,000 mg/L
Non-Ingestion-Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	97
Specific Gravity	1.27
Solubility in Water	Moderate (0.4%)
Groundwater Migration	variable
COC: Vinyl Chloride	
Maximum Concentration	0.0478 mg/L in RIW-30 on 5/8/2013
Ingestion-Based PCL (Residential $^{GW}GW_{ing}$)	0.002 mg/L
Ingestion-Based PCLE Zone	Shallow Zone – 1,588.72 ft^2 Intermediate Zone – 3,270.98 ft^2
Non-Ingestion-Based PCL ($^{Air}GW_{Inh-V}$)	3.6 mg/L
Non-Ingestion-Based PCLE Zone	None
Geochemical/Physical Properties	
Molecular Weight	62.489
Specific Gravity	0.91
Solubility in Water	Insoluble
Groundwater Migration	variable

Appendix E

Provide for each contaminate of concern within the designated groundwater:

a. *A description of the ingestion protective concentration level exceedence zone and the non-ingestion protective concentration level exceedence zone, including a specification of the horizontal area and the minimum and maximum depth below ground surface.*
b. *The level of contamination, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
c. *Its basic geochemical properties (e.g., whether the contaminant of concern migrates with groundwater, floats or is soluble in water).*

A description of each contaminant of concern (COC) within the ingestion protective concentration level exceedence zone (PCLE) along with its basic geochemical properties is presented in **Appendix D.** A description of each COC in the groundwater at the designated properties, along with its basic geochemical properties is presented below. A tabular listing of the maximum concentration for each groundwater COC is provided in **Appendix F**, **Table 1**.

COC: Benzene	
Maximum Concentration	0.000173 J mg/L in RIW-41 (VI) on 5/8/2013
Ingestion-Based PCL (Residential ${}^{GW}GW_{ing}$)	0.005 mg/L
Non-Ingestion-Based PCL (${}^{Air}GW_{Inh\text{-}V}$)	23 mg/L
Geochemical/Physical Properties	
Molecular Weight	78.11
Specific Gravity	0.87
Solubility in Water	1.79 g/L

COC: 1,2-Dichloroethane	
Maximum Concentration	0.00822 mg/L from RIW-29 on 2/12/2013
Ingestion-Based PCL (Residential ${}^{GW}GW_{ing}$)	0.005 mg/L
Non-Ingestion-Based PCL (${}^{Air}GW_{Inh\text{-}V}$)	4.3 mg/L
Geochemical/Physical Properties	
Molecular Weight	98.96
Specific Gravity	1.24
Solubility in Water	0.87 g/L
Groundwater Migration	variable
Groundwater Migration	variable

Appendix F

A table displaying the following information for each contaminant of concern, to the extent known:

a. *The maximum concentration level for soil and groundwater, the ingestion protective concentration level, and the non-ingestion protective concentration level, all expressed as mg/L units.*
b. *The critical protective concentration level without the municipal setting designation, highlighting any exceedences.*

Groundwater

Concentrations of chlorobenzene, 1,2-dichloroethane, tetrachloroethene (PCE), and its daughter products were detected at concentrations exceeding their respective Texas Commission on Environmental Quality (TCEQ) Texas Risk Reduction Program (TRRP) Tier 1 protective concentration levels (PCLs). Based on the proposed response actions, institutional controls such as this Municipal Settings Designation (MSD) will be used to gain closure for the groundwater at the designated property, thus eliminating the groundwater ingestion pathway. The GUIC facility has undergone continuous investigation and monitoring since 2001, and has been in the Voluntary Cleanup Program since 1995 as VCP #13. **Table 1** included in this appendix presents the current maximum concentration observed of each COC in the groundwater at the designated property in 2013. A table depicting all groundwater sampling results has been provided in Appendix G.

Soils

Concentrations of PCE and its daughter products were detected in the subsurface soil at various locations throughout the site. **Table 2** in this appendix presents the maximum concentrations of each COC in the soil at the designated property. The property has had an extensive investigatory and remedial history. Several areas of impacted soils have been excavated and disposed of off-site, removing potential source materials contributing to continued impact to groundwater. Remaining impacted soils are below applicable Protective Concentration Limits for all pathways, with the exception of soil to groundwater pathway. A Municipal Settings Designation would close the soil to groundwater pathway for those locations.

Table 1
Appendix F
Groundwater Maximum Concentration
17011 Old Beaumont Highway 90
Houston, Texas

Chemical of Concern	${}^{GW}GW_{Ing}$ (w/o MSD) (mg/L)	${}^{Air}GW_{Inh-V}$ (W/MSD) (mg/L)	RIW-16R (5/08/13)	RIW-29 (2/12/13)	RIW-30 (5/8/13)	RIW-39 (2/13/13)	RIW-39 (5/8/13)
VOCs by EPA Method 8260							
Chlorobenzene	0.1	1200	0.305	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane	0.005	33	<0.001	0.0822	<0.001	<0.001	<0.001
cis-1,2-Dichloroethene	0.07	16,000	<0.001	0.00828 J	0.443	<0.001	0.165
Tetrachloroethene	0.005	330	0.000976J	<0.001	0.0127	<0.001	2.19
Trichloroethene	0.005	160	<0.001	<0.001	0.00196	0.503	0.336
Vinyl Chloride	0.002	3.6	<0.001	<0.001	0.0478	0.0076	0.00367

Notes:
1. Highlighted concentration levels exceed the TRRP Tier 1 Residential ${}^{GW}GW_{Ing}$ Protective Concentration Level(i.e. without an MSD).
2. Maximum concentration from 2013 sampling event.
3. All data values are reported in mg/L

Table 2
Appendix F
Soil Maximum Concentration
17011 Old Beaumont Highway 90
Houston, Texas

Chemical of Concern	$^{GW}Soil_{Ing}$ (w/o MSD) (mg/kg)	$^{Air}Soil_{Inh-V}$ (W/MSD) (mg/kg)	PCES-1A 5'-6' (12/30/98)	PCES-1A 9'-10' (12/30/98)	PCES-4A 5'-6' (12/30/98)	PCES-V 12'-13' (12/29/98)
VOCs by EPA Method 8260						
cis-1,2-Dichloroethene	0.25	12,000	0.494	<0.1	<0.1	<0.1
Tetrachloroethene	0.05	940	<0.1	0.105	0.198	0.436
Trichloroethene	0.034	31	<0.1	<0.1	<0.1	0.121

Notes:

1. Highlighted concentration levels exceed the TRRP Tier 1 Residential $^{GW}Soil_{Ing}$ Protective Concentration Level (i.e. without an MSD).
2. Maximum concentration from soil sampling events in 1998.
3. All data values are reported in mg/kg

Appendix G

*A statement as to whether the plume of contamination is stable (i.e., no change), or contracting, and delineated**, <u>with the basis for that statement.</u>** Please include historical sampling data.*

The GUIC site has undergone active remediation including hydraulic containment using pump and treat technology. To determine the potential for contaminant migration under static (non-pumping) conditions, an extensive modeling effort was conducted. WESTON subcontracted Geosyntec Consultants, Inc. to conduct this evaluation which included an intrinsic biodegradation evaluation to assess whether naturally occurring microbiological processes were effective in attenuating the dissolved chlorinated compounds. First-order decay rates were evaluated using the Buschek and Alcantar method (1995) to establish the average decay rate based on a long-linear regression analysis of concentrations measured at wells along a primary flowpath. Where available, actual values for physiochemical and hydrogeologic parameters (including dispersion, sorption, and degradation constants) and estimated values based upon literature review were used to develop an intrinsic biodegradation rate for each COC. Three-dimensional groundwater flow and solute transport modeling was performed using MODFLOW and RT3D, respectively. The purpose of the modeling efforts was to simulate chlorinated solvent species (PCE, TCE, cis-1,2-DCE, vinyl chloride [VC], chlorobenzene [CB], and 1,2-dichloroethane [EDC]) dissolved plume migration and attenuation under natural groundwater flow conditions and engineered (pump and treat) conditions, and estimate the times to achieve residential assessment levels (RAL) for contaminant concentration levels.

The groundwater model was calibrated to observed groundwater elevations and aquifer characterization data developed by Rosengarten Smith and Associates (RSA). The model domain was developed to extend horizontally across the site past the 18.29-acre MSD boundary and the entire 280-acre site by a sufficient distance to better minimize model boundary effects on simulation results. Vertically, the model domain encompassed the three groundwater bearing zones (GBZ). A copy of the full report prepared by Geosyntec Consultants, Inc. (*GUIC Industries Site; Groundwater Flow and Solute Transport Modeling of Chlorinated Hydrocarbons; August 2011)* is provided in this appendix.

Based upon the results of the numeric model, source chlorinated compounds PCE and TCE were predicted to remain stable and decrease in areal extent following cessation of active remediation activities, without off-site migration. Biological degradation daughter compounds including cis-1,2-DCE and VC were predicted to increase in concentration and areal extent off site into the Texas Department of Transportation (DOT) Right of Way (ROW) as biologically mediated degradation processes break down the source compounds, however this increase was predicted to not significantly migrate off-site before achieving a stable configuration (based upon the modeling results) and degrade to below the PCL.

Active remediation was halted in May 2012 and quarterly groundwater monitoring has continued since that time. Results of these monitoring data have shown the groundwater plume has remained stable in areal extent in all three water bearing zones Since cessation of remediation, an increase in the concentration of cis-1,2-DCE and VC has occurred in monitoring well RIW-46R, however concentrations of source contaminants PCE and TCE has remained consistent with historic data. Concentrations of all COCs in the shallow and intermediate GBZs have remained stable and below PCLs and the lateral extent of dissolved phase impacts has remained stable. Downgradient monitoring well RIW-57 delineates the lateral extent of the dissolved phase

contaminant plume and all concentrations of COCs are below their respective PCLs. Based upon monitoring data collected since cessation of remediation activity, the numeric model has been shown to be conservative in its prediction of contaminant movement, and the dissolved phase contaminant plume is not increasing in areal extent off-site. A table providing cumulative groundwater quality data through 2013 is provided.

Appendix G
Cumulative Groundwater Analytical Results for Site Compounds of Concern
GUIC
Houston, TX

Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-01	III	10/30/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-01	III	08/11/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-01	III	05/22/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-01	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-01	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	05/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	08/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	05/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	05/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-01	III	06/22/06	<0.025	<0.5	<0.0133	<0.128	<0.5	*0.361*	<0.25	<0.103	<0.093	NS
RIW-01	III	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-01	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-01	III	11/03/10	P&A'd									
RIW-02	III	10/27/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	08/10/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	05/19/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	08/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	02/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02 (Split)	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	11/04/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-02	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-02	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-02	III	08/09/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

Appendix G
Cumulative Groundwater Analytical Results for Site Compounds of Concern
GUIC
Houston, TX

Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-02	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	05/07/01	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-02	III	08/21/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/28/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	08/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	08/05/02	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-02	III	11/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/03/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	08/12/03	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-02	III	12/08/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/17/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	05/18/04	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-02	III	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	12/14/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	05/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02 (Split)	III	05/02/05	*1.5*	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-02	III	08/01/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	11/18/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-02	III	03/20/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-02	III	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-02 (Split)	III	06/22/06	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.10	<0.11	NS
RIW-02	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-02	III	11/28/06	<2.29[11]	<0.171	*0.014 J*	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-02	III	02/06/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-02	III	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-02	III	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-02 (Split)	III	08/29/07	*0.11 J*	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.10	<0.11	NS
RIW-02	III	11/28/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-02	III	02/04/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-02	III	02/04/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-02	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-02	III	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-02	III	12/10/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-02	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-02	III	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-02	III	11/16/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-02	III	03/03/10	< 0.154	< 0.25	NA	< 0.116	< 0.141	< 0.153	< 0.250	< 0.153	< 0.138	NS
RIW-02	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-02 Split	III	05/25/10	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-02	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-02	III	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-02 (Split)	III	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-03	III	10/27/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-03	III	11/11/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-03	III	08/11/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-03	III	05/19/97	<5	<5	<5	<5	<5	<5	*8.3*	<5	<10	NS
RIW-03	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-03	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	05/18/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	05/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-03	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-03	III	08/27/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-03	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-03	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-03	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-03	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-4A	III/V	11/01/93	<5	**350**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-4A	III/V	08/11/94	<5	**240**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-4A	III/V	05/22/97	<5	**260**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-4A	III/V	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-4A[3]	III/V	11/05/98	<5	**259**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-4A[3]	III/V	05/12/99	<5	**551**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	11/11/99	<5	**379**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	05/18/00	<5	**220**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	11/07/00	<5	*9.26*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	05/08/01	<5	**197**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	11/06/01	<5	**1110**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	08/07/02	<5	**853**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	11/07/02	<5	**1,670**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	08/14/03	<5	**1,770**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	12/10/03	<5	**320**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	05/20/04	<5	**980**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	12/14/04	<5	**1,240**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	05/03/05	<5	**423**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	11/17/05	<5	**476**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-4A[3]	III/V	06/19/06	<0.25	*43.6*	*0.019 J*	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-4A[3]	III/V	11/28/06	<2.29[11]	*96.7*	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-4A[3]	III/V	08/28/07	<0.5	*22.8*	<0.244	*0.577 J*	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-4A[3]	III/V	11/27/07	<0.5	*4.5*	NA	*0.571 J*	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-4A[3]	III/V	06/17/08	<0.125	*16.8*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-4A[3]	III/V	12/09/08	<0.5	*72.2*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-4A[3]	III/V	06/16/09	*0.196 J*	**130**	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-4A[3]	III/V	11/16/09	<0.154	**122**	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-4A	III/V	05/25/10	<0.154	*1.56*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-4A	III/V	11/29/10	<0.25	*28.3*	NA	**9.73**	<0.25	<0.25	*2.48*	*0.161 J*	<0.281	NS
RIW-4A	III/V	06/13/11	<1 JL	*4.3 JL*	NA	<1 JL	<1 JL	<1 JL	*2.27 JL*	*0.474 JL*	<1 JL	NS
RIW-4A	III/V	11/21/11	<1	*34.2*	NA	*3.08*	*1.56*	<1	**15.8**	*1.83*	<1	NS
RIW-05	III	10/30/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-05	III	11/12/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-05	III	08/10/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-05	III	05/19/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-05	III	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-05	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	05/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	05/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-05	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-05	III	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-05	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	*0.273 J*	<0.149	<0.274	<0.25	NS
RIW-05	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<1.53	<0.25	<0.153	<0.138	NS
RIW-05	III	05/25/10	*0.214 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-05	III	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-06	III	10/31/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-06	III	11/11/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-06	III	08/11/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-06	III	05/18/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-06	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-06	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	05/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-06	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-06(III)	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-06(III)	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	*0.308 J*	<0.149	<0.274	<0.25	NS
RIW-06(III)	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<1.53	<0.25	<0.153	<0.138	NS
RIW-06(III)	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-06(III)	III	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-06(V)	V	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-06(V)	V	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-06(V)	V	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-06(V)	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<1.53	<0.25	<0.153	<0.138	NS
RIW-06(V)	V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-06(V)	V	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-06(VI)	VI	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-06(VI)	VI	08/28/07	*3.7*	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-06(VI)	VI	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-06(VI)	VI	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<1.53	<0.25	<0.153	<0.138	NS
RIW-06(VI)	VI	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-06(VI)	VI	06/06/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-07	III	10/31/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	11/10/93	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	08/11/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	05/19/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	08/19/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	02/04/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	08/26/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	11/04/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-07	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/09/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/21/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	11/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-07	III	05/28/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	11/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/17/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	12/15/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	02/08/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	05/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	11/18/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-07	III	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-07	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-07	III	09/12/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-07	III	11/28/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-07	III	02/06/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-07	III	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-07	III	08/27/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-07	III	11/28/07	<0.5	*5.51*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-07	III	02/06/08	<0.5	*5.01*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-07	III	06/16/08	<0.125	*0.754 J*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-07	III	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-07	III	12/11/08	*0.535 J*	*0.455 J*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-07	III	02/17/09	<0.154	*0.303 J*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-07	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-07	III	08/10/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-07	III	11/16/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-07	III	03/03/10	<0.154	< 0.25	NA	< 0.116	< 0.141	< 0.153	< 0.25	<0.153	<0.138	NS
RIW-07	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-07	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-07	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-08	III	11/02/93	<5	<5	<5	**600**	<5	<5	<5	<5	<10	NS
RIW-08	III	08/14/94	<5	<5	<5	**490**	<5	<5	<5	<5	<10	NS
RIW-08	III	05/19/97	<5	<5	<5	**550**	<5	<5	**21**	<5	<10	NS
RIW-08	III	08/20/97	<5	<5	<5	**810**	<5	<5	**43**	<5	<10	NS
RIW-08	III	11/24/97	<5	<5	<5	**140**	<5	<5	<5	<5	<10	NS
RIW-08	III	02/04/98	<5	<5	<5	**120**	<5	<5	<5	<5	<10	NS
RIW-08	III	05/13/98	<5	<5	<5	**70**	<5	<5	<5	<5	<10	NS
RIW-08	III	08/26/98	<5	<5	<5	**110**	<5	<5	<5	<5	<10	NS
RIW-08	III	11/04/98	<5	<5	<5	**450**	<5	<5	<5	<5	<10	NS
RIW-08	III	02/09/99	<5	<5	<5	**290**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/12/99	<5	<5	<5	**262**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/18/99	<5	<5	<5	**244**	<5	<5	<5	<5	<2	NS
RIW-08	III	11/10/99	<5	<5	<5	**151**	<5	<5	<5	<5	<2	NS
RIW-08	III	02/04/00	<5	<5	<5	**545**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/16/00	<5	<5	<5	**267**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/09/00	<5	<5	<5	**297**	<5	<5	<5	<5	<2	NS
RIW-08	III	11/07/00	<5	<5	<5	**215**	<5	<5	<5	<5	<2	NS
RIW-08	III	02/06/01	<5	<5	<5	**212**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/09/01	<5	<5	<5	**181**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/21/01	<5	<5	<5	**33**	<5	<5	<5	<5	<2	NS
RIW-08	III	11/06/01	<5	<5	<5	**50.3**	<5	<5	<5	<5	<2	NS
RIW-08	III	02/05/02	<5	<5	<5	**91.6**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/28/02	<5	<5	<5	**86.2**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/06/02	<5	<5	<5	**101**	<5	<5	<5	<5	<2	NS
RIW-08	III	11/07/02	<5	<5	<5	**158**	<5	<5	<5	<5	<2	NS
RIW-08	III	02/04/03	<5	<5	<5	**57.9**	<5	<5	<5	<5	<2	NS
RIW-08	III	06/25/03	<5	<5	<5	**80.3**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/12/03	<5	<5	<5	**65.8**	<5	<5	<5	<5	<2	NS
RIW-08	III	12/09/03	<5	<5	<5	**168**	<5	<5	<5	<5	<2	NS
RIW-08	III	02/17/04	<5	<5	<5	**130**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-08	III	09/08/04	<5	<5	<5	**46.3**	<5	<5	<5	<5	<2	NS
RIW-08	III	12/15/04	<5	<5	<5	**67.2**	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-08	III	02/10/05	<5	<5	<5	**26.8**	<5	<5	<5	<5	<2	NS
RIW-08	III	05/03/05	<5	<5	<5	**12.1**	<5	<5	<5	<5	<2	NS
RIW-08	III	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-08	III	11/18/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-08	III	03/20/06	<0.25	<0.5	<0.05	*0.712 J*	<0.5	<0.361	<0.25	*0.154 J*	<0.093	NS
RIW-08	III	06/20/06	<0.25	<0.5	<0.0133	*0.211 J*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-08	III	09/13/06	<0.125	<0.171	<0.0133	*1.94*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-08	III	11/28/06	<2.29[11]	<0.171	<0.0133	**9.33**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-08	III	02/06/07	<0.125	<0.171	<0.0133	**10.4**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-08	III	06/27/07	<1	<1	<0.05	*2.02*	<1	<1	<1	<1	<1	NS
RIW-08	III	08/27/07	<0.5	<0.171	<0.244	*0.964 J*	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-08	III	11/26/07	<0.5	<0.171	NA	**8.93**	<0.527	<0.25	<0.5	*0.287 J*	*1.57*	NS
RIW-08	III	02/06/08	<0.5	<0.171	NA	**16.9**	<0.527	<0.25	<0.5	*0.306 J*	**2.27**	NS
RIW-08	III	06/16/08	<0.125	<0.171	NA	**10.6**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-08	III	09/24/08	<0.154	<0.25	NA	**21.2**	*0.37 J*	<0.153	<0.25	*0.175 J*	*0.427 J*	NS
RIW-08	III	12/10/08	<0.5	<0.25	NA	**13.4**	*0.324 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-08	III	02/17/09	<0.154	<0.25	NA	**24.3**	*0.76 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-08	III	06/16/09	<0.154	<0.25	<0.226	**21.2**	*0.539 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-08	III	08/10/09	<0.154	<0.25	NA	**13.1**	*1.06*	<0.153	<0.25	<0.153	<0.138	NS
RIW-08	III	11/17/09	<0.154	<0.25	NA	**6.04**	*1.04*	<0.153	<0.25	<0.153	<0.5	NS
RIW-08	III	03/04/10	<0.154	<0.25	NA	**8.5**	*0.771 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-08	III	05/26/10	<0.154	<0.25	NA	**9.26**	*0.366 J*	<0.153	<0.25	<0.153	<1	NS
RIW-08	III	08/18/10	<0.154	<0.25	NA	**6.54**	*0.442 J*	<0.153	<0.25	<0.153	<1	NS
RIW-08	III	06/08/11	<1	<1	NA	*2.62*	*0.275 J*	<1	<1	<1	<1	NS
RIW-09	III	11/02/93	**9**	**12,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-09	III	08/11/94	**19**	**6,900**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-09	III	05/21/97	**22**	**18,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-09	III	05/12/98	<5	**2,800**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-09[3]	III	11/05/98	<5	**1,580**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-09[3]	III	05/12/99	<5	**426**	<5	**247**	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	11/11/99	<5	**214**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	05/18/00	<5	**146**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	05/08/01	<5	**105**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	11/06/01	<5	**1,330**	<5	<5	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-09[3]	III	08/07/02	<5	**300**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	11/07/02	<5	**184**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	08/14/03	<5	**1,570**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	12/10/03	<5	**1,420**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	05/20/04	<5	**930**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	12/14/04	<5	**760**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	05/03/05	<5	**880**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	11/17/05	<5	*5.26*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-09[3]	III	06/22/06	<0.25	*1.59*	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-09[3]	III	11/28/06	<2.29[11]	**630**	<0.0133	<0.308	<0.527	<0.25	*0.332 J*	<0.274	<0.25	NS
RIW-09[3]	III	08/28/07	<5 UJL	**925 JL**	<2.44 UJL	<3.08 UJL	<5.27 UJL	<2.5 UJL	**7.36 JL**	<2.74 UJL	<2.5 UJL	NS
RIW-09[3]	III	11/27/07	<5	**882**	NA	<3.08	<5.27	<2.5	**7.88 J**	<2.74	<2.5	NS
RIW-09[3]	III	06/17/08	*1.28 J*	**380**	NA	<0.308	<0.527	<0.25	*2.13 J*	<0.274	<0.25	NS
RIW-09[3]	III	12/09/08	<0.5	**180**	NA	<0.116	*0.17 J*	<0.153	*1.72*	<0.153	<0.138	NS
RIW-09[3]	III	06/16/09	0.269 J	**161**	<0.226	<0.116	<0.141	<0.153	*1.9*	<0.153	<0.138	NS
RIW-09[3]	III	11/16/09	*0.17 J*	**150**	NA	<0.116	<0.5	<0.153	*4.02*	<0.153	<0.5	NS
RIW-09	III	05/25/10	*0.472 J*	**190**	NA	<0.116	*2.05*	<0.153	**11.6**	*1.1*	<1	NS
RIW-09	III	12/07/10	*1.70*	**703**	NA	<1	*2.0*	*1.4*	*3.0*	*1.1*	<1	NS
RIW-09	III	06/05/11	<1 JL	*50.3 JL*	NA	<1 JL	<1 JL	<1 JL	*0.296 JL*	<1 JL	<1 JL	NS
RIW-09	III	11/21/11	<10	*2.73 J*	NA	**204**	<10	<10	<10	<10	<10	NS
RIW-10	III/V	11/04/93	<5	<5	<5	**580**	<5	<5	<5	<5	<10	NS
RIW-10	III/V	08/11/94	<5	80	<5	**210**	<5	<5	<5	<5	<10	NS
RIW-10	III/V	05/19/97	<5	<5	<5	**600**	<5	<5	<5	<5	<10	NS
RIW-10	III/V	05/12/98	<5	<5	<5	**140**	<5	<5	<5	<5	<10	NS
RIW-10[3]	III/V	11/05/98	<5	<5	<5	**904**	<5	<5	<5	<5	<10	NS
RIW-10[3]	III/V	05/12/99	<5	<5	<5	**854**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	11/11/99	<5	<5	<5	**587**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	05/18/00	<5	<5	<5	**799**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	05/08/01	<5	<5	<5	**433**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	11/06/01	<5	<5	<5	**259**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	08/07/02	<5	<5	<5	**493**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	11/07/02	<5	<5	<5	**271**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	08/14/03	<5	<5	<5	**185**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	12/10/03	<5	<5	<5	**446**	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-10[3]	III/V	05/20/04	<5	<5	<5	**171**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	12/14/04	<5	<5	<5	**115**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	05/03/05	<5	<5	<5	**53.6**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	11/17/05	<5	<5	<5	**118**	<5	<5	<5	<5	<2	NS
RIW-10[3]	III/V	06/19/06	<0.25	<0.5	<0.0133	**81.8**	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-10[3]	III/V	11/28/06	<0.125	<0.171	<0.0133	**71.2**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-10[3]	III/V	08/28/07	<0.5 UJL	<0.171	<0.244	**21.1 JL**	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-10[3]	III/V	11/27/07	<0.5	*0.641 J*	NA	**9.24**	<0.527	<0.25	*0.837 J*	<0.274	<0.25	NS
RIW-10[3]	III/V	06/17/08	<0.125	*1.15*	NA	*2.0*	<0.527	<0.25	*0.193 J*	<0.274	<0.25	NS
RIW-10[3]	III/V	12/09/08	<0.5	**267**	NA	*0.485 J*	*1.38*	<0.153	*1.51*	*3.5*	<0.138	NS
RIW-10[3]	III/V	06/16/09	*0.242 J*	**200**	<0.226	*0.318 J*	*1.38*	<0.153	*0.609 J*	*4.56*	<0.138	NS
RIW-10[3]	III/V	11/16/09	<0.154	*0.735 J*	NA	**31.3**	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-10	III/V	05/25/10	<0.154	*7.7*	NA	*1.55*	<0.141	<0.153	*1.65*	<0.153	<1	NS
RIW-10	III/V	11/29/10	<0.25	<0.25	NA	**34.3**	<0.25	<0.25	<0.25	<0.0971	*0.414 J*	NS
RIW-10	III/V	06/13/11	<1 JL	<1 JL	NA	**8.55** JL	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	NS
RIW-10	III/V	11/21/11	<1	*19.3*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-11	III	12/10/93	NS	<5	NS	NS	NS	NS	NS	NS	NS	NS
RIW-11	III	08/13/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-11	III	05/21/97	<5	19	<5	<5	<5	<5	<5	<5	<10	NS
RIW-11	III	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-11	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	08/09/02	NA[4]	NA	NA	NA	NA	NA	NA	NA	NA	NS
RIW-11	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-11	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-11	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	*0.676 J*	<0.274	<0.25 UJL	NS
RIW-11	III	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	*1.01*	<0.274	<0.25	NS
RIW-11	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	*0.705 J*	*0.276 J*	<0.138	NS
RIW-11	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-11	III	06/07/11	<1	<1	NA	<1	<1	<1	*1.0*	*0.203 J*	<1	NS
RIW-11	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-11	III	08/28/12	<1	<1	NA	<1	*1.1*	<1	<1	<1	<1	<1
RIW-11	III	11/08/12	*0.928 J*	<1	NA	<1	*1.71*	<1	<1	<1	<1	<1
RIW-11	III	02/12/13	<1	<1	NA	<1	*2.83*	<1	<1	*0.451 J*	<1	<1
RIW-11	III	05/08/13	<1	<1	NA	<1	*2.42*	<1	<1	<1	<1	<1
RIW-11	III	08/28/13	<1	<1	NA	<1	*2.1*	<1	<1	<1	<1	<1
RIW-11	III	11/14/13	<1	<1	NA	<1	*0.738 J*	<1	<1	*0.317 J*	<1	<1
RIW-12	III	12/10/93	NS	<5	NS	NS	NS	NS	NS	NS	NS	NS
RIW-12	III	08/12/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	05/19/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	08/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-12	III	05/14/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	08/21/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	02/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	12/15/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-12	III	11/19/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-12	III	03/20/06	<0.25	<0.5	<0.05	<0.128	*2.86*	<0.361	<0.25	<0.103	*0.143 J*	NS
RIW-12	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	*2.32*	<0.361	<0.25	<0.103	*0.131 J*	NS
RIW-12	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	*2.98*	<0.25	<0.149	<0.274	<0.25	NS
RIW-12	III	11/28/06	<2.29[11]	<0.171	<0.0133	*0.463 J*	*2.38*	<0.25	<0.149	<0.274	<0.25	NS
RIW-12	III	02/06/07	<0.125	<0.171	<0.0133	<0.308	*1.45*	<0.25	<0.149	<0.274	<0.25	NS
RIW-12	III	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-12	III	08/28/07	<0.5	<0.171	<0.244	<0.308	*1.2*	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-12	III	11/28/07	<0.5	<0.171	NA	<0.308	*0.713 J*	<0.25	<0.5	<0.274	<0.25	NS
RIW-12	III	02/06/08	<0.05	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-12	III	06/17/08	<0.125	*0.312 J*	NA	<0.308	*1.9*	<0.25	*0.194 J*	<0.274	<0.25	NS
RIW-12	III	09/25/08	<0.154	<0.25	NA	<0.5	*1.28*	<0.153	<0.25	<0.153	<0.138	NS
RIW-12	III	12/11/08	<0.5	<0.25	NA	<0.116	*1.91*	<0.153	<0.25	<0.153	<0.138	NS
RIW-12	III	02/17/09	<0.154 L	<0.25 L	NA	<0.116 L	*2.7 L*	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-12	III	06/16/09	<0.154	<0.25	<0.226	<0.116	*0.615 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-12	III	08/11/09	<0.154	<0.25	NA	<0.116	*1.49*	<0.153	<0.25	<0.153	<0.138	NS
RIW-12	III	11/16/09	<0.154	<0.25	NA	<0.116	*1.5*	<0.153	<0.25	<0.153	<0.5	NS
RIW-12	III	03/03/10	<0.154	<0.25	NA	<0.116	*0.418 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-12	III	05/25/10	<0.154	<0.25	NA	<0.116	*0.29 J*	<0.153	<0.25	<0.153	<1	NS
RIW-12	III	08/17/10	<0.154	<0.25	NA	<0.116	*0.843 J*	<0.153	<0.25	<0.153	<1	NS
RIW-12	III	06/07/11	<1	<1	NA	<1	*1.52*	<1	<1	<1	<1	NS
RIW-13	III	12/10/93	NS	<5	NS	**770**	NS	NS	NS	NS	NS	NS
RIW-13	III	08/14/94	<5	<5	<5	**600**	<5	<5	<5	<5	<10	NS
RIW-13	III	05/18/97	<5	<5	<5	**890**	<5	<5	**8.5**	<5	<10	NS
RIW-13	III	05/12/98	<5	<5	<5	**160**	<5	<5	<5	<5	<10	NS
RIW-13	III	05/13/99	<5	<5	<5	**1,080**	<5	<5	<5	<5	<2	NS
RIW-13	III	05/16/00	<5	<5	<5	**335**	<5	<5	<5	<5	<2	NS
RIW-13	III	05/09/01	<5	<5	<5	**105**	<5	<5	<5	<5	<2	NS
RIW-13	III	08/05/02	<5	<5	<5	**35.3**	<5	<5	<5	<5	<2	NS
RIW-13	III	08/12/03	<5	<5	<5	**16.7**	<5	<5	<5	<5	<2	NS
RIW-13	III	05/18/04	<5	<5	<5	**14.7**	<5	<5	<5	<5	<2	NS
RIW-13	III	05/03/05	<5	<5	<5	**14.3**	<5	<5	<5	<5	<2	NS
RIW-13	III	06/20/06	<0.25	<0.5	<0.0133	*0.539 J*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-13	III	08/27/07	<0.5 JH	<0.171	<0.244	*0.852 JH*	<0.527	<0.25	<0.5	<0.274	<0.25	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-13	III	06/16/08	<0.125	<0.171	NA	*0.778 J*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-13	III	06/16/09	<0.154	<0.25	<0.226	*0.691 J*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-13	III	05/25/10	*0.587 J*	<0.25	NA	<0.116	<0.141	<0.153	*0.791 J*	<0.153	<1	NS
RIW-13	III	06/06/11	*0.404 J*	<1	NA	*0.376 J*	<1	<1	<1	<1	<1	NS
RIW-14	III	12/10/93	NS	<5	NS	NS	NS	NS	NS	NS	NS	NS
RIW-14	III	08/12/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	05/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	08/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	02/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14 (Split)	III	02/05/98	<5	*16*	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-14	III	08/26/98	<5	<5	<5	<5	6	*72*	<5	**40**	<10	NS
RIW-14	III	11/04/98	<5	<5	<5	<5	<5	*70*	<5	**30**	<10	NS
RIW-14	III	02/09/99	<5	<5	<5	<5	<5	*45*	<5	**20**	<2	NS
RIW-14	III	05/12/99	<5	<5	<5	**7.4**	*55.7*	<5	<5	**13.9**	<2	NS
RIW-14	III	08/19/99	<5	<5	<5	**39.3**	**83.3**	<5	<5	**14.1**	<2	NS
RIW-14	III	11/09/99	<5	<5	<5	**48.4**	*65.6*	<5	<5	**11.9**	<2	NS
RIW-14	III	02/03/00	<5	<5	<5	**82.1**	*30.7*	<5	<5	**6.91**	<2	NS
RIW-14	III	05/17/00	<5	<5	<5	**104**	*43.3*	<5	<5	**5.08**	<2	NS
RIW-14	III	08/08/00	<5	<5	<5	**116**	*26.9*	<5	<5	<5	<2	NS
RIW-14	III	11/07/00	<5	<5	<5	**88.9**	*15.9*	<5	<5	<5	<2	NS
RIW-14	III	02/06/01	<5	<5	<5	**61**	*7.66*	<5	<5	<5	<2	NS
RIW-14	III	05/08/01	<5	<5	<5	**83.2**	*12.8*	<5	<5	<5	<2	NS
RIW-14	III	08/21/01	<5	<5	<5	**75.6**	*11*	<5	<5	<5	<2	NS
RIW-14	III	11/06/01	<5	<5	<5	**61.7**	*7.87*	<5	<5	<5	<2	NS
RIW-14	III	02/05/02	<5	<5	<5	**63.2**	*9.33*	<5	<5	<5	<2	NS
RIW-14	III	05/29/02	<5	<5	<5	**28.5**	*17.3*	<5	<5	<5	<2	NS
RIW-14	III	08/06/02	<5	<5	<5	**42.1**	*10.6*	<5	<5	<5	<2	NS
RIW-14	III	11/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-14	III	02/04/03	<5	<5	<5	**23.1**	*8.52*	<5	<5	<5	<2	NS
RIW-14	III	06/25/03	<5	<5	<5	**20.2**	*25.1*	<5	<5	<5	<2	NS
RIW-14	III	08/12/03	<5	<5	<5	**21.2**	**72.2**	*6.94*	<5	**18.2**	<2	NS
RIW-14	III	12/09/03	<5	<5	<5	**18.1**	**132**	*12.9*	<5	**32.2**	**2.01**	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-14	III	02/17/04	<5	<5	<5	**13.6**	**191**	*14.4*	<5	**43.3**	**3.01**	NS
RIW-14	III	05/19/04	<5	<5	<5	**10.6**	**126**	*11.1*	<5	**19.2**	**2.08**	NS
RIW-14	III	09/08/04	<5	<5	<5	**16.3**	**95.9**	*6.5*	<5	**11**	<2	NS
RIW-14	III	12/15/04	<5	<5	<5	**10.7**	*11.7*	<5	<5	<5	<2	NS
RIW-14	III	02/10/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-14	III	05/04/05	<5	<5	<5	**8.81**	<5	<5	<5	<5	<2	NS
RIW-14	III	08/02/05	<5	<5	<5	**9.47**	<5	<5	<5	<5	<2	NS
RIW-14	III	11/18/05	<5	<5	<5	**9.38**	<5	<5	<5	<5	<2	NS
RIW-14	III	03/20/06	<0.25	<0.5	<0.05	**6.88**	*2.28*	<0.361	<0.25	*0.578 J*	<0.093	NS
RIW-14	III	06/20/06	<0.25	<0.5	<0.0133	*1.28*	*1.19*	<0.361	*0.289 J*	<0.103	<0.093	NS
RIW-14	III	09/12/06	<0.125	<0.171	<0.0133	**5.38**	*1.76*	<0.25	<0.149	*0.455 J*	<0.25	NS
RIW-14	III	11/28/06	<2.29[11]	<0.171	<0.0133	**5.55**	*2*	<0.25	<0.149	*0.527 J*	<0.25	NS
RIW-14	III	02/06/07	<0.125	<0.171	<0.0133	*4.43*	*1.25*	<0.25	<0.149	*0.352 J*	<0.25	NS
RIW-14	III	06/26/07	<1	<1	<0.05	*2.23*	<1	<1	<1	<1	<1	NS
RIW-14	III	08/28/07	<0.5	<0.171	<0.244	*3.91*	*2.12*	<0.25	<0.5	*0.574 J*	<0.25 UJL	NS
RIW-14	III	11/28/07	<0.5	<0.171	NA	*1.05*	*0.556 J*	<0.25	<0.5	<0.274	<0.25	NS
RIW-14	III	02/06/08	<0.5	<0.171	NA	*1.78*	*1.06*	<0.25	<0.5	<0.274	<0.25	NS
RIW-14	III	06/16/08	<0.125	<0.171	NA	*3.29*	*2.14*	<0.25	0.162 J	*0.605 J*	<0.25	NS
RIW-14	III	09/24/08	*1.31*	<0.25	NA	*2.56*	*1.59*	<0.153	<0.25	*0.452 J*	<0.138	NS
RIW-14	III	12/11/08	<0.5	<0.25	NA	*2.7*	*1.86*	<0.153	<0.25	*0.536 J*	<0.138	NS
RIW-14	III	02/17/09	<0.154	<0.25	NA	*2.03*	*5.98*	*0.382 J*	<0.25	*1.44*	<0.138	NS
RIW-14	III	06/16/09	<0.154	<0.25	<0.226	*2.88*	*54.7*	*3.06*	<0.25	**6.29**	<0.138	NS
RIW-14	III	08/11/09	<0.154	<0.25	NA	*3.06*	**84.4**	*4.55*	<0.25	*4.9*	<0.138	NS
RIW-14	III	11/17/09	<0.154	<0.25	NA	*2.28*	**76.4**	*4.99*	*0.709 J*	**9.9**	<0.5	NS
RIW-14	III	03/04/10	<0.154	<0.25	NA	*1.89*	**162**	*14.9*	*0.25 J*	**20**	**9.15**	NS
RIW-14	III	05/26/10	<0.154	*0.573 J*	NA	*1.93*	*48.9*	*1.25*	**28.9**	**6.37**	*1.38*	NS
RIW-14	III	08/18/10	<0.154	<0.25	NA	*2.81*	*11.7*	*0.695 J*	*0.988 J*	*2.65*	<1	NS
RIW-14	III	06/08/11	<1	<1	NA	<1	*9.52*	<1	<1	*2.59*	*0.795 J*	NS
RIW-15	V/VI	08/12/94	<5	**950**	<5	**6**	<5	<5	<5	<5	<10	NS
RIW-15	"Sand	05/21/97	**5**	*10*	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	Channel"	08/20/97	<5	**1,400**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	V/VI	11/25/97	<5	**1,300**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	"Sand	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	Channel"	05/14/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-15	V/VI	08/27/98	<5	**590**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	"Sand	11/05/98	<5	**8,100**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-15	Channel"	02/10/99	**5**	*23*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	V/VI	05/14/99	<5	**2,300**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	"Sand	08/19/99	<5	**567**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	Channel"	11/10/99	**5.9**	**3,220**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	V/VI	02/04/00	<5	**11,200**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	"Sand	05/16/00	<5	**5,180**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	Channel"	08/09/00	<5	**3,800**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	V/VI	05/09/01	<25	**5,260**	<25	<25	<25	<25	<25	<25	<10	NS
RIW-15	"Sand	08/21/01	<50	**12,000**	<50	<50	<50	<50	<50	<50	<20	NS
RIW-15	Channel"	11/06/01	<50	**13,700**	<50	<50	<50	<50	<50	<50	<20	NS
RIW-15	V/VI	02/05/02	<5	**4,980**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	"Sand	05/29/02	<10	**3,290**	<10	<10	<10	<10	<10	<10	<4	NS
RIW-15	Channel"	08/07/02	<50	**11,400**	<50	<50	<50	<50	<50	<50	<20	NS
RIW-15	V/VI	11/06/02	<10	**3,730**	<10	<10	<10	<10	<10	<10	<4	NS
RIW-15	"Sand	02/04/03	<25	**6,170**	<25	<25	<25	<25	<25	<25	<50	NS
RIW-15	Channel"	06/25/03	<5	**2,000**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	V/VI	08/13/03	**7.68**	**2,720**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	"Sand	12/09/03	**24.8**	**8,840**	<10	<10	<10	<10	<10	<10	<10	NS
RIW-15	Channel"	02/17/04	<5	**1,430**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-15	V/VI	05/19/04	<5	**403**	<5	<5	*5.05*	<5	**22.7**	<5	<2	NS
RIW-15	"Sand	09/08/04	<5	*38.9*	<5	<5	<5	<5	**85**	<5	<2	NS
RIW-15	Channel"	12/15/04	<5	*16.5*	<5	<5	<5	<5	**39.8**	<5	<2	NS
RIW-15	V/VI	02/10/05	<5	<5	<5	<5	<5	<5	**5.35**	<5	<2	NS
RIW-15	"Sand	05/04/05	<5	<5	<5	<5	<5	<5	**18.4**	<5	<2	NS
RIW-15	Channel"	08/02/05	<5	*42.6*	<5	<5	<5	<5	**13**	<5	<2	NS
RIW-15	V/VI	11/19/05	<5	**111**	<5	<5	<5	<5	**16.6**	<5	<2	NS
RIW-15	"Sand	03/21/06	<0.5	*14*	<0.05	<0.256	*1.6 J*	<0.722	**7.27**	*1.31 J*	<0.186	NS
RIW-15	Channel"	06/21/06	*0.912 J*	**123**	<0.0133	*0.456 J*	*2.04*	<0.361	**10.6**	*1.29*	<0.093	NS
RIW-15	V/VI	09/13/06	<0.125	*5.36*	<0.0133	<0.308	*1.23*	<0.25	*4.13*	*0.808 J*	<0.25	NS
RIW-15	"Sand	11/28/06	<2.29[11]	*2.86*	<0.0133	<0.308	*0.615 J*	<0.25	*3.38*	*0.66 J*	<0.25	NS
RIW-15	Channel"	02/06/07	<0.125	*2.22*	<0.0133	<0.308	<0.527	<0.25	**5.39**	*0.75 J*	<0.25	NS
RIW-15	V/VI	06/27/07	<1	*3.22 J*	<0.05	<1	<1	<1	**31.2**	*1.83*	<1	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-15	"Sand	08/28/07	<0.5 UJL	<0.171	<0.244	<0.308	<0.527	<0.25 UJL	*1.24 JL*	<0.274	<0.25 UJL	NS
RIW-15	Channel"	11/28/07	<0.5	*2.76*	NA	*0.385 J*	*0.769 J*	<0.25	**47**	*2.73*	<0.25	NS
RIW-15	V/VI	02/06/08	<0.5	*2.06*	NA	<0.308	*1.38*	<0.25	**24.2**	*2.08*	<0.25	NS
RIW-15	"Sand	06/17/08	*0.394 J*	**186**	NA	*0.69 J*	*1.52*	<0.25	**17.3**	*2.4*	<0.25	NS
RIW-15	Channel"	09/24/08	*0.465 J*	**104**	NA	<0.5	*1.29*	<0.153	**18.7**	*2.49*	<0.138	NS
RIW-15	V/VI	12/11/08	*0.539 J*	**247**	NA	*0.724 J*	*0.752 J*	<0.153	**22.1**	*2.56*	<0.138	NS
RIW-15	"Sand	02/17/09	*0.737 J*	**418**	NA	*0.533 J*	*0.85 J*	<0.153	**19.3**	*2.74*	<0.138	NS
RIW-15	Channel"	06/16/09	*0.455J*	**267**	<0.226	*0.159 J*	*0.725 J*	<0.153	**14.8**	*1.87*	<0.138	NS
RIW-15	V/VI	08/11/09	*0.621 J*	**527**	NA	<0.116	*0.528 J*	<0.153	**15.3**	*1.35*	<0.138	NS
RIW-15	"Sand	11/17/09	<0.154	*40.4*	NA	<0.116	*4.87*	<0.153	**40.6**	**5.8**	<0.5	NS
RIW-15	Channel"	03/04/10	<0.154	*0.481 J*	NA	<0.116	*2.28*	<0.153	**29.2**	*2.13*	<0.138	NS
RIW-15	V/VI	05/27/10	<0.154	*0.882 J*	NA	*3.84*	*24.4*	<0.153	**21.4**	**7.09**	<1	NS
RIW-15	"Sand	08/18/10	<0.154	*0.302 J*	NA	<0.116	*2.54*	<0.153	*1.3*	*0.708 J*	<1	NS
RIW-15	Channel"	06/08/11	<1 JL	*3.01 JL*	NA	*1.16 JL*	*5.59 JL*	<1 JL	**13.5 JL**	*3.25 JL*	<1 JL	NS
RIW-16	VI	08/14/94	<5	**1,100**	<5	**7**	<5	<5	<5	<5	<10	NS
RIW-16	"Sand	05/21/97	<5	**130**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-16	Channel"	05/12/98	<5	**390**	**60**	<5	<5	<5	**60**	<5	<10	NS
RIW-16[3]	VI	11/05/98	<5	**264**	<5	**30.8**	<5	<5	**77.1**	<5	<10	NS
RIW-16[3]	"Sand	05/12/99	<5	*27.2*	**12.4**	**20.2**	<5	<5	**307**	<5	<2	NS
RIW-16R[3]	Channel"	11/11/99	<5	*16.8*	**5.3**	**14.9**	<5	<5	**157**	<5	<2	NS
RIW-16R[3]	VI	05/18/00	<5	*15.6*	<5	**12**	<5	<5	**80.4**	<5	<2	NS
RIW-16R[3]	"Sand	11/07/00	<5	*29*	<5	**12.5**	<5	<5	**70.1**	<5	<2	NS
RIW-16R[3]	Channel"	05/08/01	<5	*14.5*	<5	**8.91**	<5	<5	**73.3**	<5	<2	NS
RIW-16R[3]	VI	11/06/01	<5	*20.2*	<5	**7.12**	<5	<5	**48.8**	<5	<2	NS
RIW-16R[3]	"Sand	08/07/02	<5	**111**	<5	**6.69**	<5	<5	**39**	<5	<2	NS
RIW-16R[3]	Channel"	11/07/02	<5	*44.5*	<5	<5	<5	<5	**53.9**	<5	<2	NS
RIW-16R[3]	VI	08/14/03	<5	*19.4*	<5	<5	<5	<5	**28.3**	<5	<2	NS
RIW-16R[3]	"Sand	12/10/03	<5	**1,410**	<5	<5	*14.8*	<5	**24.3**	<5	<2	NS
RIW-16R[3]	Channel"	05/20/04	<5	**136**	<5	<5	<5	<5	**17.5**	<5	<2	NS
RIW-16R[3]	VI	12/14/04	<5	*62.6*	<5	**9.14**	<5	<5	**29.3**	<5	<2	NS
RIW-16R[3]	"Sand	05/03/05	<5	*24.6*	<5	**6.2**	<5	<5	**79.3**	<5	<2	NS
RIW-16R[3]	Channel"	11/17/05	<5	*36.3*	<5	**5.53**	<5	<5	**60.7**	<5	<2	NS
RIW-16R[3]	VI	06/19/06	<0.25	*45.5*	**0.083**	*1.64*	*0.646 J*	<0.361	**61.4**	*3.0*	<0.093	NS
RIW-16R[3]	"Sand	11/28/06	<0.125	*21.2*	*0.026 J*	*1.63*	*0.952 J*	<0.25	**79.8**	*3.28*	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-16R[3]	Channel"	08/28/07	<0.5 UJL	*13.1 JL*	*0.038 JL*	*2.43 JL*	<0.527	<0.25 UJL	**29.1 JL**	*1.33 JL*	<0.25 UJL	NS
RIW-16R[3]	VI	11/27/07	<0.5	*8.47*	*0.025 J*	*3.54*	<0.527	<0.25	<0.5	*1.21*	<0.25	NS
RIW-16R[3]	"Sand	06/17/08	<0.125	*6.7*	<0.244	*3.79*	<0.527	<0.25	**38.7**	*1.52*	<0.25	NS
RIW-16R[3]	Channel"	12/09/08	<0.5	*3.95*	<0.038	*2.77*	*0.553 J*	<0.153	**25.6**	*0.915 J*	<0.138	NS
RIW-16R[3]	VI	06/16/09	<0.154	*3.72*	<0.226	*3.41*	*0.318 J*	<0.153	**31.6**	*0.892 J*	<0.138	NS
RIW-16R[3]	"Sand	11/16/09	<0.154	*2.47*	NA	*3.34*	<0.5	<0.153	**28.5**	*0.697 J*	<0.5	NS
RIW-16R[3]	Channel"	05/25/10	*0.157 J*	*7.88*	<0.226	**7.1**	*0.252 J*	<0.153	**11.2**	*0.388 J*	<1	NS
RIW-16R[3]	VI	11/29/10	<0.25	*4.95*	<0.111	*2.56*	*0.718 J*	<0.25	**19.7**	*0.858 J*	<0.281	NS
RIW-16R[3]	"Sand	06/05/11	<1 JL	*7.46 JL*	<0.05 JL	*3.07 JL*	*1.46 JL*	<1 JL	**48.2 JL**	*2.17 JL*	<1 JL	NS
RIW-16R[3]	Channel"	11/21/11	<1	*6.99*	<0.05	*4.07*	*2.39*	<1	**63.6**	*2.82*	<1	NS
RIW-16R	VI	05/24/12	<1	*5.49*	<0.05	*1.37*	*1.97*	<1	**40.9**	*2.14*	<1	<1
RIW-16R	"Sand	08/29/12	<1	*9.76*	<0.05	<1	*22.1*	*0.636 J*	**56.9**	**9.61**	*0.778 J*	<1
RIW-16R	Channel"	11/08/12	*0.413 J*	*42.3*	<0.05	<1	*37.2*	<1	**5.28**	*2.65*	*0.461 J*	<1
RIW-16R	VI	02/13/13	<1	*25.6*	<0.05	<1	*2.33*	<1	*3.86*	*0.655 J*	<1	<1
RIW-16R	"Sand	05/08/13	<1	*30.5*	<0.05	<1	<1	<1	*0.976 J*	<1	<1	<1
RIW-16R	Channel"	08/28/13	<1	*43.6*	<0.05	<1	<1	<1	*0.482 J*	<1	<1	<1
RIW-16R	VI	11/14/13	<1	*41.1*	**0.144**	*1.05*	27.7	*0.242 J*	<1	**5.43**	*0.311 J*	<1
RIW-17	V	08/18/94	<5	<5	<5	**700**	<5	<5	<5	<5	<10	NS
RIW-17	V	05/21/97	<5	*41*	<5	**740**	<5	<5	<5	<5	<10	NS
RIW-17 (12 hr PT)	V	09/08/97	<5	<5	<5	**1,100**	<5	<5	<5	<5	<10	NS
RIW-17 (20 hr PT)	V	09/08/97	<5	<5	<5	**1,400**	<5	<5	<5	<5	<10	NS
RIW-17	V	05/12/98	<5	*55*	<5	**150**	<5	<5	<5	<5	<10	NS
RIW-17[3]	V	11/05/98	<5	<5	<5	**709**	<5	<5	**7.76**	<5	<10	NS
RIW-17[3]	V	05/12/99	<5	<5	<5	**693**	<5	<5	**5.64**	<5	<2	NS
RIW-17[3]	V	11/11/99	<5	<5	<5	**557**	<5	<5	**12.6**	<5	<2	NS
RIW-17[3]	V	05/18/00	<5	<5	<5	**548**	<5	<5	**12.8**	<5	<2	NS
RIW-17[3]	V	11/07/00	<5	<5	<5	**534**	<5	<5	**17.1**	<5	<2	NS
RIW-17[3]	V	05/08/01	<5	<5	<5	**620**	<5	<5	**15**	<5	<2	NS
RIW-17[3]	V	11/06/01	<5	<5	<5	**533**	<5	<5	**12**	<5	<2	NS
RIW-17[3]	V	08/07/02	<5	<5	<5	**645**	<5	<5	**10.7**	<5	<2	NS
RIW-17[3]	V	11/07/02	<5	<5	<5	**1,050**	<5	<5	**11.7**	<5	<2	NS
RIW-17[3]	V	08/14/03	<5	<5	<5	**698**	<5	<5	**27.9**	**10**	<2	NS
RIW-17[3]	V	12/10/03	<5	*5.68*	<5	**1,050**	<5	<5	**25.2**	**9.67**	<2	NS
RIW-17[3]	V	05/20/04	<5	<5	<5	**677**	*5.39*	<5	**22.9**	**8.1**	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-17[3]	V	12/14/04	<5	<5	<5	**951**	<5	<5	**19.5**	**7.09**	<2	NS
RIW-17[3]	V	05/03/05	<10	<10	<10	**871**	<10	<10	**17.3**	<10	<10	NS
RIW-17[3]	V	11/17/05	<5	<5	<5	**641**	*7.14*	<5	**21.5**	**9.12**	<10	NS
RIW-17[3]	V	06/19/06	<0.25	<0.5	*0.023 J*	**574**	*5.36*	<0.361	**15.9**	**6.82**	*0.216 J*	NS
RIW-17[3]	V	11/28/06	<2.29[11]	<0.855	*0.014 J*	**607**	*18.2*	<1.25	**39.4**	**18.4**	<1.25	NS
RIW-17[3]	V	08/28/07	<2.5 UJL	<0.855	<1.22 UJL	**490 JL**	*7.59 JL*	<1.25 UJL	**15.1 JL**	**7.79 JL**	<1.25 UJL	NS
RIW-17[3]	V	11/27/07	<5	*6.62 J*	NA	**516**	*6.27 J*	<2.5	**16.2**	**7.72 J**	<2.5	NS
RIW-17[3]	V	06/17/08	<0.125	*0.287 J*	NA	**70.1**	**86.6**	*0.332 J*	*0.378 J*	*0.369 J*	<0.25	NS
RIW-17[3]	V	12/09/08	<0.5	*69.6*	NA	**72.6**	*9.12*	<0.153	**19.1**	**8.46**	*0.293 J*	NS
RIW-17[3]	V	05/25/10	<0.77	*3.46*	NA	**405**	*21.6*	*0.363 J*	**41.2**	**23.7**	**2.93**	NS
RIW-17[3]	V	11/29/10	*0.361 J*	**343**	NA	**6.31**	*3.66*	<0.25	**18.1**	*2.42*	<0.281	NS
RIW-17[3]	V	06/04/11	*0.646 JL*	**582 JL**	NA	*0.257 JL*	*4.25 JL*	<1 JL	**5.55 JL**	*1.51 JL*	<1 JL	NS
RIW-17[3]	V	11/22/11	<10	**265**	NA	**30.6**	**80.1**	<10	**5.05**	**5.9**	<10	NS
RIW-17	V	05/30/12	<1	**156**	NA	**6.45**	*9.04*	<1	<1	*1.17*	*1.23*	<1
RIW-17	V	08/29/12	<1	**121**	NA	**13.3**	*8.71*	*0.344 J*	<1	*0.686 J*	**8.41**	<1
RIW-17	V	11/08/12	*0.419 J*	**105**	NA	**6.42**	*2.82*	<1	<1	*0.307 J*	*1.73*	<1
RIW-17	V	02/13/13	<1	*37*	NA	**7.75**	*1.57*	<1	<1	<1	*1.23*	<1
RIW-17	V	05/08/13	<1	*59.1*	NA	**5.38**	*1.04*	<1	<1	<1	*0.673 J*	<1
RIW-17	V	08/28/13	<1	*95.2*	NA	**6.34**	*1.22*	<1	<1	*0.367 J*	*1.07*	<1
RIW-17	V	11/14/13	<1	*87.1*	NA	**7.29**	*1.29*	*0.436 J*	<1	*0.527 J*	*1.43*	<1
RIW-18	VI	08/12/94	<5	**2,700**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18	"Sand	05/21/97	**7**	**11,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18 (12 hr PT)	Channel"	09/02/97	<5	**3,900**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18 (18 hr PT)	VI	09/02/97	<5	**2,200**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18 (36 hr PT)	"Sand	09/02/97	<5	**2,900**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18	Channel"	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18[3]	VI	11/05/98	<5	**1,060**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-18[3]	"Sand	05/12/99	<5	**604**	**11.8**	<5	<5	<5	**6.78**	<5	<2	NS
RIW-18[3]	Channel"	11/11/99	<5	**759**	<5	<5	<5	<5	**5.65**	<5	<2	NS
RIW-18[3]	VI	05/18/00	<5	**1,370**	<5	<5	<5	<5	**7.49**	<5	<2	NS
RIW-18[3]	"Sand	11/07/00	<5	**728**	<5	<5	<5	<5	**11.9**	<5	<2	NS
RIW-18[3]	Channel"	05/08/01	<5	**781**	<5	<5	<5	<5	**8.39**	<5	<2	NS
RIW-18[3]	VI	11/06/01	<5	**28.3**	<5	**162**	<5	<5	<5	<5	<2	NS
RIW-18[3]	"Sand	08/07/02	<5	**1,530**	<5	<5	<5	<5	**5.67**	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-18[3]	Channel"	11/07/02	<5	**983**	<5	<5	<5	<5	**10.5**	<5	<2	NS
RIW-18[3]	VI	08/13/03	<5	**1,450**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-18[3]	"Sand	12/09/03	<5	**1,570**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-18[3]	Channel"	05/20/04	<5	**703**	<5	<5	<5	<5	**10.8**	<5	<2	NS
RIW-18[3]	VI	12/14/04	<5	**615**	<5	<5	<5	<5	**26.4**	<5	**2.69**	NS
RIW-18[3]	"Sand	05/03/05	<5	**599**	<5	<5	<5	<5	**19.6**	<5	<2	NS
RIW-18[3]	Channel"	11/17/05	<5	**478**	<5	<5	<5	<5	**14.8**	<5	<2	NS
RIW-18[3]	VI	06/19/06	*0.447 J*	**617**	**0.636**	*0.52 J*	*3.15*	<0.361	**29.4**	*2.44*	*0.619 J*	NS
RIW-18[3]	"Sand	11/28/06	<2.29[11]	**501**	**0.225**	<1.54	*5.55*	<1.25	**48**	<1.37	*1.37 J*	NS
RIW-18[3]	Channel"	08/28/07	<2.5 UJL	**564 JL**	**0.176 JL**	<1.54 UJL	*3.5 JL*	<1.25 UJL	**21.4 JL**	*1.76 JL*	<1.25 UJL	NS
RIW-18[3]	VI	11/27/07	*1.16*	**1,680**	<0.0133	*0.554 J*	*2.09*	<0.25	**28.7**	*1.45*	<0.25	NS
RIW-18[3]	"Sand	06/17/08	<0.125	**418**	<0.244	<0.308	*3.47 J*	<0.25	**12.8**	*1.51 J*	<0.25	NS
RIW-18[3]	Channel"	12/09/08	<0.5	**320**	<0.038	<0.116	*1.25*	<0.153	**6.36**	*0.562 J*	<0.138	NS
RIW-18[3]	VI	06/16/09	<0.77	**374**	<1.13	<0.58	*2.2 J*	<0.765	**9.61**	<0.765	<0.69	NS
RIW-18[3]	"Sand	11/16/09	<0.77	**456**	NA	<0.58	<2.5	<0.765	**6.96**	<0.765	<2.5	NS
RIW-18	Channel"	05/25/10	<0.154	**414**	<1.13	<0.58	*4.02 J*	<0.765	**12.4**	*1.31 J*	<5	NS
RIW-18	VI	11/29/10	*0.584 J*	**447**	<0.111	<0.25	*4.53*	<0.25	**8.45**	*1.45*	<0.281	NS
RIW-18	"Sand	06/05/11	<5 JL	**273 JL**	*0.027 JL*	<5 JL	*2.48 JL*	<5 JL	**7.33 JL**	*0.833 JL*	<5 JL	NS
RIW-18	Channel"	11/21/11	<10	**498**	<10	<10	*2.49 J*	<10	**8.32 J**	<10	<10	NS
RIW-19	V/VI	08/14/94	<5	88	<5	<5	<5	<5	<5	<5	<10	NS
RIW-19	"Sand	05/22/97	<5	**260**	<5	<5	<5	<5	**26**	<5	<10	NS
RIW-19	Channel"	05/13/98	<5	90	<5	<5	<5	<5	**17**	<5	<10	NS
RIW-19	V/VI	05/13/99	<5	<5	<5	<5	<5	<5	**44.6**	<5	<2	NS
RIW-19	"Sand	05/16/00	<5	<5	<5	<5	<5	<5	**41.5**	<5	<2	NS
RIW-19	Channel"	11/08/00	<5	<5	<5	<5	<5	<5	**39.9**	<5	<2	NS
RIW-19	V/VI	05/08/01	<5	<5	<5	<5	<5	<5	**6.21**	<5	<2	NS
RIW-19	"Sand	08/07/02	<5	<5	<5	<5	<5	<5	**12.8**	<5	<2	NS
RIW-19	Channel"	08/12/03	<5	<5	<5	<5	<5	<5	**5.57**	<5	<2	NS
RIW-19	V/VI	05/19/04	<5	*7.39*	<5	<5	<5	<5	**7.14**	<5	<2	NS
RIW-19	"Sand	05/04/05	<5	*5.05*	<5	<5	<5	<5	**9.76**	<5	<2	NS
RIW-19	Channel"	06/21/06	<0.25	*1.76*	*0.017 J*	*0.13 J*	<0.5	<0.361	**79**	*0.953 J*	<0.093	NS
RIW-19	V/VI	08/28/07	<0.5	*1.32*	<0.244	<0.308	<0.527	<0.25	**55.8**	*1*	<0.25 UJL	NS
RIW-19	"Sand	06/16/08	<0.125	*0.56 J*	NA	<0.308	<0.527	<0.25	**13.8**	<0.274	<0.25	NS
RIW-19	Channel"	06/16/09	<0.154	*0.418 J*	<0.226	<0.116	<0.141	<0.153	**9.15**	*0.208 J*	<0.138	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-19	V/VI	05/26/10	<0.154	*0.624 J*	NA	<0.116	<0.141	<0.153	**11.2**	*0.362 J*	<1	NS
RIW-19	V/VI	06/08/11	<1	<1	NA	<1	<1	<1	**18.4**	*0.586 J*	<1	NS
RIW-19	V/VI	05/25/12	<1	<1	NA	<1	*0.835 J*	<1	**16.4**	*0.742 J*	<1	<1
RIW-19	V/VI	08/29/12	<1	*0.429 J*	NA	<1	*0.507 J*	<1	**18.5**	*1.05*	<1	<1
RIW-19	V/VI	11/08/12	*0.554 J*	*0.892 J*	NA	<1	<1	<1	**11.9**	*0.962 J*	<1	<1
RIW-19	V/VI	02/13/13	<1	*1.33*	NA	*4.1*	*9.06*	*0.344 J*	*0.948 J*	*2.08*	<1	<1
RIW-19	V/VI	05/08/13	<1	<1	NA	<1	*1.06*	<1	**12**	*0.888 J*	<1	<1
RIW-19	V/VI	08/28/13	<1	<1	NA	<1	<1	<1	**9.12**	*0.906 J*	<1	<1
RIW-19	V/VI	11/14/13	<1	*1.3*	NA	<1	*1.74*	<1	**12**	**6.85**	<1	<1
RIW-20	V	08/14/94	<5	<5	<5	**740**	<5	<5	<5	<5	<10	NS
RIW-20	V	05/20/97	<5	<5	<5	**710**	<5	<5	**8.1**	<5	<10	NS
RIW-20	V	08/19/97	<5	<5	<5	**820**	<5	<5	**6.2**	<5	<10	NS
RIW-20	V	05/12/98	<5	<5	<5	**130**	<5	<5	<5	<5	<10	NS
RIW-20[3]	V	11/05/98	<5	<5	<5	**685**	<5	<5	<5	<5	<10	NS
RIW-20[3]	V	05/12/99	<5	<5	<5	**467**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	11/11/99	<5	<5	<5	**272**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	05/18/00	<5	<5	<5	**246**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	11/07/00	<5	<5	<5	**213**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	05/08/01	<5	<5	<5	**126**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	11/06/01	<5	<5	<5	**146**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	08/07/02	<5	<5	<5	**95**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	11/07/02	<5	<5	<5	**114**	*5.75*	<5	<5	<5	<2	NS
RIW-20[3]	V	08/14/03	<5	<5	<5	**109**	*7.65*	<5	<5	<5	<2	NS
RIW-20[3]	V	12/10/03	<5	<5	<5	**90.5**	*11.2*	<5	<5	<5	<2	NS
RIW-20[3]	V	05/20/04	<5	<5	<5	**44.3**	<5	<5	<5	<5	<2	NS
RIW-20[3]	V	12/14/04	<5	<5	<5	**113**	*8.59*	<5	<5	<5	<2	NS
RIW-20[3]	V	05/03/05	<5	<5	<5	**93.7**	*8.02*	<5	<5	<5	<2	NS
RIW-20[3]	V	11/17/05	<5	<5	<5	**51.3**	*7.06*	<5	<5	<5	<2	NS
RIW-20[3]	V	06/19/06	<0.25	<0.5	*0.019 J*	**33.5**	*4.98*	<0.361	*0.652 J*	*2.27*	*0.176 J*	NS
RIW-20[3]	V	11/28/06	<0.125	*0.315 J*	<0.0133	**35.1**	*5.35*	<0.25	*0.634 J*	*2.25*	<0.25	NS
RIW-20[3]	V	08/28/07	<0.5	<0.171	<0.244	**38.7**	*3.51*	<0.25	<0.5	*1.46*	<0.25	NS
RIW-20[3]	V	11/27/07	<0.5	*0.358 J*	NA	**27.2**	*4.3*	<0.25	<0.5	*1.97*	<0.25	NS
RIW-20[3]	V	06/17/08	<0.125	<0.171	NA	**32.4**	*4.72*	<0.25	*0.776 J*	*1.97*	<0.25	NS
RIW-20[3]	V	06/16/09	<0.154	<0.25	<0.226	**21.9**	*5.16*	<0.153	*0.577 J*	*1.72*	*0.188 J*	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-20[3]	V	11/16/09	<0.154	*0.382 J*	NA	**16.9**	*3.99*	<0.153	*1.78*	*2.03*	<0.5	NS
RIW-20	V	05/25/10	<0.154	*0.521 J*	NA	**41.2**	*8.78*	*0.172 J*	**8.63**	**5.48**	<1	NS
RIW-20	V	11/29/10	<0.25	*1.24*	NA	**38.9**	*6.6*	<0.25	*2.33*	*2.51*	*0.325 J*	NS
RIW-20	V	06/05/11	<1 JL	*10.7 JL*	NA	**41.8 JL**	*6.69 JL*	<1 JL	*3.23 JL*	*2.77 JL*	<1 JL	NS
RIW-20	V	11/21/11	<1	*9.4*	NA	**20.8**	*6.28*	*0.202 J*	*2.56*	*2.27*	<1	NS
RIW-20	V	05/24/12	<1	*6.74*	NA	**24.1**	*5.43*	<1	*3.16*	*2.68*	<1	<1
RIW-20	V	08/29/12	<1	*1.29*	NA	**8.54**	*6.44*	*0.255 J*	*1.67*	*2.32*	<1	<1
RIW-20	V	11/08/12	*1.36*	*2.71*	NA	**8.03**	*7.62*	<1	*1.67*	*2.5*	<1	<1
RIW-20	V	02/13/13	<1	<1	NA	<1	*0.969 J*	<1	**11.6**	*1.27*	<1	<1
RIW-20	V	05/08/13	<1	*0.991 J*	NA	*3.86*	*8.03*	<1	*0.977 J*	*2*	<1	<1
RIW-20	V	08/28/13	<1	<1	NA	*1.72*	*4.57*	*0.265 J*	*0.373 J*	*0.766 J*	<1	<1
RIW-20	V	11/14/13	<1	*0.539 J*	NA	*2.91*	*9.05*	*0.49 J*	*0.713 J*	*1.7*	*0.167 J*	<1
RIW-21	V	08/16/94	<5	*57*	<5	**810**	<5	<5	<5	<5	<10	NS
RIW-21	V	05/18/97	<5	*68*	<5	**780**	<5	<5	<5	<5	<10	NS
RIW-21	V	08/19/97	<5	*9.9*	<5	**1,700**	<5	<5	<5	<5	<10	NS
RIW-21	V	11/24/97	<5	<5	<5	**1,200**	<5	<5	<5	<5	<10	NS
RIW-21	V	02/04/98	<5	<5	<5	**1,800**	<5	<5	<5	<5	<10	NS
RIW-21	V	05/13/98	<5	<5	<5	**2,200**	<5	<5	<5	<5	<10	NS
RIW-21	V	08/26/98	<5	<5	<5	**2,000**	<5	<5	<5	<5	<10	NS
RIW-21	V	11/04/98	<5	<5	<5	**2,800**	<5	<5	<5	<5	<10	NS
RIW-21	V	02/10/99	<5	<5	<5	**4,100**	<5	<5	<5	<5	**4**	NS
RIW-21	V	05/12/99	<5	<5	<5	**1,320**	<5	<5	<5	<5	<2	NS
RIW-21	V	08/19/99	<5	<5	<5	**1,630**	<5	<5	<5	<5	<2	NS
RIW-21	V	11/10/99	<5	<5	<5	**818**	<5	<5	<5	<5	**4.13**	NS
RIW-21	V	02/04/00	<5	<5	<5	**1,120**	<5	<5	<5	<5	**5.07**	NS
RIW-21	V	05/16/00	<5	<5	<5	**569**	<5	<5	<5	<5	**31**	NS
RIW-21	V	08/09/00	<5	<5	<5	**758**	<5	<5	<5	<5	**3.6**	NS
RIW-21	V	11/07/00	<5	<5	<5	**704**	<5	<5	<5	<5	<2	NS
RIW-21	V	02/06/01	<5	<5	<5	**695**	<5	<5	<5	<5	**7.35**	NS
RIW-21	V	05/09/01	<5	<5	<5	**668**	<5	<5	<5	<5	**2.6**	NS
RIW-21	V	08/21/01	<5	<5	<5	**530**	<5	<5	<5	<5	<2	NS
RIW-21	V	11/07/01	<5	<5	<5	**432**	<5	<5	<5	<5	**3.92**	NS
RIW-21	V	02/05/02	<5	<5	<5	**687**	<5	<5	<5	<5	**2.42**	NS
RIW-21	V	05/29/02	<5	<5	<5	**463**	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-21	V	08/06/02	<5	<5	<5	**429**	<5	<5	<5	<5	<2	NS
RIW-21	V	11/05/02	<5	<5	<5	**524**	<5	<5	<5	<5	<2	NS
RIW-21	V	02/04/03	<5	<5	<5	**356**	<5	<5	<5	<5	<2	NS
RIW-21	V	06/25/03	<5	<5	<5	**218**	<5	<5	<5	<5	<2	NS
RIW-21	V	08/12/03	<5	<5	<5	**258**	<5	<5	<5	<5	<2	NS
RIW-21	V	12/08/03	<5	<5	<5	**11.5**	<5	<5	<5	<5	<2	NS
RIW-21	V	02/17/04	<5	<5	<5	**95.7**	<5	<5	<5	<5	<2	NS
RIW-21	V	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-21	V	09/08/04	<5	<5	<5	**122**	<5	<5	<5	<5	<2	NS
RIW-21	V	12/14/04	<5	<5	<5	**100**	<5	<5	<5	<5	<2	NS
RIW-21	V	02/09/05	<5	<5	<5	**13.4**	<5	<5	<5	<5	<2	NS
RIW-21	V	05/03/05	<5	<5	<5	**15.1**	<5	<5	<5	<5	<2	NS
RIW-21	V	08/01/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-21	V	11/18/05	<5	<5	<5	**27.3**	<5	<5	<5	<5	<2	NS
RIW-21	V	03/20/06	<0.25	<0.5	<0.05	**9.88**	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-21	V	06/20/06	<0.25	<0.5	<0.0133	**14.1**	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-21	V	09/12/06	<0.125	<0.171	<0.0133	*0.755 J*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-21	V	11/28/06	*<2.29*[11]	<0.171	<0.0133	**293**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-21	V	02/06/07	*0.344 J*	<0.171	<0.0133	**191**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-21	V	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-21	V	08/27/07	*0.575 JH*	<0.171	<0.244	*0.665 JH*	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-21	V	11/26/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-21	V	02/06/08	<0.5	<0.171	NA	*0.859 J*	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-21	V	06/16/08	<0.125	<0.171	NA	*0.554 J*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-21	V	09/24/08	<0.154	<0.25	NA	*1.61*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-21	V	12/10/08	<0.5	<0.25	NA	**6.84**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-21	V	02/17/09	<0.154 L	<0.25 L	NA	**55.8 L**	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-21	V	06/16/09	<0.154	<0.25	<0.226	*3.36*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-21	V	08/10/09	<0.154	<0.25	NA	*0.158 J*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-21	V	11/17/09	<0.154	*0.265 J*	NA	**82.5**	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-21	V	03/03/10	<0.154	<0.25	NA	**11.6**	*0.191 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-21	V	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-21	V	08/18/10	<0.154	<0.25	NA	**7.39**	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-21	V	06/08/11	<1	<1	NA	**32.2**	<1	<1	<1	<1	<1	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-22	III	08/18/94	<5	<5	<5	**340**	<5	<5	<5	<5	<10	NS
RIW-22	III	05/21/97	<5	*6.2*	<5	**370**	<5	<5	**5.2**	<5	<10	NS
RIW-22	III	05/12/98	<5	<5	<5	**110**	<5	<5	<5	<5	<10	NS
RIW-22[3]	III	11/05/98	<5	<5	<5	**354**	<5	<5	<5	<5	<10	NS
RIW-22[3]	III	05/12/99	<5	<5	<5	**406**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	11/11/99	<5	<5	<5	**151**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	05/18/00	<5	<5	<5	**308**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	05/08/01	<5	<5	<5	**165**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	11/06/01	<5	<5	<5	**79**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	08/07/02	<5	<5	<5	**187**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	11/07/02	<5	<5	<5	**127**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	08/14/03	<5	<5	<5	**92.2**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	12/10/03	<5	<5	<5	**148**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	05/20/04	<5	<5	<5	**74.9**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	12/14/04	<5	<5	<5	**54.7**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	05/03/05	<5	<5	<5	**29.9**	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	11/17/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-22[3]	III	06/19/06	<0.25	<0.5	<0.0133	**27**	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-22[3]	III	11/28/06	<0.125	*0.874 J*	<0.0133	**9.45**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-22[3]	III	08/28/07	<0.5 UJL	<0.171	<0.244	**5.14 JL**	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-22[3]	III	11/27/07	<0.5	<0.171	NA	**5.57**	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-22[3]	III	06/17/08	<0.125	<0.171	NA	**8.39**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-22[3]	III	12/09/08	<0.5	*0.336 J*	NA	**12.9**	<0.141	<0.153	<0.25	<0.153	*0.348 J*	NS
RIW-22[3]	III	06/16/09	<0.154	<0.25	<0.226	**12.2**	<0.141	<0.153	<0.25	<0.153	*0.658 J*	NS
RIW-22[3]	III	11/16/09	<0.154	<0.25	NA	**8.75**	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-22	III	05/25/10	<0.154	<0.25	NA	**9.39**	<0.141	<0.153	*0.264 J*	*0.223 J*	<1	NS
RIW-22	III	11/29/10	<0.25	*0.384 J*	NA	**5.18**	<0.25	<0.25	<0.25	*0.151 J*	*0.355 J*	NS
RIW-22	III	06/05/11	<1 JL	<1 JL	NA	**7.7 JL**	<1 JL	<1 JL	<1 JL	<1 JL	*0.379 JL*	NS
RIW-22	III	11/21/11	<1	<1	NA	**8.04**	<1	<1	<1	<1	<1	NS
RIW-23	III	08/14/94	<5	<5	<5	**120**	<5	<5	<5	<5	<10	NS
RIW-23	III	05/21/97	<5	<5	<5	**250**	<5	<5	<5	<5	<10	NS
RIW-23	III	08/19/97	<5	<5	<5	**350**	<5	<5	<5	<5	<10	NS
RIW-23	III	11/25/97	<5	<5	<5	**8.6**	<5	<5	<5	<5	<10	NS
RIW-23	III	02/05/98	<5	<5	<5	**24**	<5	<5	<5	<5	<10	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-23 (Split)	III	02/05/98	<5	*16*	<5	**15**	<5	<5	<5	<5	<10	NS
RIW-23	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-23	III	05/12/99	<5	<5	<5	**22.1**	<5	<5	<5	<5	<2	NS
RIW-23	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	02/07/01	<5	<5	<5	**13**	<5	<5	<5	<5	<2	NS
RIW-23	III	05/08/01	<5	<5	<5	**11.9**	<5	<5	<5	<5	<2	NS
RIW-23	III	08/21/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	11/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	02/05/02	<5	<5	<5	**10.1**	<5	<5	<5	<5	<2	NS
RIW-23	III	05/29/02	<5	<5	<5	**17.3**	<5	<5	<5	<5	<2	NS
RIW-23	III	08/06/02	<5	<5	<5	**5.48**	<5	<5	<5	<5	<2	NS
RIW-23	III	11/06/02	<5	<5	<5	**9.06**	<5	<5	<5	<5	<2	NS
RIW-23	III	02/04/03	<5	<5	<5	**20.3**	<5	<5	<5	<5	<2	NS
RIW-23	III	06/25/03	<5	<5	<5	**18.1**	<5	<5	<5	<5	<2	NS
RIW-23	III	08/12/03	<5	<5	<5	**23.1**	<5	<5	<5	<5	<2	NS
RIW-23	III	12/09/03	<5	<5	<5	**6.25**	<5	<5	<5	<5	<2	NS
RIW-23	III	02/18/04	<5	<5	<5	**6.08**	<5	<5	<5	<5	<2	NS
RIW-23	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	12/15/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	11/18/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-23	III	03/21/06	<0.25	<0.5	<0.05	*0.676 J*	<0.5	*0.379 J*	<0.25	<0.103	<0.093	NS
RIW-23	III	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-23	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-23	III	11/28/06	<2.29[11]	<0.171	*0.014 J*	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-23	III	02/06/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-23	III	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-23	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-23	III	11/28/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-23	III	02/06/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-23	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	*0.253 J*	<0.149	<0.274	<0.25	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-23	III	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<3.37[11] U	<0.153	<0.138	NS
RIW-23	III	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-23	III	02/17/09	<0.154 L	<0.25 L	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-23	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-23	III	08/11/09	<0.154	*0.304 J*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-23	III	11/17/09	<0.154	<0.25	NA	*0.598 J*	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-23	III	03/03/10	<0.154	<0.25	NA	*0.26 J*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-23	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-23	III	08/17/10	*0.186 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-23	III	06/07/11	<1 JL	<1 JL	NA	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	NS
RIW-23	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-23	III	08/28/12	<1	<1	NA	*0.449 J*	<1	<1	<1	<1	<1	<1
RIW-23	III	11/08/12	*4.36*	<1	NA	*2.32*	<1	<1	<1	<1	<1	<1
RIW-23	III	02/12/13	<1	<1	NA	*4.89*	<1	<1	<1	<1	<1	<1
RIW-23	III	05/08/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-23	III	08/28/13	<1	<1	NA	*2.31*	<1	<1	<1	<1	<1	<1
RIW-23	III	11/14/13	<1	<1	NA	**13.8**	<1	<1	<1	<1	<1	<1
RIW-24	III	08/16/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-24	III	05/18/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-24	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-24	III	05/13/99	<5	<5	<5	**706**	<5	<5	<5	<5	<2	NS
RIW-24	III	05/16/00	<5	<5	<5	**324**	<5	<5	<5	<5	<2	NS
RIW-24	III	05/08/01	<5	<5	<5	**109**	<5	<5	<5	<5	<2	NS
RIW-24	III	08/06/02	<5	<5	<5	**53.8**	<5	<5	<5	<5	<2	NS
RIW-24	III	08/12/03	<5	<5	<5	**15.2**	<5	<5	<5	<5	<2	NS
RIW-24	III	05/19/04	<5	<5	<5	**16.3**	<5	<5	<5	<5	<2	NS
RIW-24	III	05/03/05	<5	<5	<5	**14.9**	<5	<5	<5	<5	<2	NS
RIW-24	III	06/21/06	<0.25	<0.5	<0.0133	*3.98*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-24	III	08/28/07	<0.5	<0.171	<0.244	*3.3*	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-24	III	06/16/08	<0.125	<0.171	NA	*1.21*	<0.527	*0.304 J*	<0.149	<0.274	<0.25	NS
RIW-24	III	06/16/09	<0.154	<0.25	<0.226	*3.38*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-24	III	05/26/10	<0.154	<0.25	NA	*3.22*	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-24	III	06/07/11	<1	<1	NA	*2.36*	<1	<1	<1	<1	<1	NS
RIW-24	III	08/02/11	<1	<1	NA	*2.14*	<1	<1	<1	<1	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-25	III	08/18/94	<5	<5	<5	<5	<5	<5	**97**	<5	<10	NS
RIW-25	III	05/21/97	<5	<5	<5	<5	<5	<5	**480**	<5	<10	NS
RIW-25	III	05/13/98	<5	<5	<5	<5	<5	<5	**20**	<5	<10	NS
RIW-25	III	05/12/99	<5	<5	<5	<5	<5	<5	**33.8**	<5	<2	NS
RIW-25	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-25	III	05/08/01	<5	<5	<5	<5	<5	<5	**6.39**	<5	<2	NS
RIW-25	III	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-25	III	08/13/03	<5	<5	<5	<5	<5	<5	**32.7**	<5	<2	NS
RIW-25	III	05/19/04	<5	<5	<5	<5	<5	<5	**9.93**	<5	<2	NS
RIW-25	III	05/04/05	<5	<5	<5	<5	<5	<5	**22.2**	<5	<2	NS
RIW-25	III	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	*1.75*	<0.103	<0.093	NS
RIW-25	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	**25**	*0.426 J*	<0.25 UJL	NS
RIW-25	III	06/16/08	<0.125	<0.171	NA	<0.308	*0.607 J*	<0.25	**141**	*3.97*	<0.25	NS
RIW-25 (Split)	III	06/16/08	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**200**	*4.6*	<1.0	NS
RIW-25	III	06/16/09	<0.154	*0.416 J*	<0.226	<0.116	*3.01*	<0.153	**45.8**	*3.92*	<0.138	NS
RIW-25	III	05/26/10	<0.154	<0.25	NA	<0.116	*12.6*	*0.196 J*	**57.9**	*3.73*	<1	NS
RIW-25	III	06/08/11	<1	<1	NA	*0.35 J*	*6.44*	*0.286 J*	**92.5**	**8.97**	<1	NS
RIW-25	III	05/25/12	<1	<1	NA	<1	*3.6*	*<1*	**77.8**	**6.13**	<1	<1
RIW-25	III	08/28/12	<1	*0.444 J*	NA	*0.348 J*	*30.1*	*0.792 J*	**212**	**20.4**	<1	<1
RIW-25	III	11/08/12	*0.526 J*	<1	NA	*0.688 J*	**251**	*2.21*	**37.2**	**5.88**	*0.758 J*	<1
RIW-25	III	02/13/13	<1	*0.662 J*	NA	*0.731 J*	**325**	*2.66*	**17**	**5.92**	*1.08*	<1
RIW-25	III	05/08/13	<1	<1	NA	<1	*51.7*	<1	**147**	**13.8**	*0.519 J*	<1
RIW-25	III	08/28/13	<1	<1	NA	<1	*25.2*	<1	**152**	**17.2**	*0.326 J*	<1
RIW-25	III	11/14/13	<1	*0.351 J*	NA	*0.379 J*	**81.3**	*2*	**210**	**27.5**	*0.79 J*	<1
RIW-26	III	08/16/94	<5	<5	<5	**99**	<5	<5	<5	<5	<10	NS
RIW-26	III	05/21/97	<5	<5	<5	**220**	<5	<5	<5	<5	<10	NS
RIW-26	III	05/12/98	<5	<5	<5	**80**	<5	<5	<5	<5	<10	NS
RIW-26	III	05/12/99	<5	<5	<5	**199**	<5	<5	<5	<5	<2	NS
RIW-26	III	05/16/00	<5	<5	<5	**193**	<5	<5	<5	<5	<2	NS
RIW-26	III	05/09/01	<5	<5	<5	**122**	<5	<5	<5	<5	<2	NS
RIW-26	III	08/06/02	<5	<5	<5	**168**	<5	<5	<5	<5	<2	NS
RIW-26	III	08/12/03	<5	<5	<5	**144**	<5	<5	<5	<5	<2	NS
RIW-26	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-26	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-26	III	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-26	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-26	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-26	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-26	III	05/25/10	*0.281 J*	<0.25	NA	**19.4**	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-26	III	06/06/11	<1	<1	NA	**5.55**	<1	<1	*0.373 J*	*0.161 J*	<1	NS
RIW-27	III	08/16/94	<5	<5	<5	**1200**	<5	<5	<5	<5	<10	NS
RIW-27	III	05/19/97	<5	<5	<5	<5	<5	<5	**480**	<5	<10	NS
RIW-27	III	11/25/97	<5	<5	<5	**950**	<5	<5	<5	<5	<10	NS
RIW-27 (Split)	III	11/25/97	<5	16	<5	**1700**	<5	<5	<5	<5	<10	NS
RIW-27[5]	III	05/13/98	<5	<5	<5	**140**	<5	<5	<5	<5	<10	NS
RIW-27	III	08/26/98	<5	<5	<5	**1500**	<5	<5	<5	<5	<10	NS
RIW-27	III	11/04/98	<5	<5	<5	**2,100**	<5	<5	<5	<5	<10	NS
RIW-27	III	02/10/99	<5	<5	<5	**1,000**	<5	<5	<5	<5	**5**	NS
RIW-27	III	05/14/99	<5	<5	<5	**605**	<5	<5	<5	<5	**5.2**	NS
RIW-27	III	08/19/99	<5	<5	<5	**597**	<5	<5	<5	<5	**6.7**	NS
RIW-27	III	11/10/99	<5	<5	<5	**564**	<5	<5	<5	<5	**2.54**	NS
RIW-27	III	02/04/00	<5	<5	<5	**1,060**	<5	<5	<5	<5	<2	NS
RIW-27	III	05/16/00	<5	<5	<5	**584**	<5	<5	<5	<5	<2	NS
RIW-27	III	08/09/00	<5	<5	<5	**315**	<5	<5	<5	<5	<2	NS
RIW-27	III	11/07/00	<5	<5	<5	**337**	<5	<5	<5	<5	<2	NS
RIW-27	III	05/08/01	<5	<5	<5	**66.6**	<5	<5	<5	<5	<2	NS
RIW-27	III	08/06/02	<5	<5	<5	**134**	<5	<5	<5	<5	**2.34**	NS
RIW-27	III	08/12/03	<5	<5	<5	**14.9**	<5	<5	<5	<5	<2	NS
RIW-27	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-27	III	05/03/05	<5	<5	<5	**33.3**	<5	<5	<5	<5	<2	NS
RIW-27	III	06/21/06	<0.25	<0.5	<0.0133	*2.09*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-27	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-27	III	06/16/08	<0.125	<0.171	NA	*1.53*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-27	III	06/16/09	<0.154	<0.25	<0.226	*0.619 J*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-27	III	05/25/10	*0.402 J*	<0.25	NA	*1.81*	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-27	III	06/06/11	<1	<1	NA	*0.366 J*	<1	<1	<1	<1	<1	NS
RIW-28	III	08/18/94	<5	<5	<5	**930**	<5	<5	<5	<5	<10	NS
RIW-28	III	05/20/97	<5	<5	<5	**1,100**	<5	<5	<5	<5	<10	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-28	III	05/12/98	<5	<5	<5	**140**	<5	<5	<5	<5	<10	NS
RIW-28	III	05/14/99	<5	<5	<5	**40.1**	<5	<5	<5	<5	<2	NS
RIW-28	III	05/16/00	<5	<5	<5	**21.1**	<5	<5	<5	<5	<2	NS
RIW-28	III	05/08/01	<5	<5	<5	**5.76**	<5	<5	<5	<5	<2	NS
RIW-28	III	08/06/02	<5	<5	<5	**6.1**	<5	<5	<5	<5	<2	NS
RIW-28	III	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-28	III	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-28	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-28	III	06/21/06	<0.25	<0.5	<0.0133	*1.68*	<0.5	<0.361	<0.25	*0.328 J*	<0.093	NS
RIW-28	III	08/30/07	<0.5 UJL	<0.171	<0.244	*1.45 JL*	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-28	III	06/16/08	<0.125	<0.171	NA	*1.5*	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-28	III	06/17/09	<0.154	<0.25	<0.226	*1.44*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-28	III	05/26/10	<0.154	<0.25	NA	*1.04*	*0.67 J*	<0.153	<0.25	*0.223 J*	<1	NS
RIW-28	III	06/07/11	<1	<1	NA	*1.24*	<1	<1	<1	<1	<1	NS
RIW-29	III	08/14/94	<5	<5	<5	**280**	<5	<5	<5	<5	<10	NS
RIW-29	III	05/21/97	<5	<5	<5	**330**	<5	<5	<5	<5	<10	NS
RIW-29	III	05/12/98	<5	<5	<5	**100**	<5	<5	<5	<5	<10	NS
RIW-29[3]	III	11/05/98	<5	<5	<5	**196**	<5	<5	<5	<5	<10	NS
RIW-29[3]	III	05/12/99	<5	<5	<5	**136**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	11/11/99	<5	<5	<5	**125**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	05/18/00	<5	<5	<5	**55.5**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	05/08/01	<5	<5	<5	**96**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	11/06/01	<5	<5	<5	**150**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	08/07/02	<5	<5	<5	**130**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	11/07/02	<5	<5	<5	**145**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	08/14/03	<5	<5	<5	**145**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	12/10/03	<5	<5	<5	**113**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	05/20/04	<5	<5	<5	**143**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	12/14/04	<5	<5	<5	**165**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	05/03/05	<5	<5	<5	**69.2**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	11/17/05	<5	<5	<5	**6.59**	<5	<5	<5	<5	<2	NS
RIW-29[3]	III	06/19/06	<0.25	<0.5	<0.0133	**8.19**	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-29[3]	III	11/28/06	<0.125	<0.171	*0.014 J*	**19.6**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-29[3]	III	08/28/07	<0.5 UJL	<0.171	<0.244	**11.7 JL**	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-29[3]	III	11/27/07	<0.5	*0.207 J*	NA	**10.3**	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-29[3]	III	06/17/08	<0.125	*0.186 J*	NA	**13**	<0.527	<0.25	*0.83 J*	<0.274	<0.25	NS
RIW-29[3]	III	12/09/08	<0.5	<0.25	NA	**13.7**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-29[3]	III	06/16/09	<0.154	<0.25	<0.226	**20.4**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-29[3]	III	11/16/09	<0.154	<0.25	NA	**19.7**	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-29[3]	III	05/25/10	<0.154	<0.25	NA	**17.7**	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-29[3]	III	11/29/10	<0.25	*1.35*	NA	**51.8**	*7.37*	<0.25	*2.38*	*2.55*	*0.345 J*	NS
RIW-29[3]	III	06/05/11	<1 JL	<1 JL	NA	**6.61 JL**	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	NS
RIW-29[3]	III	11/21/11	<1	*9.35*	NA	**23.2**	*6.16*	*0.212 J*	*2.59*	*2.31*	<1	NS
RIW-29	III	05/30/12	<1	<1	NA	*4.24*	<1	<1	<1	<1	<1	<1
RIW-29	III	08/28/12	<1	<1	NA	**8.38**	<1	<1	*0.246 J*	<1	<1	<1
RIW-29	III	11/08/12	*0.503 J*	<1	NA	**9.97**	<1	<1	<1	<1	<1	<1
RIW-29	III	02/12/13	<1	<1	NA	**8.22**	*8.28 J*	<1	<1	<1	<1	<1
RIW-29	III	05/08/13	<1	<1	NA	*3.57*	<1	<1	<1	<1	<1	<1
RIW-29	III	08/28/13	<1	<1	NA	*4.21*	<1	<1	<1	<1	<1	<1
RIW-29	III	11/14/13	<1	<1	NA	**6.96**	<1	<1	*0.283 J*	<1	<1	<1
RIW-30	V	01/06/95	<5	<5	<5	<5	<5	<5	**1,700**	<5	<10	NS
RIW-30	V	05/19/97	<5	<5	<5	<5	<5	<5	**750**	<5	<10	NS
RIW-30	V	08/20/97	<5	<5	<5	<5	<5	<5	**14,000**	<5	<10	NS
RIW-30	V	11/25/97	<5	*6*	<5	**16**	<5	<5	**350**	<5	<10	NS
RIW-30	V	02/05/98	<5	<5	<5	<5	<5	<5	**170**	<5	<10	NS
RIW-30	V	05/13/98	<5	<5	<5	**20**	<5	<5	**100**	<5	<10	NS
RIW-30	V	08/27/98	<5	<5	<5	<5	<5	<5	**110**	<5	<10	NS
RIW-30	V	11/04/98	<5	<5	<5	<5	<5	<5	**70**	<5	<10	NS
RIW-30	V	02/10/99	<5	<5	<5	<5	<5	<5	**42**	<5	<2	NS
RIW-30	V	05/14/99	<5	<5	<5	<5	<5	<5	**18.4**	<5	<2	NS
RIW-30	V	08/19/99	<5	<5	<5	<5	<5	<5	**17.5**	<5	<2	NS
RIW-30	V	11/09/99	<5	<5	<5	<5	<5	<5	**55.8**	<5	<2	NS
RIW-30	V	02/04/00	<5	<5	<5	<5	<5	<5	**23.5**	<5	<2	NS
RIW-30	V	05/17/00	<5	<5	<5	<5	<5	<5	**8.69**	<5	<2	NS
RIW-30	V	08/09/00	<5	<5	<5	<5	<5	<5	**45.8**	<5	<2	NS
RIW-30	V	11/07/00	<5	<5	<5	<5	<5	<5	**27.2**	<5	<2	NS
RIW-30	V	02/07/01	<5	<5	<5	<5	<5	<5	**32.6**	<5	<2	NS
RIW-30	V	05/09/01	<5	<5	<5	<5	<5	<5	**14**	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-30	V	08/22/01	<5	<5	<5	<5	<5	<5	**22**	<5	<2	NS
RIW-30	V	11/06/01	<5	<5	<5	<5	<5	<5	**15.8**	<5	<2	NS
RIW-30	V	02/05/02	<5	<5	<5	<5	<5	<5	**11.2**	<5	<2	NS
RIW-30	V	05/29/02	<5	<5	<5	<5	<5	<5	**64.3**	<5	<2	NS
RIW-30	V	08/06/02	<5	<5	<5	<5	<5	<5	**23.1**	<5	<2	NS
RIW-30	V	11/06/02	<5	<5	<5	<5	<5	<5	**6.95**	<5	<2	NS
RIW-30	V	02/04/03	<5	<5	<5	<5	<5	<5	**8.9**	<5	<2	NS
RIW-30	V	06/25/03	<5	<5	<5	<5	*5.38*	<5	<5	<5	<2	NS
RIW-30	V	08/13/03	<5	<5	<5	<5	<5	<5	**6.87**	<5	<2	NS
RIW-30	V	12/09/03	<5	<5	<5	<5	*14.6*	<5	**15.2**	**19.9**	<2	NS
RIW-30	V	02/18/04	<5	<5	<5	<5	*54*	<5	**16**	**9.5**	<2	NS
RIW-30	V	05/19/04	<5	<5	<5	<5	*10.7*	<5	**15.4**	<5	<2	NS
RIW-30	V	09/08/04	<5	<5	<5	<5	*7.47*	<5	**37.8**	<5	<2	NS
RIW-30	V	12/15/04	<5	<5	<5	<5	<5	<5	**8.7**	<5	<2	NS
RIW-30	V	02/10/05	<5	<5	<5	<5	*27.7*	<5	**22.4**	**49.4**	<2	NS
RIW-30	V	05/04/05	<5	<5	<5	<5	*10.6*	<5	**26.7**	<5	<2	NS
RIW-30	V	08/02/05	<5	<5	<5	<5	*16.9*	<5	**48.7**	<5	<2	NS
RIW-30	V	11/18/05	<5	<5	<5	<5	*24.2*	<5	**24.6**	<5	<2	NS
RIW-30	V	03/21/06	<0.25	<0.5	<0.05	<0.128	**70.1**	*0.914 J*	**6.5**	**5.52**	<0.093	NS
RIW-30	V	06/21/06	<0.25	<0.5	<0.0133	<0.128	*50.3*	*0.5 J*	**21.1**	**8.11**	<0.093	NS
RIW-30	V	09/13/06	<0.125	<0.171	<0.0133	<0.308	**83.3**	*0.474 J*	**13**	**6.48**	<0.25	NS
RIW-30	V	11/28/06	<2.29[11]	<0.171	<0.0133	<0.308	**90.2**	*0.542 J*	**31.6**	**7.27**	<0.25	NS
RIW-30	V	02/06/07	<0.125	<0.171	<0.0133	<0.308	**134**	*0.618 J*	**11.5**	*3.81*	*0.719 J*	NS
RIW-30	V	06/27/07	<1	<1	<0.05	<1	*61.3*	<1	**69.7**	**5.51**	<1	NS
RIW-30	V	08/28/07	<0.5 UJL	*0.486 JL*	<0.244	<0.308	*29.9 JL*	<0.25 UJL	**33.6 JL**	*1.73 JL*	**7.04 JL**	NS
RIW-30	V	11/28/07	<0.5	<0.171	NA	<0.308	*41.1*	*0.279 J*	**19.3**	*3.68*	**3.6**	NS
RIW-30	V	02/06/08	*0.857 J*	<0.171	NA	<0.308	*41.8*	*0.396 J*	**5.5**	*0.726 J*	**9.05**	NS
RIW-30	V	06/16/08	*0.197 J*	<0.171	NA	<0.308	*34*	*0.448 J*	**22.9**	*3.19*	*0.959 J*	NS
RIW-30	V	09/24/08	<0.154	<0.25	NA	<0.5	*25.5*	<0.153	**105**	*4.98*	*1.17*	NS
RIW-30	V	12/11/08	<0.5	<0.25	NA	<0.116	*27.1*	*0.361 J*	**63.2**	*3.82*	<0.138	NS
RIW-30	V	02/17/09	<0.154	<0.25	NA	<0.116	**82**	*0.951 J*	**2.88**	*0.838 J*	**38.3**	NS
RIW-30	V	06/16/09	<0.154	<0.25	<0.226	<0.116	*42.4*	*0.483 J*	**21.2**	*2.87*	*0.35 J*	NS
RIW-30	V	08/11/09	<0.154	<0.25	NA	<0.116	*38*	*0.466 J*	**93.5**	*4.08*	<0.139	NS
RIW-30	V	11/17/09	<0.154	<0.25	NA	<0.116	*36.6*	*0.324 J*	**133**	*4.63*	<0.5	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-30	V	03/04/10	<0.154	<0.25	NA	<0.116	**164**	*0.944 J*	**129**	**27.6**	**2.85**	NS
RIW-30	V	05/27/10	<0.154	<0.25	NA	<0.116	*63.6*	*0.6 J*	**66.9**	*4.6*	**3.06**	NS
RIW-30	V	08/18/10	*0.303 J*	<0.25	NA	<0.116	*17.2*	*0.224 J*	**19.5**	*1.49*	<1	NS
RIW-30	V	06/08/11	<1	<1	NA	<1	*23.7*	<1	**141**	*3.42*	*0.655 J*	NS
RIW-30	V	05/25/12	<1	<1	NA	<1	**381**	*2.44*	**55.7**	**5.22**	*<1*	<1
RIW-30	V	08/29/12	<1	<1	NA	<1	**245**	*2.57*	**53**	**13**	**4.29**	<1
RIW-30	V	11/08/12	*0.36 J*	<1	NA	<1	**336**	*2.67*	*1.27*	*0.913 J*	**10.5**	<1
RIW-30	V	02/13/13	<1	<1	NA	<1	**290**	*1.97*	**94**	*2.14*	**25.6**	<1
RIW-30	V	05/08/13	<1	<1	NA	<1	**443**	*2.13*	**12.7**	*1.96*	**47.8**	<1
RIW-30	V	08/28/13	<1	<1	NA	<1	*27.4*	<1	**60.3**	*2.74*	<1	<1
RIW-30	V	11/14/13	<1	<1	NA	<1	*21*	*0.296 J*	**161**	*3.32*	*0.141 J*	<1
RIW-31	V	01/06/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-31	V	05/18/97	<5	<5	<5	**20**	<5	<5	<5	<5	<10	NS
RIW-31	V	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-31	V	02/04/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-31	V	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-31	V	08/26/98	<5	<5	<5	**170**	<5	<5	<5	<5	<10	NS
RIW-31	V	11/04/98	<5	<5	<5	**380**	<5	<5	<5	<5	<10	NS
RIW-31	V	02/10/99	<5	<5	<5	**180**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/11/99	<5	<5	<5	**199**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/18/99	<5	<5	<5	**207**	<5	<5	<5	<5	<2	NS
RIW-31	V	11/10/99	<5	<5	<5	**179**	<5	<5	<5	<5	<2	NS
RIW-31	V	02/04/00	<5	<5	<5	**91.8**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/16/00	<5	<5	<5	**327**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/09/00	<5	<5	<5	**227**	<5	<5	<5	<5	<2	NS
RIW-31	V	11/07/00	<5	<5	<5	**240**	<5	<5	<5	<5	<2	NS
RIW-31	V	02/06/01	<5	<5	<5	**190**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/08/01	<5	<5	<5	**178**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/21/01	<5	<5	<5	**183**	<5	<5	<5	<5	<2	NS
RIW-31	V	11/07/01	<5	<5	<5	**210**	<5	<5	<5	<5	<2	NS
RIW-31	V	02/05/02	<5	<5	<5	**189**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/28/02	<5	<5	<5	**140**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/05/02	<5	<5	<5	**226**	<5	<5	<5	<5	<2	NS
RIW-31	V	11/05/02	<5	<5	<5	**410**	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-31	V	02/04/03	<5	<5	<5	**428**	<5	<5	<5	<5	<2	NS
RIW-31	V	06/25/03	<5	<5	<5	**141**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/12/03	<5	<5	<5	**169**	<5	<5	<5	<5	<2	NS
RIW-31	V	12/08/03	<5	<5	<5	**250**	<5	<5	<5	<5	<2	NS
RIW-31	V	02/17/04	<5	<5	<5	**199**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/18/04	<5	<5	<5	**14**	<5	<5	<5	<5	<2	NS
RIW-31	V	09/08/04	<5	<5	<5	**48.9**	<5	<5	<5	<5	<2	NS
RIW-31	V	12/14/04	<5	<5	<5	**368**	<5	<5	<5	<5	<2	NS
RIW-31	V	02/10/05	<5	<5	<5	**273**	<5	<5	<5	<5	<2	NS
RIW-31	V	05/02/05	<5	<5	<5	**177**	<5	<5	<5	<5	<2	NS
RIW-31	V	08/01/05	<5	<5	<5	**17.3**	<5	<5	<5	<5	<2	NS
RIW-31	V	11/17/05	<5	<5	<5	**249**	<5	<5	<5	<5	<2	NS
RIW-31	V	03/20/06	<0.25	<0.5	<0.05	*4.9*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-31	V	06/20/06	<0.5	<1	<0.0133	**32.7**	<1	<0.722	<0.5	<0.206	<0.186	NS
RIW-31	V	09/12/06	<0.125	<0.171	<0.0133	**287**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-31	V	11/28/06	<0.125	<0.171	<0.0133	**153**	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-31	V	02/05/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-31	V	06/26/07	<1	<1	<0.05	**5.5**	<1	<1	<1	<1	<1	NS
RIW-31	V	08/27/07	*0.809 J*	<0.171	<0.244	**30.2**	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-31	V	11/28/07	<0.5	<0.171	NA	**35.9**	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-31	V	02/04/08	<0.5	<0.171	NA	**24.7**	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-31	V	06/16/08	<0.125	<0.171	NA	**16.3**	<0.527	<1.25	<0.149	<0.274	<0.25	NS
RIW-31	V	09/24/08	<0.154	<0.25	NA	**94.8**	<0.141	<1.53	<0.25	<0.153	<0.138	NS
RIW-31	V	12/10/08	<0.5	<0.25	NA	**160**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-31	V	02/17/09	<0.154	<0.25	NA	**178**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-31	V	06/16/09	<0.154	<0.25	<0.226	**10**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-31	V	08/10/09	<0.154	<0.25	NA	*4.11*	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-31	V	11/17/09	<0.154	<0.25	NA	**161**	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-31	V	03/04/10	<0.154	<0.25	NA	**241**	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-31	V	05/26/10	<0.154	<0.25	NA	**7.83**	*0.48 J*	<0.153	*0.449 J*	<0.153	<1	NS
RIW-31	V	08/18/10	<0.154	<0.25	NA	**34.6**	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-31	V	06/08/11	<1	<1	NA	*2.12*	<1	<1	*0.261 J*	<1	<1	NS
RIW-32	V	01/06/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-32	V	05/18/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-32	V	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-32	V	05/11/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	08/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	05/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	05/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-32	V	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-32	V	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25 UJL	NS
RIW-32	V	06/16/08	*0.693 J*	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-32	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-32	V	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-32	V	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-33	III	01/06/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-33	III	05/17/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-33	III	05/11/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-33	III	05/12/99	<5	<5	<5	<5	*10.3*	<5	<5	**5.75**	<2	NS
RIW-33	III	05/16/00	<5	<5	<5	<5	*17.2*	<5	<5	**5.59**	<2	NS
RIW-33	III	11/07/00	<5	<5	<5	<5	*13.5*	<5	<5	<5	<2	NS
RIW-33	III	05/08/01	<5	<5	<5	**6.72**	*16.2*	<5	<5	<5	<2	NS
RIW-33	III	08/06/02	<5	<5	<5	**17.9**	*7.72*	<5	<5	<5	<2	NS
RIW-33	III	08/12/03	<5	<5	<5	**15**	*5.42*	<5	<5	<5	<2	NS
RIW-33	III	05/19/04	<5	<5	<5	**12.7**	<5	<5	<5	<5	<2	NS
RIW-33	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-33	III	06/20/06	<0.25	<0.5	<0.0133	*1.77*	*1.15*	<0.361	<0.25	*0.483 J*	<0.093	NS
RIW-33	III	08/28/07	<0.5	<0.171	<0.244	*3.6*	*0.971 J*	<0.25	<0.5	*0.437 J*	<0.25 UJL	NS
RIW-33	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-33	III	06/16/09	<0.154	<0.25	<0.226	*0.433 J*	*0.197 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-33	III	05/26/10	<0.154	<0.25	NA	<0.116	*0.26 J*	<0.153	<0.25	<0.153	<1	NS
RIW-33	III	06/07/11	<1	<1	NA	*0.282 J*	<1	<1	<1	*0.177 J*	<1	NS
RIW-34(III)	III	12/20/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	05/20/97	<5	<5	<5	**44**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	08/21/97	<5	<5	<5	**61**	<5	<5	<5	<5	<10	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-34(III) (Split)	III	08/21/97	<5	<5	<5	**59**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	11/25/97	<5	<5	<5	**44**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	02/06/98	<5	<5	<5	**18**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	05/14/98	<5	<5	<5	**50**	<5	<5	<5	<5	<10	NS
RIW-34(III) (Split)	III	05/14/98	<5	<5	<5	**52**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	08/27/98	<5	<5	<5	**26**	<5	<5	<5	<5	<10	NS
RIW-34(III) (Split)	III	08/27/98	<5	<5	<5	**10.6**	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	11/05/98	<5	<5	<5	**20**	<5	<5	<5	<5	<10	NS
RIW-34(III) (Split)	III	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-34(III)	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34 (Split)	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34 (Split)	III	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34 (Split)	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34 (Split)	III	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<6	NS
RIW-34(III)	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	05/09/01	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-34(III)	III	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	08/22/01	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-34(III)	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	11/07/01	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-34(III)	III	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-34(III) (Split)	III	02/06/02	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-34(III)	III	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	05/29/02	<1.51	<2.14	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-34(III)	III	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	08/07/02	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	11/06/02	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	02/05/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	02/05/03	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	06/25/03	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	08/13/03	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	12/10/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	12/10/03	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	02/18/04	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	05/20/04	<1.38	<1.54	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-34(III)	III	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	09/09/04	<1	<1	NS	<1	NS	<1	<1	<1	<1	NS
RIW-34(III)	III	12/16/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	12/16/04	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	02/09/05	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	05/05/05	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	08/03/05	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-34(III) (Split)	III	11/16/05	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-34(III) (Split)	III	03/21/06	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.10	<0.11	NS
RIW-34(III)	III	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-34(III) (Split)	III	06/22/06	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.10	<0.11	NS
RIW-34(III)	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-34(III) (Split)	III	09/13/06	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.1	<0.11	NS
RIW-34(III)	III	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	*0.821 J*	<0.25	<1.09[11]	<0.274	<0.25	NS
RIW-34(III) (Split)	III	11/29/06	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.1	<0.11	NS
RIW-34(III)	III	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-34(III) (Split)	III	02/07/07	<0.10	<0.10	<0.10	<0.10	<0.12	<0.14	<0.22	<0.10	<0.11	NS
RIW-34(III)	III	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-34(III) (Split)	III	06/26/07	<1	*0.18 J*	<0.1	<0.1	<0.12	<0.14	<0.22	<0.1	<0.11	NS
RIW-34(III)	III	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(III) (Split)	III	08/30/07	<1	<1	<1	<1	<1.2	<1.4	<2.2	<1.0	<1.1	NS
RIW-34(III)	III	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(III) (Split)	III	11/27/07	<0.1	<0.1	<0.1	<0.1	<0.12	<0.14	<0.22	<0.1	<0.11	NS
RIW-34(III)	III	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(III) (Split)	III	02/05/08	<1	<1	<1	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-34(III) (Split)	III	06/18/08	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(III) (Split)	III	09/25/08	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(III) (Split)	III	12/11/08	<0.10	<0.10	NA	<0.10	<0.20	<0.30	<0.30	<0.10	<0.40	NS
RIW-34(III)	III	02/18/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(III) (Split)	III	02/18/09	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(III) (Split)	III	06/17/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	*0.259 J*	<0.153	<0.138	NS
RIW-34(III) (Split)	III	08/12/09	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	*0.621 J*	<0.153	<0.5	NS
RIW-34(III) (Split)	III	11/17/09	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-34(III)	III	03/03/10	<0.154	<0.25	NA	<0.116	*0.146 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(III) (Split)	III	03/03/10	<0.1	<0.1	NA	<0.1	<0.2	<0.3	<0.3	<0.1	<0.4	NS
RIW-34(III)	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-34(III) (Split)	III	05/26/10	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-34(III) (Split)	III	08/17/10	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-34(III) (Split)	III	11/30/10	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	06/07/11	*0.305 J*	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III) (Split)	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(III)	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	08/28/12	<1	<1	NA	<1	*0.347 J*	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	08/28/12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	11/08/12	*1.11*	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	11/08/12	*1.2*	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	02/12/13	<1	<1	NA	<1	*0.659 J*	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	02/12/13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	05/08/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	05/08/13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	08/28/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-34(III) (Split)	III	08/28/13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(III)	III	11/14/13	<1	<1	NA	<1	<1	<1	*0.215 J*	<1	<1	<1
RIW-34(III) (Split)	III	11/14/13	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
RIW-34(VI)	VI	06/25/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-34(VI)	VI	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(VI)	VI	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(VI)	VI	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(VI)	VI	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-34(VI)	VI	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	02/18/09	*0.166 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-34(VI)	VI	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-34(VI)	VI	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-34(VI)	VI	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-34(VI)	VI	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-34(VI)	VI	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-34(VI)	VI	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-35	III	01/06/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	05/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	08/21/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	05/14/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-35	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/05/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	06/26/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	12/10/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-35	III	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	12/17/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-35	III	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-35	III	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-35	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-35	III	11/29/06	*<2.29*[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-35	III	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-35	III	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-35	III	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-35	III	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-35	III	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-35	III	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	*0.263 J*	<0.149	<0.274	<0.25	NS
RIW-35	III	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	02/18/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-35	III	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-35	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-35	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-35	III	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-35	III	06/07/11	*0.263 J*	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-35	III	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-35	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-35	III	08/28/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-35	III	11/08/12	*0.854 J*	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-35	III	02/12/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-35	III	05/08/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-35	III	08/28/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-35	III	11/14/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36	III	12/21/94	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	05/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	08/21/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	05/14/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-36	III	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	08/09/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	02/05/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	06/26/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	12/10/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	12/17/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(III)[8]	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(III)	III	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(III)	III	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(III)	III	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-36(III)	III	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-36(III)	III	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(III)	III	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(III)	III	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(III)	III	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-36(III)	III	08/30/07	<0.5 UJL	<0.171	<0.244	<0.308	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-36(III)	III	11/27/07	<0.5	0.514 J	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-36(III)	III	02/05/08	<0.05	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-36(III)	III	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(III)	III	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	*0.286 J*	<0.153	<0.138	NS
RIW-36(III)	III	12/10/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(III)	III	02/18/09	<0.154	*0.573 J*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(III)	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(III)	III	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(III)	III	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-36(III)	III	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(III)	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(III)	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(III)	III	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-36(III)	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(III)	III	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(III)	III	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	08/28/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	11/08/12	*0.938 J*	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	02/12/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	05/08/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	08/28/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(III)	III	11/14/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(V)	V	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(V)	V	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(V)	V	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(V)	V	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-36(V)	V	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	*0.108 J*	<0.093	NS
RIW-36(V)	V	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-36(V)	V	11/29/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(V)	V	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	*0.277 J*	<0.25	NS
RIW-36(V)	V	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-36(V)	V	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-36(V)	V	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-36(V)	V	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-36(V)	V	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-36(V)	V	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	02/18/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-36(V)	V	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(V)	V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(V)	V	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(V)	V	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-36(V)	V	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(V)	V	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(V)	V	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(V)	V	08/28/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	*0.131 J*
RIW-36(V)	V	11/08/12	*0.623 J*	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(V)	V	02/12/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(V)	V	05/08/13	<1	<1	NA	<1	<1	<1	<1	*0.574 J*	<1	<1
RIW-36(V)	V	08/28/13	<1	<1	NA	<1	<1	<1	*0.733 J*	*1.85*	*0.227 J*	<1
RIW-36(V)	V	11/14/13	<1	<1	NA	<1	*0.429 J*	<1	*0.987 J*	*1.95*	*0.191 J*	<1
RIW-36(VI)	VI	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(VI)	VI	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(VI)	VI	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-36(VI)	VI	03/21/06	<0.25	<0.5	<0.05	*0.585 J*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-36(VI)	VI	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	*0.376 J*	*0.634 J*	<0.093	NS
RIW-36(VI)	VI	09/13/06	<0.125	<0.171	<0.0133	<0.308	*0.853 J*	<0.25	*0.248 J*	*0.383 J*	<0.25	NS
RIW-36(VI)	VI	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<1.09[11]	*0.375 J*	<0.25	NS
RIW-36(VI)	VI	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	*0.309 J*	*0.5 J*	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-36(VI)	VI	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-36(VI)	VI	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	*0.873 J*	*1.09*	<0.25	NS
RIW-36(VI)	VI	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	*0.711 J*	<0.25	NS
RIW-36(VI)	VI	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	*0.462 J*	<0.25	NS
RIW-36(VI)	VI	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	*0.254 J*	<0.274	<0.25	NS
RIW-36(VI)	VI	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	*0.245 J*	<0.138	NS
RIW-36(VI)	VI	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	*0.199 J*	<0.138	NS
RIW-36(VI)	VI	02/18/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(VI)	VI	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(VI)	VI	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(VI)	VI	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	*0.279 J*	<0.153	<0.5	NS
RIW-36(VI)	VI	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-36(VI)	VI	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(VI)	VI	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-36(VI)	VI	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	*0.17 J*	<0.281	NS
RIW-36(VI)	VI	06/07/11					NS-Damaged					
RIW-36(VI)	VI	08/02/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(VI)	VI	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-36(VI)	VI	05/24/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(VI)	VI	08/28/12	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(VI)	VI	11/08/12	*1.23*	<1	NA	<1	<1	<1	*0.27 J*	*0.656 J*	<1	<1
RIW-36(VI)	VI	02/12/13	<1	<1	NA	<1	*0.234 J*	<1	*<1*	*0.653 J*	<1	<1
RIW-36(VI)	VI	05/08/13	<1	<1	NA	<1	<1	<1	*0.312 J*	*0.78 J*	<1	<1
RIW-36(VI)	VI	08/28/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-36(VI)	VI	11/14/13	<1	<1	NA	<1	*0.705 J*	<1	*0.701 J*	*2.05*	*0.335 J*	<1
RIW-37	III/V	08/04/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	05/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	08/20/97	<5	<5	<5	<5	<5	<5	**51**	<5	<10	NS
RIW-37	III/V	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	02/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	11/04/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-37	III/V	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-37	III/V	05/12/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/09/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	11/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	12/15/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	11/19/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-37	III/V	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-37	III/V	06/21/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-37	III/V	09/13/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-37	III/V	11/28/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-37	III/V	02/06/07	*0.132 J*	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-37	III/V	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-37	III/V	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-37	III/V	11/28/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-37	III/V	02/06/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.05	<0.274	<0.25	NS
RIW-37	III/V	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-37	III/V	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<3.37[11] U	<0.153	<0.138	NS
RIW-37	III/V	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-37	III/V	02/17/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-37	III/V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-37	III/V	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-37	III/V	11/16/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-37	III/V	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-37	III/V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-37	III/V	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-37	III/V	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-38	III/V	08/04/95	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-38	III/V	05/20/97	<5	<5	<5	<5	<5	<5	**210**	<5	<10	NS
RIW-38	III/V	05/13/98	<5	<5	<5	<5	<5	<5	**100**	<5	<10	NS
RIW-38	III/V	08/26/98	<5	<5	<5	<5	<5	<5	**100**	<5	<10	NS
RIW-38	III/V	11/04/98	<5	<5	<5	<5	<5	<5	**30**	<5	<10	NS
RIW-38	III/V	02/10/99	<5	<5	<5	<5	<5	<5	**37**	<5	<2	NS
RIW-38	III/V	05/12/99	<5	<5	<5	<5	<5	<5	**12.8**	<5	<2	NS
RIW-38	III/V	08/19/99	<5	<5	<5	<5	<5	<5	**13.8**	<5	<2	NS
RIW-38	III/V	11/10/99	<5	<5	<5	<5	<5	<5	**9.34**	<5	<2	NS
RIW-38	III/V	02/03/00	<5	<5	<5	<5	<5	<5	**6.28**	<5	<2	NS
RIW-38	III/V	05/16/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-38	III/V	08/09/00	<5	<5	<5	<5	<5	<5	**5.51**	<5	<2	NS
RIW-38	III/V	11/07/00	<5	<5	<5	<5	<5	<5	**8.33**	<5	<2	NS
RIW-38	III/V	05/08/01	<5	<5	<5	<5	<5	<5	**7.61**	<5	<2	NS
RIW-38	III/V	08/07/02	<5	<5	<5	<5	<5	<5	**16.4**	<5	<2	NS
RIW-38	III/V	08/13/03	<5	<5	<5	<5	<5	<5	**11.6**	<5	<2	NS
RIW-38	III/V	05/19/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-38	III/V	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-38	III/V	06/21/06	<0.25	<0.5	<0.0133	<0.128	*0.726 J*	<0.361	*2.4*	*1.11*	<0.093	NS
RIW-38	III/V	08/28/07	<0.5	<0.171	<0.244	<0.308	*4.27*	*0.337 J*	**10**	**5.39**	<0.25	NS
RIW-38	III/V	06/17/08	<0.125	*0.289 J*	NA	<0.308	*2.75*	<0.25	*3.66*	*2.4*	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-38	III/V	06/16/09	<0.154	<0.25	<0.226	<0.116	*1.61*	<0.153	*2*	*1.5*	<0.138	NS
RIW-38	III/V	05/26/10	<0.154	<0.25	NA	<0.116	*1.95*	<0.153	*1.49*	*1.3*	<1	NS
RIW-38	III/V	06/08/11	<1	<1	NA	<1	*4.15*	*0.263 J*	*3.08*	*2.96*	<1	NS
RIW-38	III/V	05/25/12	<1	<1	NA	<1	*0.992 J*	<1	*1.35*	*1.08*	<1	<1
RIW-38	III/V	08/28/12	<1	<1	NA	<1	*1.35*	<1	*1.61*	*1.26*	<1	<1
RIW-38	III/V	11/08/12	*1.49*	<1	NA	<1	*2.36*	<1	*1.14*	*1.49*	<1	<1
RIW-38	III/V	02/12/13	<1	<1	NA	<1	*0.59 J*	<1	*0.794 J*	*0.6 J*	<1	<1
RIW-38	III/V	05/08/13	<1	<1	NA	<1	<1	<1	*0.31 J*	*0.27 J*	<1	<1
RIW-38	III/V	08/28/13	<1	<1	NA	<1	<1	<1	*0.509 J*	*0.43 J*	<1	<1
RIW-38	III/V	11/14/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1
RIW-39	III/V	05/16/97	<5	<5	<5	<5	<5	<5	**1,800**	**54**	<10	NS
RIW-39	III/V	05/12/98	<5	<5	<5	<5	<5	<5	**16,000**	<5	<10	NS
RIW-39[3]	III/V	11/05/98	<5	<5	<5	<5	<5	<5	**11,600**	**34.9**	<10	NS
RIW-39[3]	III/V	05/12/99	<5	<5	<5	<5	*7.31*	<5	**2,290**	**36.6**	<2	NS
RIW-39[3]	III/V	11/24/99	<5	<5	<5	<5	<10	<5	**3,370**	**45.3**	<2	NS
RIW-39[3]	III/V	11/24/99	<5	<5	<5	<5	<10	<5	**3,850**	**49.8**	<2	NS
RIW-39[3]	III/V	11/24/99	<5	<5	<5	<5	*10.0*	<5	**4,240**	**50.5**	<2	NS
RIW-39[3]	III/V	05/18/00	<5	<5	<5	<5	*16.1*	<5	**2,850**	**56.1**	<2	NS
RIW-39[3]	III/V	11/07/00	<5	<5	<5	<5	*15.8*	<5	**1,110**	**53.4**	<2	NS
RIW-39[3]	III/V	05/08/01	<10	<10	<10	<10	*17.6*	<10	**2,710**	**49.9**	<4	NS
RIW-39[3]	III/V	11/06/01	<10	<10	<10	<10	*19.0*	<10	**2,930**	**55.7**	<4	NS
RIW-39[3]	III/V	08/07/02	<5	<5	<5	<5	*15.9*	<5	**1,680**	**40.8**	<2	NS
RIW-39[3]	III/V	11/07/02	<5	<5	<5	<5	*13.2*	<5	**1,720**	**40.8**	<2	NS
RIW-39[3]	III/V	08/14/03	<5	<5	<5	<5	*15.7*	<5	**1,370**	**48.3**	<2	NS
RIW-39[3]	III/V	12/10/03	<5	<5	<5	<5	**95.9**	<5	**4,570**	**186**	<2	NS
RIW-39[3]	III/V	05/20/04	NS[5]	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-39[3]	III/V	12/15/04	<5	<5	<5	<5	**473**	<5	**3,930**	**465**	<2	NS
RIW-39[3]	III/V	05/03/05	<10	<10	<10	<10	*25.4*	<10	**4,060**	**94.2**	<10	NS
RIW-39[3]	III/V	11/17/05	<5	<5	<5	<5	*18.9*	<5	**2,040**	**82**	<10	NS
RIW-39[3]	III/V	06/22/06	<5	<10	<0.133	<2.56	**211**	<7.22	**3,590**	**298**	<1.86	NS
RIW-39[3]	III/V	11/28/06	<2.29[11]	<0.855	<0.0133	<1.54	*20.7*	<1.25	**2,960**	**75.5**	<1.25	NS
RIW-39[3]	III/V	08/28/07	<2.5 UJL	*59.8 JL*	<1.22 UJL	*3.22 JL*	<2.63 UJL	<1.25 UJL	**57.6 JL**	*1.66 JL*	<1.25 UJL	NS
RIW-39[3]	III/V	11/27/07	<0.5	*1.19*	NA	*0.969 J*	*16.1*	*0.992 J*	**7,050**	**96.8**	*0.605 J*	NS
RIW-39[3]	III/V	06/17/08	<1.25	*4.14 J*	NA	<3.08	*20.3*	<2.5	**1,840**	**94.3**	<2.5	NS

Appendix G
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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-39[3]	III/V	12/09/08	<0.5	<0.25	NA	<0.116	*20.4*	*1.12*	**1,590**	**79.9**	*0.929 J*	NS
RIW-39[3]	III/V	06/16/09	<1.54	<2.5	<2.26	<1.16	*20.6*	<1.53	**1,610**	**71.9**	<1.38	NS
RIW-39[3]	III/V	11/16/09	<0.154	<0.25	NA	<0.116	*19.3*	*0.883 J*	**799**	**54.6**	1.18	NS
RIW-39[3]	III/V	05/25/09	<0.154	<0.25	NA	<0.116	*31.8*	*1.75*	**929**	**69.2**	**4.26**	NS
RIW-39[3]	III/V	11/29/10	<0.25	<0.25	NA	<0.25	*40.9*	*2.32*	**808**	**79.2**	**5.86**	NS
RIW-39[3]	III/V	06/05/11	<5 JL	<5 JL	NA	<5 JL	*51.2 JL*	<5 JL	**395 JL**	**96.6 JL**	**4.24 JL**	NS
RIW-39[3]	III/V	11/21/11	<10	*2.92 J*	NA	<10	*55.9*	*3.84 J*	**923**	**97.5**	**5.71 J**	NS
RIW-39	III/V	05/24/12	<1	<1	NA	<1	*67.9*	*<1*	**864**	**103**	<1	<1
RIW-39	III/V	08/29/12	<1	<1	NA	<1	**426**	*10.1*	**595**	**322**	**5.57**	<1
RIW-39	III/V	11/08/12	*0.389 J*	<1	NA	<1	**530**	*9.09*	**936**	**416**	**5.47**	<1
RIW-39	III/V	02/13/13	<1	<1	NA	<1	<1	*8.94*	<1	**503**	**7.76**	<1
RIW-39	III/V	05/08/13	<1	<1	NA	<1	**165**	*5.85*	**2,190**	**336**	**3.67**	<1
RIW-39	III/V	08/28/13	<1	<1	NA	<1	**283**	*8.07*	**1,190**	**296**	**6.54**	<1
RIW-39	III/V	11/14/13	<1	<1	NA	<1	**267**	*11*	**1,800**	**450**	**10.1**	<1
RIW-40	VI	05/16/97	<5	*5*	<5	<5	<5	<5	**36**	<5	<10	NS
RIW-40	VI	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-40[3]	VI	11/05/98	<5	**946**	<5	<5	<5	<5	**46.2**	<5	<10	NS
RIW-40[3]	VI	05/12/99	<5	**273**	**10.8**	**7.48**	<5	<5	**150**	<5	<2	NS
RIW-40[3]	VI	11/11/99	<5	**178**	<5	**6.62**	<5	<5	**93.9**	<5	<2	NS
RIW-40[3]	VI	05/18/00	<5	**165**	<5	<5	<5	<5	**29.2**	<5	<2	NS
RIW-40[3]	VI	11/07/00	<5	**138**	<5	<5	<5	<5	**25.3**	<5	<2	NS
RIW-40[3]	VI	05/08/01	<5	*81.9*	<5	<5	<5	<5	**19.8**	<5	<2	NS
RIW-40[3]	VI	11/06/01	<5	*96.1*	<5	<5	<5	<5	**19.6**	<5	<2	NS
RIW-40[3]	VI	08/07/02	<5	**129**	<5	<5	<5	<5	**13.2**	<5	<2	NS
RIW-40[3]	VI	11/07/02	<5	*76.8*	<5	<5	*8.76*	<5	**9.31**	<5	<2	NS
RIW-40[3]	VI	08/14/03	<5	*97.6*	<5	<5	<5	<5	**8.9**	<5	<2	NS
RIW-40[3]	VI	12/10/03	<5	**165**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-40[3]	VI	05/20/04	<5	*89.5*	<5	<5	<5	<5	**5.04**	<5	<2	NS
RIW-40[3]	VI	12/14/04	<5	**124**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-40[3]	VI	05/03/05	<5	**137**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-40[3]	VI	11/17/05	<5	*88.2*	<5	**53.7**	<5	<5	<5	<5	<2	NS
RIW-40[3]	VI	06/19/06	<0.25	*61.5*	**0.061**	<0.128	<0.5	<0.361	**8.49**	*0.609 J*	<0.093	NS
RIW-40[3]	VI	11/28/06	<2.29[11]	*86.6*	*0.024 J*	<0.308	<0.527	<0.25	*0.659 J*	<0.274	<0.25	NS
RIW-40[3]	VI	08/28/07	<0.5 UJL	*98.9 JL*	**0.055 JL**	<0.308	<0.527	<0.25 UJL	**5.31 JL**	*0.706 JL*	<0.25 UJL	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-40[3]	VI	11/27/07	<0.5	**102**	*0.025 J*	<0.308	<0.527	<0.25	**5.82**	<0.274	<0.25	NS
RIW-40[3]	VI	06/17/08	<0.125	*74.3*	<0.244	<0.308	<0.527	<0.25	**21**	*1.73*	<0.25	NS
RIW-40[3]	VI	12/09/08	<0.5	*43.2*	<0.05	<0.116	*1.35*	<0.153	**31.1**	*3.78*	<0.138	NS
RIW-40[3]	VI	06/16/09	<0.154	*55.5*	<0.226	<0.116	*1.11*	<0.153	**23.8**	*3.07*	<0.138	NS
RIW-40[3]	VI	11/16/09	<0.154	*61*	NA	<0.116	*1.36*	<0.153	**21.4**	*2.93*	<0.5	NS
RIW-40[3]	VI	05/25/10	<0.154	*62.2*	<0.226	<0.116	*0.507 J*	<0.153	**6.84**	*1.07*	<1	NS
RIW-40[3]	VI	11/29/10	<0.25	*51.6*	<0.111	<0.25	<0.25	<0.25	*1.44*	*0.366 J*	<0.281	NS
RIW-40[3]	VI	06/05/11	<1 JL	*60.1 JL*	<0.05 JL	<1 JL	<1 JL	<1 JL	*1.98 JL*	*0.233 JL*	<1 JL	NS
RIW-40[3]	VI	11/21/11	<1	*49.1*	<0.05	<1	*0.36 J*	<1	**18.4**	*0.683 J*	<1	NS
RIW-40	VI	05/24/12	<1	*31.6*	<0.05	<1	*0.703 J*	<1	**15.9**	*1.28*	<1	<1
RIW-40	VI	08/28/12	<1	*7.65*	<0.05	<1	*7.69*	<1	*0.899 J*	*0.585 J*	<1	<1
RIW-40	VI	11/08/12	*0.635 J*	*5.38*	<0.05	<1	*2.66*	<1	<1	*3.48*	<1	<1
RIW-40	VI	02/12/13	<1	<1	<0.05	<1	*2.54*	<1	<1	*0.375 J*	<1	<1
RIW-40	VI	05/08/13	<1	<1	<0.05	<1	*0.668 J*	<1	<1	*0.343 J*	<1	<1
RIW-40	VI	08/28/13	<1	*3.09*	<0.05	<1	*0.903 J*	<1	**5.03**	*1.25*	<1	<1
RIW-40	VI	11/14/13	<1	*2.79*	<0.05	<1	*0.588 J*	<1	<1	*0.626 J*	<1	<1
RIW-41(III)	III	05/17/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	08/20/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III) (Split)	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(III)	III	02/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(III)	III	05/13/99	<5	<5	<5	<5	*7.45*	<5	<5	<5	<2	NS
RIW-41(III)	III	08/19/99	<5	<5	<5	<5	*16.6*	<5	**8.49**	**9.79**	<2	NS
RIW-41(III)	III	11/10/99	<5	<5	<5	<5	*18.1*	<5	**20**	**13.5**	<2	NS
RIW-41(III)	III	02/04/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(III)	III	05/17/00	<5	<5	<5	<5	*17.4*	<5	**41.5**	**21.7**	**2.71**	NS
RIW-41(III)	III	08/10/00	<5	<5	<5	<5	*14.3*	<5	**53.9**	**20.4**	<2	NS
RIW-41(III)	III	11/07/00	<5	<5	<5	<5	*14.3*	<5	**61.8**	**16.7**	<2	NS
RIW-41(III)	III	02/07/01	<5	<5	<5	<5	*19.4*	<5	**70.8**	**26.8**	<2	NS
RIW-41(III)	III	05/09/01	<5	<5	<5	<5	*19.9*	<5	**53.1**	**23.5**	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(III)	III	08/22/01	<5	<5	<5	<5	*28.7*	<5	**63.9**	**31.1**	<2	NS
RIW-41(III)	III	11/07/01	<5	<5	<5	<5	*31*	<5	**72.6**	**28.9**	**3.55**	NS
RIW-41(III)	III	02/06/02	<5	<5	<5	<5	*24.3*	<5	**59.8**	**26**	**5.10**	NS
RIW-41(III)	III	05/29/02	<5	<5	<5	<5	*27.8*	<5	**22.5**	**14.2**	**3.16**	NS
RIW-41(III)	III	08/08/02	<5	<5	<5	<5	*42.1*	<5	**30**	**24.9**	<2	NS
RIW-41(III)	III	11/06/02	<5	<5	<5	<5	**78.9**	<5	**22.2**	**20.5**	**5.29**	NS
RIW-41(III)	III	02/04/03	<5	<5	<5	<5	**137**	*5.36*	**25.4**	**24.6**	**12.1**	NS
RIW-41(III)	III	06/26/03	<5	<5	<5	<5	**74.4**	<5	**54**	**34.6**	<5	NS
RIW-41(III)	III	08/14/03	<5	<5	<5	<5	**86.1**	*5.6*	**48.2**	**41.6**	**10.9**	NS
RIW-41(III)	III	12/09/03	<5	<5	<5	<5	**133**	<5	**6.61**	**5.24**	**7.81**	NS
RIW-41(III)	III	02/18/04	<5	<5	<5	<5	**120**	<5	**5.21**	**7.00**	**11.5**	NS
RIW-41(III)	III	05/20/04	<5	<5	<5	<5	**86.4**	<5	**17.2**	**22.20**	<2	NS
RIW-41(III)	III	09/09/04	<5	<5	<5	<5	**73.4**	<5	**8.41**	**7.33**	**10.2**	NS
RIW-41(III)	III	12/17/04	<5	<5	<5	<5	*66.1*	<5	<5	**5.01**	**14.5**	NS
RIW-41(III)	III	02/09/05	<5	<5	<5	<5	*69*	<5	<5	<5	**22.1**	NS
RIW-41(III)	III	05/05/05	<5	<5	<5	<5	*49.8*	<5	**16.9**	**19.8**	<2	NS
RIW-41(III)	III	08/03/05	<5	<5	<5	<5	*53.2*	<5	**28.6**	**30.5**	**5.95**	NS
RIW-41(III)	III	11/17/05	<5	<5	<5	<5	*61.9*	<5	**49.6**	**54.3**	<10	NS
RIW-41(III)	III	03/22/06	<0.5	<1	<0.05	<0.256	**74.6**	*3.94*	**61.7**	**68.8**	**8.36**	NS
RIW-41(III)	III	06/23/06	<0.25	<0.5	<0.0133	<0.128	*55.8*	*3.49*	**79.2**	**56.2**	*0.796 J*	NS
RIW-41(III)	III	09/14/06	<0.125	<0.171	<0.0133	<0.308	*61.6*	*3.7*	**106**	**62.2**	**9.46**	NS
RIW-41(III)	III	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	**85.8**	*3.9*	**43.2**	**57.6**	**13.3**	NS
RIW-41(III)	III	02/07/06	<0.125	<0.171	<0.0133	<0.308	**211**	*3.77*	**30.1**	**35.6**	**14.6**	NS
RIW-41(III)	III	06/27/07	<1	<1	<0.05	<1	**99.9**	*4.81*	**137**	**75.1**	<1	NS
RIW-41(III)	III	08/29/07	<0.5 UJL	<0.171	<0.244	<0.308	**157 JL**	*6.48 JL*	**91.1 JL**	**74.6 JL**	**9.21 JL**	NS
RIW-41(III)	III	11/27/07	<0.5	<0.171	NA	<0.308	**127**	*6.54*	**90.7**	**92.9**	**14**	NS
RIW-41(III)	III	02/06/08	<0.5	<0.171	NA	<0.308	**205**	*7.26*	**24.2**	**29.5**	**24.6**	NS
RIW-41(III)	III	06/17/08	<0.125	*0.708 J*	NA	<0.308	**100**	*4.83*	**75.7**	**64.2**	*1.9*	NS
RIW-41(III)	III	09/24/08	*0.187 J*	*1.94*	NA	<0.5	**193**	*6.81*	**12.1**	**20.2**	**18.8**	NS
RIW-41(III)[12]	III	12/10/08	<0.5	<0.25	NA	<0.116	**156**	*5.32*	**16.9**	**23.5**	**14.4**	NS
RIW-41(III) (Split)	III	12/10/08	<0.10	<0.10	NA	<0.10	**230**	*7.3*	**27**	**32**	**18**	NS
RIW-41(III)	III	02/18/09	<0.154	<0.25	NA	<0.116	**114**	*4.74*	**33.9**	**41.6**	**2.43**	NS
RIW-41(III)	III	06/17/09	<0.154	<0.25	<0.226	<0.116	**89.9**	*4.32*	**45.8**	**49**	**7.6**	NS
RIW-41(III)	III	08/11/09	*0.221 J*	**361**	NA	<0.116	*0.287 J*	<0.153	<0.26	*1.02*	<0.138	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(III)	III	11/17/09	<0.154	<0.25	NA	*1.04*	**92**	*3.04*	**6.57**	**16.9**	**9.38**	NS
RIW-41(III)	III	03/03/10	<0.154	<0.25	NA	<0.116	**125**	*5.23*	**32.8**	**48**	**10.3**	NS
RIW-41(III)	III	05/27/10	<0.154	<0.25	NA	<0.116	**84.4**	*3.44*	**48.5**	**47.8**	<1	NS
RIW-41(III)	III	08/18/10	<0.154	<0.25	NA	<0.116	**76**	*2.84*	**12.5**	**22.7**	**7.75**	NS
RIW-41(III)	III	06/08/11	<1	<1	NA	<1	**98.3**	*5.1*	**105**	**84.6**	*1.77*	NS
RIW-41(III)	III	05/25/12	<1	<1	NA	<1	**126**	*6.31*	**171**	**113**	**4.41**	<1
RIW-41(III)	III	08/29/12	*0.17 J*	*0.205 J*	NA	<1	**93.6**	*4.85*	**80**	**70.1**	**2.84**	*0.125 J*
RIW-41(III) (Split)	III	08/29/12	<1	<1	NA	<1	**140**	*5.5*	**130**	**100**	**4.2**	<1
RIW-41(III)	III	11/08/12	*0.466 J*	<1	NA	<1	**102**	*2.13*	*3.53*	**9.4**	**2.23**	<1
RIW-41(III)	III	02/13/13	<1	<1	NA	<1	**142**	*3.72*	**7.84**	**17.8**	**3.2**	<1
RIW-41(III)	III	05/08/13	<1	<1	NA	<1	**89**	*2.86*	**16.1**	**22.6**	*1.31*	<1
RIW-41(III)	III	08/28/13	<1	<1	NA	<1	**56.6**	*2.01*	**21.9**	**23.5**	*1.25*	<1
RIW-41(III)	III	11/14/13	<1	<1	NA	<1	**66.2**	*2.33*	**20.5**	**28.6**	*1.1*	<1
RIW-41(Va)	Va	08/21/97	<5	**160**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(Va)	Va	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(Va)	Va	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	05/21/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(Va)	Va	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-41(Va)	Va	08/29/07	<0.5 UJL	<0.171	<0.244	<0.308	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-41(Va)	Va	06/17/08	<0.125	*0.23 J*	NA	<0.308	<0.527	<0.25	0.25 J	<0.274	<0.25	NS
RIW-41(Va)	Va	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-41(Va) (Split)	Va	06/17/09	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-41(Va)	Va	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-41(Va)	Va	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI)	VI	08/21/97	<5	**11,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI) (Split)	VI	08/21/97	<5	**7,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI)	VI	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI) (Split)	VI	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI)	VI	02/06/98	<5	**7,400**	<5	<5	<5	<5	<5	<5	<10	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(VI)	VI	05/12/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI) (Split)	VI	05/12/98	<5	**360**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI)	VI	08/27/98	<5	**1,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI)	VI	11/05/98	<5	**2,800**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI) (Split)	VI	11/05/98	<5	**1,090**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-41(VI)	VI	02/10/99	<5	<5	<5	<5	<5	<5	**630**	<5	<2	NS
RIW-41(VI) (Split)	VI	02/10/99	<5	**1,150**	**132**	<5	<5	<5	**131**	<5	<10	NS
RIW-41(VI)	VI	05/13/99	<5	**997**	**133**	<5	<5	<5	**139**	<5	<2	NS
RIW-41(VI) (Split)6	VI	05/13/99	<5	**1,337**	**181**	<5	<5	<5	**151**	<5	<6	NS
RIW-41(VI)	VI	08/19/99	<5	**588**	**75.4**	<5	<5	<5	**108**	<5	<2	NS
RIW-41(VI) (Split)	VI	08/19/99	<5	**600**	**79.9**	<5	<5	<5	**90.7**	<5	<6	NS
RIW-41(VI)	VI	11/10/99	<5	**293**	**18.9**	<5	<5	<5	**77.5**	<5	<2	NS
RIW-41(VI) (Split)	VI	11/10/99	<5	**277**	<4	<5	<5	<5	**73**	<5	<6	NS
RIW-41(VI)	VI	02/04/00	<5	**865**	**12.8**	<5	<5	<5	**113**	<5	<2	NS
RIW-41(VI) (Split)6	VI	02/04/00	<5	**768**	**13.5**	<5	<5	<5	**90.6**	<5	<6	NS
RIW-41(VI)	VI	05/17/00	<5	**529**	**11.2**	<5	<5	<5	**18.7**	<5	<2	NS
RIW-41(VI) (Split)	VI	05/17/00	<5	**465**	**10.8**	<5	<5	<5	**35**	<5	<6	NS
RIW-41(VI)	VI	08/10/00	<5	**469**	**5.53**	<5	<5	<5	**38.6**	<5	<2	NS
RIW-41(VI) (Split)	VI	08/10/00	<5	**579**	<4	<5	<5	<5	**79.5**	<5	<6	NS
RIW-41(VI)	VI	11/08/00	<5	**233**	<5	<5	<5	<5	**21.4**	<5	<2	NS
RIW-41(VI) (Split)	VI	11/08/00	<5	**291**	<4	<5	<5	<5	**21**	<5	<6	NS
RIW-41(VI)	VI	02/07/01	<5	**512**	<5	<5	<5	<5	**73**	<5	<2	NS
RIW-41(VI) (Split)	VI	02/07/01	<5	**466**	<4	<5	<5	<5	**65**	<5	<6	NS
RIW-41(VI)	VI	05/09/01	<5	**162**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	05/09/01	<1.51	**152**	<3.86	<1.32	<1.52	<2.56	<1.62	<1.53	<5.66	NS
RIW-41(VI)	VI	08/22/01	<5	**268**	<5	<5	<5	<5	**7.08**	<5	<2	NS
RIW-41(VI) (Split)	VI	08/22/01	<1.51	**251**	<3.86	<1.32	<1.52	<2.56	**9**	<1.53	<5.66	NS
RIW-41(VI)	VI	11/07/01	<5	<5	<5	<5	<5	<5	**8.43**	<5	<2	NS
RIW-41(VI) (Split)	VI	11/07/01	<1.51	*4*	<3.86	<1.32	<1.52	<2.56	**7**	<1.53	<5.66	NS
RIW-41(VI)	VI	02/06/02	<5	**146**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	02/06/02	<1.51	**157**	<3.86	<1.32	<1.52	<2.56	**4**	<1.53	<5.66	NS
RIW-41(VI)	VI	05/29/02	<5	**244**	<5	<5	<5	<5	**5.87**	<5	<2	NS
RIW-41(VI) (Split)	VI	05/29/02	<1.51	**308**	<3.86	<1.32	<1.52	<2.56	<2.43	<1.53	<5.66	NS
RIW-41(VI)	VI	08/08/02	<5	**144**	<5	<5	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(VI) (Split)	VI	08/08/02	<1.38	**162**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	11/06/02	<5	**132**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	11/06/02	<1.38	**154**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	02/04/03	<5	**124**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	02/04/03	<1.38	**142**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	06/26/03	<5	**206**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	06/26/03	<1.38	**189**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	08/13/03	<5	**186**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	08/13/03	<1.38	**160**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	12/09/03	<5	**164**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	12/09/03	<1.38	**168**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	02/18/04	<5	**178**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	02/18/04	<1.38	**220**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	05/21/04	<5	**170**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	05/21/04	<1.38	**188**	<3.37	<1.91	<1.10	<1.19	<2.43	<1.90	<3.17	NS
RIW-41(VI)	VI	09/09/04	<5	**505**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	09/09/04	<5	**281**	NS	<5	<5	<5	<5	<5	<5	NS
RIW-41(VI)	VI	12/17/04	<5	**211**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	12/17/04	<1	**240**	<1	*1*	1	<1	<1	*1.0*	<1	NS
RIW-41(VI)	VI	02/09/05	<5	**245**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	02/09/05	<1	**353**	<1	*0.9*	*0.8*	<1	<1	*1.5*	<1	NS
RIW-41(VI)	VI	05/05/05	<5	*80.3*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	05/05/05	<1	**110**	<1	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI)	VI	08/03/05	<5	**150**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	08/03/05	<1	**170**	<1	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI)	VI	11/17/05	<5	**122**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-41(VI) (Split)	VI	11/17/05	<1	**140**	<1	*1.7*	<1	<1	<1	1.1	<1	NS
RIW-41(VI)	VI	03/22/06	<0.5	**185**	<0.05	*0.874 J*	<1	<0.722	<0.5	*0.697 J*	<0.186	NS
RIW-41(VI) (Split) [9]	VI	03/22/06	*0.41 J*	**240**	*0.013 J*	*0.95 J*	*0.79 J*	<0.14	<0.22	*1.0 J*	<0.11	NS
RIW-41(VI)	VI	06/23/06	<0.25	*89*	<0.0133	*0.762 J*	<0.5	<0.361	<0.25	*0.467 J*	<0.093	NS
RIW-41(VI) (Split) [9]	VI	06/23/06	*0.28 J*	*42*	< 0.0092	*0.78 J*	*0.46 J*	<0.14	<0.22	*0.49 J*	<0.11	NS
RIW-41(VI)	VI	09/14/06	*0.146 J*	**144**	<0.0133	*0.803 J*	<0.527	<0.25	*0.212 J*	*0.605 J*	<0.25	NS
RIW-41(VI) (Split) [9]	VI	09/14/06	*0.52 J*	**160**	<0.10	<0.10	*0.89 J*	<0.14	<0.22	*1.1*	<0.11	NS
RIW-41(VI)	VI	11/29/06	<2.29[11]	**120**	<0.0133	<0.308	*1.21*	<0.25	<1.09[11]	*0.906 J*	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(VI) (Split)	VI	11/29/06	*0.52 J*	**160**	<0.10	<0.10	*0.89 J*	<0.14	<0.22	*1.1*	<0.11	NS
RIW-41(VI)	VI	02/07/07	*0.464 J*	**259**	<0.0133	*0.939 J*	<0.527	<0.25	*0.283 J*	*0.868 J*	<0.25	NS
RIW-41(VI) (Split) [9]	VI	02/07/07	*0.36 J*	**340**	<0.10	*1.0*	*0.60 J*	<0.14	*0.32 J*	1.0	<0.11	NS
RIW-41(VI)	VI	06/27/07	<1	*91 J*	*0.025 J*	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI) (Split) [9]	VI	06/27/07	*0.24 J*	*88*	<0.10	*0.49 J*	*0.56 J*	<0.14	<0.22	*0.47 J*	<0.11	NS
RIW-41(VI)	VI	08/29/07	*0.695 JL*	**411 JL**	<0.244	*0.37 JL*	*0.932 JL*	<0.25 UJL	<0.5 UJL	*0.605 JL*	<0.25 UJL	NS
RIW-41(VI) (Split) [9]	VI	08/29/07	*0.64 J*	**460**	<0.10	*0.52 J*	*1.1*	<0.14	*0.42 J*	*0.65 J*	<0.11	NS
RIW-41(VI)	VI	11/27/07	<0.5	*71.3*	NA	*0.629 J*	<0.527	<0.25	<0.5	*0.423 J*	<0.25	NS
RIW-41(VI) (Split) [9]	VI	11/27/07	*0.14 J*	*81*	<0.1	*0.63 J*	*0.31 J*	<0.14	<0.22	*0.44 J*	<0.11	NS
RIW-41(VI)	VI	02/06/08	<0.5	**109**	NA	*0.554 J*	<0.527	<0.25	<0.5	*0.459 J*	<0.25	NS
RIW-41(VI) (Split)	VI	02/06/08	<1	**170**	<1	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI)	VI	06/17/08	*0.357 J*	**230**	NA	*0.557 J*	*0.88 J*	<0.25	*0.834 J*	*1.04*	<0.25	NS
RIW-41(VI) (Split)	VI	06/17/08	<1.0	**280**	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-41(VI)	VI	09/24/08	*0.492 J*	**164**	NA	*0.577 J*	*0.296 J*	<0.153	<3.37[11] U	*0.917 J*	<0.138	NS
RIW-41(VI) (Split)	VI	09/24/08	<1.0	**220**	<1.0	<1.0	<1.0	<1.0	<1.0	*1.0*	<1.0	NS
RIW-41(VI)[12]	VI	12/10/08	<0.5	**136**	NA	<0.116	*0.17 J*	<0.153	<0.25	*0.474 J*	<0.138	NS
RIW-41(VI)	VI	02/18/09	<0.154	*96.8*	NA	*0.288 J*	*0.176 J*	<0.153	<0.25	*0.451 J*	<0.138	NS
RIW-41(VI) (Split)	VI	02/18/09	<1.0	**140**	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NS
RIW-41(VI)	VI	06/17/09	*0.224 J*	**172**	<0.226	*0.302 J*	*0.257 J*	<0.153	<0.25	*0.701 J*	<0.138	NS
RIW-41(VI)	VI	08/11/09	<0.154	*1.63*	NA	<0.116	**91.7**	*4.43*	**34.7**	**38.9**	**11.6**	NS
RIW-41(VI) (Split)	VI	08/11/09	<1.0	<1.0	<1.0	<1.0	**140 J**	*5.4*	**42**	**43**	**2**	NS
RIW-41(VI)	VI	11/17/09	*0.22 J*	**197**	NA	*0.191 J*	*0.683 J*	<0.153	*0.25 J*	*0.815 J*	<0.5	NS
RIW-41(VI) (Split)	VI	11/17/09	<1.0	**250**	<1.0	<1.0	<1.0	<1.0	<1.0	*1.1*	<1.0	NS
RIW-41(VI)	VI	03/03/10	*0.31 J*	**265**	NA	<0.116	*1.16*	<0.153	*0.274 J*	*1.3*	<0.138	NS
RIW-41(VI) (Split)	VI	03/03/10	*0.39 J*	**320**	NA	<0.1	*0.62 J*	<0.3	<0.3	*1.3*	<0.4	NS
RIW-41(VI)	VI	05/27/10	*0.334 J*	**293**	NA	<0.116	*1.09*	<0.153	<0.25	*1.05*	<1	NS
RIW-41(VI) (Split)	VI	05/27/10	<1	**360**	NA	<1	<1	<1	<1	*1*	<1	NS
RIW-41(VI)	VI	08/18/10	*0.282 J*	**289**	NA	<0.116	*0.288 J*	<0.153	<0.25	*0.557 J*	<1	NS
RIW-41(VI) (Split)	VI	08/18/10	*0.3 J*	**260**	NA	<1	<1	<1	<1	*0.76 J*	<1	NS
RIW-41(VI)	VI	06/08/11	*0.411 J*	<1	NA	<1	<1	<1	*0.907 J*	*0.485 J*	<1	NS
RIW-41(VI) (Split)	VI	06/08/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-41(VI)	VI	05/25/12	0.284 J	**301**	NA	<1	<1	<1	<1	0.448 J	<1	<1
RIW-41(VI) (Split)	VI	05/25/12	<1	**280**	NA	<1	<1	<1	<1	<1	<1	<1
RIW-41(VI)	VI	08/29/12	*0.367 J*	**153**	NA	<1	*0.385 J*	<1	*0.407 J*	*0.841 J*	<1	<1

Appendix G
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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-41(VI)	VI	11/08/12	*0.795 J*	**251**	NA	<1	<1	<1	*0.302 J*	*0.907 J*	<1	<1
RIW-41(VI)	VI	02/13/13	<1	**118**	NA	<1	<1	<1	<1	*0.586 J*	<1	<1
RIW-41(VI) (Split)	VI	02/13/13	<1	**120**	<1	<1	<1	<1	<1	<1	<1	<1
RIW-41(VI)	VI	05/08/13	*0.173 J*	**187**	NA	<1	<1	<1	*0.333 J*	*0.661 J*	<1	<1
RIW-41(VI)	VI	08/28/13	*0.321 J*	<1	NA	<1	*0.385 J*	<1	*0.245 J*	*0.765 J*	<1	<1
RIW-41(VI)	VI	11/14/13	*0.221 J*	**159**	NA	<1	*0.297 J*	<1	*0.311 J*	*0.859 J*	<1	<1
RIW-42(III)	III	05/18/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(III)	III	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(III)	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(III)	III	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-42(III)	III	08/29/07	<0.5 UJL	<0.171	<0.244	<0.308	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-42(III)	III	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-42(III)	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-42(III)	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-42(III)	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-42(Va)	Va	08/21/97	<5	23	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(Va)	Va	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(Va)	Va	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(Va)	Va	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-42(Va)	Va	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-42(Va)	Va	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	*0.267 J*	<0.149	<0.274	<0.25	NS
RIW-42(Va)	Va	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-42(Va)	Va	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-42(Va)	Va	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-42(VI)	VI	08/21/97	<5	**580**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(VI)	VI	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-42(VI)	VI	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-42(VI)	VI	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-42(VI)	VI	08/30/07	<0.5 UJL	*0.432 JL*	<0.244	<0.308	<0.527	<0.25 UJL	<0.5 UJL	<0.274	<0.25 UJL	NS
RIW-42(VI)	VI	06/17/08	<0.125	*0.296 J*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-42(VI)	VI	06/17/09	<0.154	*0.315 J*	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-42(VI)	VI	05/26/10	<0.154	*0.291 J*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-42(VI)	VI	06/07/11	<1	*0.543 J*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-43(III)	III	05/18/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	08/20/97	<5	19	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	11/24/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(III)	III	02/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	08/19/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(III)	III	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-43(III)	III	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-43(III)	III	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-43(III)	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(III)	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-43(III)	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-43(Va)	Va	08/21/97	<5	26	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(Va)	Va	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(Va)	Va	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(Va)	Va	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-43(Va)	Va	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-43(Va)	Va	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.26	<0.149	<0.274	<0.25	NS
RIW-43(Va)	Va	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(Va)	Va	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-43(Va)	Va	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-43(VI)	VI	08/21/97	<5	29	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	02/06/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	05/13/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	08/27/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	11/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-43(VI)	VI	02/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/19/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	11/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	02/04/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	11/08/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-43(VI)	VI	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	06/26/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/14/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/21/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	12/16/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	11/17/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-43(VI)	VI	03/22/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-43(VI)	VI	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-43(VI)	VI	09/14/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-43(VI)	VI	11/29/06	<2.29[11]	<0.171	*0.019 J*	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-43(VI)	VI	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-43(VI)	VI	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-43(VI)	VI	08/29/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-43(VI)	VI	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-43(VI)	VI	02/06/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-43(VI)	VI	06/17/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-43(VI)	VI	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<3.37[11] U	<0.153	<0.138	NS
RIW-43(VI)	VI	12/10/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(VI)	VI	02/18/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(VI)	VI	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-43(VI)	VI	08/11/09	<0.154	<0.25	NA	<0.116	*0.271 J*	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(VI)	VI	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-43(VI)	VI	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-43(VI)	VI	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-43(VI)	VI	08/17/10	*0.403 J*	<0.25	NA	<0.116	*0.225 J*	<0.153	<0.25	<0.153	<1	NS
RIW-43(VI)	VI	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-44	VI	08/22/97	<5	**230**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	11/25/97	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	02/05/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	05/11/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	08/26/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	11/03/98	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-44	VI	02/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/12/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/03/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/08/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	11/08/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/08/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	11/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/05/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	06/25/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/12/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/17/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/21/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-44	VI	09/08/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	12/15/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	02/08/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	11/18/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-44	VI	03/20/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-44	VI	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-44	VI	09/12/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-44	VI	11/28/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-44	VI	02/06/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-44	VI	06/26/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-44	VI	08/28/07	*1.08*	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-44	VI	11/28/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-44	VI	02/06/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-44	VI	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-44	VI	09/24/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	02/17/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-44	VI	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-44	VI	05/25/10	*0.316 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-44	VI	08/17/10	*0.305 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-44	VI	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-45	VI	08/22/97	<5	**20,000**	<5	<5	<5	<5	<5	<5	<10	NS
RIW-45	VI	05/12/98	<5	**8,200**	**180**	<5	<5	<5	**130**	<5	<10	NS
RIW-45[3]	VI	11/05/98	<5	**247**	<5	<5	<5	<5	**787**	<5	<10	NS
RIW-45[3]	VI	05/12/99	<5	*49.9*	<5	**53.4**	<5	<5	**53.5**	<5	<2	NS
RIW-45[3]	VI	11/11/99	<5	*25.2*	<5	**16.2**	*7.54*	<5	**11.1**	<5	<2	NS
RIW-45[3]	VI	05/18/00	<5	*27*	<5	**5.96**	<5	<5	**8.5**	<5	<2	NS
RIW-45[3]	VI	11/07/00	<5	*17.4*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	05/08/01	<5	*12.3*	<5	<5	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-45[3]	VI	11/06/01	<5	*13.8*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	08/07/02	<5	*11.3*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	11/07/02	<5	*14.6*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	08/14/03	<5	*10.5*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	12/10/03	<5	*10.5*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	05/20/04	<5	*16.2*	<5	<5	<5	<5	**5.13**	<5	<2	NS
RIW-45[3]	VI	12/14/04	<5	*27*	<5	<5	<5	<5	**18.4**	<5	<2	NS
RIW-45[3]	VI	05/03/05	<5	*23.1*	<5	<5	<5	<5	**18.3**	<5	<2	NS
RIW-45[3]	VI	11/17/05	<5	*10.9*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-45[3]	VI	06/19/06	<0.25	*7.15*	*0.03 J*	<0.128	*1.65*	<0.361	*3.53*	*0.73 J*	<0.093	NS
RIW-45[3]	VI	11/28/06	<0.125	*11.5*	*0.014 J*	<0.308	*1.4*	<0.25	*4.3*	*0.95 J*	<0.25	NS
RIW-45[3]	VI	08/28/07	<0.5	*10.8*	<0.244	<0.308	*1.56*	<0.25	**5.59**	*1.75*	<0.25	NS
RIW-45[3]	VI	11/27/07	<0.5	*6.77*	NA	<0.308	*1.2*	<0.25	**17.2**	*1.84*	<0.25	NS
RIW-45[3]	VI	06/17/08	<0.125	*4.78*	NA	<0.308	*2.99*	<0.25	**53.4**	**7.27**	<0.25	NS
RIW-45[3]	VI	12/09/08	<0.5	*5.48*	NA	<0.116	*1.31*	*0.155 J*	**8.17**	*1.69*	<0.138	NS
RIW-45[3]	VI	06/16/09	<0.154	*7.73*	<0.226	<0.116	*3.69*	*0.187 J*	**82.2**	**10.3**	*0.162 J*	NS
RIW-45[3]	VI	11/16/09	<0.154	*8.89*	NA	<0.116	*5.17*	*0.247 J*	**104**	**15.9**	<0.5	NS
RIW-45[3]	VI	05/25/10	<0.154	*13.4*	NA	<0.116	*5.99*	*0.296 J*	**88.8**	**14**	<1	NS
RIW-45[3]	VI	11/29/10	<0.25	*10.7*	NA	<0.25	*5.23*	*0.286 J*	**56.8**	**10.3**	*0.425 J*	NS
RIW-45[3]	VI	06/05/11	<1 JL	*15.6 JL*	NA	<1 JL	*4.04 JL*	<1 JL	**59.9 JL**	**10 JL**	<1 JL	NS
RIW-45[3]	VI	11/21/11	<1	*14*	NA	<1	*6.36*	*0.375 J*	**81.1**	**13.7**	<1	NS
RIW-45	VI	05/24/12	<1	*8.25*	NA	<1	*7.66*	<1	**81.9**	**16.2**	<1	<1
RIW-45	VI	08/29/12	*0.44 J*	*49*	NA	*0.609 J*	*1.39*	*0.626 J*	*1.58*	*1.63*	<1	*0.285 J*
RIW-45	VI	11/08/12	*0.85 J*	*1.17*	NA	<1	**261**	*9.6*	***369***	**183**	**5.97**	<1
RIW-45	VI	02/13/13	<1	*77.4*	NA	<1	*27.5*	*0.254 J*	*0.337*	*0.819 J*	<1	<1
RIW-45	VI	05/08/13	<1	*26.6*	NA	<1	*5.62*	<1	*0.508 J*	*0.728 J*	<1	<1
RIW-45	VI	08/28/13	*0.152 J*	*97.1*	NA	<1	*5.27*	<1	*2.92*	*2.16*	<1	<1
RIW-45	VI	11/14/13	*0.271 J*	**136**	NA	*0.294 J*	*10.1*	<1	*0.245 J*	*4.93*	<1	<1
RIW-46	VI	01/14/99	<5	*17.2*	<5	**7.22**	<5	<5	<5	<5	<10	NS
RIW-46	VI	02/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	03/15/99	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-46	VI	05/13/99	<5	<5	<5	**13.2**	<5	<5	<5	<5	<2	NS
RIW-46	VI	08/18/99	<5	<5	<5	<5	**184**	*10.3*	**9.31**	**24.3**	**6.3**	NS
RIW-46	VI	11/09/99	<5	<5	<5	<5	*12.2*	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-46	VI	02/04/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	11/08/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	02/05/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46	VI	06/26/03	<5	<5	<5	<5	<5	<5	**5.5**	<5	<2	NS
RIW-46	VI	08/13/03	<5	<5	<5	<5	<5	<5	**5.04**	<5	<2	NS
RIW-46	VI	12/10/03	<5	<5	<5	<5	<5	<5	**11.6**	<5	<2	NS
RIW-46	VI	02/18/04	<5	<5	<5	<5	<5	<5	**10.2**	<5	<2	NS
RIW-46[6]	VI	05/21/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-46[6]	VI	09/09/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-46[6]	VI	12/16/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-46[6]	VI	02/09/05	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-46R[7]	VI	05/05/05	<5	<5	<5	<5	<5	<5	**15.8**	<5	<2	NS
RIW-46R	VI	08/02/05	<5	*7.46*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46R	VI	11/16/05	<5	*10*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-46R	VI	03/21/06	<0.25	*1.13*	<0.05	<0.128	*0.681 J*	<0.361	**7.61**	*1.9*	<0.093	NS
RIW-46R	VI	06/22/06	<0.25	*11.6*	<0.0133	<0.128	*1.24*	<0.361	**14.3**	*3.53*	<0.093	NS
RIW-46R	VI	09/13/06	<0.125	*2.68*	<0.0133	<0.308	*1.62*	<0.25	**19.7**	*4.51*	<0.25	NS
RIW-46R	VI	11/29/06	<0.125	*3.66*	<0.0133	<0.308	*2.28*	<0.25	**26.5**	**5.31**	<0.25	NS
RIW-46R	VI	02/07/07	<0.125	*0.471 J*	<0.0133	<0.308	*2.12*	<0.25	**31.2**	**10.1**	<0.25	NS
RIW-46R	VI	06/26/07	<1	*6.91 J*	<0.05	<1	*6.93*	<1	**27.9**	**16.6**	<1	NS
RIW-46R	VI	08/30/07	<0.5	*2.64*	<0.244	<0.308	*10.9*	*0.259 J*	**20.6**	**8.63**	<0.25	NS
RIW-46R	VI	11/27/07	<0.5	*0.945 J*	NA	<0.308	*7.75*	<0.25	**40.5**	**12.7**	<0.25	NS
RIW-46R	VI	02/05/08	<0.5	*1.03*	NA	<0.308	*8.7*	<0.25	**40.3**	**11.7**	<0.25	NS
RIW-46R	VI	06/18/08	<0.125	<0.171	NA	<0.308	*5.42*	*0.266 J*	**67.6**	**13.8**	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-46R	VI	09/25/08	<0.154	<0.25	NA	<0.5	*8.43*	*0.399 J*	**68.4**	**17.6**	<0.138	NS
RIW-46R	VI	12/11/08	<0.5	*0.585 J*	NA	<0.116	*6.03*	*0.28 J*	**53.9**	**12.7**	<0.138	NS
RIW-46R	VI	02/18/09	<0.154	*0.965 J*	NA	<0.116	*6.69*	*0.311 J*	**71.6**	**17**	<0.138	NS
RIW-46R	VI	06/17/09	<0.154	*0.631 J*	<0.226	<0.116	*7.59*	*0.346 J*	**80.7**	**19.6**	<0.138	NS
RIW-46R	VI	08/12/09	<0.154	*1.57*	NA	<0.116	*8.12*	*0.335 J*	**72.6**	**17.3**	<0.138	NS
RIW-46R	VI	11/17/09	<0.154	*4.18*	NA	<0.116	*12*	*0.341 J*	**41.3**	**17.4**	<0.5	NS
RIW-46R	VI	03/03/10	<0.154	*2.19*	NA	<0.116	*19*	*0.621 J*	**61**	**22.8**	*0.941 J*	NS
RIW-46R	VI	05/26/10	<0.154	*0.801 J*	NA	<0.116	*10.4*	*0.348 J*	**66.4**	**19.9**	<1	NS
RIW-46R	VI	08/18/10	<0.154	*8.36*	NA	<0.116	*29.3*	*0.609 J*	**35.6**	**27.6**	**2.64**	NS
RIW-46R	VI	11/30/10	<0.25	*4.2*	NA	<0.25	*16.4*	*0.529 J*	**55.6**	**26.2**	*1.09*	NS
RIW-46R	VI	02/16/11	<1	*1.79*	NA	<1	*14.7*	*0.616 J*	**96.6**	**34.7**	*0.492 J*	NS
RIW-46R (Split)	VI	02/16/11	<1	*2.4*	NA	<1	*20*	<1	**110**	**39**	<1	NS
RIW-46R	VI	06/08/11	<1	*1.2*	NA	<1	*21.9*	*0.736 J*	**84.8**	**45.1**	<1	NS
RIW-46R	VI	09/29/11	<1	*2*	NA	<1	*30.4*	*0.731 J*	**97.1**	**55.5**	*0.485 J*	NS
RIW-46R (Split)	VI	09/29/11	<1	*1.7*	NA	<1	*31*	<1	**90**	**50**	<1	NS
RIW-46R	VI	11/22/11	<1	*3.57*	NA	<1	*24.3*	<1	**68.3**	**39**	*1.28*	NS
RIW-46R	VI	02/28/12	<1	*1.58*	NA	<1	*34*	*0.944 J*	**128**	**72.3**	<1	<1
RIW-46R (Split)	VI	02/28/12	<1	*1.3*	NA	<1	*27*	<1	**110**	**57**	<1	<1
RIW-46R	VI	05/25/12	<1	*2.68*	NA	<1	*30.9*	*0.751 J*	**72.8**	**45.3**	*1.03*	<1
RIW-46R	VI	08/29/12	*0.249 J*	*1.99*	NA	*0.309 J*	*27.1*	*1.08*	**78.2**	**47.3**	*0.694 J*	*0.183 J*
RIW-46R	VI	11/08/12	*0.202 J*	<1	NA	<1	*1.15*	<1	<1	<1	<1	<1
RIW-46R	VI	02/12/13	<1	*3.84*	NA	<1	*69.6*	*0.951 J*	**45.6**	**43.9**	*0.809 J*	<1
RIW-46R	VI	05/08/13	<1	<1	NA	<1	**192**	*1.77*	**8.46**	*4.57*	**2.08**	<1
RIW-46R	VI	08/28/13	<1	*0.872 J*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-46R	VI	11/14/13	<1	*1.03*	NA	<1	**191**	*2*	**21.7**	**23.1**	**3.45**	<1
RIW-47(III)[10]	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47(III)[10]	III	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47(III)[10]	III	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47(III)[10]	III	03/21/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-47(III)[10]	III	06/22/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-47(III)[10]	III	09/14/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47(III)[10]	III	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47(III)[10]	III	02/07/07	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47(III)	III	06/25/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-47(III)	III	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47(III)	III	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47(III)	III	02/05/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47(III)	III	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47(III)	III	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47(III)	III	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47(III)	III	02/18/09	<0.154 L	<0.25 L	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-47(III)	III	06/17/09	<0.154	*13.6*	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47(III)	III	08/12/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47(III)	III	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	*0.255 J*	<0.153	<0.5	NS
RIW-47(III)	III	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47(III)	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-47(III)	III	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-47(III)	III	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-47(III)	III	06/07/11	*0.363 J*	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-47(III)	III	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-47	VI	01/14/99	<5	*7.1*	<5	<5	<5	<5	<5	<5	<10	NS
RIW-47	VI	02/10/99	<5	*58*	<5	<5	<5	<5	**5**	<5	<2	NS
RIW-47	VI	03/15/99	<5	*45.2*	<5	<5	<5	<5	<5	<5	<10	NS
RIW-47	VI	05/13/99	<5	*28.8*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	08/18/99	<5	*33.4*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	11/09/99	<5	*13.1*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	02/03/00	<5	*31.8*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	05/17/00	<5	*73.4*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	08/10/00	<5	*14*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	11/08/00	<5	*13.5*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	08/22/01	<5	*5.35*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	05/29/02	<5	*11.2*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	08/07/02	<5	*30.1*	<5	**6.45**	<5	<5	<5	<5	<2	NS
RIW-47	VI	11/06/02	<5	*24.3*	<5	**6.12**	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-47	VI	02/04/03	<5	*10.9*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	06/26/03	<5	*19.9*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	08/13/03	<5	*10.6*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	12/10/03	<5	*13.9*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47	VI	02/18/04	<5	*7.28*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47[6]	VI	05/21/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-47[6]	VI	09/09/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-47[6]	VI	12/16/04	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-47[6]	VI	02/09/05	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS
RIW-47R[7]	VI	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47R	VI	08/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47R	VI	11/16/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-47R	VI	03/21/06	<0.25	*3.32*	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-47R	VI	06/22/06	<0.25	*4.68*	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-47R	VI	09/13/06	<0.125	*2.42*	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47R	VI	11/29/06	<2.29[11]	*2.74*	<0.0133	<0.308	<0.527	<0.25	<1.09[11]	<0.274	<0.25	NS
RIW-47R	VI	02/07/07	<0.125	*1.84*	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47R(VI)	VI	06/26/07	<1	*2.04 J*	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-47R(VI)	VI	08/30/07	<0.5	*1.98*	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47R(VI)	VI	11/27/07	<0.5	*1.09*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47R(VI)	VI	02/05/08	<0.5	*1.74*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-47R(VI)	VI	06/18/08	<0.125	*5.81*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-47R(VI)	VI	09/25/08	<0.154	*10.8*	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47R(VI)	VI	12/11/08	<0.5	*3.26*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47R(VI)	VI	02/18/09	<0.154 L	*10.7 L*	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-47R(VI)	VI	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47R(VI)	VI	08/12/09	<0.154	*26.5*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47R(VI)	VI	11/17/09	<0.154	*21.5*	NA	<0.116	<0.5	<0.153	*0.275 J*	<0.153	<0.5	NS
RIW-47R(VI)	VI	03/03/10	<0.154	*7.58*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-47R(VI)	VI	05/26/10	<0.154	*1.83*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-47R(VI)	VI	08/17/10	*0.186 J*	*1.02*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-47R(VI)	VI	11/30/10	<0.25	*1.89*	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-47R(VI)	VI	06/08/11	<1	*3.64*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-47R(VI)	VI	11/22/11	<1	*2.07*	NA	<1	<1	<1	<1	<1	<1	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-48	VI	01/14/99	<5	**276**	<5	<5	<5	<5	**43.7**	<5	<10	NS
RIW-48	VI	02/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	03/15/99	<5	<5	<5	<5	<5	<5	<5	<5	<10	NS
RIW-48	VI	05/13/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/18/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	11/09/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/03/00	<5	**110**	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	11/08/00	<5	*38.7*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/06/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	05/09/01	<5	*8.73*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/22/01	<5	*74.9*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/07/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	06/26/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	12/10/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	05/21/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	12/16/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	11/16/05	<5	*11.3*	<5	<5	<5	<5	<5	<5	<2	NS
RIW-48	VI	03/21/06	<0.5	*7.4*	<0.05	<0.256	<1	<0.722	<0.5	<0.206	<0.186	NS
RIW-48	VI	06/22/06	<0.25	*7.95*	<0.0133	<0.128	<0.5	<0.361	*0.289 J*	<0.103	<0.093	NS
RIW-48	VI	09/14/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	*0.284 J*	<0.274	<0.25	NS
RIW-48	VI	11/30/06	<1.33[11]	*7.08*	<0.0133	<0.308	<0.527	<0.25	<1.09[11]	<0.274	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-48	VI	02/07/07	<0.125	*5.67*	<0.0133	<0.308	<0.527	<0.25	<0.235 J	<0.274	<0.25	NS
RIW-48	VI	06/25/07	<1	*21.9 J*	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-48	VI	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-48	VI	11/27/07	<0.5	*6.47*	NA	<0.308	*0.655 J*	<0.25	*0.795 J*	*0.723 J*	<0.25	NS
RIW-48	VI	02/05/08	<0.5	*3.53*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-48	VI	06/18/08	<0.125	*8.34*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-48	VI	09/25/08	<0.154	*16.6*	NA	<0.5	*0.146 J*	<0.153	*0.635 J*	*0.54 J*	<0.138	NS
RIW-48	VI	12/11/08	<0.5	*8.4*	NA	<0.116	<0.141	<0.153	<0.25	*0.244 J*	<0.138	NS
RIW-48	VI	02/18/09	<0.154	*12.9*	NA	<0.116	<0.141	<0.153	<0.25	*0.438 J*	<0.138	NS
RIW-48	VI	06/17/09	<0.154	*4.79*	<0.226	<0.116	<0.141	<0.153	<0.25	*0.205 J*	<0.138	NS
RIW-48	VI	08/12/09	<0.154	*25.4*	NA	<0.116	<0.141	<0.153	<0.25	*0.444 J*	<0.138	NS
RIW-48	VI	11/17/09	<0.154	*16.1*	NA	<0.116	<0.5	<0.153	*0.285 J*	*0.283 J*	<0.5	NS
RIW-48	VI	03/03/10	<0.154	*28.7*	NA	<0.116	<0.141	<0.153	<0.25	*0.409 J*	<0.138	NS
RIW-48	VI	05/26/10	<0.154	*5.46*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-48	VI	08/17/10	<0.154	*11.2*	NA	<0.116	<0.141	<0.153	<0.25	*0.19 J*	<1	NS
RIW-48	VI	11/30/10	<0.25	*0.807 J*	NA	<0.25	<0.25	<0.25	*0.263 J*	*0.268 J*	<0.281	NS
RIW-48	VI	06/08/11	<1	*2.38*	NA	<1	<1	<1	<1	*0.285 J*	<1	NS
RIW-48	VI	11/22/11	<1	*1.39*	NA	<1	<1	<1	<1	*0.338 J*	<1	NS
RIW-49	III	11/10/99	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/04/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	05/17/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	08/10/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	11/07/00	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	05/09/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	08/22/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	11/07/01	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	05/29/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	08/08/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	11/06/02	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/04/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	06/26/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	08/13/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-49	III	12/09/03	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/18/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	05/20/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	09/09/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	12/16/04	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	02/09/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	05/05/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	08/03/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	11/17/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-49	III	03/22/06	<0.25	<0.5	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-49	III	06/23/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-49	III	09/14/06	<0.125	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-49	III	11/29/06	<2.29[11]	<0.171	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-49	III	02/07/07	<0.125	*0.489 J*	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-49	III	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-49	III	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-49	III	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-49	III	02/06/08	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-49	III	06/17/08	<0.125	*0.203 J*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-49	III	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-49	III	12/09/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-49	III	02/18/09	<0.154 L	<0.25 L	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-49	III	06/17/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-49	III	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-49	III	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-49	III	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-49	III	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-49	III	08/17/10	*0.491 J*	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-49	III	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-50	III	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-50	III	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-50	III	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-50	III	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-50	III	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS

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Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-50	III	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	*0.622 J*	<0.153	<1	NS
RIW-50	III	07/25/11				P&Ad						NS
RIW-51	V	05/04/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-51	V	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-51	V	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-51	V	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	*0.286 J*	<0.149	<0.274	<0.25	NS
RIW-51	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-51	V	05/25/10	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-51[17]	V	06/06/11	*0.273 J*	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-52	V	05/02/05	<5	<5	<5	<5	<5	<5	<5	<5	<2	NS
RIW-52	V	06/20/06	<0.25	<0.5	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-52	V	08/27/07	*0.869 J*	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-52	V	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-52	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-52	V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-52	V	06/06/11	*0.428 JL*	<1 JL	NA JL	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	NS
RIW-53	V	05/03/05	<5	<5	<5	**19.9**	<5	<5	<5	<5	<2	NS
RIW-53	V	06/20/06	<0.25	<0.5	<0.0133	*0.168 J*	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-53	V	08/27/07	<0.5	<0.171	<0.244	*1.58*	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-53	V	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-53	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-53	V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-53	V	06/06/11	*0.832 JL*	<1 JL	NA	*2.78 JL*	<1 JL	<1 JL	<1 JL	<1 JL	<1 JL	NS
RIW-54	VI	05/04/05	<5	15.7	<5	<5	<5	<5	<5	<5	<2	NS
RIW-54	VI	08/03/05	<5	8.69	<5	<5	<5	<5	<5	<5	<2	NS
RIW-54	VI	11/17/05	<5	13.2	<5	<5	<5	<5	<5	<5	<2	NS
RIW-54	VI	03/21/06	<0.25	10.9	<0.05	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-54	VI	06/22/06	<0.25	11.8	<0.0133	<0.128	<0.5	<0.361	<0.25	<0.103	<0.093	NS
RIW-54	VI	09/14/06	<0.125	6.61	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-54	VI	11/30/06	<1.33[11]	*6.28*	*0.016 J*	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-54	VI	02/07/07	<0.125	*9.51*	<0.0133	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-54	VI	06/26/07	<1	*20.2 J*	<0.05	<1	<1	<1	*1.16*	<1	<1	NS
RIW-54	VI	08/29/07	<0.5	*17.3*	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-54	VI	11/27/07	<0.5	*12*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS

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Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-54	VI	02/06/08	<0.5	*12.6*	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-54	VI	06/17/08	<0.125	*10.8*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-54	VI	09/24/08	<0.154	*14.4*	NA	<0.5	<0.141	<0.153	<3.37[11] U	<0.153	<0.138	NS
RIW-54	VI	12/10/08	<0.5	*9.95*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-54	VI	02/18/09	<0.154 L	*14.2 L*	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-54	VI	06/17/09	*0.236 J*	*15.1*	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-54	VI	08/11/09	<0.154	*14.2*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-54	VI	11/17/09	<0.154	*14.4*	NA	<0.116	<0.5	<0.153	*0.276 J*	<0.153	<0.5	NS
RIW-54	VI	03/03/10	<0.154	*17.1*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-54	VI	05/26/10	<0.154	*13.4*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-54	VI	08/17/10	<0.154	*16*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-54	VI	06/07/11	*0.297 J*	*16.7*	NA	<1	<1	<1	<1	*0.237 J*	<1	NS
RIW-54	VI	05/25/12	<1	*16.5*	NA	<1	<1	<1	<1	*<1*	<1	<1
RIW-54	VI	08/28/12	*0.272 J*	*26.6*	NA	<1	*0.273 J*	*0.202 J*	*0.789 J*	*0.819 J*	<1	*0.161 J*
RIW-54	VI	11/08/12	*2.15*	*46.7*	NA	<1	<1	<1	*0.768 J*	*0.508 J*	<1	<1
RIW-54	VI	02/12/13	<1	*31.3*	NA	<1	<1	<1	*0.357 J*	*0.496 J*	<1	<1
RIW-54	VI	05/08/13	<1	*33.7*	NA	<1	<1	<1	*0.326 J*	*0.618 J*	<1	<1
RIW-54	VI	08/28/13	<1	*36.4*	NA	<1	<1	<1	*0.391 J*	*0.503 J*	<1	<1
RIW-54	VI	11/14/13	<1	*27.4*	NA	<1	<1	<1	*0.451 J*	*0.423 J*	<1	<1
RIW-55(V)	V	06/27/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-55(V)	V	08/28/07	*0.959 J*	*14.9*	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-55(V)	V	06/16/08	<0.125	<0.171	NA	<0.308	<0.527	0.269 J	<0.149	<0.274	<0.25	NS
RIW-55(V)	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-55(V)	V	05/25/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS

Appendix G
Cumulative Groundwater Analytical Results for Site Compounds of Concern
GUIC
Houston, TX

Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-55(V)	V	06/07/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-55(VI)	VI	06/27/07	<1	*12.9 J*	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-55(VI)	VI	08/28/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-55(VI)	VI	06/16/08	<0.125	*22.7*	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-55(VI)	VI	06/16/09	<0.154	*26.9*	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-55(VI)	VI	05/26/10	<0.154	*29.3*	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-55(VI)	VI	06/07/11	<1	*50.5*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-56	V	06/25/07	<1	<1	<0.05	<1	<1	<1	<1	<1	<1	NS
RIW-56	V	08/30/07	<0.5	<0.171	<0.244	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-56	V	11/27/07	<0.5	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-56	V	02/05/08	<0.05	<0.171	NA	<0.308	<0.527	<0.25	<0.5	<0.274	<0.25	NS
RIW-56	V	06/18/08	<0.125	<0.171	NA	<0.308	<0.527	<0.25	<0.149	<0.274	<0.25	NS
RIW-56	V	09/25/08	<0.154	<0.25	NA	<0.5	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-56	V	12/11/08	<0.5	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-56	V	02/18/09	<0.154 L	<0.25 L	NA	<0.116 L	<0.141 L	<0.153 L	<0.25 L	<0.153 L	<0.138 L	NS
RIW-56	V	06/16/09	<0.154	<0.25	<0.226	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-56	V	08/11/09	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-56	V	11/17/09	<0.154	<0.25	NA	<0.116	<0.5	<0.153	<0.25	<0.153	<0.5	NS
RIW-56	V	03/03/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<0.138	NS
RIW-56	V	05/26/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-56	V	08/17/10	<0.154	<0.25	NA	<0.116	<0.141	<0.153	<0.25	<0.153	<1	NS
RIW-56	V	11/30/10	<0.25	<0.25	NA	<0.25	<0.25	<0.25	<0.25	<0.0971	<0.281	NS
RIW-56	V	06/07/11	*0.595 J*	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-56	V	11/22/11	<1	<1	NA	<1	<1	<1	<1	<1	<1	NS
RIW-57	VI	10/27/10	<1	*6.1*	<1	<1	<1	<1	<1	<1	<1	NS
RIW-57	VI	11/30/10	<0.25	*7.08*	NA	<0.25	<0.25	<0.25	*0.481 J*	<0.0971	<0.281	NS
RIW-57	VI	02/16/11	<1	*6.01*	NA	<1	<1	<1	*0.319 J*	*0.117 J*	<1	NS
RIW-57	VI	06/07/11	<1	*0.991 J*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-57	VI	09/29/11	<1	*4.58*	NA	<1	<1	<1	*0.263 J*	<1	<1	NS
RIW-57	VI	11/22/11	<1	*4.18*	NA	<1	<1	<1	<1	<1	<1	NS

Appendix G
Cumulative Groundwater Analytical Results for Site Compounds of Concern
GUIC
Houston, TX

Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6
RIW-57 (Split)	VI	11/22/11	<1	*4.9*	NA	<1	<1	<1	<1	<1	<1	NS
RIW-57	VI	02/28/12	<1	*4.55*	NA	<1	<1	<1	*0.247 J*	<1	<1	<1
RIW-57	VI	05/24/12	<1	*2.81*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-57	VI	08/28/12	*0.218 J*	*3.75*	NA	<1	<1	*0.363 J*	*0.31 J*	*0.364 J*	<1	*0.144 J*
RIW-57	VI	11/08/12	**5.12**	*9.76*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-57	VI	02/12/13	<1	*5.5*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-57	VI	05/08/13	<1	*5.34*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-57	VI	08/28/13	<1	*4.68*	NA	<1	<1	<1	<1	<1	<1	<1
RIW-57	VI	11/14/13	<1	<1	NA	<1	<1	<1	<1	<1	<1	<1

A J-flag indicates an estimated value; the analyte was positively identified but the associated numerical value is an approximate concentration of the analyte.
An L-flag designates a low bias in the sample; the associated numerical value is likely to be lower than the actual analyte concentration.
A U-Flag is used to denote the analyte was not detected.
A *italicised* value indicates a detection and **bold** result indicates the concentration exceeds the Critical PCL/RAL
A JL flag for the Second Quarter 2011 sampling event indicates hold time eas exceeded or a bubble > 1/4" was in the sample container

NOTES:

1) Compounds of Concern (COC) list as established in Affected Property Assessment Report, April 20, 2006; samples analyzed by U.S. EPA Method 8240 or 8260, unless otherwise specified; see analytical reports for a complete list of detected analytes.
2) NA - Compound not analyzed, NS - Not sampled.
3) Three-part composite sampled hourly directly from extraction wells.
4) Monitor well RIW-11 was purged dry on August 8, 2002 and did not recover by end of sampling event on August 9, 2002.
5) Well RIW-39 not sampled in May 2004 due to pump malfunction in well.
6) Wells RIW-46 and RIW-47 destroyed during right-of-way construction prior to the May 2004 sampling event.
7) RIW-46R and RIW-47R are replacement wells for wells RIW-46 and RIW-47
8) Beginning May 2005, RIW-36 will be referred to as 'RIW-36(III)' to distinguish it from RIW-36(V) and RIW-36(VI).
9) Split sample analyzed by U.S. EPA Method 8011.
10) Well formerly named RIW-55 prior to June 2007.
11) Compound was detected in an associated blank - laboratory, field, equipment, and/or trip blank - in the DUS the detection limit has therefore been raised.
12) Sample IDs for RIW-41(III) and RIW-41(VI) were mislabeled by reversing the ID for each well during the December 2008 sampling event.
13) Recovery well RIW-20 was not operational during the December 2008 sampling event due to pump failure.
14) Two samples were taken for RIW-2. No COC detections were reported in either sample.
15) RIW-1 Damaged by UTC contractor. Well was unable to be repaired and was plugged and abandoned in 2010.
16) RIW-50 was destroyed by GUIC contractors and was unable to be repaired. It was plugged and abandoned in 2011.
17) This data is incorrectly labeled in the analytical data as RIW-50, which was previously plugged and abandoned.

Appendix G
Cumulative Groundwater Analytical Results for Site Compounds of Concern
GUIC
Houston, TX

Well ID	Stratigraphic Unit Screened Interval	Sample Date	Benzene	Chlorobenzene	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl Chloride	1,1,2,2-Tetrachloroethane
Critical PCL (µg/l)			5	100	0.05	5	70	100	5	5	2	10
Residential Assessment Level (µg/l)			5	100	0.05	5	70	100	5	5	2	4.6

18) RIW-24 and RIW-36(VI) were resampled after being repaired on August 2, 2011.

GUIC INDUSTRIES SITE

GROUNDWATER FLOW AND SOLUTE TRANSPORT MODELING OF CHLORINATED HYDROCARBONS

LETTER REPORT

Prepared for:

WESTON SOLUTIONS, INC.
Houston, Texas

August 2011
Revision 0

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ATTACHMENTS Electronic: model input files and output data with associated Groundwater Vistas and Modelviewer Files

ABBREVIATIONS AND ACRONYMS

µg/l	micrograms per liter
bgs	Below ground surface
CB	Chlorobenzene
c-DCE	Cis-1,2-dichloroethene
EDC	1,2-dichloroethane
Foc	Fraction of Organic Carbon
ft	feet
ft^2	Square feet
Geosyntec	Geosyntec Consultants
gr/cc	Grams per cubic centimeter
PCE	Tetrachloroethene
P&T	Pump and Treat
RAL	Residential Assessment Level
SSR	Sum of squared residuals
TCE	Trichloroethene
TCEQ	Texas Commission on Environmental Quality
USGS	United States Geological Survey
VC	Vinyl Chloride
VOC	volatile organic compound

SECTION I

INTRODUCTION

1.1 TERMS OF REFERENCE

This document presents and discusses the findings of the groundwater flow and solute transport modeling activities completed for GUIC Industries site (Site), located at 17011 Old Beaumont Highway 90 (SR 90) in Houston, Texas, 77049. This letter report was prepared by Geosyntec Consultants (Geosyntec) for Weston Solutions, Inc (Weston). Field datasets including hydrogeologic logs, groundwater elevation data, groundwater solute contours and groundwater solute concentrations used in modeling activities were provided by Weston.

1.2 PURPOSE

Three-dimensional groundwater flow and solute transport modeling was performed using MODFLOW and RT3D, respectively. The purpose of the modeling efforts was to simulate chlorinated solvent species (tetrachloroethene [PCE], trichloroethene [TCE], cis-1,2-dichloroethene [c-DCE], vinyl chloride [VC], chlorobenzene [CB], and 1,2-dichloroethane [EDC]) dissolved plume migration and attenuation under natural groundwater flow conditions and engineered (pump and treat [P&T]) conditions, and estimate the times to achieve residence assessment levels (RAL) for contaminant concentration levels. The purpose of this modeling letter report is to summarize groundwater flow and solute transport model construction, input parameter values and estimated time durations for achieving RAL concentrations.

1.3 REPORT ORGANIZATION

The remainder of this letter report is organized as follows:

- *Section II: Background and Site Conceptualization* provides a brief historical description of the site obtained from previous site assessment and remediation plan reports submitted to Texas Commission on Environmental Quality (TCEQ). This section also presents values of various hydrogeologic parameters such as porosity and hydraulic conductivity selected as model input data.

- *Section III: Model Setup* provides a brief background on the numerical codes MODFLOW and RT3D, and pre/post-processor software Groundwater Vistas. A brief description of the development and calibration of the groundwater flow model for both natural (no-pumping) and engineered (pumping) conditions is presented. Development

of the transport model is also discussed including a description of geochemical parameters such as degradation rates, dispersivity, adsorption, and input concentrations, etc.

- *Section IV: Results, Limitations and Recommendations* describes the simulation results obtained from the numerical modeling effort and the predicted times to reach RAL concentrations. Limitations of the numerical model are also discussed.

- *Section V: References* presents the references used in the preparation of the letter report.

SECTION II

BACKGROUND AND SITE CONCEPTUALIZATION

2.1 SITE LOCATION AND DESCRIPTION

The GUIC Industries site is situated in northeastern Houston (Figure 2-1, obtained from RS&A, 1993a). The site was previously used for industrial purposes as a railcar maintenance and repair facility (RS&A, 1993a) and can be accessed from Old Beaumont Highway 90 (SR 90) to the south.

2.1.1 Major Features

The Site is an irregular-shaped polygon comprised of approximately 280 acres of land located north of Old Beaumont Highway 90 (SR 90) (RS&A, 1993a). The property appears to be bounded by railroad tracks to the north and south with seemingly wooded or possibly agricultural land to the northwest, and another industrial complex to the west. The site map (Figure 2-2) shows the current site configuration as obtained from Weston (CAD drawings) and from orthographic imagery obtained from United States Geological Survey (USGS).

2.1.2 Topography and Surface Features

The GUIC Site is located in Harris County, Texas and in general in the Gulf Coast Plain geographic regions (RS&A, 1993a). The surface topography in the general vicinity of the Site can be described as gently sloping flat plain terrain with broad shallow river and stream valleys (RS&A, 1993a). Weston provided reports containing vertical coordinates of monitoring wells installed at the Site which were georeferenced from a benchmark established at the Site. The vertical elevation of the benchmark was set at 100 feet (ft). Based on the surface elevations of other locations provided by Weston, topographic relief throughout the area ranges from approximately 75 ft to approximately 110 ft. However, based on earlier reports the surface topography varies by approximately 4 ft from the southcentral property line to the northwestern property corner with lower elevations along drainage ways bordering the property. For the purpose of numerical modeling, the average ground surface elevation at the Site was assumed to be 100 ft.

2.2 SITE HISTORY

A detailed site ownership and use history is provided in RS&A (1993a), based on which it is known that the Site was used as a railcar maintenance and repair facility. Site assessment

activities (RS&A, 1993a) have identified volatile organic compounds (VOCs) at the Site. Follow-on investigations identified additional VOCs and lead to further site assessment work at the Site which is outlined in subsequent site assessment documents.

2.3 SITE HYDROGEOLOGY & CONCEPTUALIZATION

The Site is underlain by quartenary-age Beaumont formation generally comprised of interbedded clay, silt, and sand facies of fluvial-deltaic processes (RS&A, 1993b). In total, seven (7) water-bearing lithologic units were identified at the Site (RS&A, 1995a). These water-bearing units are discussed below:

a) Unit I: The uppermost lithologic unit is comprised of blast sand, caliche road-base material, concrete, asphalt, and clayey/sandy loam topsoil with roots. The thickness of this unit is estimated to be approximately 5 to 25 ft below ground surface (bgs).
b) Unit II: Unit I and Unit II are interlaced with Unit I grading into Unit II as a slightly silty clay. Unit II may act as a confining unit for Unit III and is present from approximately 17 ft to 28 ft bgs.
c) Unit III: Is a light gray to white, saturated, fine grained clayey sand to very clayey sand. The top of Unit III can be found generally at a depth of approximately 22 ft to 23.5 ft bgs with the total depth varying from approximately 24 ft to 34 ft bgs. The total thickness of Unit III ranges from two to ten ft.
d) Unit IV: Is comprised of moist to very moist sandy clay and silty clay and varies in thickness from one ft to six ft. The hydraulic conductivity of this formation is very low and site assessment reports have indicated that this unit may act as an aquitard separating Unit III from Unit V. However, site investigations have indicated that this Unit may not be present everywhere and therefore hydraulic connection is present between Unit III and the deeper water-bearing units.
e) Unit V: Is comprised of light gray to yellowish-red, saturated very fine grained silty sand with clayey sand pockets. The unit may not be present throughout the Site and therefore Unit V and Unit VI may be combined together. When present, the thickness of Unit V varies from two to eight ft.
f) Unit VI: Is present as an elongated sand body stretching from the southwestern property boundary to the north-central property boundary. The lower contact of Unit VI is generally encountered at depths ranging from 64.5 ft to 72.5 ft bgs with a total thickness of approximately 29 to 36 ft.
g) Unit VII: Is the lowermost lithologic unit encountered during site investigations. Although, the total thickness of the unit was not identified, it is estimated to be approximately 13 ft to 20 ft in thickness. It is mainly comprised of stiff to very stiff and

highly plastic clay indicating that it may act as a lower confining layer for Units V and VI.

The geologic formations at the Site were divided into six (6) layers for the purpose of numerical modeling and are explained in greater detail in the following section (Section 3.2).

SECTION III

MODELING METHODOLOGY

3.1 BACKGROUND

In accordance with the scope of work, a three-dimensional groundwater flow and contaminant transport model was developed. Flow modeling was conducted using MODFLOW, a widely-used finite-difference based model (Harbaugh and McDonald, 1996). Contaminant transport modeling was conducted using the reactive transport code RT3D (Clement, 1997). The pre/post-processing software Groundwater Vistas was used to develop, run and calibrate the site model. A brief mathematical description of the flow and transport models is provided below.

3.1.1 MODFLOW

MODLFOW is a grid-centered finite-difference-based computer code that has the capability to numerically solve the constant-density groundwater flow equation (McDonald and Harbaugh, 1988). The groundwater flow equation solved by MODFLOW is:

$$\frac{\partial}{\partial x}\left(K_{xx}\frac{\partial h}{\partial x}\right)+\frac{\partial}{\partial y}\left(K_{yy}\frac{\partial h}{\partial y}\right)+\frac{\partial}{\partial z}\left(K_{zz}\frac{\partial h}{\partial z}\right)+W=S_s\frac{\partial h}{\partial t} \quad (1)$$

where: "K_{xx}," "K_{yy}," "K_{zz}" are hydraulic conductivities along the x, y and z coordinate axes assumed to be parallel to the principal axes of hydraulic conductivity; "h" is the potentiometric head; "W" is the source/sink term; "S_s" represents the specific storage of the aquifer; and "t" is time. During modeling this governing equation is solved numerically with appropriate initial and boundary conditions.

3.1.2 RT3D

RT3D is a numerical code that has the capability to solve the three-dimensional reactive transport equation for multiple species in saturated groundwater systems. The groundwater head distribution, required by RT3D to compute the transport parameters, is computed using MODFLOW. The contaminant transport equation solved by RT3D is:

$$\frac{\partial}{\partial x_i}\left(D_{ij}\frac{\partial C_k}{\partial x_j}\right)-\frac{\partial}{\partial x_i}(v_i C_k)+\frac{q_s}{\theta}C_{s_k}+r_c=\frac{\partial C_k}{\partial t} \quad ; \text{where } k = 1,2,.., m \quad (2)$$

$$\tilde{r}_c=\frac{d\tilde{C}_{im}}{\partial t} \quad ; \text{where } im = 1,2,.., (n\text{-}m) \quad (3)$$

where: "n" is total number of contaminant species; "m" is number of aqueous-phase (mobile) species; "n-m" is the number of immobile species; "C_k" and "$\check{C}_{im}$" are aqueous-phase and solid-phase concentrations of the kth and im^{th} species, respectively; "D_{ij}" is the dispersion coefficient; "v" is the pore velocity; "θ" is the aquifer porosity; "q_s" is the source/sink volumetric flux of water per unit volume of aquifer; and "r_c" and "$\check{r}_c$" represent the rate of all reactions and the rate of soil-phase reactions, respectively.

RT3D uses the operator-split numerical strategy to solve the coupled transport equations as presented in (2) and (3). The transport equation (2) is divided into four parts: advection, dispersion, source/sink mixing and the reaction equation. Solution of the advection, dispersion, and source/sink mixing equations are based on solvers available from the MT3D code (Zheng, 1990). RT3D solves the reaction equation using pre-defined modules. For the purpose of modeling dechlorination of TCE and its daughter compounds, as outlined in the scope of work, we used *Module #6: Sequential Decay Reactions*.

3.2 GROUNDWATER FLOW MODEL

Groundwater Vistas (version 5) was used to set up the base model for flow and transport. An aerial photograph of the site was used as the background image for assistance in defining the grid and boundary conditions. For calibration purposes, a flow model was set up with grid spacing varying from a minimum of 50 ft to a maximum of 200 ft (in x and y directions). The minimum spacing was specified in the area close to the Site where groundwater elevation data were available.

The geological deposits at the Site as discussed in Section 2.3 were divided into six layers for the purpose of numerical modeling. The average elevation of the site was taken from site-specific datum to be 100 ft and assumed to be representative of the ground surface elevation. The total depth was taken to be 100 ft from the surface or 0 ft in site-specific vertical datum. Values of hydraulic conductivity and porosity were selected for each layer based on previous investigations (RS&A, 1993b). Characteristics of the six subsurface layers simulated within the model are described below and shown conceptually in Figure 3-1.

a) Layer 1: comprised of the subsurface from 100 ft to 75 ft for a total depth of 25 ft. The bottom surface of this layer was set to approximately coincide with the bottom of Unit II at the site as described in Section 2. A hydraulic conductivity of 1.9 ft/day was assigned considering the hydrogeological characteristics of the deposits.
b) Layer 2: comprised of the subsurface from 75 ft to 65 ft for a total depth of 10 ft. This layer was defined to represent the highest transmissive zone of the aquifer and comprised

of Unit III of the aquifer as described in Section 2. The hydraulic conductivity in this layer was estimated and assigned to be 18 ft/day.

c) Layer 3: extended from 65 ft to 60 ft with a total depth of 5 ft and represents Unit IV of the aquifer. Hydraulic conductivity was set to 4.5×10^{-5} ft/day considering that this layer may act as a confining unit. However, since this unit was reported to be present in only a part of the Site, low hydraulic conductivity values were assigned to only the subsurface area under the Site, elsewhere Layer 2 hydraulic conductivities were assigned to Layer 3.
d) Layer 4: extended from 60 ft to 55 ft with a total depth of 5 ft and represents Unit V of the aquifer. Hydraulic conductivity was set to 15 ft/day considering that this layer is more transmissive.
e) Layer 5: extended from 55 ft to 25 ft with a total depth of 30 ft and represents Unit VI of the aquifer. Hydraulic conductivity was set to a similar value as in Layer 4 considering aquifer tests in Unit V and VI were conducted jointly.
f) Layer 6: represented the confining unit and the deepest portion of the site where assessment activities were conducted. The layer had a total depth of 25 ft and extended from 25 ft to 0 ft. Horizontal hydraulic conductivity in this layer was set to 10^{-5} ft/day.

Additional information on the flow model setup is provided in Table 3-1.

Based on available site information Dirichlet-type (specified-head) boundary conditions were used exclusively in the flow model. The specified head values were determined from the calibration exercise. Initial specified head conditions comprised of head values of 95 ft at the western extent of the model which is reported to be a reservoir (Sheldon Reservoir, RS&A, 1003b) and 85 ft at the eastern extent of the model which is the approximate location of the San Jacinto River.

Calibration of the flow model for the non-engineered (no-pumping) scenario was performed by matching modeling results (i.e. model-estimated groundwater levels) to observed groundwater levels recorded in the field. The water levels were averaged for six groundwater elevation monitoring events ranging from 17 May 1997 to 6 February 1998 before the P&T system started extracting water from the recovery wells. The averaged groundwater levels yielded a groundwater flow field that was assumed to be representative over the long term for the GUIC site. This long term averaged flow-field was considered the steady-state flow field for the site and used for calibrating the flow model. Groundwater level comparisons were made at pre-determined well locations where each location had an associated groundwater elevation value (a target value). Some values of water levels were deemed to be outliers and were discarded from the calibration exercise. We performed an initial simulation to obtain an estimate sum of squared residuals (SSR) without calibration, yielding an approximate SSR value of 800 square feet ($ft^{2)}$. Calibration was performed by modifying the constant head boundary values, recharge, and hydraulic conductivity values within the model. Model calibration was deemed reasonable upon

achieving a SSR of approximately 135.7 ft^2 for 45 target values. Appendix A contains the observed groundwater level data used during calibration of the no-pumping scenario and resulting model-estimated groundwater elevations obtained after simulation. Figure 3-2 presents the groundwater elevation contours (as blue lines with numbers in big font) obtained from the calibrated flow model (for no-pumping scenario) for layer 2 which represents hyrdrogeological Unit III at the Site. A comparison of observed value (field-recorded data) and residual value (observed value – model estimated value) is presented in Figure 3-3. A close inspection of Figure 3-3 shows that a majority of the field-recorded water levels have low corresponding residual values and the residual values have a similar spread in both negative and positive fields representing a reasonable model-calibration. The water balance error for the no-pumping flow model was less than 1%.

Calibration of the flow model for the engineered (pumping) scenario was performed by matching modeling results (i.e. model-estimated groundwater levels) to groundwater levels measured in the field on 16 August 2010 and 29 November 2010. Two transient stress periods were set-up in the model with Stress Period One being a transient pumping simulation of 15 years representing the approximate operational period of the P&T system ending on 16 August 2010. Stress Period Two was set at 86 days representing the operation period from 16 August 2010 to 29 November 2010. Groundwater level comparisons were made at pre-determined well locations for each stress period where each location had an associated groundwater level value (a target value). Appendix B contains the groundwater level and pumping rates data used for calibration to the pumping scenario. As in the no-pumping scenario some values of groundwater levels were considered to be outliers and were discarded from the calibration exercise. Using the average pumping rates reported over the two stress periods, we performed an initial simulation to obtain an SSR without calibration, yielding an approximate SSR value of 8015 ft^2. Calibration was performed by modifying the pumping rates for extraction wells in each layer within the model for Stress Period One. Model calibration was deemed complete upon achieving a SSR of approximately 331.5 ft^2 (more than an order of magnitude lower than the initial SSR). It should be noted here that even though the SSR value for the pumping scenario is higher than the no-pumping scenario, the number of target values (groundwater level observations) used for calibrating the pumping scenario is more than double those used in the no-pumping scenario. Appendix B contains the observed groundwater level data used during calibration of the pumping scenario and resulting model-estimated groundwater elevations obtained after simulation. Pumping flow rates for extraction wells used to achieve calibration of the pumping flow model are presented in Appendix C. Note in Appendix C that the extraction rates in Stress Period 2 are the same as those obtained from field readings as reported by Weston. Figure 3-4 presents the groundwater elevation contours (as blue lines with numbers in big font) obtained from the calibrated flow model (for pumping scenario) for layer 2 which represents hyrdrogeological Unit III at the Site. A comparison of observed value (field-recorded data) and

residual value (observed value – model estimated value) is presented in Figure 3-5. Figure 3-5 shows that similar to the results of calibration from the no-pumping scenario, the calibration results from the pumping scenario have a majority of the residual values with a balanced spread in both negative and positive fields representing a reasonable model-calibration. The water balance error for the pumping flow model was less than 1%.

3.3 TRANSPORT MODEL

Geosyntec developed a transport model that incorporated the calibrated flow models for both no-pumping and pumping scenarios. Since solute transport requires finer grid sizes than a flow model to reduce dispersive errors, the finite-difference grid was refined for conducting transport simulations to enable better prediction of contaminant migration. Figure 3-6 presents the finer grid used in transport simulations. Initial conditions for the transport model were comprised of recent estimated contaminant concentration contours. Chlorinated species concentration distribution (as contoured) obtained from field data collected in March 2010 were used to determine initial concentration distribution in the model, input as plume maps. The contaminant plumes were initialized with twice the RAL concentration levels. Additionally plume areas with concentration values higher than twice the RAL levels were also digitized and initialized in the model. Such initialization of the concentration levels in the model enable conservative model prediction in terms of estimated time to achieve RAL concentrations. Initial sorbed concentrations were also estimated based on the distribution coefficients corresponding to the different chemicals. Figures 3-7 through 3-9 present the initial concentration contours provided as input data for TCE, c-DCE, VC, CB and EDC for model layers 2, 4, and 5 respectively which contain a majority of the reported contaminant mass.

Site-specific degradation rates for the contaminant species were estimated from concentration data in the case of PCE, EDC, and CB as appropriate datasets were available. Degradation rates for TCE, c-DCE and VC were approximated based on the degradation rate estimated for PCE. The degradation rate for TCE was assumed to be similar to that of PCE whereas the degradation rate for c-DCE was assumed to be half and that for VC to be one-quarter of the degradation rate for PCE. The degradation rates estimated for TCE, c-DCE and VC in such a manner are representative of degradation rates observed at other sites contaminated with chlorinated solvents. Adsorption coefficient values were taken to be similar to those reported in literature (Montgomery, 1996) assuming fractional organic carbon (Foc) content to be 1% (0.01) at the Site. A bulk density of 1.57 grams/ cubic centimeter (gm/cc) was assumed for all layers. Yield values were estimated based on stoichiometric ratios. Table 3-2 provides select model parameters used for simulating the transport model with values of degradation rates, distribution coefficients, and dispersivities.

The transport model was simulated as the transient model with linkage to appropriate output files from MODFLOW. Transport model simulations were conducted for the no-pumping and pumping scenarios to provide the time estimates to achievement of RAL concentration levels. For simulating the pumping transport scenario, we used the pumping rates reported in the approximately 86 day period from 16 August 2010 to 29 November 2010 that were also used as extraction rates in Stress Period Two during calibration of the flow model for the pumping scenario. The pumping rates were assumed to remain constant for the entire simulation.

SECTION IV

RESULTS, LIMITATIONS AND RECOMMENDATIONS

4.1 RESULTS

Model estimated times to reach RAL concentration levels for the simulated chemical species are provided in Table 4-1. Based on results obtained from numerical modeling, RAL levels are estimated to be reached at the site in approximately 16 years under engineered (pumping) conditions with VC being the most persistent chemical species and in approximately 33.5 years under non-engineered (no-pumping) conditions with CB being the most persistent species. Model estimated solute concentrations under both pumping and no-pumping conditions selected chlorinated species that migrate off-site (either during the simulation or at the beginning with initial concentrations) such as PCE, TCE, and VC are presented in Figures 4-1 through 4-6. Model results for concentrations from the simulated chlorinated solvent species are provided in electronic format as binary files along with this report. To aid in viewing the results, corresponding Modelviewer (Hsieh and Winston, 2002) files are also provided with the binary concentration files.

4.2 LIMITATIONS

The purpose of this modeling study was to predict the migration of the dissolved chlorinated solvent (TCE, c-DCE, VC, CB and EDC) plumes at the site under non-engineered (no-pumping) and engineered (pumping) conditions and subject to natural attenuation. The numerical model presented via this report achieved this purpose by approximating the aquifer conditions based on previously obtained field data and estimated extent and concentrations of solute plumes. Therefore, any limitations and errors in collecting the field data would be extended, via the derived model parameters, in the numerical simulations. Additionally, lack of geochemical and microbiological data at the site also limits the estimation of geochemical parameters, such as degradation rates, adsorption coefficient and dispersivity, used in the model. Another limitation of the model may be the presence of any unknown input source concentration which has not been accounted for in the current modeling exercise. However, the model is sufficiently robust and parameterized to provide an estimation of times to reach RAL concentration levels for the pumping and no-pumping scenarios. The model is also a sufficient tool to compare the differences in times to reach RAL concentrations for the simulated scenarios.

SECTION V

REFERENCES

Clement, T.P., 1997, *RT3D- A modular computer code for simulating reactive multi-species transport in 3-dimensional groundwater aquifers,* Pacific Northwest National Laboratory, Richland, Washington, PNNL-11720

Harbaugh, A.W., and McDonald, M.G., 1996, *User's documentation for MODFLOW-96, an update to the U.S. Geological Survey modular finite-difference ground-water flow model*, U.S. Geological Survey Open-File Report 96-485, 56p.

Hsieh, P.A., and Winston, R.B., 2002, *User's Guide To Model Viewer, A Program For Three-Dimensional Visualization of Ground-water Model Results,* U.S. Geological Survey Open-File Report 02-106, 18p.

McDonald, M.G., and Harbaugh, A.W., 1988, *A modular three-dimensional finite-difference ground-water flow model,* U.S. Geological Survey Techniques of Water-Resources Investigations, book 6, chap. A1, 586 p.

Montgomery, J.H., 1996, *Groundwater Chemicals, Second edition,* Lewis Publishers, ISBN 1-56670-165-1.

Rosengarten, Smith & Associates, Inc., 1993a, *Environmental Site Assessment (third draft), Westlake Metals Fabrication Facility,* Prepared for The Marmon Group, Inc., Chicago, IL.

Rosengarten, Smith & Associates, Inc., 1995a, *Supplemental groundwater quality investigation, Weston Industries, Inc.,* Prepared for The Westlake Group of Companies, Houston, TX.

Rosengarten, Smith & Associates, Inc., 1995b, *Supplemental groundwater quality investigation, Weston Industries, Inc.,* Prepared for The Westlake Group of Companies, Houston, TX.

Zheng, Chunmiao, 1990, *MT3D, A modular three-dimensional transport model for simulation of advection, dispersion and chemical reactions of contaminants in groundwater systems,* Report to the U.S. Environmental Protection Agency, 170 p.

Table 3-1 Basic Model Setup

	Parameter	Value
Model domain Flow	Rows (y direction)	114
	Columns (x direction)	128
	Layers (z direction)	6
	Cell discretization (ft)	X: 50 ft to 200 ft; Y: 50 ft to 100 ft Layer 1: 25 ft; Layer 2: 10 ft; Layer 3: 05 ft; Layer 4: 05 ft Layer 5: 30 ft; Layer 6: 25 ft
Model domain Transport	Rows (y direction)	349
	Columns (x direction)	596
	Layers (z direction)	6
	Cell discretization (ft)	Uniform in x and y from 10 ft to 100 ft Layer 1: 25 ft; Layer 2: 10 ft; Layer 3: 05 ft; Layer 4: 05 ft Layer 5: 30 ft; Layer 6: 25 ft
Flow	Hydraulic conductivity (ft/day)	Layer 1: K_x and K_y – 2.4; Kz – 10^{-6} Layer 2: K_x and K_y – 17.5; Kz – 1.6 Layer 3: K_x and K_y – 4.5×10^{-5}; Kz – 4.5×10^{-6} Layer 4: K_x and K_y – 15.5; Kz – 10^{-6} Layer 5: K_x and K_y – 15.5; Kz – 10^{-6} Layer 6: K_x and K_y – 10^{-5}; Kz – 10^{-6}
	Pumping rates for recovery wells	See Appendix C. Flow rates reported for stress period 2 were used in the transport model for pumping scenario.
	Recharge (ft/day)	0.0012
	Porosity (-)	0.25 (in all layers)
	Effective porosity	0.20 (in all layers)
	Solver and convergence criterion	PCG2; 10^{-4}
	Number of Stress periods	Calibration of non-pumping flow model : 1 Calibration of pumping flow model : 2 Transport model: 2

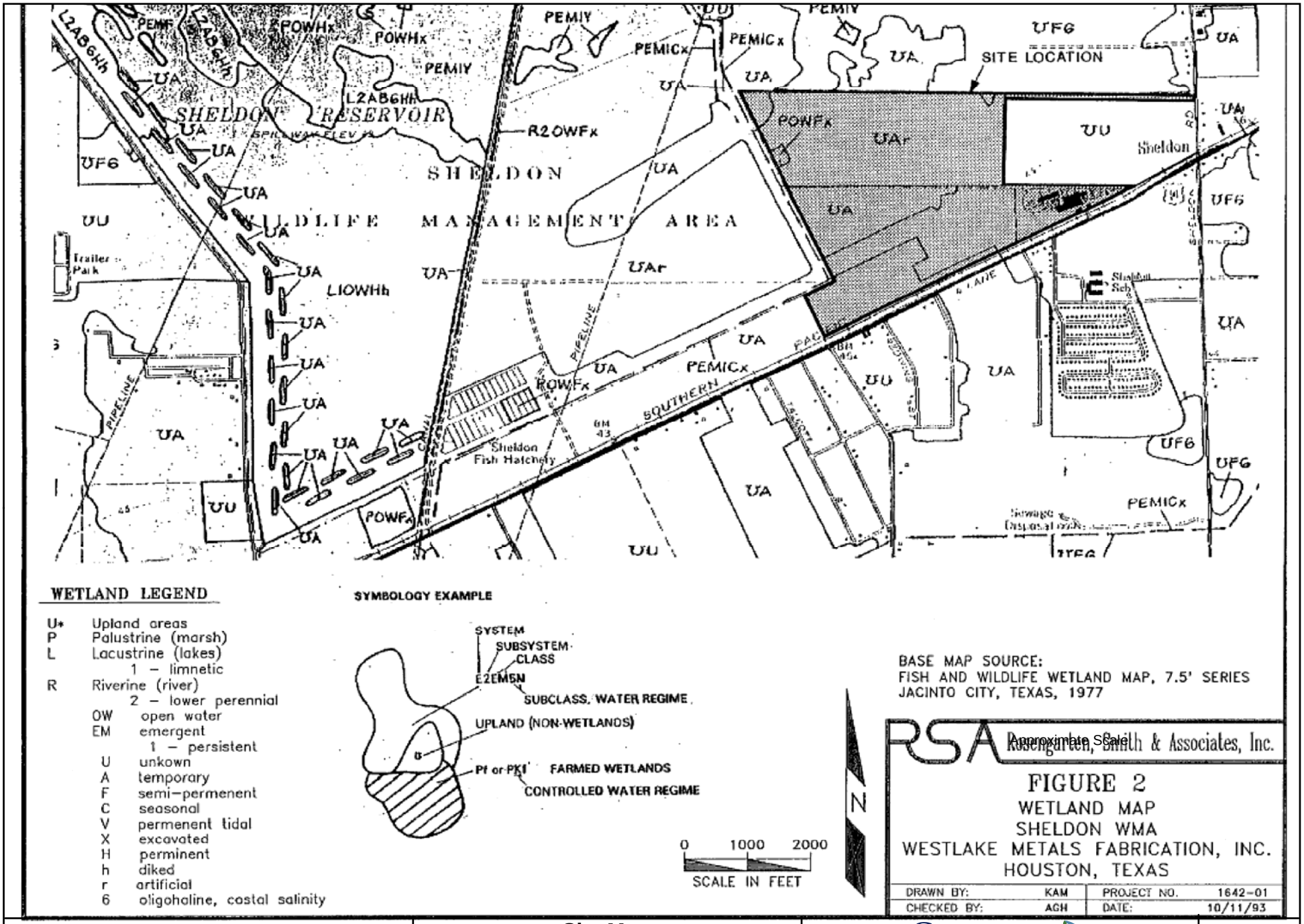
Table 3-2 Transport Model Parameters

	Parameter	Value
Basic Transport	Dispersivity (ft)	Longitudinal (x): 5 Transverse (y): 1 Vertical (z): 0.1
	Initial Concentrations	Solute plumes estimated from March 2010 concentration contours
	Advection, Dispersion Solver and convergence criterion	GCG; 10^{-6}
Time stepping	Initial time step	30 days
	Total Simulation Time	> 30 years
Degradation Rates (day^{-1})	PCE	Estimated from data: 0.0022 (All layers)
	TCE	Assumed value: 0.0022 (All layers)
	c-DCE	Assumed value: 0.0010 (All layers)
	VC	Assumed value: 0.0005 (All layers)
	EDC	Estimated from data: 0.0056 (All layers)
	CB	Estimated from data: 0.0001 (All layers)
Distribution Coefficient (ml/gm)	PCE	0.142
	TCE	0.053
	c-DCE	0.059
	VC	0.014
	EDC	0.036
	CB	0.122
Bulk Density (gm/ml)	Uniform for all layers	1.57

Table 4-1 Estimated Times to Reach RAL Concentration Levels

Chemical Species	Approximate Model-estimated Time to Reach RAL Concentration Levels (years)	
	No-pumping Scenario	Pumping Scenario
Chlorobenzene (CB)	33.5	10
1,2-dichloroethane (EDC)	2.5	2.5
Tetrachloroethene (PCE)	6.5	4
Trichloroethene (TCE)	8.0	4.5
Cis-1,2-dichloroethene (c-DCE)	4.5	3
Vinyl Chloride (VC)	29.5	16

FIGURES



Notes:
1. Source of Map: R,S&A, 1993a.

Site Map
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17011 Old Beaumont Highway 90
Houston, Texas 77049

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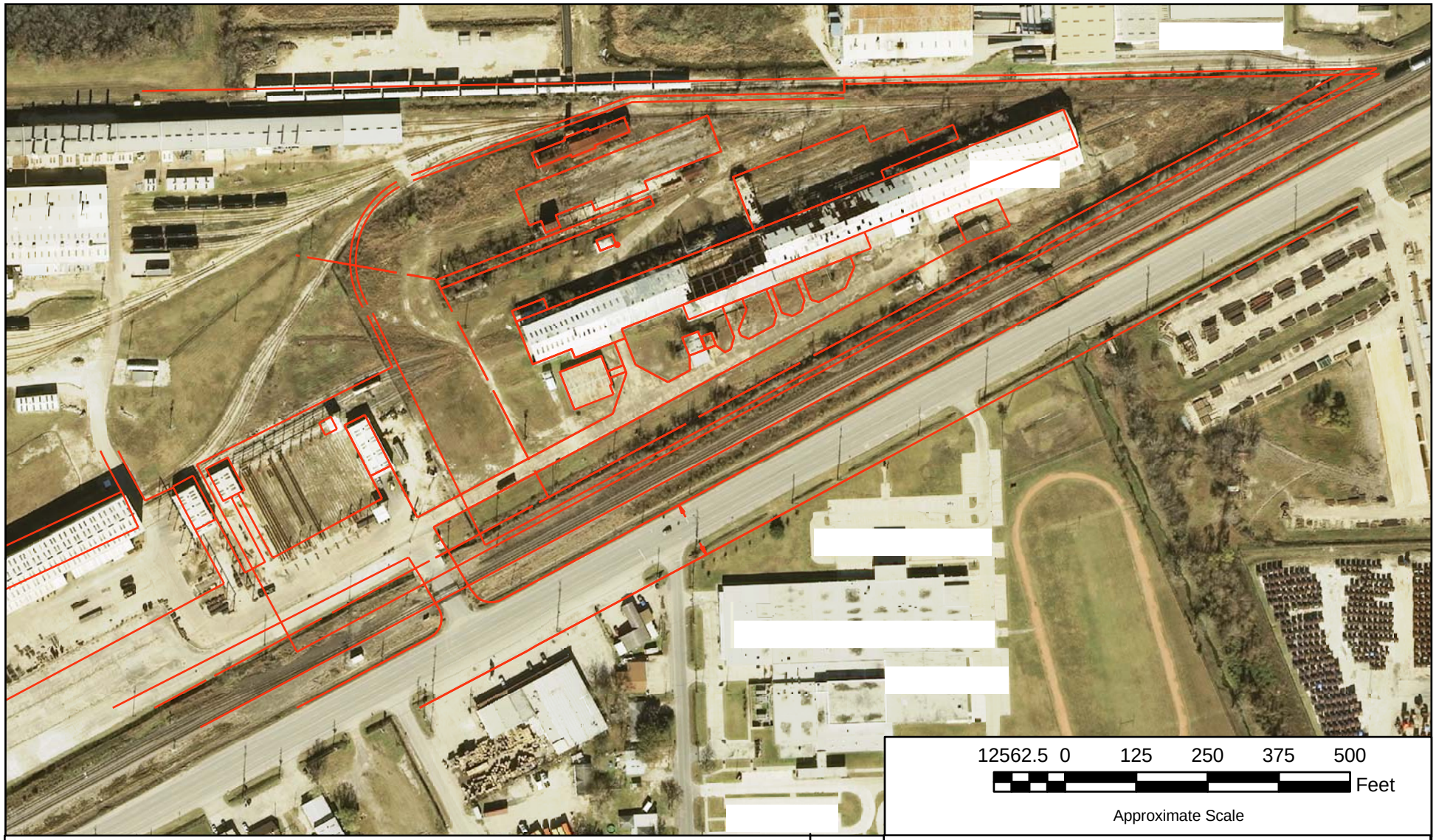
Figure **2-1**



Legend

VCP_No13_Area_Polyline

N

Site Map

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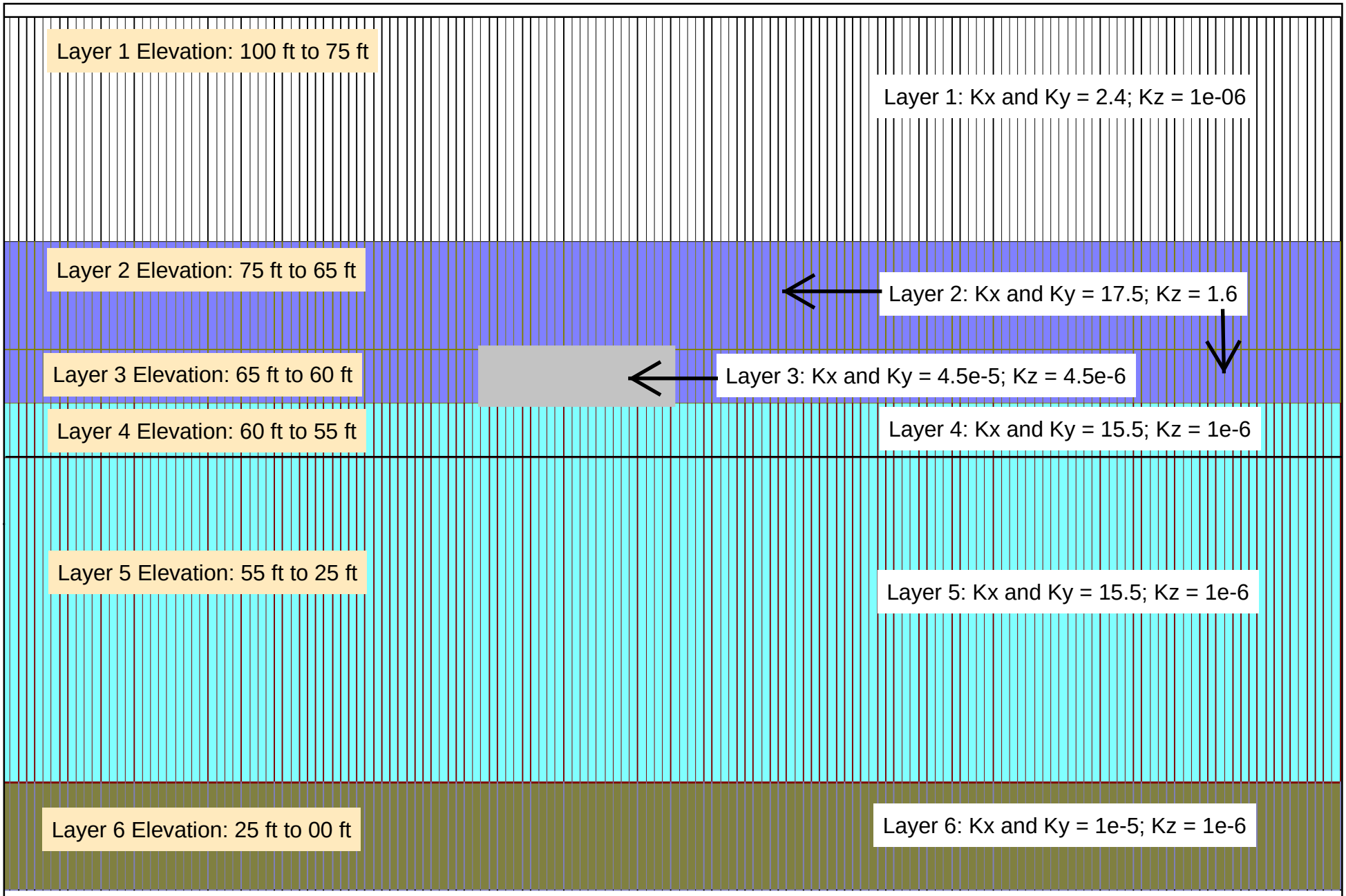
Figure **2-2**

Notes:
1. Source of 2007 Aerial Photograph: United States Geological Survey Orthographic Maps.
2. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.



Notes:
1. Hydraulic conductivity values are in feet/day
2. Vertical elevations based on site-specific benchmark
3. Layer 3 is defined to be under the GUIC Site. See Section 3.2 in the report for more details.

Finite-difference Grid Used in Transport Simulations for Both Pumping and No-pumping Scenarios

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Figure **3-1**

Notes:
1. Groundwater elevation contours in feet
2. Elevations based on site-specific benchmark

Groundwater Elevation Contours in Layer 2 obtained from Calibrated Flow Model for No-pumping Scenario

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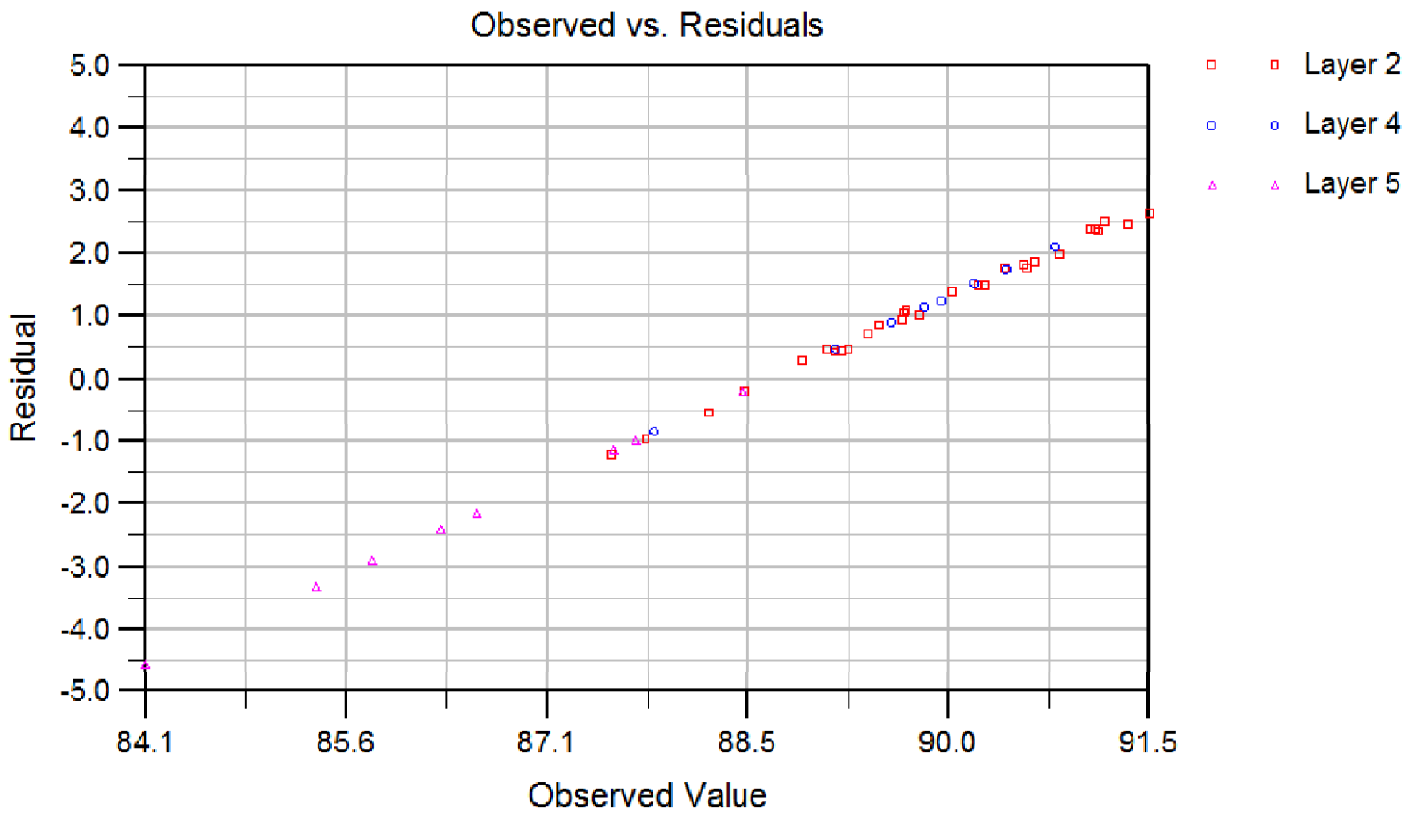
Figure **3-2**



Notes:
1. Residual Value = (Observed value - Model estimated value)

Graph of Observed vs Residual Values Obtained during Calibration of No-pumping Flow Model

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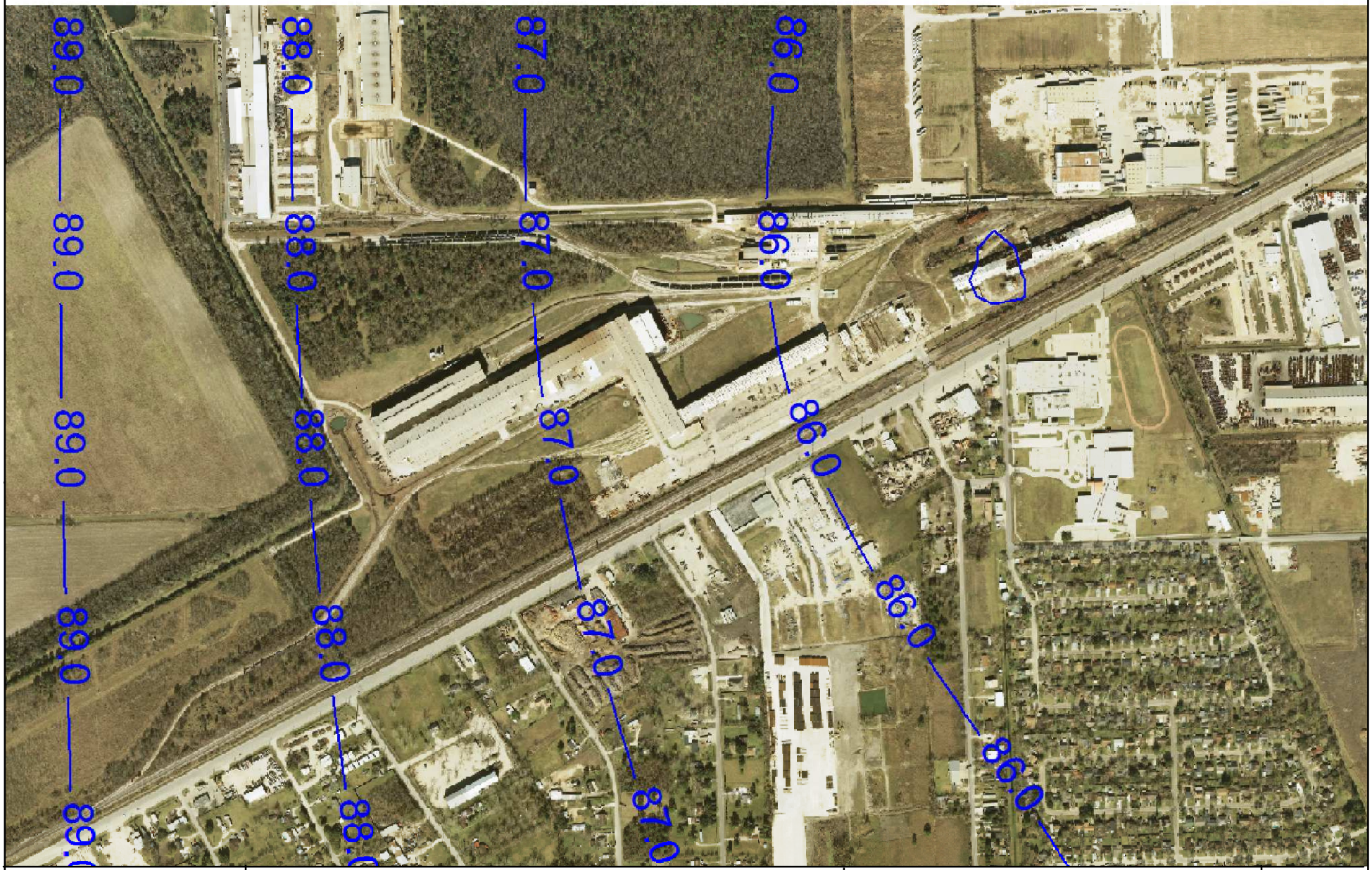
Figure **3-3**



Notes:
1. Groundwater elevation contours in feet
2. Elevations based on site-specific benchmark

Groundwater Elevation Contours in Layer 2 obtained from Calibrated Flow Model for Pumping Scenario

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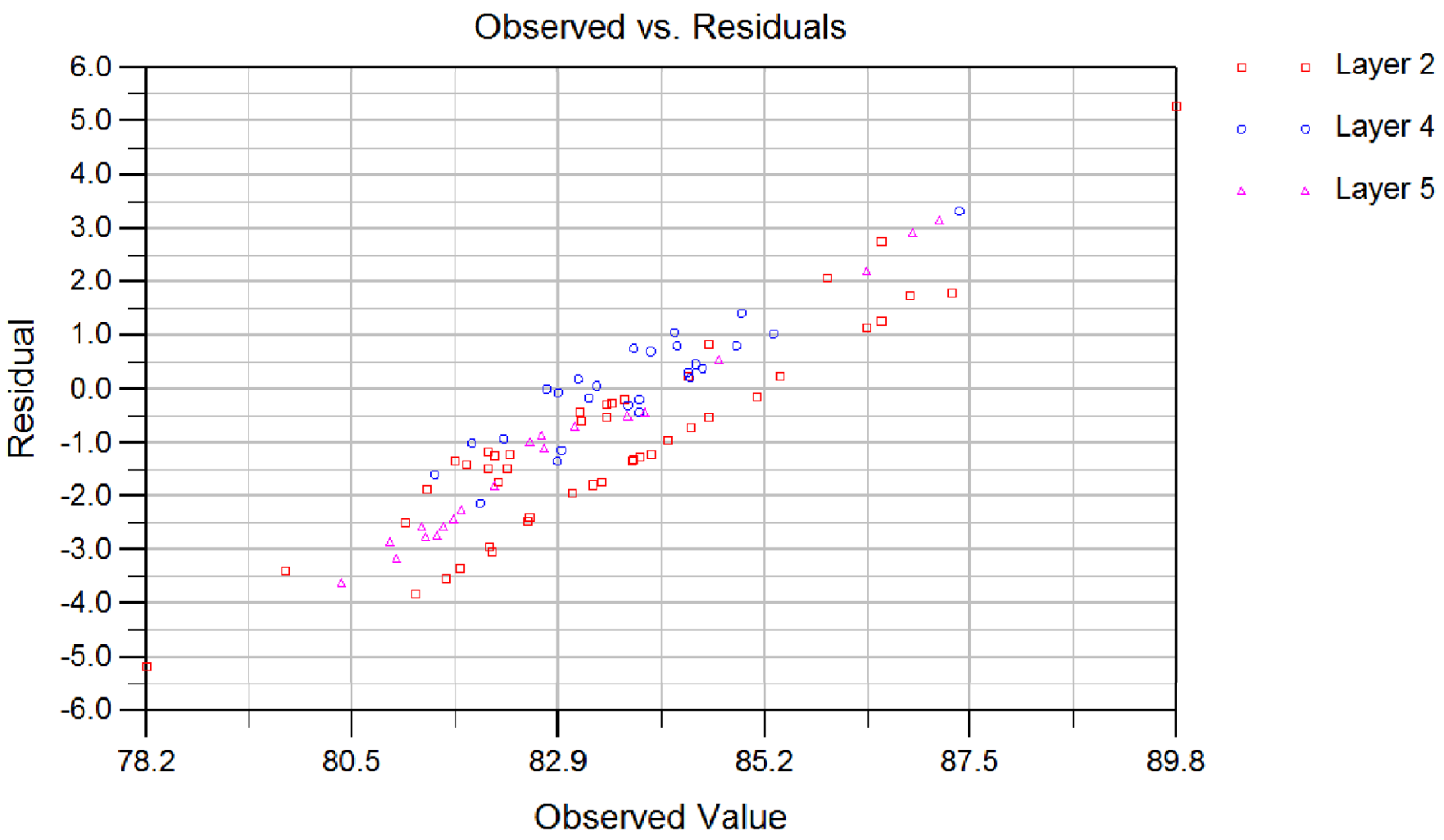
Figure **3-4**



Notes:
1. Residual Value = (Observed value - Model estimated value)

Graph of Observed vs Residual Values Obtained during Calibration of Pumping Flow Model

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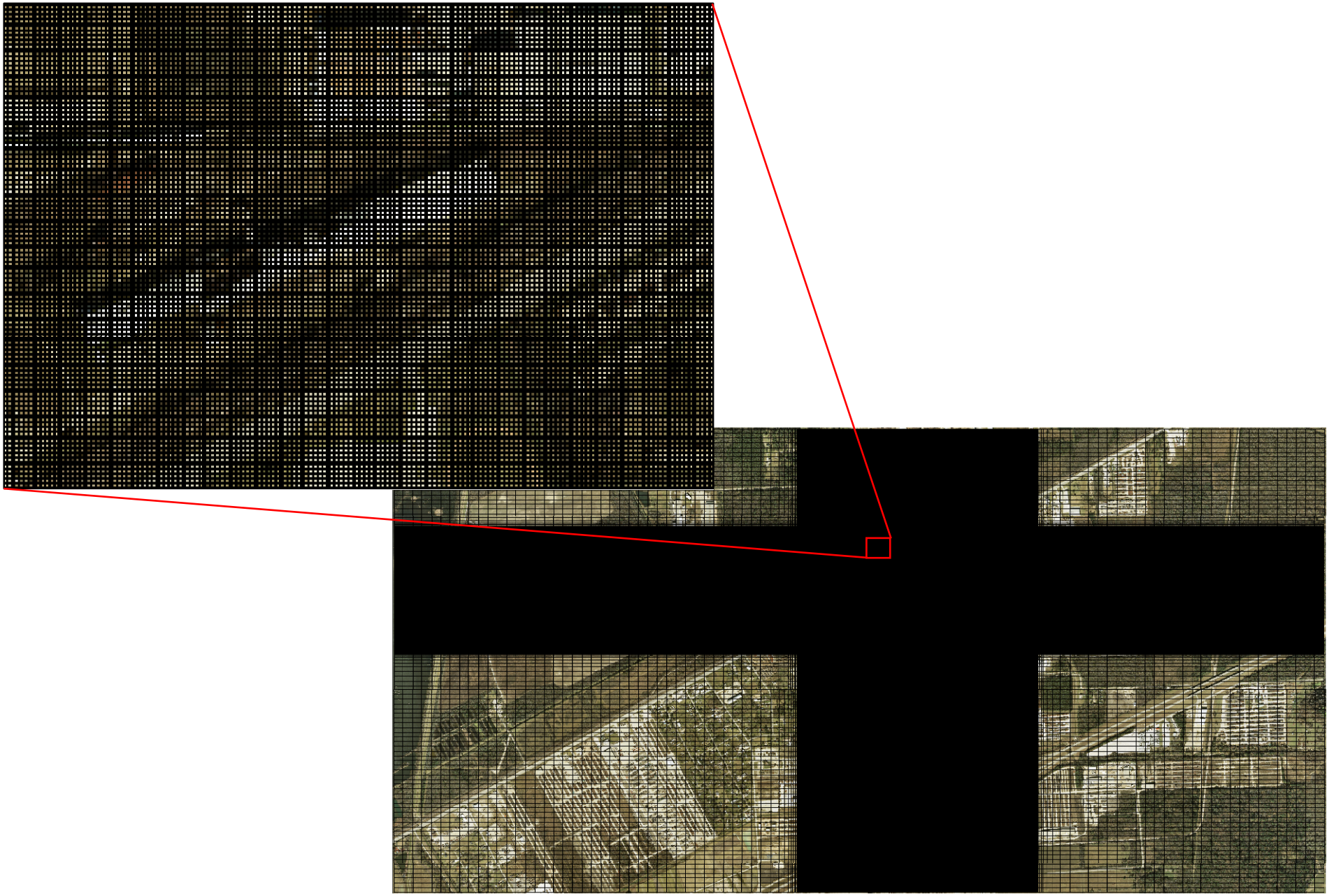
Figure **3-5**



Notes:
1. Finite-difference grid varies from 10 ft to 200 ft in the model
2. Row and column sizes are uniform (10 ft) in the area close to the Site

Finite-difference Grid Used in Transport Simulations for both Pumping and No-pumping Scenarios

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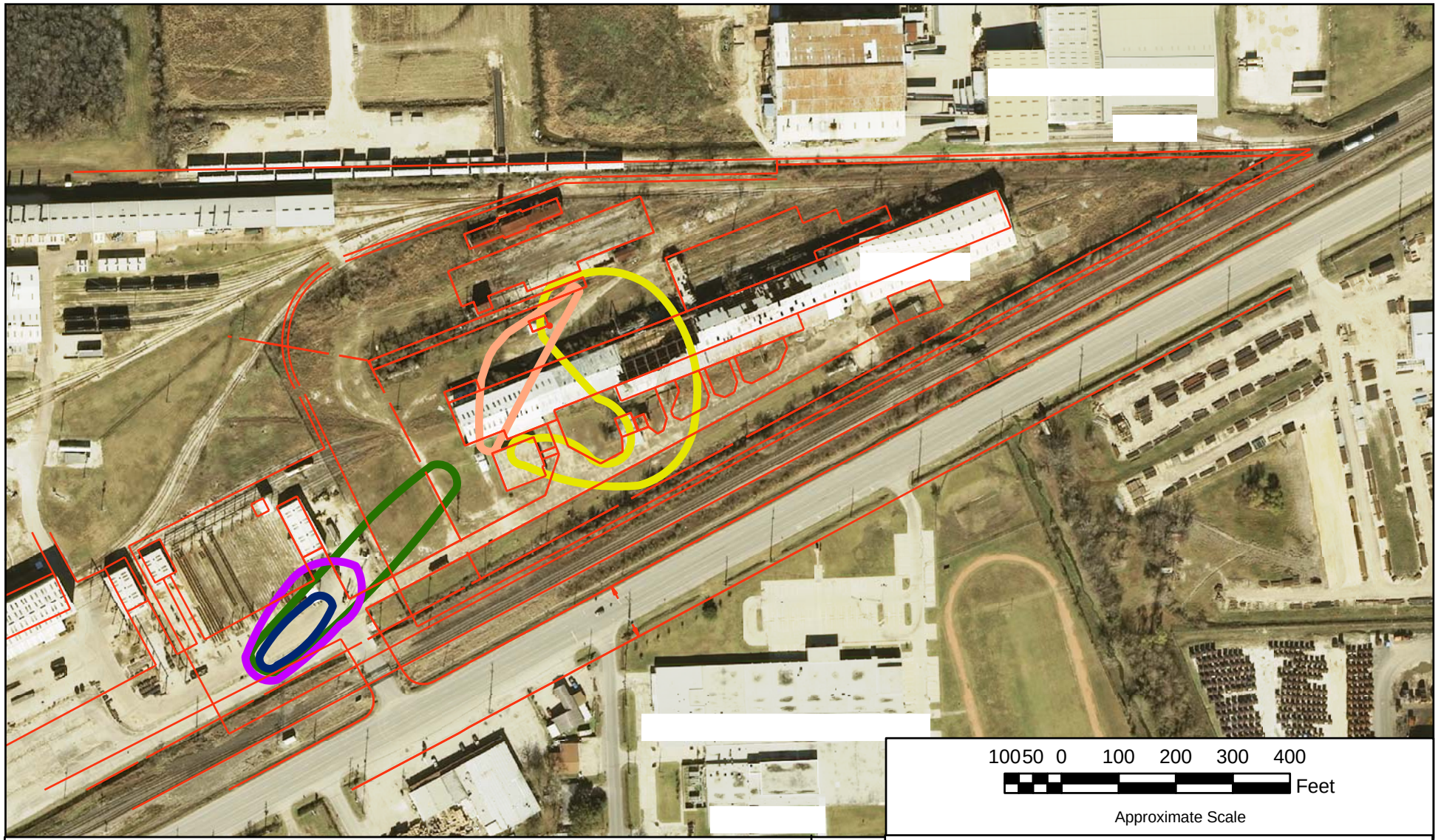
Figure **3-6**



Legend

- VCP_No13_Area_Polyline
- PCE_3
- TCE_3
- Cis_3
- CB_3
- DCEthane_3

N

Initial Groundwater Solute Concentrations
Layer 2
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Notes:
1. Source of 2007 Aerial Photograph: United States Geological Survey Orthographic Maps.
2. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.
3. Source of solute plume extent: R,S & A, First Quarter 2010 Groundwater Monitoring Report, March 2010

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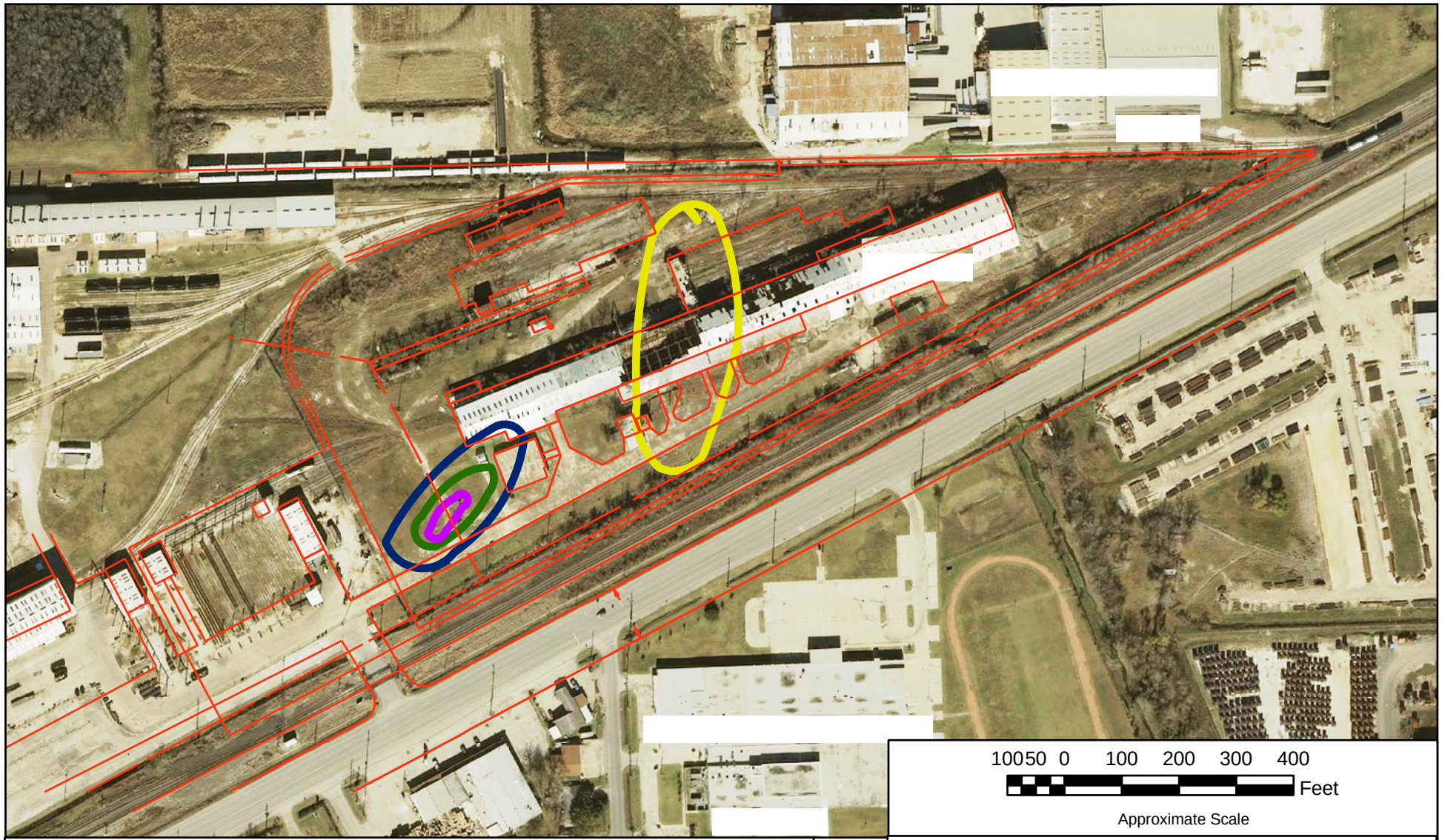
Figure **3-7**



Legend

- VCP_No13_Area_Polyline
- PCE_5
- TCE_5
- Cis_5
- DCEthane_5

N

Initial Groundwater Solute Concentrations
Layer 4
GUIC Industries Site
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Houston, Texas 77049

Notes:
1. Source of 2007 Aerial Photograph: United States Geological Survey Orthographic Maps.
2. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.
3. Source of solute plume extent: R,S & A, First Quarter 2010 Groundwater Monitoring Report, March 2010

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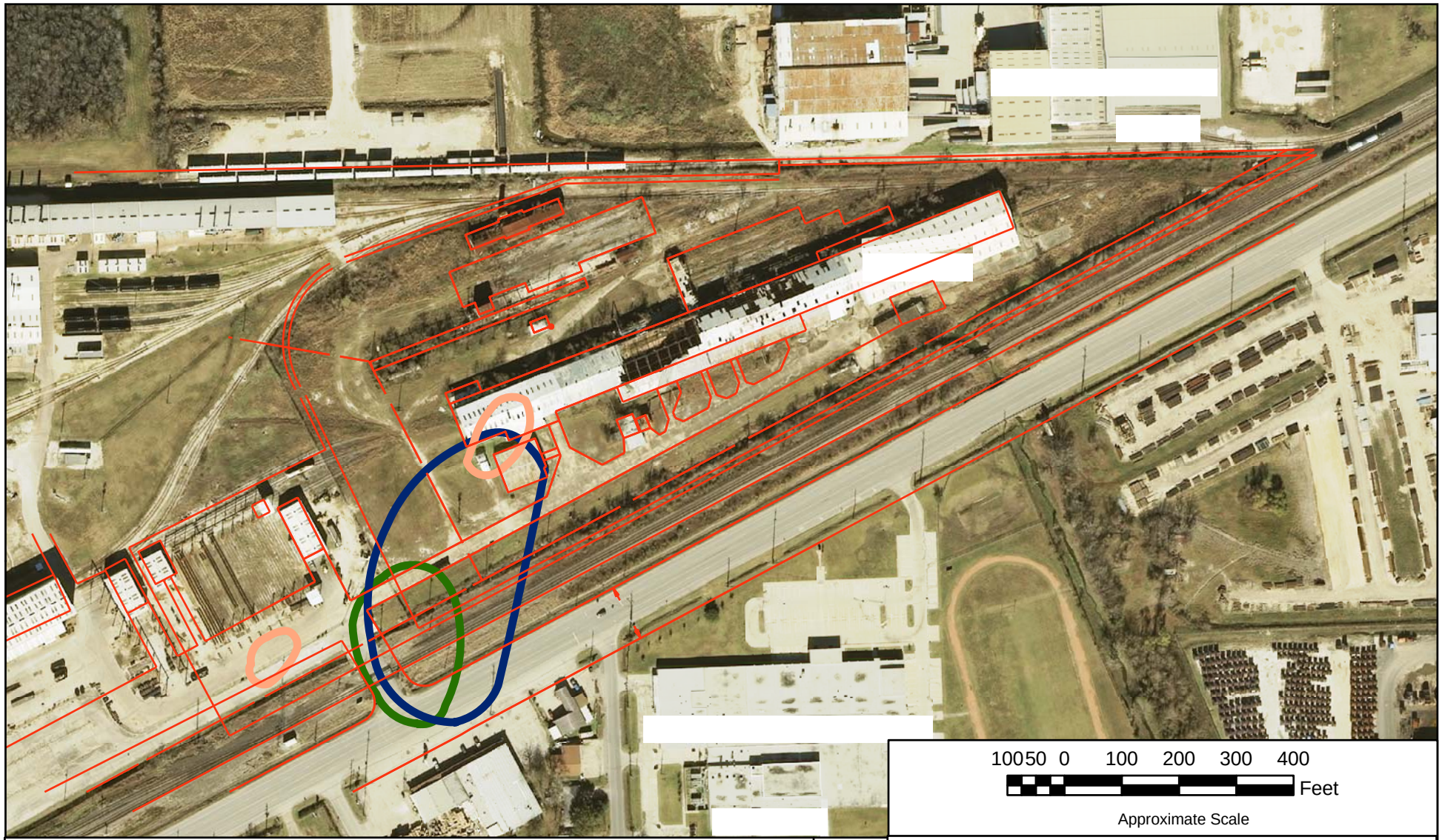
Figure **3-8**



Legend

- VCP_No13_Area_Polyline
- CB_6
- PCE_6
- TCE_6

N

Initial Groundwater Solute Concentrations
Layer 5
GUIC Industries Site
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Notes:
1. Source of 2007 Aerial Photograph: United States Geological Survey Orthographic Maps.
2. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.
3. Source of solute plume extent: R,S & A, First Quarter 2010 Groundwater Monitoring Report, March 2010

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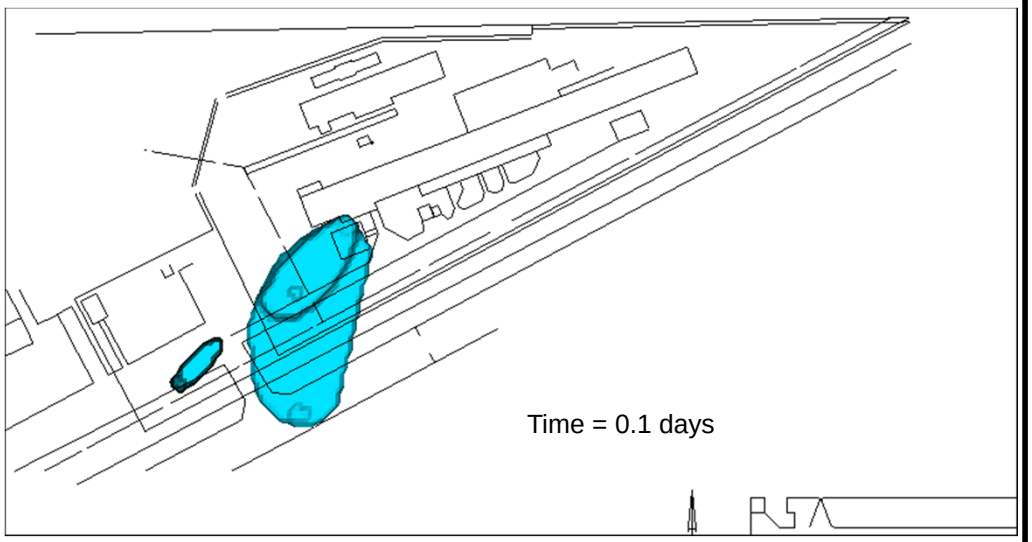
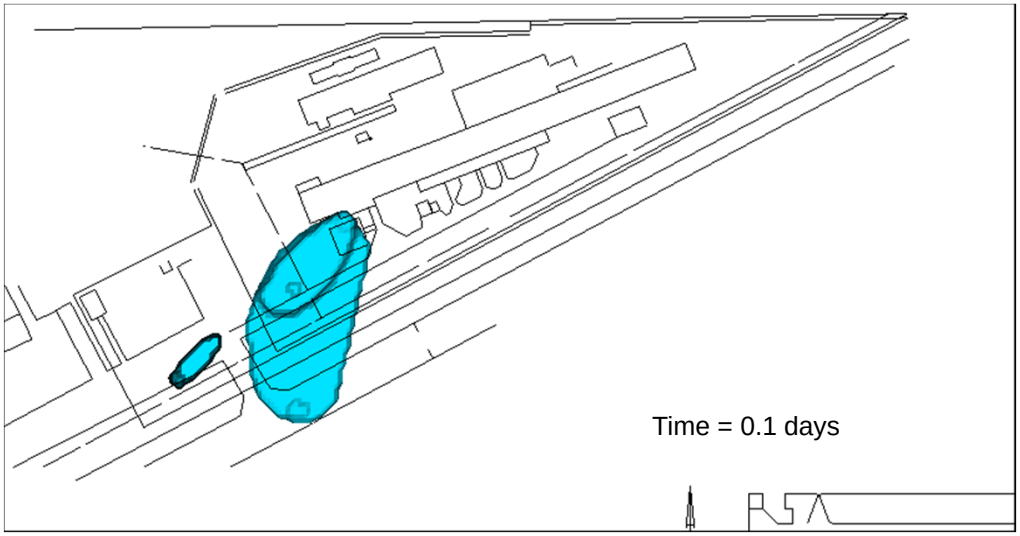
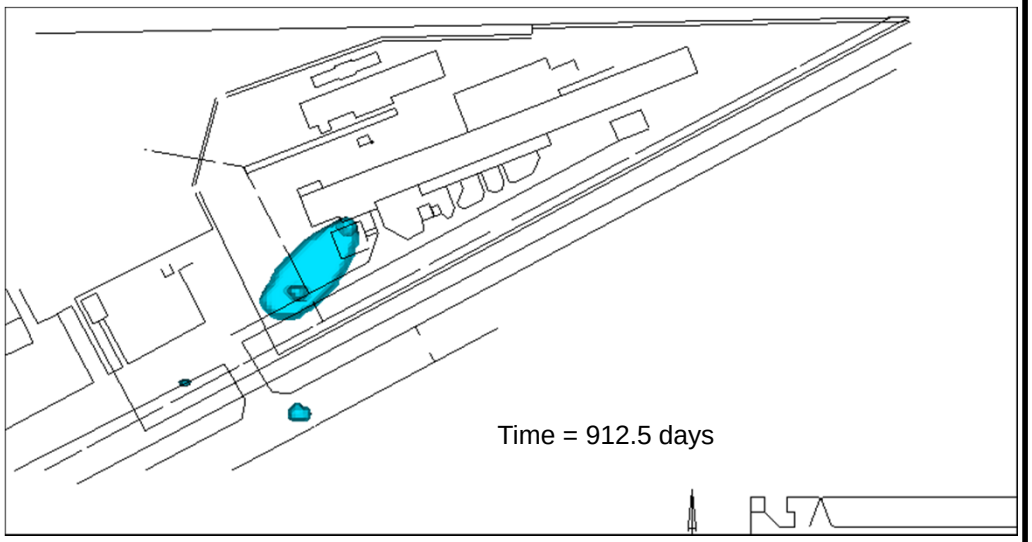
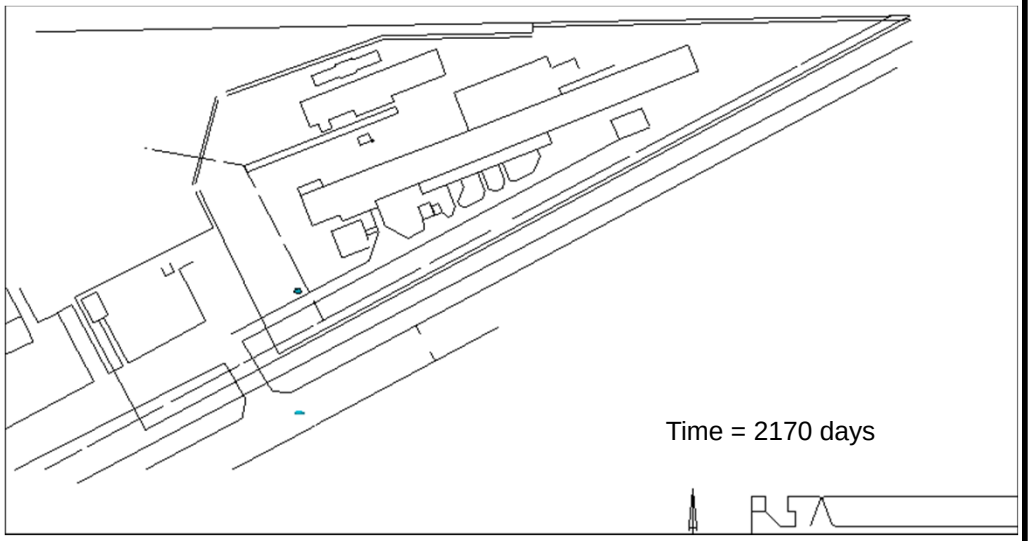
Figure **3-9**









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
4. Left bottom panel shows estimated time at which a significant volume of the plume retreats back to the property boundary
5. Right bottom panel shows estimated time at which a significant volume of the groundwater solute plume reaches RAL concentrations
6. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Tetrachloroethylene under No-pumping Conditions

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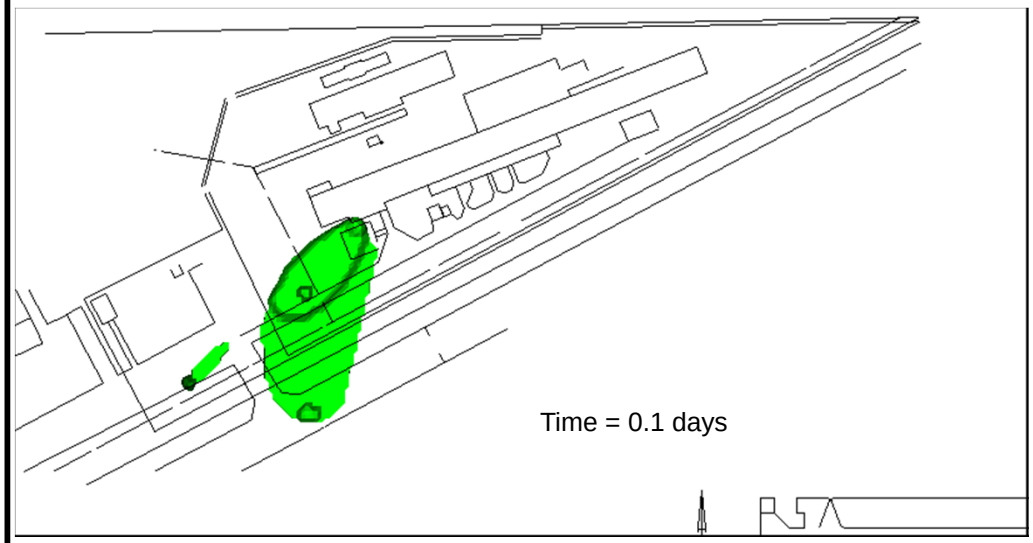
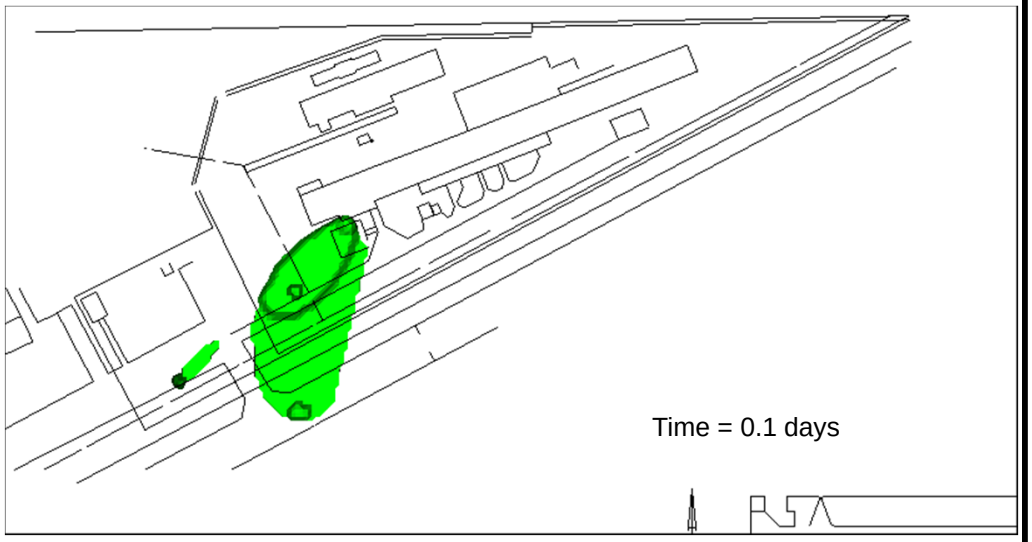
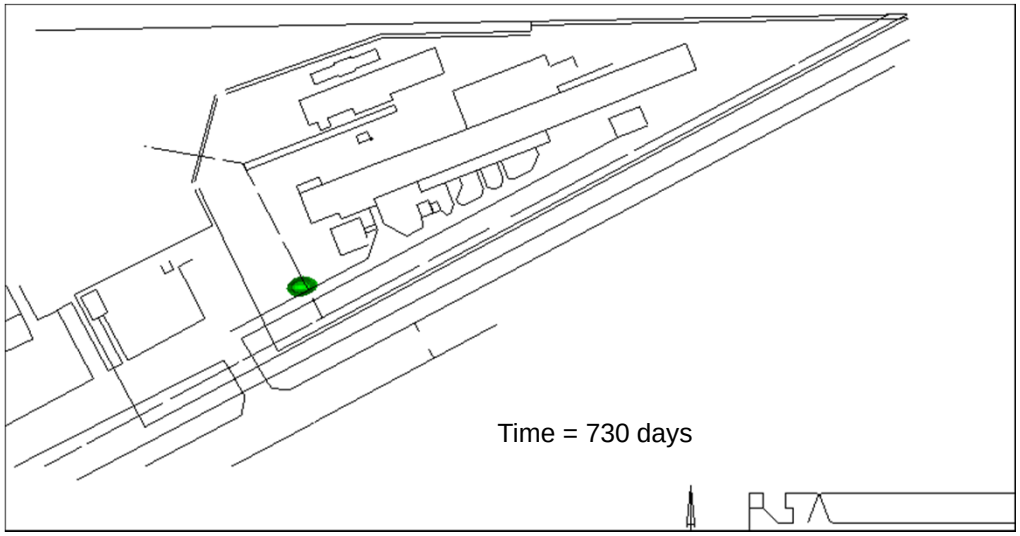
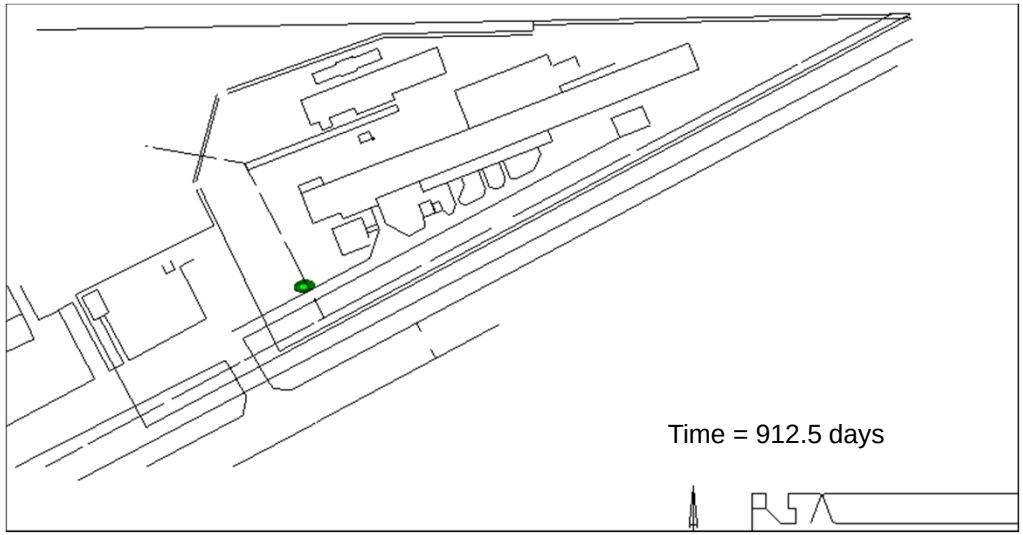
Figure **4-1**









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
4. Left bottom panel shows estimated time at which a significant volume of the plume retreats back to the property boundary
5. Right bottom panel shows estimated time at which a significant volume of the groundwater solute plume reaches RAL concentrations
6. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Tetrachloroethylene under Pumping Conditions

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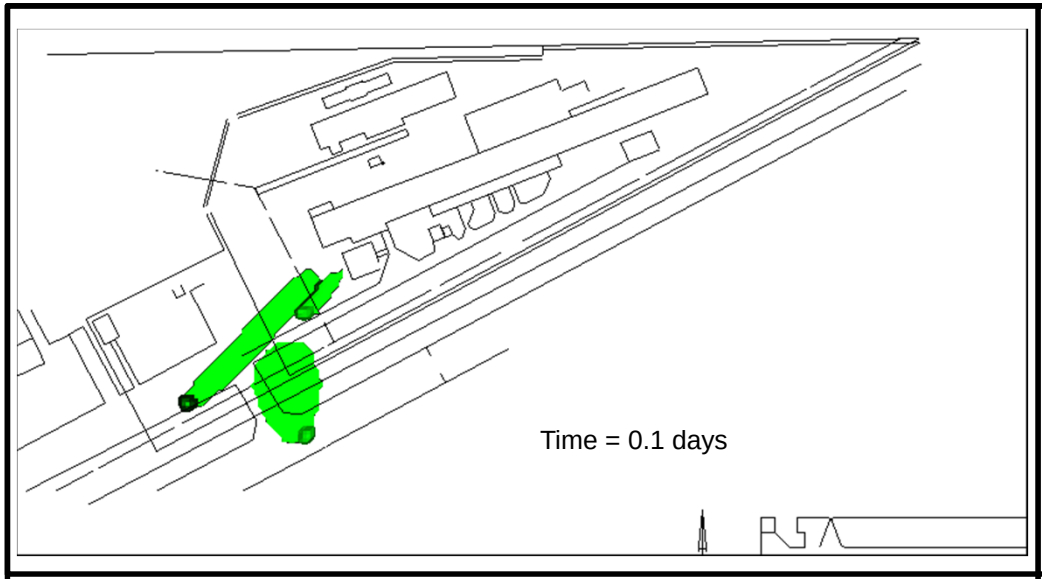
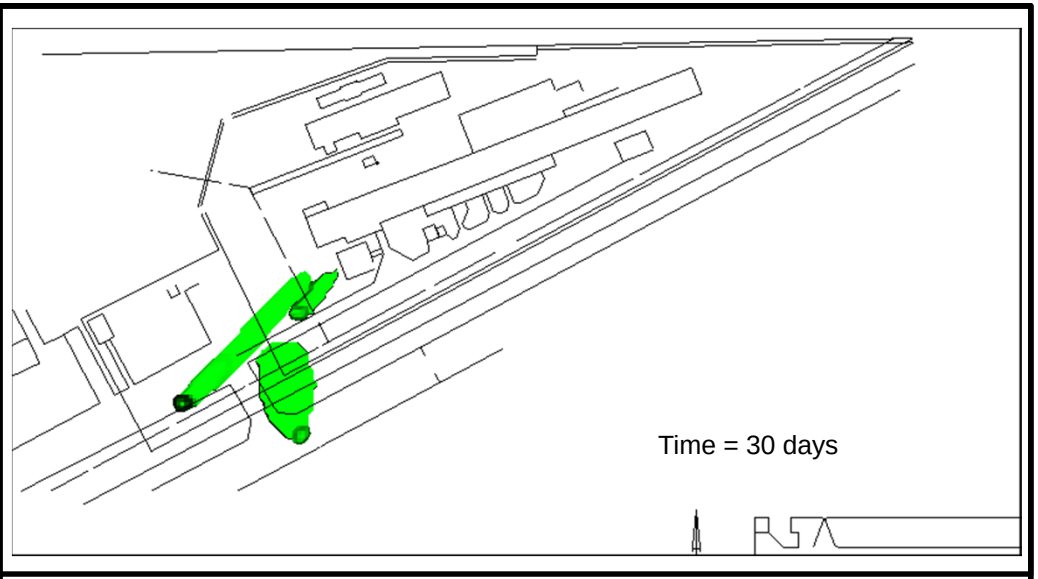
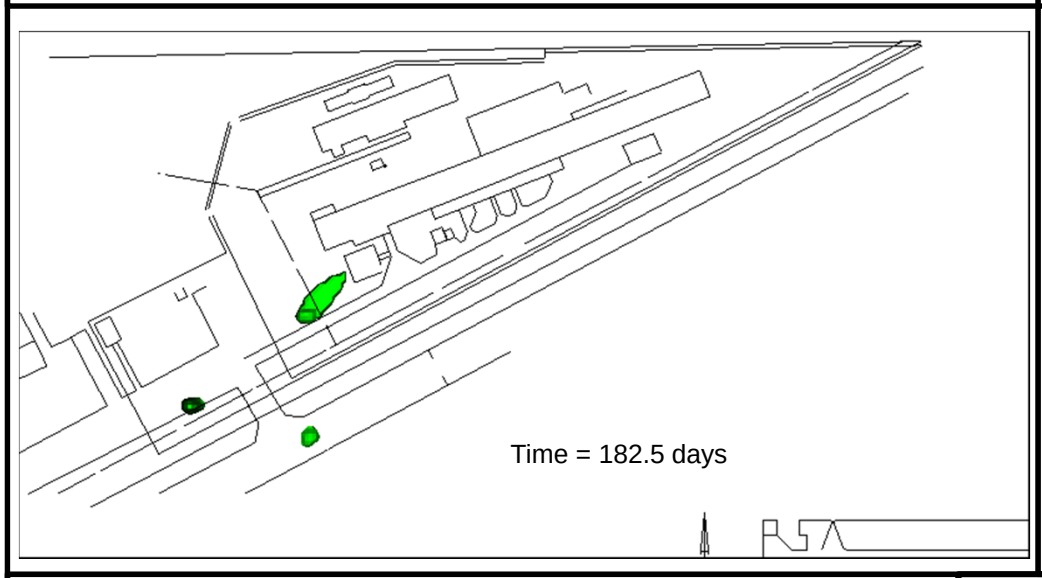
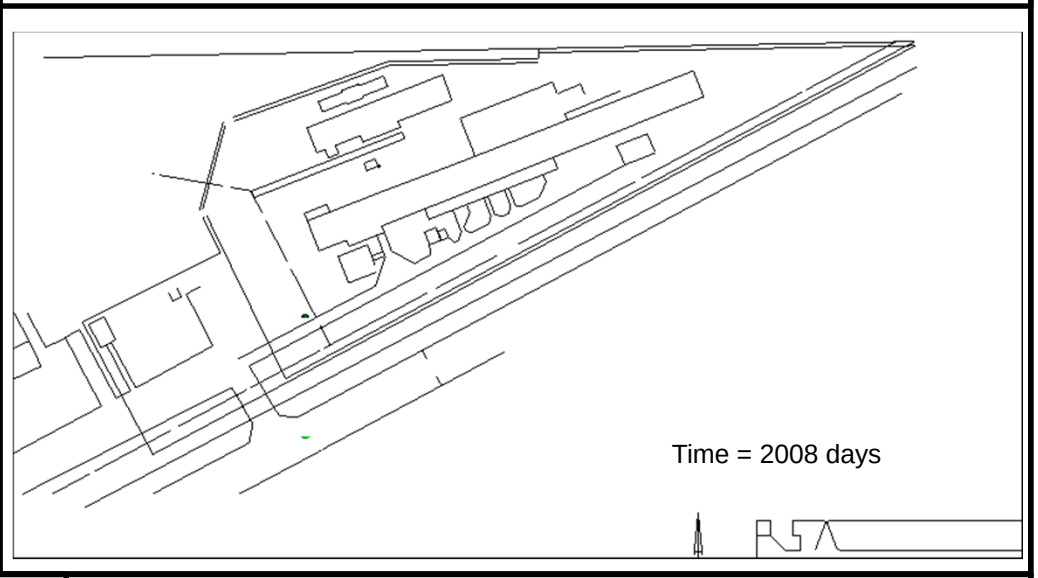
Figure

4-2









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
4. Left bottom panel shows estimated time at which a significant volume of the plume retreats back to the property boundary
5. Right bottom panel shows estimated time at which a significant volume of the groundwater solute plume reaches RAL concentrations
6. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Trichloroethylene under No-pumping Conditions

GUIC Industries Site
17011 Old Beaumont Highway 90
Houston, Texas 77049

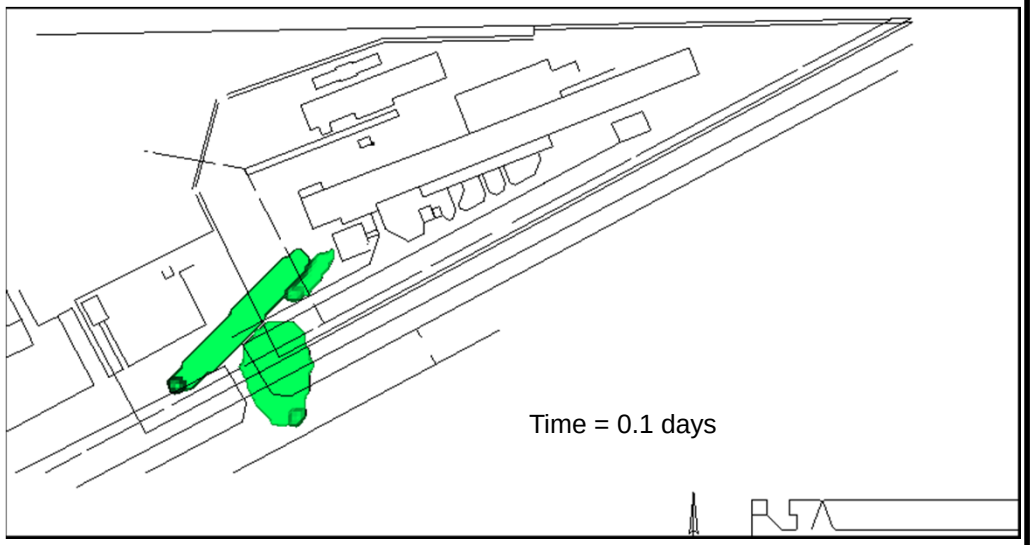
Geosyntec consultants

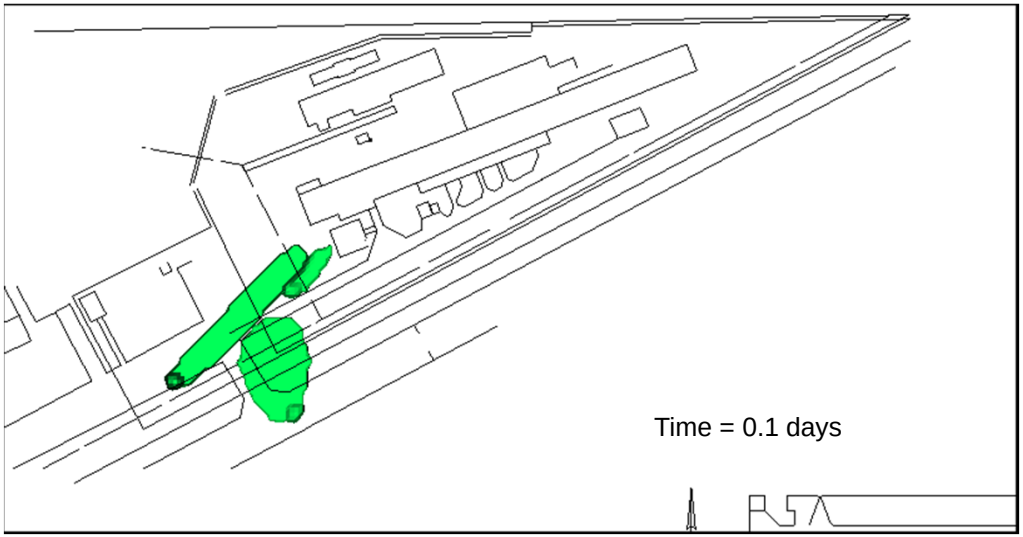
Boca Raton, FL

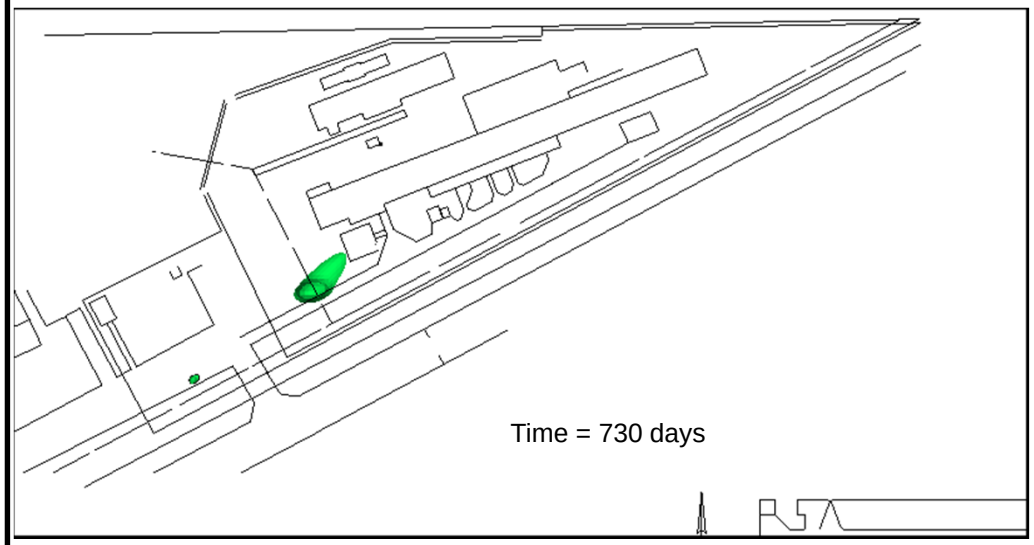
August, 2011

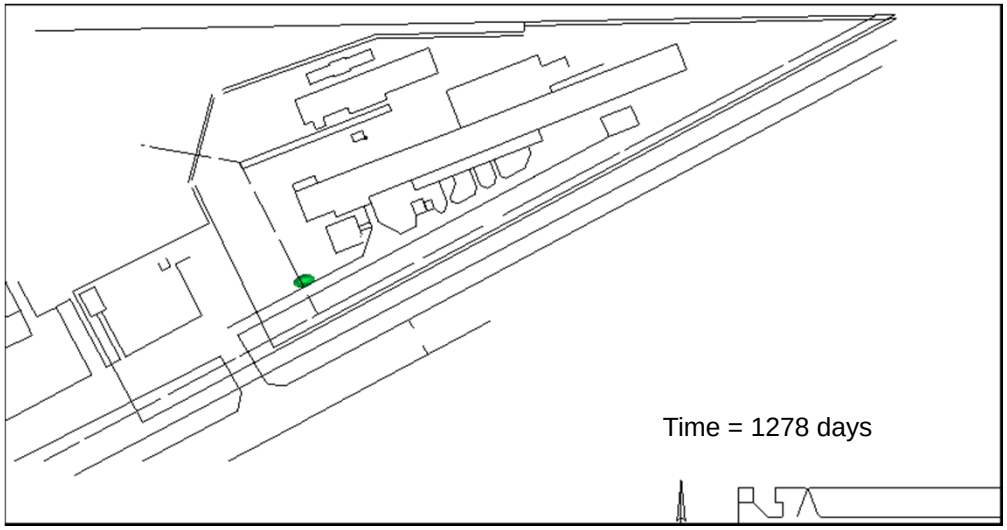
Figure

4-3









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
4. Left bottom panel shows estimated time at which a significant volume of the plume retreats back to the property boundary
5. Right bottom panel shows estimated time at which a significant volume of the groundwater solute plume reaches RAL concentrations
6. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Trichloroethylene under Pumping Conditions

GUIC Industries Site
17011 Old Beaumont Highway 90
Houston, Texas 77049

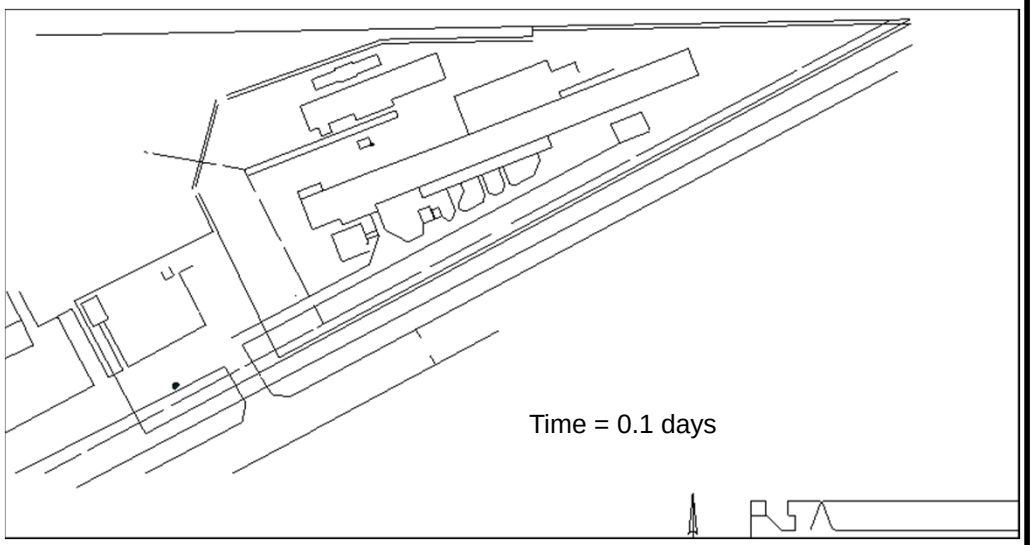
Geosyntec consultants

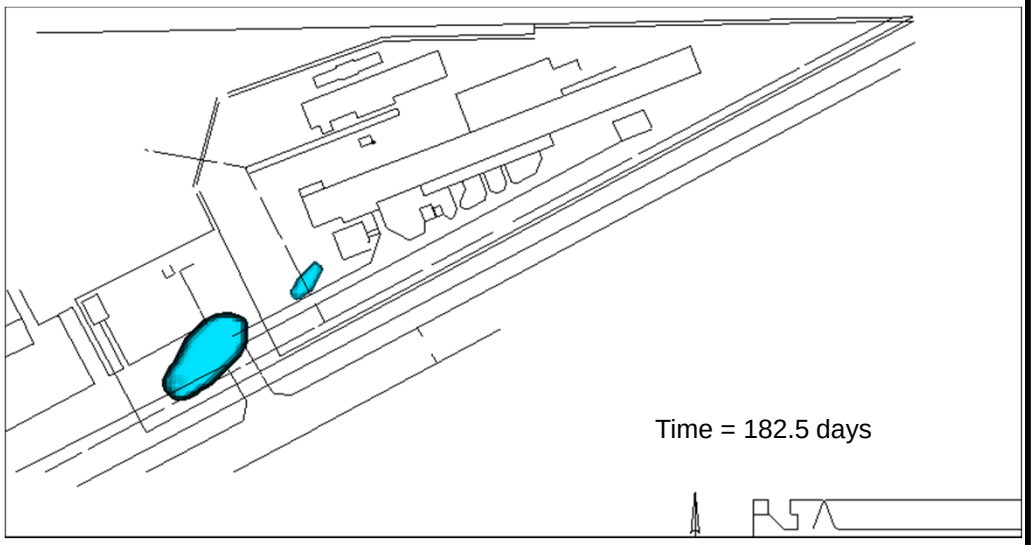
Boca Raton, FL

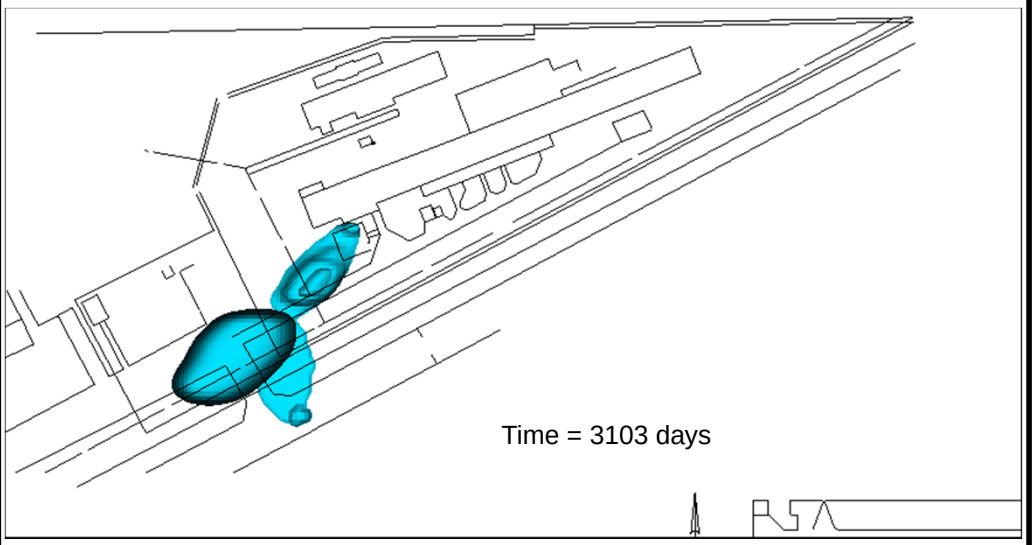
August, 2011

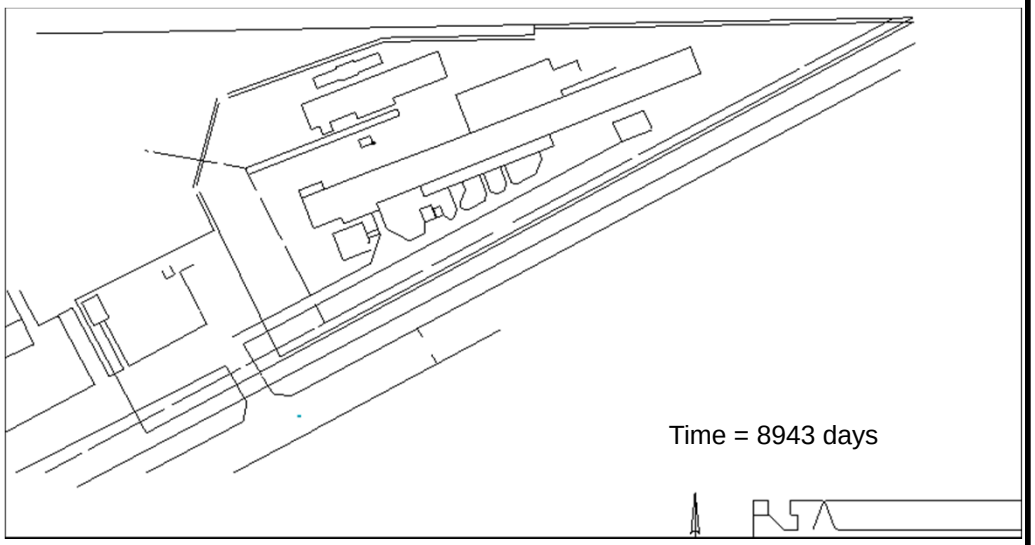
Figure

4-4









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume migrates off-site and right bottom panel shows estimated time at which the plume retreats back to the property boundary
4. Left bottom panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
5. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Vinyl Chloride under No-pumping Conditions

GUIC Industries Site
17011 Old Beaumont Highway 90
Houston, Texas 77049

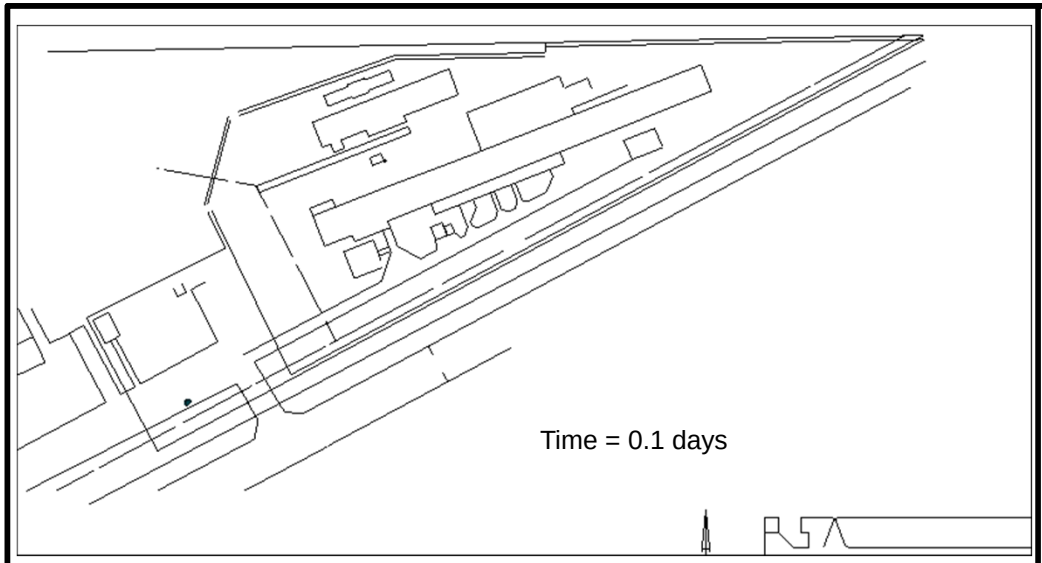
Geosyntec consultants

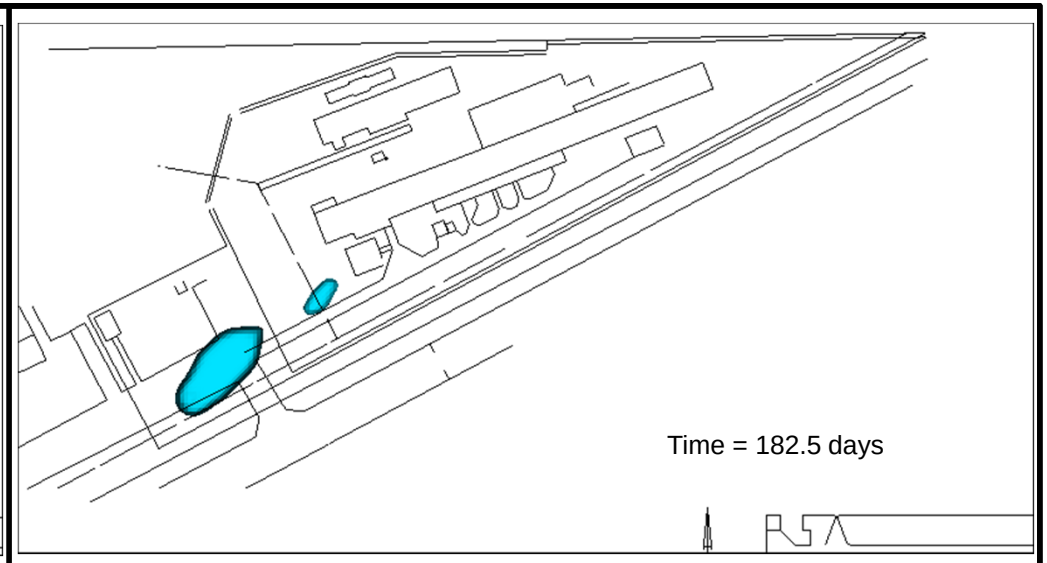
Boca Raton, FL

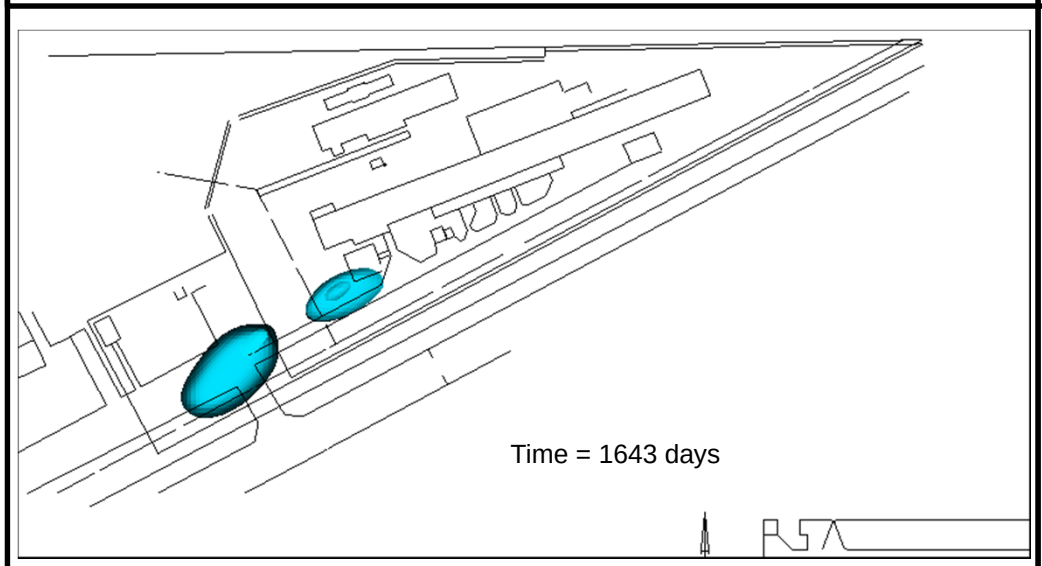
August, 2011

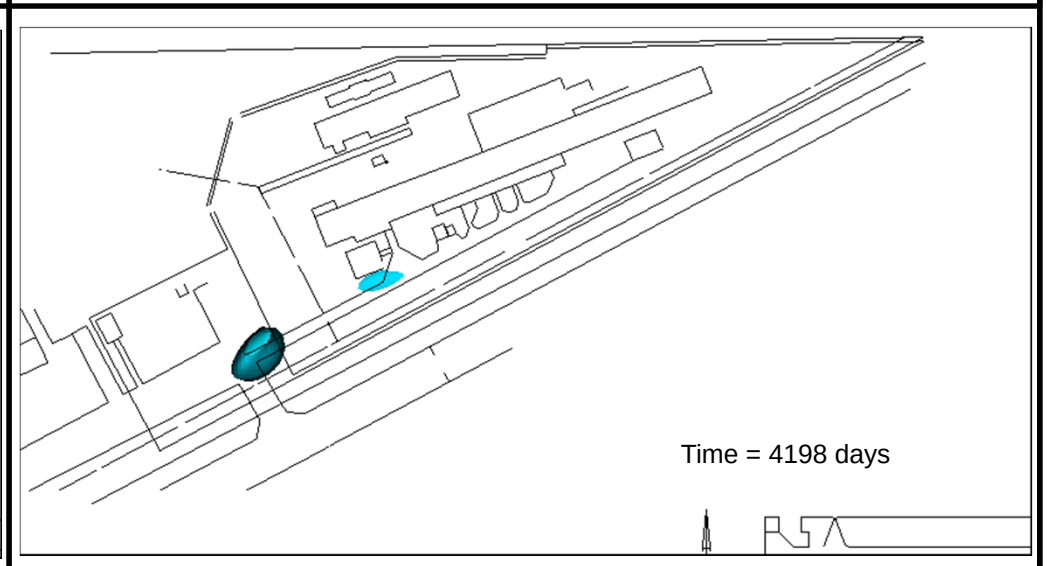
Figure

4-5









Notes:
1. Groundwater solute concentrations estimated based on results obtained from groundwater modeling performed using MODFLOW/MT3DMS.
2. Left top panel shows groundwater solute plume at residential assessment levels (RALs) at the beginning of the simulations as estimated from R,S,&A, First Quarter 2010 Groundwater Monitoring Report, March 2010
3. Right top panel shows estimated time at which groundwater solute plume migrates off-site and right bottom panel shows estimated time at which the plume retreats back to the property boundary
4. Left bottom panel shows estimated time at which groundwater solute plume has the maximum simulated extent of off-site migration
5. Property Outlines as Obtained from a CAD Drawing provided by Weston Solutions, Inc.

N

Estimated Groundwater Solute Concentrations of Vinyl Chloride under Pumping Conditions

GUIC Industries Site
17011 Old Beaumont Highway 90
Houston, Texas 77049

Geosyntec consultants

Boca Raton, FL | August, 2011

Figure **4-6**

APPENDIX A

CALIBRATION STATISTICS FOR NO-PUMPING FLOW MODEL

Calibration Statistics for No-pumping Flow Model
GUIC- Modeling Letter Report

Monitoring Well Name	Northing (ft)	Easting (ft)	Layer	Observed Groundwater Elevation (ft)	Model-estimated Groundwater Elevation (ft)	Residual (ft)
RIW-1	3193174.60	13882971.34	2	91.07	88.69	2.38
RIW-2	3193325.68	13882974.10	2	91.14	88.63	2.50
RIW-3	3192849.42	13882660.51	2	90.57	88.80	1.77
RIW-4A	3192920.64	13882604.80	2	89.79	88.78	1.01
RIW-5	3192964.34	13882746.45	2	90.63	88.76	1.86
RIW-6	3193008.39	13882867.66	2	91.09	88.75	2.34
RIW-7	3192940.66	13882708.73	2	90.27	88.77	1.49
RIW-8	3193065.99	13882683.42	2	90.22	88.72	1.50
RIW-9	3192944.15	13882508.56	2	89.22	88.77	0.45
RIW-10	3193058.19	13882753.19	2	90.55	88.73	1.82
RIW-11	3192979.96	13882307.58	2	87.79	88.75	-0.96
RIW-12	3192882.91	13882445.62	2	89.27	88.79	0.48
RIW-13	3193275.51	13882823.22	2	90.42	88.65	1.77
RIW-14	3193347.10	13882601.49	2	89.68	88.62	1.06
RIW-22	3193029.00	13882494.35	2	89.17	88.73	0.44
RIW-23	3193092.48	13882404.61	2	88.51	88.71	-0.20
RIW-24	3193303.42	13882731.46	2	90.03	88.64	1.39
RIW-25	3192917.95	13882312.88	2	88.24	88.77	-0.53
RIW-26	3193146.60	13882488.36	2	89.42	88.69	0.73
RIW-27	3193065.92	13882576.60	2	89.67	88.72	0.94
RIW-28	3193295.61	13882487.73	2	89.49	88.64	0.86
RIW-29	3193270.02	13882470.14	2	89.11	88.65	0.47
RIW-33	3193420.13	13882559.42	2	89.69	88.59	1.10
RIW-34	3193316.86	13882316.80	2	88.93	88.63	0.30
RIW-35	3193236.25	13882275.34	2	91.04	88.66	2.38
RIW-36	3193021.00	13882160.98	2	87.53	88.73	-1.21
RIW-37	3192704.21	13882444.11	2	91.31	88.85	2.46
RIW-38	3192779.33	13882221.37	2	90.81	88.82	1.99
RIW-39	3192723.74	13882313.07	2	91.47	88.84	2.62
RIW-16	3192974.26	13882318.11	5	87.55	88.69	-1.14
RIW-18	3192942.18	13882499.14	5	88.49	88.69	-0.20
RIW-40	3192727.11	13882305.38	5	86.55	88.69	-2.14
RIW-41	3192533.19	13882119.42	5	85.38	88.69	-3.31
RIW-42	3192380.49	13882163.43	5	85.79	88.69	-2.90
RIW-43	3192290.94	13882379.16	5	84.14	88.69	-4.55
RIW-44	3193414.45	13882555.75	5	87.71	88.69	-0.98
RIW-45	3192789.61	13882225.28	5	86.29	88.69	-2.40
RIW-15	3192936.26	13882505.09	4	89.18	88.70	0.48
RIW-17	3193208.02	13882587.31	4	89.83	88.68	1.14
RIW-19	3192970.60	13882307.36	4	87.85	88.70	-0.85
RIW-20	3193270.02	13882470.14	4	89.58	88.68	0.90
RIW-21	3193178.96	13882758.17	4	90.42	88.69	1.73
RIW-30	3192824.80	13882351.38	4	89.95	88.71	1.24
RIW-31	3193255.46	13882895.59	4	90.78	88.68	2.10
RIW-32	3193349.49	13882805.93	4	90.19	88.67	1.52

Calibration Statistics

Residual Mean	0.53
Abs. Res. Mean	1.48
Res. Std. Dev.	1.65
Sum of Squares	135.69
RMS Error	1.74
Min. Residual	-4.55
Max. Residual	2.62
Number of Observations	45
Range in Observations	7.33
Scaled Std. Dev.	0.23
Scaled Abs. Mean	0.20
Scaled RMS	0.24

APPENDIX B

CALIBRATION STATISTICS FOR PUMPING FLOW MODEL

Calibration Statistics for Pumping Flow Model
GUIC- Modeling Letter Report

Monitoring Well Name	Stress Period	Northing (ft)	Easting (ft)	Layer	Observed Groundwater Elevation (ft)	Model-estimated Groundwater Elevation (ft)	Residual (ft)
RIW-6	1	3193012.64	13882865.03	5	87.17	84.02	3.15
RIW-6	2	3193012.64	13882865.03	5	86.35	84.15	2.20
RIW-34	1	3193325.67	13882321.52	5	86.87	83.95	2.92
RIW-34	2	3193325.67	13882321.52	5	83.64	84.14	-0.50
RIW-36	1	3193029.00	13882164.54	5	82.53	83.50	-0.97
RIW-36	2	3193029.00	13882164.54	5	82.7	83.80	-1.10
RIW-41	1	3192533.19	13882119.42	5	80.95	83.80	-2.85
RIW-41	2	3192533.19	13882119.42	5	82.13	83.93	-1.80
RIW-42	1	3192380.49	13882163.43	5	81.76	84.01	-2.25
RIW-42	2	3192380.49	13882163.43	5	81.36	84.11	-2.75
RIW-43	1	3192290.94	13882379.16	5	81.67	84.10	-2.43
RIW-43	2	3192290.94	13882379.16	5	81.02	84.19	-3.17
RIW-44	1	3193414.45	13882555.75	5	84.67	84.11	0.56
RIW-44	2	3193414.45	13882555.75	5	83.84	84.26	-0.42
RIW-46	1	3192865.40	13882079.45	5	82.67	83.53	-0.86
RIW-46	2	3192865.40	13882079.45	5	83.04	83.74	-0.70
RIW-47	1	3192648.92	13881970.85	5	81.31	83.87	-2.56
RIW-47	2	3192648.92	13881970.85	5	80.4	84.00	-3.60
RIW-48	1	3192495.82	13881894.08	5	81.55	84.12	-2.57
RIW-48	2	3192495.82	13881894.08	5	81.48	84.21	-2.73
RIW-6	1	3193011.18	13882868.76	4	83.29	83.23	0.06
RIW-6	2	3193011.18	13882868.76	4	84.34	84.13	0.21
RIW-15	1	3192936.26	13882505.09	4	81.46	83.04	-1.58
RIW-15	2	3192936.26	13882505.09	4	87.39	84.07	3.32
RIW-19	1	3192970.60	13882307.36	4	82.24	83.17	-0.93
RIW-19	2	3192970.60	13882307.36	4	81.97	84.10	-2.13
RIW-21	1	3193178.96	13882758.17	4	82.72	82.72	0.00
RIW-21	2	3193178.96	13882758.17	4	83.77	83.96	-0.19
RIW-30	1	3192824.80	13882351.38	4	84.2	83.40	0.80
RIW-30	2	3192824.80	13882351.38	4	83.77	84.21	-0.44
RIW-31	1	3193255.46	13882895.59	4	84.17	83.12	1.05
RIW-31	2	3193255.46	13882895.59	4	84.87	84.07	0.80
RIW-32	1	3193349.49	13882805.93	4	83.71	82.96	0.75
RIW-32	2	3193349.49	13882805.93	4	84.32	84.00	0.32
RIW-36	1	3193013.25	13882155.75	4	83.2	83.36	-0.16
RIW-36	2	3193013.25	13882155.75	4	82.84	84.17	-1.33
RIW-51	1	3193509.71	13882602.49	4	83.08	82.90	0.18
RIW-51	2	3193509.71	13882602.49	4	84.41	83.95	0.46
RIW-52	1	3193199.54	13882929.98	4	83.9	83.20	0.70
RIW-52	2	3193199.54	13882929.98	4	84.49	84.10	0.39
RIW-53	1	3193087.84	13882765.66	4	81.88	82.88	-1.00
RIW-53	2	3193087.84	13882765.66	4	82.89	84.02	-1.13
RIW-55	1	3192720.68	13882665.60	4	84.93	83.53	1.40
RIW-55	2	3192720.68	13882665.60	4	85.29	84.26	1.03
RIW-56	1	3193519.65	13882425.30	4	82.85	82.91	-0.06
RIW-56	2	3193519.65	13882425.30	4	83.64	83.94	-0.30
RIW-2	1	3193325.68	13882974.10	2	84.32	84.07	0.25
RIW-2	2	3193325.68	13882974.10	2	86.83	85.11	1.72
RIW-3	1	3192849.42	13882660.51	2	83.1	83.52	-0.42
RIW-3	2	3192849.42	13882660.51	2	83.91	85.13	-1.22
RIW-5	1	3192964.34	13882746.45	2	78.19	83.36	-5.17
RIW-5	2	3192964.34	13882746.45	2	83.7	85.00	-1.30
RIW-6	1	3193008.39	13882867.66	2	83.4	83.68	-0.28
RIW-6	2	3193008.39	13882867.66	2	84.36	85.07	-0.71
RIW-7	1	3192940.66	13882708.73	2	82.13	83.37	-1.24
RIW-7	2	3192940.66	13882708.73	2	83.24	85.03	-1.79

Calibration Statistics for Pumping Flow Model
GUIC- Modeling Letter Report

Monitoring Well Name	Stress Period	Northing (ft)	Easting (ft)	Layer	Observed Groundwater Elevation (ft)	Model-estimated Groundwater Elevation (ft)	Residual (ft)
RIW-8	1	3193065.99	13882683.42	2	81.81	83.21	-1.40
RIW-8	2	3193065.99	13882683.42	2	83.01	84.95	-1.94
RIW-11	1	3192979.96	13882307.58	2	82.06	83.52	-1.46
RIW-11	2	3192979.96	13882307.58	2	81.59	85.13	-3.54
RIW-12	1	3192882.91	13882445.62	2	82.06	83.23	-1.17
RIW-12	2	3192882.91	13882445.62	2	81.74	85.09	-3.35
RIW-13	1	3193275.51	13882823.22	2	83.61	83.80	-0.19
RIW-13	2	3193275.51	13882823.22	2	81.24	85.05	-3.81
RIW-14	1	3193347.10	13882601.49	2	81.13	83.62	-2.49
RIW-14	2	3193347.10	13882601.49	2	83.69	85.03	-1.34
RIW-23	1	3193092.48	13882404.61	2	81.37	83.26	-1.89
RIW-23	2	3193092.48	13882404.61	2	82.07	85.02	-2.95
RIW-24	1	3193303.42	13882731.46	2	83.12	83.70	-0.58
RIW-24	2	3193303.42	13882731.46	2	83.78	85.04	-1.26
RIW-25	1	3192917.95	13882312.88	2	82.31	83.53	-1.22
RIW-25	2	3192917.95	13882312.88	2	82.1	85.14	-3.04
RIW-26	1	3193146.60	13882488.36	2	79.77	83.17	-3.40
RIW-26	2	3193146.60	13882488.36	2	82.51	84.98	-2.47
RIW-27	1	3193065.916	13882576.6	2	81.68	83.00	-1.32
RIW-27	2	3193065.92	13882576.60	2	82.53	84.93	-2.40
RIW-33	1	3193420.13	13882559.42	2	82.28	83.75	-1.47
RIW-33	2	3193420.13	13882559.42	2	84.1	85.05	-0.95
RIW-34	1	3193316.86	13882316.80	2	84.56	83.72	0.84
RIW-34	2	3193316.86	13882316.80	2	83.35	85.09	-1.74
RIW-35	1	3193236.25	13882275.34	2	83.46	83.72	-0.26
RIW-35	2	3193236.25	13882275.34	2	85.36	85.11	0.25
RIW-36	1	3193021.00	13882160.98	2	82.18	83.90	-1.72
RIW-36	2	3193021.00	13882160.98	2	86.35	85.22	1.13
RIW-37	1	3192704.21	13882444.11	2	86.51	83.75	2.76
RIW-37	2	3192704.21	13882444.11	2	86.51	85.24	1.27
RIW-38	1	3192779.33	13882221.37	2	85.9	83.83	2.07
RIW-38	2	3192779.33	13882221.37	2	85.11	85.25	-0.14
RIW-47	1	3192636.77	13881965.54	2	89.85	84.58	5.27
RIW-47	2	3192636.77	13881965.54	2	87.31	85.52	1.79
RIW-50	1	3193501.78	13882598.40	2	83.4	83.92	-0.52
RIW-50	2	3193501.78	13882598.40	2	84.55	85.07	-0.52

Calibration Statistics

Residual Mean	-0.69
Abs. Res. Mean	1.51
Res. Std. Dev.	1.77
Sum of Squares	331.52
RMS Error	1.90
Min. Residual	-5.17
Max. Residual	5.27
Number of Observations	92
Range in Observations	11.66
Scaled Std. Dev.	0.15
Scaled Abs. Mean	0.13
Scaled RMS	0.16

APPENDIX C

WELL FLOW RATES OBTAINED FROM CALIBRATION OF PUMPING FLOW MODEL

Well Flow Rates Obtained from Calibration of Pumping Flow Model
GUIC- Modeling Letter Report

Extraction Well Name	Flow Rate	Layer	Stress Period
RIW4-A	-1.41	2	1
RIW4-A	-1.41	2	2
RIW-9	-359.27	2	1
RIW-9	-19.08	2	2
RIW-10	-328.07	2	1
RIW-10	-138.35	2	2
RIW-16R	-594.48	5	1
RIW-16R	-172.39	5	2
RIW-17	-172.49	4	1
RIW-17	-25.89	4	2
RIW-18	-536.89	5	1
RIW-18	-509.05	5	2
RIW-20	-264.97	4	1
RIW-20	-135.48	4	2
RIW-22	-413.84	2	1
RIW-22	-131.65	2	2
RIW-29	-294.21	2	1
RIW-29	-41.80	2	2
RIW-39	-326.10	2	1
RIW-39	-114.99	2	2
RIW-40	-550.55	5	1
RIW-40	-606.07	5	2
RIW-45	-544.06	5	1
RIW-45	-559.35	5	2

Appendix H

A statement as to whether contamination on and off the designated property without a Municipal Setting Designation will exceed a residential assessment level as defined in the Texas Risk Reduction program or analogous residential level set by EPA, if known, and the basis for that statement.

Groundwater

Without an MSD, the groundwater PCLs for direct human ingestion of groundwater would be used to evaluate site contaminants. With the use of these PCLs, the environmental sampling data indicate that concentrations for chlorobenzene, 1,2-dichloroethane, PCE, TCE, cis-1,2-DCE, and VC would exceed the PCLs for the groundwater ingestion pathway on the designated property. Concentrations of PCE and TCE exceeded the PCL in the deeper of the three GBZs in the DOT ROW. Active hydraulic containment has been taking place for many years and numeric modeling was used to predict plume behavior under static conditions. Modeling predicts no increase in contaminant concentration or significant migration of contaminants of concern off of the designated property. Quarterly groundwater monitoring activities conducted since cessation of active remediation have confirmed the modeling prediction with no significant migration of source contaminants off-site. Concentrations of COCs exceed PCLs in one location in the deeper GBZ within the DOT ROW, however the dissolved phase plume has shown no expansion since cessation of pumping as delineated in deep GBZ well RIW-57.

Dissolved phase concentrations of these contaminants of concern are depicted on **Figure 6 through 8** in **Appendix C**. The residential ingestion based PCLE zone for each respective COC is presented on **Figure 6 through 8** in **Appendix C**. Tabulated groundwater data showing the maximum concentrations of each COC and corresponding ingestion and non-ingestion based PCLs is presented in **Table 1** in **Appendix F**.

Appendix I

A statement as to whether contamination on and off the designated property with a Municipal Setting Designation will exceed a residential assessment level as defined in the Texas Risk Reduction Program or analogous residential level set by EPA, if known, and the basis for that statement.

Concentrations of COCs exceed the Tier 1 TRRP PCLs in groundwater located within the designated MSD property boundary. A groundwater remediation system using a series of groundwater recovery wells from three identified groundwater bearing units (shallow, intermediate, and deep) were installed for hydraulic containment and remediation; however, chlorinated compounds were detected in a down gradient monitoring well installed on Texas Department of Transportation (TxDOT) Right-of-Way. The remediation system has been in operation since 1998 and the on-site COC concentrations exceed ingestion PCLs; however, with the MSD boundary, COC concentrations do not exceed non-ingestion PCLs. Active remediation was halted in May 2012 following discussions with TCEQ and the presentation of results of numeric modeling documenting the long term stability of the dissolved phase contaminant plume in the groundwater under static (non-pumping) conditions. Quarterly groundwater monitoring activities conducted since cessation of active remediation (five such events) have confirmed the modeling prediction with no significant migration of source contaminants off-site but exceedance of PCLs for breakdown compounds beyond the MSD Boundary in the deeper GBZ within the DOT ROW.

A discussion of the modeling effort and results is presented in **Appendix G**.

Appendix J

Identification of the points of origin of the contamination and the persons responsible for the contamination, to the extent known.

Origin of contamination on the property is believed to be sourced from the historical spills during operation of railcar maintenance and repair facilities on the property. Pond and storm sewer piping from Building 20 are confirmed to have caused the releases of chlorobenzene and VOCs. An area (within the MSD Boundary, but owned by Union Tank Car) identified as the Wheel Truck, Bearing Shop and lay down yard has been documented as a source of PCE constituents. There have been various spills and/or releases of 1,2-DCE and other VOCs on-site that have been investigated and documented in previous reports.

Appendix K

Environmental regulatory actions, litigation, and plume identification.

a. *A description of any environmental regulatory actions that have been taken within the past five years in connection with the designated property, to the extent known.*
b. *A description of any litigation that has taken place within the past five years in connection with the designated property, to the extent known.*
c. *A statement as to whether there are any other remediation activities by the applicant, or any other party or agency, which are not listed in the application.*
d. *A statement as to which contamination plume and groundwater zone the applicant is including in the MSD.*

No regulatory actions or litigations have been taken within the past five years in connection with the designated property. The site is entered into the Texas Voluntary Cleanup Program (VCP) and is designated as VCP No. 13. A groundwater remediation system has been in place on-site since 1998. The remediation system pumping was just recently halted. All affected media in the designated property will be included in this MSD application.

Appendix L

A listing of all existing state or EPA registrations, permits, and identification numbers that apply to the designated property.

The property address is listed under Westlake Industries as a railcar repair business on the TCEQ Central Registry. The following table contains the reported registrations, permits, and identification numbers.

Program	**ID Type**	**ID Number**	**ID Status**
IHW Corrective Action	Solid Waste Registration # (SWR)	30155	Inactive
Industrial and Hazardous Waste	EPA ID	TXD000747303	Inactive
Industrial and Hazardous Waste	Solid Waste Registration # (SWR)	30155	Inactive
Underground Injection Control	Permit	5X2600187	Active
Voluntary Cleanup Program	ID Number	13	Active
Wastewater	EPA ID	TX0031941	Active
Wastewater	Permit	WQ0003069000	Inactive

Appendix M

A statement as to whether the designated property has been admitted to the Texas Voluntary Cleanup Program (section 361.601 of the Texas Health & Safety code, as may be amended from time to time) or similar state or federal programs, and a description of the status of the designated property in the program. Also include the state or federal cleanup project manager's name.

The former Westlake Industries facility was admitted to the Texas VCP on 22 December 1995 and was assigned VCP no. 13. Recently, the project was assigned to Mr. Joseph Bell, TCEQ, for regulatory oversight. Mr. Bell has authorized cessation of active groundwater remediation based upon the results of numeric modeling presented. A modified Sampling and Analysis Plan was prepared by RSA and approved by TCEQ for post remediation monitoring pending completion of the MSD process. The initial post-remediation sampling was completed in August 2012, and results are incorporated in this submittal.

Appendix N

A summary of any environmental site assessment reports filed with TCEQ regarding any site investigations or response actions that are planned, ongoing, or completed related to the designated property.

Environmental Site Assessment, Westlake Metals Fabrication; Prepared by Rosengarten, Smith and Associates; 1 October 1993,

Key Findings – The result of a Phase I Environmental Site Assessment and Preliminary Phase 2 Site Investigation identified several areas of concern involving environmental liabilities and identified the necessity of completing a full-scope Phase 2 Site Investigation in and around Building 20 and the railcar cleaning rack.

Groundwater Quality Investigation Report - Vol 1 and Appendices 1-2-3; Prepared by Rosengarten, Smith and Associates; 2 December 1993.

Key Findings – This investigation focused on a thirty acre portion of the property including Buildings 10, 20, 30, 40, associated outbuildings, and the railcar cleaning rack. Chlorobenzene and benzene were detected in groundwater samples adjacent to the cleaning rack at 22 to 24 ft below ground surface (bgs).

Phase 2 Environmental Site Assessment Report, Westlake Metal Fabrication Corporation; Prepared by Geraghty and Miller, Inc. (Arcadis); 03 February 1994

Key Findings – This report documents findings from a subsurface investigation using a combination of hollow stem auger and direct push drilling methodologies. Additionally, four groundwater monitoring wells were installed to evaluate potential impacts to the shallow groundwater. Soil samples collected revealed no detectable levels of 1,2-dichloroethane (1,2 DCA) or chlorobenzene (CB), however laboratory analysis of groundwater samples for these constituents collected from five of the fourteen total site monitor wells identified concentrations that were 'above generally recognized standards' for these constituents.

Supplemental Groundwater Quality Investigation Report, Prepared by Rosengarten, Smith and Associates; 04 March 1995

Key Findings – Seven distinct lithologic units were identified during this supplemental groundwater quality investigation. Dissolved phase organic compounds were confirmed in both the shallow (Identified as Unit III) and next deeper (Unit V/VI) groundwater bearing zones (GBZ). A total of eight volatile organic compounds were identified to exceed the maximum concentration levels (MCL) promulgated by the USE EPA. No concentrations above the MCLs were detected off-site.

Results of Geoprobe Soil Boring and Monitor Well Investigation, Westlake Industries, Inc.; Prepared by Rosengarten Smith, & Associates; 05 November 1995

Key Findings – Additional soil borings and groundwater monitoring wells defined eight discreet lithologic units (Units I through VIII) and water bearing zones. Dissolved phase PCE was identified in groundwater samples from Unit III, Unit V and Unit VI. A tetrachloroethene (PCE) source area was identified near the Bearing Shop and 'cleaning area' immediately east of the Bearing Shop. Concentrations of 1,1-Dichloroethene (1,1-DCE), cis-1,2-dichloroethene (cis-1,2 DCE), chloroethene (CE), and trichloroethene (TCE) additionally exceeded the MCLs in site monitoring wells.

Groundwater Remediation System Installation Report; Prepared by Rosengarten, Smith & Associates; 06 March 1996

Key Findings - A description of procedures to be implemented, equipment to be used, start-up and operations procedures and maintenance of the groundwater remediation system at the facility. The remedial system proposed consists of a series of groundwater recovery wells to be installed in the water bearing zones at the facility to maintain hydraulic containment of the contaminant plume while removing contaminant mass. Produced water is to be treated by an on-site air stripping unit and discharged under National Pollution Discharge Elimination System (NPDES) permit to City of Houston municipal wastewater treatment system.

Sampling and Analysis Plan; Prepared by Rosengarten, Smith & Associates; November 1997

Key Findings – presents the procedures for collecting and analyzing groundwater during quarterly and annual sampling events.

Response Action Completion Report; Prepared by Geraghty & Miller, Inc.; December 1997

Key Findings – This report was not available for review by WESTON, however it reportedly documents results of soil excavation activities in the vicinity of Building 20.

Baseline (Second Quarter-May and Third Quarter (August) 1997 Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; December 1997.

Key Findings – Documents groundwater monitoring events conducted May 17, 1997 and August 22, 1997 including installation of additional monitoring wells installed on the Union Tank Car property (west) in the shallow and intermediate GBZ's. Chlorobenzene concentrations were described as better defined with three wells exhibiting concentrations between 11,000 and 20,000 ug/l.

National Pollutant Discharge Elimination Systems Permit No. 03069 Correspondence to National Pollutant Discharge Elimination Systems Permit System Permit No. TX 0031941; Prepared by Rosengarten, Smith & Associates, Inc.; 11-August 1998

Key Findings – Provides analytical information of discharge effluent following startup of the groundwater extraction treatment system during the week of 10 March 1998.

Second Quarter (May 1998) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; September 1998.

Key Findings – Reports on results of quarterly groundwater monitoring events conducted at the site during May 1998 following implementation of groundwater remediation activities in March 1998. A total of 51 monitor wells were sampled during the event and defined capture zones observed from the twelve groundwater recovery wells. Laboratory analysis defined decreases in contaminant concentration in 16 wells, with two wells exhibiting increase concentrations.

Supplemental Site Investigation Report; Prepared by Rosengarten, Smith & Associates, Inc.; April 1999

Key Findings – Ten distinct lithologic units were identified during supplemental investigatory activities and described as consisting primarily of inter-bedded clay, silt and sand facies. Dissolved phase VOCs are present in all three water-bearing zones, primarily CB, EDC, and PCE at concentrations exceeding the applicable regulatory standards.

Tetrachloroethene (PCE) Source Area Investigation; Prepared by Rosengarten, Smith & Associates, Inc.; April 1999

Key Findings – Investigation of the PCE source area east of the Bearing Shop and conducted on the adjacent Union Tank Car facility. A total of thirteen soil borings were advanced by Direct Push technology, effectively delineating the lateral extent of PCE impacted soils. Groundwater samples were collected from the borings and the effective limits (vertical and horizontal) of PCE impacts defined.

Response Action Work Plan; Prepared by Rosengarten, Smith & Associates, Inc.; June 1999

Key Findings – Three primary contaminants of concern are identified, CB, 1,2-DCA and PCE. RSA states the source area for CB was removed by excavation in 1997. RSA proposes using in-situ chemical oxidation to reduce PCE concentrations within the PCE source area and in the shallowest water bearing sediments in the same area. Bench scale and pilot scale studies are proposed prior to full scale implementation. Potential use of soil vapor extraction or enhanced bioremediation is evaluated.

1999 Annual (Second Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; August 1999

Key Findings – This report documents the results of quarterly groundwater monitoring event conducted in May 1999, as well as a summary of the groundwater recovery and treatment system over the first full year of operations. Hydraulic containment has effectively been established at the site and concentrations of CB, EDC and PCE are described.

2000 Annual (Second Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; August 2000

Key Findings – This report documents the results of quarterly groundwater monitoring event conducted in May 2000 as well as provides a summary of the groundwater recovery and treatment system over the second full year of operations. Hydraulic containment has effectively been established at the site and concentrations of CB, EDC and PCE are described.

2001 Annual (Second Quarter) Groundwater Monitoring Report, Prepared by Rosengarten, Smith & Associates, Inc., August 2001

Key Findings – This report documents the results of the quarterly groundwater monitoring event conducted in May 2001 as well as provides a summary of the groundwater recovery and treatment system over the third full year of operations. A temporary shutdown of the remedial system following site vandalism is described as having no long-term adverse effects on the groundwater remediation system. Supplemental information requested by the TCEQ is provided regarding status of the pump and treat system and an evaluation of the system effectiveness. Hydraulic containment has effectively been established at the site and concentrations of CB, EDC and PCE are described.

2002 (Third Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; October 2002

Key Findings – This report documents the results of the quarterly groundwater monitoring event conducted in August 2002 as well as provides a summary of the groundwater recovery and treatment system over the fourth year of operations. Supplemental information requested by the TCEQ in correspondence of 24 June, 2002 is provided regarding dissolved phase plume delineation, a request for a Response Action Work Plan, and for information about the Texas Pollutant Discharge Elimination System parameters. Hydraulic containment has effectively been established at the site.

2003 (Third Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; October 2003

Key Findings – This report documents the results of quarterly groundwater monitoring event conducted in August 2003 as well as provides a summary of the groundwater recovery and treatment system over the fifth year of operations. Remedial activities were halted briefly during the second quarter due to power outages, however system operation was re-started. Hydraulic

containment continues to be established at the site. Chlorobenzene, 1,2-DCA and PCE remain at concentrations above PCLs at the site.

2004 (Second Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; September 2004

Key Findings – This report documents the results of the quarterly groundwater monitoring event conducted in May 2004 as well as provides a summary of the groundwater recovery and treatment system over the sixth year of operations. Hydraulic containment has effectively been established at the site. Chlorobenzene, 1,2-DCA and PCE remain at concentrations above PCLs at the site and additional remedial alternatives are being considered.

2005 (Second Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; March 2006

Key Findings – This report documents the results of quarterly groundwater monitoring event conducted in May 2005, results of additional well installation that took place in April 2005 and provides a summary of the groundwater recovery and treatment system over the seventh year of operations. Hydraulic containment has effectively been established at the site. Chlorobenzene, 1,2-DCA and PCE remain at concentrations above PCLs at the site. A total of 10 monitor wells were installed on the subject property and adjacent Union Tank Car and TxDOT properties.

GUIC Affected Property Assessment Report; Prepared by Rosengarten, Smith & Associates, Inc.; April 2006

Key Findings – The Affected Property Assessment Report (APAR) established that reporting quantitation limits (RQLs) for ethylene dibromide (EDB) and 1,1,2,2-tetrachloroethane were above their respective residential assessment levels. Future sampling will be conducted by a method with adequately low reporting limits until proven that these compounds are not of concern. Sediment samples collected from the storm water drainage ditch that forms the property southern boundary during site assessment activities had been observed to contain elevated metal concentrations. Subsequent to that investigation, maintenance activities at the drainage ditch had removed debris, vegetation and soils from the ditch floor. Additional sampling was recommended. Benzene concentrations were identified above the RAL/Tier 2 Calculated levels. Additional soil borings were recommended. On-site water wells were identified at the Union Tank Car and the GUIC facilities. These wells are both screened at between 450 and 480 ft below ground surface. Wells for the Sheldon Municipal Utility District are located within 500 feet of the GUIC facility and are drilled to 540 and 786 feet bgs. Completed excavation activities had removed all soils impacted above the Critical PCL.

2006 (Second Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; November 2006

Key Findings – This report documents the results of quarterly groundwater monitoring event conducted in June 2006 and provides a summary of the groundwater recovery and treatment system over the eighth year of operations. Responses to TCEQ's request for additional information are also provided. Hydraulic containment has effectively been established at the site. Chlorobenzene, 1,2-DCA and PCE remain at concentrations above PCLs at the site. One

groundwater monitoring well was requested by TCEQ in the shallow GBZ east-northeast of RIW-24 and east-southeast of RIW-13, RSA believes the well not to be necessary however commits to continued monitoring of these wells. A request for a nested well pair (intermediate and deep GBZ) is acknowledged and proposed for November 2006. A pair of nested wells (intermediate and deep GBZ) between Buildings 10 and 20 and a request for a deep unit well southeast of RIW-16R is discussed with RSA providing rationale for not installing them. A request for a Tier 1 Exclusion Criteria Checklist is acknowledged and will be submitted under separate cover.

2007 (Third Quarter) Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; November 2007

Key Findings – This report documents the results of the quarterly groundwater monitoring event conducted in August 2007 and provides a summary of the groundwater recovery and treatment system over the ninth year of operations.

2008 Groundwater Monitoring Report (Second, Third, and Fourth Quarters); Prepared by Rosengarten, Smith & Associates, Inc.; March 2010

Key Findings – This report documents the results of the second, third and fourth groundwater monitoring events of 2008 and provides a summary of the groundwater recovery and treatment system for the period. Potentiometric maps illustrate effective hydraulic control in each of the three shallow GBZ. Concentrations of site COCs continue to exceed their Critical PCL in each of the water bearing units. GUIC is reported to be negotiating the sale of the property (later reported to have been unsuccessful)

Affected Property Assessment Report Addendum; Prepared by Rosengarten, Smith & Associates, Inc.; May 2009

Key Findings – additional work activities are reported, amending the APAR dated April, 2006. Analysis of groundwater samples for EDB and 1,1,2,2-tetrachlorethane confirmed the presence of EDB at concentrations exceeding the RAL in several recovery wells, however 1,1,2,2-tetrachloroethane was not detected. Sediment sampling conducted in the storm water drainage ditch along the southern property boundary confirmed no residual metal concentrations exceeding applicable action levels effectively closing this pathway. Additional soil borings were installed east and west of Building 20 to delineate extent of benzene impacts in shallow soils identified in previous investigations conducted at the facility.

Groundwater Monitoring Report 2009; Prepared by Rosengarten, Smith & Associates, Inc.; March 2010

Key Findings – This report documents the results of the groundwater monitoring events conducted in February, June, August and November 2009. Potentiometric surface maps illustrate effective hydraulic control in each of the three water bearing units. Concentrations of COCs continue to exceed Critical PCLs in each of the three zones.

(First Quarter) Submittal of Groundwater Monitoring Report; Prepared by Rosengarten, Smith & Associates, Inc.; August 2010

Key Findings – This report documents the results of the first quarter 2010 groundwater monitoring event conducted in and provides a summary of the groundwater recovery and treatment system for the period. A modification of the existing sampling and reporting schedule is proposed.

Project update for GUIC Industries, Inc.; Prepared by Rosengarten, Smith & Associates, Inc.; November 2010

Key Findings – This letter report provides an update on the installation of an additional downgradient monitor well installation (RIW-57) within the Texas Department of Transportation right-of-way and the plugging and abandonment of RIW-1 which had been damaged. Initial sampling of the newly installed well RIW-57 confirmed that CB was identified (6.1 ug/l) at concentration above the method detection limit, but below the critical PCL.

Appendix O

A statement as to whether any public drinking water supply system exists that satisfies the requirement of Chapter 341 of the Texas Health & Safety Code and that supplies, or is capable of supplying, drinking water to the designated property and property within one-half mile of the designated property, and the identity of each supply system.

Based upon available information, public drinking water supply systems exist that satisfy the requirement of Chapter 341 of the Texas Health & Safety Code and are capable of supplying drinking water to the designated property and property within one-half mile of the designated property. These include the City of Houston, Sheldon Road Municipal Utility District, and North East Harris County Municipal Utility District.

Appendix P

The name and address of each owner or operator of a water well registered or permitted by the state or the Houston-Galveston Subsidence District that is located within five miles of the boundary of the designated property, along with a map showing the location of each well and, to the extent known, a notation of whether each well is used for potable water. Well logs are not necessary to include. (An accompanying electronic excel file with mailing information should be included with your application.)

The owner name and address for each state-registered water well within five miles of the property is attached in this appendix. Included within this table is a column that designates whether each well is used for potable water, testing purposes, or industrial purposes. Additionally, a map, showing the locations of each well within a five mile radius of the site is presented as an attachment in **Appendix S**. At the time of this application submittal, notices to water well owners were being prepared, but had not yet been notified per Section 361.805 of the Texas Health and Safety Code.

An electronic copy of this data set is also provided on a disk.

OWNER	ATTN	Address	City	State	Zip
City of Houston		P.O. Box 1562	Houston	TX	77251
10-4 Tubular, Inc.	Gladys Bishop	9025 Pineland	Houston	TX	77044
A & L Pump & Well Service	Mid Smith	2103 N. Main	Highlands	TX	77562
A. V. Sample					
A.C. Monroe		1414 N. Main	Highlands	TX	77562
AACann Mechanical		12718 Robert E. Lee	Houston	TX	77044
Aaron Rodiguiez		11033 Christian	Houston	TX	77044
Abitibi Consolidated		18511 Beaumont Hwy	Houston	TX	77049
Aguilar, Frank		9125 C. E. King	Houston	TX	77044
Aguilar, Porfirio H.		14605 Reeveston	Houston	TX	77039
Ahmed, M.		7941 C E King Parkway	Houston	TX	77044
AKF Recycling		10307 Airline	Houston	TX	77037
Alberto Garza		16002 Miller Landing	Houston	TX	77049
ALFREDO REYES		12550 TICONDEROGA	HOUSTON	TX	77044
ALL SEASONS FOOD STORE	RAHIM MAKNOZIYA	8309 CE King Parkway	Houston	TX	770442208
Alonso, Alfredo		6323 Trebor Street	Pasadena	TX	77505
Alvis, Bryan		12930 Grant Road	Cypress	TX	77429
Amer Plant Food		903 Mayo Shell Rd	Galena Park	TX	77547
AMERICAN PLANT FOOD CORP.	C.R. HARRISON	P.O. BOX 584	GALENA PARK	TX	77547
Anderson, Albert L.		P.O. Box 729	Channelview	TX	77530
Andrew Smith		15770 Skeg	Crosby	TX	77532
Angel Bradford		12810 Lakeside Terrace	Houston	TX	77044
Angela Grainger		6300 Miller Rd II	Channelview	TX	77049
Antonio Sanchez		16018 Miller Landing	Houston	TX	77049
Apache Global Painting Inc.	Delin Manuel	P.O. Box 395	Channelview	TX	77530
Applied Petroleum Technologies, Inc.	Ralph Wynn	4525 Ayers Road	Corpus Christi	TX	78415
AQUA PURE	SHANNON MARSH	P.O. BOX 11130	HOUSTON	TX	77293
Arcadian Gardens Corp.					
Arco Chemical Co	CHARLES BONNEY	P.O. BOX 30	CHANNELVIEW	TX	77530

ARCO CHEMICAL COMPANY	E.B. BRADLEY	P.O. BOX 777	CHANNELVIEW	TX	77530
Arctic Pipe Inspection Inc.		P.O. Box 1258, 9500 Sheldon Road	Channelview	TX	77530
Armando Cepeda		8104 Van Hut	Houston	TX	77044
ARMOR INVESTMENTS	DELMER BARKLEY	14727 GARRETT RD	HOUSTON	TX	77044
AST Systems, Inc.	Ronnie Foster	18570 Van Road	Houston	TX	77049
Aztec Manufacturing		P.O. BOX 668	CROWLEY	TX	76036
B.H.M. Pipe & Supply, Inc.		P.O. BOX 928	Crosby	TX	77532
Lake Houston Gun Range	Baker, Margaret	15915 Katy Fwy, Ste 405	Houston	TX	77094
Ballard Exploration	Jane Bortoni	1021 Main Street, Suite 2310	Houston	TX	77002
Banana Bend Estates					
Barnett, Norman		P.O. Box 3104	Baytown	TX	77522
Baroid Corp.		221 Portwall St.	Houston	TX	77029
Barrett, Etta L.		1715 Rosedale	Houston	TX	77004
BARRETT, EZELL	WAYNE H. PARIS	3100 SOUTH GESSNER, STE. 600	HOUSTON	TX	77063
Basic Engineering	Michael Carman	PO Box15662	Houston	TX	77220
BASIC EQUIPMENT		7215 Miller Road 2	Houston	TX	77049
Bayou Electrical Serivces	Jimmy Peters	8036 Miller R d # 2	Houston	TX	77049
Baytown Boat Club	Paul R. Peloquin	6826 Wade Road	Baytown	TX	77521
BEAUMONT PLACE	MICHAEL MARTIN	PO BOX 455	SPRING	TX	77383455
Beck, Tim R.		10809 Sheldon Road	Houston	TX	77044
Bedrock General Contractors, Inc.		312 Bob Smith Road, #G	Baytown	TX	77521
Bennie Konvika		12538 Ticongerosa	Houston	TX	77044
Best Detail Inc.		12210 Kindred	Houston	TX	77049
Bethel Enterprises of Texas		14909 Garrett Rd	Houston	TX	77044
BILL MURFF		15204 BOHEMIAN HALL	CROSBY	TX	77532
Bishop, Gladys		8325 Miller Road #2	Houston	TX	77049
BJH Investments, Inc.		P.O. Box 91109-300	Houston	TX	77291
Black Creek Drilling, Inc.		P.O. Box 520	Columbus	TX	78934
BLOOMTEX LEASING, INC.	KEITH G. NEWMAN	13301 BEAUMONT HWY.	HOUSTON	TX	77049
Boaz, Danny	Wayne Colwell	P.O. Box 1509	Channelview	TX	77530
Brad Seabranch		16025 Wallisville	Houston	TX	77049
BRAMAN, JR., D.H.		1050 OILFIELD RD.	BELLVILLE	TX	77418
BREAK STOP	BOB REEVES	11206 E Sam Houston Parkway N	Houston	TX	77044
Brian Alvis		15311 Beaumont Hwy	Houston	TX	77049

Brian Baker		624 Orange Street	Vidor	TX	77662
Brown and Root Inc.		4100 Clinton Dr	Houston	TX	77020
Bruce Griffith		2203 Grace Lane	Highlands	TX	77562
Bryan Summers		16700 Shady Lane	Channelview	TX	77530
BUCKHORN RANCH & LAKE	A LEONARD	15627 GARRETT RD	HOUSTON	TX	770445833
C. M. Gates					
C.J. Holliman		7314 John Ralston	Houston	TX	77044
CalTex Holdings, LP	Dave Thompson	18511 Beaumont Highway	Houston	TX	77049
Calvary Baptist Church	Pastor	6511 Uvalde Road	Houston	TX	77049
Calvary Church of the Nazarene	Don Ballard	15049 Wallisville Road	Houston	TX	77049
Cannon, Larry		12718 Robert E. Lee	Houston	TX	77044
Canyon Commerical Construction Inc.		13118 Green River Drive	Houston	TX	77044
Carlots Truck Specialists	Carlos Guillavu	9747 Pineland	Houston	TX	77044
CARMEN TREJO		12322 GREEN RIVER	HOUSTON	TX	77044
Carolyn Custer		9737 Pineland	Houston	TX	77044
CARPENTERS BAYOU M.U.D.	A. GUTIERREZ	9235 KATY FRWY., SUITE #333	HOUSTON	TX	77024
Carriage Services, Inc.	Mathew Forastiere	P.O. Box 325	Highlands	TX	77562
Cathedral of Praise Assembly God		11303 CE King Pkwy	Houston	TX	77044
CenterPoint Energy Houston Electric, LLC	Douglas R Harris, Environmental Manager	P.O. Box 1700	Houston	TX	77251
Champion International		P.O. Box 23011	Houston	TX	77028
Chen International	Pat Chen	P.O. Box 1385	Salt Lake City	UT	84110
Chevron		4800 Fournace Place	Bellaire	TX	77401
Chevron Facility 60207368		15505 Wallisville Rd.	Houston	TX	77049
Chevron Products Co.		4800 Fourance Place	Bellaire	TX	77401
Chevron Products Co.		5959 Corporate Drive	Houston	TX	
Chuy's Truck Parts		15134 Beaumont Hwy	Houston	TX	77049
Cisneros, Antonio R.		8516 Van Hut Lane	Houston	TX	77044
CITY OF HOUSTON		13400 Aqueduct Road	Houston	TX	77044
CITY OF HOUSTON LAKE HOUSTON PARKS		13501 Aqueduct Road	Houston	TX	77044
Clark, Scott		12635 Green River	Houston	TX	77044
Clay Nguyen					
Coleman, Kenneth		11521 Clearfield	Houston	TX	77044
Collins, Allen		21703 Rio-Villa	Houston	TX	77049
COLUMBUS ENERGY CORP.	RICHARD DILL	P.O. BOX 3257	LAREDO	TX	78044
Combs Enterprise, Inc.	Phillip Hoot	30045 FM 2978 Rd	Magnolia	TX	77354
Community Baptist Church	Lloyd Vaughn	P.O. Box1239	Humble	TX	77347
COMPOSITE THREAD PROTECTORS INC.		17720 HWY. 90 EAST	HOUSTON	TX	77049
Conestoga Supply Corp.	Bahar Bob	11011 Sheldon Road	Houston	TX	77044
Conrad Ermel					

Consumers Water Corporation	Michael Martin	P.O. Box 1383	Spring	TX	77383
CONTINENTAL ILLINOIS NATL BANK	NORMAN RADFORD	3300 FIRST CITY TOWER	HOUSTON	TX	77002
Contractors Cargo Company	Carla Wheeler	500 S Almeda Street	Compton	CA	90221
Conveying Techniques, Inc	Mark S. Lee	10818 Sheldon Road	Houston	TX	77044
Cooksey, Darla		12830 Aqueduct Rd.	Houston	TX	77044
CORBELLO WATER SYSTEM	TOM MARTIN	PO BOX 603	PORTER	TX	77365603
CORBELLO, BILLY		RT. 5 BOX 1813	HOUSTON	TX	77044
Country Terrace Water Co.	Vikki Nowling	P.O. Box 1018	Highlands	TX	77562
Covenant Plastic, Inc	Prentice Tillman	7501 Miller Rd # 2	Houston	TX	77049
Creeks Unlimited, LLC	Francine Creeks	6603 Uvalde Road	Houston	TX	77049
Crosby Gospel Assembly Church		P.O. Box 1054, 633 Kennings Rd.	Crosby	TX	77532
Crosby I.S.D.	Chuck Murray	P.O. Box 2009	Crosby	TX	77532
CROSBY M.U.D.		103 W. Wahl Street	CROSBY	TX	77532
Crossroads Fellowship Church	M A Dudley	79 Uvalde Road	Houston	TX	77015
Cunningham, James W		16641 Wood Drive	Channelview	TX	77530
D & W Contractors Inc.	Wayne Culver	P.O. Box 1075	Channelview	TX	77530
D. V. Fergerson					
David Rose		12745 Lakeside Terrace	Houston	TX	77044
Davis, Joann		12510 Robert E. Lee Road	Houston	TX	77049
Deculus, Eddie & Anastasia		307 Pineview Drive	Highlands	TX	77562
Delta Chemical Services	Ralph Simon, Plant Engineer	10521 Sheldon Road	Houston	TX	77044
DELTA TUBULAR PROCESSING	JIM BOGAR	9393 SHELDON RD	HOUSTON	TX	77049
Destination FLP	James L. Durdin	P.O. Box 2258	Mont Belvieu	TX	77580
Dewey & Son, Inc., W.M.		P.O. Box 15087	Houston	TX	77220
Diamond Shamrock		P.O. Box 696000	San Antonio	TX	75063
DIAMONDHEAD CORPORATION	PROJECT MANAGER	P.O. BOX 191	HOUSTON	TX	77532
Dietsch, Elizabeth		P.O. Box 271	Norco	CA	92860
Don Wright		12319 Young Circle	Santa Fe	TX	77510
Donnely, James & Shirley	Barry Sanderson	15242 Garrett	Houston	TX	77044
Dorsett Concrete	B. J. Dorsett	P.O. Box 5766	Pasadena	TX	77508
DUANE CANNON		14427 WADEBRIDGE	HOUSTON	TX	77015
Duran, Ruben		807 McCarty St	Houston	TX	77029
Dyad Construction	JOE PIGFORD	8505 Holt St	Houston	TX	77054
Earl Mashburn					
East Houston Bait & Tackle Shop	Doanld & Deborah McCarty	13310 Shelburne	Houston	TX	77049
EBM Fuel & Lubricants, Inc.		8721 Miller Rd # 2	Houston	TX	77049
Elizabeth Blanchard		16920 Shady Ln.	Channelview	TX	77530
Elizabeth Bu		13919 Smitherman	Houston	TX	77044
Elouise Phelps		16007 Wallisville Rd.	Houston	TX	77044
Erasmo Mata		8211 Mayhaw	Houston	TX	77044

ETOCO	STEVE CARTER	1600 SMITH, STE. 3910	HOUSTON	TX	77002
Evans Cooperage	GARY HAMILTON	10521 SHELDON RD	HOUSTON	TX	77044
Explorer Pipeline	Rick A. Wright	15003 Moore Road, Rt. 25	Houston	TX	77049
EXPLORER PIPELINE COMPANY	MIKE TUCKER	P.O. BOX 2650	TULSA	OK	74101
EXXON CHEMICAL COMPANY	ACCOUNTS PAYABLE	8230 STEDMAN ST.	HOUSTON	TX	77029
EXXON COMPANY, U.S.A.	JAMES C. LEE	P.O. BOX 45669	HOUSTON	TX	77045
ExxonMobile Corporation		P.O. Box 4552	Houston	TX	77210
Family Worship Center		12705 Robert E. Lee Road	Houston	TX	77044
Farmer & Company, E.L.	Jim McBride	15706 Beaumont Highway	Houston	TX	77049
Five R Partnership, LTD.	Krish Shukla	P. O. Box 604	Galena Park	TX	77547
Flagship Carriers. Inc.	C. K. Moye, Principal	6500 Earlywine Rd	Brenham	TX	77833
Flores, Felipe		1415 Warwick Walk Lane	Channelview	TX	77530
Flores, Mario F.		17910 Van Road, Trailer #2	Houston	TX	77049
FLTG, Inc.		P.O. Box. 1599	Channelview	TX	77530
FOREST CREEK APARTMENTS	ANNA FLORES	5915 UVALDE RD	Houston	TX	77049
Four Star Pipe Services, Inc.	Charles Hall	P.O. Box 1406	Crosby	TX	77532
Fowler, Malcom		17838 Beaumont Hwy.	Houston	TX	77049
Franco, Sergio		P.O. Box 16943	Houston	TX	77222
Frank Cruz		11042 Clearfield	Houston	TX	77044
French Ltd. of					
G&C Investment Co., LLP		2411 Mallard Drive	Birmingham	AL	35216
Galena Park I.S.D.	Robert A. Campbell	13710 ALDERSON STREET	HOUSTON	TX	77015
Gary Moore		14610 Chalfield	Houston	TX	77044
Genstar Summerwood LP	Lisa Nickel	10235 West Little York, Suite 260	Houston	TX	77040
George Espinoza		15911 B Kimberlee	Houston	TX	77049
Gonzales, Arthur M.		8012 C.E. King Parkway	Houston	TX	77044
Gonzales, Pedro		9118 Security Ln	Houston	TX	77044
GOOD TIMES MARINA	CHARLES LOFTON	11914 7 1/2 Street	Sheldon	TX	77044
Gorge Bethen		14014 SmitherMan	Houston	TX	77044
Granger, Herman		16210 Rodale Drive	Houston	TX	77049
Great Commission Family Church	Dr. A. Tyrone Sylvester	12540 Crenshaw Boulevard	Houston	TX	77044
Greenwood U.D.	John D. Brock, VP Admin. & Reg. Affairs	P.O. Box 1827	Cypress	TX	77410
Groendyke		2510 Rock Island Blvd.	Enid	OK	73701
Groendyke Transport, Inc.	Terry Bain, Director of Environment	P.O. Box 632	Enid	OK	73702
GSD Trading USA, Inc.	Daniel Davis	7135 South Lake Houston Pkwy..	Houston	TX	77049
GUIC Industries, Inc.	Dean Wilkens	5599 San Felipe, Ste 106	Houston	TX	77056

Gulf Coast Stabilized	Greg Shandera	P.O. Box 1830	Sugar Land	TX	77487
Gulf Oil		P.O. BOX 4256	HOUSTON	TX	77210
Gulf Pipe Line Co.					
Gulshan Enterprises		6671 Southwest Freeway	Houston	TX	77074
H & H Rubber Products	Jack Johns	14510 Beaumont Highway	Houston	TX	77049
H P Guinn					
HANDI PLUS 114		7330 S LAKE HOUSTON	Houston	TX	77049
HANDI PLUS	SHOUKAT DHANANI	6671 SOUTHWEST FREEWAY SUITE 440	Houston	TX	77074-2220
Harold Luu		13923 Smitherman	Houston	TX	77044
Harris Co MUD 53		P.O. Box 24338	Houston	TX	77229
Harris Co. E.S.D. 5	Chuck Murray	P.O. Box 1604	Crosby	TX	77532
HARRIS CO. FLOOD CONTROL DIST.	JOHN KOROS	9900 NORTHWEST FREEWAY #220	HOUSTON	TX	77092
HARRIS CO. M.U.D. 285/GEN. HOMES	JOHN BROCK	6919 MAYARD	HOUSTON	TX	77041
HARRIS CO. M.U.D. 344	TEAGUE HARRIS	1300 POST OAK BLVD., SUITE 1400	HOUSTON	TX	77056
Harris Co. M.U.D. 50		12900 FM 2100	Crosby	TX	77532
HARRIS CO. W.C.&I.D. 84	JOHN BROCK	6919 MAYARD	HOUSTON	TX	77041
Harris County	Wendy Waddell	1001 Preston, Suite 700	Houston	TX	77002
Harris County F.W.S.D.		337 Queenstown Road	Houston	TX	77015-2301
Harris County Mud #19		P.O. Box 37	Humble	TX	79396
HARRIS COUNTY MUD 285		16758 Telge Road	Cypress	TX	77429
HARRIS COUNTY MUD 53	KAREN CASEY	P.O. Box 24338	Houston	TX	77229
HARRIS COUNTY PCT 1 SHELDON PARK	EL FRANCO LEE	8815 Pineland Road	Houston	TX	77044
HARRIS COUNTY PCT 2 MILLER RD CAMP	SYLVIA GARCIA	14350 WALLISVILLE RD	Houston	TX	77049
Harris County Public Infrastructure Dept		1001 Preston St., 7th floor	Houston	TX	77002
HARRIS COUNTY WCID 84	MILLARD BARRINGTON	11302 TANNER ROAD	HOUSTON	TX	77041
Harris-Galveston		1660 West Bay Area Blvd	Friendswood	TX	77546-2640
HCO WCID No 84		16224 Bear Bayou Road	Channelview	TX	77530
Henderson, James D.		7407 Miller Road, No. 2	Houston	TX	77049
Hendry, Ronnie		16636 Bear Bayou Drive	Channelview	TX	77530
Hennessee, Jerry		510 Kingsbury Lane	Friendswood	TX	77546
Herrera Event Hall, Inc.	Miller Shirley	14226 Murray Road	Houston	TX	77044
High Life Homes		16023 Long St.	Houston	TX	
HIGHLAND MOBILE HOME SUBDIVISION	MICHAEL MARTIN	PO BOX 1383	SPRING	TX	77383-1383
HIGHLAND SHORE WATER SYSTEM		1610 HIGHLAND SHORE DRIVE	HIGHLANDS	TX	77562
Highlands Stabilze, Inc.	Keith Walker	378 CR 612	Dayton	TX	77353
Holland, Mike		8822 Blueberry St	Houston	TX	77049
Holloway, Harry		P.O. Box 1849	Dayton	TX	77535
Holy Trinity Episcopal	PAMELS DEAN	11810 Lockwood	Houston	TX	77044-5392

Houston Cheers					
Houston Diesel Service	Harold Keith Rawls	9104 Blueberry	Houston	TX	77049
HOUSTON TANK CLEANING SERVICE INC	JOHN SONS	8510 EAST SAM HOUSTON PARKWAY N	HOUSTON	TX	77044
Houston, City of	Consumers/Meadowlake Estates Subdivision	611 Walker Street, 21st Floor	Houston	TX	77002
Howell, Shelby		9121 Red Wing	Houston	TX	77049
Hughes Club					
Humberto Silva		12810 Green River	Houston	TX	77044
Hunting		17720 Hwy. 90	Houston	tx	77049
Hunting Energy Services, Inc.		2 Northpoint Drive, Suite 400	Houston	TX	77060
Hurricane Speedway Ltd.		P.O. Box 10671	College Station	TX	77842
Ibarra, Gilberto R.		17916 Van Rd	Houston	TX	77024
Ignacia Cutirrez		16010 Millers Landing	Houston	TX	77049
Intercontinental Terminals CO.		1943 Battleground Road	Deer Park	TX	
International Tubular Service	Bill Lutz	7735 Miller Road No. 3	Houston	TX	77049
IT DAVY A JOINT VENTURE	GERRY DARNELL	P.O. BOX 1649	CROSBY	TX	77532
J B MOBILE HOME PARK	JAMES HENDERSON	7407 MILLER ROAD 2	HOUSTON	TX	77049-4838
J T Hare					
Jack Dudley		13822 Lakeside Terrace	Houston	TX	77044
James Holt		11302 E Jayhawk	Houston	TX	77044
James Hunter		9007 Blueberry	Houston	TX	77049
Javier Rodriguez		16530 Shady Lane	Channelview	TX	77530
Jeff Hamilton		13306 Lakeside Terrace	Houston	TX	77044
Jerry Edgar		3006 Grace Lane	Highland	TX	77562
Jesses Radiator Auto & Discount	Jesus Ornelas	12810 Beaumont Highway	Houston	TX	77049
Jimmy Welborn		13430 Lakeside Terrace	Houston	TX	77044
JO ANNS DAY CAMP	JO ANN DAVIS	12510 ROBERT E LEE RD	HOUSTON	TX	770442324
Joan Walker		1424 N. Main	Highlands	TX	77562
Joann Davis		12510 Robert E. Lee	Houston	TX	77049
Joe Bermal		8302 John Ralston	Houston	TX	77044
Joe Tepra					
Joe Thurman		14303 Garrett Road	Houston	TX	
Joe Webber		12734 A Ticonderoga	Houston	TX	77044
Joel Welch		11005 Meadowvine	Houston	TX	77049
John Bell		13310 Lakeside Terrace	Houston	TX	77044
JOHN CARPENTER		12027 10TH ST.	HOUSTON	TX	77044
John Dobbs					
JOHN KEATING CHEVROLET		21001 CROSBY FRW	CROSBY	TX	77532

John Toler		14110 South Pacific	Houston	TX	77049
John Warner		11871 Spears Rd	Houston	TX	77067
Johnson, Larry		15015 Garrett Rd. Lot 4A	Houston	TX	
Jorge Lopez		11930 Aquaduct	Houston	TX	77044
Jose Cardona		10309 Pineland	Houston	TX	77044
Jose Castillo		16226 Miller's Landing	Houston	TX	77049
Jose Martinez		8510 Youngberry	Houston	TX	77044
Joseph Sanders		675 Russell Road	Vidor	TX	77663
JP Tubular Services, Inc.	Scott Stiles	P.O. Box 1486	Crosby	TX	77532
Juan A. Saucedo		13002 Old Beaumont Hwy.	Houston	TX	77049
JUAN FLORE		14007 SMITHERMAN	HOUSTON	TX	
Juan Jose Martinez		12301 Lambert	Houston	TX	77044
JUAN MARTINEZ		13112 TICONDEROGA	HOUSTON	TX	77044
Juan Saucedo		16550 Old Beaumont Hwy.	Houston	TX	77049
JUDGE ESTATE, MINO		406 BARRETT RD.	CROSBY	TX	77532
Julie Nguyen		13931 Smitherman	Houston	TX	77044
K & B Machine	Kenny Wood	Station 1, Box 10265	Houma	LA	70363
K ESTATES WATER SYSTEM	PAUL KREBS	11700 PADOK RD	HOUSTON	TX	770447203
K LAKE TERRACE	PAUL KREBS	11700 PADOK RD	HOUSTON	TX	77044-7203
Kallies, Billy		12717 Robert E. Lee Road	Houston	TX	77044
Keating Chevrolet, John	John Keating	P.O. Box 1409	Crosby	TX	77532
Keene, Keith		15200 Beaumont Hwy	Houston	TX	77049
Keith Lam		14810 Croxton Dr	Houston	TX	77015
Ken Elder		14339 Lakeside Terrace Dr.	Houston	Tx	77044
Ken Womack		13418 Lakeside Terrace	Houston	TX	77044
Kenneth Lorfing		1506 N. Main	Highlands	TX	77562
Kenneth Muchow		14226 Archwood	Houston	TX	77049
KING SHELL		11907 E Sam Houston Pkwy N	Houston	TX	77044
Knee Deep Water Company	Bruce Griffith	2203 Grace Lane	Highlands	TX	77562
KNEE DEEP WATER COMPANY		419 GRACE LN	HIGHLANDS	TX	775622000
Koch Specialty Plant		12221 East Sam Houston Pkwy N.	Houston	TX	77044
Krebs, Paul H.		11700 Padok Rd.	Houston	TX	77044
L B Stanley					
LABARGE PIPE AND STEEL CO	JOHN STRAIN	PO BOX 2005	CHANNELVIEW	TX	775308005
Lally Pipe & Tube	Jamee Houthoofd	8710 Miller Road # 2	Houston	TX	77049
Lambright, Ronnie & Donna	Ronnie Lambright	1907 N. Main St	Highlands	TX	77562
Land Partners of MN, LLC.		5101 Boone Ave	Minneapolis	MN	55428
Land Tejas Companies		2450 Fondren Ste 210	Houston	TX	77063

Larry Dielker		8318 N. Tahoe Dr.	Houston	TX	77040
Lee Investments, Inc.	Debra Pray	17630 E. Beaumont Hwy.	Houston	TX	77049
Lendy Melton		19502 Bramont Hwy	Houston	TX	77044
Leonard Powers		3702 Pecan Ridge Dr	Missouri City	TX	77459
Leonards, AP.	Ferdinand Leopards	15627 Garrett Road	Houston	TX	77044
Lester Schuler					
Lew Debes					
Lewis, Michael L		3910 East Court	Deer Park	TX	77536
Lofton, Charles		11840 7th Street	Houston	TX	77044
Lonza Inc.		9700 Bayport Blvd	Pasadena	TX	77507
Lopez Bros. Enterprises, Inc.	Abelardo Lopez	5601 Leeland	Houston	TX	77023
Lou Nepomuceno		12901 McNair St.	Houston	TX	77015
Love, Jim		211 Highway 90	Crosby	TX	77532
Luisa Juarez		12883 Ticonderoga	Houston	TX	77044
Lydia Antill					
Lyondell Chemical Company	ENVIRONMENTAL SUPT.	P.O. Box 777	Channelview	TX	77530
M & A WATER WORKS	MIKE WOODS	P.O. BOX 895	HIGHLANDS	TX	77562
MAGNOLIA GARDENS		1			
Manuel Tellez		15919 Millers Landing	Houston	TX	77049
Marco A. Santillan		4114 Castledale Dr.	Houston	TX	77093
Maria Saravia		7823 WestBay	Houston	TX	77044
Mark Hawkins		2615 Grace lane	The Highlands	TX	77562
Martinez, Felipe		P.O. Box 24796	Houston	TX	77229
Matt, Jack		12609 Beaumont Hwy	Houston	TX	77049
Matthew Mouton		11619 Long Play Ln.	Houston	TX	77049
Maxey Road Water Supply Corp.	Tim Witten	8556 Katy Frwy. # 128	Houston	TX	77024
McClinton, Russell		12542 1/2 Robert E. Lee #A	Houston	TX	77044
McDermott & Barnhart	Liz White	2121 Sage Road, #333	Houston	TX	77056
McGee, Jerry J.	Jerry & Norma McGee	7957 C.E. King Pkwy.	Houston	TX	77044
MEADOWLAKE ESTATES	MICHAEL MARTIN	PO BOX 1383	SPRING	TX	773831383
Mercury Transportaion, Inc.	Q.J. Sullivan	8502 Miller Road #3	Houston	TX	77049
MERRYMAN, ARCHIE & B.J. CLARK		702 WOODHUE DR.	CHANNELVIEW	TX	77530
Michael W. Isbell		3814 Pine Meadow Lane	Houston	TX	77039
Miguel Avila		13018 Maple Street	Crosby	TX	77532
Mike Odom		15777 Skeg Rd.	Crosby	TX	77532
Mills Water Supply		PO Box 579	Spring	TX	77383
Mizell, Buford		407 County Road 2224	Cleveland	TX	77327
MJF Investments LLC	James Hodde	13117 Greenriver Drive	Houston	TX	77044
Moon Vu		13927 Smitherman	Houston	TX	77044

Morales, Valentin		311 Seven Seas St	Crosby	TX	77532
MOTEL 90	MAY CHAN	16302 BEAUMONT HWY	HOUSTON	TX	770491962
Mouser, Johnny L.		P.O. Box 1148	Channelview	TX	77530
Mrs. J.W. Pate		27403 Caperidge Dr	Huffman	TX	77336
Mrs. Pelfrey		12215 Ticondurgo	Houston	TX	77044
Muehlhan Surface Protection, Inc.		322 Burke Road	Pasadena	TX	77506
Mulch Matters		9911 C E King Pkwy	Houston	TX	77049
Murff Turf		15204 Bohemian Hall Rd	Crosby	TX	77532
Murphy, Laura		8217 Miller Rd. #2	Houston	TX	77049
NC Group, Inc.	Daniel Tamez	12901 Beaumont Hwy 90	Houston	TX	77049
New Century Exploration		17350 State Hwy 249, Ste 300	Houston	TX	77064
Newport M.U.D.	Lori G. Aylett	1100 Louisiana, Suite 400	Houston	TX	77002
NEWPORT MUD		P.O. Box 37	Humble	TX	79396
Nguyen, Luan		6539 Sheldon Road	Houston	TX	77049
Nguyen, Minh Phat & Huong Thi Thu Dinh		P.O. Box 1442	Highlands	TX	77562
North Channel Water Authority	Billy Allen	P.O. Box 24338	Houston	TX	77229
North Star Steel		Highway 90	Vidor	TX	77662
NORTHEAST HOUSTON CHURCH	SONNY HATHAWAY	18000 W LAKE HOUSTON PKWY	HUMBLE	TX	773463403
Northside Baptist Church	Oswall H. Harman	317 Barbers Hill Road	Highlands	TX	77562
NOV Tuboscope	George House	10222 Sheldon Road	Houston	TX	77049
NUPI Americas		1511 Superior Way	Houston	TX	77039
Osage Transportation		P.O. Box 96169	Houston	TX	77044
Overdorf, David		P.O. Box 155241	Lufkin	TX	75915
PADOK TIMBERS SUBDIVISION WS	PAUL KREBS	11700 PADOK RD	HOUSTON	TX	770447203
Palermo, Dorothy L.		20103 Rio Villa Drive	Houston	TX	77049
Pannel Investment	Danny Pannel	7306 S. Lake Houston Parkway	Houston	TX	77049
Parado Sarbelo		8030 John Ralston	Houston	TX	77044
Park Pineland LLC	David Lyell	17519 Saxon Drive	Houston	TX	77095
PARKER BROTHERS & CO., INC.	ALLAN W. PARKER	P.O. BOX 107	HOUSTON	TX	77001
PARKWAY GROCERY & HARDWARE CENTER	VICKIE GONZALEZ	8028 CE KING PARKING	Houston	TX	77044
Parkway M.U.D.	John D. Brock, VP Admin. &	P.O. Box 1827	Cypress	TX	77410
PARKWAY UTILITY DISTRICT	JAMES HOWARD	12851 TIDWELL Road	Houston	TX	77044
Partin and Company		P.O. Box 23147	Houston	TX	77228
Patterson Motor Freight	Dwight R Patterson	8606 Miller Road 3	Houston	TX	77049
PAUL & MARY CANNON		13514 LAKESIDE TERRACE	HOUSTON	TX	77044
Peggy Browning		96 Lakeside Dr. N LSV	Huntsville	TX	77320
Pendergrafe Jr., Jerry	Melissa Pendergraffe	11502 Clearfield Drive	Houston	TX	77044
Percy Vital		11110 Heath Ct	Houston	TX	77016
Pescador Partners	Mike, Bookkeeper	P.O. Box 645	Tomball	TX	77377

Petroleum Wholesale		2189 Lake Woodlands Parkway	The Woodlands	TX	77380
POLAR SERVICE CENTER	ALLEN CLARK	7600 E Sam Houston Parkway North	Houston	TX	77049
Polites, John E.		319 Lake Christine Drive	Belleville	IL	62221
Portserv (USA) Inc.	Perry Willcox	9002 Sheldon	Houston	TX	77049
Potter, Allen	A and P Transportation	415 Moonshine Hill Rd.	Humble	TX	77338
POWER CLEANING, INC.	RICKY WILSON	8510 E. SAM HOUSTON PKWY NORTH	HOUSTON	TX	77044
Punam Enterprise dba All Seson's Food Store		8309 C E King Parkway	Houston	TX	77044
QUANEX, PIPE SPECIALTIES		13401 HIGHWAY 90 EAST	HOUSTON	TX	77049
R Warehousing & Port Services, Inc.	Marlin Hendry	PO Box 604	Galena Park	TX	77547
R. G. Hutson					
Ralph Dowies		11102 Clearfield Drive	Houston	TX	
Randy Mentzer		12022 Robert E. Lee	Houston	TX	77044
Ray Partin Co.		P.O. BOX 23147	HOUSTON	TX	77028
Reeves, Bobby W.		11206 E Sam Houston Parkway N	Houston	TX	77044
Reservoir Acres Subd.	MICHAEL MARTIN	PO BOX 455	SPRING	TX	77383455
Reyes, Alfredo		12550 Ticonderoga	Houston	TX	77044
Rhodes School, The	Michelle Bonton	12822 Robert E Lee	Houston	TX	77044
RICE, EARL	JOHN BRISCOE	7334 RAMPART	HOUSTON	TX	77081
Richmond Stimwell					
Rick Kennard		13518 Lakeside Terrace	Houston	TX	77044
Ridenour, Vernon		26877 Iron Manor Lane	Kingwood	TX	77339
Rio Villa Water Supply Corp.	James C. Kaiser	Rt. 24 19331 Rio Villa	Houston	TX	77049
Robert Hall		13121 Robert E. Lee	Houston	TX	77044
ROBERTO MARTINEZ		13110 1/2 TECONDEROGA	HOUSTON	TX	77044
Rodney Browning		303 Commerce	Highlands	TX	77562
Ronnie Hendrys		Bear Bayou Dr.	Channelview	TX	77530
Royal Wood MUD	JERRY CHAPMAN	PO BOX 2749	SPRING	TX	773832749
RUSCHE DISTRIBUTING COMPANY	GIL WOOD	555 E AIRTEX DR	HOUSTON	TX	770736099
Russell McClinton		12542 1/2 Robert E. Lee #A	Houston	TX	77044
Russell, Connie S.		17940 Hwy 90	Houston	TX	77049
S. W. I. C.					
S.S.G. Fuel Service, Inc.		11907 E Sam Houston Pkwy N	Houston	TX	77044
Salazar, Americo		9734 Sheldon Road	Houston	Tx	77049
Salinas, Reynaldo G.		6347 Perch Creek Drive	Houston	TX	77049
SAN JACINTO BEND ESTATES	BRAD MALLOY	19411 RIO VILLA DR	HOUSTON	TX	770493209
SAND BAR ESTATES	NORMAN BARNETT	PO BOX 3104	BAYTOWN	TX	775223104
Sarah Garza		16119 Millers Landing	Houston	TX	77049
Sartomer Corporation	Mohammed Dekiouk	17335 Wallisville Road	Houston	TX	77049
Sasson, Eli		4402 Woodvalley, Ste B	Houston	TX	77096

Saucedo, A. Juan		14522 Meyersville Drive	Houston	TX	77049
Schaffer Precision	Clayton Greenwood	P.O. Box 995	Channelview	TX	77530
Schomber, Al		14415 Lakeside Terrace	Houston	TX	77044
Sergio Melendez		16043 Miller Landing	Houston	TX	77049
Service Pipeline					
Shafaii Investments Ltd.	Raj Shafii	3807 River Oaks Drive	Pasadena	TX	77505
Sharon Earley		11926 Aqueduct	Houston	TX	77044
Sheldon Community Fire & Rescue		8407 CE King Parkway	Houston	TX	77044
Sheldon I.S.D.	Kathleen Shimp	8530 C.E. King Parkway	Houston	TX	77044
SHELDON ROAD MUD	STEPHEN LANDRY	9419 LAMKIN RD	Houston	TX	77049-1026
Sherry Brown		400 Riverside	Highlands	TX	77562
sheryl thomas		11529 christian dr.	sheldon	TX	77044
Signature Landmarks Properties, LLC		1345 Campbell Rd., Ste 200	Houston	TX	77055
Six C Rentals, LP	Becky Romero-CFO	P.O. Box 1558	Broussard	LA	70518
Skopik, Louis		8811 Talcott Lane	Houston	TX	77049
Sojourns Partners, LLC		P.O. Box 1992	Channelview	TX	77530
Sopchak, Larry		338 Stonehenge	Houston	TX	77015
Southwestern Bell	SBC Communications Inc.	1 Bell Center, Room 36-M-01	St. Louis	MO	63101
Specialty Sand Company	W.A. Michael	16601 Garrett Road	Houston	TX	77044
Spring Golf Ventures	Creek Scott	16401 Country Club Drive	Crosby	TX	77532
ST. CLAIR, GEORGE N.		P.O. BOX 177	CHANNELVIEW	TX	77530
St. Dominic Catholic Church	Pastor	8215 Reservoir Ave.	Houston	TX	77049
ST. REGIS PAPER CO-SOUTHLAND DIV		P.O. BOX 23011	HOUSTON	TX	77028
Stan Adams		13810 Lakeside Terrace	Houston	TX	77044
STANDLEY UTILITY SERVICE CORP.	CHAKO, JACOB	P.O. BOX 721163	HOUSTON	TX	77272
Stauffer Pipe Service		14205 Garrett	Houston	TX	77044
Stephen Waszkiwicz		13725 Lakeside Terrace	Houston	TX	77044
Sterling, William C.		PO BOX 204	Crosby	TX	77532
Stonepark 2		NE Beltway 8 & Wallisville Rd	Houston	TX	77015
Suburban Utility Company	Michael Martin	P.O. Box 455	Spring	TX	77383
SUNBELT UTILITIES	TRACY RAGSDALE	730 LITTLE YORK RD.	HOUSTON	TX	77076
Superior Drill Pipe	Warren Hoover	7203 Miller Rd. # 2	Houston	TX	77049
SURFCOTE PIPE COATING, INC.		3657 BRIARPARK STREET	HOUSTON	TX	77042
Swindull, Tom		14410 Lakeside Terrace Drive	Houston	TX	77044
Tanks of Texas Leasing LLC	Jerry Stepp	7700 E. Sam Houston Pkwy. N.	Houston	TX	77049
Tara Parker		12721 Green River	Houston	TX	77044
TCEQ		P.O. Box 13087	Austin	TX	78711
Tech Fab	Jeff Greenwood	7450 Miller Road No. 2	Houston	TX	77049
Tecon Services, Inc.	Phillip C. Pickens	P.O. Box 10158	Houston	TX	77206

Tejeda, Maximo		8526 Green River	Houston	TX	77028
TEK-RAP, INC.	JOSEPH W ARTHUR	13835 OLD BEAUMONT HWY.	HOUSTON	TX	77049
Tenaris Coiled Tubes, LLC	Saima Baig	8615 E. Sam Houston Pakwy N	Houston	TX	77044
Terra Renewal Service	Vendor Relations	P.O. Box 3036	Russelville	AR	72811
Terramark Community		322 Julie Rivers Drive	Sugarland	TX	77478
Terry G. White		2740 Grace Lane	Highlands	TX	77562
Texas Industries		68 Jonspin Rd	Wilmington	MA	1887
Texas Parks & Wildlife Dept.	Robert Comstock	15315 Beaumont Highway	Houston	TX	77049
Texas Partners Holdings, LP	Michael Carman	7215 Miller Road # 2	Houston	TX	77049
Texas Star Breeders Stables, LLC	Robert Guzman	P.O. Box 911	Highlands	TX	77562
Thakkar, Navinkumar		555 Spring Park Center Blvd.	Spring	TX	77373
Tidwell Waste Water Utility, LLC	Eli Sasson	P.O. Box 31068	Houston	TX	77231
Timco		15911 Wood Road	Channelview	TX	77530
Todd Allen		13622 Lakeside Terrace Dr.	Houston	TX	77044
TPWD SHELDON LAKE STATE PARK	EMMITT BROTERTON	15315 Beaumont Highway	Houston	TX	77049
Tracy Knight		12810 Hazelway Lane	Cypress	TX	
Trevino, Manuel	Maria Medeles	7620 Denison Street	Houston	TX	77020
Triad Transport, Inc.		P.O. Box 818	McAlester	OK	74502
Trimm Jones		6606 Miller #2	Houston	TX	77049
Triple A Sand, Ltd.		P.O. Box 656	Highlands	TX	77562
TUBOSCOPE A VARCO COMPANY HIGHWAY 90 COATING FACIL	RUBEN CUELLO	PO BOX 808	HOUSTON	TX	77001808
TUBOSCOPE HIGHWAY 90 COATING FACIL		14503 PINELAND E	Houston	TX	77044
TUBOSCOPE SHELDON RD	GEORGE HOUSE	10222 SHELDON Road	Houston	TX	77049
TUBOSCOPE SOUTH	MIKE MANZAK	9015 Sheldon Road	Houston	TX	77049
Tuboscope, a Varco LP Company	Rubin Cuello	P.O. Box 24810	Houston	TX	77229
TUBULAR PROCESSING SERVICES DIVISI		9393 Sheldon Road	Houston	TX	77049
Tubular Solutions	Justin Barnett	P.O. Box 34545	Houston	TX	77234
Tug Boat, Inc.		P.O. Box 501	Highlands	TX	77562
Turner Brothers Trucking, Inc.	John Schissler	P.O. Box 83017	Oklahoma City	OK	73148
Twinland Baptist Church	Pace Stephen	16300 Wallisville	Houston	TX	77049
TxDOT		7600 Washington Avenue	Houston	TX	77007
U.S. Steel Tubular Products		P.O. Box 136	Pittsburg	PA	15230
Ultra Premium Oilfield Srvs.	Dave Clarke	8216 Miller Road # 3	Houston	TX	77049
UNDERWOOD GOLF CENTER	HAL UNDERWOOD	15343 WALLISVILLE RD.	HOUSTON	TX	77049
UNIFORM COMPONENTS COMPANY HOUSTON	TODD SIMMONS	10703 Sheldon Road	Houston	TX	77044
Union Tank Car	HORACE WRIGHT	16923 Old Beaumont Hwy 90	HOUSTON	TX	77049
Universal Enterprises Inc.	Ahmad A. Dhananil	6671 SW Freeway, Suite 440	Houston	TX	77074
UNIVERSAL TUBULAR SERVICE INC.	NICK MUNGER	P.O. BOX 24659	HOUSTON	TX	77229

US EPA		1445 Ross Ave., Suite 1200	Dallas	TX	75202-2733
V & M STAR	LARRY PRUITT	8603 Sheldon Road	Houston	TX	77049
Vaca, Jesus		16711 Laurel Wood	Channelview	TX	77530
VAM USA	Jason Travis	19210 E. Hardy Rd.	Houston	TX	77073
Vanguard Freight Services, Inc.	Michael Ogashi	15211 Dellwild Court	Houston	TX	77049
Varco, L.P.	Mike Manzak/ Victor Bedford	9015 Sheldon Road	Houston	TX	77049
Vargas, Jose		15902 Millers Landing	Channel View	TX	
Victor Valencia		1715 Mickle Creek	Houston	TX	77049
VILLA UTILITIES	NORMAN BARNETT	P.O. Box 3104	Baytown	TX	77522-3104
Vu, Susan		8514 C E King Parkway	Houston	TX	77044
W. B. Wade		16311 Bear Bayou Dr	Channelview	TX	77530
W. W. Webber	Cory Hoke	14333 Chrisman Rd	Houston	TX	77039
W.C.I.D. 50	12900 FM 2100	Crosby	TX	77532	
Waldo Gaviria		8018 Round Rock Drive	Houston	TX	77049
Wallisville GSI, LP	Gary D Kelley	2033 W McDermott, Ste 320 LB 265	Allen	TX	75013
Wallisville LTD		1100 Georgia	Deer Park	TX	77536
Webb, Dale		15902 Miller Rd 1, Bldg A-5	Houston	TX	77049
Weisinger, Billy Ray		16414 Sunshine	Houston	TX	77049
Welch, Joel		11007 Meadowvine	Houston	TX	77049
Wendy Wilkerson		1525 Park St	Channelview	TX	77530
Western Properties, LLC		14405 Eighteenth Fairway	Alpharetta	GA	30004
White, Jimmy		8515 Mayhaw	Houston	TX	77044
WILLIAM HAMILTON		16026 MILLER ROAD 1	HOUSTON	TX	77049
William Rife		8605 Miller Rd 3	Houston	TX	77049
WILLIAMS BROTHERS CONST CO., INC	JAMES MILLER	P.O. Box 66428	Houston	TX	77266
WITTEN WATER SYSTEM DAIRY QUEEN	TIM WITTEN	8556 KATY FWY STE 128	HOUSTON	TX	770241806
WKB Investments	John Bailey	19500 St. Hwy 249, Ste 280	Houston	TX	77070
Woodmere Development Co., Ltd	Aaron Alford	15915 Katy Freeway, Suite 405	Houston	TX	77094
Wooten, Olin		340 McEachin Landing Road	Hazlehurst	GA	31539
Wynn, Terry R.		12317 Garrett Road	Houston	TX	77044
Xxcell Freight Systems, Inc.	Tiffany Pannel	P.O. Box 1924	Channelview	TX	77530
XXTREME PIPE STORAGE	BOBBY LOPEZ	PO BOX 872	CHANNELVIEW	TX	775309998
Yorkshire, LLC	Allan Luedtke	P.O. Box 24218	Houston	TX	77229
Youth-Reach Houston	Curt Williams	P.O. Box 9631	Houston	TX	77213
B WESTBROOK		P O BOX 24338	HOUSTON	TX	772294338

Appendix Q

The name and address of each retail public utility, as defined in section 13.002 of the Texas Water Code that owns or operates a groundwater supply well within five miles of the boundary of the designated property.

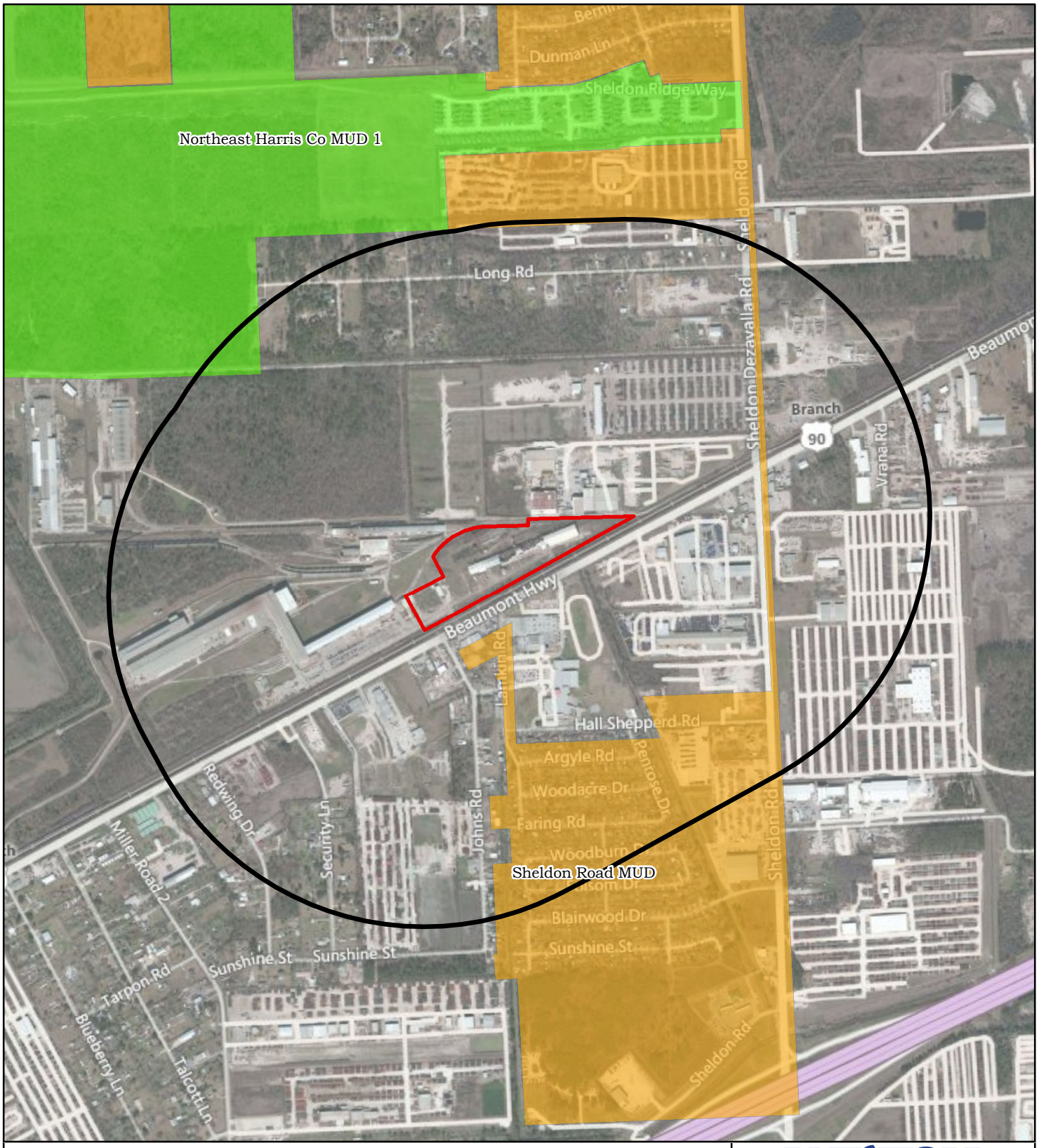
A map depicting all retail public utilities as defined in section 13.002 of the Texas Water Code that owns or operates a groundwater supply well within five miles of the boundary of the designated property is provided in **Appendix S**. **Appendix P** contains a listing of each retail public utility, as defined in section 13.002 of the Texas Water Code that owns or operates a groundwater supply well within five miles of the boundary of the designated property. At the time of this application submittal, notices to water well owners were being prepared, but had not yet been notified per Section 361.805 of the Texas Health & Safety Code.

Channelview	16224 Bear Bayou Road	Channelview, TX 77530
Cloverleaf	903 Hollywood	Houston, TX 77015
Highlands	125 San Jacinto	Highlands, TX 77562

Appendix R

A listing of each municipality, other than the city of Houston, with a corporate limit within one-half mile of the boundary of the designated property.

There are no municipalities with corporate limits within one-half mile of the boundary of the designated property.



0 1,200 2,400

Feet

LEGEND

- PROPERTY BOUNDARY
- NORTHEAST HARRIS CO MUD 1
- SHELDON ROAD MUD

N

SOURCE: (c) 2010 Microsoft Corporation and its data suppliers

WESTON SOLUTIONS

APPENDIX R
MUD DISTRICT MAP
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

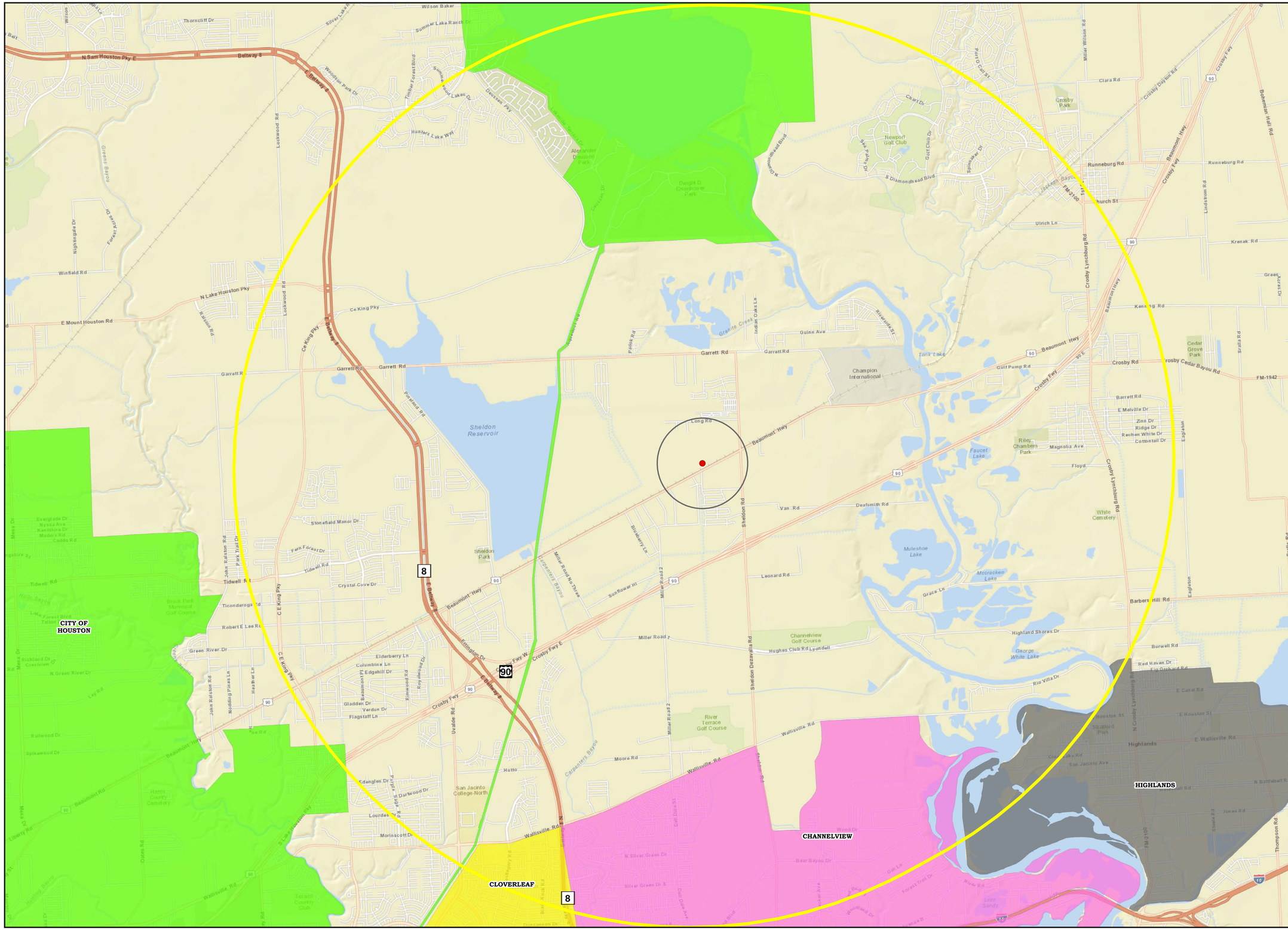
DATE	PROJECT NO	SCALE
SEPTEMBER, 2012	14895.001.001.0030	AS SHOWN

FILE: L:\14895 GUIC GAP\GIS\Appendix R MUD District Map.mxd 3:34:07 PM 9/20/2012 sulaimat

Appendix S

A listing of each municipality, other than the city of Houston, that owns or operates a groundwater supply well within five miles of the boundary of the designated property.

Other than the City of Houston, the corporate limits of Channelview, Cloverleaf, and Highlands are within five miles of the boundary of the designated property. A map showing the location of the municipalities within the five-mile radius is attached in this Appendix. At the time of this application, submittal notices to water well owners were being prepared, but had not yet been notified per Section 361.805 of the Texas Health and Safety Code.



LEGEND

- SITE LOCATION
- 0.5 MILE RADIUS
- 5 MILE RADIUS
- CITY OF HOUSTON
- CHANNELVIEW
- CLOVERLEAF
- HIGHLANDS

N

0 0.5 1

SCALE IN MILES

Image Source:
(c) 2009 Microsoft Corporation and its data suppliers, 2011

NOTE:
(1) MAP SCALED FOR D SIZE LANDSCAPE (22x 34) PRINTING.

WESTON SOLUTIONS

APPENDIX S
MUNICIPALITY MAP
17011 OLD BEAUMONT HWY 90
HOUSTON, HARRIS COUNTY, TEXAS

DATE	PROJECT NO	SCALE
SEPT. 2012	14895.001.001.0030	AS SHOWN

File: L:\14895 GUIC GAP\GIS\Appendix S Municipality Map.mxd 10/8/2012 10:12:08 AM sulamat

Appendix T

A listing of owners of real property within 2,500 feet of the boundary of the designated property as indicated by the most recent appraisal district records. Please Note: Depending on the location of your site, this requirement may include real property outside the City of Houston. Be sure to include **ALL** *properties within the 2,500 foot boundary. (An accompanying electronic excel file with mailing information should be included with your application.)*

A listing of each owner of real property per the Harris County Appraisal District within 2,500 feet of the boundary of the designated property is attached in this appendix.

APPENDIX T
Real Property Owners within 1/2 mile of Designatedr Property Boundary

MAIL TO	MAIL ADDRRESS 1	MAIL CITY	MAIL STATE	MAIL ZIP
SOUTHWESTERN BELL	1 BELL CTR RM 36	SAINT LOUIS	MO	63101-3004
VARCO L P	1000 RICHMOND AVE	HOUSTON	TX	77006
BANNER WAYNE & SHERRY	10019 VICTORIA PARK LN	HOUSTON	TX	77075-2710
SILLS T J	1010 MERCURY DR STE A	HOUSTON	TX	77029-2046
VILLANUEVA JUAN	10123 DUNVEGAN WAY	HOUSTON	TX	77013-5201
TORRES EZEQUIEL	10309 MUNN ST	HOUSTON	TX	77029-2623
DILLEY JACK E	10317 SHELDON RD	HOUSTON	TX	77049-1254
TRIAD TRANSPORT INC	10501 SHELDON RD	HOUSTON	TX	77044-6001
ALANIS GREGORIO V	10606 SHELDON RD # A	HOUSTON	TX	77044-6020
DAVIS MICHAEL CLIFTON	10610 SHELDON RD	HOUSTON	TX	77044-6020
S&T HEAVY HAUL LP	10626 1/2 SHELDON ROAD	CHANNELVIEW	TX	77530
ANT ENTERPRISES	10626 SHELDON RD	HOUSTON	TX	77044-6020
CLARK DAN	10717 SHELDON RD	HOUSTON	TX	77044-6003
BRACE PHILLIP A	10801 KAY JO LN	HOUSTON	TX	77044-5955
THRASH EARL M	10802 KAY JO LN	HOUSTON	TX	77044-5955
HARWELL DARLENE A	10802 STEPHENS LN	HOUSTON	TX	77044-5960
SANCHEZ RAYMOND	10803 STEPHENS LN	HOUSTON	TX	77044-5959
GONZALES ALBERT & GUADALUPE	10807 KAY JO LN	HOUSTON	TX	77044-5955
BECK TIM & MELANIE HILL	10807 SHELDON RD	HOUSTON	TX	77044-6005
BECK TIMOTHY R	10809 SHELDON RD	HOUSTON	TX	77044-6005
GREEN DUDLEY JAY & SHERRY	10810 STEPHENS LN	HOUSTON	TX	77044-5960
DAVIDSON CHARLES	10818 STEPHENS LN	HOUSTON	TX	77044-5960
ARMENTA JOSE A & LIZETTE	10823 STEPHENS LN	HOUSTON	TX	77044-5959
NORTEX HOLDING AG	10901 SHELDON ROAD	HOUSTON	TX	77044
FIRST BAPTIST CHURCH OF	10910 SHELDON RD	HOUSTON	TX	77044-6008
KREBS STEPHEN P & ANDREA	11015 SHELDON RD STE 102	HOUSTON	TX	77044-6009
WEBSTER GALEN L	11135 SUNTURF LN	HOUSTON	TX	77044-6301
SHELDON ISD	11411 C E KING PKWY STE A	HOUSTON	TX	77044-7192
JOHNSON NELLIE L	11615 BRYCE MILL CT	HUMBLE	TX	77346-6214
WILSON MARIETTA	11811 EAST FWY STE 195	HOUSTON	TX	77029-1982
PIZANO REYES L & DELIA	12000 FLEMING DR APT 2409	HOUSTON	TX	77013-6062
HERRERA LEOPOLDO	1207 VISTA DEL LAGO DR	HUFFMAN	TX	77336-4605
PEREZ ESTUARDO & INGRID P	12407 KIAKOVIC DR	HOUSTON	TX	77015
CASTORENA JOSE E & MARIA T	12546 SAINT MICHEL DR	HOUSTON	TX	77015-3338
DEAN DALTON JOHN JR	12902 SIMSVIEW DR	HOUSTON	TX	77045-3834
MOORE RICHARD H FOY I	12909 PEGGYS LN	HOUSTON	TX	77015-6328
GARCIA CLAUDIA I	13023 WOODTREK LN	HOUSTON	TX	77015-2785
HERNANDEZ RAUL & MARIA	13106 HALIFAX ST	HOUSTON	TX	77015-2827
OCHOA MARIA	1314 CHRISTINE ST	HOUSTON	TX	77017-4832
WILKERSON GEORGE W	13415 EDGEBORO ST	HOUSTON	TX	77049-1501
JOHNSON WILMA DEAN	13926 VILLAGROVE DR	HOUSTON	TX	77049-1621
SOUTHERN PACIFIC RAILROAD COMPANY	1400 DOUGLAS ST STOP 1640	OMAHA	NE	68179-1640
SHOTWELL APARTMENTS LIMITED PARTNERSHIP	1414 RICHEY ST STE 15	PASADENA	TX	77502-1852
HARTLEY BILLY TYRONE	14210 ROUNDSTONE LN	HOUSTON	TX	77015-2452
ZUBIATE LAURA L	14211 ROUNDSTONE LN	HOUSTON	TX	77015-2451
SEVILLA ESMERALDA S	14522 MEYERSVILLE DR	HOUSTON	TX	77049-4324
GARZA JOSE LUIS	14602 ROCKWELL BLVD	HOUSTON	TX	77085-3630
SILVA LUCIO F	14825 MELEX DR	CORPUS CHRISTI	TX	78410-5547
ALABBASI CHARLI & ZENAIDA	14830 SPARKLING BAY LN	HOUSTON	TX	77062-2324
CHAVARRIA ELSA A & MIGUEL R	15019 CHIPPERFIELD DR	CHANNELVIEW	TX	77530-2323
WALKER JOAN HOBBS	1514 CHERTSEY CIR	CHANNELVIEW	TX	77530-2030
MATHEW MATHEW K & MARIAMMA	15306 IRIS CROSSING LN	HOUSTON	TX	77049-1761
ROMO RUBEN PATRICIO	15402 LONG RD	HOUSTON	TX	77044-5926
CLARK CONNIE	15410 LONG RD	HOUSTON	TX	77044-5926
TORREZ MARTIN & AMINA	15502 LIBERTY PINE LN	HOUSTON	TX	77049-2513
GERMANY PEGGY J	15504 LONG RD	HOUSTON	TX	77044-5928
KING KENNETH & CAROL	15511 LONG RD # 5	HOUSTON	TX	77044-5927
DOBESH BOBBY R & PATRICIA A	15603 LONG RD	HOUSTON	TX	77044-5929
WOTIPKA LEAH CARAMANIAN	15611 LONG RD	HOUSTON	TX	77044-5929
JOSEPH DALE & TRACIE	15620 LONG RD	HOUSTON	TX	77044-5930
MUNDY ANN MARIE	15714 LONG RD	HOUSTON	TX	77044-5932
WILKINS PEGGY L	15727 LONG RD	HOUSTON	TX	77044-5931
PEABODY HOLDINGS LLC	15729 NORTH FWY	HOUSTON	TX	77090-5825
WILLIAMS VELMA R	15802 LONG RD	HOUSTON	TX	77044-5934
MORTON DON	15814 LONG RD	HOUSTON	TX	77044-5934
JOHNSON CHARLES JR & LISA	15902 LONG RD	HOUSTON	TX	77044-5936
VILLANUEVA ENRIQUE	15912 LONG RD	HOUSTON	TX	77044-5936
BGM LAND INVESTMENTS LTD	15915 KATY FWY STE 405	HOUSTON	TX	77094-1710
MYERS GARY D JR	15927 LONG RD	HOUSTON	TX	77044-5935

APPENDIX T
Real Property Owners within 1/2 mile of Designatedr Property Boundary

MAIL TO	MAIL ADDRRESS 1	MAIL CITY	MAIL STATE	MAIL ZIP
FRAUTSCHI DONNA	15934 LONG RD	HOUSTON	TX	77044-5936
CHARLES JESSE JR	15935 LONG RD	HOUSTON	TX	77044-5935
BROCKUS THEODORE MEDFORD	1600 REESE LN	AZLE	TX	76020-1552
EDDINS JUDY C	16002 LONG RD	HOUSTON	TX	77044-5938
ANDERSON WILLIAM J	16010 LONG RD	HOUSTON	TX	77044-5938
STARNES JASON	16023 LONG RD	HOUSTON	TX	77044-5937
JOHNSON ERNEST C & JUNE	1609 SW 35TH CIR	OKEECHOBEE	FL	34974-6082
BRADEN RITA L	16119 LONG RD	HOUSTON	TX	77044-5939
HARDWAY ERNEST JAMES	16127 LONG RD	HOUSTON	TX	77044-5939
FIRST BAPTIST CHURCH	16235 LONG RD	HOUSTON	TX	77044-5941
GARZA CARMEN CANTU	16237 LONG RD	HOUSTON	TX	77044-5941
PATTERSON JAMES JONATHAN	16239 LONG RD	HOUSTON	TX	77044-5941
GWAK SUNG HWAN	16750 OLD BEAUMONT HWY	HOUSTON	TX	77049
THOME JOSEPH F & CARA M	16770 IMPERIAL VALLEY DR STE	HOUSTON	TX	77060-3408
HUSSAIN LIAQUAT	16826 BEAUMONT HWY	HOUSTON	TX	77049
HUSSAIN LIAQAT	16830 BEAUMONT HWY	HOUSTON	TX	77049-2023
HAIRSTON STEVEN P II	16830 FARING RD	HOUSTON	TX	77049-1008
TUTT CHARLES H & DEBORAH M	16831 BURTON ST	HOUSTON	TX	77049-2001
GARCIA VICTOR	16834 FARING RD	HOUSTON	TX	77049-1008
HERNANDEZ SALVADOR	16902 FARING RD	HOUSTON	TX	77049-1010
FLORES SABINO	16902 FOLSOM DR	HOUSTON	TX	77049-1112
GARCIA INOCENCIO	16902 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
TAVIRA ISABEL L	16902 WOODACRE DR	HOUSTON	TX	77049-1037
MORONES KATHERINE	16903 ARGYLE RD	HOUSTON	TX	77049-1001
MONTOY-TORRES MARIA TORRES	16903 BLAIRWOOD DR	HOUSTON	TX	77049-1101
NAVARRETE NOELIA	16903 FARING RD	HOUSTON	TX	77049-1009
OROPEZGUZMAN MARIO	16903 WOODACRE DR	HOUSTON	TX	77049-1036
HERNANDEZ RAFAEL E	16903 WOODBURN DR	HOUSTON	TX	77049-1127
HUTCHISON HELEN	16906 FARING RD	HOUSTON	TX	77049-1010
GOMEZ ANTONIO	16906 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
TURNER MICHAEL & SABRINA	16907 BLAIRWOOD DR	HOUSTON	TX	77049-1101
CAVAZOS ROLANDO	16907 FARING RD	HOUSTON	TX	77049-1009
SALAZAR ANTONIO E	16907 WOODACRE DR	HOUSTON	TX	77049-1036
WAUDBY SHAWN P	16907 WOODBURN DR	HOUSTON	TX	77049-1127
GORDON FLOYD DANIEL & AMY	16910 FARING RD	HOUSTON	TX	77049-1010
DIAZ GILBERTO JR	16910 FOLSOM DR	HOUSTON	TX	77049-1112
RODRIGUEZ RALPH H & IRMA B	16910 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
LOPEZ WALTER L	16911 FARING RD	HOUSTON	TX	77049-1009
ARREOLA ADRIAN & VERONICA	16911 WOODACRE DR	HOUSTON	TX	77049-1036
SHELDON VOLUNTEER FIRE DPT	16911 WOODACRE DR	HOUSTON	TX	77049-1036
COOK JIMMY L & CAROL	16911 WOODBURN DR	HOUSTON	TX	77049-1127
KING J C & MARY A	16914 ARGYLE RD	HOUSTON	TX	77049-1002
PLATT SHIRLEY F	16914 FARING RD	HOUSTON	TX	77049-1010
HILL KENNETH W	16914 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
WARRICK TIMOTHY J	16915 FARING RD	HOUSTON	TX	77049-1009
AGUILAR MELQUISEDETH	16915 WOODACRE DR	HOUSTON	TX	77049-1036
VALENTI CHRISTOPHER	16915 WOODBURN DR	HOUSTON	TX	77049-1127
DOMINGUEZ DOMINGO	16918 ARGYLE RD	HOUSTON	TX	77049-1002
GREEN G R ESTATE OF	16918 FOLSOM DR	HOUSTON	TX	77049-1112
FUENTES JUAN	16918 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
MALDONADO JORGE A	16918 WOODBURN DR	HOUSTON	TX	77049-1128
SARRIA NANCY	16919 ARGYLE RD	HOUSTON	TX	77049-1001
RODRIGUEZ JOSE M	16919 WOODACRE DR	HOUSTON	TX	77049-1036
PAGE CHARLES A & BETTIE J	16919 WOODBURN DR	HOUSTON	TX	77049-1127
ELLIS EFFIE	16922 FARING RD	HOUSTON	TX	77049-1010
QUEBEDEAUX CATHY L	16922 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
VALERO BLANCA	16922 WOODACRE DR	HOUSTON	TX	77049-1037
CAMPOS RUBEN A	16922 WOODBURN DR	HOUSTON	TX	77049-1128
AVILA JOSE L & MARIA E	16923 ARGYLE RD	HOUSTON	TX	77049-1001
GONZALEZ OLGA J	16923 FARING RD	HOUSTON	TX	77049-1009
LOPEZ MIGUEL S	16923 FOLSOM DR	HOUSTON	TX	77049-1111
TRUJILLO MARIA G	16923 WOODBURN DR	HOUSTON	TX	77049-1127
GOMEZ SAM C	16926 FOLSOM DR	HOUSTON	TX	77049-1112
RUIZ KARLA E & GABRIEL	16926 FOLSOM DR	HOUSTON	TX	77049-1112
RIOJAS RAYMOND	16926 HALL SHEPPERD RD	HOUSTON	TX	77049-1016
RODRIGUEZ GILBER A & CONNIE E	16926 WOODACRE DR	HOUSTON	TX	77049-1037
KALLIES BILLY RAY	16926 WOODBURN DR	HOUSTON	TX	77049-1128
CEJA ROBERTO JR	16927 FARING RD	HOUSTON	TX	77049-1009
SERENO MIGUEL	16927 FOLSOM DR	HOUSTON	TX	77049-1111
GONZALEZ BLANCA	16927 WOODACRE DR	HOUSTON	TX	77049-1036
MCDUFF LAWRENCE M & NORMA	16927 WOODBURN DR	HOUSTON	TX	77049-1127
LOPEZ ARTURO O	16930 FOLSOM DR	HOUSTON	TX	77049-1112
MARTINEZ PATRICIA	16930 WOODBURN DR	HOUSTON	TX	77049-1128
WILKINS SHARON L	16931 WOODBURN DR	HOUSTON	TX	77049-1127
ALONSO JORGE L	16935 WOODBURN DR	HOUSTON	TX	77049-1127
ALONSO SARA	16938 FOLSOM DR	HOUSTON	TX	77049-1112
MARTINEZ EDILBERTO RAY	16939 FOLSOM DR	HOUSTON	TX	77049-1111
VALLES MANUEL R	16939 WOODBURN DR	HOUSTON	TX	77049-1127
GRANADOS ELIGIO	17002 FARING RD	HOUSTON	TX	77049-1012
PRESTON ROYCE B	17002 WOODACRE DR	HOUSTON	TX	77049-1039
ROCHA BARTOLO O & VERONICA G	17002 WOODBURN DR	HOUSTON	TX	77049-1130

APPENDIX T
Real Property Owners within 1/2 mile of Designatedr Property Boundary

MAIL TO	MAIL ADDRRESS 1	MAIL CITY	MAIL STATE	MAIL ZIP
MARTINEZ JESUS G	17003 ARGYLE RD	HOUSTON	TX	77049-1003
MARTINEZ JUAN J & MARIA G	17003 FARING RD	HOUSTON	TX	77049-1011
REYES AMELIA	17003 FOLSOM DR	HOUSTON	TX	77049-1113
CHANDLER CHARLES B	17003 WOODBURN DR	HOUSTON	TX	77049-1129
RODAS RAFAEL	17006 ARGYLE RD	HOUSTON	TX	77049-1004
WARS PEGGY S	17006 HALL SHEPPERD RD	HOUSTON	TX	77049-1017
QUINTANA MANUEL & ELODIA	17007 ARGYLE RD	HOUSTON	TX	77049-1003
VILLARREAL JOSE LUIS	17007 FARING RD	HOUSTON	TX	77049-1011
SKANK EARL J & JENNIFER F	17007 FOLSOM DR	HOUSTON	TX	77049-1113
PINKSTON RUTH M	17007 WOODBURN DR	HOUSTON	TX	77049-1129
HARVEY JULIETTE G	17010 ARGYLE RD	HOUSTON	TX	77049-1004
RODRIGUEZ JOSE A	17010 FARING RD	HOUSTON	TX	77049-1012
MENDOZA MARCOS S & LUCINA	17010 HALL SHEPPERD RD	HOUSTON	TX	77049-1017
POUNDS TRACY L	17011 ARGYLE RD	HOUSTON	TX	77049-1003
NEWTON MILDRED R	17011 FARING RD	HOUSTON	TX	77049-1011
TAYLOR JAMES T	17011 FOLSOM DR	HOUSTON	TX	77049-1113
KINGREY PAUL RANDALL	17011 WOODACRE DR	HOUSTON	TX	77049-1038
RAMIREZ RAUL	17011 WOODBURN DR	HOUSTON	TX	77049-1129
RAMIREZ RAUL P	17011 WOODBURN DR	HOUSTON	TX	77049-1129
CEBALLOS JOE & SUSIE	17014 ARGYLE RD	HOUSTON	TX	77049-1004
MARTINEZ AMEL ANGEL	17014 WOODACRE DR	HOUSTON	TX	77049-1039
CALDERON JOSE F	17015 FARING RD	HOUSTON	TX	77049-1011
REYES GUILLERMO A & MARIA	17015 FOLSOM DR	HOUSTON	TX	77049-1113
SERRANO MANUEL	17015 WOODACRE DR	HOUSTON	TX	77049-1038
NOWELL BILLIE J & LINDA F	17018 FARING RD	HOUSTON	TX	77049-1012
GONZALES JOSE GABRIEL	17018 HALL SHEPPERD RD	HOUSTON	TX	77049-1017
LOZANO D JR	17018 WOODACRE DR	HOUSTON	TX	77049-1039
PECKINPAUGH JOSEPHINE L	17019 FOLSOM DR	HOUSTON	TX	77049-1113
MARTINEZ GABRIEL M & MARIA	17019 WOODBURN DR	HOUSTON	TX	77049-1129
ROJAS RAUL F	17022 ARGYLE RD	HOUSTON	TX	77049-1004
SASKI JOHNNY & BRENDA	17022 WOODACRE DR	HOUSTON	TX	77049-1039
GARCIA JUAN F & ALEJANDRINA E	17023 ARGYLE RD	HOUSTON	TX	77049-1003
SMITH BOBBY R	17023 WOODACRE DR	HOUSTON	TX	77049-1038
CAMARGO SILVESTRE F	17027 FARING RD	HOUSTON	TX	77049-1011
STOCKTON GLENN	17102 ARGYLE RD	HOUSTON	TX	77049-1006
KABOT MARY	17102 WOODBURN DR	HOUSTON	TX	77049-1132
SIERRA ERNESTO & ELISA	17103 ARGYLE RD	HOUSTON	TX	77049-1005
JAQUEZ ISRAEL	17103 WOODACRE DR	HOUSTON	TX	77049-1040
LOPEZ ANTONIO T & ZOLIA	17106 ARGYLE RD	HOUSTON	TX	77049-1006
REDMON JACK F	17106 HALL SHEPPERD RD	HOUSTON	TX	77049-1019
MARTINEZ HECTOR	17106 WOODACRE DR	HOUSTON	TX	77049-1041
LUNA FELIPE L	17107 ARGYLE RD	HOUSTON	TX	77049-1005
JACKSON MICHAEL T	17107 FARING RD	HOUSTON	TX	77049-1013
FLORES SANDINO	17107 WOODACRE DR	HOUSTON	TX	77049-1040
ESPARZA RAMON	17107 WOODBURN DR	HOUSTON	TX	77049-1131
RUIZ JOSE L	17110 ARGYLE RD	HOUSTON	TX	77049-1006
WILSON GEORGE S	17110 FARING RD	HOUSTON	TX	77049-1014
DELAO MARIA I & SEVERO MONSIVAIS	17110 HALL SHEPPERD RD	HOUSTON	TX	77049-1019
CASAS UBALDO SR & CECILIA	17110 WOODBURN DR	HOUSTON	TX	77049-1132
GONZALEZ HILDEBERTO	17111 ARGYLE RD	HOUSTON	TX	77049-1005
TORRES JAIME O	17111 WOODBURN DR	HOUSTON	TX	77049-1131
JAMES CHARLES E JR	17114 ARGYLE RD	HOUSTON	TX	77049-1006
MEGERLE MARIA ELVIA	17114 FARING RD	HOUSTON	TX	77049-1014
ESTATE OF EMMONS EFFIE W	17114 HALL SHEPPERD RD	HOUSTON	TX	77049-1019
CLAYTON WILLARY L	17114 WOODACRE DR	HOUSTON	TX	77049-1041
RIVERA ELISA &	17115 ARGYLE RD	HOUSTON	TX	77049-1005
HOWARD MICHAEL & CHRISTINA	17115 FARING RD	HOUSTON	TX	77049-1013
MIRELES DAVID	17115 WOODACRE DR	HOUSTON	TX	77049-1040
STOREMSKI CAROLYN	17118 FARING RD	HOUSTON	TX	77049-1014
GALENA JOHN D	17118 HALL SHEPPERD RD	HOUSTON	TX	77049-1019
JACKSON BETTY ANN	17118 WOODACRE DR	HOUSTON	TX	77049-1041
BRELAND JIMMY T	17119 FARING RD	HOUSTON	TX	77049-1013
COPAUS BILLY GENE	17119 WOODACRE DR	HOUSTON	TX	77049-1040
MARROQUIN MARIA D	17119 WOODBURN DR	HOUSTON	TX	77049-1131
BANDA RODOLFO & OLIBIA	17122 WOODACRE DR	HOUSTON	TX	77049-1041
FLORES DAVID & MARY E	17123 FARING RD	HOUSTON	TX	77049-1013
REYES MINERVA G	17123 WOODACRE DR	HOUSTON	TX	77049-1040
RAMIREZ IRENE H	17123 WOODBURN DR	HOUSTON	TX	77049-1131
BANDA LORENA	17126 ARGYLE RD	HOUSTON	TX	77049-1006
ROBERT ATMAR K	17126 FARING RD	HOUSTON	TX	77049-1014
FUENTES JOSE M & MARIA S	17126 WOODACRE DR	HOUSTON	TX	77049-1041
VELA GEORGE L & BLANCA E	17130 FARING RD	HOUSTON	TX	77049-1014
LEBLEU ROEL R & JOYCE	17131 FARING RD	HOUSTON	TX	77049-1013
MYERS REBECCA L	17134 FARING RD	HOUSTON	TX	77049-1014
PENDERGRAFT BILLY J	1720 QUAIL GROVE DR	FORT WORTH	TX	76177-1502
PENDERGRAFT BILLY J	1720 QUAIL GROVE DR	FORT WORTH	TX	76177-1502
MORALES GUMERCINDO	17203 WOODBURN DR	HOUSTON	TX	77049-1133
GUTIERREZ JOSE	17207 WOODBURN DR	HOUSTON	TX	77049-1133
CARGILL RICHARD N & TAYNA	1721 MISSOURI ST	BAYTOWN	TX	77520-6436
DEEP SOUTH LEASING LLC	17211 HALL SHEPPERD RD	HOUSTON	TX	77049-1049
RODRIGUEZ GABRIELA	17211 WOODBURN DR	HOUSTON	TX	77049-1133
ESPINOSA ROBERTO	17219 WOODBURN DR	HOUSTON	TX	77049-1133
K K CHIPS LLC	1724 KRENEK RD	CROSBY	TX	77532-6362
DIAZ EUTEMIO	17422 BEAUMONT HWY	HOUSTON	TX	77049-1261
DIAZ EUTEMIO & CHRISTOPHER	17424 1/2 BEAUMONT HWY	HOUSTON	TX	77049-1261

APPENDIX T
Real Property Owners within 1/2 mile of Designatedr Property Boundary

MAIL TO	MAIL ADDRRESS 1	MAIL CITY	MAIL STATE	MAIL ZIP
UTLX MANUFACTURING INC	175 W JACKSON BLVD	CHICAGO	IL	60604-2615
LEE IINVESTMENTS INC	17630 BEAUMONT HWY	HOUSTON	TX	77049-1210
LOPEZ GERARDO	1810 LORI LN	CHANNELVIEW	TX	77530-2777
PARRISH S G	1902 EAGLE POINT RD	CROSBY	TX	77532-3249
PALERMO DOROTHY	20103 RIO VILLA DR	HOUSTON	TX	77049-3223
MAGANA OCTAVIO & SOFIA	202 SADDLE CREEK FARMS DR	CROSBY	TX	77532-3489
AGUILAR JOSE M & EUPEMIA	2022 ROCK RIDGE DR	HOUSTON	TX	77049-1469
TEEL RANDALL	20931 FLAMING ARROW TRL	CROSBY	TX	77532-3239
BENFORD & KALU INV II LLC	2130A HOLLY HALL ST APT 196	HOUSTON	TX	77054-3900
ANDERSON LORI L	2202 NORTHSHORE DR	KINGWOOD	TX	77339-4113
OBREGON GERARDO G	2213 RUSSELL ST	HOUSTON	TX	77026-6628
ALONSO JOSE M & VERONICA	2414 MARLEN AVE	PASADENA	TX	77502-1428
GUIC INDUSTRIES INC	2801 POST OAK BLVD STE 222	HOUSTON	TX	77056-6105
TUBOSCOPE VETCO ITNL INC	2835 HOLMES RD	HOUSTON	TX	77051-1023
WOOTEN OLIN	340 MCEACHIN LANDING RD	HAZLEHURST	GA	31539-5740
LANNING PHILIP ALAN	3527 FAWN VALLEY DR APT 2015	DALLAS	TX	75224-4568
WYANT LARRY D & DANA	38351 HIGHWAY 105	SARATOGA	TX	77585-6933
CHATARPAL MOHANLALL & VIJAYANTI	3965 LAKE STAR DR	LEAGUE CITY	TX	77573-3535
LONG E W & IRA B ESTATE	41102 ROUNDUP RD	MAGNOLIA	TX	77354-4654
WEBB RICHARD W	414 STARLIGHT DR	WHITEWRIGHT	TX	75491-7287
MOORE JIMMY D & DIANE	4400 SHERRI LN	CROSBY	TX	77532-6805
BBDM LLC	4411 PRINCE PINE TRL	HOUSTON	TX	77059-3123
SHELDON ROAD MUD	4910 DACOMA ST STE 100	HOUSTON	TX	77092-7738
HELLER FINANCIAL LEASING INC	500 W MONROE ST FL 10	CHICAGO	IL	60661-3688
VILLANUEVA INOCENSIO	506 CAMPPAMORE	HOUSTON	TX	77013-5202
LUCIO VERONICA	527 HEYSHAM ST	HOUSTON	TX	77013-5315
SHIMEK HUBERT E & JOHNNIE	5441 MATTHEWS DR	SILSBEE	TX	77656-6227
CONESTOGA SUPPLY CORP	5810 WILSON RD STE 220	HUMBLE	TX	77396-2943
GUTIERREZ ERNESTO & RACHEL	6004 DUSTY RD	WATAUGA	TX	76148-3649
THOME FAMILY TRUST	6020 CORNERSTONE CT W STE 2	SAN DIEGO	CA	92121-3707
CLONINGER CHARLES A	6319 CRESTA PLACE DR	PASADENA	TX	77505-2501
JIMMY D & PEARL F CHAPMAN	6410 LEMOINE LN	HOUSTON	TX	77049-4904
SAUCEDO MARIA	6520 HARRISBURG BLVD	HOUSTON	TX	77011-4428
CAPITAL PLUS I LTD	729 GRAPEVINE HWY APT 410	HURST	TX	76054-2805
VALVERDE VICTOR D & TAMMY A	7407 MILLER ROAD 2	HOUSTON	TX	77049-4839
SALAVAR GREGORIO &	7616 HARTMAN RD	HOUSTON	TX	77049-2114
SAUCEDO MARIA	7803 ROCKHILL ST	HOUSTON	TX	77061-2205
NATIONAL OILWELL VARCO LP	7909 PARKWOOD CIRCLE DR FL 1	HOUSTON	TX	77036-6565
SSMV JOINT VENTURE	800 UVALDE RD	HOUSTON	TX	77015-3716
CONVEYING TECHNIQUES INC	800 WILCREST DR STE 101	HOUSTON	TX	77042-1369
FARIAS JESUS JR & MELISSA	8003 VIOLET VW	HIGHLANDS	TX	77562-5108
AFG INVESTMENT FUND 2 LLC &	825 S BARRINGTON AVE	LOS ANGELES	CA	90049-4707
AMERICAN PIONEER INVSTMENT	8556 KATY FWY STE 128	HOUSTON	TX	77024-1806
WITTEN J W	8558 KATY FWY	HOUSTON	TX	77024-1839
VARGAS JOSE EFREN & NOELIA E	8730 E HIGHLANDS XING	HIGHLANDS	TX	77562-2258
ROBERTS GEORGE L	8822 TALCOTT LN	HOUSTON	TX	77049-1931
JENNINGS JOHNNY R	8914 TALCOTT LN	HOUSTON	TX	77049-1933
SAENZ LEONEL E	8919 MILLER ROAD 2	HOUSTON	TX	77049-1942
RAMIREZ JOSE U & ROSA C	8934 JOHNS RD	HOUSTON	TX	77049-2041
GREGORY PAUL B	8938 BLUEBERRY ST	HOUSTON	TX	77049-1904
RAMIREZ JOSEFA PIMENTEL	8938 JOHNS RD	HOUSTON	TX	77049-2041
MEDRANO MARCELA	8946 JOHNS RD	HOUSTON	TX	77049-2041
CHAVEZ ABRAHAM & MELISSA	8954 JOHNS RD	HOUSTON	TX	77049-2041
PALOMO ADRIANA L	8958 JOHNS RD	HOUSTON	TX	77049-2041
HERNANDEZ IGNACIO	8962 JOHNS RD	HOUSTON	TX	77049-2041
CHAVEZ ADAM & MARIA	9010 SECURITY LN	HOUSTON	TX	77049-2020
LOCKHARDT ROBERT	9015 JOHNS RD	HOUSTON	TX	77049-2032
SMITH ROBERT N JR & SHELLY	9018 SECURITY LN	HOUSTON	TX	77049-2020
SANDEFER DAVID A & BRENDA	9027 SECURITY LN	HOUSTON	TX	77049-2019
GARCIA JOSE & ARACELI	9035 1/2 SECURITY LN	HOUSTON	TX	77049-2019
VALDEZ ISAIAS JR & ZOILA O	9035 REDWING DR	HOUSTON	TX	77049-2015
RODRIGUEZ ARACELI &	9035 SECURITY LN	HOUSTON	TX	77049-2019
SOFFES JIMMY G & ELIZABETH	9102 PENROSE DR	HOUSTON	TX	77049-1031
GARCIA ALEJANDRO &	9102 REDWING DR	HOUSTON	TX	77049-2018
VENUTI ALFRED R	9102 SECURITY LN	HOUSTON	TX	77049-2022
PEREZ EDUARDO & MARGARITA	9103 LAMKIN RD	HOUSTON	TX	77049-1020

APPENDIX T
Real Property Owners within 1/2 mile of Designatedr Property Boundary

MAIL TO	MAIL ADDRRESS 1	MAIL CITY	MAIL STATE	MAIL ZIP
JUAREZ MARIO & ANGELA	9103 SECURITY LN	HOUSTON	TX	77049-2021
FRANCO JORGE A & GLORIA	9106 PENROSE DR	HOUSTON	TX	77049-1031
GARCIA SANTIAGO & RAQUEL	9106 REDWING DR	HOUSTON	TX	77049-2018
CASAS RENE JR & ELVA	9107 LAMKIN RD	HOUSTON	TX	77049-1020
HOLLOWAY RAYMOND JR & KAY	9110 JOHNS RD	HOUSTON	TX	77049-2004
ADAMS NATHAN R	9111 REDWING DR	HOUSTON	TX	77049-2017
PATE BILLY J	9111 SECURITY LN	HOUSTON	TX	77049-2021
JONES JOHN E & HEATHER D	9118 SECURITY LN	HOUSTON	TX	77049-2022
STOLICH STEVEN M	9119 REDWING DR	HOUSTON	TX	77049-2017
MONJARAZ DESIDERIO B	9133 REDWING DR	HOUSTON	TX	77049-2017
ALSOBROOKS CLINTON & TRACY	9134 SECURITY LN	HOUSTON	TX	77049-2022
SHELDON ROAD INVESTORS LP	919 MILAM ST STE 1900	HOUSTON	TX	77002-5382
GARZA JOSE	9202 PENROSE DR	HOUSTON	TX	77049-1033
SOTO MIGUEL A & BEATRIZ	9203 LAMKIN RD	HOUSTON	TX	77049-1022
LAGUNA JOSE L	9206 PENROSE DR	HOUSTON	TX	77049-1033
LOVELL BOBBY R	9207 LAMKIN RD	HOUSTON	TX	77049-1022
ANDERSON KIRK	9210 JOHNS RD	HOUSTON	TX	77049-2006
AUBREY MONTIE K	9211 LAMKIN RD	HOUSTON	TX	77049-1022
ANDERSON KALINDA	9214 JOHNS RD	HOUSTON	TX	77049-2006
HARO JOSE R & MARIA	9214 PENROSE DR	HOUSTON	TX	77049-1033
AMEZCUA MAURICIO	9215 LAMKIN RD	HOUSTON	TX	77049-1022
MARIN ANA DEL CARMEN	9218 JOHNS RD	HOUSTON	TX	77049-2006
IBARRA JOSE E & DORA O	9218 PENROSE DR	HOUSTON	TX	77049-1033
SCHUFF RUBY	9222 PENROSE DR	HOUSTON	TX	77049-1033
PHELPS MARK E	9226 PENROSE DR	HOUSTON	TX	77049-1033
VOTAW CHESTER H & ALICE M	9227 LAMKIN RD	HOUSTON	TX	77049-1022
OCHOA DAVID & ANITA	9230 PENROSE DR	HOUSTON	TX	77049-1033
CHAVEZ SONIA P	9302 JOHNS RD	HOUSTON	TX	77049-2008
OCHOA DAVID & ANITA	9302 PENROSE DR	HOUSTON	TX	77049-1035
SERRATA GLORIA O	9306 PENROSE DR	HOUSTON	TX	77049-1035
VALDEZ MIGUEL & WENDY	9310 PENROSE DR	HOUSTON	TX	77049-1035
ROCHA JUAN PABLO	9314 PENROSE DR	HOUSTON	TX	77049-1035
HERNANDEZ IGNACIO & MARIA	9403 JOHNS RD	HOUSTON	TX	77049-2009
		HOUSTON	TX	77049-1026
CORTEZ ANGELA G	9423 LAMKIN RD	HOUSTON	TX	77049-1026
		HOUSTON	TX	77049-1026
GILLIAM ELIZABETH	9427 LAMKIN RD	HOUSTON	TX	77049-1026
FALLIN RICHARD W	9545 KATY FWY STE 450	HOUSTON	TX	77024-1460
GONZALES BERTHA E & LINDA	966 HEATHFIELD DR	CHANNELVIEW	TX	77530-2321
HARRIS COUNTY FLOOD CONTROL	9900 NORTHWEST FWY	HOUSTON	TX	77092-8601
SALCEDA JUAN J & MARIA A	996 SHELTON LN	CHANNELVIEW	TX	77530-2444
HARRIS COUNTY FWSD NO 48	ADDRESS UNKNOWN	HOUSTON	TX	
KOSUT FRANK C & PAULETTE	PO BOX 1515	MONTGOMERY	TX	77356-1515
COOPER CECIL G & BARBARA G	PO BOX 1561	CHANNELVIEW	TX	77530-1561
HOWELL SHELBY L	PO BOX 1606	CROSBY	TX	77532-1606
LEGER ROBERT E & SUSAN	PO BOX 1685	CROSBY	TX	77532-1685
FRANCO SERGIO V	PO BOX 16943	HOUSTON	TX	77222-6943
HOLLOWAY HARRY	PO BOX 1849	DAYTON	TX	77535-0031
RENTERIA JOSE & LUZ M	PO BOX 23715	HOUSTON	TX	77228-3715
VALERIANO GABRIEL	PO BOX 24426	HOUSTON	TX	77229-4426
CLAREMONT PROPERTIES INC	PO BOX 39	CARLISLE	PA	17013-0039
SAHARA GROUP LP	PO BOX 509	BARKER	TX	77413-0509
SMITH BEVERLY ANN	PO BOX 534	CHANNELVIEW	TX	77530-0534
NEW WILBURN C JR ESTATE OF	PO BOX 596	PASADENA	TX	77508-5906
2010 SWE LLC	PO BOX 741109	HOUSTON	TX	77274-1109
O F S INC	PO BOX 753	CHANNELVIEW	TX	77530-0753
TUBOSCOPE VETCO INTL INC	PO BOX 808	HOUSTON	TX	77001-0808
JAMES RANDY	PO BOX 908	COLUMBUS	TX	78934-0908
ANDERSON WILLIE JR & DEBORAH A	PO BOX 96601	HOUSTON	TX	77213-6601
QUALITY TUBING	PO BOX 9819	HOUSTON	TX	77213-0819

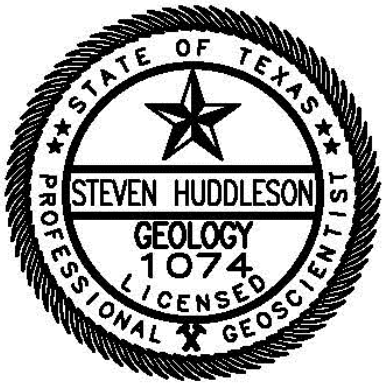
Appendix U

The following statement ***signed and sealed*** *by a licensed professional engineer or licensed professional geoscientist authorized to practice in the State of Texas with expertise in environmental remediation:*

"To the best of my knowledge and belief, based upon a review of all public and private records and other information sources available to me in the exercise of due diligence, the opinions stated and conclusions made in this application are supported by such information, and the technical and scientific information submitted with the application is true, accurate and complete. Based on such review, the contaminants of concern from sources on the designated property or migrating from or through the designated property more likely than not ***do not*** *exceed a non-ingestion protective concentration level on property beyond the boundaries of the designated property"*

By: _____

Steve Huddleson, P.G., C.P.G.
Weston Solutions, Inc.



THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY STEVEN HUDDLESON, P.G. 1074 ON OCTOBER 3, 2013.

Date: 10/3/2013

Appendix V

If the licensed professional engineer or licensed professional geoscientist determines that contaminants of concern from sources on the designated property are migrating from or through the designated property more likely than not do exceed a non-ingestion protective concentration level on property beyond the boundary of the designated property, then the applicant must:

a. *Specify the name and address of the owner of each property.*
b. *Send a copy of the application to the owner of the property with the notice of the public meeting.*
c. *Provide documentation that the designated property has been included in a state or federal program that requires that the entire non-ingestion protective concentration level exceedence zone be addressed to the satisfaction of the agency administering the program, along with documentation of the estimated time period in which it is to be addressed. An example of such program is the Texas Voluntary Cleanup Program (section 361.501 of the Texas Health & Safety code, as may be amended from time to time.)*
d. *Provide documentation upon completion of the state or federal program showing that the non-ingestion protective concentration level exceedences have been addressed to the satisfaction of the agency administering the program.*

The residential non-ingestion PCLs are not exceeded; therefore, this sections does not apply.

Form W-2012-01

Appendix W – Accuracy of Information

I certify under penalty of law that this application and all attachments were prepared under my direction or supervision in a manner designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the persons responsible for gathering and evaluating the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violation.

Tai-Li Keng
(Applicant's Name)

Vice President
(Title)

GUIC Industries, Inc.
(Company)

Signature: Tai-Li Keng Date: 3/12/2013

State of Texas §

County of Harris §

NOTARY PUBLIC STATE OF TEXAS
Kael A Cleveland
My Commission Expires
01/24/2016

(Seal)

This instrument was acknowledged before me on this day the 12th day of March, 2013 by

Tai-Li Keng
(Print)

NOTARY PUBLIC, STATE OF TEXAS

Kael A. Cleveland
Printed/Typed Name of Notary

My commission expires: 1-24-16

Form X-2012-01

Appendix X – Signed Restrictive Covenant

I certify under penalty of law that I, the undersigned, as the real property owner or authorized agent of the designated property listed herein, have the legal authority and do agree to prohibit the use of designated groundwater in support of the Municipal Setting Designation by the Texas Commission on Environmental Quality.

Tai-Li Keng
(Owner or Authorized Agent's Name)

Vice President
(Title)

GUIC Industries, Inc
(Company)

Signature: Tai-Li Keng Date: 3/12/2013

If authorized agent, provide proof of legal authorization instrument in the application under appendix x.

State of Texas §

§

County of Harris §

NOTARY PUBLIC STATE OF TEXAS
Kael A Cleveland
My Commission Expires
01/24/2016

(Seal)

This instrument was acknowledged before me on this day the 12th day of March, 2013 by

Tai-Li Keng
(Print)

NOTARY PUBLIC, STATE OF TEXAS

Kael A. Cleveland
Printed/Typed Name of Notary

My commission expires: 1-24-16

Adjacent Property Owner

Signature Page

I, Randall J. McDougal, Sr., Director of Sheldon Manufacturing
(Name of Person Signing for Union Tank Car) (Title)

Signature: Randall J. McDougal Date: 1/09/13

hereby attest that the property or portion of the property (legal description is attached) owned and operated by Union Tank Car Company located at:

10701 Sheldon Road
Houston, TX 77044

supports being a part of the Municipal Settings Designation application with GUIC Industries, Inc.. I affirm that I am authorized to sign on behalf of Union Tank Car Company and am willing to restrict use of groundwater.

Subscribe and Sworn to before me by the said

Randall J. McDougal on this ~~January~~ 9th day of January, 20 13

My commission expires on the 6 day of April, 20 13

KIMBERLY L. ROWLAND
MY COMMISSION EXPIRES
April 6, 2013

(Seal) Kimberly L. Rowland
Notary Public in and for
Harris County, Texas

Appendix Y

If the plume extends beyond the limits of this application's MSD boundary, list the owners of the additional property beneath which the plume(s) extend(s), and a summary of interactions with those property owners about the plume(s) and this MSD application.

Based upon historic sampling data and results of numeric modeling, concentrations of chlorinated compounds are present beneath the Union Pacific Railroad Right of Way (UP ROW). WESTON met with Mr. Geoffrey Reeder, P.G., on 10 January 2012 to discuss the impacts to the UP ROW. WESTON discussed the MSD application and possible inclusion of UP with the application.

In addition, monitor well RIW 46R located within TxDOT Right of Way was identified to contain concentrations of PCE and TCE that exceed the RAL. The site remediation contractor (RSA) has maintained communication with TxDOT since December 1994 regarding access for installation of monitoring wells, sampling and well maintenance.

Appendix Z

A CD (or other device) containing the pdf file of the application, Excel spreadsheet of water well owners and property owners for mailing, and a word document of the metes and bounds.